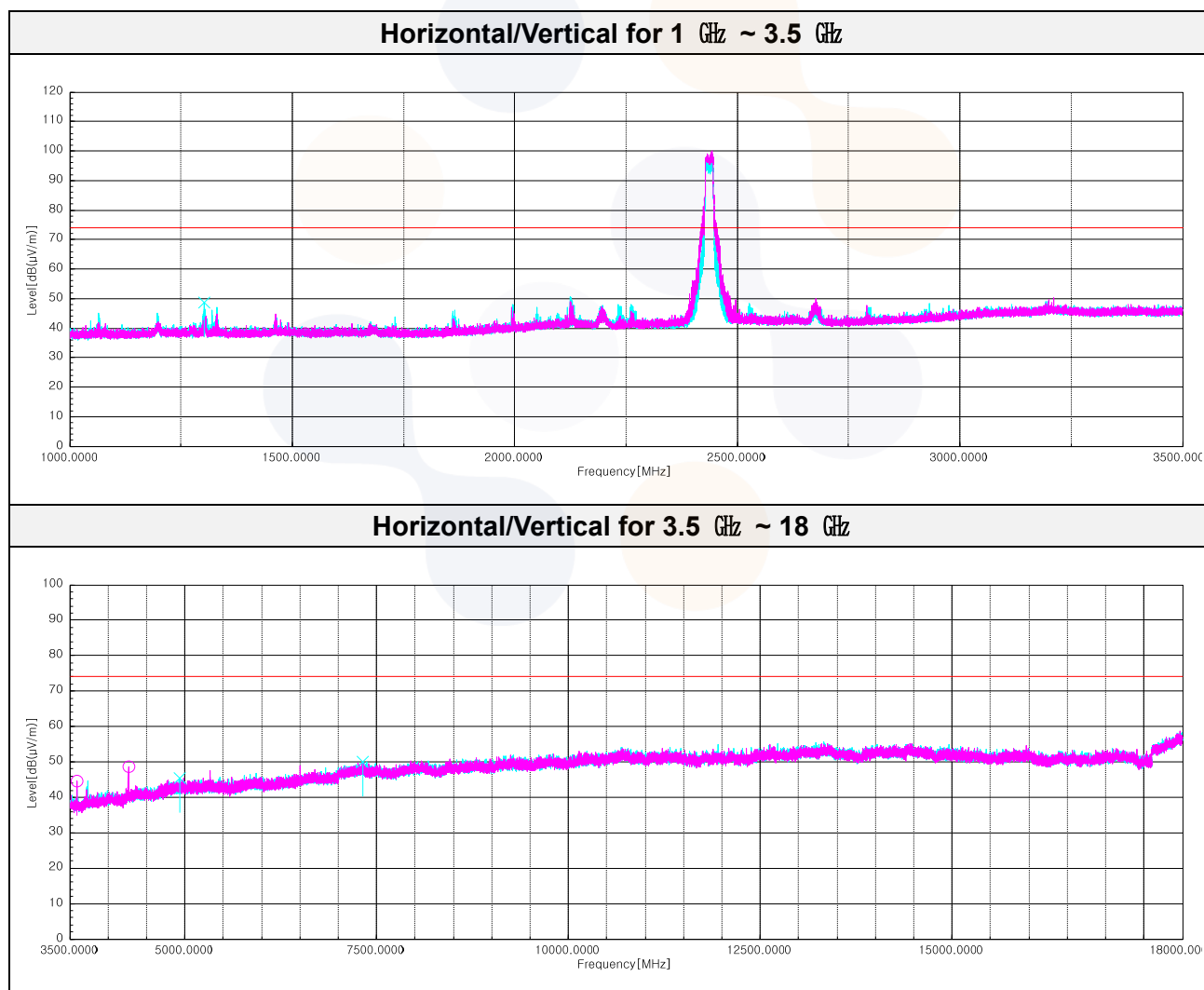


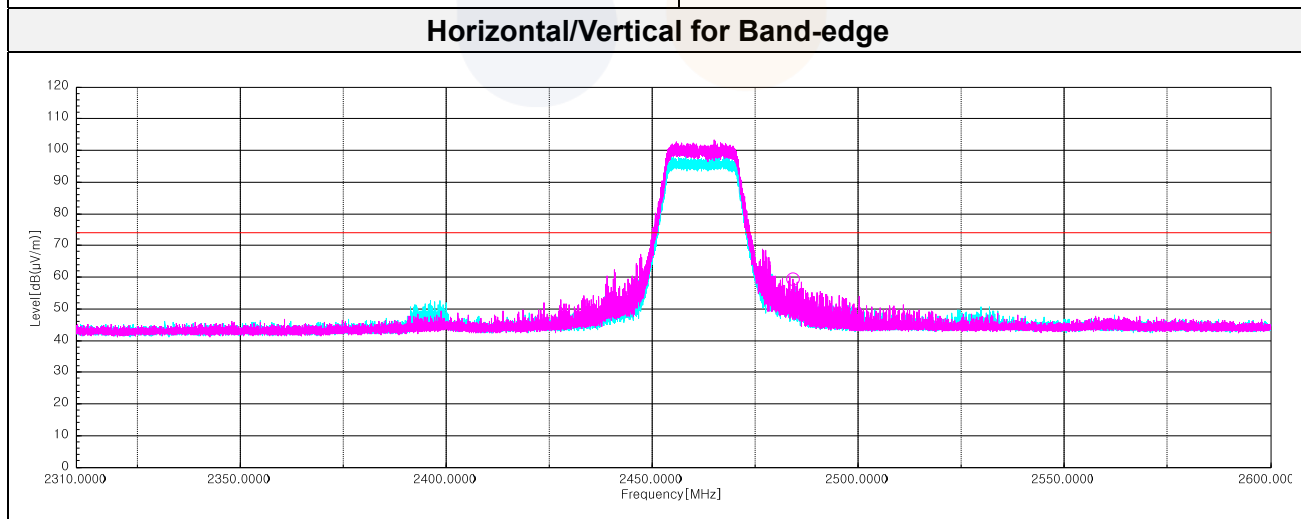
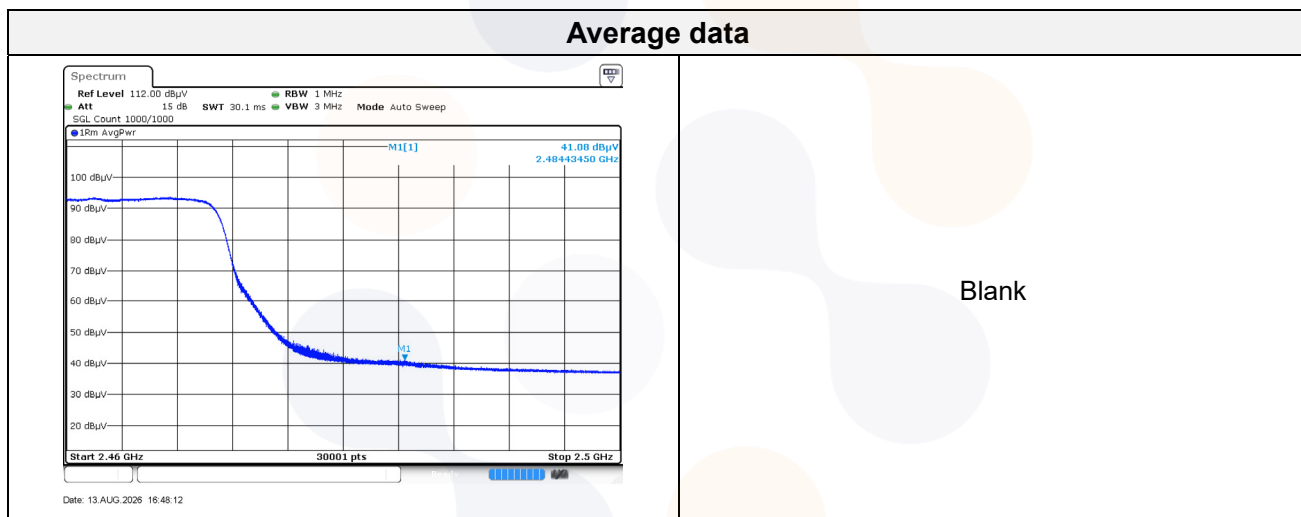
802.11n HT20_2 437 MHz

Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
1 301.83 ¹⁾	V	69.20	25.60	-46.25	-	48.55	74.00	25.45
3 599.57	H	59.70	29.10	-44.20	-	44.60	74.00	29.40
4 265.60 ¹⁾	H	60.10	30.96	-42.46	-	48.60	74.00	25.40
4 928.73 ¹⁾	V	53.50	32.77	-40.79	-	45.48	74.00	28.52
7 323.65 ¹⁾	V	52.60	36.65	-39.29	-	49.96	74.00	24.04
Average Data								
No spurious emissions were detected within 20 dB of the limit.								

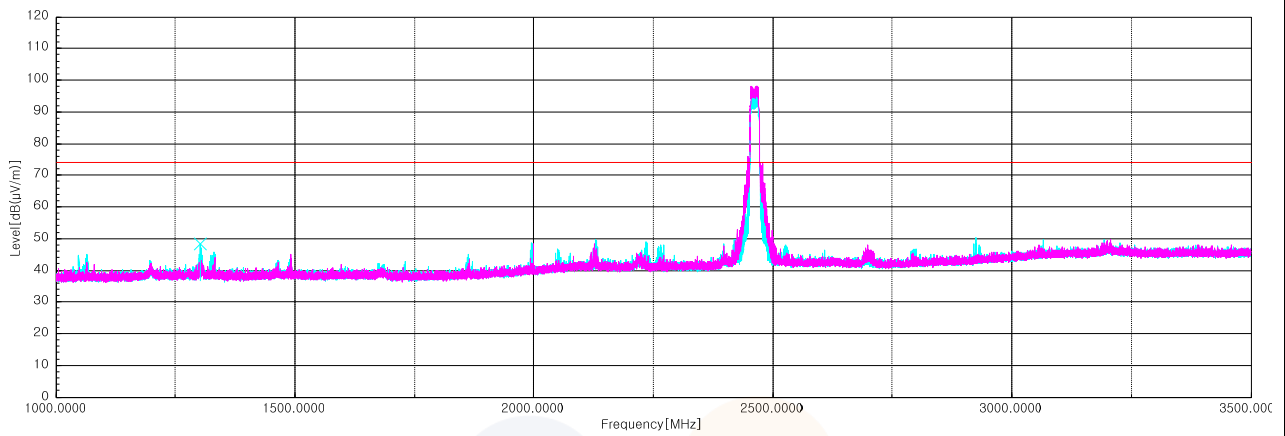


802.11n HT20_2 462 MHz

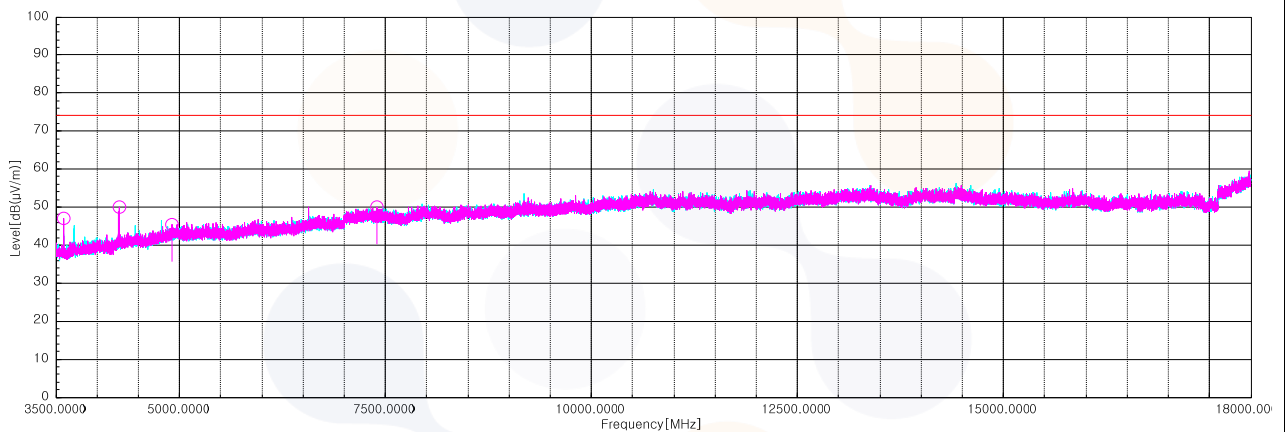
Frequency	Pol.	Reading	Ant. Factor	Amp. + Cable	DCF	Result	Limit	Margin
(MHz)	(V/H)	(dB(μV))	(dB)	(dB)	(dB)	(dB(μV/m))	(dB(μV/m))	(dB)
Peak data								
1 302.08 ¹⁾	V	68.80	25.60	-46.25	-	48.15	74.00	25.85
2 484.43 ¹⁾	H	60.70	27.60	-29.01	-	59.29	74.00	14.71
3 600.05 ¹⁾	H	62.10	29.20	-44.20	-	47.10	74.00	26.90
4 266.08 ¹⁾	H	61.50	30.96	-42.46	-	50.00	74.00	24.00
4 906.02 ¹⁾	H	53.70	32.64	-40.84	-	45.50	74.00	28.50
7 393.25 ¹⁾	H	52.90	36.33	-39.30	-	49.93	74.00	24.07
Average Data								
2 484.43 ¹⁾	H	41.08	27.60	-29.01	-	39.67	54.00	14.33



Horizontal/Vertical for 1 GHz ~ 3.5 GHz

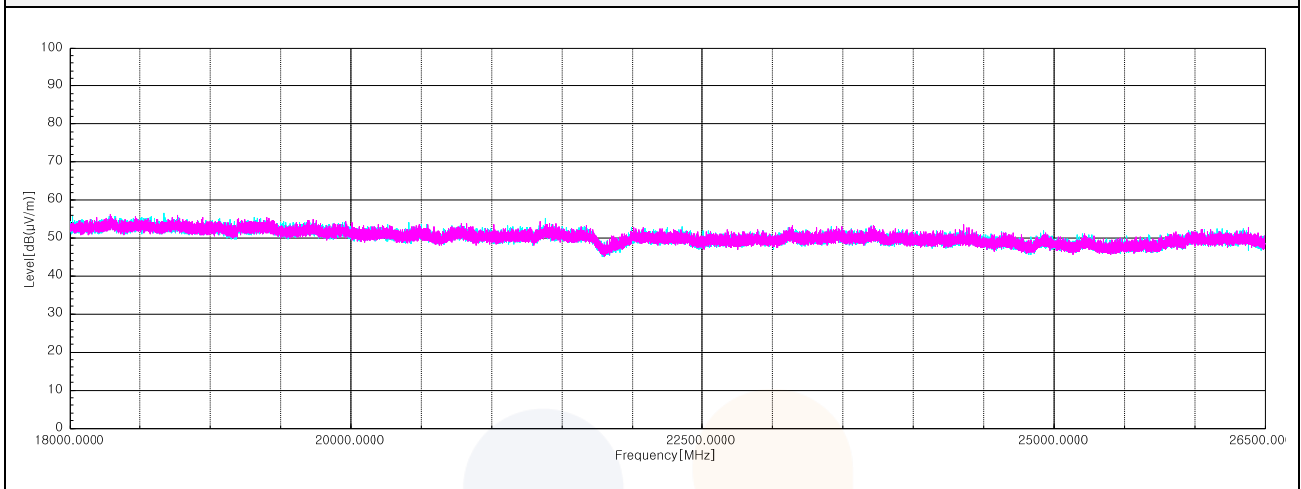


Horizontal/Vertical for 3.5 GHz ~ 18 GHz



Test results (Above 18 GHz) – Worst case: 802.11n HT20 / 2 412 MHz

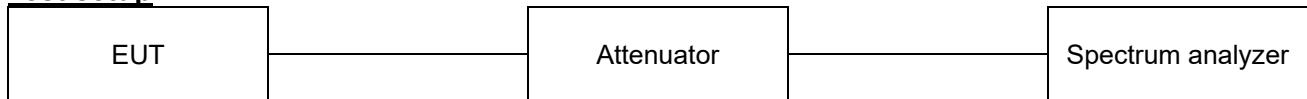
Horizontal/Vertical for 18 GHz ~ 26.5 GHz



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

7.5. Conducted Spurious Emission

Test setup



Limit

According to §15.247(d),

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 5.4(d), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

Limit : 20 dBc

According to RSS-247(6.6),

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum device, digitally modulated device, or hybrid system is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power based on either an RF conducted or a radiated measurement – provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under section 6.3.2, the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

Limit : 20 dBc

Test procedure

ANSI C63.10 - Section 11.11.3

KDB 558074 D01 v05 - Section 8.5

Test settings

Establish an emission level by using the following procedure:

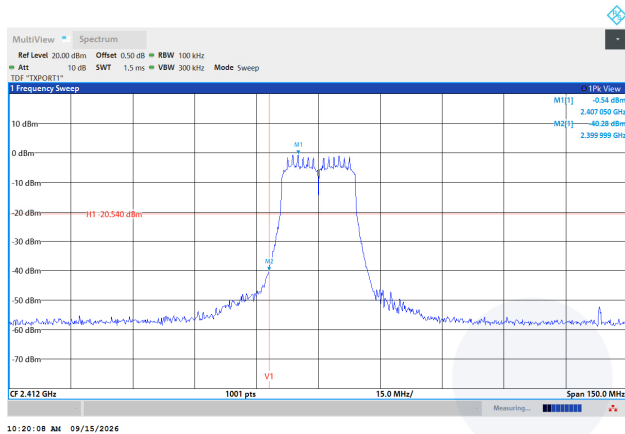
- 1) Set the center frequency and span to encompass frequency range to be measured.
- 2) Set the RBW = 100 kHz
- 3) Set the VBW $\geq$ [3 x RBW]
- 4) Detector = peak
- 5) Sweep time = No faster than coupled (auto) time
- 6) Trace mode = max hold
- 7) Allow trace to fully stabilize.
- 8) Use the peak marker function to determine the maximum amplitude level.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

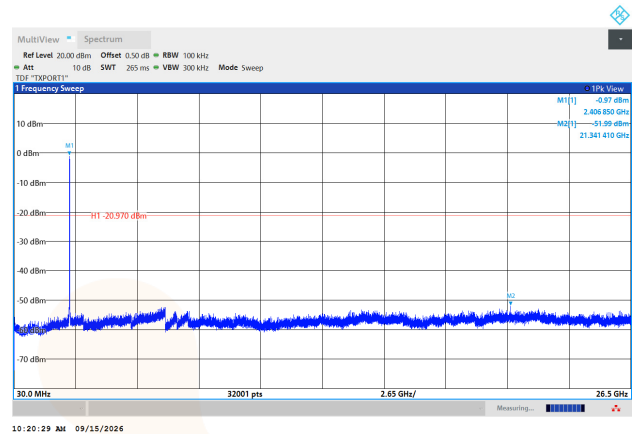
Test results

802.11n HT20

Conducted band-edge / 2 412 MHz



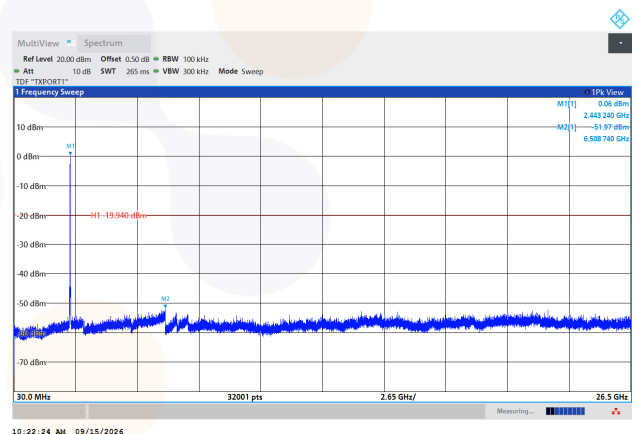
Conducted spurious / 2 412 MHz



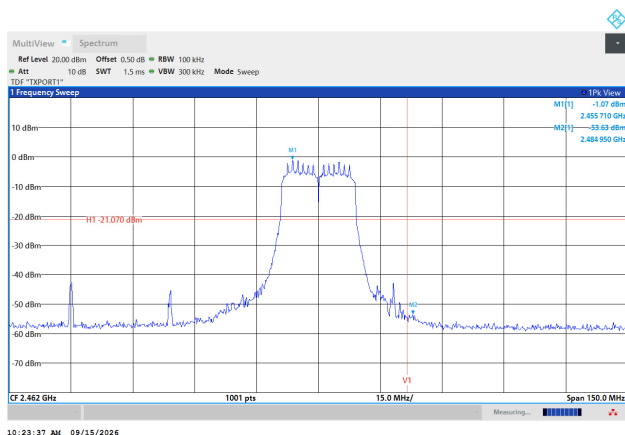
Conducted band-edge / 2 437 MHz

Blank

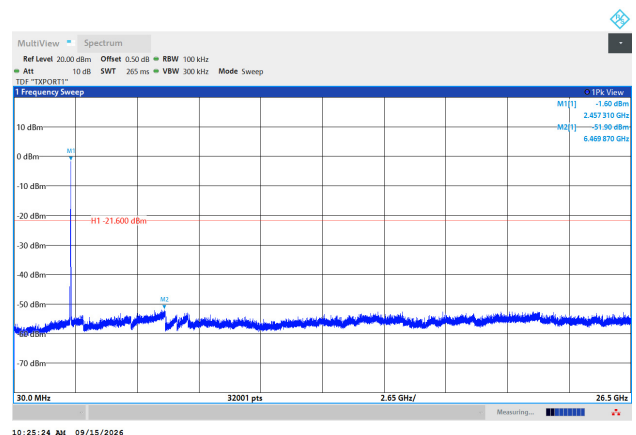
Conducted spurious / 2 437 MHz



Conducted band-edge / 2 462 MHz



Conducted spurious / 2 462 MHz



8. Measurement equipment

Equipment Name	Manufacturer	Model No.	Serial No.	Next Cal. Date
Spectrum Analyzer	R&S	FSVA3030	101129	27.02.02
DC Power Supply	AGILENT	E3632A	MY40000265	27.04.23
Signal Generator	R&S	SMB100A	176206	27.01.15
Attenuator	HUBER+SUHNER	6610_SK-50-1/199_NE	ATT02	27.07.06
Spectrum Analyzer	R&S	FSV40	100988	27.04.06
Amplifier	SONOMA INSTRUMENT	310N	421910	27.07.06
Bi-log Antenna	Teseq GmbH	CBL 6112D	61521	26.12.11
Loop Antenna	R&S	HFH2-Z2	100355	28.06.29
Vector Signal Generator	R&S	SMBV100A	257566	27.07.06
Broadband Pre-Amplifier	SCHWARZBECK	BBV9718D	53	27.07.06
Low Noise Amplifier	TESTEK	TK-PA18H	220123-L	27.07.06
Low Noise Amplifier	TESTEK	TK-PA1840H	220234-L	27.04.28
Horn Antenna	SCHWARZBECK	BBHA9120D	2764	27.06.30
Horn Antenna	SCHWARZBECK	BBHA9170	1266	27.04.29
High Pass Filter	Wainwright Instruments GmbH	WHKX12-2805-3000-18000-40SS	SN59	27.06.29
High Pass Filter	Qotana	DBHF058004000A	23041800061	27.04.28
Cable Assembly	HUBER+SUHNER	SUCOFLEX 104	RF-N type 40G-002	26.11.26
Cable Assembly	HUBER+SUHNER	SUCOFLEX 104	RF-2.92 /40G-003	26.11.26
Cable Assembly	Isolution	KMSTA-KMSAT-ICA40G-7m	RF-2.92 /40G-005	26.12.08
Controller	INNCO SYSTEMS	CO3000	1442/54370322/P	N/A
Antenna Mast	INNCO SYSTEMS	MA4640-XP-ET	AM002	N/A
Turn Device	INNCO SYSTEMS	DS1200-S-1t	0001	N/A

End of test report