

| EMC TEST REPORT                |                                                                                                                                                                                                                                                                                      |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TEST REPORT NUMBER             | DBN 1614TEL688-B                                                                                                                                                                                                                                                                     |
| TEST REPORT DATE               | 14-Jun-2016                                                                                                                                                                                                                                                                          |
| TEST REPORT VERSION            | 1.0                                                                                                                                                                                                                                                                                  |
| MANUFACTURER                   | Cambium Networks                                                                                                                                                                                                                                                                     |
| PRODUCT NAME                   | ePMP2000                                                                                                                                                                                                                                                                             |
| PRODUCT MODEL                  | C050900P031A                                                                                                                                                                                                                                                                         |
| CONDITION OF EUT WHEN RECEIVED | Good and in proper working condition                                                                                                                                                                                                                                                 |
| ISSUED TO                      | Cambium Networks, 3800 Golf Road, Suite 360, Rolling Meadows, IL, USA 60008                                                                                                                                                                                                          |
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## AMENDMENT HISTORY

| Amendment Number  | Amendment Date | Author of Amendment | Previous Report Version | Previous Report Date |
|-------------------|----------------|---------------------|-------------------------|----------------------|
|                   |                |                     |                         |                      |
| Amendment Details |                |                     |                         |                      |

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# 1 TEST REPORT SUMMARY

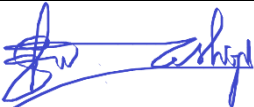
|                              |                                                        |
|------------------------------|--------------------------------------------------------|
| <b>Applicant</b>             | Cambium Networks                                       |
| <b>Manufacturer</b>          | Cambium Networks                                       |
| <b>Product Name</b>          | ePMP2000                                               |
| <b>Product Model</b>         | C050900P031A                                           |
| <b>Product Serial Number</b> | 000456D1846A                                           |
| <b>Date of Test</b>          | 08 <sup>th</sup> Feb 2016 to 06 <sup>th</sup> May 2016 |
| <b>Venue of Test</b>         | Tarang Lab                                             |

| Applicable Standard     | Description                                                               | Performance Criteria/Class | Results |
|-------------------------|---------------------------------------------------------------------------|----------------------------|---------|
| 47 CFR Part 15 Feb 2016 | §15.407 b (3)<br>§15.407 b (6) - Transmitter Unwanted Emission (Radiated) | Class 'B'                  | PASS    |
|                         | §15.407 b (6) - Conducted Emission                                        | Class 'B'                  | PASS    |

**ePMP2000** was tested by Tarang Lab as per the standards that are listed in the table above. Based on the observations during the test and interpretations by Tarang lab, results have been indicated. The test results produced in this report shall apply only to the above sample that has been tested under the specific conditions and modes of testing as described in the report. Other similar equipment may not necessarily reproduce same result due to production tolerances and measurement uncertainties. Any measurement uncertainties listed in this report are for information purpose only.

The results shall stand invalid, in case there are any modifications / additions / removals to the hardware or software or end use atmosphere to the product tested. This report shall not be modified or in any way revised unless it is expressly permitted and endorsed by Tarang lab, through a duly authorized representative. Particulars on Manufacturer / Supplier / Product configuration / performance criteria, given in this report, are based on the information given by the customer, along with test request. Tarang does not assume any responsibility for the correctness of such information for the above mentioned equipment under test.

Customer acknowledges that this is a test report and not a certificate to gain market access for the product. To gain market access, Customer needs appropriate clearance from the Government or authorized agency for the target market. For markets that allow self-declaration, customer needs to follow the procedure defined by the target market.

| Prepared by                                                                         | Reviewed by                                                                         | Approved by                                                                           |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |
| Suresh G N                                                                          | Arun Kumar .N.C                                                                     | Satheesh I                                                                            |
| <b>EMI/EMC Test Engineer</b>                                                        | <b>Lead EMI/EMC Test Engineer</b>                                                   | <b>Technical Manager</b>                                                              |

## 2 GENERAL INFORMATION

### 2.1 ACCREDITATION DETAILS

Following are the accreditation and listing details for Tarang.

| Accreditation / Listing body            | Registration / Company / Certificate Number                                                           |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------|
| NABL, India                             | Certificate No: T-1533, T-1534<br><a href="http://www.nabl-india.org/">http://www.nabl-india.org/</a> |
| FCC (Federal Communications Commission) | Registration Number: 799247<br><a href="http://www.fcc.gov/">http://www.fcc.gov/</a>                  |
| IC (Industry Canada)                    | Company Number: 9023A-1<br><a href="http://www.ic.gc.ca">http://www.ic.gc.ca</a>                      |

### 2.2 MEASUREMENT UNCERTAINTY

The following measurement uncertainties are applicable to the relevant tests that are mentioned below:

| Name of the test                                     | Measurement Uncertainty |
|------------------------------------------------------|-------------------------|
| Radiated Emission from 30 MHz to 1 GHz at 3 meter    | $\pm 4.6687$ dB         |
| Radiated Emission from 1 GHz to 18 GHz at 3 meter    | $\pm 3.2297$ dB         |
| Radiated Emission from 18 GHz to 26.5 GHz at 3 meter | $\pm 3.7832$ dB         |
| Radiated Emission from 26.5 GHz to 40 GHz at 3 meter | $\pm 3.7962$ dB         |
| Conducted Emission from 150 kHz to 30 MHz            | $\pm 1.6160$ dB         |

### 3 INSTRUMENTATION AND CALIBRATION

#### 3.1 TEST AND MEASURING EQUIPMENT

The list of following measuring equipment used for this testing conforms to the applicable standards. Performance of all test and measuring equipment including any accessories are checked periodically to ensure accuracy.

#### 3.2 EQUIPMENTS USED

| Name of Equipment           | Manufacturer | Model No   | Serial No | Calibration Due                                       |
|-----------------------------|--------------|------------|-----------|-------------------------------------------------------|
| EMI Test Receiver           | R&S          | ESU8       | 100324    | 11 <sup>th</sup> Jul 2016 & 09 <sup>th</sup> Mar 2017 |
| EMI Test Receiver           | R&S          | ESIB40     | 100306    | 04 <sup>th</sup> Jul 2016 & 21 <sup>st</sup> Jan 2017 |
| Active Loop Antenna         | ETS-Lindgren | 6507       | 00104711  | 05 <sup>th</sup> Aug 2016                             |
| Hybrid Log periodic Antenna | TDK          | HLP-3003C  | 130334    | 20 <sup>th</sup> Jan 2017                             |
| Double Ridge Horn Antenna   | SME          | BBHA 9120D | 9120D-687 | 27 <sup>th</sup> Jul 2017                             |
| Preamplifier                | TDK          | PA-02      | 100008    | 23 <sup>rd</sup> Mar 2017                             |
| Broad Band Horn Antenna     | Schwarz beck | BBHA9170   | 9170-337  | 29 <sup>th</sup> Oct 2016                             |
| Broad Band Horn Antenna     | Schwarz beck | BBHA9170   | 9170-344  | 29 <sup>th</sup> Oct 2016                             |
| Pre-Amplifier               | TDK          | PA-02-3    | 2007332   | 28 <sup>th</sup> Oct 2016                             |
| Pre-Amplifier               | TDK          | PA-02-2    | 2007331   | 28 <sup>th</sup> Oct 2016                             |

Table 1: List of equipment used for Radiated Emissions test

| Name of Equipment | Manufacturer | Model No  | Serial No | Calibration Due                                       |
|-------------------|--------------|-----------|-----------|-------------------------------------------------------|
| EMI Test Receiver | R&S          | ESIB40    | 100306    | 04 <sup>th</sup> Jul 2016 & 21 <sup>st</sup> Jan 2017 |
| Pulse Limiter     | R&S          | ESH3-Z2   | 101260    | 03 <sup>rd</sup> Mar 2017                             |
| LISN              | Schwarzbeck  | NSLK 8128 | 243       | 11 <sup>th</sup> Sep 2016                             |

Table 2: List of equipment used for Conducted Emissions test

## 4 PRODUCT INFORMATION

### 4.1 DESCRIPTION OF THE PRODUCT

EUT is a point to point & point to multipoint fixed outdoor Transceiver with the following defined channels.

| 40 MHz channel for 17 dBi | 10 MHz channel for 17 dBi |
|---------------------------|---------------------------|
| Low – 5495 MHz            | Low – 5485 MHz            |
| Mid - 5595 MHz            | Mid – 5595 MHz            |
| High - 5700 MHz           | High – 5710 MHz           |

|                                             |                     |
|---------------------------------------------|---------------------|
| <b>Product</b>                              | ePMP2000            |
| <b>Model Number</b>                         | C050900P031A        |
| <b>Serial Number</b>                        | 000456D1846A        |
| <b>Product Category / Type of Equipment</b> | Telecom             |
| <b>EUT Operating Voltage</b>                | 120 V AC / 230 V AC |
| <b>EUT Operating frequency range</b>        | 60 Hz / 50 Hz       |
| <b>Max EUT Operating Current</b>            | < 1 A               |

Table 3: EUT details

| Cable No. | Cable Name     | Cable Length | Power / Interconnection cable | Shielded / Unshielded |
|-----------|----------------|--------------|-------------------------------|-----------------------|
| Cable - 1 | Power cable    | 0.8 meter    | Power                         | Unshielded            |
| Cable - 2 | Ethernet Cable | 1.5 meter    | Interconnection               | Unshielded            |
| Cable - 3 | Ethernet Cable | 3.05 meter   | Interconnection               | Unshielded            |

Table 4: List of cables

### 4.2 SOFTWARE AND FIRMWARE DETAILS

Atheros Radio Test 2 (ART2-GUI) Version 2.3

## 5 TEST DETAILS

### 5.1 PRODUCT AND TEST SETUP

#### 5.1.1 PRODUCT CONFIGURATION

The EUT was powered through AC power supply (120 V AC / 60 Hz). The EUT was connected to Ethernet switch by using RJ45 cable. Figure 1 shows the product configuration during the tests. POE module was used during the test to power ON the EUT.

The 5.4 GHz ePMP Integrated Radio was configured with test software and configured to have the following settings during the course of testing:

- 40MHz modulation bandwidth for low, mid & high channels
  - o Rate - HT40,
  - o 54 Mbps OFDM, MCS15 / 270 Mbps
  - o Tx Power is 10.5 dBm Tx99 for 17 dBi antenna configuration-Low channel
  - o Tx Power is 11.5 dBm Tx99 for 17 dBi antenna configuration-Mid channel
  - o Tx Power is 12 dBm Tx99 for 17 dBi antenna configuration-High channel
- 10 MHz modulation bandwidth for low, mid & high channels
  - o Rate – Legacy,
  - o 54 Mbps OFDM, MCS15 / 130 Mbps
  - o Tx Power is 9 dBm Tx99 for 17 dBi antenna configuration-Low channel
  - o Tx Power is 9 dBm Tx99 for 17 dBi antenna configuration-Mid channel
  - o Tx Power is 9 dBm Tx99 for 17 dBi antenna configuration-High channel

The unit was continuously monitored for transmission using an auxiliary antenna during the radiated tests.

#### 5.1.2 TEST SETUP DETAILS

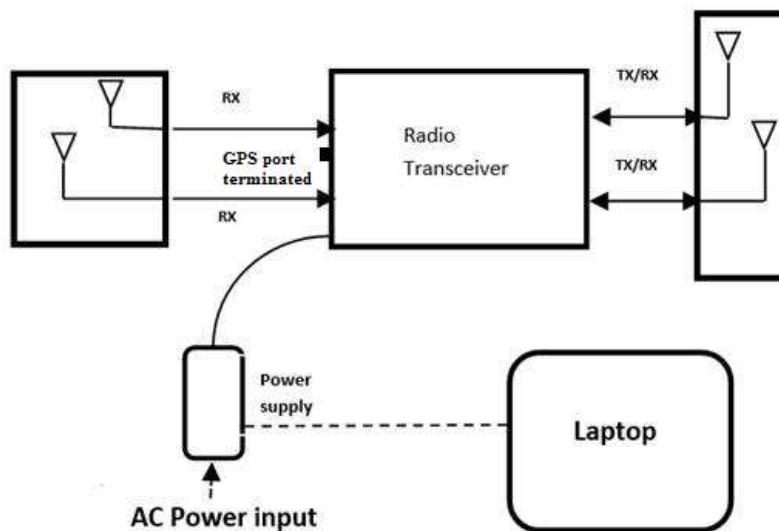


Figure 1: Block diagram of the EUT test setup

### 5.1.3 ACCESSORIES

| Name of the Equipment                     | Manufacturer     | Model Number | Serial Number |
|-------------------------------------------|------------------|--------------|---------------|
| 17dBi Antenna Beam steer- Rx              | Cambium Networks | C050900D020A | NA            |
| 17dBi Antenna sector- Tx                  | Cambium Networks | C050900D021A | NA            |
| Power Supply                              | Cambium Networks | NET P30 56   | 031-326-6719  |
| Switching Power Supply Gigabit Compatible | Cambium Networks | NET-P30-56   | N000000L034A  |

### 5.2 APPLICABLE TEST

| Applicable Standard      | Description                              | Test level / Test Voltage | Applicability |
|--------------------------|------------------------------------------|---------------------------|---------------|
| 47 CFR Part 15, Feb 2016 | Transmitter Unwanted Emission (Radiated) | 9 kHz - 40 GHz            | Enclosure     |
|                          | Conducted Emission                       | 150 kHz - 30 MHz          | Power Port    |

## 5.3 TEST RESULT

### 5.3.1 TRANSMITTER UNWANTED EMISSION (RADIATED)

#### 5.3.1.1 TEST SPECIFICATION

|                           |                            |                            |              |              |
|---------------------------|----------------------------|----------------------------|--------------|--------------|
| Test Standard             | 47 CFR, Part 15 Feb 2016   |                            |              |              |
| Test Procedure            | ANSI C63.4-2014            |                            |              |              |
| Class                     | Class B                    |                            |              |              |
| Frequency Range           | 9kHz - 150kHz              | 150kHz 30MHz               | 30MHz -1 GHz | 1GHz - 40GHz |
| Resolution Bandwidth      | 200 Hz                     | 9 kHz                      | 120 kHz      | 1 MHz        |
| Video Bandwidth           | 3 kHz                      | 30 kHz                     | 300 kHz      | 3 MHz        |
| Step size                 | 400 Hz                     | 4 kHz                      | 40 kHz       | 400 kHz      |
| Pre Scan Measurement Time | 50 ms                      | 50 ms                      | 20 ms        | 5 ms         |
| Final Measurement Time    | 1 second                   | 1 second                   | 1 second     | 1 second     |
| Attenuation               | 5 dB                       | 5 dB                       | 10 dB        | 5 dB         |
| Test Distance             | 3 meter                    | 3 meter                    | 3 meter      | 3 meter      |
| Polarization              | Parallel and Perpendicular | Parallel and Perpendicular | H & V        | H & V        |
| Detector                  | Quasi Peak, Peak & Average |                            |              |              |
| Input Voltage             | 120 V AC                   |                            |              |              |
| Input Frequency           | 60 Hz                      |                            |              |              |
| Temperature               | 22.1 °C                    |                            |              |              |
| Humidity                  | 50.0 %                     |                            |              |              |
| Tested By                 | Dikshit Raviteja           |                            |              |              |
| Test Date                 | 29 <sup>th</sup> Mar 2016  |                            |              |              |

#### 5.3.1.2 LIMITS

| Standard                 | Reference section              | Frequency range (MHz) | Limit (dB $\mu$ V/m) |
|--------------------------|--------------------------------|-----------------------|----------------------|
| 47 CFR, Part 15 Feb 2016 | §15.407 b (3)<br>§15.407 b (6) | Outside 5470 – 5725   | 79.99                |

Table 5: Unwanted emission Limit

| Standard                 | Reference section | Frequency range                                                 | Limit (dB $\mu$ V/m)                                   |
|--------------------------|-------------------|-----------------------------------------------------------------|--------------------------------------------------------|
| 47 CFR, Part 15 Feb 2016 | §15.209           | 9 kHz to 490 kHz<br>490 kHz to 1.705 MHz<br>1.705 MHz to 30 MHz | 128.5194 to 93.8003*<br>73.8003 to 62.9697*<br>69.5429 |

Table 6: General Field strength limit below 30 MHz

**Note:** \* Decreases with the logarithm of the frequency

| Standard                 | Reference section | Frequency range    | Limit (dB $\mu$ V/m) |
|--------------------------|-------------------|--------------------|----------------------|
| 47 CFR, Part 15 Feb 2016 | §15.209           | 30 MHz to 88 MHz   | 40                   |
|                          |                   | 88 MHz to 216 MHz  | 43.52                |
|                          |                   | 216 MHz to 960 MHz | 46.02                |
|                          |                   | 960 MHz to 40 GHz  | 53.98                |

Table 7: General Field strength limit above 30MHz

### 5.3.1.3 TEST SETUP

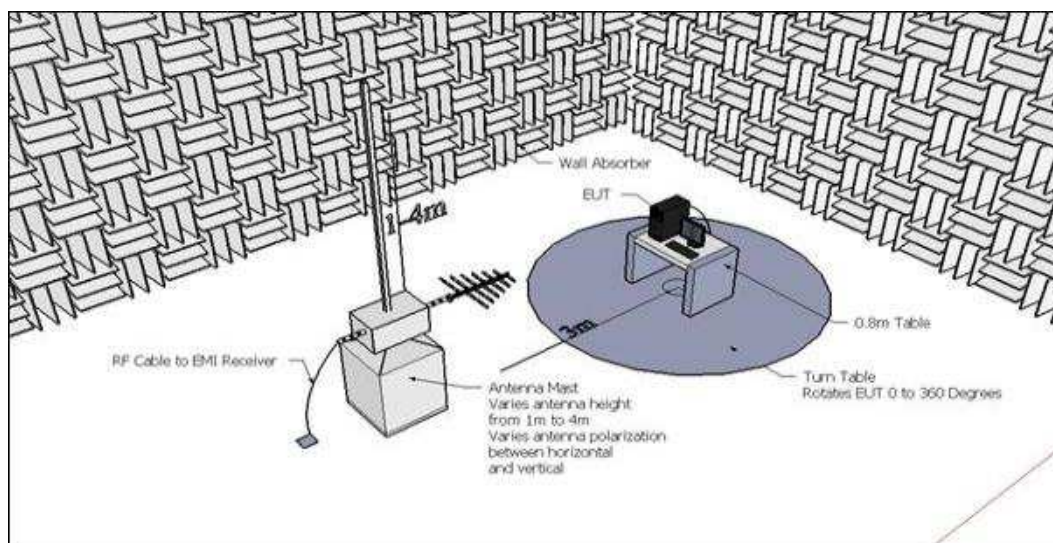


Figure 2: Sample Radiated Emission test setup

### 5.3.1.4 TEST PROCEDURE

The test procedure is in accordance with ANSI C63.4-2014. The Radiated Emission test was performed inside a Shielded Semi-Anechoic chamber. The EUT was placed on 0.8 m height table for the measurements below 1 GHz and on 1.5 meter height table for the measurements above 1 GHz as per ANSI C63.10. The test setup was placed on a rotating turn table to enable 0 to 360 degree rotation.

The EUT was placed 3 meter away from the receiving antenna for the radiated emission measurement in the frequency range 30 MHz to 1 GHz. The receiving antenna was mounted on an antenna mast to enable height variation from 1meter to 4 meter above the ground plane.

The radiated emission measurement test system was configured through software as per standard. Pre-scan (Peak) was taken at different angles of EUT at 22.5 degree step, by rotating the turn table from 0 to 360 degree and by varying the antenna height from 1 to 4 meter in both vertical and horizontal polarization. The measurement was carried out in max hold mode and maximum amplitude of radiated emissions from the EUT was plotted in Graph. The predominant peaks at various frequencies, closer to limit line were identified using peak search option and listed. The Quasi-peak & Average measurement were carried out for the listed frequencies and compared with the limit specified in standard.

For Radiated Emission measurement from 1 GHz to 40 GHz the EUT was placed 3 meter away from the receiving antenna. The receiving antenna's height was fixed to 1 meter for the prescan measurement. Pre-scan (Peak) was taken at different angles of EUT at 22.5 degree step, by rotating the turn table from 0 to 360 degree in both vertical and horizontal polarization. The measurement was carried out in max hold mode and maximum amplitude of radiated emissions from the EUT was plotted in Graph. The predominant peaks at various frequencies, closer to limit line were identified using peak search option and listed. Average measurement were carried out for the listed frequencies and compared with the limit specified in standard.

### 5.3.1.5 MEASUREMENT GRAPHS / DATA

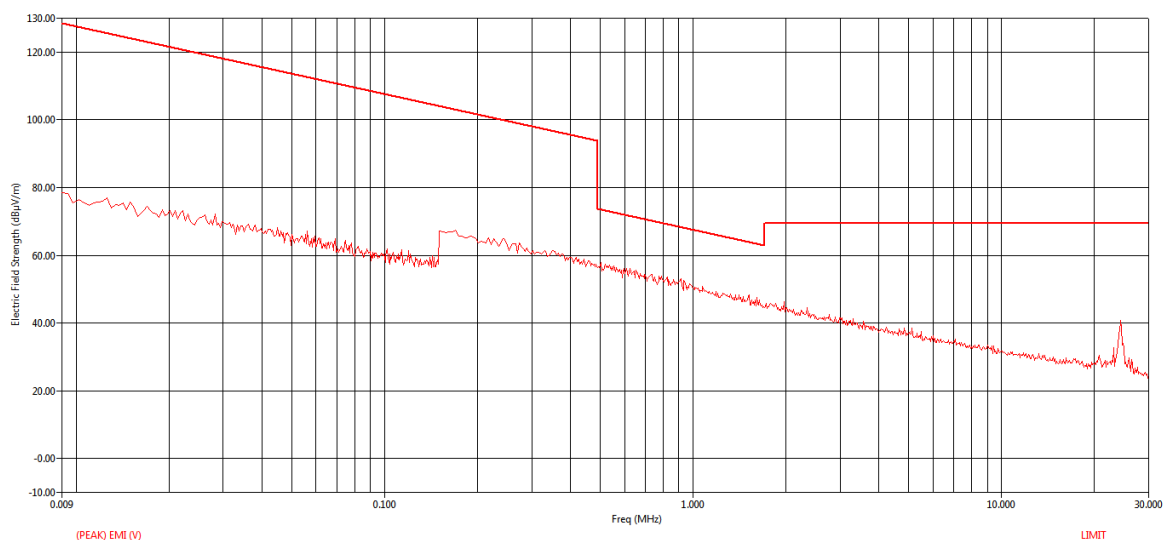


**Figure 3: 40 MHz, 17 dBi, Low Channel: Peak RE Graph - 9 kHz to 30 MHz – Parallel**

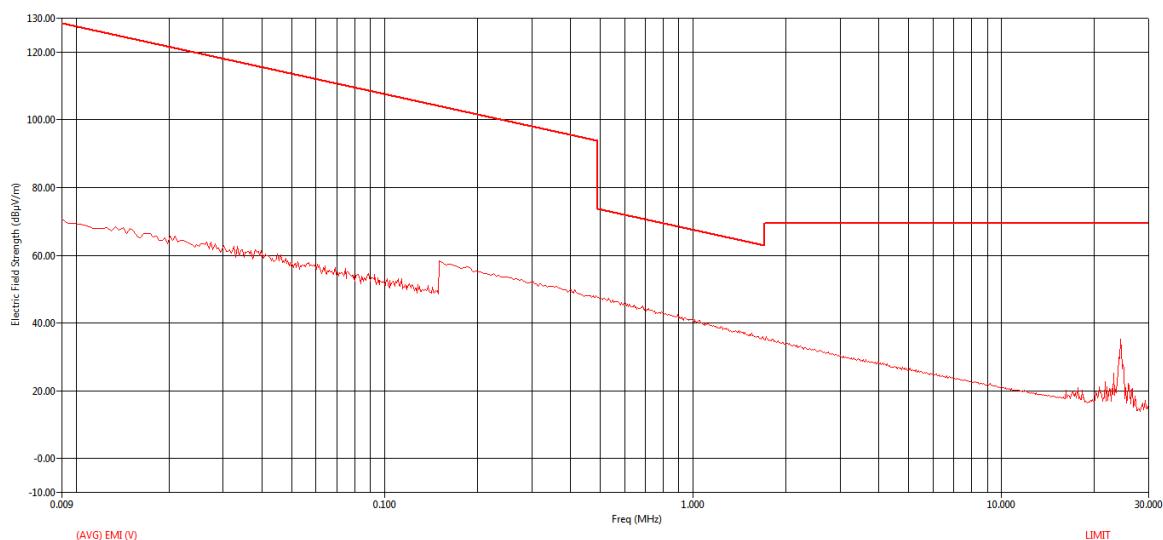


**Figure 4: 40 MHz, 17 dBi, Low Channel: Average RE Graph - 9 kHz to 30 MHz – Parallel**

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (QP) Trace (dB $\mu$ V) | Cable (dB) | Transducer (dB) | (QP) EMI (dB $\mu$ V/m) | Limit (dB $\mu$ V/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------------|------------|-----------------|-------------------------|----------------------|------------------|
| 0.050      | 0.050            | 42.10              | 33.57                   | 0.03       | 19.73           | 53.33                   | 113.68               | -60.35           |
| 0.170      | 0.164            | 65.60              | 44.45                   | 0.04       | 18.28           | 62.77                   | 103.30               | -40.53           |
| 24.350     | 24.350           | 93.40              | 20.56                   | 1.07       | 16.15           | 37.77                   | 69.54                | -31.77           |

**Table 8: 40 MHz, 17 dBi, Low Channel: Quasi Peak Table from 9 kHz to 30 MHz – Parallel**

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (AVG) Trace (dB $\mu$ V) | Cable (dB) | Transducer (dB) | (AVG) EMI (dB $\mu$ V/m) | Limit (dB $\mu$ V/m) | (AVG) Margin (dB) |
|------------|------------------|--------------------|--------------------------|------------|-----------------|--------------------------|----------------------|-------------------|
| 0.050      | 0.050            | 42.10              | 37.70                    | 0.03       | 19.73           | 57.46                    | 113.68               | -56.21            |
| 0.170      | 0.164            | 65.60              | 38.62                    | 0.04       | 18.28           | 56.94                    | 103.30               | -46.36            |
| 24.350     | 24.350           | 93.40              | 17.23                    | 1.07       | 16.15           | 34.45                    | 69.54                | -35.09            |

**Table 9: 40 MHz, 17 dBi, Low Channel: Average Table from 9 kHz to 30 MHz – Parallel**

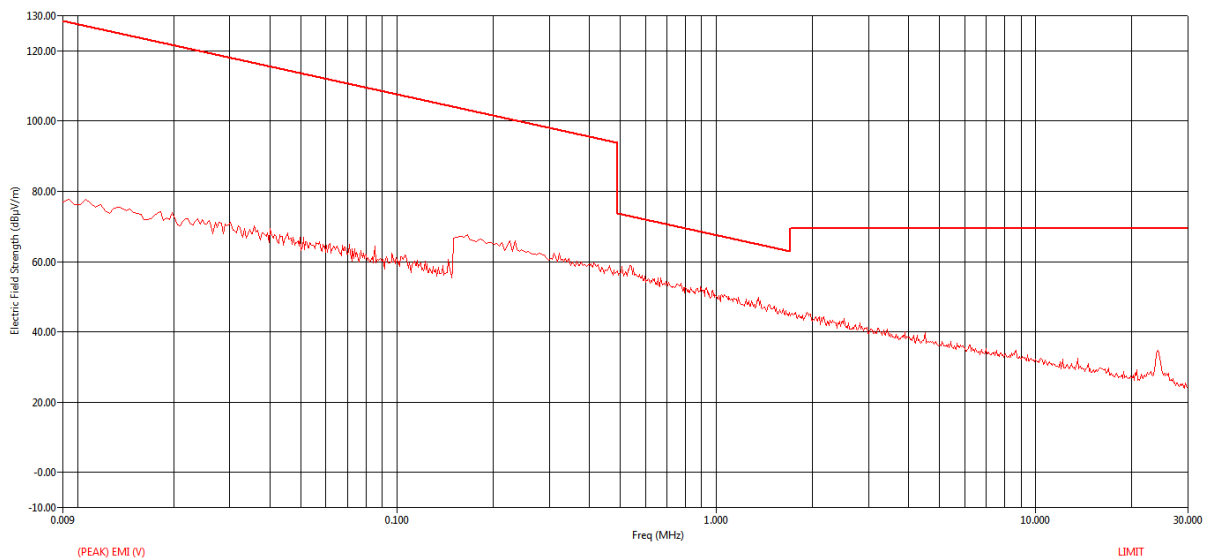


**Figure 5: 40 MHz, 17 dBi, Low Channel: Peak RE Graph – 9 kHz to 30 MHz – Perpendicular**

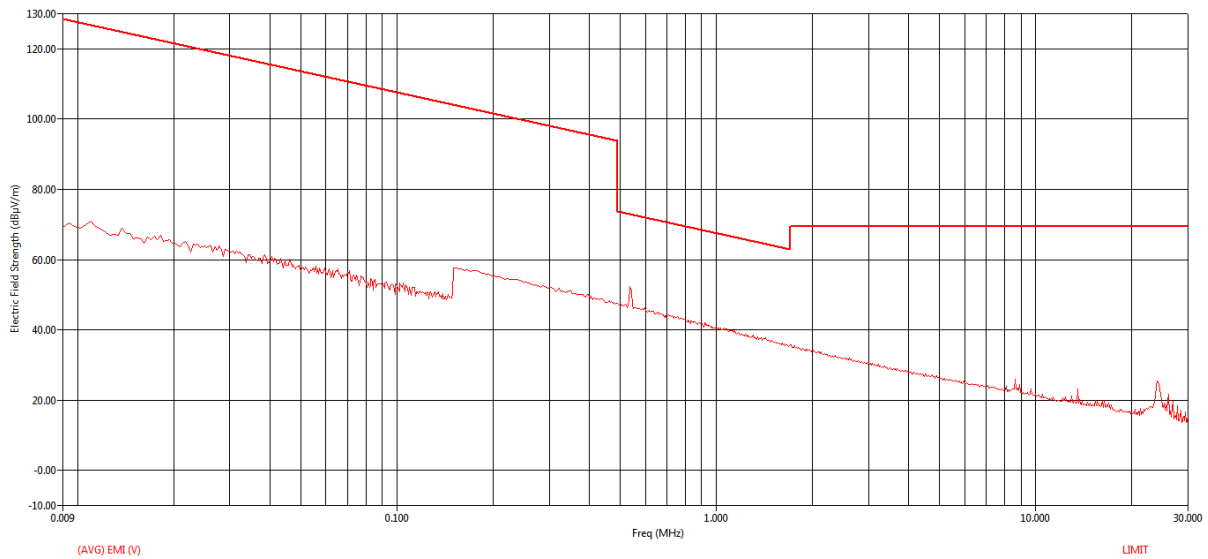


**Figure 6: 40 MHz, 17 dBi, Low Channel: Average RE Graph – 9 kHz to 30 MHz – Perpendicular**

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 0.009      | 0.010            | 103.40             | 34.76             | 0.03       | 29.87           | 64.66             | 127.57         | -62.92           |
| 0.166      | 0.160            | 114.30             | 44.65             | 0.04       | 18.29           | 62.97             | 103.50         | -40.53           |
| 24.154     | 24.155           | 86.50              | 12.34             | 1.07       | 16.16           | 29.56             | 69.54          | -39.98           |

**Table 10: 40 MHz, 17 dBi, Low Channel: Quasi Peak Table from 9 kHz to 30 MHz – Perpendicular**

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbl Agl (deg) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|--------------------|--------------------|------------|-----------------|--------------------|----------------|-------------------|
| 0.009      | 0.010            | 103.40             | 38.97              | 0.03       | 29.87           | 68.87              | 127.57         | -58.71            |
| 0.166      | 0.160            | 114.30             | 38.87              | 0.04       | 18.29           | 57.20              | 103.50         | -46.30            |
| 24.154     | 24.155           | 86.50              | 6.83               | 1.07       | 16.16           | 24.06              | 69.54          | -45.48            |

**Table 11: 40 MHz, 17 dBi, Low Channel: Average Table from 9 kHz to 30 MHz – Perpendicular**

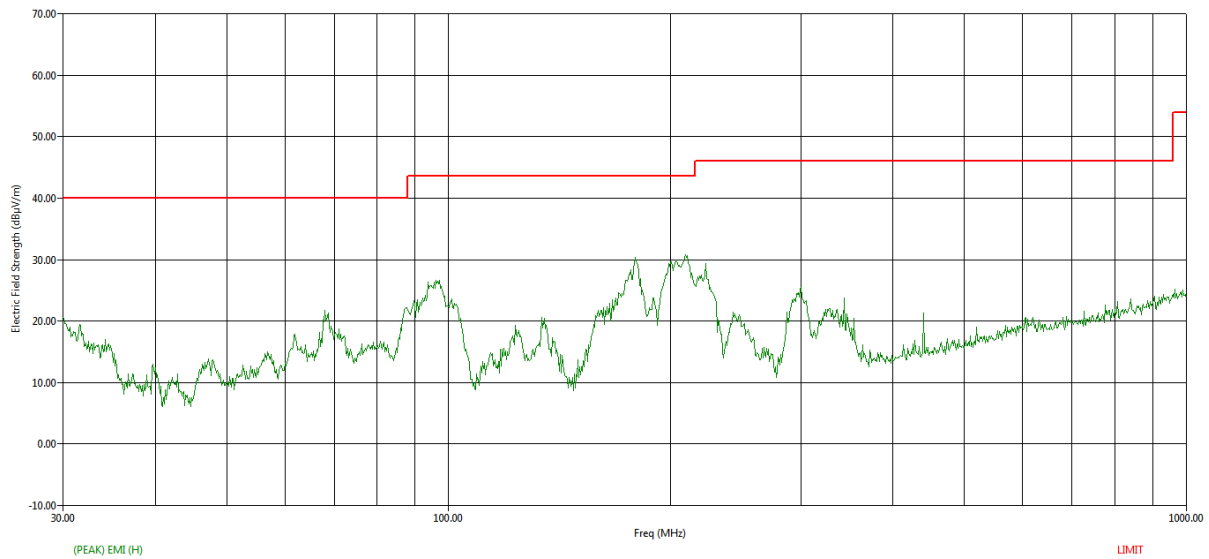


Figure 7: 40 MHz, 17 dBi, Low Channel: Peak RE Graph – 30 MHz to 1 GHz – Horizontal

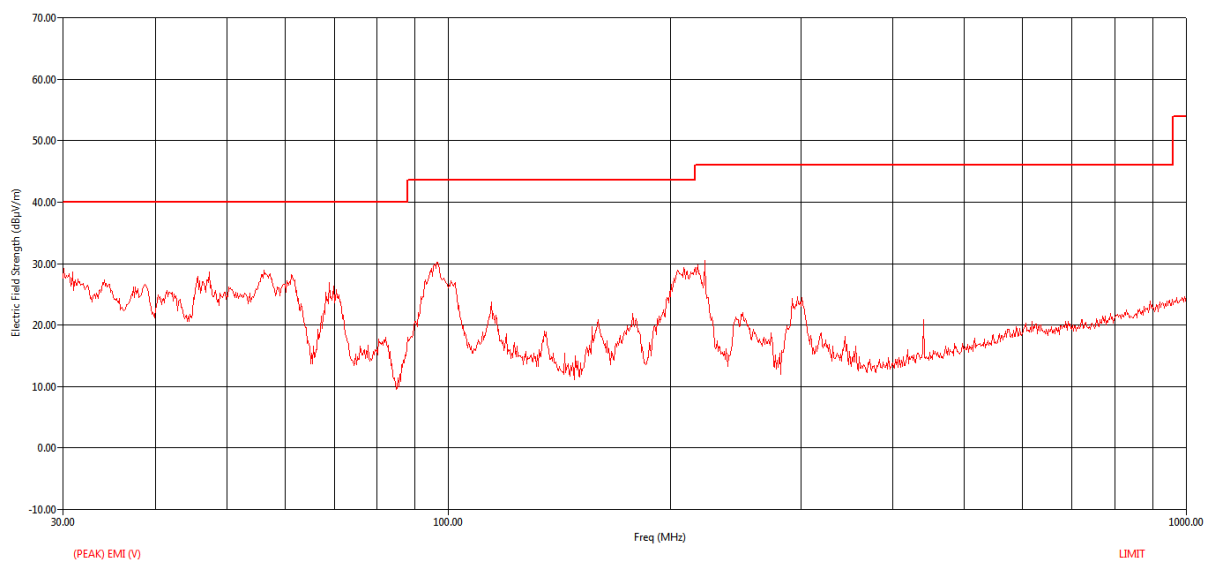


Figure 8: 40 MHz, 17 dBi, Low Channel: Peak RE Graph – 30 MHz to 1 GHz – Vertical

| Freq (MHz) | Freq (Max) (MHz) | Pol | Twr Ht (cm) | EUT Ttbl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|-------------|--------------------|-------------------|------------|-----------------|-------------|-------------------|----------------|------------------|
| 96.60      | 96.57            | V   | 290.00      | 322.00             | 57.78             | 2.10       | 8.28            | 43.93       | 24.22             | 43.52          | -19.30           |
| 178.84     | 178.94           | H   | 177.00      | 189.90             | 53.55             | 2.84       | 13.77           | 43.95       | 26.20             | 43.52          | -17.32           |
| 179.24     | 179.26           | H   | 167.00      | 182.30             | 52.79             | 2.84       | 13.80           | 43.95       | 25.48             | 43.52          | -18.04           |
| 208.56     | 208.59           | V   | 191.00      | 349.90             | 47.14             | 3.07       | 13.08           | 43.94       | 19.35             | 43.52          | -24.17           |
| 209.36     | 209.40           | H   | 171.00      | 250.00             | 54.37             | 3.07       | 13.05           | 43.94       | 26.55             | 43.52          | -16.97           |
| 210.60     | 210.53           | H   | 203.00      | 247.90             | 54.03             | 3.08       | 13.01           | 43.94       | 26.18             | 43.52          | -17.34           |
| 217.52     | 217.46           | V   | 158.00      | 359.60             | 54.70             | 3.13       | 12.74           | 43.93       | 26.64             | 46.02          | -19.38           |
| 222.52     | 222.49           | V   | 185.00      | 16.90              | 59.19             | 3.16       | 12.55           | 43.93       | 30.98             | 46.02          | -15.04           |

Table 12: 40 MHz, 17 dBi, Low Channel: Quasi Peak Table from 30 MHz to 1 GHz

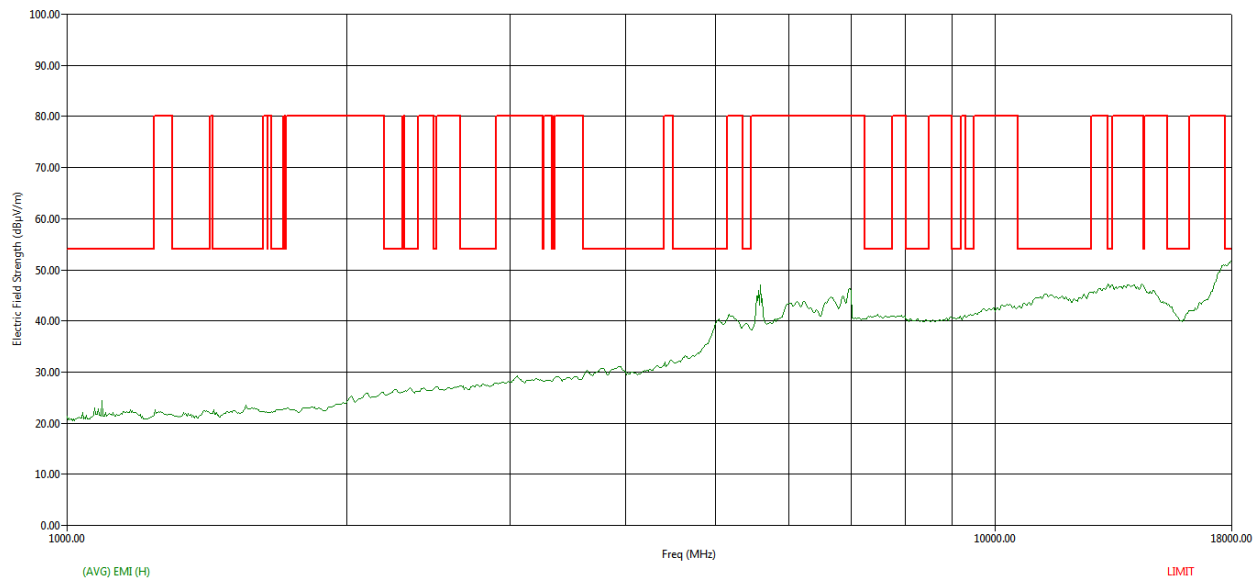


**Figure 9: 40 MHz, 17 dBi, Low Channel: Average RE Graph – 1 GHz to 18 GHz - Horizontal**

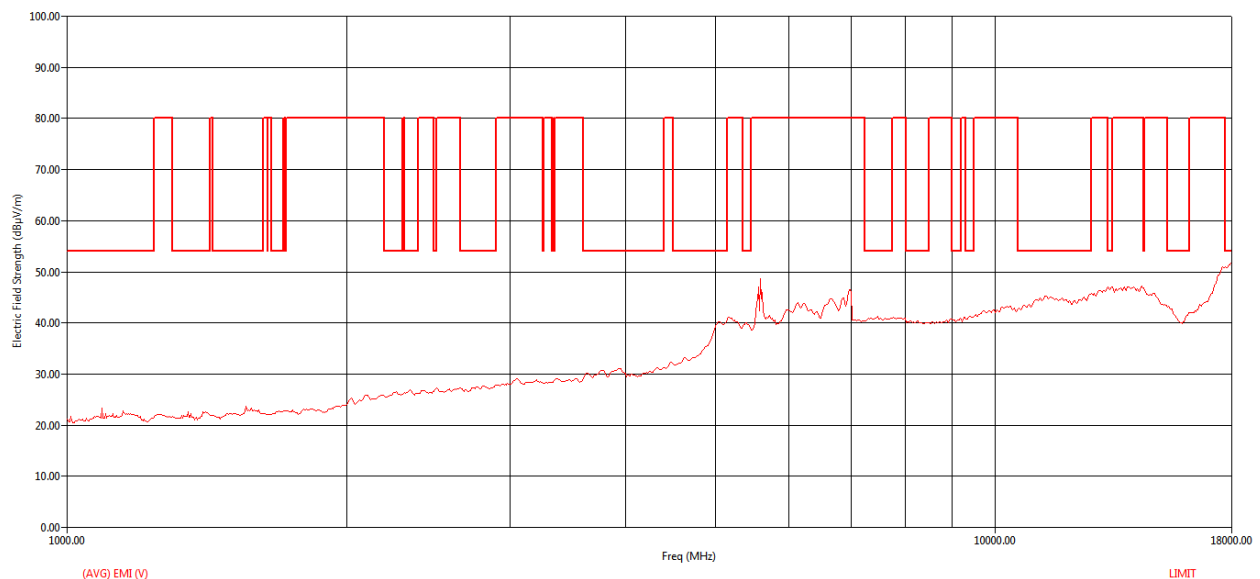


**Figure 10: 40 MHz, 17 dBi, Low Channel: Average RE Graph – 1 GHz to 18 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 1090.33    | 1090.33          | H   | 180.00             | 101.00      | 29.45              | 1.87       | 25.12           | 32.48             | 23.96              | 54.00          | -30.04            |
| 4635.55    | 4635.55          | H   | 179.90             | 101.00      | 26.89              | 3.56       | 31.48           | 28.98             | 32.96              | 54.00          | -21.04            |
| 5164.87    | 5164.87          | V   | 180.00             | 200.00      | 31.28              | 3.80       | 32.92           | 28.32             | 39.69              | 80.00          | -40.31            |
| 6969.03    | 6969.03          | V   | 4.90               | 100.00      | 34.48              | 4.20       | 35.83           | 28.30             | 46.21              | 80.00          | -33.79            |

**Table 13: 40 MHz, 17 dBi, Low Channel: Average Table from 1 GHz to 18 GHz**

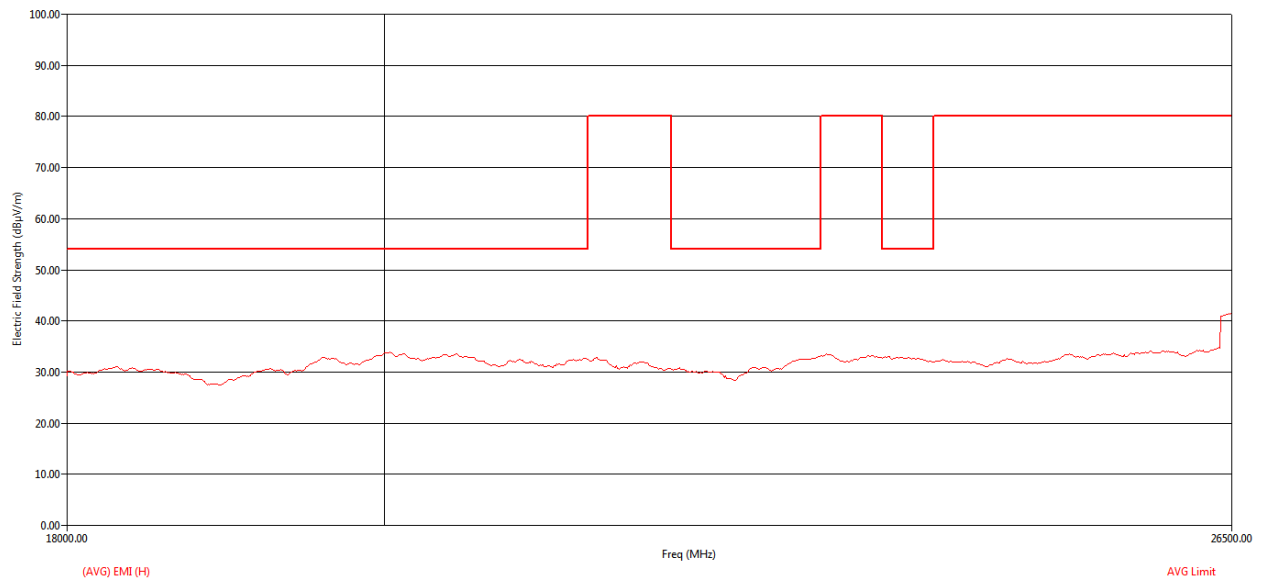


**Figure 11: 40 MHz, 17 dBi, Low Channel: Average RE Graph – 18 GHz to 26.5 GHz - Horizontal**

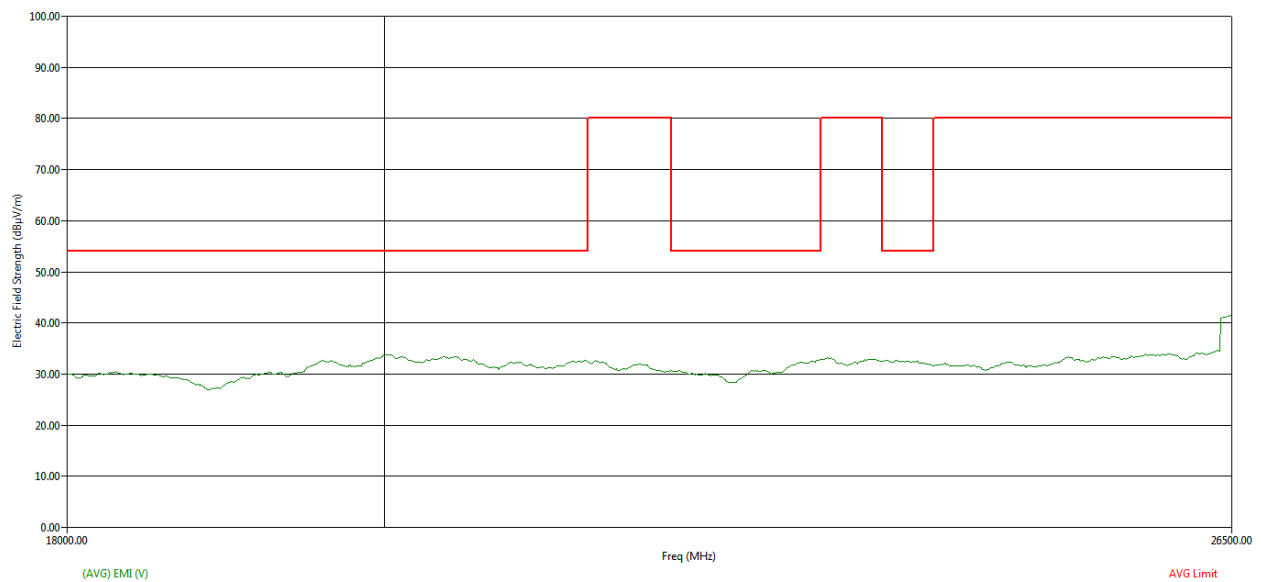


**Figure 12: 40 MHz, 17 dBi, Low Channel: Average RE Graph – 18 GHz to 26.5 GHz - Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 20024.60   | 19175.86         | H   | 84.60              | 100.00      | 33.54              | 6.62       | 36.52           | 46.83             | 29.85              | 53.98          | -24.13            |
| 23219.00   | 22890.96         | H   | 285.70             | 100.00      | 33.70              | 7.80       | 37.40           | 47.05             | 31.85              | 80.00          | -48.15            |

**Table 14: 40 MHz, 17 dBi, Low Channel: Average Table from 18 GHz to 26.5 GHz**

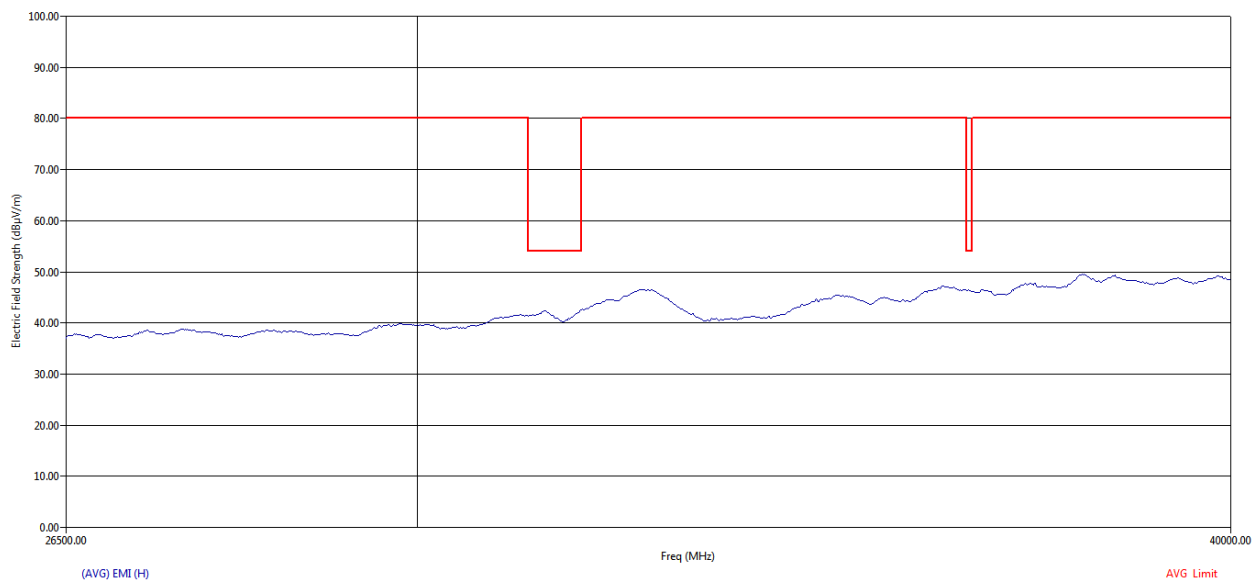


**Figure 13: 40 MHz, 17 dBi, Low Channel: Average RE Graph – 26.5 GHz to 40 GHz – Horizontal**

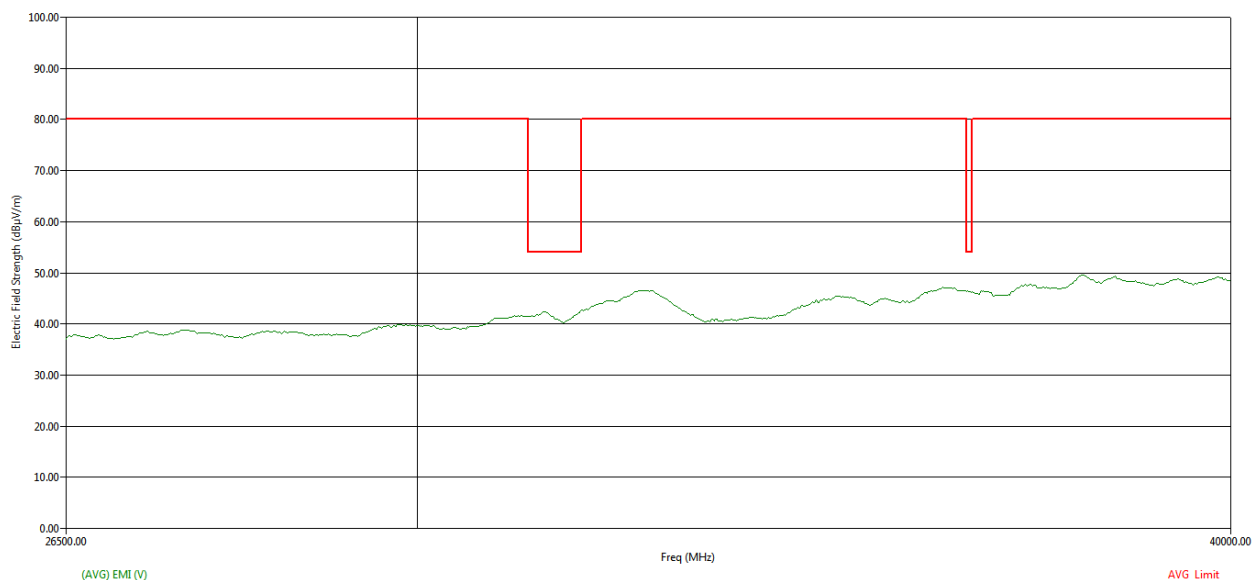


**Figure 14: 40 MHz, 17 dBi, Low Channel: Average RE Graph – 26.5 GHz to 40 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 32610.20   | 33619.87         | V   | 282.30             | 100.00      | 41.68              | 10.67      | 39.42           | 51.08       | 40.69              | 80.00          | -39.31            |
| 37950.90   | 37909.07         | H   | 179.90             | 100.00      | 42.65              | 12.32      | 40.68           | 46.54       | 49.11              | 80.00          | -30.89            |

**Table 15: 40 MHz, 17 dBi, Low Channel: Average Table from 26.5 GHz to 40 GHz**

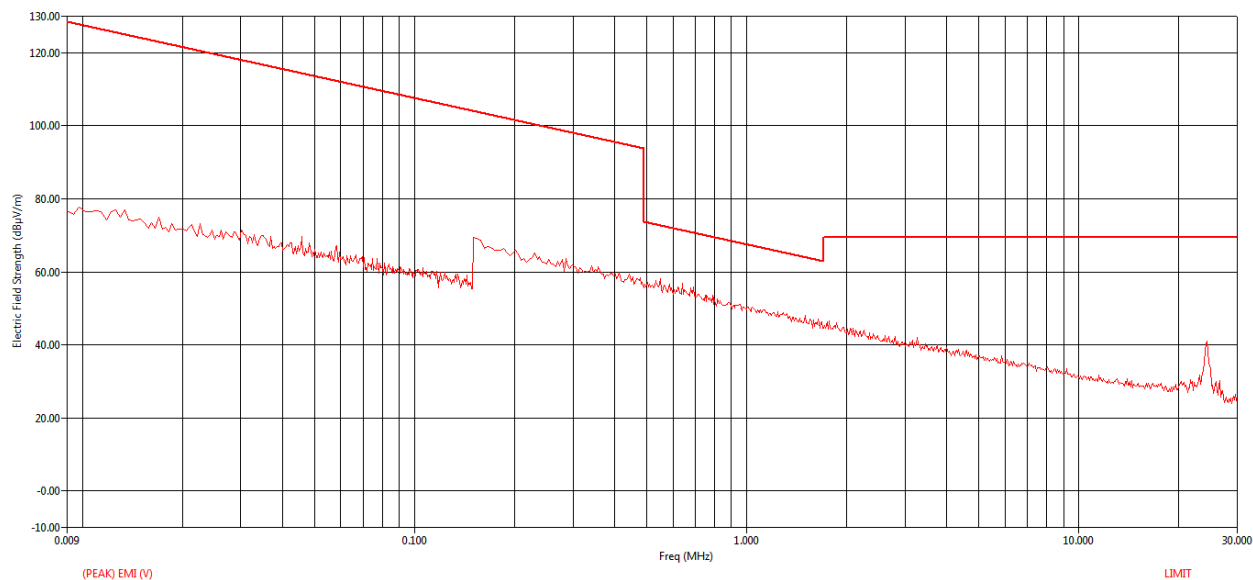


**Figure 15: 40 MHz, 17 dBi, Mid Channel: Peak RE Graph – 9 kHz to 30 MHz – Parallel**

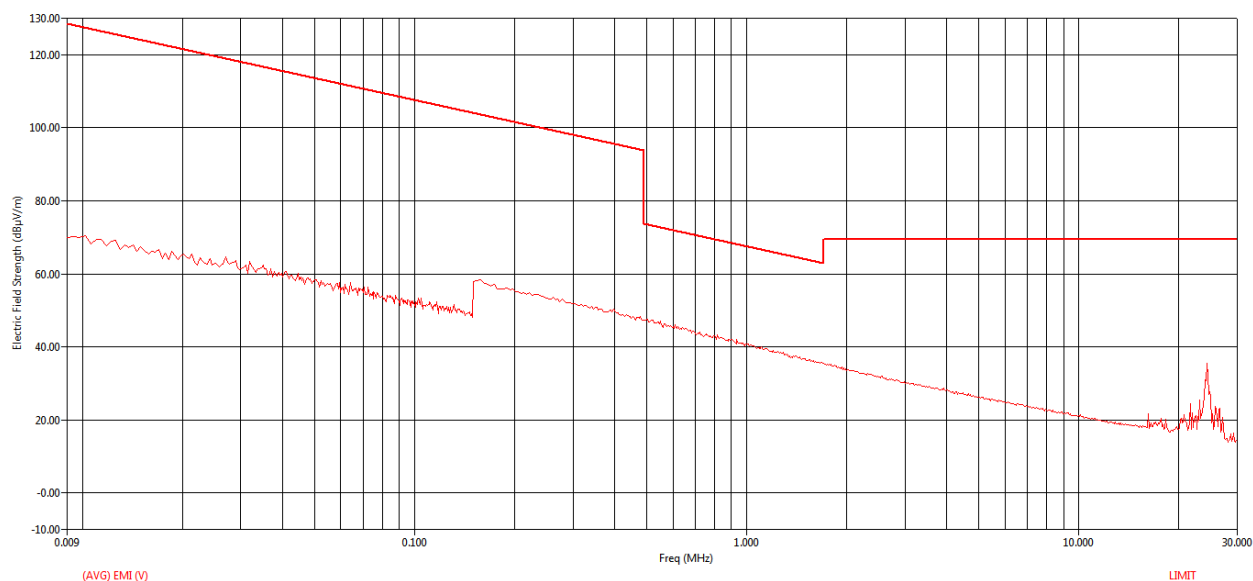


**Figure 16: 40 MHz, 17 dBi, Mid Channel: Average RE Graph – 9 kHz to 30 MHz – Parallel**

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 0.050      | 0.050            | 15.60              | 33.22             | 0.03       | 19.71           | 52.97             | 113.65         | -60.68           |
| 0.150      | 0.150            | 273.30             | 25.31             | 0.04       | 18.30           | 43.65             | 104.09         | -60.44           |
| 0.150      | 0.152            | 292.30             | 45.02             | 0.04       | 18.30           | 63.35             | 103.94         | -40.59           |
| 24.350     | 24.342           | 38.90              | 14.13             | 1.07       | 16.15           | 31.35             | 69.54          | -38.19           |

**Table 16: 40 MHz, 17 dBi, Mid Channel: Quasi Peak Table from 9 kHz to 30 MHz – Parallel**

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|--------------------|--------------------|------------|-----------------|--------------------|----------------|-------------------|
| 0.050      | 0.050            | 15.60              | 37.52              | 0.03       | 19.71           | 57.27              | 113.65         | -56.38            |
| 0.150      | 0.150            | 273.30             | 29.78              | 0.04       | 18.30           | 48.11              | 104.09         | -55.97            |
| 0.150      | 0.152            | 292.30             | 39.19              | 0.04       | 18.30           | 57.53              | 103.94         | -46.41            |
| 24.350     | 24.342           | 38.90              | 8.67               | 1.07       | 16.15           | 25.89              | 69.54          | -43.65            |

**Table 17: 40 MHz, 17 dBi, Mid Channel: Average Table from 9 kHz to 30 MHz – Parallel**

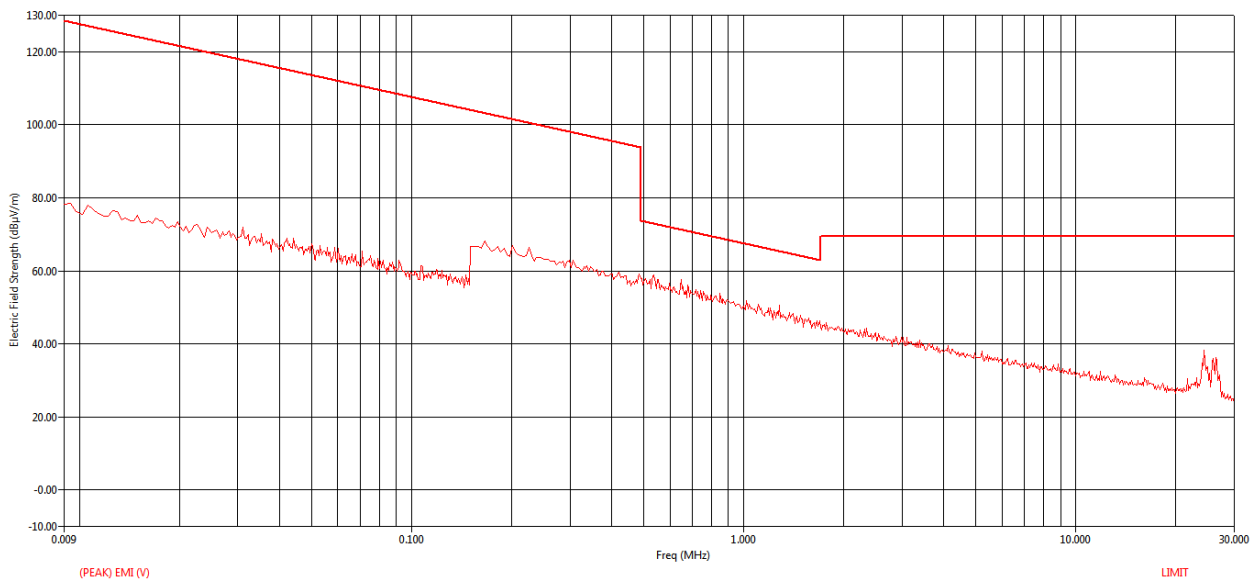


**Figure 17: 40 MHz, 17 dBi, Mid Channel: Peak RE Graph – 9 kHz to 30 MHz – Perpendicular**

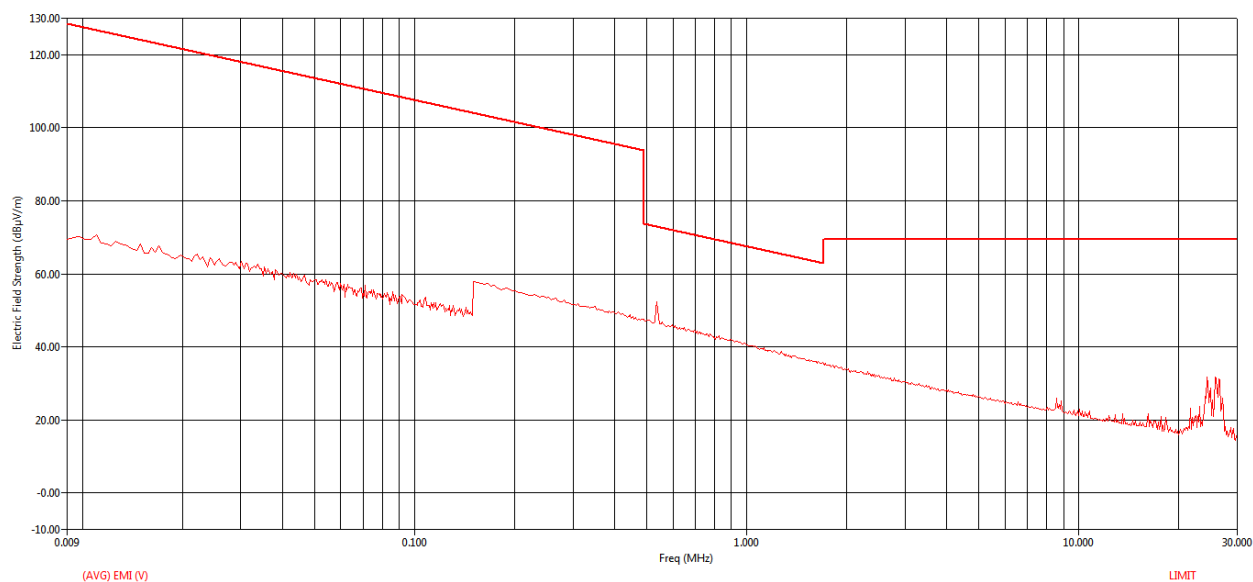


**Figure 18: 40 MHz, 17 dBi, Mid Channel: Average RE Graph – 9 kHz to 30 MHz – Perpendicular**

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 0.166      | 0.169            | 279.20             | 44.14             | 0.04       | 18.28           | 62.45             | 103.07         | -40.61           |
| 24.350     | 24.351           | 36.50              | 11.02             | 1.07       | 16.15           | 28.24             | 69.54          | -41.30           |
| 26.490     | 26.487           | 98.20              | 4.86              | 1.11       | 16.00           | 21.98             | 69.54          | -47.56           |

**Table 18: 40 MHz, 17 dBi, Mid Channel: Quasi Peak Table from 9 kHz to 30 MHz - Perpendicular**

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|--------------------|--------------------|------------|-----------------|--------------------|----------------|-------------------|
| 0.166      | 0.169            | 279.20             | 38.31              | 0.04       | 18.28           | 56.63              | 103.07         | -46.44            |
| 24.350     | 24.351           | 36.50              | 5.57               | 1.07       | 16.15           | 22.79              | 69.54          | -46.75            |
| 26.490     | 26.487           | 98.20              | -0.77              | 1.11       | 16.00           | 16.34              | 69.54          | -53.20            |

**Table 19: 40 MHz, 17 dBi, Mid Channel: Average Table from 9 kHz to 30 MHz - Perpendicular**

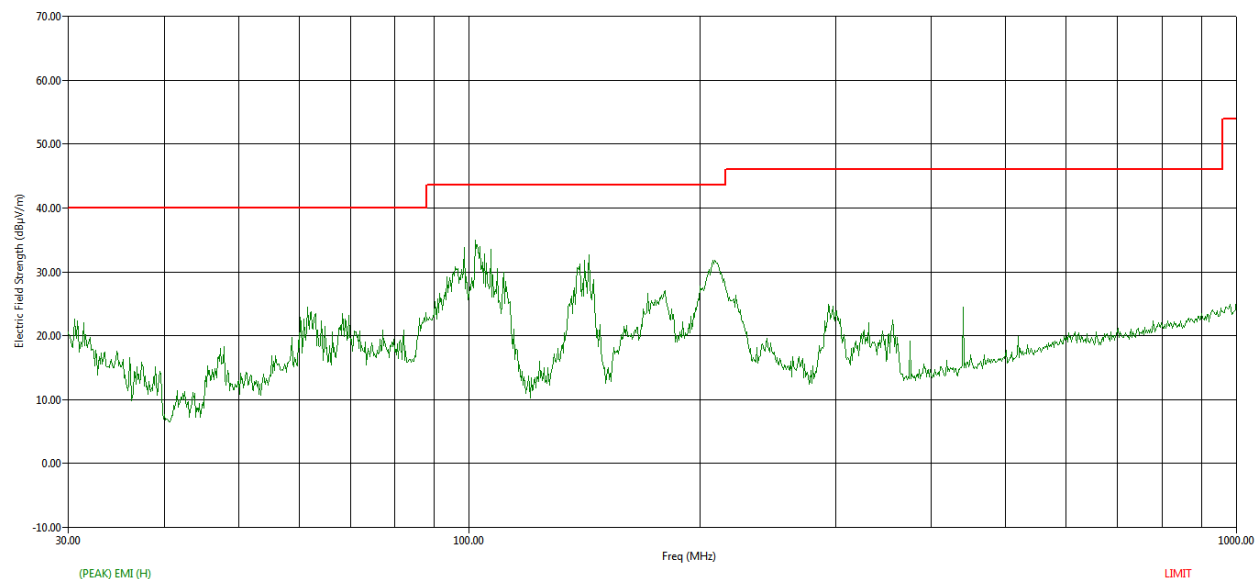


**Figure 19: 40 MHz, 17 dBi, Mid Channel: Peak RE Graph – 30 MHz to 1 GHz – Horizontal**

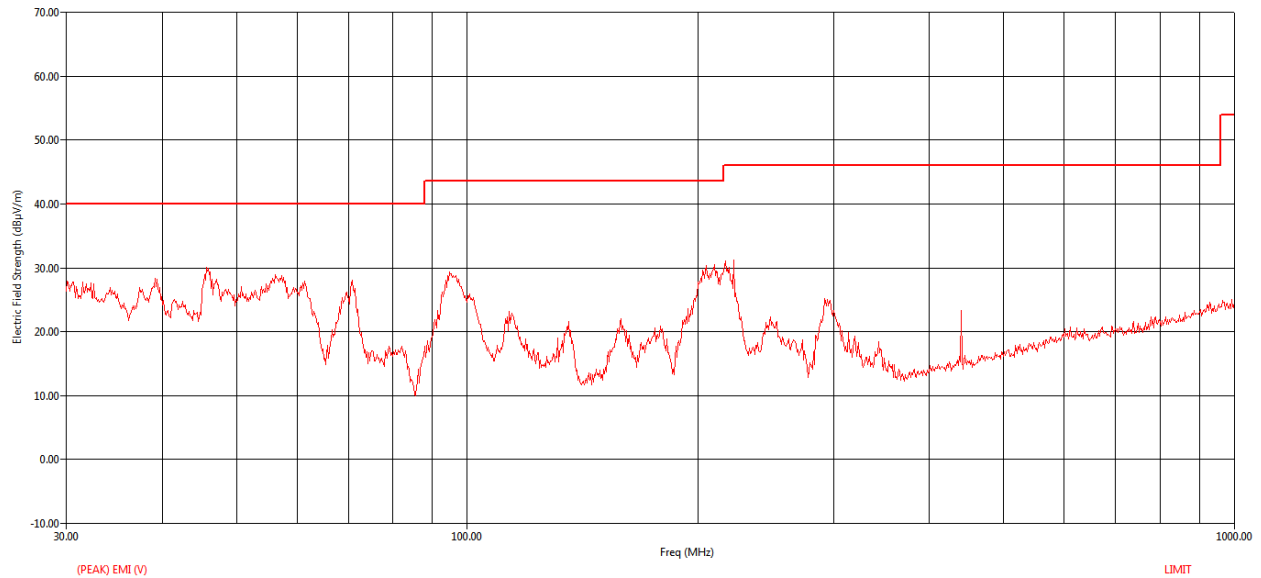


**Figure 20: 40 MHz, 17 dBi, Mid Channel: Peak RE Graph – 30 MHz to 1 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | Twr Ht (cm) | EUT Ttbt Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|-------------|--------------------|-------------------|------------|-----------------|-------------|-------------------|----------------|------------------|
| 45.72      | 45.79            | V   | 160.00      | 251.80             | 53.77             | 1.48       | 10.31           | 43.82       | 21.74             | 40.00          | -18.26           |
| 101.88     | 101.87           | H   | 384.00      | 84.80              | 42.81             | 2.15       | 8.35            | 43.94       | 9.38              | 43.52          | -34.14           |
| 106.68     | 106.62           | H   | 396.00      | 21.40              | 35.75             | 2.20       | 9.18            | 43.94       | 3.19              | 43.52          | -40.33           |
| 143.34     | 143.30           | H   | 367.00      | 161.80             | 36.49             | 2.54       | 10.49           | 43.95       | 5.58              | 43.52          | -37.94           |
| 210.00     | 209.97           | H   | 183.00      | 236.80             | 55.46             | 3.08       | 13.03           | 43.94       | 27.63             | 43.52          | -15.89           |
| 222.56     | 222.48           | V   | 166.00      | 16.20              | 58.52             | 3.16       | 12.55           | 43.93       | 30.31             | 46.02          | -15.71           |

**Table 20: 40 MHz, 17 dBi, Mid Channel: Quasi Peak Table from 30 MHz to 1 GHz**

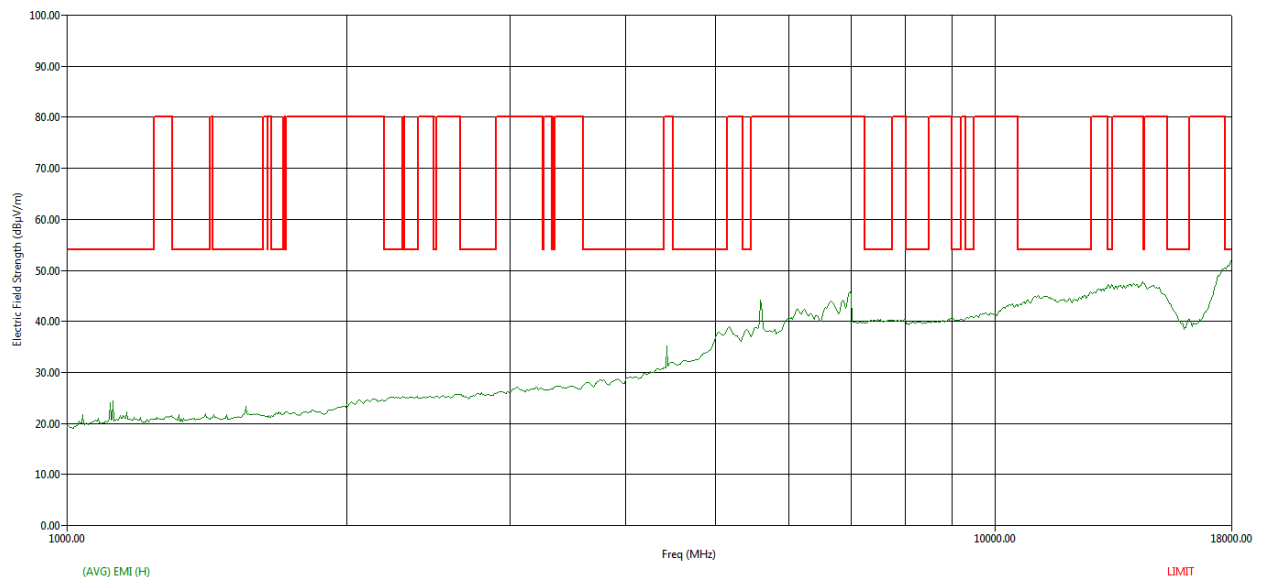


**Figure 21: 40 MHz, 17 dBi, Mid Channel: Peak RE Graph – 1 GHz to 18 GHz – Horizontal**

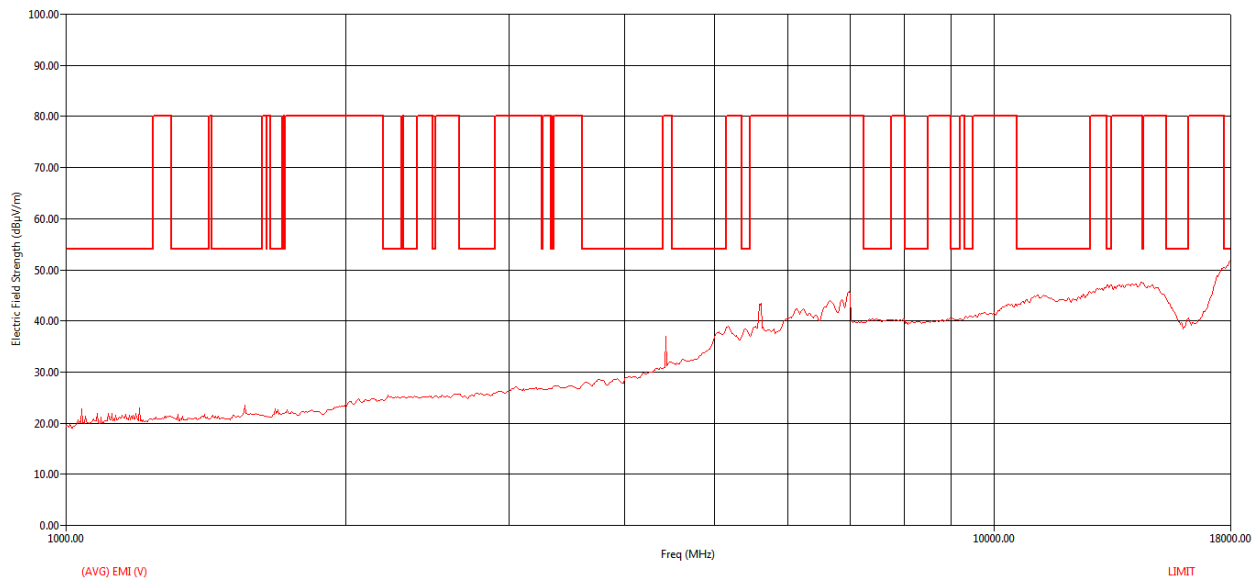


**Figure 22: 40 MHz, 17 dBi, Mid Channel: Peak RE Graph – 1 GHz to 18 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 1090.33    | 1090.33          | H   | 180.00             | 101.00      | 29.45              | 1.87       | 25.12           | 32.48             | 23.96              | 53.98          | -30.02            |
| 4635.55    | 4635.55          | H   | 179.90             | 101.00      | 26.89              | 3.56       | 31.48           | 28.98             | 32.96              | 53.98          | -21.02            |
| 5164.87    | 5164.87          | V   | 180.00             | 200.00      | 31.28              | 3.80       | 32.92           | 28.32             | 39.69              | 80.00          | -40.31            |
| 6969.03    | 6969.03          | V   | 4.90               | 100.00      | 34.48              | 4.20       | 35.83           | 28.30             | 46.21              | 80.00          | -33.79            |

**Table 21: 40 MHz, 17 dBi, Mid Channel: Average Table from 1 GHz to 18 GHz**

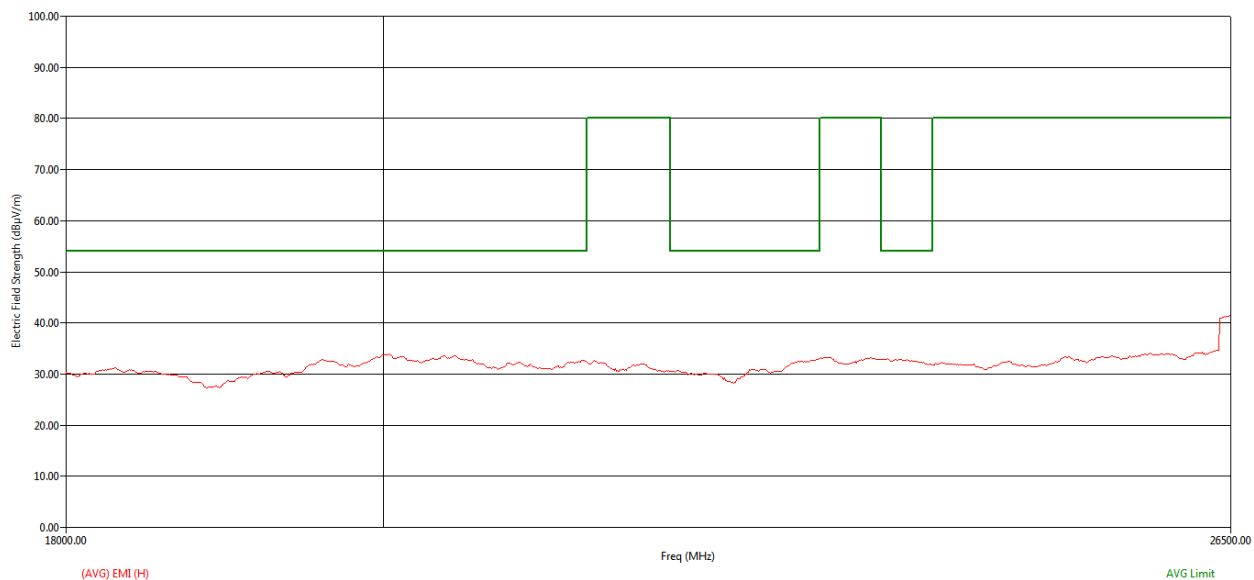


**Figure 23: 40 MHz, 17 dBi, Mid Channel: Average RE Graph – 18 GHz to 26.5 GHz – Horizontal**

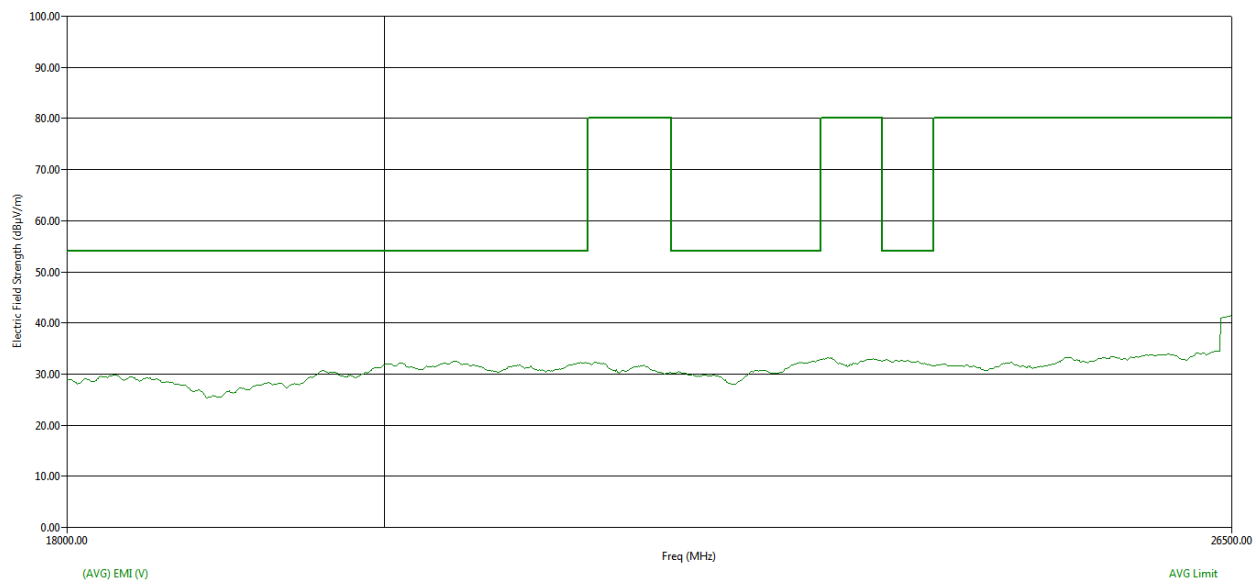


**Figure 24: 40 MHz, 17 dBi, Mid Channel: Average RE Graph – 18 GHz to 26.5 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 20067.30   | 19212.73         | H   | 80.20              | 100.00      | 33.60              | 6.64       | 36.53           | 46.66             | 30.10              | 53.98          | -23.88            |
| 23197.80   | 22219.22         | V   | 4.60               | 100.00      | 32.74              | 6.70       | 36.79           | 46.51             | 29.72              | 80.00          | -50.28            |

**Table 22: 40 MHz, 17 dBi, Mid Channel: Average Table from 18 GHz to 26.5 GHz**

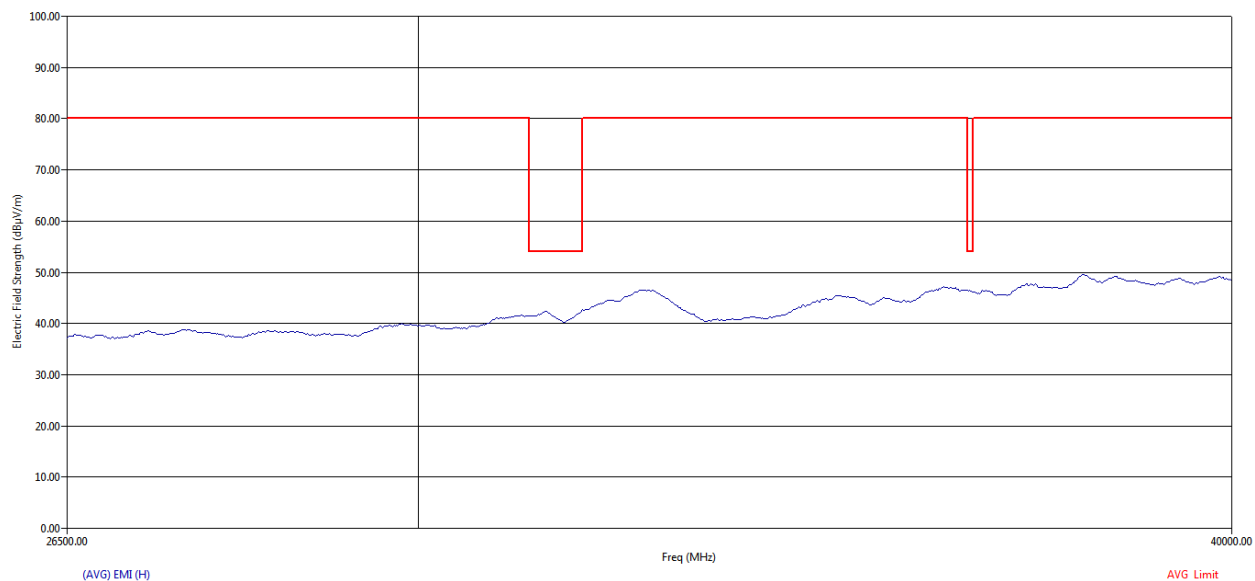


**Figure 25: 40 MHz, 17 dBi, Mid Channel: Average RE Graph – 26.5 GHz to 40 GHz – Horizontal**

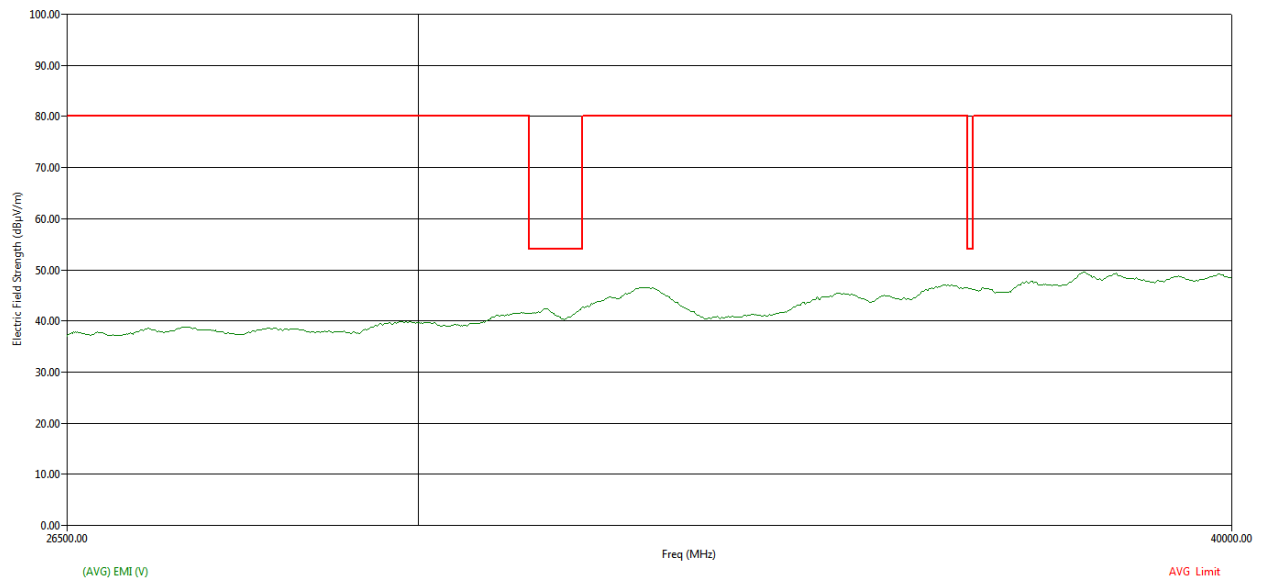


**Figure 26: 40 MHz, 17 dBi, Mid Channel: Average RE Graph – 26.5 GHz to 40 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT TtBl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 32505.10   | 33674.37         | V   | 137.10             | 100.00      | 41.71              | 10.65      | 39.43           | 50.81             | 40.98              | 80.00          | -39.02            |
| 38393.90   | 37958.01         | H   | 311.20             | 100.00      | 42.80              | 12.32      | 40.75           | 46.50             | 49.37              | 80.00          | -30.63            |

**Table 23: 40 MHz, 17 dBi, Mid Channel: Average Table from 26.5 GHz to 40 GHz**

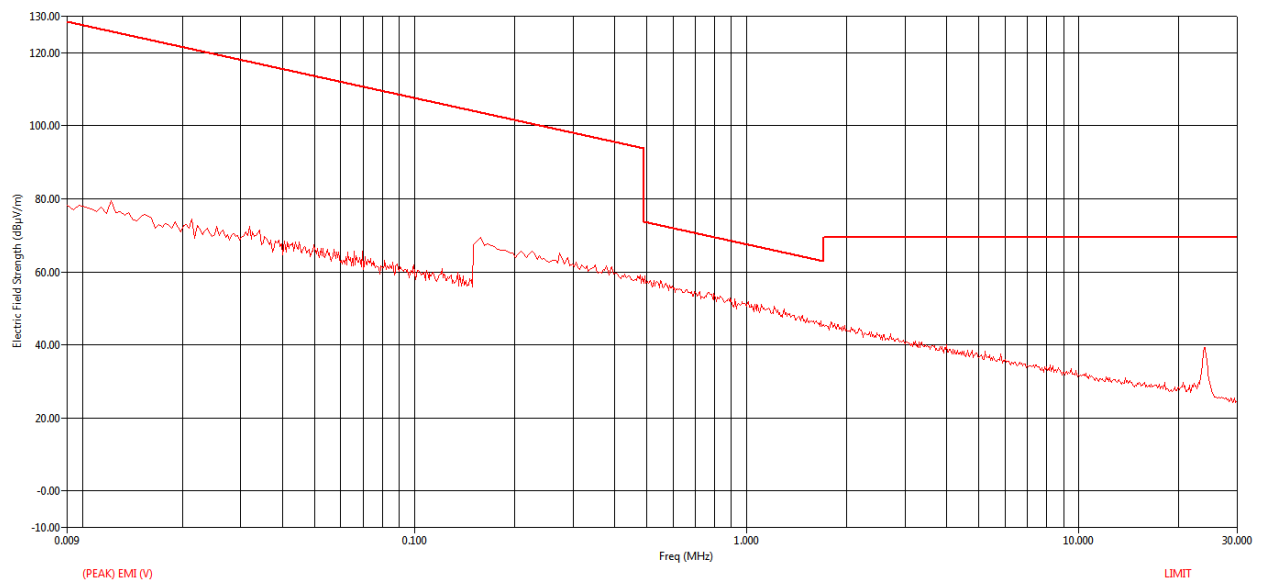


**Figure 27: 40 MHz, 17 dBi, High Channel: Peak RE Graph – 9 kHz to 30 MHz – Parallel**

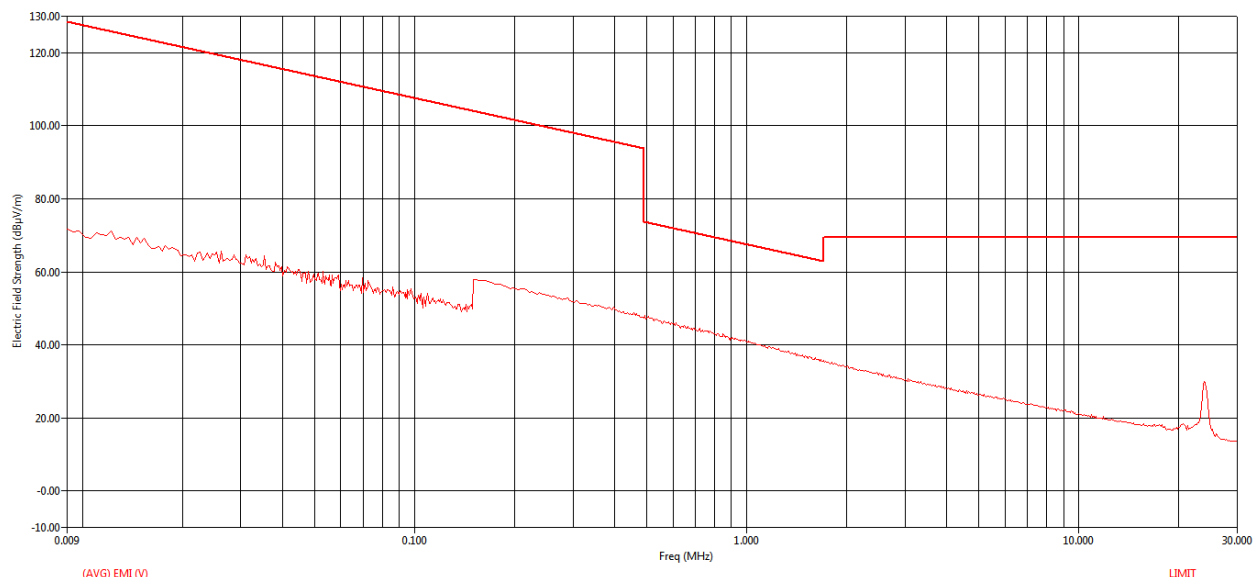


Figure 28: 40 MHz, 17 dBi, High Channel: Average RE Graph – 9 kHz to 30 MHz – Parallel

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 0.013      | 0.013            | 207.60             | 35.03             | 0.03       | 27.75           | 62.81             | 125.25         | -62.45           |
| 0.154      | 0.153            | 323.90             | 45.06             | 0.04       | 18.30           | 63.40             | 103.90         | -40.51           |
| 25.998     | 26.003           | 91.20              | 5.94              | 1.10       | 16.04           | 23.08             | 69.54          | -46.46           |
| 26.490     | 26.494           | 104.20             | 4.96              | 1.11       | 16.00           | 22.08             | 69.54          | -47.46           |

Table 24: 40 MHz, 17 dBi, High Channel: Quasi Peak Table from 9 kHz to 30 MHz – Parallel

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|--------------------|--------------------|------------|-----------------|--------------------|----------------|-------------------|
| 0.013      | 0.013            | 207.60             | 39.47              | 0.03       | 27.75           | 67.25              | 125.25         | -58.01            |
| 0.154      | 0.153            | 323.90             | 39.30              | 0.04       | 18.30           | 57.63              | 103.90         | -46.27            |
| 25.998     | 26.003           | 91.20              | 0.40               | 1.10       | 16.04           | 17.54              | 69.54          | -52.00            |
| 26.490     | 26.494           | 104.20             | -0.90              | 1.11       | 16.00           | 16.22              | 69.54          | -53.32            |

Table 25: 40 MHz, 17 dBi, High Channel: Average Table from 9 kHz to 30 MHz – Parallel

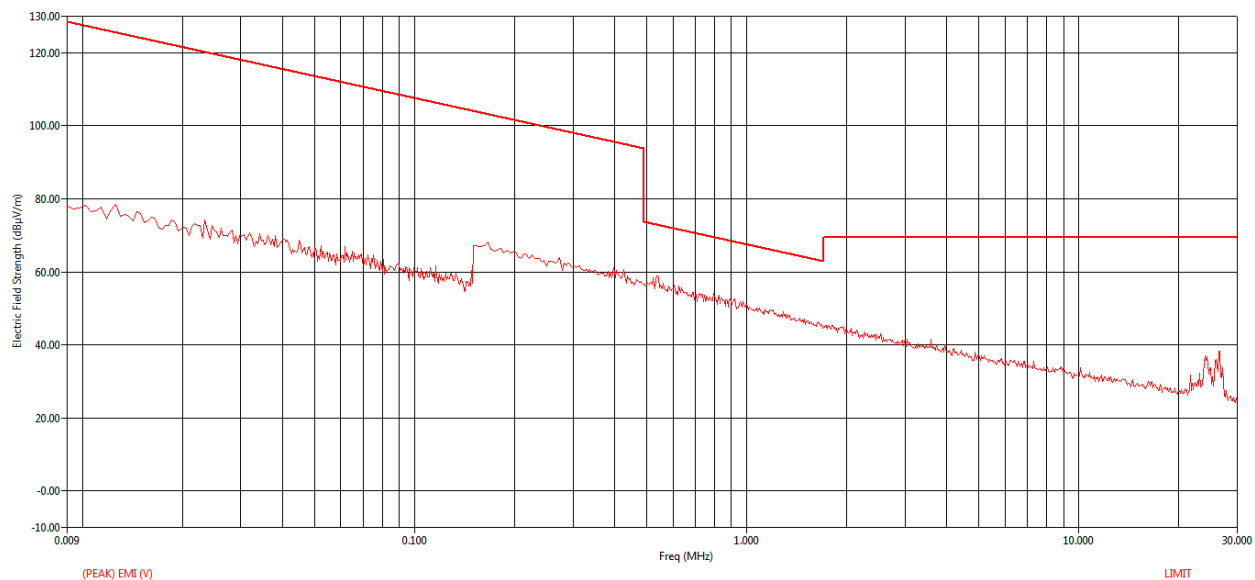


**Figure 29: 40 MHz, 17 dBi, High Channel: Peak RE Graph – 9 kHz to 30 MHz – Perpendicular**

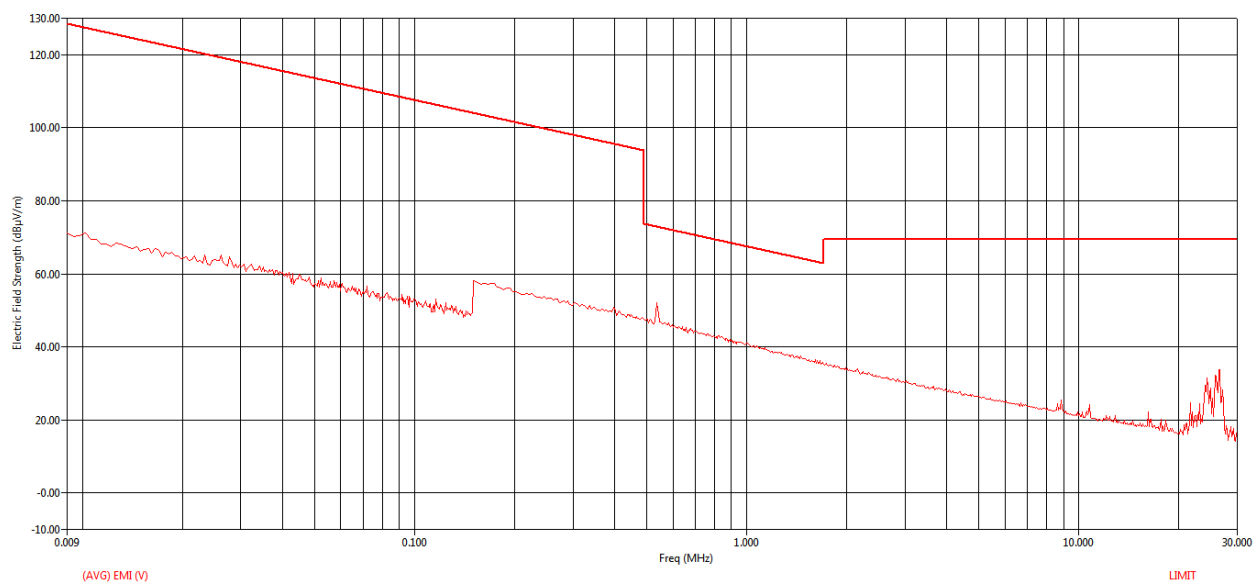


**Figure 30: 40 MHz, 17 dBi, High Channel: Average RE Graph – 9 kHz to 30 MHz – Perpendicular**

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 0.013      | 0.013            | 207.60             | 35.03             | 0.03       | 27.75           | 62.81             | 125.25         | -62.45           |
| 0.154      | 0.153            | 323.90             | 45.06             | 0.04       | 18.30           | 63.40             | 103.90         | -40.51           |
| 25.998     | 26.003           | 91.20              | 5.94              | 1.10       | 16.04           | 23.08             | 69.54          | -46.46           |
| 26.490     | 26.494           | 104.20             | 4.96              | 1.11       | 16.00           | 22.08             | 69.54          | -47.46           |

**Table 26: 40 MHz, 17 dBi, High Channel: Quasi Peak Table from 9 kHz to 30 MHz - Perpendicular**

| Freq (MHz) | Freq (Max) (MHz) | EUT Ttbi Agl (deg) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|--------------------|--------------------|------------|-----------------|--------------------|----------------|-------------------|
| 0.013      | 0.013            | 207.60             | 39.47              | 0.03       | 27.75           | 67.25              | 125.25         | -58.01            |
| 0.154      | 0.153            | 323.90             | 39.30              | 0.04       | 18.30           | 57.63              | 103.90         | -46.27            |
| 25.998     | 26.003           | 91.20              | 0.40               | 1.10       | 16.04           | 17.54              | 69.54          | -52.00            |
| 26.490     | 26.494           | 104.20             | -0.90              | 1.11       | 16.00           | 16.22              | 69.54          | -53.32            |

**Table 27: 40 MHz, 17 dBi, High Channel: Average Table from 9 kHz to 30 MHz – Perpendicular**

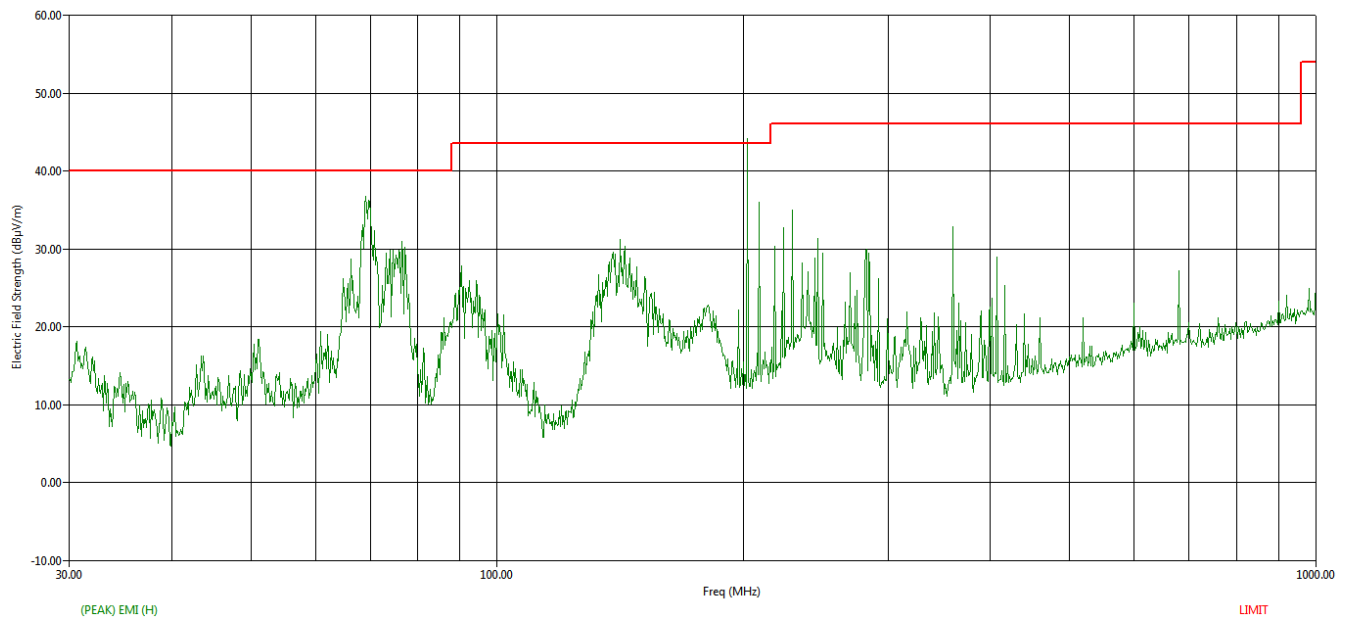


**Figure 31: 40 MHz, 17 dBi, High Channel: Peak RE Graph – 30 MHz to 1 GHz– Horizontal**

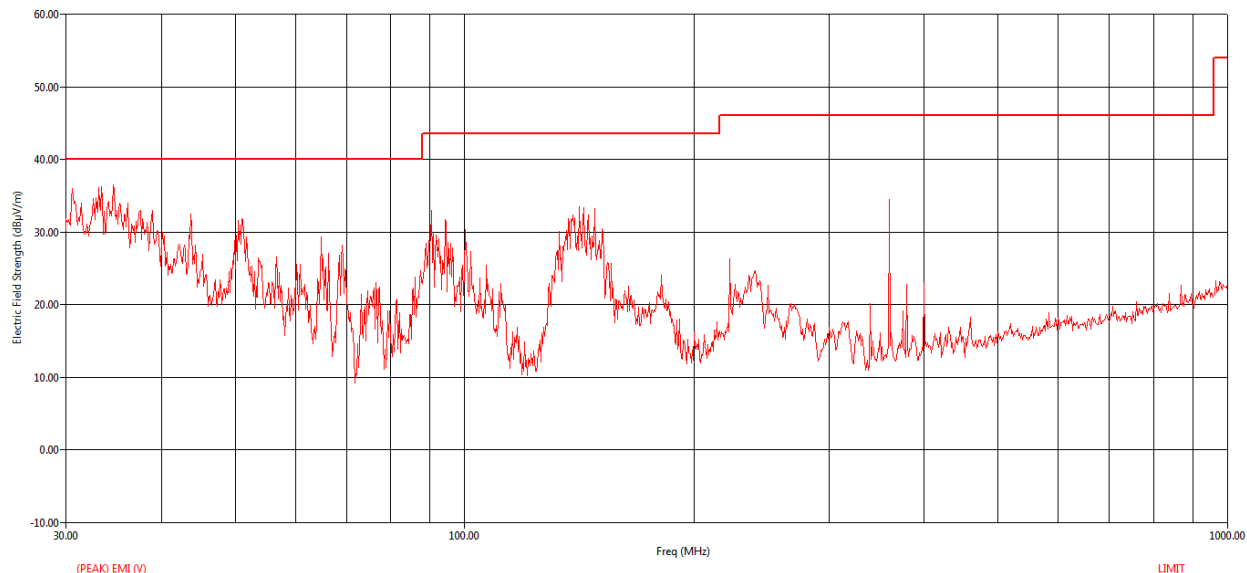


**Figure 32: 40 MHz, 17 dBi, High Channel: Peak RE Graph – 30 MHz to 1 GHz– Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------------|-------------------|----------------|------------------|
| 34.64      | 34.63            | V   | 63.60              | 103.00      | 66.99             | 1.28       | 9.44            | 43.81             | 33.89             | 40.00          | -6.11            |
| 69.16      | 69.13            | H   | 355.60             | 240.00      | 65.96             | 1.79       | 9.79            | 43.88             | 33.65             | 40.00          | -6.35            |
| 69.72      | 69.70            | H   | 348.20             | 230.00      | 68.69             | 1.79       | 9.84            | 43.88             | 36.44             | 40.00          | -3.56            |
| 141.20     | 141.20           | V   | 354.20             | 103.00      | 62.02             | 2.51       | 11.21           | 43.94             | 31.80             | 43.52          | -11.72           |
| 143.32     | 143.28           | V   | 4.90               | 100.00      | 61.33             | 2.53       | 11.28           | 43.95             | 31.20             | 43.52          | -12.32           |
| 148.16     | 148.10           | V   | 358.10             | 100.00      | 60.75             | 2.57       | 11.43           | 43.95             | 30.81             | 43.52          | -12.71           |

**Table 28: 40 MHz, 17 dBi, High Channel: Quasi Peak Table from 30 MHz to 1 GHz**

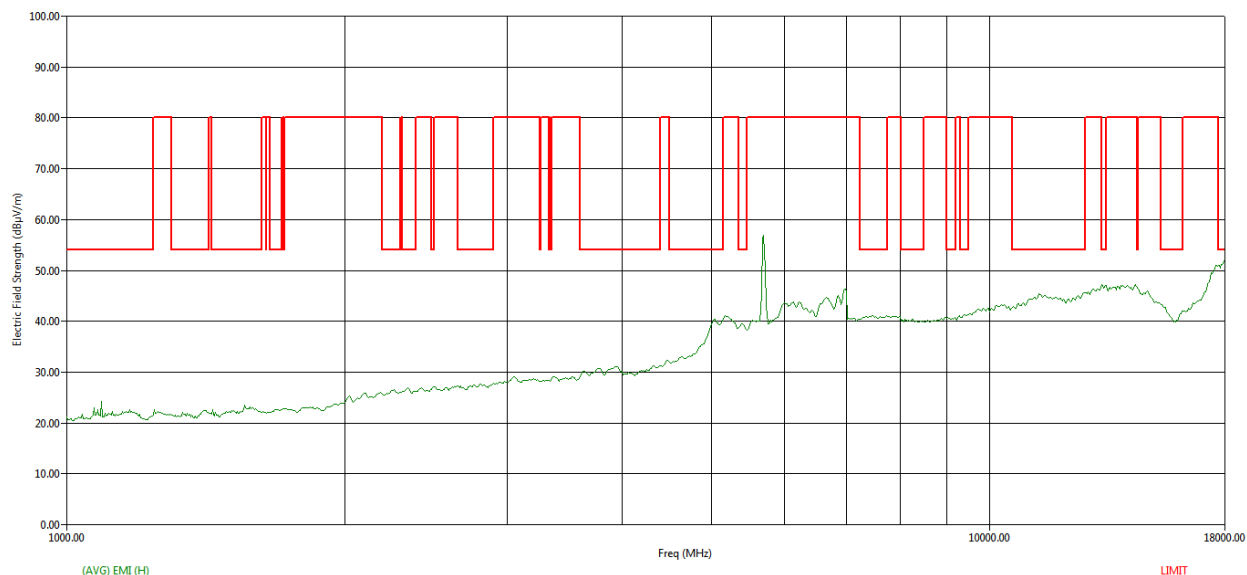


**Figure 33: 40 MHz, 17 dBi, High Channel: Average RE Graph – 1 GHz to 18 GHz– Horizontal**

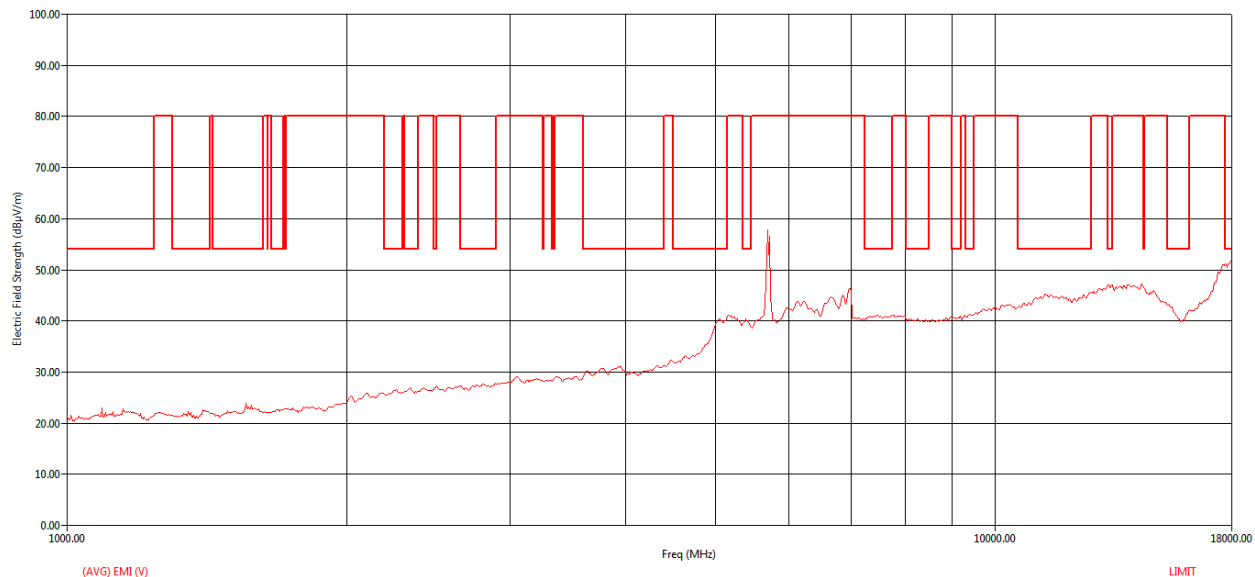


**Figure 34: 40 MHz, 17 dBi, High Channel: Average RE Graph – 1 GHz to 18 GHz– Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 1090.64    | 1090.64          | H   | 172.90             | 101.00      | 27.45              | 1.87       | 25.12           | 32.47             | 21.96              | 54.00          | -32.04            |
| 4483.41    | 4483.41          | V   | 180.10             | 102.00      | 27.16              | 3.47       | 30.88           | 29.28             | 32.24              | 80.00          | -47.76            |
| 5164.87    | 5164.87          | V   | 135.20             | 200.00      | 31.27              | 3.80       | 32.92           | 28.32             | 39.68              | 80.00          | -40.32            |
| 6975.32    | 6975.32          | V   | 343.60             | 143.00      | 34.48              | 4.21       | 35.84           | 28.30             | 46.23              | 80.00          | -33.77            |

**Table 29: 40 MHz, 17 dBi, High Channel: Average Table from 1 GHz to 18 GHz**

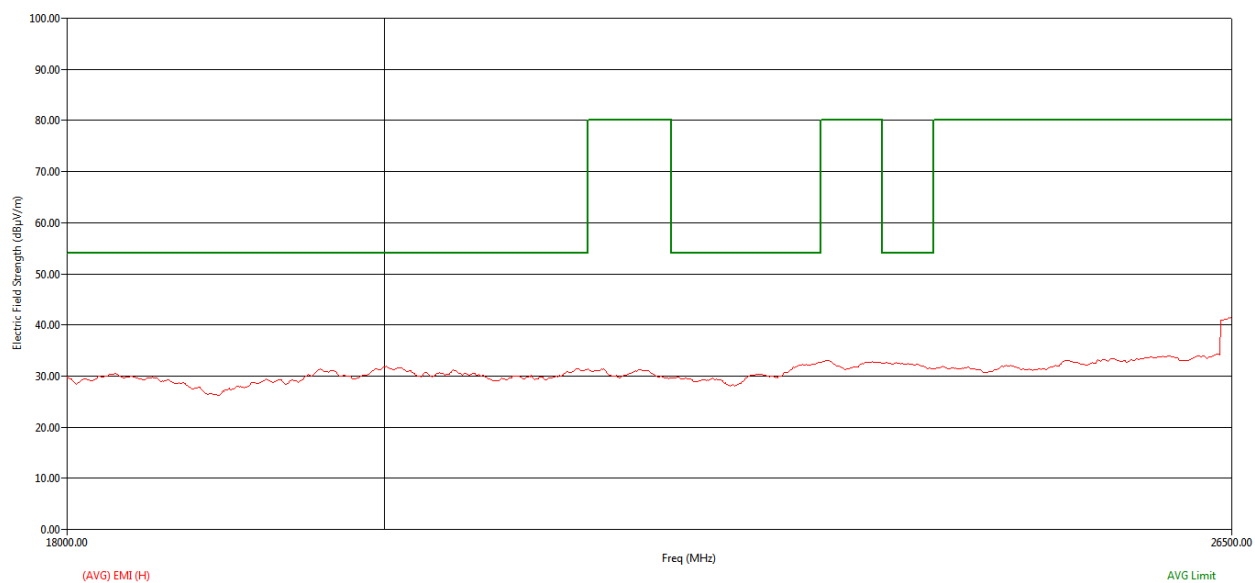


**Figure 35: 40 MHz, 17 dBi, High Channel: Average RE Graph – 18 GHz to 26.5 GHz– Horizontal**

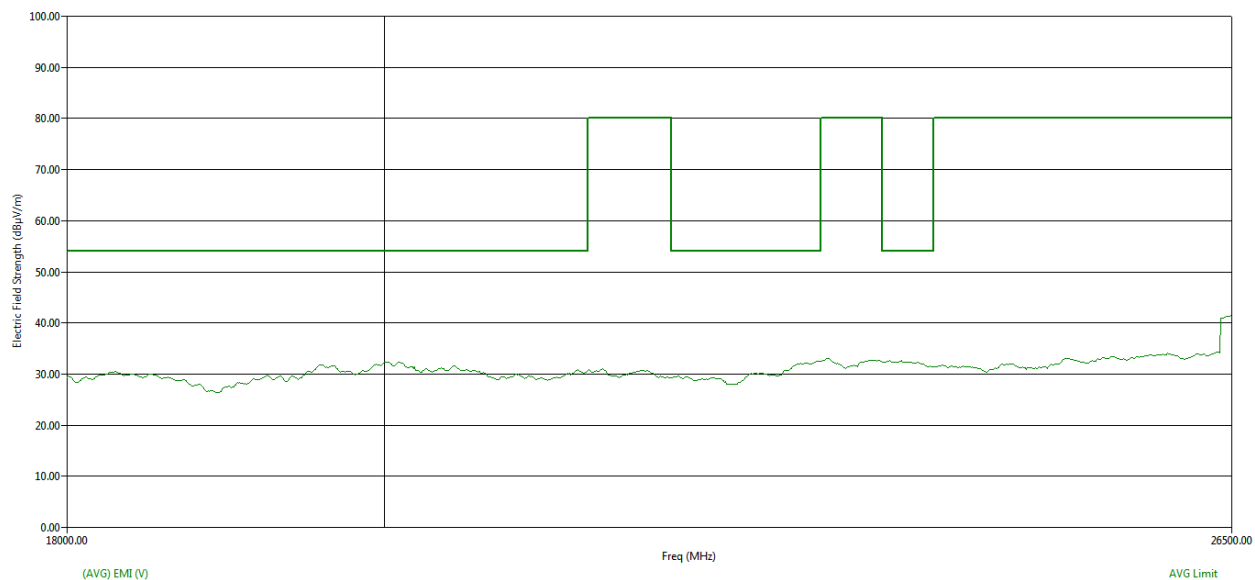


**Figure 36: 40 MHz, 17 dBi, High Channel: Average RE Graph – 18 GHz to 26.5 GHz– Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT TtBl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 19566.40   | 19325.25         | H   | 353.90             | 100.00      | 32.22              | 6.68       | 36.55           | 45.89             | 29.56              | 53.98          | -24.42            |
| 23197.80   | 22986.28         | V   | 359.10             | 100.00      | 33.24              | 8.09       | 37.64           | 46.93             | 32.04              | 80.00          | -47.96            |

**Table 30: 40 MHz, 17 dBi, High Channel: Average Table from 18 GHz to 26.5 GHz**

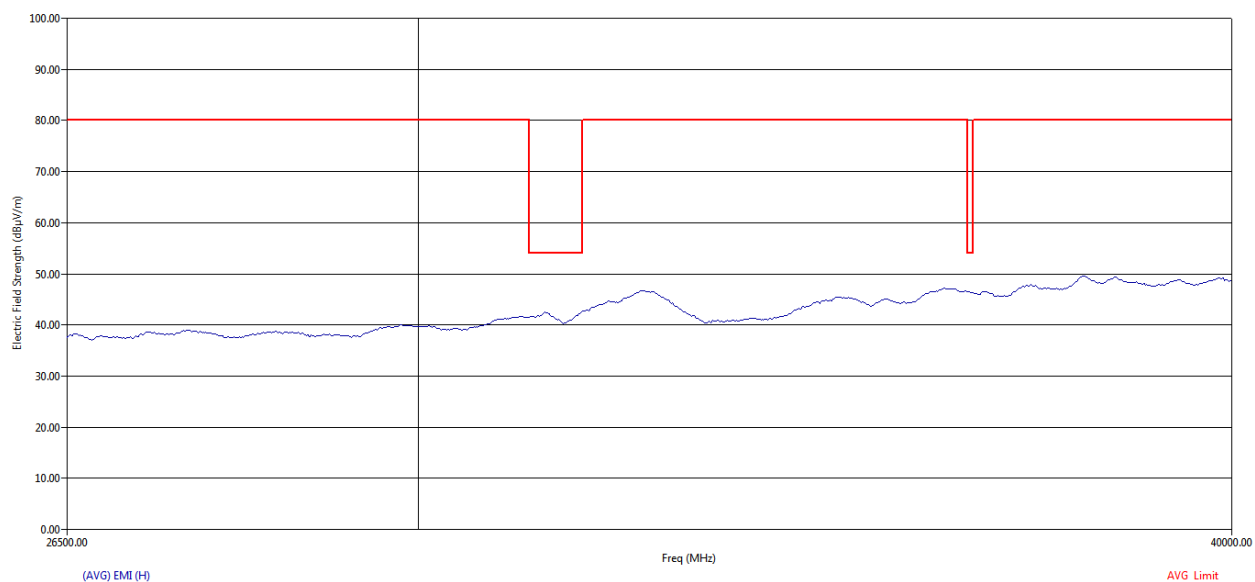


**Figure 37: 40 MHz, 17 dBi, High Channel: Average RE Graph – 26.5 GHz to 40 GHz– Horizontal**

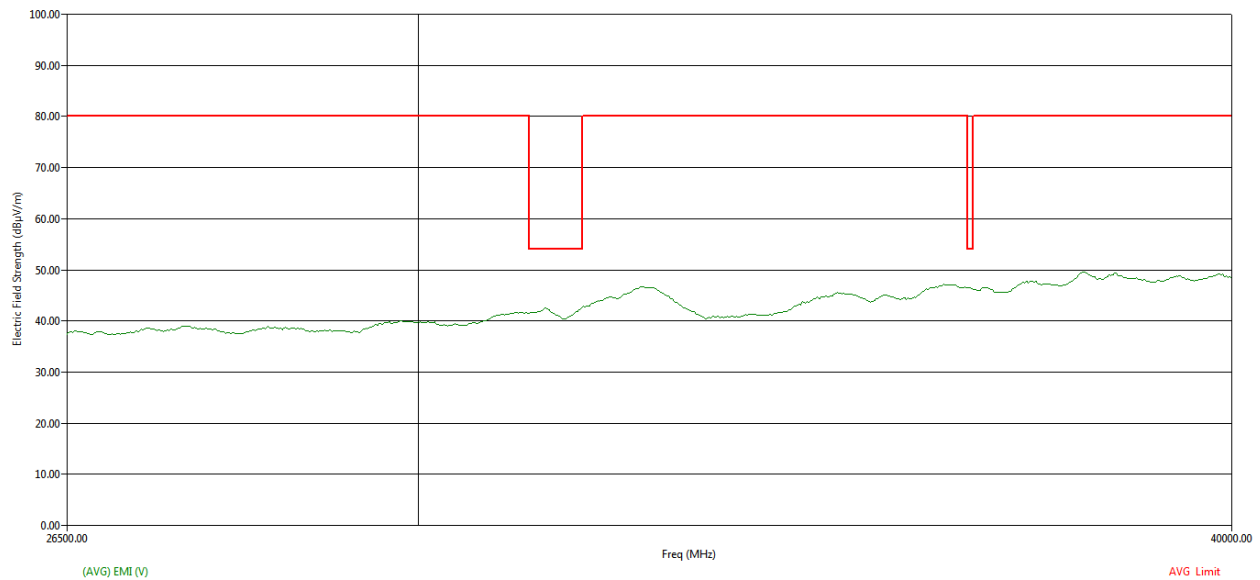


**Figure 38: 40 MHz, 17 dBi, High Channel: Average RE Graph –26.5 GHz to 40 GHz– Horizontal**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 32515.60   | 32297.31         | V   | 306.50             | 100.00      | 41.28              | 10.42      | 38.89           | 45.42             | 45.16              | 80.00          | -34.84            |
| 37962.70   | 37951.29         | H   | 180.00             | 100.00      | 42.84              | 12.32      | 40.74           | 46.51             | 49.39              | 80.00          | -30.61            |

**Table 31: 40 MHz, 17 dBi, High Channel: Average Table from 26.5 GHz to 40 GHz**

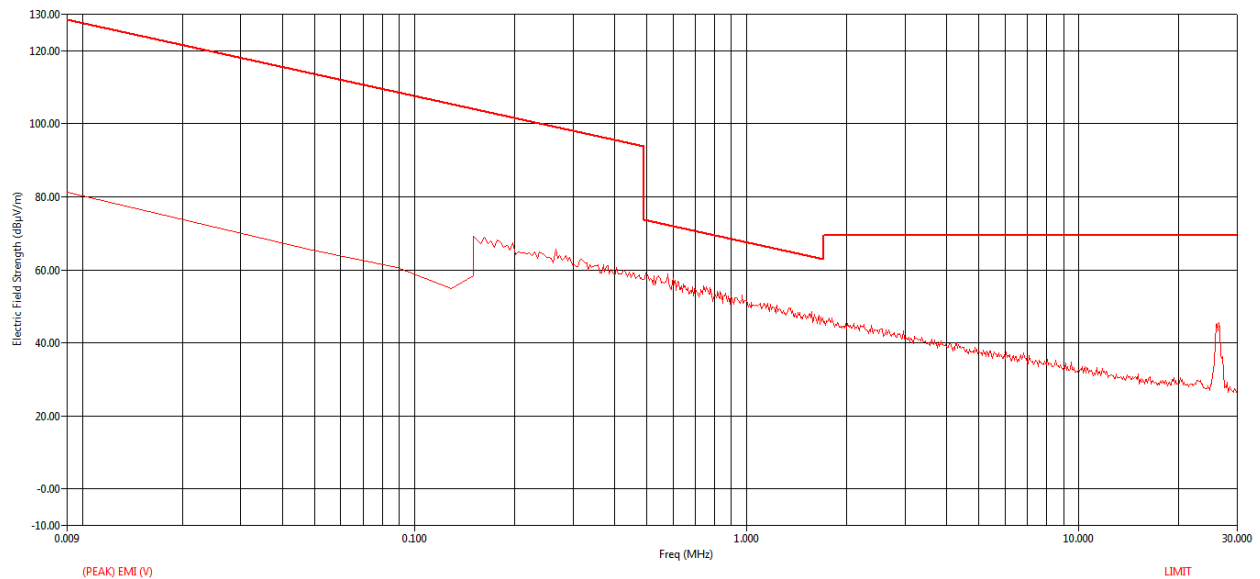


**Figure 39: 10 MHz, 17 dBi, Low Channel: Peak RE Graph – 9 kHz to 30 MHz – Parallel**

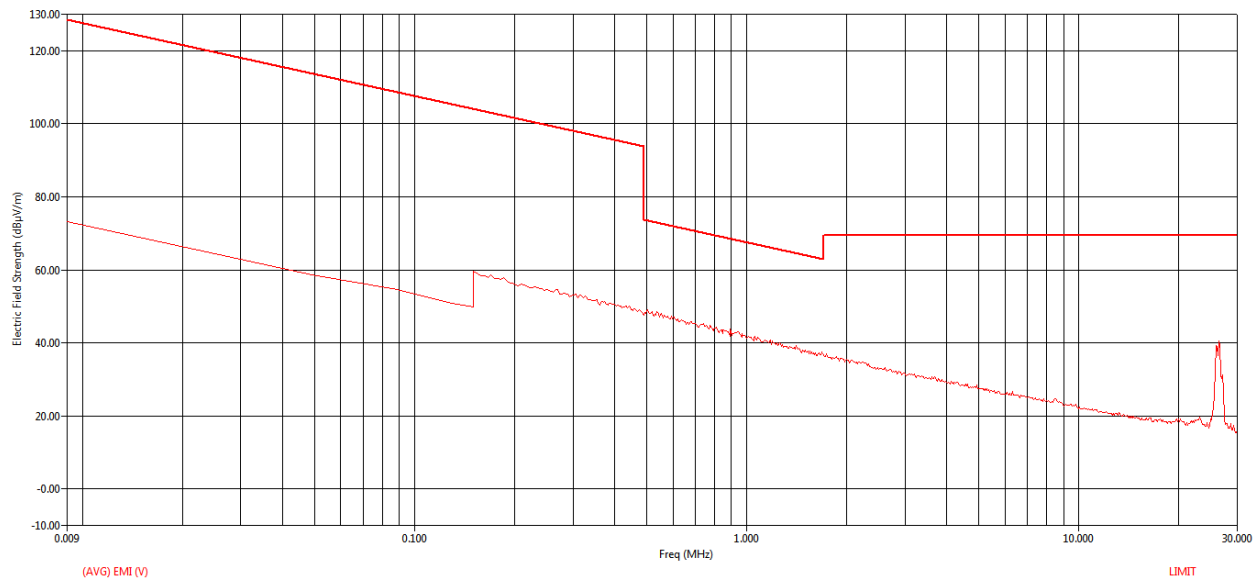


**Figure 40: 10 MHz, 17 dBi, Low Channel: Average RE Graph – 9 kHz to 30 MHz – Parallel**

| Freq (MHz) | Freq (Max) (MHz) | Pol | Ttbt Agl (deg) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|----------------|--------------------|------------|-----------------|--------------------|----------------|-------------------|
| 26.00      | 26.00            | V   | 142.90         | 25.65              | 1.10       | 16.04           | 42.78              | 69.54          | -26.76            |
| 27.16      | 27.16            | V   | 73.20          | 14.42              | 1.12       | 15.96           | 31.51              | 69.54          | -38.03            |

**Table 32: 10 MHz, 17 dBi, Low Channel: Quasi Peak Table from 9 kHz to 30 MHz - Parallel**

| Freq (MHz) | Freq (Max) (MHz) | Pol | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 26.00      | 26.00            | V   | 30.74             | 1.10       | 16.04           | 47.88             | 69.54          | -21.66           |
| 27.16      | 27.16            | V   | 18.27             | 1.12       | 15.96           | 35.36             | 69.54          | -34.18           |

**Table 33: 10 MHz, 17 dBi, Low Channel: Average Table from 9 kHz to 30 MHz - Parallel**

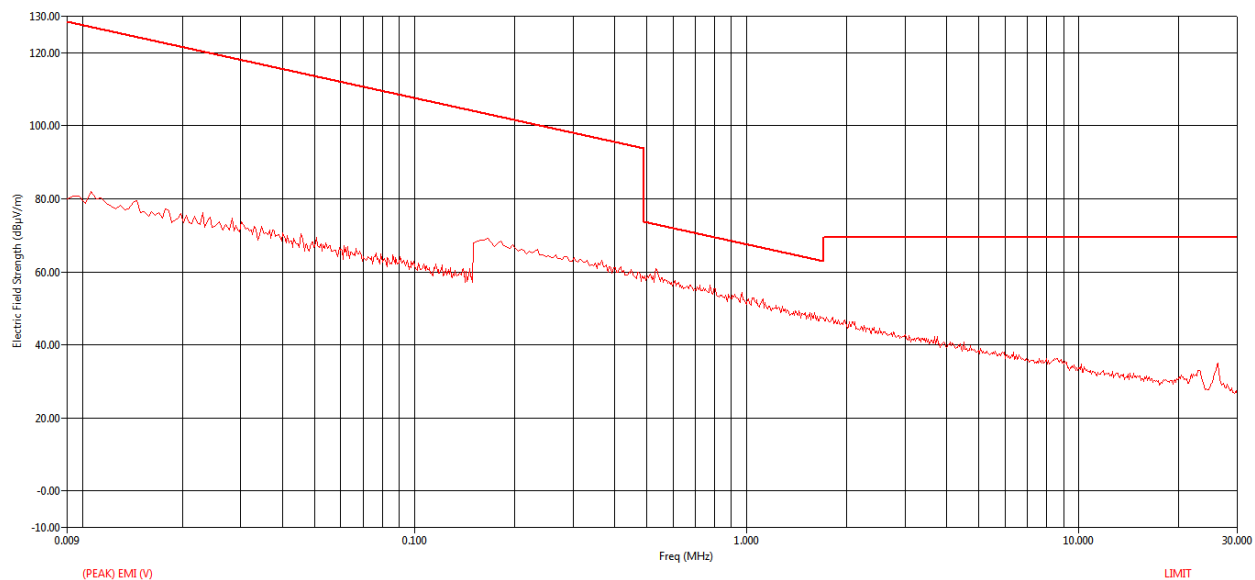


**Figure 41: 10 MHz, 17 dBi, Low Channel: Peak RE Graph – 9 kHz to 30 MHz – Perpendicular**

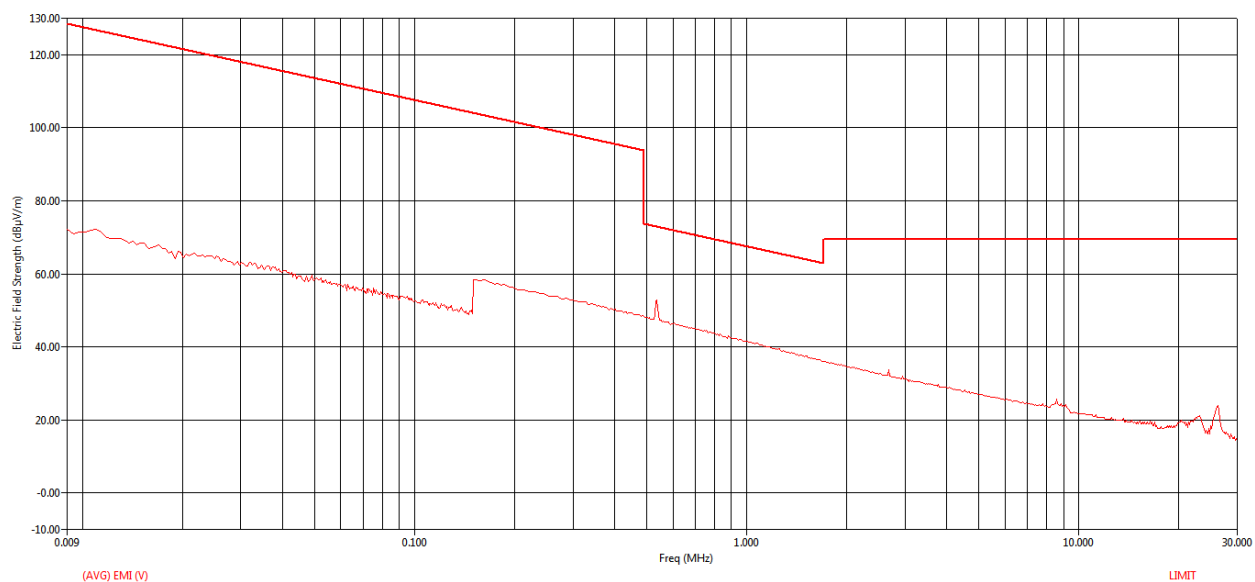


**Figure 42: 10 MHz, 17 dBi, Low Channel: Average RE Graph – 9 kHz to 30 MHz – Perpendicular**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 0.54       | 0.54             | V   | 214.40             | 40.23             | 0.13       | 18.10           | 58.46             | 73.00          | -14.54           |
| 26.29      | 26.28            | V   | 115.90             | 13.64             | 1.11       | 16.02           | 30.77             | 69.54          | -38.77           |

**Table 34: 10 MHz, 17 dBi, Low Channel: Quasi Peak Table from 9 kHz to 30 MHz - Perpendicular**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|--------------------|------------|-----------------|--------------------|----------------|-------------------|
| 0.54       | 0.54             | V   | 214.40             | 36.48              | 0.13       | 18.10           | 54.71              | 73.00          | -18.29            |
| 26.29      | 26.28            | V   | 115.90             | 8.38               | 1.11       | 16.02           | 25.50              | 69.54          | -44.04            |

**Table 35: 10 MHz, 17 dBi, Low Channel: Average Table from 9 kHz to 30 MHz – Perpendicular**

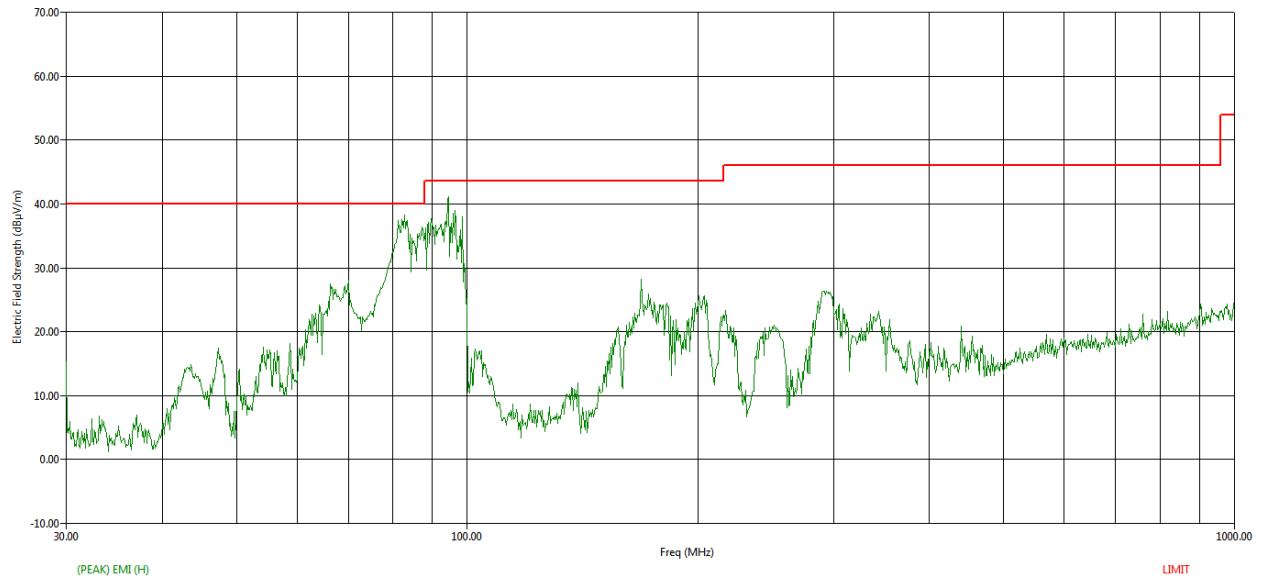


**Figure 43: 10 MHz, 17 dBi, Low Channel: Peak RE Graph – 30 MHz to 1 GHz – Horizontal**

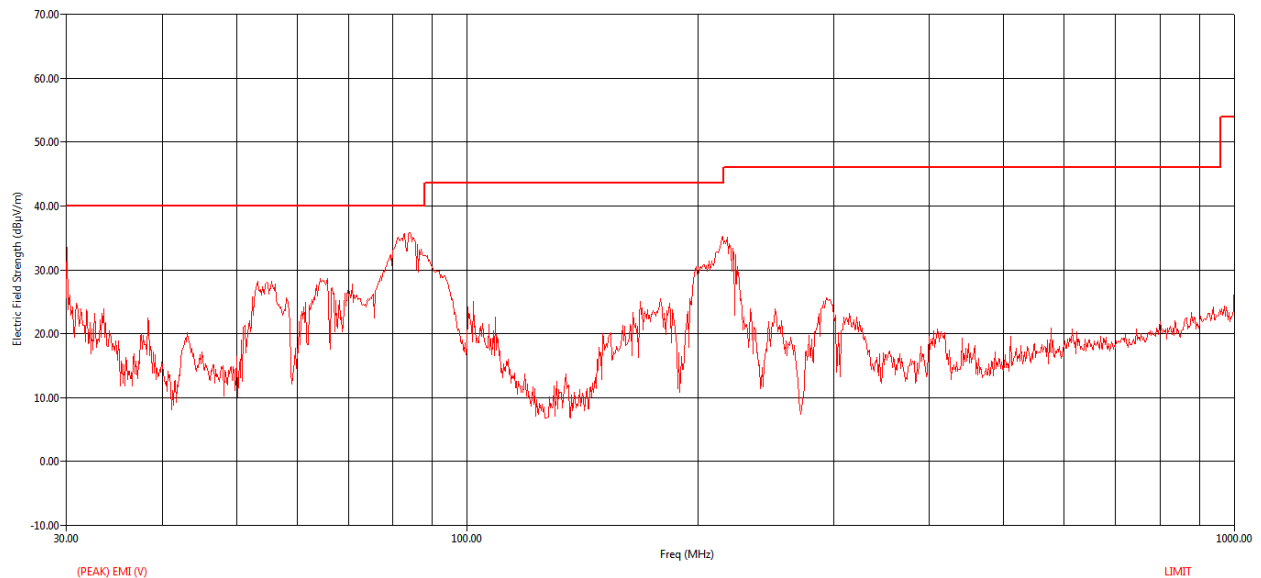


**Figure 44: 10 MHz, 17 dBi, Low Channel: Peak RE Graph – 30 MHz to 1 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------------|-------------------|----------------|------------------|
| 82.92      | 82.91            | H   | 80.80              | 180.00      | 72.23             | 1.94       | 8.28            | 43.91             | 38.53             | 40.00          | -1.47            |
| 82.92      | 82.89            | V   | 303.30             | 100.00      | 71.45             | 1.94       | 8.28            | 43.91             | 37.76             | 40.00          | -2.24            |
| 94.44      | 94.38            | H   | 79.50              | 179.00      | 76.15             | 2.07       | 8.46            | 43.93             | 42.75             | 43.52          | -0.77            |
| 96.36      | 96.34            | H   | 66.70              | 190.00      | 74.35             | 2.10       | 8.30            | 43.93             | 40.80             | 43.52          | -2.72            |

**Table 36: 10 MHz, 17 dBi, Low Channel: Quasi Peak Table from 30 MHz to 1 GHz**

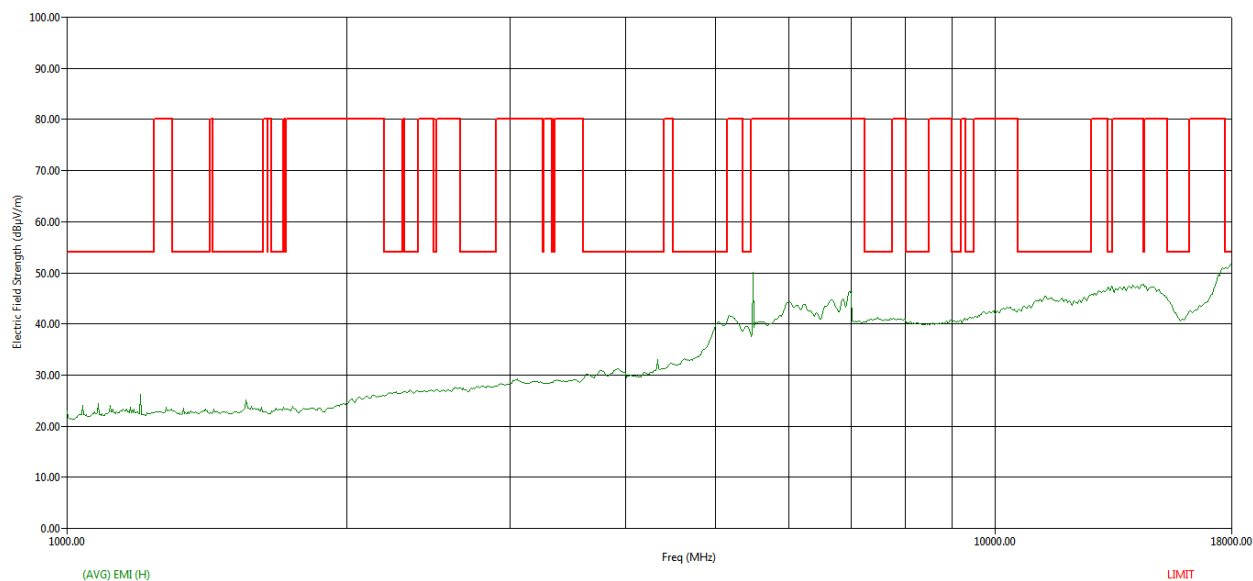


**Figure 45: 10 MHz, 17 dBi, Low Channel: Average RE Graph – 1 GHz to 18 GHz – Horizontal**

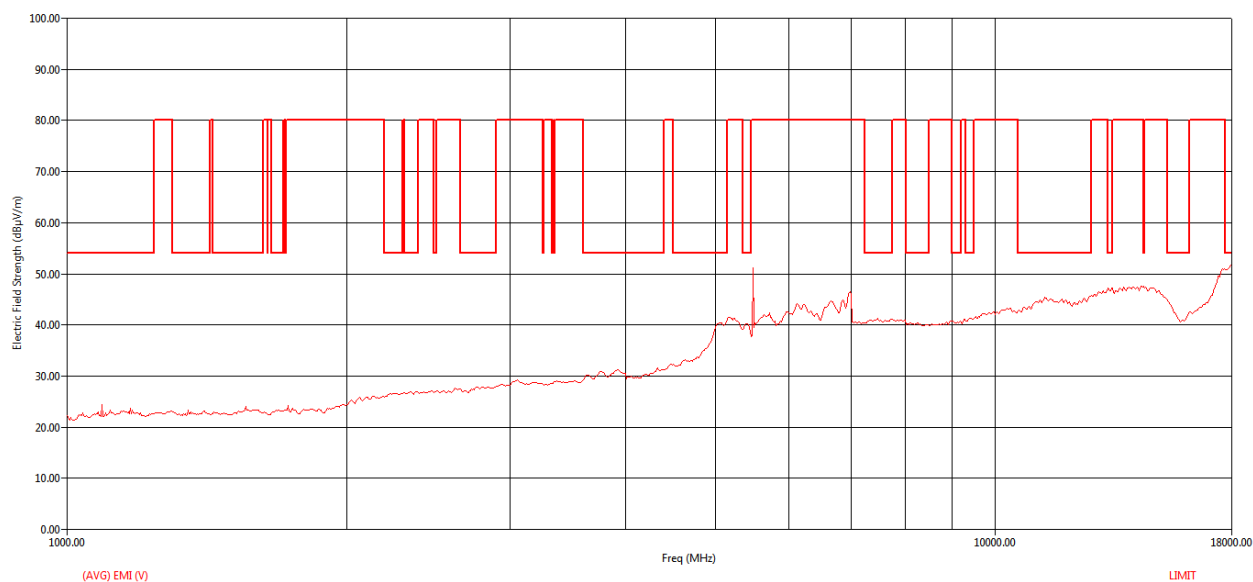


**Figure 46: 10 MHz, 17 dBi, Low Channel: Average RE Graph – 1 GHz to 18 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 1200.67    | 1200.67          | H   | 180.10             | 178.00      | 28.04              | 1.94       | 24.53           | 32.45       | 22.07              | 54.00          | -31.93            |
| 4330.48    | 4330.48          | H   | 180.10             | 160.00      | 26.57              | 3.43       | 30.34           | 29.59       | 30.76              | 54.00          | -23.24            |
| 5171.77    | 5171.77          | V   | 32.40              | 138.00      | 31.33              | 3.80       | 32.04           | 28.32       | 38.86              | 80.00          | -41.14            |
| 6975.32    | 6975.32          | V   | 67.80              | 133.00      | 34.45              | 4.21       | 35.22           | 28.30       | 45.58              | 80.00          | -34.42            |

**Table 37: 10 MHz, 17 dBi, Low Channel: Average Table from 1 GHz to 18 GHz**

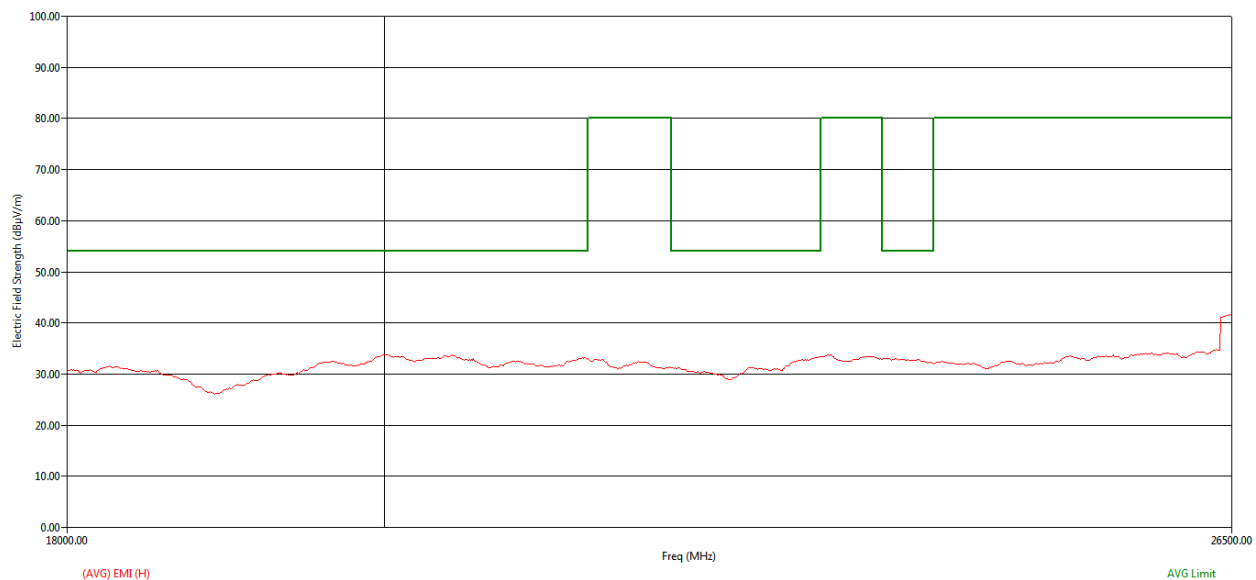


**Figure 47: 10 MHz, 17 dBi, Low Channel: Average RE Graph – 18 GHz to 26.5 GHz – Horizontal**

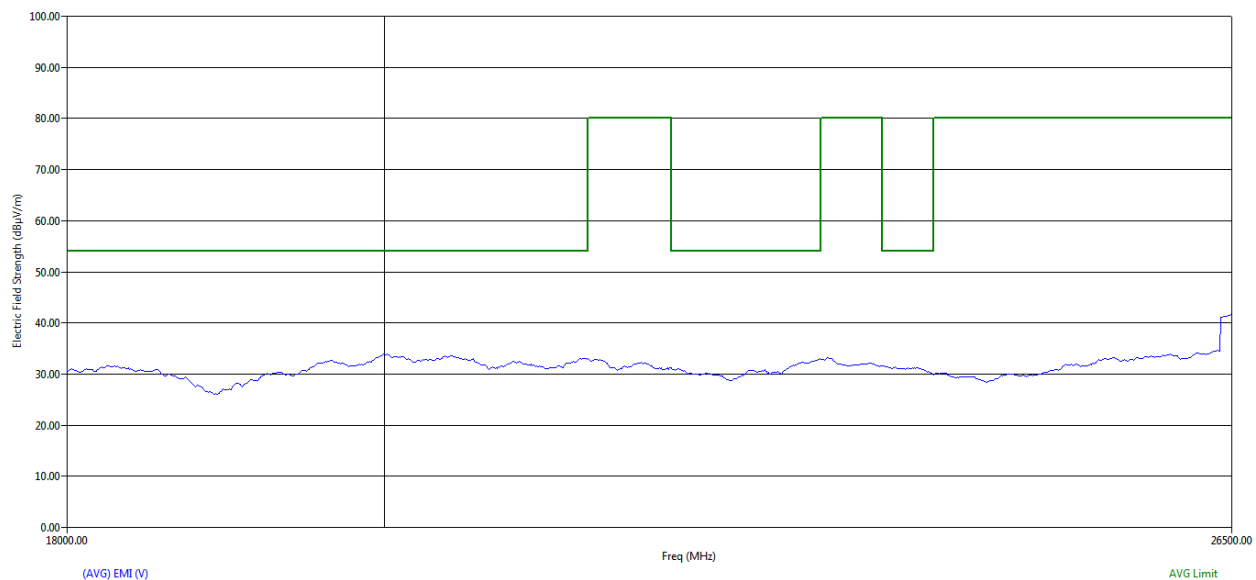


**Figure 48: 10 MHz, 17 dBi, Low Channel: Average RE Graph – 18 GHz to 26.5 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbi Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 18567.30   | 18806.28         | H   | 328.80             | 100.00      | 34.03              | 6.77       | 36.41           | 48.80             | 28.42              | 53.98          | -25.56            |
| 21341.80   | 21741.69         | H   | 216.90             | 100.00      | 33.25              | 7.41       | 37.39           | 46.04             | 32.02              | 53.98          | -21.96            |

**Table 38: 10 MHz, 17 dBi, Low Channel: Average Table from 18 GHz to 26.5 GHz**

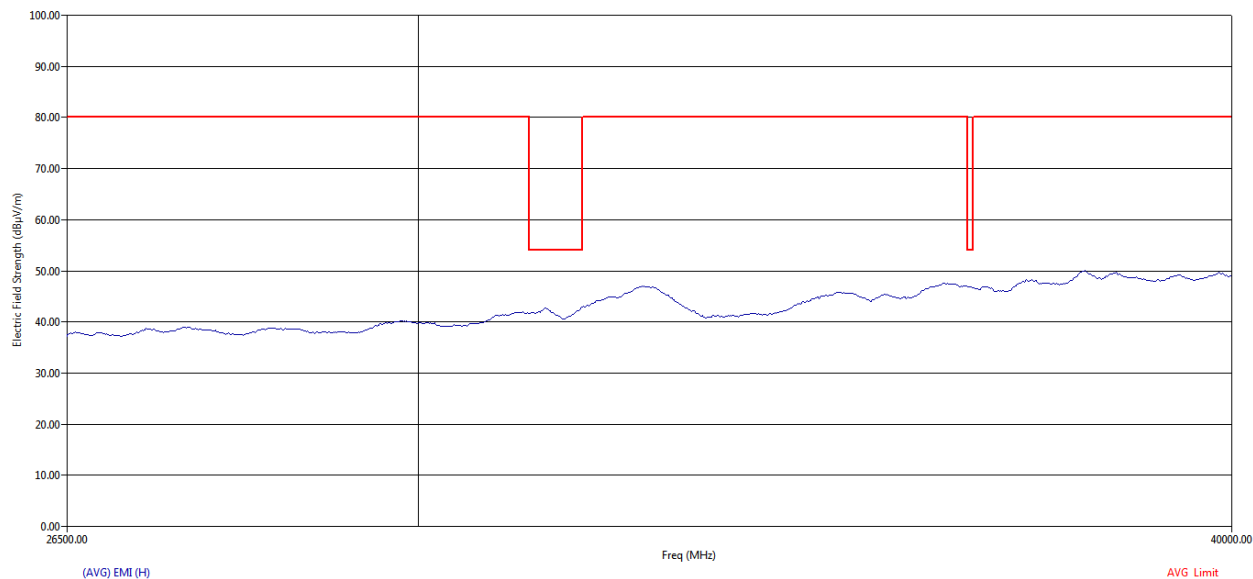


**Figure 49: 10 MHz, 17 dBi, Low Channel: Average RE Graph – 26.5 GHz to 40 GHz – Horizontal**

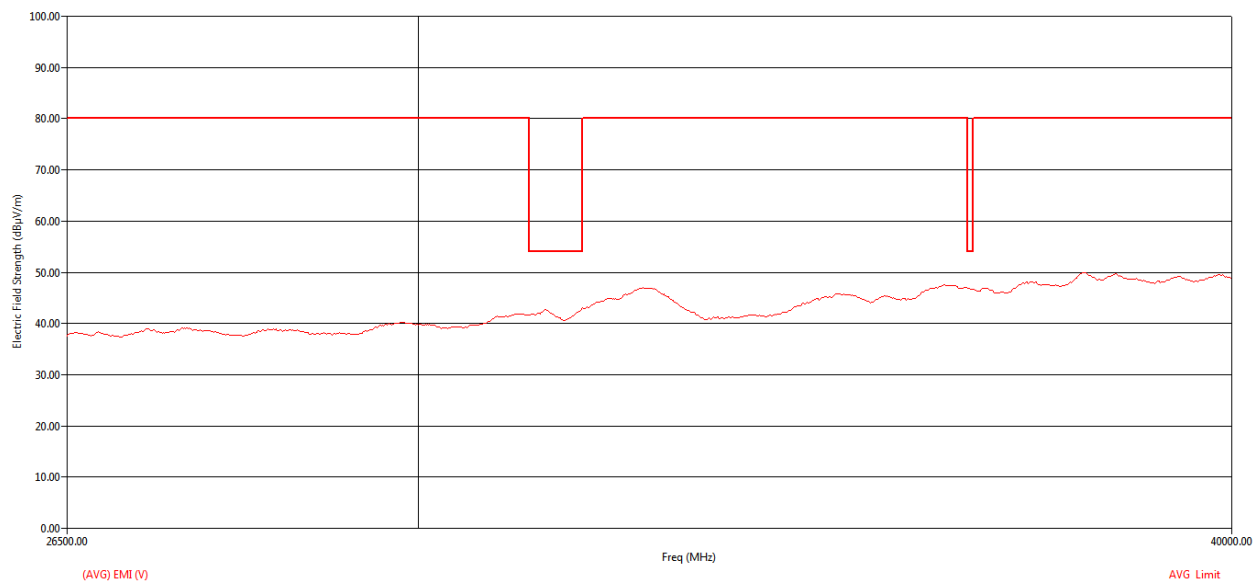


**Figure 50: 10 MHz, 17 dBi, Low Channel: Average RE Graph – 26.5 GHz to 40 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 32610.10   | 33489.07         | V   | 215.70             | 100.00      | 42.20              | 10.70      | 39.39           | 51.25             | 41.04              | 80.00          | -38.96            |
| 38024.00   | 38431.67         | H   | 243.10             | 100.00      | 42.90              | 12.14      | 41.16           | 47.08             | 49.12              | 80.00          | -30.88            |

**Table 39: 10 MHz, 17 dBi, Low Channel: Average Table from 26.5 GHz to 40 GHz**

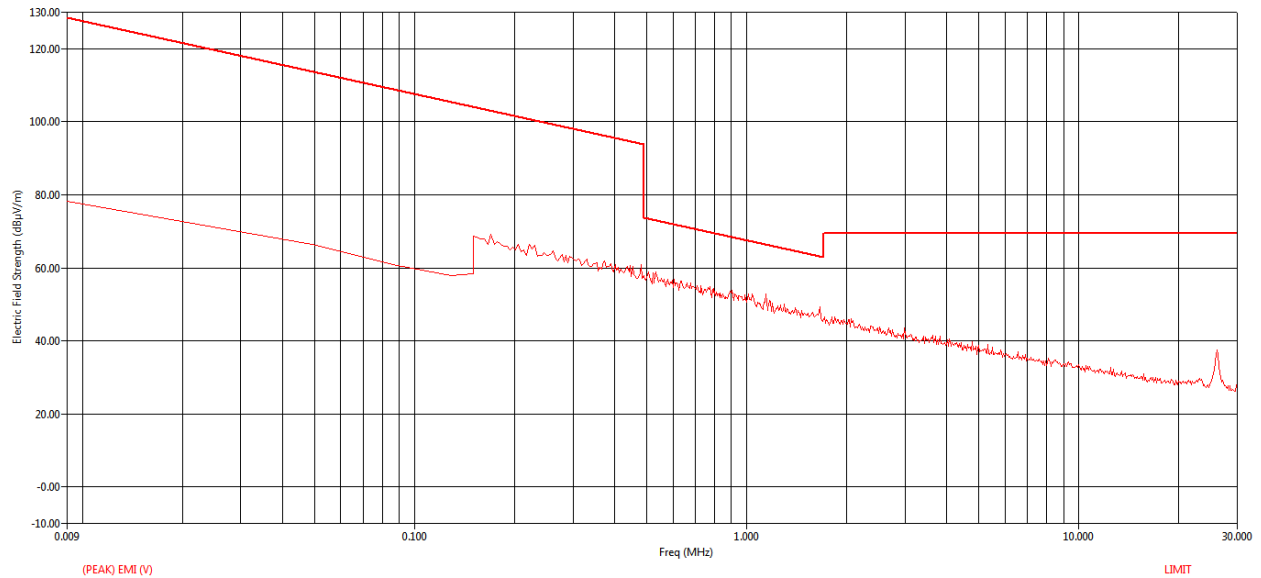


**Figure 51: 10 MHz, 17 dBi, Mid Channel: Peak RE Graph – 9 kHz to 30 MHz – Parallel**

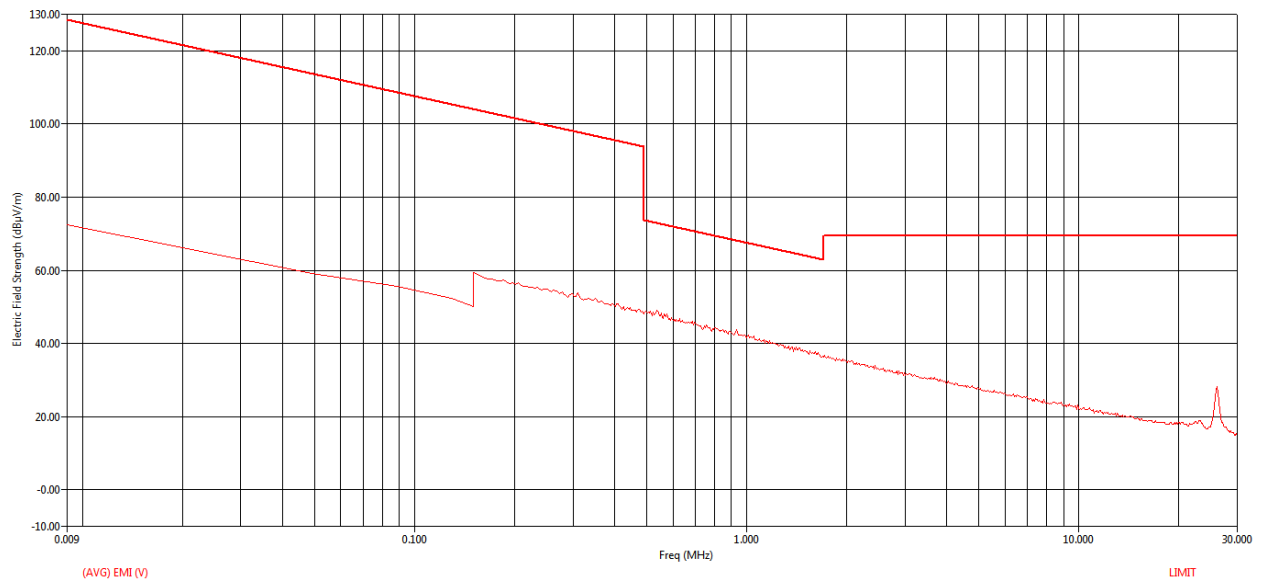


**Figure 52: 10 MHz, 17 dBi, Mid Channel: Average RE Graph – 9 kHz to 30 MHz – Parallel**

| Freq (MHz) | Freq (Max) (MHz) | Pol | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 0.15       | 0.16             | V   | 47.51             | 0.04       | 18.29           | 65.84             | 103.60         | -37.77           |
| 26.03      | 26.02            | V   | 19.72             | 1.10       | 16.03           | 36.85             | 69.54          | -32.69           |

**Table 40: 10 MHz, 17 dBi, Mid Channel: Quasi Peak Table from 9 kHz to 30 MHz – Parallel**

| Freq (MHz) | Freq (Max) (MHz) | Pol | Ttbt Agl (deg) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|----------------|--------------------|------------|-----------------|--------------------|----------------|-------------------|
| 0.15       | 0.16             | V   | 41.60          | 40.18              | 0.04       | 18.29           | 58.51              | 103.60         | -45.09            |
| 26.03      | 26.02            | V   | 180.10         | 12.96              | 1.10       | 16.03           | 30.10              | 69.54          | -39.44            |

**Table 41: 10 MHz, 17 dBi, Mid Channel: Average Table from 9 kHz to 30 MHz – Parallel**

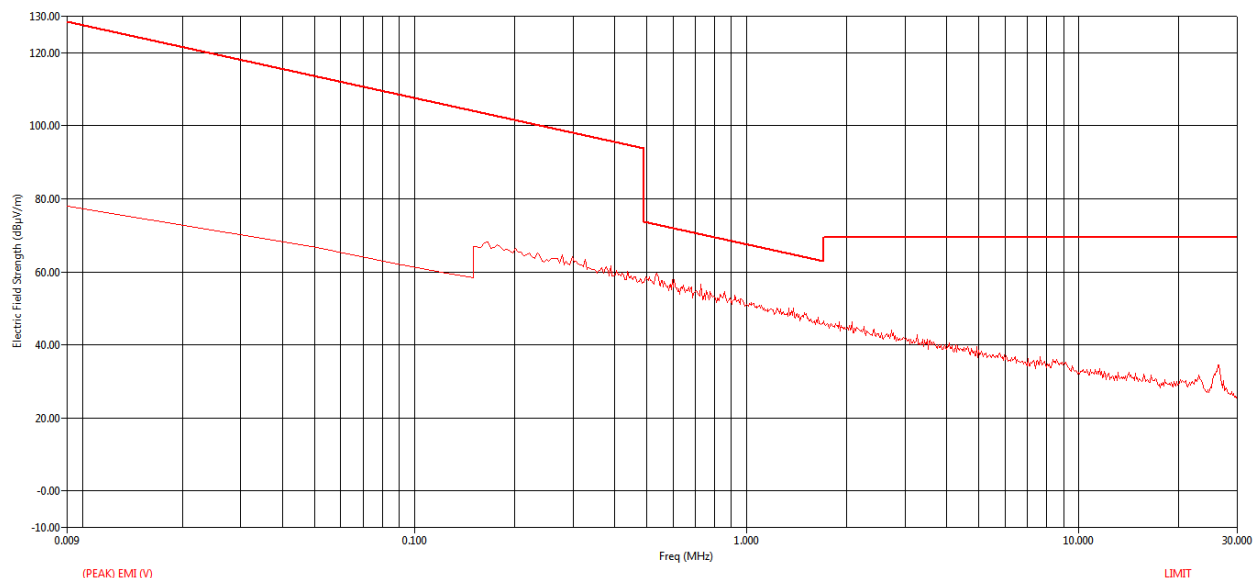


**Figure 53: 10 MHz, 17 dBi, Mid Channel: Peak RE Graph – 9 kHz to 30 MHz – Perpendicular**

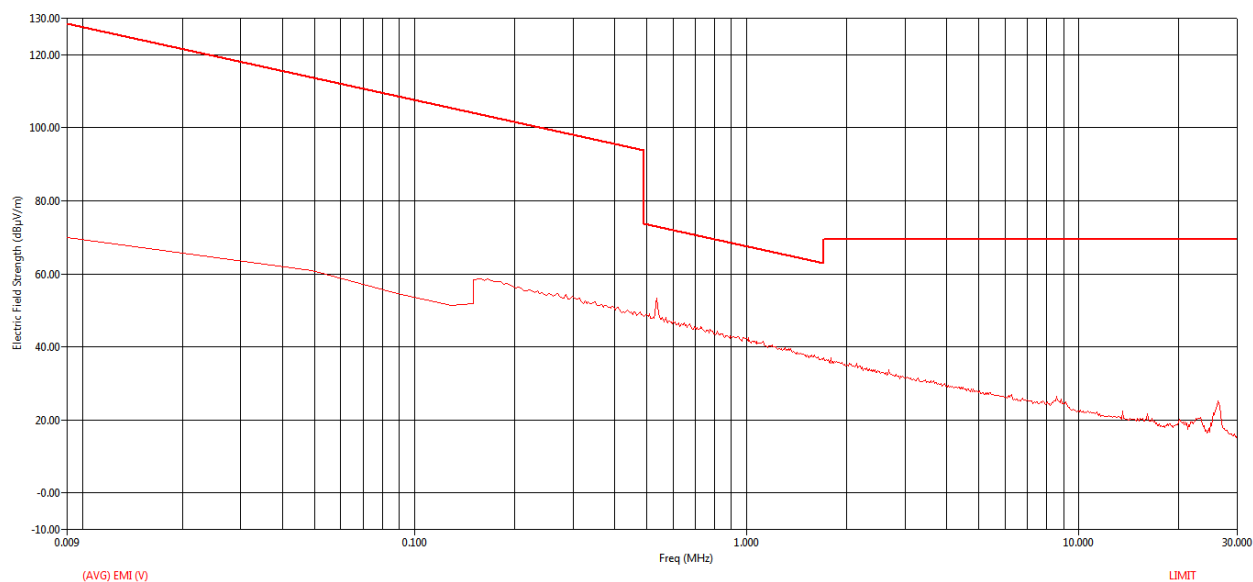


**Figure 54: 10 MHz, 17 dBi, Mid Channel: Average RE Graph – 9 kHz to 30 MHz – Perpendicular**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 0.16       | 0.16             | V   | 98.00              | 47.49             | 0.04       | 18.29           | 65.81             | 103.47         | -37.66           |
| 26.22      | 26.22            | V   | 169.70             | 14.13             | 1.11       | 16.02           | 31.25             | 69.54          | -38.29           |

**Table 42: 10 MHz, 17 dBi, Mid Channel: Quasi Peak Table from 9 kHz to 30 MHz – Perpendicular**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|--------------------|------------|-----------------|--------------------|----------------|-------------------|
| 0.16       | 0.16             | V   | 98.00              | 40.12              | 0.04       | 18.29           | 58.44              | 103.47         | -45.03            |
| 26.22      | 26.22            | V   | 169.70             | 7.37               | 1.11       | 16.02           | 24.50              | 69.54          | -45.04            |

**Table 43: 10 MHz, 17 dBi, Mid Channel: Average Table from 9 kHz to 30 MHz – Perpendicular**

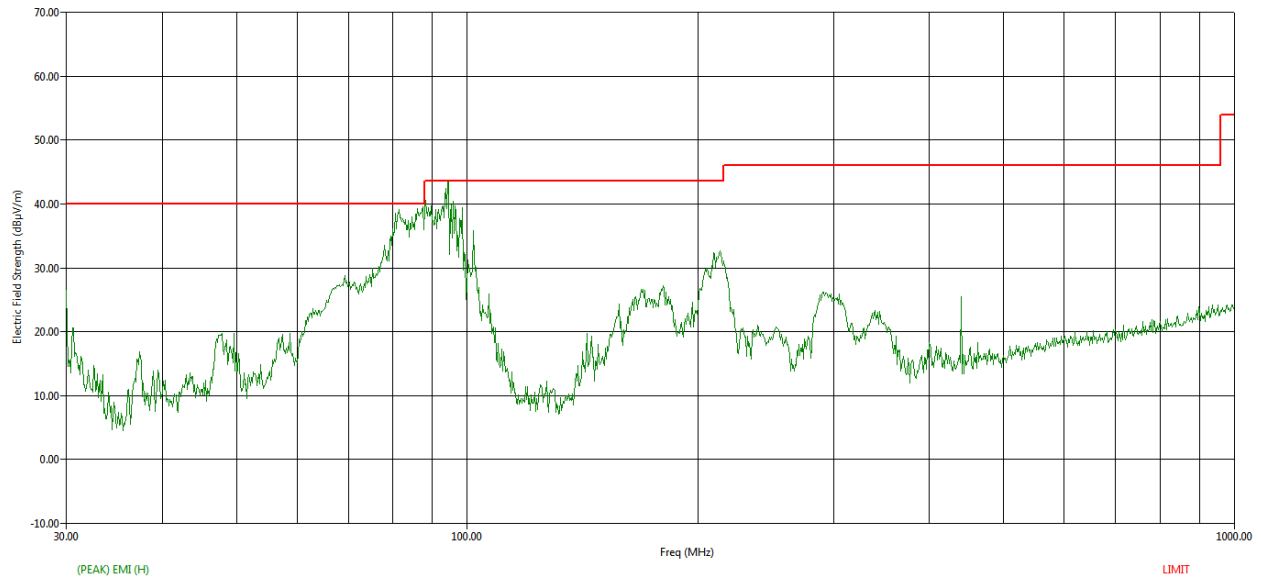


**Figure 55: 10 MHz, 17 dBi, Mid Channel: Peak RE Graph – 30 MHz to 1 GHz – Horizontal**

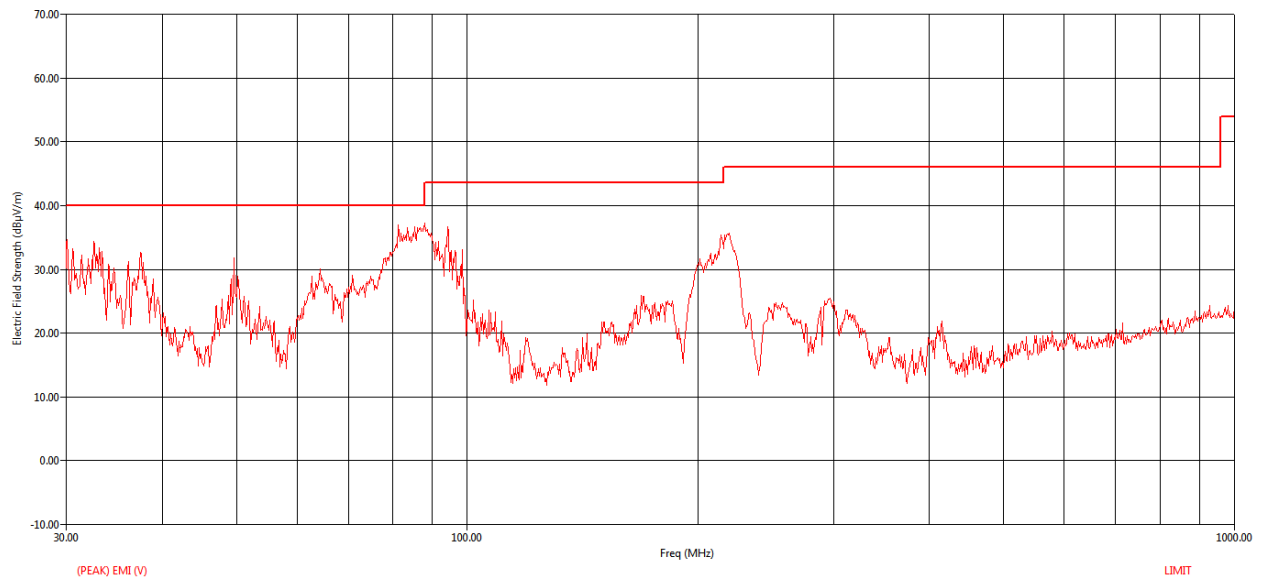


**Figure 56: 10 MHz, 17 dBi, Mid Channel: Peak RE Graph – 30 MHz to 1 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------|-------------------|----------------|------------------|
| 81.24      | 81.20            | V   | 314.00             | 351.00      | 72.95             | 1.92       | 8.14            | 43.91       | 39.10             | 40.00          | -0.93            |
| 85.36      | 85.41            | V   | 307.70             | 164.00      | 71.57             | 1.97       | 8.47            | 43.91       | 38.10             | 40.00          | -1.90            |
| 87.96      | 87.89            | V   | 352.80             | 187.00      | 71.29             | 2.00       | 8.66            | 43.92       | 38.04             | 40.00          | -1.96            |
| 94.40      | 94.38            | H   | 70.70              | 237.00      | 76.10             | 2.07       | 8.46            | 43.93       | 42.70             | 43.52          | -0.82            |

**Table 44: 10 MHz, 17 dBi, Mid Channel: Quasi Peak Table from 30 MHz to 1 GHz**

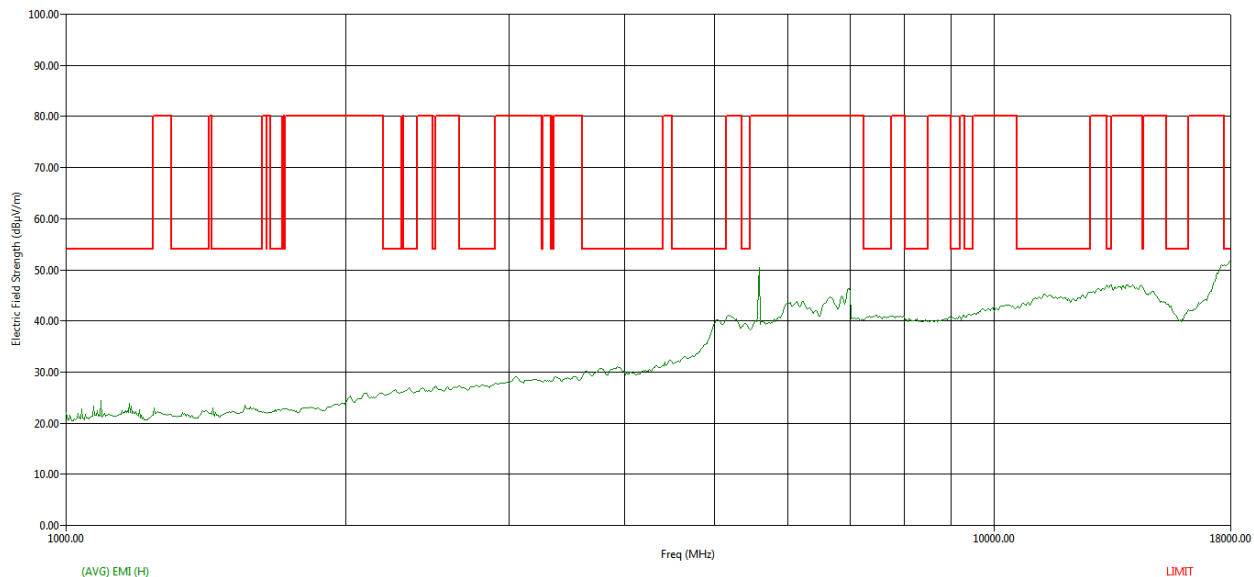


**Figure 57: 10 MHz, 17 dBi, Mid Channel: Average RE Graph – 1 GHz to 18 GHz – Horizontal**

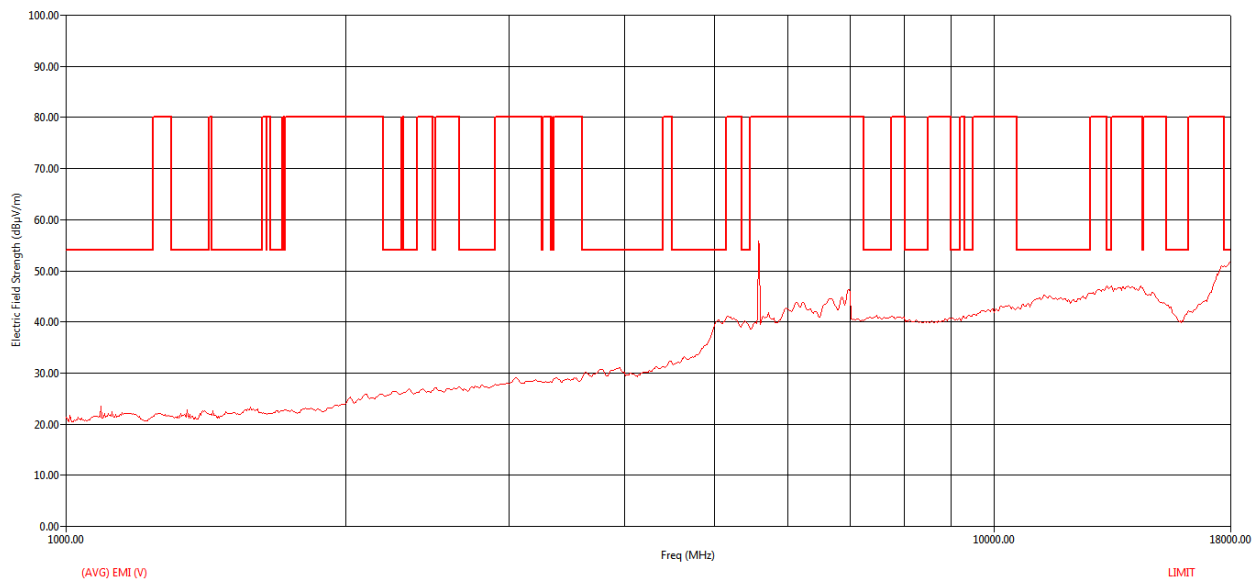


**Figure 58: 10 MHz, 17 dBi, Mid Channel: Average RE Graph – 1 GHz to 18 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 1090.33    | 1090.33          | H   | 172.90             | 149.00      | 28.91              | 1.87       | 24.16           | 32.48             | 22.46              | 53.98          | -31.52            |
| 3048.38    | 3048.38          | H   | 96.80              | 100.00      | 27.25              | 2.88       | 28.57           | 30.39             | 28.30              | 80.00          | -51.70            |
| 5171.77    | 5171.77          | V   | 180.10             | 138.00      | 31.28              | 3.80       | 32.04           | 28.32             | 38.80              | 80.00          | -41.20            |
| 6969.03    | 6969.03          | V   | 183.00             | 143.00      | 34.45              | 4.20       | 35.21           | 28.30             | 45.57              | 80.00          | -34.43            |

**Table 45: 10 MHz, 17 dBi, Mid Channel: Average Table from 1 GHz to 18 GHz**

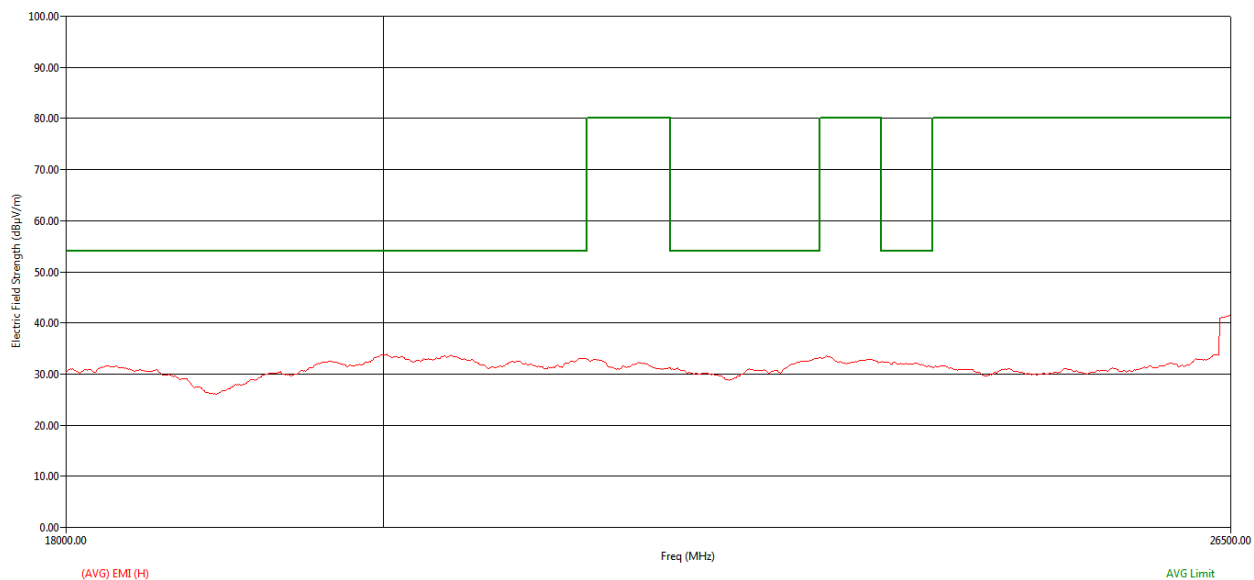


**Figure 59: 10 MHz, 17 dBi, Mid Channel: Average RE Graph – 18 GHz to 26.5 GHz – Horizontal**

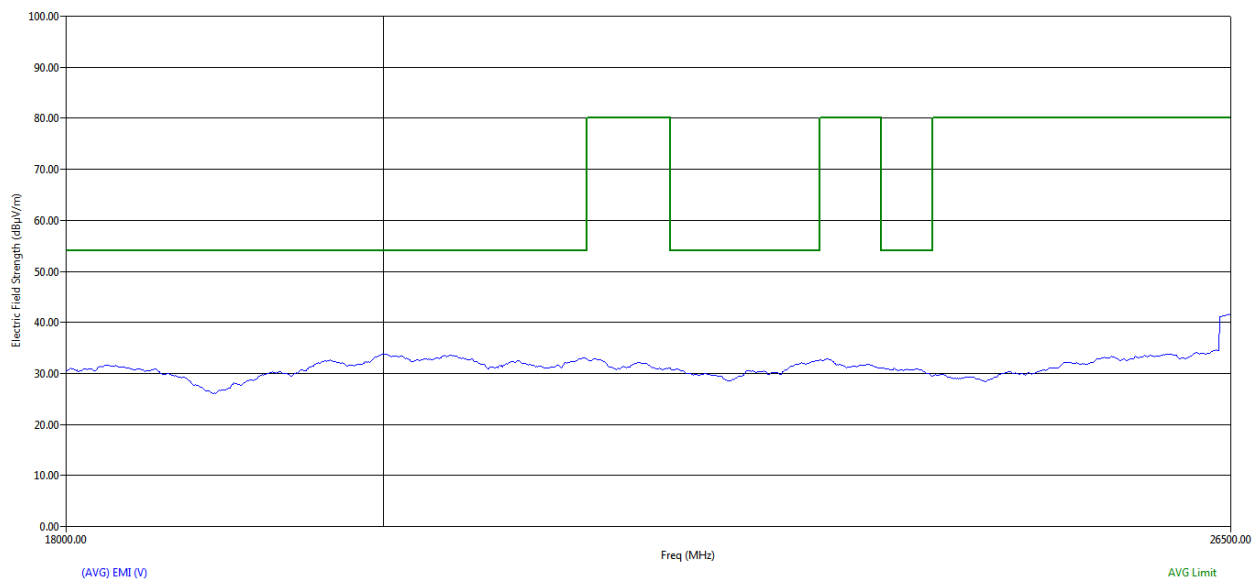


**Figure 60: 10 MHz, 17 dBi, Mid Channel: Average RE Graph – 18 GHz to 26.5 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 20067.30   | 19212.73         | H   | 80.20              | 100.00      | 33.60              | 6.64       | 36.53           | 46.66       | 30.10              | 53.98          | -23.88            |
| 23197.80   | 22219.22         | V   | 4.60               | 100.00      | 32.74              | 6.70       | 36.79           | 46.51       | 29.72              | 80.00          | -50.28            |

**Table 46: 10 MHz, 17 dBi, Mid Channel: Average Table from 18 GHz to 26.5 GHz**

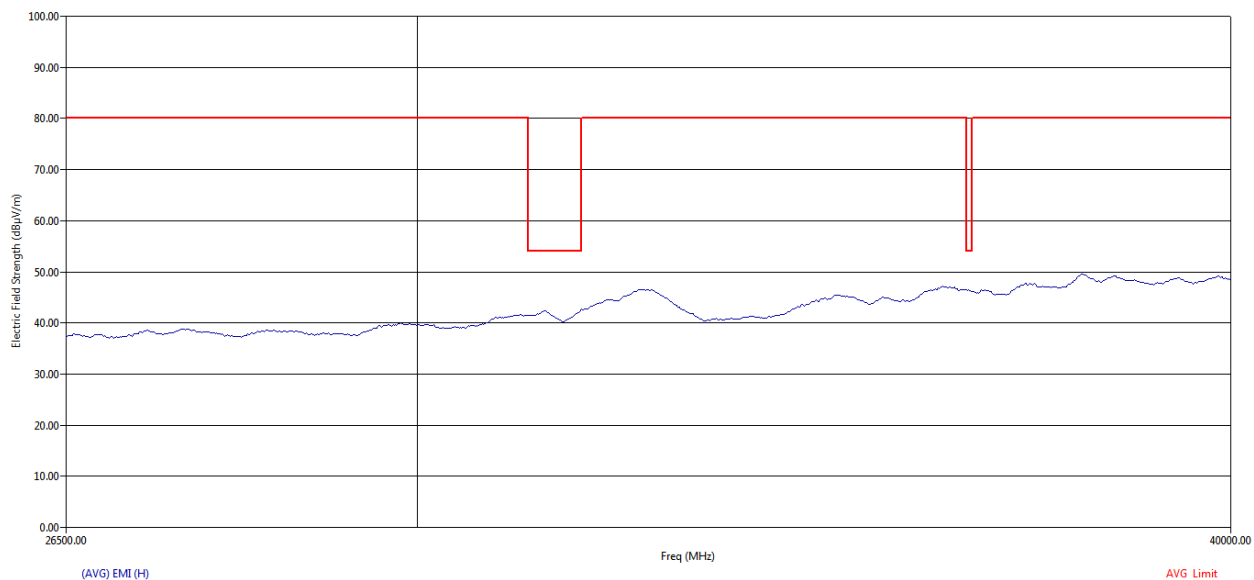


**Figure 61: 10 MHz, 17 dBi, Mid Channel: Average RE Graph – 26.5 GHz to 40 GHz – Horizontal**

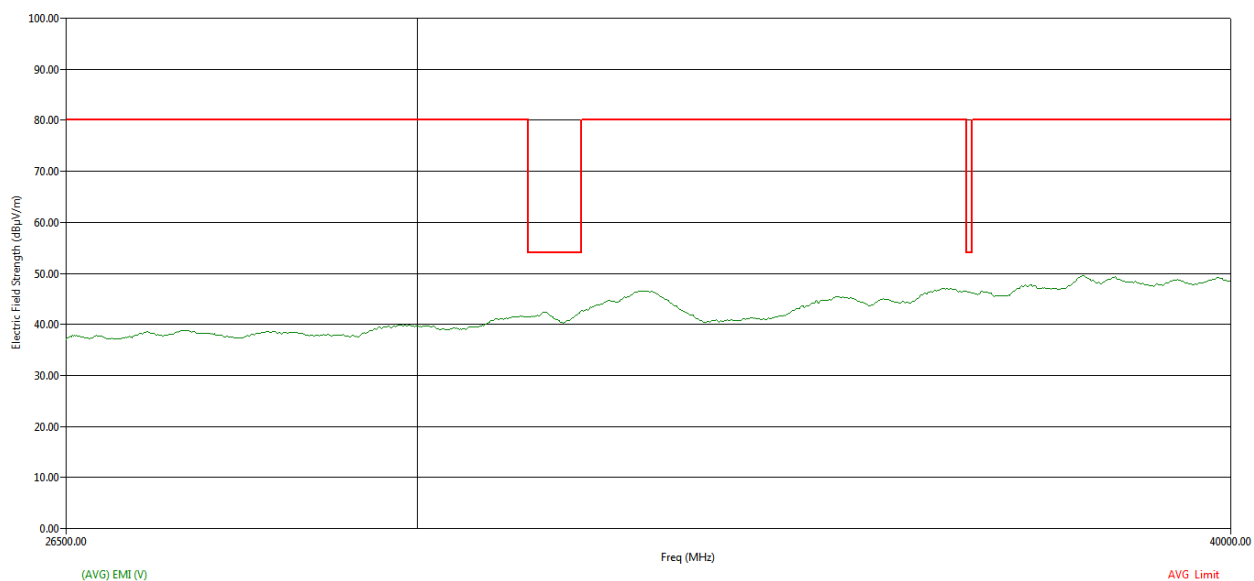


**Figure 62: 10 MHz, 17 dBi, Mid Channel: Average RE Graph – 26.5 GHz to 40 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 32505.10   | 33674.37         | V   | 137.10             | 100.00      | 41.71              | 10.65      | 39.43           | 50.81       | 40.98              | 80.00          | -39.02            |
| 38393.90   | 37958.01         | H   | 311.20             | 100.00      | 42.80              | 12.32      | 40.75           | 46.50       | 49.37              | 80.00          | -30.63            |

**Table 47: 10 MHz, 17 dBi, Mid Channel: Average Table from 26.5 GHz to 40 GHz**

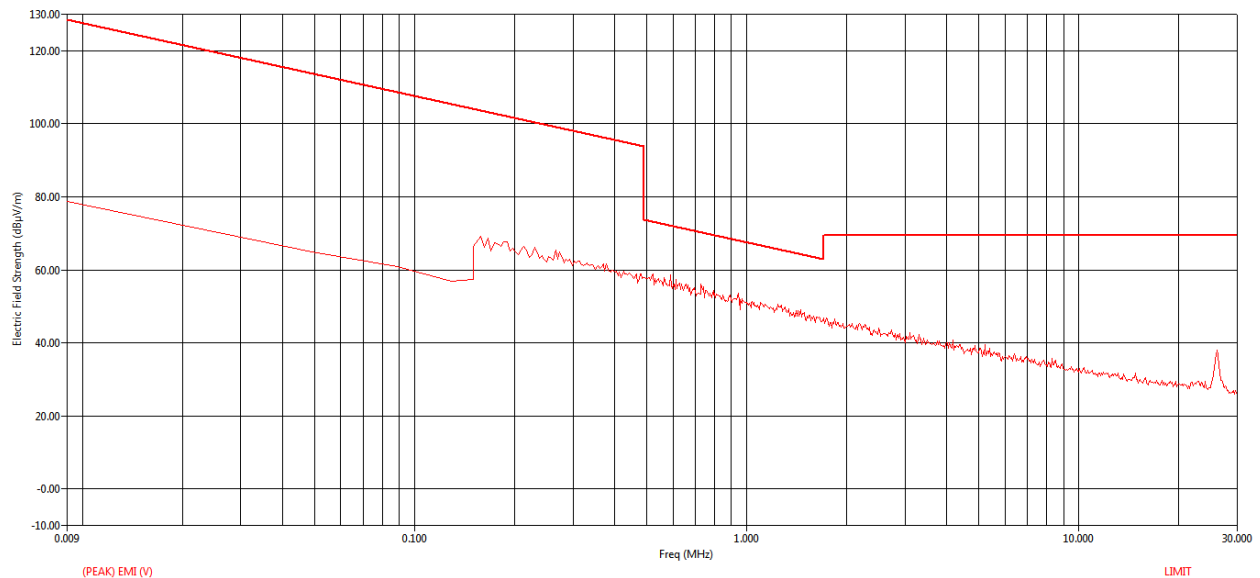


**Figure 63: 10 MHz, 17 dBi, High Channel: Peak RE Graph – 9 kHz to 30 MHz – Parallel**

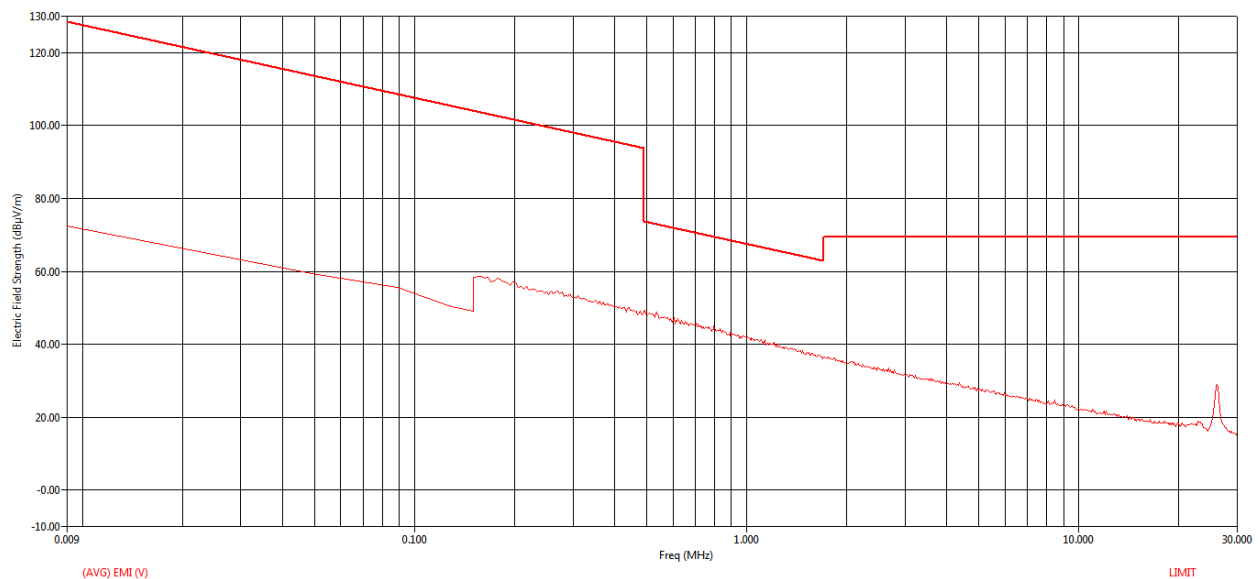


**Figure 64: 10 MHz, 17 dBi, High Channel: Average RE Graph – 9 kHz to 30 MHz – Parallel**

| Freq (MHz) | Freq (Max) (MHz) | Pol | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|-------------------|------------|-----------------|-------------------|----------------|------------------|
| 0.16       | 0.15             | V   | 47.72             | 0.04       | 18.30           | 66.06             | 104.05         | -37.99           |
| 26.01      | 26.00            | V   | 20.12             | 1.10       | 16.04           | 37.26             | 69.54          | -32.28           |

**Table 48: 10 MHz, 17 dBi, High Channel: Quasi Peak Table from 9 kHz to 30 MHz – Parallel**

| Freq (MHz) | Freq (Max) (MHz) | Pol | Ttbt Agl (deg) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|----------------|--------------------|------------|-----------------|--------------------|----------------|-------------------|
| 0.16       | 0.15             | V   | -2.50          | 40.21              | 0.04       | 18.30           | 58.55              | 104.05         | -45.50            |
| 26.01      | 26.00            | V   | 148.00         | 13.28              | 1.10       | 16.04           | 30.41              | 69.54          | -39.13            |

**Table 49: 10 MHz, 17 dBi, High Channel: Average Table from 9 kHz to 30 MHz – Parallel**

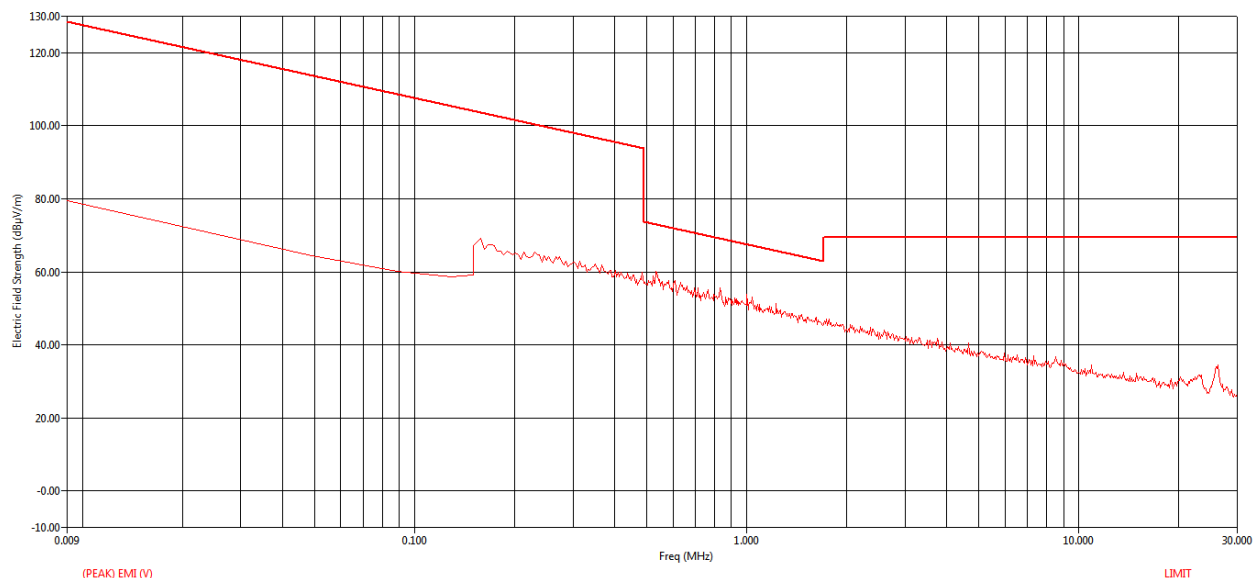


**Figure 65: 10 MHz, 17 dBi, High Channel: Peak RE Graph – 9 kHz to 30 MHz – Perpendicular**

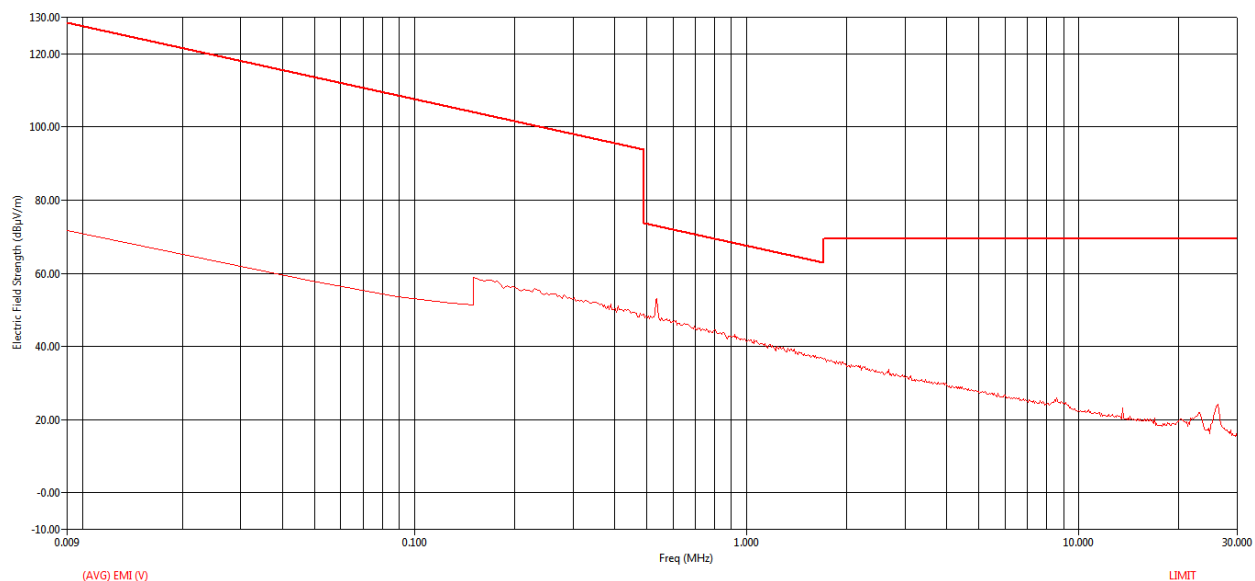


**Figure 66: 10 MHz, 17 dBi, High Channel: Average RE Graph – 9 kHz to 30 MHz – Perpendicular**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | (QP) Trace (dB $\mu$ V) | Cable (dB) | Transducer (dB) | (QP) EMI (dB $\mu$ V/m) | Limit (dB $\mu$ V/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------------------|------------|-----------------|-------------------------|----------------------|------------------|
| 0.16       | 0.16             | V   | 44.10              | 47.51                   | 0.04       | 18.29           | 65.84                   | 103.62               | -37.78           |
| 26.22      | 26.21            | V   | 139.40             | 15.55                   | 1.11       | 16.02           | 32.68                   | 69.54                | -36.86           |

**Table 50: 10 MHz, 17 dBi, High Channel: Quasi Peak Table from 9 kHz to 30 MHz – Perpendicular**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | (AVG) Trace (dB $\mu$ V) | Cable (dB) | Transducer (dB) | (AVG) EMI (dB $\mu$ V/m) | Limit (dB $\mu$ V/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|--------------------------|------------|-----------------|--------------------------|----------------------|-------------------|
| 0.16       | 0.16             | V   | 44.10              | 40.05                    | 0.04       | 18.29           | 58.38                    | 103.62               | -45.24            |
| 26.22      | 26.21            | V   | 139.40             | 8.87                     | 1.11       | 16.02           | 25.99                    | 69.54                | -43.55            |

**Table 51: 10 MHz, 17 dBi, High Channel: Average Table from 9 kHz to 30 MHz – Perpendicular**

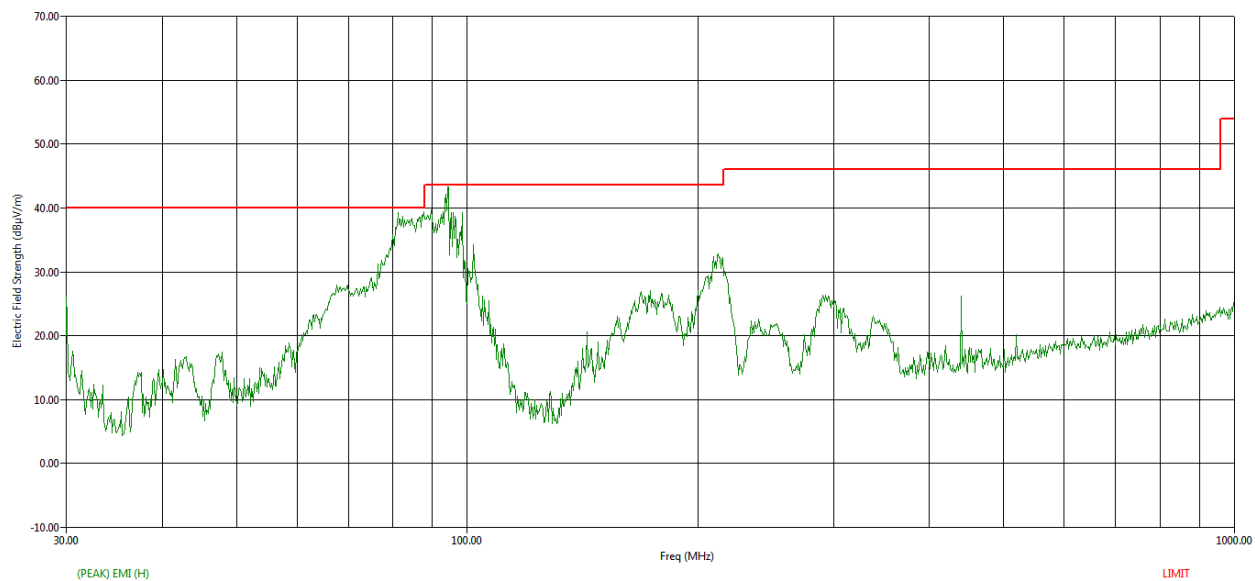


**Figure 67: 10 MHz, 17 dBi, High Channel: Peak RE Graph – 30 MHz to 1 GHz – Horizontal**

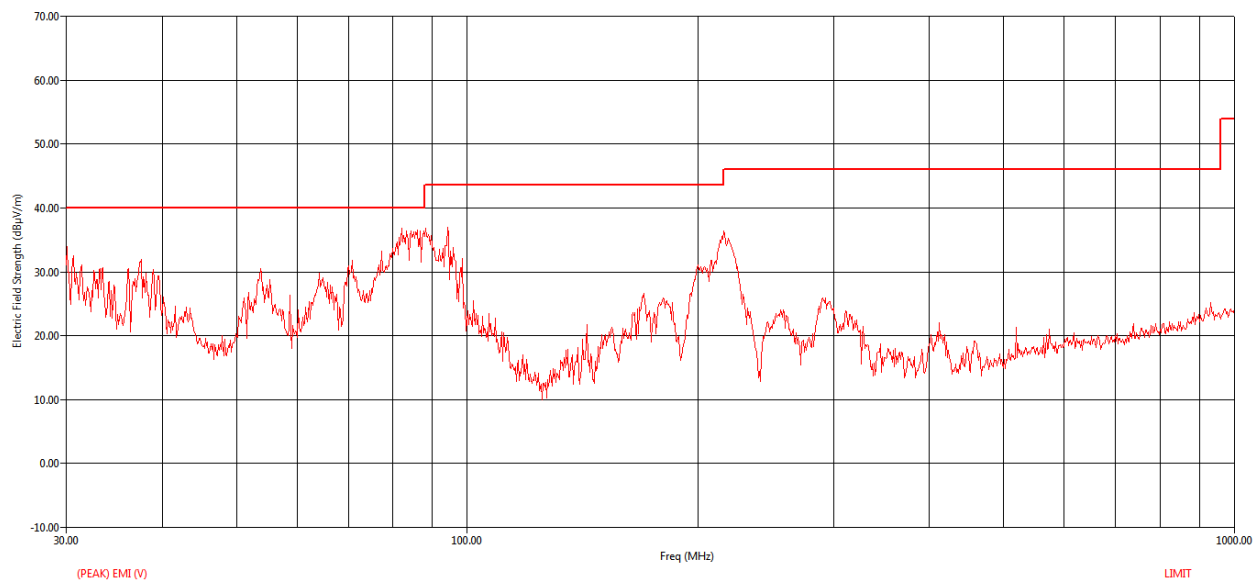


**Figure 68: 10 MHz, 17 dBi, High Channel: Peak RE Graph – 30 MHz to 1 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (QP) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (QP) EMI (dBμV/m) | Limit (dBμV/m) | (QP) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|-------------------|------------|-----------------|-------------------|-------------------|----------------|------------------|
| 81.28      | 81.19            | H   | 266.80             | 228.00      | 71.54             | 1.92       | 8.14            | 43.91             | 37.68             | 40.00          | -2.32            |
| 88.20      | 88.10            | V   | 319.40             | 142.00      | 72.37             | 2.00       | 8.68            | 43.92             | 39.13             | 43.52          | -4.39            |
| 89.76      | 89.65            | H   | 70.30              | 199.00      | 71.93             | 2.02       | 8.79            | 43.92             | 38.82             | 43.52          | -4.70            |
| 94.44      | 94.37            | H   | 162.10             | 334.00      | 60.68             | 2.07       | 8.46            | 43.93             | 27.28             | 43.52          | -16.24           |

**Table 52: 10 MHz, 17 dBi, High Channel: Quasi Peak Table from 30 MHz to 1 GHz**

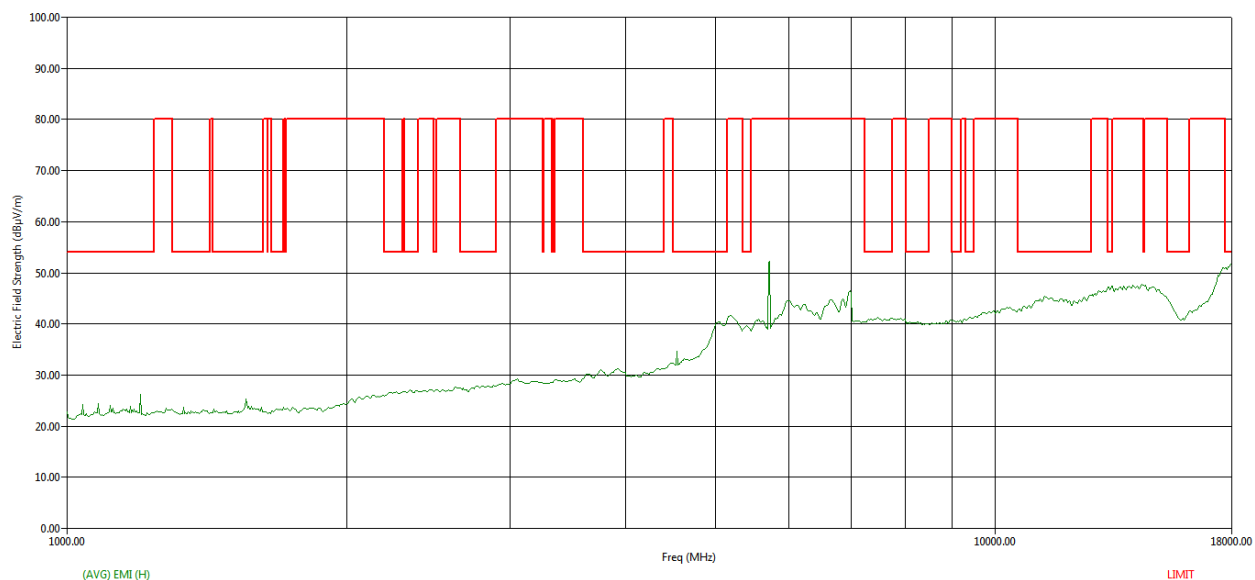


**Figure 69: 10 MHz, 17 dBi, High Channel: Average RE Graph – 1 GHz to 18 GHz – Horizontal**

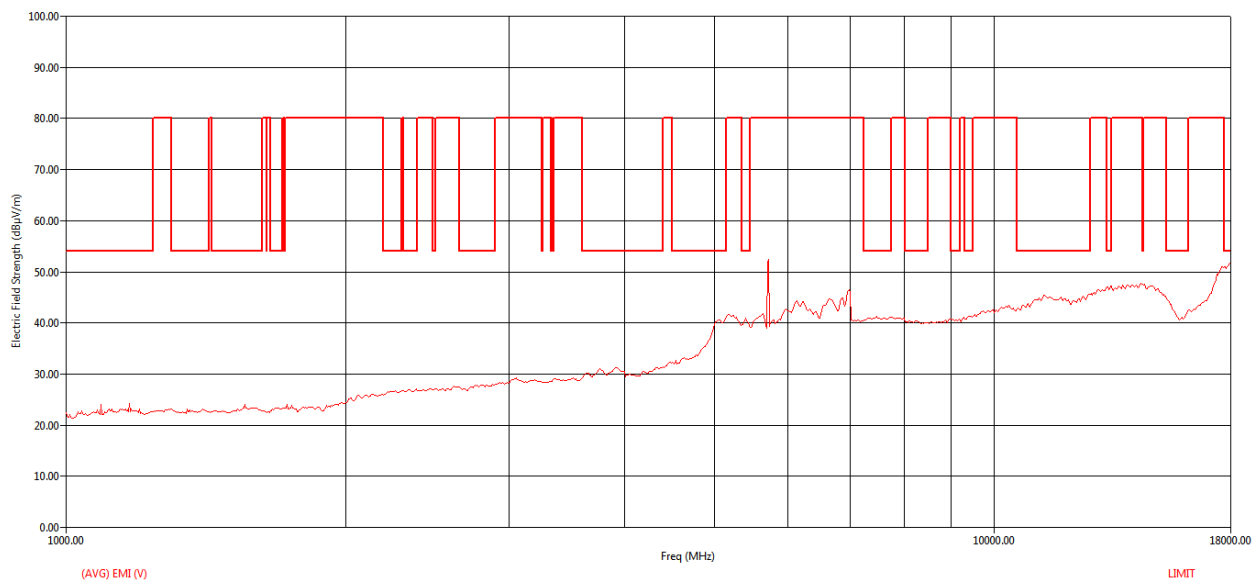


**Figure 70: 10 MHz, 17 dBi, High Channel: Average RE Graph – 1 GHz to 18 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 1199.70    | 1199.70          | H   | 47.80              | 118.00      | 30.63              | 1.94       | 24.53           | 32.45             | 24.66              | 54.00          | -29.34            |
| 4542.43    | 4542.43          | H   | 12.90              | 111.00      | 26.28              | 3.51       | 30.82           | 29.16             | 31.45              | 54.00          | -22.55            |
| 5183.41    | 5183.41          | V   | 6.80               | 122.00      | 36.44              | 3.80       | 32.06           | 28.32             | 43.99              | 80.00          | -36.01            |
| 6968.00    | 6968.00          | V   | 1.40               | 100.00      | 34.43              | 4.20       | 35.21           | 28.30             | 45.54              | 80.00          | -34.46            |

**Table 53: 10 MHz, 17 dBi, High Channel: Average Table from 1 GHz to 18 GHz**

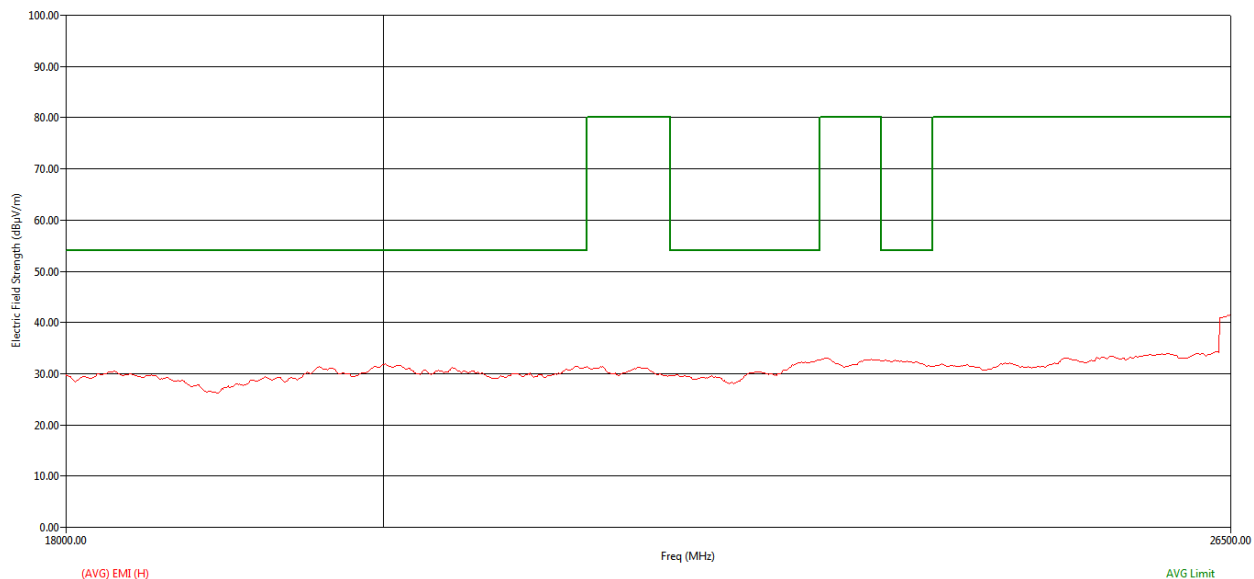


**Figure 71: 10 MHz, 17 dBi, High Channel: Average RE Graph – 18 GHz to 26.5 GHz – Horizontal**

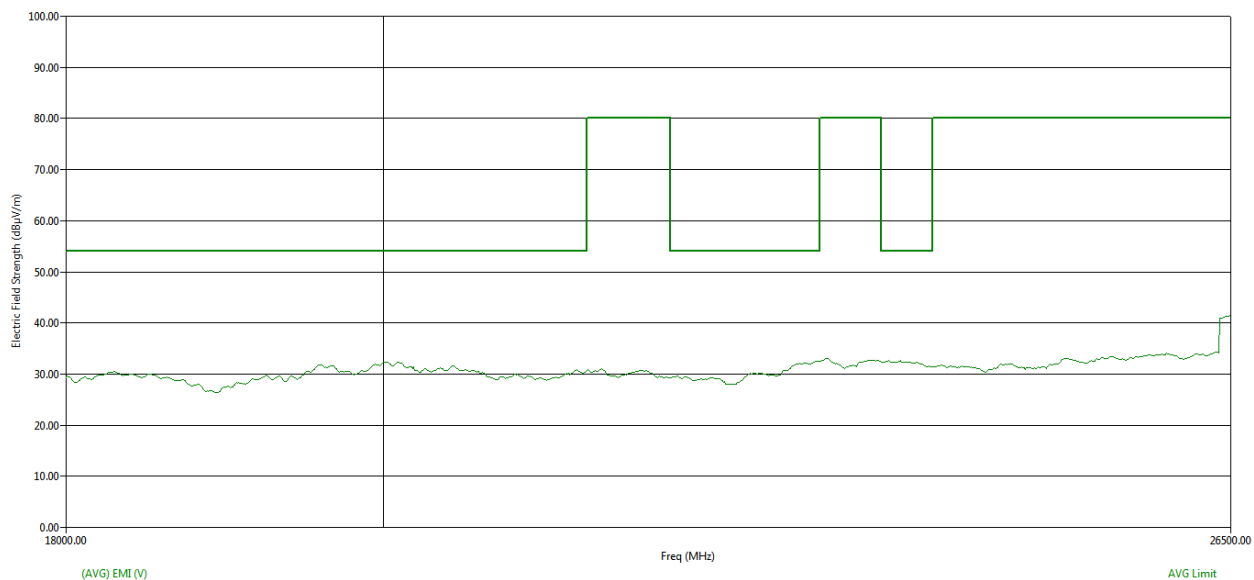


**Figure 72: 10 MHz, 17 dBi, High Channel: Average RE Graph – 18 GHz to 26.5 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT TtBl Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamplifier (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------------|--------------------|----------------|-------------------|
| 19566.40   | 19325.25         | H   | 353.90             | 100.00      | 32.22              | 6.68       | 36.55           | 45.89             | 29.56              | 53.98          | -24.42            |
| 23197.80   | 22986.28         | V   | 359.10             | 100.00      | 33.24              | 8.09       | 37.64           | 46.93             | 32.04              | 80.00          | -47.96            |

**Table 54: 10 MHz, 17 dBi, High Channel: Average Table from 18 GHz to 26.5 GHz**

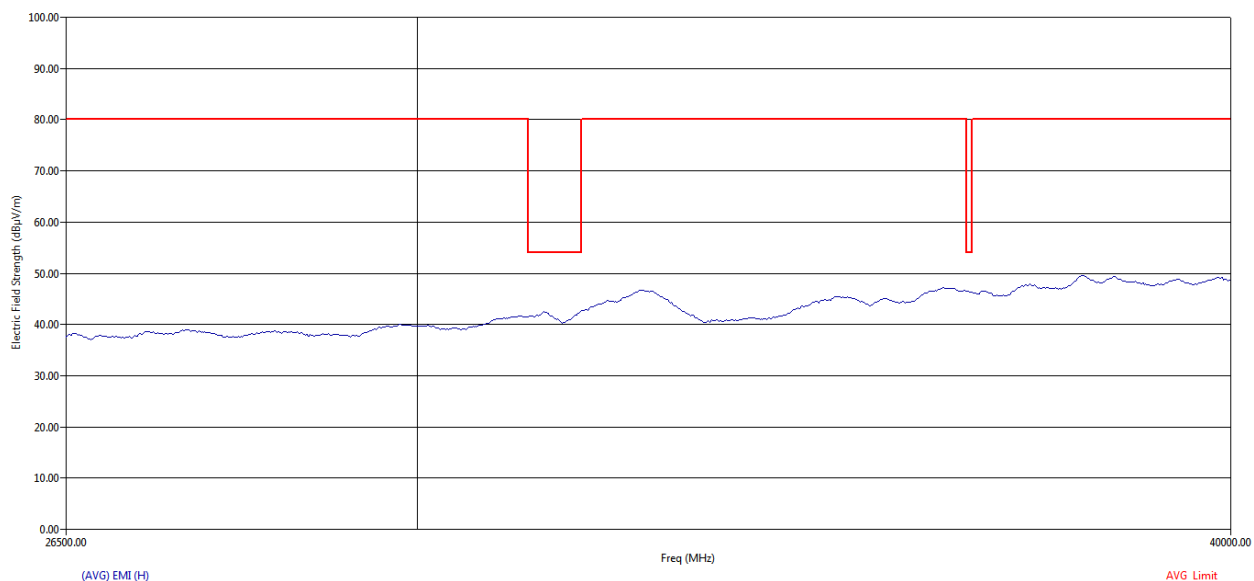


**Figure 73: 10 MHz, 17 dBi, High Channel: Average RE Graph – 26.5 GHz to 40 GHz – Horizontal**

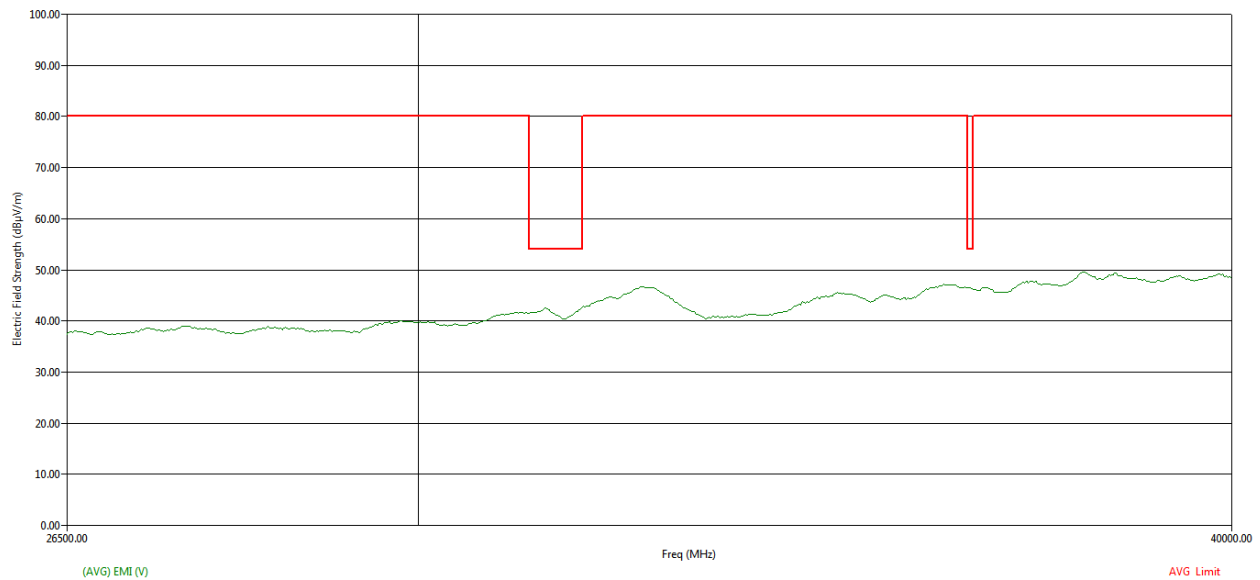


**Figure 74: 10 MHz, 17 dBi, High Channel: Average RE Graph – 26.5 GHz to 40 GHz – Vertical**

| Freq (MHz) | Freq (Max) (MHz) | Pol | EUT Ttbt Agl (deg) | Twr Ht (cm) | (AVG) Trace (dBμV) | Cable (dB) | Transducer (dB) | Preamp (dB) | (AVG) EMI (dBμV/m) | Limit (dBμV/m) | (AVG) Margin (dB) |
|------------|------------------|-----|--------------------|-------------|--------------------|------------|-----------------|-------------|--------------------|----------------|-------------------|
| 32515.60   | 32297.31         | V   | 306.50             | 100.00      | 41.28              | 10.42      | 38.89           | 45.42       | 45.16              | 80.00          | -34.84            |
| 37962.70   | 37951.29         | H   | 180.00             | 100.00      | 42.84              | 12.32      | 40.74           | 46.51       | 49.39              | 80.00          | -30.61            |

**Table 55: 10 MHz, 17 dBi, High Channel: Average Table from 26.5 GHz to 40 GHz**

### 5.3.1.6 RESULT

Radiated emissions from the EUT are within the specified limits

## 5.3.2 CONDUCTED EMISSION TEST

### 5.3.2.1 TEST SPECIFICATION

|                                     |                           |          |
|-------------------------------------|---------------------------|----------|
| Test Standard                       | 47 CFR, Part 15 Feb 2016  |          |
| Test Procedure                      | ANSI C63.4-2014           |          |
| Class / Group                       | Class 'B'                 |          |
| Type of Cable (Shielded/Unshielded) | Unshielded Cable          |          |
| Frequency Range                     | 150 kHz - 30 MHz          |          |
| Resolution Bandwidth                | 9 kHz                     |          |
| Video Bandwidth                     | 30 kHz                    |          |
| Step size                           | 4 kHz                     |          |
| Pre Scan Measurement Time           | 20 ms                     |          |
| Final Measurement Time              | 1 second                  |          |
| Attenuation                         | 10 dB                     |          |
| Detector                            | Quasi Peak and Average    |          |
| Input Voltage                       | 120 V AC                  | 230 V AC |
| Input Frequency                     | 60 Hz                     | 50 Hz    |
| Temperature                         | 22.0 °C                   |          |
| Humidity                            | 53.0 %                    |          |
| Tested By                           | Dikshit Raviteja          |          |
| Test Date                           | 06 <sup>th</sup> May 2016 |          |

### 5.3.2.2 LIMITS

Maximum permissible voltage levels of Conducted Emission as per 47 CFR, Part 15 Feb 2016 Class 'B' on Power lines are as shown below:

| Frequency (MHz) | Voltage limits Class 'A' (dBμV) |          |
|-----------------|---------------------------------|----------|
|                 | Quasi-peak                      | Average  |
| 0.15 to 0.50    | 66 to 56                        | 56 to 46 |
| 0.5 to 5        | 56                              | 46       |
| 5 to 30         | 60                              | 50       |

### 5.3.2.3 TEST SETUP

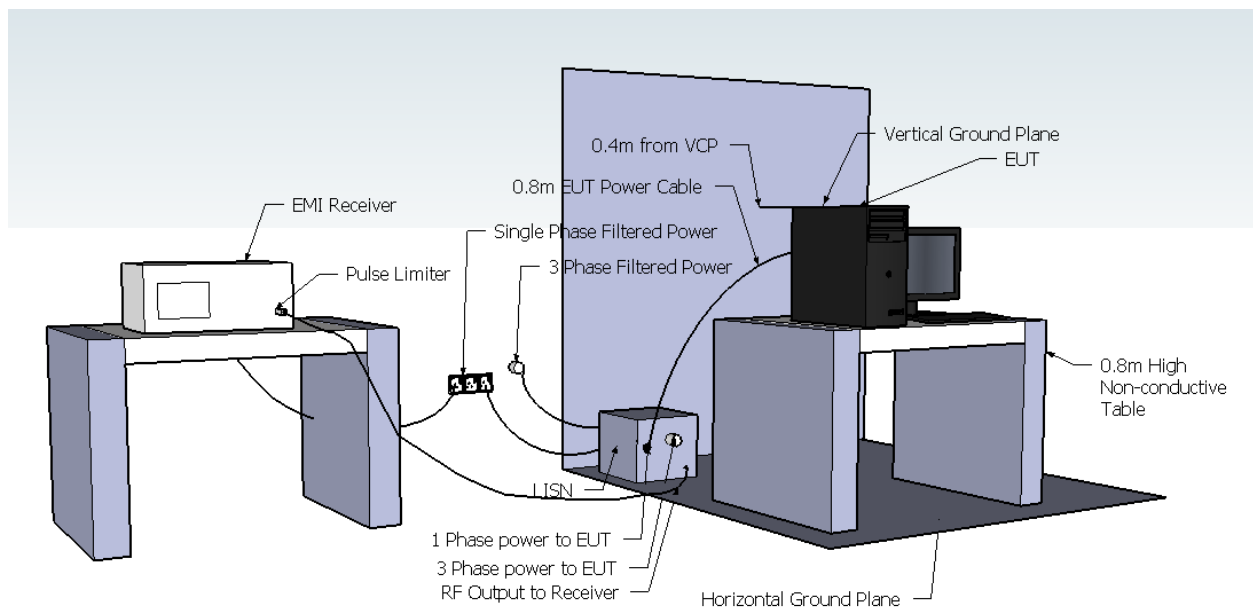


**Figure 75: Sample Conducted Emission test setup**

### 5.3.2.4 TEST PROCEDURE

The test procedure is in accordance with ANSI C63.4-2014

The EUT was tested at the conducted emission test site with a horizontal ground reference plane and a vertical ground reference plane bonded together. The EUT was placed on non-conductive table of 0.8 m height as per standard. The power supply to the EUT and auxiliary equipment was feed through LISN.

#### **LISN (Voltage Method):**

The conducted emission (disturbance) was measured through the 50  $\Omega$  RF port of the LISN using an EMI receiver. Pre-scan (Peak and Average) was carried out in max hold mode and conducted emission from the EUT coupled through the Power (mains) port was plotted in the graph. The dominant peaks at various frequencies, closer to and above the limit line were identified using peak search option and listed. Quasi peak and Average measurement was carried out for the listed frequencies and compared with the limit specified in the standard.

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### 5.3.2.5 MEASUREMENT DATA

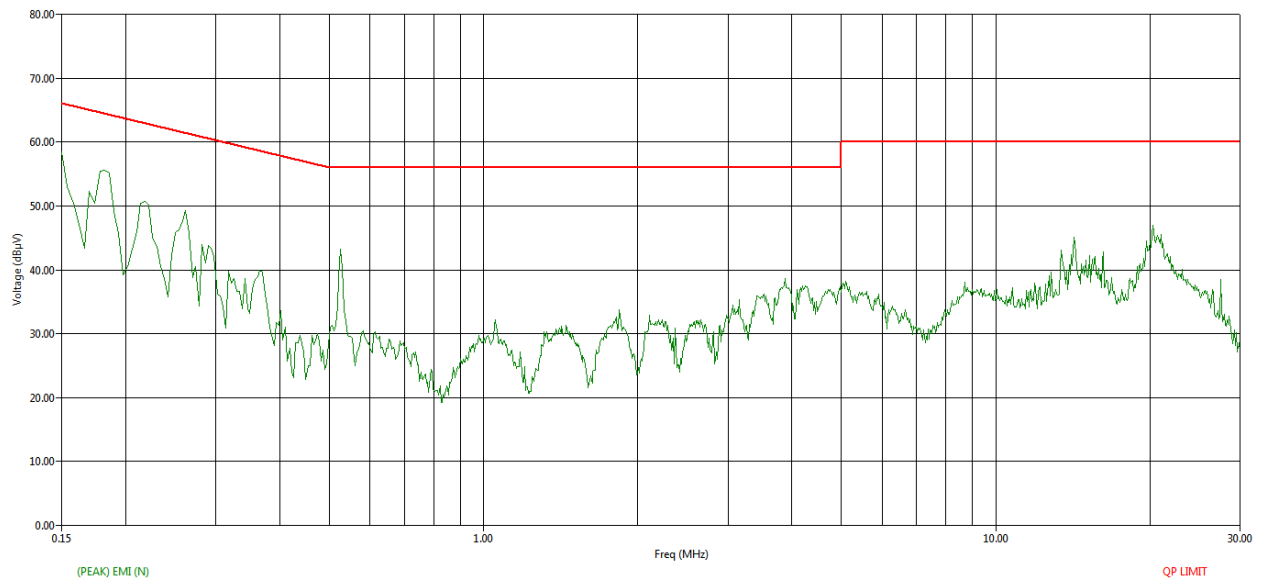


**Figure 76: 40 MHz, 230 V AC / 50 Hz. Low channel: Peak CE Graph-150 kHz to 30 MHz - Neutral**

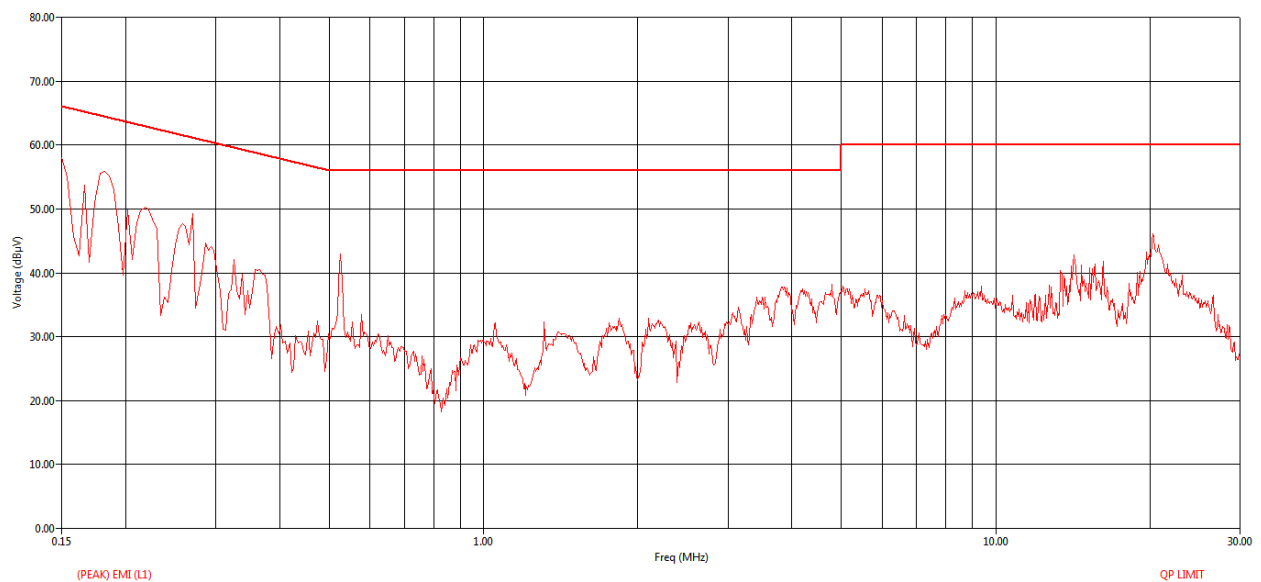


**Figure 77: 40 MHz, 230 V AC / 50 Hz. Low channel: Peak CE Graph-150 kHz to 30 MHz – Line**

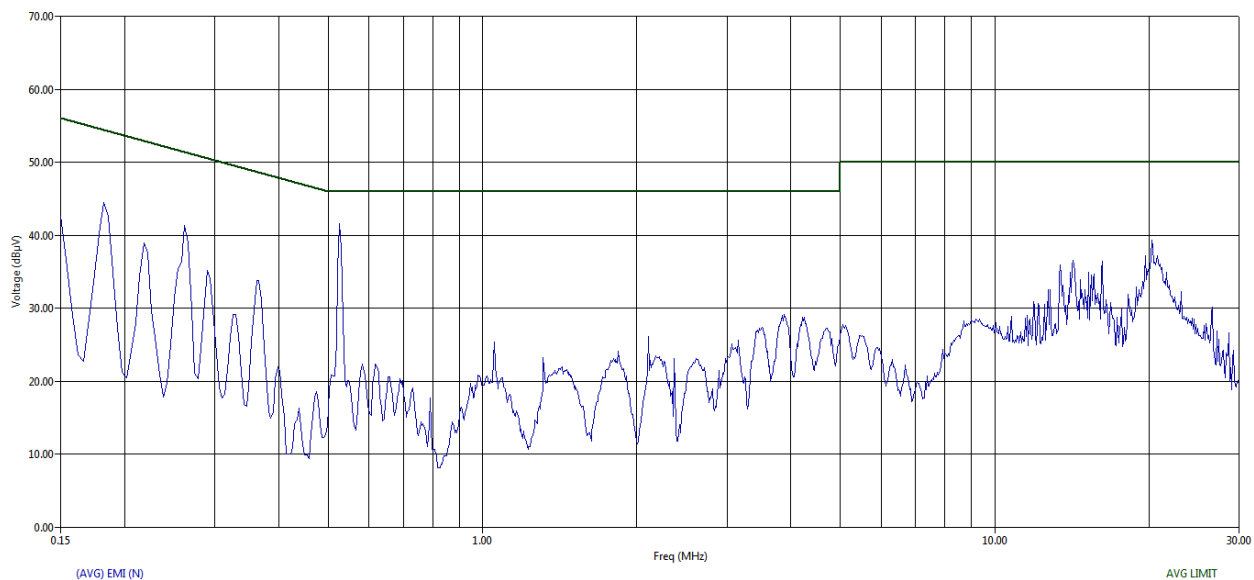


**Figure 78: 40 MHz, 230 V AC / 50 Hz. Low channel: Average CE Graph-150 kHz to 30 MHz – Neutral**

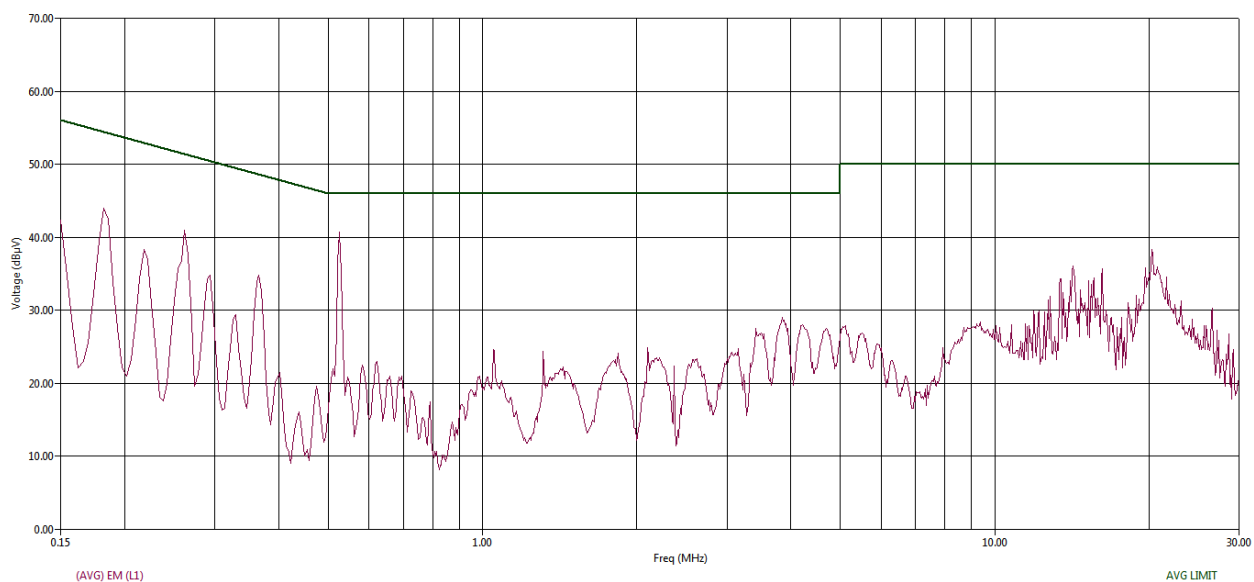


**Figure 79: 40 MHz, 230 V AC / 50 Hz. Low channel: Average CE Graph-150 kHz to 30 MHz - Line**

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|------------------|
| 0.150      | 0.151            | N    | 39.962            | 9.820                    | 2.167             | 0.000             | 51.948          | 65.937            | -13.989          |
| 0.150      | 0.156            | L1   | 32.837            | 9.824                    | 0.000             | 2.146             | 44.807          | 65.677            | -20.870          |
| 0.166      | 0.158            | L1   | 31.689            | 9.826                    | 0.000             | 2.127             | 43.642          | 65.570            | -21.928          |
| 0.182      | 0.181            | N    | 41.261            | 9.845                    | 1.906             | 0.000             | 53.012          | 64.451            | -11.438          |
| 0.182      | 0.180            | L1   | 40.976            | 9.845                    | 0.000             | 1.932             | 52.753          | 64.474            | -11.721          |
| 0.218      | 0.215            | N    | 34.718            | 9.861                    | 1.651             | 0.000             | 46.230          | 63.003            | -16.773          |
| 0.218      | 0.216            | L1   | 34.963            | 9.861                    | 0.000             | 1.669             | 46.493          | 62.988            | -16.495          |
| 0.262      | 0.262            | N    | 33.739            | 9.863                    | 1.365             | 0.000             | 44.967          | 61.376            | -16.410          |
| 0.270      | 0.262            | L1   | 33.433            | 9.863                    | 0.000             | 1.384             | 44.680          | 61.382            | -16.702          |
| 0.282      | 0.290            | N    | 30.287            | 9.864                    | 1.216             | 0.000             | 41.366          | 60.526            | -19.159          |
| 0.286      | 0.288            | L1   | 29.411            | 9.864                    | 0.000             | 1.243             | 40.517          | 60.584            | -20.066          |
| 0.326      | 0.321            | L1   | 22.647            | 9.865                    | 0.000             | 1.083             | 33.595          | 59.681            | -26.086          |
| 0.526      | 0.523            | N    | 32.242            | 9.869                    | 0.414             | 0.000             | 42.525          | 56.000            | -13.475          |
| 0.526      | 0.523            | L1   | 31.671            | 9.869                    | 0.000             | 0.424             | 41.964          | 56.000            | -14.036          |
| 13.422     | 13.421           | N    | 19.443            | 9.970                    | 0.636             | 0.000             | 30.049          | 60.000            | -29.951          |
| 14.214     | 14.215           | N    | 20.887            | 9.965                    | 0.690             | 0.000             | 31.542          | 60.000            | -28.458          |
| 14.214     | 14.215           | L1   | 21.882            | 9.965                    | 0.000             | 0.741             | 32.588          | 60.000            | -27.412          |
| 16.230     | 16.228           | N    | 26.160            | 9.930                    | 0.688             | 0.000             | 36.778          | 60.000            | -23.222          |
| 20.258     | 20.259           | L1   | 32.447            | 9.869                    | 0.000             | 0.413             | 42.730          | 60.000            | -17.270          |
| 20.262     | 20.262           | N    | 32.344            | 9.869                    | 0.560             | 0.000             | 42.773          | 60.000            | -17.227          |

**Table 56: 40 MHz, 230 V AC / 50 Hz. Low channel: Quasi Peak Table for CE from 150 kHz to 30 MHz**

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| 0.150      | 0.151            | N    | 28.851             | 9.820                    | 2.167             | 0.000             | 40.837           | 55.937             | -15.100           |
| 0.150      | 0.156            | L1   | 18.849             | 9.824                    | 0.000             | 2.146             | 30.819           | 55.677             | -24.858           |
| 0.166      | 0.158            | L1   | 15.104             | 9.826                    | 0.000             | 2.127             | 27.056           | 55.570             | -28.513           |
| 0.182      | 0.181            | N    | 32.491             | 9.845                    | 1.906             | 0.000             | 44.242           | 54.451             | -10.209           |
| 0.182      | 0.180            | L1   | 31.440             | 9.845                    | 0.000             | 1.932             | 43.218           | 54.474             | -11.256           |
| 0.218      | 0.215            | N    | 25.414             | 9.861                    | 1.651             | 0.000             | 36.926           | 53.003             | -16.077           |
| 0.218      | 0.216            | L1   | 25.403             | 9.861                    | 0.000             | 1.669             | 36.932           | 52.988             | -16.056           |
| 0.262      | 0.262            | N    | 30.602             | 9.863                    | 1.365             | 0.000             | 41.830           | 51.376             | -9.546            |
| 0.270      | 0.262            | L1   | 29.919             | 9.863                    | 0.000             | 1.384             | 41.166           | 51.382             | -10.216           |
| 0.282      | 0.290            | N    | 24.313             | 9.864                    | 1.216             | 0.000             | 35.393           | 50.526             | -15.133           |
| 0.286      | 0.288            | L1   | 22.369             | 9.864                    | 0.000             | 1.243             | 33.476           | 50.584             | -17.108           |
| 0.326      | 0.321            | L1   | 13.497             | 9.865                    | 0.000             | 1.083             | 24.445           | 49.681             | -25.236           |
| 0.526      | 0.523            | N    | 31.147             | 9.869                    | 0.414             | 0.000             | 41.431           | 46.000             | -4.569            |
| 0.526      | 0.523            | L1   | 30.500             | 9.869                    | 0.000             | 0.424             | 40.793           | 46.000             | -5.207            |
| 13.422     | 13.421           | N    | 13.418             | 9.970                    | 0.636             | 0.000             | 24.024           | 50.000             | -25.976           |
| 14.214     | 14.215           | N    | 15.490             | 9.965                    | 0.690             | 0.000             | 26.144           | 50.000             | -23.856           |
| 14.214     | 14.215           | L1   | 17.629             | 9.965                    | 0.000             | 0.741             | 28.335           | 50.000             | -21.665           |
| 16.230     | 16.228           | N    | 20.328             | 9.930                    | 0.688             | 0.000             | 30.946           | 50.000             | -19.054           |
| 20.258     | 20.259           | L1   | 27.232             | 9.869                    | 0.000             | 0.413             | 37.514           | 50.000             | -12.486           |
| 20.262     | 20.262           | N    | 27.026             | 9.869                    | 0.560             | 0.000             | 37.455           | 50.000             | -12.545           |

**Table 57: 40 MHz, 230 V AC / 50 Hz. Low channel: Average Table for CE from 150 kHz to 30 MHz**

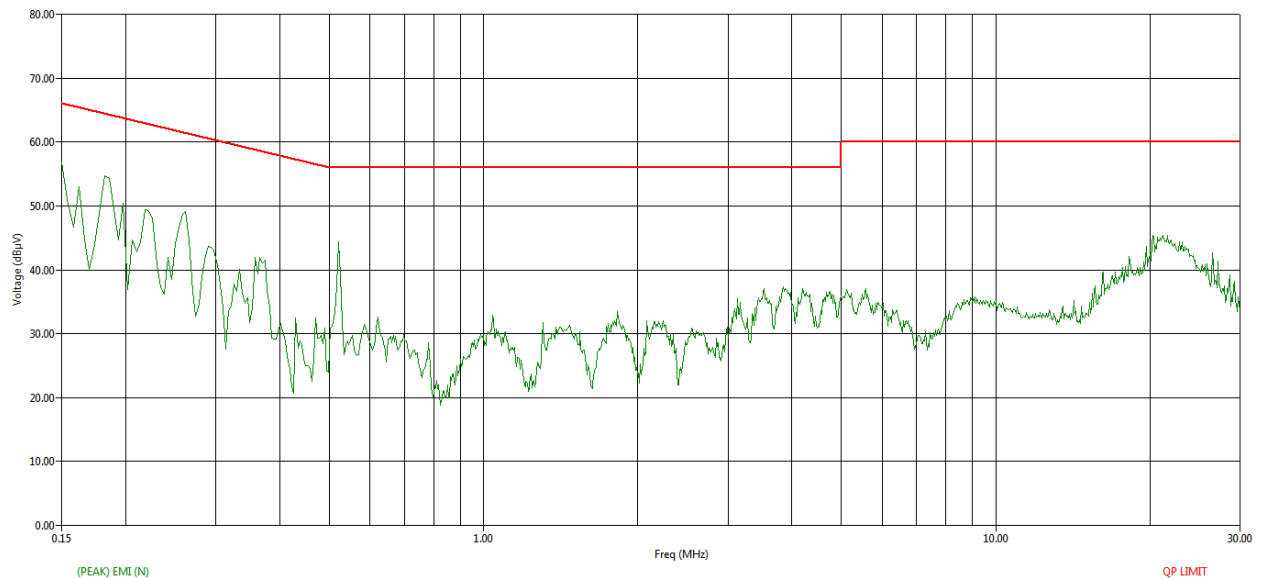


**Figure 80: 40 MHz, 230 V AC / 50 Hz. Mid channel: Peak CE Graph-150 kHz to 30 MHz - Neutral**

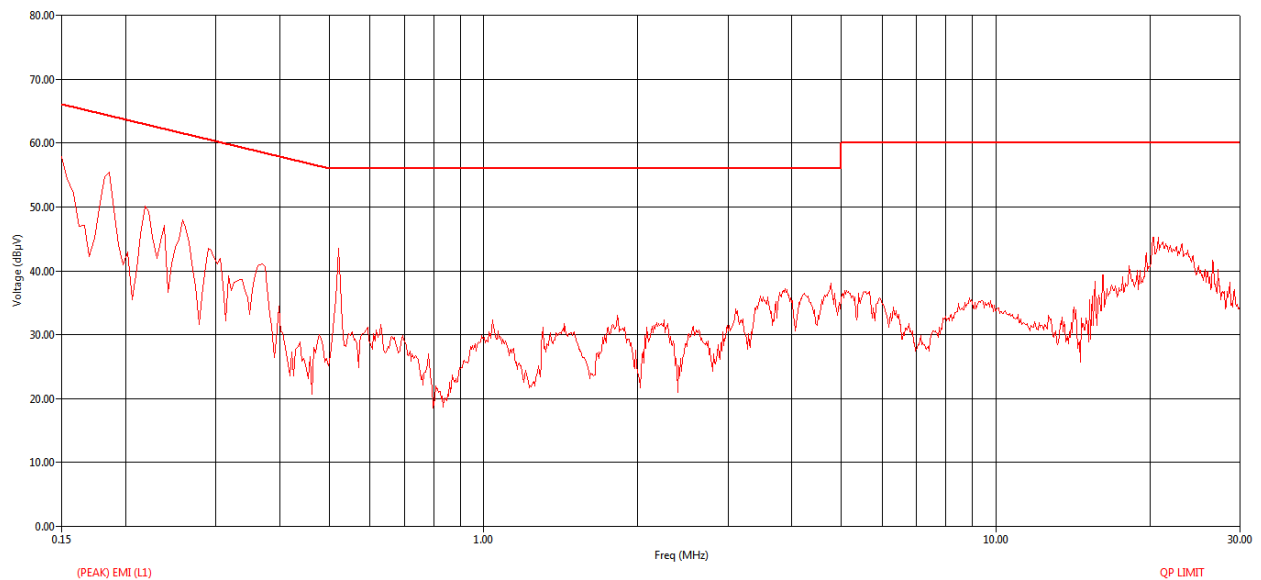


**Figure 81: 40 MHz, 230 V AC / 50 Hz. Mid channel: Peak CE Graph-150 kHz to 30 MHz - Line**

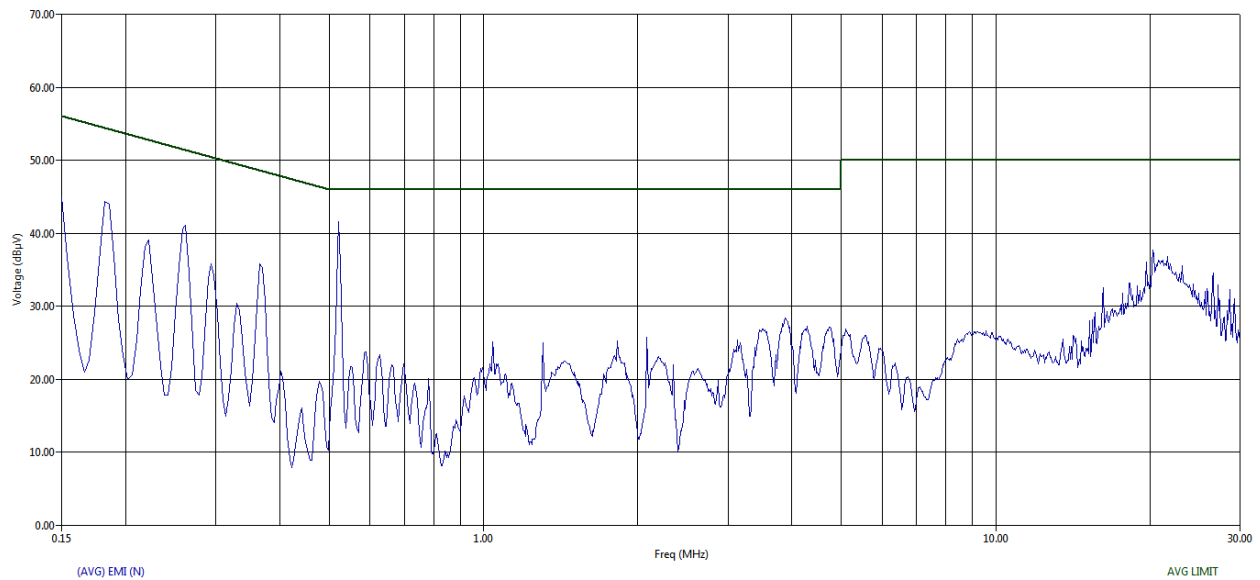


**Figure 82: 40 MHz, 230 V AC / 50 Hz. Mid channel: Average CE Graph-150 kHz to 30 MHz – Neutral**

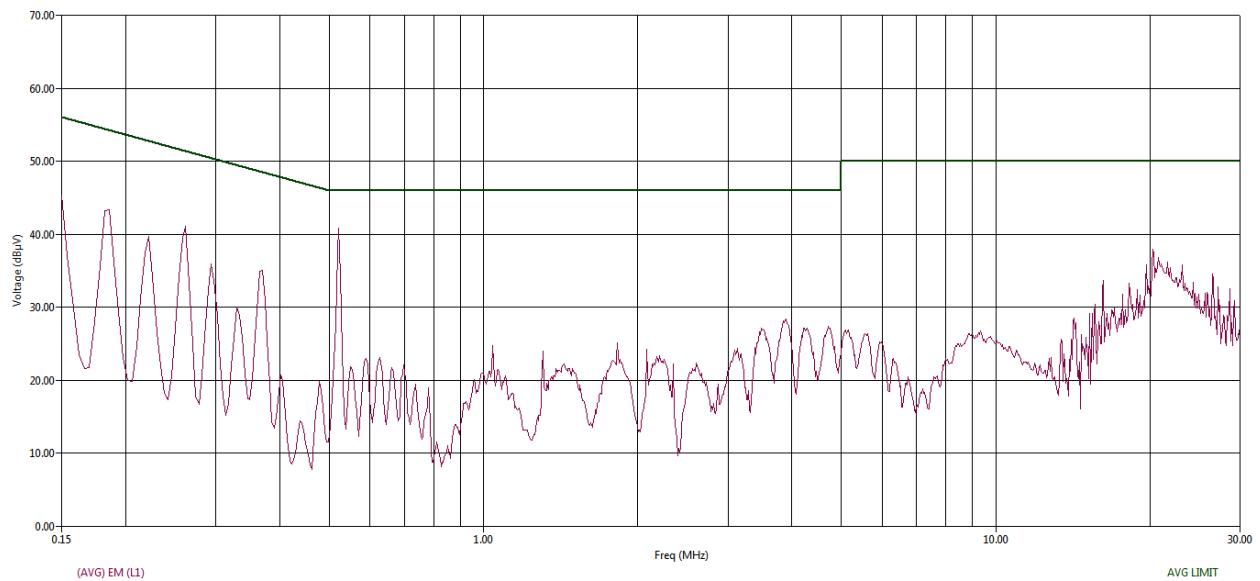


**Figure 83: 40 MHz, 230 V AC / 50 Hz. Mid channel: Average CE Graph-150 kHz to 30 MHz - Line**

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|------------------|
| 0.150      | 0.152            | N    | 40.777            | 9.820                    | 2.161             | 0.000             | 52.758          | 65.902            | -13.144          |
| 0.150      | 0.154            | L1   | 36.868            | 9.822                    | 0.000             | 2.164             | 48.854          | 65.778            | -16.924          |
| 0.166      | 0.157            | L1   | 31.725            | 9.825                    | 0.000             | 2.132             | 43.682          | 65.598            | -21.916          |
| 0.182      | 0.184            | N    | 41.159            | 9.848                    | 1.877             | 0.000             | 52.884          | 64.290            | -11.406          |
| 0.182      | 0.183            | L1   | 40.858            | 9.847                    | 0.000             | 1.911             | 52.616          | 64.352            | -11.736          |
| 0.218      | 0.222            | N    | 35.474            | 9.861                    | 1.602             | 0.000             | 46.937          | 62.725            | -15.788          |
| 0.218      | 0.222            | L1   | 35.479            | 9.861                    | 0.000             | 1.627             | 46.967          | 62.750            | -15.783          |
| 0.262      | 0.260            | N    | 35.862            | 9.863                    | 1.375             | 0.000             | 47.100          | 61.435            | -14.335          |
| 0.270      | 0.261            | L1   | 34.817            | 9.863                    | 0.000             | 1.386             | 46.066          | 61.390            | -15.325          |
| 0.282      | 0.282            | N    | 20.328            | 9.864                    | 1.255             | 0.000             | 31.447          | 60.749            | -29.302          |
| 0.286      | 0.295            | L1   | 30.101            | 9.864                    | 0.000             | 1.209             | 41.175          | 60.395            | -19.220          |
| 0.326      | 0.319            | L1   | 17.529            | 9.865                    | 0.000             | 1.093             | 28.487          | 59.740            | -31.252          |
| 0.526      | 0.521            | N    | 32.649            | 9.869                    | 0.415             | 0.000             | 42.933          | 56.000            | -13.067          |
| 0.526      | 0.520            | L1   | 31.947            | 9.869                    | 0.000             | 0.424             | 42.241          | 56.000            | -13.759          |
| 13.422     | 13.422           | N    | 19.201            | 9.970                    | 0.636             | 0.000             | 29.806          | 60.000            | -30.194          |
| 14.214     | 14.217           | N    | 20.284            | 9.965                    | 0.690             | 0.000             | 30.939          | 60.000            | -29.061          |
| 14.214     | 14.214           | L1   | 22.278            | 9.965                    | 0.000             | 0.741             | 32.984          | 60.000            | -27.016          |
| 16.230     | 16.230           | N    | 27.000            | 9.930                    | 0.688             | 0.000             | 37.618          | 60.000            | -22.382          |
| 20.258     | 20.259           | L1   | 32.771            | 9.869                    | 0.000             | 0.413             | 43.053          | 60.000            | -16.947          |
| 20.262     | 20.261           | N    | 32.572            | 9.869                    | 0.560             | 0.000             | 43.001          | 60.000            | -16.999          |

**Table 58: 40 MHz, 230 V AC / 50 Hz, Mid channel: Quasi Peak Table for CE from 150 kHz to 30 MHz**

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| 0.150      | 0.152            | N    | 30.558             | 9.820                    | 2.161             | 0.000             | 42.539           | 55.902             | -13.362           |
| 0.150      | 0.154            | L1   | 25.707             | 9.822                    | 0.000             | 2.164             | 37.693           | 55.778             | -18.086           |
| 0.166      | 0.157            | L1   | 18.691             | 9.825                    | 0.000             | 2.132             | 30.648           | 55.598             | -24.949           |
| 0.182      | 0.184            | N    | 33.132             | 9.848                    | 1.877             | 0.000             | 44.858           | 54.290             | -9.432            |
| 0.182      | 0.183            | L1   | 32.044             | 9.847                    | 0.000             | 1.911             | 43.802           | 54.352             | -10.550           |
| 0.218      | 0.222            | N    | 27.553             | 9.861                    | 1.602             | 0.000             | 39.016           | 52.725             | -13.709           |
| 0.218      | 0.222            | L1   | 27.391             | 9.861                    | 0.000             | 1.627             | 38.879           | 52.750             | -13.872           |
| 0.262      | 0.260            | N    | 31.139             | 9.863                    | 1.375             | 0.000             | 42.377           | 51.435             | -9.058            |
| 0.270      | 0.261            | L1   | 30.078             | 9.863                    | 0.000             | 1.386             | 41.326           | 51.390             | -10.064           |
| 0.282      | 0.282            | N    | 9.236              | 9.864                    | 1.255             | 0.000             | 20.355           | 50.749             | -30.394           |
| 0.286      | 0.295            | L1   | 24.644             | 9.864                    | 0.000             | 1.209             | 35.717           | 50.395             | -14.677           |
| 0.326      | 0.319            | L1   | 5.784              | 9.865                    | 0.000             | 1.093             | 16.742           | 49.740             | -32.998           |
| 0.526      | 0.521            | N    | 31.241             | 9.869                    | 0.415             | 0.000             | 41.525           | 46.000             | -4.475            |
| 0.526      | 0.520            | L1   | 30.371             | 9.869                    | 0.000             | 0.424             | 40.665           | 46.000             | -5.335            |
| 13.422     | 13.422           | N    | 13.223             | 9.970                    | 0.636             | 0.000             | 23.829           | 50.000             | -26.171           |
| 14.214     | 14.217           | N    | 14.741             | 9.965                    | 0.690             | 0.000             | 25.396           | 50.000             | -24.604           |
| 14.214     | 14.214           | L1   | 17.730             | 9.965                    | 0.000             | 0.741             | 28.436           | 50.000             | -21.564           |
| 16.230     | 16.230           | N    | 21.814             | 9.930                    | 0.688             | 0.000             | 32.432           | 50.000             | -17.568           |
| 20.258     | 20.259           | L1   | 27.531             | 9.869                    | 0.000             | 0.413             | 37.813           | 50.000             | -12.187           |
| 20.262     | 20.261           | N    | 27.332             | 9.869                    | 0.560             | 0.000             | 37.761           | 50.000             | -12.239           |

**Table 59: 40 MHz, 230 V AC / 50 Hz, Mid channel: Average Table for CE from 150 kHz to 30 MHz**

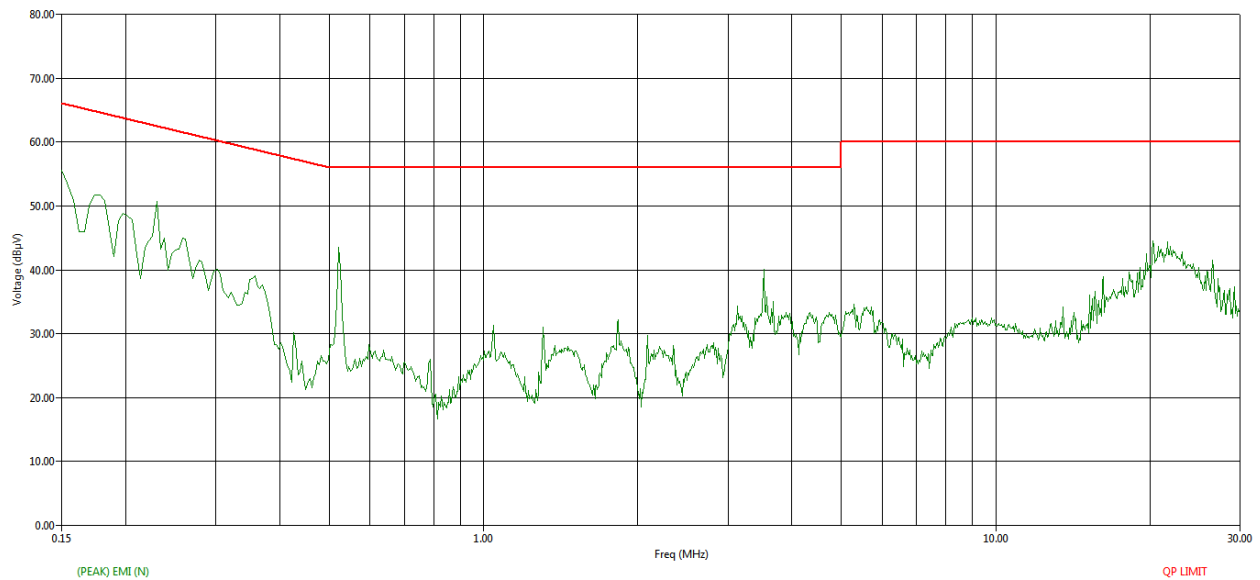


**Figure 84: 40 MHz, 230 V AC / 50 Hz. High channel: Peak CE Graph-150 kHz to 30 MHz – Neutral**

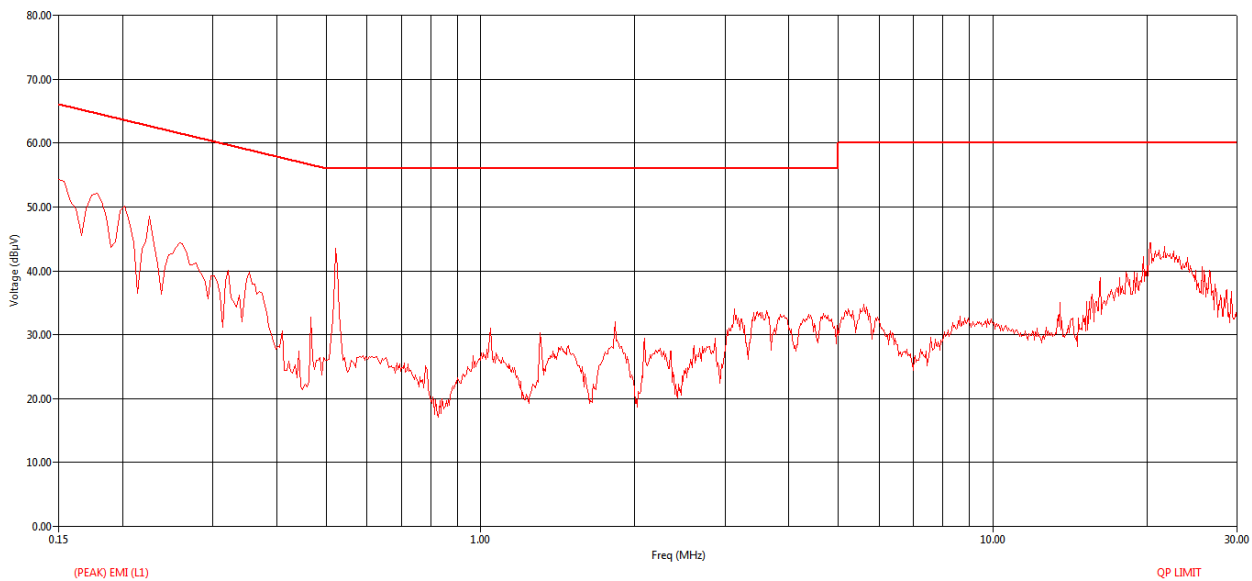


**Figure 85: 40 MHz, 230 V AC / 50 Hz. High channel: Peak CE Graph-150 kHz to 30 MHz – Line**

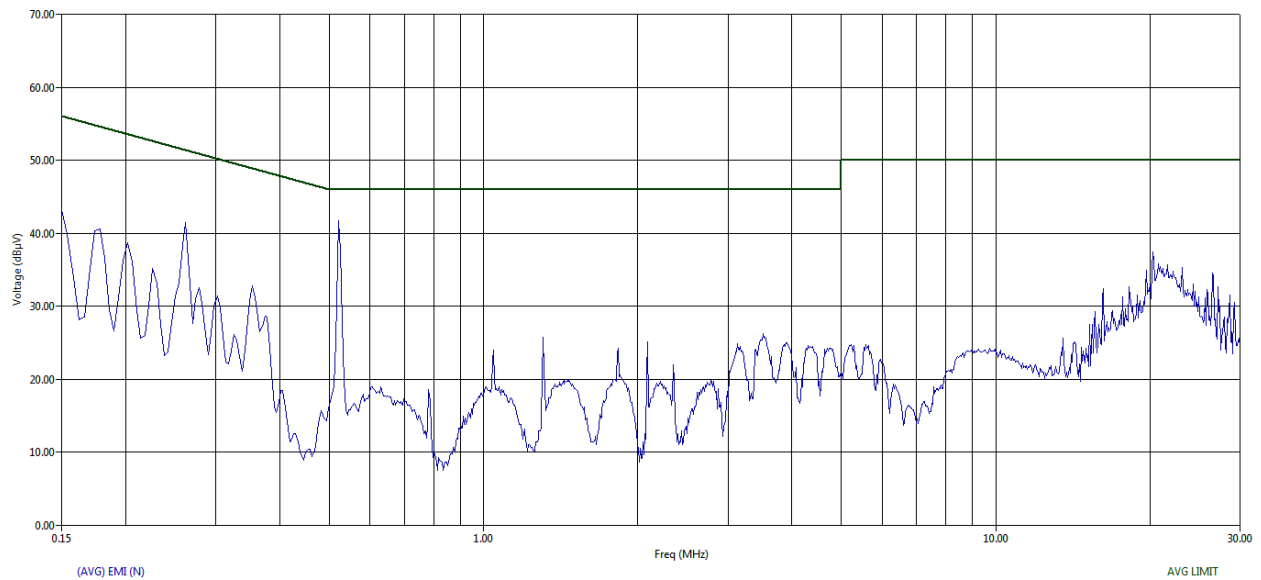


**Figure 86: 40 MHz, 230 V AC / 50 Hz. High channel: Average CE Graph-150 kHz to 30 MHz - Neutral**

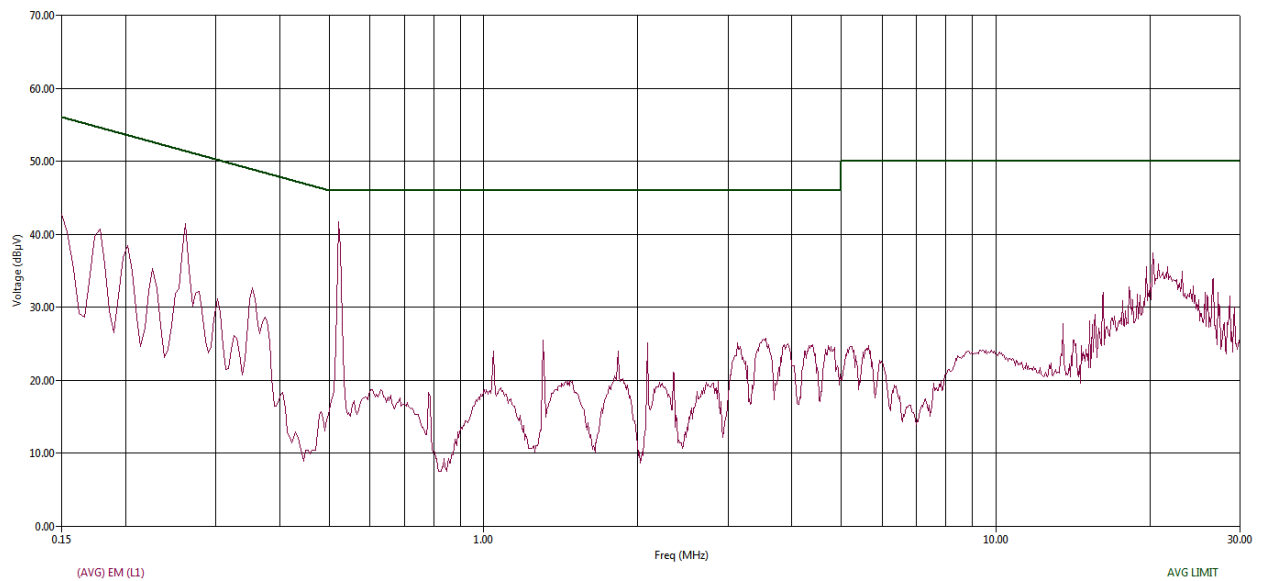


**Figure 87: 40 MHz, 230 V AC / 50 Hz. High channel: Average CE Graph-150 kHz to 30 MHz - Line**

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|------------------|
| 0.150      | 0.152            | N    | 40.435            | 9.820                    | 2.161             | 0.000             | 52.416          | 65.902            | -13.486          |
| 0.150      | 0.158            | L1   | 34.027            | 9.826                    | 0.000             | 2.130             | 45.983          | 65.588            | -19.605          |
| 0.226      | 0.218            | L1   | 27.945            | 9.861                    | 0.000             | 1.655             | 39.460          | 62.907            | -23.447          |
| 0.230      | 0.223            | N    | 30.745            | 9.861                    | 1.597             | 0.000             | 42.203          | 62.694            | -20.491          |
| 0.258      | 0.259            | L1   | 30.057            | 9.863                    | 0.000             | 1.400             | 41.319          | 61.469            | -20.150          |
| 0.322      | 0.314            | L1   | 19.521            | 9.865                    | 0.000             | 1.116             | 30.502          | 59.869            | -29.368          |
| 0.522      | 0.524            | N    | 31.581            | 9.869                    | 0.414             | 0.000             | 41.864          | 56.000            | -14.136          |
| 0.522      | 0.522            | L1   | 31.726            | 9.869                    | 0.000             | 0.424             | 42.019          | 56.000            | -13.981          |
| 3.138      | 3.138            | N    | 20.716            | 9.869                    | 0.305             | 0.000             | 30.890          | 56.000            | -25.110          |
| 3.534      | 3.529            | N    | 20.451            | 9.880                    | 0.306             | 0.000             | 30.637          | 56.000            | -25.363          |
| 5.286      | 5.284            | N    | 19.370            | 9.914                    | 0.314             | 0.000             | 29.598          | 60.000            | -30.402          |
| 5.602      | 5.607            | L1   | 20.733            | 9.918                    | 0.000             | 0.362             | 31.013          | 60.000            | -28.987          |
| 13.558     | 13.561           | L1   | 22.006            | 9.969                    | 0.000             | 0.698             | 32.673          | 60.000            | -27.327          |
| 20.262     | 20.260           | N    | 31.991            | 9.869                    | 0.560             | 0.000             | 42.420          | 60.000            | -17.580          |
| 20.382     | 20.383           | L1   | 30.959            | 9.868                    | 0.000             | 0.415             | 41.242          | 60.000            | -18.758          |
| 26.490     | 26.488           | N    | 26.741            | 9.844                    | 0.765             | 0.000             | 37.349          | 60.000            | -22.651          |
| 28.686     | 28.690           | N    | 24.143            | 9.835                    | 0.826             | 0.000             | 34.804          | 60.000            | -25.196          |
| 28.690     | 28.688           | L1   | 24.337            | 9.835                    | 0.000             | 0.508             | 34.680          | 60.000            | -25.320          |
| 29.238     | 29.238           | N    | 23.294            | 9.833                    | 0.840             | 0.000             | 33.967          | 60.000            | -26.033          |
| 29.238     | 29.237           | L1   | 22.991            | 9.833                    | 0.000             | 0.513             | 33.337          | 60.000            | -26.663          |

**Table 60: 40 MHz, 230 V AC / 50 Hz, High channel: Quasi Peak Table for CE from 150 kHz to 30 MHz**

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| 0.150      | 0.152            | N    | 30.698             | 9.820                    | 2.161             | 0.000             | 42.678           | 55.902             | -13.223           |
| 0.150      | 0.158            | L1   | 22.114             | 9.826                    | 0.000             | 2.130             | 34.069           | 55.588             | -21.518           |
| 0.226      | 0.218            | L1   | 14.930             | 9.861                    | 0.000             | 1.655             | 26.446           | 52.907             | -26.461           |
| 0.230      | 0.223            | N    | 21.594             | 9.861                    | 1.597             | 0.000             | 33.052           | 52.694             | -19.642           |
| 0.258      | 0.259            | L1   | 27.694             | 9.863                    | 0.000             | 1.400             | 38.956           | 51.469             | -12.513           |
| 0.322      | 0.314            | L1   | 10.611             | 9.865                    | 0.000             | 1.116             | 21.592           | 49.869             | -28.277           |
| 0.522      | 0.524            | N    | 30.407             | 9.869                    | 0.414             | 0.000             | 40.690           | 46.000             | -5.310            |
| 0.522      | 0.522            | L1   | 30.612             | 9.869                    | 0.000             | 0.424             | 40.905           | 46.000             | -5.095            |
| 3.138      | 3.138            | N    | 14.798             | 9.869                    | 0.305             | 0.000             | 24.972           | 46.000             | -21.028           |
| 3.534      | 3.529            | N    | 15.016             | 9.880                    | 0.306             | 0.000             | 25.202           | 46.000             | -20.798           |
| 5.286      | 5.284            | N    | 12.398             | 9.914                    | 0.314             | 0.000             | 22.626           | 50.000             | -27.374           |
| 5.602      | 5.607            | L1   | 14.133             | 9.918                    | 0.000             | 0.362             | 24.413           | 50.000             | -25.587           |
| 13.558     | 13.561           | L1   | 11.548             | 9.969                    | 0.000             | 0.698             | 22.215           | 50.000             | -27.785           |
| 20.262     | 20.260           | N    | 26.712             | 9.869                    | 0.560             | 0.000             | 37.141           | 50.000             | -12.859           |
| 20.382     | 20.383           | L1   | 25.828             | 9.868                    | 0.000             | 0.415             | 36.112           | 50.000             | -13.888           |
| 26.490     | 26.488           | N    | 22.385             | 9.844                    | 0.765             | 0.000             | 32.993           | 50.000             | -17.007           |
| 28.686     | 28.690           | N    | 21.053             | 9.835                    | 0.826             | 0.000             | 31.714           | 50.000             | -18.286           |
| 28.690     | 28.688           | L1   | 21.121             | 9.835                    | 0.000             | 0.508             | 31.464           | 50.000             | -18.536           |
| 29.238     | 29.238           | N    | 19.748             | 9.833                    | 0.840             | 0.000             | 30.421           | 50.000             | -19.579           |
| 29.238     | 29.237           | L1   | 19.357             | 9.833                    | 0.000             | 0.513             | 29.702           | 50.000             | -20.298           |

**Table 61: 40 MHz, 230 V AC / 50 Hz, High channel: Average Table for CE from 150 kHz to 30 MHz**

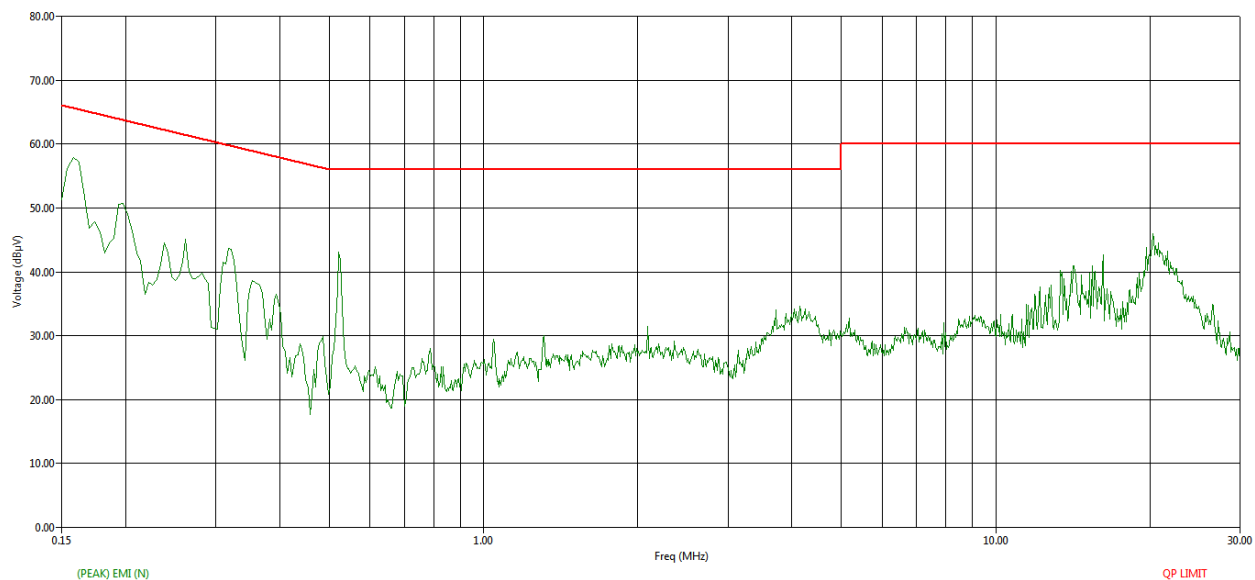


**Figure 88: 40 MHz, 120 V AC / 60 Hz. Low channel: Peak CE Graph-150 kHz to 30 MHz - Neutral**

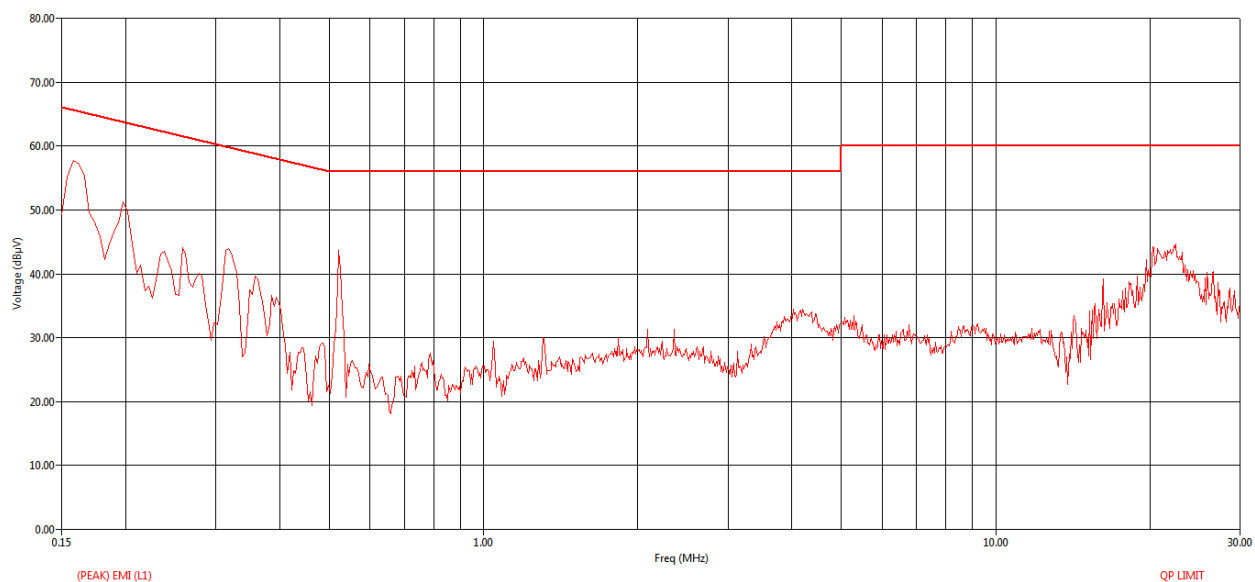


**Figure 89: 40 MHz, 120 V AC / 60 Hz. Low channel: Peak CE Graph-150 kHz to 30 MHz – Line**

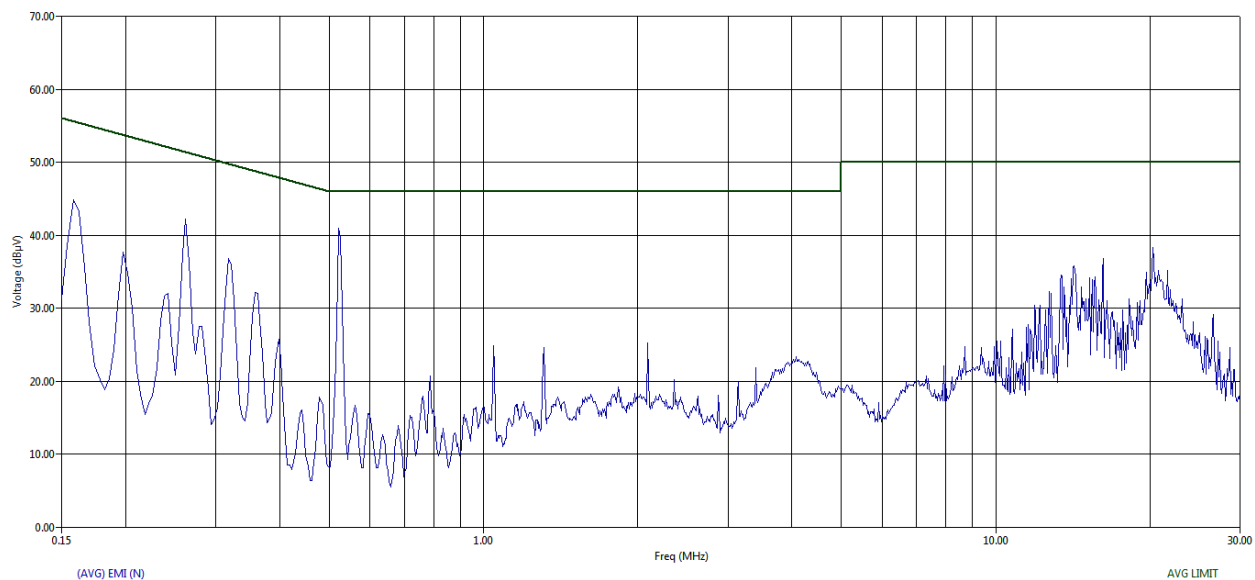


**Figure 90: 40 MHz, 120 V AC / 60 Hz. Low channel: Average CE Graph-150 kHz to 30 MHz - Neutral**

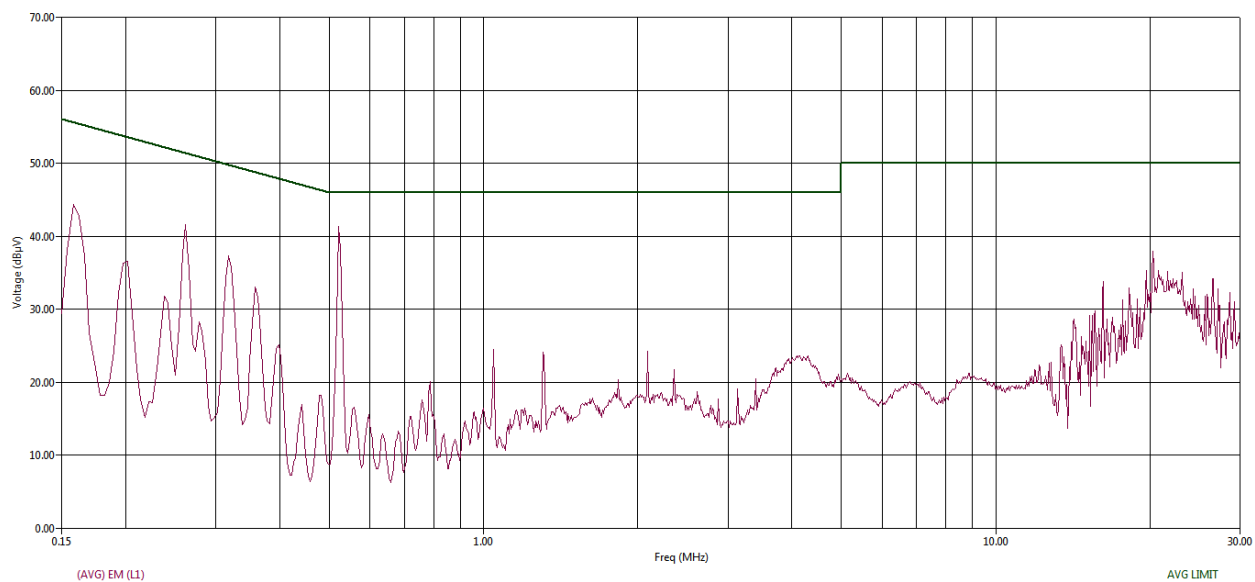


**Figure 91: 40 MHz, 120 V AC / 60 Hz. Low channel: Average CE Graph-150 kHz to 30 MHz - Line**

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|------------------|
| 0.158      | 0.159            | N    | 43.933            | 9.827                    | 2.089             | 0.000             | 55.849          | 65.491            | -9.643           |
| 0.158      | 0.159            | L1   | 43.877            | 9.827                    | 0.000             | 2.113             | 55.817          | 65.491            | -9.674           |
| 0.198      | 0.201            | L1   | 36.221            | 9.860                    | 0.000             | 1.775             | 47.857          | 63.588            | -15.731          |
| 0.262      | 0.261            | N    | 31.561            | 9.863                    | 1.367             | 0.000             | 42.790          | 61.384            | -18.594          |
| 0.318      | 0.317            | N    | 30.358            | 9.865                    | 1.087             | 0.000             | 41.310          | 59.794            | -18.484          |
| 0.318      | 0.318            | L1   | 30.688            | 9.865                    | 0.000             | 1.097             | 41.650          | 59.763            | -18.113          |
| 0.358      | 0.358            | L1   | 26.327            | 9.866                    | 0.000             | 0.920             | 37.114          | 58.765            | -21.652          |
| 0.522      | 0.523            | N    | 32.659            | 9.869                    | 0.414             | 0.000             | 42.942          | 56.000            | -13.058          |
| 0.522      | 0.522            | L1   | 32.204            | 9.869                    | 0.000             | 0.424             | 42.497          | 56.000            | -13.503          |
| 14.154     | 14.153           | N    | 18.008            | 9.965                    | 0.686             | 0.000             | 28.659          | 60.000            | -31.341          |
| 14.214     | 14.215           | N    | 18.550            | 9.965                    | 0.690             | 0.000             | 29.204          | 60.000            | -30.796          |
| 15.434     | 15.437           | N    | 21.216            | 9.949                    | 0.721             | 0.000             | 31.886          | 60.000            | -28.114          |
| 16.170     | 16.168           | N    | 24.627            | 9.931                    | 0.690             | 0.000             | 35.248          | 60.000            | -24.752          |
| 16.230     | 16.229           | N    | 25.726            | 9.930                    | 0.688             | 0.000             | 36.343          | 60.000            | -23.657          |
| 16.230     | 16.229           | L1   | 27.200            | 9.930                    | 0.000             | 0.686             | 37.816          | 60.000            | -22.184          |
| 20.258     | 20.260           | N    | 31.526            | 9.869                    | 0.560             | 0.000             | 41.954          | 60.000            | -18.046          |
| 22.518     | 22.523           | L1   | 28.069            | 9.859                    | 0.000             | 0.442             | 38.370          | 60.000            | -21.630          |
| 25.882     | 25.880           | L1   | 25.911            | 9.846                    | 0.000             | 0.480             | 36.237          | 60.000            | -23.763          |
| 26.490     | 26.489           | L1   | 27.198            | 9.844                    | 0.000             | 0.486             | 37.528          | 60.000            | -22.472          |
| 26.610     | 26.614           | L1   | 26.914            | 9.843                    | 0.000             | 0.488             | 37.245          | 60.000            | -22.755          |

**Table 62: 40 MHz, 120 V AC / 60 Hz, Low channel: Quasi Peak Table for CE from 150 kHz to 30 MHz**

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| 0.158      | 0.159            | N    | 33.009             | 9.827                    | 2.089             | 0.000             | 44.925           | 55.491             | -10.566           |
| 0.158      | 0.159            | L1   | 32.723             | 9.827                    | 0.000             | 2.113             | 44.663           | 55.491             | -10.828           |
| 0.198      | 0.201            | L1   | 25.033             | 9.860                    | 0.000             | 1.775             | 36.668           | 53.588             | -16.920           |
| 0.262      | 0.261            | N    | 31.120             | 9.863                    | 1.367             | 0.000             | 42.350           | 51.384             | -9.035            |
| 0.318      | 0.317            | N    | 25.435             | 9.865                    | 1.087             | 0.000             | 36.387           | 49.794             | -13.408           |
| 0.318      | 0.318            | L1   | 26.098             | 9.865                    | 0.000             | 1.097             | 37.060           | 49.763             | -12.703           |
| 0.358      | 0.358            | L1   | 21.748             | 9.866                    | 0.000             | 0.920             | 32.535           | 48.765             | -16.230           |
| 0.522      | 0.523            | N    | 31.496             | 9.869                    | 0.414             | 0.000             | 41.779           | 46.000             | -4.221            |
| 0.522      | 0.522            | L1   | 30.949             | 9.869                    | 0.000             | 0.424             | 41.242           | 46.000             | -4.758            |
| 14.154     | 14.153           | N    | 13.230             | 9.965                    | 0.686             | 0.000             | 23.881           | 50.000             | -26.119           |
| 14.214     | 14.215           | N    | 14.182             | 9.965                    | 0.690             | 0.000             | 24.836           | 50.000             | -25.164           |
| 15.434     | 15.437           | N    | 16.399             | 9.949                    | 0.721             | 0.000             | 27.069           | 50.000             | -22.931           |
| 16.170     | 16.168           | N    | 19.657             | 9.931                    | 0.690             | 0.000             | 30.278           | 50.000             | -19.722           |
| 16.230     | 16.229           | N    | 20.921             | 9.930                    | 0.688             | 0.000             | 31.539           | 50.000             | -18.461           |
| 16.230     | 16.229           | L1   | 22.545             | 9.930                    | 0.000             | 0.686             | 33.161           | 50.000             | -16.839           |
| 20.258     | 20.260           | N    | 26.384             | 9.869                    | 0.560             | 0.000             | 36.812           | 50.000             | -13.188           |
| 22.518     | 22.523           | L1   | 21.931             | 9.859                    | 0.000             | 0.442             | 32.233           | 50.000             | -17.767           |
| 25.882     | 25.880           | L1   | 21.813             | 9.846                    | 0.000             | 0.480             | 32.139           | 50.000             | -17.861           |
| 26.490     | 26.489           | L1   | 23.216             | 9.844                    | 0.000             | 0.486             | 33.546           | 50.000             | -16.454           |
| 26.610     | 26.614           | L1   | 23.819             | 9.843                    | 0.000             | 0.488             | 34.150           | 50.000             | -15.850           |

**Table 63: 40 MHz, 120 V AC / 60 Hz, Low channel: Average Table for CE from 150 kHz to 30 MHz**

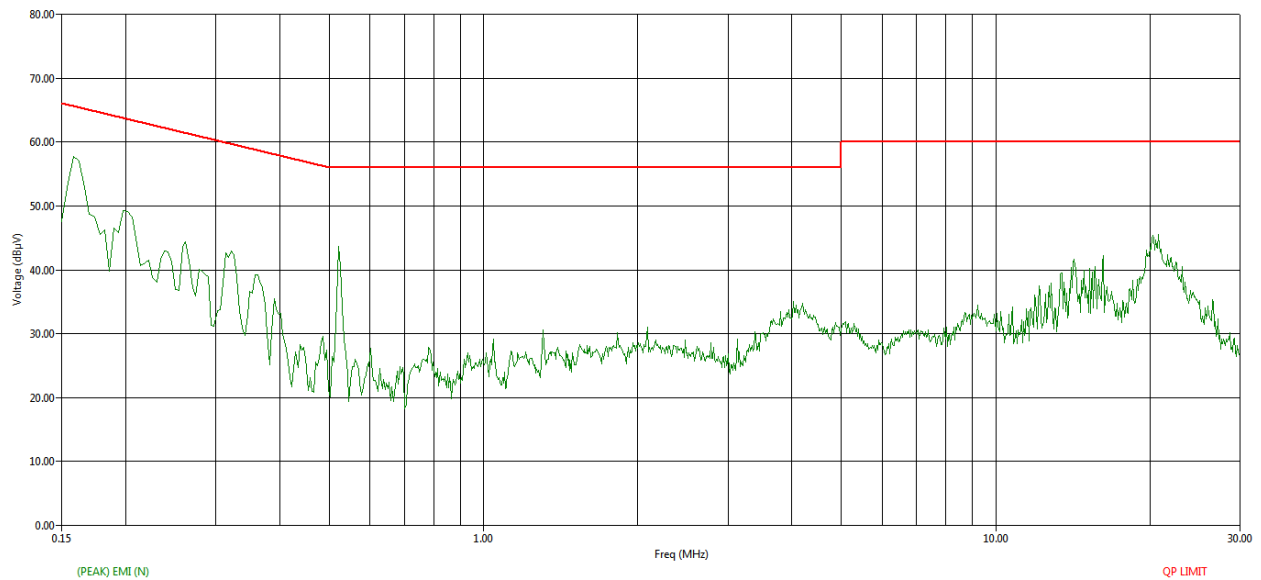


**Figure 92: 40 MHz, 120 V AC / 60 Hz. Mid channel: Peak CE Graph-150 kHz to 30 MHz – Neutral**

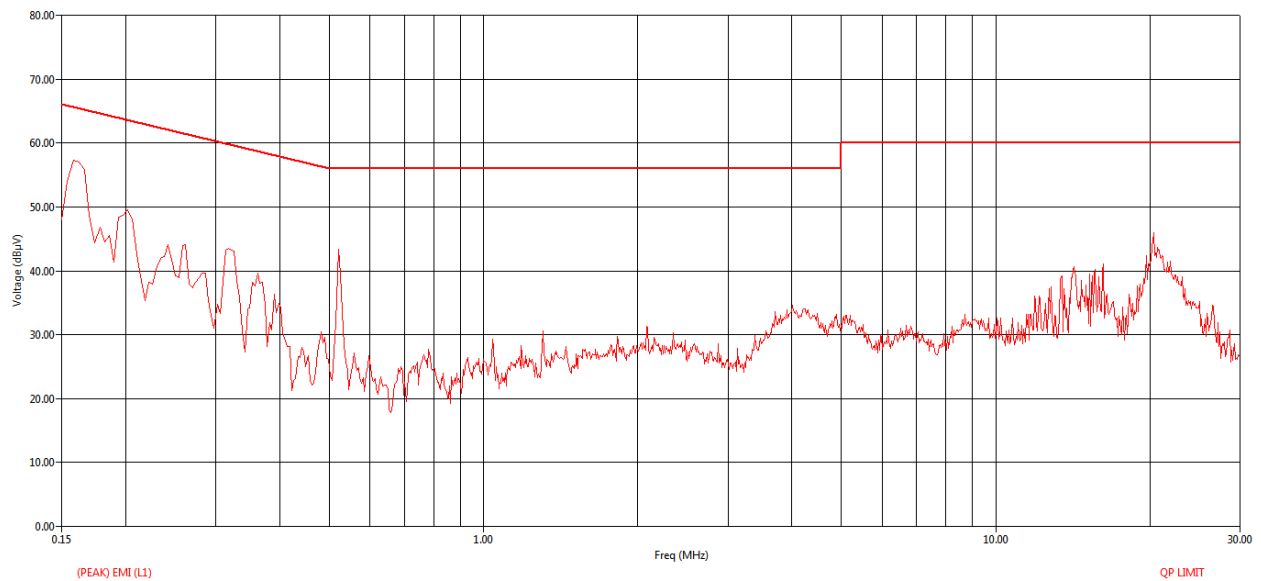


**Figure 93: 40 MHz, 120 V AC / 60 Hz. Mid channel: Peak CE Graph-150 kHz to 30 MHz - Line**

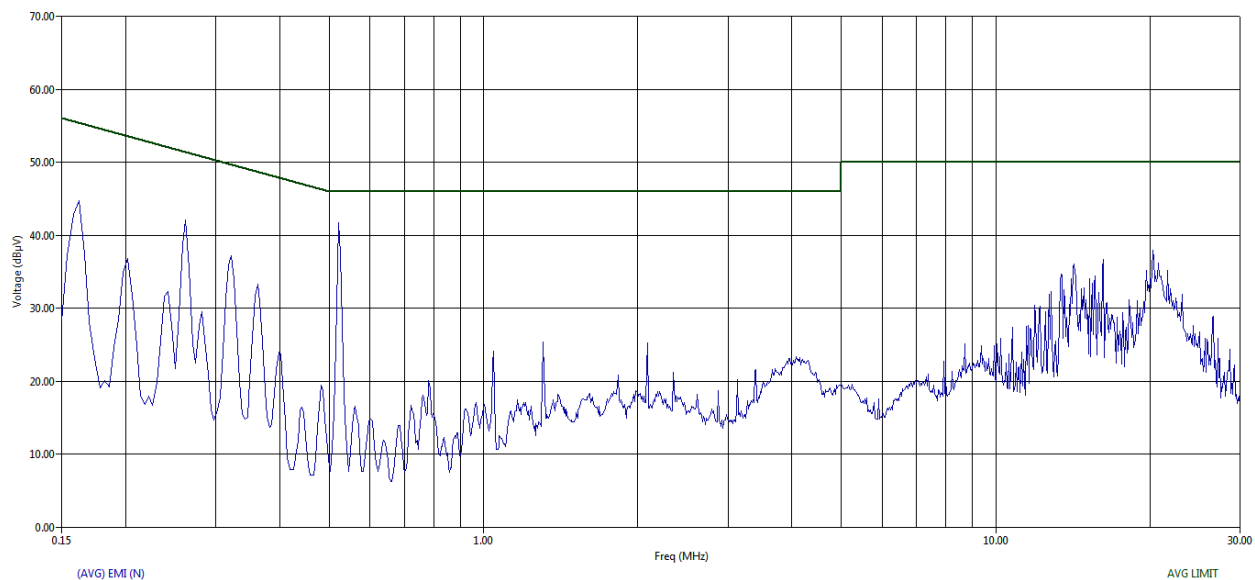


**Figure 94: 40 MHz, 120 V AC / 60 Hz. Mid channel: Average CE Graph-150 kHz to 30 MHz - Neutral**

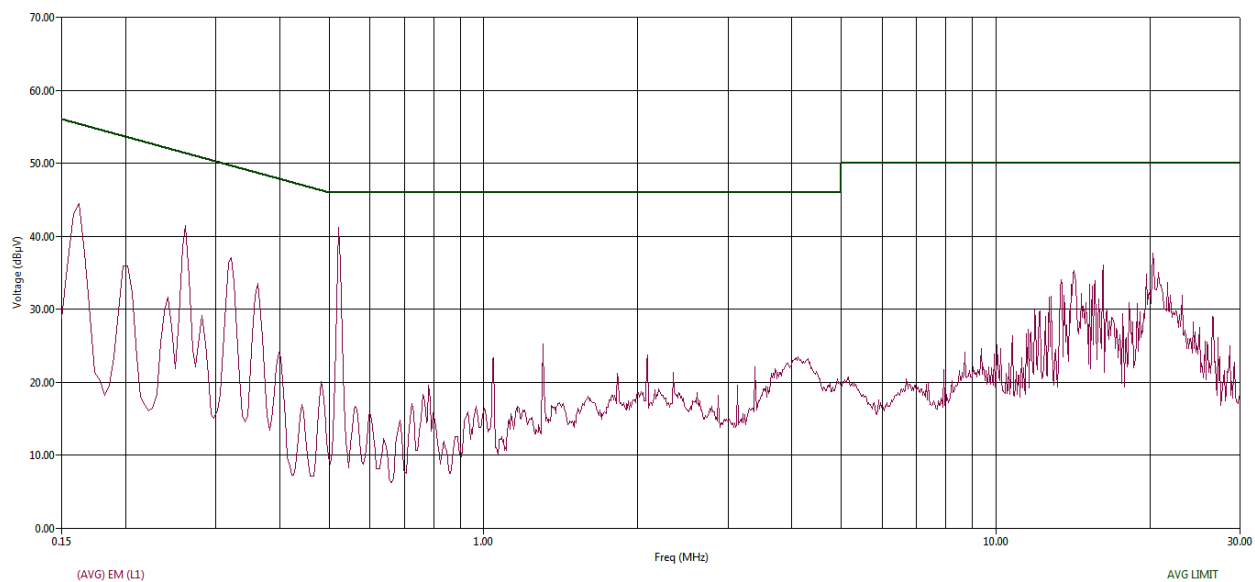


**Figure 95: 40 MHz, 120 V AC / 60 Hz. Mid channel: Average CE Graph-150 kHz to 30 MHz – Line**

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|------------------|
| 0.158      | 0.158            | N    | 43.005            | 9.826                    | 2.100             | 0.000             | 54.932          | 65.557            | -10.626          |
| 0.158      | 0.160            | L1   | 43.629            | 9.828                    | 0.000             | 2.108             | 55.565          | 65.465            | -9.900           |
| 0.198      | 0.201            | N    | 36.173            | 9.860                    | 1.752             | 0.000             | 47.784          | 63.576            | -15.792          |
| 0.202      | 0.200            | L1   | 36.163            | 9.860                    | 0.000             | 1.777             | 47.800          | 63.599            | -15.798          |
| 0.262      | 0.262            | L1   | 30.608            | 9.863                    | 0.000             | 1.381             | 41.852          | 61.365            | -19.512          |
| 0.318      | 0.321            | L1   | 30.453            | 9.865                    | 0.000             | 1.080             | 41.399          | 59.668            | -18.270          |
| 0.322      | 0.318            | N    | 30.173            | 9.865                    | 1.082             | 0.000             | 41.120          | 59.766            | -18.646          |
| 0.522      | 0.522            | N    | 32.772            | 9.869                    | 0.415             | 0.000             | 43.056          | 56.000            | -12.944          |
| 0.522      | 0.521            | L1   | 32.185            | 9.869                    | 0.000             | 0.424             | 42.478          | 56.000            | -13.522          |
| 14.154     | 14.154           | N    | 18.146            | 9.965                    | 0.686             | 0.000             | 28.796          | 60.000            | -31.204          |
| 14.154     | 14.154           | L1   | 21.350            | 9.965                    | 0.000             | 0.737             | 32.052          | 60.000            | -27.948          |
| 14.214     | 14.214           | N    | 18.821            | 9.965                    | 0.690             | 0.000             | 29.476          | 60.000            | -30.524          |
| 14.214     | 14.214           | L1   | 22.179            | 9.965                    | 0.000             | 0.741             | 32.885          | 60.000            | -27.115          |
| 14.274     | 14.275           | N    | 18.758            | 9.964                    | 0.694             | 0.000             | 29.416          | 60.000            | -30.584          |
| 15.618     | 15.619           | L1   | 24.343            | 9.944                    | 0.000             | 0.737             | 35.024          | 60.000            | -24.976          |
| 16.170     | 16.168           | N    | 24.912            | 9.931                    | 0.690             | 0.000             | 35.534          | 60.000            | -24.466          |
| 16.230     | 16.229           | N    | 25.654            | 9.930                    | 0.688             | 0.000             | 36.272          | 60.000            | -23.728          |
| 16.230     | 16.229           | L1   | 27.228            | 9.930                    | 0.000             | 0.686             | 37.844          | 60.000            | -22.156          |
| 20.382     | 20.384           | L1   | 30.631            | 9.868                    | 0.000             | 0.415             | 40.915          | 60.000            | -19.085          |
| 20.810     | 20.811           | N    | 30.532            | 9.866                    | 0.580             | 0.000             | 40.979          | 60.000            | -19.021          |

**Table 64: 40 MHz, 120 V AC / 60 Hz, Mid channel: Quasi Peak Table for CE from 150 kHz to 30 MHz**

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| 0.158      | 0.158            | N    | 31.412             | 9.826                    | 2.100             | 0.000             | 43.338           | 55.557             | -12.219           |
| 0.158      | 0.160            | L1   | 32.414             | 9.828                    | 0.000             | 2.108             | 44.349           | 55.465             | -11.115           |
| 0.198      | 0.201            | N    | 25.562             | 9.860                    | 1.752             | 0.000             | 37.173           | 53.576             | -16.403           |
| 0.202      | 0.200            | L1   | 25.147             | 9.860                    | 0.000             | 1.777             | 36.784           | 53.599             | -16.815           |
| 0.262      | 0.262            | L1   | 30.001             | 9.863                    | 0.000             | 1.381             | 41.245           | 51.365             | -10.120           |
| 0.318      | 0.321            | L1   | 26.462             | 9.865                    | 0.000             | 1.080             | 37.408           | 49.668             | -12.261           |
| 0.322      | 0.318            | N    | 24.380             | 9.865                    | 1.082             | 0.000             | 35.327           | 49.766             | -14.439           |
| 0.522      | 0.522            | N    | 31.553             | 9.869                    | 0.415             | 0.000             | 41.837           | 46.000             | -4.163            |
| 0.522      | 0.521            | L1   | 30.889             | 9.869                    | 0.000             | 0.424             | 41.183           | 46.000             | -4.817            |
| 14.154     | 14.154           | N    | 13.619             | 9.965                    | 0.686             | 0.000             | 24.269           | 50.000             | -25.731           |
| 14.154     | 14.154           | L1   | 17.133             | 9.965                    | 0.000             | 0.737             | 27.835           | 50.000             | -22.165           |
| 14.214     | 14.214           | N    | 14.095             | 9.965                    | 0.690             | 0.000             | 24.749           | 50.000             | -25.251           |
| 14.214     | 14.214           | L1   | 17.561             | 9.965                    | 0.000             | 0.741             | 28.266           | 50.000             | -21.734           |
| 14.274     | 14.275           | N    | 14.045             | 9.964                    | 0.694             | 0.000             | 24.703           | 50.000             | -25.297           |
| 15.618     | 15.619           | L1   | 19.579             | 9.944                    | 0.000             | 0.737             | 30.260           | 50.000             | -19.740           |
| 16.170     | 16.168           | N    | 19.824             | 9.931                    | 0.690             | 0.000             | 30.446           | 50.000             | -19.554           |
| 16.230     | 16.229           | N    | 20.558             | 9.930                    | 0.688             | 0.000             | 31.175           | 50.000             | -18.825           |
| 16.230     | 16.229           | L1   | 22.403             | 9.930                    | 0.000             | 0.686             | 33.019           | 50.000             | -16.981           |
| 20.382     | 20.384           | L1   | 25.459             | 9.868                    | 0.000             | 0.415             | 35.743           | 50.000             | -14.257           |
| 20.810     | 20.811           | N    | 24.731             | 9.866                    | 0.580             | 0.000             | 35.178           | 50.000             | -14.822           |

**Table 65: 40 MHz, 120 V AC / 60 Hz, Mid channel: Average Table for CE from 150 kHz to 30 MHz**

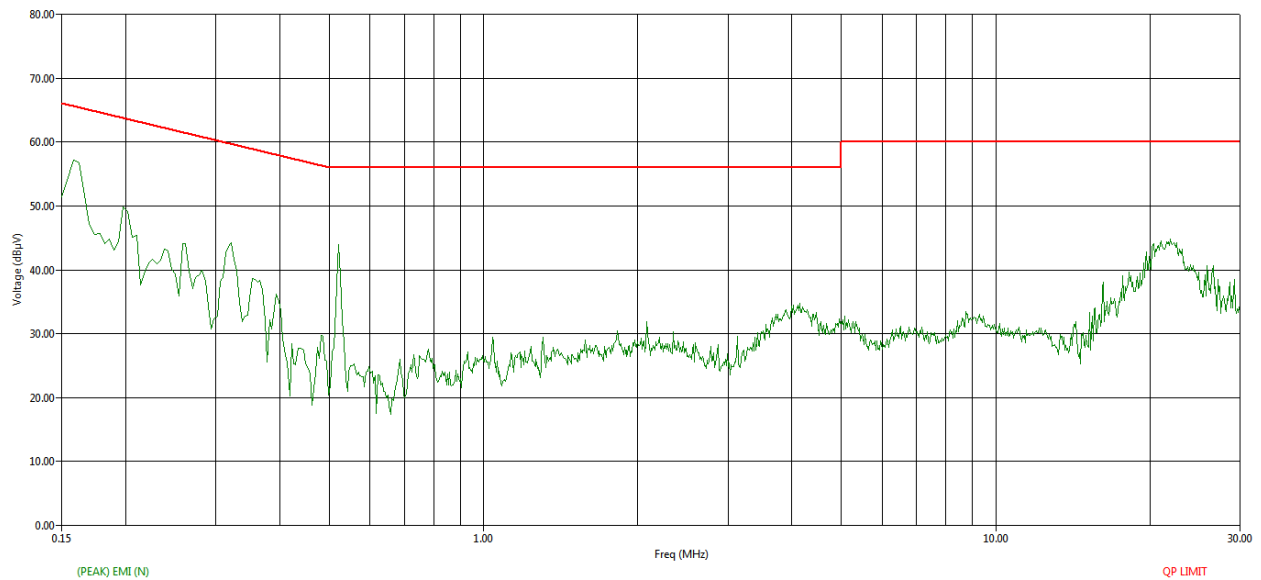


**Figure 96: 40 MHz, 120 V AC / 60 Hz. High channel: Peak CE Graph-150 kHz to 30 MHz – Neutral**

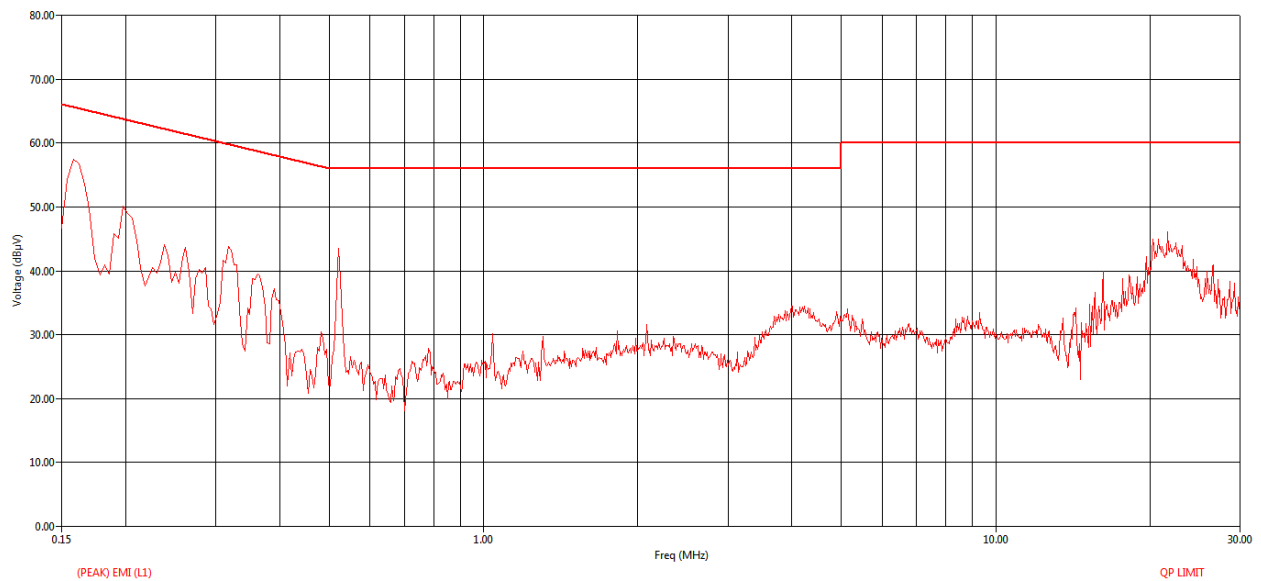


**Figure 97: 40 MHz, 120 V AC / 60 Hz. High channel: Peak CE Graph-150 kHz to 30 MHz - Line**

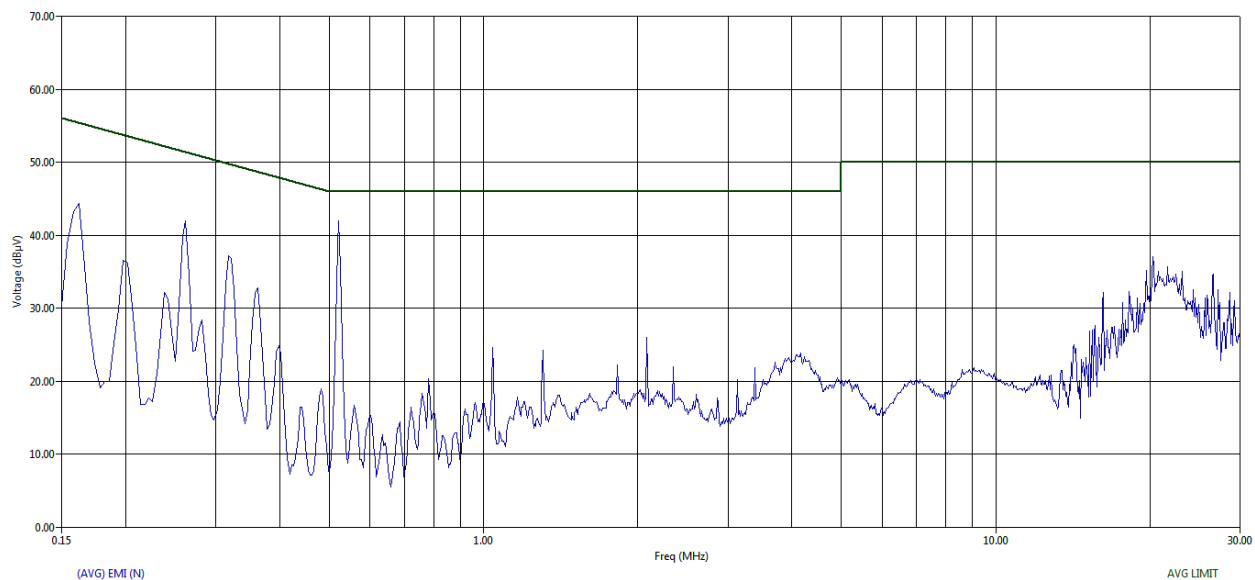


**Figure 98: 40 MHz, 120 V AC / 60 Hz. High channel: Average CE Graph-150 kHz to 30 MHz – Neutral**

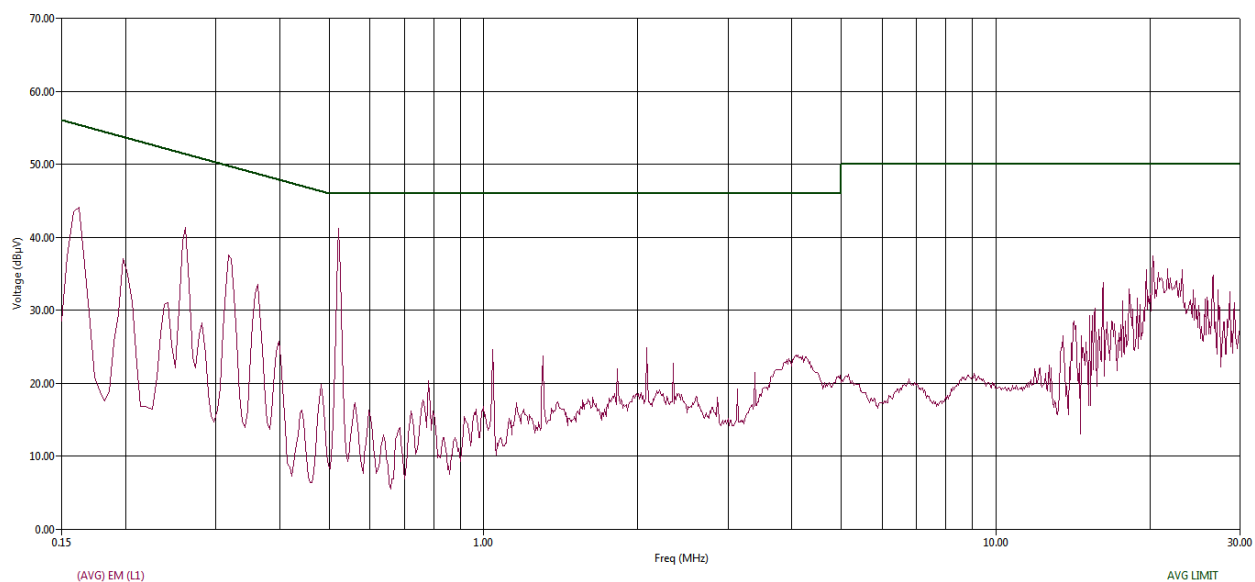


**Figure 99: 40 MHz, 120 V AC / 60 Hz. High channel: Average CE Graph-150 kHz to 30 MHz - Line**

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|------------------|
| 0.158      | 0.159            | N    | 43.468            | 9.827                    | 2.093             | 0.000             | 55.387          | 65.515            | -10.127          |
| 0.158      | 0.159            | L1   | 43.328            | 9.827                    | 0.000             | 2.120             | 55.274          | 65.532            | -10.258          |
| 0.198      | 0.201            | L1   | 36.034            | 9.860                    | 0.000             | 1.775             | 47.669          | 63.587            | -15.917          |
| 0.258      | 0.259            | N    | 31.452            | 9.863                    | 1.378             | 0.000             | 42.693          | 61.450            | -18.756          |
| 0.318      | 0.319            | L1   | 30.827            | 9.865                    | 0.000             | 1.090             | 41.782          | 59.724            | -17.941          |
| 0.322      | 0.318            | N    | 30.647            | 9.865                    | 1.080             | 0.000             | 41.592          | 59.752            | -18.160          |
| 0.362      | 0.362            | L1   | 26.552            | 9.866                    | 0.000             | 0.907             | 37.325          | 58.693            | -21.367          |
| 0.394      | 0.386            | N    | 16.760            | 9.867                    | 0.797             | 0.000             | 27.424          | 58.143            | -30.719          |
| 0.522      | 0.521            | N    | 32.769            | 9.869                    | 0.415             | 0.000             | 43.053          | 56.000            | -12.947          |
| 0.522      | 0.522            | L1   | 32.115            | 9.869                    | 0.000             | 0.424             | 42.408          | 56.000            | -13.592          |
| 16.166     | 16.168           | N    | 24.616            | 9.931                    | 0.690             | 0.000             | 35.238          | 60.000            | -24.762          |
| 16.230     | 16.231           | N    | 15.047            | 9.930                    | 0.688             | 0.000             | 25.664          | 60.000            | -34.336          |
| 16.230     | 16.237           | L1   | 13.842            | 9.930                    | 0.000             | 0.685             | 24.456          | 60.000            | -35.544          |
| 21.666     | 21.663           | L1   | 27.102            | 9.863                    | 0.000             | 0.432             | 37.397          | 60.000            | -22.603          |
| 21.926     | 21.923           | N    | 28.072            | 9.862                    | 0.620             | 0.000             | 38.554          | 60.000            | -21.446          |
| 26.490     | 26.483           | L1   | 19.140            | 9.844                    | 0.000             | 0.486             | 29.470          | 60.000            | -30.530          |
| 26.614     | 26.609           | L1   | 19.039            | 9.843                    | 0.000             | 0.487             | 29.369          | 60.000            | -30.631          |
| 27.162     | 27.155           | N    | 17.041            | 9.841                    | 0.784             | 0.000             | 27.666          | 60.000            | -32.334          |
| 27.162     | 27.160           | L1   | 16.899            | 9.841                    | 0.000             | 0.493             | 27.233          | 60.000            | -32.767          |
| 29.238     | 29.231           | N    | 15.580            | 9.833                    | 0.840             | 0.000             | 26.253          | 60.000            | -33.747          |

**Table 66: 40 MHz, 120 V AC / 60 Hz, High channel: Quasi Peak Table for CE from 150 kHz to 30 MHz**

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| 0.158      | 0.159            | N    | 32.605             | 9.827                    | 2.093             | 0.000             | 44.525           | 55.515             | -10.990           |
| 0.158      | 0.159            | L1   | 32.165             | 9.827                    | 0.000             | 2.120             | 44.112           | 55.532             | -11.421           |
| 0.198      | 0.201            | L1   | 25.217             | 9.860                    | 0.000             | 1.775             | 36.852           | 53.587             | -16.735           |
| 0.258      | 0.259            | N    | 30.978             | 9.863                    | 1.378             | 0.000             | 42.219           | 51.450             | -9.231            |
| 0.318      | 0.319            | L1   | 26.657             | 9.865                    | 0.000             | 1.090             | 37.612           | 49.724             | -12.112           |
| 0.322      | 0.318            | N    | 26.236             | 9.865                    | 1.080             | 0.000             | 37.181           | 49.752             | -12.571           |
| 0.362      | 0.362            | L1   | 22.409             | 9.866                    | 0.000             | 0.907             | 33.183           | 48.693             | -15.510           |
| 0.394      | 0.386            | N    | 4.825              | 9.867                    | 0.797             | 0.000             | 15.489           | 48.143             | -32.654           |
| 0.522      | 0.521            | N    | 31.544             | 9.869                    | 0.415             | 0.000             | 41.828           | 46.000             | -4.172            |
| 0.522      | 0.522            | L1   | 30.772             | 9.869                    | 0.000             | 0.424             | 41.065           | 46.000             | -4.935            |
| 16.166     | 16.168           | N    | 19.465             | 9.931                    | 0.690             | 0.000             | 30.087           | 50.000             | -19.913           |
| 16.230     | 16.231           | N    | 9.086              | 9.930                    | 0.688             | 0.000             | 19.704           | 50.000             | -30.296           |
| 16.230     | 16.237           | L1   | 7.942              | 9.930                    | 0.000             | 0.685             | 18.557           | 50.000             | -31.443           |
| 21.666     | 21.663           | L1   | 21.126             | 9.863                    | 0.000             | 0.432             | 31.421           | 50.000             | -18.579           |
| 21.926     | 21.923           | N    | 22.004             | 9.862                    | 0.620             | 0.000             | 32.486           | 50.000             | -17.514           |
| 26.490     | 26.483           | L1   | 13.282             | 9.844                    | 0.000             | 0.486             | 23.612           | 50.000             | -26.388           |
| 26.614     | 26.609           | L1   | 13.055             | 9.843                    | 0.000             | 0.487             | 23.385           | 50.000             | -26.615           |
| 27.162     | 27.155           | N    | 11.371             | 9.841                    | 0.784             | 0.000             | 21.996           | 50.000             | -28.004           |
| 27.162     | 27.160           | L1   | 11.252             | 9.841                    | 0.000             | 0.493             | 21.586           | 50.000             | -28.414           |
| 29.238     | 29.231           | N    | 9.722              | 9.833                    | 0.840             | 0.000             | 20.395           | 50.000             | -29.605           |

**Table 67: 40 MHz, 120 V AC / 60 Hz, High channel: Average Table for CE from 150 kHz to 30 MHz**

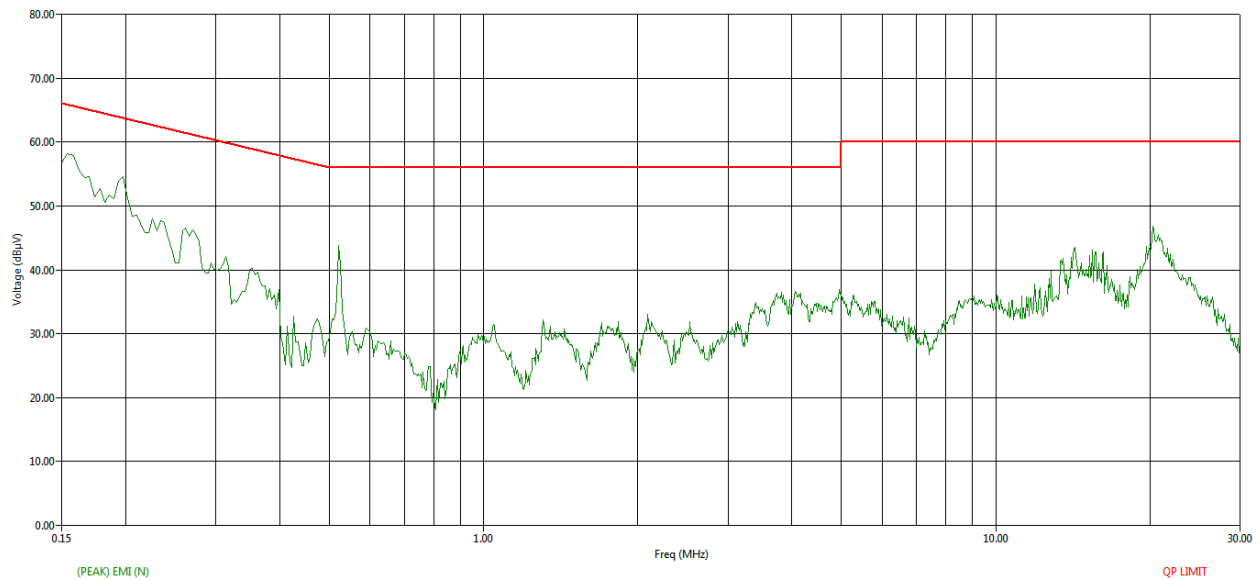


**Figure 100: 10 MHz, 230 V AC / 50 Hz. Low channel: Peak CE Graph-150 kHz to 30 MHz - Neutral**

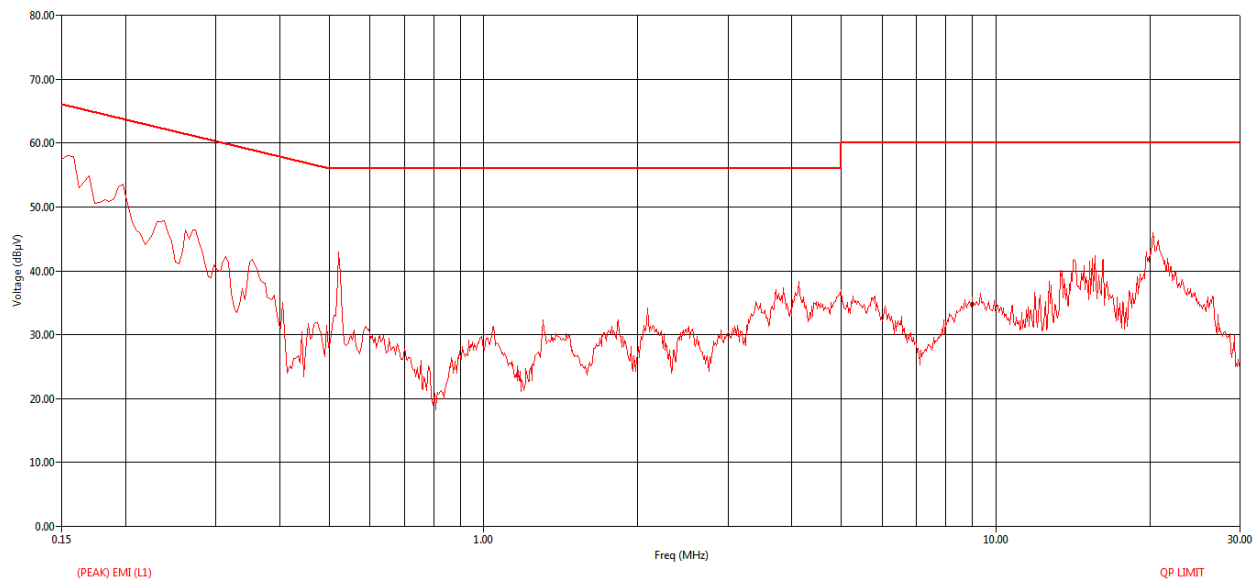


**Figure 101: 10 MHz, 230 V AC / 50 Hz. Low channel: Peak CE Graph-150 kHz to 30 MHz - Line**

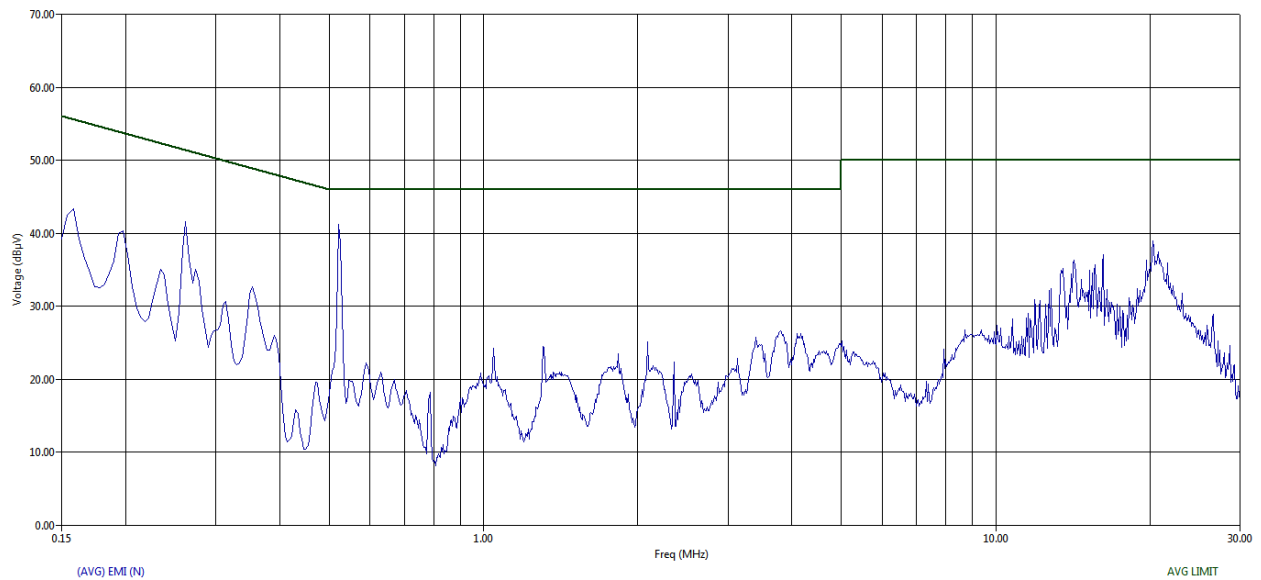


**Figure 102: 10 MHz, 230 V AC / 50 Hz. Low channel: Average CE Graph-150 kHz to 30 MHz – Neutral**

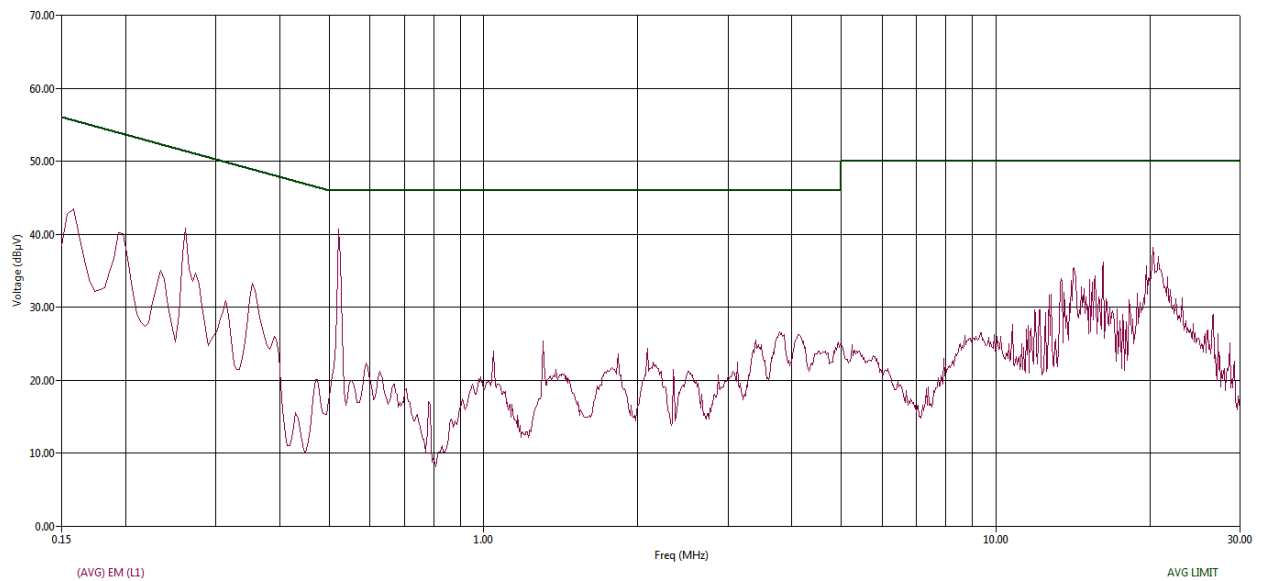


**Figure 103: 10 MHz, 230 V AC / 50 Hz. Low channel: Average CE Graph-150 kHz to 30 MHz - Line**

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|------------------|
| 0.154      | 0.158            | N    | 44.108            | 9.826                    | 2.101             | 0.000             | 56.036          | 65.564            | -9.529           |
| 0.154      | 0.154            | L1   | 42.069            | 9.822                    | 0.000             | 2.168             | 54.058          | 65.800            | -11.742          |
| 0.354      | 0.352            | L1   | 28.307            | 9.866                    | 0.000             | 0.947             | 39.120          | 58.914            | -19.794          |
| 0.522      | 0.522            | N    | 32.610            | 9.869                    | 0.415             | 0.000             | 42.894          | 56.000            | -13.106          |
| 0.522      | 0.522            | L1   | 31.778            | 9.869                    | 0.000             | 0.424             | 42.071          | 56.000            | -13.929          |
| 13.358     | 13.362           | N    | 18.358            | 9.970                    | 0.632             | 0.000             | 28.960          | 60.000            | -31.040          |
| 13.422     | 13.419           | N    | 19.028            | 9.970                    | 0.636             | 0.000             | 29.634          | 60.000            | -30.366          |
| 13.482     | 13.481           | N    | 19.090            | 9.970                    | 0.640             | 0.000             | 29.699          | 60.000            | -30.301          |
| 13.558     | 13.561           | N    | 19.783            | 9.969                    | 0.645             | 0.000             | 30.397          | 60.000            | -29.603          |
| 14.154     | 14.153           | L1   | 21.586            | 9.965                    | 0.000             | 0.737             | 32.288          | 60.000            | -27.712          |
| 14.214     | 14.216           | N    | 20.394            | 9.965                    | 0.690             | 0.000             | 31.049          | 60.000            | -28.951          |
| 14.214     | 14.215           | L1   | 22.093            | 9.965                    | 0.000             | 0.741             | 32.799          | 60.000            | -27.201          |
| 14.274     | 14.276           | N    | 20.741            | 9.964                    | 0.694             | 0.000             | 31.400          | 60.000            | -28.600          |
| 15.434     | 15.437           | N    | 22.890            | 9.949                    | 0.721             | 0.000             | 33.560          | 60.000            | -26.440          |
| 15.434     | 15.437           | L1   | 23.805            | 9.949                    | 0.000             | 0.752             | 34.506          | 60.000            | -25.494          |
| 15.618     | 15.618           | L1   | 24.823            | 9.944                    | 0.000             | 0.737             | 35.505          | 60.000            | -24.495          |
| 16.166     | 16.166           | L1   | 25.978            | 9.931                    | 0.000             | 0.691             | 36.600          | 60.000            | -23.400          |
| 16.230     | 16.228           | L1   | 26.842            | 9.930                    | 0.000             | 0.686             | 37.457          | 60.000            | -22.543          |
| 20.262     | 20.261           | N    | 32.359            | 9.869                    | 0.560             | 0.000             | 42.787          | 60.000            | -17.213          |
| 20.262     | 20.261           | L1   | 32.603            | 9.869                    | 0.000             | 0.414             | 42.886          | 60.000            | -17.114          |

**Table 68: 10 MHz, 230 V AC / 50 Hz, Low channel: Quasi Peak Table for CE from 150 kHz to 30 MHz**

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| 0.154      | 0.158            | N    | 31.641             | 9.826                    | 2.101             | 0.000             | 43.569           | 55.564             | -11.996           |
| 0.154      | 0.154            | L1   | 29.434             | 9.822                    | 0.000             | 2.168             | 41.424           | 55.800             | -14.376           |
| 0.354      | 0.352            | L1   | 21.928             | 9.866                    | 0.000             | 0.947             | 32.741           | 48.914             | -16.173           |
| 0.522      | 0.522            | N    | 31.354             | 9.869                    | 0.415             | 0.000             | 41.638           | 46.000             | -4.362            |
| 0.522      | 0.522            | L1   | 30.515             | 9.869                    | 0.000             | 0.424             | 40.808           | 46.000             | -5.192            |
| 13.358     | 13.362           | N    | 12.507             | 9.970                    | 0.632             | 0.000             | 23.109           | 50.000             | -26.891           |
| 13.422     | 13.419           | N    | 12.860             | 9.970                    | 0.636             | 0.000             | 23.466           | 50.000             | -26.534           |
| 13.482     | 13.481           | N    | 12.932             | 9.970                    | 0.640             | 0.000             | 23.542           | 50.000             | -26.458           |
| 13.558     | 13.561           | N    | 12.193             | 9.969                    | 0.645             | 0.000             | 22.808           | 50.000             | -27.192           |
| 14.154     | 14.153           | L1   | 16.966             | 9.965                    | 0.000             | 0.737             | 27.668           | 50.000             | -22.332           |
| 14.214     | 14.216           | N    | 14.954             | 9.965                    | 0.690             | 0.000             | 25.608           | 50.000             | -24.392           |
| 14.214     | 14.215           | L1   | 17.581             | 9.965                    | 0.000             | 0.741             | 28.287           | 50.000             | -21.713           |
| 14.274     | 14.276           | N    | 15.103             | 9.964                    | 0.694             | 0.000             | 25.761           | 50.000             | -24.239           |
| 15.434     | 15.437           | N    | 17.312             | 9.949                    | 0.721             | 0.000             | 27.982           | 50.000             | -22.018           |
| 15.434     | 15.437           | L1   | 18.870             | 9.949                    | 0.000             | 0.752             | 29.571           | 50.000             | -20.429           |
| 15.618     | 15.618           | L1   | 19.442             | 9.944                    | 0.000             | 0.737             | 30.123           | 50.000             | -19.877           |
| 16.166     | 16.166           | L1   | 20.398             | 9.931                    | 0.000             | 0.691             | 31.020           | 50.000             | -18.980           |
| 16.230     | 16.228           | L1   | 21.460             | 9.930                    | 0.000             | 0.686             | 32.076           | 50.000             | -17.924           |
| 20.262     | 20.261           | N    | 27.203             | 9.869                    | 0.560             | 0.000             | 37.632           | 50.000             | -12.368           |
| 20.262     | 20.261           | L1   | 27.709             | 9.869                    | 0.000             | 0.414             | 37.991           | 50.000             | -12.009           |

**Table 69: 10 MHz, 230 V AC / 50 Hz, Low channel: Average Table for CE from 150 kHz to 30 MHz**

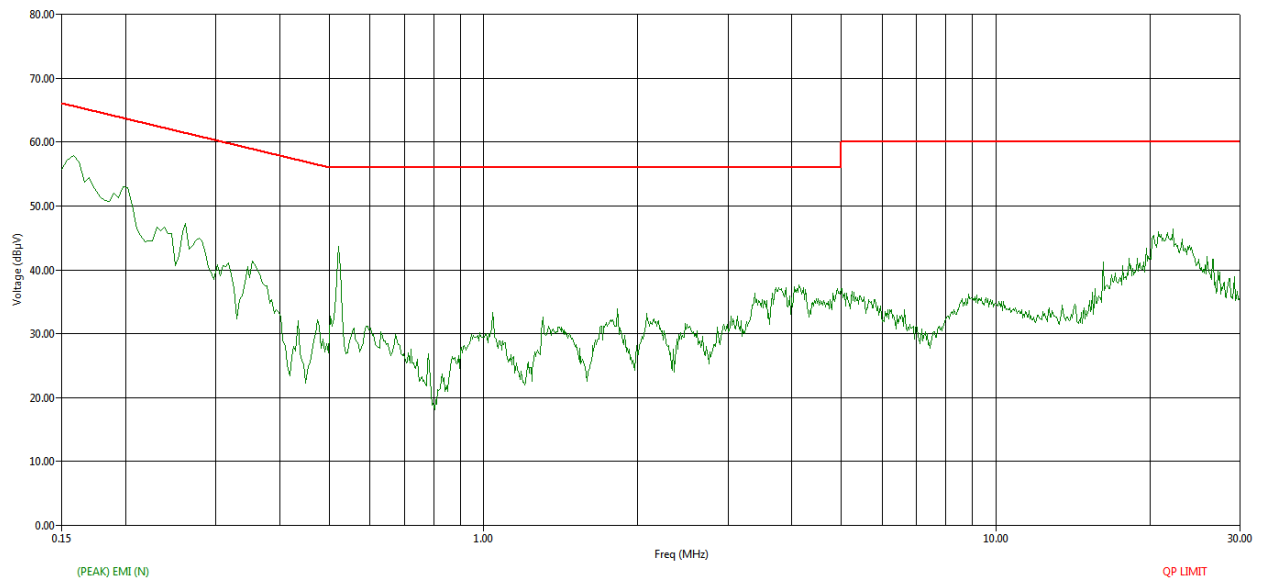


**Figure 104: 10 MHz, 230 V AC / 50 Hz. Mid channel: Peak CE Graph-150 kHz to 30 MHz - Neutral**

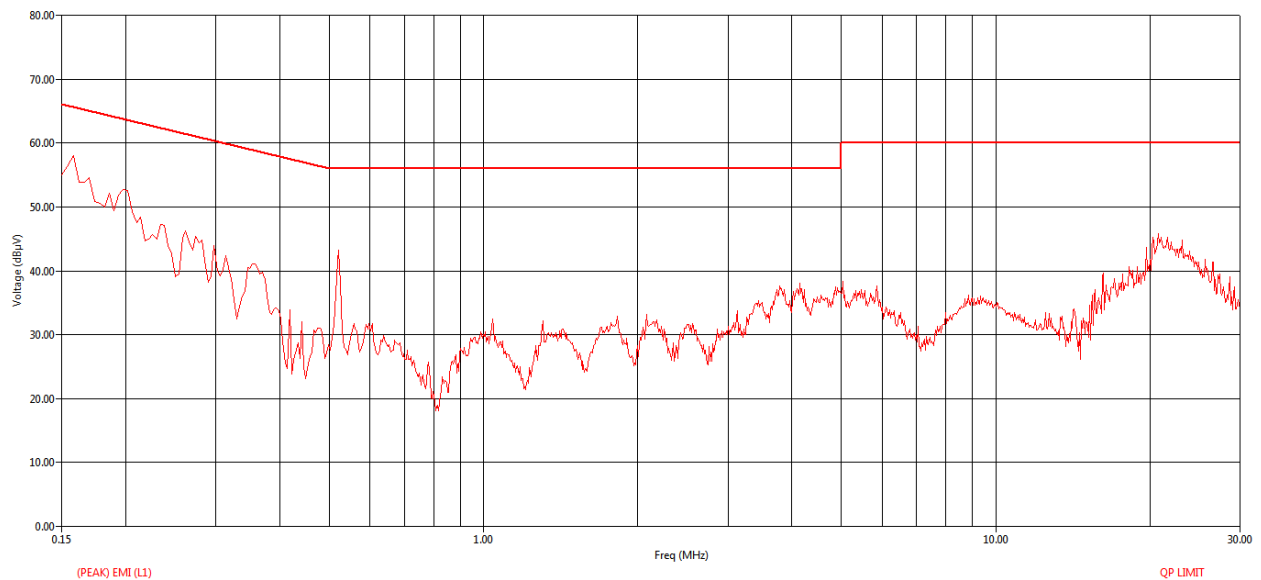


**Figure 105: 10 MHz, 230 V AC / 50 Hz. Mid channel: Peak CE Graph-150 kHz to 30 MHz - Line**

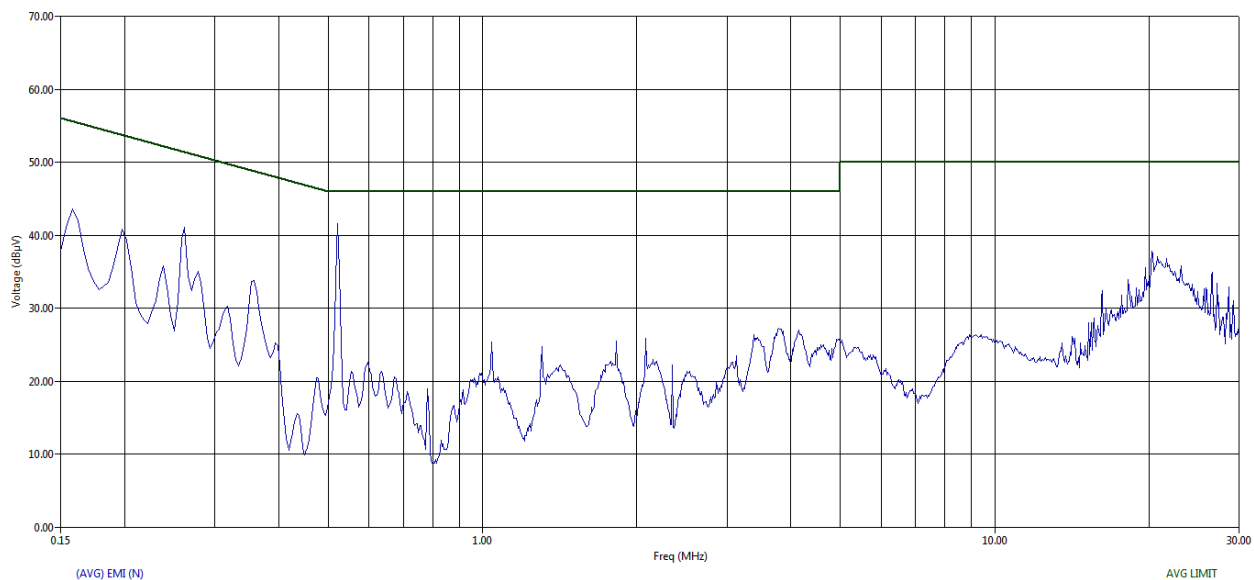


**Figure 106: 10 MHz, 230 V AC / 50 Hz. Mid channel: Average CE Graph-150 kHz to 30 MHz - Neutral**

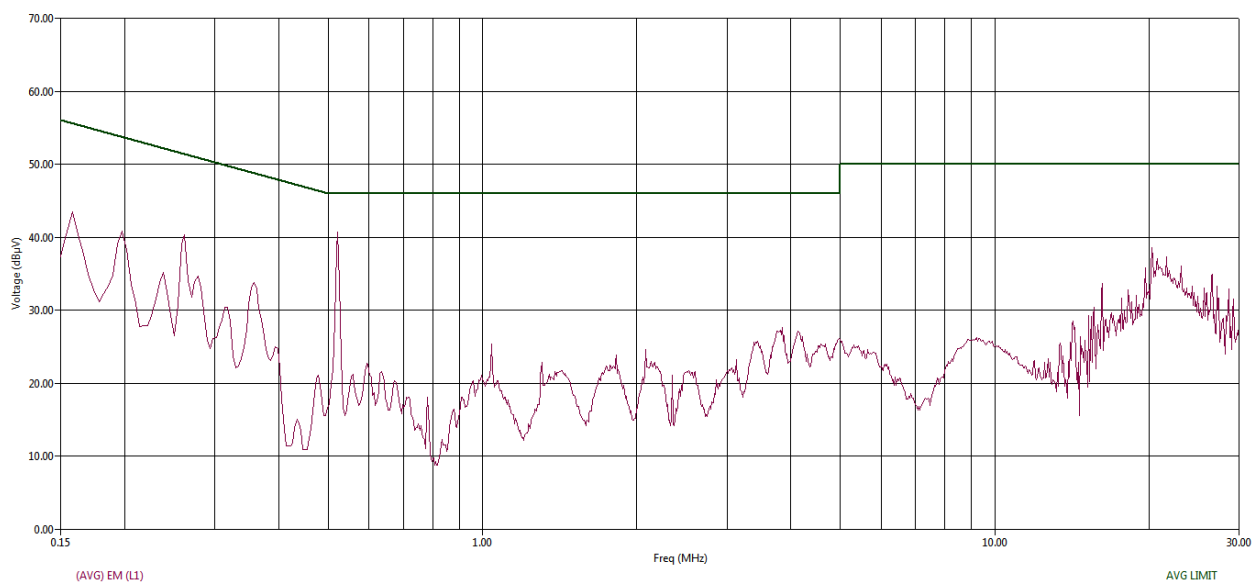


**Figure 107: 10 MHz, 230 V AC / 50 Hz. Mid channel: Average CE Graph-150 kHz to 30 MHz - Line**

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|------------------|
| 0.158      | 0.157            | N    | 43.887            | 9.825                    | 2.109             | 0.000             | 55.821          | 65.606            | -9.785           |
| 0.158      | 0.152            | L1   | 38.370            | 9.820                    | 0.000             | 2.186             | 50.376          | 65.904            | -15.528          |
| 0.354      | 0.363            | N    | 27.445            | 9.866                    | 0.889             | 0.000             | 38.200          | 58.669            | -20.468          |
| 0.354      | 0.354            | L1   | 28.713            | 9.866                    | 0.000             | 0.937             | 39.516          | 58.858            | -19.342          |
| 0.434      | 0.432            | N    | 13.165            | 9.868                    | 0.635             | 0.000             | 23.668          | 57.223            | -33.554          |
| 0.522      | 0.521            | N    | 32.770            | 9.869                    | 0.415             | 0.000             | 43.054          | 56.000            | -12.946          |
| 0.522      | 0.520            | L1   | 32.145            | 9.869                    | 0.000             | 0.424             | 42.439          | 56.000            | -13.561          |
| 1.042      | 1.041            | N    | 20.477            | 9.858                    | 0.328             | 0.000             | 30.663          | 56.000            | -25.337          |
| 1.306      | 1.303            | N    | 20.507            | 9.849                    | 0.319             | 0.000             | 30.674          | 56.000            | -25.326          |
| 1.826      | 1.824            | N    | 20.368            | 9.834                    | 0.304             | 0.000             | 30.506          | 56.000            | -25.494          |
| 2.086      | 2.084            | N    | 20.970            | 9.834                    | 0.300             | 0.000             | 31.104          | 56.000            | -24.896          |
| 4.130      | 4.132            | N    | 22.926            | 9.893                    | 0.308             | 0.000             | 33.127          | 56.000            | -22.873          |
| 5.026      | 5.021            | L1   | 21.815            | 9.910                    | 0.000             | 0.350             | 32.076          | 60.000            | -27.924          |
| 8.850      | 8.858            | L1   | 20.494            | 9.951                    | 0.000             | 0.408             | 30.853          | 60.000            | -29.147          |
| 15.618     | 15.619           | L1   | 25.599            | 9.944                    | 0.000             | 0.737             | 36.280          | 60.000            | -23.720          |
| 16.170     | 16.168           | L1   | 26.697            | 9.931                    | 0.000             | 0.691             | 37.319          | 60.000            | -22.681          |
| 16.230     | 16.230           | L1   | 27.705            | 9.930                    | 0.000             | 0.686             | 38.321          | 60.000            | -21.679          |
| 20.810     | 20.809           | L1   | 31.800            | 9.866                    | 0.000             | 0.421             | 42.088          | 60.000            | -17.912          |
| 22.214     | 22.216           | N    | 30.077            | 9.861                    | 0.630             | 0.000             | 40.568          | 60.000            | -19.432          |
| 28.690     | 28.686           | L1   | 24.540            | 9.835                    | 0.000             | 0.508             | 34.883          | 60.000            | -25.117          |

**Table 70: 10 MHz, 230 V AC / 50 Hz, Mid channel: Quasi Peak Table for CE from 150 kHz to 30 MHz**

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| 0.158      | 0.157            | N    | 31.691             | 9.825                    | 2.109             | 0.000             | 43.625           | 55.606             | -11.981           |
| 0.158      | 0.152            | L1   | 26.504             | 9.820                    | 0.000             | 2.186             | 38.511           | 55.904             | -17.394           |
| 0.354      | 0.363            | N    | 21.281             | 9.866                    | 0.889             | 0.000             | 32.036           | 48.669             | -16.632           |
| 0.354      | 0.354            | L1   | 22.392             | 9.866                    | 0.000             | 0.937             | 33.195           | 48.858             | -15.663           |
| 0.434      | 0.432            | N    | 9.939              | 9.868                    | 0.635             | 0.000             | 14.442           | 47.223             | -32.780           |
| 0.522      | 0.521            | N    | 31.264             | 9.869                    | 0.415             | 0.000             | 41.549           | 46.000             | -4.451            |
| 0.522      | 0.520            | L1   | 30.625             | 9.869                    | 0.000             | 0.424             | 40.919           | 46.000             | -5.081            |
| 1.042      | 1.041            | N    | 14.903             | 9.858                    | 0.328             | 0.000             | 25.090           | 46.000             | -20.910           |
| 1.306      | 1.303            | N    | 15.610             | 9.849                    | 0.319             | 0.000             | 25.777           | 46.000             | -20.223           |
| 1.826      | 1.824            | N    | 14.241             | 9.834                    | 0.304             | 0.000             | 24.379           | 46.000             | -21.621           |
| 2.086      | 2.084            | N    | 15.382             | 9.834                    | 0.300             | 0.000             | 25.516           | 46.000             | -20.484           |
| 4.130      | 4.132            | N    | 15.879             | 9.893                    | 0.308             | 0.000             | 26.080           | 46.000             | -19.920           |
| 5.026      | 5.021            | L1   | 14.901             | 9.910                    | 0.000             | 0.350             | 25.162           | 50.000             | -24.838           |
| 8.850      | 8.858            | L1   | 14.734             | 9.951                    | 0.000             | 0.408             | 25.093           | 50.000             | -24.907           |
| 15.618     | 15.619           | L1   | 20.221             | 9.944                    | 0.000             | 0.737             | 30.902           | 50.000             | -19.098           |
| 16.170     | 16.168           | L1   | 21.501             | 9.931                    | 0.000             | 0.691             | 32.124           | 50.000             | -17.876           |
| 16.230     | 16.230           | L1   | 22.793             | 9.930                    | 0.000             | 0.686             | 33.409           | 50.000             | -16.591           |
| 20.810     | 20.809           | L1   | 25.993             | 9.866                    | 0.000             | 0.421             | 36.281           | 50.000             | -13.719           |
| 22.214     | 22.216           | N    | 24.162             | 9.861                    | 0.630             | 0.000             | 34.653           | 50.000             | -15.347           |
| 28.690     | 28.686           | L1   | 20.628             | 9.835                    | 0.000             | 0.508             | 30.970           | 50.000             | -19.030           |

**Table 71: 10 MHz, 230 V AC / 50 Hz, Mid channel: Average Table for CE from 150 kHz to 30 MHz**

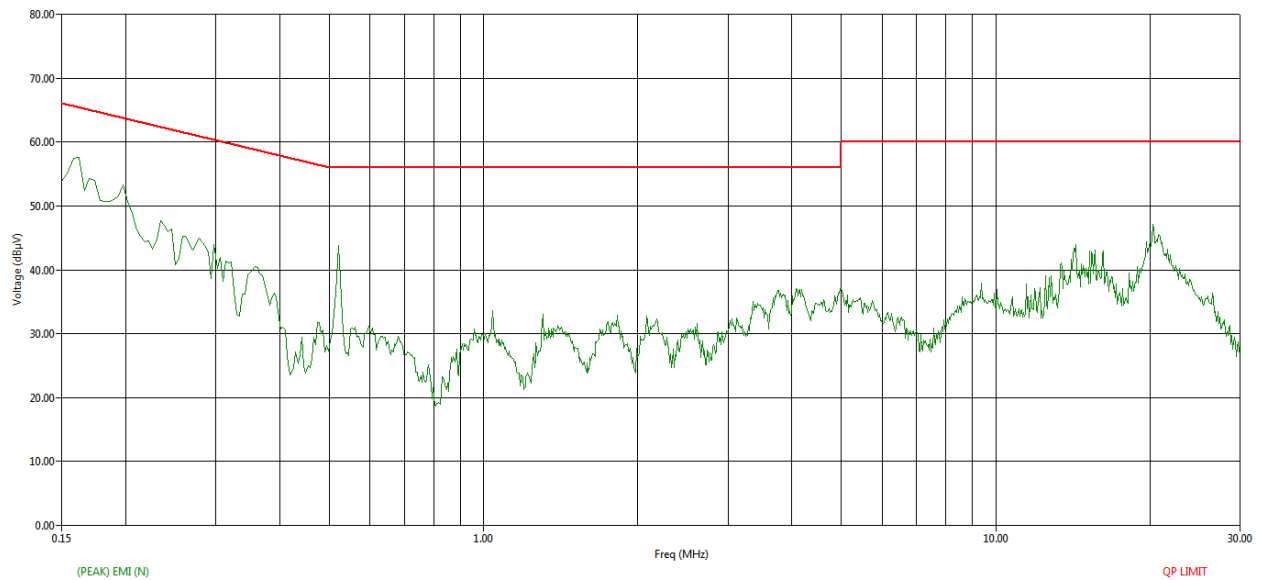


**Figure 108: 10 MHz, 230 V AC / 50 Hz. High channel: Peak CE Graph-150 kHz to 30 MHz - Neutral**

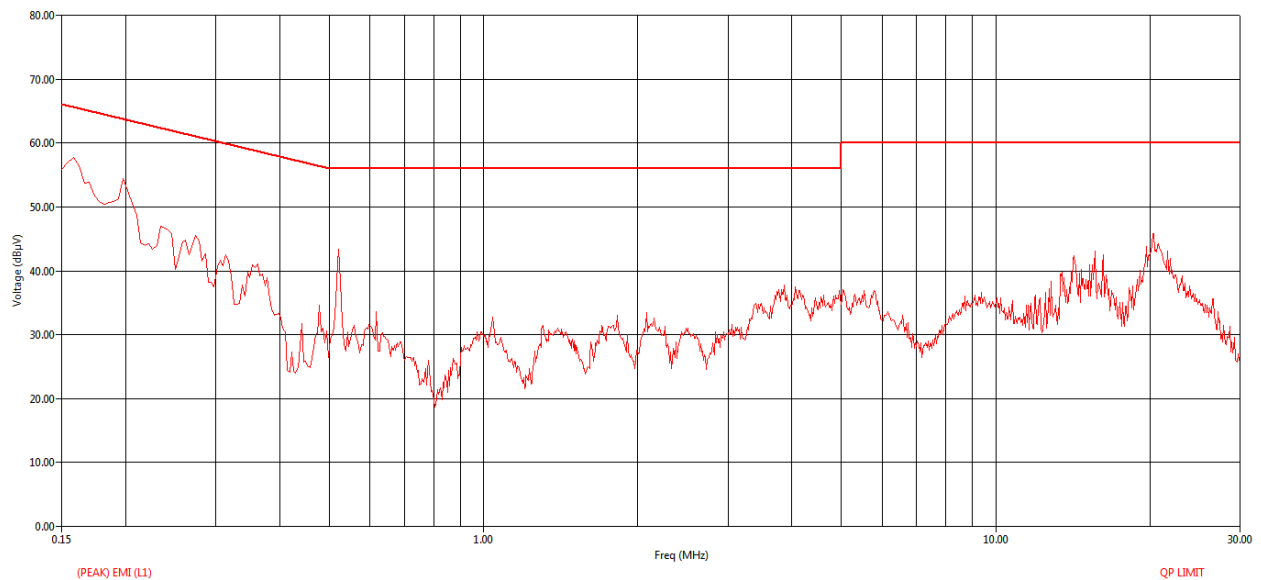


**Figure 109: 10 MHz, 230 V AC / 50 Hz. High channel: Peak CE Graph-150 kHz to 30 MHz - Line**

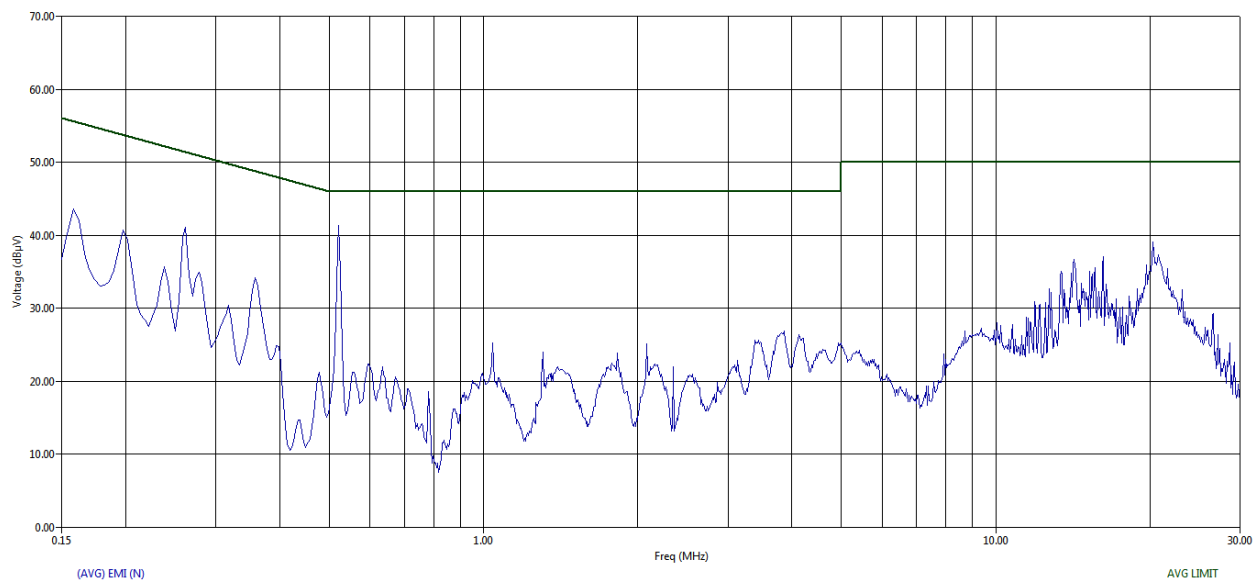


**Figure 110: 10 MHz, 230 V AC / 50 Hz. High channel: Average CE Graph-150 kHz to 30 MHz - Neutral**

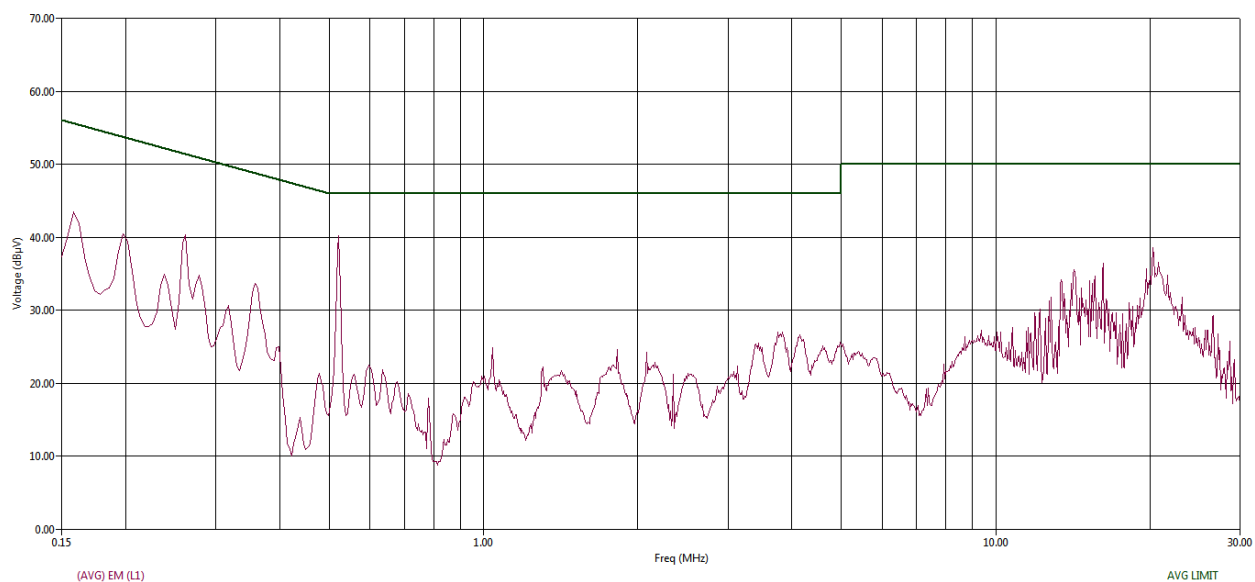


**Figure 111: 10 MHz, 230 V AC / 50 Hz. High channel: Average CE Graph-150 kHz to 30 MHz - Line**

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|------------------|
| 0.158      | 0.160            | L1   | 43.635            | 9.827                    | 0.000             | 2.111             | 55.573          | 65.483            | -9.909           |
| 0.162      | 0.157            | N    | 43.491            | 9.825                    | 2.113             | 0.000             | 55.429          | 65.631            | -10.202          |
| 0.522      | 0.520            | N    | 32.752            | 9.869                    | 0.415             | 0.000             | 43.036          | 56.000            | -12.964          |
| 0.522      | 0.521            | L1   | 32.144            | 9.869                    | 0.000             | 0.424             | 42.438          | 56.000            | -13.562          |
| 1.302      | 1.303            | N    | 20.164            | 9.849                    | 0.319             | 0.000             | 30.331          | 56.000            | -25.669          |
| 4.074      | 4.081            | N    | 22.494            | 9.892                    | 0.308             | 0.000             | 32.694          | 56.000            | -23.306          |
| 9.390      | 9.390            | N    | 21.184            | 9.955                    | 0.355             | 0.000             | 31.495          | 60.000            | -28.505          |
| 13.422     | 13.421           | N    | 19.290            | 9.970                    | 0.636             | 0.000             | 29.896          | 60.000            | -30.104          |
| 14.154     | 14.153           | L1   | 21.815            | 9.965                    | 0.000             | 0.737             | 32.517          | 60.000            | -27.483          |
| 14.334     | 14.338           | N    | 16.345            | 9.964                    | 0.698             | 0.000             | 27.007          | 60.000            | -32.993          |
| 14.702     | 14.709           | L1   | 9.643             | 9.962                    | 0.000             | 0.772             | 20.377          | 60.000            | -39.623          |
| 20.262     | 20.270           | N    | 25.737            | 9.869                    | 0.560             | 0.000             | 36.167          | 60.000            | -23.833          |
| 20.322     | 20.330           | L1   | 25.130            | 9.869                    | 0.000             | 0.414             | 35.413          | 60.000            | -24.587          |

**Table 72: 10 MHz, 230 V AC / 50 Hz, High channel: Quasi Peak Table for CE from 150 kHz to 30 MHz**

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| 0.158      | 0.160            | L1   | 31.012             | 9.827                    | 0.000             | 2.111             | 42.950           | 55.483             | -12.532           |
| 0.162      | 0.157            | N    | 31.171             | 9.825                    | 2.113             | 0.000             | 43.109           | 55.631             | -12.522           |
| 0.522      | 0.520            | N    | 31.240             | 9.869                    | 0.415             | 0.000             | 41.524           | 46.000             | -4.476            |
| 0.522      | 0.521            | L1   | 30.588             | 9.869                    | 0.000             | 0.424             | 40.882           | 46.000             | -5.118            |
| 1.302      | 1.303            | N    | 15.445             | 9.849                    | 0.319             | 0.000             | 25.612           | 46.000             | -20.388           |
| 4.074      | 4.081            | N    | 14.644             | 9.892                    | 0.308             | 0.000             | 24.844           | 46.000             | -21.156           |
| 9.390      | 9.390            | N    | 15.321             | 9.955                    | 0.355             | 0.000             | 25.632           | 50.000             | -24.368           |
| 13.422     | 13.421           | N    | 13.261             | 9.970                    | 0.636             | 0.000             | 23.866           | 50.000             | -26.134           |
| 14.154     | 14.153           | L1   | 16.928             | 9.965                    | 0.000             | 0.737             | 27.630           | 50.000             | -22.370           |
| 14.334     | 14.338           | N    | 14.545             | 9.964                    | 0.698             | 0.000             | 25.207           | 50.000             | -24.793           |
| 14.702     | 14.709           | L1   | 3.612              | 9.962                    | 0.000             | 0.772             | 14.346           | 50.000             | -35.654           |
| 20.262     | 20.270           | N    | 22.475             | 9.869                    | 0.560             | 0.000             | 32.904           | 50.000             | -17.096           |
| 20.322     | 20.330           | L1   | 20.272             | 9.869                    | 0.000             | 0.414             | 30.555           | 50.000             | -19.445           |

**Table 73: 10 MHz, 230 V AC / 50 Hz, High channel: Average Table for CE from 150 kHz to 30 MHz**

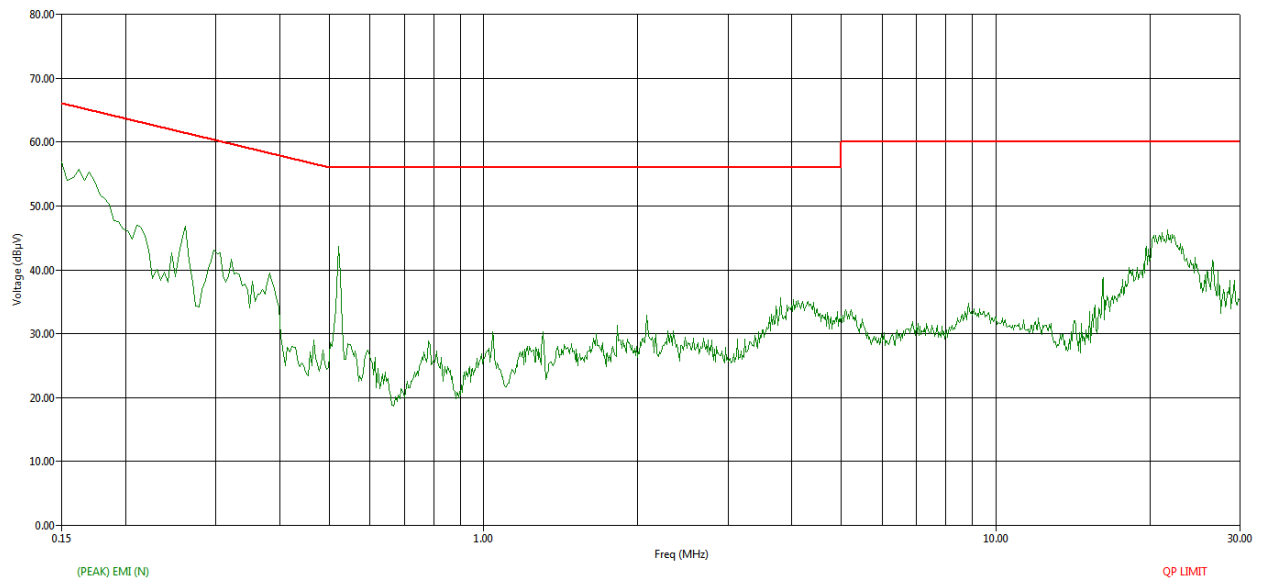


**Figure 112: 10 MHz, 120 V AC / 60 Hz. Low channel: Peak CE Graph-150 kHz to 30 MHz – Neutral**

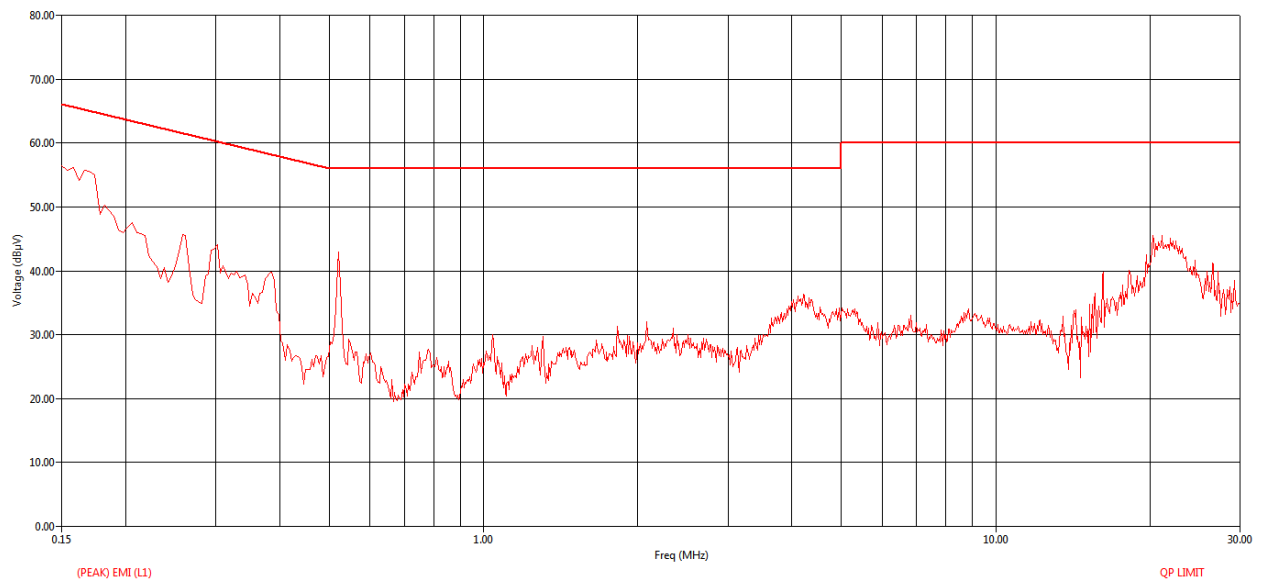


**Figure 113: 10 MHz, 120 V AC / 60 Hz. Low channel: Peak CE Graph-150 kHz to 30 MHz – Line**

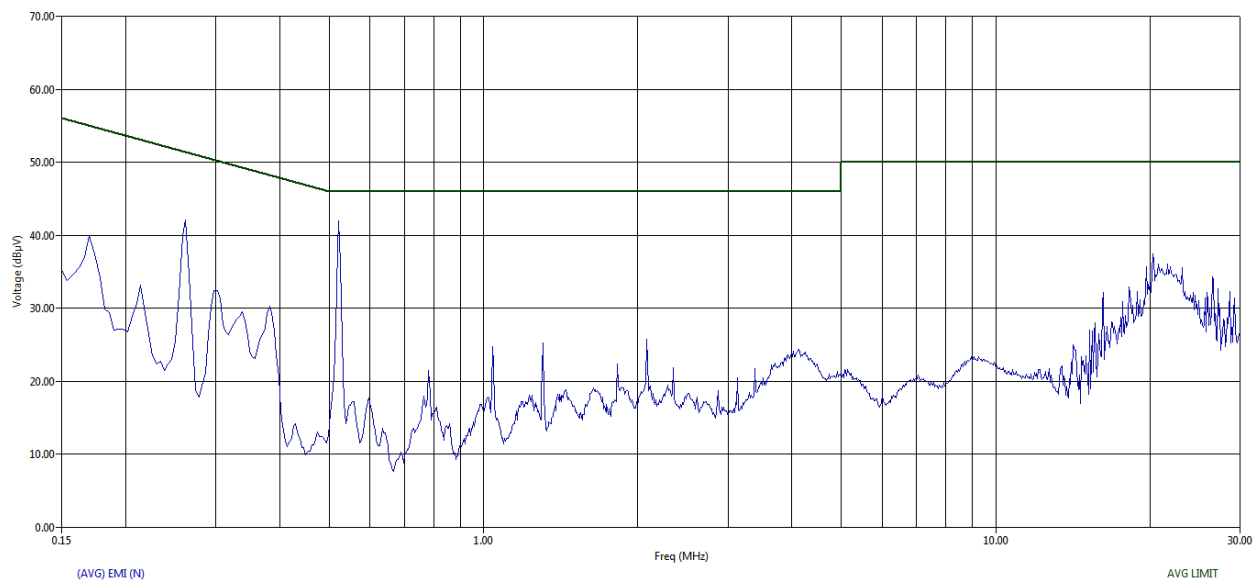


**Figure 114: 10 MHz, 120 V AC / 60 Hz. Low channel: Average CE Graph-150 kHz to 30 MHz – Neutral**

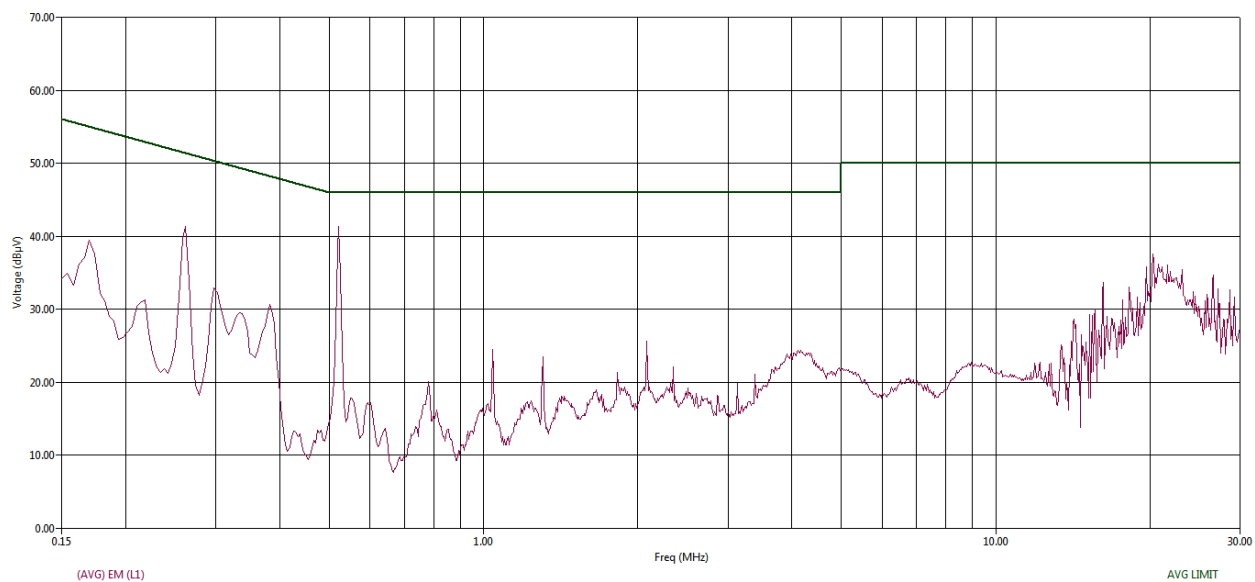


**Figure 115: 10 MHz, 120 V AC / 60 Hz. Low channel: Average CE Graph-150 kHz to 30 MHz – Line**

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|------------------|
| 0.150      | 0.152            | N    | 39.578            | 9.821                    | 2.154             | 0.000             | 51.553          | 65.866            | -14.313          |
| 0.150      | 0.151            | L1   | 40.655            | 9.819                    | 0.000             | 2.197             | 52.671          | 65.966            | -13.295          |
| 0.262      | 0.261            | N    | 33.060            | 9.863                    | 1.367             | 0.000             | 44.290          | 61.387            | -17.097          |
| 0.298      | 0.302            | N    | 29.514            | 9.864                    | 1.156             | 0.000             | 40.534          | 60.186            | -19.652          |
| 0.302      | 0.297            | L1   | 29.322            | 9.864                    | 0.000             | 1.195             | 40.381          | 60.314            | -19.933          |
| 0.522      | 0.521            | N    | 32.470            | 9.869                    | 0.415             | 0.000             | 42.755          | 56.000            | -13.245          |
| 0.522      | 0.522            | L1   | 31.851            | 9.869                    | 0.000             | 0.424             | 42.144          | 56.000            | -13.856          |
| 3.794      | 3.787            | N    | 17.951            | 9.886                    | 0.307             | 0.000             | 28.143          | 56.000            | -27.857          |
| 8.870      | 8.865            | N    | 18.146            | 9.951                    | 0.351             | 0.000             | 28.448          | 60.000            | -31.552          |
| 15.618     | 15.617           | L1   | 23.983            | 9.945                    | 0.000             | 0.737             | 34.664          | 60.000            | -25.336          |
| 16.170     | 16.170           | L1   | 26.001            | 9.931                    | 0.000             | 0.691             | 36.623          | 60.000            | -23.377          |
| 16.230     | 16.231           | N    | 25.326            | 9.930                    | 0.688             | 0.000             | 35.944          | 60.000            | -24.056          |
| 16.230     | 16.229           | L1   | 27.318            | 9.930                    | 0.000             | 0.686             | 37.933          | 60.000            | -22.067          |
| 21.118     | 21.116           | L1   | 30.197            | 9.865                    | 0.000             | 0.425             | 40.486          | 60.000            | -19.514          |
| 21.666     | 21.666           | N    | 31.291            | 9.863                    | 0.611             | 0.000             | 41.765          | 60.000            | -18.235          |
| 26.490     | 26.491           | N    | 27.194            | 9.844                    | 0.765             | 0.000             | 37.803          | 60.000            | -22.197          |
| 26.490     | 26.490           | L1   | 27.648            | 9.844                    | 0.000             | 0.486             | 37.978          | 60.000            | -22.022          |
| 27.162     | 27.161           | L1   | 25.778            | 9.841                    | 0.000             | 0.493             | 36.111          | 60.000            | -23.889          |
| 29.238     | 29.238           | N    | 24.340            | 9.833                    | 0.840             | 0.000             | 35.013          | 60.000            | -24.967          |
| 29.238     | 29.236           | L1   | 23.819            | 9.833                    | 0.000             | 0.513             | 34.165          | 60.000            | -25.835          |

**Table 74: 10 MHz, 120 V AC / 60 Hz, Low channel: Quasi Peak Table for CE from 150 kHz to 30 MHz**

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| 0.150      | 0.152            | N    | 22.184             | 9.821                    | 2.154             | 0.000             | 34.159           | 55.866             | -21.707           |
| 0.150      | 0.151            | L1   | 22.389             | 9.819                    | 0.000             | 2.197             | 34.405           | 55.966             | -21.561           |
| 0.262      | 0.261            | N    | 31.119             | 9.863                    | 1.367             | 0.000             | 42.349           | 51.387             | -9.038            |
| 0.298      | 0.302            | N    | 21.709             | 9.864                    | 1.156             | 0.000             | 32.729           | 50.186             | -17.457           |
| 0.302      | 0.297            | L1   | 21.600             | 9.864                    | 0.000             | 1.195             | 32.659           | 50.314             | -17.655           |
| 0.522      | 0.521            | N    | 31.511             | 9.869                    | 0.415             | 0.000             | 41.795           | 46.000             | -4.205            |
| 0.522      | 0.522            | L1   | 30.856             | 9.869                    | 0.000             | 0.424             | 41.149           | 46.000             | -4.851            |
| 3.794      | 3.787            | N    | 11.302             | 9.886                    | 0.307             | 0.000             | 21.495           | 46.000             | -24.505           |
| 8.870      | 8.865            | N    | 11.820             | 9.951                    | 0.351             | 0.000             | 22.123           | 50.000             | -27.877           |
| 15.618     | 15.617           | L1   | 18.719             | 9.945                    | 0.000             | 0.737             | 29.400           | 50.000             | -20.600           |
| 16.170     | 16.170           | L1   | 21.539             | 9.931                    | 0.000             | 0.691             | 32.161           | 50.000             | -17.839           |
| 16.230     | 16.231           | N    | 20.998             | 9.930                    | 0.688             | 0.000             | 31.616           | 50.000             | -18.384           |
| 16.230     | 16.229           | L1   | 22.451             | 9.930                    | 0.000             | 0.686             | 33.067           | 50.000             | -16.933           |
| 21.118     | 21.116           | L1   | 24.294             | 9.865                    | 0.000             | 0.425             | 34.583           | 50.000             | -15.417           |
| 21.666     | 21.666           | N    | 25.406             | 9.863                    | 0.611             | 0.000             | 35.880           | 50.000             | -14.120           |
| 26.490     | 26.491           | N    | 23.376             | 9.844                    | 0.765             | 0.000             | 33.985           | 50.000             | -16.015           |
| 26.490     | 26.490           | L1   | 23.886             | 9.844                    | 0.000             | 0.486             | 34.216           | 50.000             | -15.784           |
| 27.162     | 27.161           | L1   | 21.848             | 9.841                    | 0.000             | 0.493             | 32.182           | 50.000             | -17.818           |
| 29.238     | 29.238           | N    | 20.401             | 9.833                    | 0.840             | 0.000             | 31.075           | 50.000             | -18.925           |
| 29.238     | 29.236           | L1   | 19.805             | 9.833                    | 0.000             | 0.513             | 30.151           | 50.000             | -19.849           |

**Table 75: 10 MHz, 120 V AC / 60 Hz, Low channel: Average Table for CE from 150 kHz to 30 MHz**

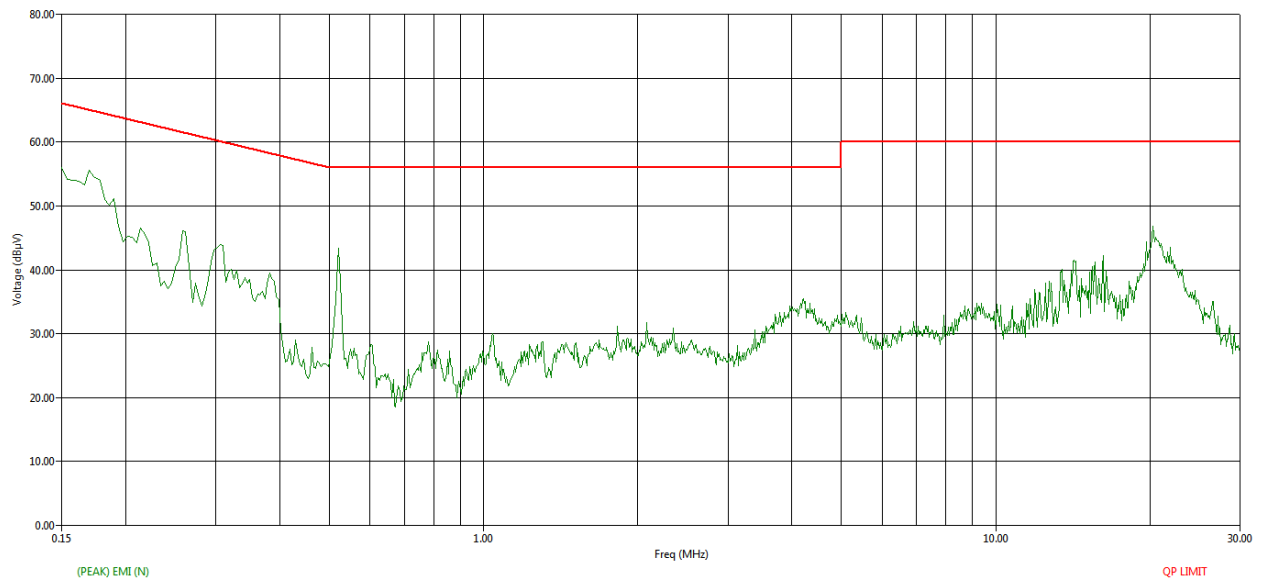


**Figure 116: 10 MHz, 120 V AC / 60 Hz. Mid channel: Peak CE Graph-150 kHz to 30 MHz – Neutral**

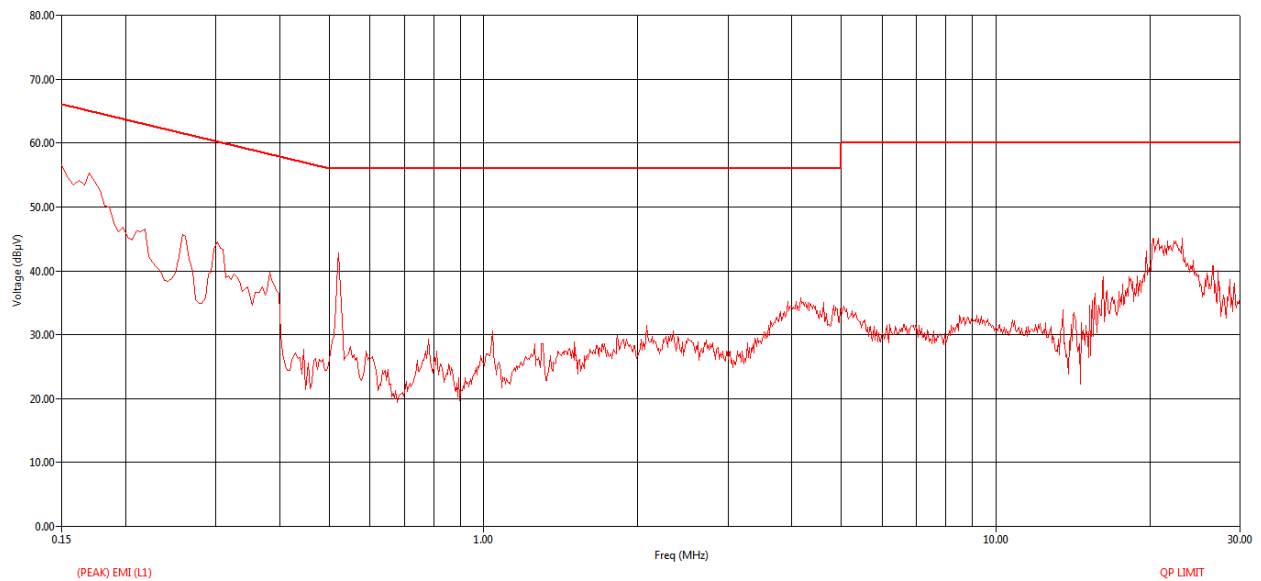


**Figure 117: 10 MHz, 120 V AC / 60 Hz. Mid channel: Peak CE Graph-150 kHz to 30 MHz – Line**

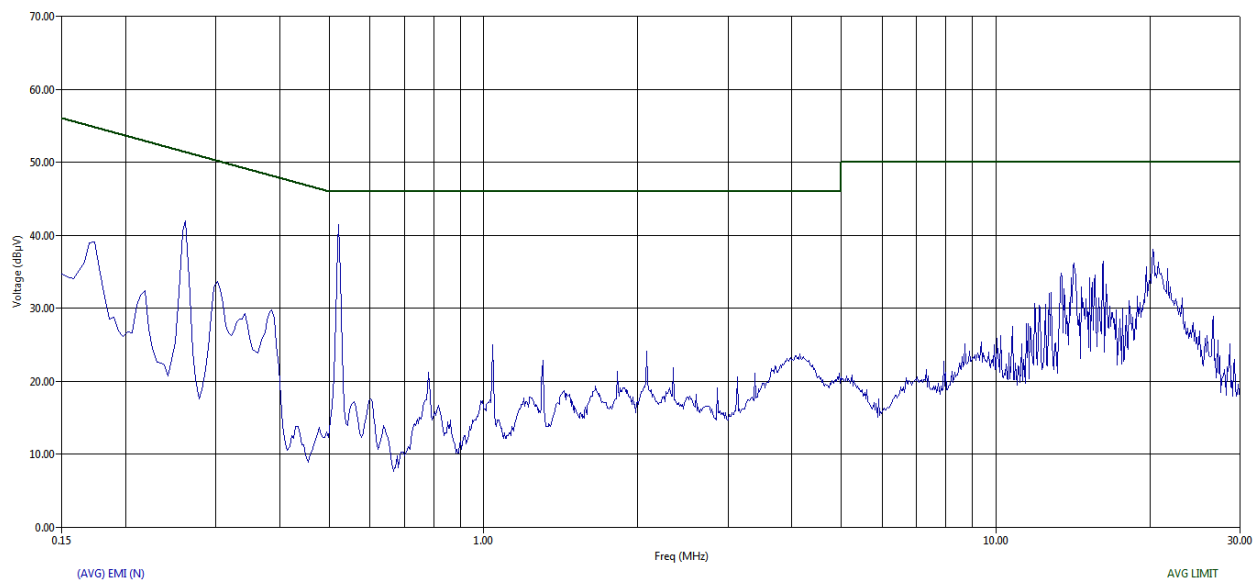


**Figure 118: 10 MHz, 120 V AC / 60 Hz. Mid channel: Average CE Graph-150 kHz to 30 MHz – Neutral**

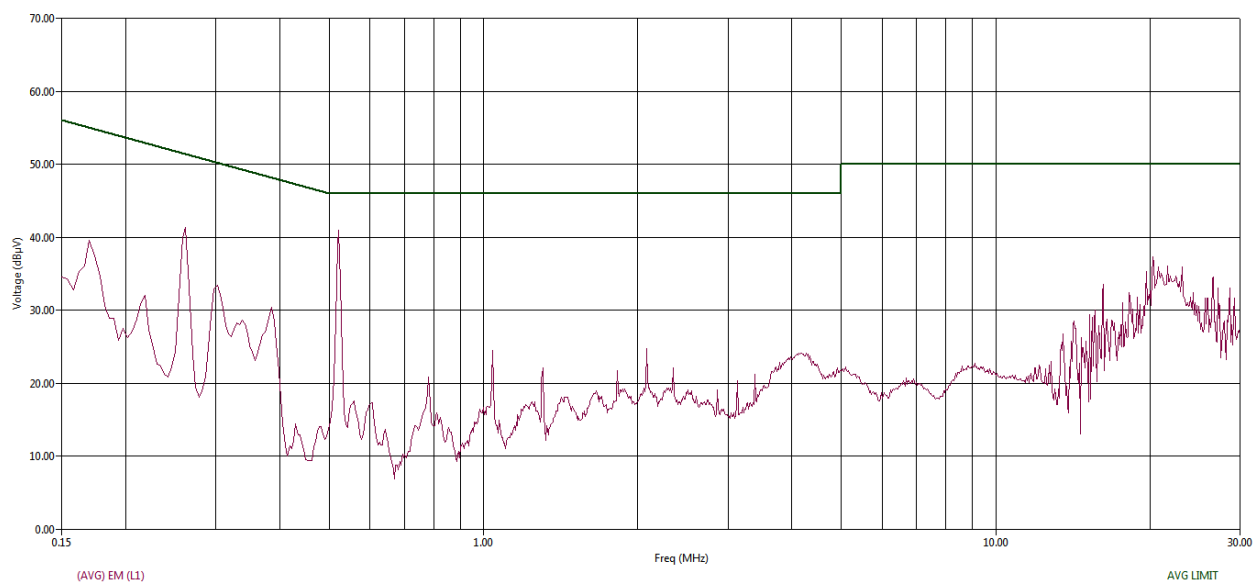


**Figure 119: 10 MHz, 120 V AC / 60 Hz. Mid channel: Average CE Graph-150 kHz to 30 MHz – Line**

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|------------------|
| 0.150      | 0.150            | N    | 40.765            | 9.819                    | 2.176             | 0.000             | 52.760          | 65.988            | -13.228          |
| 0.150      | 0.151            | L1   | 40.813            | 9.819                    | 0.000             | 2.197             | 52.828          | 65.964            | -13.136          |
| 0.258      | 0.259            | N    | 33.568            | 9.863                    | 1.378             | 0.000             | 44.808          | 61.447            | -16.639          |
| 0.302      | 0.301            | L1   | 30.073            | 9.864                    | 0.000             | 1.177             | 41.114          | 60.213            | -19.099          |
| 0.306      | 0.304            | N    | 29.697            | 9.865                    | 1.146             | 0.000             | 40.708          | 60.130            | -19.422          |
| 0.522      | 0.520            | N    | 32.522            | 9.869                    | 0.415             | 0.000             | 42.807          | 56.000            | -13.193          |
| 0.522      | 0.521            | L1   | 32.063            | 9.869                    | 0.000             | 0.424             | 42.357          | 56.000            | -13.643          |
| 14.154     | 14.154           | N    | 18.408            | 9.965                    | 0.686             | 0.000             | 29.059          | 60.000            | -30.941          |
| 14.214     | 14.215           | N    | 19.039            | 9.965                    | 0.690             | 0.000             | 29.693          | 60.000            | -30.307          |
| 14.274     | 14.274           | N    | 18.484            | 9.964                    | 0.693             | 0.000             | 29.142          | 60.000            | -30.858          |
| 14.334     | 14.337           | N    | 18.598            | 9.964                    | 0.698             | 0.000             | 29.260          | 60.000            | -30.740          |
| 16.170     | 16.168           | L1   | 26.180            | 9.931                    | 0.000             | 0.691             | 36.802          | 60.000            | -23.198          |
| 16.230     | 16.228           | N    | 25.346            | 9.930                    | 0.688             | 0.000             | 35.964          | 60.000            | -24.036          |
| 16.230     | 16.230           | L1   | 27.276            | 9.930                    | 0.000             | 0.686             | 37.892          | 60.000            | -22.108          |
| 20.262     | 20.260           | N    | 32.019            | 9.869                    | 0.560             | 0.000             | 42.448          | 60.000            | -17.552          |
| 23.130     | 23.132           | L1   | 30.513            | 9.857                    | 0.000             | 0.449             | 40.820          | 60.000            | -19.180          |
| 26.614     | 26.611           | L1   | 27.495            | 9.843                    | 0.000             | 0.487             | 37.826          | 60.000            | -22.174          |
| 27.162     | 27.161           | L1   | 25.843            | 9.841                    | 0.000             | 0.493             | 36.177          | 60.000            | -23.823          |
| 28.690     | 28.689           | L1   | 25.299            | 9.835                    | 0.000             | 0.508             | 35.641          | 60.000            | -24.359          |
| 29.238     | 29.238           | L1   | 24.907            | 9.833                    | 0.000             | 0.513             | 35.253          | 60.000            | -24.747          |

**Table 76: 10 MHz, 120 V AC / 60 Hz, Mid channel: Quasi Peak Table for CE from 150 kHz to 30 MHz**

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| 0.150      | 0.150            | N    | 22.532             | 9.819                    | 2.176             | 0.000             | 34.526           | 55.988             | -21.462           |
| 0.150      | 0.151            | L1   | 22.352             | 9.819                    | 0.000             | 2.197             | 34.367           | 55.964             | -21.597           |
| 0.258      | 0.259            | N    | 31.291             | 9.863                    | 1.378             | 0.000             | 42.532           | 51.447             | -8.916            |
| 0.302      | 0.301            | L1   | 22.769             | 9.864                    | 0.000             | 1.177             | 33.810           | 50.213             | -16.403           |
| 0.306      | 0.304            | N    | 22.148             | 9.865                    | 1.146             | 0.000             | 33.159           | 50.130             | -16.971           |
| 0.522      | 0.520            | N    | 31.518             | 9.869                    | 0.415             | 0.000             | 41.802           | 46.000             | -4.198            |
| 0.522      | 0.521            | L1   | 31.021             | 9.869                    | 0.000             | 0.424             | 41.314           | 46.000             | -4.686            |
| 14.154     | 14.154           | N    | 13.795             | 9.965                    | 0.686             | 0.000             | 24.446           | 50.000             | -25.554           |
| 14.214     | 14.215           | N    | 14.381             | 9.965                    | 0.690             | 0.000             | 25.036           | 50.000             | -24.964           |
| 14.274     | 14.274           | N    | 13.130             | 9.964                    | 0.693             | 0.000             | 23.788           | 50.000             | -26.212           |
| 14.334     | 14.337           | N    | 13.666             | 9.964                    | 0.698             | 0.000             | 24.328           | 50.000             | -25.672           |
| 16.170     | 16.168           | L1   | 21.151             | 9.931                    | 0.000             | 0.691             | 31.774           | 50.000             | -18.226           |
| 16.230     | 16.228           | N    | 19.959             | 9.930                    | 0.688             | 0.000             | 30.576           | 50.000             | -19.424           |
| 16.230     | 16.230           | L1   | 22.871             | 9.930                    | 0.000             | 0.686             | 33.487           | 50.000             | -16.513           |
| 20.262     | 20.260           | N    | 26.581             | 9.869                    | 0.560             | 0.000             | 37.009           | 50.000             | -12.991           |
| 23.130     | 23.132           | L1   | 25.463             | 9.857                    | 0.000             | 0.449             | 35.769           | 50.000             | -14.231           |
| 26.614     | 26.611           | L1   | 23.518             | 9.843                    | 0.000             | 0.487             | 33.849           | 50.000             | -16.151           |
| 27.162     | 27.161           | L1   | 22.092             | 9.841                    | 0.000             | 0.493             | 32.426           | 50.000             | -17.574           |
| 28.690     | 28.689           | L1   | 22.181             | 9.835                    | 0.000             | 0.508             | 32.523           | 50.000             | -17.477           |
| 29.238     | 29.238           | L1   | 21.520             | 9.833                    | 0.000             | 0.513             | 31.866           | 50.000             | -18.134           |

**Table 77: 10 MHz, 120 V AC / 60 Hz, Mid channel: Average Table for CE from 150 kHz to 30 MHz**

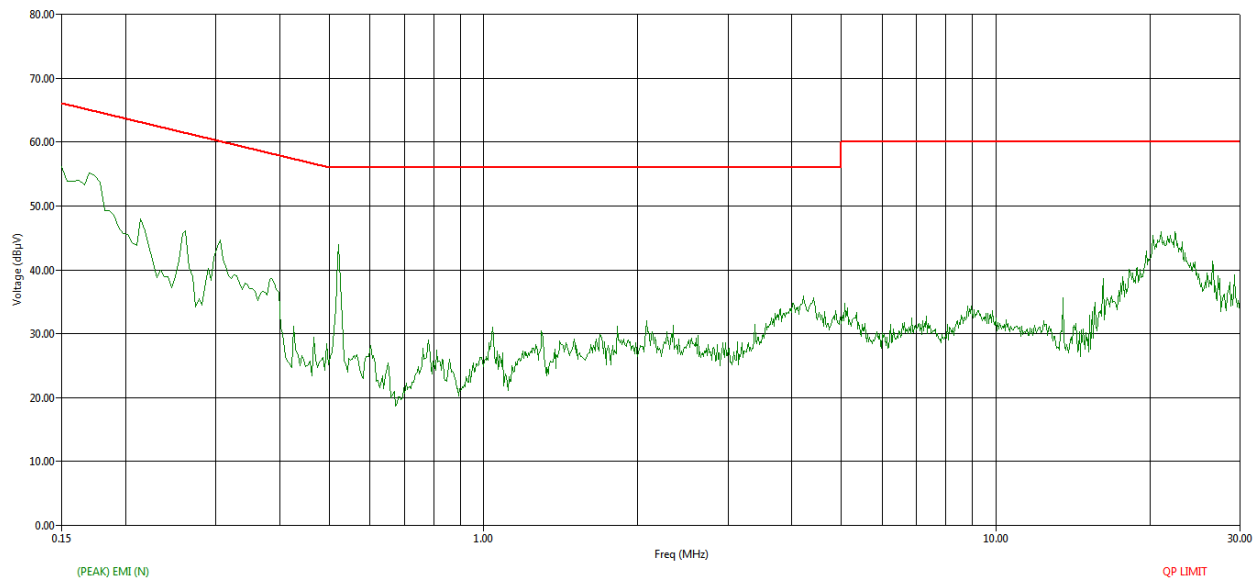


**Figure 120: 10 MHz, 120 V AC / 60 Hz. High channel: Peak CE Graph-150 kHz to 30 MHz – Neutral**

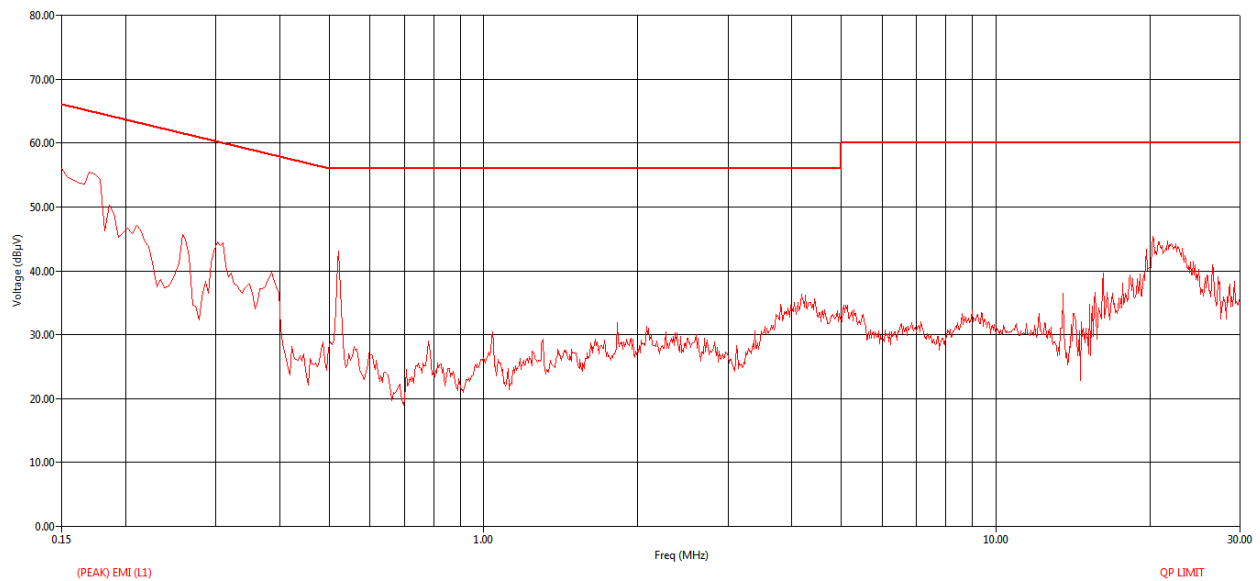


**Figure 121: 10 MHz, 120 V AC / 60 Hz. High channel: Peak CE Graph-150 kHz to 30 MHz – Line**

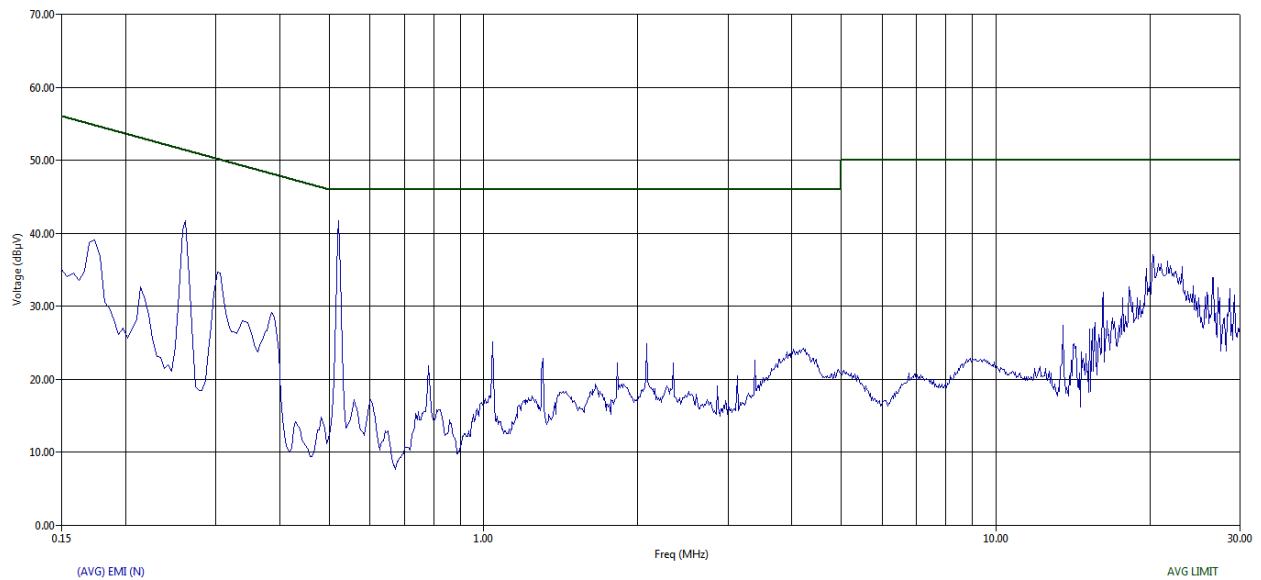


**Figure 122: 10 MHz, 120 V AC / 60 Hz. High channel: Average CE Graph-150 kHz to 30 MHz – Neutral**

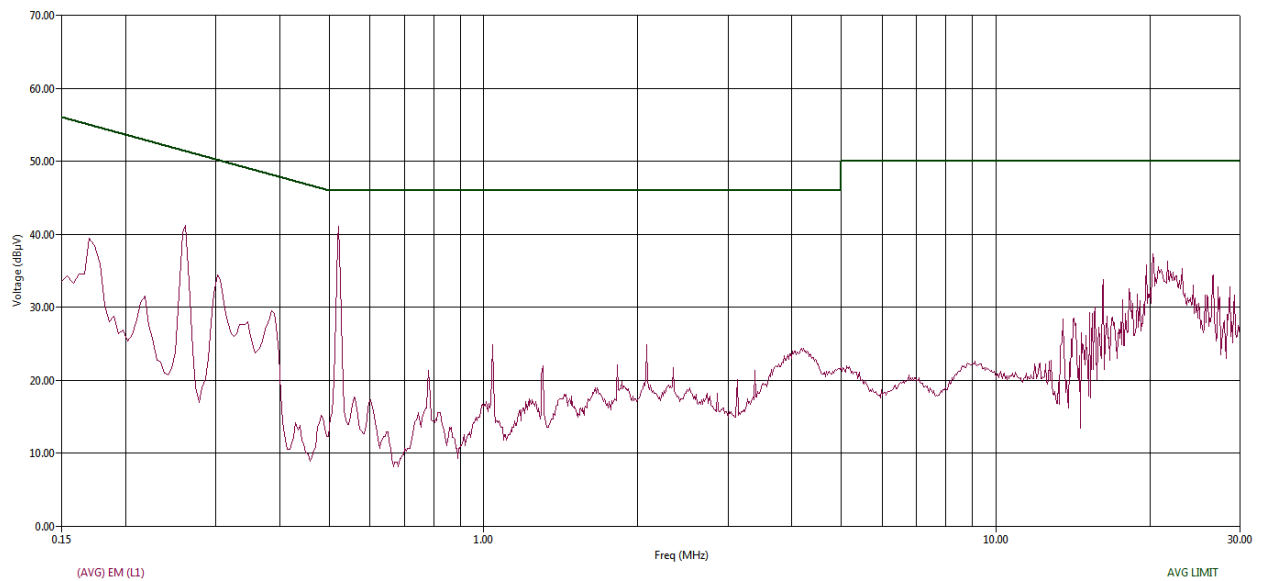


**Figure 123: 10 MHz, 120 V AC / 60 Hz. High channel: Average CE Graph-150 kHz to 30 MHz – Line**

| Freq (MHz) | Freq (Max) (MHz) | Line | (QP) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (QP) EMI (dBμV) | (QP) Limit (dBμV) | (QP) Margin (dB) |
|------------|------------------|------|-------------------|--------------------------|-------------------|-------------------|-----------------|-------------------|------------------|
| 0.150      | 0.151            | N    | 40.814            | 9.819                    | 2.173             | 0.000             | 52.806          | 65.969            | -13.163          |
| 0.150      | 0.152            | L1   | 40.310            | 9.821                    | 0.000             | 2.180             | 52.310          | 65.869            | -13.559          |
| 0.258      | 0.260            | L1   | 33.364            | 9.863                    | 0.000             | 1.394             | 44.620          | 61.436            | -16.816          |
| 0.262      | 0.260            | N    | 33.778            | 9.863                    | 1.373             | 0.000             | 45.014          | 61.422            | -16.408          |
| 0.302      | 0.308            | L1   | 29.324            | 9.865                    | 0.000             | 1.144             | 40.332          | 60.026            | -19.694          |
| 0.306      | 0.308            | N    | 29.386            | 9.865                    | 1.128             | 0.000             | 40.379          | 60.028            | -19.649          |
| 0.522      | 0.521            | N    | 32.594            | 9.869                    | 0.415             | 0.000             | 42.878          | 56.000            | -13.122          |
| 0.522      | 0.520            | L1   | 31.910            | 9.869                    | 0.000             | 0.424             | 42.204          | 56.000            | -13.796          |
| 19.710     | 19.711           | L1   | 30.198            | 9.873                    | 0.000             | 0.429             | 40.500          | 60.000            | -19.500          |
| 20.262     | 20.258           | L1   | 31.197            | 9.869                    | 0.000             | 0.413             | 41.479          | 60.000            | -18.521          |
| 21.054     | 21.055           | N    | 30.295            | 9.865                    | 0.589             | 0.000             | 40.750          | 60.000            | -19.250          |
| 26.490     | 26.488           | N    | 26.860            | 9.844                    | 0.765             | 0.000             | 37.469          | 60.000            | -22.531          |

**Table 78: 10 MHz, 120 V AC / 60 Hz, High channel: Quasi Peak Table for CE from 150 kHz to 30 MHz**

| Freq (MHz) | Freq (Max) (MHz) | Line | (AVG) Trace (dBμV) | Cable+Pulse Limiter (dB) | Transducer N (dB) | Transducer L (dB) | (AVG) EMI (dBμV) | (AVG) Limit (dBμV) | (AVG) Margin (dB) |
|------------|------------------|------|--------------------|--------------------------|-------------------|-------------------|------------------|--------------------|-------------------|
| 0.150      | 0.151            | N    | 22.426             | 9.819                    | 2.173             | 0.000             | 34.418           | 55.969             | -21.552           |
| 0.150      | 0.152            | L1   | 22.209             | 9.821                    | 0.000             | 2.180             | 34.210           | 55.869             | -21.659           |
| 0.258      | 0.260            | L1   | 30.892             | 9.863                    | 0.000             | 1.394             | 42.149           | 51.436             | -9.287            |
| 0.262      | 0.260            | N    | 31.509             | 9.863                    | 1.373             | 0.000             | 42.745           | 51.422             | -8.677            |
| 0.302      | 0.308            | L1   | 21.905             | 9.865                    | 0.000             | 1.144             | 32.914           | 50.026             | -17.112           |
| 0.306      | 0.308            | N    | 21.941             | 9.865                    | 1.128             | 0.000             | 32.934           | 50.028             | -17.094           |
| 0.522      | 0.521            | N    | 31.569             | 9.869                    | 0.415             | 0.000             | 41.853           | 46.000             | -4.147            |
| 0.522      | 0.520            | L1   | 30.811             | 9.869                    | 0.000             | 0.424             | 41.104           | 46.000             | -4.896            |
| 19.710     | 19.711           | L1   | 25.398             | 9.873                    | 0.000             | 0.429             | 35.700           | 50.000             | -14.300           |
| 20.262     | 20.258           | L1   | 26.054             | 9.869                    | 0.000             | 0.413             | 36.336           | 50.000             | -13.664           |
| 21.054     | 21.055           | N    | 24.478             | 9.865                    | 0.589             | 0.000             | 34.932           | 50.000             | -15.068           |
| 26.490     | 26.488           | N    | 22.535             | 9.844                    | 0.765             | 0.000             | 33.143           | 50.000             | -16.857           |

**Table 79: 10 MHz, 120 V AC / 60 Hz, High channel: Average Table for CE from 150 kHz to 30 MHz**

**Note:**

$(QP) EMI (dB\mu V) = (QP) Trace (dB\mu V) + Transducer (dB) + \{Cable + Pulse limiter\} (dB)$

$QP Margin QPL (dB) = (QP) EMI (dB\mu V) - (QP) Limit (dB\mu V)$

$(AVG) EMI (dB\mu V) = (AVG) Trace (dB\mu V) + Transducer (dB) + \{Cable + Pulse limiter\} (dB)$

$AVG Margin AVL (dB) = (AVG) EMI (dB\mu V) - (AVG) Limit (dB\mu V)$

### 5.3.2.6 RESULT

Conducted Emission from the EUT was within the specified limits.

## ANNEXURE I: EUT SOFTWARE SETTINGS

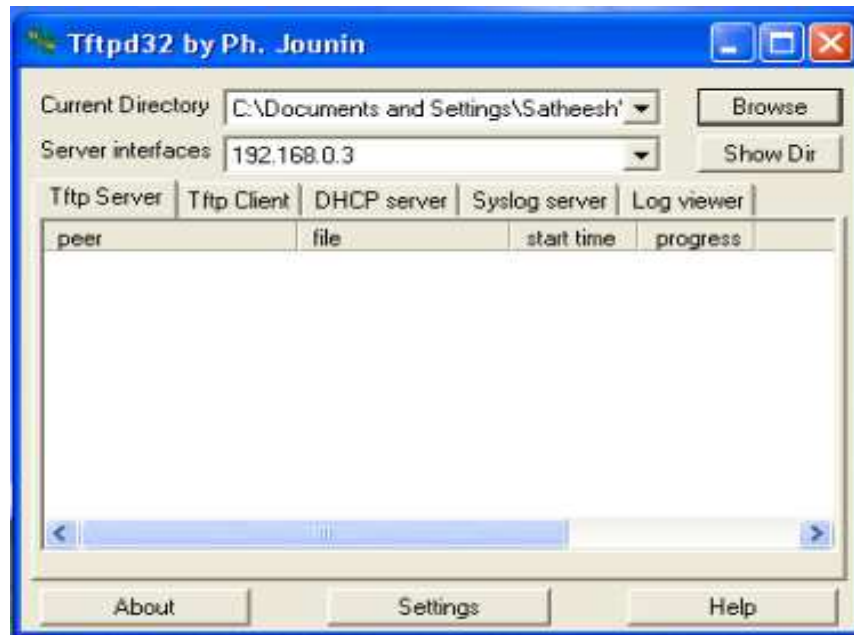


Figure 124: tftpd32 application screenshot



Figure 125: tftpd32 application initialization root\_ screenshot



Figure 126: Tera term application screenshot

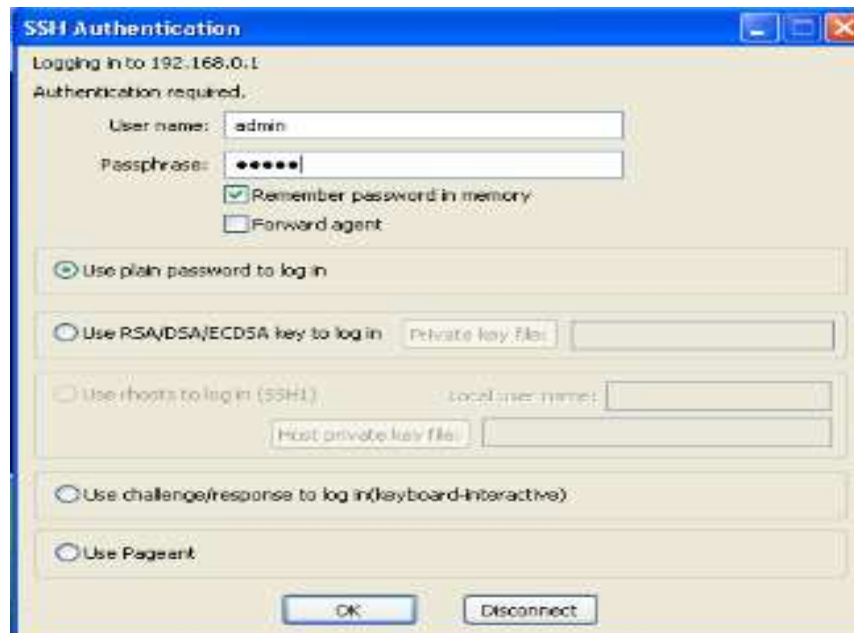


Figure 127: Tera term application Login screenshot

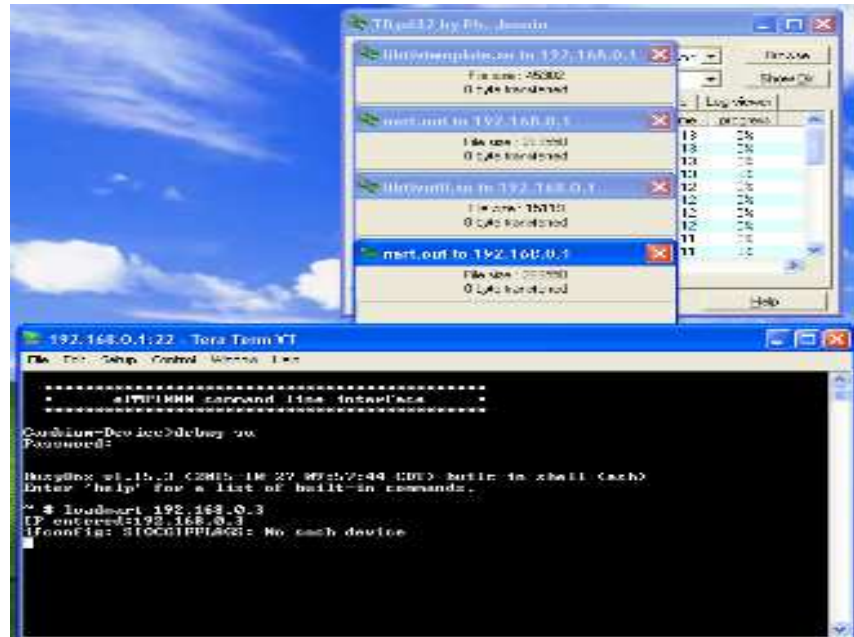


Figure 128: Initializing EUT screenshot

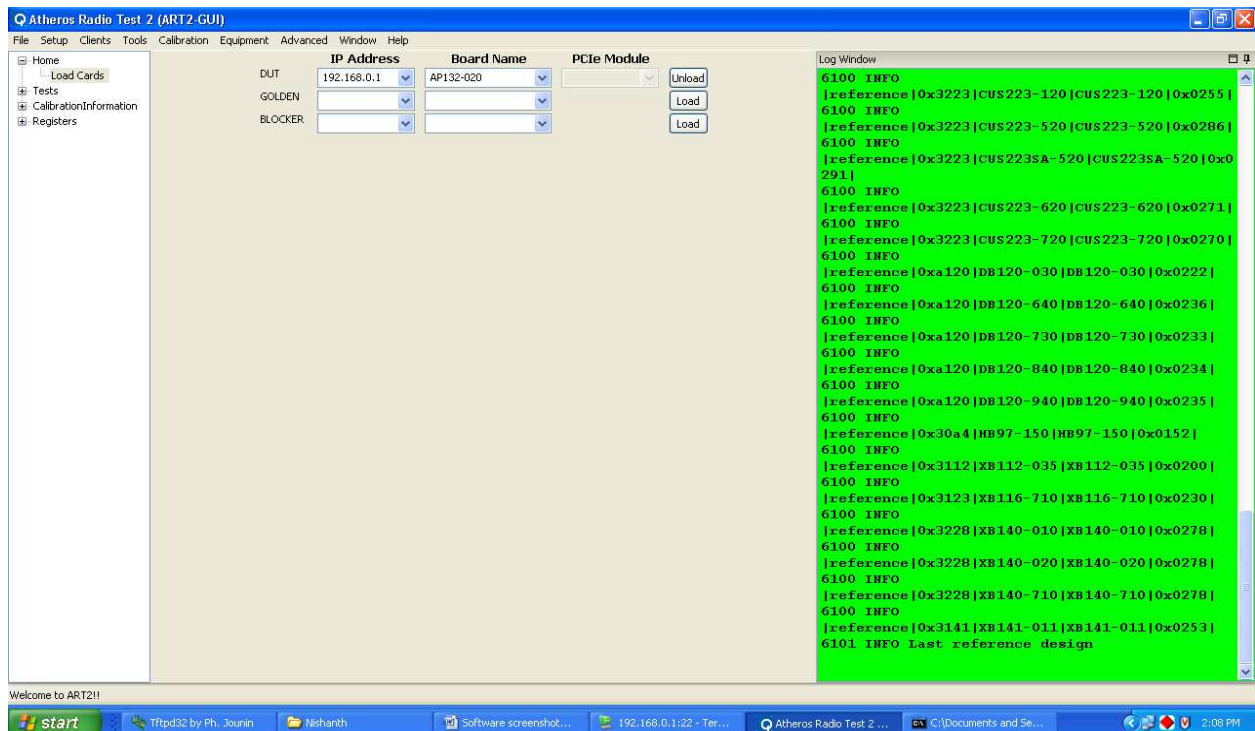


Figure 129: Atheros Radio Test GUI screenshot-1

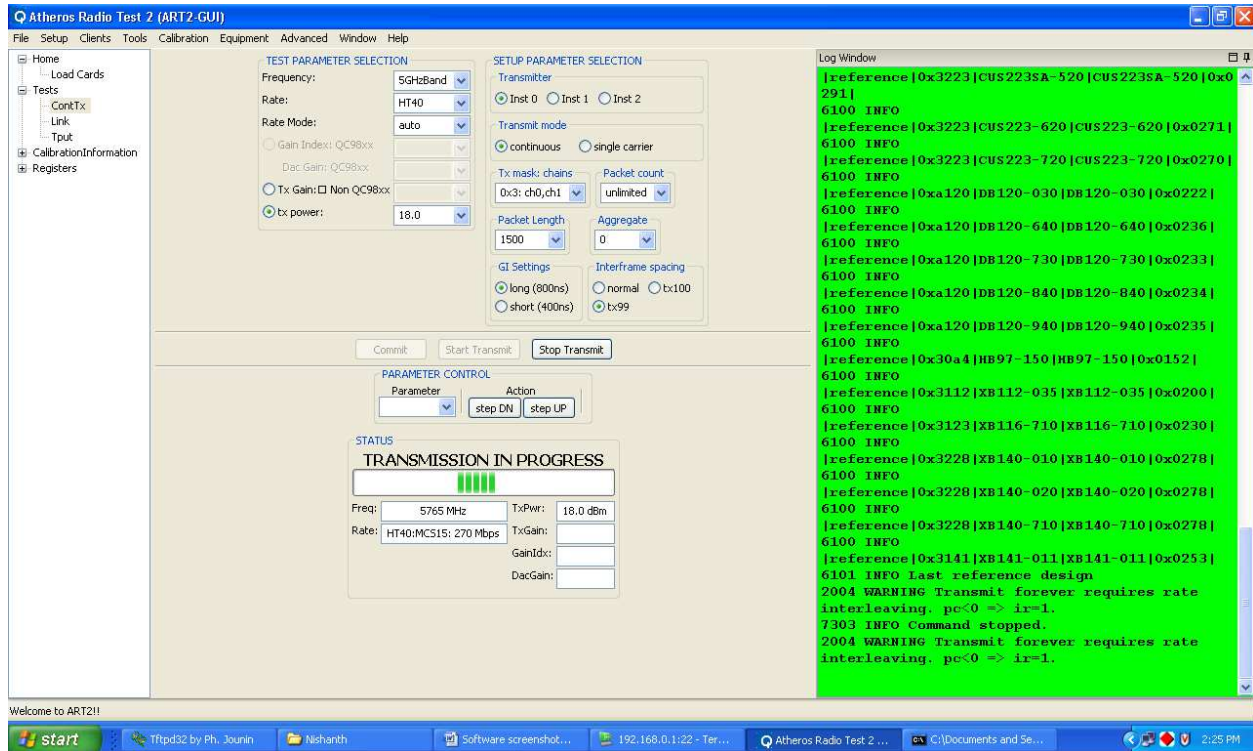


Figure 130: Atheros Radio Test GUI screenshot -2

## ANNEXURE II: ACRONYMS

|            |                                      |
|------------|--------------------------------------|
| dB $\mu$ V | Decibel in micro Volt                |
| dBm        | Decibel in milli Watt                |
| EUT        | Equipment Under Test                 |
| FCC        | Federal Communications Commission    |
| GHz        | Giga Hertz                           |
| kHz        | Kilo Hertz                           |
| LISN       | Line Impedance Stabilization Network |
| MHz        | Mega Hertz                           |
| POE        | Power over Ethernet                  |
| PSD        | Power Spectral density               |
| QP         | Quasi Peak                           |
| RF         | Radio Frequency                      |

**END OF REPORT**