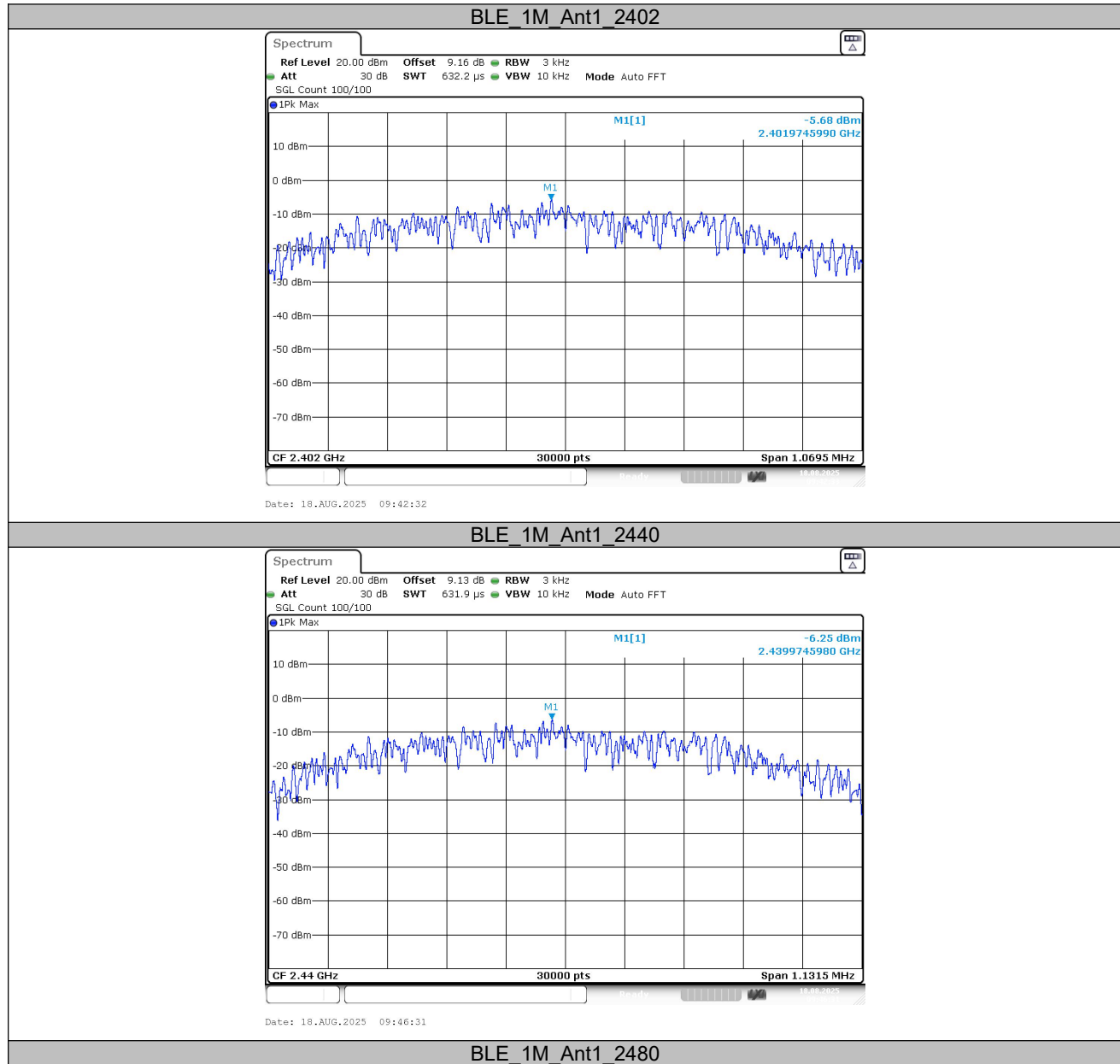
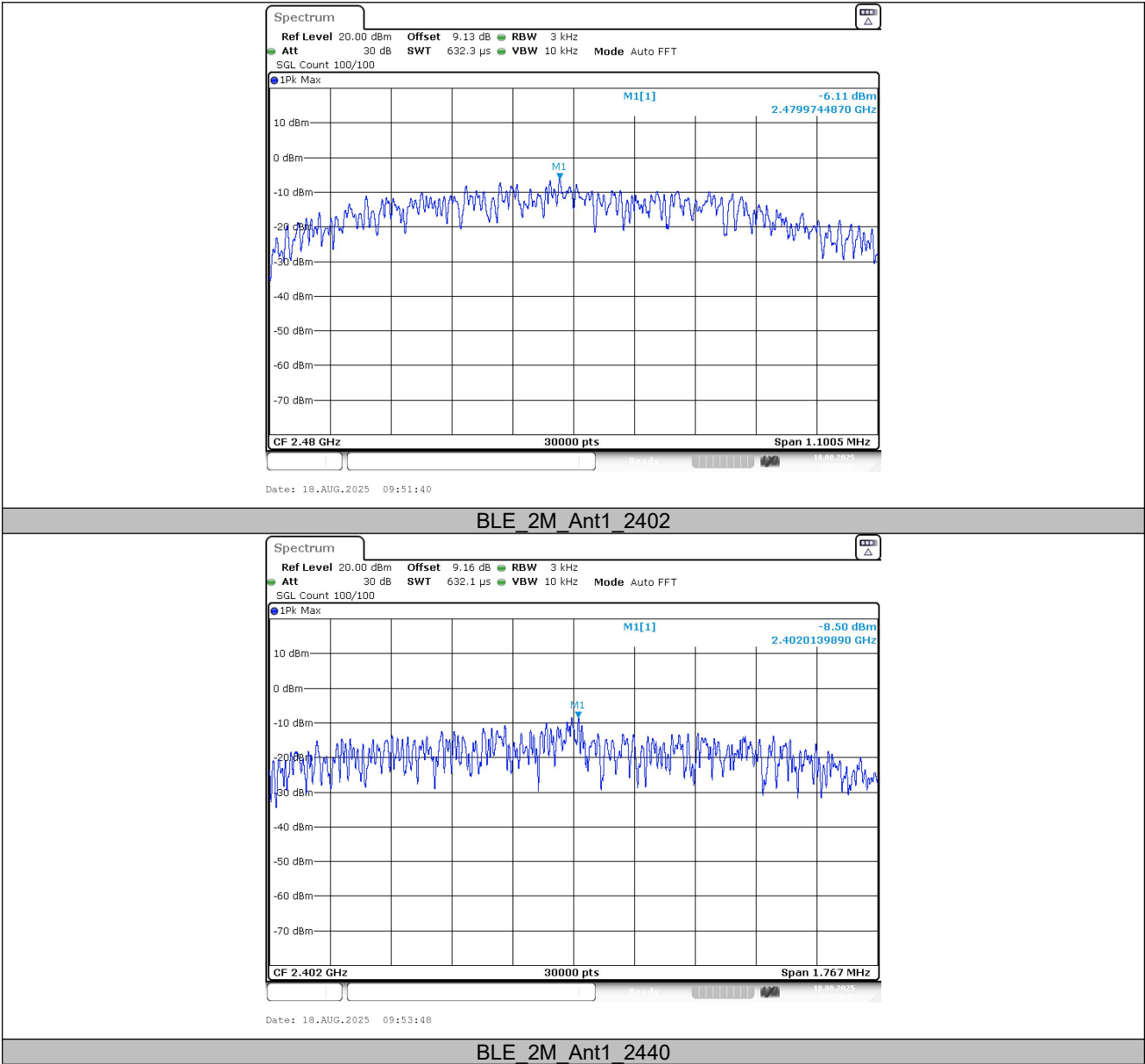
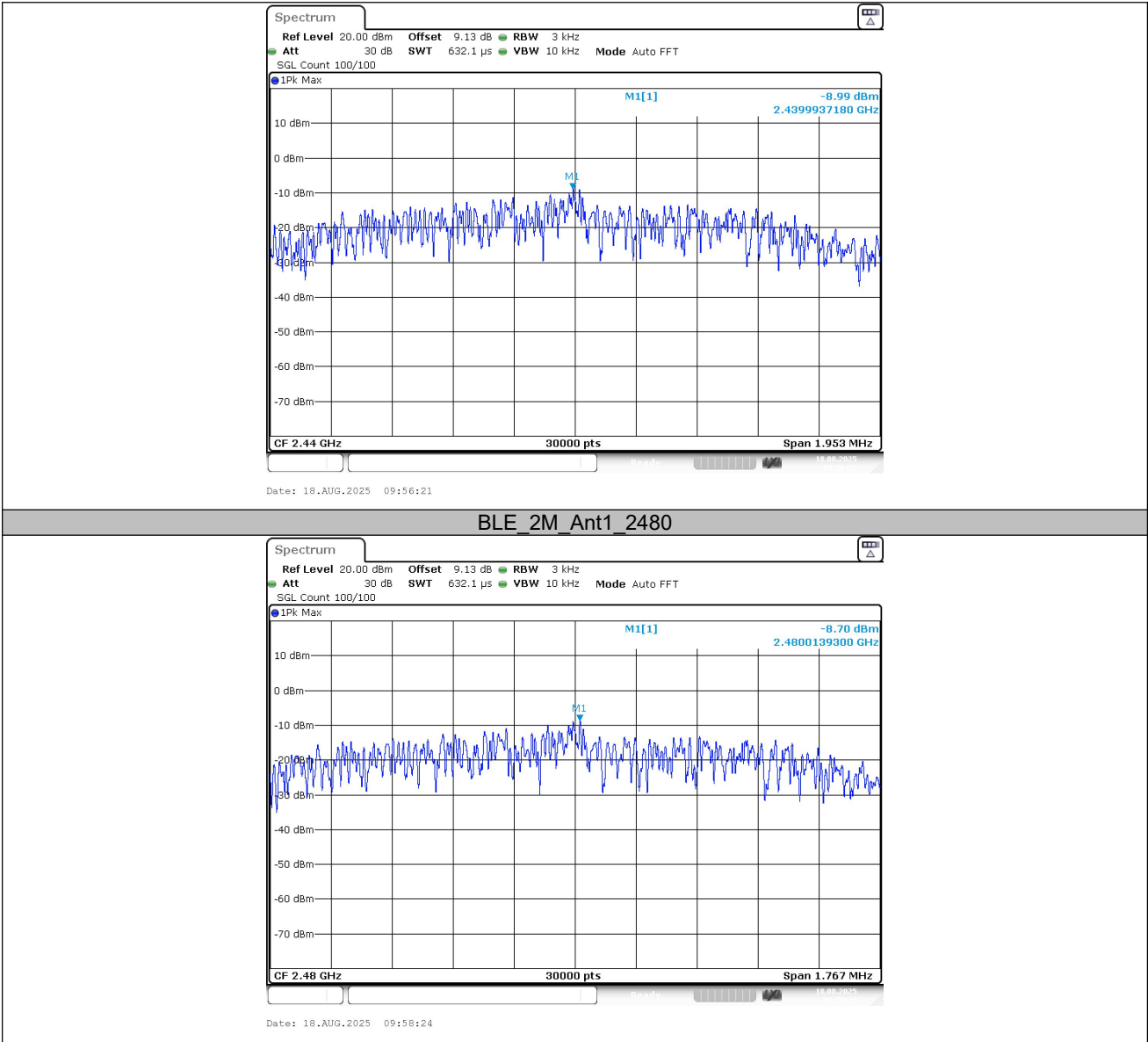








8. Occupied Bandwidth

8.1. Test limits

Systems using digital modulation techniques may operate in the 902-928 MHz, and 2400-2483.5 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz

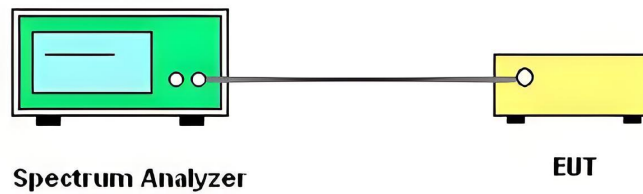
8.2. Test Procedure

Details see the KDB558074 D01 Meas Guidance v05r02

a) The bandwidth is measured at an amplitude level reduced 6dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.

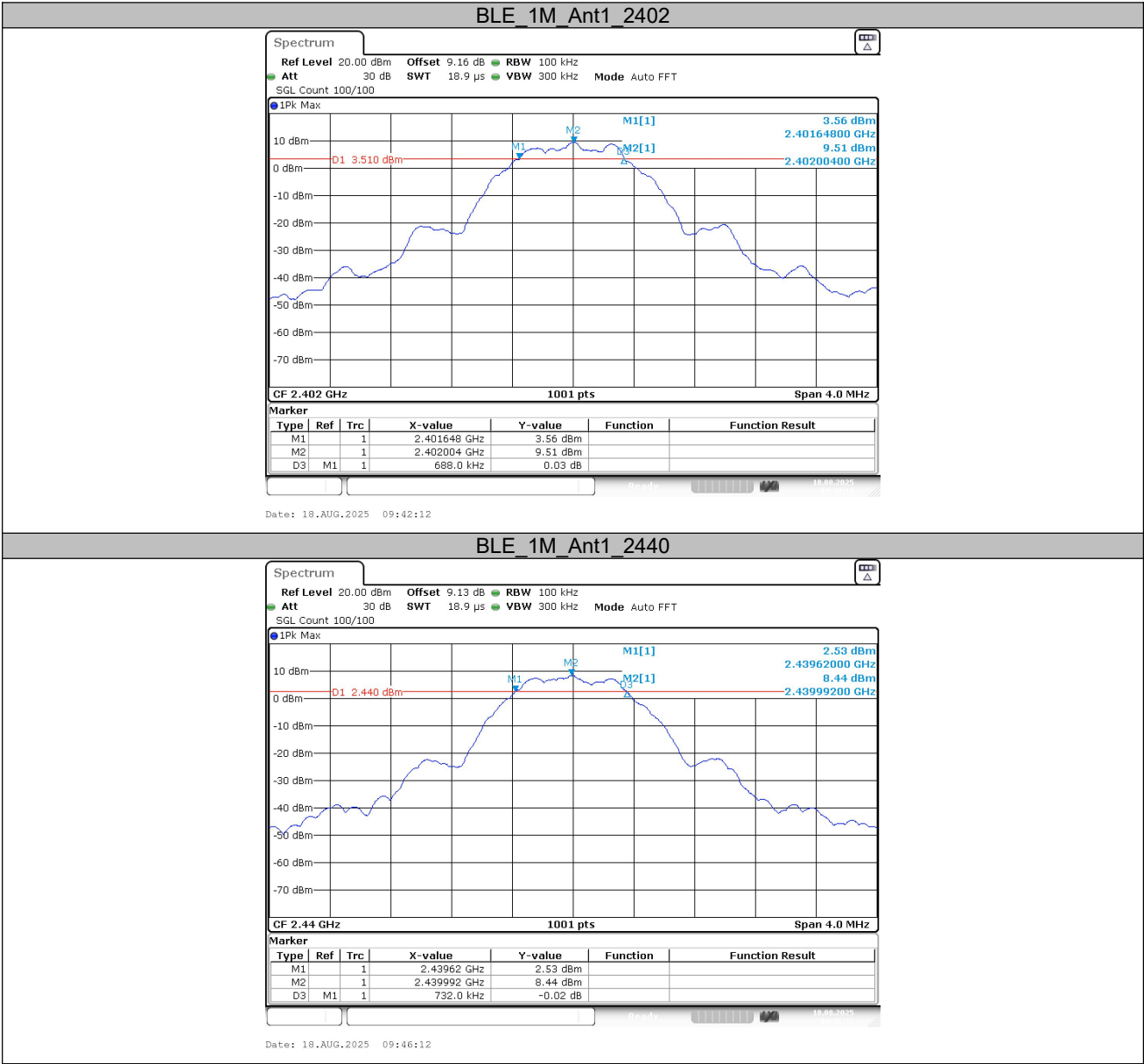
b) The test receiver set RBW = 100kHz, VBW $\geq$ 300kHz for DTS BW, RBW = 50kHz, VBW $\geq$ 200kHz for OCB, Peak Detector, Sweep time set auto, detail see the test plot.

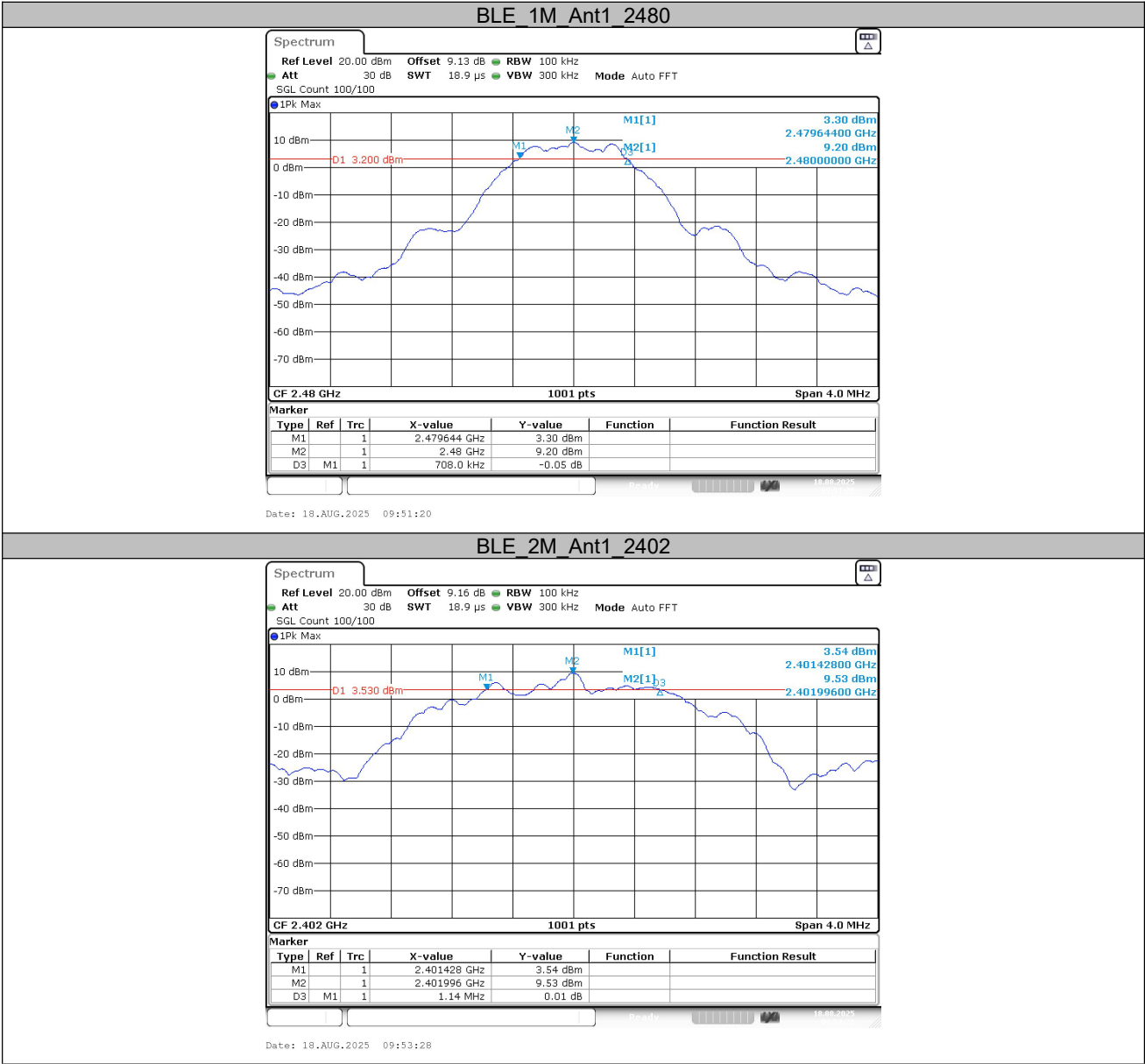
8.3. Test Setup

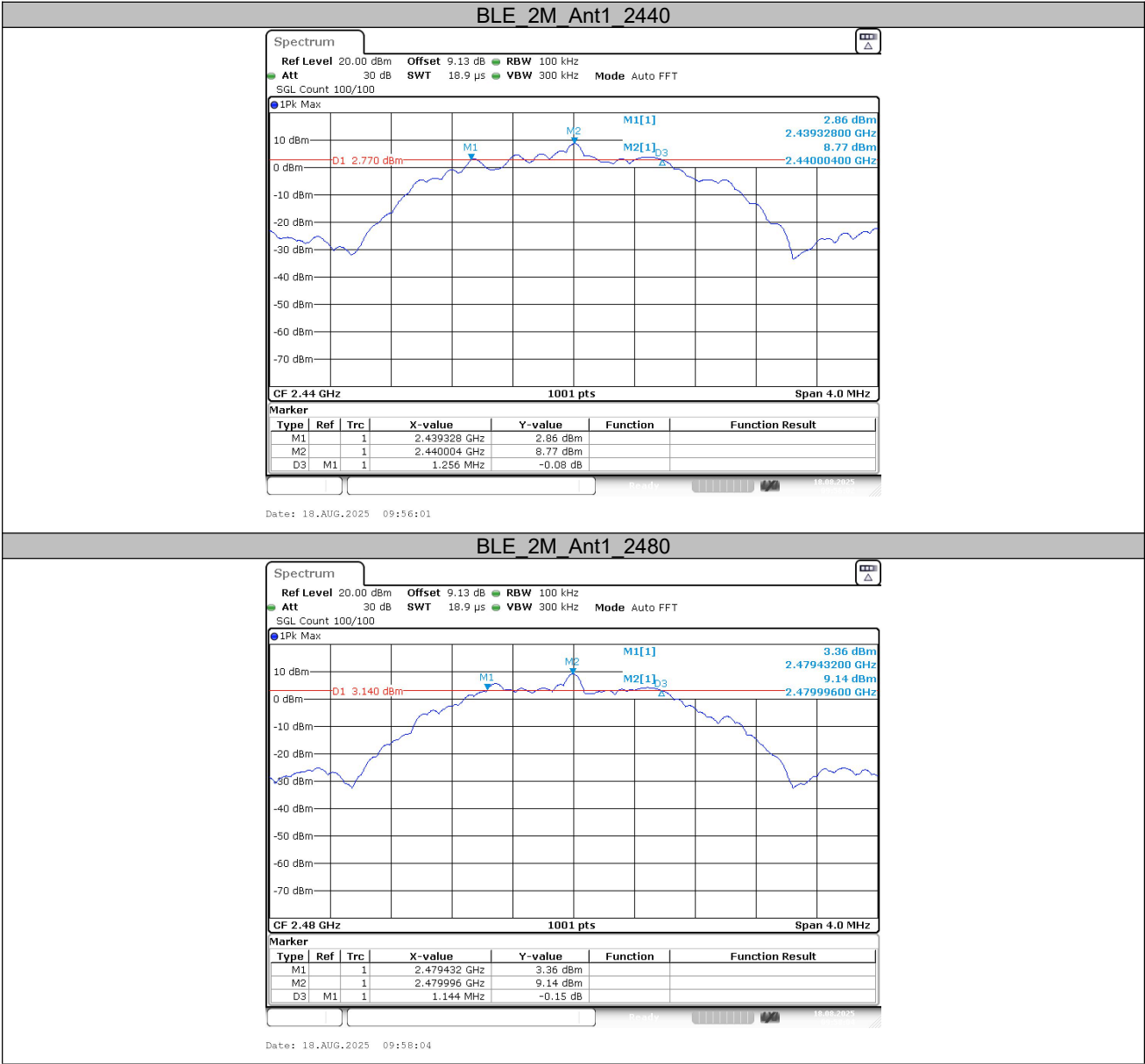


8.4. Test Results

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.69	2401.65	2402.34	0.5	PASS
		2440	0.73	2439.62	2440.35	0.5	PASS
		2480	0.71	2479.64	2480.35	0.5	PASS
BLE_2M	Ant1	2402	1.14	2401.43	2402.57	0.5	PASS
		2440	1.26	2439.33	2440.58	0.5	PASS
		2480	1.14	2479.43	2480.58	0.5	PASS

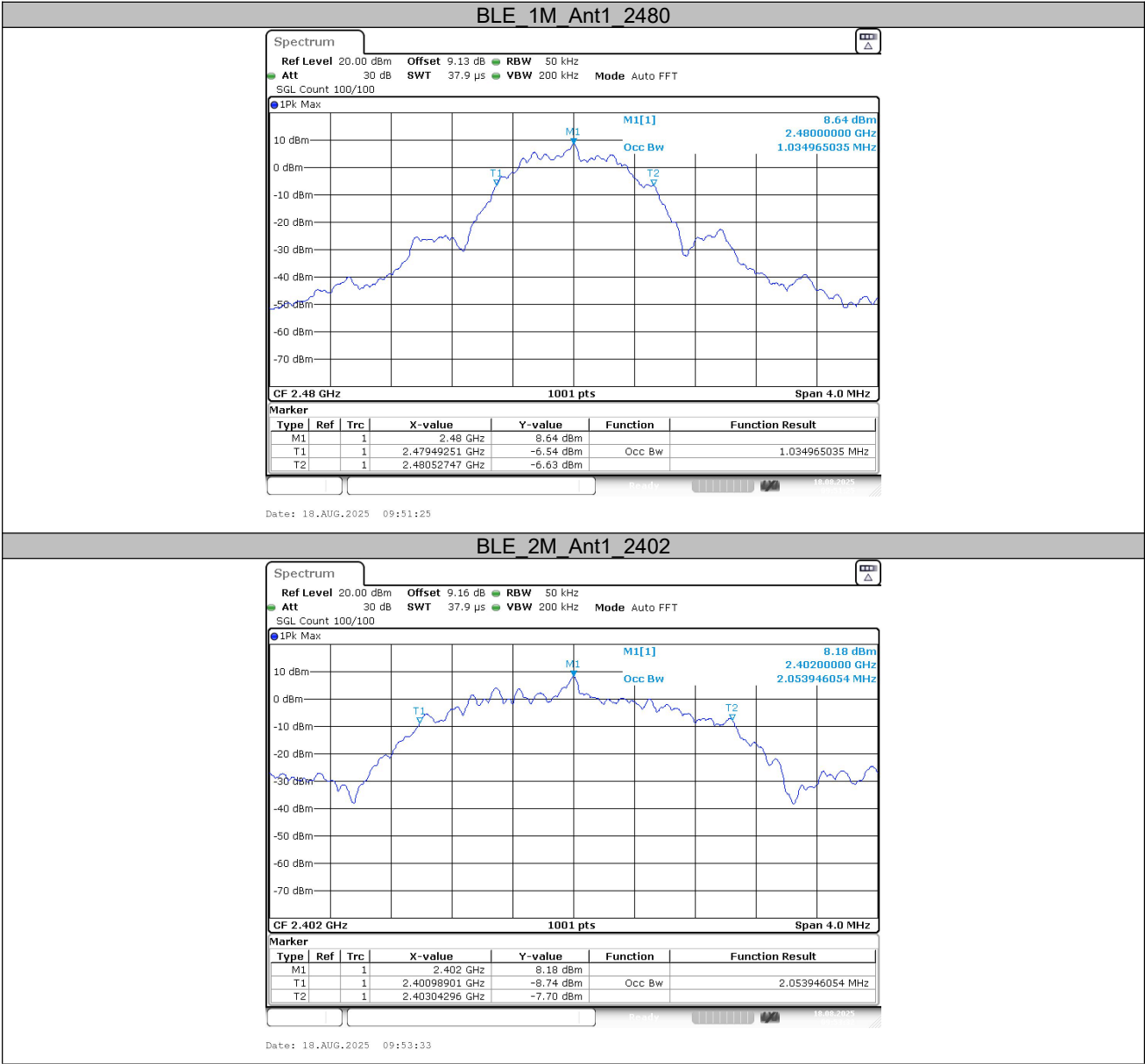


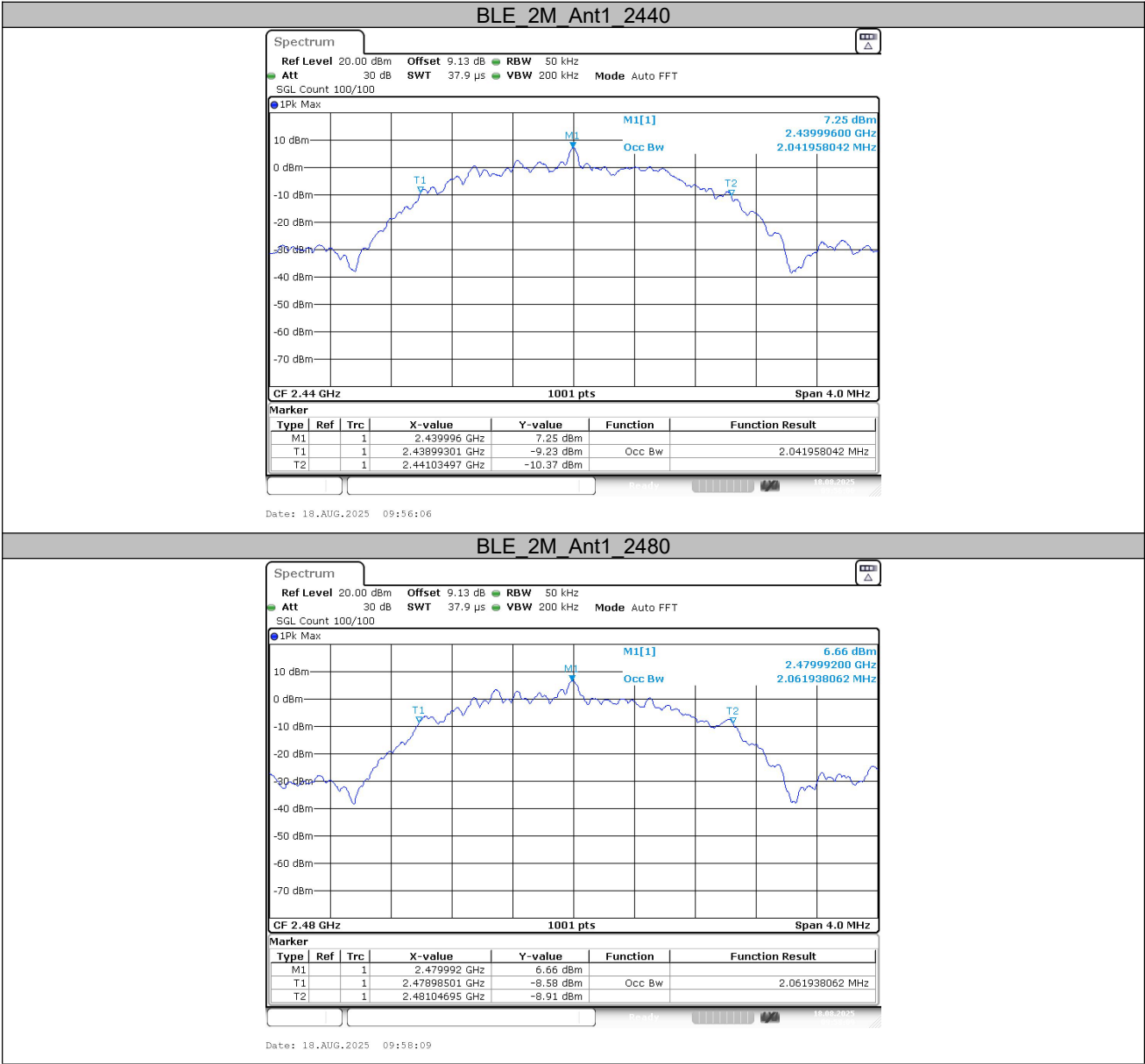




TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0390	2401.4885	2402.5275	---	---
		2440	1.0350	2439.4885	2440.5235	---	---
		2480	1.0350	2479.4925	2480.5275	---	---
BLE_2M	Ant1	2402	2.0539	2400.9890	2403.0430	---	---
		2440	2.0420	2438.9930	2441.0350	---	---
		2480	2.0619	2478.9850	2481.0470	---	---







9. Band Edge Test

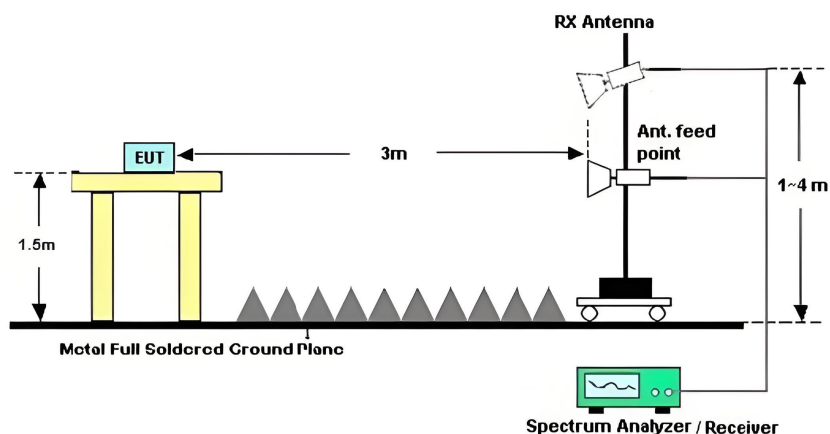
9.1. Test Limit

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)(see § 15.205(c)).

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100 **	3
88-216	150 **	3
216-960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241

9.2. Block Diagram of Test Setup



9.3. Test Procedure

ANSIC63.10-2020+Cor. 1-2023+C63.10a-2024 +Errata to C63.10a-2024 section 6.10.5.2
 All restriction band and non- restriction band have been tested, only worse case is reported.
 Details see the KDB558074 D01 Meas Guidance v05r02

1. Put the EUT on a 1.5m high table, power on the EUT. Emissions were scanned and measured rotating the EUT to 360 degrees, Find the maximum Emission
2. Check the spurious emissions out of band.
3. RBW 1MHz, VBW 3MHz, peak detector for peak value, RBW 1MHz, VBW > [1 / (minimum transmitter on time)] and no less than 1Hz, RMS detector for AV value

9.4. Test Results

Test Date	: 2025.06.20	Temperature	: 26℃
Test Engineer	: Felix Pang	Humidity	: 54%
Test Results	: PASS		

Frequency Range : 2310MHz~2410MHz								
Test Mode : 1Mbps: GFSK TX 2402MHz								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	74.93	-21.47	53.46	74.00	-20.54	Peak
2	2390	H	--	-21.47	--	54.00	--	Avg
3	2400	H	78.99	-26.12	52.87	74.00	-21.13	Peak
4	2400	H	--	-26.12	--	54.00	--	Avg
1	2390	V	75.23	-21.47	53.76	74.00	-20.24	Peak
2	2390	V	--	-21.47	--	54.00	--	Avg
3	2400	V	79.52	-26.12	53.40	74.00	-20.60	Peak
4	2400	V	--	-26.12	--	54.00	--	Avg
Frequency Range : 2450MHz~2550MHz								
Test Mode : 1Mbps: GFSK TX 2480MHz								
1	2483.5	H	79.25	-25.29	53.96	74.00	-20.04	Peak
2	2483.5	H	--	-25.29	--	54.00	--	Avg
1	2483.5	V	78.53	-25.29	53.24	74.00	-20.76	Peak
2	2483.5	V	--	-25.29	--	54.00	--	Avg
Note:	1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor. Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.							

Frequency Range : 2310MHz~2410MHz								
Test Mode : 2Mbps: GFSK TX 2402MHz								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	74.76	-21.47	53.29	74.00	-20.71	Peak
2	2390	H	--	-21.47	--	54.00	--	Avg
3	2400	H	79.28	-26.12	53.16	74.00	-20.84	Peak
4	2400	H	--	-26.12	--	54.00	--	Avg
1	2390	V	74.57	-21.47	53.10	74.00	-20.90	Peak
2	2390	V	--	-21.47	--	54.00	--	Avg
3	2400	V	78.61	-26.12	52.49	74.00	-21.51	Peak
4	2400	V	--	-26.12	--	54.00	--	Avg
Frequency Range : 2450MHz~2550MHz								
Test Mode : 1Mbps: GFSK TX 2480MHz								
1	2483.5	H	78.60	-25.29	53.31	74.00	-20.69	Peak
2	2483.5	H	--	-25.29	--	54.00	--	Avg
1	2483.5	V	79.18	-25.29	53.89	74.00	-20.11	Peak
2	2483.5	V	--	-25.29	--	54.00	--	Avg
Note: 1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor. Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.								

10. Antenna Requirement

10.1. Standard Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

10.2. Test Results

The EUT antenna is Internal PCB antenna. It complies with the standard requirement.

11. Photos of test setup

Reference to the **appendix I Test Setup Photo** for details.

12. Photos of EUT

Reference to the **appendix II external photos** and **appendix III internal photos** for details.

----- END OF REPORT-----