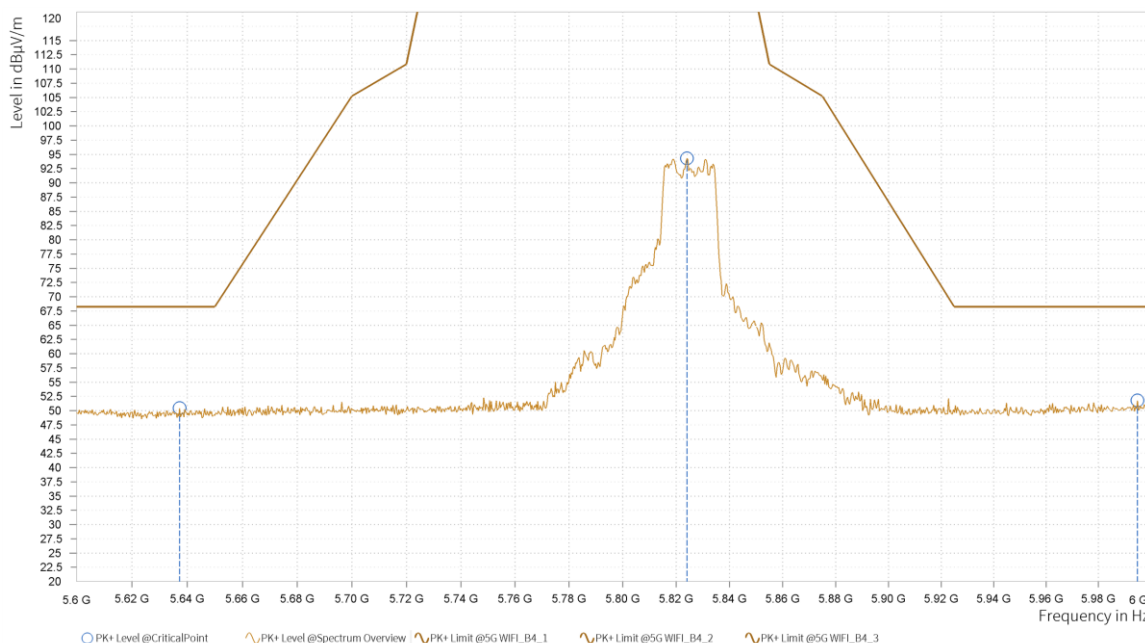




ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
11	5,637.188	50.42	68.20	17.78	18.09	V	359.1	1.00
12	5,824.063	94.33			18.33	V	1	1.00
13	5,995.125	51.78	68.20	16.42	19.14	V	30.6	2.00



REMARKS:

13. Emission Level = Read Level+ Antenna FAXtor + Cable Loss- Preamp FAXtor
14. Margin value = Limit value- Emission level.
15. 5825MHz: Fundamental frequency.

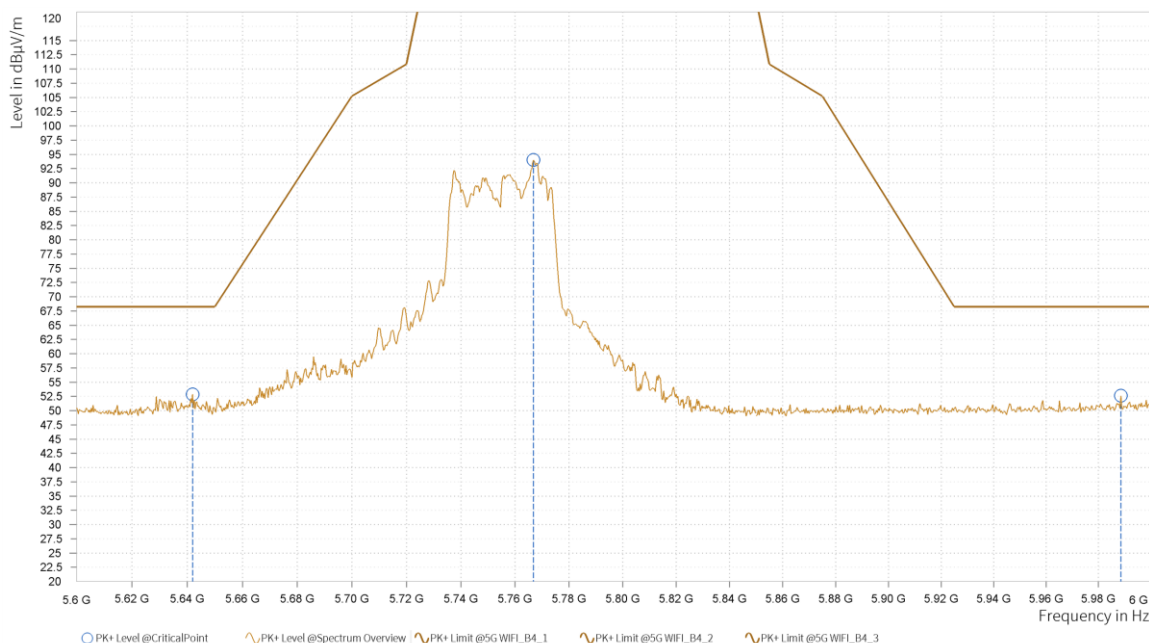


802.11AX (40MHz) _RU FULL

CHANNEL	TX Channel 151	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

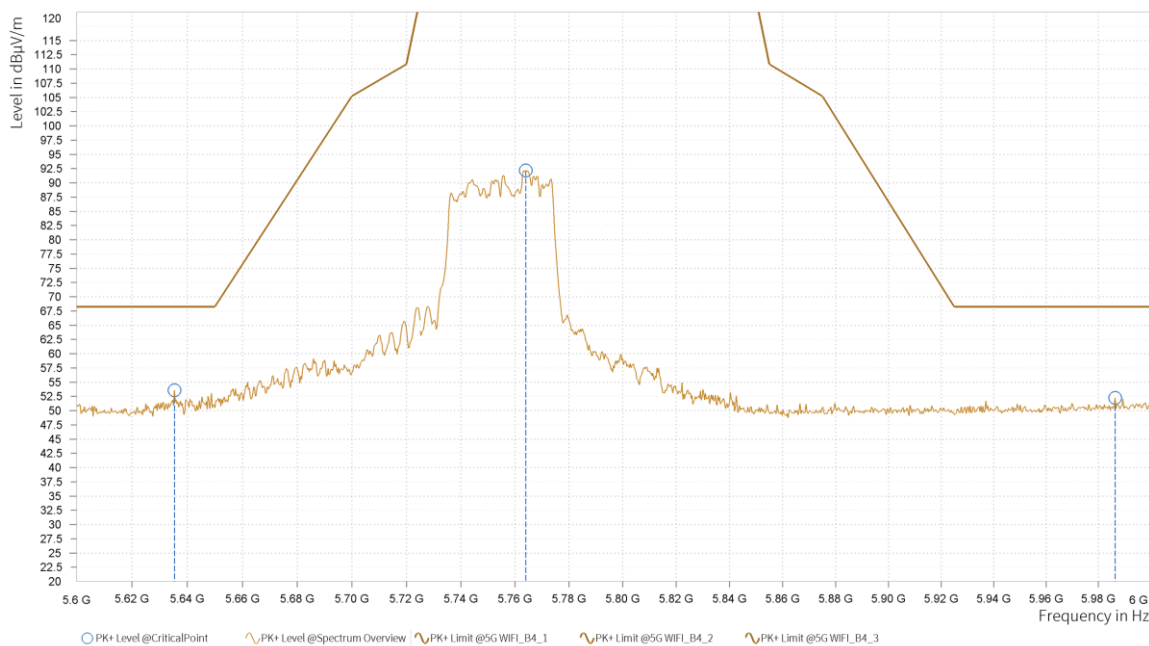
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
10	5,641.875	52.86	68.20	15.34	18.14	H	91	2.00
11	5,766.875	94.00			18.65	H	48.7	1.00
12	5,988.750	52.60	68.20	15.60	19.05	H	92.4	1.00





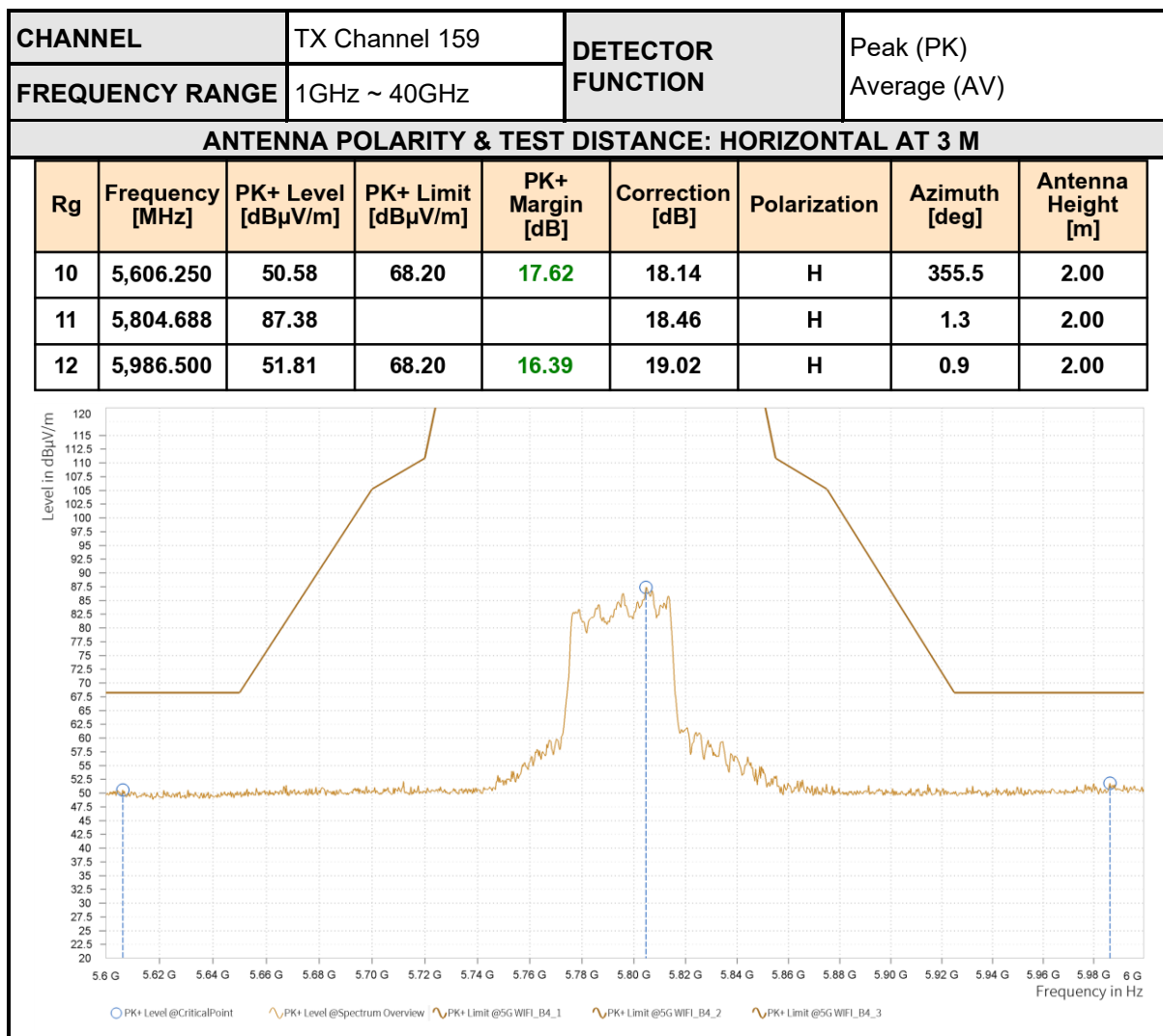
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
10	5,635.313	53.59	68.20	14.61	18.08	V	5	1.00
11	5,764.063	92.20			18.66	V	1	1.00
12	5,986.500	52.24	68.20	15.96	19.02	V	114.9	2.00



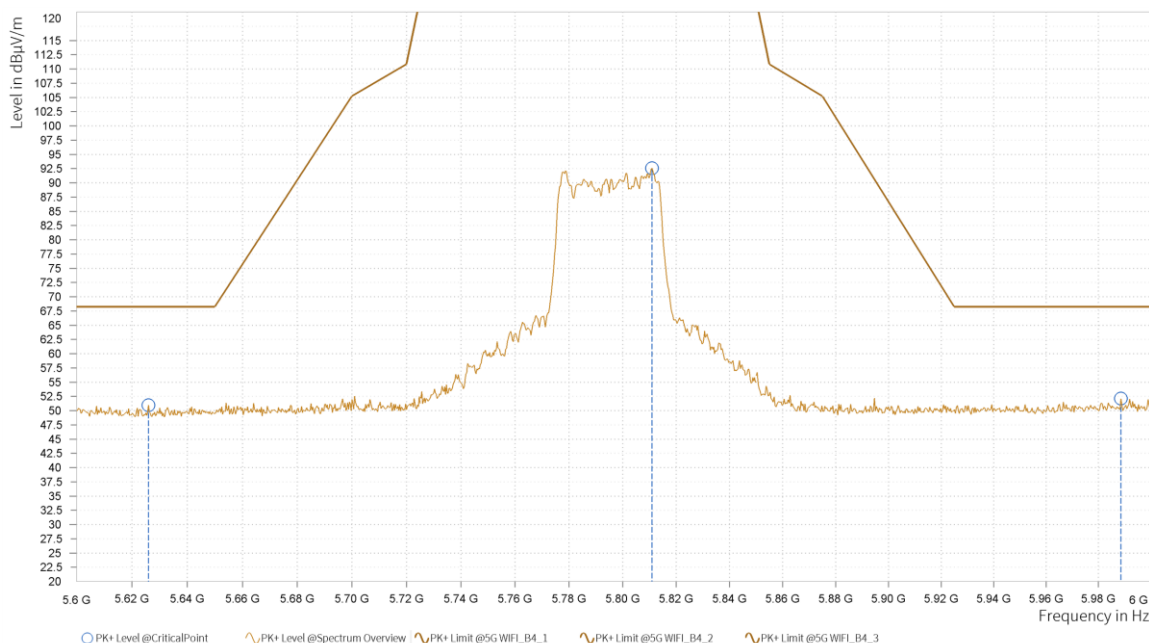
REMARKS:

- Emission Level = Read Level+ Antenna FAXtor + Cable Loss- Preamp FAXtor
- Margin value = Limit value- Emission level.
- 5755MHz: Fundamental frequency.



**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
10	5,625.938	50.97	68.20	17.23	17.99	V	303.1	1.00
11	5,810.938	92.58			18.42	V	251.8	1.00
12	5,988.750	52.12	68.20	16.08	19.05	V	359	1.00

**REMARKS:**

- Emission Level = Read Level+ Antenna FAXtor + Cable Loss- Preamp FAXtor
- Margin value = Limit value- Emission level.
- 5795MHz: Fundamental frequency.

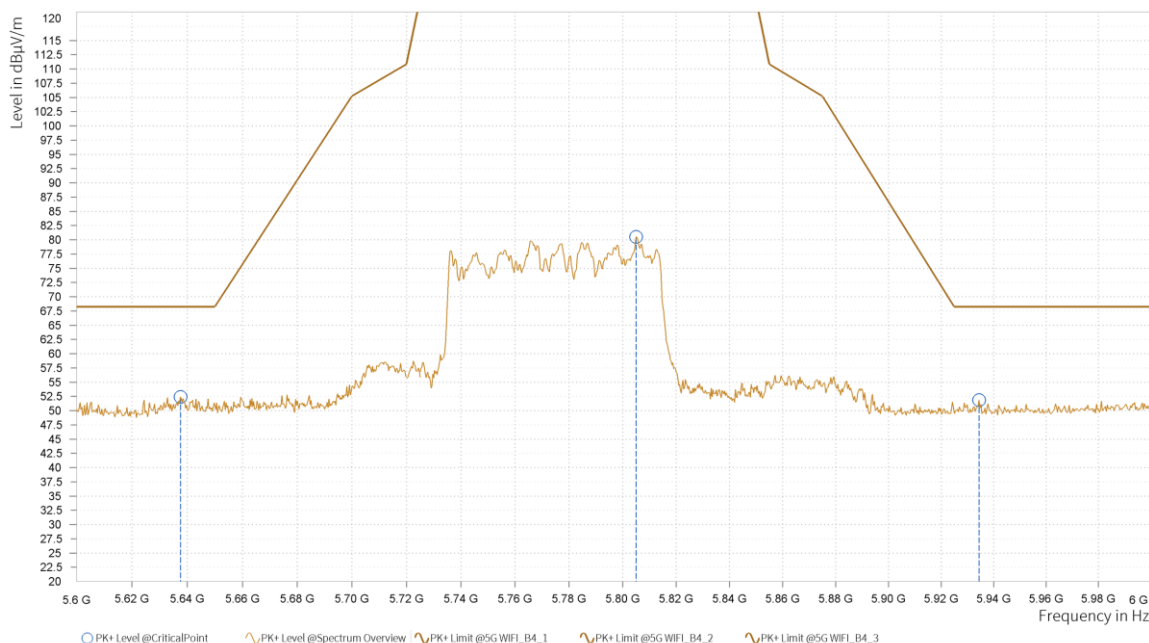


802.11AX (80MHz) _RU FULL

CHANNEL	TX Channel 155	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,637.500	52.41	68.20	15.79	18.10	H	2.3	2.00
6	5,805.000	80.50			18.46	H	0.9	2.00
7	5,934.375	51.86	68.20	16.34	18.56	H	0.9	2.00

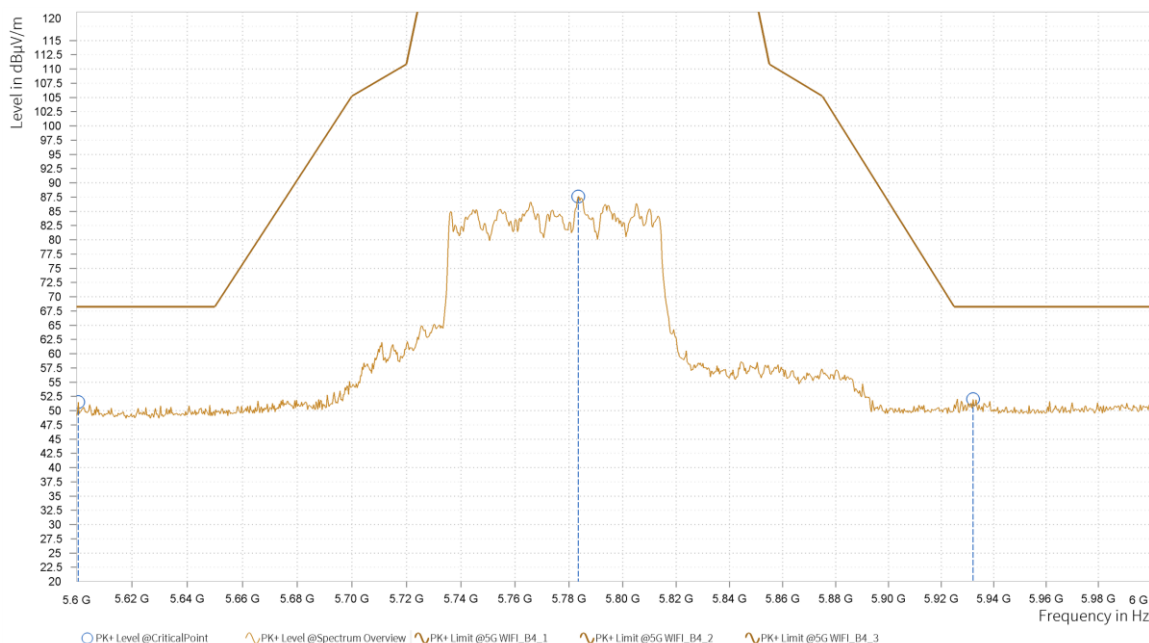




Test Report No.: PSU-QSU2411180418RF11

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+ Limit [dBμV/m]	PK+ Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
5	5,600.625	51.50	68.20	16.70	18.22	V	133.4	2.00
6	5,783.438	87.58			18.57	V	1	1.00
7	5,932.125	52.00	68.20	16.20	18.55	V	359.1	1.00



REMARKS:

4. Emission Level = Read Level+ Antenna FAXtor + Cable Loss- Preamp FAXtor
5. Margin value = Limit value- Emission level.
6. 5775MHz: Fundamental frequency.



RADIATED EMISSION

BELOW 1GHz WORST-CASE DATA

Band 3

802.11n(20MHz)

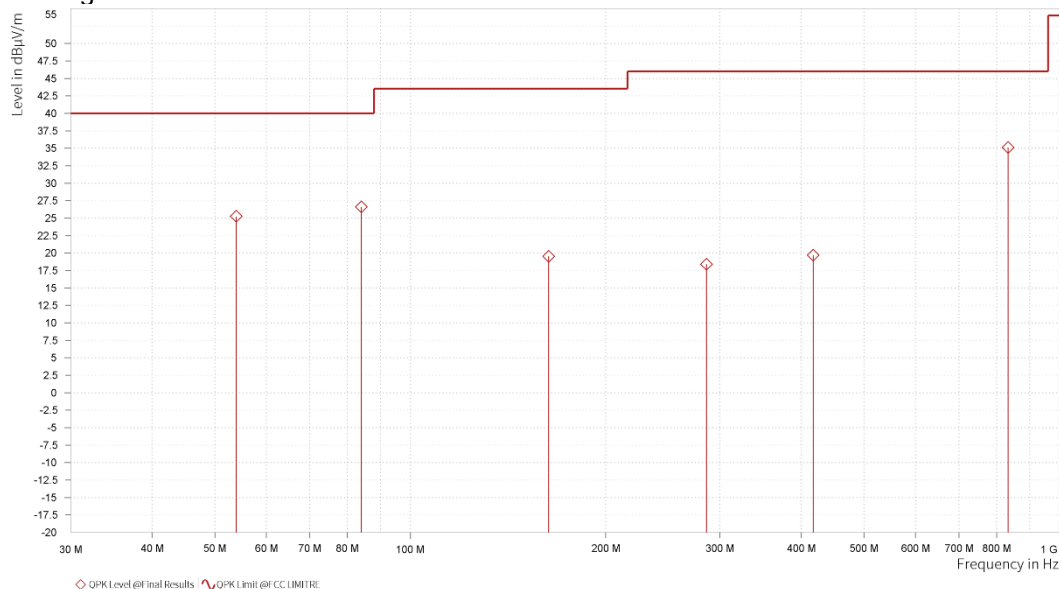
CHANNEL	TX Channel 140	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	QPK Level [dBμV/m]	QPK Limit [dBμV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	53.959	25.23	40.00	14.77	-8.97	H	1	1.00	120.000
1	84.078	26.60	40.00	13.40	-15.17	H	206.6	2.00	120.000
1	163.375	19.53	43.50	23.97	-13.50	H	348.5	2.00	120.000
1	285.886	18.38	46.00	27.62	-6.78	H	5.6	1.00	120.000
1	417.321	19.69	46.00	26.31	-2.61	H	48.7	2.00	120.000
1	833.597	35.09	46.00	10.91	1.07	H	1	2.00	120.000

REMARKS:

1. Emission level (dBμV/m) = Read level (dBμV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Limit value- Emission level.





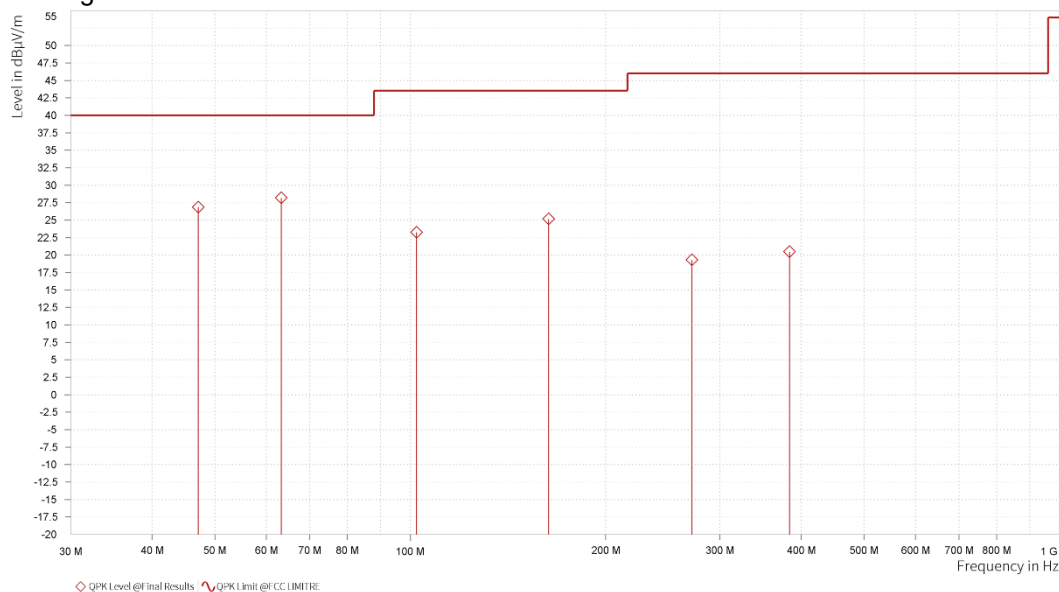
CHANNEL	Channel 140	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	QPK Level [dBμV/m]	QPK Limit [dBμV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	47.121	26.86	40.00	13.14	-9.72	V	69.1	2.00	120.000
1	63.271	28.17	40.00	11.83	-13.27	V	359.1	1.00	120.000
1	102.265	23.25	43.50	20.25	-11.09	V	1	2.00	120.000
1	163.327	25.16	43.50	18.34	-13.04	V	1	1.00	120.000
1	271.579	19.28	46.00	26.72	-7.73	V	69.1	2.00	120.000
1	383.856	20.46	46.00	25.54	-3.58	V	359.1	1.00	120.000

REMARKS:

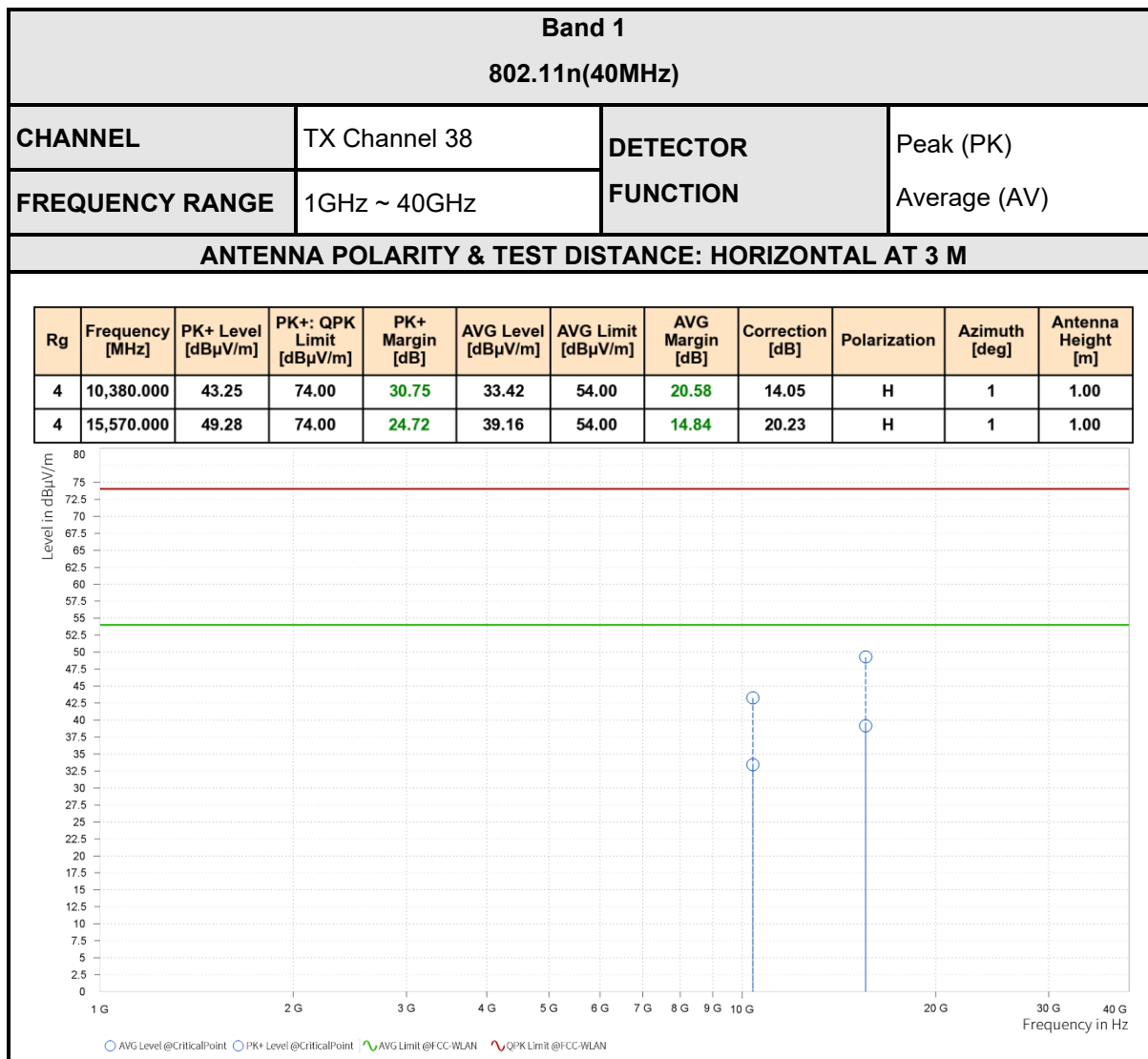
1. Emission level (dBuV/m) = Read level (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Limit value- Emission level.



**ABOVE 1GHz WORST-CASE DATA**

Note: 1. For higher frequency, the emission is too low to be detected.

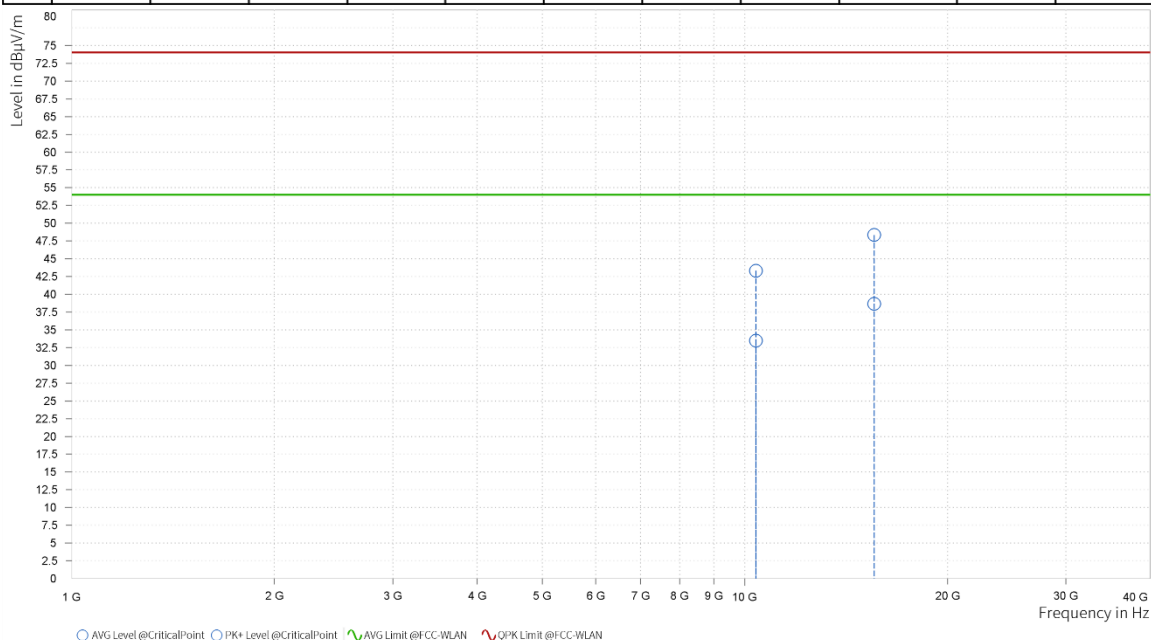
2. For radiated emission testing, all supported channels, bandwidths and modes have been tested, the report only shown the worst-case data of each sub-band.





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+: QPK Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	10,380.000	43.32	74.00	30.68	33.49	54.00	20.51	14.05	V	1	1.00
4	15,570.000	48.35	74.00	25.65	38.68	54.00	15.32	20.23	V	1	1.00



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5210MHz: Fundamental frequency.



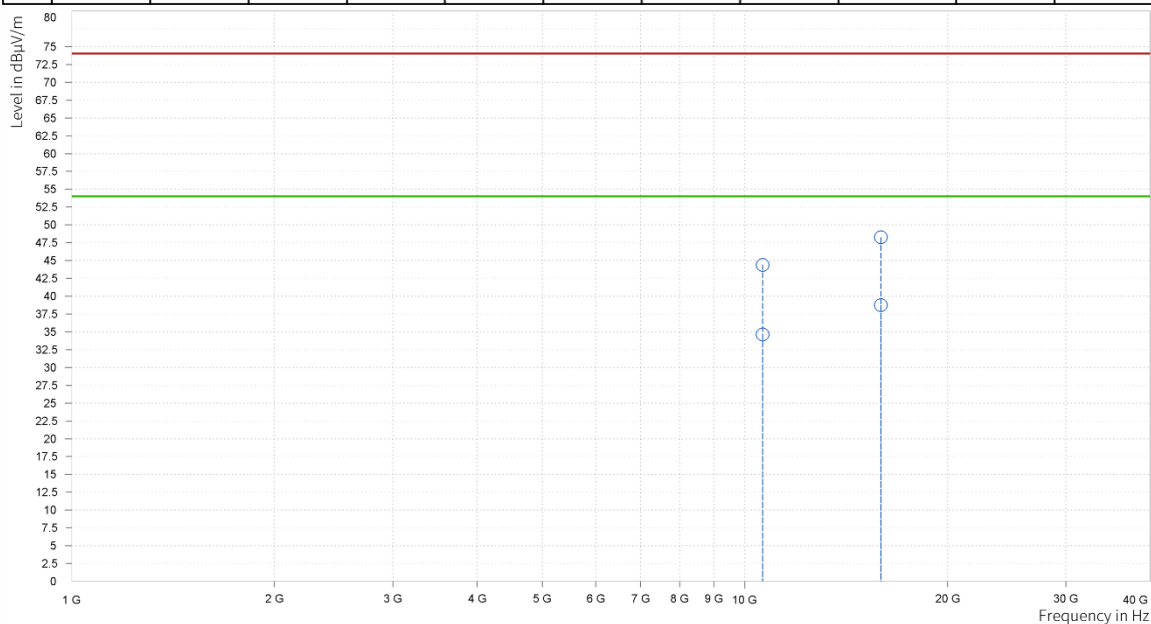
Band 2

802.11n(40MHz)

CHANNEL	TX Channel 62	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

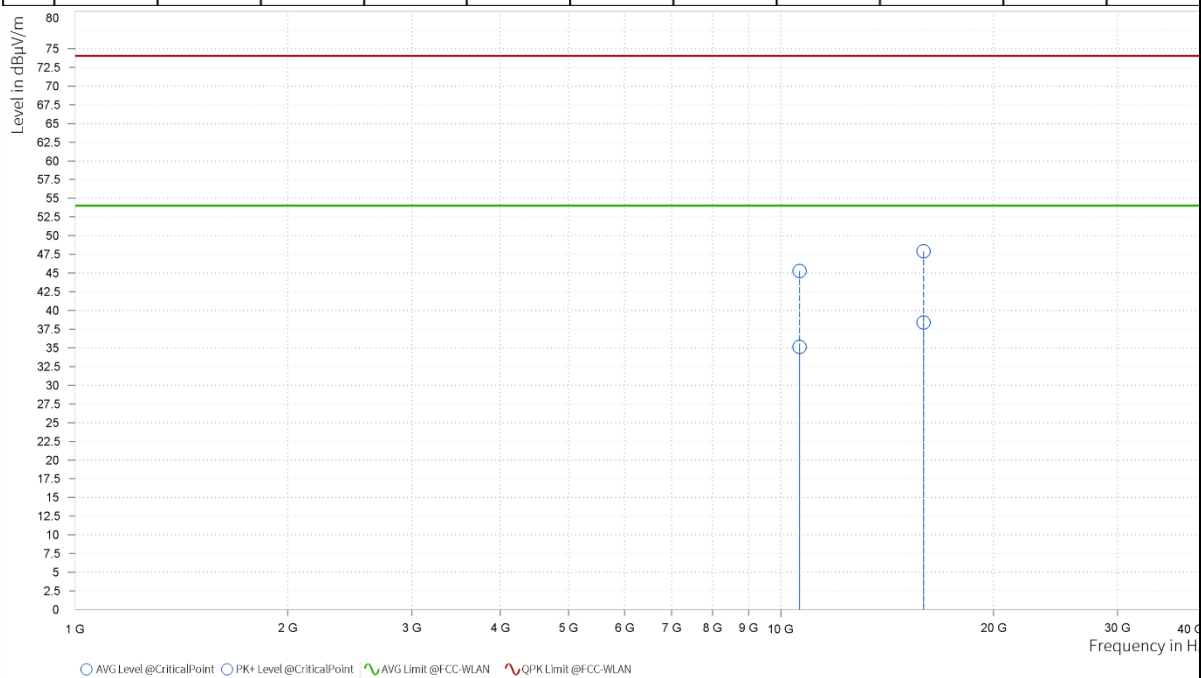
Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+: QPK Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	10,620.000	44.39	74.00	29.61	34.65	54.00	19.35	14.94	H	1	1.00
4	15,930.000	48.26	74.00	25.74	38.74	54.00	15.26	20.67	H	1	1.00





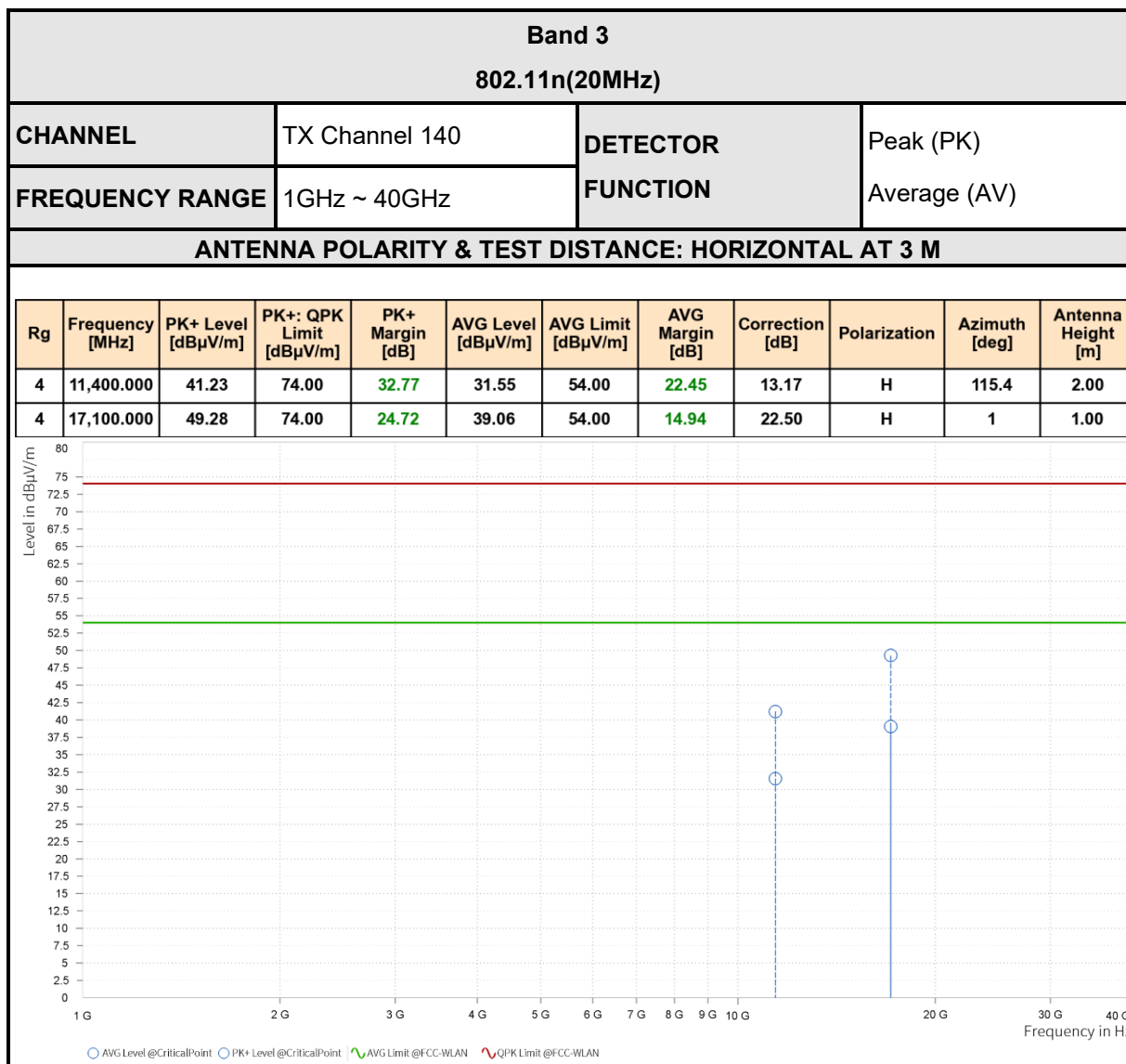
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+: QPK Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	10,620.000	45.27	74.00	28.73	35.12	54.00	18.88	14.94	V	1	1.00
4	15,930.000	47.90	74.00	26.10	38.40	54.00	15.60	20.67	V	1	1.00



REMARKS:

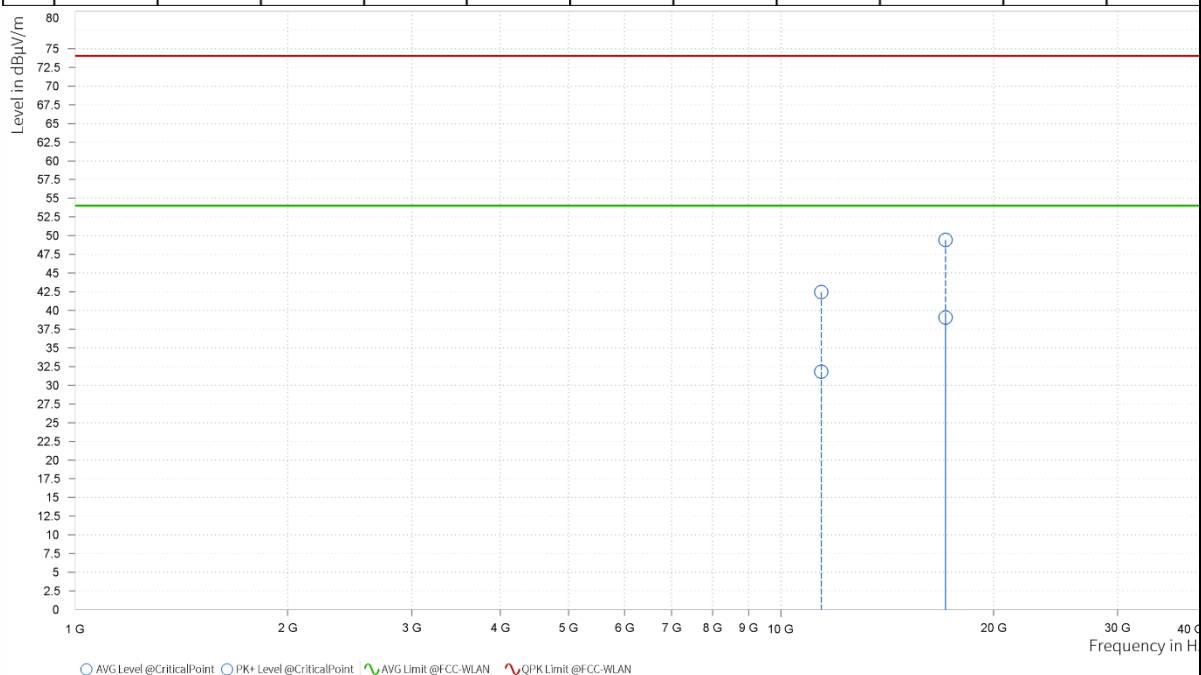
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5290MHz: Fundamental frequency.





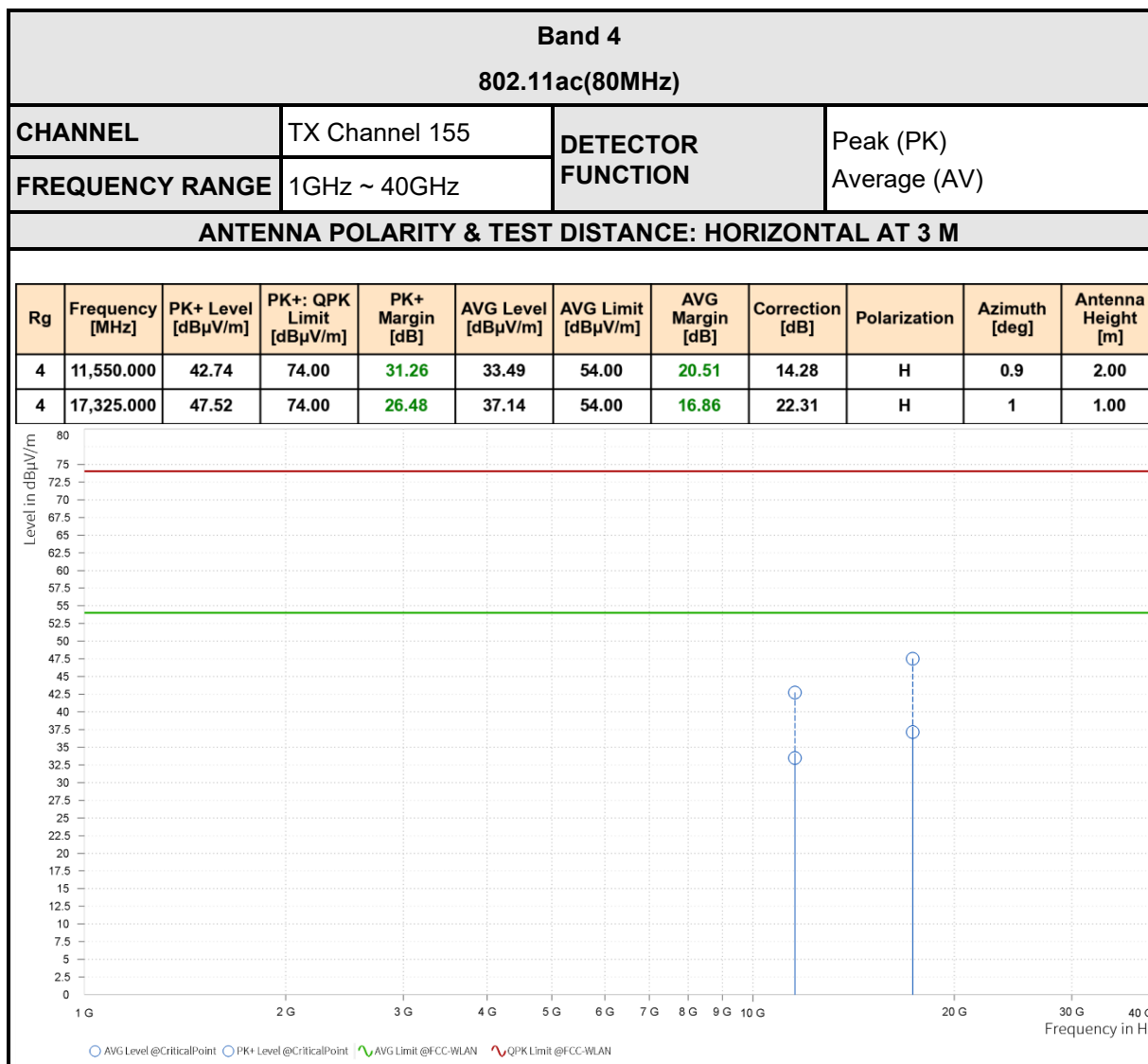
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+: QPK Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	11,400.000	42.46	74.00	31.54	31.82	54.00	22.18	13.17	V	359	2.00
4	17,100.000	49.43	74.00	24.57	39.07	54.00	14.93	22.50	V	1	1.00



REMARKS:

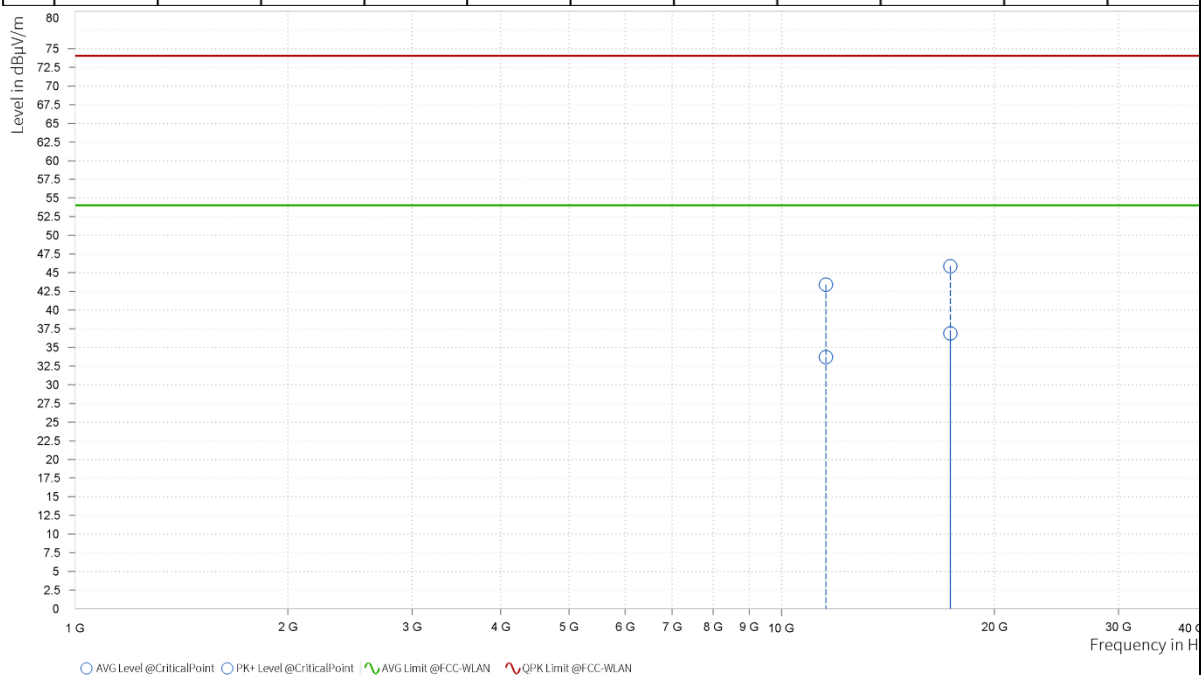
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5530MHz: Fundamental frequency.
4. #: Out of restricted band.





ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBμV/m]	PK+: QPK Limit [dBμV/m]	PK+ Margin [dB]	AVG Level [dBμV/m]	AVG Limit [dBμV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
4	11,550.000	43.39	74.00	30.61	33.71	54.00	20.29	14.28	V	1	2.00
4	17,325.000	45.87	74.00	28.13	36.86	54.00	17.14	22.31	V	1	1.00



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
2. Margin value = Limit value- Emission level.
3. 5785MHz: Fundamental frequency.



3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB μ V)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE:

- 1 The lower limit shall apply at the transition frequencies.
- 2 The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
- 3 All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR3	102749	Mar.28,24	Mar.27,26
ELEKTRA test software	Rohde&Schwarz	ELEKTRA	NA	N/A	N/A
LISN network	Rohde&Schwarz	ENV216	102640	Mar.28,24	Mar.27,26
CABLE	Rohde&Schwarz	W61.01	N/A	Apr.27,24	Apr.26,25
CABLE	Rohde&Schwarz	W61.01	N/A	Apr.26,25	Apr.25,26
CABLE	Rohde&Schwarz	W601	N/A	Apr.27,24	Apr.26,25
CABLE	Rohde&Schwarz	W601	N/A	Apr.26,25	Apr.25,26

NOTE:

1. The test was performed in CE shielded room.
2. The calibration interval of the above test instruments is 12/24 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.



3.2.3 TEST PROCEDURES

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

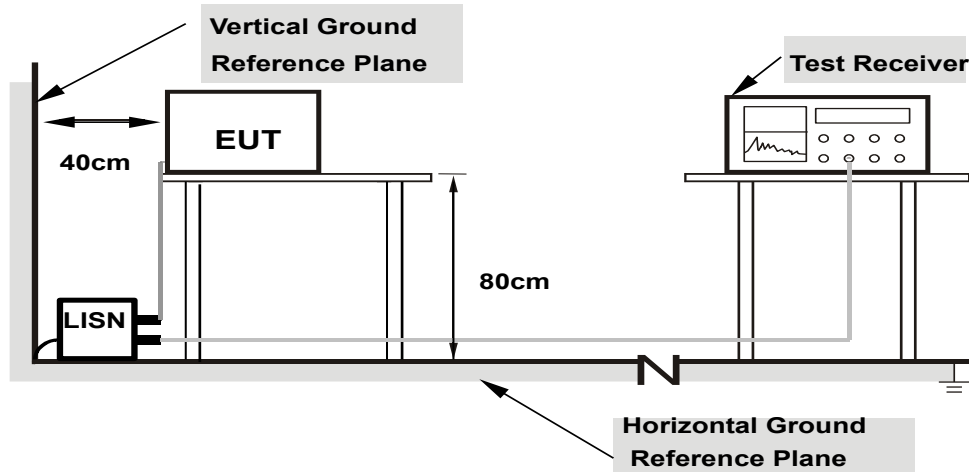
NOTE: All modes of operation were investigated and the worst-case emissions are reported.



3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

3.2.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.2.6 EUT OPERATING CONDITIONS

Same as 3.1.7.



3.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA							
FREQUENCY RANGE	150KHz ~ 30MHz	DETECTOR FUNCTION & RESOLUTION BANDWIDTH		Quasi-Peak (QP) / Average (AV), 9 kHz			
INPUT POWER	120Vac, 60Hz	ENVIRONMENTAL CONDITIONS		26deg. C, 51%RH			
TESTED BY	Hanwen Xu						
Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.179000	---	40.83	54.53	13.70	L1	ON	9.8
0.179000	54.75	---	64.53	9.78	L1	ON	9.8
0.247000	---	34.74	51.86	17.12	L1	ON	9.8
0.247000	48.54	---	61.86	13.32	L1	ON	9.8
3.335000	---	30.94	46.00	15.06	L1	ON	9.8
3.335000	44.04	---	56.00	11.96	L1	ON	9.8
4.987000	---	35.30	46.00	10.70	L1	ON	9.7
4.987000	48.10	---	56.00	7.90	L1	ON	9.7
8.603000	---	42.86	50.00	7.14	L1	ON	10.3
8.603000	54.86	---	60.00	5.14	L1	ON	10.3
10.555000	---	35.82	50.00	14.18	L1	ON	10.5
10.555000	47.41	---	60.00	12.59	L1	ON	10.5

REMARKS:

- Q.P. and AV. are abbreviations of quasi-peak and average individually.
- "-": The Quasi-peak reading value also meets average limit and
- measurement with the average detector is unnecessary.
- The emission levels of other frequencies were very low against the limit.
- Margin value = Limit value - Emission level
- Correction factor = Insertion loss + Cable loss
- Emission Level = Correction Factor + Reading Value.

Full Spectrum

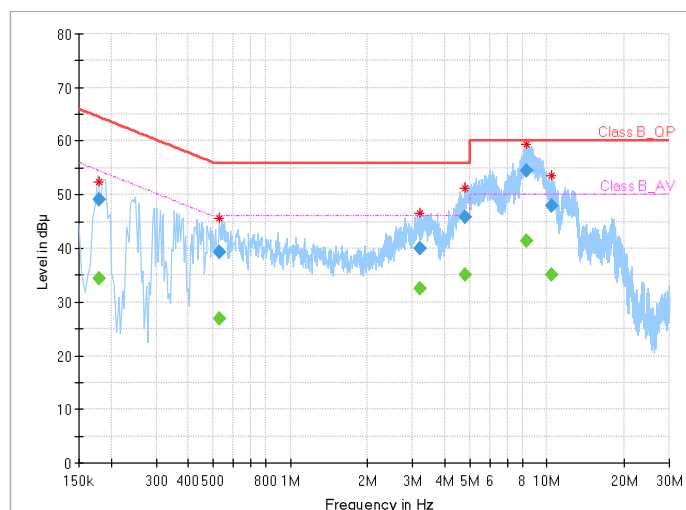


FREQUENCY RANGE		150KHz ~ 30MHz		DETECTOR FUNCTION & RESOLUTION BANDWIDTH		Quasi-Peak (QP) / Average (AV), 9 kHz		
INPUT POWER		120Vac, 60Hz		ENVIRONMENTAL CONDITIONS		26deg. C, 51%RH		
TESTED BY		Hanwen Xu						
	Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
	0.179000	---	34.31	54.53	20.22	N	ON	9.7
	0.179000	49.03	---	64.53	15.50	N	ON	9.7
	0.526000	---	26.81	46.00	19.19	N	ON	9.7
	0.526000	39.19	---	56.00	16.81	N	ON	9.7
	3.190000	---	32.58	46.00	13.42	N	ON	9.8
	3.190000	40.05	---	56.00	15.95	N	ON	9.8
	4.786000	---	35.20	46.00	10.80	N	ON	9.7
	4.786000	45.94	---	56.00	10.06	N	ON	9.7
	8.346000	---	41.43	50.00	8.57	N	ON	10.2
	8.346000	54.49	---	60.00	5.51	N	ON	10.2
	10.470000	---	35.02	50.00	14.98	N	ON	10.4
	10.470000	47.90	---	60.00	12.10	N	ON	10.4

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and
3. measurement with the average detector is unnecessary.
4. The emission levels of other frequencies were very low against the limit.
5. Margin value = Limit value - Emission level
6. Correction factor = Insertion loss + Cable loss
7. Emission Level = Correction Factor + Reading Value.

Full Spectrum





3.3 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

3.3.1 LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
	B	Indoor Access Point	1 Watt (30 dBm)
	√	Client devices	250mW (24 dBm)
U-NII-2A	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	√		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3	√		1 Watt (30 dBm)

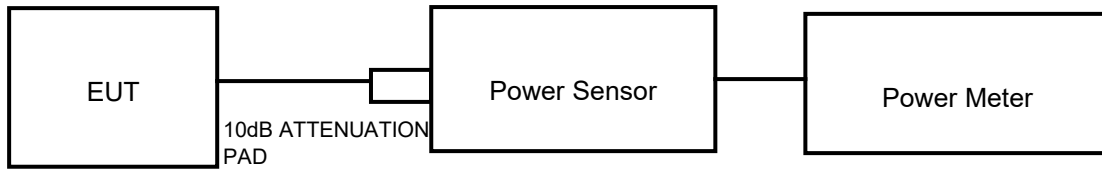
NOTE: Where B is the 26dB emission bandwidth in MHz.



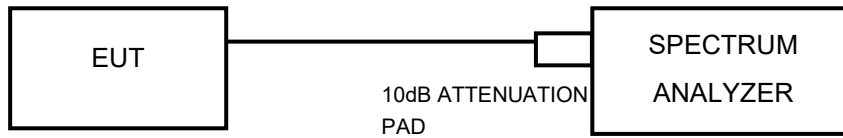
3.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT

802.11a, 802.11n/ac/ax (20MHz), 802.11 n/ac/ax (40MHz) ,802.11 ac/ax (160MHz) TEST CONFIGURATION



FOR 26dB BANDWIDTH



**3.3.3 TEST INSTRUMENTS**

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	R&S	ESW 44	101973	Mar.28,24	Mar.27,26
Open Switch and Control Unit	R&S	OSP-B157W8	100836	N/A	N/A
Vector Signal Generator	R&S	SMBV100B	102176	Mar.29,24	Mar.28,26
Signal Generator	R&S	SMB100A03	182185	Mar.29,24	Mar.28,26
WIDEBANDRADIO COMMUNICATION TESTER	R&S	CMW500	169399	Jun.19,24	Jun.18,26
Hygrothermograph	DELI	20210528	SZ015	Sep.06,23	Sep.05,25
PC	LENOVO	E14	HRSW0024	N/A	N/A
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.27,24	Apr.26,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-069	Apr.26,25	Apr.25,26
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.27,24	Apr.26,25
CABLE	R&S	J12J103539-00-1	SEP-03-20-070	Apr.26,25	Apr.25,26
Test Software	EMC32	EMC32	N/A	N/A	N/A
Temperature Chamber	votsch	VT4002	58566078100050	May.30,24	May.29,26
Power Meter	R&S	NRX	102380	Mar.28,24	Mar.27,26
Power Meter probe	R&S	NRP6A	102942	Mar.28,24	Mar.27,26



Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Meter	ANRITSU	ML2495A	1506002	Feb. 13,24	Feb. 12,25
Power Meter	ANRITSU	ML2495A	1506002	Feb. 12,25	Feb. 11,26
EXA Signal Analyzer	KEYSIGHT	N9010A-526	MY54510523	Feb. 13,24	Feb. 12,25
EXA Signal Analyzer	KEYSIGHT	N9010A-526	MY54510523	Feb. 12,25	Feb. 11,26
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.09,24	May.08,25
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.08,25	May.07,26
Power Sensor	ANRITSU	MA2411B	1339352	Feb. 13,24	Feb. 12,25
Power Sensor	ANRITSU	MA2411B	1339352	Feb. 12,25	Feb. 11,26
10dB Attenuator	JFW/USA	50HF-010-SMA	N/A	May. 05,24	May. 04,25
10dB Attenuator	JFW/USA	50HF-010-SMA	N/A	May. 04,25	May. 03,26

NOTE:

1. The calibration interval of the above test instruments is 12 /24months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in RF Oven room.



3.3.4 TEST PROCEDURE

FOR POWER MEASUREMENT

For 802.11a, 802.11n/ac/ax (20MHz), 802.11 n/ac/ax (40MHz) ,802.11 ac/ax (160MHz)

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

FOR 99 PERCENT OCCUPIED BANDWIDTH

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW $\geq 3 \cdot$ RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

FOR 26dB BANDWIDTH

- 1) Set RBW = approximately 1% of the emission bandwidth.
- 2) Set the VBW > RBW.
- 3) Detector = Peak.
- 4) Trace mode = max hold.
- 5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.



FOR 6dB BANDWIDTH

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

3.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.



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3.3.7 TEST RESULTS

Please Refer to Appendix B of this test report.

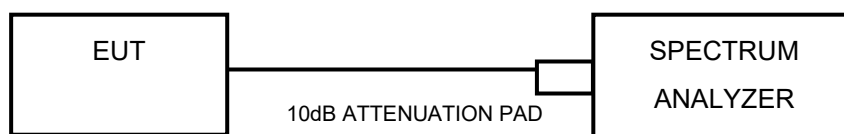


3.4 MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
		Indoor Access Point	
	√	Client devices	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

3.4.2 TEST SETUP



3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.



3.4.4 TEST PROCEDURES

Using method SA-2(Band1/2/3)

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1 MHz, Set VBW $\geq$ 3 MHz, Detector = RMS
- 3) Set Channel power measure = 1MHz
- 4) Sweep time = auto, trigger set to "free run".
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Add $10 \log (1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission).
- 7) Record the max value

Using method SA-2 (Band4)

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 300 kHz, Set VBW $\geq$ 1 MHz, Detector = RMS
- 3) Set Channel power measure = 1MHz
- 4) Sweep time = auto, trigger set to "free run".
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Add $10 \log(500\text{kHz}/\text{RBW})$ to the test result. $10 \log(500\text{kHz}/300\text{KHZ}) = 2.22\text{dBm}$
- 7) Add $10 \log (1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission).
- 8) Record the max value

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.1.7.



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3.4.7 TEST RESULTS

Please Refer to Appendix B of this test report.



3.5 AUTOMATICALLY DISCONTINUE TRANSMISSION

3.5.1 LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information, or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

3.5.2 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.5.3 TEST RESULT

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving。 The EUT can detect the controlling of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.



3.6 ANTENNA REQUIREMENTS

3.6.1 STANDARD APPLICABLE

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmits power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.6.2 ANTENNA CONNECTED CONSTRUCTION

An embedded-in antenna design is used.



3.6.3 ANTENNA GAIN

According to FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain=GANT +Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain= $10 \log(NANT/ Nss)$ dB;

For power measurements on IEEE 802.11 devices, Array Gain = 0 dB for $NANT \leq 4$;

The EUT supports Cyclic Delay Diversity (CDD) mode,

For power measurements, the directional GANT is set equal to the antenna having the highest gain as following formulas.

Directional Gain = Max.Gain + Array Gain.

For PSD measurements, the directional GANT is calculation is following F)2)f)ii of KDB 662911 D01 v02r01.

The directional gain is calculated as following table.

	Band	Ant 6 (dBi)	Ant 8 (dBi)	DG For Power (dBi)	DG For PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
5GHz	U-NII 1	0.63	0.18	0.63	3.42	0	0
	U-NII 2A	0.63	0.18	0.63	3.42	0	0
	U-NII 2C	0.63	0.18	0.63	3.42	0	0
	U-NII 3	0.63	0.18	0.63	3.42	0	0

NOTE :DG= directional gain, Power Limit Reduction = DG For Power Gain -6dbi<0

PSD Limit Reduction = DG For PSD – 6dBi<0. Therefore, it is not necessary to reduce maximum peak output power and PSD limit.



4. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



5. MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

--END--