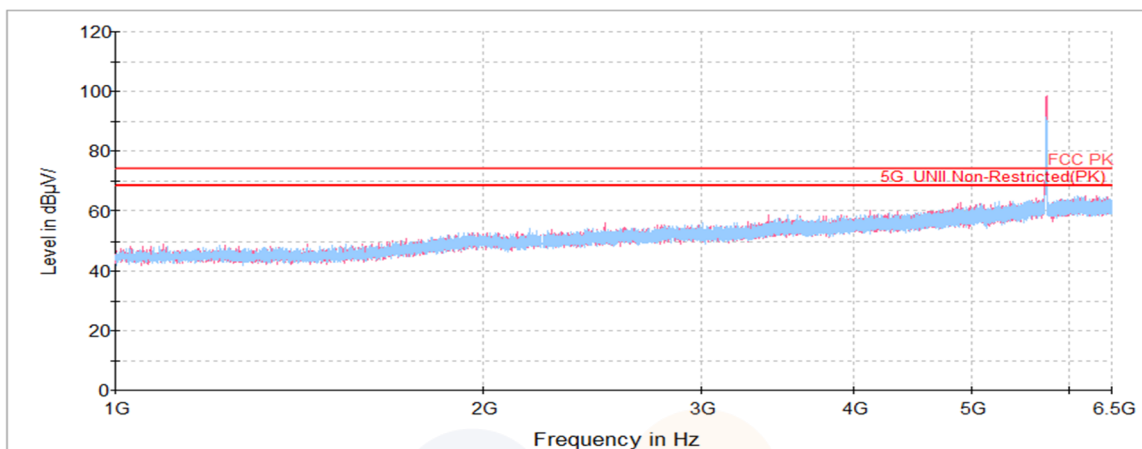
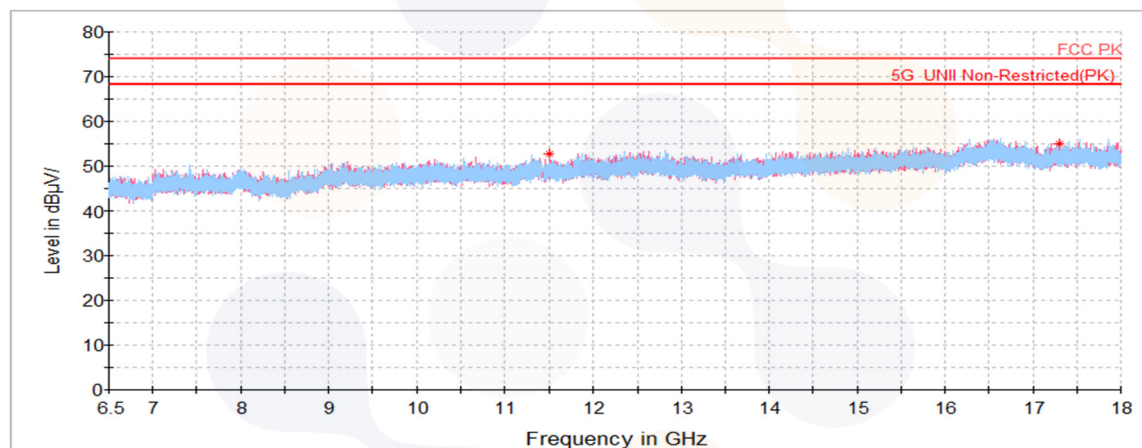


Horizontal/Vertical for 1 GHz ~ 6.5 GHz



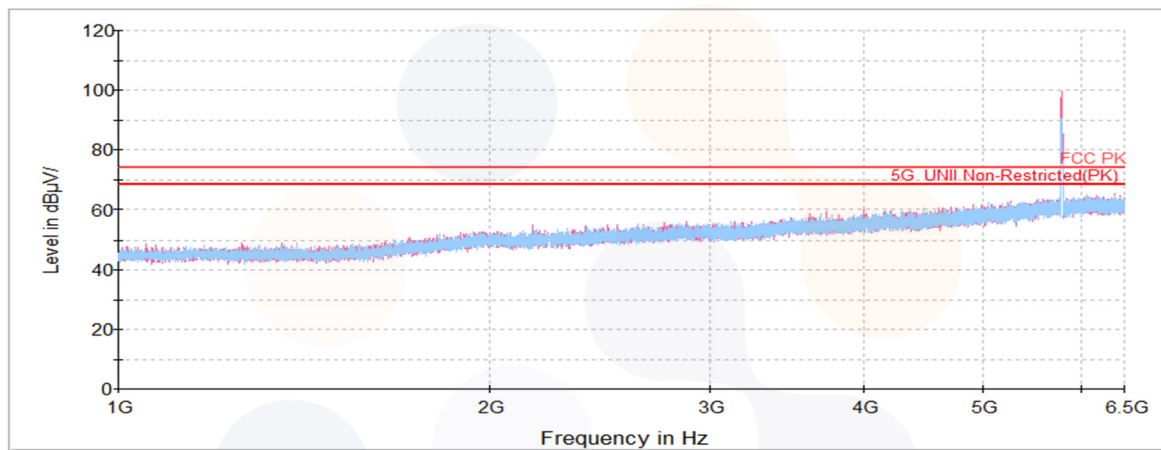
Horizontal/Vertical for 6.5 GHz ~ 18 GHz



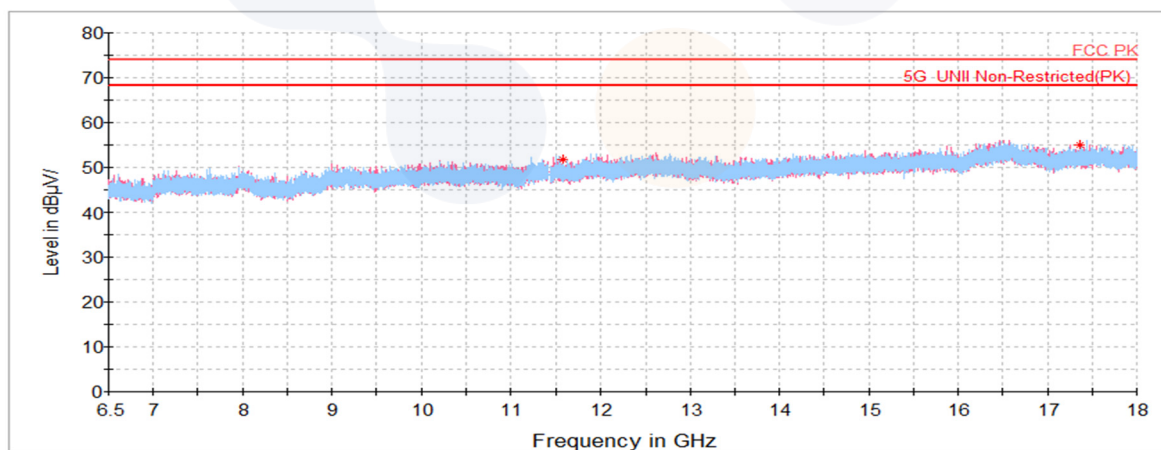
Middle Channel (5 785 MHz)

Frequency	Pol.	Reading	Antenna Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
11 574.95 ¹⁾	H	51.36	38.27	-38.06	-	51.57	74.00	22.43
17 371.33	H	47.22	41.80	-34.07	-	54.95	68.20	13.25
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

Horizontal/Vertical for 1 GHz ~ 6.5 GHz



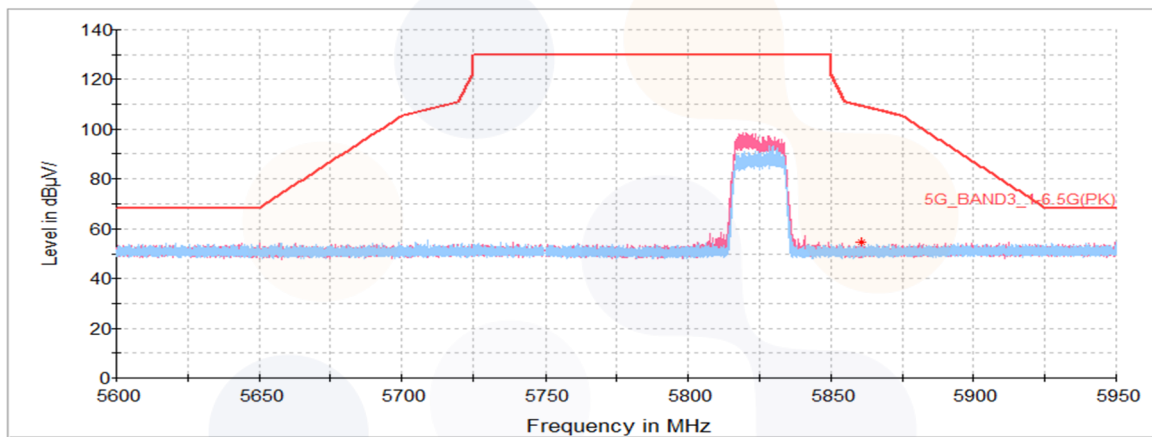
Horizontal/Vertical for 6.5 GHz ~ 18 GHz



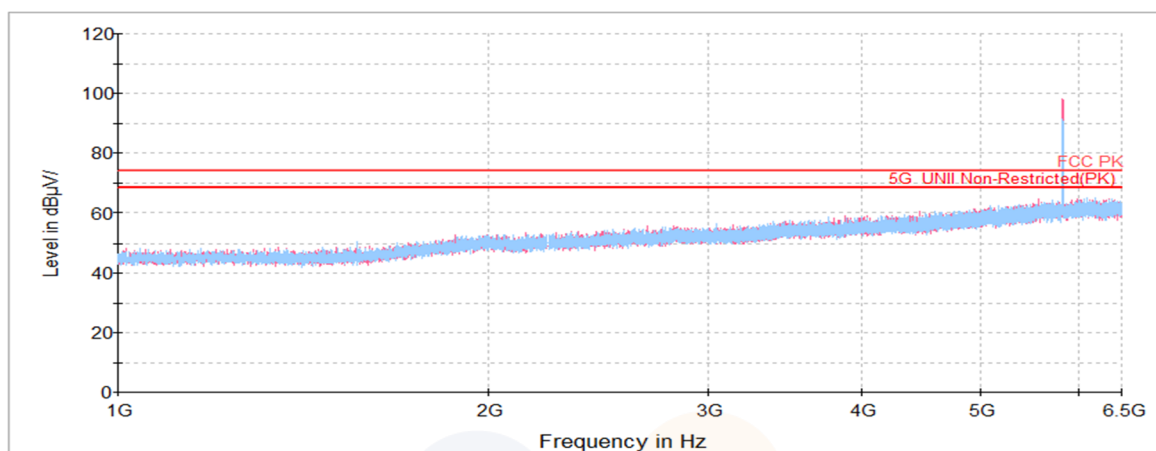
Highest Channel (5 825 MHz)

Frequency	Pol.	Reading	Antenna Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 860.84	V	42.89	35.03	-23.38	-	54.54	109.16	54.62
11 670.02 ¹⁾	V	50.96	38.37	-38.02	-	51.31	74.00	22.69
17 483.27	H	46.44	41.89	-33.81	-	54.52	68.20	13.68
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

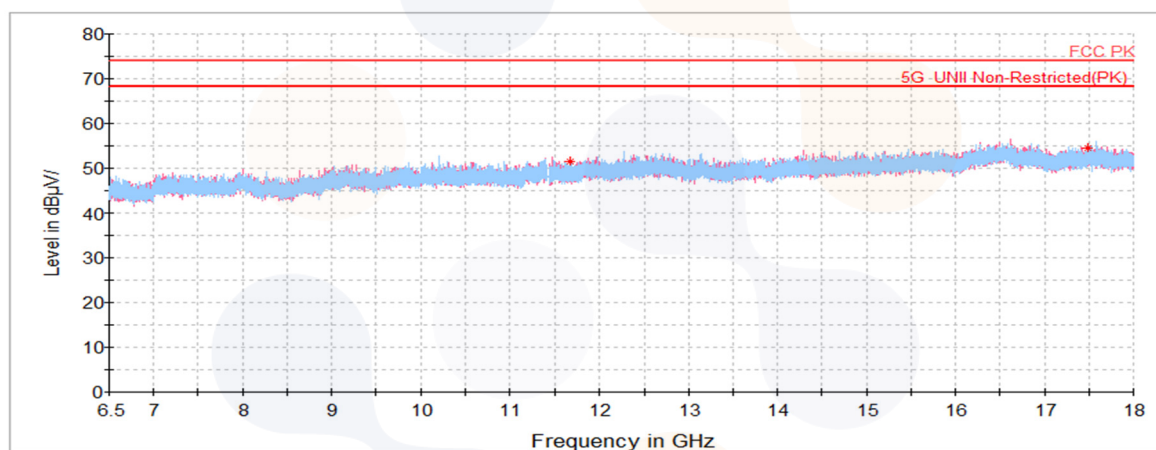
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 6.5 GHz



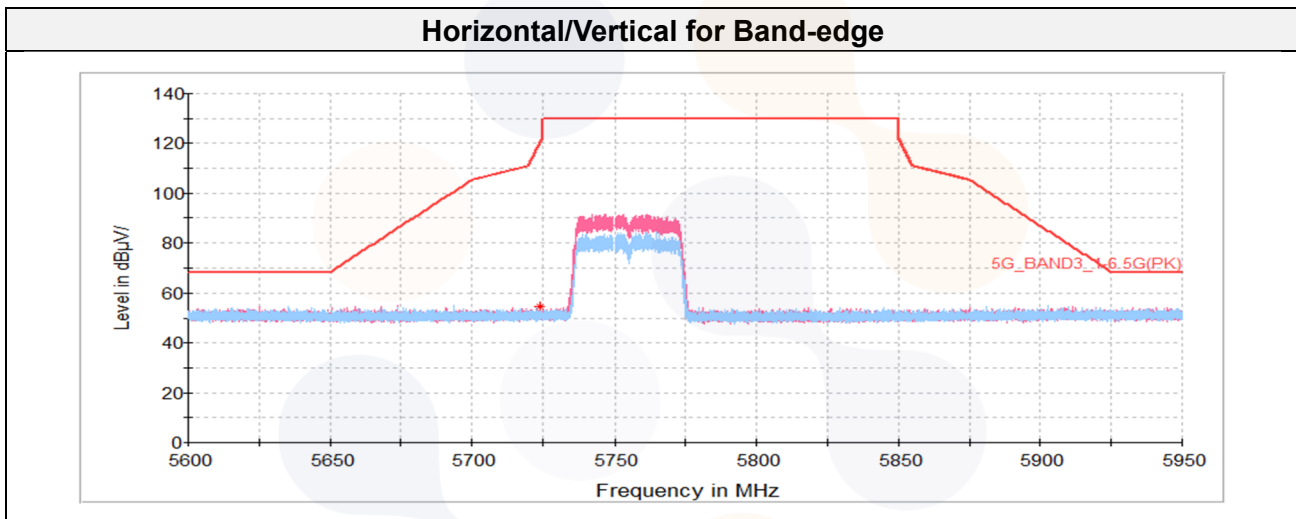
Horizontal/Vertical for 6.5 GHz ~ 18 GHz



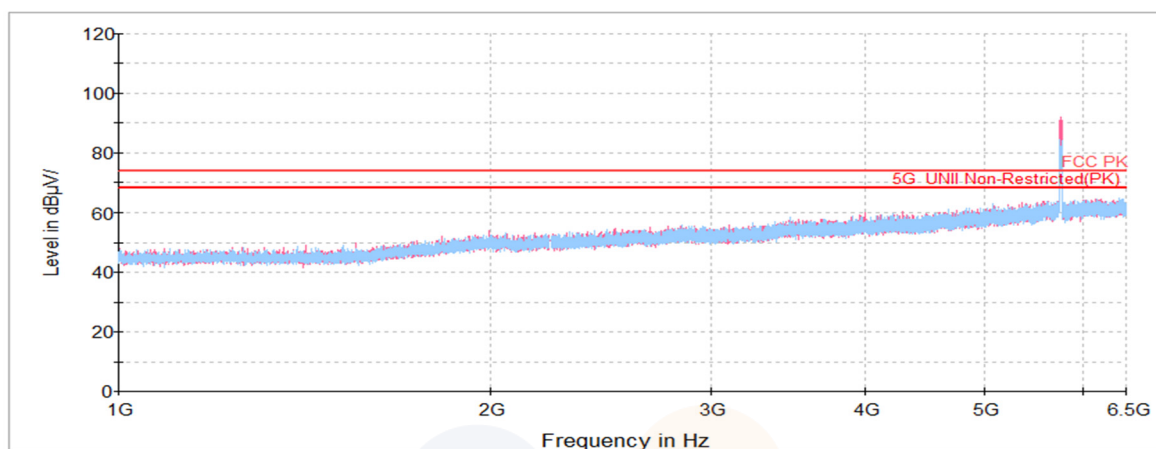
UNII 3 802.11n HT40

Lowest Channel (5 755 MHz)

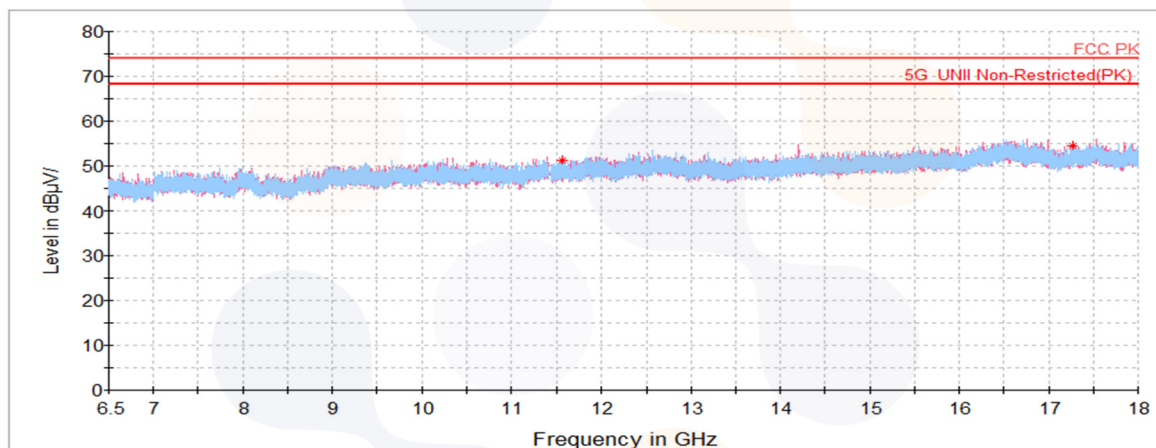
Frequency	Pol.	Reading	Antenna Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 724.10	H	43.36	34.87	-23.37	-	54.86	120.14	65.28
11 555.78 ¹⁾	V	51.08	38.26	-38.07	-	51.27	74.00	22.73
17 267.07	H	47.06	41.71	-34.31	-	54.46	68.20	13.74
Average Data								
No spurious emissions were detected within 20 dB of the limit.								



Horizontal/Vertical for 1 GHz ~ 6.5 GHz



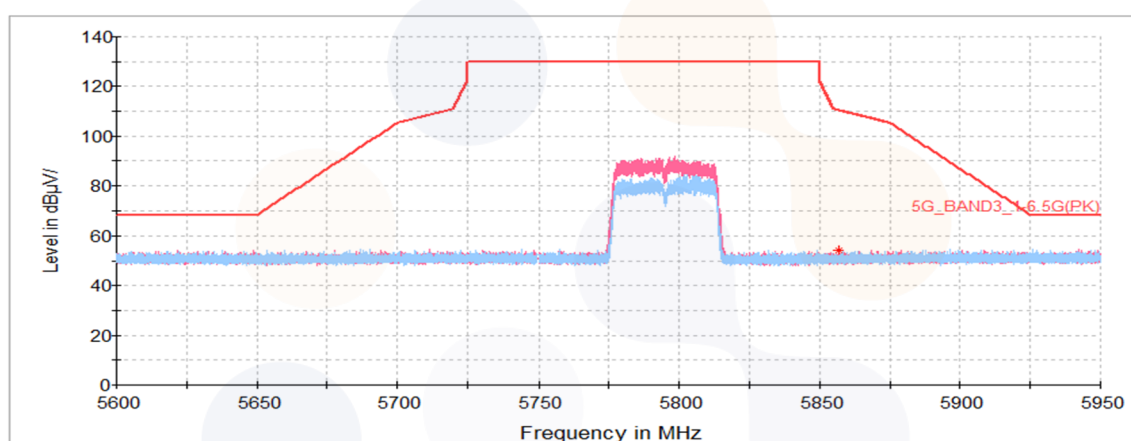
Horizontal/Vertical for 6.5 GHz ~ 18 GHz



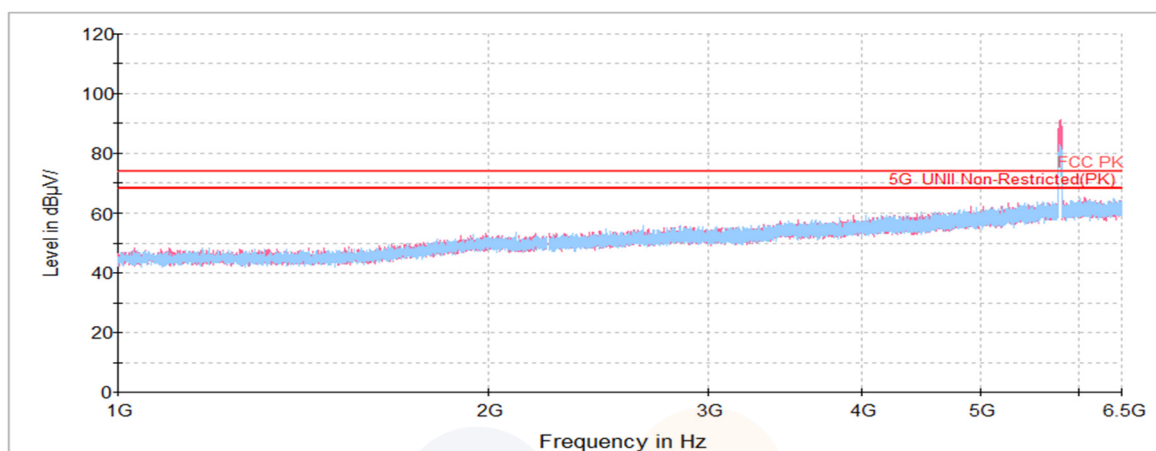
Highest Channel (5 795 MHz)

Frequency	Pol.	Reading	Antenna Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 856.94	V	42.67	35.03	-23.37	-	54.33	110.26	55.93
11 545.43 ¹⁾	H	51.61	38.25	-38.08	-	51.78	74.00	22.22
17 393.18	H	46.66	41.81	-34.02	-	54.45	68.20	13.75
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

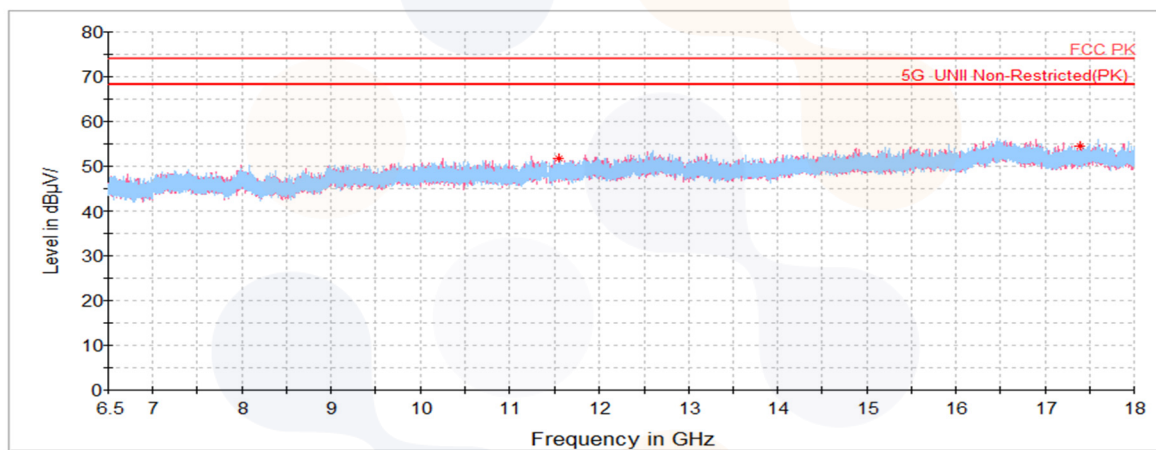
Horizontal/Vertical for Band-edge



Horizontal/Vertical for 1 GHz ~ 6.5 GHz



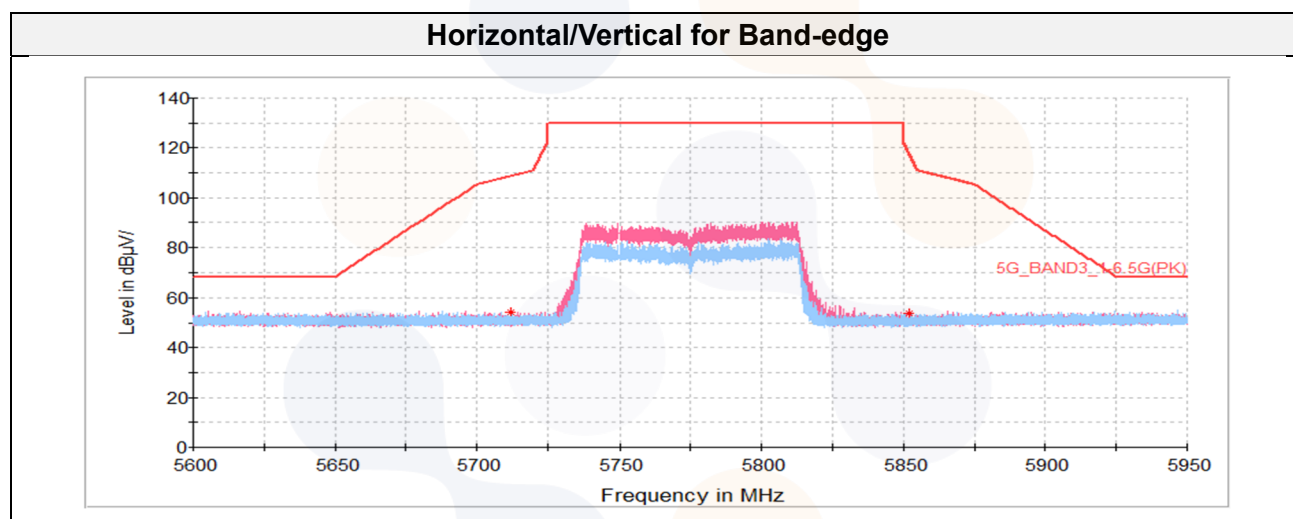
Horizontal/Vertical for 6.5 GHz ~ 18 GHz



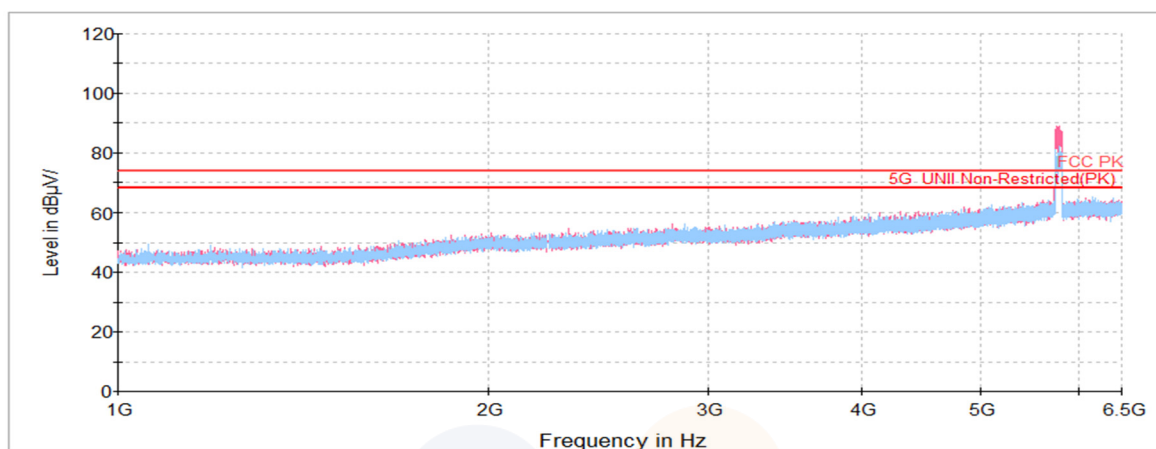
UNII 3 802.11ac VHT80

Lowest Channel (5 775 MHz)

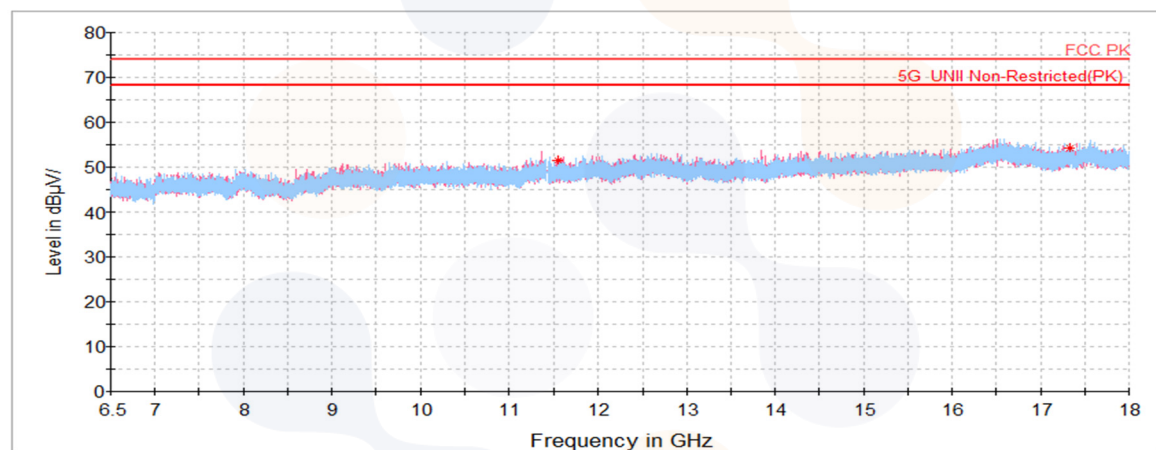
Frequency	Pol.	Reading	Antenna Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 712.21	V	42.64	34.85	-23.38	-	54.11	108.62	54.51
5 852.14	H	42.36	35.02	-23.37	-	54.01	117.32	63.31
11 548.12 ¹⁾	V	51.29	38.25	-38.07	-	51.47	74.00	22.53
17 338.37	H	46.45	41.77	-34.15	-	54.07	68.20	14.13
Average Data								
No spurious emissions were detected within 20 dB of the limit.								



Horizontal/Vertical for 1 GHz ~ 6.5 GHz



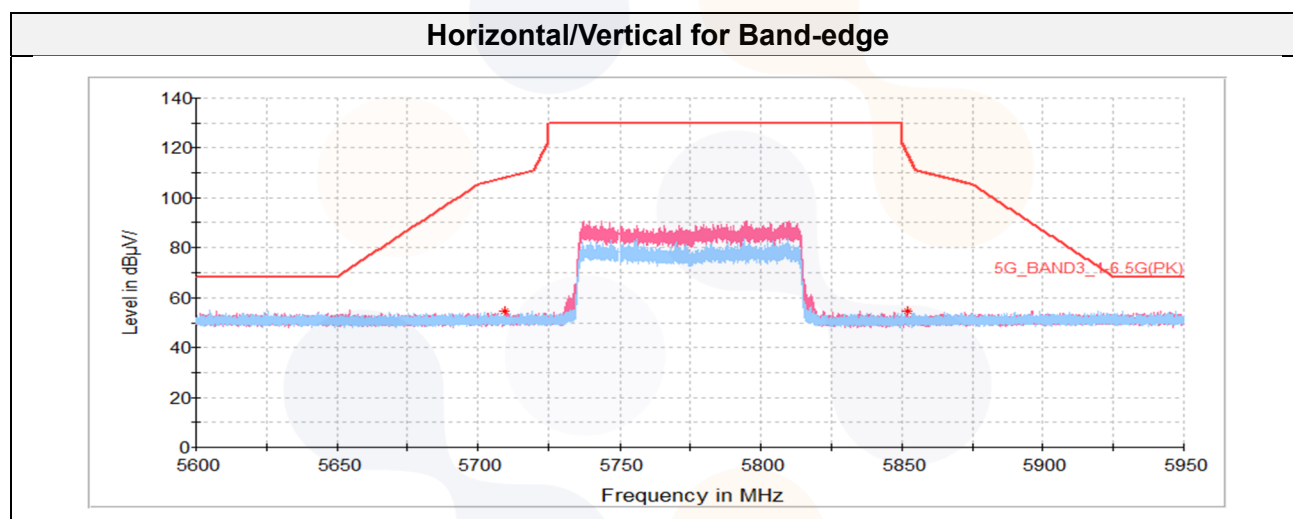
Horizontal/Vertical for 6.5 GHz ~ 18 GHz



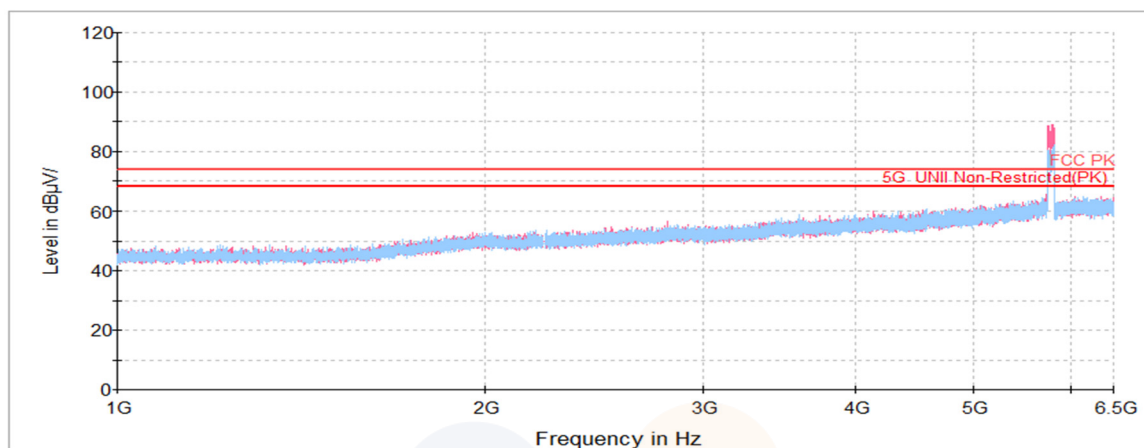
UNII 3 802.11ax HE80

Lowest Channel (5 775 MHz)

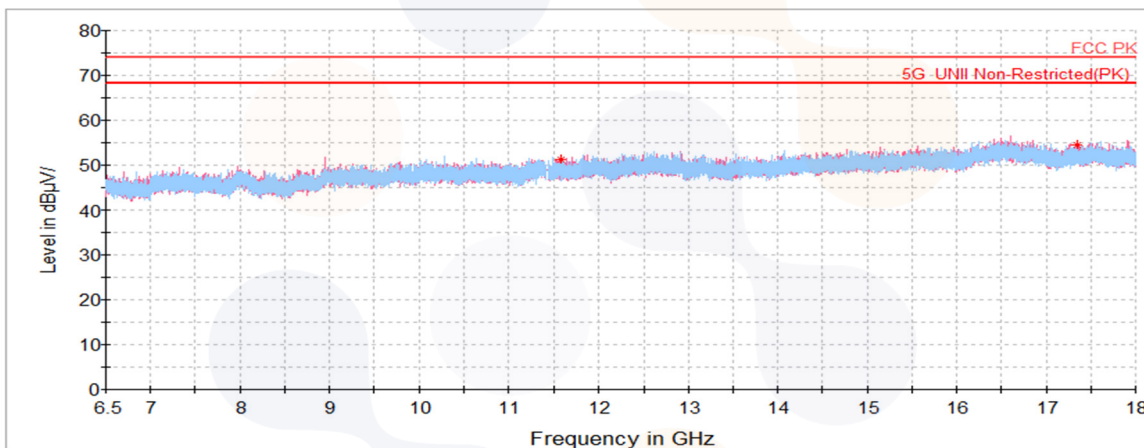
Frequency	Pol.	Reading	Antenna Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
5 709.82	H	43.32	34.85	-23.39	-	54.78	107.95	53.17
5 852.20	V	43.15	35.02	-23.37	-	54.80	117.19	62.39
11 576.87 ¹⁾	H	51.03	38.28	-38.06	-	51.25	74.00	22.75
17 347.18	V	46.70	41.78	-34.13	-	54.35	68.20	13.85
Average Data								
No spurious emissions were detected within 20 dB of the limit.								



Horizontal/Vertical for 1 GHz ~ 6.5 GHz

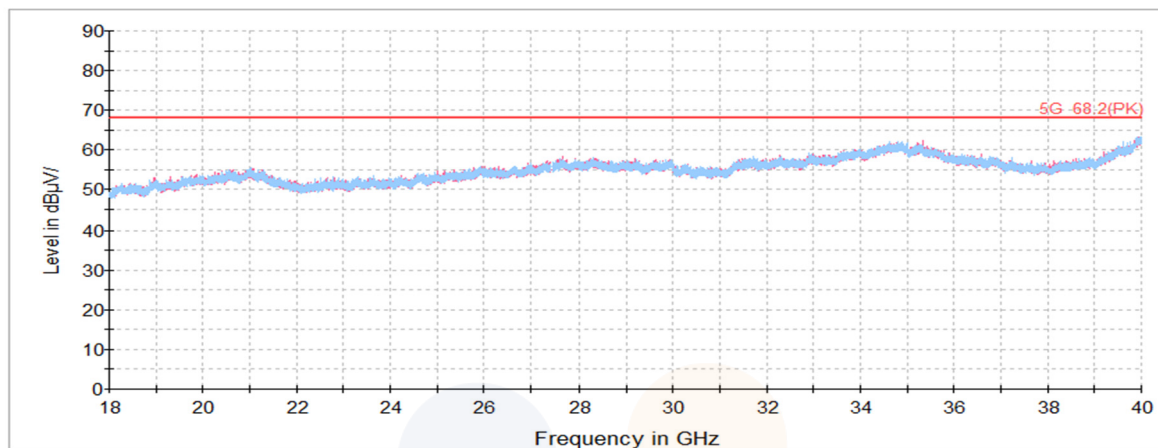


Horizontal/Vertical for 6.5 GHz ~ 18 GHz



Test results (Above 18 GHz) – Worst case: 802. 11n HT20_UNII 3_5 785 MHz

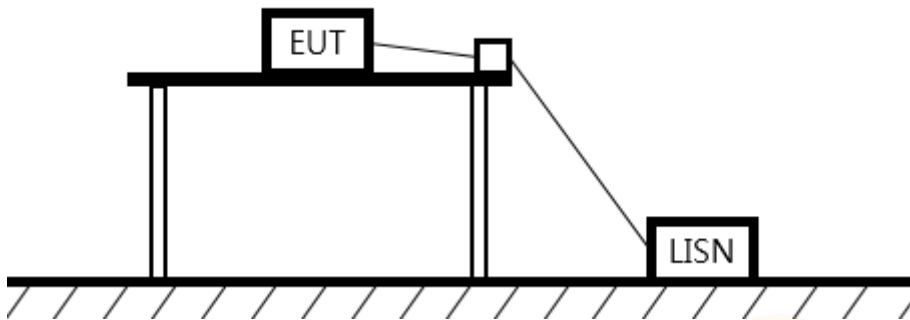
Horizontal/Vertical for 18 GHz ~ 40 GHz



Note: The Worst case was based on the lowest margin condition considering Harmonic and Spurious Emission.

7.6. AC Conducted emission

Test setup



Limit

According to 15.207(a), for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50μH/50 ohm line impedance stabilization network (LISN). Compliance with the provision of this paragraph shall on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower applies at the boundary between the frequencies ranges.

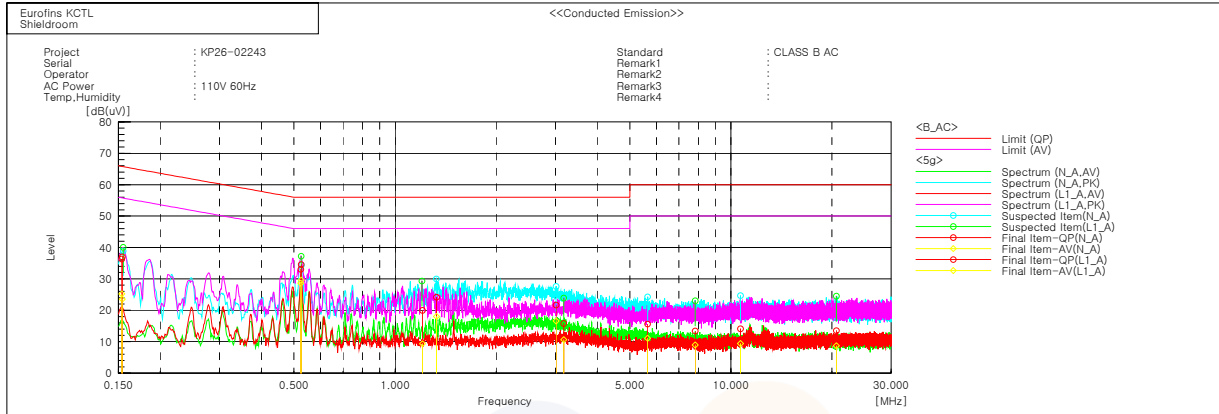
Frequency of Emission (MHz)	Conducted limit (dBμV/m)	
	Quasi-peak	Average
0.15 – 0.50	66 - 56*	56 - 46*
0.50 – 5.00	56	46
5.00 – 30.0	60	50

Measurement procedure

1. The EUT was placed on a wooden table of size, 1 m by 1.5 m, raised 80 cm in which is located 40 cm away from the vertical wall and 1.5m away from the side wall of the shielded room.
2. Each current-carrying conductor of the EUT power cord was individually connected through a 50Ω/50μH LISN, which is an input transducer to a spectrum analyzer or an EMI/Field Intensity Meter, to the input power source.
3. Exploratory measurements were made to identify the frequency of the emission that had the highest amplitude relative to the limit by operating the EUT in a range of typical modes of operation, cable position, and with a typical system equipment configuration and arrangement. Based on the exploratory tests of the EUT, the one EUT cable configuration and arrangement and mode of operation that had produced the emission with the highest amplitude relative to the limit was selected for the final measurement.
4. The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment is the system) was then performed over the frequency range of 0.15 MHz to 30 MHz.
5. The measurements were made with the detector set to peak amplitude within a bandwidth of 10 kHz or to quasi-peak and average within a bandwidth of 9 kHz. The EUT was in transmitting mode during the measurements.

Test results

Worst case: 802.11n_HT20_UNII 3_5 745 MHz / MIMO



Final Result

--- N_A Phase ---

No.	Frequency	Reading QP	Reading CAV	c.f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.15412	26.9	13.5	10.1	37.0	23.6	65.8	55.8	28.8	32.2
2	0.52425	22.9	18.4	10.2	33.1	28.6	56.0	46.0	22.9	17.4
3	1.32914	14.2	8.1	10.0	24.2	18.1	56.0	46.0	31.8	27.9
4	3.01692	11.7	6.7	9.9	21.6	16.6	56.0	46.0	34.4	29.4
5	5.65054	5.5	1.0	10.1	15.6	11.1	60.0	50.0	44.4	38.9
6	10.67775	3.4	-1.3	10.7	14.1	9.4	60.0	50.0	45.9	40.6

--- L1_A Phase ---

No.	Frequency	Reading QP	Reading CAV	c.f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.15348	26.2	15.1	10.1	36.3	25.2	65.8	55.8	29.5	30.6
2	0.52539	24.4	19.4	10.2	34.6	29.6	56.0	46.0	21.4	16.4
3	1.20755	9.9	-0.7	10.0	19.9	9.3	56.0	46.0	36.1	36.7
4	3.17759	5.9	0.8	9.9	15.8	10.7	56.0	46.0	40.2	35.3
5	7.82936	3.0	-1.5	10.4	13.4	8.9	60.0	50.0	46.6	41.1
6	20.61934	2.3	-2.5	11.2	13.5	8.7	60.0	50.0	46.5	41.3

8. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Horn antenna	ETS.lindgren	3117	00251528	27.01.23
Horn antenna	ETS.lindgren	3116	00086635	27.01.20
Amplifier	B&Z Technologies	BZR-0050400-551028-252525	27736	27.04.27
Amplifier	L-3 Narda-MITEQ	JS44-18004000-33-8P	2000996	27.01.26
Amplifier	Narda-MITEQ	NAS-55-01001800-22-10p	2265313	27.01.15
Attenuator	Pasternack	PE7090-10	1928	27.01.12
High pass Filter	WT	WT-A1699-HS	WT160411002	27.04.23
Spectrum Analyzer	R&S	FSV40	100989	26.09.29
Signal Generator	R&S	SMB100A	176206	27.01.15
Antenna Mast	Innco Systems	MA4640-XP-ET	MA4000/396/30810213/L	-
Controller	Innco Systems	CO3000	1175/45850319/P	-
TWO-LINE V - NETWORK	R&S	ENV216	101358	27.04.21
EMI TEST RECEIVER	R&S	ESCI3	100001	26.08.11
Spectrum Analyzer	R&S	FSV3030	102317	26.11.25
DC Power Supply	AGILENT	E3632A	MY40008800	27.04.23
Attenuator	HUBER+SUHNER	6610_SK-50-1/199_NE	ATT11	26.07.07
Power Sensor	R&S	NRP-Z81	1137.9009.02-106223-bB	27.04.24
Spectrum Analyzer	R&S	FSV40	100988	27.04.06
Amplifier	SONOMA INSTRUMENT	310N	421910	26.07.01
Bi-log Antenna	Teseq GmbH	CBL 6112D	61521	26.12.11
Loop Antenna	R&S	HFH2-Z2	100355	26.06.25
DC Power Supply	POWERCOM	DCP-50100A	20220610-01	27.01.16
Vector Signal Generator	R&S	SMBV100A	257566	26.07.01
AC/DC Power Supply	KIKUSUI	PCR2000W	GB001619	26.06.30
Controller	INNCO SYSTEMS	CO3000	1442/54370322/P	-
Antenna Mast	INNCO SYSTEMS	MA4640-XP-ET	AM002	-
Turn Device	INNCO SYSTEMS	DS1200-S-1t	0001	-

End of test report