



# TEST REPORT

**REGULATION :** FCC Part 22, 74, 90  
RSS-119 Issue 12

| Applicant                                                                                                                                        | Testing Laboratory                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JVCKENWOOD Corporation<br>1-16-2, Hakusan, Midori-ku, Yokohama-shi<br>Kanagawa, 226-8525 Japan<br>Tel.: +81 45 939 6254<br>Fax.: +81 45 939 6261 | Intertek Japan K.K. Kashima Laboratory<br>URL: <a href="http://www.japan.intertek-etlsemko.com">http://www.japan.intertek-etlsemko.com</a><br>(No.12 Test site)<br>298-6 Sada, Kashima, Ibaraki<br>314-0027 Japan<br>Tel. +81 299 82 8464 |

|                            |                 |
|----------------------------|-----------------|
| <b>Equipment type</b>      | UHF TRANSCEIVER |
| <b>Trademark</b>           | KENWOOD         |
| <b>FCC Model(s)</b>        | NX-1800H-K2     |
| <b>HVIN (ISED)</b>         | NX-1800H-K2     |
| <b>PMN (ISED)</b>          | NX-1800H-K2     |
| <b>Serial No.</b>          | 001             |
| <b>FCC ID</b>              | K44517100       |
| <b>ISED CN and UPN</b>     | 282F-517100     |
| <b>Test Result</b>         | Complied        |
| <b>Report Number</b>       | 22020112JKA-001 |
| <b>Original Issue Date</b> | July 08, 2022   |

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Approved by

Tested by

Hideaki Kosemura  
[Technical Manager]

Koichi Wagatsuma  
[Engineer]



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This report contains data that are not covered by the VLAC accreditation.

**In Accordance with FCC Rules and Regulations, Volume II, Part 2 and 90**

**Sub-part 2.1033**

|                                                                                                                              |                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applicant and Manufacture Information</b>                                                                                 |                                                                                                                                                                                                                                                                                                         |
| APPLICANT                                                                                                                    |                                                                                                                                                                                                                                                                                                         |
| Company                                                                                                                      | : JVCKENWOOD Corporation                                                                                                                                                                                                                                                                                |
| Address                                                                                                                      | : 1-16-2, Hakusan, Midori-ku, Yokohama-shi<br>Kanagawa, 226-8525 Japan                                                                                                                                                                                                                                  |
| Contact Person                                                                                                               | : Kazuyoshi Akaike                                                                                                                                                                                                                                                                                      |
| MANUFACTURER                                                                                                                 |                                                                                                                                                                                                                                                                                                         |
| Company                                                                                                                      | : JVCKENWOOD Corporation                                                                                                                                                                                                                                                                                |
| Address                                                                                                                      | : 1-16-2, Hakusan, Midori-ku, Yokohama-shi<br>Kanagawa, 226-8525 Japan                                                                                                                                                                                                                                  |
| <b>(c)(2) FCC ID</b>                                                                                                         |                                                                                                                                                                                                                                                                                                         |
| FCC ID                                                                                                                       | : K44517100                                                                                                                                                                                                                                                                                             |
| Model number                                                                                                                 | : NX-1800H-K2                                                                                                                                                                                                                                                                                           |
| Serial number                                                                                                                | : 001                                                                                                                                                                                                                                                                                                   |
| <b>Instruction Manual(S)</b>                                                                                                 |                                                                                                                                                                                                                                                                                                         |
| Instruction manual(s)                                                                                                        | : Please refer to attached Exhibits F                                                                                                                                                                                                                                                                   |
| <b>Type of Emission</b>                                                                                                      |                                                                                                                                                                                                                                                                                                         |
| Emission Designation                                                                                                         | : 16K0F3E(Wide)<br>11K0F3E(Narrow)<br>7K60FXD(Narrow) / 7K60FXE(Narrow) /<br>7K60F1E(Narrow) / 7K60F1D(Narrow) / 7K60F1W(Narrow) / 7K60FXW(Narrow)<br>8K30F1E(Narrow) / 8K30F1D(Narrow) / 8K30F7W(Narrow)<br>4K00F1E(Very Narrow) / 4K00F1D(Very Narrow) / 4K00F7W(Very Narrow)<br>4K00F2D(Very Narrow) |
| <b>Frequency range</b>                                                                                                       |                                                                                                                                                                                                                                                                                                         |
| Frequency Range                                                                                                              | : FCC:406.1 to 470 MHz<br>RSS:406.1 to 430 MHz, 450 to 470 MHz                                                                                                                                                                                                                                          |
| <b>Power Rating</b>                                                                                                          |                                                                                                                                                                                                                                                                                                         |
| Output Power                                                                                                                 | : 5 to 45 W                                                                                                                                                                                                                                                                                             |
| Type                                                                                                                         | : Continuously Variable                                                                                                                                                                                                                                                                                 |
| <b>Maximum Power Rating</b>                                                                                                  |                                                                                                                                                                                                                                                                                                         |
| Output Power                                                                                                                 | : 45 W                                                                                                                                                                                                                                                                                                  |
| <b>Voltages &amp; currents in all elements in final RF stage, including final transistor or solid-state device</b>           |                                                                                                                                                                                                                                                                                                         |
| Collector Current, A                                                                                                         | : 13.0 A Maximum                                                                                                                                                                                                                                                                                        |
| Collector Voltage, Vdc                                                                                                       | : DC 13.6 V +/- 15%                                                                                                                                                                                                                                                                                     |
| Supply Voltage, Vdc                                                                                                          | : 13.6 Vdc                                                                                                                                                                                                                                                                                              |
| <b>Other Information</b>                                                                                                     |                                                                                                                                                                                                                                                                                                         |
| Number of Channel                                                                                                            | : Zone 128max. Cannels 250 max.(per Zone)                                                                                                                                                                                                                                                               |
| Maximum Deviation                                                                                                            | : ± 5 kHz (16K0F3E), ± 2.5 kHz (11K0F3E)                                                                                                                                                                                                                                                                |
| Frequency Stability                                                                                                          | : 0.5 ppm                                                                                                                                                                                                                                                                                               |
| Antenna Impedance                                                                                                            | : 50 Ω Norminal                                                                                                                                                                                                                                                                                         |
| <b>Note</b>                                                                                                                  |                                                                                                                                                                                                                                                                                                         |
| This information was provided by the Applicant or customer.<br>Intertek doesn't take any responsibility for the information. |                                                                                                                                                                                                                                                                                                         |

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## SECTION 1. GENERAL INFORMATION

### TEST PERFORMED

|                            |                                                                                                   |
|----------------------------|---------------------------------------------------------------------------------------------------|
| Location                   | Kashima No.12 Test Site                                                                           |
| EUT Received               | June 17, 2022                                                                                     |
| Date of Test               | July 01, 2022 to July 05, 2022                                                                    |
| Standard Applied           | FCC Part 22, 74, 90<br>RSS-119 Issue 12                                                           |
| Measurement Method         | ANSI/TIA-603-E-2016 / RSS-119 Issue 12(2015), RSS-Gen Issue 5(2018), A2(2021)<br>ANSI C63.26 2015 |
| Deviation from Standard(s) | Not applicable                                                                                    |

### QUALIFICATIONS OF TESTING LABORATORY (Kashima Lab.)

| ACCREDITATION | SCOPE                  | LAB. CODE     | Remarks |
|---------------|------------------------|---------------|---------|
| VLAC          | Wireless / EMC Testing | VLAC-008-1    | JAPAN   |
| NVLAP         | Wireless Testing       | 600233-0      | USA     |
| FCC           | Wireless / EMC Testing | JP0008        | USA     |
| ISED          | Wireless Testing       | JP0008(CABID) | Canada  |

### ABBREVIATIONS

|      |                                      |            |                                   |
|------|--------------------------------------|------------|-----------------------------------|
| EUT  | Equipment Under Test                 | DoC        | Declaration of Conformity         |
| AMN  | Artificial Mains Network             | ISN        | Impedance Stabilization Network   |
| LISN | Line Impedance Stabilization Network | Q-P        | Quasi-peak                        |
| AMP  | Amplifier                            | AVG        | Average                           |
| ATT  | Attenuator                           | PK         | Peak                              |
| ANT  | Antenna                              | Cal        | Calibration                       |
| BBA  | Broadband Antenna                    | N/A        | Not applicable or Not available   |
| DIP  | Dipole Antenna                       | LCD        | Liquid-Crystal Display            |
| AE   | Associated Equipment                 | 4LEVEL FSK | 4LEVEL Frequency Shift Key        |
| GMSK | Gaussian Maximum Shift Key           | CW ID      | Continuously Repeating bit stream |
| FM   | Frequency Modulation                 | C4FM       | Constant envelope 4 Level FM      |
| PTT  | Push to Talk                         | AFC        | Automatic frequency control       |

### Revision Summary

| Revised Date | Section | Description of Changes |
|--------------|---------|------------------------|
|              |         |                        |
|              |         |                        |
|              |         |                        |

## SECTION 2. SUMMARY OF TEST RESULT

| TEST ITEM                                      | FCC<br>Part22 | Part74 | Part90           | ISED<br>RSS-119   | RESULTS | Comments        |
|------------------------------------------------|---------------|--------|------------------|-------------------|---------|-----------------|
| Carrier Output Power (Conducted)               | -             | 74.461 | -                | 2.1046<br>(a)     | 5.4     | <b>PASS</b>     |
| Unwanted Emissions (Transmitter Conducted)     | 22.359        | -      | 90.210           | 2.1051            | 5.8     | <b>PASS</b>     |
| Field Strength of Spurious Radiation           | 22.359        | -      | 90.210           | 2.1053<br>(a)     | 5.8     | <b>PASS</b>     |
| Emission Masks (Occupied Bandwidth)            | 22.359        | 74.462 | 90.210           | 2.1049<br>(c) (1) | 5.5     | <b>PASS</b>     |
| Transient Frequency Behavior                   | -             | -      | 90.214           | -                 | 5.9     | <b>PASS</b>     |
| Audio Low Pass Filter (Voice Input)            | -             | -      | -                | 2.1047<br>(a)     | -       | <b>PASS</b>     |
| Audio Frequency Response                       | -             | -      | -                | 2.1047<br>(a)     | -       | <b>PASS</b>     |
| Modulation Limiting                            | -             | -      | -                | 2.1047<br>(b)     | -       | <b>PASS</b>     |
| Frequency Stability (Temperature Variation)    | 22.355        | 74.464 | 90.213<br>(a)    | 2.1055<br>(a) (1) | 5.3     | <b>PASS</b>     |
| Frequency Stability (Voltage Variation)        | 22.355        | 74.464 | 90.213<br>(a)    | 2.1055<br>(d) (1) | 5.3     | <b>PASS</b>     |
| Certification required (FCC Part 90.203(j)(3)) | -             | -      | 90.203<br>(j)(3) | -                 | -       | <b>Complied</b> |
| Certification required (FCC Part 90.203(j)(4)) | -             | -      | 90.203<br>(j)(4) | -                 | -       | <b>Complied</b> |
| Certification required (FCC Part 90.203(j)(5)) | -             | -      | 90.203<br>(j)(5) | -                 | -       | <b>Complied</b> |
| Certification required (FCC Part 90.203(e))    | -             | -      | 90.203<br>(e)    | -                 | -       | <b>Complied</b> |
| 99% Occupied Bandwidth                         | -             | -      | -                | -                 | 5.5     | <b>PASS</b>     |

### Limitation on Results

The test result of this report is effective equipment under test itself and under the test configuration described on the report. This test report does not assure that whether the test result taken in other testing laboratory is compatible or reproducible to the test result on this report or not.

### Note:

As for the FCC Part 15 Subpart B-Unintentional Radiators, the EUT has been measured and declared as Supplier's Declaration of Conformity (SDoC) by JVCKENWOOD Corporation.

### SECTION 3. TEST AND MEASUREMENT DATA

All test and measurements indicated in this document were performed in accordance with the Code of Federal Regulations Title 47 Part 2, Sub-part J and Industry Canada as the following individual parts:

| FCC Rule       | Test Item                                                                                         | Tested     |
|----------------|---------------------------------------------------------------------------------------------------|------------|
| <b>Part 22</b> | <b>Non Cellular</b>                                                                               | <b>YES</b> |
| <b>Part 74</b> | <b>Experimental Radio Auxiliary , Special Broadcast and Other Program Distributional Services</b> | <b>YES</b> |
| <b>Part 90</b> | <b>Private Land Mobile radio Services</b>                                                         | <b>YES</b> |

| IC Rule        | Test Item                                                                                                                   | Tested     |
|----------------|-----------------------------------------------------------------------------------------------------------------------------|------------|
| <b>RSS-119</b> | <b>Radio Transmitters and Receivers Operating in the Land Mobile and Fixed Services in the Frequency Range 27.4-960 MHz</b> | <b>YES</b> |
| <b>RSS-Gen</b> | <b>General Requirements for Compliance of Radio Apparatus</b>                                                               | <b>YES</b> |

#### SECTION 4. INFORMATION ABOUT EUT AND SUPPORT EQUIPMENT(S)

This information was provided by the Applicant or customer.  
Intertek doesn't take any responsibility for the information.

##### 4.1 List of System Configuration

| Symbol                 | Item              | Model No.                                                  | Serial No. | Manufacture            | Remarks |
|------------------------|-------------------|------------------------------------------------------------|------------|------------------------|---------|
| A                      | UHF<br>TRANSCIVER | NX-1800H-K2                                                | 001        | JVCKENWOOD Corporation | EUT     |
| Power Ratings of EUT : |                   | DC 13.6 V +/- 15%                                          |            | 13.0 A Maximum         |         |
| Power Supply :         |                   | 13.6 Vdc                                                   |            |                        |         |
| Condition of Equipment |                   | Proto type                                                 |            |                        |         |
| Type                   |                   | Mobile Device                                              |            |                        |         |
| Suppression Devices    |                   | No Modifications by the laboratory were made to the device |            |                        |         |

##### 4.2 Port(s)/Connector(s)

| Port Name        | Connector Type | Connector Pin | Remarks |
|------------------|----------------|---------------|---------|
| Microphone       | RJ-45          | 8 pin         |         |
| External Speaker | 3.5φ           | 2 pin         |         |
| RF Antenna       | M              | 2 pin         |         |
| ACC              | D-Sub          | 15 pin        |         |

##### 4.3 Highest Frequency Oscillator(s)/Crystal(s)

| Operating Frequency | Board Name | Remarks |
|---------------------|------------|---------|
| 940 MHz             | Radio      |         |

## SECTION 5. SUPPORT EQUIPMENT

The EUT was supported by the following equipment during the test.

### Example: Case of Section 10.3Test

| Symbol          | Item            | Model No. | Serial No. | Manufacture            | FCC ID | Remarks  |
|-----------------|-----------------|-----------|------------|------------------------|--------|----------|
| B               | Mic. Jig        | None      | None       | JVCKENWOOD             | N/A    | See Note |
| C               | Dummy Load      | CT-150NP  | 1138693    | Tamagawa               | N/A    |          |
| D               | DC Power Supply | GZV4000   | 90290932   | Daiichi Denpa Kogyo    | N/A    |          |
| E               | Speaker         | KES-8K    | N/A        | JVCKENWOOD Corporation | N/A    | See Note |
| Supplied Power: |                 |           |            |                        |        |          |
| D               | AC              | 100V,60Hz |            |                        |        |          |

Note: This information was provided by the Applicant or customer.  
Intertek doesn't take any responsibility for the information.

## SECTION 6. USED CABLE(S)

The following cable(s) was used for the test.

**Example: Case of Section 10.3Test**

| No. | Name                          | Length (m) | Shield | Metal<br>Connector | Ferrite core | Remarks  |
|-----|-------------------------------|------------|--------|--------------------|--------------|----------|
| 1   | Mic Cable                     | 0.55       | No     | No                 |              | See Note |
| 2   | Connection Cable (KCT-60)     | 0.36       | No     | Yes                |              | See Note |
| 3   | Ignition Sense Cable (KCT-18) | 0.26       | No     | Yes                |              | See Note |
| 4   | Speaker Cable                 | 2.20       | No     | Yes                |              | See Note |
| 5   | DC Cable                      | 0.25       | No     | No                 |              | See Note |
| 6   | DC Cable                      | 4.00       | No     | No                 |              | See Note |
| 7   | AC Cable                      | 2.00       | No     | No                 |              |          |

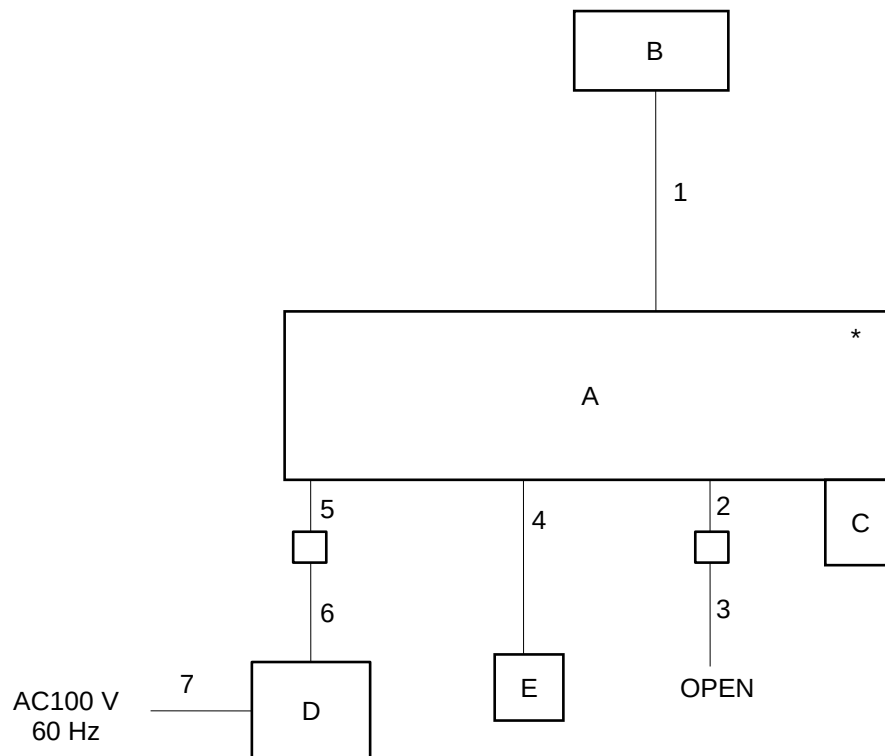
Note: This information was provided by the Applicant or customer.  
Intertek doesn't take any responsibility for the information.

## SECTION 7. TEST CONFIGURATION

### Details of Configuration and Connection

Example: Case of Section 10.3Test

\* : EUT  
□ : Joint Connector



## SECTION 8. OPERATING CONDITION

The EUT was operated under the following condition during the test.

### 8.1 Operating Condition

The test was carried out under Transmit mode.

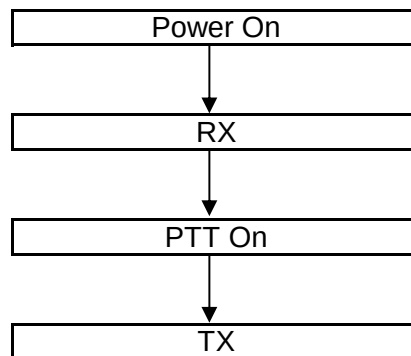
(FCC: 406.15 MHz, 429.95 MHz, 469.95 MHz)

(RSS: 406.15 MHz, 429.95 MHz, 469.95 MHz)

(High Power : 45W, Low Power : 5W)

### 8.2 Operating Flow [Transmit mode]

Following operations were performed continuously.



## SECTION 9. MEASUREMENT UNCERTAINTY

|                                             |                     |             |
|---------------------------------------------|---------------------|-------------|
| Carrier Output Power (Conducted)            | U <sub>lab</sub>    | Utia-603-e  |
|                                             | +/- 0.18dB (k = 2)  | +/- 0.59 dB |
| Unwanted Emissions (Transmitter Conducted)  |                     |             |
|                                             | +/- 1.55 dB (k = 2) | +/- 1.1 dB  |
| Field Strength of Spurious Radiation        |                     |             |
|                                             | +/- 3.90dB (k = 2)  | +/- 3.3 dB  |
| Emission Masks (Occupied Bandwidth)         |                     |             |
|                                             | +/- 0.87dB (k = 2)  | +/- 2.1 dB  |
| Transient Frequency Behavior                |                     |             |
|                                             | +/- 2.28% (k = 2)   | +/- 21.6 %  |
| Audio Low Pass Filter (Voice Input)         |                     |             |
|                                             | +/- 0.21dB (k = 2)  | +/- 1.2 dB  |
| Audio Frequency Response                    |                     |             |
|                                             | +/- 0.12dB (k = 2)  | +/- 1.2 dB  |
| Modulation Limiting                         |                     |             |
|                                             | +/- 0.99% (k = 2)   | +/- 1.0 %   |
| Frequency Stability (Temperature Variation) |                     |             |
|                                             | +/- 9.93Hz (k=2)    | +/-34.2 Hz  |
| Frequency Stability (Voltage Variation)     |                     |             |
|                                             | +/- 9.93Hz (k=2)    | +/-34.2 Hz  |
| Bandwidth                                   |                     |             |
|                                             | +/- 1.00% (k = 2)   | -           |

## SECTION 10. TEST DATA

### 10.1 Carrier Output Power (Conducted)

|                   |                                                                                   |
|-------------------|-----------------------------------------------------------------------------------|
| REGULATIONS       | : FCC Part 2 Section 1046 (a)<br>RSS-119 Section 5.4                              |
| TEST METHOD/GUIDE | : ANSI/TIA-603-E Section 2.2.1.2 / RSS-119 Section 4.1<br>ANSI C63.26 Section 5.2 |

### Test Procedure

- 1 The EUT and test equipment were set up as shown on the following page.
- 2 The EUT was conducted to a resistive coaxial attenuator of normal load impedance.  
 $\text{RF Power (dBm)} = \text{Power Meter reading (dBm)} + \text{Attenuator Loss (dB)} + \text{Cable Loss (dB)}$   
 $\text{RF Power (W)} = 10^{(\text{RF Power (dBm)}/10)}/1000$
- 3 Modulate the transmitter with a 2.5 kHz sine wave at an input Level of 16 dB greater than that necessary to produce 50 % of rated system deviation.(Only as for the test of RSS)

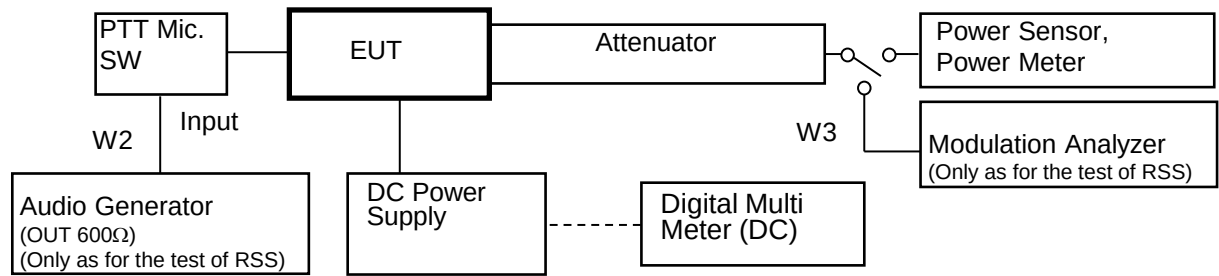
### Measuring Equipments

| No. | Equipment           | Manufacture         | Model No.      | Serial No.       | Cal. Interval | Effective period |
|-----|---------------------|---------------------|----------------|------------------|---------------|------------------|
| 1   | Power Meter         | Hewlett Packard     | E4418B         | GB38410265       | 1Y            | Aug. 26, 22      |
| 2   | Power Sensor        | Hewlett Packard     | 8482A          | US37292237       | 1Y            | Aug. 26, 22      |
| 3   | Attenuator (20dB)   | Aeroflex/Wenshel    | 66-20-34       | BY4357           | 1Y            | Sep. 08, 22      |
| 4   | Attenuator (30dB)   | Weinschel           | WA-29-30-34    | 8923             | 1Y            | Sep. 08, 22      |
| 5   | Modulation          | Hewlett Packard     | 8901B          | 3403A04852       | 1Y            | Dec. 14, 22      |
| 6   | Audio Generator     | Anritsu             | MG443B         | M70150           | 1Y            | Jun. 12, 23      |
| 7   | DC Power Supply     | Daiichi denpa kogyo | GZV4000        | 90290931         | None          | None             |
| 8   | Digital Multi Meter | FLUKE               | 8846A          | 9642018          | 1Y            | Jun. 30, 23      |
| 9   | JIG                 | HP                  | ProBook 430 G3 | PJPNYOKL01<br>47 | None          | None             |

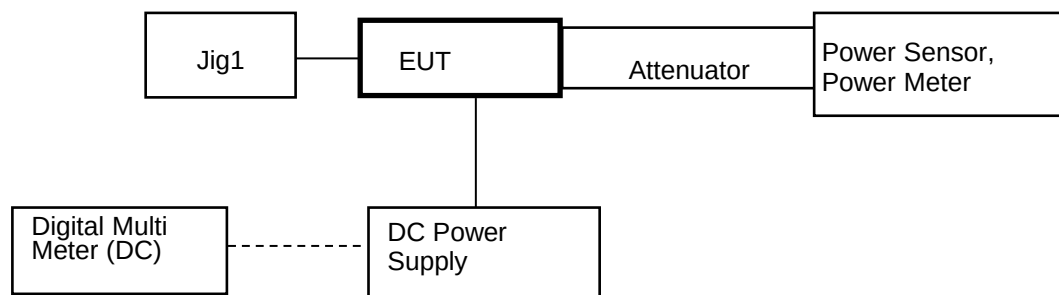
### Measuring Cables

| No. | Cable         | Manufacturer   | Model No. | Serial No. | Cal. Interval | Effective period |
|-----|---------------|----------------|-----------|------------|---------------|------------------|
| W2  | Balance Cable | Nicoon         | 3D-2V     | KSR00092   | 1Y            | Sep. 09, 22      |
| W3  | Coaxial Cable | Pacific custom | RG-58 C/U | AM90C03    | 1Y            | Jan. 19, 23      |

## Measuring Equipment Configuration



### <DMR and CW ID Modulation Case>



## Test Results

|                      |                         |            |
|----------------------|-------------------------|------------|
| Test date            | Jul. 01, 2022           |            |
| Location             | Kashima No.12 Test Site |            |
| temperature          | 25.5                    | [degree C] |
| Humidity Variation   | 47.0                    | [%]        |
| Atmospheric Pressure | 101.1                   | [kPa]      |
| Test Engineer        | Koichi Wagatsuma        |            |

Test was carried out for all the Authorized Bandwidth.  
State the worst case (below).

| No. | Frequency<br>(MHz) | Band   | Setting    | RF Power<br>(W) |
|-----|--------------------|--------|------------|-----------------|
| 1   | 406.15 (FCC/RSS)   | Low    | High Power | 45              |
| 2   | 429.95 (FCC/RSS)   | Middle | High Power | 45              |
| 3   | 469.95 (FCC/RSS)   | High   | High Power | 45              |
| 4   | 406.15 (FCC/RSS)   | Low    | Low Power  | 5               |
| 5   | 429.95 (FCC/RSS)   | Middle | Low Power  | 5               |
| 6   | 469.95 (FCC/RSS)   | High   | Low Power  | 5               |

RF Power: Maximum reading

## 10.2 Unwanted Emissions (Transmitter Conducted)

|                   |                                                                                            |
|-------------------|--------------------------------------------------------------------------------------------|
| REGULATIONS       | : FCC Part 2 Section 1051, Part 22 Section 359, Part 90 Section 210<br>RSS-119 Section 5.8 |
| TEST METHOD/GUIDE | : ANSI/TIA-603-E Section 2.2.13.2<br>ANSI C63.26 Section 5.7                               |

### Test Procedure

- The EUT and test equipment were set up as shown on the following page.
- Modulate the transmitter with a 2.5 kHz sine wave at an input Level of 16 dB greater than that than necessary to produce 50 % of rated system deviation.
- Adjust the spectrum analyzer for the following setting:
  - RBW : 100 kHz (< 1 GHz), 1 MHz (> 1 GHz).
  - VBW : 300 kHz (< 1 GHz), 3 MHz (> 1 GHz).
  - Detector mode : Average power (FM Modulation) , Positive peak with peak hold (Digital Modulation)
- The emissions were measured for the worst case as follows:
  - : within a band of frequencies defined by the carrier frequency plus and minus one channel.
  - : from the lowest frequency generated in the EUT and to at least the 10th harmonic of the carrier frequency, or 40 GHz, whichever is lower.

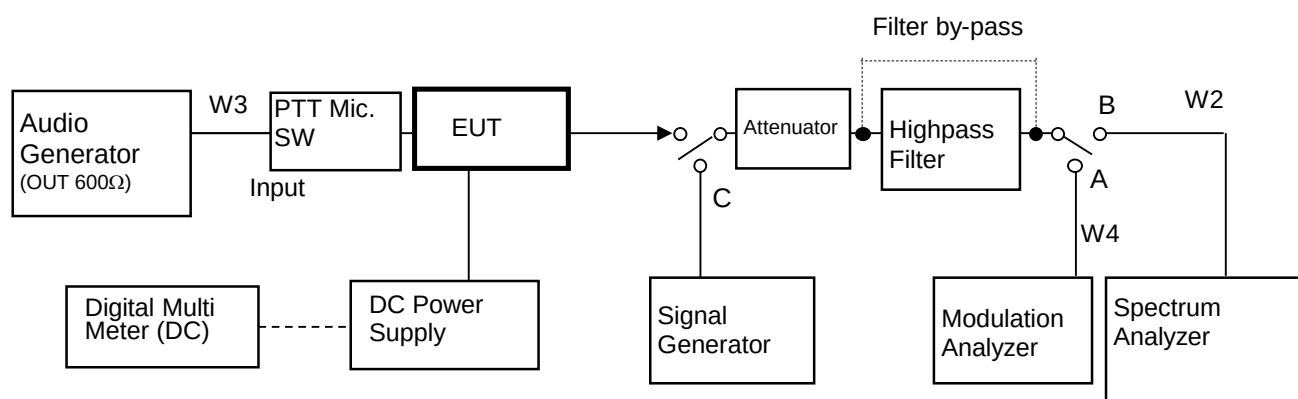
### Measuring Equipments

| No. | Equipment           | Manufacture         | Model No.      | Serial No.   | Cal. Interval | Effective period |
|-----|---------------------|---------------------|----------------|--------------|---------------|------------------|
| 1   | Attenuator (20dB)   | Aeroflex/Wenshel    | 66-20-34       | BY4357       | 1Y            | Sep. 08, 22      |
| 2   | Attenuator (30dB)   | Weinschel           | WA-29-30-34    | 8923         | 1Y            | Sep. 08, 22      |
| 3   | Highpass Filter     | Anritsu             | MP526D         | 6200220657   | 1Y            | Jun. 28, 23      |
| 4   | Modulation Analyzer | Hewlett Packard     | 8901B          | 3403A04852   | 1Y            | Dec. 14, 22      |
| 5   | Signal Generator    | Rohde&Schwarz       | SMB 100A       | 105709       | 1Y            | Jun. 05, 23      |
| 6   | Audio Generator     | Anritsu             | MG443B         | M70150       | 1Y            | Jun. 12, 23      |
| 7   | Spectrum Analyzer   | Agilent             | N9030A         | US51350220   | 1Y            | Aug. 31, 22      |
| 8   | DC Power Supply     | Daiichi denpa kogyo | GZV4000        | 90290931     | None          | None             |
| 9   | Digital Multi Meter | FLUKE               | 8846A          | 9642018      | 1Y            | Jun. 30, 23      |
| 10  | JIG                 | HP                  | ProBook 430 G3 | PJPNYOKL0147 | None          | None             |

### Measuring Cables

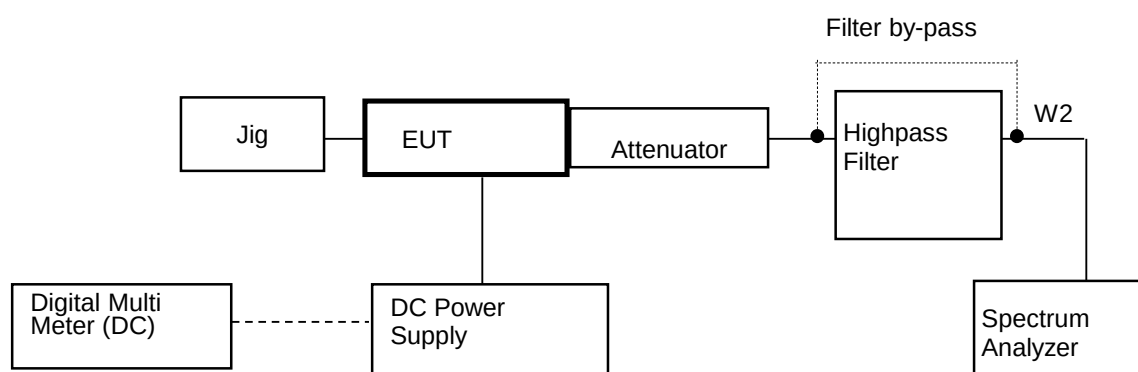
| No. | Cable         | Manufacture    | Model No.   | Serial No. | Cal. Interval | Effective period |
|-----|---------------|----------------|-------------|------------|---------------|------------------|
| W3  | Balance Cable | Nicoon         | 3D-2V       | KSR00092   | 1Y            | Sep. 09, 22      |
| W4  | Coaxial Cable | Pacific custom | RG-58 C/U   | AM90C03    | 1Y            | Jan. 19, 23      |
| W2  | Coaxial Cable | Suhner         | SUCOFLEX104 | F0000019   | 1Y            | Mar. 24, 23      |

## Measuring Equipment Configuration



Note: Configuration of other Modulation test is composed without the Audio Generator.

<DMR and CW ID Modulation Case>



## Test Results

|                      |                         |
|----------------------|-------------------------|
| Test date            | Jul. 01, 2022           |
| Location             | Kashima No.12 Test Site |
| temperature          | 25.5                    |
| Humidity Variation   | 47.0                    |
| Atmospheric Pressure | 101.1                   |
| Test Engineer        | Koichi Wagatsuma        |

Test was carried out for all the frequency band of section 10.1

State the worst case (below).

State : High Power / Authorized Bandwidth 20 kHz (16K0F3E)

| No.                                                           | Tuned Frequency (MHz) | Band   | Spurious Frequency (MHz) | Correct Level (dBm) | Emission Level (dBc) | Mask B Limit (dBc) | Margin (dB) |
|---------------------------------------------------------------|-----------------------|--------|--------------------------|---------------------|----------------------|--------------------|-------------|
| 1                                                             | 406.15 (FCC/RSS)      | Low    | 812.30                   | -36.95              | <b>-83.48</b>        | -59.5              | 24.0        |
| 2                                                             | 429.95 (FCC/RSS)      | Middle | 859.90                   | -37.29              | <b>-83.82</b>        | -59.5              | 24.3        |
| 3                                                             | 469.95 (FCC/RSS)      | High   | 939.90                   | -38.43              | <b>-84.96</b>        | -59.5              | 25.5        |
| There is the margin of 20dB over except for the above points. |                       |        |                          |                     |                      |                    |             |

Mask B Limit(dBc)=- (43+10Log(P))

Correct Level (dBm) = Substitute SG Level (dBm)

Emission Level (dBc) = Correct Level (dBm) - 10Log(P\*1000)

P = Carrier Level (W)

" - " = Measurement Limit

State : Low Power / Authorized Bandwidth 20 kHz (16K0F3E)

| No.                                                           | Tuned Frequency (MHz) | Band   | Spurious Frequency (MHz) | Correct Level (dBm) | Emission Level (dBc) | Mask B Limit (dBc) | Margin (dB) |
|---------------------------------------------------------------|-----------------------|--------|--------------------------|---------------------|----------------------|--------------------|-------------|
| 1                                                             | 406.15 (FCC/RSS)      | Low    | 812.30                   | -42.24              | <b>-79.22</b>        | -50.0              | 29.2        |
| 2                                                             | 429.95 (FCC/RSS)      | Middle | 859.90                   | -42.08              | <b>-79.07</b>        | -50.0              | 29.1        |
| 3                                                             | 469.95 (FCC/RSS)      | High   | 939.90                   | -42.27              | <b>-79.26</b>        | -50.0              | 29.3        |
| There is the margin of 20dB over except for the above points. |                       |        |                          |                     |                      |                    |             |

Mask B Limit(dBc)=- (43+10Log(P))

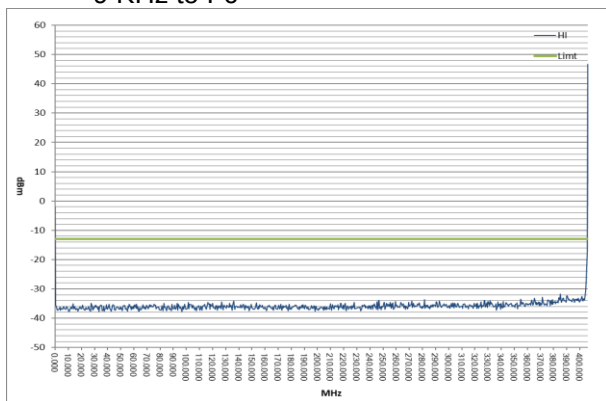
Correct Level (dBm) = Substitute SG Level (dBm)

Emission Level (dBc) = Correct Level (dBm) - 10Log(P\*1000)

P = Carrier Level (W)

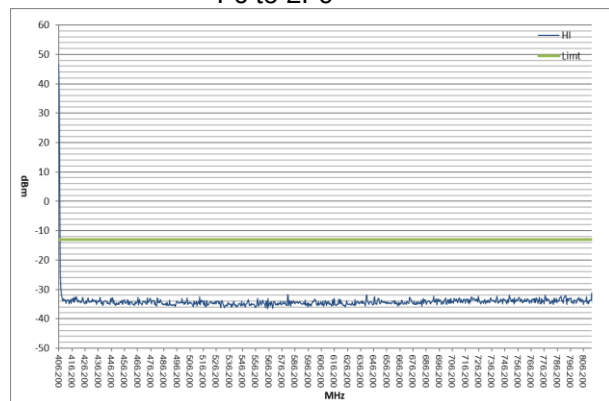
" - " = Measurement Limit

16K0F3E  
9 KHz to Fc

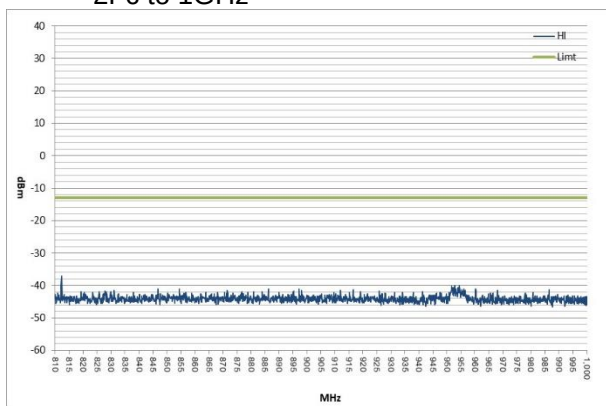


Hi Power

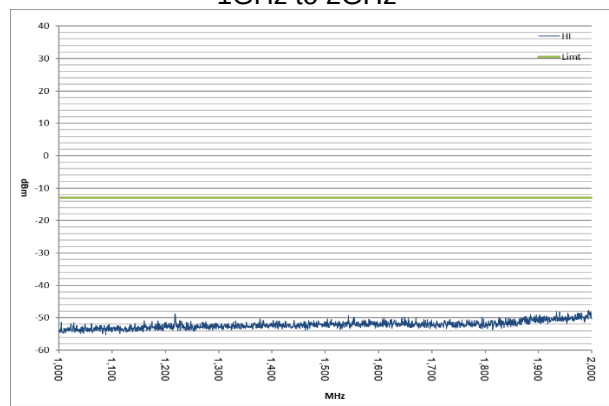
Fc to 2Fc



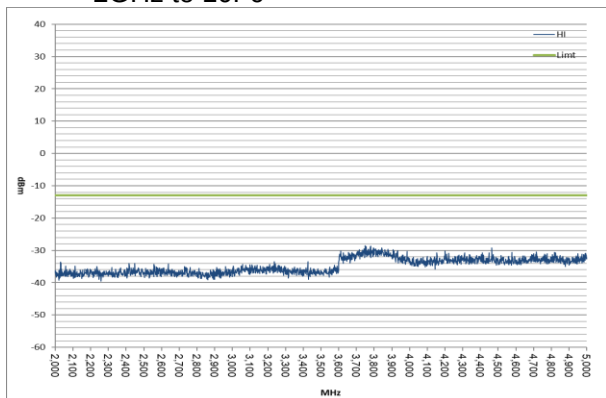
2Fc to 1GHz



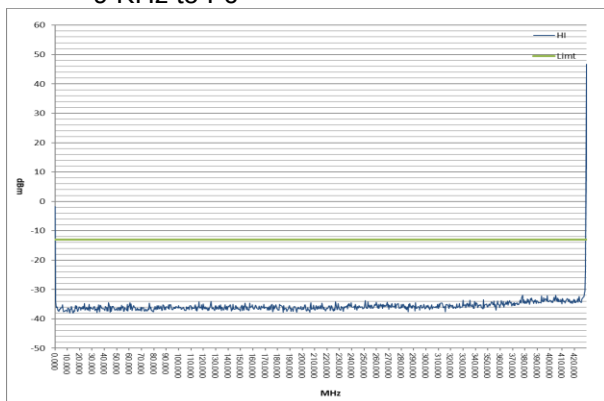
1GHz to 2GHz



2GHz to 10Fc

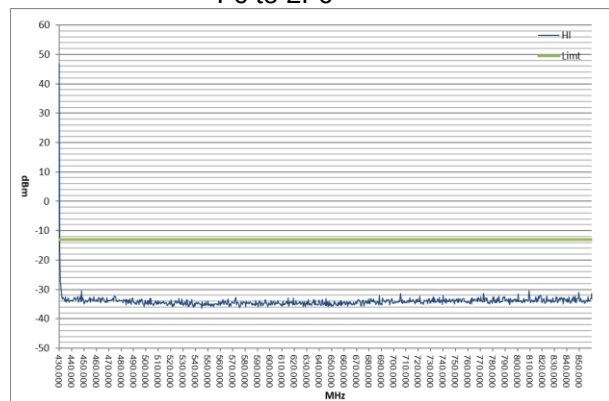


16K0F3E  
9 KHz to Fc

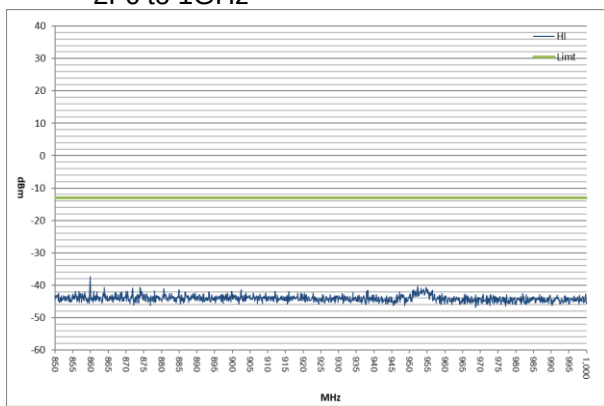


Hi Power

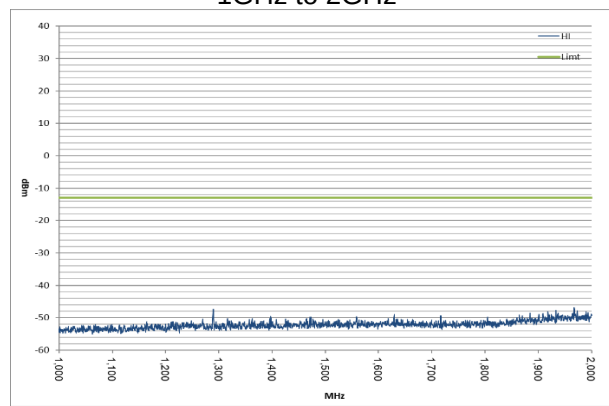
Fc to 2Fc



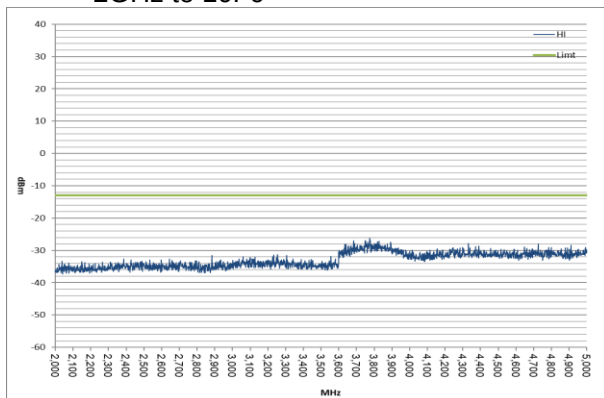
2Fc to 1GHz



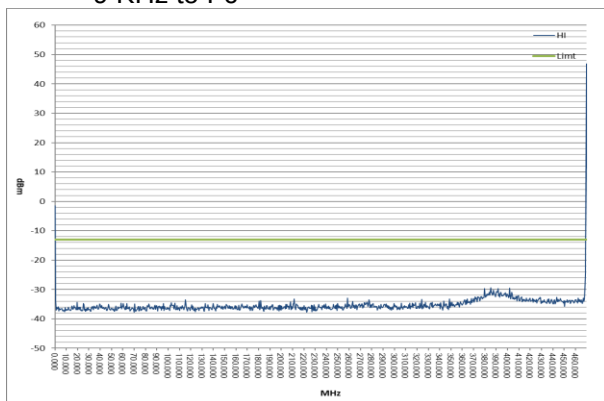
1GHz to 2GHz



2GHz to 10Fc

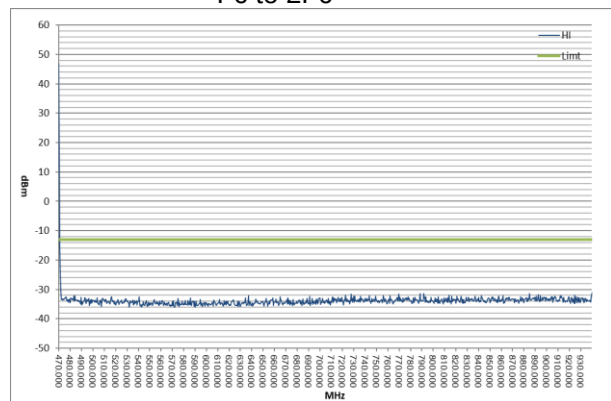


16K0F3E  
9 KHz to Fc

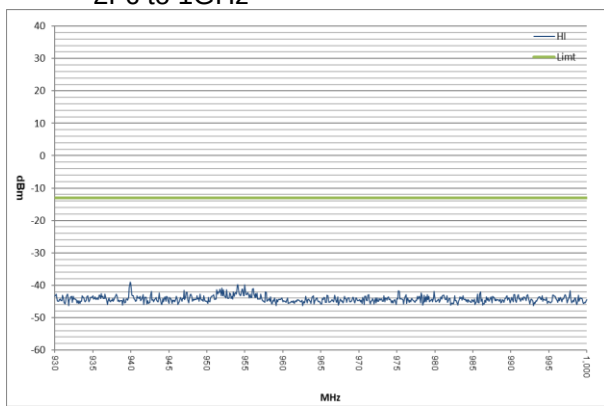


Hi Power

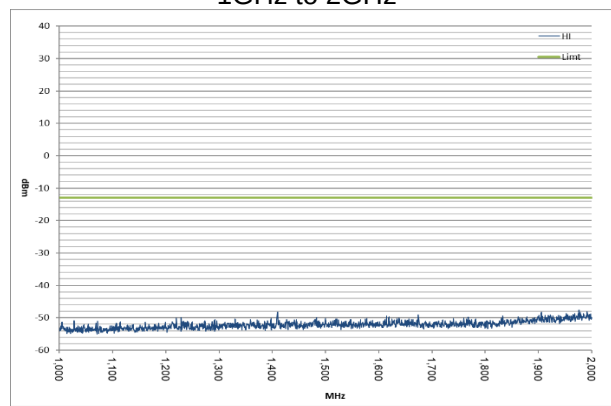
Fc to 2Fc



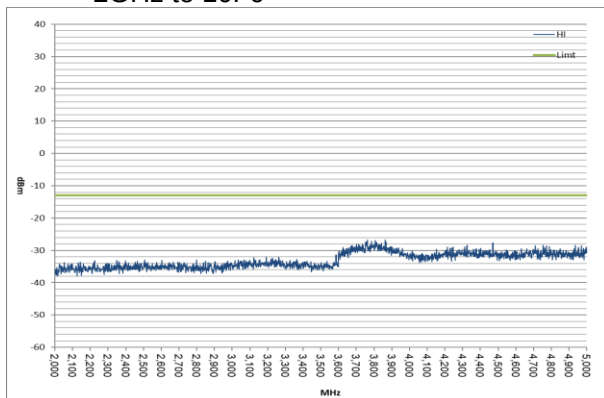
2Fc to 1GHz



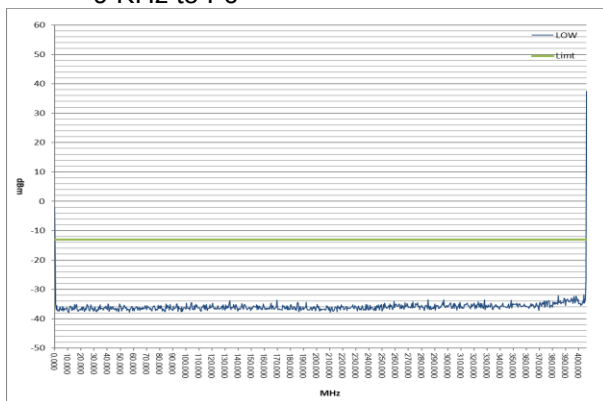
1GHz to 2GHz



2GHz to 10Fc

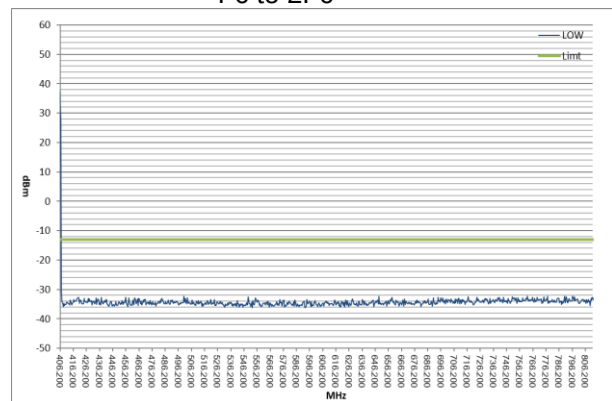


16K0F3E  
9 KHz to Fc

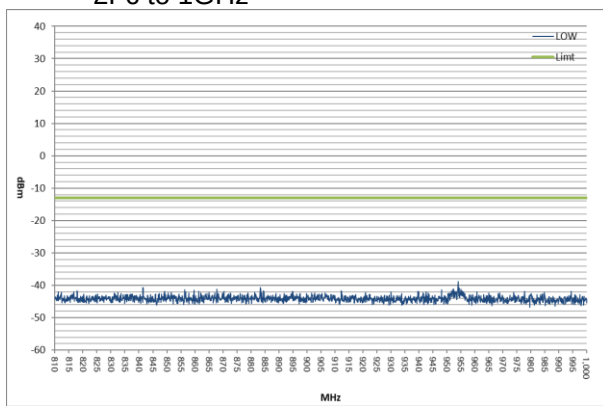


Low Power

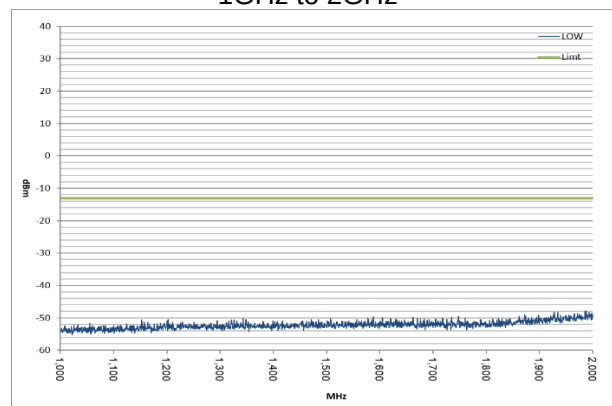
Fc to 2Fc



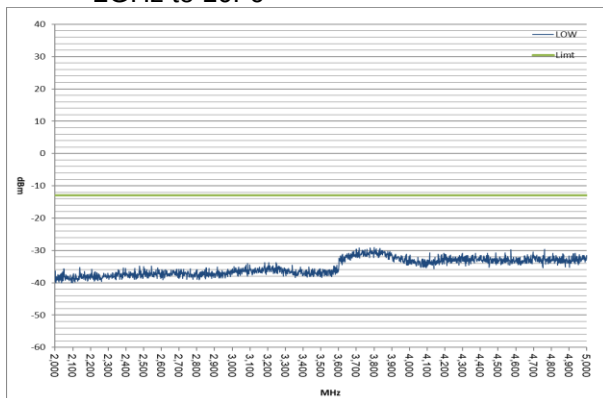
2Fc to 1GHz



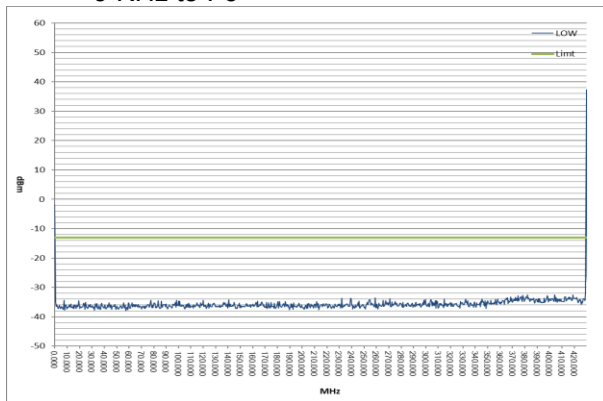
1GHz to 2GHz



2GHz to 10Fc

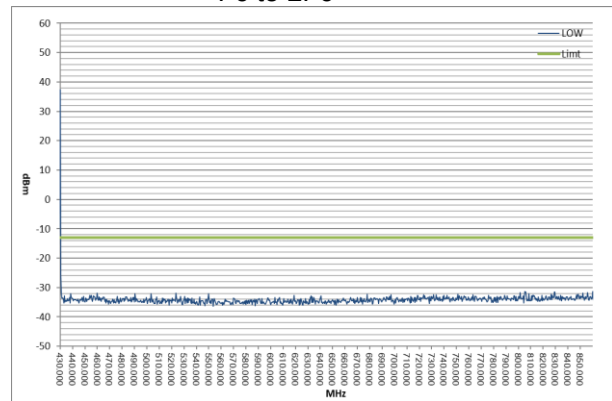


16K0F3E  
9 KHz to Fc

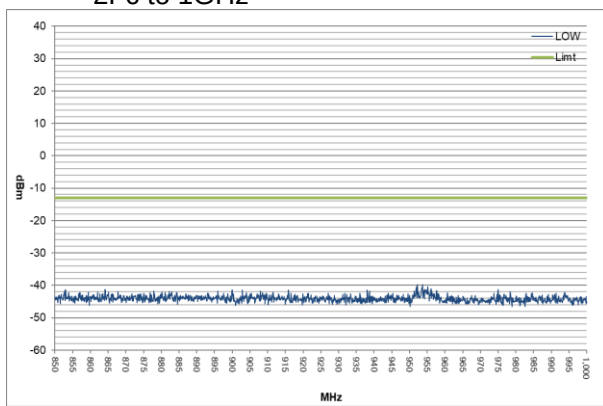


Low Power

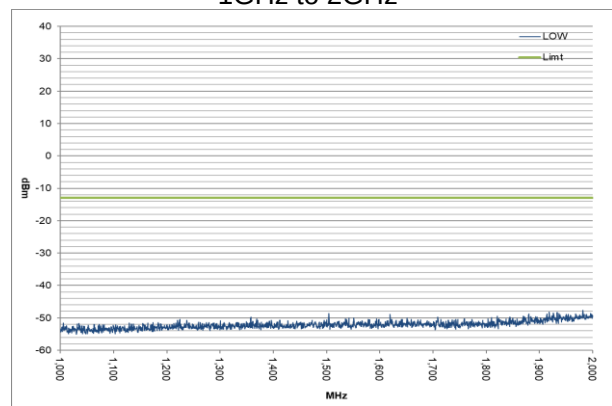
Fc to 2Fc



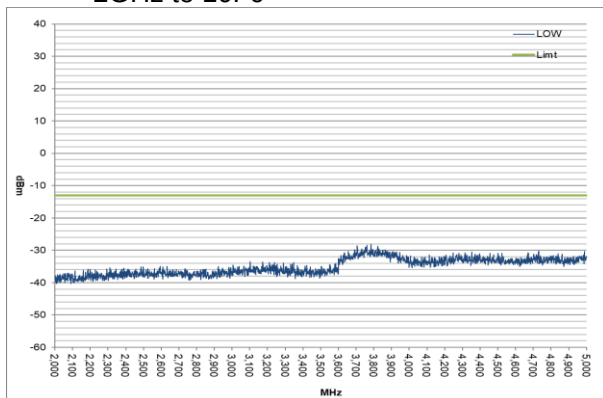
2Fc to 1GHz



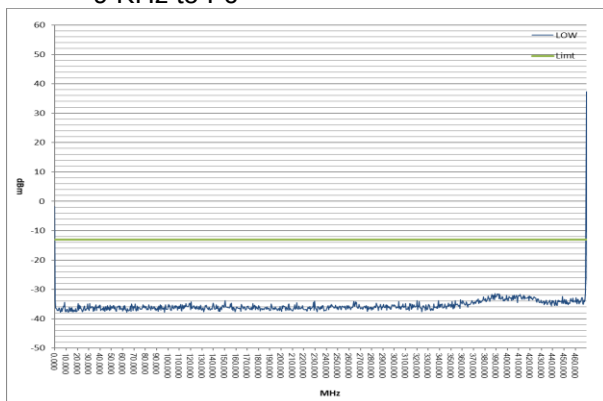
1GHz to 2GHz



2GHz to 10Fc

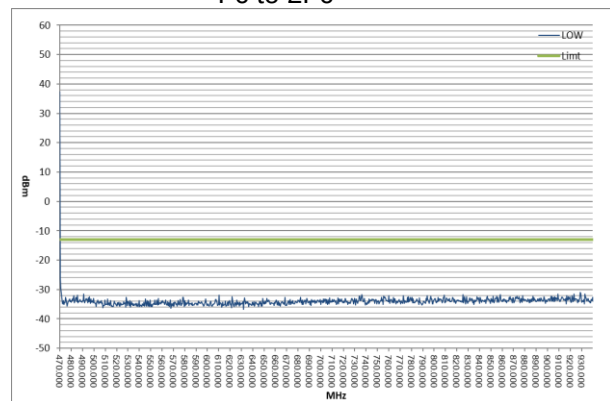


16K0F3E  
9 KHz to Fc

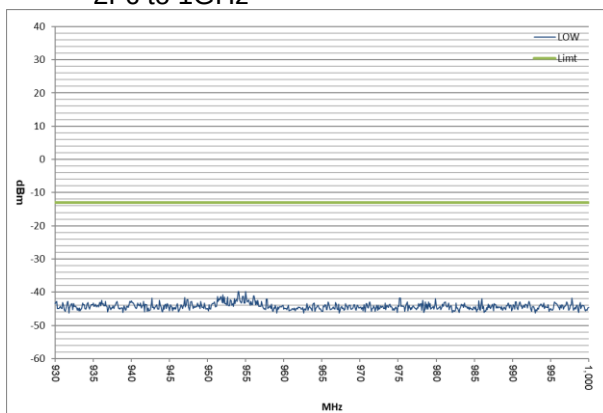


Low Power

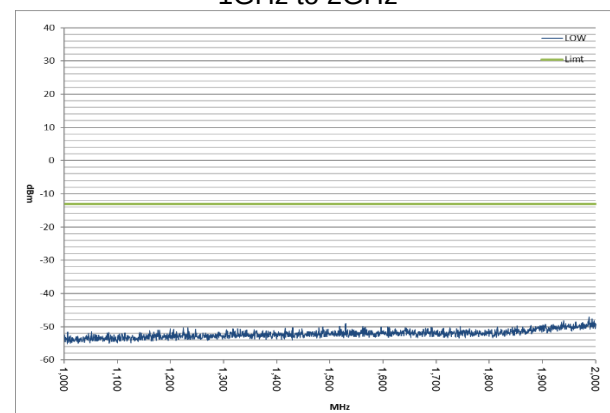
Fc to 2Fc



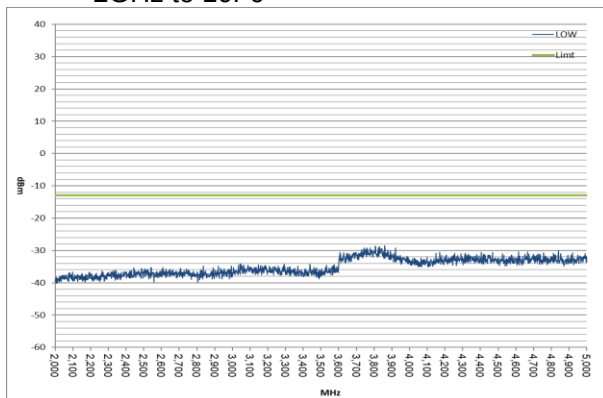
2Fc to 1GHz



1GHz to 2GHz



2GHz to 10Fc



State : High Power / Authorized Bandwidth 11.25 kHz (11K0F3E)

| No.                                                           | Tuned Frequency (MHz) | Band   | Spurious Frequency (MHz) | Correct Level (dBm) | Emission Level (dBc) | Mask D Limit (dBc) | Margin (dB) |
|---------------------------------------------------------------|-----------------------|--------|--------------------------|---------------------|----------------------|--------------------|-------------|
| 1                                                             | 406.15 (FCC/RSS)      | Low    | 812.30                   | -37.45              | <b>-83.98</b>        | -66.5              | 17.5        |
| 2                                                             | 429.95 (FCC/RSS)      | Middle | 859.90                   | -37.33              | <b>-83.86</b>        | -66.5              | 17.4        |
| 3                                                             | 469.95 (FCC/RSS)      | High   | 939.90                   | -37.92              | <b>-84.45</b>        | -66.5              | 18.0        |
| There is the margin of 20dB over except for the above points. |                       |        |                          |                     |                      |                    |             |

Mask D Limit (dBc) =  $-(50+10\log(P))$

Correct Level (dBm) = Substitute SG Level (dBm)

Emission Level (dBc) = Correct Level (dBm) -  $10\log(P*1000)$

P = Carrier Level (W)

" - " = Measurement Limit

State : Low Power / Authorized Bandwidth 11.25 kHz (11K0F3E)

| No.                                                           | Tuned Frequency (MHz) | Band   | Spurious Frequency (MHz) | Correct Level (dBm) | Emission Level (dBc) | Mask D Limit (dBc) | Margin (dB) |
|---------------------------------------------------------------|-----------------------|--------|--------------------------|---------------------|----------------------|--------------------|-------------|
| 1                                                             | 406.15 (FCC/RSS)      | Low    | 812.30                   | -42.94              | <b>-79.92</b>        | -57.0              | 22.9        |
| 2                                                             | 429.95 (FCC/RSS)      | Middle | 859.90                   | -42.04              | <b>-79.03</b>        | -57.0              | 22.0        |
| 3                                                             | 469.95 (FCC/RSS)      | High   | 939.90                   | -42.27              | <b>-79.26</b>        | -57.0              | 22.3        |
| There is the margin of 20dB over except for the above points. |                       |        |                          |                     |                      |                    |             |

Mask D Limit (dBc) =  $-(50+10\log(P))$

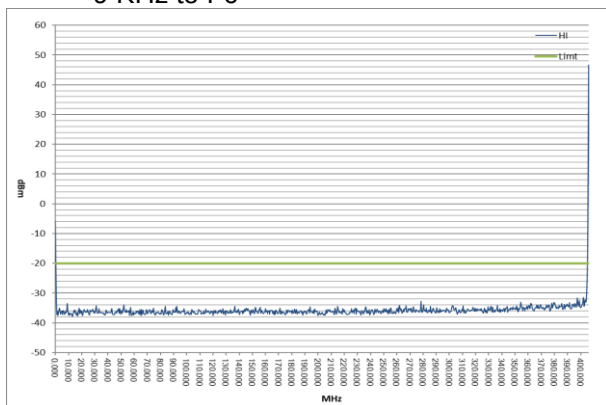
Correct Level (dBm) = Substitute SG Level (dBm)

Emission Level (dBc) = Correct Level (dBm) -  $10\log(P*1000)$

P = Carrier Level (W)

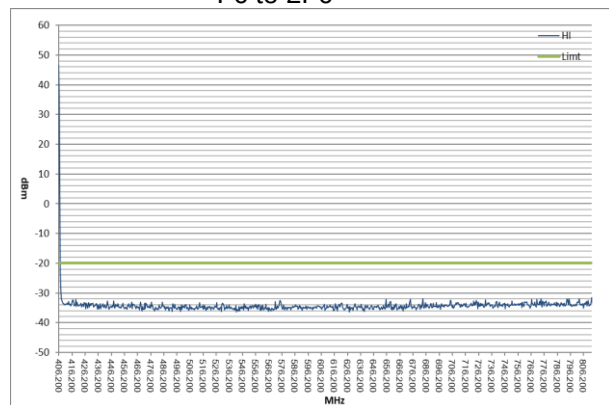
" - " = Measurement Limit

11K0F3E  
9 KHz to Fc

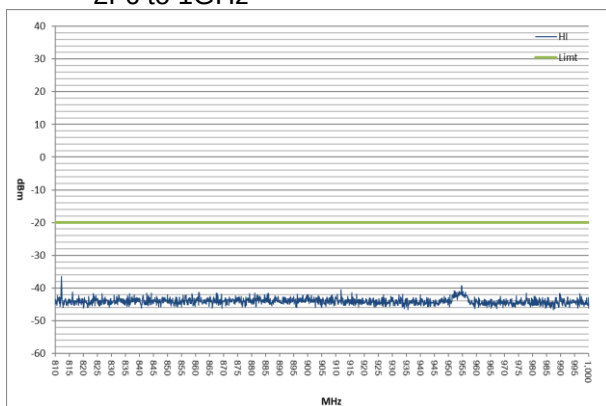


Hi Power

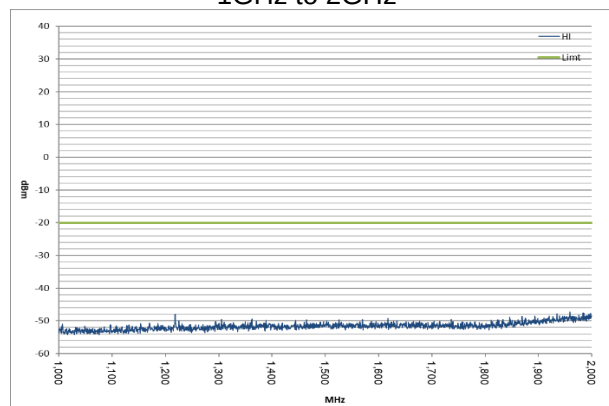
Fc to 2Fc



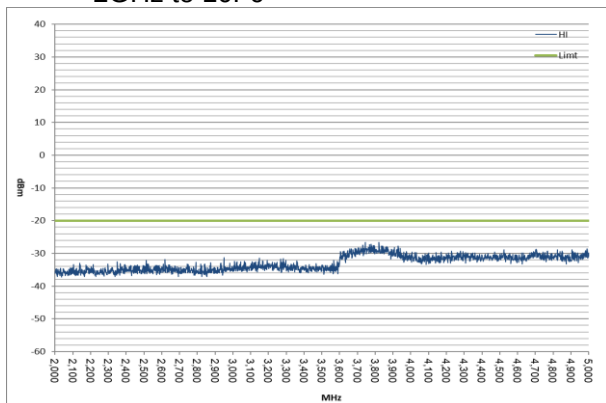
2Fc to 1GHz



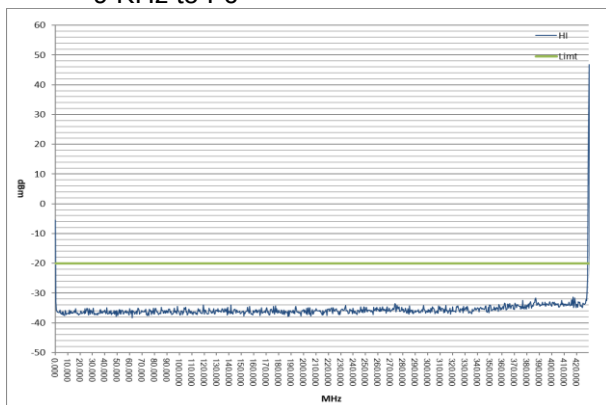
1GHz to 2GHz



2GHz to 10Fc

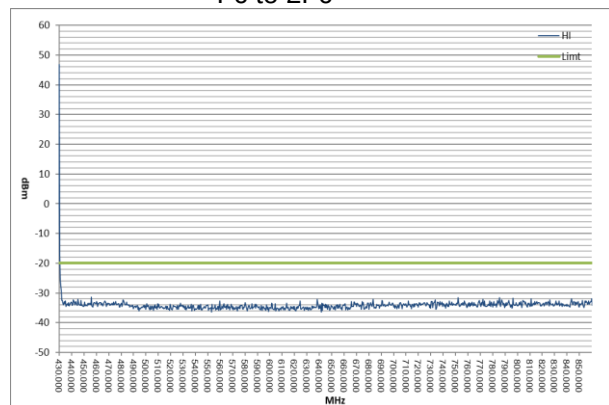


11K0F3E  
9 KHz to Fc

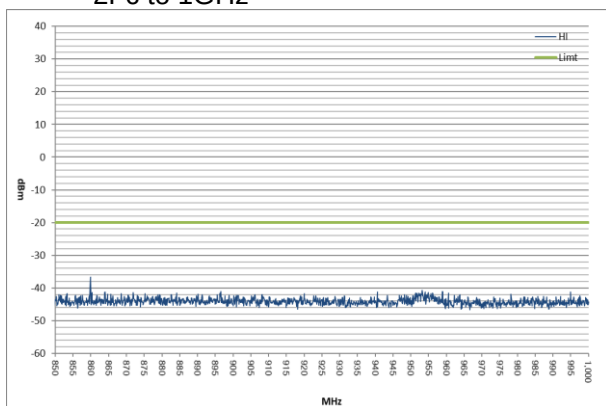


Hi Power

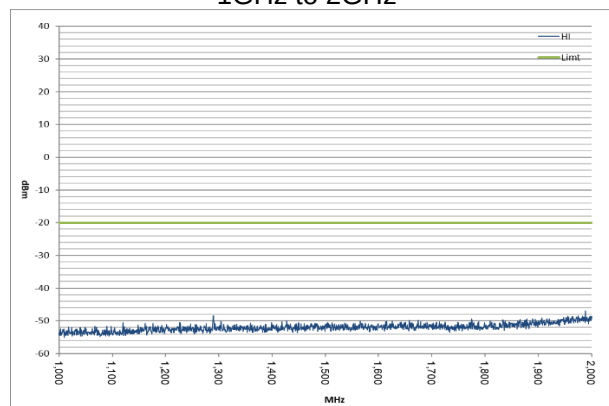
Fc to 2Fc



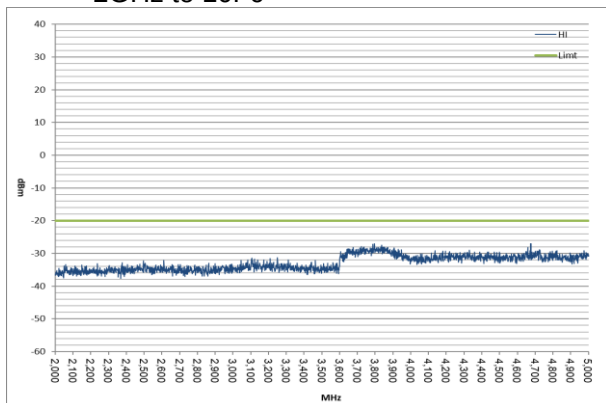
2Fc to 1GHz



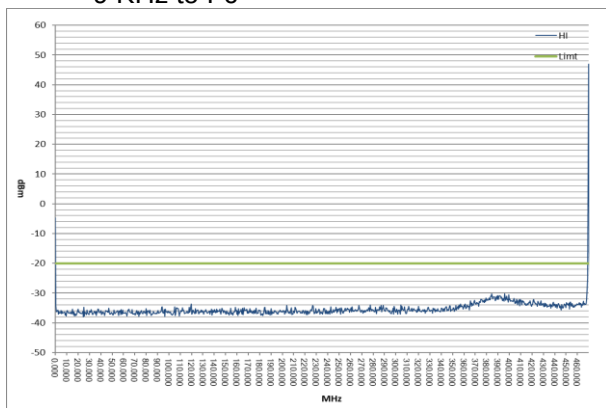
1GHz to 2GHz



2GHz to 10Fc

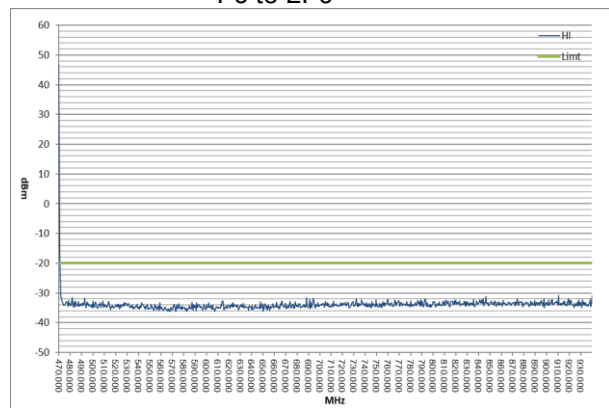


11K0F3E  
9 KHz to Fc

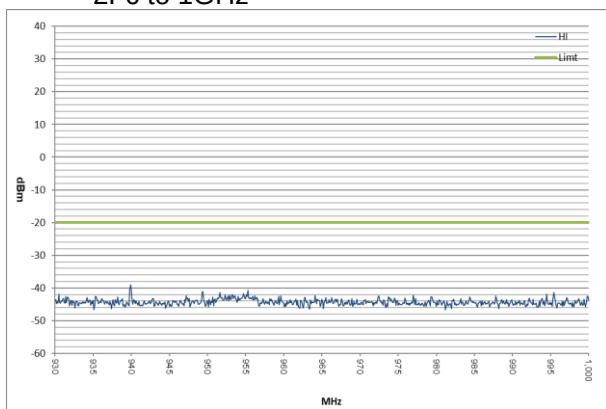


Hi Power

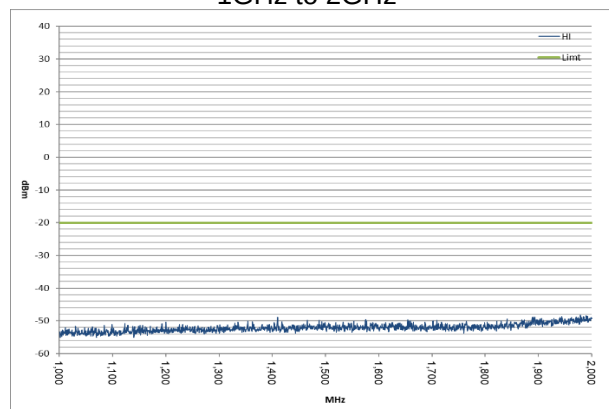
Fc to 2Fc



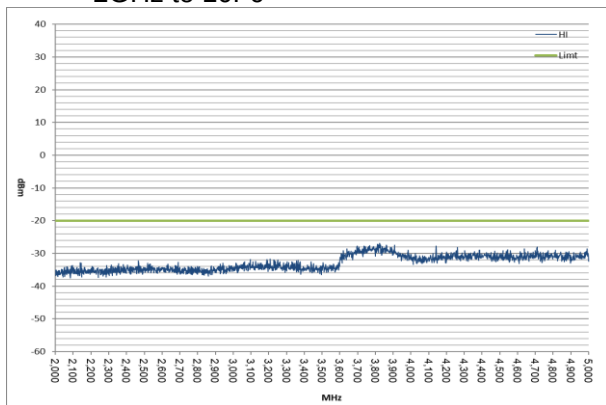
2Fc to 1GHz



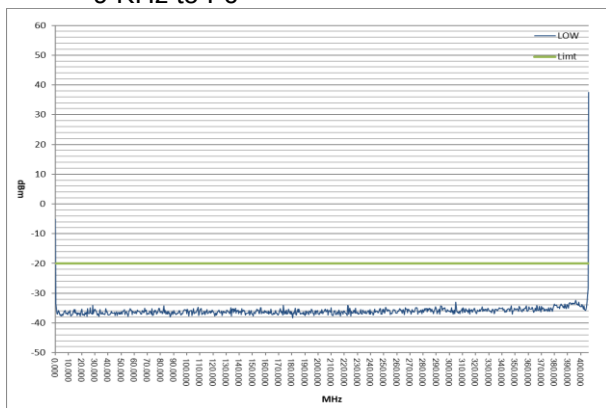
1GHz to 2GHz



2GHz to 10Fc

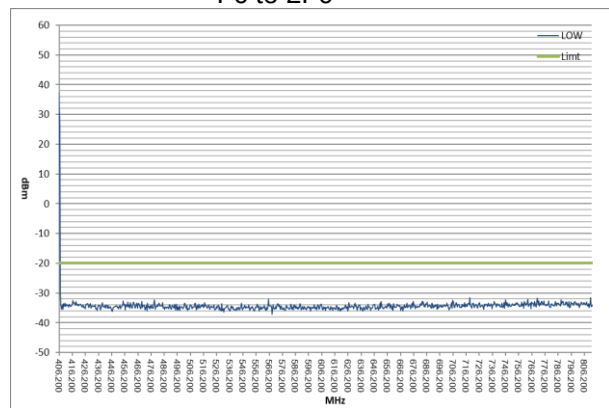


11K0F3E  
9 KHz to Fc

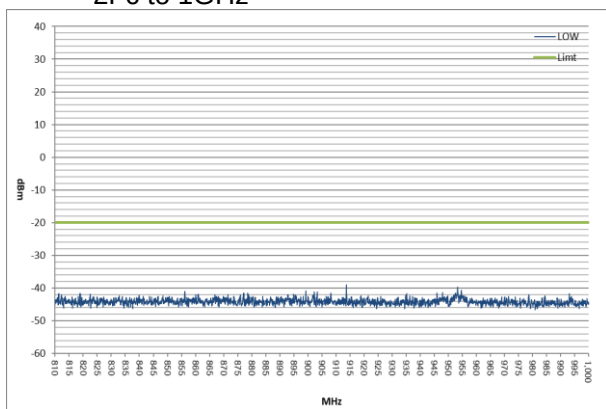


Low Power

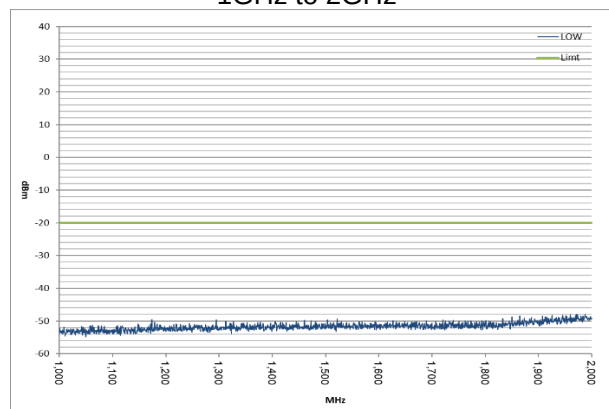
Fc to 2Fc



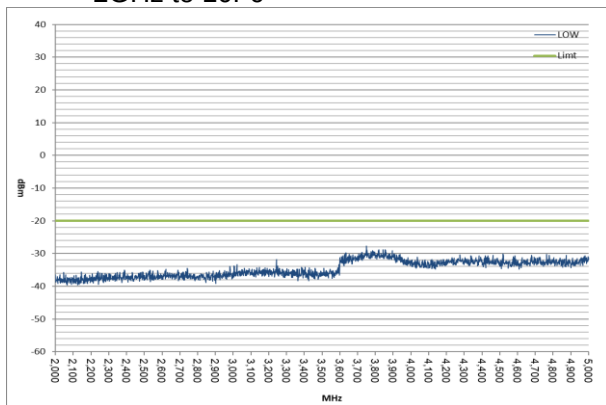
2Fc to 1GHz



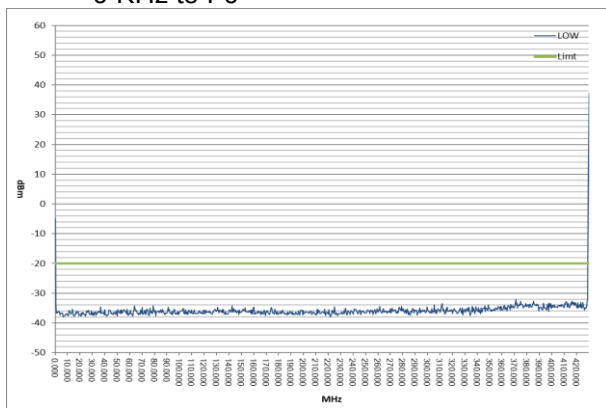
1GHz to 2GHz



2GHz to 10Fc

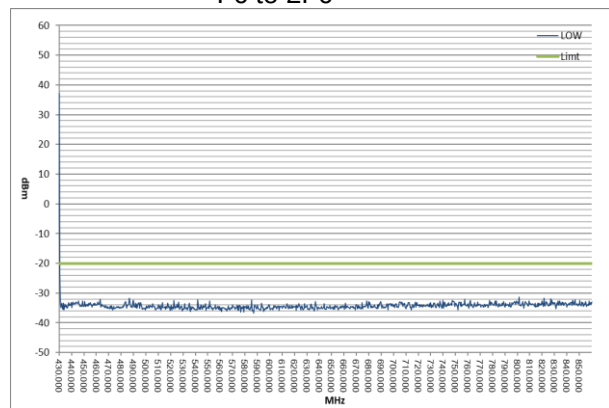


11K0F3E  
9 KHz to Fc

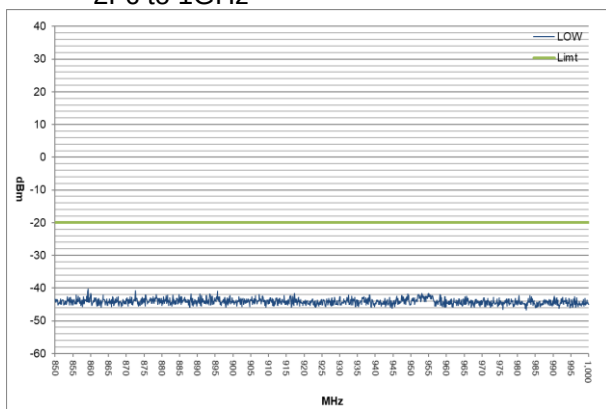


Low Power

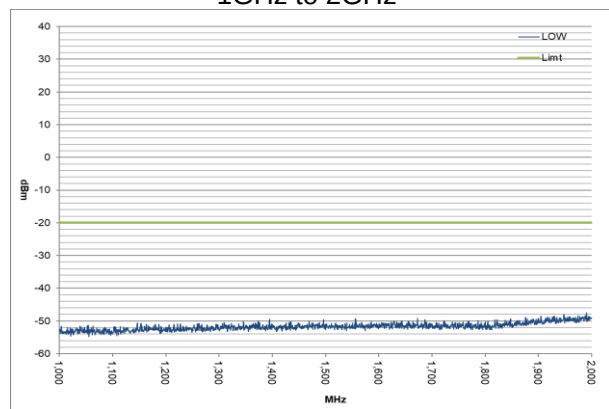
Fc to 2Fc



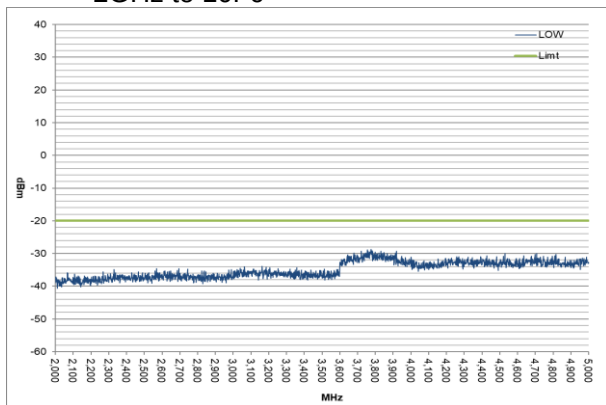
2Fc to 1GHz



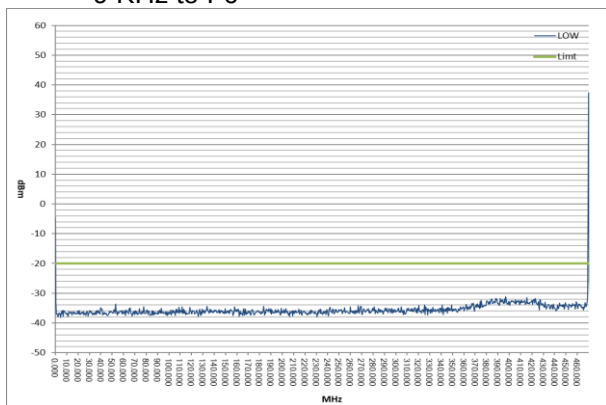
1GHz to 2GHz



2GHz to 10Fc

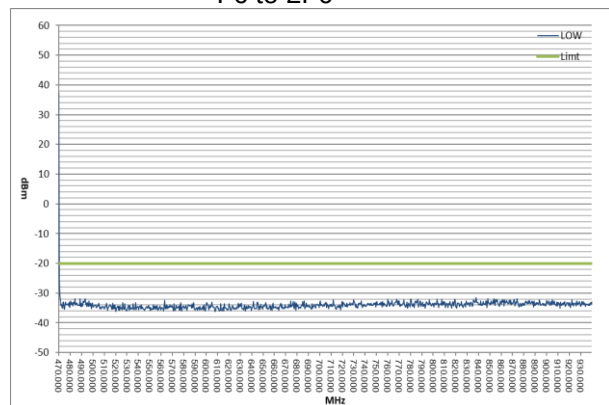


11K0F3E  
9 KHz to Fc

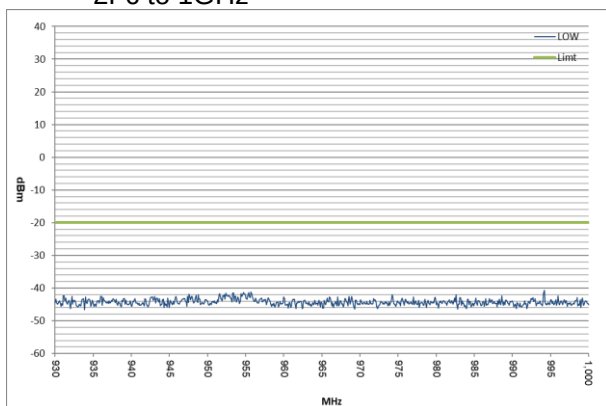


Low Power

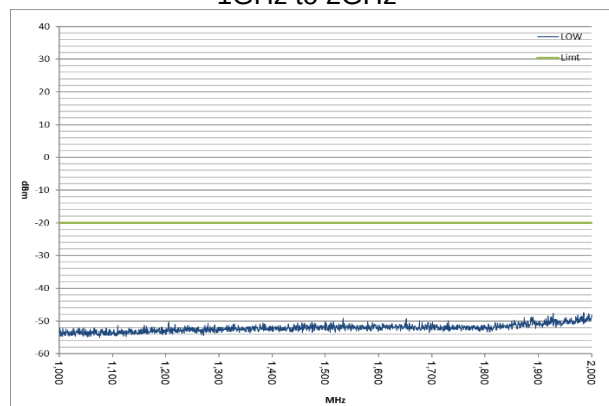
Fc to 2Fc



2Fc to 1GHz



1GHz to 2GHz



2GHz to 10Fc

