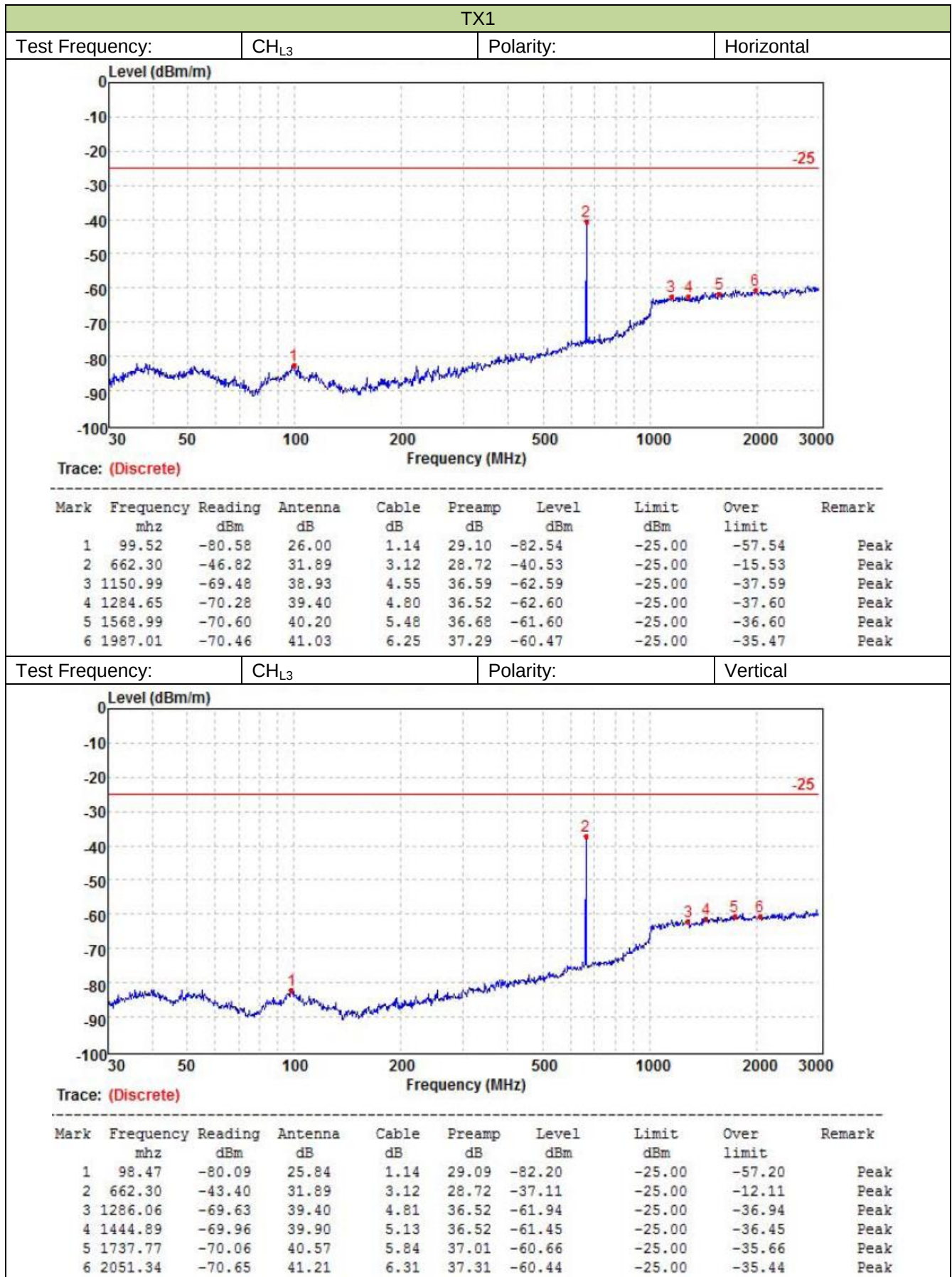
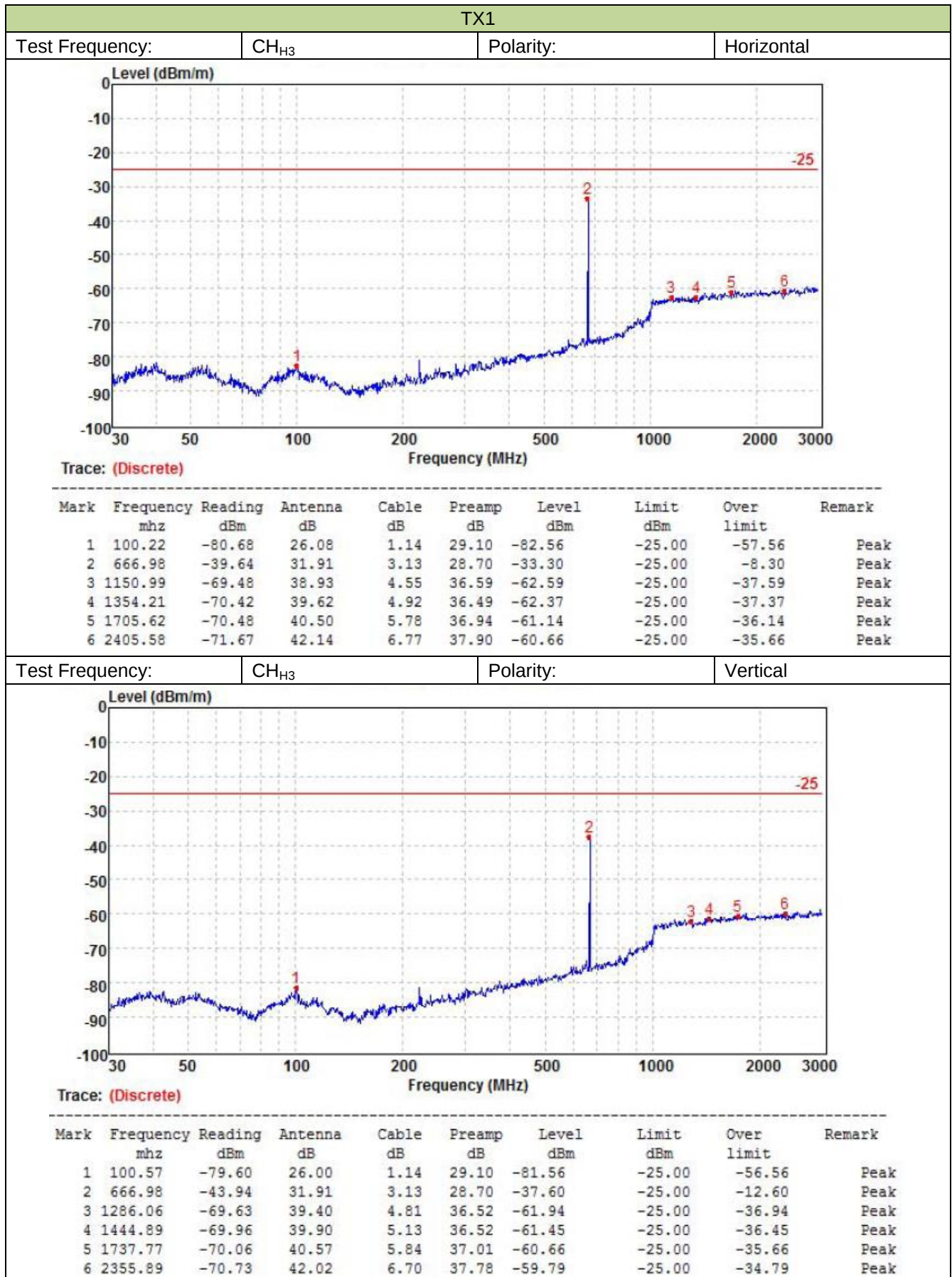
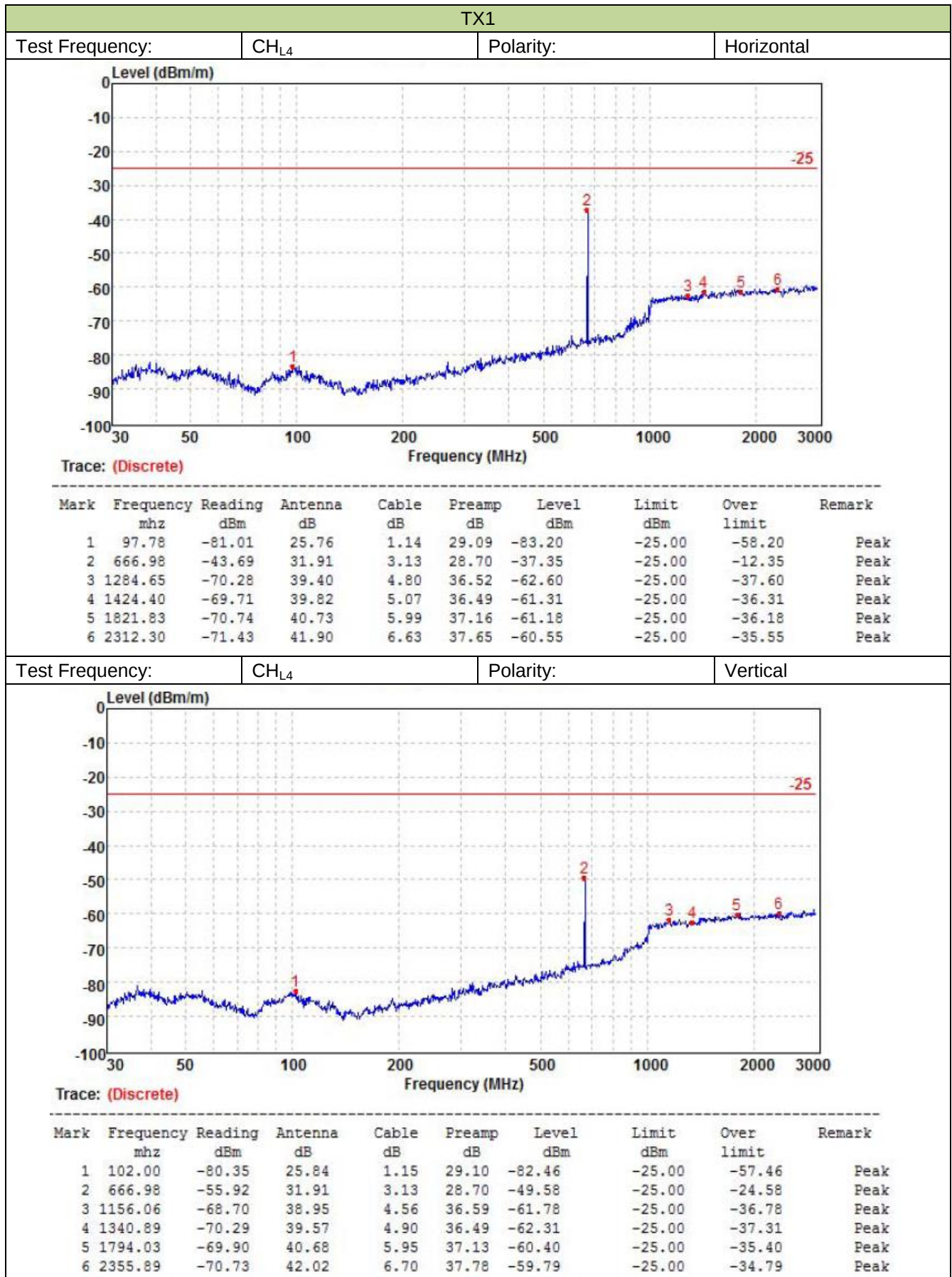
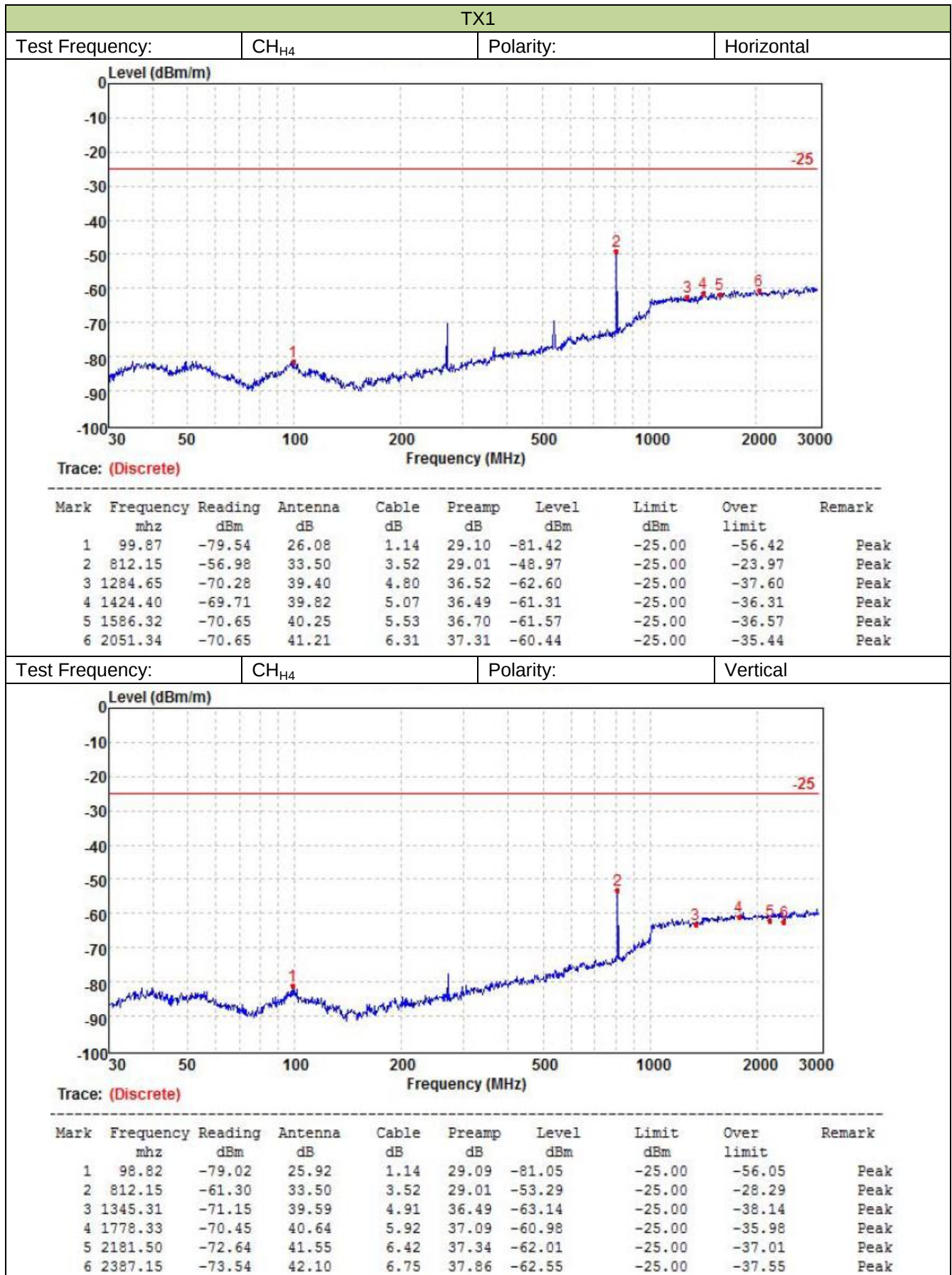
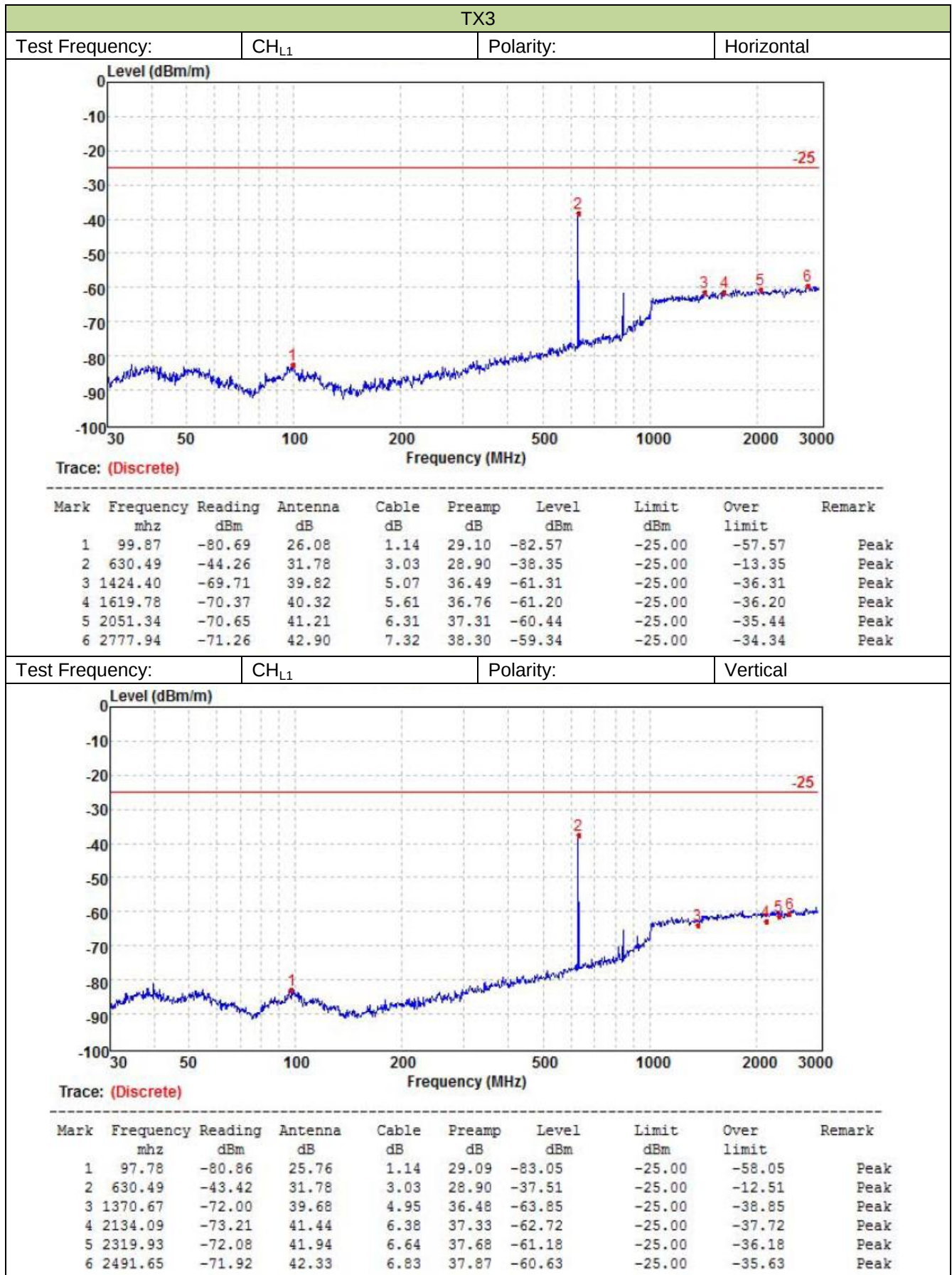


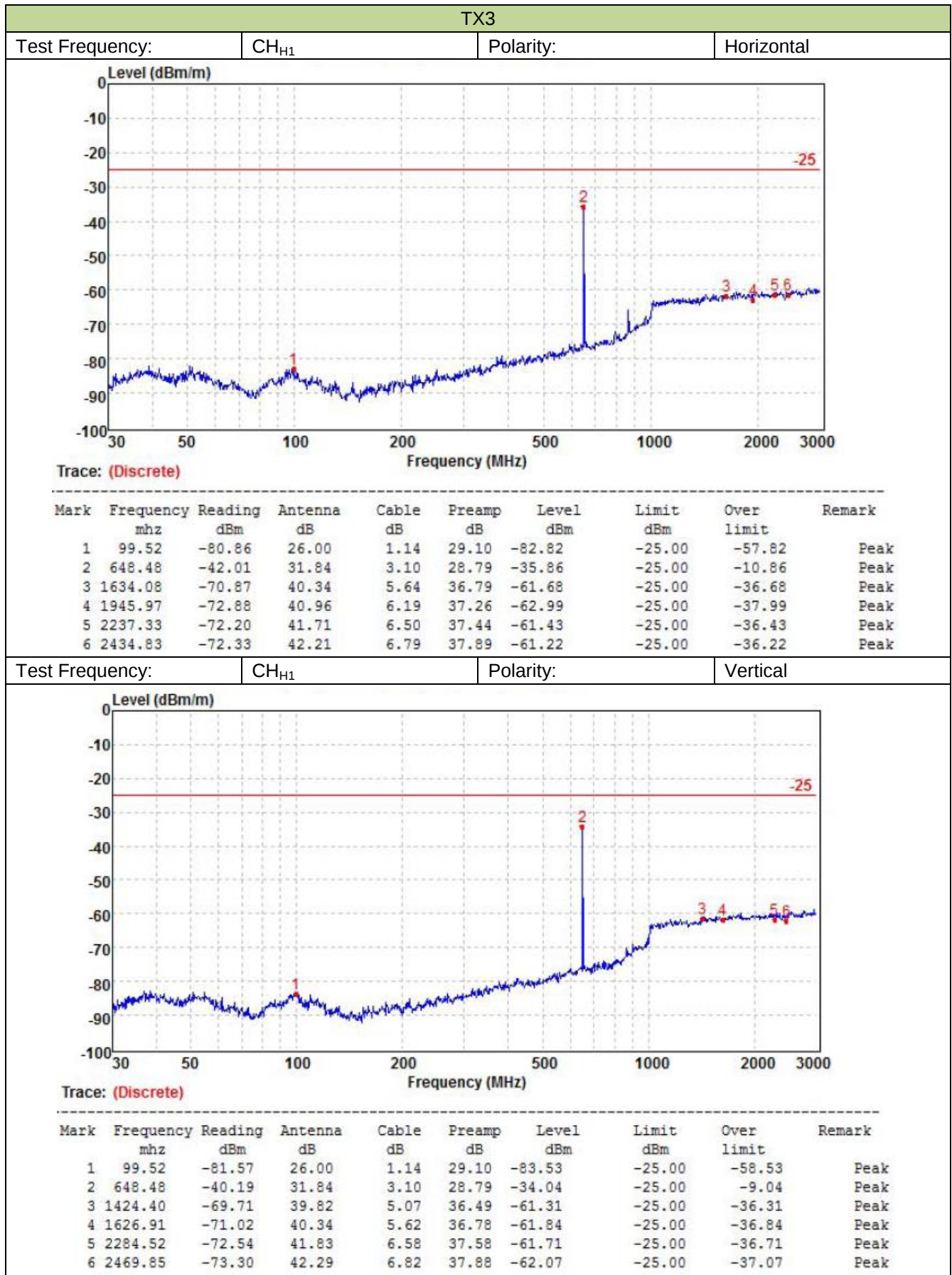


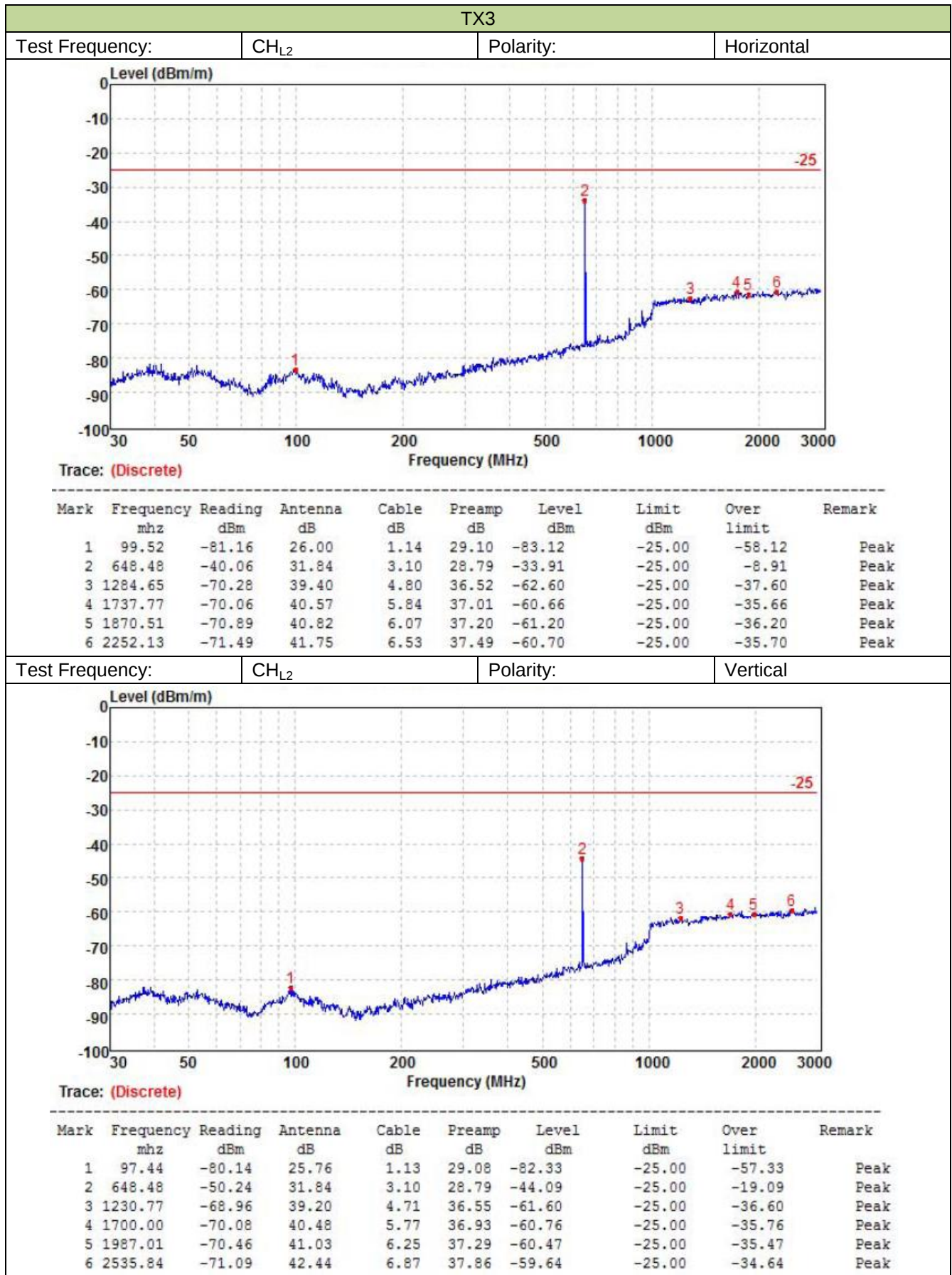


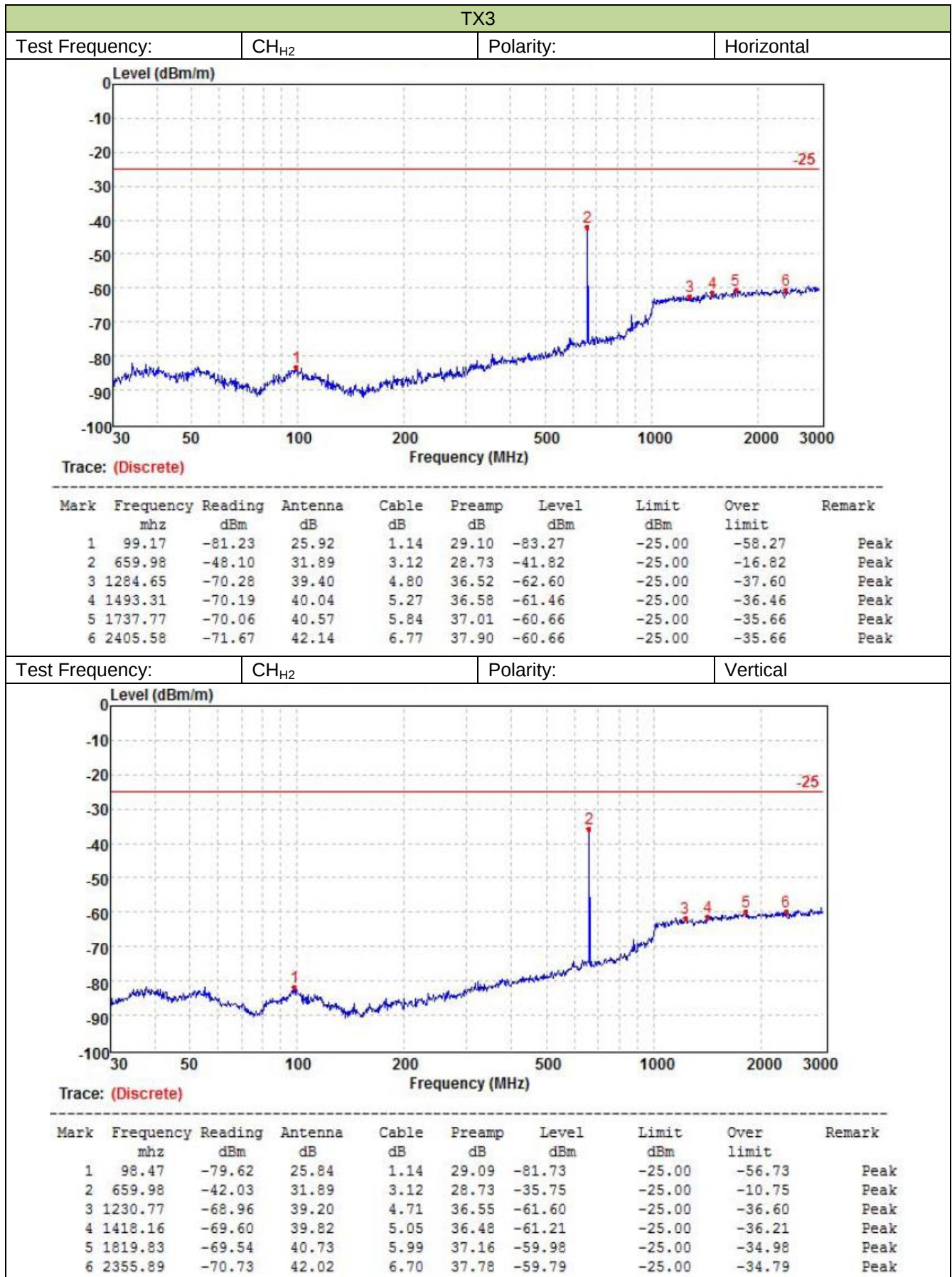


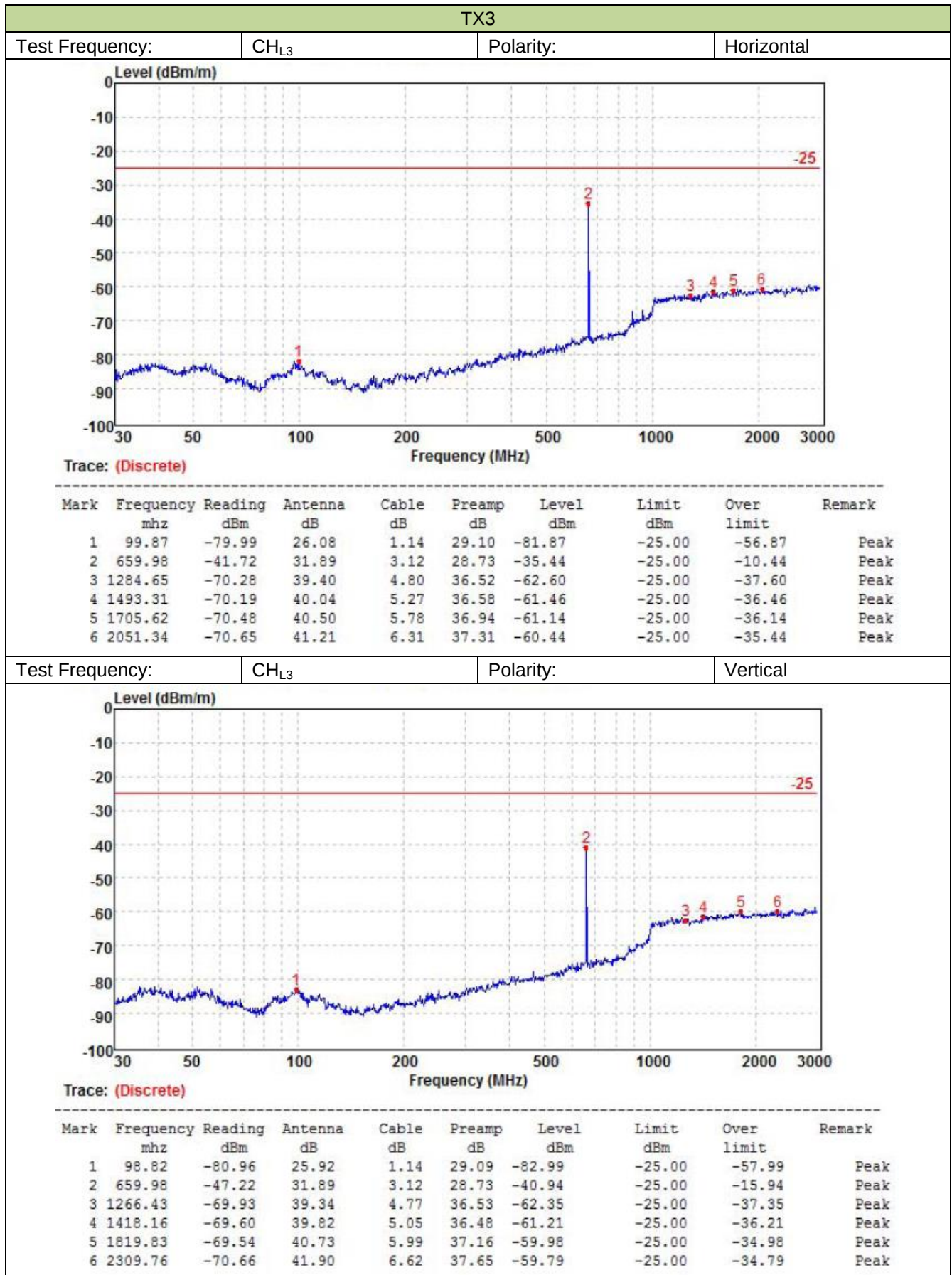


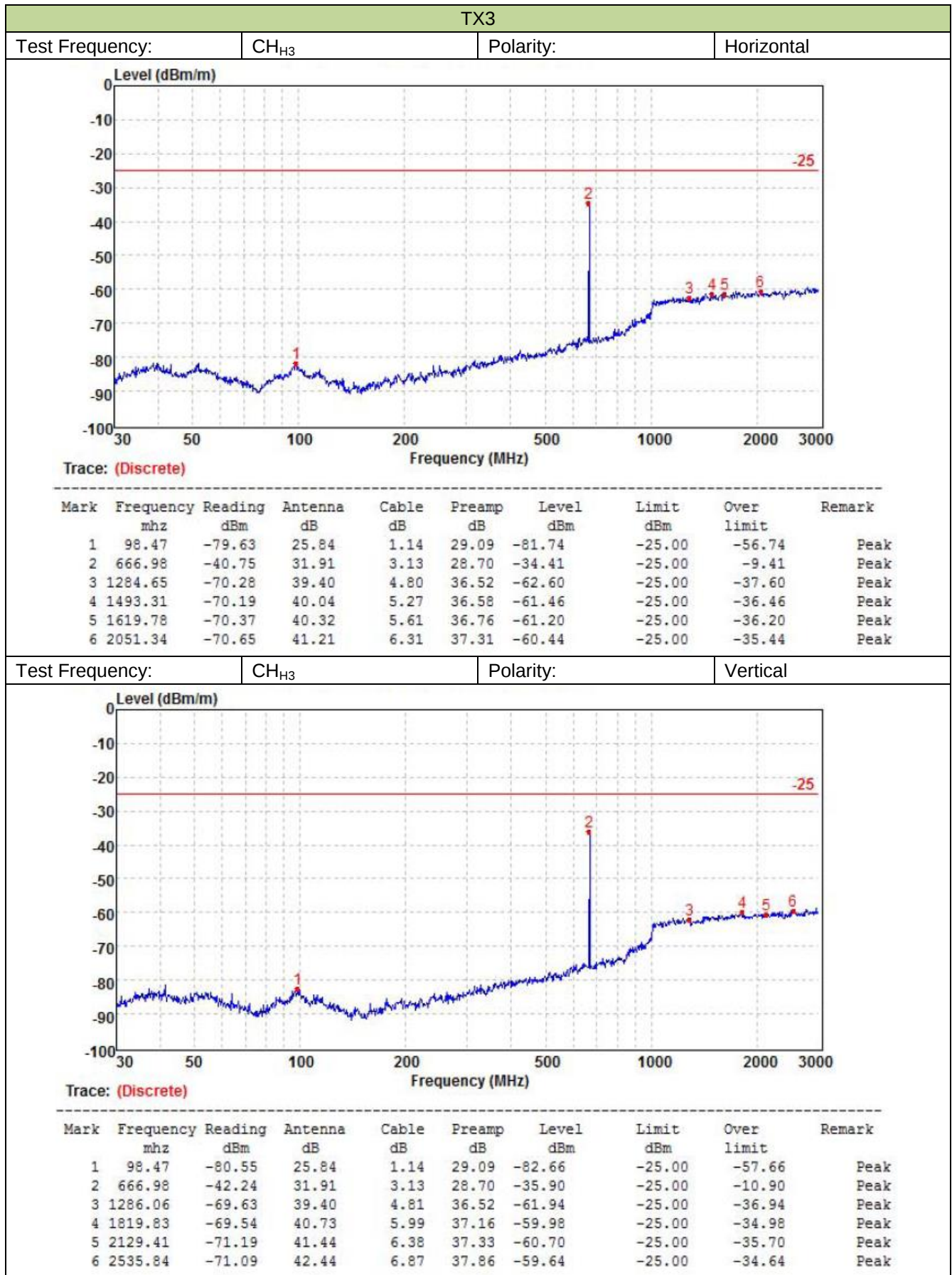


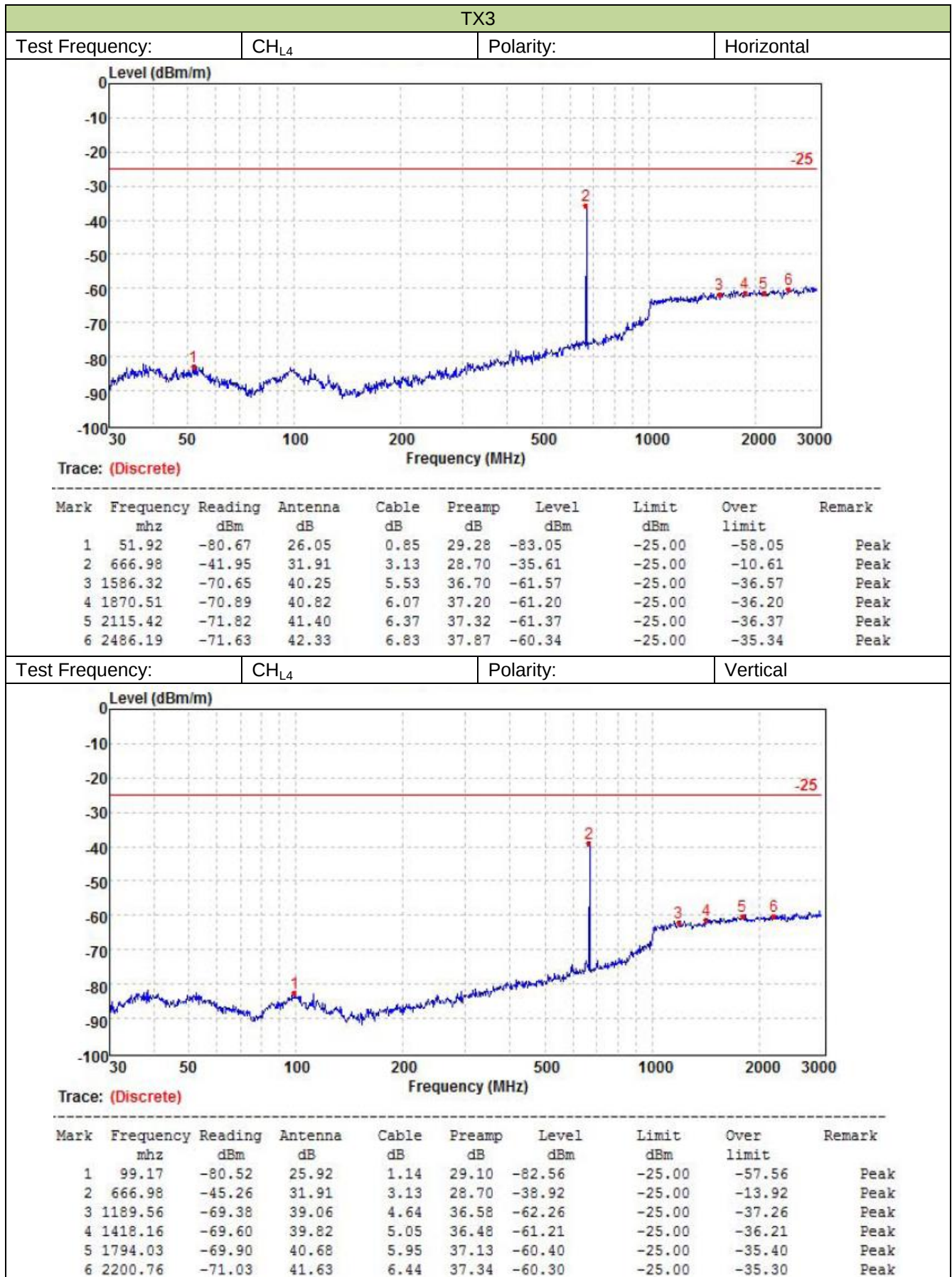


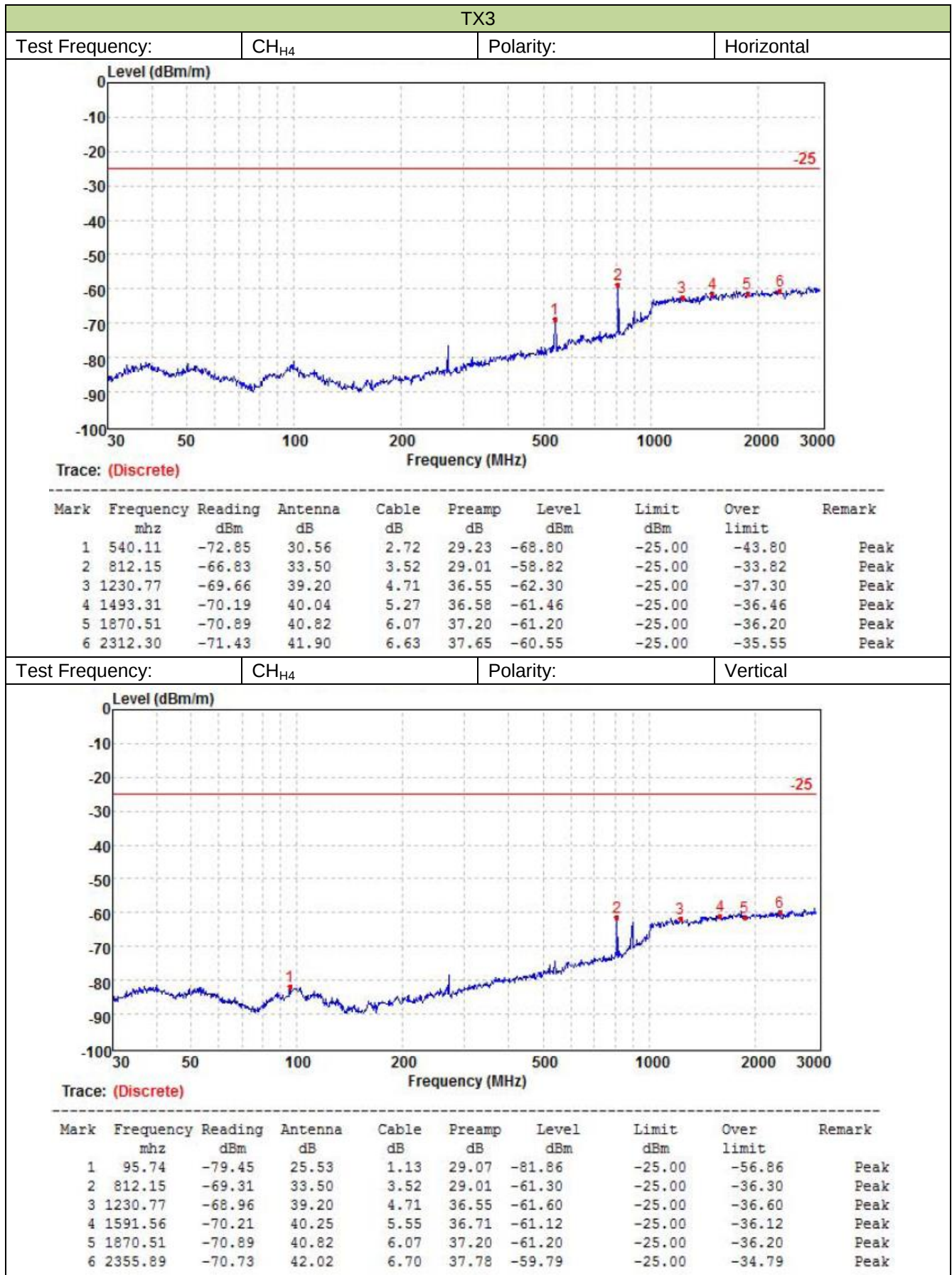












5.10. Conducted Emissions

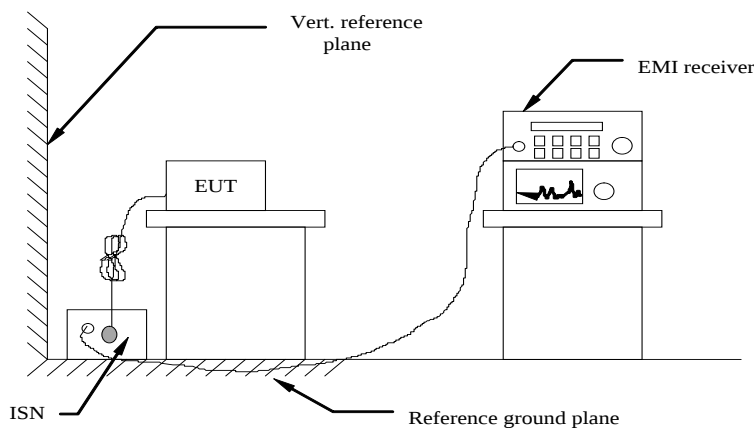
The frequency spectrum from 0.15 MHz to 30 MHz was investigated. The LISN used was 50 ohm / 50 u Henry as specified by section 5.1 of ANSI C63.4-2014. Cables and peripherals were moved to find the maximum emission levels for each frequency.

Limit

FCC part 15.107(a)

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

TEST CONFIGURATION



TEST PROCEDURE

- 1 The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.4-2014.
- 2 Support equipment, if needed, was placed as per ANSI C63.4-2014.
- 3 All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4-2014.
- 4 If a EUT received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5 All support equipments received AC power from a second LISN, if any
- 6 The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7 Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 8 During the above scans, the emissions were maximized by cable manipulation.

TEST MODE:

Please reference to the section 3.4

TEST RESULTS

☐ Passed ☒ Not Applicable

5.11. Radiated Emission

LIMIT

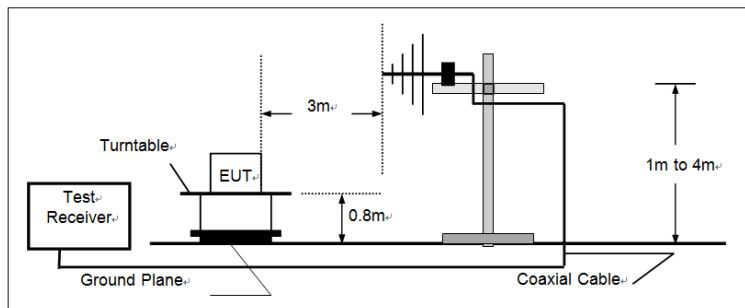
For unintentional device, according to § 15.109(a) except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Distance (Meters)	Radiated (dB μ V/m)	Radiated (μ V/m)
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

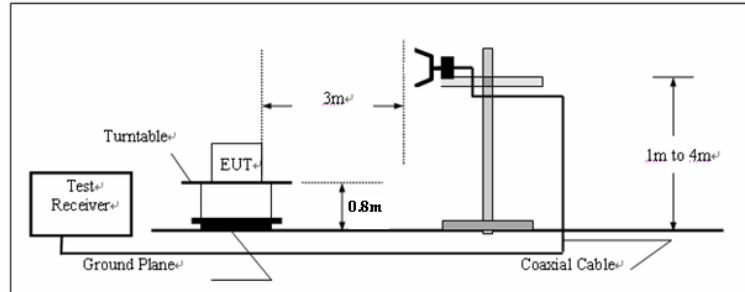
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

TEST CONFIGURATION

(A) Radiated Emission Test Set-Up, Frequency below 1000MHz



(B) Radiated Emission Test Set-Up, Frequency above 1000MHz



TEST PROCEDURE

- 1 The EUT was placed on a turn table which is 0.8m above ground plane.
- 2 Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0° to 360° to acquire the highest emissions from EUT
- 3 And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 4 Repeat above procedures until all frequency measurements have been completed.

TEST MODE:

Please reference to the section 3.4

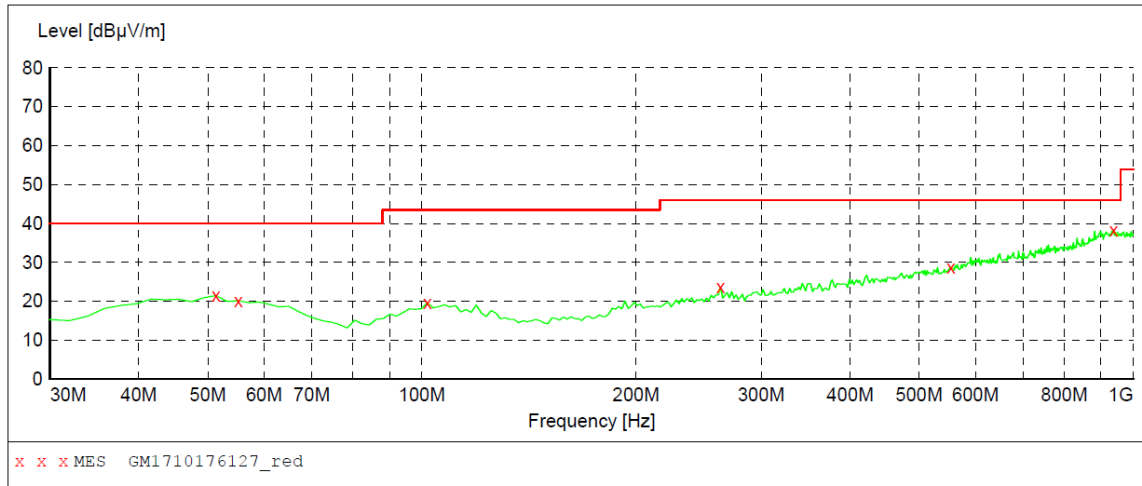
TEST RESULTS

☒ Passed ☐ Not Applicable

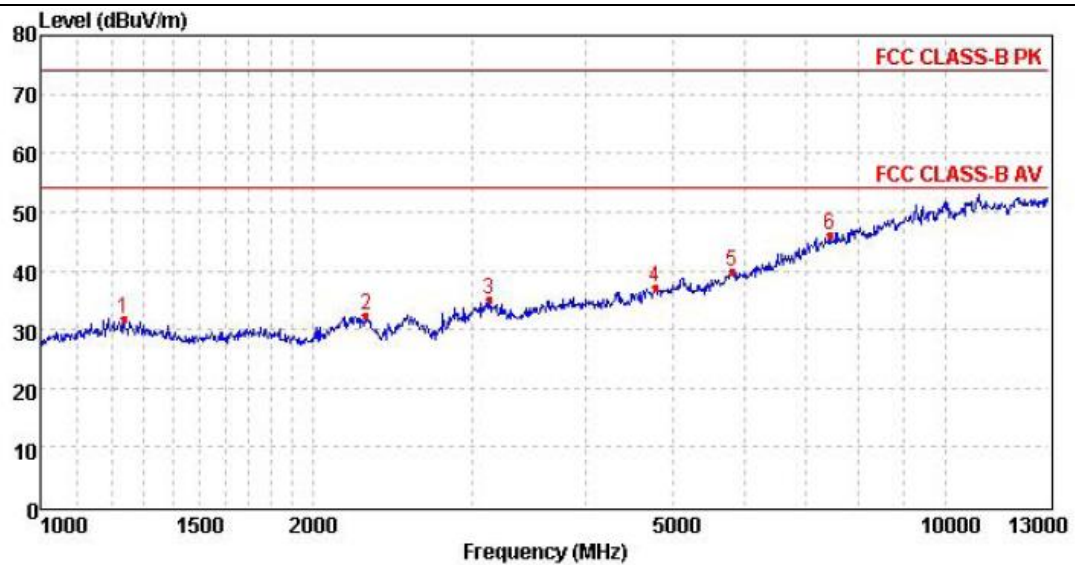
Note:

1. The EUT shall be scanned from 30 MHz to the 5th harmonic of the highest oscillator frequency in the digital devices or 1 GHz whichever is higher.
2. Have pre-tested RX1 to RX3 mode, record the worst case mode RX1 on the report.

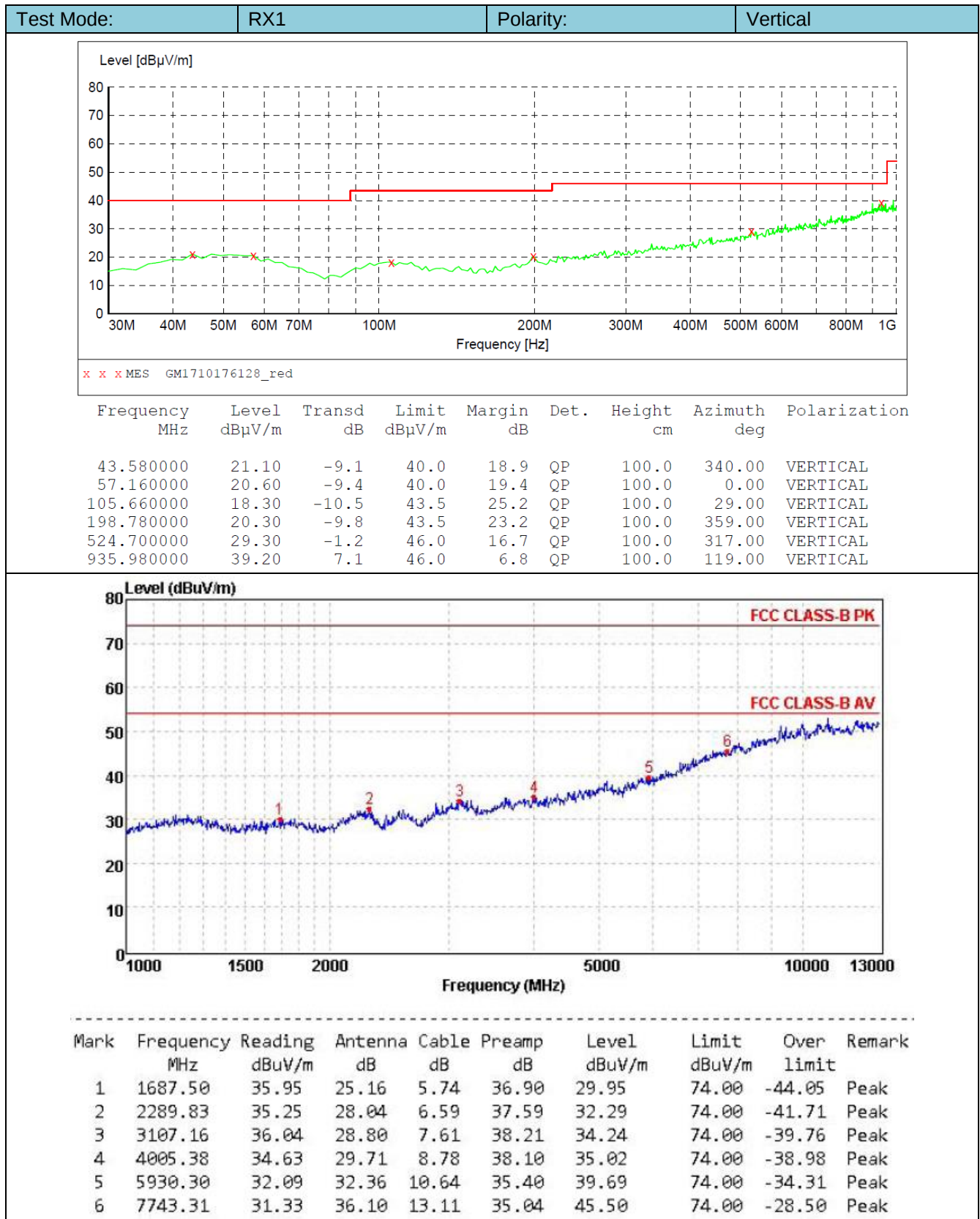
Test Mode:	RX1	Polarity:	Horizontal
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Frequency MHz	Level dBμV/m	Transd dB	Limit dBμV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
51.340000	21.50	-8.8	40.0	18.5	QP	100.0	6.00	HORIZONTAL
55.220000	20.20	-9.2	40.0	19.8	QP	300.0	61.00	HORIZONTAL
101.780000	19.70	-10.5	43.5	23.8	QP	300.0	218.00	HORIZONTAL
262.800000	23.60	-8.1	46.0	22.4	QP	300.0	360.00	HORIZONTAL
553.800000	28.70	-0.7	46.0	17.3	QP	300.0	314.00	HORIZONTAL
937.920000	38.40	7.1	46.0	7.6	QP	100.0	15.00	HORIZONTAL



Mark	Frequency MHz	Reading dBuV/m	Antenna dB	Cable dB	Preamp dB	Level dBuV/m	Limit dBuV/m	Over limit	Remark
1	1237.25	37.34	26.26	4.72	36.55	31.77	74.00	-42.23	Peak
2	2289.83	35.25	28.04	6.59	37.59	32.29	74.00	-41.71	Peak
3	3131.16	36.73	28.80	7.64	38.21	34.96	74.00	-39.04	Peak
4	4780.85	33.11	31.52	9.53	36.99	37.17	74.00	-36.83	Peak
5	5809.85	32.42	32.12	10.59	35.33	39.80	74.00	-34.20	Peak
6	7451.05	32.59	36.20	12.24	34.86	46.17	74.00	-27.83	Peak



6. Test Setup Photos of the EUT

Transmitter Radiated Spurious Emission:

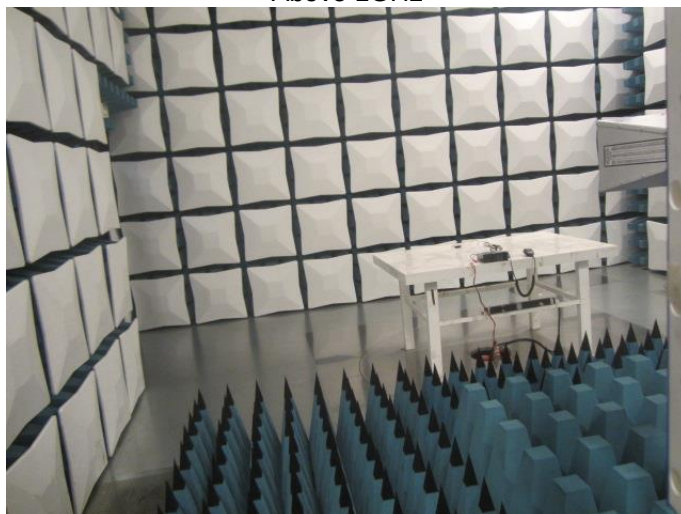


Radiated Emission:

30MHz-1GHz



Above 1GHz



Frequency stability:

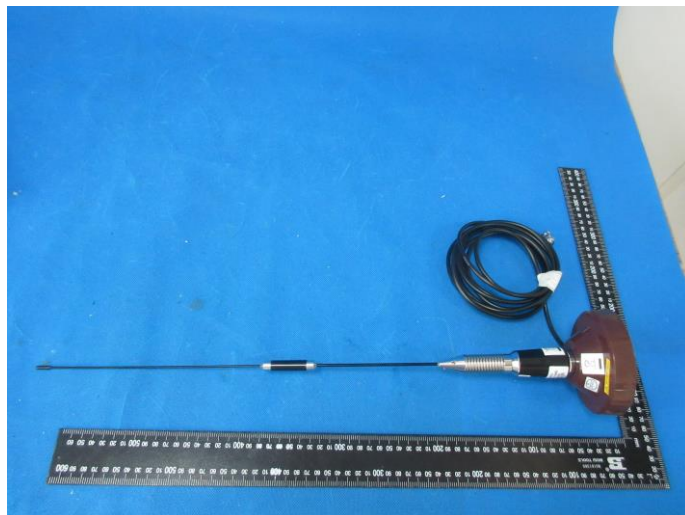


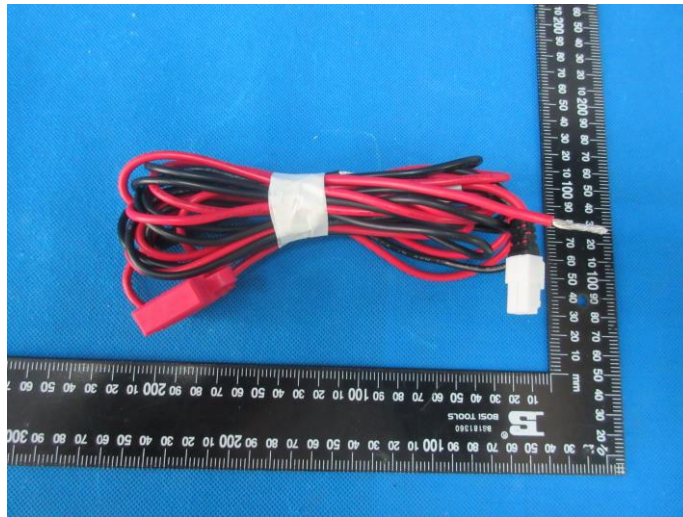
7. External and Internal Photos of the EUT

External Photos of the EUT

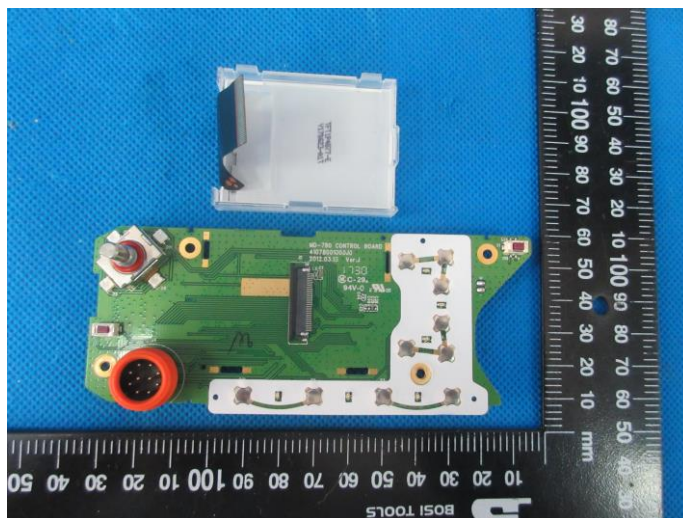


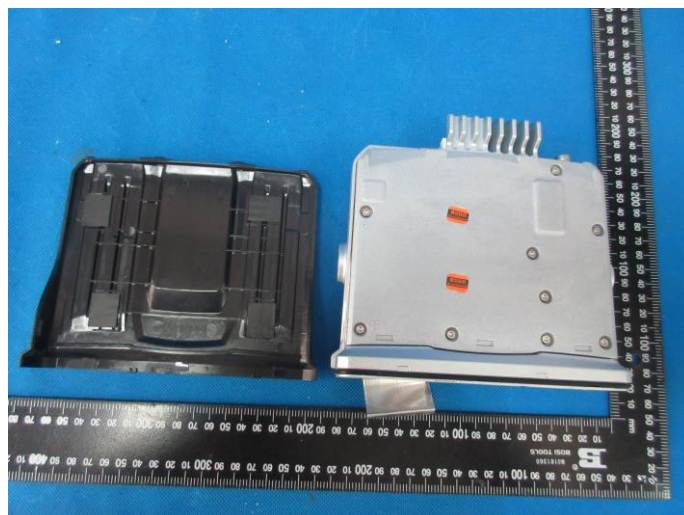


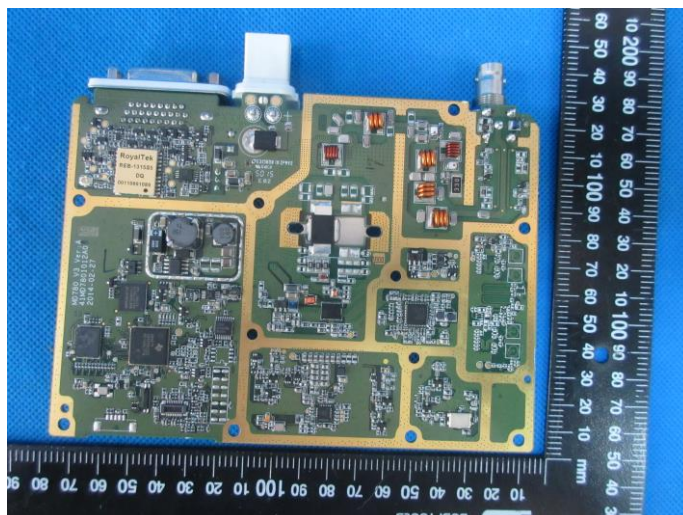
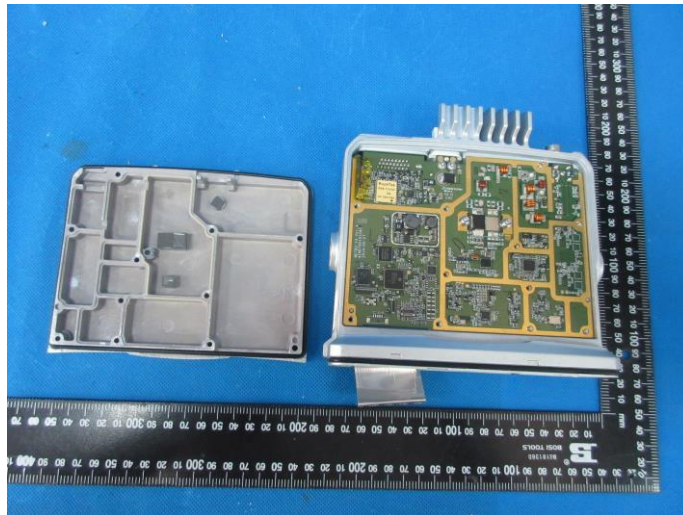


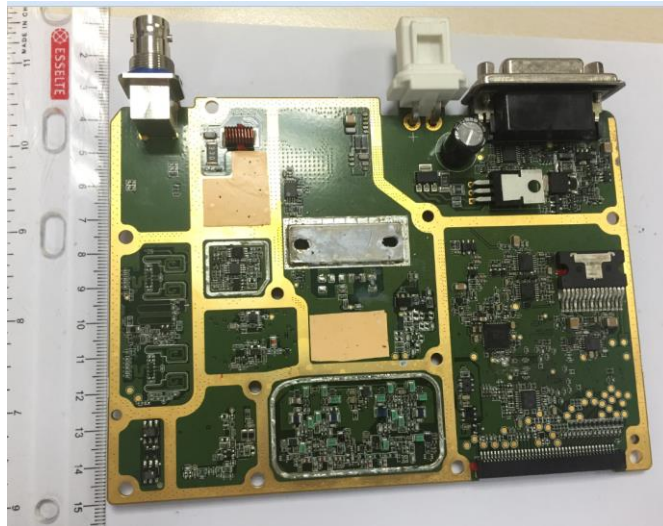
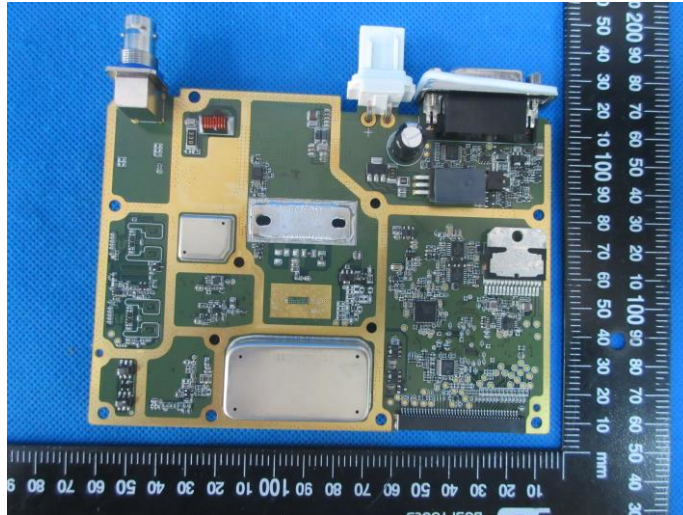


Internal Photos of the EUT









-----End of Report-----