FCC TEST REPORT

According to

FCC Rules and Regulations Part 15 Subpart C

Applicant	:	Partner Tech Corp.
Address	:	10FL, 233-2, Baoqiao Road, Xindian, New Taipei City, Taiwan
Equipment	:	Enterprise Tablet
Model No.	:	EM-100
Trade Name	:	PARTNER
FCC ID	:	NDPEM-100

- The test result refers exclusively to the test presented test model / sample.,
- Without written approval of **Cerpass Technology Corp.,** the test report shall not be reproduced except in full.
- The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

Laboratory Accreditation

TAF Testing Laboratory 1439

NVLAP NVLAP LAB CODE: 200954-0

Contents

History of this test report

■ ORIGINAL.

☐ Additional attachment as following record:

Attachment No.	Issue Date	Description
TEFQ1409031	Oct. 07, 2014	Original.

CERTIFICATE OF COMPLIANCE

According to

FCC Rules and Regulations Part 15 Subpart C

Applicant	:	Partner Tech Corp.
Address	:	10FL, 233-2, Baoqiao Road, Xindian, New Taipei City, Taiwan
Equipment	:	Enterprise Tablet
Model No.	:	EM-100
FCC ID	:	NDPEM-100

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4 2009, KDB558074 & KDB662911.** The equipment was ***passed*** the test performed according to **FCC Rules and Regulations Part 15 Subpart C (2010).**

The sample was received on Sep. 17, 2014 and the testing was carried out on Feb. 24, 2014 at ***Cerpass Technology Corp.***

Approved by:	Tested by:
Hill Chen	Aiden Lu
EMC/RF B.U. Assistant Manager	Engineer

1. Report of Measurements and Examinations

1.1 List of Measurements and Examinations

FCC Rule	. Description of Test	Result
15.203	. Antenna Requirement	Pass
15.207	. Conducted Emission	Pass
15.209 15.247(d)	. Radiated Emission	Pass
15.247(a)(2)	. 6dB Bandwidth	Pass
15.247(b)	. Maximum Peak Output Power	Pass
15.247(d)	. 100kHz Bandwidth of Frequency Band Edges	Pass
15.247(e)	. Power Spectral Density	Pass
1.1307 1.1310 2.1091 2.1093	. RF Exposure Compliance	Pass

2. Test Configuration of Equipment under Test

2.1 Feature of Equipment under Test

Processor	Freescale i.MX 6 Dual Lite 1G
OS	Android 4.2 need CTS, GMS
Memory	Standard: 1GB (up to 2G)
Storage	Standard: 8GB for Android eMMC on board (eMMC/8G/KE4CN3K6A/FBGA169)
Display	10.1", 1280 x 800, 350nits
Touch	10.1” capacitive touch FT-5606
Bluetooth	V4.0+HS WM-BAN-BM-07_S module UART interface
WiFi	802.11 a/b/g/n Roaming function The WM-BAN-BM-07_S module is designed based on Broadcom 4334 chipset solution. It supports generic GSPI, SDIOv2.0, HSIC interface to connect the WLAN to the host processor. High speed UART is available to connect the Bluetooth 4.0+HS/FM Receiver to the host processor.
NFC	On board NXP PN544 C3 IC
Accelerometer	Acceleration sensor/KXTI9-1001
E-compass Sensor	Compass Sensor/AMI306/SMD LGA10
Rear Camera	5.0 Mega Pixels, Auto Focus, Flash Light (**Sensor Type** OV5640)
Front Camera	2.0 Mega Pixels CM2015-MI10
Battery	Li-Polymer, 3.7V, 8060mAh
Working time	8 hours @film with speaker, 50% Brightness, WiFi on
Speaker	Internal*2
I/O	1 x SIM (internal) 1 x Micro SD 1 x DC Jack 1 x Micro HDMI 1 x Earphone & MIC Jack 2 x function keys 1 x Micro USB female type 1 x Power button 2 x Volume button 1 x USB host 2 x Internal Host USB for MSR or IC Card reader 1 x Internal RS232 for 1D or 2D barcode scanner
LEDs	1 x red/green LED for power & system status 1 x blue LED for NFC good read

Power Adaptor	Input:100V to 240V AC 50/60Hz 0.8A Output: 5V DC 3A ; AC Cable
Dimension	WxLxT: 267mm x 197mm x 20.5/25mm (1D/2D)
Operating temperature	0oC to +40oC
Storage temperature	-20oC to +60oC (without battery)
Charging temperature	0oC to +40oC
Humidity	5% to 95% RH (no condensation)
Sealing	IP65 (w/o MSR/IC card/Scanner); IP54 (w/MSR/IC card/Scanner)
Drop specification	1M drop onto concrete
Vibration	MIL-STD-810G Method 514.6 Procedure I (non-operating)
Certification	CE/FCC/VCCI/BSMI/NCC

2.2 Carrier Frequency of Channels

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	14	2430	28	2458
01	2404	15	2432	29	2460
02	2406	16	2434	30	2462
03	2408	17	2436	31	2464
04	2410	18	2438	32	2466
05	2412	19	2440	33	2468
06	2414	20	2442	34	2470
07	2416	21	2444	35	2472
08	2418	22	2446	36	2474
09	2420	23	2448	37	2476
10	2422	24	2450	38	2478
11	2424	25	2452	39	2480
12	2426	26	2454	--	--
13	2428	27	2456	--	--

2.3 Test Mode and Test Software

a. During testing, the interface cables and equipment positions were varied according to ANSI C63.4.
b. The complete test system included Notebook and EUT for RF test.
c. The test program “USI BCM FCC CE REG Tool 1.4.10r8” under WIN 7 was executed to keep transmit and receive data via Bluetooth.
d. The following test mode was performed for RF test:
   - GFSK: CH 00: 2402MHz, CH 19: 2440MHz, CH 39: 2480MHz.

2.4 Description of Test System

Device	Manufacturer	Model No.	Description
Notebook	SONY	PCG-71218P	Power Cable, Unshielding, 1.8m

Used cable

Cable	Quantity	Description
USB	1	Shielding, 0.9m

2.5 General Information of Test

Test Site :	Cerpass Technology Corporation Test Laboratory No.10, Lane 2, Lianfu Street, Luzhu Township, Taoyuan County 33848, Taiwan(R.O.C.)
Test Site Location :	2F-11, No. 3, Yuan Qu St., (Nankang Software Park), Taipei, Taiwan 115, R.O.C.
Test Site Location :	No.68-1, Shihbachongsi, Shihding Township, New Taipei City 223, Taiwan, R.O.C.
FCC Registration Number :	TW1079, TW1061, 488071, 390316, 228391, 641184
IC Registration Number :	4934B-1, 4934D-1, 4934E-1, 4934E-2
VCCI Registration Number:	T-1173 for Telecommunication Test C-4139 for Conducted emission test R-3428 for Radiated emission test G-97 for Radiated emission test above 1GHz
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 25000MHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.

3. Antenna Requirements

3.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

3.2 Antenna Construction and Directional Gain

WIFI/ Bluetooth
Antenna Type: PIFA Antenna
Antenna Gain: 2.59 dBi@ 2.4GHz,
0.86dBi@ 5.15GHz
-0.23dBi@ 5.8GHz

NFC
Antenna Type: PCB Antenna

4. Test of Conducted Emission

4.1 Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 120 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2009 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 2.2. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

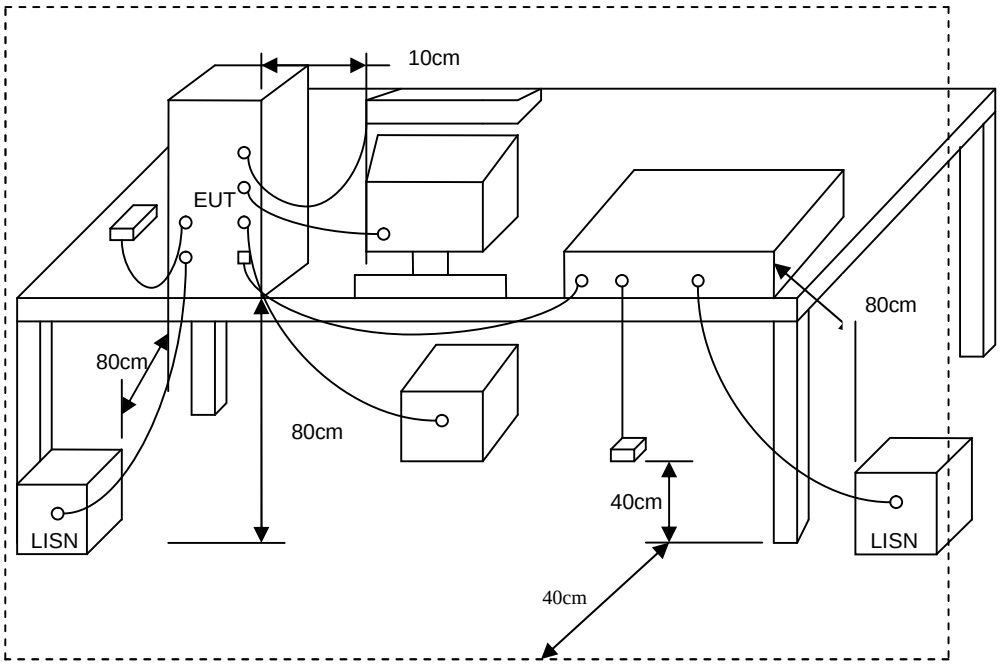
Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

*Decreases with the logarithm of the frequency.

4.2 Test Procedures

a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
c. All the support units are connecting to the other LISN.
d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
f. Both sides of AC line were checked for maximum conducted interference.
g. The frequency range from 150 kHz to 30 MHz was searched.
h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

4.3 Typical Test Setup

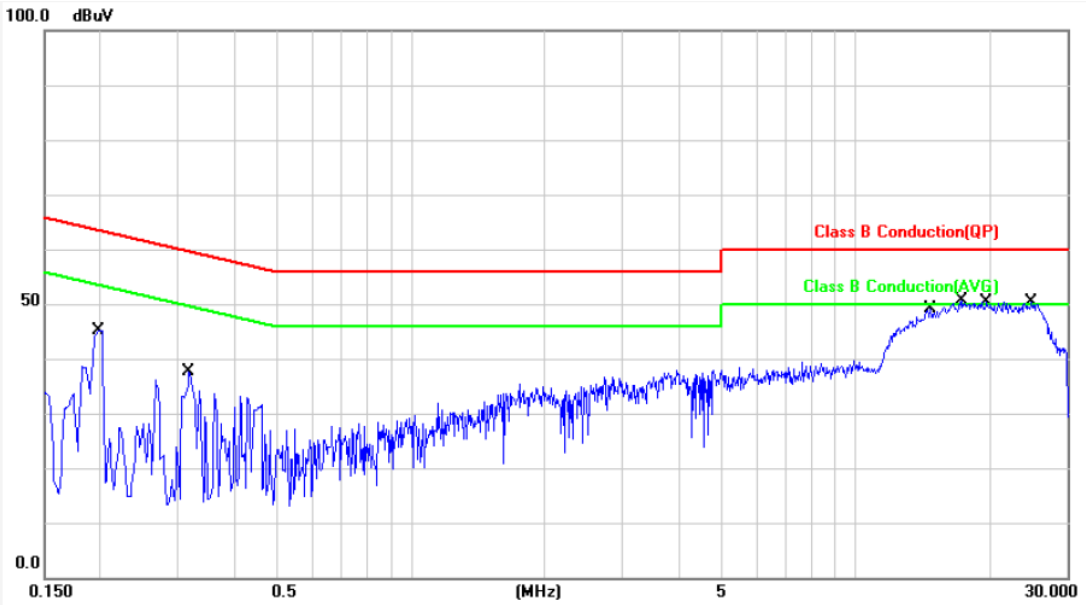


4.4 Measurement Equipment

Instrument	Model No.	Manufacturer	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI	101423	2014/06/05	2015/06/04
LISN	Schwarzbeck	NSLK 8127	8127-740	2014/08/14	2015/08/13
LISN	Schwarzbeck	NSLK 8127	8127-516	2014/03/10	2015/03/09
Pulse Limiter	R&S	ESH3-Z2	101933	2014/08/12	2015/08/11
Software	Farad	Ez-EMC	ver.ct3a1	N/A	N/A

4.5 Test Result and Data

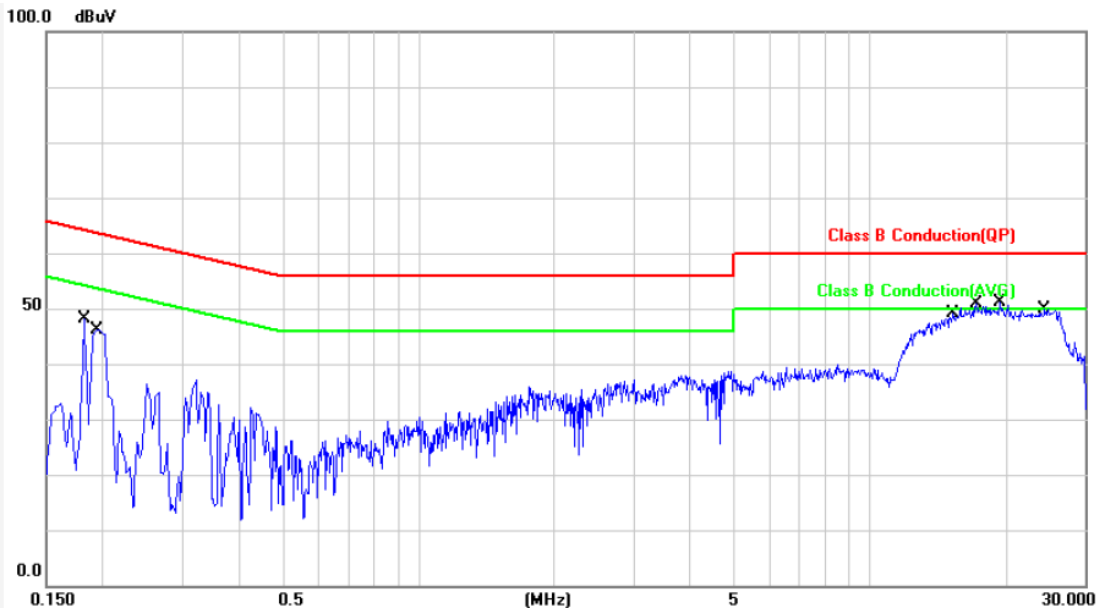
Power	:	AC 120V	Pol/Phase	:	LINE
Test Mode	:	GFSK CH0(1Mbps)	Temperature	:	25 °C
			Humidity	:	45 %
Test date	:	Sep. 22, 2014	Atmospheric Pressure	:	1008 hpa



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1980	9.92	35.00	44.92	63.69	-18.77	QP	P
2	0.1980	9.92	21.05	30.97	53.69	-22.72	AVG	P
3	0.3180	9.91	24.69	34.60	59.76	-25.16	QP	P
4	0.3180	9.91	13.44	23.35	49.76	-26.41	AVG	P
5	14.8180	10.38	33.97	44.35	60.00	-15.65	QP	P
6	14.8180	10.38	25.65	36.03	50.00	-13.97	AVG	P
7	17.3860	10.42	36.41	46.83	60.00	-13.17	QP	P
8	17.3860	10.42	24.37	34.79	50.00	-15.21	AVG	P
9	19.7700	10.48	36.72	47.20	60.00	-12.80	QP	P
10	19.7700	10.48	27.33	37.81	50.00	-12.19	AVG	P
11	24.9740	10.53	36.38	46.91	60.00	-13.09	QP	P
12	24.9740	10.53	28.22	38.75	50.00	-11.25	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit

Power	:	AC 120V	Pol/Phase	:	NEUTRAL
Test Mode	:	GFSK CH0(1Mbps)	Temperature	:	25 °C
			Humidity	:	45 %
Test date	:	Sep. 22, 2014	Atmospheric Pressure	:	1008 hpa



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1819	9.91	34.35	44.26	64.39	-20.13	QP	P
2	0.1819	9.91	16.79	26.70	54.39	-27.69	AVG	P
3	0.1940	9.91	34.40	44.31	63.86	-19.55	QP	P
4	0.1940	9.91	21.30	31.21	53.86	-22.65	AVG	P
5	15.0820	10.36	34.44	44.80	60.00	-15.20	QP	P
6	15.0820	10.36	25.50	35.86	50.00	-14.14	AVG	P
7	17.2139	10.40	34.21	44.61	60.00	-15.39	QP	P
8	17.2139	10.40	25.07	35.47	50.00	-14.53	AVG	P
9	19.4860	10.45	35.22	45.67	60.00	-14.33	QP	P
10	19.4860	10.45	24.67	35.12	50.00	-14.88	AVG	P
11	24.4460	10.51	35.07	45.58	60.00	-14.42	QP	P
12	24.4460	10.51	26.23	36.74	50.00	-13.26	AVG	P

Note: Level = Reading + Factor
Margin = Level – Limit

5. Test of Radiated Emission

5.1 Test Limit

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. If the transmitter measurement is based on the maximum conducted output power, the attenuation required under this paragraph shall be 30dB instead of 20dB. In addition, radiated emissions which fall in section 15.205(a) the restricted bands must also comply with the radiated emission limit specified in section 15.209(a).

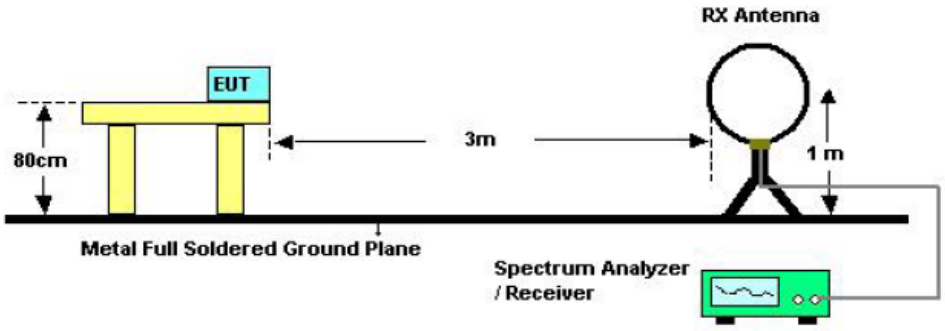
Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

5.2 Test Procedures

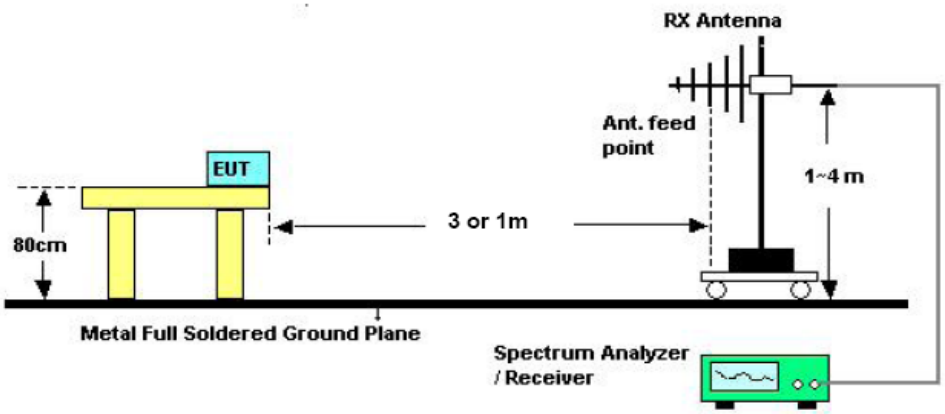
a. The EUT was placed on a rotatable table top 0.8 meter above ground.
b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
c. The table was rotated 360 degrees to determine the position of the highest radiation.
d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
e. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
g. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
h. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
i. “Cone of radiation” has been considered to be 3dB bandwidth of the measurement antenna.

5.3 Typical Test Setup

For radiated emissions below 30MHz



For radiated emissions above 30MHz



Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.
Distance extrapolation factor = 20 log (specific distance [3m] / test distance [1m]) (dB);
Limit line = specific limits (dBuV) + distance extrapolation factor [9.54 dB].

5.4 Measurement Equipment

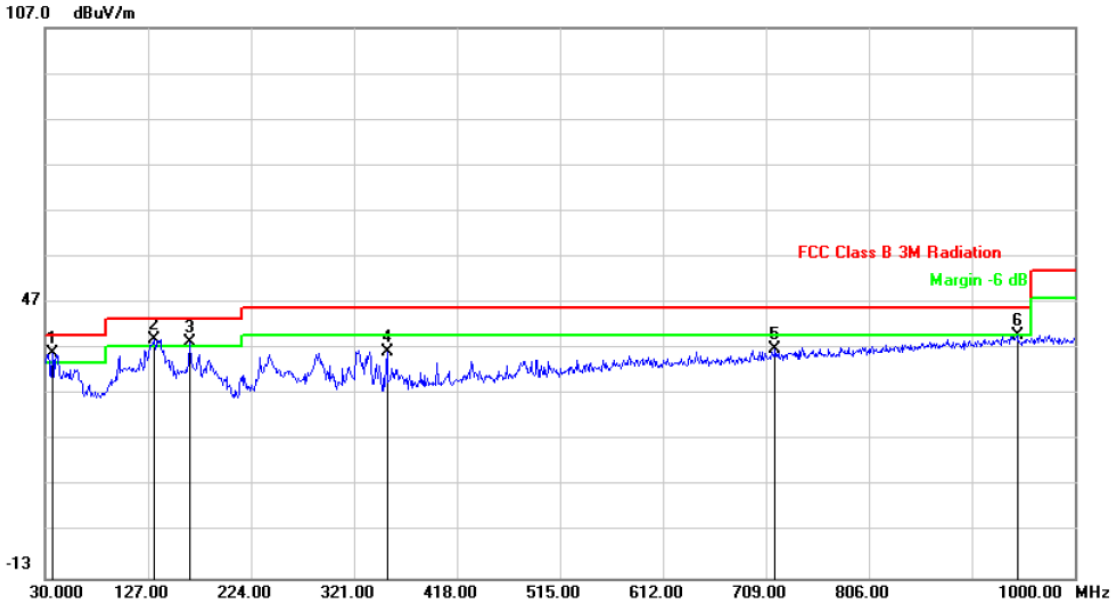
Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
EMI Receiver	R&S	ESCI	100443	2014/04/09	2015/04/08
Bilog Antenna	Schwarzbeck	VULB 9168	275	2014/09/18	2015/09/17
Amplifier	QuieTek	AP/0100A	CHM0906075	2014/09/17	2015/09/16
SPECTRUM ANALYZER	R&S	FSP40	100219	2014/09/03	2015/09/02
HORN ANTENNA	EMCO	3115	31601	2014/07/09	2015/07/08
PREAMPLIFIER	AGILENT	8449B	3008A01954	2014/03/28	2015/03/27
Software	Farad	Ez-EMC	ver.ct3a1	N/A	N/A

5.5 Test Result and Data (9kHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

5.6 Test Result and Data (30MHz ~ 1GHz)

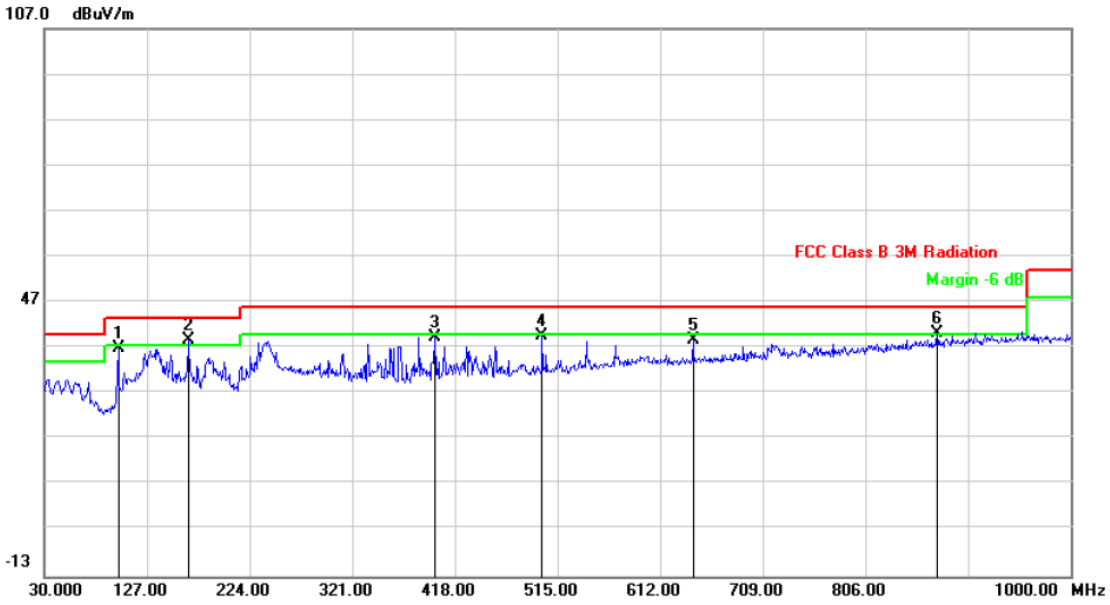
Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Transmit/ Receive GFSK CH0 (1Mbps)	Temperature	:	26 °C
			Humidity	:	50 %
Test date	:	Sep. 20, 2014	Atmospheric Pressure	:	1009 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	36.7900	-8.48	44.56	36.08	40.00	-3.92	peak	105	166
2	132.8200	-9.39	48.49	39.10	43.50	-4.40	peak	105	166
3	165.8000	-8.37	46.73	38.36	43.50	-5.14	peak	105	166
4	352.0400	-6.09	42.47	36.38	46.00	-9.62	peak	105	166
5	717.7300	1.24	35.73	36.97	46.00	-9.03	peak	105	166
6	945.6800	4.41	35.66	40.07	46.00	-5.93	peak	105	166

Note: Level = Reading + Factor
Margin = Level – Limit
Factor= Antenna Factor + Cable Loss - Amplifier Factor

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Transmit/ Receive GFSK CH0 (1Mbps)	Temperature	:	26 °C
			Humidity	:	50 %
Test date	:	Sep. 20, 2014	Atmospheric Pressure	:	1009 hpa

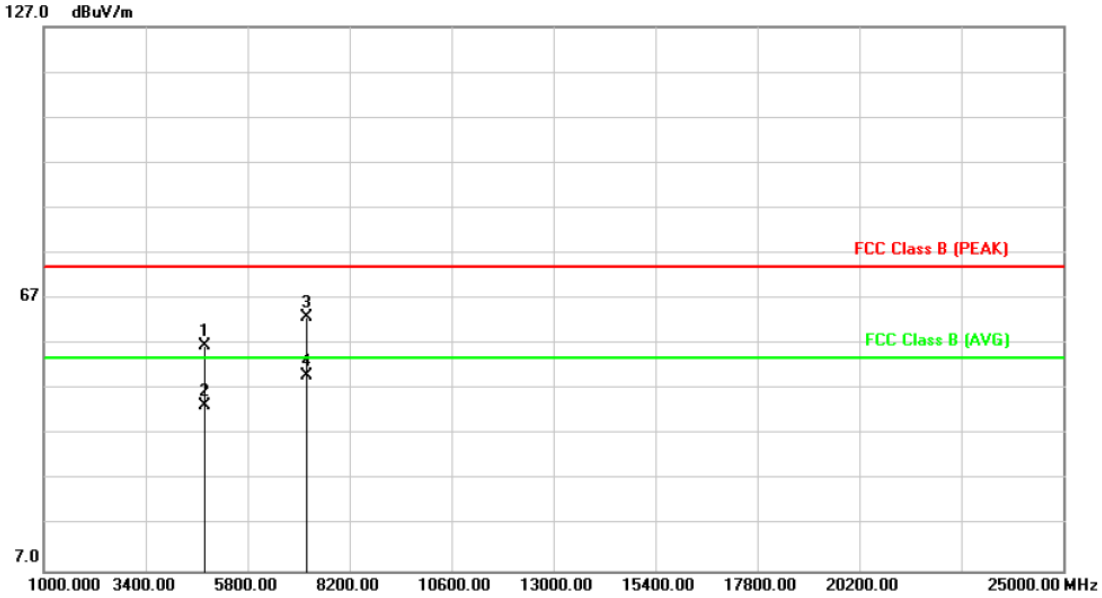


No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	99.8400	-13.03	49.98	36.95	43.50	-6.55	peak	102	183
2	165.8000	-8.37	47.12	38.75	43.50	-4.75	peak	102	183
3	398.6000	-4.68	44.10	39.42	46.00	-6.58	peak	102	183
4	500.4500	-2.53	42.07	39.54	46.00	-6.46	peak	102	183
5	643.0400	0.14	38.52	38.66	46.00	-7.34	peak	102	183
6	873.9000	3.32	36.80	40.12	46.00	-5.88	peak	102	183

Note: Level = Reading + Factor
Margin = Level – Limit
Factor= Antenna Factor + Cable Loss - Amplifier Factor

5.7 Test Result and Data (1GHz ~ 25GHz)

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Transmit/ Receive GFSK CH0 (1Mbps)	Temperature	:	26 °C
			Humidity	:	50 %
Test date	:	Sep. 20, 2014	Atmospheric Pressure	:	1009 hpa



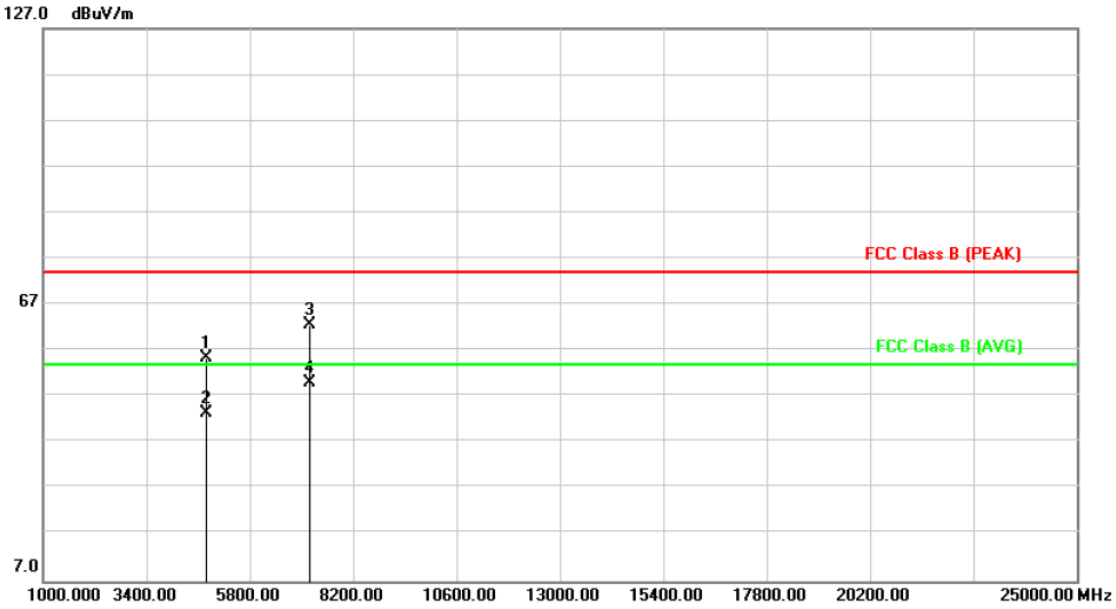
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	4804.000	7.26	49.47	56.73	74.00	-17.27	peak	107	166
2	4804.000	7.26	36.11	43.37	54.00	-10.63	AVG	107	166
3	7206.000	12.18	50.81	62.99	74.00	-11.01	peak	107	166
4	7206.000	12.18	37.79	49.97	54.00	-4.03	AVG	107	166

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Transmit/ Receive GFSK CH0 (1Mbps)	Temperature	:	26 °C
			Humidity	:	50 %
Test date	:	Sep. 20, 2014	Atmospheric Pressure	:	1009 hpa



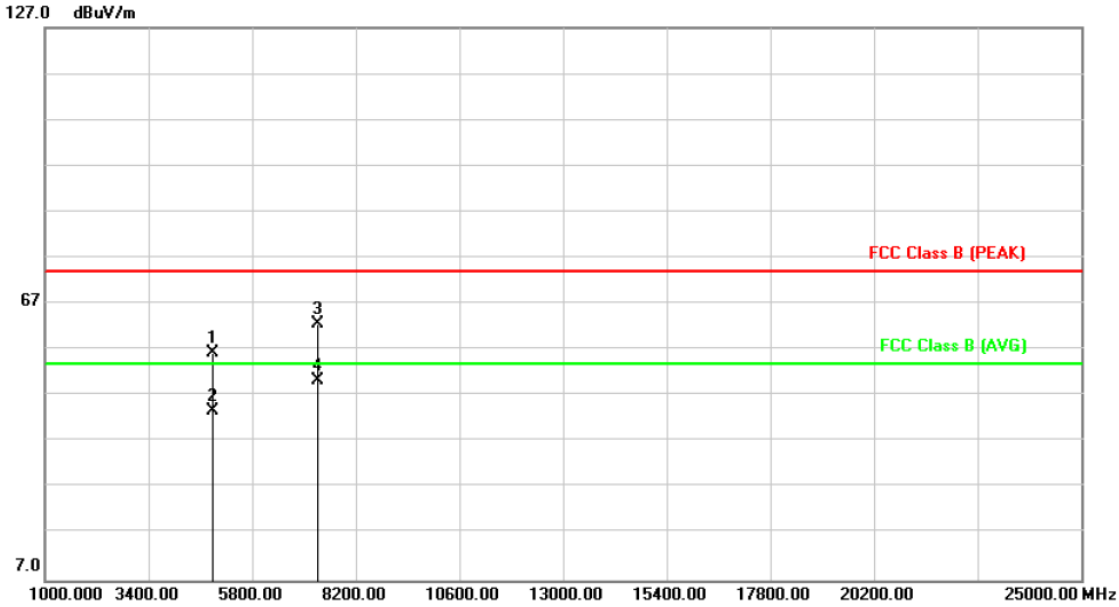
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	4804.000	7.26	48.22	55.48	74.00	-18.52	peak	105	174
2	4804.000	7.26	36.13	43.39	54.00	-10.61	AVG	105	174
3	7206.000	12.18	50.39	62.57	74.00	-11.43	peak	105	174
4	7206.000	12.18	37.80	49.98	54.00	-4.02	AVG	105	174

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Transmit/ Receive GFSK CH19 (1Mbps)	Temperature	:	26 °C
			Humidity	:	50 %
Test date	:	Sep. 20, 2014	Atmospheric Pressure	:	1009 hpa



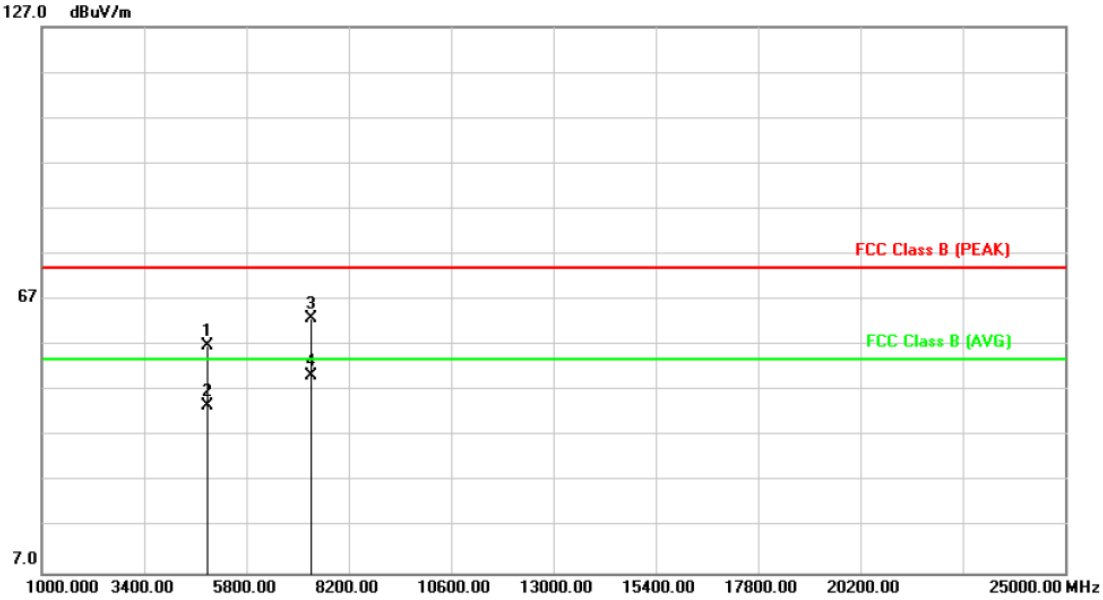
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	4880.000	7.49	48.94	56.43	74.00	-17.57	peak	105	164
2	4880.000	7.49	36.24	43.73	54.00	-10.27	AVG	105	164
3	7320.000	12.65	50.14	62.79	74.00	-11.21	peak	105	164
4	7320.000	12.65	37.68	50.33	54.00	-3.67	AVG	105	164

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Transmit/ Receive GFSK CH19 (1Mbps)	Temperature	:	26 °C
			Humidity	:	50 %
Test date	:	Sep. 20, 2014	Atmospheric Pressure	:	1009 hpa



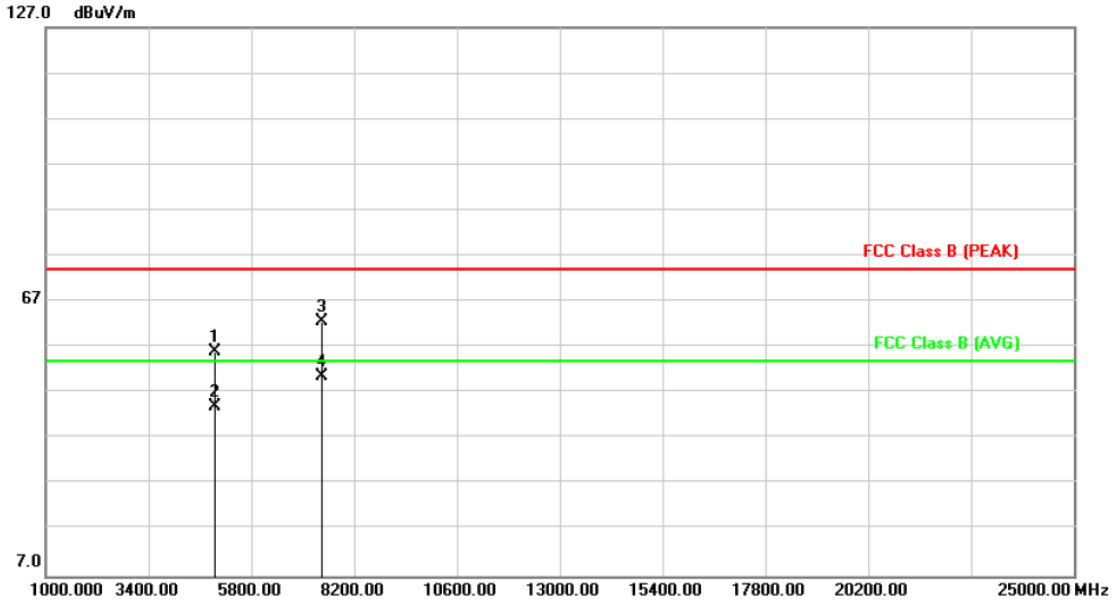
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	4880.000	7.49	49.58	57.07	74.00	-16.93	peak	103	177
2	4880.000	7.49	36.25	43.74	54.00	-10.26	AVG	103	177
3	7320.000	12.65	50.29	62.94	74.00	-11.06	peak	103	177
4	7320.000	12.65	37.69	50.34	54.00	-3.66	AVG	103	177

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor

Power	:	AC 120V	Pol/Phase	:	VERTICAL
Test Mode	:	Transmit/ Receive GFSK CH39 (1Mbps)	Temperature	:	26 °C
			Humidity	:	50 %
Test date	:	Sep. 20, 2014	Atmospheric Pressure	:	1009 hpa



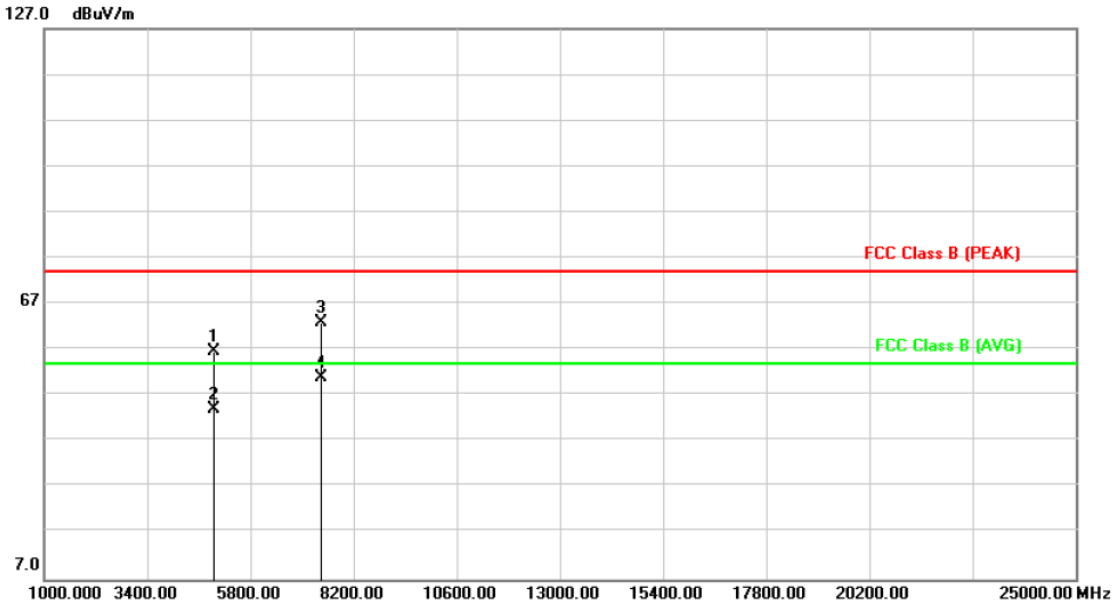
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	4960.000	7.76	48.29	56.05	74.00	-17.95	peak	102	178
2	4960.000	7.76	36.18	43.94	54.00	-10.06	AVG	102	178
3	7440.000	13.16	49.50	62.66	74.00	-11.34	peak	102	178
4	7440.000	13.16	37.63	50.79	54.00	-3.21	AVG	102	178

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor

Power	:	AC 120V	Pol/Phase	:	HORIZONTAL
Test Mode	:	Transmit/ Receive GFSK CH39 (1Mbps)	Temperature	:	26 °C
			Humidity	:	50 %
Test date	:	Sep. 20, 2014	Atmospheric Pressure	:	1009 hpa



No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (deg)
1	4960.000	7.76	48.97	56.73	74.00	-17.27	peak	104	185
2	4960.000	7.76	36.20	43.96	54.00	-10.04	AVG	104	185
3	7440.000	13.16	49.84	63.00	74.00	-11.00	peak	104	185
4	7440.000	13.16	37.67	50.83	54.00	-3.17	AVG	104	185

Note: Level = Reading + Factor

Margin = Level – Limit

Factor= Antenna Factor + Cable Loss - Amplifier Factor

6. 6dB Bandwidth Measurement Data

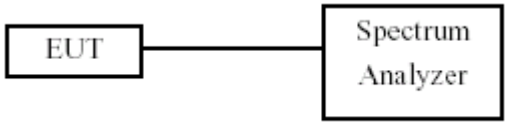
6.1 Test Limit

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

6.2 Test Procedures

a. The transmitter output was connected to the spectrum analyzer.
b. Set RBW of spectrum analyzer to 1~5% of the emission bandwidth and VBW ≥ 3x RBW.
c. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.
d. The 6dB Bandwidth was measured and recorded.

6.3 Test Setup Layout



6.4 Measurement Equipment

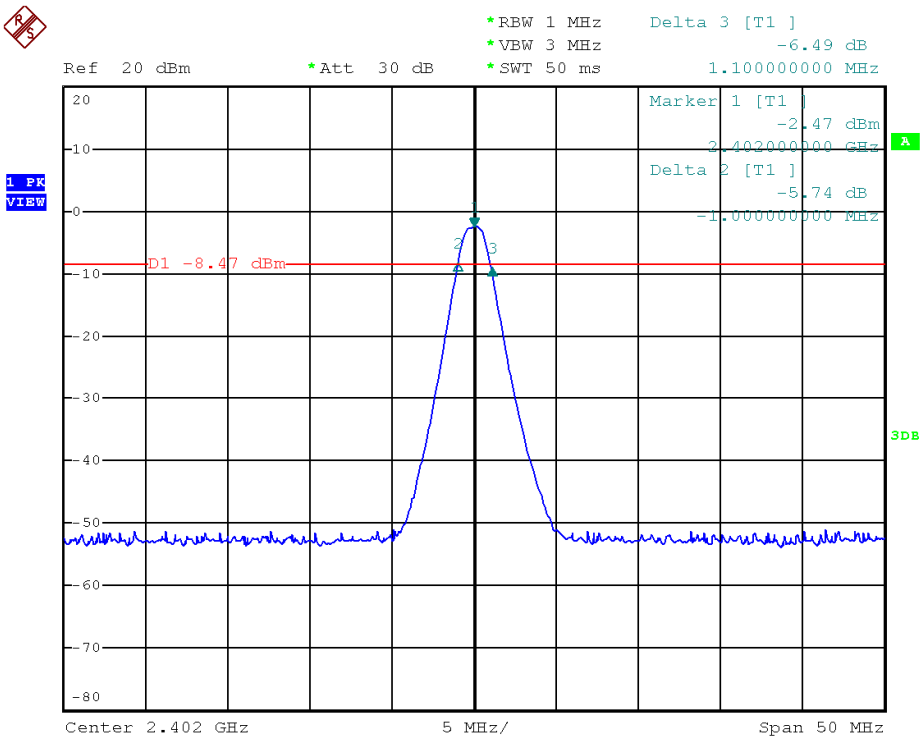
Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100047	2014/03/27	2015/03/26

6.5 Test Result and Data

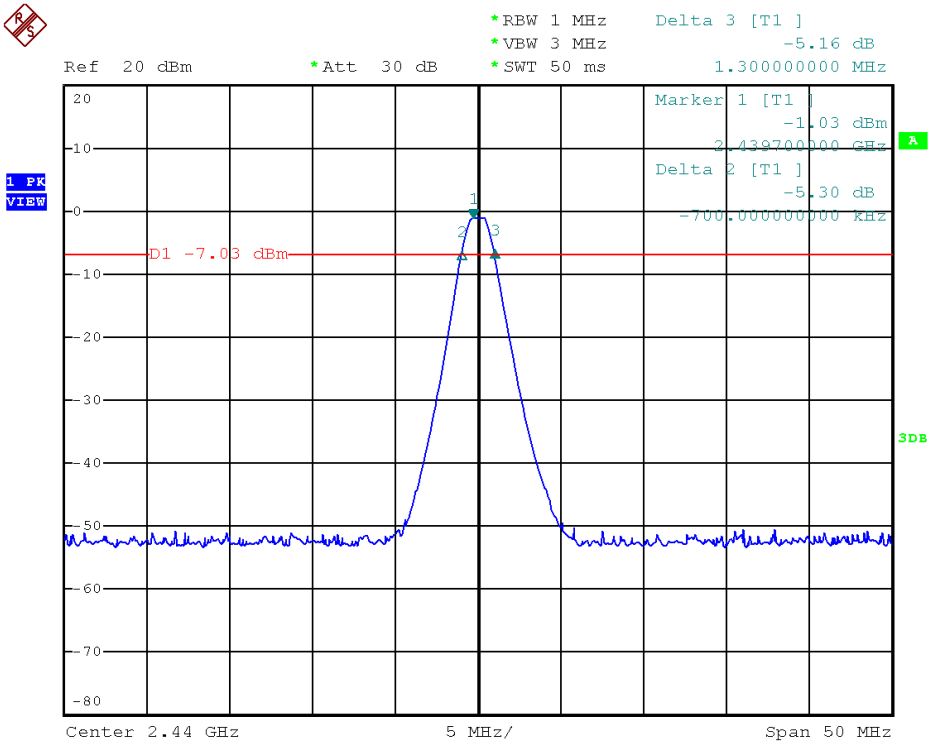
Test Date: Sep. 18, 2014 Temperature: 23 °C
Atmospheric pressure: 1087 hPa Humidity: 54 %

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth (KHz)
GFSK (1Mbps)	00	2402	1100
	19	2441	1300
	39	2480	1300

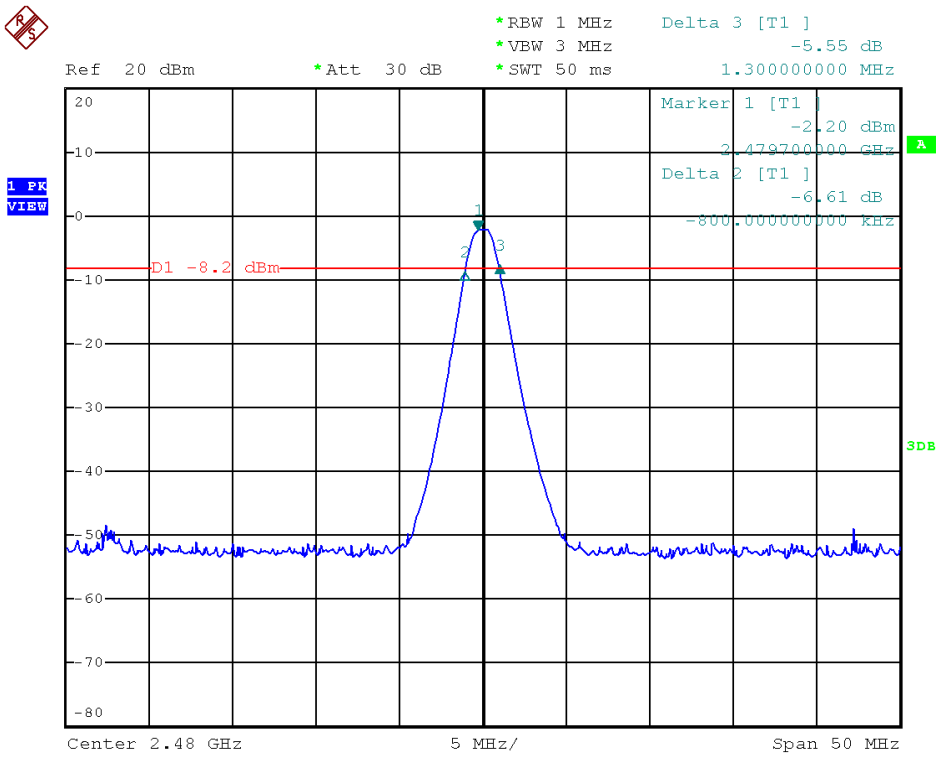
Modulation Standard: GFSK (1Mbps)
Channel: 00



Modulation Standard: GFSK (1Mbps)
Channel: 19



Modulation Standard: GFSK (1Mbps)
Channel: 39



7. Maximum Peak and Average Output Power

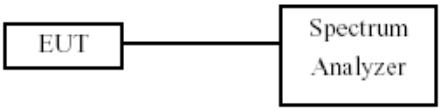
7.1 Test Limit

The Maximum Peak Output Power Measurement is 30dBm.

7.2 Test Procedures

The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter. Power was read directly from the meter and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

7.3 Test Setup Layout



7.4 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
SERIES POWER METER	ANRITSU	ML2495A	1224005	2014/03/27	2015/03/26
POWER SENSOR	ANRITSU	MA2411B	1207295	2014/03/27	2015/03/26

7.5 Test Result and Data

Test Date: Sep. 18, 2014 Temperature: 23℃

Atmospheric pressure: 1087 hPa Humidity: 54%

Modulation Standard	Channel	Frequency (MHz)	Power Output (dBm)	Peak Power Output (mW)
GFSK (1Mbps)	00	2402	-1.75	0.668
	19	2440	-0.45	0.902
	39	2480	-1.73	0.671

8. Power Spectral Density

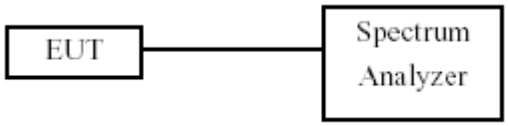
8.1 Test Limit

The Maximum of Power Spectral Density Measurement is 8dBm.

8.2 Test Procedures

a. The transmitter output was connected to spectrum analyzer.
b. The spectrum analyzer's resolution bandwidth were set at 3KHz RBW and 30KHz VBW as that of the fundamental frequency. Set the sweep time=auto couple.
c. The power spectral density was measured and recorded.

8.3 Test Setup Layout



8.4 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100047	2014/03/27	2015/03/26

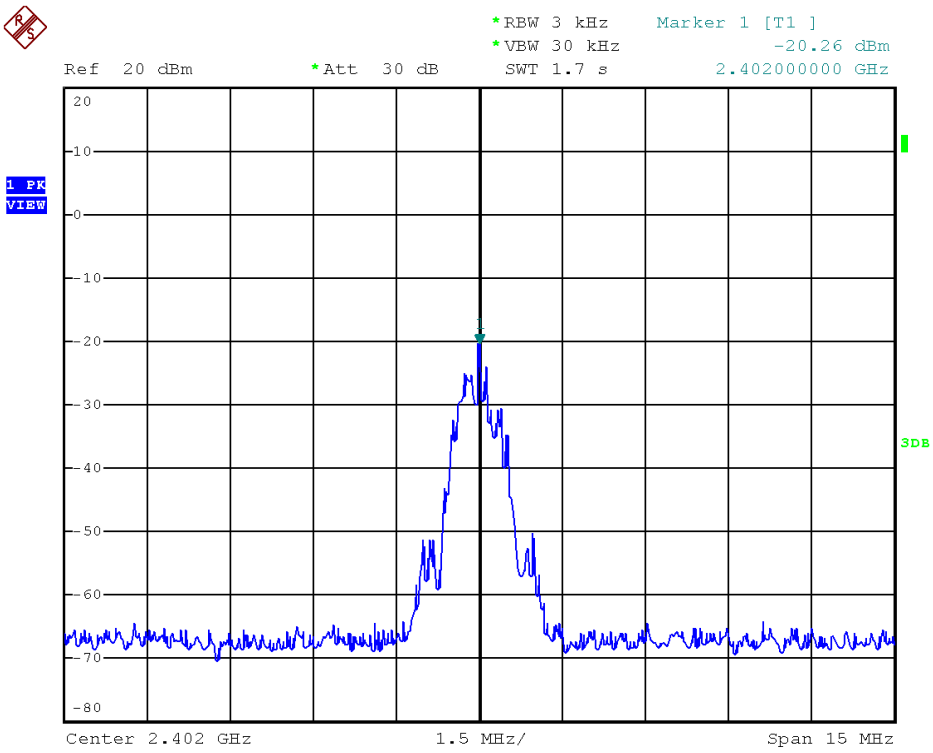
8.5 Test Result and Data

Test Date: Sep. 18, 2014 Temperature: 23℃

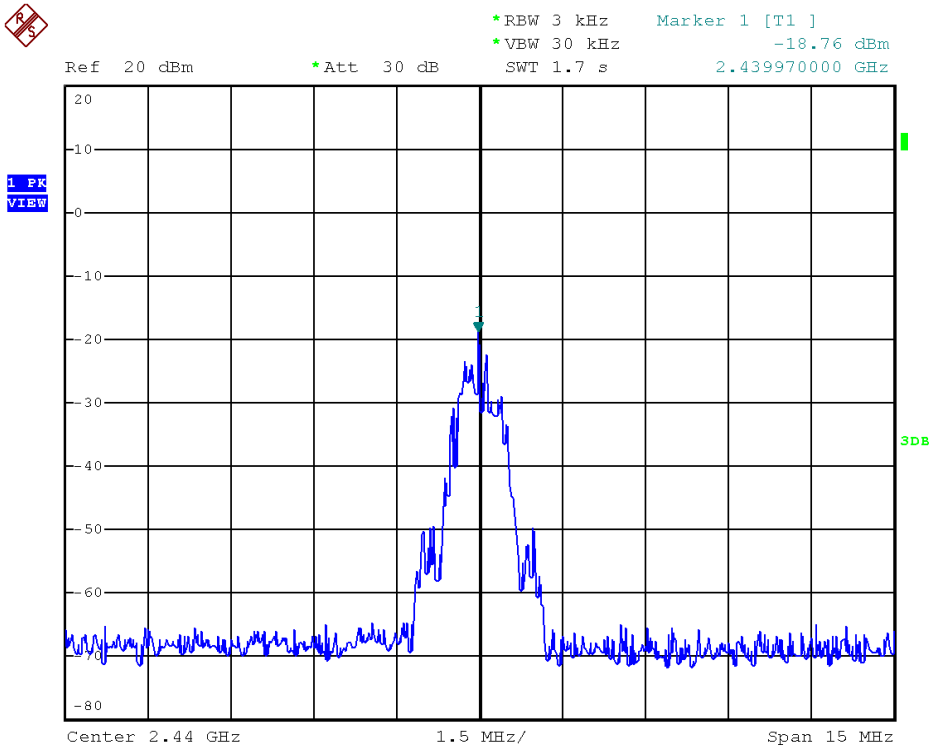
Atmospheric pressure: 1087 hPa Humidity: 54%

Modulation Standard	Channel	Frequency (MHz)	Maximum Power Density of 3 kHz Bandwidth (dBm)
GFSK (1Mbps)	00	2402	-20.26
	19	2440	-18.76
	39	2480	-19.87

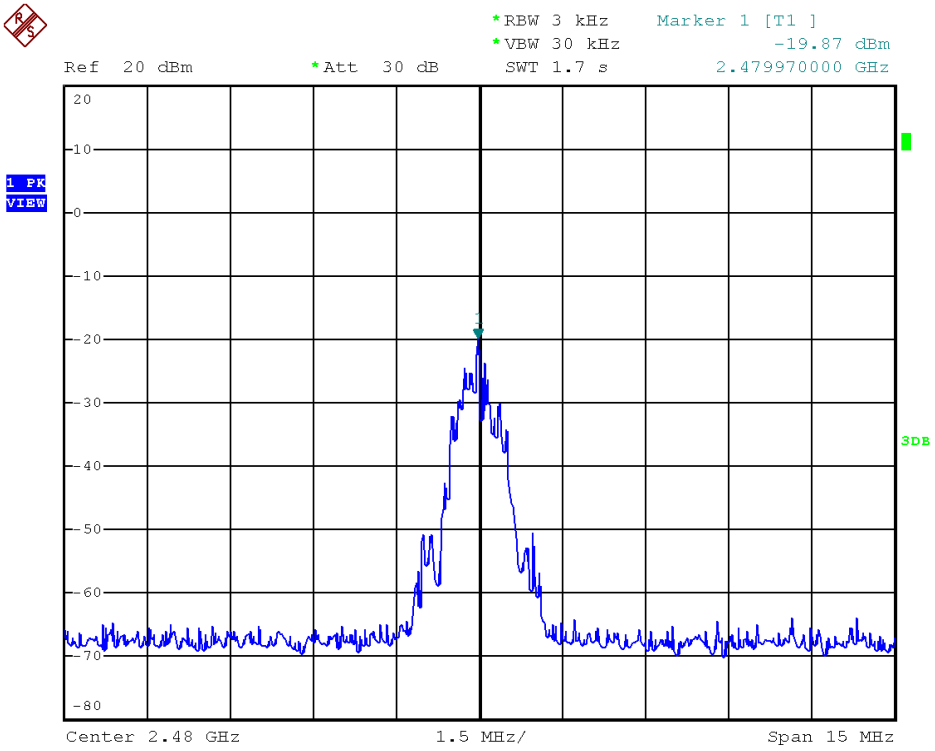
Modulation Standard: GFSK (1Mbps)
Channel: 00



Modulation Standard: GFSK (1Mbps)
Channel: 19



Modulation Standard: GFSK (1Mbps)
Channel: 39



9. Band Edges Measurement

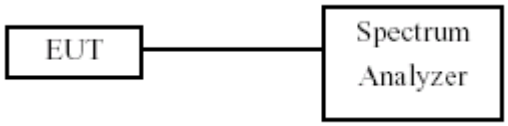
9.1 Test Limit

Below –20dB of the highest emission level of operating band (In 100 kHz Resolution Bandwidth)

9.2 Test Procedure

a. The transmitter output was connected to the spectrum analyzer via a low lose cable.
b. Set RBW of spectrum analyzer to 100 KHz and VBW of spectrum analyzer to 300 KHz with convenient frequency span including 100 KHz bandwidth from band edge.
c. Peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20dB relative to the maximum measured in-band peak PSD level.
d. The band edges was measured and recorded.

9.3 Test Setup Layout



9.4 Measurement Equipment

Instrument/Ancillary	Manufacturer	Model No.	Serial No.	Calibration Date	Valid Date
Spectrum Analyzer	R&S	FSP40	100047	2014/03/27	2015/03/26

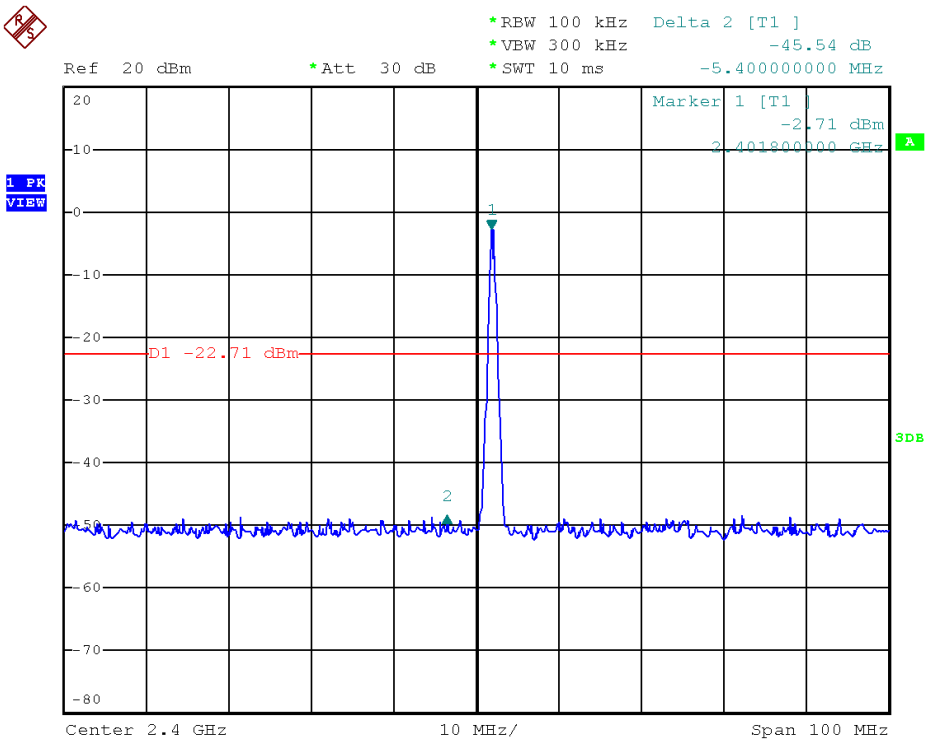
9.5 Test Result and Data

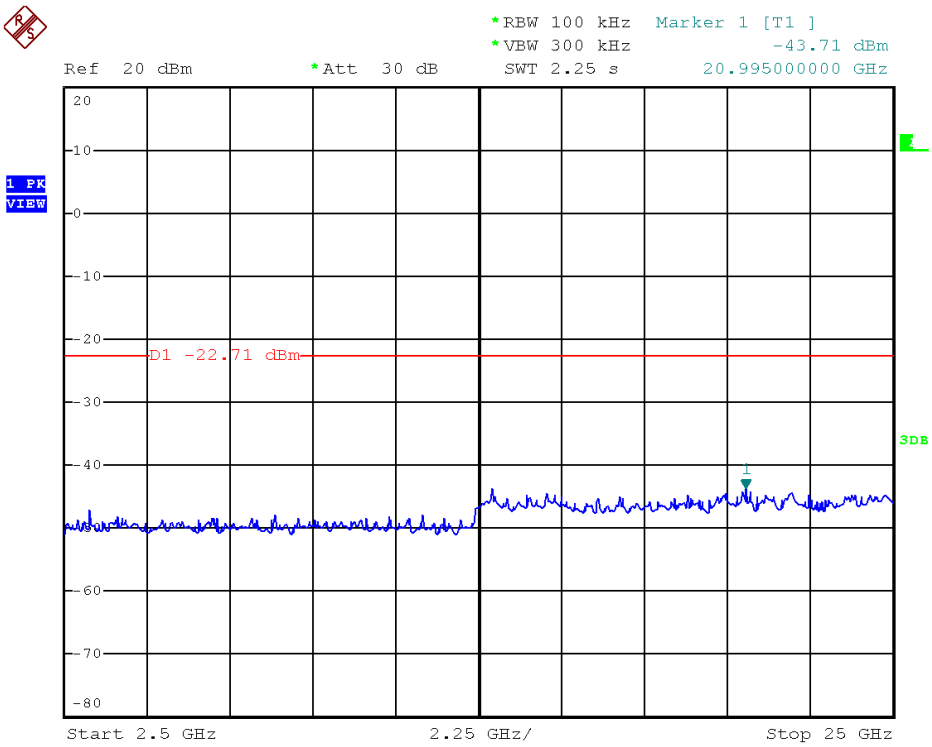
Test Date: Sep. 18, 2014 Temperature: 23℃

Atmospheric pressure: 1087hPa Humidity: 54%

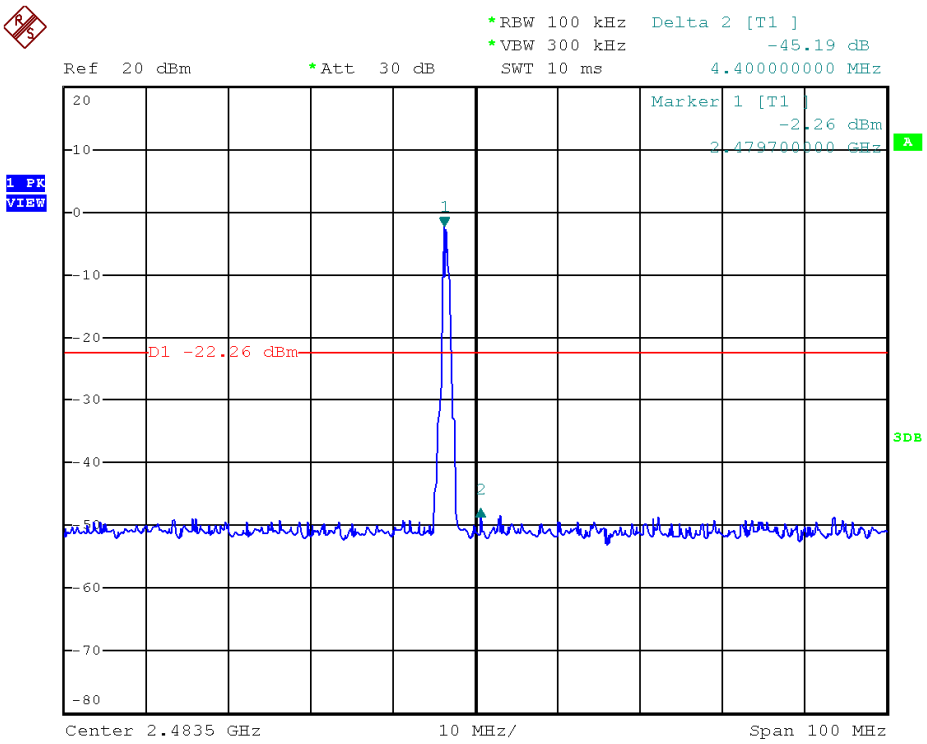
Modulation Standard	Channel	Frequency (MHz)	maximum value in frequency(MHz)	maximum value (dBm)	Limit (dBm)
GFSK (1Mbps)	0	2402	20995.0	-43.71	-22.71
	39	2480	24775.0	-43.46	-22.26

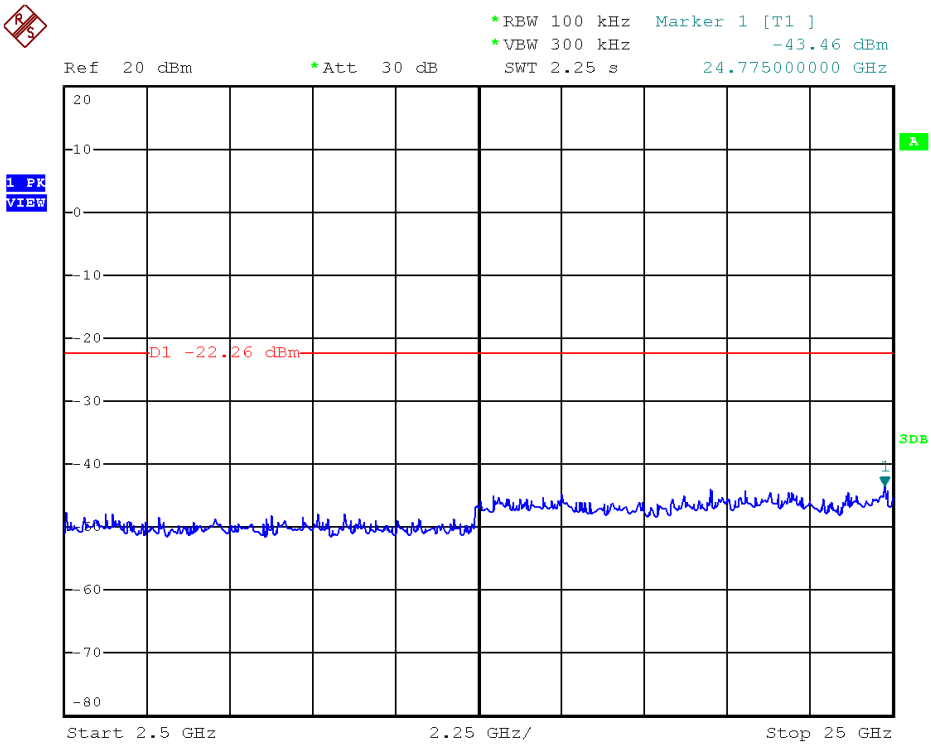
Modulation Standard: GFSK (1Mbps)
Channel: 00





Modulation Standard: GFSK (1Mbps)
Channel: 39





9.6 Restrict Band Emission Measurement Data

Test Date: Sep. 20, 2014 Temperature: 23 ℃

Atmospheric pressure: 1087 hPa Humidity: 54 %

Modulation Standard: GFSK

Channel 1										Fundamental Frequency: 2412 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
2386.544	V	49.31	-1.19	48.12	Peak	74	54	-25.88	166	1.05
-----	V	-----	-----	-----	Ave	74	54	-----	-----	-----
2357.012	H	49.63	-1.30	48.33	Peak	74	54	-25.67	177	1.04
-----	H	-----	-----	-----	Ave	74	54	-----	-----	-----
Channel 11										Fundamental Frequency: 2462 MHz
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result (dBuV/m)	Remark	Limit (dBuV/m)		Margin (dB)	Table Deg.	Ant High (m)
						Peak	Ave			
2571.200	V	49.19	-0.41	48.78	Peak	74	54	-25.22	172	1.07
-----	V	-----	-----	-----	Ave	74	54	-----	-----	-----
2501.480	H	48.96	-0.75	48.21	Peak	74	54	-25.79	168	1.02
-----	H	-----	-----	-----	Ave	74	54	-----	-----	-----

Notes:

1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector peak mode) for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3 MHz (detector sample mode) for Average detection at frequency above 1GHz.

10. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.250
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

**: Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

10.1 Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device:
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.