

FCC Part 15C Compliance Test Report

Test Report no.:	FCC15CWLAN_RM-927_22.docx	Date of Report:	21-Aug-13
Number of pages:	20	Customer's Contact person:	Victoria Abadilla
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FCC listing no.:	586140		
IC recognition no.:	10162A-1		
Tested devices/ accessories:	Phone RM-927 / Cable CA-190 / Salcomp AC Charger AC-60 / Headset WH-902		
FCC ID:	QMND	IC:	661X-D
Supplement reports:	-		
Testing has been carried out in accordance with:	CFR 47, FCC rules Part 15 Subpart C, ANSI C63.4 (2003), DTS procedures KDB 558074, IC standards. Deviations, modifications or clarifications (if any) to above mentioned documents are written in each section under "Test method and limit".		
Documentation:	The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory. The documentation of the testing performed on the tested devices is archived for 15 years at TCC Nokia.		
Test Results:	The EUT complies with the requirements in respect of all parameters subject to the test. The test results relate only to devices specified in this document		
Date and signature for the contents:			

Feng You, Senior Specialist

1. Summary for FCC Part 15C Compliance Test Report

Date of receipt	20-Jul-2013
Testing completed	20-Aug-13
The customer's contact person	Victoria Abadilla
Test Plan referred to	T:\Projects\RM-927\TestPlan\RS_testplan_RM-927.xlsm
Notes	-
Document name	T:\Projects\RM-927\EMC\FCC15CWLAN_RM-927_22.docx

1.1. EUT and Accessory Information

The EUT is a mobile phone with following features:
GSM/CDMA/WCDMA/LTE/WLAN/Bluetooth
The EUT is tested with maximum rated TX power.

Devices under tests

Product	Type	SN	HW	MV	SW	DUT
Phone	RM-927	355906050012284	0160	-	1028.0305.1329.2000	30743
Cable	CA-190	-	-	-	-	30745
Salcomp AC Charger	AC-60	4090493152610300459	-	-	-	30744
Headset	WH-902	-	-	-	-	30746

1.2. Summary of Test Results

5 GHz RLAN:

Section in CFR 47	Section in RSS-GEN or RSS-210	Name of the test	Result
15.247(b)(1)	A8.4 (4)	Conducted peak output power	NP
15.247(d), 15.205(b)	A8.5	Band edge compliance of RF emissions	PASSED
15.247(d)	A8.5	Spurious RF conducted emissions	NP
15.247(d), 15.209	A8.5	Spurious radiated emissions	PASSED
15.207	7.2.2	AC powerline conducted emissions	NP
15.247(a)(2)	A8.2 (a)	6dB(bandwidth)	NP
15.247(e)	A8.2 (b)	Power spectral density	NP

PASSED

The EUT complies with the essential requirements in the standard.

FAILED

The EUT does not comply with the essential requirements in the standard.

NP

The test was not performed by the TCC Nokia Laboratory.

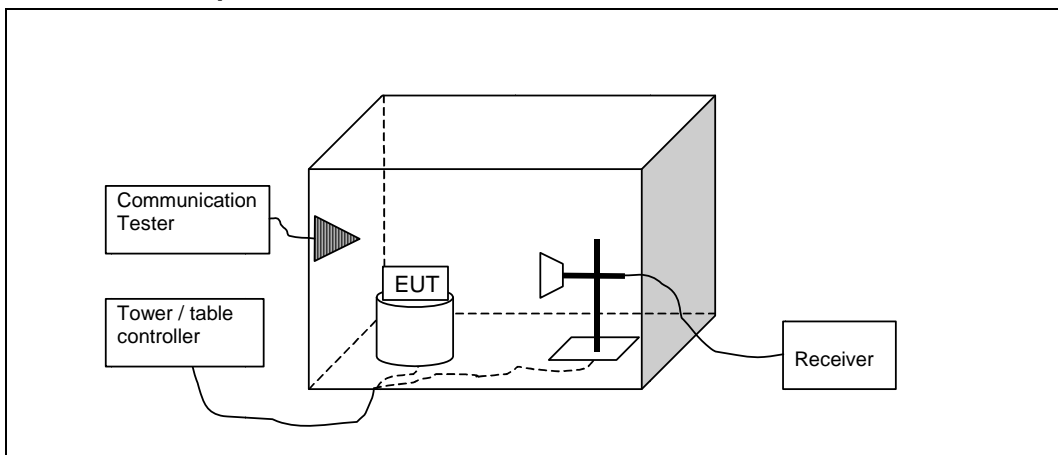
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2. Band edge compliance of RF emissions (FCC §15.247(d), 15.205(b), RSS-210 A8.5)

EUT with DUT number	RM-927, DUT 30743
Accessories with DUT numbers	CA-190, DUT 30745 ; AC-60, DUT 30744 ; WH-902, DUT 30746
Operation Voltage [V] / [Hz]	115V / 60Hz
Results	PASSED
Remarks	
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	17.1 / 46.8 / 1050
Date of measurements	15-Aug-2013
Measured by	Tyrone Hawes

2.1.1 Test setup



2.2. Test method and limit

The measurement is made according to KDB558074 and IC standard RSS-210.

The limit for 5 GHz RLAN is -20 dBc.

When the fundamental value in E [dBuV/m] column is at least 20 dB higher than the out of band emission, the result is pass.

The measurement results are obtained as described below:

$$E [dB\mu V/m] = U_{RX} + A_{TOT}$$

Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable loss, antenna factor and preamplifier gain ($A_{TOT} = L_{CABLES} + A_F - G_{PREAMP}$).

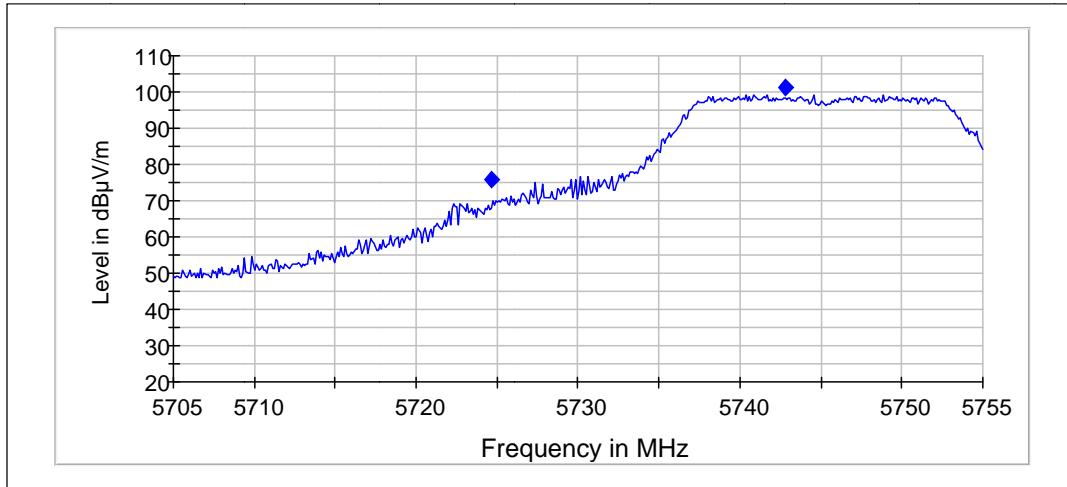
Limits for band edge compliance of RF emissions measurements (3 m measurement distance)

Frequency range [MHz]	Limit
Below 2390 and above 2483.5	54 dBuV/m (avg) and 74 dBuV/m (pk)
Below 5725 and above 5825	-20dBc

2.3. 5 GHz RLAN test results

2.3.1 802.11a, BPSK modulation, 9 Mbps data rate, 20MHz BW.

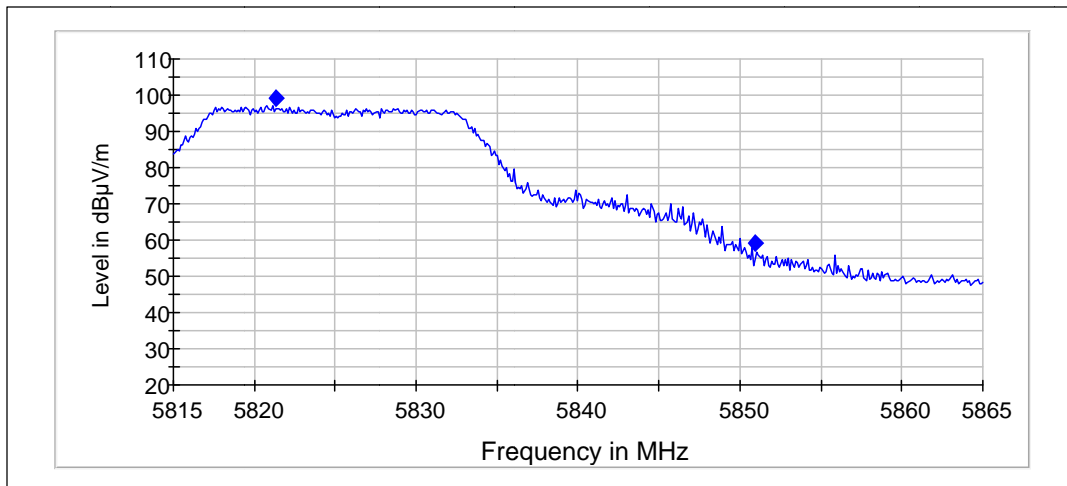
Channel 149 / 5745MHz



Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U _{RX} [dBµV]	A _{TOT} [dB]	Results
5724.679	75.91	6245.252	68.79	7.12	PASSED
5742.816	101.2	114828.582	94.14	7.06	PASSED

Channel 165 / 5825MHz

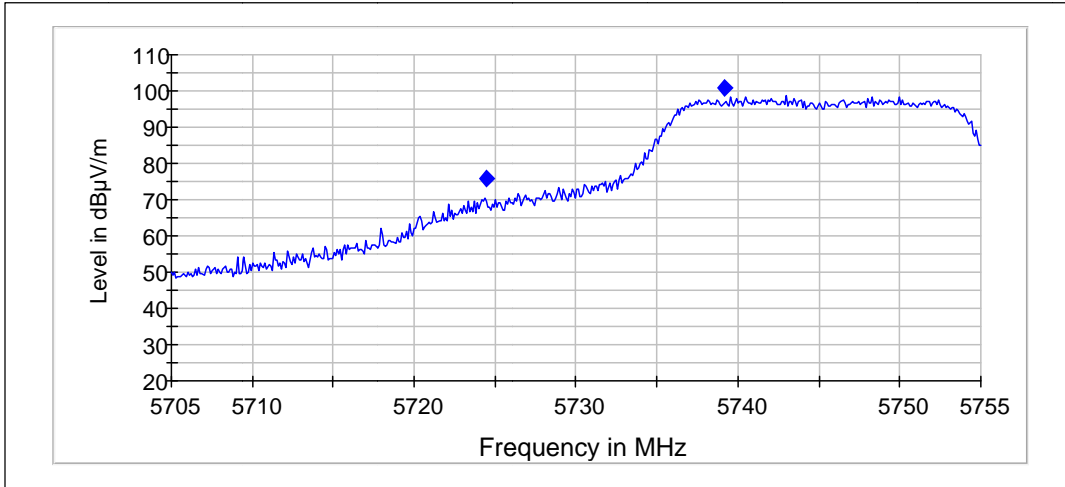


Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U _{RX} [dBµV]	A _{TOT} [dB]	Results
5821.293	99.01	89196.949	91.93	7.08	PASSED
5850.962	59.03	894.335	50.93	8.1	PASSED

2.3.2 802.11n, QPSK modulation, MCS1: 13 Mbps data rate, 20MHz BW.

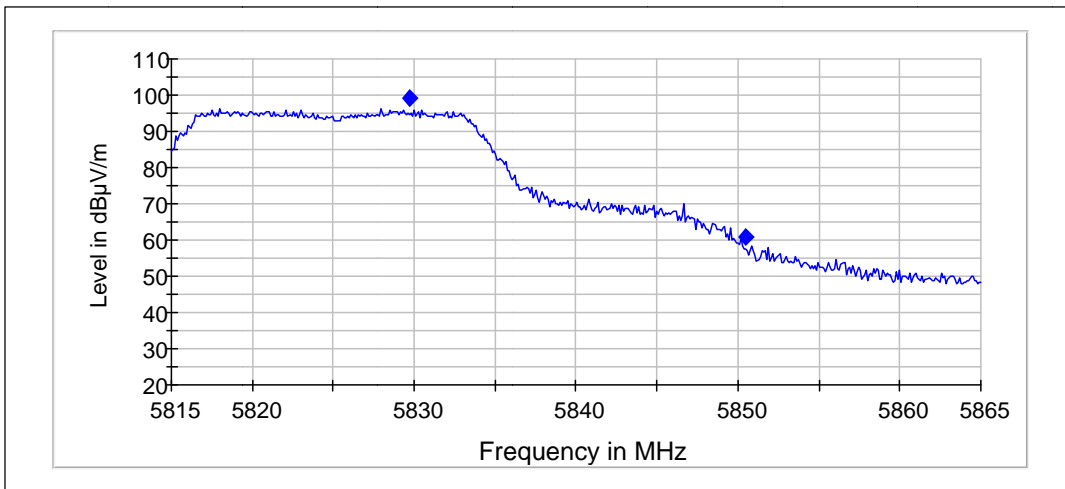
Channel 149 / 5745MHz



Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U _{RX} [dBµV]	A _{TOT} [dB]	Results
5724.439	75.7	6091.861	68.59	7.12	PASSED
5739.128	100.79	109559.49	93.73	7.06	PASSED

Channel 165 / 5825MHz

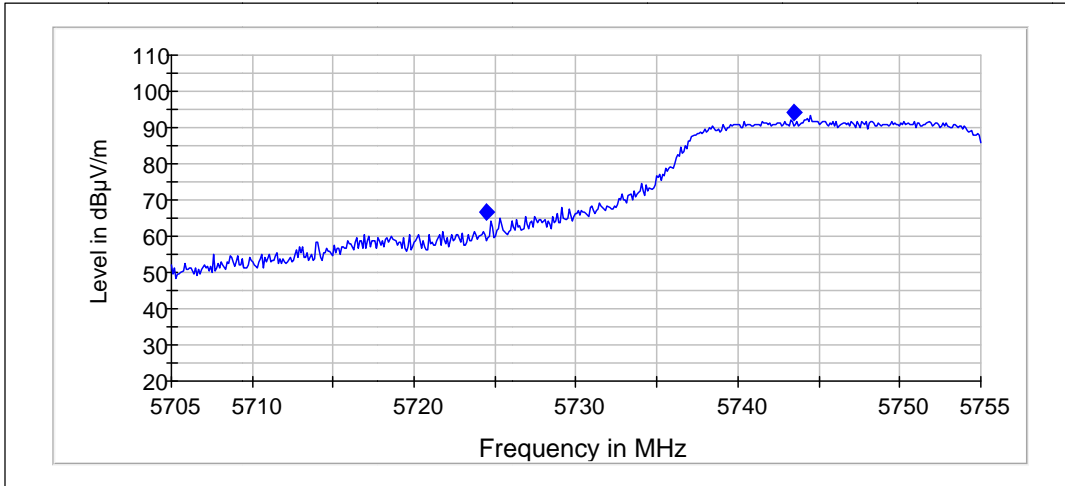


Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U _{RX} [dBµV]	A _{TOT} [dB]	Results
5829.669	99.26	91790.979	92.15	7.11	PASSED
5850.481	60.99	1120.082	52.9	8.09	PASSED

2.3.3 802.11n, BPSK modulation, MCS0: 13.5 Mbps data rate, 40MHz BW.

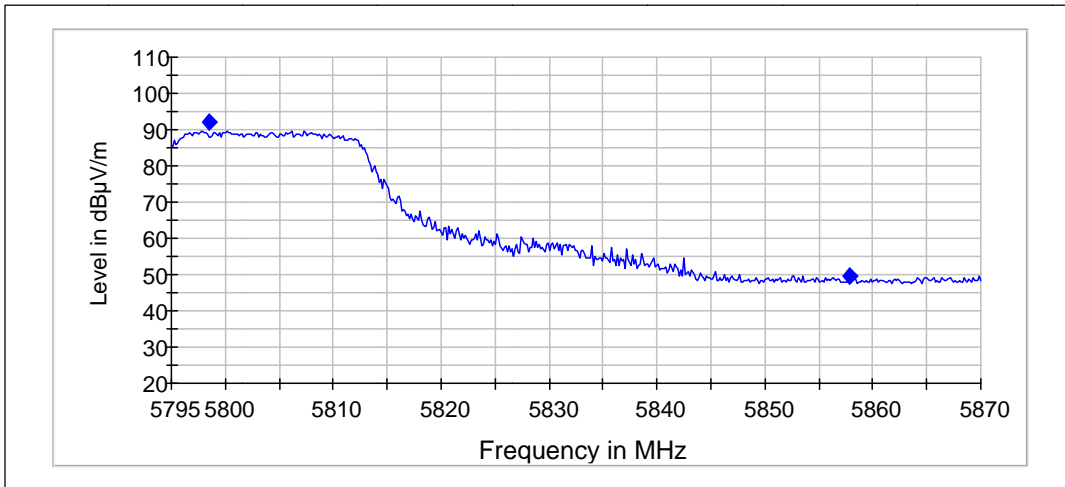
Channel 149+153 / 5755MHz



Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U _{RX} [dBµV]	A _{TOT} [dB]	Results
5724.479	66.77	2179.215	59.66	7.12	PASSED
5743.497	94.28	51736.852	87.22	7.06	PASSED

Channel 157+161 / 5795MHz

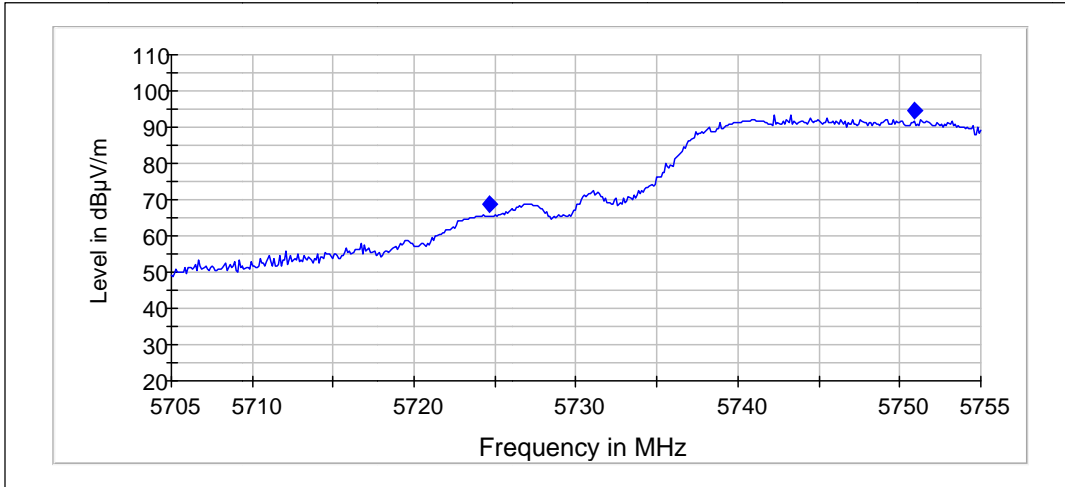


Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U _{RX} [dBµV]	A _{TOT} [dB]	Results
5798.487	92.27	41072.392	85.14	7.14	PASSED
5857.816	49.61	302.378	42.31	7.3	PASSED

2.3.4 802.11n, QPSK modulation, MCS1: 27.0 Mbps data rate, 40MHz BW.

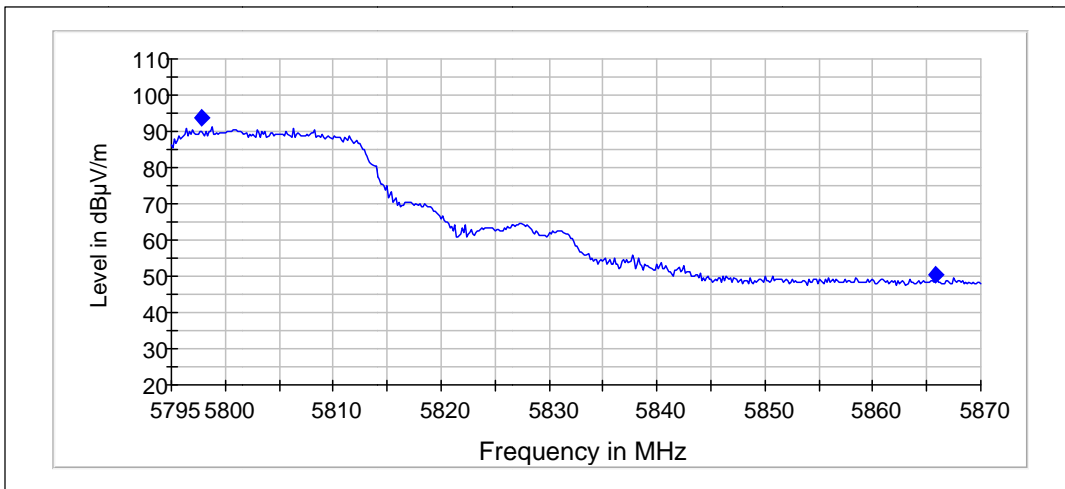
Channel 149+153 / 5755MHz



Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U _{RX} [dBµV]	A _{TOT} [dB]	Results
5724.679	68.83	2763.122	61.71	7.12	PASSED
5750.912	94.56	53456.436	87.49	7.07	PASSED

Channel 157+161 / 5795MHz

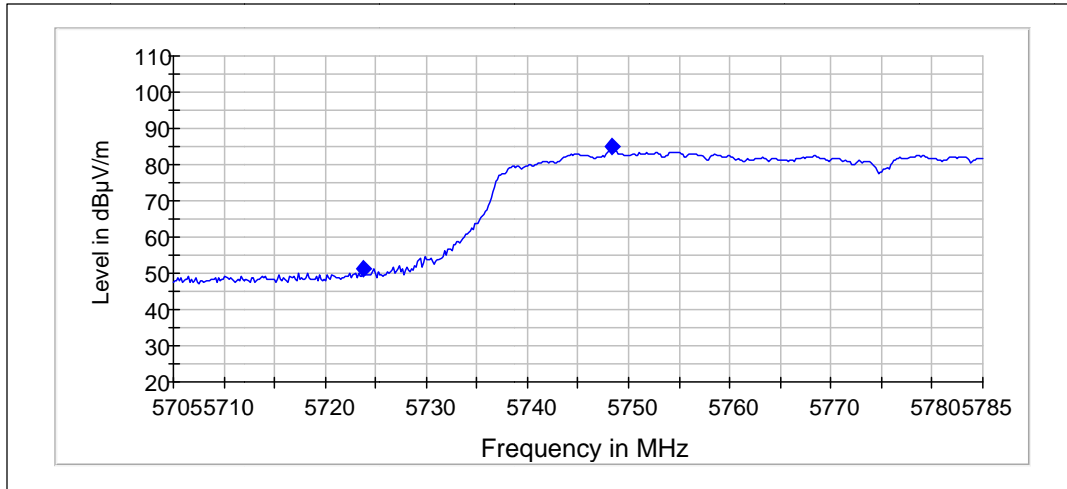


Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U _{RX} [dBµV]	A _{TOT} [dB]	Results
5797.725	93.82	49090.788	86.69	7.13	PASSED
5865.832	50.53	336.047	42.41	8.12	PASSED

2.3.5 802.11n, BPSK modulation, MCS0: 29.3 Mbps data rate, 80MHz BW.

Channel 149-161 / 5775MHz

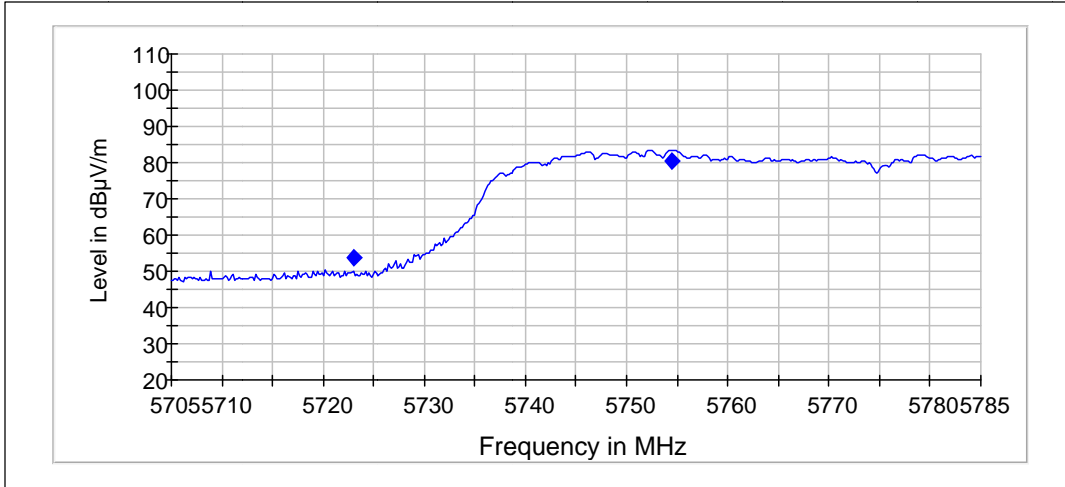


Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U _{RX} [dBµV]	A _{TOT} [dB]	Results
5723.838	51.08	357.973	43.02	8.06	PASSED
5748.387	85.04	17856.651	77.98	7.06	PASSED

2.3.6 802.11n, QPSK modulation, MCS1: 58.5 Mbps data rate, 80MHz BW.

Channel 149-161 / 5775MHz



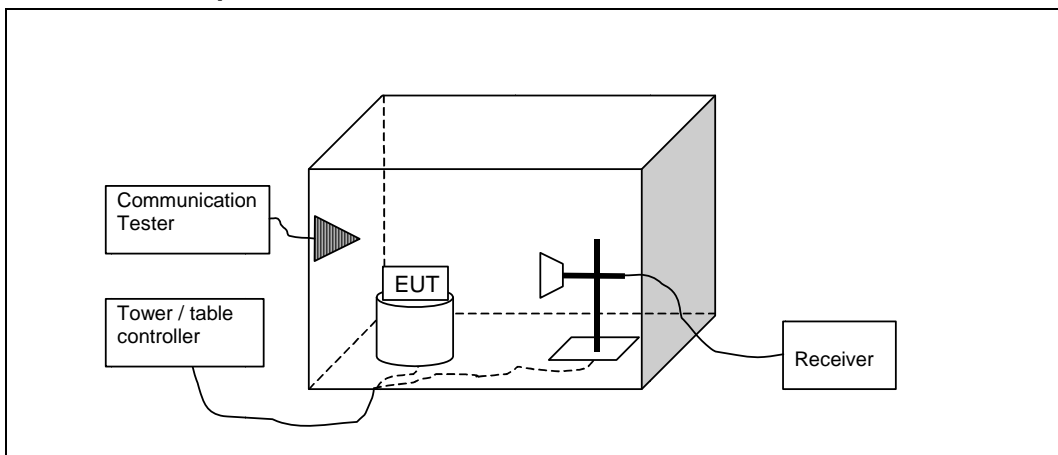
Peak (RBW: 1 MHz, VBW: 3 MHz)

Frequency [MHz]	E [dBµV/m]	E [µV/m]	U _{RX} [dBµV]	A _{TOT} [dB]	Results
5722.996	53.94	497.622	46.84	7.1	PASSED
5754.399	80.48	10562.093	73.38	7.1	PASSED

3. Spurious radiated emissions (FCC §15.247(d), §15.209, RSS-210 A8.5)

EUT with DUT number	RM-927, DUT 30743
Accessories with DUT numbers	CA-190, DUT 30745 ; AC-60, DUT 30744 ; WH-902, DUT 30746
Operation Voltage [V] / [Hz]	115V / 60Hz
Results	PASSED
Remarks	
Temp [°C] / Humidity [%RH] / Air Pressure [kPa]	17.1 / 46.8 / 1050
Date of measurements	15-Aug-2013
Measured by	Tyrone Hawes

3.1.1 Test setup



3.2. Test method and limit

The measurement is made according to ANSI C63.4 and IC standard RSS-210 as follows:
The measurement is divided into the Preliminary Measurement and the Final Measurement.

The suspected frequencies are searched for in Preliminary Measurement with absorbers on the floor and measuring antenna at fixed height using 2-axis EUT position system.

The Final Measurement is performed in the Semi-Anechoic Chamber with conducting metal floor, if the Preliminary Measurement results are closer than 20 dB to the permissible value.

The EUT is placed at nonconductive plate at the turntable center.

For each suspected frequency, the turntable is rotated 360 degrees and antenna is scanned from 1 to 4 m. This is repeated for both horizontal and vertical receive antenna polarizations.

The emissions less than 20 dB below the permissible value are reported.

The measurement results are obtained as described below:

$$E [dB\mu V/m] = U_{RX} + A_{TOT}$$

Where U_{RX} is receiver reading and A_{TOT} is total correction factor including cable loss, antenna factor and preamplifier gain ($A_{TOT} = L_{CABLES} + A_F - G_{PREAMP}$).

Limits for spurious radiated emissions measurements (3 m measurement distance)

Frequency range [MHz]	Limit [$\mu V/m$]	Limit [dB $\mu V/m$]	Detector
30 - 88	100	40	Quasi peak
88 – 216	150	43.5	Quasi peak
216 – 960	200	46	Quasi peak
960 – 1000	500	54	Quasi peak
Above 1000	500	54	Average
Above 1000	5000	74	Peak

3.3. 5 GHz RLAN test results

3.3.1 802.11a, BPSK modulation, 9 Mbps data rate, 20MHz BW.

Channel 149 / 5745MHz

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11489.8	52.56	424.424	43.33	9.23	21.4	74	PASSED
17243.2	49.55	300.123	41.12	8.43	24.4	74	PASSED
22971.6	54.64	539.324	41.12	13.52	19.3	74	PASSED

Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11489.8	40.8	109.686	31.57	9.23	13.2	54	PASSED
17243.2	36.75	68.794	28.32	8.43	17.2	54	PASSED
22971.6	41.37	117.031	27.85	13.52	12.6	54	PASSED

Channel 157 / 5785MHz

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11569.8	53.23	458.67	44.29	8.94	20.7	74	PASSED
17351.5	49.42	295.801	41	8.43	24.6	74	PASSED
23146.1	53.17	455.25	39.83	13.34	20.8	74	PASSED

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
877.657	24.2	16.209	22.17	2.03	21.8	46	PASSED
917.662	25.61	19.068	22.5	3.11	20.4	46	PASSED
919.169	25.79	19.485	22.6	3.19	20.2	46	PASSED

Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11569.8	42.75	137.246	33.81	8.94	11.2	54	PASSED
17351.5	36.74	68.683	28.32	8.43	17.3	54	PASSED
23146.1	40.35	104.148	27.01	13.34	13.6	54	PASSED

Channel 165 / 5825MHz

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11650.1	55.1	568.918	46.12	8.98	18.9	74	PASSED
17434.3	48.88	278.035	40.74	8.15	25.1	74	PASSED
23300	54.62	537.96	40.61	14.01	19.4	74	PASSED

Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11650.1	48.35	261.397	39.37	8.98	5.6	54	PASSED
17434.3	35.95	62.741	27.81	8.15	18.0	54	PASSED
23300	41.28	115.838	27.27	14.01	12.7	54	PASSED

3.3.2 802.11n, QPSK modulation, MCS1: 13 Mbps data rate, 20MHz BW.

Channel 149 / 5745MHz

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11490.1	52.29	411.481	43.05	9.24	21.7	74	PASSED
17237.1	49.06	283.661	40.61	8.45	24.9	74	PASSED
22975.2	53.97	499.689	40.47	13.5	20	74	PASSED

Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11490.1	40.99	112.111	31.75	9.24	13	54	PASSED
17237.1	36.59	67.492	28.14	8.45	17.4	54	PASSED
22975.2	41.22	115.054	27.72	13.5	12.8	54	PASSED

Channel 157 / 5785MHz

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11569.8	53.66	481.892	44.72	8.94	20.3	74	PASSED
17349.4	49.07	284.25	40.6	8.47	24.9	74	PASSED
23131.1	53.81	490.399	40.35	13.47	20.2	74	PASSED

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
916.078	25.52	18.886	22.49	3.03	20.5	46	PASSED
931.264	25.64	19.145	22.39	3.25	20.4	46	PASSED
949.868	25.4	18.629	22.38	3.02	20.6	46	PASSED

Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11569.8	43.25	145.429	34.31	8.94	10.7	54	PASSED
17349.4	36.77	68.905	28.3	8.47	17.2	54	PASSED
23131.1	40.44	105.172	26.98	13.47	13.6	54	PASSED

Channel 165 / 5825MHz

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11650.1	55.24	577.763	46.26	8.98	18.7	74	PASSED
17442.6	48.54	267.178	40.48	8.06	25.5	74	PASSED
23292.4	54.03	503.037	40.34	13.69	20.0	74	PASSED

Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11650.1	47.53	237.821	38.55	8.98	6.5	54	PASSED
17442.6	35.72	61.087	27.66	8.06	18.3	54	PASSED
23292.4	40.89	110.764	27.2	13.69	13.1	54	PASSED

3.3.3 802.11n, BPSK modulation, MCS0: 13.5 Mbps data rate, 40MHz BW.

Channel 149+153 / 5755MHz

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11512.2	51.37	370.382	42.11	9.26	22.6	74	PASSED
17262.6	49.64	303.459	41.24	8.4	24.4	74	PASSED
23018.7	53.5	472.988	39.96	13.54	20.5	74	PASSED

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
914.849	25.46	18.746	22.5	2.96	20.6	46	PASSED
923.644	25.62	19.092	22.39	3.23	20.4	46	PASSED
932.26	25.62	19.105	22.38	3.24	20.4	46	PASSED

Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11512.2	38.29	82.139	29.03	9.26	15.7	54	PASSED
17262.6	36.62	67.795	28.22	8.4	17.4	54	PASSED
23018.7	40.84	110.091	27.3	13.54	13.1	54	PASSED

Channel 157+161 / 5795MHz

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11589.9	53.16	455.198	44.14	9.02	20.8	74	PASSED
17388.8	48.55	267.67	40.47	8.08	25.4	74	PASSED
23170.1	53.94	497.508	40.35	13.59	20.1	74	PASSED

Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11589.9	42.2	128.766	33.18	9.02	11.8	54	PASSED
17388.8	36.06	63.511	27.98	8.08	17.9	54	PASSED
23170.1	40.61	107.226	27.02	13.59	13.4	54	PASSED

3.3.4 802.11n, QPSK modulation, MCS1: 27.0 Mbps data rate, 40MHz BW.

Channel 149+153 / 5755MHz

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11509.9	53.53	474.624	44.26	9.27	20.5	74	PASSED
17267.2	49.11	285.397	40.7	8.41	24.9	74	PASSED
23023	53.45	470.273	39.93	13.52	20.5	74	PASSED

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
919.313	25.47	18.78	22.27	3.2	20.5	46	PASSED
953.853	25.21	18.216	22.17	3.05	20.8	46	PASSED
958.454	25.37	18.555	22.28	3.09	20.7	46	PASSED

Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11509.9	42.32	130.617	33.05	9.27	11.7	54	PASSED
17267.2	36.54	67.166	28.13	8.41	17.5	54	PASSED
23023	40.72	108.605	27.2	13.52	13.3	54	PASSED

Channel 157+161 / 5795MHz

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11590.1	54.54	533.396	45.52	9.02	19.4	74	PASSED
17366	48.9	278.484	40.83	8.07	25.1	74	PASSED
23199.2	53.37	466.069	39.53	13.84	20.6	74	PASSED

Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dB μ V/m]	E [μ V/m]	U _{RX} [dB μ V]	A _{TOT} [dB]	Margin	Limit [dB μ V/m]	Results
11590.1	45.96	198.564	36.94	9.02	8	54	PASSED
17366	36.14	64.143	28.07	8.07	17.9	54	PASSED
23199.2	40.73	108.805	26.89	13.84	13.3	54	PASSED

3.3.5 802.11n, BPSK modulation, MCS0: 29.3 Mbps data rate, 80MHz BW.

Channel 149-161 / 5775MHz

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Margin	Limit [dBμV/m]	Results
11543.8	51	354.773	41.95	9.05	23	74	PASSED
17328.2	49.09	284.61	40.84	8.26	24.9	74	PASSED
23095.6	53.4	467.951	39.92	13.48	20.6	74	PASSED

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Margin	Limit [dBμV/m]	Results
892.34	24.49	16.765	22.05	2.44	21.5	46	PASSED
919.969	25.51	18.854	22.28	3.23	20.5	46	PASSED
935.274	25.23	18.266	22.05	3.18	20.8	46	PASSED

Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Margin	Limit [dBμV/m]	Results
11543.8	37.91	78.605	28.86	9.05	16.1	54	PASSED
17328.2	36.41	66.176	28.16	8.26	17.6	54	PASSED
23095.6	40.04	100.415	26.56	13.48	13.9	54	PASSED

3.3.6 802.11n, QPSK modulation, MCS1: 58.5 Mbps data rate, 80MHz BW.

Channel 149-161 / 5775MHz

Peak (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Margin	Limit [dBμV/m]	Results
11550.1	53	446.529	43.98	9.02	21	74	PASSED
17317.2	49.36	293.731	41.09	8.28	24.6	74	PASSED
23104.5	53	446.735	39.53	13.47	21	74	PASSED

Quasi peak (RBW: 100 kHz, VBW: 100 kHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Margin	Limit [dBμV/m]	Results
917.359	25.26	18.321	22.17	3.09	20.8	46	PASSED
924.451	25.39	18.606	22.16	3.23	20.6	46	PASSED
925.032	25.39	18.606	22.16	3.23	20.6	46	PASSED

Average (RBW: 1 MHz, VBW: 1 MHz)

Frequency [MHz]	E [dBμV/m]	E [μV/m]	U _{RX} [dBμV]	A _{TOT} [dB]	Margin	Limit [dBμV/m]	Results
11550.1	43.38	147.639	34.36	9.02	10.6	54	PASSED
17317.2	36.43	66.321	28.16	8.28	17.6	54	PASSED
23104.5	39.98	99.759	26.51	13.47	14	54	PASSED

4. Test Equipment

4.1. Conducted measurements

Eq. No	Equipment	Type	Manufacturer	Used in
4406	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
7602	Communication Tester	CMW500	R&S	22/24/27, 15C, 15B
7151	Bluetooth Tester	CBT	R&S	15B
-	GPS RX Antenna w/AMP	L1A-PM-NF	GPS Source	15C
-	GPS Inline amplifier	A11M-V-NF-NM	GPS Source	15C
-	GPS signal Splitter	S12-P110/5-NF	GPS Source	15C
-	GPS TX Antenna	L1P-PV-NF	GPS Source	15C
7912	Spectrum Analyzer	FSV-30	R&S	22/24/27, 15C
-	Thermal Chamber	VT-4002	Vötsch	22/24/27, 15C
-	Power splitter	11667B	Agilent	22/24/27, 15C
3396	EMC Analyzer	E7405A	HP	-
7451	EMI Receiver	ESU-26	R&S	22/24/27, 15C, 15B
4188	LISN 50 µH	ESH3-Z5	R&S	15C, 15B
6981	LISN 50 µH	ESH3-Z5	R&S	15C, 15B
-	Pulse Limiter	ESH3-Z2	R&S	15C, 15B
7582	Signal Generator	SMB100A	R&S	15C, 15B

4.2. Radiated measurements

Eq. No	Equipment	Type	Manufacturer	Used in
7591	Antenna	HL562	R&S	22/24/27, 15C, 15B
7572	Double Ridge Horn Antenna	3117	ETS-Lindgren	22/24/27, 15C
7607	Standard Gain HornAntenna	SAS 586	A.H. System	22/24/27, 15C
7624	Standard Gain HornAntenna	SAS 587	A.H. System	22/24/27, 15C
7561	Antenna	HFH2-Z2	R&S	15C, 15B
5715	Antenna	MBA-3030	EMC Automation	22/24/27, 15C
5712	Antenna	PLP3003	EMC Automation	22/24/27, 15C
7457	Relay Switch Unit	TS-RSP	R&S	22/24/27, 15C, 15B
7459	Relay Switch Unit	TS-RSP	R&S	22/24/27, 15C, 15B
5729	Relay Switch Unit	TS-RSP	R&S	22/24/27, 15C, 15B
5728	EMI Receiver	ESIB26	R&S	22/24/27, 15C, 15B
4406	Communication Tester	CMU200	R&S	22/24/27, 15C, 15B
7602	Communication Tester	CMW500	R&S	22/24/27, 15C, 15B
7151	Bluetooth Tester	CBT	R&S	15B
3406	Controller	Sc99V	Sunol	22/24/27, 15C, 15B
-	Controller	G-1000DXC	Yaesu	22/24/27, 15C, 15B
-	Computer Controller	GS-232B	Yaesu	22/24/27, 15C, 15B
7040	Preamplifier	TS-PR3	R&S	22/24/27, 15C, 15B
-	Preamplifier	AMF-6D-020180-29-20P	Miteq	22/24/27, 15C, 15B
-	Preamplifier	AMF-4D-01000800-30-29P	Miteq	22/24/27, 15C, 15B
-	Preamplifier	AMF-5F-18002650-25-10P	Miteq	22/24/27, 15C, 15B
-	High Pass Filter	4HC1700-1-KK	R&S	22
-	High Pass Filter	F-15041	RLC	22/24/27, 15C
-	Band Reject Filter	WRCA824/849-0,2-6SS	Wainwright	22
-	Band Reject Filter	WRCC1800/2000-0.2-10SS	Wainwright	24
-	Band Reject Filter	WRCG2400/2483-2390/2493-35/10SS	Wainwright	15C
-	Band Reject Filter	WRCG832/838-825/845-40/5SS	Wainwright	22
-	Band Reject Filter	WRCG1729.4/1735.4-1722.4/1742.4-40/6SS	Wainwright	27

Eq. No	Equipment	Type	Manufacturer	Used in
-	Band Reject Filter	WRCG1877/1883 - 1870/1890-40/6SS	Wainwright	24
-	Notch Filter	WRCD1880-1.1.25/50- 10SS	Wainwright	22/24/27
-	Notch Filter	WRCT902.4-0.4/40-8SS	Wainwright	-
Planned	Notch Filter	WRCJV2531/2539- 2523/2547-60/12SS	Wainwright	22/24/27
-	GPS RX Antenna w/AMP	L1A-PM-NF	GPS Source	15C
-	GPS Inline amplifier	A11M-V-NF-NM	GPS Source	15C
-	GPS signal Splitter	S12-P110/5-NF	GPS Source	15C
-	GPS TX Antenna	L1P-PV-NF	GPS Source	15C