



Band5-10MHz-QPSK-20450-1RB#0



Band5-10MHz-QPSK-20450-50RB#0



Band5-10MHz-QPSK-20600-1RB#0





Agilent Spectrum Analyzer - Sweep 3A

Center Freq 849.000000 MHz

Ref Offset 6.22 dB
Ref 30.00 dBm

Span 20.00 MHz

Res BW 200 kHz

VBW 620 kHz

Sweep 100.0 ms (601 pts)

Peak 1: 849.00 MHz, -35.519 dBm

Agilent Spectrum Analyzer - Sweep SA

Center Freq 824.000000 MHz

Ref Offset 6.37 dB
Ref 30.00 dBm

Mkr1 824.000 MHz
-26.317 dBm

Center 824.000 MHz
#Res BW 200 kHz

#VBW 620 kHz

Span 2.000 MHz
#Sweep 100.0 ms (601 pts)

Agilent Spectrum Analyzer - Sweep SA

Center Freq 824.000000 MHz

Ref Offset 6.37 dB
Ref 30.00 dBm

Mkr1 823.97 MHz
-38.308 dBm

10 dB/div

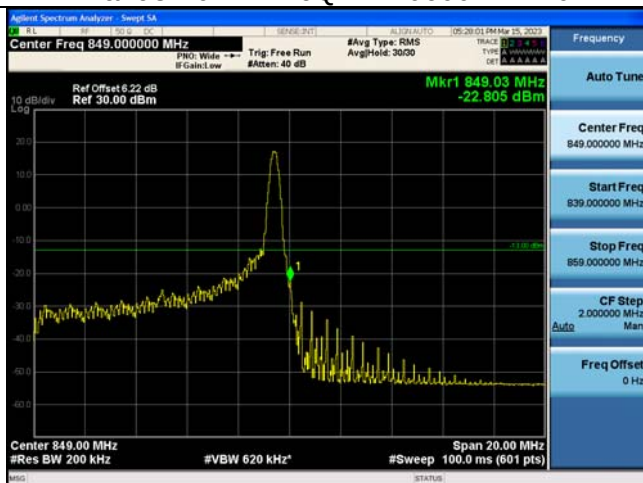
20.00 MHz

Center 824.00 MHz
#Res BW 200 kHz
#Sweep 100.0 ms (601 pts)

Span 20.00 MHz



Band5-10MHz-16QAM-20600-1RB#0



Band5-10MHz-16QAM-20600-50RB#0





Band7-5MHz-QPSK-20775-1RB#0



Band7-5MHz-QPSK-20775-25RB#0



Band7-5MHz-QPSK-21425-1RB#0

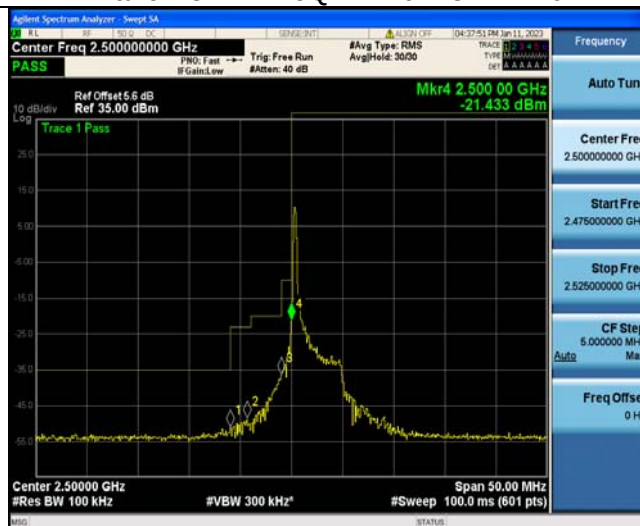




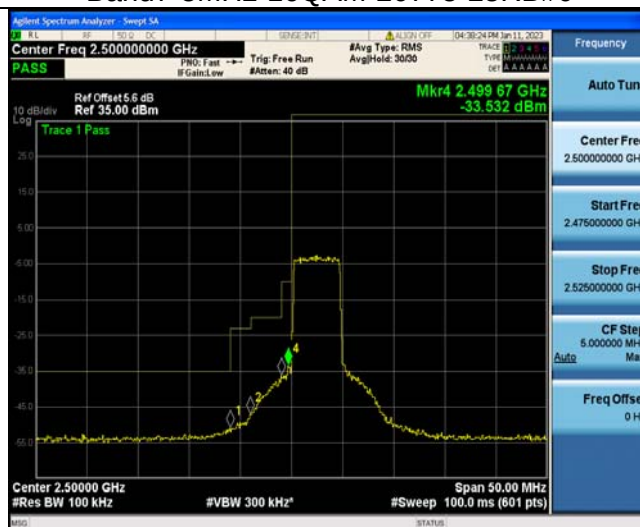
Band7-5MHz-QPSK-21425-25RB#0



Band7-5MHz-16QAM-20775-1RB#0



Band7-5MHz-16QAM-20775-25RB#0





Band7-5MHz-16QAM-21425-1RB#0



Band7-5MHz-16QAM-21425-25RB#0



Band7-10MHz-QPSK-20800-1RB#0





Band7-10MHz-QPSK-20800-50RB#0



Band7-10MHz-QPSK-21400-1RB#0



Band7-10MHz-QPSK-21400-50RB#0





Band7-10MHz-16QAM-20800-1RB#0



Band7-10MHz-16QAM-20800-50RB#0



Band7-10MHz-16QAM-21400-1RB#0





Band7-10MHz-16QAM-21400-50RB#0



Band7-15MHz-QPSK-20825-1RB#0



Band7-15MHz-QPSK-20825-75RB#0





Band7-15MHz-QPSK-21375-1RB#0



Band7-15MHz-QPSK-21375-75RB#0



Band7-15MHz-16QAM-20825-1RB#0





Band7-15MHz-16QAM-20825-75RB#0



Band7-15MHz-16QAM-21375-1RB#0



Band7-15MHz-16QAM-21375-75RB#0





Band7-20MHz-QPSK-20850-1RB#0



Band7-20MHz-QPSK-20850-100RB#0



Band7-20MHz-QPSK-21350-1RB#0





Band7-20MHz-QPSK-21350-100RB#0



Band7-20MHz-16QAM-20850-1RB#0



Band7-20MHz-16QAM-20850-100RB#0





Band7-20MHz-16QAM-21350-1RB#0



Band7-20MHz-16QAM-21350-100RB#0





Band12-1.4MHz-QPSK-23017-1RB#0

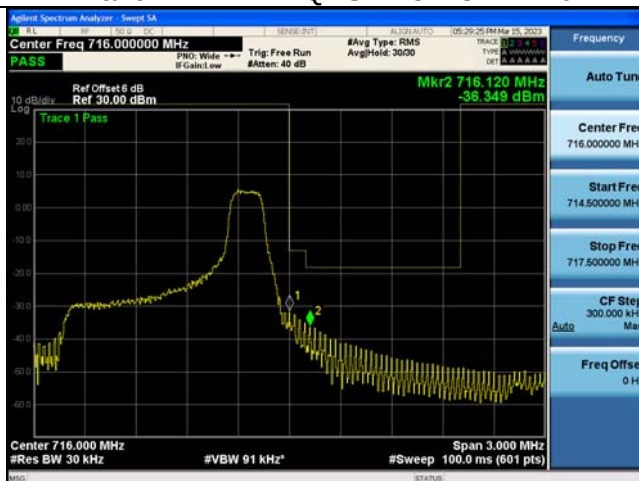


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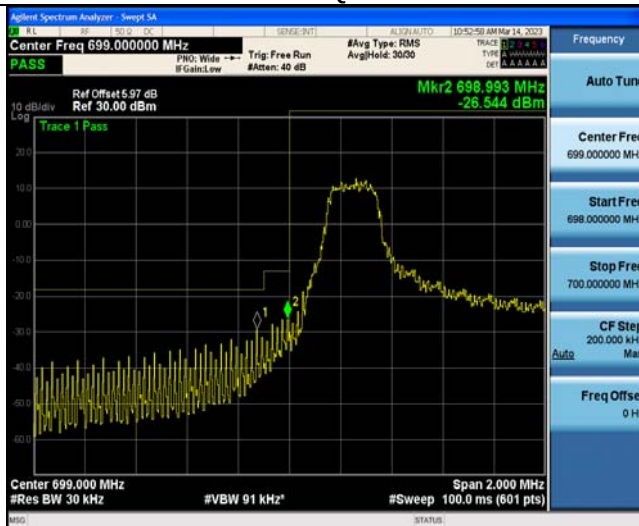
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Band12-1.4MHz-QPSK-23173-6RB#0



Band12-1.4MHz-16QAM-23017-1RB#0

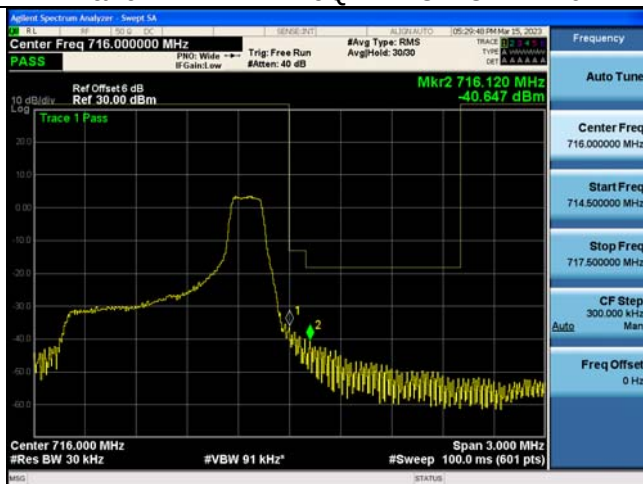




Band12-1.4MHz-16QAM-23017-6RB#0



Band12-1.4MHz-16QAM-23173-1RB#0





Band12-1.4MHz-16QAM-23173-6RB#0



Band12-3MHz-QPSK-23025-1RB#0

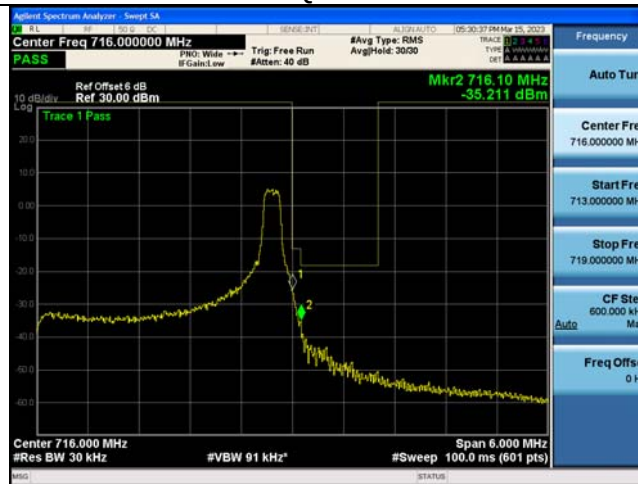


Band12-3MHz-QPSK-23025-15RB#0





Band12-3MHz-QPSK-23165-1RB#0



Band12-3MHz-QPSK-23165-15RB#0



Band12-3MHz-16QAM-23025-1RB#0





Agilent Spectrum Analyzer - Sweep SA

Center Freq 699.000000 MHz

Ref Offset 5.97 dB

Ref 30.00 dBm

Mkr2 699.00 MHz -28.521 dBm

Trace 1 Pass

Center Freq 699.000000 MHz

Start Freq 696.000000 MHz

Stop Freq 702.000000 MHz

CF Step 600.000 kHz

Auto

Freq Offset 0 Hz

Center 699.000 MHz

#Res BW 30 kHz

#VBW 91 kHz

#Sweep 100.0 ms (601 pts)

Span 6.000 MHz

Agilent Spectrum Analyzer - Sweep 5A

Center Freq 716.000000 MHz

Ref Offset 6 dB

Ref 30.00 dBm

Trace 1 Pass

Span 10.00 MHz

#Res BW 30 kHz

#Sweep 100.0 ms (601 pts)

Center Freq 716.000000 MHz

Ref 30.00 dBm

Trace 1 Pass

Mkr2 716.100 MHz

-40.282 dBm

Auto Tun

Center Freq 716.000000 MHz

Start Freq 711.000000 MHz

Stop Freq 721.000000 MHz

CF Stop 1.000000 MHz

Auto

Freq Offset 0 Hz

Agilent Spectrum Analyzer - Sweep SA

Center Freq 716.000000 MHz

Ref Offset 6 dB

Ref 30.00 dBm

Trace 1 Pass

Mkr2 716.21 MHz -37.263 dBm

Center Freq 716.000000 MHz

Start Freq 715.999999 MHz

Stop Freq 716.000000 MHz

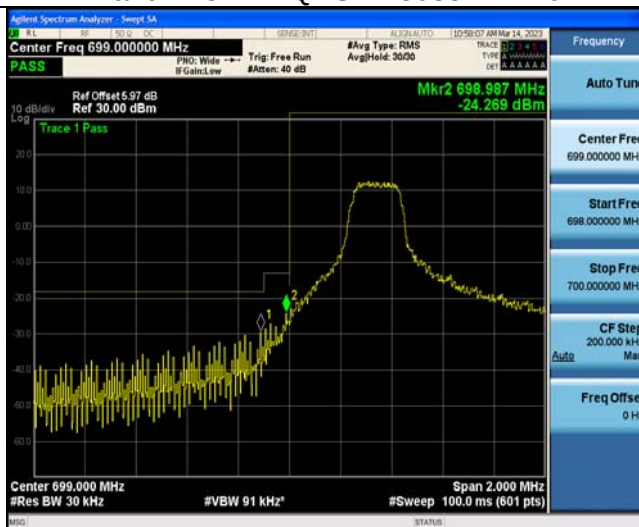
CF Span 6.000 MHz

Resolution BW 30 kHz

Sweep Rate 100.0 ms (601 pts)



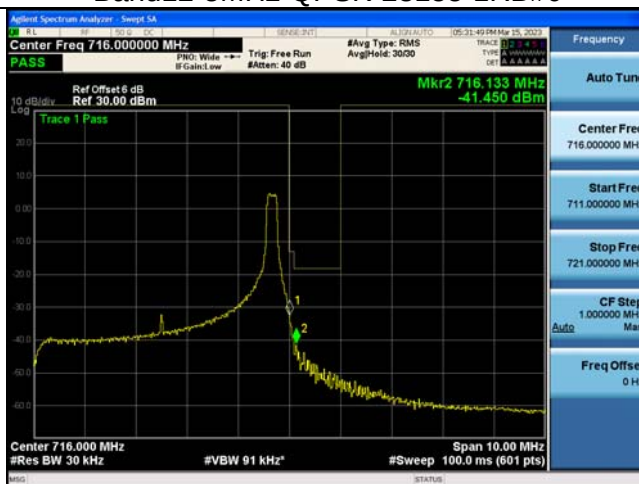
Band12-5MHz-QPSK-23035-1RB#0



Band12-5MHz-QPSK-23035-25RB#0



Band12-5MHz-QPSK-23155-1RB#0





Band12-5MHz-QPSK-23155-25RB#0



Band12-5MHz-16QAM-23035-1RB#0

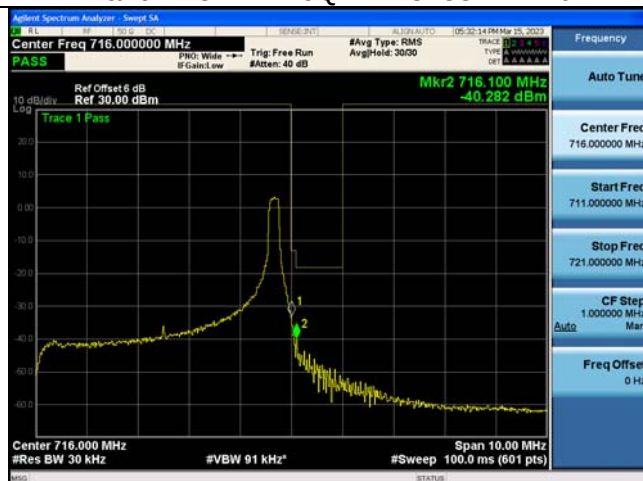


Band12-5MHz-16QAM-23035-25RB#0





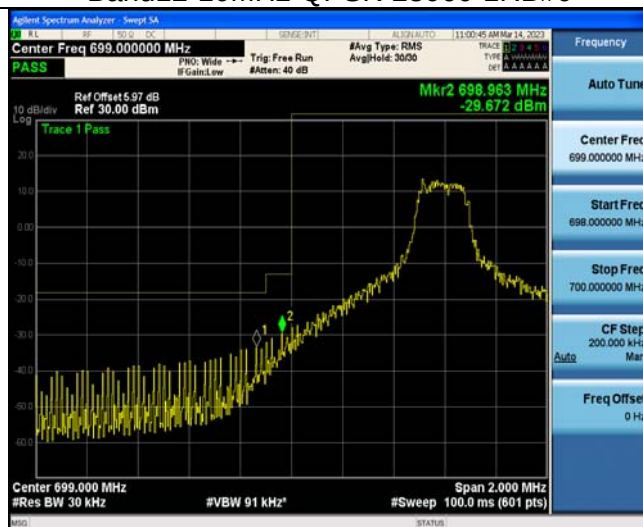
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Band12-5MHz-16QAM-23155-25RB#0



Band12-10MHz-QPSK-23060-1RB#0

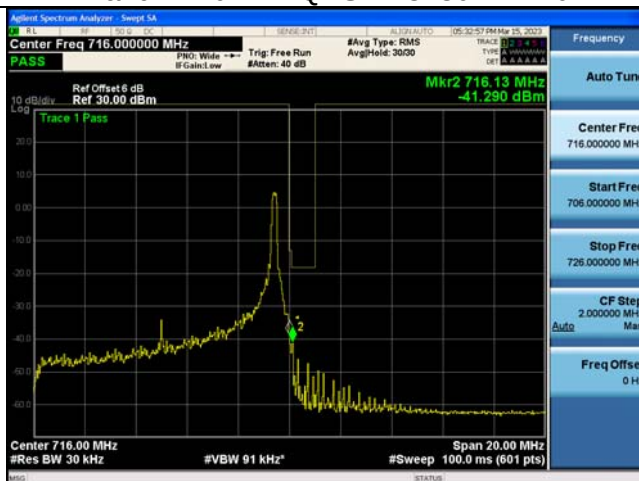




Band12-10MHz-QPSK-23060-50RB#0



Band12-10MHz-QPSK-23130-1RB#0

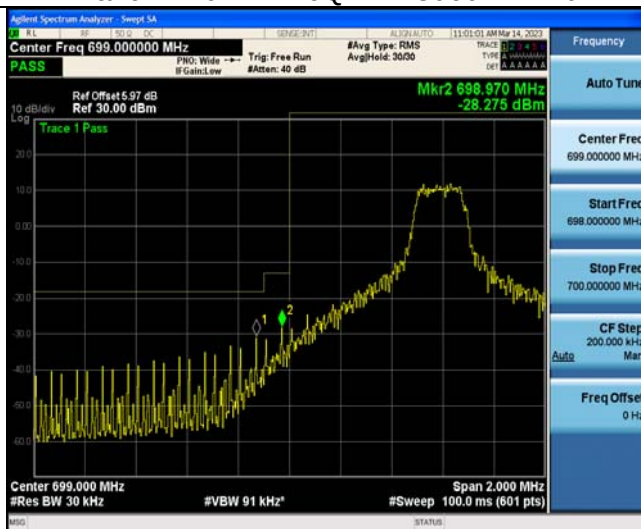


Band12-10MHz-QPSK-23130-50RB#0





Band12-10MHz-16QAM-23060-1RB#0



Band12-10MHz-16QAM-23060-50RB#0



Band12-10MHz-16QAM-23130-1RB#0





Band12-10MHz-16QAM-23130-50RB#0



Band17-5MHz-QPSK-23755-1RB#0

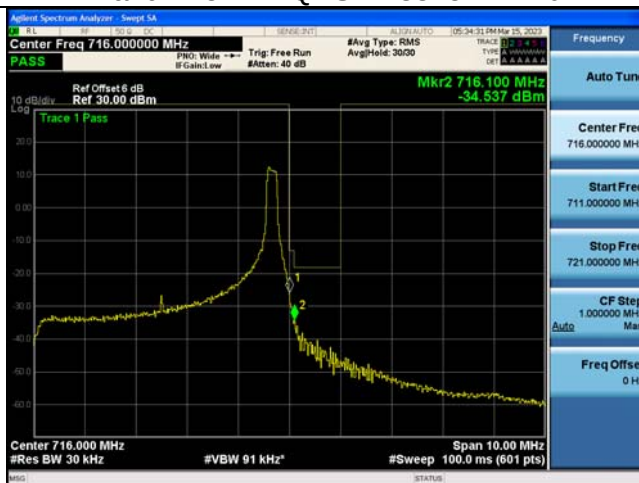


Band17-5MHz-QPSK-23755-25RB#0





Band17-5MHz-QPSK-23825-1RB#0



Band17-5MHz-QPSK-23825-25RB#0



Band17-5MHz-16QAM-23755-1RB#0

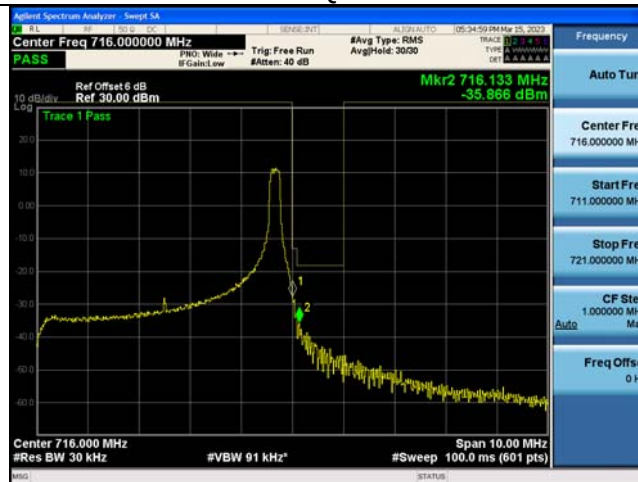




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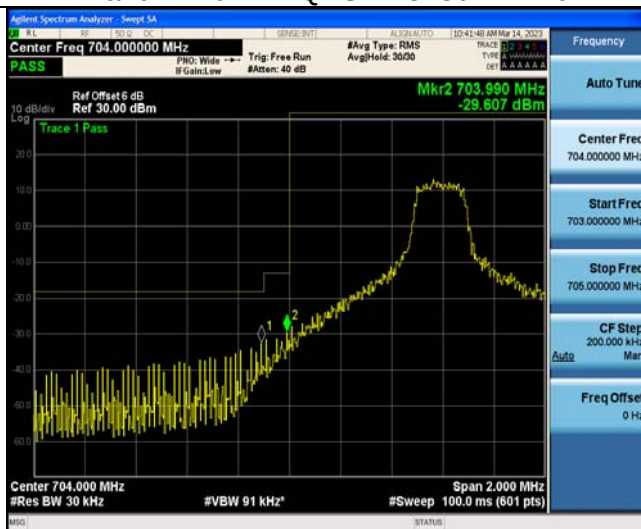


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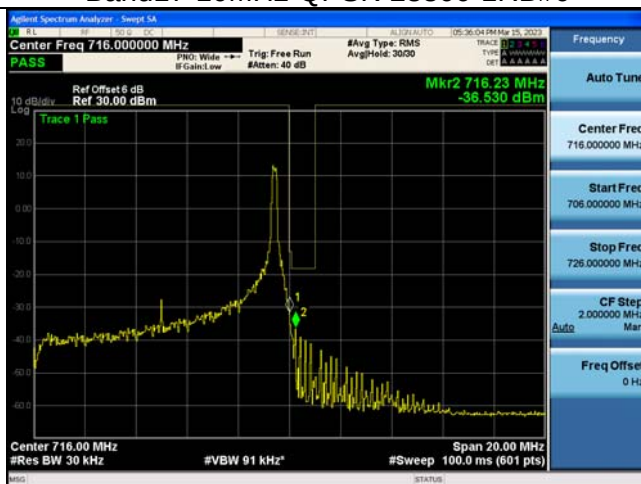
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Band17-10MHz-QPSK-23780-50RB#0



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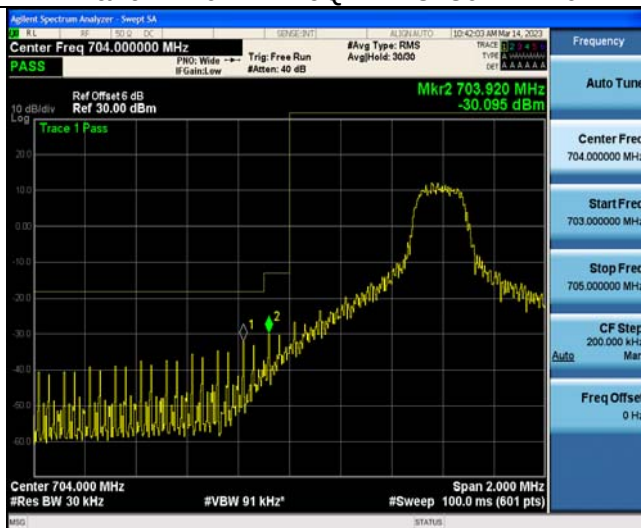




Band17-10MHz-QPSK-23800-50RB#0



Band17-10MHz-16QAM-23780-1RB#0

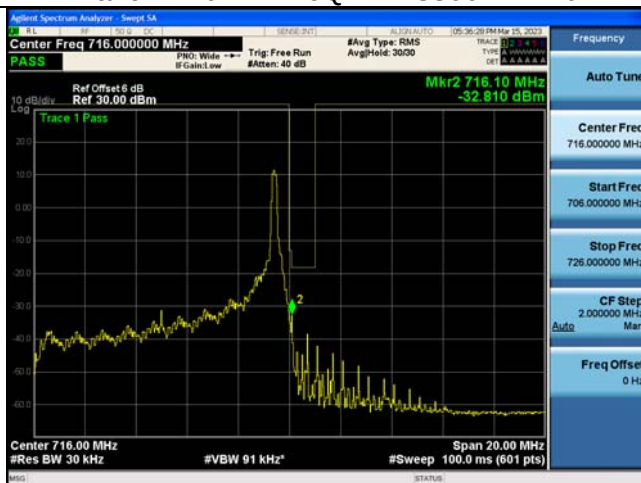


Band17-10MHz-16QAM-23780-50RB#0





Band17-10MHz-16QAM-23800-1RB#0



Band17-10MHz-16QAM-23800-50RB#0



Note: All mode has been tested, only worst data shown in this report.

5.7 Field strength of spurious radiation measurement

5.7.1 Limit

LTE Band 2, LTE Band 4, LTE Band 5, LTE Band 12, LTE Band 17: -13dBm

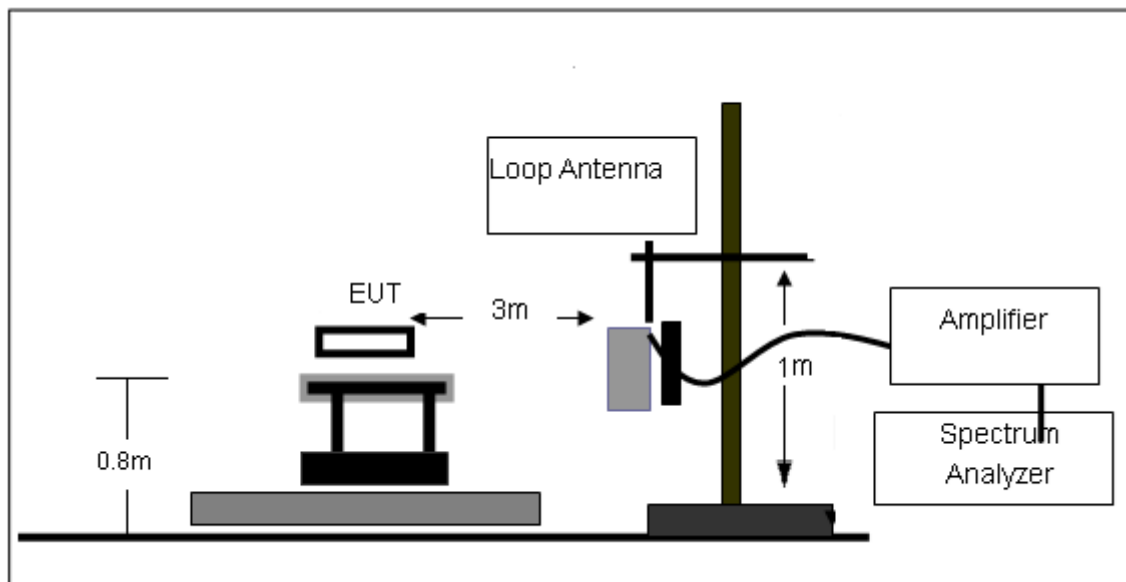
LTE Band 7: -25dBm

5.7.2 Test procedure

1. The EUT was placed on a non-conductive turntable using a nonconductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.
2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.
3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.
4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. $ERP / EIRP = S.G. \text{ output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}$.

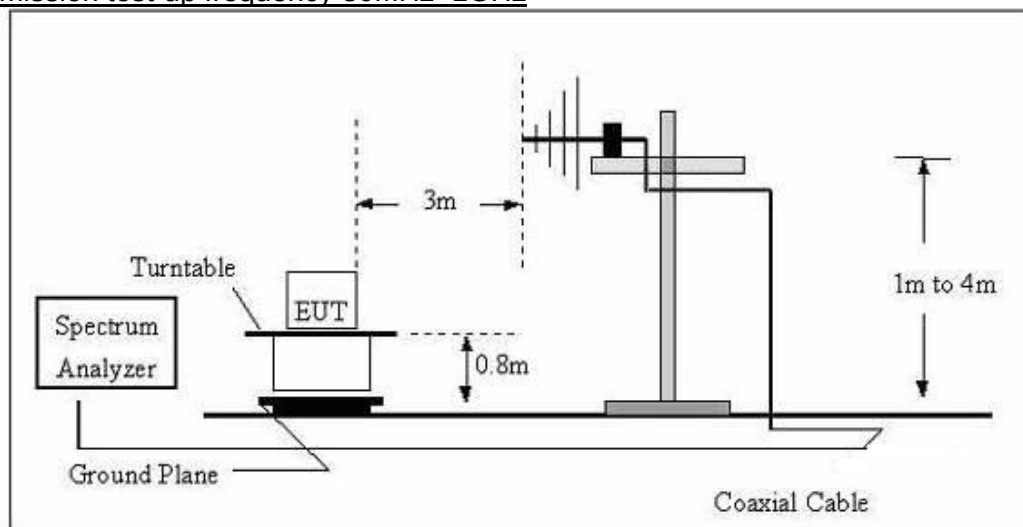
5.7.3 Test setup

Radiated emission test-up frequency below 30MHz

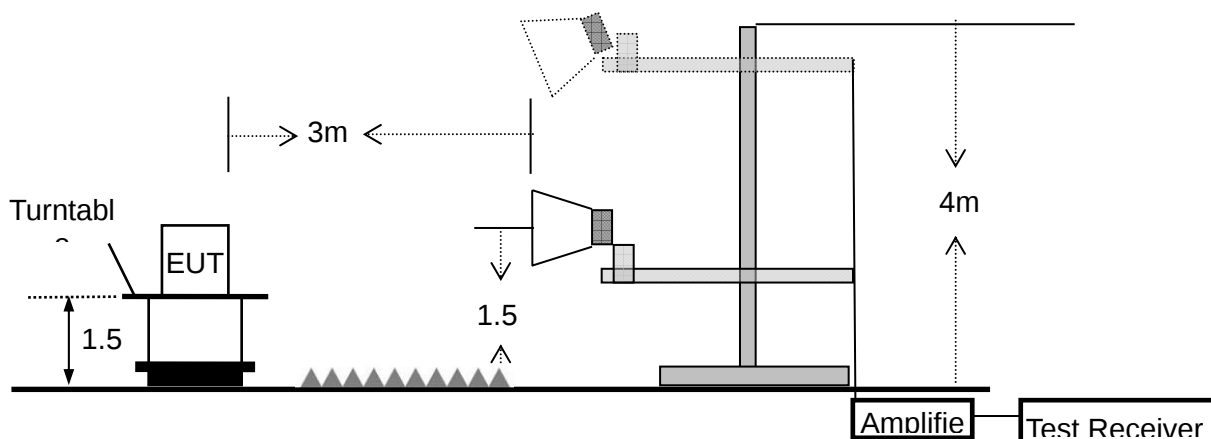




Radiated emission test-up frequency 30MHz~1GHz



Radiated emission test-up frequency above 1GHz

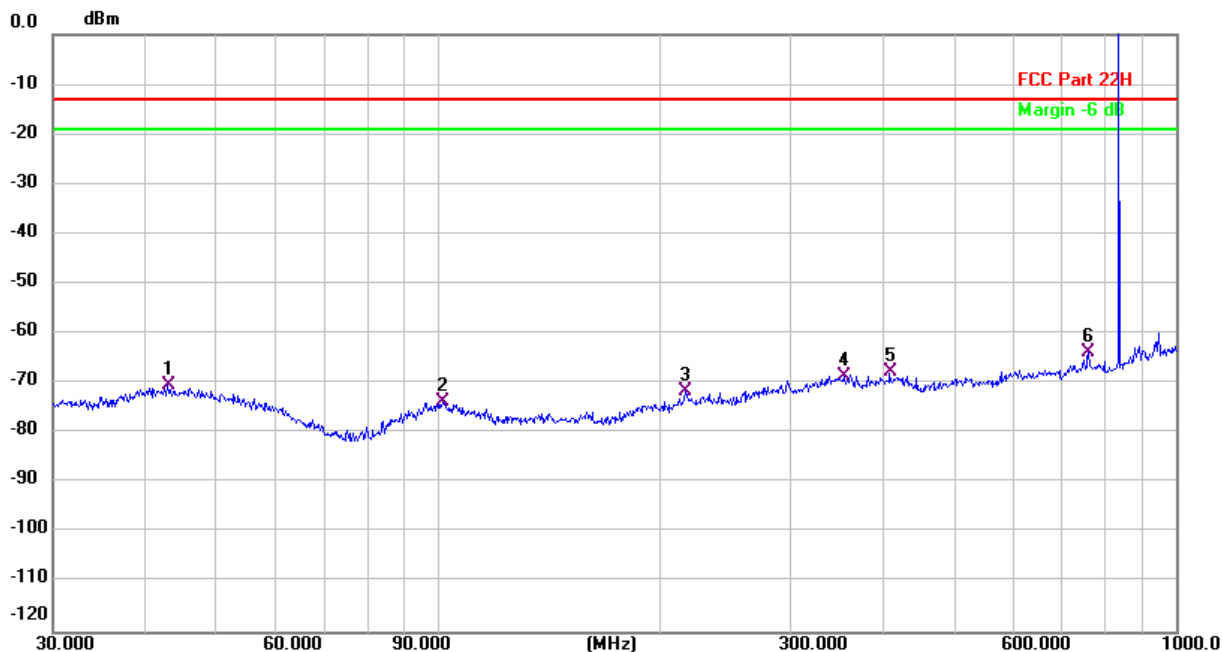




5.7.4 Test results

Radiated emissions between 30MHz – 1GHz

Test mode:	TX – GSM850 882MHz	Polarization:	Horizontal
Power supply:	DC 3.8V	Test site:	RE chamber 2

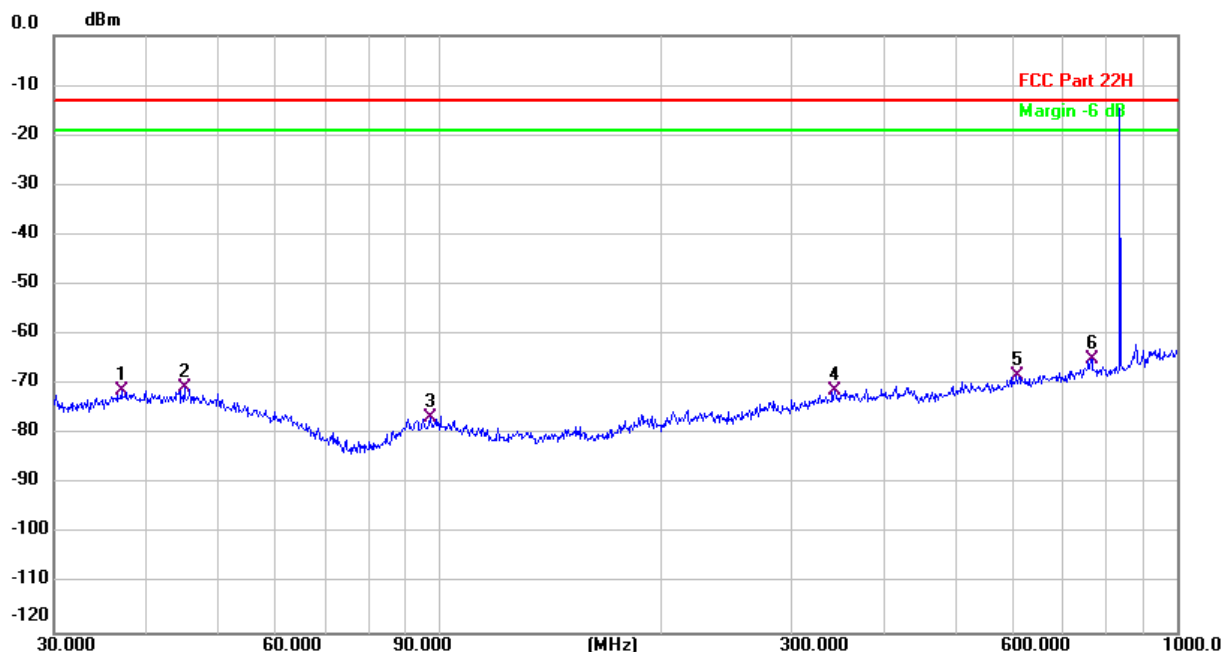


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		42.9374	-64.70	-5.65	-70.35	-13.00	-57.35	QP
2		101.3329	-63.32	-10.43	-73.75	-13.00	-60.75	QP
3		216.6878	-62.14	-9.33	-71.47	-13.00	-58.47	QP
4		354.6492	-63.92	-4.52	-68.44	-13.00	-55.44	QP
5		409.6636	-63.54	-4.26	-67.80	-13.00	-54.80	QP
6	*	761.3706	-63.37	-0.45	-63.82	-13.00	-50.82	QP



Radiated emissions between 30MHz – 1GHz

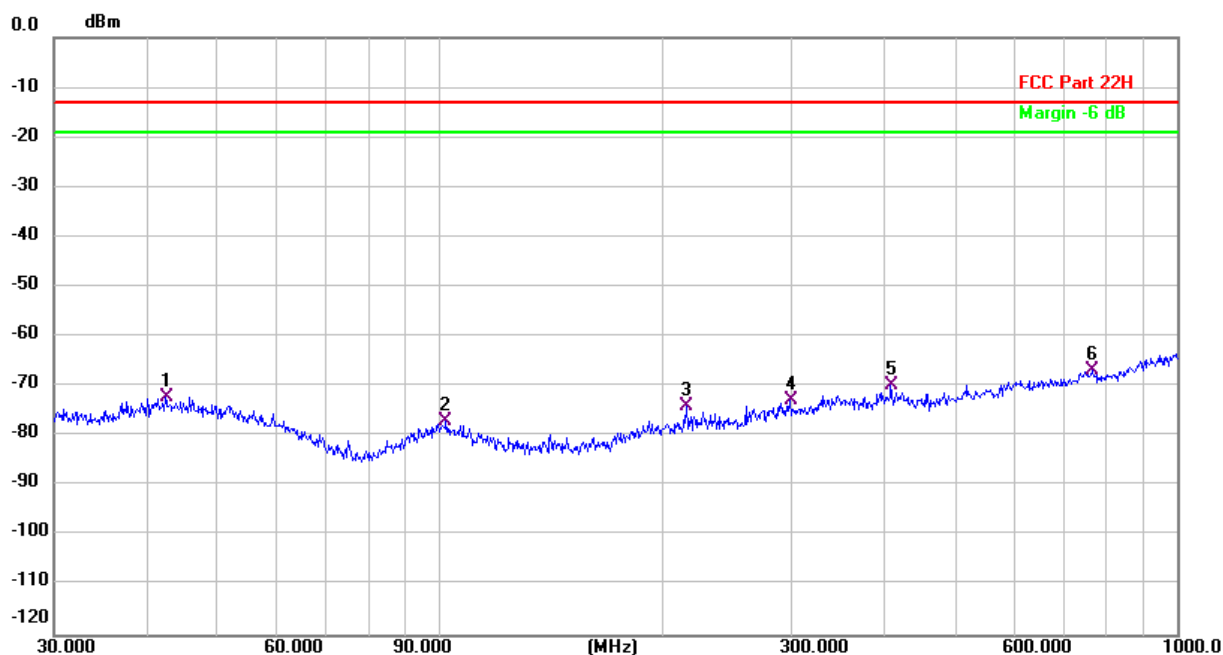
Test mode:	TX – GSM850 882MHz	Polarization:	Vertical
Power supply:	DC 3.8V	Test site:	RE chamber 2



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBm	dB	dBm	dBm	dB	Detector
1		37.0736	-57.61	-13.74	-71.35	-13.00	-58.35	QP
2		45.1968	-61.46	-9.28	-70.74	-13.00	-57.74	QP
3		97.2000	-73.48	-3.26	-76.74	-13.00	-63.74	QP
4		343.7822	-67.24	-3.96	-71.20	-13.00	-58.20	QP
5		607.2542	-68.32	0.15	-68.17	-13.00	-55.17	QP
6	*	767.7380	-64.88	-0.08	-64.96	-13.00	-51.96	QP



Test mode:	TX-GSM1900 1960MHz	Polarization:	Horizontal
Power supply:	DC 3.8V	Test site:	RE chamber 2



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		42.5440	-66.45	-5.67	-72.12	-13.00	-59.12	QP
2		102.2251	-66.47	-10.54	-77.01	-13.00	-64.01	QP
3		216.6878	-64.64	-9.33	-73.97	-13.00	-60.97	QP
4		298.6606	-65.94	-6.90	-72.84	-13.00	-59.84	QP
5		409.6636	-65.54	-4.26	-69.80	-13.00	-56.80	QP
6	*	766.0571	-66.22	-0.46	-66.68	-13.00	-53.68	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX-GSM1900 1960MHz	Polarization:	Vertical
Power supply:	DC 3.8V	Test site:	RE chamber 2



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		37.8121	-57.58	-13.19	-70.77	-13.00	-57.77	QP
2		44.6259	-61.22	-9.43	-70.65	-13.00	-57.65	QP
3		100.8013	-73.72	-3.25	-76.97	-13.00	-63.97	QP
4		350.0162	-65.11	-3.43	-68.54	-13.00	-55.54	QP
5		430.4652	-66.54	-3.70	-70.24	-13.00	-57.24	QP
6	*	595.9160	-68.15	-0.15	-68.30	-13.00	-55.30	QP



Radiated emissions 1 GHz ~ 25 GHz

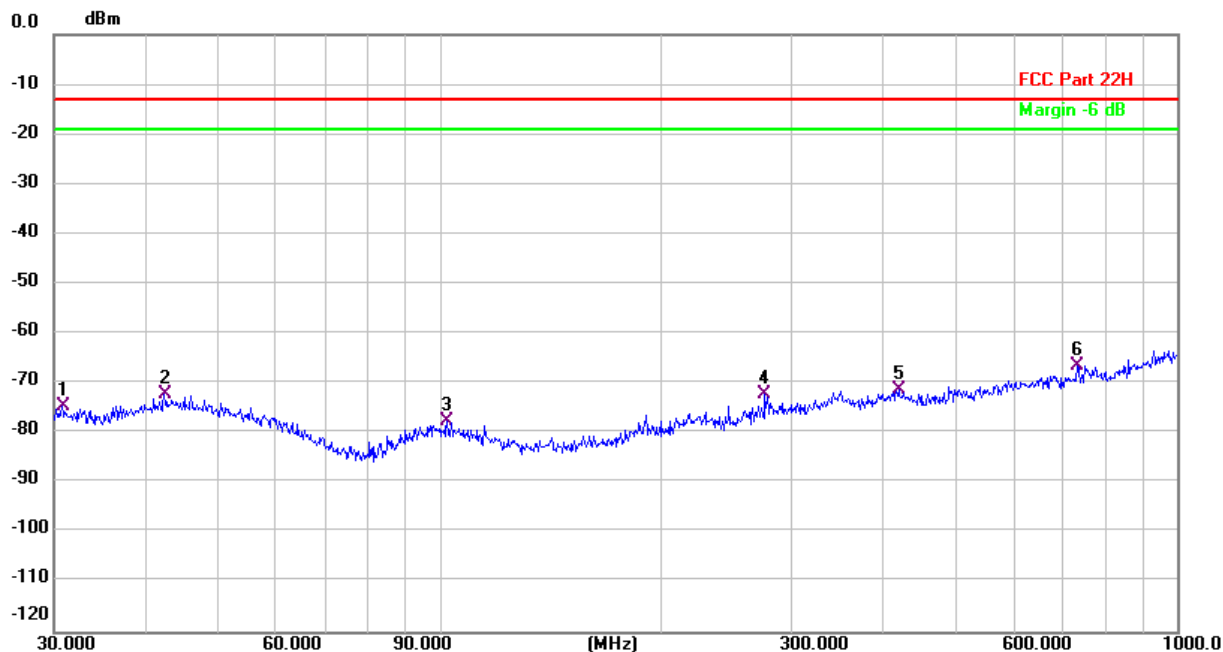
Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	Peak/AVG	H/V
TX GSM850 882MHz							
1764.000	-63.79	12.31	-51.48	-13.00	-38.48	Peak	V
1764.000	-68.61	12.31	-56.30	-13.00	-43.30	AVG	V
2646.000	-63.71	14.52	-49.19	-13.00	-36.19	Peak	V
2646.000	-69.68	14.52	-55.16	-13.00	-42.16	AVG	V
3528.000	-64.91	15.84	-49.07	-13.00	-36.07	Peak	V
3528.000	-70.07	15.84	-54.23	-13.00	-41.23	AVG	V
1764.000	-64.22	12.29	-51.93	-13.00	-38.93	Peak	H
1764.000	-68.97	12.29	-56.68	-13.00	-43.68	AVG	H
2646.000	-65.14	14.76	-50.38	-13.00	-37.38	Peak	H
2646.000	-70.00	14.76	-55.24	-13.00	-42.24	AVG	H
3528.000	-65.83	16.05	-49.78	-13.00	-36.78	Peak	H
3528.000	-70.74	16.05	-54.69	-13.00	-41.69	AVG	H
TX GSM1900 1960MHz							
3920.000	-66.34	17.13	-49.21	-13.00	-36.21	Peak	V
3920.000	-71.39	17.13	-54.26	-13.00	-41.26	AVG	V
5880.000	-66.86	19.31	-47.55	-13.00	-34.55	Peak	V
5880.000	-71.64	19.31	-52.33	-13.00	-39.33	AVG	V
7840.000	-66.76	26.66	-40.10	-13.00	-27.10	Peak	V
7840.000	-72.24	26.66	-45.58	-13.00	-32.58	AVG	V
3920.000	-65.93	17.48	-48.45	-13.00	-35.45	Peak	H
3920.000	-70.87	17.48	-53.39	-13.00	-40.39	AVG	H
5880.000	-67.44	19.42	-48.02	-13.00	-35.02	Peak	H
5880.000	-73.61	19.42	-54.19	-13.00	-41.19	AVG	H
7840.000	-65.62	26.51	-39.11	-13.00	-26.11	Peak	H
7840.000	-70.99	26.51	-44.48	-13.00	-31.48	AVG	H



WCDMA:

Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band2 1932.4MHz	Polarization:	Horizontal
Power supply:	DC 3.8V	Test site:	RE chamber 2

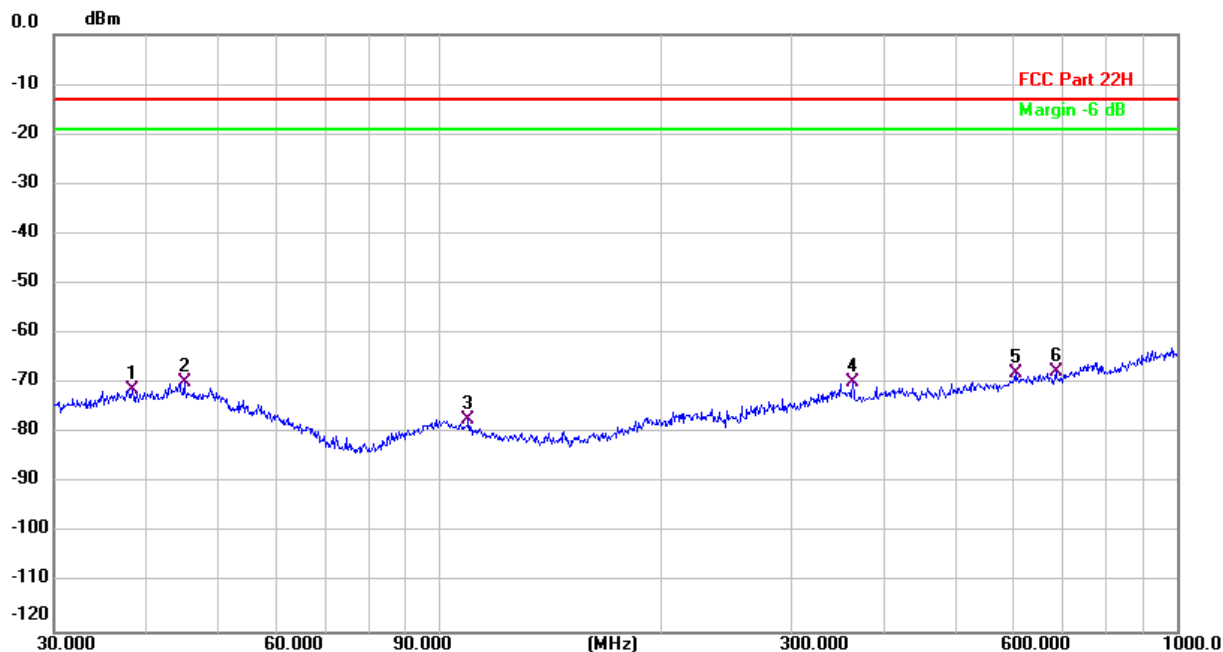


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		30.7590	-67.30	-7.17	-74.47	-13.00	-61.47	QP
2		42.3765	-66.52	-5.68	-72.20	-13.00	-59.20	QP
3		102.4943	-66.87	-10.57	-77.44	-13.00	-64.44	QP
4		276.3657	-64.85	-7.26	-72.11	-13.00	-59.11	QP
5		419.1081	-67.11	-4.17	-71.28	-13.00	-58.28	QP
6	*	732.5622	-65.61	-0.96	-66.57	-13.00	-53.57	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band2 1932.4MHz	Polarization:	Vertical
Power supply:	DC 3.8V	Test site:	RE chamber 2

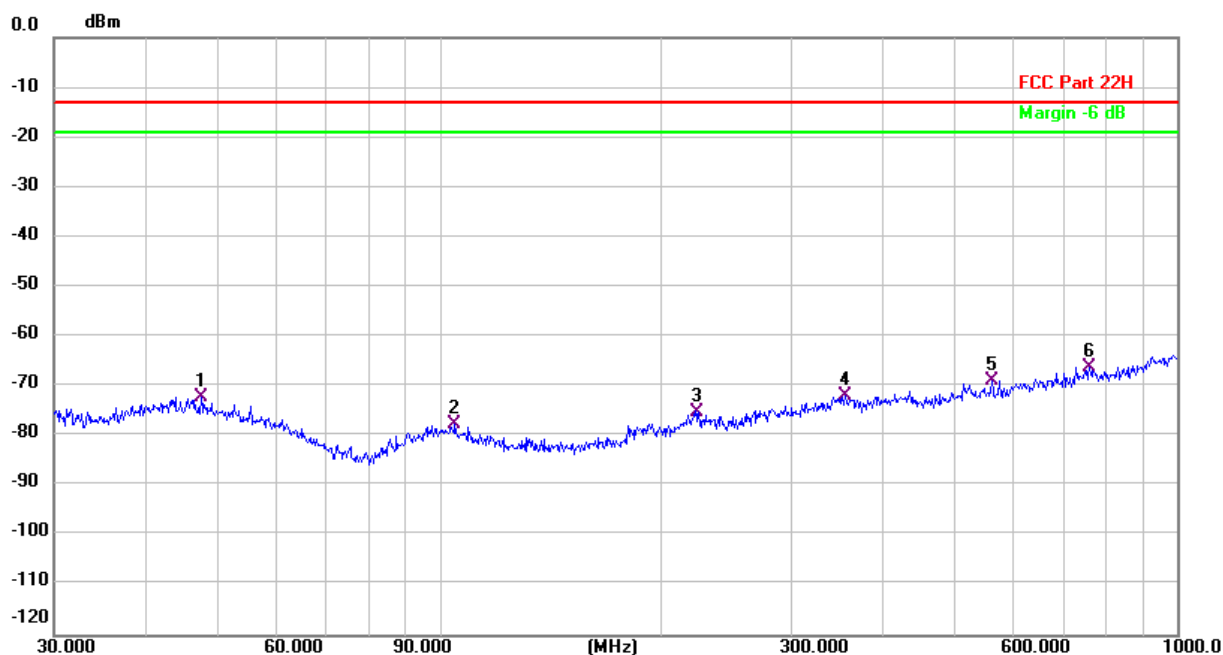


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBm	dB	dBm	dBm	dB	Detector
1		38.3462	-58.56	-12.80	-71.36	-13.00	-58.36	QP
2		45.0781	-60.43	-9.27	-69.70	-13.00	-56.70	QP
3		109.4596	-71.94	-5.25	-77.19	-13.00	-64.19	QP
4		363.1436	-65.96	-3.89	-69.85	-13.00	-56.85	QP
5		605.3938	-68.09	0.09	-68.00	-13.00	-55.00	QP
6	*	685.6463	-66.48	-1.26	-67.74	-13.00	-54.74	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band4 2132.6MHz	Polarization:	Horizontal
Power supply:	DC 3.8V	Test site:	RE chamber 2

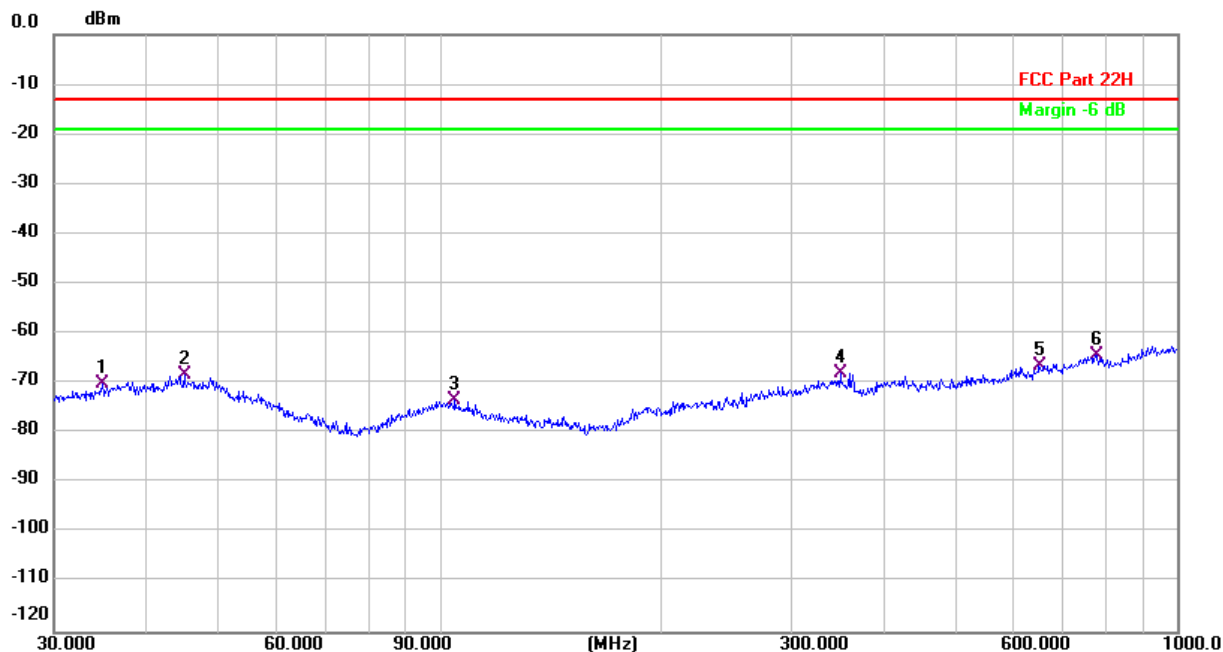


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		47.6377	-65.97	-6.14	-72.11	-13.00	-59.11	QP
2		105.2256	-66.66	-10.91	-77.57	-13.00	-64.57	QP
3		222.7549	-66.03	-8.97	-75.00	-13.00	-62.00	QP
4		354.4938	-67.39	-4.51	-71.90	-13.00	-58.90	QP
5		560.6928	-65.51	-3.44	-68.95	-13.00	-55.95	QP
6	*	761.3706	-65.62	-0.45	-66.07	-13.00	-53.07	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band4 2132.6MHz	Polarization:	Vertical
Power supply:	DC 3.8V	Test site:	RE chamber 2

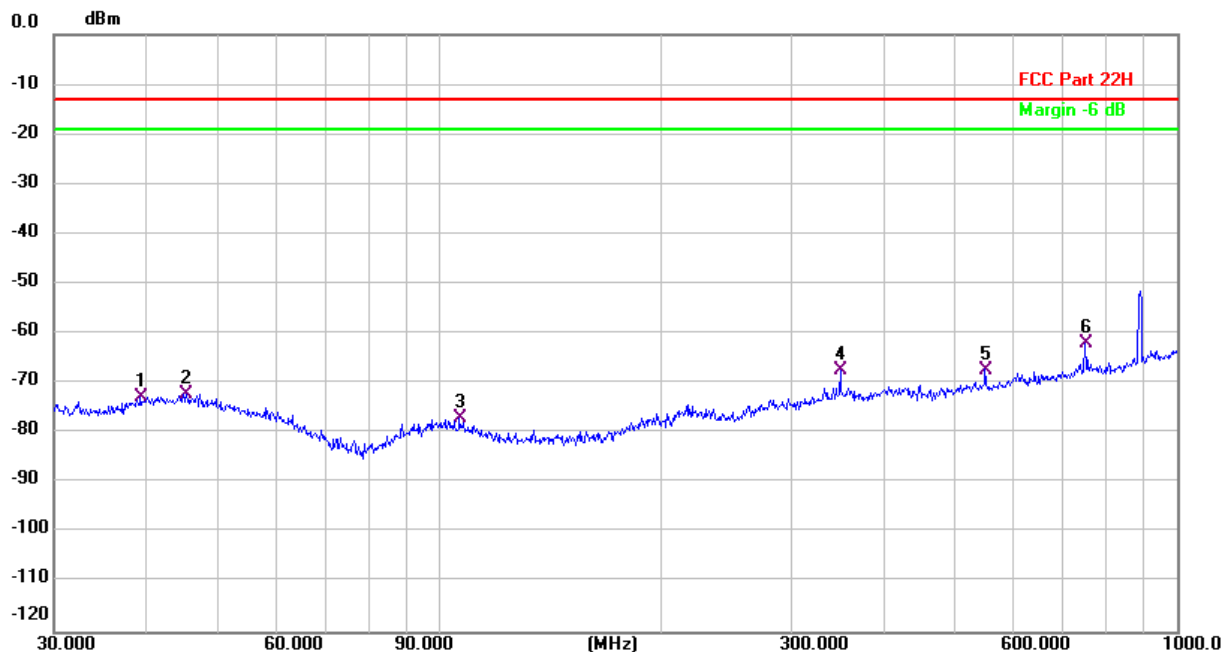


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBm	dB	dBm	dBm	dB	Detector
1		34.8975	-54.82	-15.32	-70.14	-13.00	-57.14	QP
2		45.0781	-58.93	-9.27	-68.20	-13.00	-55.20	QP
3		105.1334	-69.22	-4.25	-73.47	-13.00	-60.47	QP
4		350.0162	-64.58	-3.43	-68.01	-13.00	-55.01	QP
5		651.3705	-66.45	-0.05	-66.50	-13.00	-53.50	QP
6	*	775.1771	-64.38	-0.05	-64.43	-13.00	-51.43	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band5 891.6MHz	Polarization:	Horizontal
Power supply:	DC 3.8V	Test site:	RE chamber 2

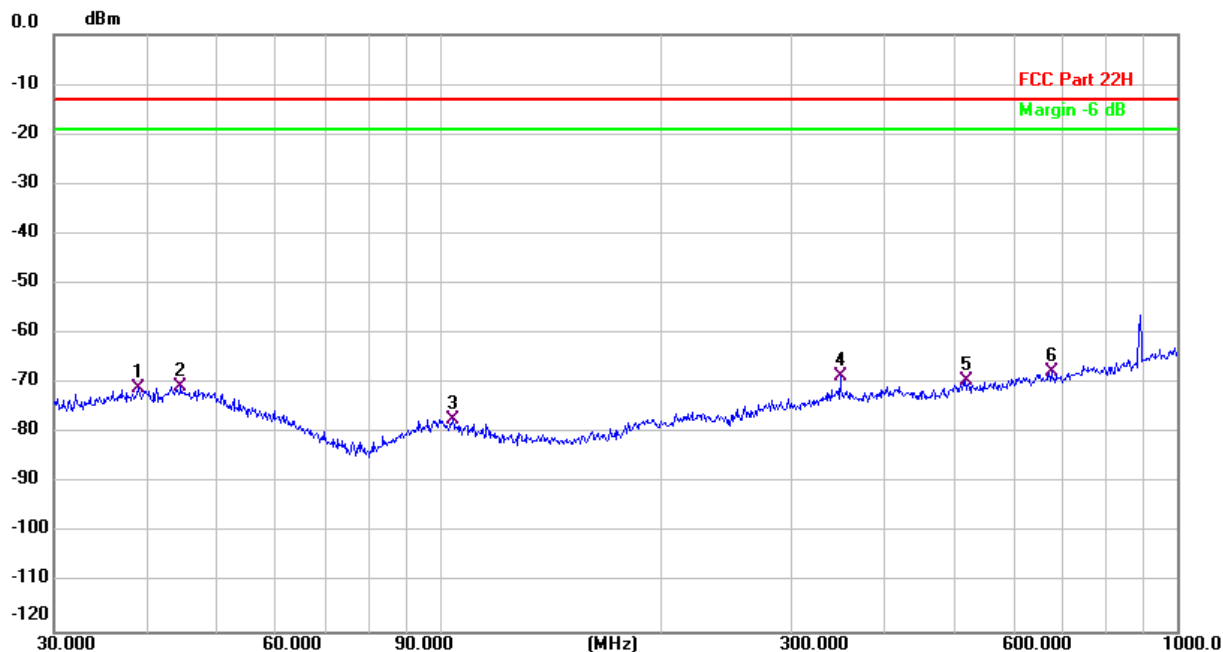


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		39.4199	-66.66	-6.04	-72.70	-13.00	-59.70	QP
2		45.3953	-66.46	-5.63	-72.09	-13.00	-59.09	QP
3		106.6652	-66.00	-11.08	-77.08	-13.00	-64.08	QP
4		350.0162	-63.11	-4.36	-67.47	-13.00	-54.47	QP
5		549.0195	-63.72	-3.48	-67.20	-13.00	-54.20	QP
6	*	750.1083	-61.56	-0.43	-61.99	-13.00	-48.99	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band5 891.6MHz	Polarization:	Vertical
Power supply:	DC 3.8V	Test site:	RE chamber 2



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		39.1272	-58.86	-12.22	-71.08	-13.00	-58.08	QP
2		44.6259	-61.22	-9.43	-70.65	-13.00	-57.65	QP
3		104.4901	-73.09	-4.10	-77.19	-13.00	-64.19	QP
4		350.0162	-65.11	-3.43	-68.54	-13.00	-55.54	QP
5		516.3419	-67.70	-1.83	-69.53	-13.00	-56.53	QP
6	*	675.5040	-66.16	-1.64	-67.80	-13.00	-54.80	QP



Radiated emissions 1 GHz ~ 25 GHz

Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	Peak/AVG	H/V
TX Band2 1932.4MHz							
3864.800	-65.65	16.95	-48.70	-13.00	-35.70	Peak	V
3864.800	-71.31	16.95	-54.36	-13.00	-41.36	AVG	V
5797.200	-66.82	19.35	-47.47	-13.00	-34.47	Peak	V
5797.200	-72.74	19.35	-53.39	-13.00	-40.39	AVG	V
7729.600	-66.46	26.16	-40.30	-13.00	-27.30	Peak	V
7729.600	-71.32	26.16	-45.16	-13.00	-32.16	AVG	V
3864.800	-66.13	17.28	-48.85	-13.00	-35.85	Peak	H
3864.800	-70.54	17.28	-53.26	-13.00	-40.26	AVG	H
5797.200	-66.40	19.41	-46.99	-13.00	-33.99	Peak	H
5797.200	-70.73	19.41	-51.32	-13.00	-38.32	AVG	H
7729.600	-65.51	26.01	-39.50	-13.00	-26.50	Peak	H
7729.600	-70.57	26.01	-44.56	-13.00	-31.56	AVG	H
TX Band4 2132.6MHz							
4265.200	-66.77	17.46	-49.31	-13.00	-36.31	Peak	V
4265.200	-73.09	17.46	-55.63	-13.00	-42.63	AVG	V
6397.800	-65.51	21.93	-43.58	-13.00	-30.58	Peak	V
6397.800	-71.59	21.93	-49.66	-13.00	-36.66	AVG	V
8530.400	-65.14	27.42	-37.72	-13.00	-24.72	Peak	V
8530.400	-70.96	27.42	-43.54	-13.00	-30.54	AVG	V
4265.200	-66.65	17.74	-48.91	-13.00	-35.91	Peak	H
4265.200	-71.90	17.74	-54.16	-13.00	-41.16	AVG	H
6397.800	-66.47	22.07	-44.40	-13.00	-31.40	Peak	H
6397.800	-72.51	22.07	-50.44	-13.00	-37.44	AVG	H
8532.400	-65.29	27.11	-38.18	-13.00	-25.18	Peak	H
8532.400	-71.63	27.11	-44.52	-13.00	-31.52	AVG	H



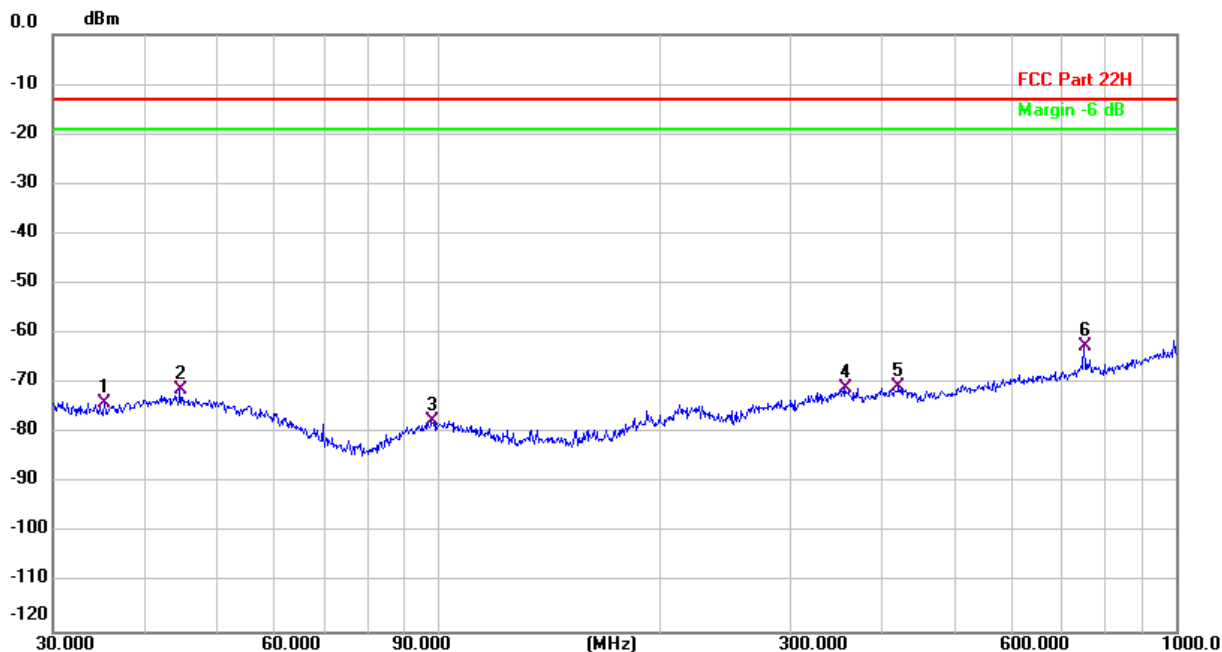
Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	Peak/AVG	H/V
TX Band5 891.6MHz							
1783.200	-64.67	12.18	-52.49	-13.00	-39.49	Peak	V
1783.200	-70.50	12.18	-58.32	-13.00	-45.32	AVG	V
2674.800	-65.51	14.65	-50.86	-13.00	-37.86	Peak	V
2674.800	-71.29	14.65	-56.64	-13.00	-43.64	AVG	V
3566.400	-65.08	15.97	-49.11	-13.00	-36.11	Peak	V
3566.400	-71.71	15.97	-55.74	-13.00	-42.74	AVG	V
1783.200	-64.12	12.21	-51.91	-13.00	-38.91	Peak	H
1783.200	-69.62	12.21	-57.41	-13.00	-44.41	AVG	H
2674.800	-65.70	14.87	-50.83	-13.00	-37.83	Peak	H
2674.800	-71.51	14.87	-56.64	-13.00	-43.64	AVG	H
3566.400	-65.39	16.19	-49.20	-13.00	-36.20	Peak	H
3566.400	-71.67	16.19	-55.48	-13.00	-42.48	AVG	H



LTE:

Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band2 1860MHz	Polarization:	Horizontal
Power supply:	DC 3.8V	Test site:	RE chamber 2

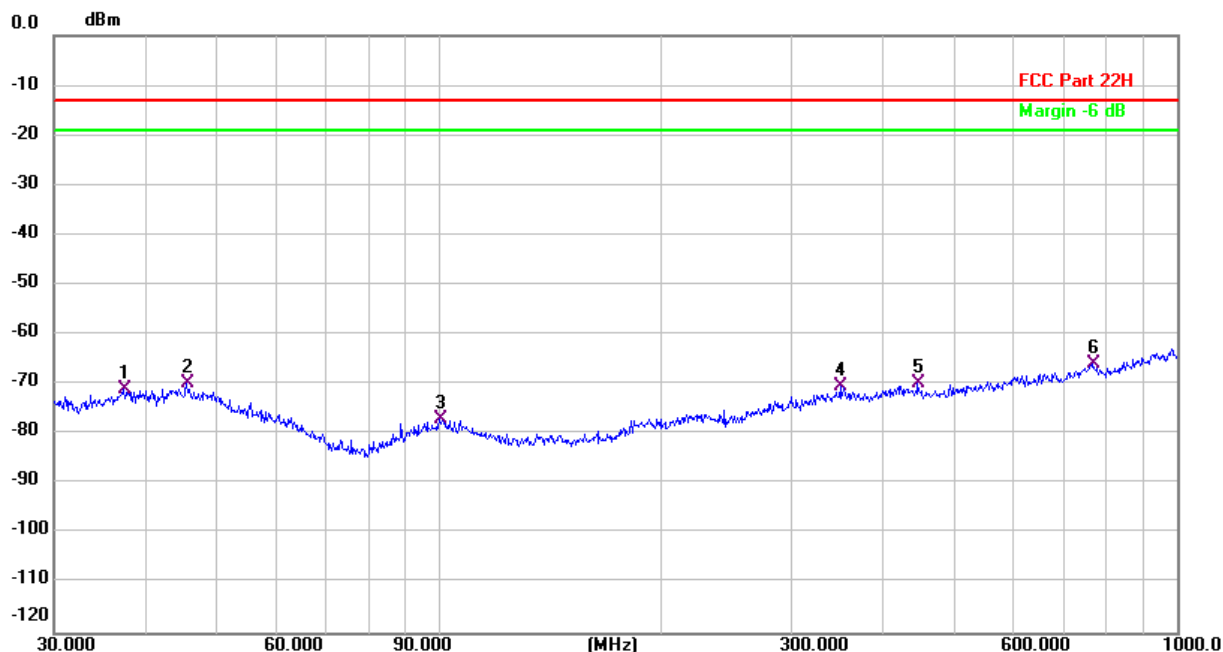


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		35.3130	-66.17	-7.71	-73.88	-13.00	-60.88	QP
2		44.6651	-65.76	-5.56	-71.32	-13.00	-58.32	QP
3		98.0129	-66.87	-10.62	-77.49	-13.00	-64.49	QP
4		355.8950	-66.30	-4.56	-70.86	-13.00	-57.86	QP
5		420.7647	-66.37	-4.16	-70.53	-13.00	-57.53	QP
6	*	750.1083	-62.02	-0.43	-62.45	-13.00	-49.45	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band2 1860MHz	Polarization:	Vertical
Power supply:	DC 3.8V	Test site:	RE chamber 2

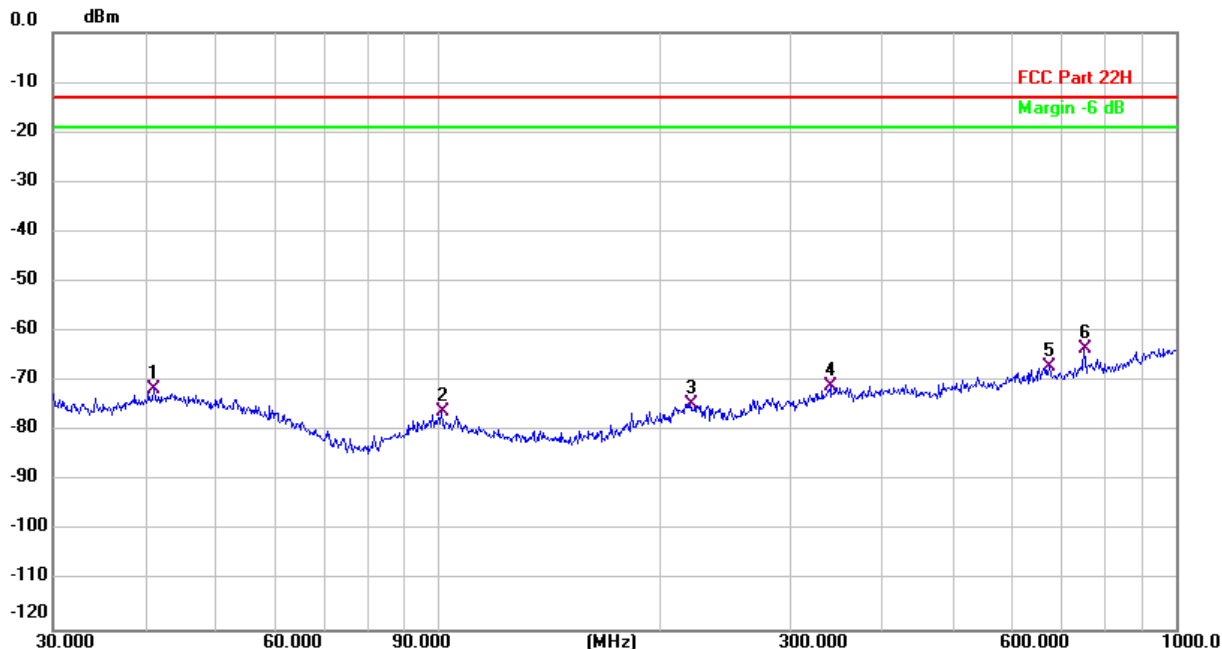


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBm	dB	dBm	dBm	dB	Detector
1		37.3673	-57.33	-13.52	-70.85	-13.00	-57.85	QP
2		45.3755	-60.37	-9.30	-69.67	-13.00	-56.67	QP
3		100.0092	-73.75	-3.07	-76.82	-13.00	-63.82	QP
4		350.0162	-66.90	-3.43	-70.33	-13.00	-57.33	QP
5		445.6321	-66.05	-3.77	-69.82	-13.00	-56.82	QP
6	*	770.0972	-65.76	-0.07	-65.83	-13.00	-52.83	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band4 1752.5MHz	Polarization:	Horizontal
Power supply:	DC 3.8V	Test site:	RE chamber 2



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		41.2584	-65.91	-5.73	-71.64	-13.00	-58.64	QP
2		101.1998	-65.65	-10.42	-76.07	-13.00	-63.07	QP
3		219.5560	-65.30	-9.16	-74.46	-13.00	-61.46	QP
4		339.5888	-66.23	-4.85	-71.08	-13.00	-58.08	QP
5		674.9121	-65.44	-1.67	-67.11	-13.00	-54.11	QP
6	*	750.1083	-62.88	-0.43	-63.31	-13.00	-50.31	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band4 1752.5MHz	Polarization:	Vertical
Power supply:	DC 3.8V	Test site:	RE chamber 2

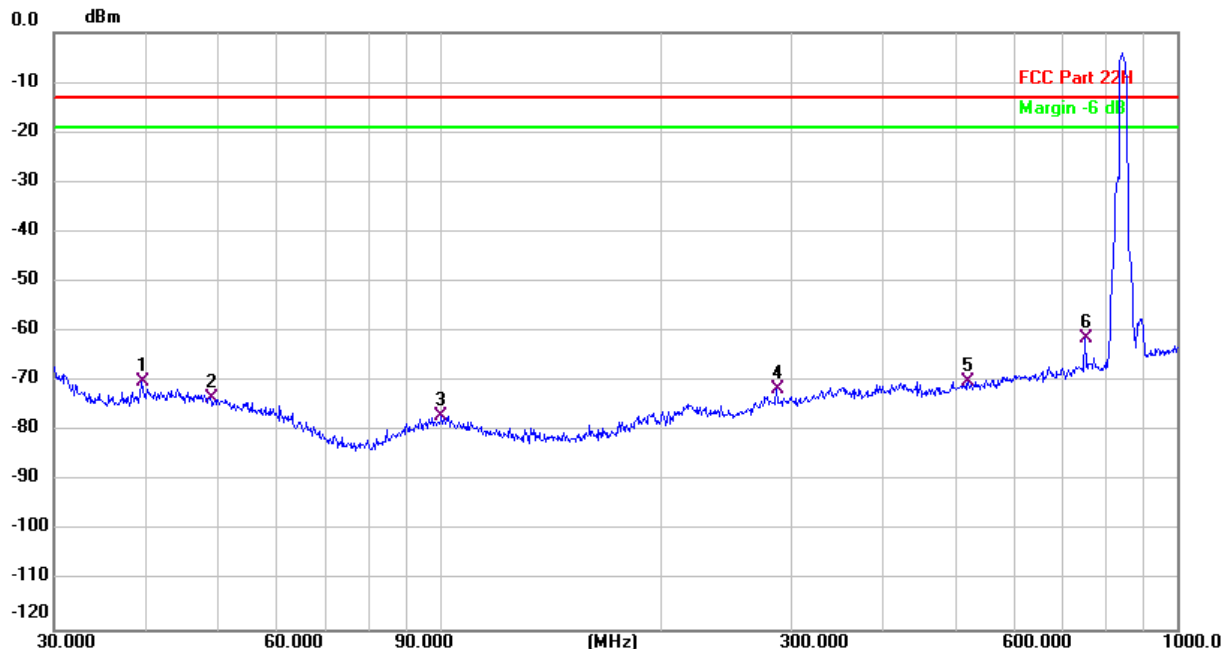


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		37.3673	-56.33	-13.52	-69.85	-13.00	-56.85	QP
2		45.3755	-59.37	-9.30	-68.67	-13.00	-55.67	QP
3		98.7460	-70.48	-3.16	-73.64	-13.00	-60.64	QP
4		350.0162	-66.40	-3.43	-69.83	-13.00	-56.83	QP
5		603.2747	-67.46	0.01	-67.45	-13.00	-54.45	QP
6	*	770.0972	-65.26	-0.07	-65.33	-13.00	-52.33	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band5 846.5MHz	Polarization:	Horizontal
Power supply:	DC 3.8V	Test site:	RE chamber 2

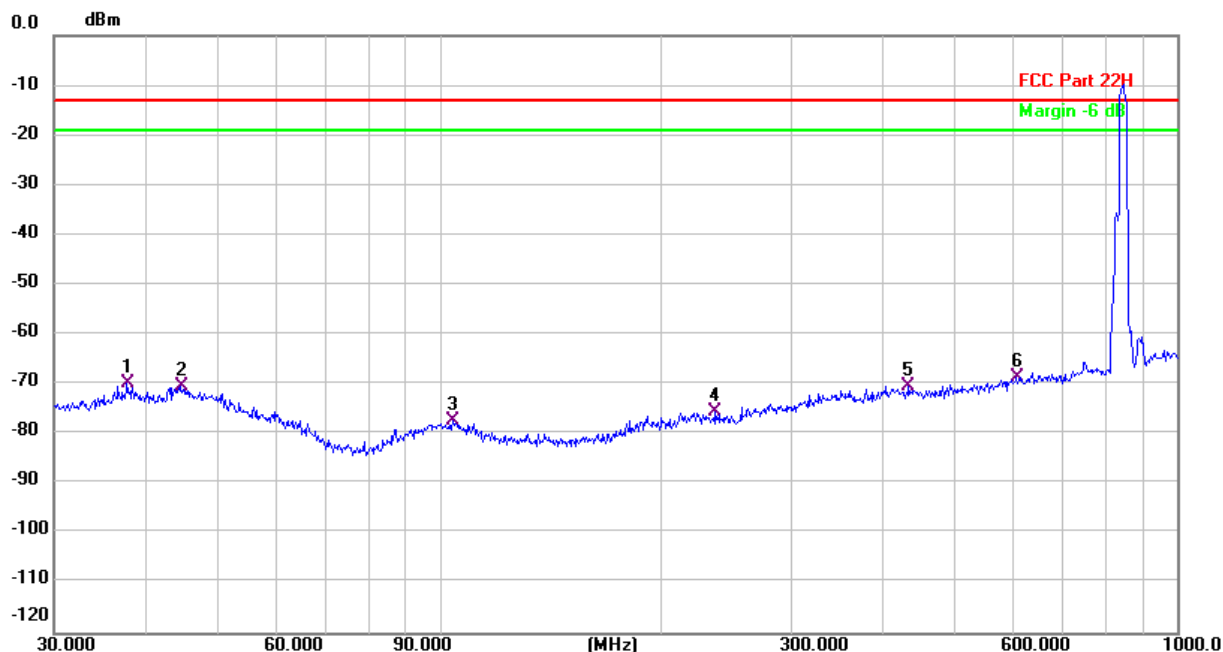


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		39.5584	-64.13	-5.98	-70.11	-13.00	-57.11	QP
2		48.9072	-66.94	-6.42	-73.36	-13.00	-60.36	QP
3		100.8013	-66.58	-10.37	-76.95	-13.00	-63.95	QP
4		286.7309	-64.36	-7.09	-71.45	-13.00	-58.45	QP
5		520.8882	-66.21	-3.74	-69.95	-13.00	-56.95	QP
6	*	750.1083	-60.90	-0.43	-61.33	-13.00	-48.33	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band5 846.5MHz	Polarization:	Vertical
Power supply:	DC 3.8V	Test site:	RE chamber 2

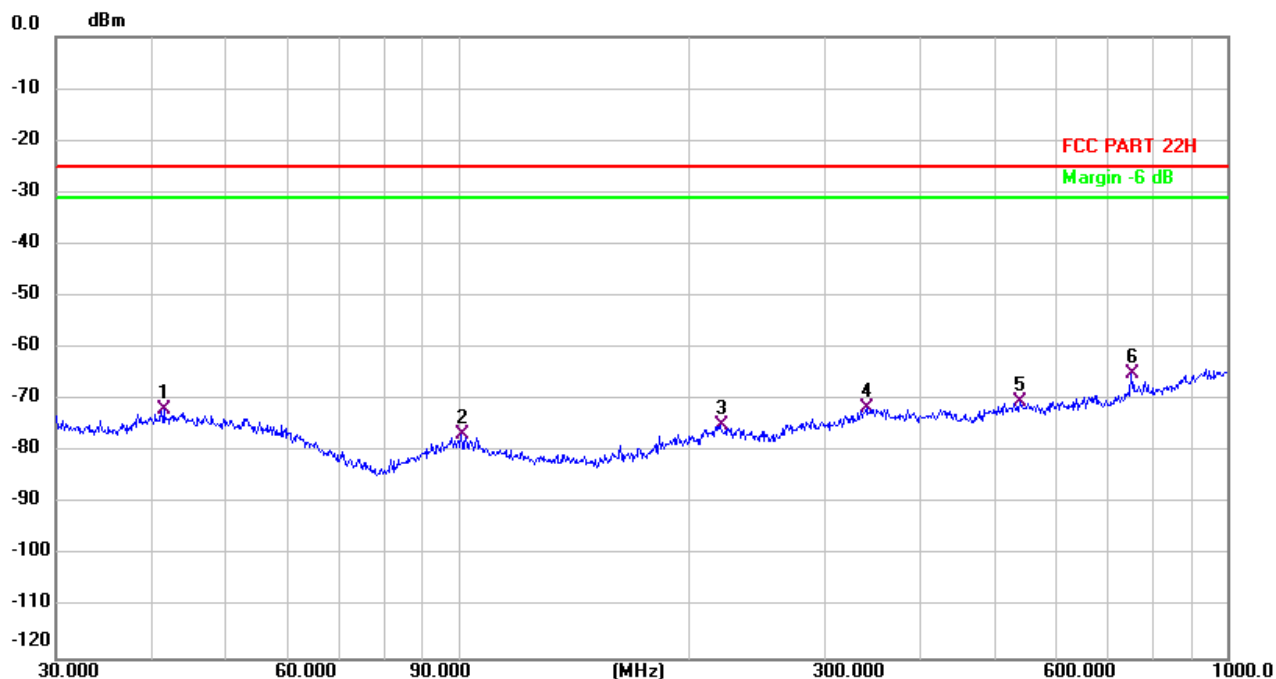


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		37.6798	-56.57	-13.29	-69.86	-13.00	-56.86	QP
2		44.6064	-60.87	-9.44	-70.31	-13.00	-57.31	QP
3		104.3072	-73.08	-4.06	-77.14	-13.00	-64.14	QP
4		236.6447	-67.42	-8.14	-75.56	-13.00	-62.56	QP
5		433.1148	-66.50	-3.72	-70.22	-13.00	-57.22	QP
6	*	606.7221	-68.63	0.13	-68.50	-13.00	-55.50	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band7 2567.5MHz	Polarization:	Horizontal
Power supply:	DC 3.8V	Test site:	RE chamber 2

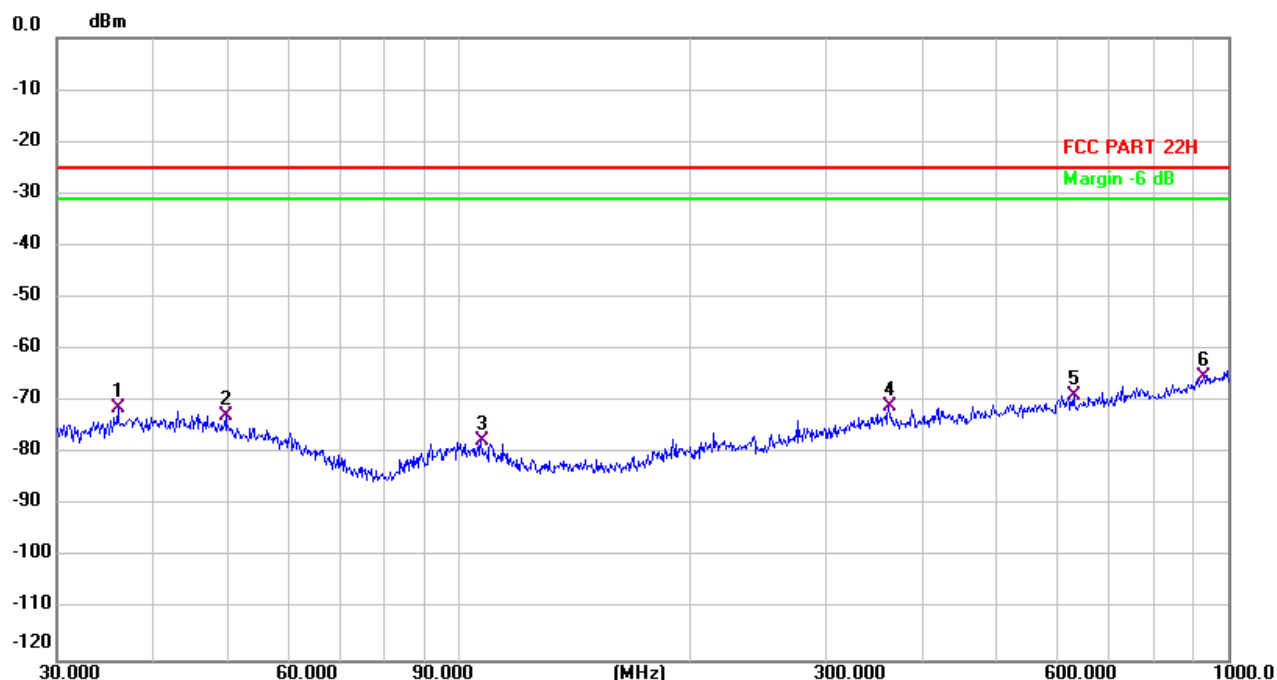


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBm	dB	dBm	dBm	dB	Detector
1		41.4579	-66.10	-5.72	-71.82	-25.00	-46.82	QP
2		101.1998	-66.15	-10.42	-76.57	-25.00	-51.57	QP
3		219.5560	-65.80	-9.16	-74.96	-25.00	-49.96	QP
4		339.5888	-66.73	-4.85	-71.58	-25.00	-46.58	QP
5		538.5324	-66.73	-3.56	-70.29	-25.00	-45.29	QP
6	*	750.1083	-64.38	-0.43	-64.81	-25.00	-39.81	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band7 2567.5MHz	Polarization:	Vertical
Power supply:	DC 3.8V	Test site:	RE chamber 2



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		36.0323	-56.65	-14.51	-71.16	-25.00	-46.16	QP
2		49.8377	-62.93	-9.76	-72.69	-25.00	-47.69	QP
3		107.0399	-73.00	-4.69	-77.69	-25.00	-52.69	QP
4		362.5075	-67.07	-3.87	-70.94	-25.00	-45.94	QP
5		629.4772	-69.38	0.64	-68.74	-25.00	-43.74	QP
6	*	931.4546	-67.56	2.25	-65.31	-25.00	-40.31	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band12 715.3MHz	Polarization:	Horizontal
Power supply:	DC 3.8V	Test site:	RE chamber 2

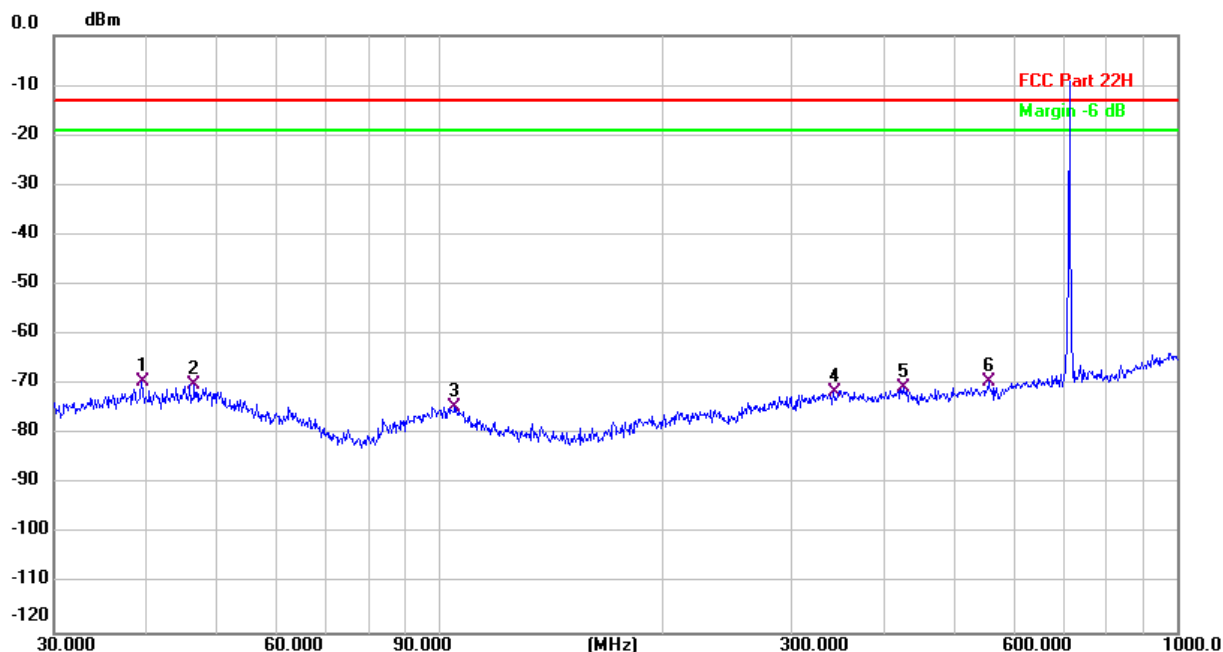


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		43.5057	-65.53	-5.62	-71.15	-13.00	-58.15	QP
2		50.9643	-65.15	-6.92	-72.07	-13.00	-59.07	QP
3		94.9680	-65.35	-11.15	-76.50	-13.00	-63.50	QP
4		218.3085	-64.75	-9.24	-73.99	-13.00	-60.99	QP
5		348.0274	-67.13	-4.45	-71.58	-13.00	-58.58	QP
6	*	412.7276	-65.47	-4.23	-69.70	-13.00	-56.70	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band12 715.3MHz	Polarization:	Vertical
Power supply:	DC 3.8V	Test site:	RE chamber 2

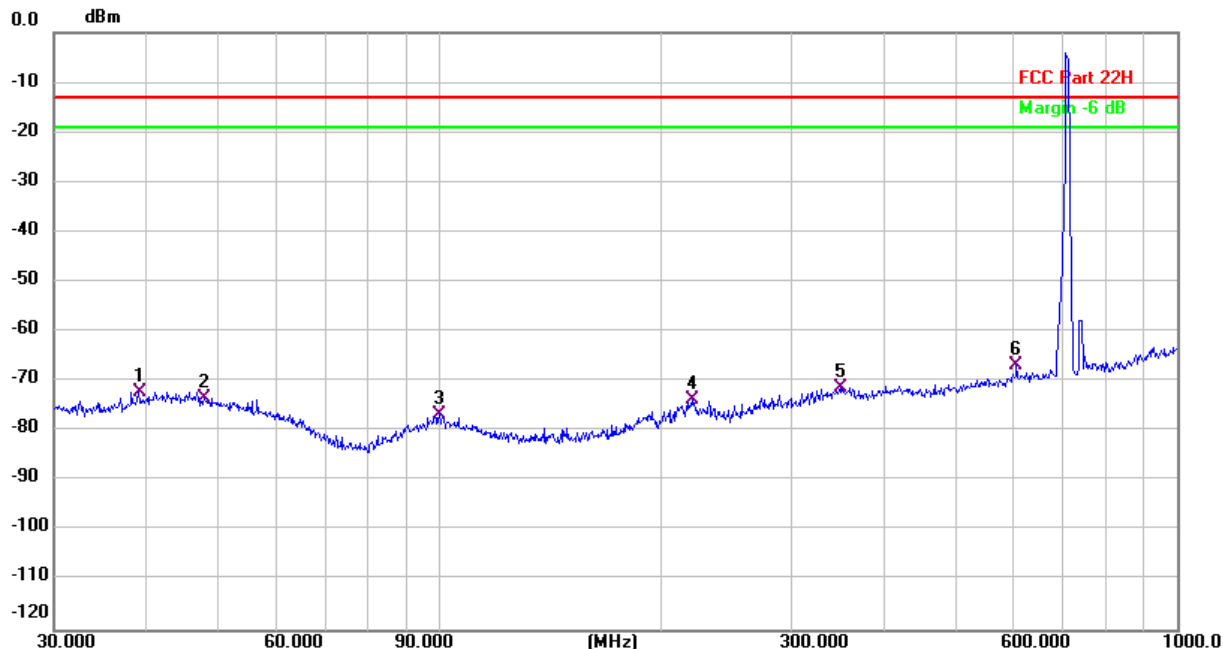


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		39.4545	-57.63	-11.97	-69.60	-13.00	-56.60	QP
2		46.6458	-60.63	-9.43	-70.06	-13.00	-57.06	QP
3		105.1334	-70.16	-4.25	-74.41	-13.00	-61.41	QP
4		342.1287	-67.36	-4.11	-71.47	-13.00	-58.47	QP
5		425.9606	-66.87	-3.68	-70.55	-13.00	-57.55	QP
6	*	555.5555	-68.26	-1.24	-69.50	-13.00	-56.50	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band17 710MHz	Polarization:	Horizontal
Power supply:	DC 3.8V	Test site:	RE chamber 2

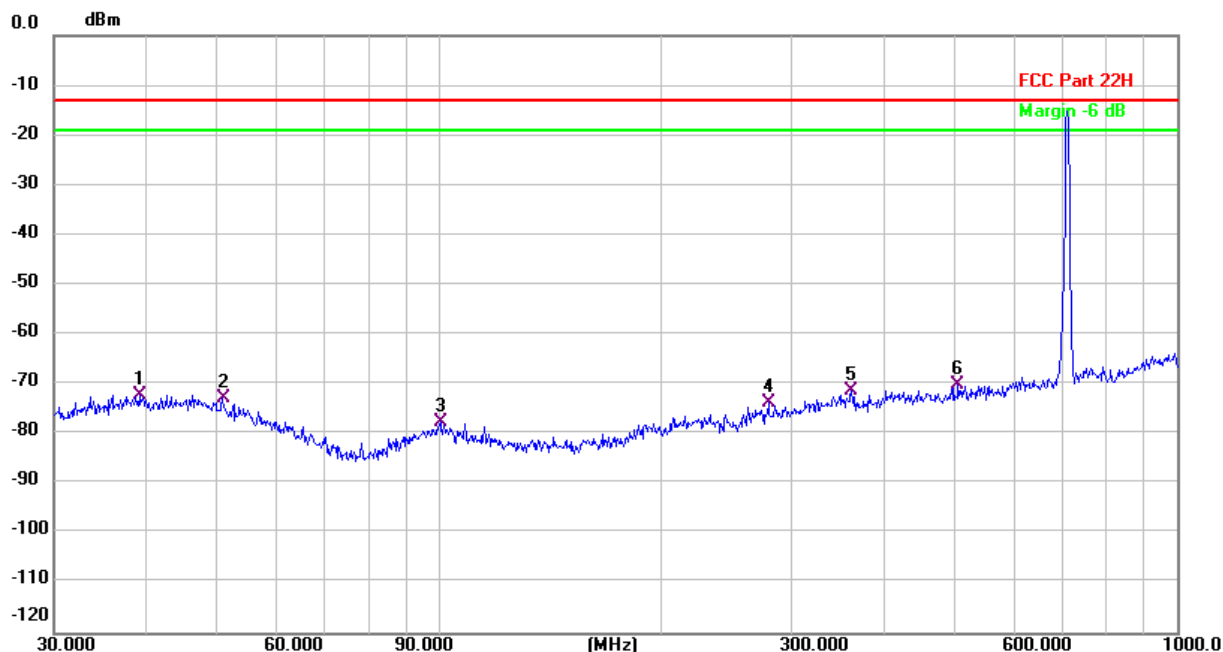


No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		39.0930	-65.86	-6.17	-72.03	-13.00	-59.03	QP
2		48.0993	-67.00	-6.24	-73.24	-13.00	-60.24	QP
3		100.1407	-66.21	-10.29	-76.50	-13.00	-63.50	QP
4		219.8449	-64.42	-9.15	-73.57	-13.00	-60.57	QP
5		349.8628	-66.97	-4.37	-71.34	-13.00	-58.34	QP
6	*	606.9880	-64.63	-2.24	-66.87	-13.00	-53.87	QP



Radiated emissions between 30MHz – 1GHz

Test mode:	TX – Band17 710MHz	Polarization:	Vertical
Power supply:	DC 3.8V	Test site:	RE chamber 2



No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Detector
1		39.2475	-59.94	-12.13	-72.07	-13.00	-59.07	QP
2		50.8974	-63.13	-9.75	-72.88	-13.00	-59.88	QP
3		100.2286	-74.40	-3.12	-77.52	-13.00	-64.52	QP
4		279.2884	-66.53	-7.19	-73.72	-13.00	-60.72	QP
5		362.0311	-67.27	-3.85	-71.12	-13.00	-58.12	QP
6	*	505.1488	-68.06	-1.98	-70.04	-13.00	-57.04	QP



Radiated emissions 1 GHz ~ 26.5 GHz

Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	Peak/AVG	H/V
TX Band2 1860MHz							
3720.000	-64.48	16.47	-48.01	-13.00	-35.01	Peak	V
3720.000	-70.95	16.47	-54.48	-13.00	-41.48	AVG	V
5580.000	-64.27	18.63	-45.64	-13.00	-32.64	Peak	V
5580.000	-70.26	18.63	-51.63	-13.00	-38.63	AVG	V
7440.000	-66.93	24.85	-42.08	-13.00	-29.08	Peak	V
7440.000	-73.51	24.85	-48.66	-13.00	-35.66	AVG	V
3720.000	-63.29	16.75	-46.54	-13.00	-33.54	Peak	H
3720.000	-69.21	16.75	-52.46	-13.00	-39.46	AVG	H
5580.000	-64.21	18.73	-45.48	-13.00	-32.48	Peak	H
5580.000	-70.37	18.73	-51.64	-13.00	-38.64	AVG	H
7440.000	-67.26	24.71	-42.55	-13.00	-29.55	Peak	H
7440.000	-72.90	24.71	-48.19	-13.00	-35.19	AVG	H
TX Band4 1752.5MHz							
3505.000	-63.75	15.77	-47.98	-13.00	-34.98	Peak	V
3505.000	-69.61	15.77	-53.84	-13.00	-40.84	AVG	V
5257.500	-62.11	18.68	-43.43	-13.00	-30.43	Peak	V
5257.500	-68.34	18.68	-49.66	-13.00	-36.66	AVG	V
7010.000	-65.13	22.91	-42.22	-13.00	-29.22	Peak	V
7010.000	-71.45	22.91	-48.54	-13.00	-35.54	AVG	V
3505.000	-61.42	15.97	-45.45	-13.00	-32.45	Peak	H
3505.000	-67.30	15.97	-51.33	-13.00	-38.33	AVG	H
5257.500	-64.02	18.73	-45.29	-13.00	-32.29	Peak	H
5257.500	-70.21	18.73	-51.48	-13.00	-38.48	AVG	H
7010.000	-66.26	22.78	-43.48	-13.00	-30.48	Peak	H
7010.000	-72.36	22.78	-49.58	-13.00	-36.58	AVG	H



Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	Peak/AVG	H/V
TX Band5 846.5MHz							
1693.000	-53.67	12.79	-40.88	-13.00	-27.88	Peak	V
1693.000	-59.00	12.79	-46.21	-13.00	-33.21	AVG	V
2539.500	-67.27	14.05	-53.22	-13.00	-40.22	Peak	V
2539.500	-73.51	14.05	-59.46	-13.00	-46.46	AVG	V
3386.000	-61.97	15.83	-46.14	-13.00	-33.14	Peak	V
3386.000	-68.22	15.83	-52.39	-13.00	-39.39	AVG	V
1693.000	-49.59	12.57	-37.02	-13.00	-24.02	Peak	H
1693.000	-55.83	12.57	-43.26	-13.00	-30.26	AVG	H
2539.500	-68.11	14.37	-53.74	-13.00	-40.74	Peak	H
2539.500	-74.01	14.37	-59.64	-13.00	-46.64	AVG	H
3386.000	-55.69	15.98	-39.71	-13.00	-26.71	Peak	H
3386.000	-61.61	15.98	-45.63	-13.00	-32.63	AVG	H
TX Band7 2567.5MHz							
5135.000	-67.83	14.17	-53.66	-25.00	-28.66	Peak	V
5135.000	-73.64	14.17	-59.47	-25.00	-34.47	AVG	V
7702.500	-66.22	18.90	-47.32	-25.00	-22.32	Peak	V
7702.500	-72.46	18.90	-53.56	-25.00	-28.56	AVG	V
10270.000	-66.43	26.04	-40.39	-25.00	-15.39	Peak	V
10270.000	-72.43	26.04	-46.39	-25.00	-21.39	AVG	V
5135.000	-66.84	14.47	-52.37	-25.00	-27.37	Peak	H
5135.000	-72.80	14.47	-58.33	-25.00	-33.33	AVG	H
7702.500	-66.05	19.02	-47.03	-25.00	-22.03	Peak	H
7702.500	-72.16	19.02	-53.14	-25.00	-28.14	AVG	H
10270.000	-65.99	25.89	-40.10	-25.00	-15.1	Peak	H
10270.000	-72.24	25.89	-46.35	-25.00	-21.35	AVG	H



Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector	Polarization
(MHz)	(dBm)	(dB/m)	(dBm)	(dBm)	(dB)	Peak/AVG	H/V
TX Band12 715.3MHz							
1430.600	-63.97	13.54	-50.43	-13.00	-37.43	Peak	V
1430.600	-69.95	13.54	-56.41	-13.00	-43.41	AVG	V
2145.900	-65.01	12.72	-52.29	-13.00	-39.29	Peak	V
2145.900	-71.19	12.72	-58.47	-13.00	-45.47	AVG	V
2861.200	-65.04	15.49	-49.55	-13.00	-36.55	Peak	V
2861.200	-70.88	15.49	-55.39	-13.00	-42.39	AVG	V
1430.600	-64.11	13.25	-50.86	-13.00	-37.86	Peak	H
1430.600	-69.91	13.25	-56.66	-13.00	-43.66	AVG	H
2145.900	-64.80	13.08	-51.72	-13.00	-38.72	Peak	H
2145.900	-70.49	13.08	-57.41	-13.00	-44.41	AVG	H
2861.200	-65.49	15.56	-49.93	-13.00	-36.93	Peak	H
2861.200	-70.85	15.56	-55.29	-13.00	-42.29	AVG	H
TX Band17 710MHz							
1420.000	-62.88	13.54	-49.34	-13.00	-36.34	Peak	V
1420.000	-68.95	13.54	-55.41	-13.00	-42.41	AVG	V
2130.000	-58.95	12.64	-46.31	-13.00	-33.31	Peak	V
2130.000	-65.08	12.64	-52.44	-13.00	-39.44	AVG	V
2840.000	-62.93	15.39	-47.54	-13.00	-34.54	Peak	V
2840.000	-69.03	15.39	-53.64	-13.00	-40.64	AVG	V
1420.000	-63.97	13.27	-50.70	-13.00	-37.70	Peak	H
1420.000	-69.68	13.27	-56.41	-13.00	-43.41	AVG	H
2130.000	-64.55	13.00	-51.55	-13.00	-38.55	Peak	H
2130.000	-70.64	13.00	-57.64	-13.00	-44.64	AVG	H
2840.000	-64.24	15.48	-48.76	-13.00	-35.76	Peak	H
2840.000	-69.97	15.48	-54.49	-13.00	-41.49	AVG	H

Note: All the configuration was tested and only the worst case was reported.



5.8 Frequency Stability

5.8.1 Limit

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d) (2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of between 3.42VDC and 4.18VDC, with a nominal voltage of 3.8VDC. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from over stress. These voltages represent a tolerance from -5.4% to 10.8%. For the purposes of measuring frequency stability these voltage limits are to be used.

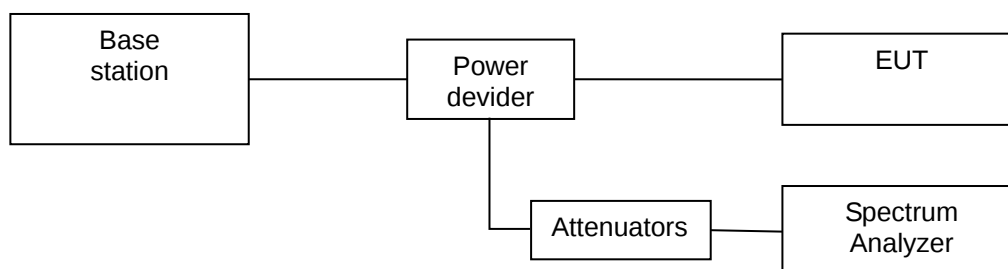
5.8.2 Test procedure

Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to communication test set via feed-through attenuators. The EUT was placed inside the temperature chamber. The DC leads and RF output cable exited the chamber through an opening made for the purpose.

After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from the communication test set.

Frequency Stability vs. Voltage: An external variable DC power supply was connected to the battery terminals of the equipment under test. The voltage was set to 115% of the nominal value and was then decreased until the transmitter light no longer illuminated; i.e., the battery end point. The output frequency was recorded for each battery voltage.

5.8.3 Test setup



5.8.4 Test results

GSM850

Frequency Error Against Voltage for GSM 850 band		
Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)
3.42	22.40	0.0268
3.8	17.23	0.0206
4.18	12.30	0.0147

Frequency Error Against Voltage for GPRS850 band		
Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)
3.42	22.78	0.0272
3.8	26.54	0.0317
4.18	19.65	0.0235

Frequency Error Against Temperature for GSM 850 band		
Temperature (°C)	Frequency Error (Hz)	Frequency Error (ppm)
-30	24.45	0.0292
-20	18.25	0.0218
-10	21.01	0.0251
0	17.06	0.0204
10	12.00	0.0143
20	25.02	0.0299
30	13.88	0.0166
40	26.60	0.0318
50	31.06	0.0371

Frequency Error Against Temperature for GPRS 850 band		
Temperature (°C)	Frequency Error (Hz)	Frequency Error (ppm)
-30	31.18	0.0373
-20	27.59	0.0330
-10	28.11	0.0336
0	24.09	0.0288
10	22.51	0.0269
20	22.81	0.0273
30	15.56	0.0186
40	24.86	0.0297
50	30.94	0.0370

GSM1900

Frequency Error Against Voltage for EGPRS850 band		
Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)
3.42	26.86	0.0321
3.8	23.63	0.0282
4.18	34.25	0.0409

Frequency Error Against Voltage for GSM 1900 band		
Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)
3.42	37.38	0.0199
3.8	31.07	0.0165
4.18	27.78	0.0148

Frequency Error Against Temperature for EGPRS 850 band		
Temperature (°C)	Frequency Error (Hz)	Frequency Error (ppm)
-30	33.80	0.0404
-20	29.06	0.0347
-10	27.28	0.0326
0	42.32	0.0506
10	27.98	0.0334
20	30.46	0.0364
30	26.18	0.0313
40	20.23	0.0242
50	24.70	0.0295

Frequency Error Against Temperature for GSM 1900 band		
Temperature (°C)	Frequency Error (Hz)	Frequency Error (ppm)
-30	35.12	0.0187
-20	32.05	0.0171
-10	30.84	0.0164
0	31.16	0.0166
10	22.32	0.0119
20	26.67	0.0142
30	34.38	0.0183
40	22.61	0.0120
50	21.84	0.0116



Frequency Error Against Voltage for GPRS1900 band		
Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)
3.42	34.31	0.0183
3.8	28.45	0.0151
4.18	32.03	0.0170

Frequency Error Against Voltage for EGPRS 1900 band		
Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)
3.42	31.03	0.0165
3.8	21.36	0.0114
4.18	18.80	0.0100

Frequency Error Against Temperature for GPRS1900 band		
Temperature (°C)	Frequency Error (Hz)	Frequency Error (ppm)
-30	34.21	0.0182
-20	30.06	0.0160
-10	28.51	0.0152
0	27.51	0.0146
10	23.29	0.0124
20	36.24	0.0193
30	28.32	0.0151
40	23.13	0.0123
50	15.47	0.0082

Frequency Error Against Temperature for EGPRS1900 band		
Temperature (°C)	Frequency Error (Hz)	Frequency Error (ppm)
-30	32.20	0.0171
-20	27.60	0.0147
-10	24.18	0.0129
0	17.91	0.0095
10	23.74	0.0126
20	27.76	0.0148
30	35.42	0.0188
40	21.05	0.0112
50	17.43	0.0093



WCDMA

Frequency Error Against Voltage for WCDMA band II		
Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)
3.42	12.92	0.0069
3.8	19.24	0.0102
4.18	24.68	0.0131

Frequency Error Against Temperature for WCDMA band II		
Temperature (°C)	Frequency Error (Hz)	Frequency Error (ppm)
-10	37.35	0.0199
0	15.87	0.0084
10	34.90	0.0186
20	29.74	0.0158
30	30.68	0.0163
40	36.97	0.0197
50	22.47	0.0119

Frequency Error Against Voltage for WCDMA band IV		
Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)
3.42	24.48	0.0293
3.8	19.62	0.0235
4.18	12.84	0.0154

Frequency Error Against Temperature for WCDMA band IV		
Temperature (°C)	Frequency Error (Hz)	Frequency Error (ppm)
-10	33.92	0.0406
0	27.41	0.0328
10	31.21	0.0373
20	25.08	0.0300
30	21.94	0.0262
40	18.76	0.0224
50	14.28	0.0171



Frequency Error Against Voltage for WCDMA band V		
Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)
3.42	24.49	0.0293
3.8	19.78	0.0236
4.18	12.32	0.0147

Frequency Error Against Temperature for WCDMA band V		
Temperature (°C)	Frequency Error (Hz)	Frequency Error (ppm)
-10	33.93	0.0406
0	27.34	0.0327
10	31.86	0.0381
20	25.40	0.0304
30	21.91	0.0262
40	18.24	0.0218
50	14.03	0.0168

LTE Band 2

QPSK, Channel Bandwidth:10MHz					
Temperature(°C)	Test channels (MHz)	Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	1880	3.8	-49.04	-0.0261	Pass
-20			-48.67	-0.0259	Pass
-10			-48.50	-0.0258	Pass
0			-48.04	-0.0256	Pass
10			-48.03	-0.0255	Pass
20			30.84	0.0164	Pass
30			31.02	0.0165	Pass
40			31.51	0.0168	Pass
50			-30.98	-0.0165	Pass
20		3.42	-30.63	-0.0163	Pass
20		4.18	-30.37	-0.0162	Pass



16QAM, Channel Bandwidth:10MHz					
Temperature(°C)	Test channels (MHz)	Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	1880	3.8	33.77	0.0180	Pass
-20			34.22	0.0182	Pass
-10			34.27	0.0182	Pass
0			34.51	0.0184	Pass
10			34.79	0.0185	Pass
20			24.5	0.0130	Pass
30			24.54	0.0131	Pass
40			24.69	0.0131	Pass
50			16.71	0.0089	Pass
20		3.42	16.72	0.0089	Pass
20		4.18	16.74	0.0089	Pass

LTE Band 4

QPSK, Channel Bandwidth:10MHz					
Temperature(°C)	Test channels (MHz)	Voltage(V)	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	1732.5	3.8	3.88	0.0046	Pass
-20			4.12	0.0049	Pass
-10			4.49	0.0054	Pass
0			4.94	0.0059	Pass
10			5.29	0.0063	Pass
20			13.86	0.0166	Pass
30			14.09	0.0168	Pass
40			14.11	0.0169	Pass
50			4.48	0.0054	Pass
20		3.42	4.77	0.0057	Pass
20		4.18	5.24	0.0063	Pass



16QAM, Channel Bandwidth:10MHz					
Temperature(°C)	Test channels (MHz)	Voltage(V)	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	1732.5	3.8	4.25	0.0051	4.25
-20			4.56	0.0055	4.56
-10			4.94	0.0059	4.94
0			5.44	0.0065	5.44
10			5.70	0.0068	5.70
20			8.2	0.0098	8.2
30			8.27	0.0099	8.27
40			8.32	0.0099	8.32
50			4.28	0.0051	4.28
20		3.42	4.55	0.0054	4.55
20		4.18	4.70	0.0056	4.70

LTE Band 5

QPSK, Channel Bandwidth:10MHz					
Temperature(°C)	Test channels (MHz)	Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	836.5	3.8	-9.36	-0.0112	Pass
-20			-9.24	-0.0110	Pass
-10			-9.10	-0.0109	Pass
0			-8.99	-0.0108	Pass
10			-8.66	-0.0103	Pass
20			12.27	0.0147	Pass
30			12.47	0.0149	Pass
40			12.70	0.0152	Pass
50			-10.73	-0.0128	Pass
20		3.42	-10.67	-0.0128	Pass
20		4.18	-10.62	-0.0127	Pass



16QAM, Channel Bandwidth:10MHz					
Temperature(°C)	Test channels (MHz)	Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	836.5	3.8	-15.22	-0.0182	Pass
-20			-15.12	-0.0181	Pass
-10			-14.88	-0.0178	Pass
0			-14.78	-0.0177	Pass
10			-14.29	-0.0171	Pass
20			-15.64	-0.0187	Pass
30			-15.55	-0.0186	Pass
40			-15.10	-0.0181	Pass
50			-21.33	-0.0255	Pass
20		3.42	-21.13	-0.0253	Pass
20		4.18	-20.77	-0.0248	Pass

LTE Band 7

QPSK, Channel Bandwidth:10MHz					
Temperature(°C)	Test channels (MHz)	Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	2535	3.8	-11.60	-0.0046	Pass
-20			-11.57	-0.0046	Pass
-10			-11.34	-0.0045	Pass
0			-11.07	-0.0044	Pass
10			-11.06	-0.0044	Pass
20			-11.46	-0.0045	Pass
30			-11.09	-0.0044	Pass
40			-10.60	-0.0042	Pass
50			-11.70	-0.0046	Pass
20		3.42	-11.59	-0.0046	Pass
20		4.18	-11.36	-0.0045	Pass



16QAM, Channel Bandwidth:10MHz					
Temperature(°C)	Test channels (MHz)	Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	2535	3.8	-12.19	-0.0048	Pass
-20			-11.89	-0.0047	Pass
-10			-11.76	-0.0046	Pass
0			-11.34	-0.0045	Pass
10			-11.18	-0.0044	Pass
20			-15.89	-0.0063	Pass
30			-15.53	-0.0061	Pass
40			-15.44	-0.0061	Pass
50			-14.68	-0.0058	Pass
20		3.42	-14.21	-0.0056	Pass
20		4.18	-13.80	-0.0054	Pass

LTE Band 12

QPSK, Channel Bandwidth:10MHz					
Temperature(°C)	Test channels (MHz)	Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	707.5	3.8	-9.89	-0.0114	Pass
-20			-9.11	-0.0109	Pass
-10			-9.34	-0.0111	Pass
0			-8.54	-0.0104	Pass
10			-8.89	-0.0105	Pass
20			12.78	0.0154	Pass
30			12.53	0.0149	Pass
40			12.70	0.0152	Pass
50			-10.44	-0.0123	Pass
20		3.42	-10.57	-0.0128	Pass
20		4.18	-10.61	-0.0130	Pass



16QAM, Channel Bandwidth:10MHz					
Temperature(°C)	Test channels (MHz)	Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	707.5	3.8	-15.32	-0.0183	Pass
-20			-15.09	-0.0180	Pass
-10			-14.77	-0.0177	Pass
0			-14.65	-0.0176	Pass
10			-14.15	-0.0170	Pass
20			-15.56	-0.0186	Pass
30			-15.43	-0.0185	Pass
40			-15.01	-0.0180	Pass
50			-21.12	-0.0253	Pass
20		3.42	-21.03	-0.0251	Pass
20		4.18	-20.57	-0.0248	Pass

LTE Band 17

QPSK, Channel Bandwidth:10MHz					
Temperature(°C)	Test channels (MHz)	Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	710	3.8	-9.79	-0.0114	Pass
-20			-9.03	-0.0109	Pass
-10			-9.15	-0.0111	Pass
0			-8.32	-0.0104	Pass
10			-8.67	-0.0105	Pass
20			-12.53	-0.0154	Pass
30			-12.31	-0.0149	Pass
40			-12.48	-0.0152	Pass
50			-10.24	-0.0123	Pass
20		3.42	-10.35	-0.0128	Pass
20		4.18	-10.45	-0.0130	Pass



16QAM, Channel Bandwidth:10MHz					
Temperature(°C)	Test channels (MHz)	Voltage (V)	Frequency Error (Hz)	Frequency Error (ppm)	Result
-30	710	3.8	-15.11	-0.0183	Pass
-20			-14.89	-0.0180	Pass
-10			-14.55	-0.0177	Pass
0			-14.43	-0.0176	Pass
10			-14.01	-0.0170	Pass
20			-15.33	-0.0186	Pass
30			-15.13	-0.0185	Pass
40			-14.89	-0.0180	Pass
50			-21.02	-0.0253	Pass
20		3.42	-20.81	-0.0251	Pass
20		4.18	-20.47	-0.0248	Pass



Photographs of the Test Setup

Radiated emission





Photographs of the EUT

See the Appendix - EUT Photos.

----END OF REPORT----