

RADIO TEST REPORT

REP068632

Date of issue: December 23, 2024

Applicant:

**Andrew Wireless Systems Industriering 10, Buchdorf 86675
Germany**

Product:

RPM-A61L1-7E

Model:

7847588-00

Model variant:

None

FCC ID:

XS5-RPML2-B121314

IC Registration number:

NA

Specifications:

◆ **FCC 47 CFR Part 27**

Miscellaneous Wireless Communications Services

Lab and test locations

Company name	Nemko Spa
Address	Via del Carroccio, 4
City	Biassono
Province	MB
Postal code	20853
Country	Italy
Telephone	+39 039 220 12 01
Website	+39 039 220 12 21

Tested by	O. Frau
Signature	
Reviewed by	D. Guarnone
Review date	December 23, 2024
Signature	

Limits of responsibility

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report. This test report has been completed in accordance with the requirements of ISO/IEC 17025. All results contain in this report are within Nemko Spa ISO/IEC 17025 accreditation.

Copyright notification

Nemko Spa authorizes the applicant to reproduce this report provided it is reproduced in its entirety and for use by the company's employees only. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Nemko Spa accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Table of contents

Table of contents	3
Section 1. Report summary	4
1.1 Applicant and manufacturer	4
1.2 Test specifications	4
1.3 Statement of compliance	4
1.4 Exclusions	4
1.5 Test report revision history	4
Section 2. Summary of test results	5
2.1 FCC Part 27 test results	5
Section 3. Equipment under test (EUT) details	6
3.1 Sample information	6
3.2 EUT information	6
3.3 Technical information	6
3.4 Product description and theory of operation	6
3.5 EUT exercise details	6
3.6 EUT setup diagram	7
Section 4. Engineering considerations	8
4.1 Modifications incorporated in the EUT	8
4.2 Technical judgment	8
4.3 Deviations from laboratory tests procedures	8
Section 5. Test conditions	9
5.1 Atmospheric conditions	9
5.2 Power supply range	9
Section 6. Measurement uncertainty	10
6.1 Uncertainty of measurement	10
Section 7. Test equipment	11
7.1 Test equipment list	11
Section 8. Testing data	12
8.1 FCC §2.1033(c)(4) Modulation type	12
8.2 FCC §2.1049(h) 99% Occupied Bandwidth and frequency ranges	13
8.3 FCC §27.53(h)(3) 26 dB Occupied Bandwidth	28
8.4 FCC §27.50(c)(3) Output power	43
8.5 FCC §27.50(d)(5) Peak to Average Power Ratio	57
8.6 FCC §27.53(m) Emission Limits	72
8.7 FCC §27.54 Frequency Stability	112
Section 9. Block diagrams of test setups	113
9.1 Conducted emissions set-up	113
9.2 Radiated emissions set-up	114

Section 1. Report summary

1.1 Applicant and manufacturer

Company name	Andrew Wireless Systems
Address	Industriering 10,
City	Buchdorf
Province/State	--
Postal/Zip code	86675
Country	Germany

1.2 Test specifications

FCC 47 CFR Part 27	Miscellaneous Wireless Communications Services
--------------------	--

1.3 Statement of compliance

In the configuration tested, the EUT was found compliant.

Testing was performed against all relevant requirements of the test standard. Results obtained indicate that the product under test complies in full with the requirements tested. The test results relate only to the items tested.

See "Summary of test results" for full details.

1.4 Exclusions

None

1.5 Test report revision history

Revision #	Details of changes made to test report
REP068632	Original report issued

Section 2. Summary of test results

2.1 FCC Part 27 test results

Part	Test description	Verdict
§2.1033(c)(4)	Modulation type	Pass
§2.1049(h)	99% Occupied bandwidth	Pass
§27.53(h)(3)	Frequency ranges	Pass
§27.50(c)(3)	Output power at RF antenna connector	Pass
§27.50(d)(5)	Peak to average power ratio	Pass
§27.53(m)	Conducted spurious emissions	Pass
§27.53(m)	Radiated spurious emissions	Pass
§27.53(h)(3)	26 dB Occupied bandwidth	Pass
§27.54	Frequency stability	Pass

Note: None.

Section 3. Equipment under test (EUT) details

3.1 Sample information

Receipt date	November 7, 2024
Nemko sample ID number	PRJ00630770006

3.2 EUT information

Product name	RPM-A61L1-7E
Model	7847588-00
Part Number	7847588-00
Serial number	SZRMBG24230045

3.3 Technical information

Frequency band	B12: 729 - 746 MHz
RF power Max (W), Conducted	max Port 1 = 23.4 dBm (0.22 W) – max Port 2 = 23.2 dBm (0.21 W); max comb. Port 1 + Port 2 = 26.3 dBm (0.43 W) @ 741.0 MHz (with 10 MHz bandwidth)
Supported bandwidths:	5, 10 MHz
Type of modulation	TM1.1, TM3p1, TM3p1a, TM3p3 (QPSK, 16QAM, 64QAM, 256QAM)
Power requirements	48 Vdc
Antenna information	The EUT uses a unique antenna coupling/ non-detachable antenna to the intentional radiator.
Antenna gain	3.7 dBi

3.4 Product description and theory of operation

The radio unit (RU) is one of the components to configure the 4G RAN mobile communication system.

3.5 EUT exercise details

A laptop computer was used to send test commands to EUT to force it to transmit the appropriate signal. Unit transmit the selected signal at full power. The unit was tested using a conducted port. The antenna installation shall be done by professionals, and they are not within the scope of the tests evaluated on this document.

3.6 EUT setup diagram

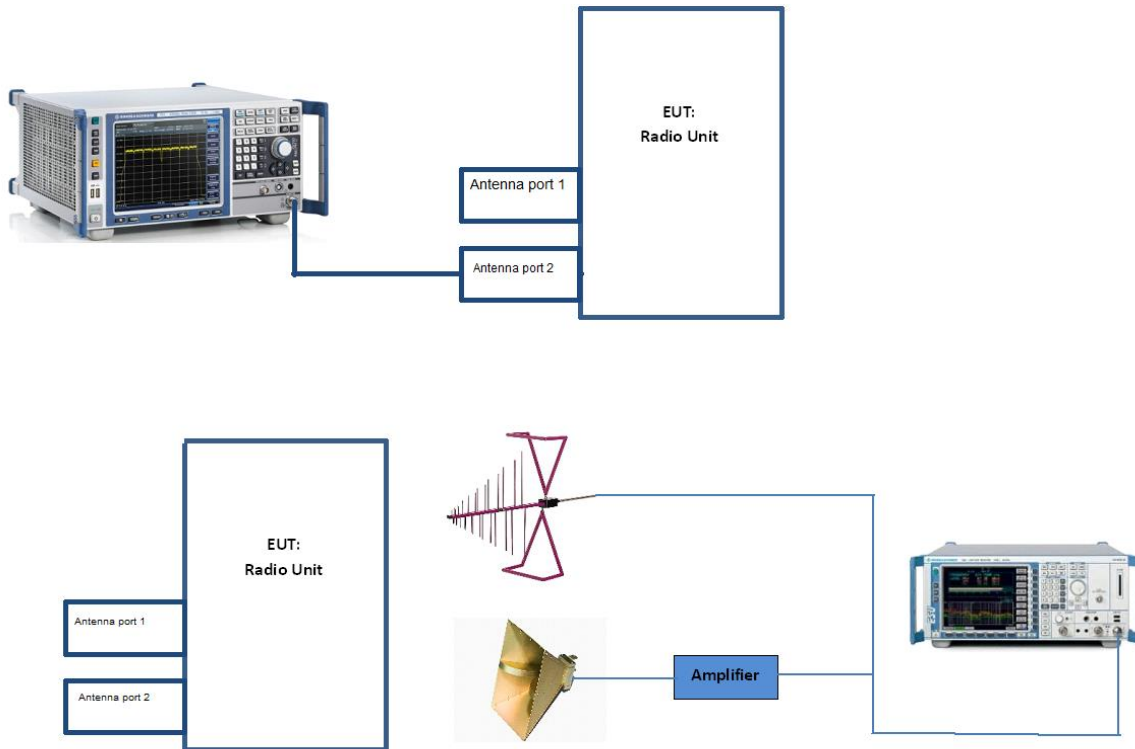


Figure 3.6-1: Setup diagram

Section 4. Engineering considerations

4.1 Modifications incorporated in the EUT

There were no modifications performed to the EUT during this assessment.

4.2 Technical judgment

None

4.3 Deviations from laboratory tests procedures

No deviations were made from laboratory procedures.

Section 5. Test conditions

5.1 Atmospheric conditions

Temperature	15 °C – 35 °C
Relative humidity	20 % – 75 %
Air pressure	86 kPa (860 mbar) – 106 kPa (1060 mbar)

When it is impracticable to carry out tests under these conditions, a note to this effect stating the ambient temperature and relative humidity during the tests shall be recorded and stated.

The following instruments are used to monitor the environmental conditions:

Equipment	Manufacturer	Model no.	Asset no.	Cal date	Next cal.
Thermo-hygrometer data loggers	Testo	175-H2	20012380/305	2022-12	2024-12
Thermo-hygrometer data loggers	Testo	175-H2	38203337/703	2022-12	2024-12
Barometer	Castle	GPB 3300	072015	2024-04	2025-04

5.2 Power supply range

The normal test voltage for equipment to be connected to the mains shall be the nominal mains voltage. For the purpose of the present document, the nominal voltage shall be the declared voltage, or any of the declared voltages $\pm 5\%$, for which the equipment was designed.

Section 6. Measurement uncertainty

6.1 Uncertainty of measurement

The measurement uncertainty was calculated for each test and quantity listed in this test report, according to CISPR 16-4-2, ETSI TR 100 028-1, ETSI TR 100 028-2 and other specific test standards and is documented in Nemko Spa working manuals WML1002 and WML0078.

The assessment of conformity for each test performed on the equipment is performed not taking into account the measurement uncertainty. The two following possible verdicts are stated in the report:

P (Pass) - The measured values of the equipment respect the specification limit at the points tested. The specific risk of false accept is up to 50% when the measured result is close to the limit.

F (Fail) - One or more measured values of the equipment do not respect the specification limit at the points tested. The specific risk of false reject is up to 50% when the measured result is close to the limit.

Hereafter Nemko's measurement uncertainties are reported:

EUT	Type	Test	Range	Measurement Uncertainty	Notes
Transmitter	Conducted	Frequency error	0.001 MHz ÷ 40 GHz	0.08 ppm	(1)
		Carrier power RF Output Power	0.009 MHz ÷ 30 MHz	1.1 dB	(1)
			30 MHz ÷ 18 GHz	1.5 dB	(1)
			18 MHz ÷ 40 GHz	3.0 dB	(1)
			5 MHz ÷ 140 GHz	5.0 dB	(1)
		Adjacent channel power	1 MHz ÷ 18 GHz	1.4 dB	(1)
		Conducted spurious emissions	0.009 MHz ÷ 18 GHz	3.0 dB	(1)
			18 GHz ÷ 40 GHz	4.2 dB	(1)
			40 GHz ÷ 220 GHz	6.0 dB	(1)
		Intermodulation attenuation	1 MHz ÷ 18 GHz	2.2 dB	(1)
		Attack time – frequency behaviour	1 MHz ÷ 18 GHz	2.0 ms	(1)
		Attack time – power behaviour	1 MHz ÷ 18 GHz	2.5 ms	(1)
		Release time – frequency behaviour	1 MHz ÷ 18 GHz	2.0 ms	(1)
		Release time – power behaviour	1 MHz ÷ 18 GHz	2.5 ms	(1)
		Transient behaviour of the transmitter– Transient frequency behaviour	1 MHz ÷ 18 GHz	0.2 kHz	(1)
		Transient behaviour of the transmitter – Power level slope	1 MHz ÷ 18 GHz	9%	(1)
		Frequency deviation - Maximum permissible frequency deviation	0.001 MHz ÷ 18 GHz	1.3%	(1)
		Frequency deviation - Response of the transmitter to modulation frequencies above 3 kHz	0.001 MHz ÷ 18 GHz	0.5 dB	(1)
		Dwell time	-	3%	(1)
		Hopping Frequency Separation	0.01 MHz ÷ 18 GHz	1%	(1)
		Occupied Channel Bandwidth	0.01 MHz ÷ 18 GHz	2%	(1)
		Modulation Bandwidth	0.01 MHz ÷ 18 GHz	2%	(1)
	Radiated	Radiated spurious emissions	0.009 MHz ÷ 26.5 GHz	6.0 dB	(1)
			26.5 GHz ÷ 66 GHz	8.0 dB	(1)
			66 GHz ÷ 220 GHz	10 dB	(1)
		Effective radiated power transmitter	10 kHz ÷ 26.5 GHz	6.0 dB	(1)
			26.5 GHz ÷ 66 GHz	8.0 dB	(1)
			66 GHz ÷ 220 GHz	10 dB	(1)

NOTES:

(1) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor $k = 2$, which for a normal distribution corresponds to a coverage probability of approximately 95 %

Section 7. Test equipment

7.1 Test equipment list

Table 7.1-1: Equipment list

Equipment	Manufacturer	Model no.	Asset no.	Cal cycle	Next cal.
Spectrum Analyzer	Rohde & Schwarz	FSW43	101767	2024-01	2025-01
EMI Receiver	Rohde & Schwarz	ESU8	100202	2024-09	2025-09
EMI Receiver	Rohde & Schwarz	ESW44	101620	2024-08	2025-08
RF Vector Signal Generator	Rohde & Schwarz	SMBV100A	263254	2024-05	2025-05
RF Vector Signal Generator	Rohde & Schwarz	SMBV100A	263397	2024-09	2025-09
Climatic Chamber	MSL	EC500DA	15022	2024-01	2025-01
Antenna Trilog 25MHz - 8GHz	Schwarzbeck Mess-Elektronik	VULB9162	9162-025	2024-07	2027-07
Antenna 1 - 18 GHz	Schwarzbeck Mess-Elektronik	STLP9148	STLP 9148-152	2024-09	2027-09
Double Ridge Horn Antenna	RFSpin	DRH40	061106A40	2023-04	2026-04
Broadband Amplifier	Schwarzbeck Mess-Elektronik	BBV9718C	00121	2024-01	2025-01
Broadband Bench Top Amplifier	Sage	STB-1834034030-KFKF-L1	18490-01	2024-04	2025-04
Semi-anechoic chamber	Nemko S.p.a.	10m semi-anechoic chamber	530	2023-09	2025-09
Controller	Maturo	FCU3.0	10041	NCR	NCR
Tilt antenna mast	Maturo	TAM4.0-E	10042	NCR	NCR
Turntable	Maturo	TT4.0-5T	2.527	NCR	NCR
Semi-anechoic chamber	Comtest	3m SAC	1711-150	2024-09	2026-09
Controller	Maturo	FCU3.0	10237	NCR	NCR
Tilt antenna mast	Maturo	TAM4.0-E	3466.01	NCR	NCR
Turntable	Maturo	TT4.0	-	NCR	NCR
Pyramidal Horn Antenna 40-60 GHz	Sage	SAR-2507-19VF-R2	15715-01	2024-06	2027-06
Harmonic Mixer	Radiometer Physics	FS-Z60	100988	2024-01	2027-01
Cable set	Rosenberger	ST.ALO-02	1.650	2024-10	2025-10
Cable set	Rosenberger and Huber + Suhner	RE01+RE02	1.654+1.655	2024-09	2025-09
Cable set	Rosenberger+Huber-Suhner	RE03+RE04	1.510+1.511	2024-09	2025-09

Section 8. Testing data

8.1 FCC §2.1033(c)(4) Modulation type

8.1.1 Definitions and limits

(c) Applications for equipment other than that operating under parts 15, 11 and 18 of this chapter shall be accompanied by a technical report containing the following information:

(4) Type or types of emission

8.1.2 Test summary

Test date	November 20, 2024	Temperature	22 °C
Test engineer	O. Frau	Air pressure	1001 mbar
Verdict	Pass	Relative humidity	62 %

8.1.3 Observations, settings and special notes

None

8.1.4 Test data

Band B12:

Bandwidth (MHz)	Emission type
5	TM1.1
5	TM3p1
5	TM3p1a
5	TM3p3
10	TM1.1
10	TM3p1
10	TM3p1a
10	TM3p3

Table Error. Per applicare Heading 2 al testo da visualizzare in questo punto, utilizzare la scheda Home.-1: Types of emission

8.2 FCC §2.1049(h) 99% Occupied Bandwidth and frequency ranges

8.2.1 Definitions and limits

§2.1049 (h) Transmitters employing digital modulation techniques—when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated. The signal shall be applied through any filter networks, pseudo-random generators or other devices required in normal service. Additionally, the occupied bandwidth shall be shown for operation with any devices used for modifying the spectrum when such devices are optional at the discretion of the use.

8.2.2 Test summary

Test start date	November 22, 2024	Temperature	22 °C
Test end date	December 13, 2024	Air pressure	1001 mbar
Test engineer	O. Frau	Relative humidity	62%
Verdict	Pass		

8.2.3 Observations, settings and special notes

Test method: ANSI C63.26 Section 5.4.4

Spectrum analyzer settings:

Resolution bandwidth	1% - 5% OBW
Video bandwidth	3*RBW
Frequency span	2*OBW
Detector mode	Peak
Trace mode	Max Hold

8.2.4 Test equipment used

Equipment	Manufacturer	Model no.	Asset no.
Spectrum Analyzer	Rohde & Schwarz	FSW43	101767

8.2.5 Test data

Band B12: Antenna port 1

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	5 MHz	TM1.1	731.5	4.49
B12	5 MHz	TM1.1	737.5	4.50
B12	5 MHz	TM1.1	743.5	4.49

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	5 MHz	TM3p1	731.5	4.50
B12	5 MHz	TM3p1	737.5	4.51
B12	5 MHz	TM3p1	743.5	4.51

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	5 MHz	TM3p1a	731.5	4.48
B12	5 MHz	TM3p1a	737.5	4.49
B12	5 MHz	TM3p1a	743.5	4.48

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	5 MHz	TM3p3	731.5	4.50
B12	5 MHz	TM3p3	737.5	4.50
B12	5 MHz	TM3p3	743.5	4.50

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	10 MHz	TM1.1	734.0	8.96
B12	10 MHz	TM1.1	737.5	8.97
B12	10 MHz	TM1.1	741.0	8.97

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	10 MHz	TM3p1	734.0	8.97
B12	10 MHz	TM3p1	737.5	8.97
B12	10 MHz	TM3p1	741.0	8.97

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	10 MHz	TM3p1a	734.0	8.97
B12	10 MHz	TM3p1a	737.5	8.97
B12	10 MHz	TM3p1a	741.0	8.98

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	10 MHz	TM3p3	734.0	8.97
B12	10 MHz	TM3p3	737.5	8.97
B12	10 MHz	TM3p3	741.0	8.97

Band B12: Antenna port 2

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	5 MHz	TM1.1	731.5	4.49
B12	5 MHz	TM1.1	737.5	4.49
B12	5 MHz	TM1.1	743.5	4.50

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	5 MHz	TM3p1	731.5	4.52
B12	5 MHz	TM3p1	737.5	4.50
B12	5 MHz	TM3p1	743.5	4.51

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	5 MHz	TM3p1a	731.5	4.48
B12	5 MHz	TM3p1a	737.5	4.49
B12	5 MHz	TM3p1a	743.5	4.49

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	5 MHz	TM3p3	731.5	4.50
B12	5 MHz	TM3p3	737.5	4.50
B12	5 MHz	TM3p3	743.5	4.50

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	10 MHz	TM1.1	734.0	8.96
B12	10 MHz	TM1.1	737.5	8.96
B12	10 MHz	TM1.1	741.0	8.96

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	10 MHz	TM3p1	734.0	8.96
B12	10 MHz	TM3p1	737.5	8.97
B12	10 MHz	TM3p1	741.0	8.97

Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	10 MHz	TM3p1a	734.0	8.97
B12	10 MHz	TM3p1a	737.5	8.97
B12	10 MHz	TM3p1a	741.0	8.98

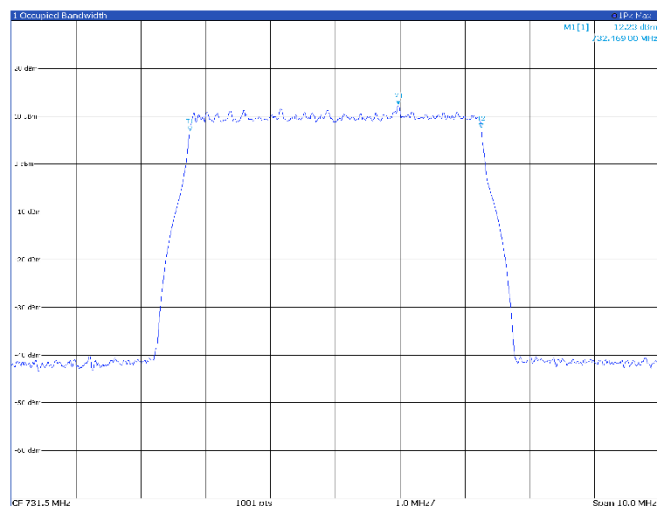
Band	OBW Declared	Modulation	Channel (MHz)	99% OBW (MHz)
B12	10 MHz	TM3p3	734.0	8.97
B12	10 MHz	TM3p3	737.5	8.97
B12	10 MHz	TM3p3	741.0	8.97

Antenna port 1

Band B12

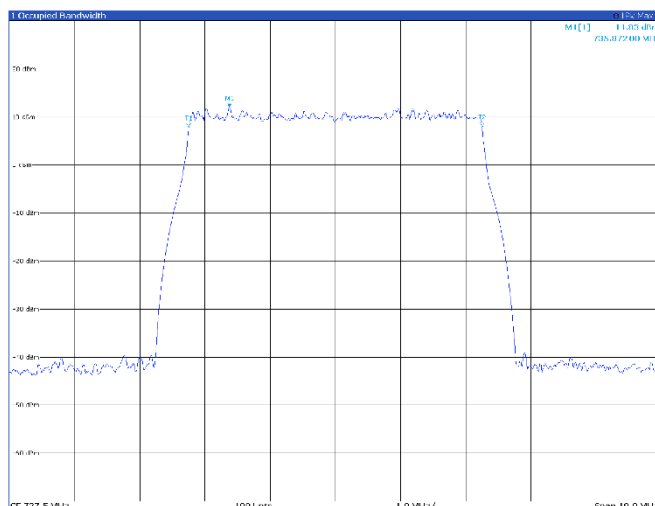
5 MHz

TM1.1, 5 MHz, low channel



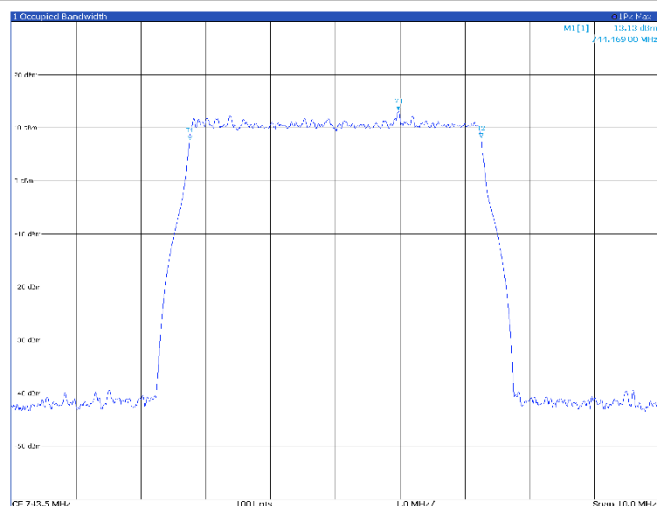
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		732.469 MHz	12.23 dBm	Occ Sw	4.491 406 139 MHz
M1	1		731.256 16 MHz	6.05 dBm	Occ Sw Channel	731.256 16 MHz
M2	1		732.469 139 MHz	7.40 dBm	Occ Sw -100 dB Offset	732.469 139 MHz

TM1.1, 5 MHz, mid channel



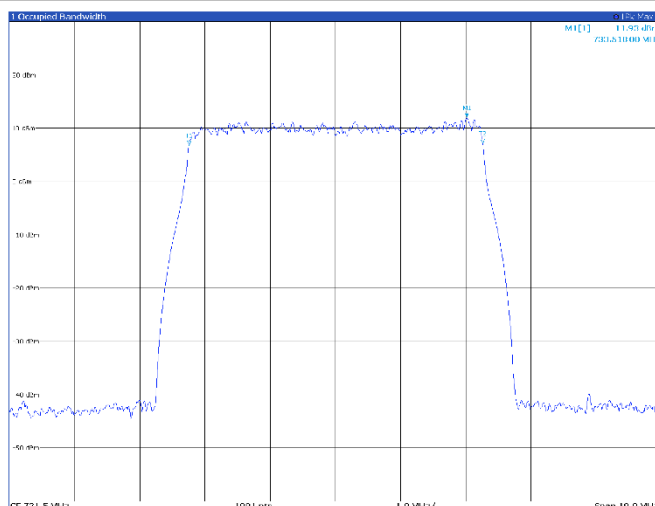
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		735.872 MHz	11.83 dBm	Occ Sw	4.496 770 149 MHz
M1	1		735.251 14 MHz	7.70 dBm	Occ Sw Channel	735.251 14 MHz
M2	1		735.872 149 MHz	7.38 dBm	Occ Sw -100 dB Offset	735.872 149 MHz

TM1.1, 5 MHz, high channel



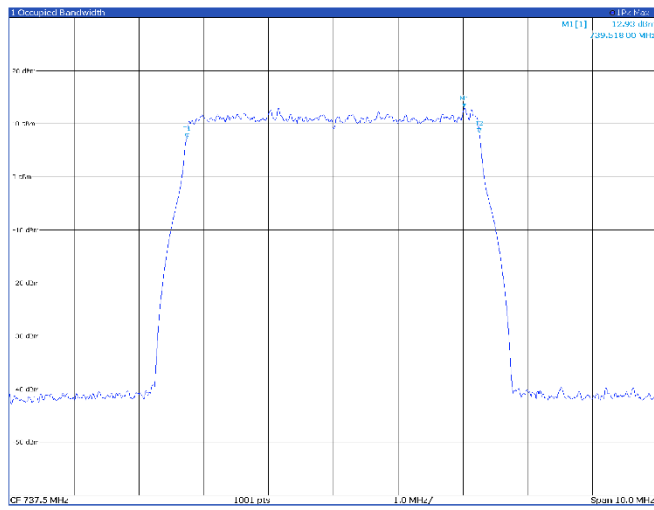
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		744.469 MHz	13.13 dBm	Occ Sw	4.494 541 55 MHz
M1	1		743.256 43 MHz	7.75 dBm	Occ Sw Channel	743.256 43 MHz
M2	1		744.469 55 MHz	8.10 dBm	Occ Sw -100 dB Offset	744.469 55 MHz

TM3p1, 5 MHz, low channel



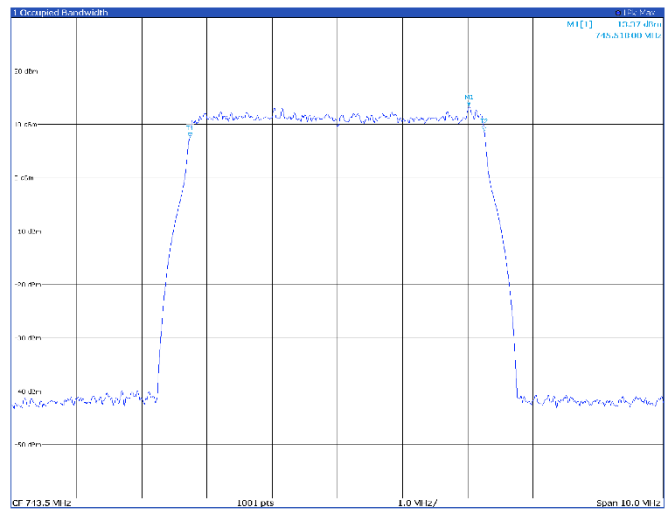
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		733.518 MHz	11.93 dBm	Occ Sw	4.501 269 809 MHz
M1	1		732.259 10 MHz	6.75 dBm	Occ Sw Channel	732.259 10 MHz
M2	1		733.518 809 MHz	7.13 dBm	Occ Sw -100 dB Offset	733.518 809 MHz

TM3p1, 5 MHz, mid channel



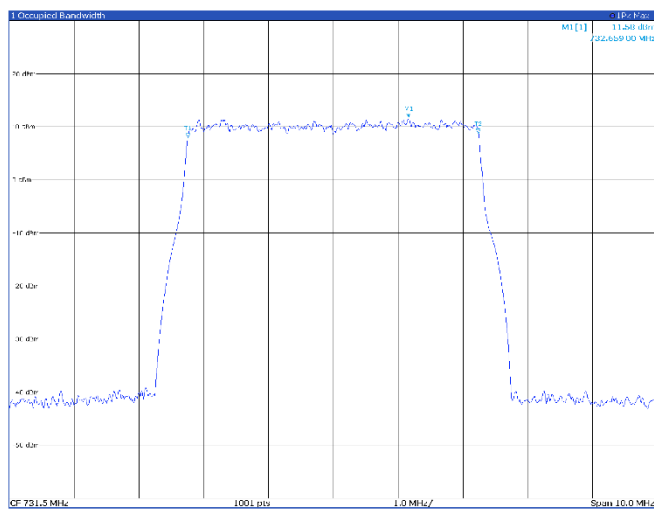
Type	Ref	Trc	X Value	Y Value	Corr. Fnc	Function	Function Result
M1	1		739.518 MHz	12.93 dBm	Corr. Fnc		4.510403763 MHz
T1	1		739.518 MHz	12.93 dBm	Corr. Fnc		737.465217451 MHz
Z	1		739.518 MHz	12.93 dBm	Corr. Fnc		740.570313415 MHz

TM3p1, 5 MHz, high channel



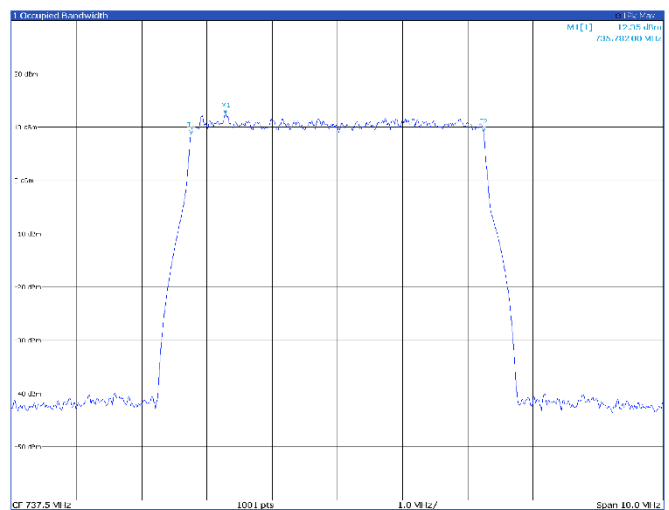
Type	Ref	Trc	X Value	Y Value	Corr. Fnc	Function	Function Result
M1	1		745.518 MHz	13.37 dBm	Corr. Fnc		4.513173768 MHz
T1	1		745.518 MHz	13.37 dBm	Corr. Fnc		743.465217451 MHz
Z	1		745.518 MHz	13.37 dBm	Corr. Fnc		746.570313415 MHz

TM3p1a, 5 MHz, low channel



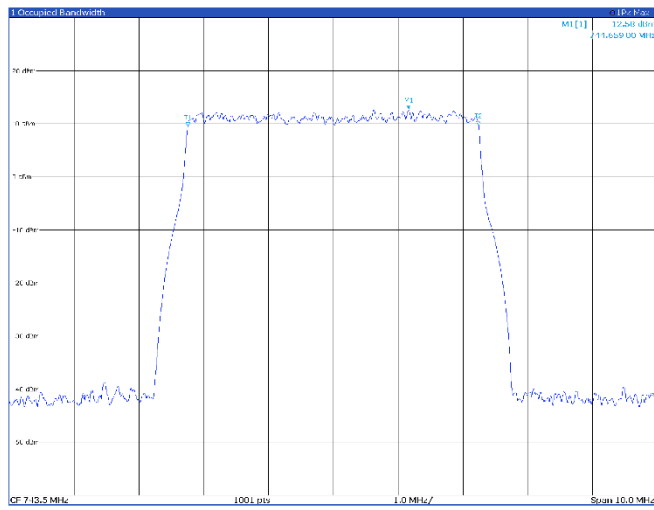
Type	Ref	Trc	X Value	Y Value	Corr. Fnc	Function	Function Result
M1	1		732.659 MHz	11.55 dBm	Corr. Fnc		4.483732477 MHz
T1	1		732.659 MHz	11.55 dBm	Corr. Fnc		730.465217451 MHz
Z	1		732.659 MHz	11.55 dBm	Corr. Fnc		734.655313415 MHz

TM3p1a, 5 MHz, mid channel



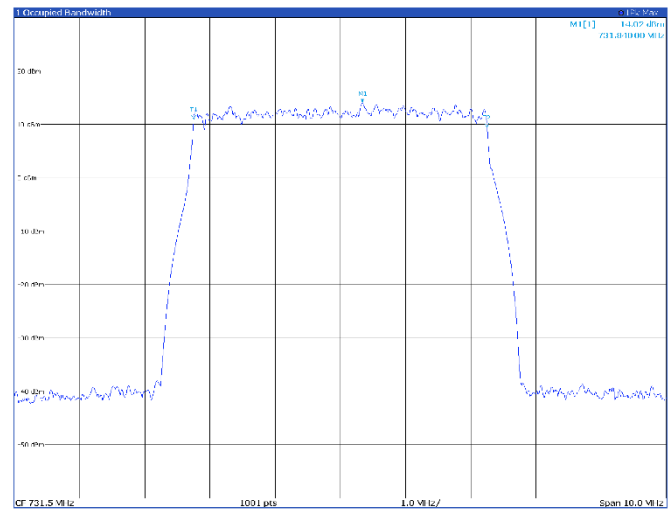
Type	Ref	Trc	X Value	Y Value	Corr. Fnc	Function	Function Result
M1	1		735.782 MHz	12.35 dBm	Corr. Fnc		4.486953413 MHz
T1	1		735.782 MHz	12.35 dBm	Corr. Fnc		730.465217451 MHz
Z	1		735.782 MHz	12.35 dBm	Corr. Fnc		736.905313415 MHz

TM3p1a, 5 MHz, high channel



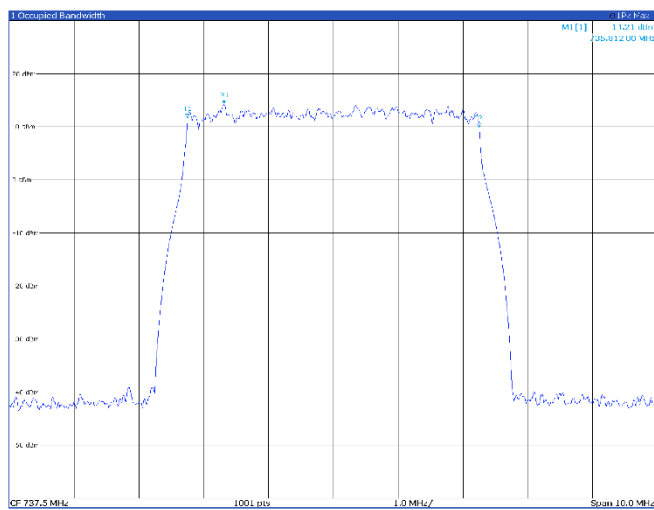
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		744.659 MHz	12.58 dBm	Occ Sw	4.484 678 899 MHz
F1	1		744.25233 MHz	0.41 dBm	Occ Sw	744.25233 MHz
F2	1		745.27233 MHz	0.41 dBm	Occ Sw	745.27233 MHz

TM3p3, 5 MHz, low channel



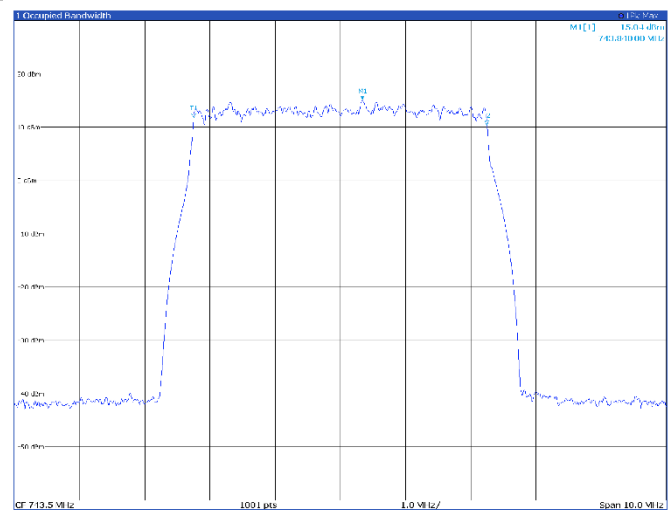
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		731.84 MHz	14.02 dBm	Occ Sw	4.495 040 591 MHz
F1	1		730.25133 MHz	10.51 dBm	Occ Sw	731.490 030 795 MHz
F2	1		732.74833 MHz	10.51 dBm	Occ Sw	731.490 030 795 MHz

TM3p3, 5 MHz, mid channel



Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		735.812 MHz	14.21 dBm	Occ Sw	4.495 371 599 MHz
F1	1		734.24133 MHz	11.32 dBm	Occ Sw	734.453 525 030 MHz
F2	1		737.74433 MHz	9.41 dBm	Occ Sw	734.453 525 030 MHz

TM3p3, 5 MHz, high channel

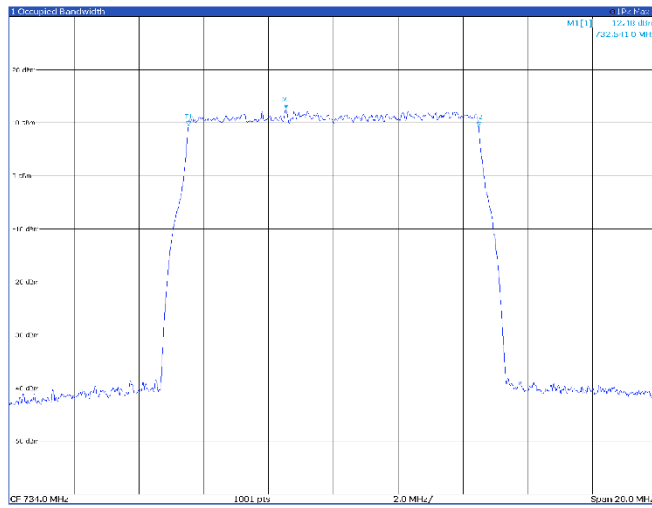


Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		743.84 MHz	15.04 dBm	Occ Sw	4.496 045 169 MHz
F1	1		742.24133 MHz	11.32 dBm	Occ Sw	742.453 525 030 MHz
F2	1		745.74433 MHz	10.12 dBm	Occ Sw	742.453 525 030 MHz

Band B12

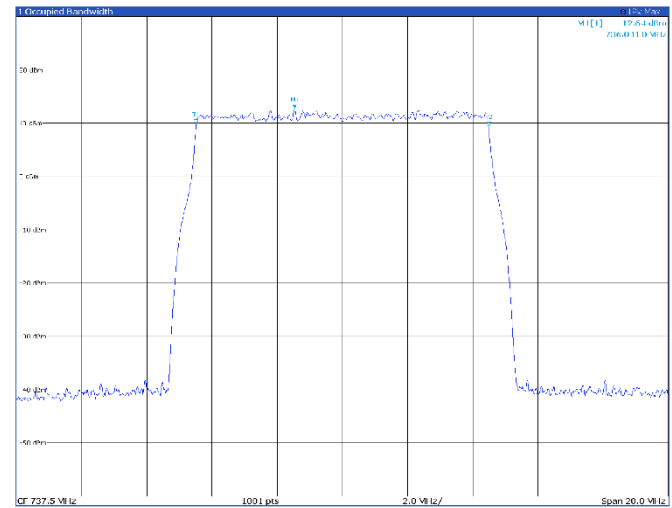
10 MHz

TM1.1, 10 MHz, low channel



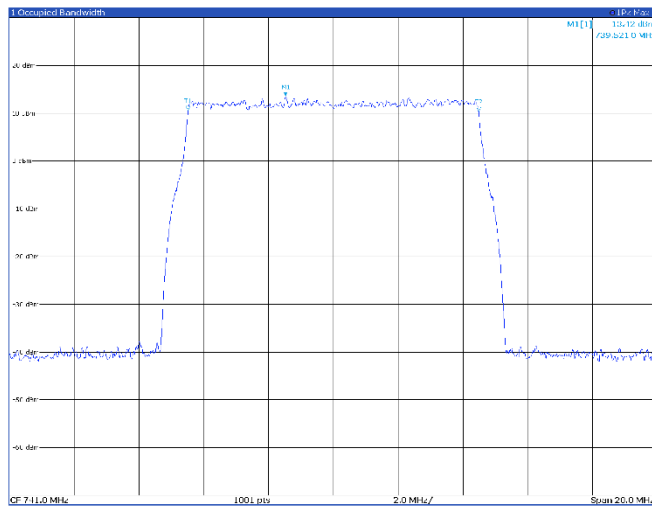
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		732.544 MHz	12.48 dBm	Occ BW	8.962 260 357 MHz
T1	1		729.522.0 MHz	9.25 dBm	Occ BW Channel	729.522.0 MHz
T2	1		735.566 MHz	9.08 dBm	Occ BW Channel	735.566 MHz

TM1.1, 10 MHz, mid channel



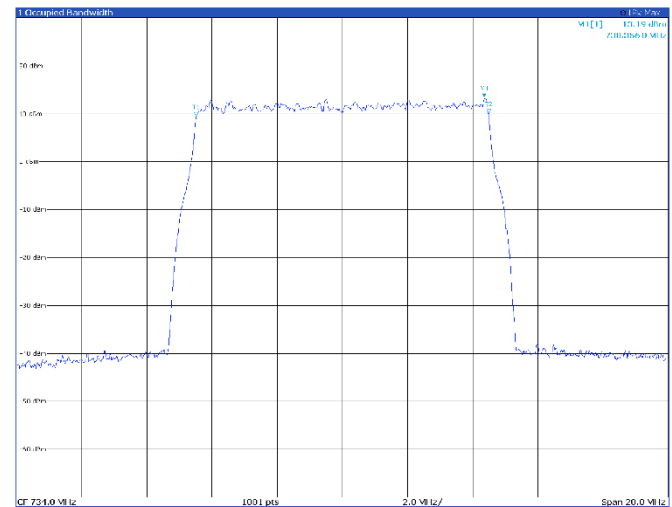
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		736.041 MHz	12.64 dBm	Occ BW	8.966 910 507 MHz
T1	1		733.019 MHz	9.63 dBm	Occ BW Channel	733.019 MHz
T2	1		739.063 MHz	9.41 dBm	Occ BW Channel	739.063 MHz

TM1.1, 10 MHz, high channel



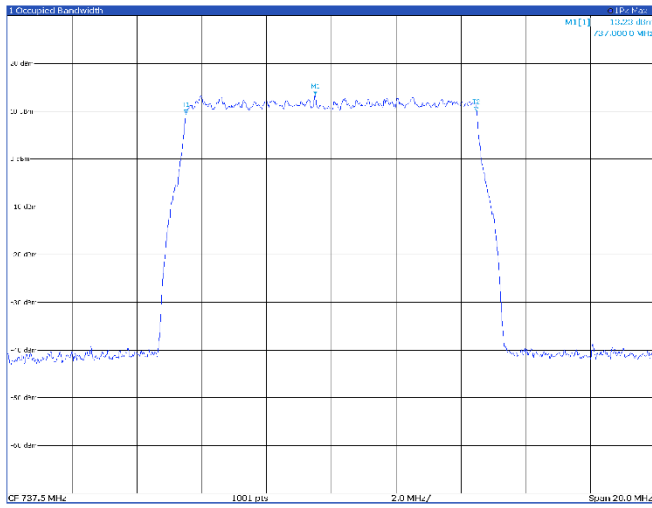
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		739.521 MHz	13.42 dBm	Occ BW	8.968 503 107 MHz
T1	1		736.5140 MHz	10.37 dBm	Occ BW Channel	736.5140 MHz
T2	1		738.528 MHz	10.25 dBm	Occ BW Channel	738.528 MHz

TM3p1, 10 MHz, low channel



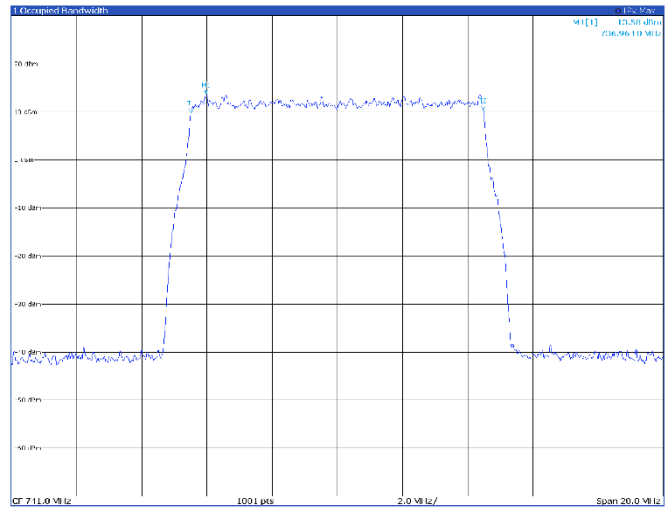
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		739.356 MHz	13.19 dBm	Occ BW	8.965 004 698 MHz
T1	1		736.3165 MHz	9.12 dBm	Occ BW Channel	736.3165 MHz
T2	1		738.401 MHz	9.08 dBm	Occ BW Channel	738.401 MHz

TM3p1, 10 MHz, mid channel



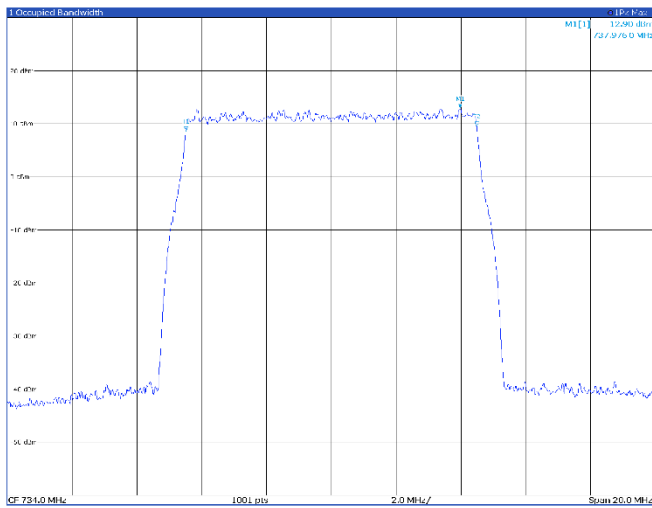
Type	Ref	Trc	X Value	Y Value	Unit	Function	Function Result
M1	1		737.0 MHz	13.23 dBm		Occ BW	8.968 600 778 MHz
M1	1		737.010 MHz	0.00 dBm		Occ BW Control	737.004 402 002 MHz
M2	1		737.000 MHz	0.00 dBm		Occ BW Control	737.000 000 000 MHz

TM3p1, 10 MHz, high channel



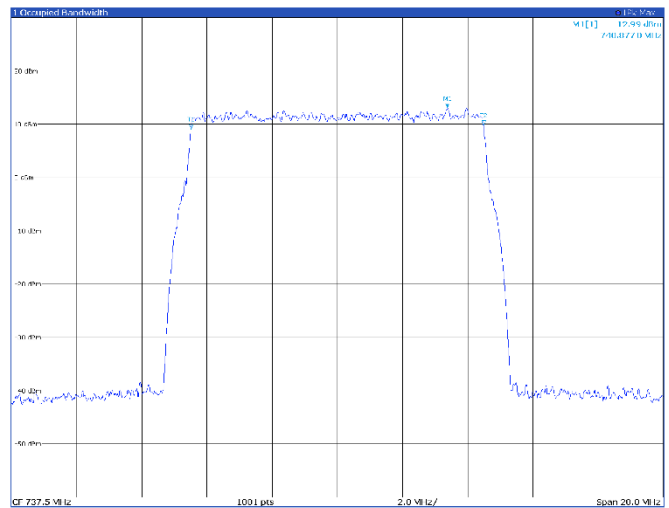
Type	Ref	Trc	X Value	Y Value	Unit	Function	Function Result
M1	1		736.964 MHz	13.58 dBm		Occ BW	8.968 456 052 MHz
M1	1		736.967 MHz	0.71 dBm		Occ BW Control	736.962 000 000 MHz
M2	1		736.971 MHz	0.00 dBm		Occ BW Control	736.966 000 000 MHz

TM3p1a, 10 MHz, low channel



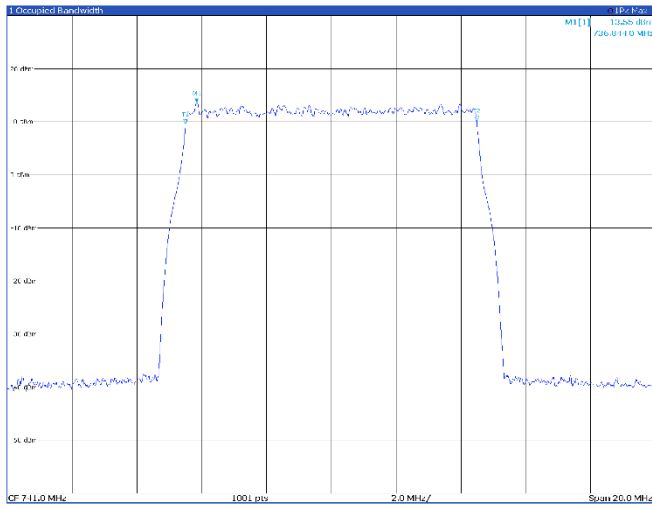
Type	Ref	Trc	X Value	Y Value	Unit	Function	Function Result
M1	1		737.0 MHz	12.90 dBm		Occ BW	8.971 385 867 MHz
M1	1		737.010 MHz	0.00 dBm		Occ BW Control	737.004 402 002 MHz
M2	1		737.000 MHz	0.00 dBm		Occ BW Control	737.000 000 000 MHz

TM3p1a, 10 MHz, mid channel



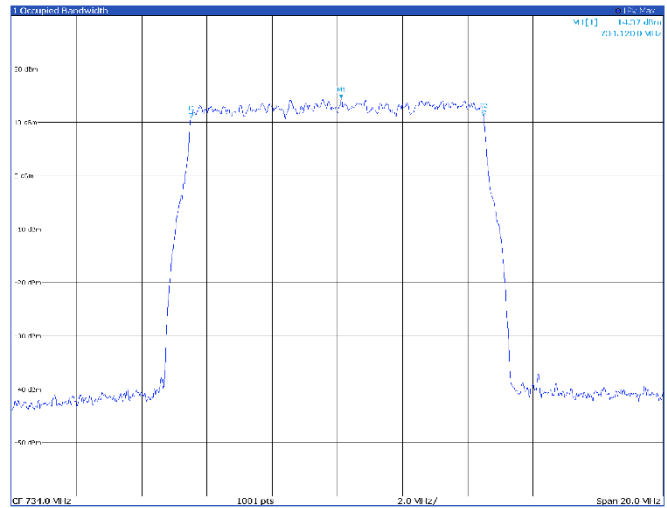
Type	Ref	Trc	X Value	Y Value	Unit	Function	Function Result
M1	1		737.0 MHz	12.99 dBm		Occ BW	8.970 413 372 MHz
M1	1		737.010 MHz	0.12 dBm		Occ BW Control	737.004 402 002 MHz
M2	1		737.000 MHz	0.00 dBm		Occ BW Control	737.000 000 000 MHz

TM3p1a, 10 MHz, high channel



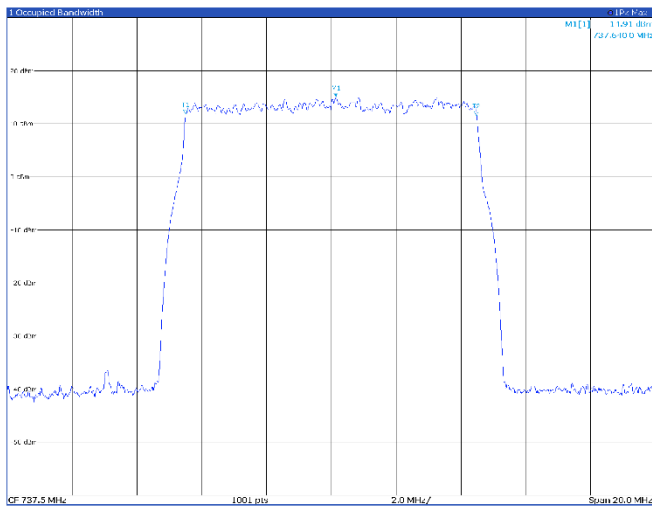
Type	Ref	Trc	X Value	Y Value	Function	Function Result
P1	1		736.844 MHz	13.55 dBm	Occ Sw	8.979 327 995 MHz
P1	1		736.500 MHz	0.26 dBm	Occ Sw Control	740.300 445 524 MHz
P2	1		736.800 MHz	10.10 dBm	Occ Sw Control	736.300 792 111 MHz

TM3p3, 10 MHz, low channel



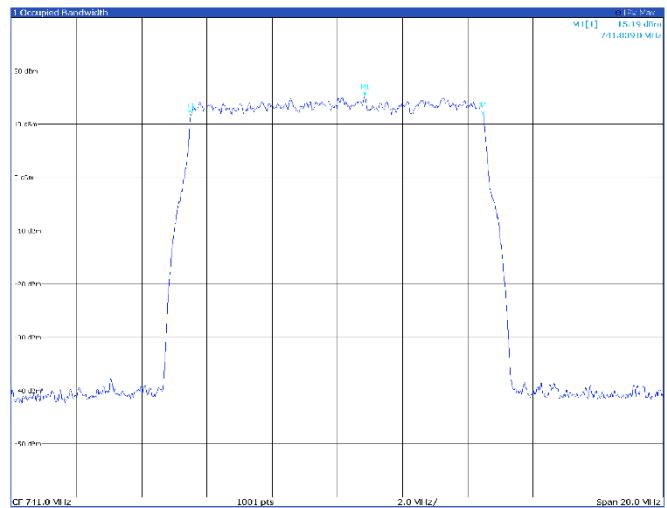
Type	Ref	Trc	X Value	Y Value	Function	Function Result
P1	1		734.12 MHz	14.37 dBm	Occ Sw	8.972 346 739 MHz
P1	1		729.500 MHz	10.62 dBm	Occ Sw Control	733.391 332 8 MHz
P2	1		738.400 MHz	11.38 dBm	Occ Sw Control	734.460 130 111 MHz

TM3p3, 10 MHz, mid channel



Type	Ref	Trc	X Value	Y Value	Function	Function Result
P1	1		737.64 MHz	14.91 dBm	Occ Sw	8.974 806 767 MHz
P1	1		735.000 MHz	11.79 dBm	Occ Sw Control	737.599 800 600 MHz
P2	1		740.200 MHz	11.02 dBm	Occ Sw Control	740.600 800 600 MHz

TM3p3, 10 MHz, high channel



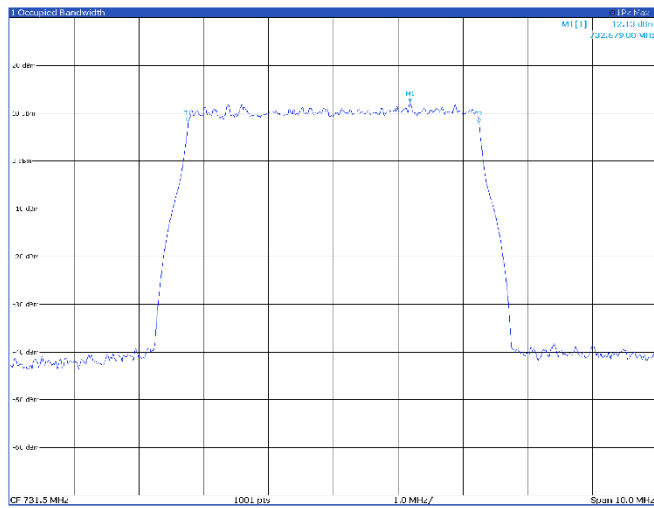
Type	Ref	Trc	X Value	Y Value	Function	Function Result
P1	1		741.839 MHz	15.19 dBm	Occ Sw	8.974 161 405 MHz
P1	1		738.000 MHz	11.71 dBm	Occ Sw Control	740.991 279 130 MHz
P2	1		745.600 MHz	11.38 dBm	Occ Sw Control	746.200 000 000 MHz

Antenna port 2

Band B12

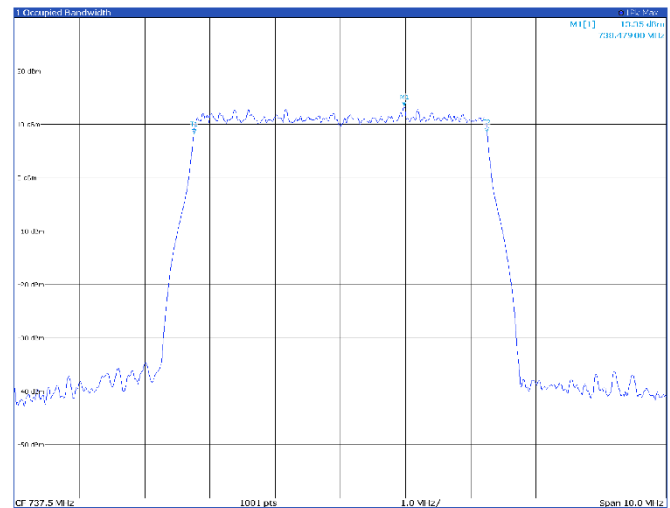
5 MHz

TM1.1, 5 MHz, low channel



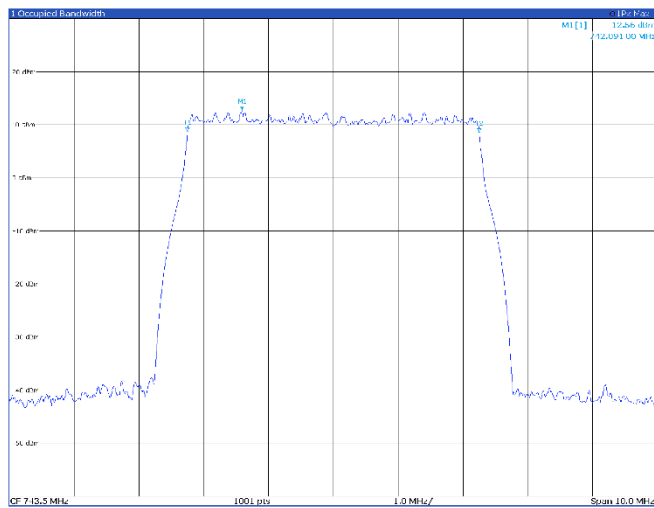
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		732.679 MHz	12.13 dBm	Occ. BW	4.488 394 409 MHz
M1	1		729.257 33 MHz	7.06 dBm	Occ. BW Control	731.921 527 116 MHz
M1	1		735.744 77 MHz	7.06 dBm	Occ. BW Control	733.221 513 345 MHz

TM1.1, 5 MHz, mid channel



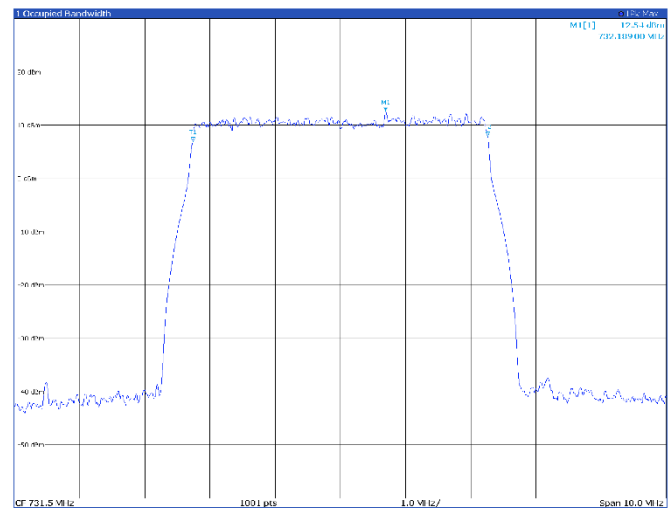
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		738.479 MHz	13.35 dBm	Occ. BW	4.492 714 203 MHz
M1	1		735.252 02 MHz	8.27 dBm	Occ. BW Control	737.499 276 766 MHz
M1	1		741.745 54 MHz	8.27 dBm	Occ. BW Control	744.234 115 529 MHz

TM1.1, 5 MHz, high channel



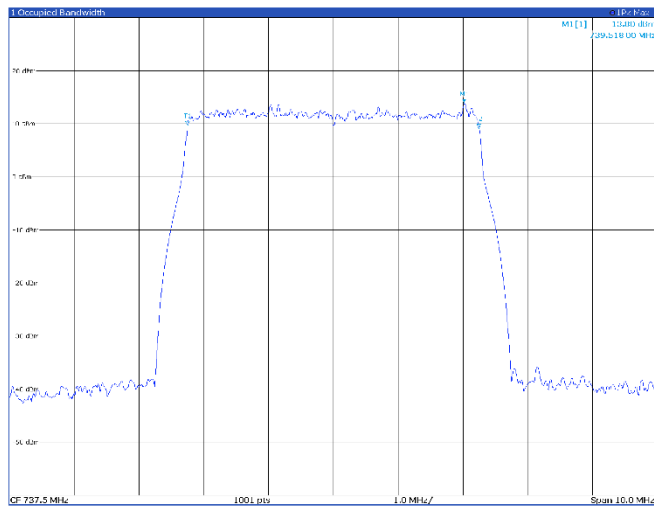
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		742.091 MHz	12.56 dBm	Occ. BW	4.500 351 779 MHz
M1	1		741.249 97 MHz	8.62 dBm	Occ. BW Control	743.409 295 411 MHz
M1	1		743.744 77 MHz	8.62 dBm	Occ. BW Control	745.899 679 145 MHz

TM3p1, 5 MHz, low channel



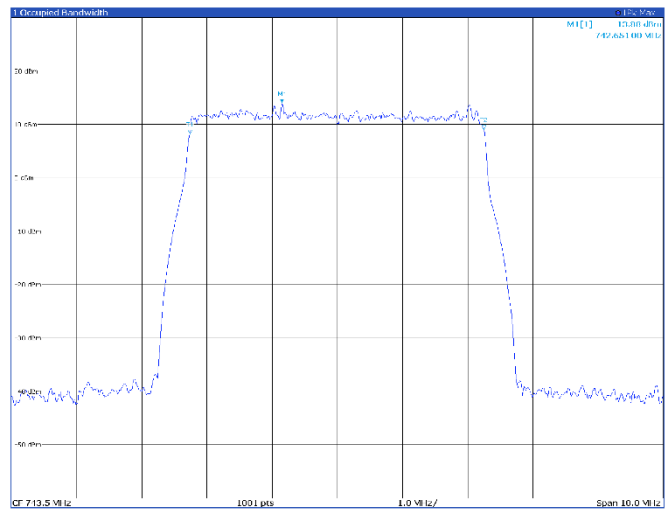
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		732.189 MHz	12.54 dBm	Occ. BW	4.516 698 377 MHz
M1	1		729.207 11 MHz	6.68 dBm	Occ. BW Control	731.697 075 335 MHz
M1	1		735.755 54 MHz	6.68 dBm	Occ. BW Control	738.074 47 099 MHz

TM3p1, 5 MHz, mid channel



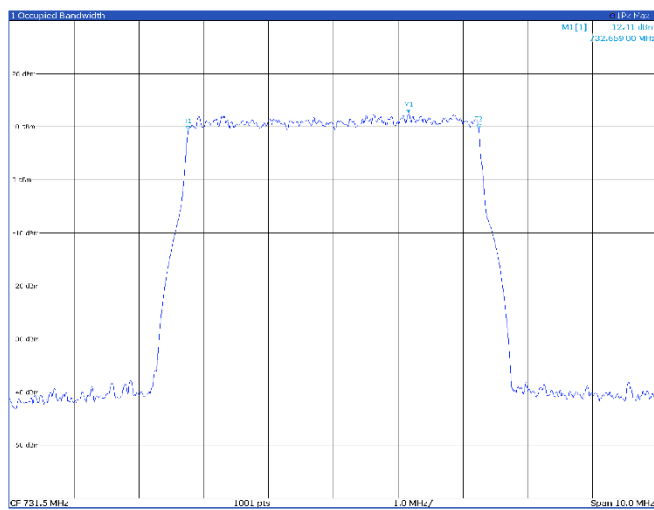
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		739.518 MHz	13.80 dBm	Occ Sw	4.500 242 827 MHz
M1	1		739.247 47 MHz	0.64 dBm	Occ Sw	737.407 521 734 MHz
M2	1		739.741 18 MHz	9.11 dBm	Occ Sw	739.651 000 MHz

TM3p1, 5 MHz, high channel



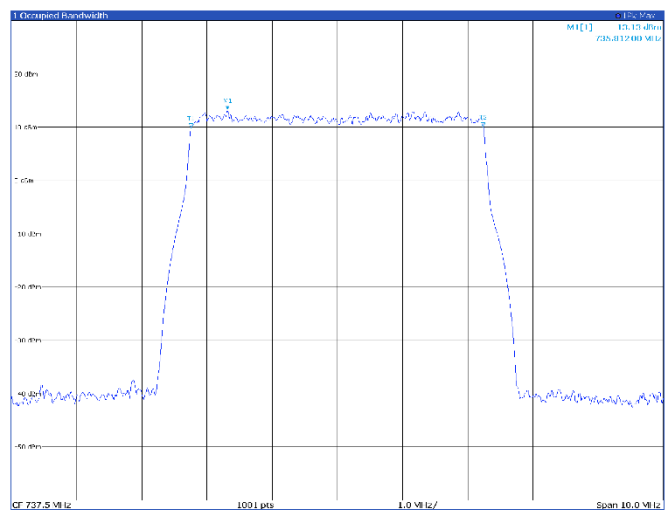
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		742.651 MHz	13.88 dBm	Occ Sw	4.505 390 546 MHz
M1	1		741.207 02 MHz	0.22 dBm	Occ Sw	740.191 519 521 MHz
M2	1		743.741 11 MHz	9.11 dBm	Occ Sw	743.651 000 MHz

TM3p1a, 5 MHz, low channel

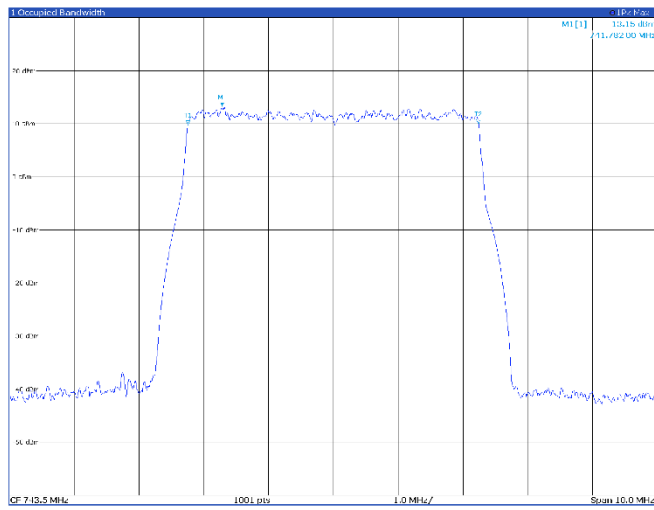


Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		732.659 MHz	12.41 dBm	Occ Sw	4.482 562 294 MHz
M1	1		729.205 52 MHz	0.14 dBm	Occ Sw	727.407 521 734 MHz
M2	1		735.741 18 MHz	9.14 dBm	Occ Sw	735.651 000 MHz

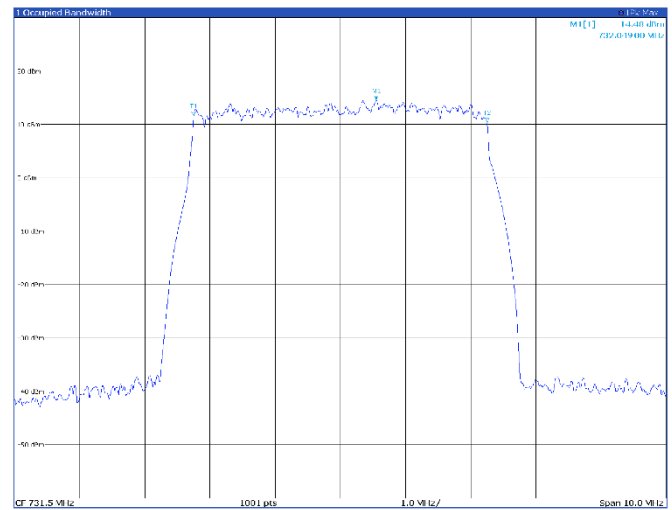
TM3p1a, 5 MHz, mid channel



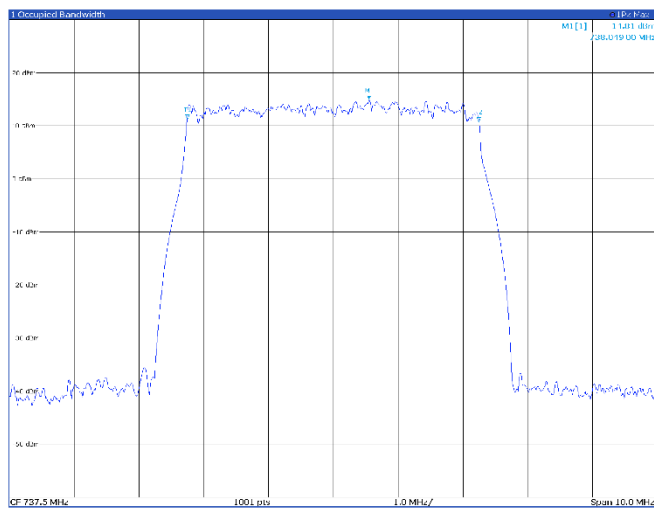
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		735.812 MHz	13.13 dBm	Occ Sw	4.485 055 346 MHz
M1	1		733.207 11 MHz	0.02 dBm	Occ Sw	731.505 019 511 MHz
M2	1		737.732 18 MHz	10.01 dBm	Occ Sw	737.655 519 511 MHz

TM3p1a, 5 MHz, high channel


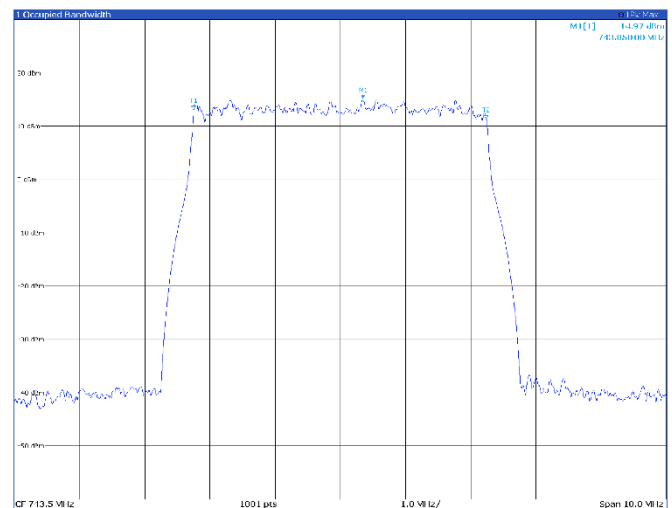
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		741.782 MHz	13.15 dBm	Occ BW	4.485 430 487 MHz
M1	1		741.2525 MHz	0.74 dBm	Occ BW Control	741.499 401 342 MHz
M2	1		743.7548 MHz	0.00 dBm	Occ BW Control	743.7550 272 545 MHz

TM3p3, 5 MHz, low channel


Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		732.049 MHz	14.48 dBm	Occ BW	4.498 480 147 MHz
M1	1		732.2505 MHz	11.50 dBm	Occ BW Control	731.499 401 30 MHz
M2	1		733.7482 MHz	0.00 dBm	Occ BW Control	733.7482 272 545 MHz

TM3p3, 5 MHz, mid channel


Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		738.049 MHz	14.81 dBm	Occ BW	4.501 920 988 MHz
M1	1		738.2495 MHz	11.24 dBm	Occ BW Control	737.499 472 077 MHz
M2	1		739.2495 MHz	0.00 dBm	Occ BW Control	739.2495 272 545 MHz

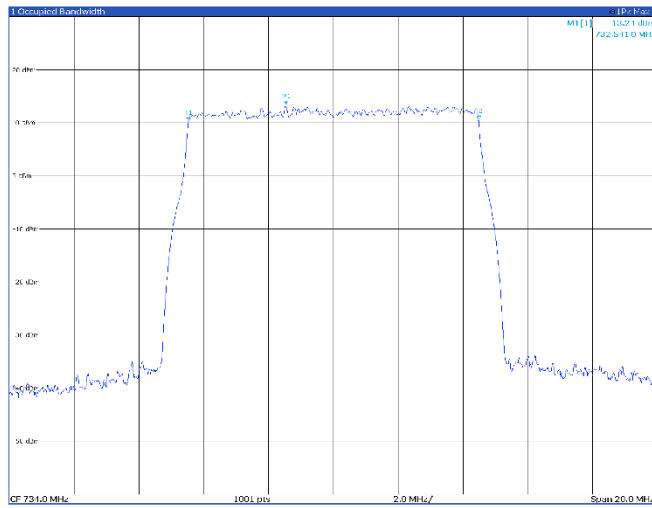
TM3p3, 5 MHz, high channel


Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		743.05 MHz	14.97 dBm	Occ BW	4.469 719 51 MHz
M1	1		743.2505 MHz	12.51 dBm	Occ BW Control	743.499 401 30 MHz
M2	1		745.7572 MHz	0.00 dBm	Occ BW Control	745.7572 272 545 MHz

Band B12

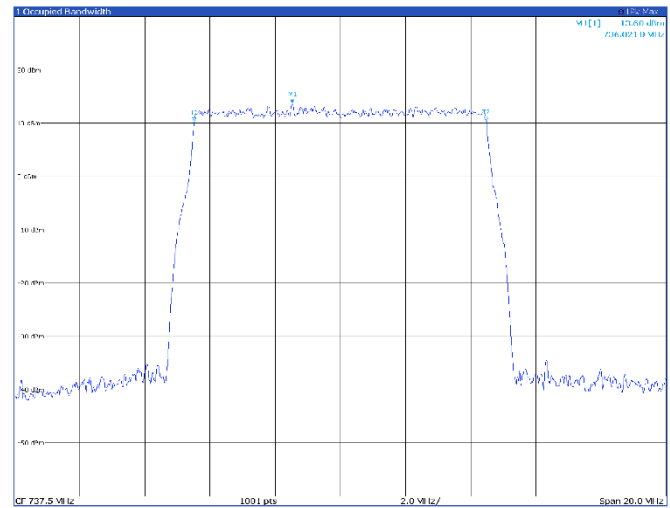
10 MHz

TM1.1, 10 MHz, low channel



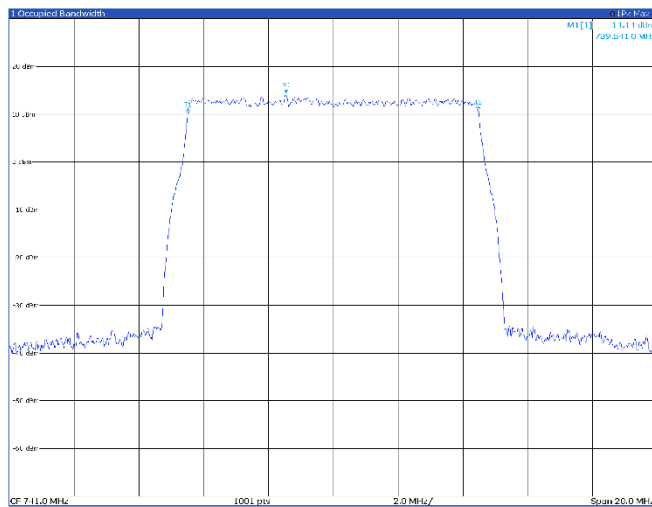
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		732.541 MHz	13.24 dBm	Occ Sw	8.960 853 974 MHz
M1	1		732.544 MHz	10.00 dBm	Occ Sw Control	734.954 954 402 MHz
M1	1		732.545 MHz	10.00 dBm	Occ Sw Energy Offset	8.960 853 974 MHz

TM1.1, 10 MHz, mid channel



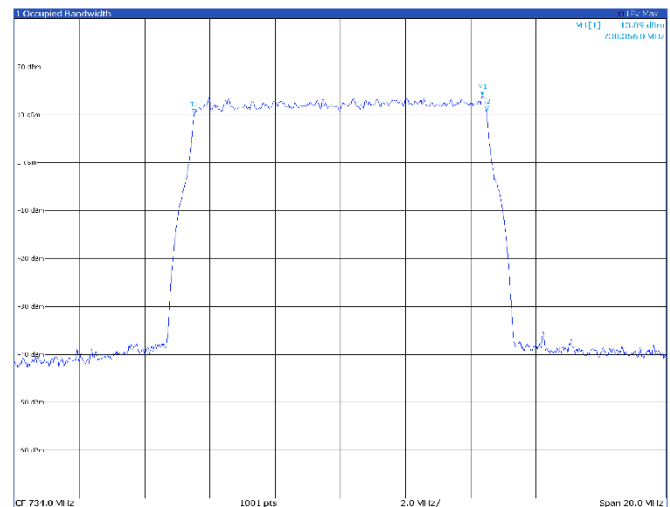
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		737.021 MHz	13.60 dBm	Occ Sw	8.961 559 692 MHz
M1	1		737.017 MHz	10.00 dBm	Occ Sw Control	737.999 417 002 MHz
M1	1		737.018 MHz	10.00 dBm	Occ Sw Energy Offset	8.961 559 692 MHz

TM1.1, 10 MHz, high channel



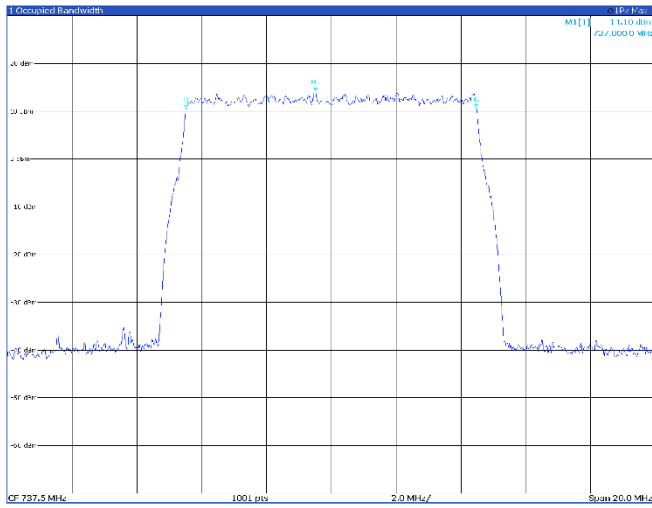
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		739.541 MHz	14.14 dBm	Occ Sw	8.964 962 192 MHz
M1	1		739.542 MHz	10.00 dBm	Occ Sw Control	740.999 417 002 MHz
M1	1		739.543 MHz	10.00 dBm	Occ Sw Energy Offset	8.964 962 192 MHz

TM3p1, 10 MHz, low channel



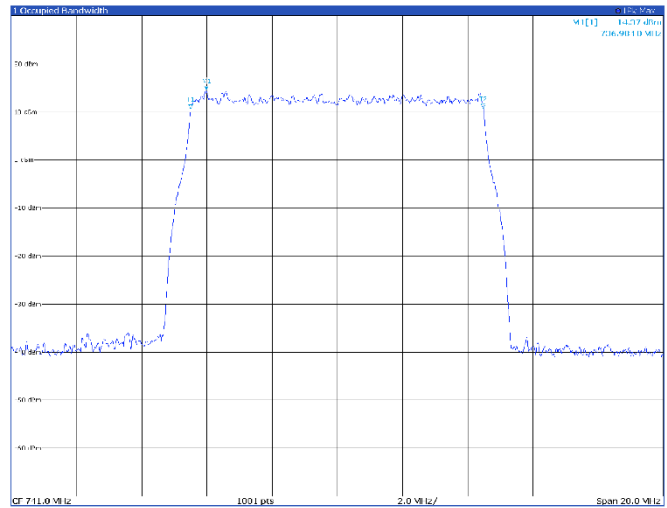
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		739.356 MHz	13.89 dBm	Occ Sw	8.964 217 633 MHz
M1	1		739.317 MHz	10.00 dBm	Occ Sw Control	739.999 417 002 MHz
M1	1		739.318 MHz	10.00 dBm	Occ Sw Energy Offset	8.964 217 633 MHz

TM3p1, 10 MHz, mid channel



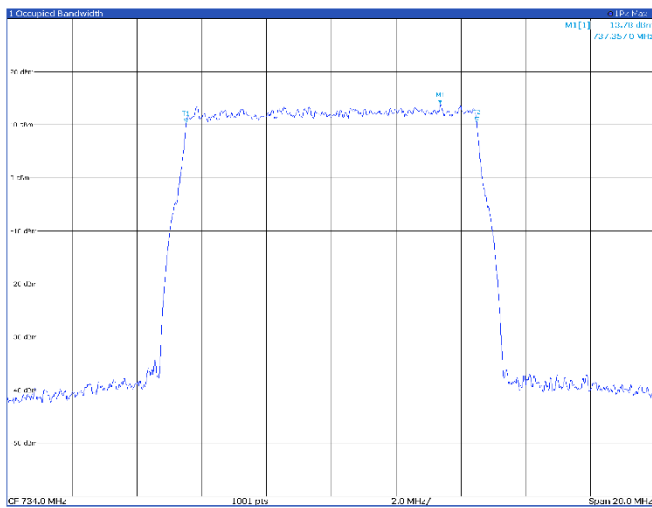
Type	Ref	Freq	X Value	Y Value	Function	Function Result
M1	1		737.0 MHz	14.10 dBm	Occ BW	8.965640556 MHz
M1	1		737.123 MHz	10.27 dBm	Occ BW Control	737.42515 MHz
M2	1		736.876 MHz	10.27 dBm	Occ BW Control	737.42515 MHz

TM3p1, 10 MHz, high channel



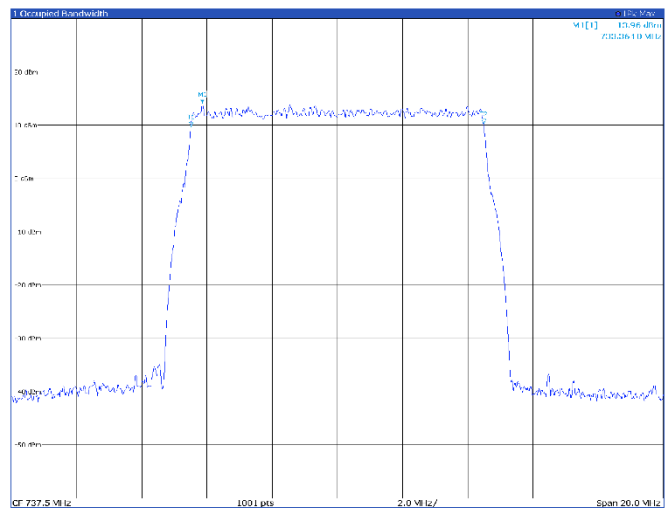
Type	Ref	Freq	X Value	Y Value	Function	Function Result
M1	1		736.984 MHz	14.37 dBm	Occ BW	8.971163308 MHz
M1	1		736.533 MHz	10.22 dBm	Occ BW Control	736.86932176 MHz
M2	1		736.438 MHz	10.22 dBm	Occ BW Control	736.86932176 MHz

TM3p1a, 10 MHz, low channel



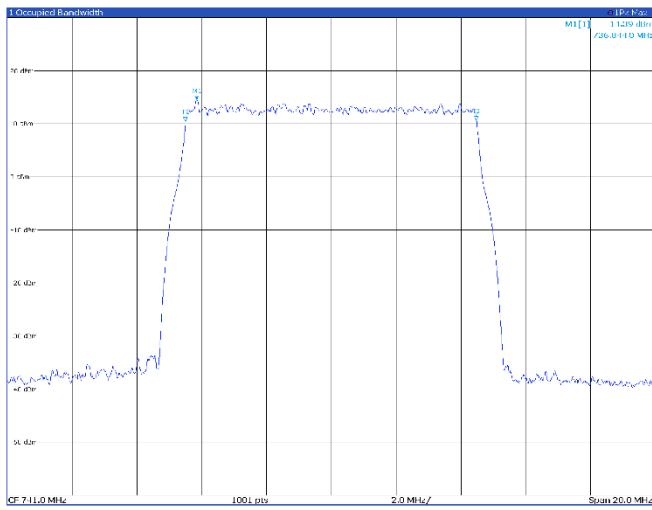
Type	Ref	Freq	X Value	Y Value	Function	Function Result
M1	1		737.357 MHz	13.78 dBm	Occ BW	8.969054359 MHz
M1	1		737.119 MHz	10.20 dBm	Occ BW Control	737.000412153 MHz
M2	1		737.604 MHz	10.20 dBm	Occ BW Control	737.000412153 MHz

TM3p1a, 10 MHz, mid channel

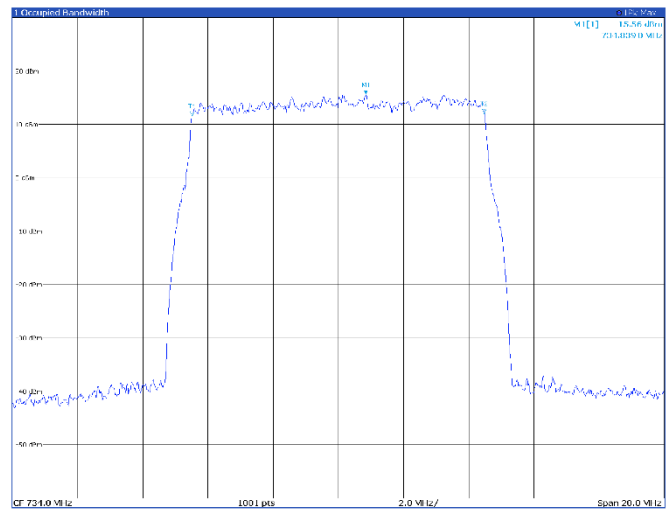


Type	Ref	Freq	X Value	Y Value	Function	Function Result
M1	1		737.364 MHz	13.96 dBm	Occ BW	8.969368521 MHz
M1	1		737.122 MHz	9.78 dBm	Occ BW Control	737.196917236 MHz
M2	1		737.603 MHz	10.22 dBm	Occ BW Control	737.196917236 MHz

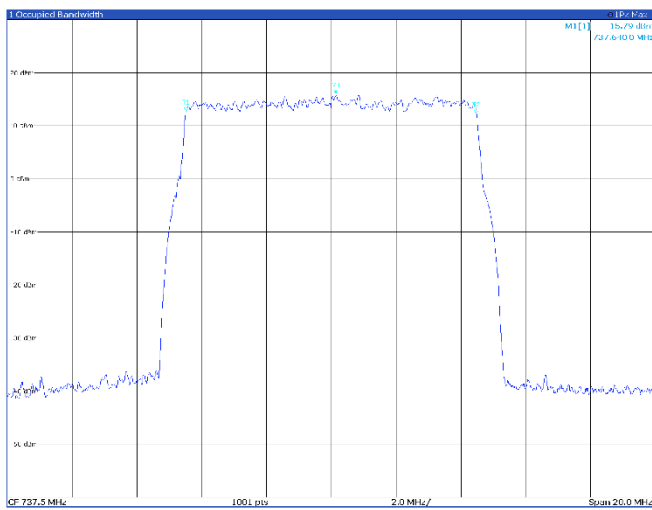
TM3p1a, 10 MHz, high channel



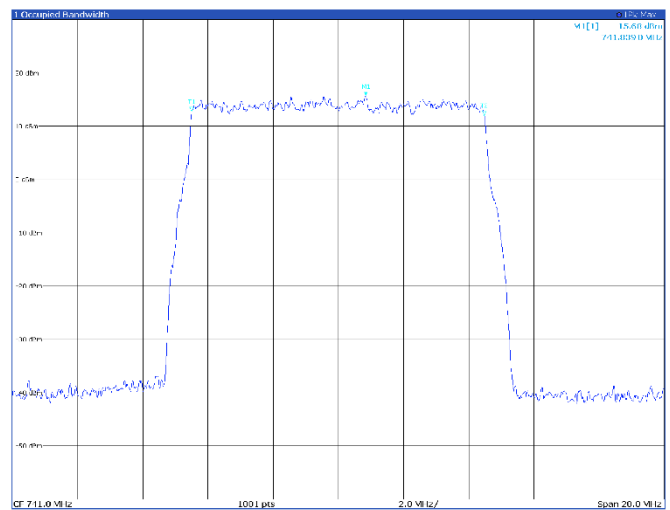
TM3p3, 10 MHz, low channel



TM3p3, 10 MHz, mid channel



TM3p3, 10 MHz, high channel



8.3 FCC §27.53(h)(3) 26 dB Occupied Bandwidth

8.3.1 Definitions and limits

(3) Measurement procedure. (i) Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

8.3.2 Test summary

Test start date	November 22, 2024	Temperature	22 °C
Test end date	December 13, 2024	Air pressure	1001 mbar
Test engineer	O. Frau	Relative humidity	62%
Verdict	Pass		

8.3.3 Observations, settings and special notes

Test method: ANSI C63.26 Section 5.4.4

Spectrum analyzer settings:

Resolution bandwidth	1% - 5% OBW
Video bandwidth	3*RBW
Frequency span	2*OBW
Detector mode	Peak
Trace mode	Max Hold

8.3.3 Test equipment used

Equipment	Manufacturer	Model no.	Asset no.
Spectrum Analyzer	Rohde & Schwarz	FSW43	101767

8.3.4 Test data

Band B12: Antenna port 1

Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	5 MHz	TM1.1	731.5	5.07
B12	5 MHz	TM1.1	737.5	5.09
B12	5 MHz	TM1.1	743.5	5.08

Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	5 MHz	TM3p1	731.5	5.09
B12	5 MHz	TM3p1	737.5	5.09
B12	5 MHz	TM3p1	743.5	5.11

Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	5 MHz	TM3p1a	731.5	5.03
B12	5 MHz	TM3p1a	737.5	5.03
B12	5 MHz	TM3p1a	743.5	5.04

Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	5 MHz	TM3p3	731.5	5.08
B12	5 MHz	TM3p3	737.5	5.08
B12	5 MHz	TM3p3	743.5	5.08

Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	10 MHz	TM1.1	734.0	10.03
B12	10 MHz	TM1.1	737.5	10.07
B12	10 MHz	TM1.1	741.0	10.05

Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	10 MHz	TM3p1	734.0	9.99
B12	10 MHz	TM3p1	737.5	10.03
B12	10 MHz	TM3p1	741.0	9.99

Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	10 MHz	TM3p1a	734.0	10.03
B12	10 MHz	TM3p1a	737.5	10.05
B12	10 MHz	TM3p1a	741.0	10.05

Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	10 MHz	TM3p3	734.0	10.01
B12	10 MHz	TM3p3	737.5	10.01
B12	10 MHz	TM3p3	741.0	9.99

Band B12: Antenna port 2

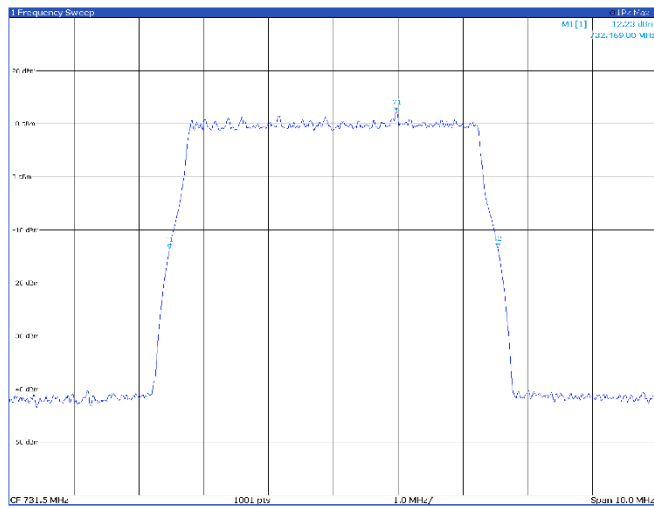
Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	5 MHz	TM1.1	731.5	5.08
B12	5 MHz	TM1.1	737.5	5.07
B12	5 MHz	TM1.1	743.5	5.12
Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	5 MHz	TM3p1	731.5	5.11
B12	5 MHz	TM3p1	737.5	5.08
B12	5 MHz	TM3p1	743.5	5.05
Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	5 MHz	TM3p1a	731.5	5.04
B12	5 MHz	TM3p1a	737.5	5.03
B12	5 MHz	TM3p1a	743.5	5.03
Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	5 MHz	TM3p3	731.5	5.08
B12	5 MHz	TM3p3	737.5	5.11
B12	5 MHz	TM3p3	743.5	5.04
Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	10 MHz	TM1.1	734.0	10.05
B12	10 MHz	TM1.1	737.5	10.03
B12	10 MHz	TM1.1	741.0	10.03
Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	10 MHz	TM3p1	734.0	10.01
B12	10 MHz	TM3p1	737.5	9.99
B12	10 MHz	TM3p1	741.0	10.01
Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	10 MHz	TM3p1a	734.0	10.03
B12	10 MHz	TM3p1a	737.5	10.01
B12	10 MHz	TM3p1a	741.0	10.05
Band	OBW Declared	Modulation	Channel (MHz)	26 dB (MHz)
B12	10 MHz	TM3p3	734.0	9.99
B12	10 MHz	TM3p3	737.5	10.01
B12	10 MHz	TM3p3	741.0	9.95

Antenna port 1

Band B12

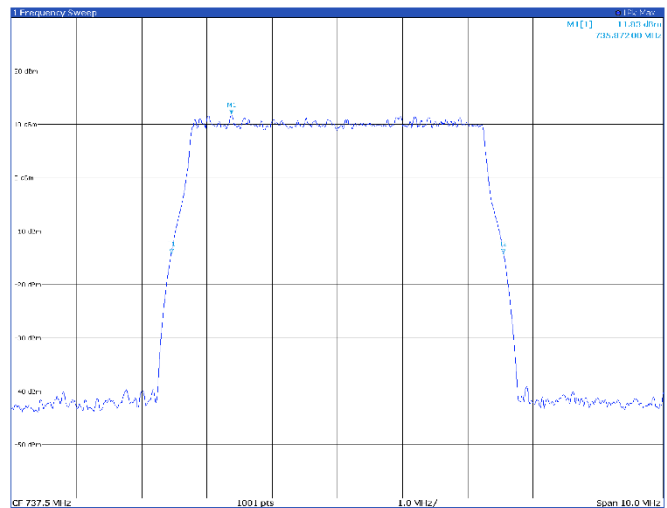
5 MHz

TM1.1, 5 MHz, low channel



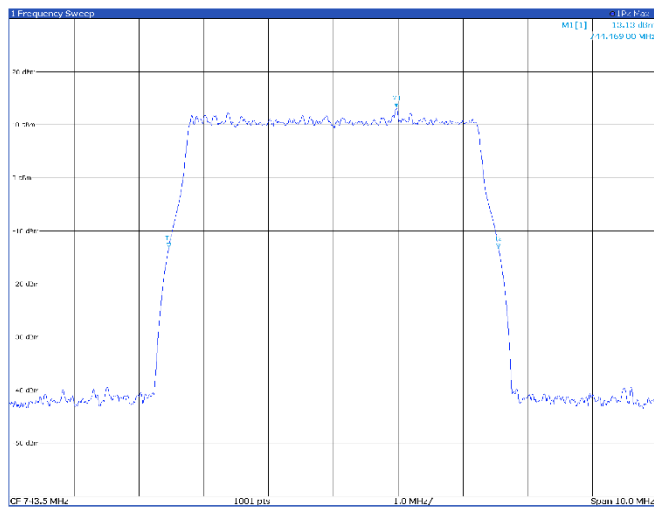
Type	Ref	Trc	X Value	Y Value	nPB	Function	Function Result
M1	1		732.169 MHz	12.23 dBm	nPB	max BW	5.07 MHz
M1	1		732.169 MHz	12.23 dBm	nPB	max BW	5.07 MHz
M1	1		732.169 MHz	12.23 dBm	nPB	max BW	5.07 MHz

TM1.1, 5 MHz, mid channel



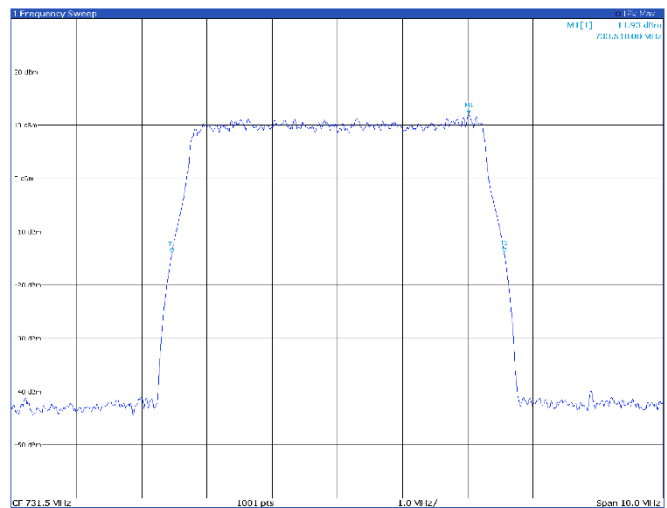
Type	Ref	Trc	X Value	Y Value	nPB	Function	Function Result
M1	1		735.872 MHz	11.83 dBm	nPB	max BW	5.09 MHz
M1	1		735.872 MHz	11.83 dBm	nPB	max BW	5.09 MHz
M1	1		735.872 MHz	11.83 dBm	nPB	max BW	5.09 MHz

TM1.1, 5 MHz, high channel



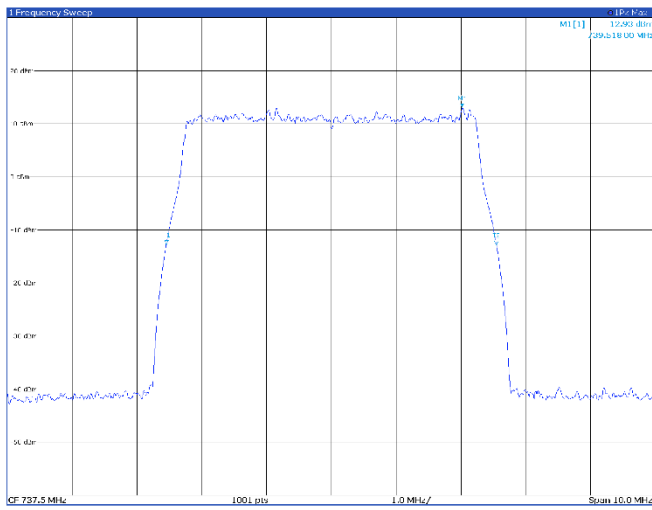
Type	Ref	Trc	X Value	Y Value	nPB	Function	Function Result
M1	1		744.469 MHz	13.13 dBm	nPB	max BW	5.08 MHz
M1	1		744.469 MHz	13.13 dBm	nPB	max BW	5.08 MHz
M1	1		744.469 MHz	13.13 dBm	nPB	max BW	5.08 MHz

TM3p1, 5 MHz, low channel



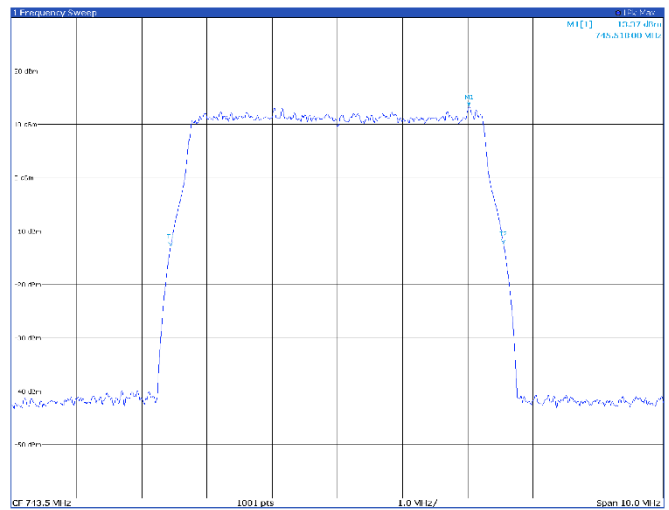
Type	Ref	Trc	X Value	Y Value	nPB	Function	Function Result
M1	1		735.518 MHz	11.93 dBm	nPB	max BW	5.09 MHz
M1	1		735.518 MHz	11.93 dBm	nPB	max BW	5.09 MHz
M1	1		735.518 MHz	11.93 dBm	nPB	max BW	5.09 MHz

TM3p1, 5 MHz, mid channel



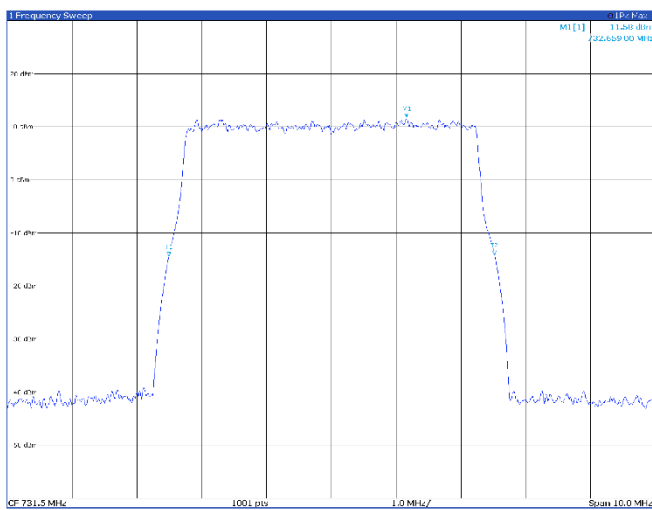
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1		739.518 MHz	12.93 dBm	nB	30.0 dB	5.09 MHz
M1	1		740.913 MHz	-12.91 dBm	nB	down BW	5.09 MHz
M1	1		745.518 MHz	-12.91 dBm	nB	up BW	5.09 MHz

TM3p1, 5 MHz, high channel



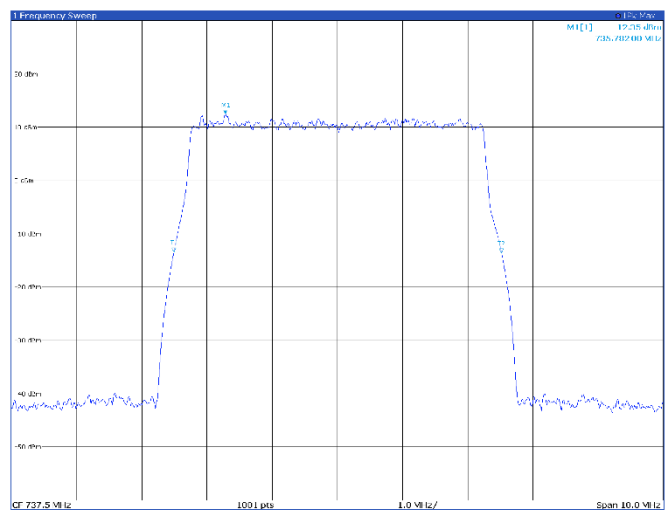
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1		745.518 MHz	13.37 dBm	nB	30.0 dB	5.11 MHz
M1	1		747.518 MHz	-12.91 dBm	nB	down BW	5.11 MHz
M1	1		749.518 MHz	-12.91 dBm	nB	up BW	5.11 MHz

TM3p1a, 5 MHz, low channel



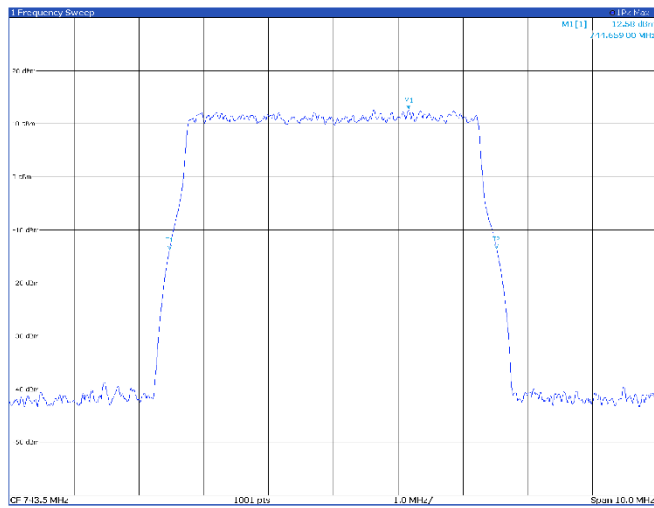
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1		732.659 MHz	11.58 dBm	nB	30.0 dB	5.03 MHz
M1	1		735.659 MHz	-12.91 dBm	nB	down BW	5.03 MHz
M1	1		738.659 MHz	-12.91 dBm	nB	up BW	5.03 MHz

TM3p1a, 5 MHz, mid channel



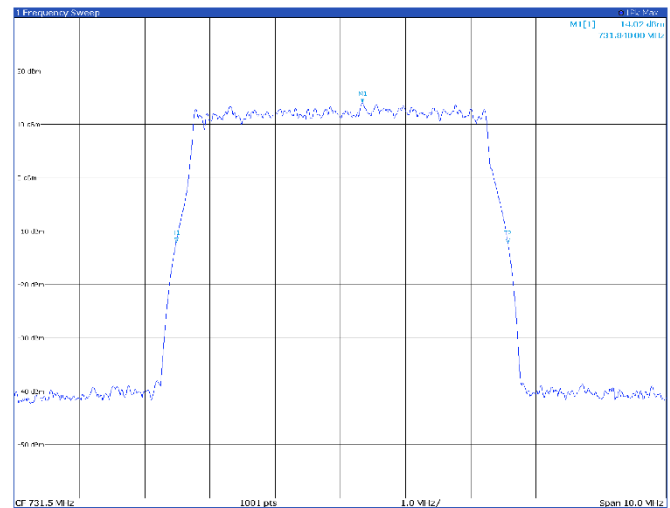
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1		735.782 MHz	12.35 dBm	nB	30.0 dB	5.03 MHz
M1	1		740.913 MHz	-12.91 dBm	nB	down BW	5.03 MHz
M1	1		746.044 MHz	-12.91 dBm	nB	up BW	5.03 MHz

TM3p1a, 5 MHz, high channel



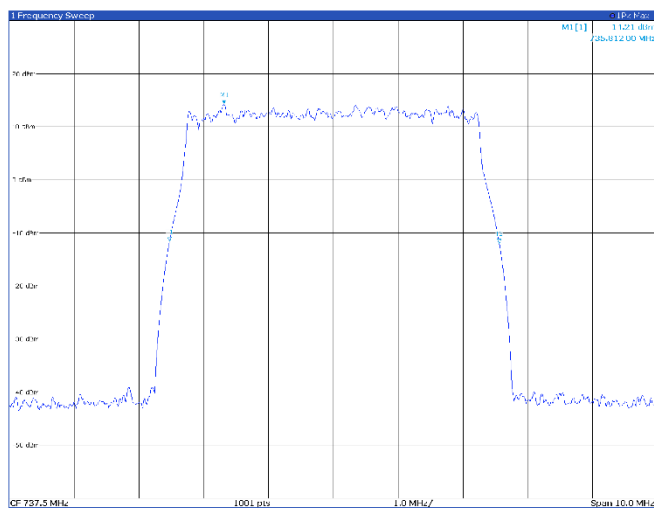
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1	1	714.50 MHz	12.58 dBm	nB	nB cpm BW	5.04 MHz
M2	1	1	714.50 MHz	12.58 dBm	nB	nB cpm BW	5.04 MHz

TM3p3, 5 MHz, low channel



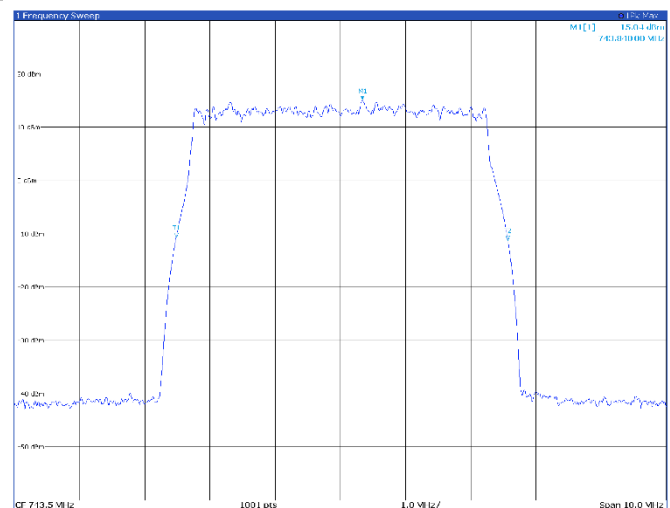
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1	1	732.50 MHz	14.07 dBm	nB	nB cpm BW	5.08 MHz
M2	1	1	732.50 MHz	14.07 dBm	nB	nB cpm BW	5.08 MHz

TM3p3, 5 MHz, mid channel



Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1	1	738.50 MHz	14.21 dBm	nB	nB cpm BW	5.08 MHz
M2	1	1	738.50 MHz	14.21 dBm	nB	nB cpm BW	5.08 MHz

TM3p3, 5 MHz, high channel

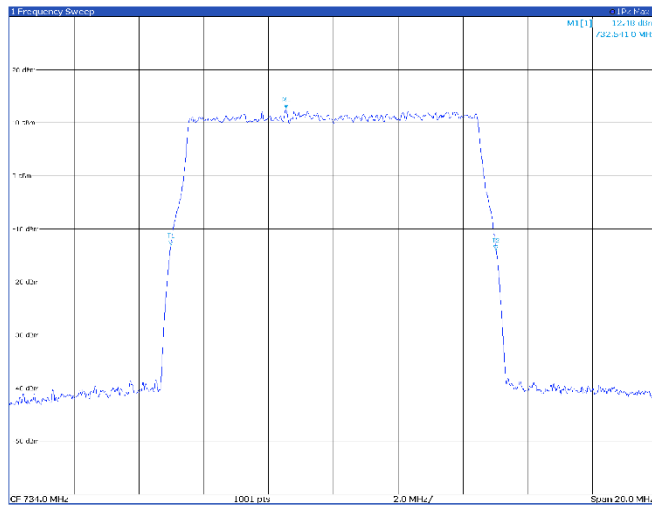


Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1	1	744.50 MHz	15.04 dBm	nB	nB cpm BW	5.08 MHz
M2	1	1	744.50 MHz	15.04 dBm	nB	nB cpm BW	5.08 MHz

Band B12

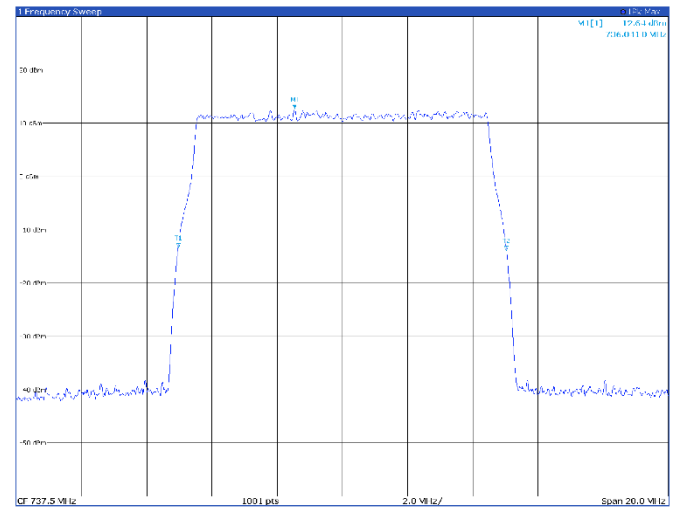
10 MHz

TM1.1, 10 MHz, low channel



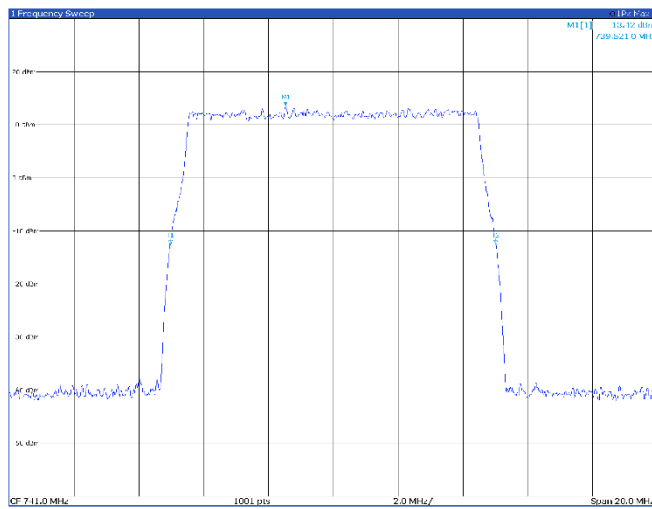
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		732.541 MHz	12.48 dBm	nB	20.0 dB
M1	1		732.541 MHz	-12.48 dBm	nB down BW	10.02 MHz
M1	1		732.541 MHz	-12.48 dBm	Q-factor	73.6

TM1.1, 10 MHz, mid channel



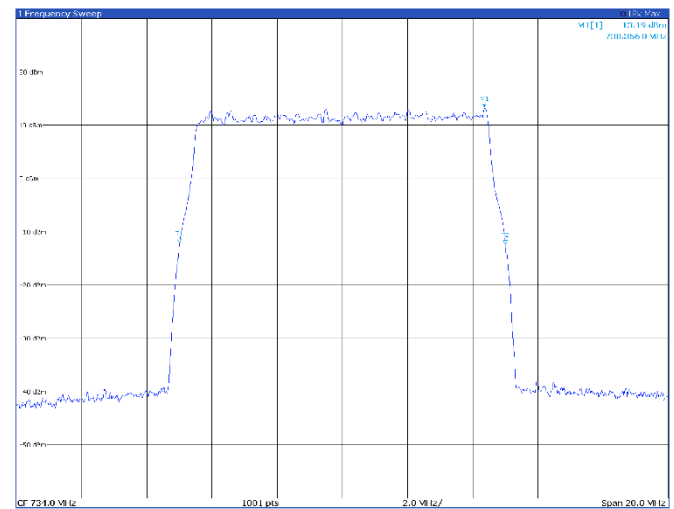
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		732.041 MHz	12.64 dBm	nB	20.0 dB
M1	1		732.041 MHz	-12.64 dBm	nB down BW	10.07 MHz
M1	1		732.041 MHz	-12.64 dBm	Q-factor	73.1

TM1.1, 10 MHz, high channel



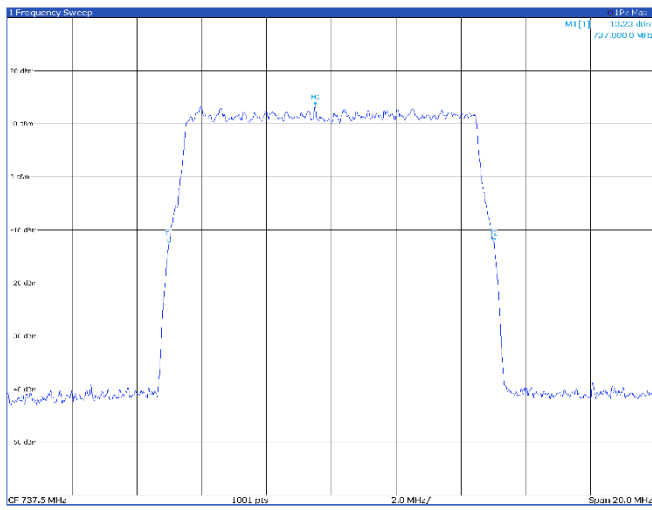
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		732.521 MHz	13.42 dBm	nB	20.0 dB
M1	1		732.521 MHz	-13.42 dBm	nB down BW	10.05 MHz
M1	1		732.521 MHz	-13.42 dBm	Q-factor	73.6

TM3p1, 10 MHz, low channel



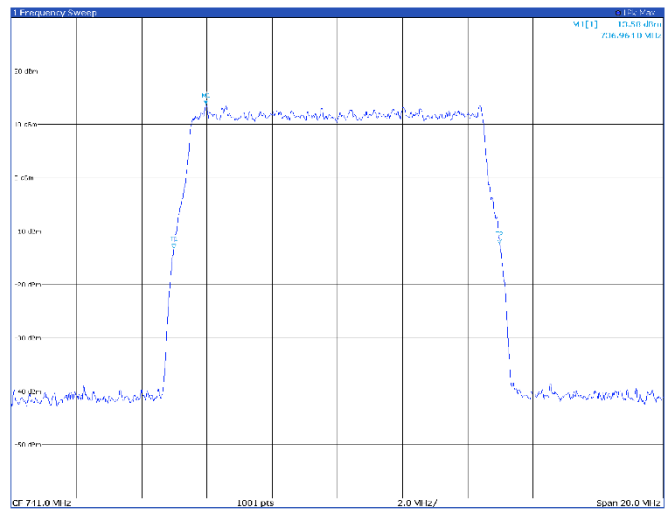
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		732.356 MHz	13.19 dBm	nB	20.0 dB
M1	1		732.356 MHz	-13.19 dBm	nB down BW	9.99 MHz
M1	1		732.356 MHz	-13.19 dBm	Q-factor	73.9

TM3p1, 10 MHz, mid channel



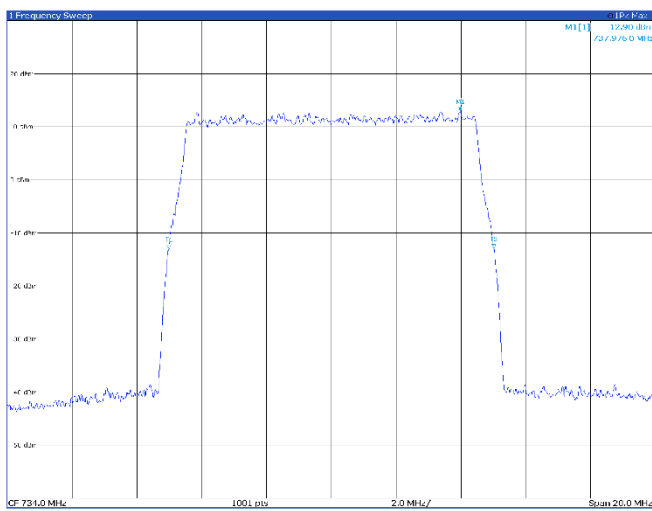
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		737.0 MHz	13.23 dBm	nB	20.0 dB
M1	1		737.453 MHz	-12.40 dBm	nB down BW	10.03 MHz
M2	1		737.500 MHz	-12.40 dBm	nB	20.0 dB

TM3p1, 10 MHz, high channel



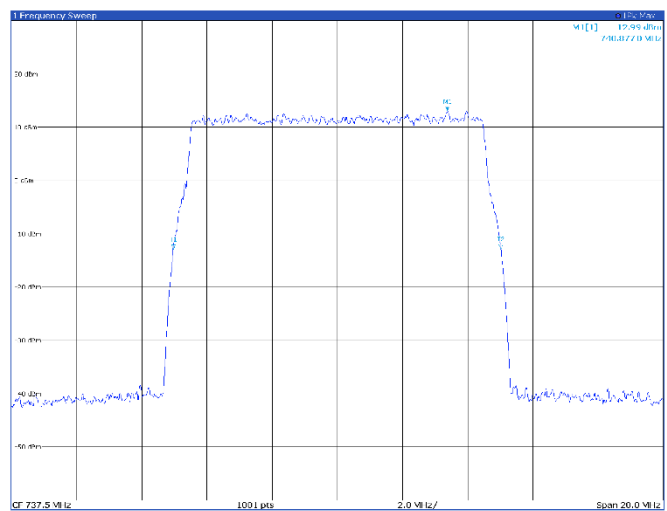
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		736.964 MHz	13.58 dBm	nB	20.0 dB
M1	1		737.953 MHz	-12.21 dBm	nB down BW	9.99 MHz
M2	1		738.000 MHz	-12.21 dBm	nB	20.0 dB

TM3p1a, 10 MHz, low channel



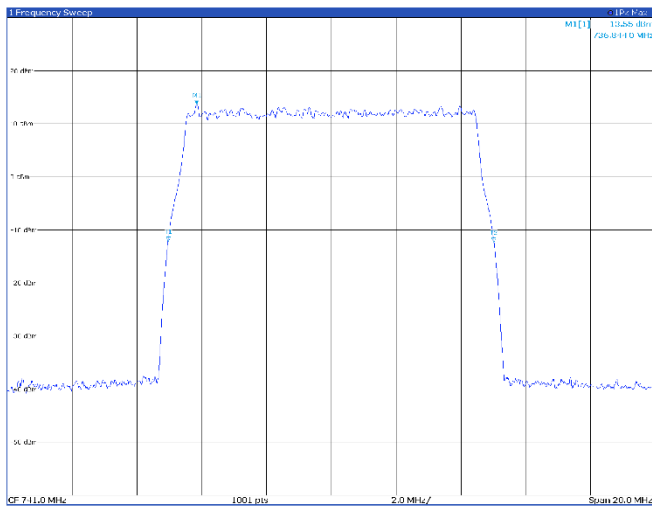
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		737.976 MHz	12.90 dBm	nB	20.0 dB
M1	1		738.965 MHz	-12.53 dBm	nB down BW	10.03 MHz
M2	1		739.000 MHz	-12.53 dBm	nB	20.0 dB

TM3p1a, 10 MHz, mid channel



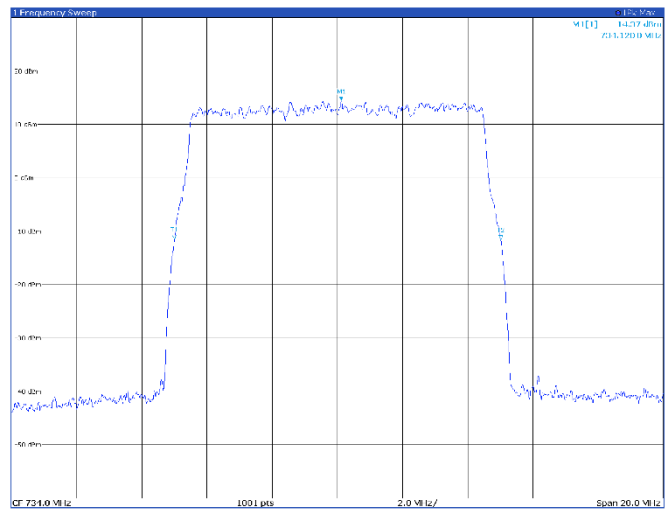
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		740.877 MHz	12.99 dBm	nB	20.0 dB
M1	1		742.413 MHz	-12.52 dBm	nB down BW	10.05 MHz
M2	1		742.500 MHz	-12.52 dBm	nB	20.0 dB

TM3p1a, 10 MHz, high channel



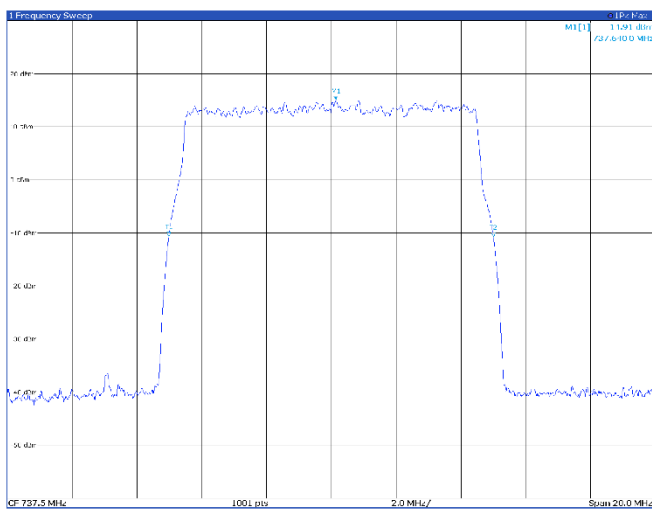
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		736.844 MHz	13.55 dBm	nB	20.0 dB
M1	1		726.050 MHz	-12.10 dBm	nB down BW	10.05 MHz
M1	1		726.050 MHz	-12.10 dBm	Q carrier	23.2

TM3p3, 10 MHz, low channel



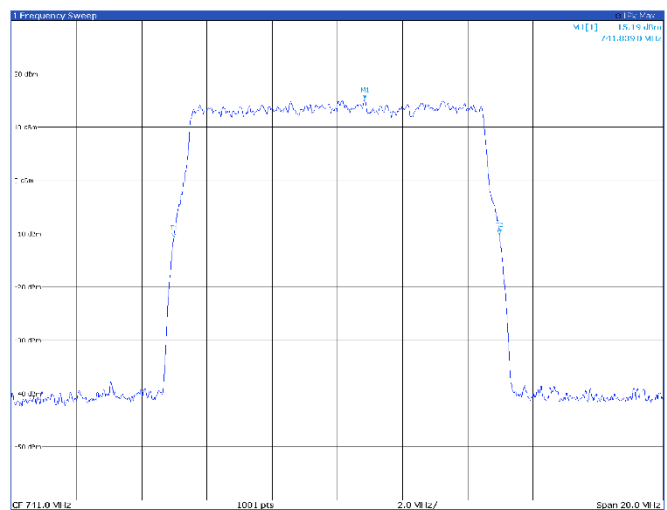
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		734.12 MHz	14.37 dBm	nB	20.0 dB
M1	1		746.050 MHz	-11.69 dBm	nB down BW	10.01 MHz
M1	1		746.050 MHz	-11.69 dBm	Q carrier	23.1

TM3p3, 10 MHz, mid channel



Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		737.64 MHz	14.91 dBm	nB	20.0 dB
M1	1		752.450 MHz	-12.07 dBm	nB down BW	10.01 MHz
M1	1		752.450 MHz	-12.07 dBm	Q carrier	23.2

TM3p3, 10 MHz, high channel



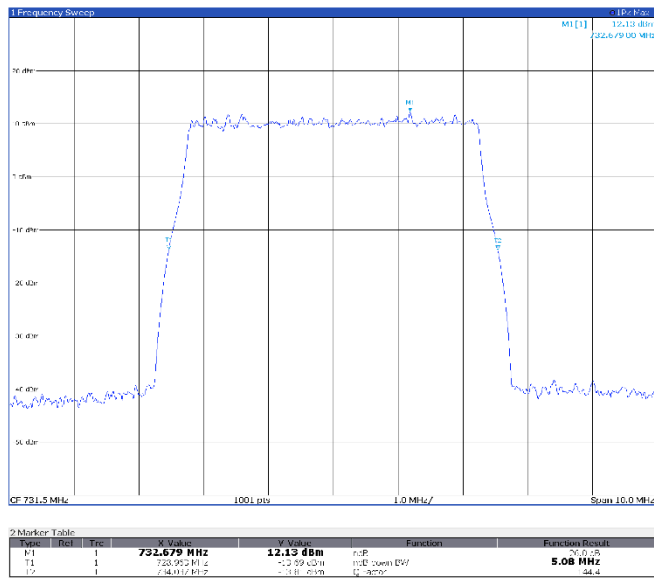
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1		741.839 MHz	15.19 dBm	nB	20.0 dB
M1	1		756.050 MHz	-10.66 dBm	nB down BW	9.99 MHz
M1	1		756.050 MHz	-10.66 dBm	Q carrier	23.1

Antenna port 2

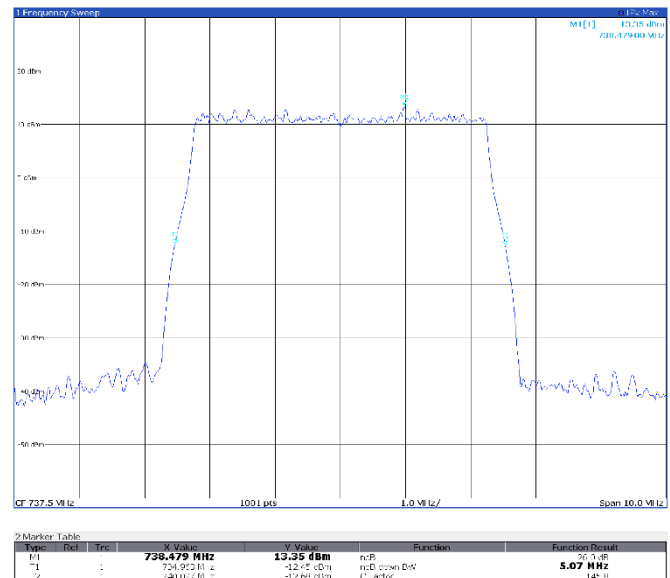
Band B12

5 MHz

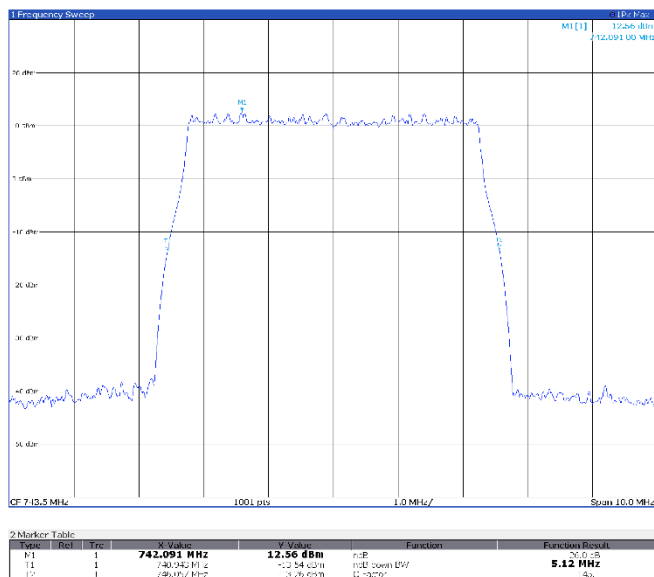
TM1.1, 5 MHz, low channel



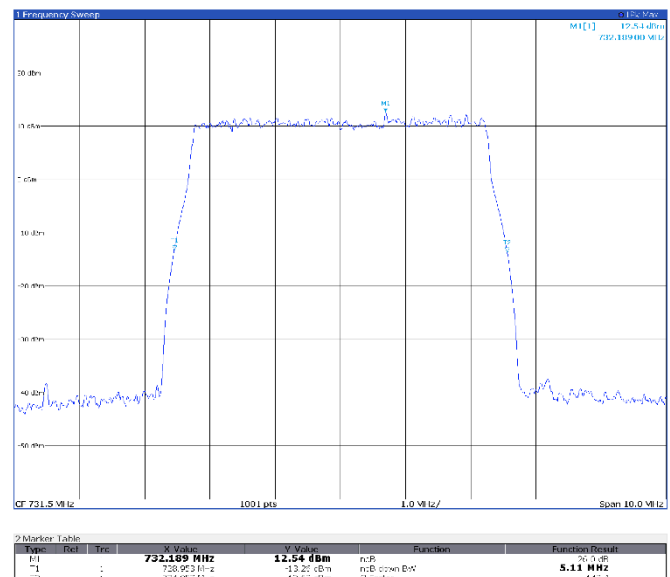
TM1.1, 5 MHz, mid channel



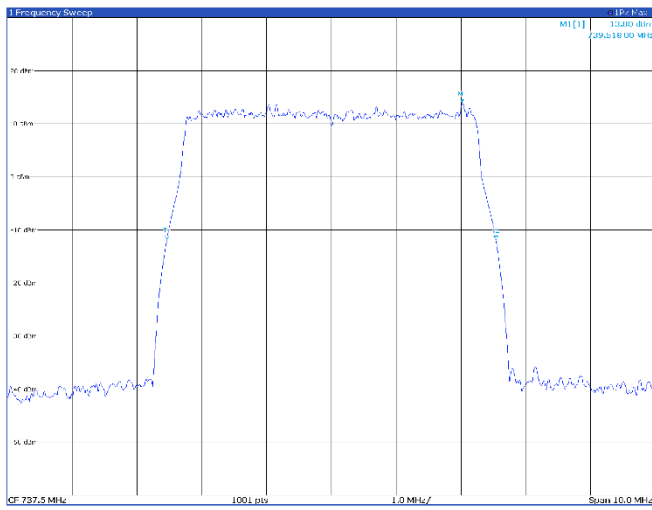
TM1.1, 5 MHz, high channel



TM3p1, 5 MHz, low channel

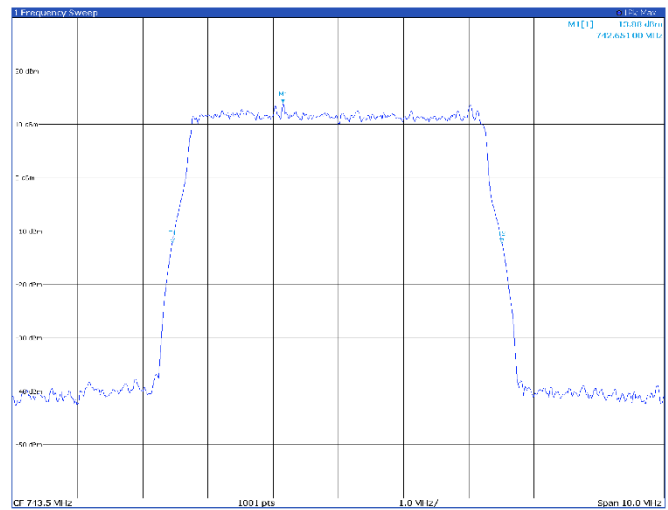


TM3p1, 5 MHz, mid channel



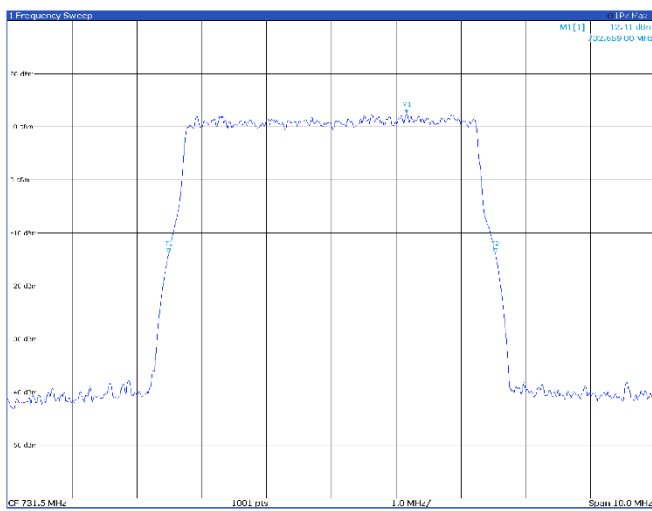
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1	1	739.518 MHz	13.80 dBm	nB	30.0 dB
M1	1	1	740.000 MHz	-11.60 dBm	nB cpm BW	5.08 MHz
M2	1	1	740.000 MHz	1.00 dBm	Q-factor	55.0

TM3p1, 5 MHz, high channel



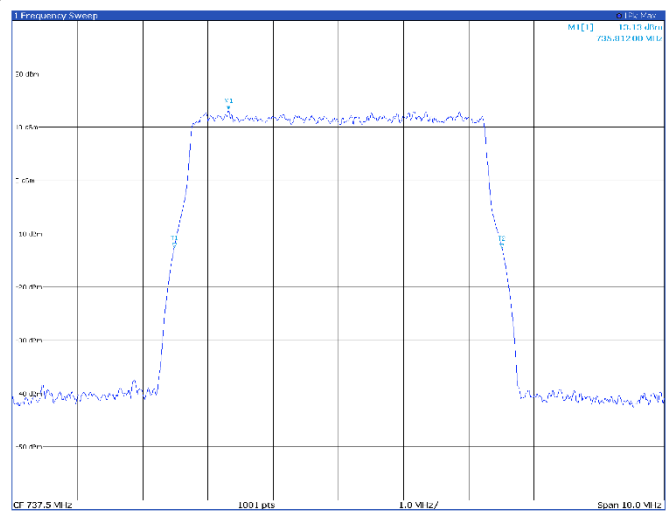
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1	1	742.651 MHz	13.08 dBm	nB	30.0 dB
M1	1	1	740.000 MHz	-12.11 dBm	nB cpm BW	5.05 MHz
M2	1	1	740.000 MHz	-12.24 dBm	Q-factor	14.0

TM3p1a, 5 MHz, low channel

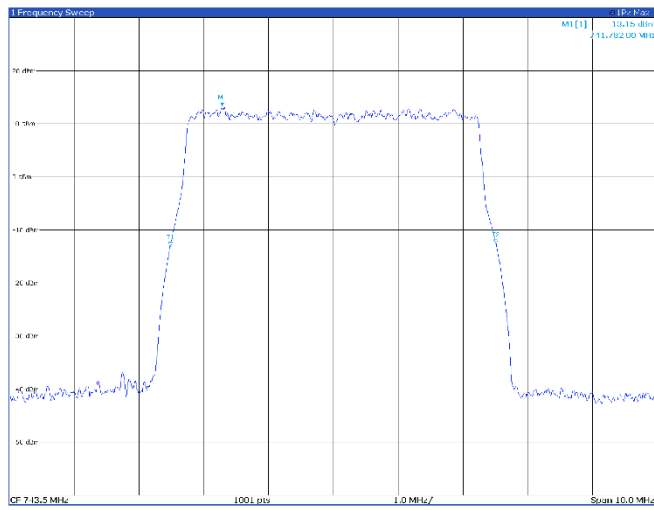


Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1	1	732.659 MHz	12.41 dBm	nB	30.0 dB
M1	1	1	740.000 MHz	-12.01 dBm	nB cpm BW	5.04 MHz
M2	1	1	740.000 MHz	-13.03 dBm	Q-factor	45.0

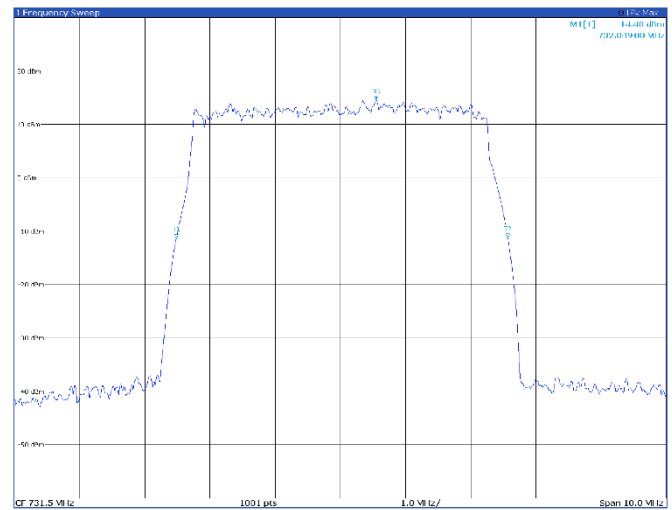
TM3p1a, 5 MHz, mid channel



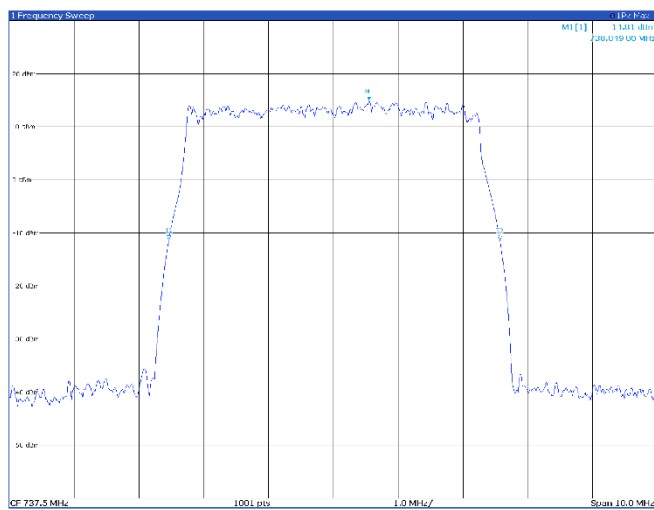
Type	Ref	Trc	X Value	Y Value	Function	Function Result
M1	1	1	735.812 MHz	13.13 dBm	nB	30.0 dB
M1	1	1	740.000 MHz	-12.62 dBm	nB cpm BW	5.03 MHz
M2	1	1	740.000 MHz	-12.66 dBm	Q-factor	14.0

TM3p1a, 5 MHz, high channel


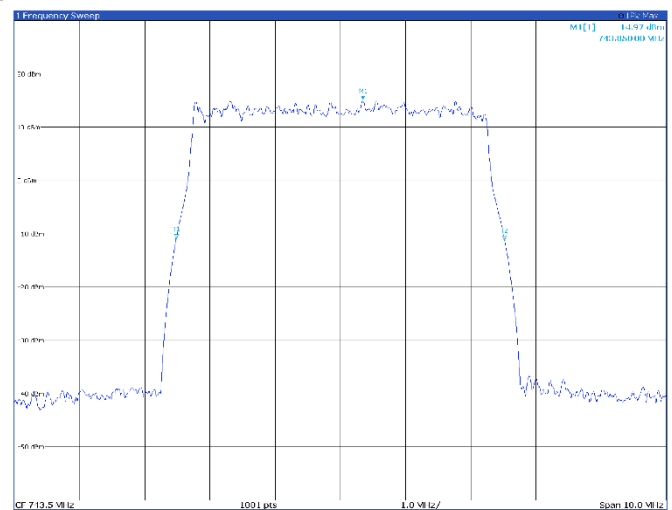
Type	Ref	Freq	X-Value	Y-Value	Function	Function Result
M1	1		741.782 MHz	13.15 dBm	nB	30.0 dB
M1	1		740.952 MHz	-11.14 dBm	nB down BW	5.03 MHz
M2	1		743.012 MHz	-11.72 dBm	C-adjacent	14.7

TM3p3, 5 MHz, low channel


Type	Ref	Freq	X-Value	Y-Value	Function	Function Result
M1	1		732.049 MHz	14.40 dBm	nB	30.0 dB
M1	1		730.952 MHz	-11.14 dBm	nB down BW	5.08 MHz
M2	1		734.072 MHz	-11.72 dBm	C-adjacent	14.7

TM3p3, 5 MHz, mid channel


Type	Ref	Freq	X-Value	Y-Value	Function	Function Result
M1	1		738.049 MHz	14.81 dBm	nB	30.0 dB
M1	1		736.952 MHz	-11.14 dBm	nB down BW	5.11 MHz
M2	1		740.012 MHz	-11.72 dBm	C-adjacent	14.7

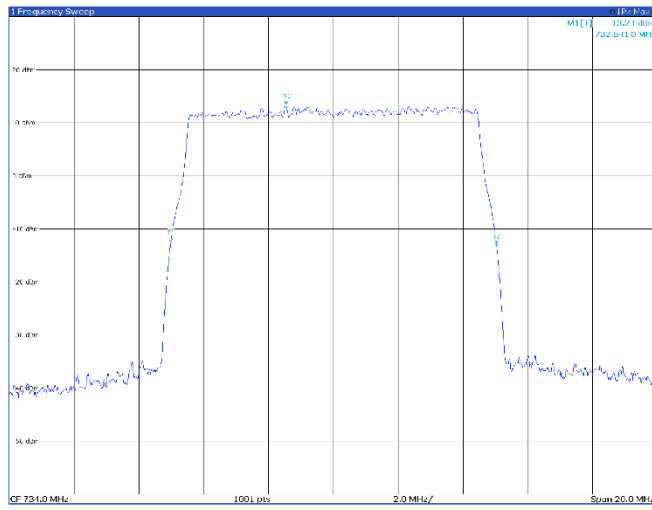
TM3p3, 5 MHz, high channel


Type	Ref	Freq	X-Value	Y-Value	Function	Function Result
M1	1		743.85 MHz	14.97 dBm	nB	30.0 dB
M1	1		740.952 MHz	-10.95 dBm	nB down BW	5.04 MHz
M2	1		746.072 MHz	-11.72 dBm	C-adjacent	14.7

Band B12

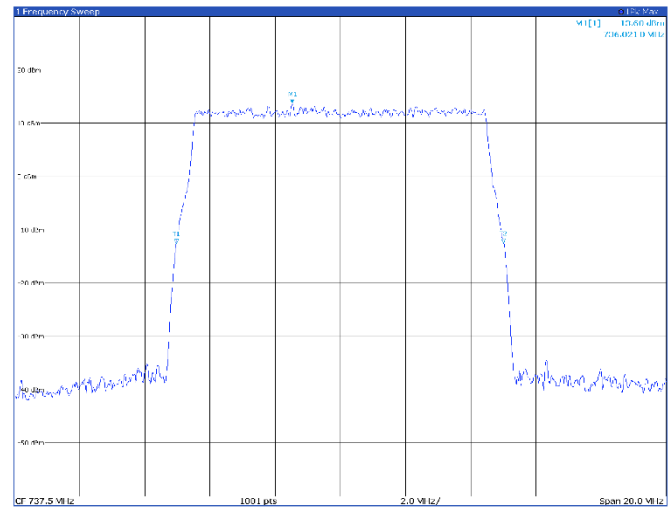
10 MHz

TM1.1, 10 MHz, low channel



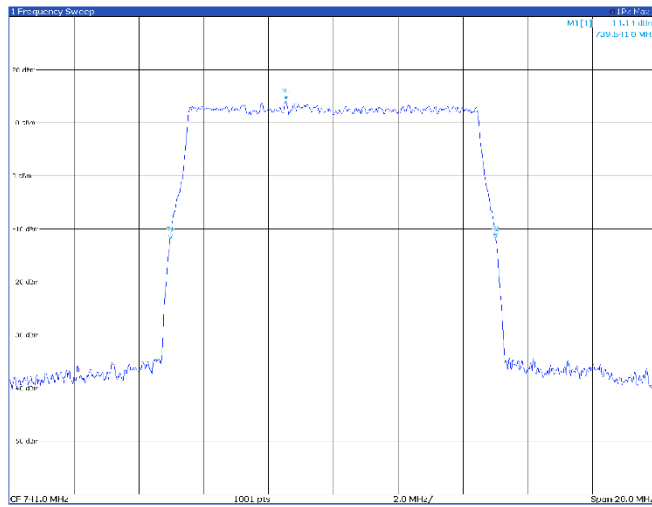
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1		732.541 MHz	13.24 dBm	nB		20.0 dB
M1	1		732.541 MHz	-12.54 dBm	nB	Down BW	10.05 MHz
M1	1		732.541 MHz	-12.54 dBm	nB	Q-factor	22.5

TM1.1, 10 MHz, mid channel



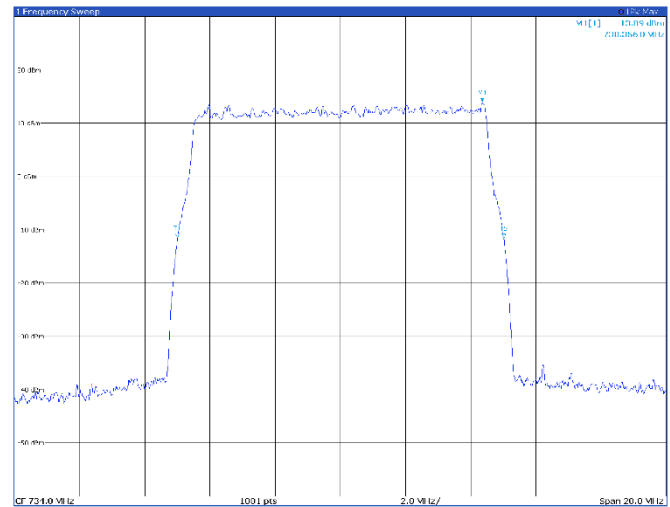
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1		738.021 MHz	13.60 dBm	nB		20.0 dB
M1	1		738.021 MHz	-12.60 dBm	nB	Down BW	10.05 MHz
M1	1		738.021 MHz	-12.60 dBm	nB	Q-factor	22.4

TM1.1, 10 MHz, high channel



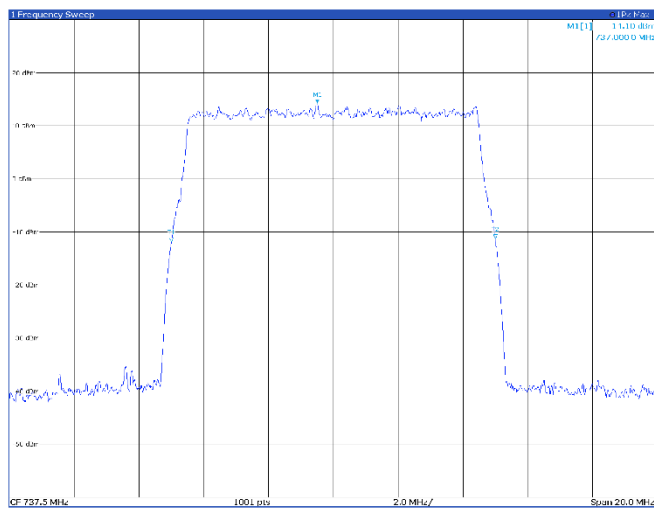
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1		739.541 MHz	14.14 dBm	nB		20.0 dB
M1	1		739.541 MHz	-11.54 dBm	nB	Down BW	10.03 MHz
M1	1		739.541 MHz	-11.54 dBm	nB	Q-factor	22.7

TM3p1, 10 MHz, low channel



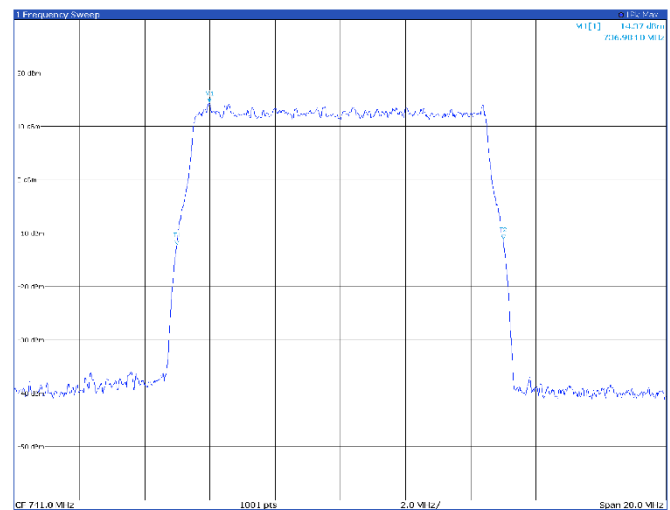
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1		739.356 MHz	13.89 dBm	nB		20.0 dB
M1	1		739.356 MHz	-11.50 dBm	nB	Down BW	10.01 MHz
M1	1		739.356 MHz	-11.50 dBm	nB	Q-factor	21.1

TM3p1, 10 MHz, mid channel



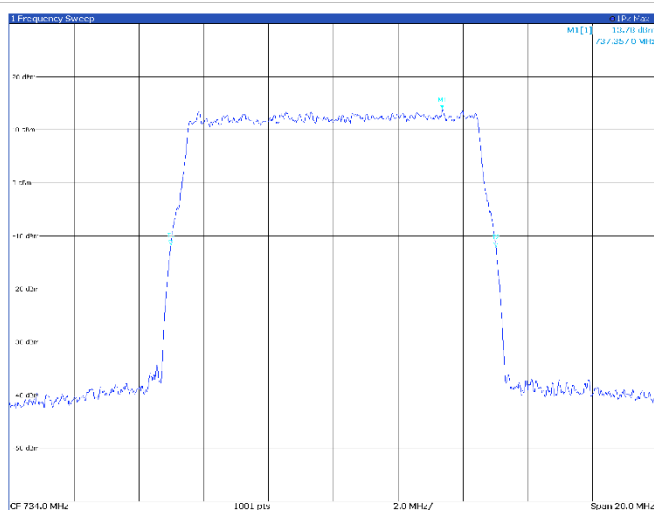
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1	1	737.0 MHz	14.10 dBm	nB	20.0 dB	9.99 MHz
M1	1	1	742.5 MHz	-11.60 dBm	nB	20.0 dB	9.99 MHz
M1	1	1	747.5 MHz	-11.60 dBm	nB	20.0 dB	9.99 MHz

TM3p1, 10 MHz, high channel



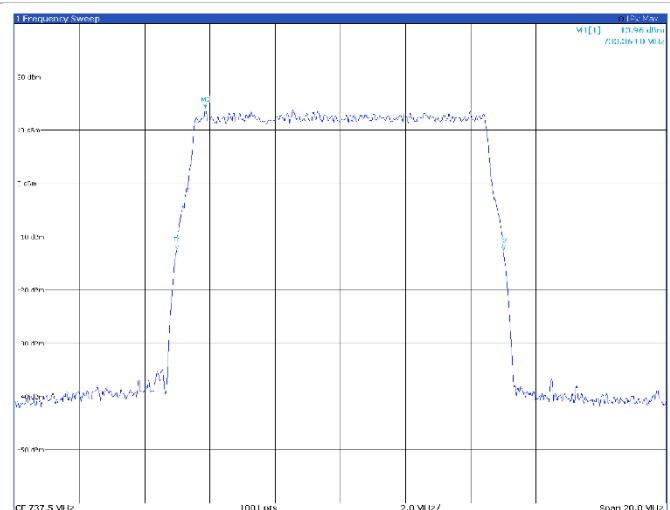
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1	1	736.984 MHz	14.37 dBm	nB	20.0 dB	10.01 MHz
M1	1	1	746.0 MHz	-11.14 dBm	nB	20.0 dB	10.01 MHz
M1	1	1	755.916 MHz	-11.14 dBm	nB	20.0 dB	10.01 MHz

TM3p1a, 10 MHz, low channel



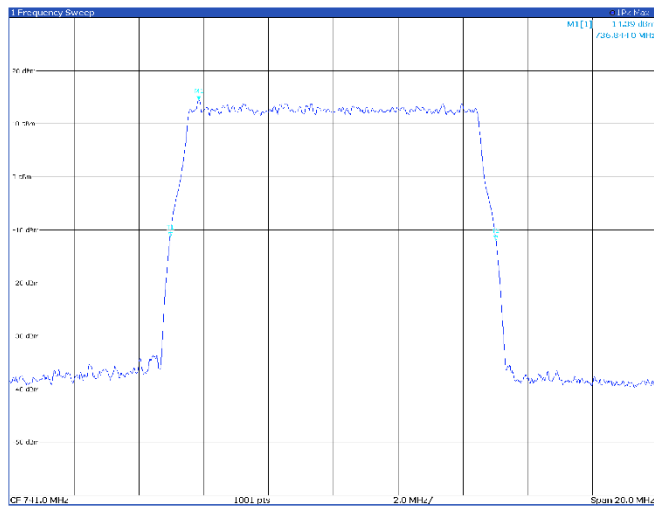
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1	1	731.357 MHz	13.76 dBm	nB	20.0 dB	10.03 MHz
M1	1	1	736.0 MHz	-11.14 dBm	nB	20.0 dB	10.03 MHz
M1	1	1	740.643 MHz	-11.14 dBm	nB	20.0 dB	10.03 MHz

TM3p1a, 10 MHz, mid channel



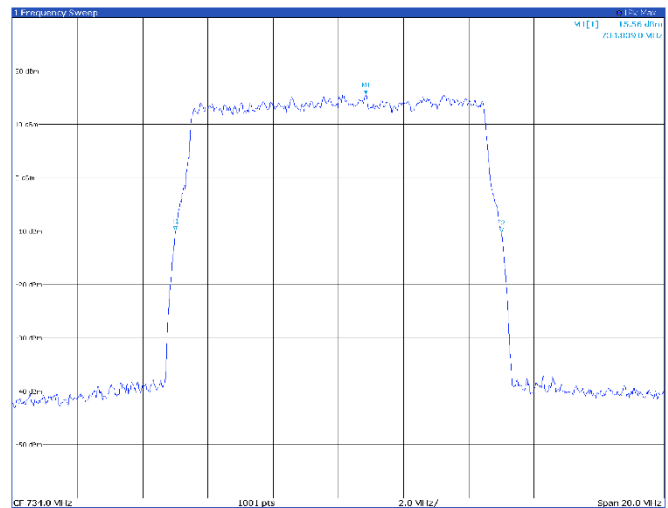
Type	Ref	Trc	X Value	Y Value	nB	Function	Function Result
M1	1	1	737.364 MHz	13.96 dBm	nB	20.0 dB	10.01 MHz
M1	1	1	742.5 MHz	-11.14 dBm	nB	20.0 dB	10.01 MHz
M1	1	1	747.636 MHz	-11.14 dBm	nB	20.0 dB	10.01 MHz

TM3p1a, 10 MHz, high channel



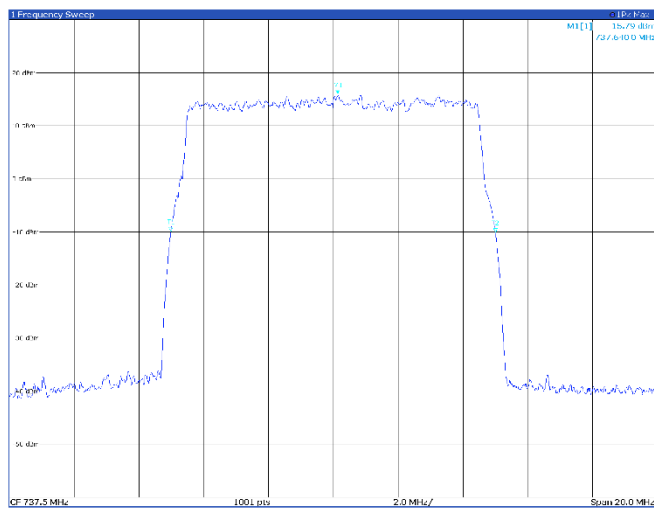
Type	Ref	Trc	X Value	Y Value	Function	Function Result
P1	1	1	736.544 MHz	14.39 dBm	nB	20.0 dB
P1	1	1	736.553 MHz	-11.20 dBm	nB down BW	10.05 MHz
P2	1	1	736.510 MHz	1.38 dBm	Q-factor	23.2

TM3p3, 10 MHz, low channel



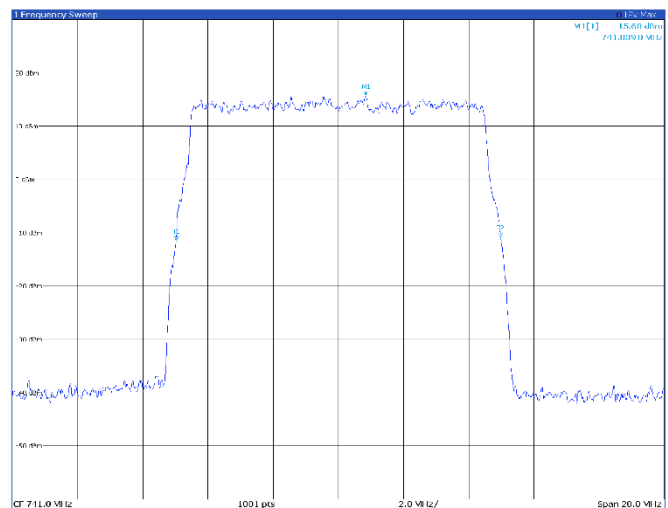
Type	Ref	Trc	X Value	Y Value	Function	Function Result
P1	1	1	734.839 MHz	15.56 dBm	nB	20.0 dB
P1	1	1	734.853 MHz	-9.92 dBm	nB down BW	9.99 MHz
P2	1	1	734.809 MHz	-10.22 dBm	Q-factor	7.18

TM3p3, 10 MHz, mid channel



Type	Ref	Trc	X Value	Y Value	Function	Function Result
P1	1	1	737.64 MHz	15.79 dBm	nB	20.0 dB
P1	1	1	737.653 MHz	-9.92 dBm	nB down BW	10.01 MHz
P2	1	1	737.510 MHz	0.16 dBm	Q-factor	23.2

TM3p3, 10 MHz, high channel



Type	Ref	Trc	X Value	Y Value	Function	Function Result
P1	1	1	741.839 MHz	15.68 dBm	nB	20.0 dB
P1	1	1	741.853 MHz	-11.66 dBm	nB down BW	9.95 MHz
P2	1	1	741.809 MHz	-10.24 dBm	Q-factor	7.18

8.4 FCC §27.50(c)(3) Output power

8.4.1 Definitions and limits

(c) The following power and antenna height requirements apply to stations transmitting in the 600 MHz band and the 698-746 MHz band:

(3) Fixed and base stations transmitting a signal with an emission bandwidth greater than 1 MHz must not exceed an ERP of **1000 watts/MHz (60 dBm/MHz)** and an antenna height of 305 m HAAT, except that antenna heights greater than 305 m HAAT are permitted if power levels are reduced below 1000 watts/MHz ERP in accordance with Table 3 of this section

(10) Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts (34.8 dBm) ERP.

8.4.2 Test summary

Test start date	November 22, 2024	Temperature	22 °C
Test end date	December 13, 2024	Air pressure	1001 mbar
Test engineer	O. Frau	Relative humidity	62%
Verdict	Pass		

8.4.3 Observations, settings and special notes

Test method: ANSI C63.26 Section 5.2.4.5

Spectrum analyzer settings:

Resolution bandwidth	1 MHz
Video bandwidth	3 MHz
Frequency span	$\geq 1.5 \times \text{OBW}$
Detector mode	Peak
Trace mode	Max Hold

This test was made across the conducted port and using a sensor power. An offset of 30 dB was added to the measurement to compensate the loss of the external 30 dB attenuator. Interconnecting cable losses were included as a transducer factor in the spectrum analyzer.

8.4.4 Test equipment used

Equipment	Manufacturer	Model no.	Asset no.
Spectrum Analyzer	Rohde & Schwarz	FSW43	101767

8.4.5 Test data

Band B12:

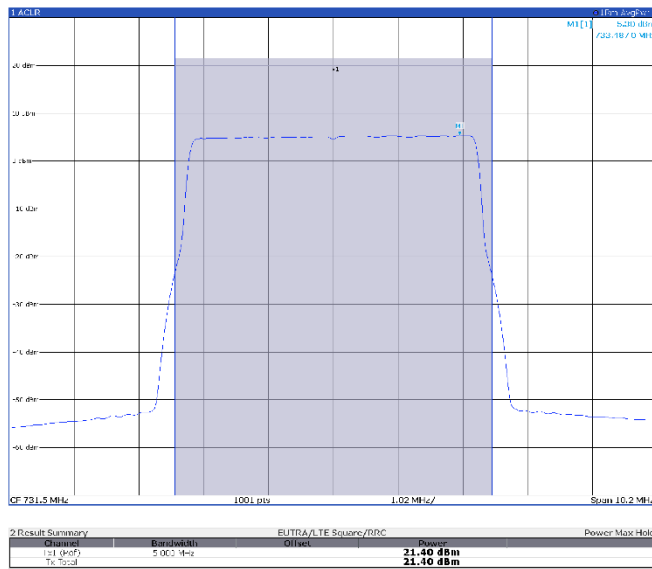
Modulation	OBW (MHz)	Frequency (MHz)	Measured Power Density (dBm/MHz) port 1	Measured Power Density (dBm/MHz) port 2	Antenna Gain Max (dBi)	Total EIRP Power Density (dBm/MHz)	Measured Power (dBm) port 1	Measured Power (dBm) port 2	Limits Power (dBm)	Margin (dB)
TM1.1	5	731.5	5.30	6.10	3.7	12.43	21.40	22.09	60.0	-47.57
TM3p1	5	731.5	5.23	6.08	3.7	12.39	21.37	22.07	60.0	-47.61
TM3p1a	5	731.5	5.28	6.11	3.7	12.43	21.35	22.01	60.0	-47.57
TM3p3	5	731.5	6.69	7.47	3.7	13.81	21.22	22.02	60.0	-46.19
TM1.1	5	737.5	5.72	6.60	3.7	12.89	21.92	22.74	60.0	-47.11
TM3p1	5	737.5	5.73	6.68	3.7	12.94	21.90	22.73	60.0	-47.06
TM3p1a	5	737.5	5.77	6.68	3.7	12.96	21.88	22.76	60.0	-47.04
TM3p3	5	737.5	7.19	7.92	3.7	14.28	21.84	22.63	60.0	-45.72
TM1.1	5	743.5	6.16	6.58	3.7	13.09	22.41	22.68	60.0	-46.91
TM3p1	5	743.5	6.23	6.66	3.7	13.16	22.40	22.69	60.0	-46.84
TM3p1a	5	743.5	6.28	6.74	3.7	13.23	22.43	22.71	60.0	-46.77
TM3p3	5	743.5	7.64	7.93	3.7	14.50	22.33	22.65	60.0	-45.50
TM1.1	10	734.0	2.53	3.42	3.7	9.71	21.66	22.45	60.0	-50.29
TM3p1	10	734.0	2.87	3.67	3.7	10.00	22.02	22.58	60.0	-50.00
TM3p1a	10	734.0	2.80	3.70	3.7	9.98	21.59	22.46	60.0	-50.02
TM3p3	10	734.0	4.27	5.16	3.7	11.45	21.62	22.43	60.0	-48.55
TM1.1	10	737.5	2.78	3.40	3.7	9.81	21.92	22.53	60.0	-50.19
TM3p1	10	737.5	2.95	3.80	3.7	10.11	21.97	22.81	60.0	-49.89
TM3p1a	10	737.5	2.92	3.65	3.7	10.01	21.92	22.68	60.0	-49.99
TM3p3	10	737.5	4.50	5.24	3.7	11.60	21.91	22.71	60.0	-48.40
TM1.1	10	741.0	3.98	3.93	3.7	10.67	23.38	23.23	60.0	-49.33
TM3p1	10	741.0	3.25	3.83	3.7	10.26	22.30	22.89	60.0	-49.74
TM3p1a	10	741.0	3.17	3.62	3.7	10.11	22.17	22.73	60.0	-49.89
TM3p3	10	741.0	4.68	5.15	3.7	11.63	22.14	22.71	60.0	-48.37

Antenna port 1

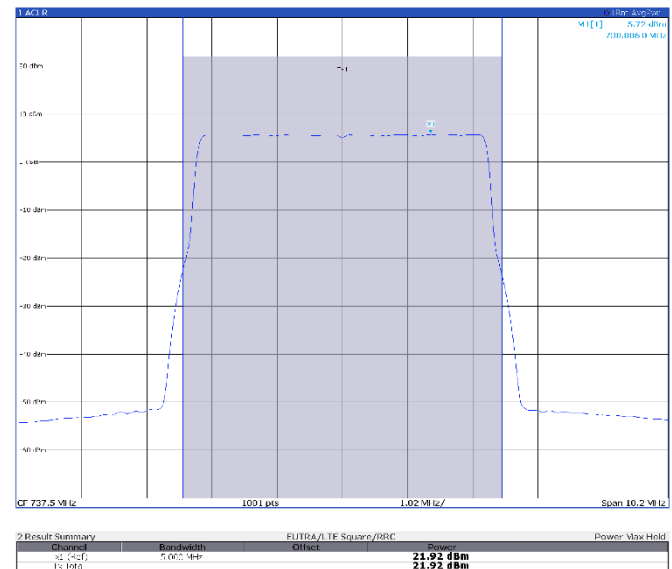
Band B12

5 MHz

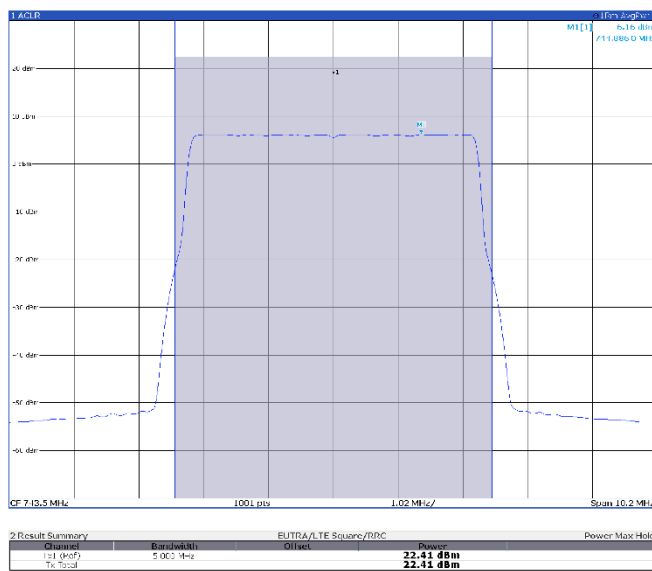
TM1.1, 5 MHz, low channel



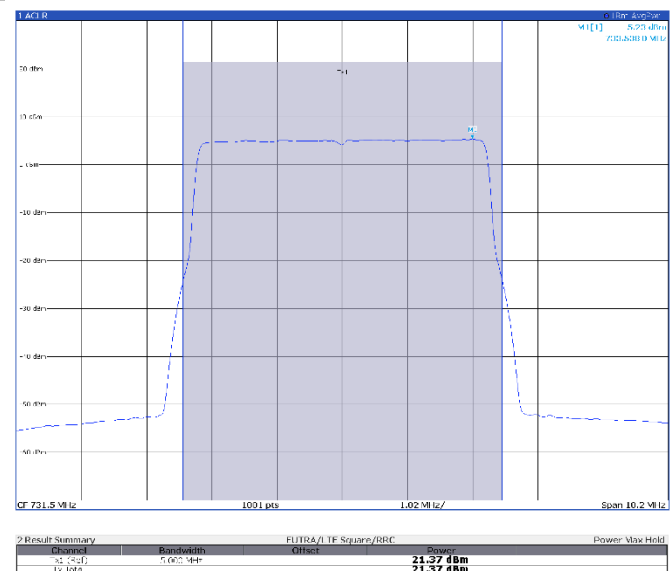
TM1.1, 5 MHz, mid channel



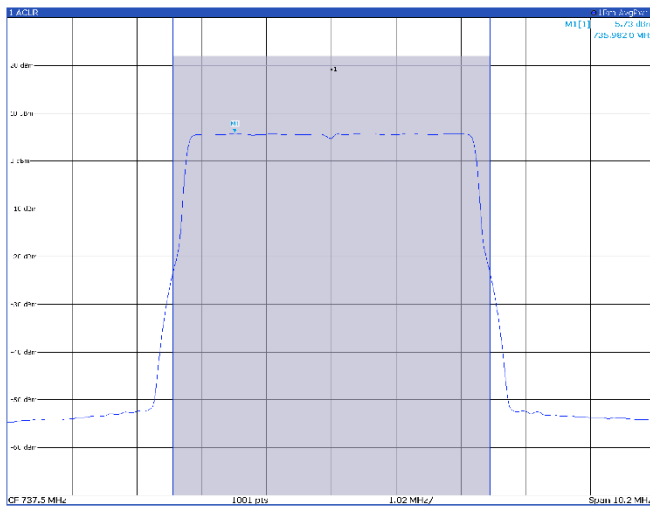
TM1.1, 5 MHz, high channel



TM3p1, 5 MHz, low channel

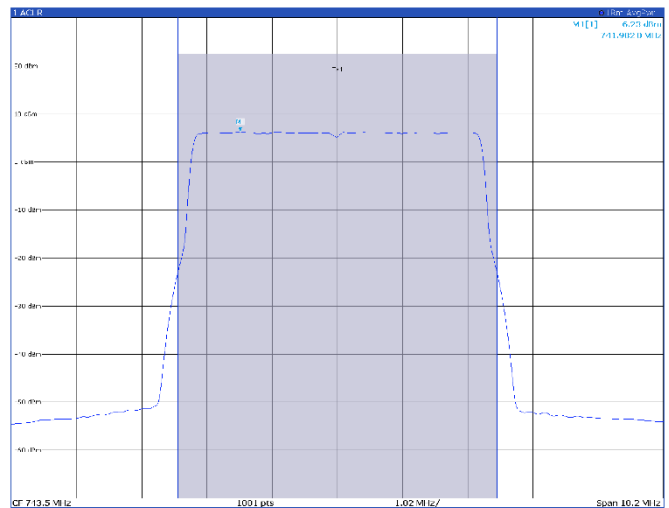


TM3p1, 5 MHz, mid channel



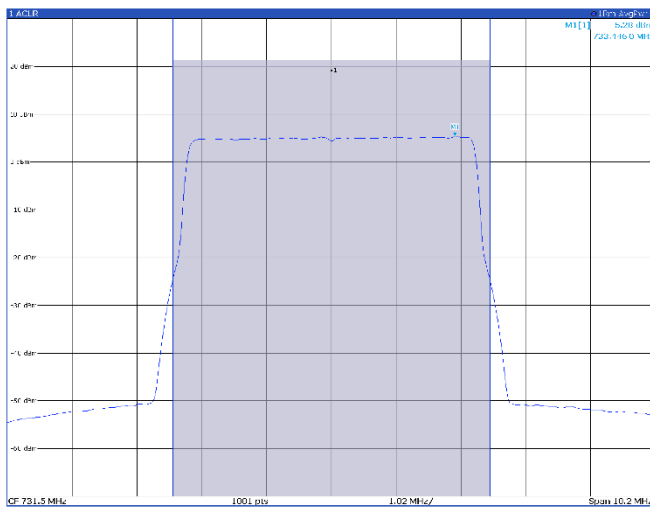
2 Result Summary			
Channel	Bandwidth	Offset	Power
1:1 (dB)	5.000 MHz		21.90 dBm
1:2 (dB)			21.90 dBm

TM3p1, 5 MHz, high channel



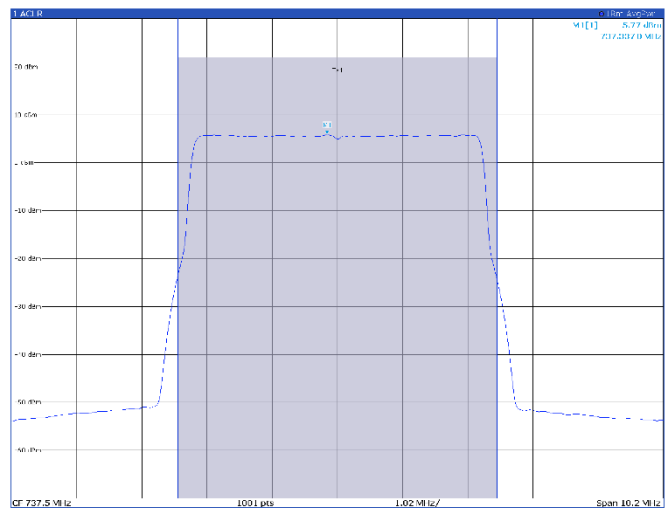
2 Result Summary			
Channel	Bandwidth	Offset	Power
1:1 (dB)	5.000 MHz		22.40 dBm
1:2 (dB)			22.40 dBm

TM3p1a, 5 MHz, low channel



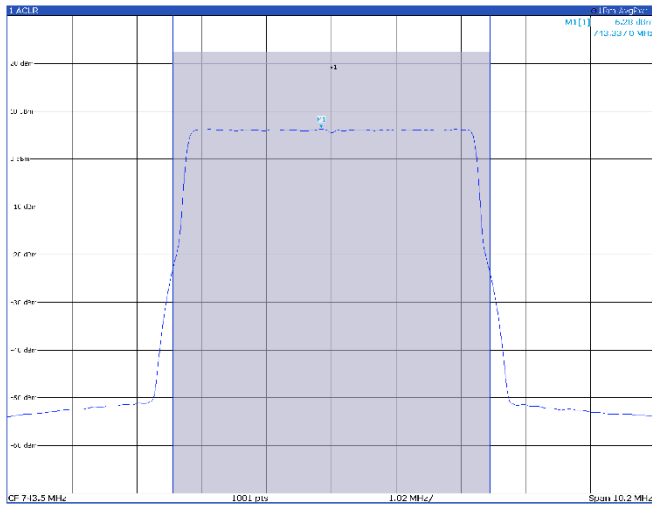
2 Result Summary			
Channel	Bandwidth	Offset	Power
1:1 (dB)	5.000 MHz		21.35 dBm
1:2 (dB)			21.35 dBm

TM3p1a, 5 MHz, mid channel



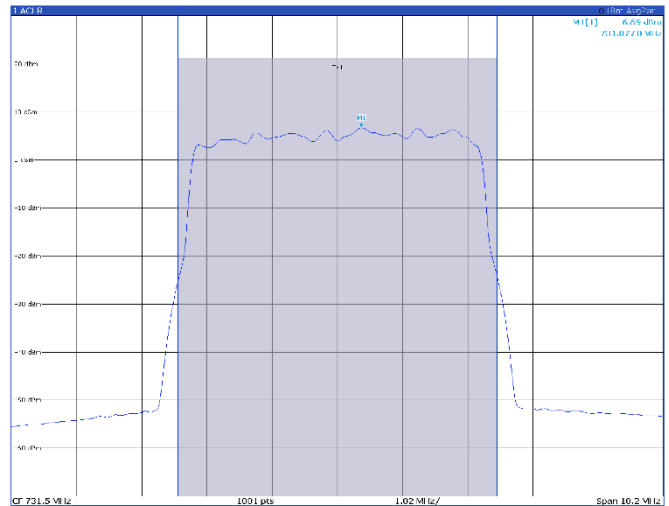
2 Result Summary			
Channel	Bandwidth	Offset	Power
1:1 (dB)	5.000 MHz		21.88 dBm
1:2 (dB)			21.88 dBm

TM3p1a, 5 MHz, high channel



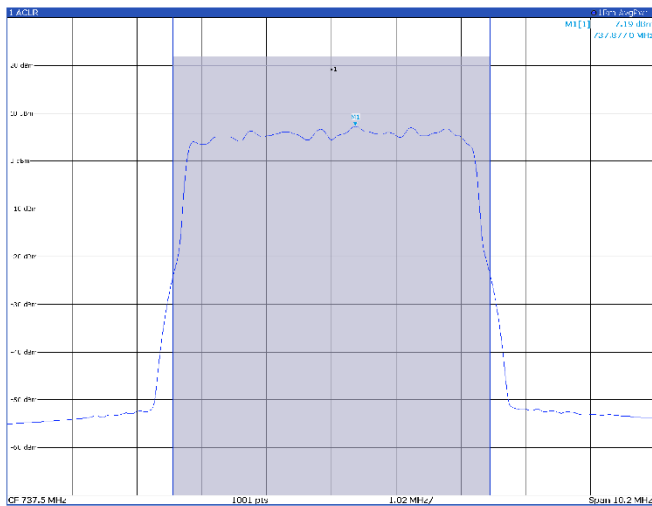
Result Summary			
Channel	Bandwidth	Offset	Power
11 (dof)	5.000 MHz		22.43 dBm
12 (dof)			22.43 dBm

TM3p3, 5 MHz, low channel



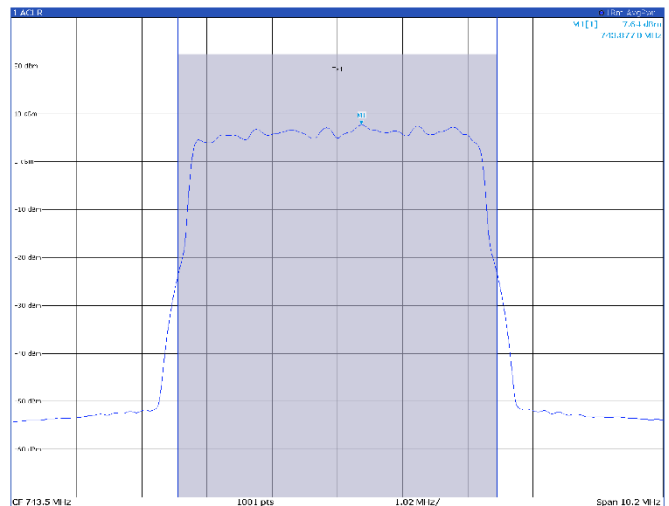
Result Summary			
Channel	Bandwidth	Offset	Power
11 (dof)	5.000 MHz		21.22 dBm
12 (dof)			21.22 dBm

TM3p3, 5 MHz, mid channel



Result Summary			
Channel	Bandwidth	Offset	Power
11 (dof)	5.000 MHz		21.84 dBm
12 (dof)			21.84 dBm

TM3p3, 5 MHz, high channel

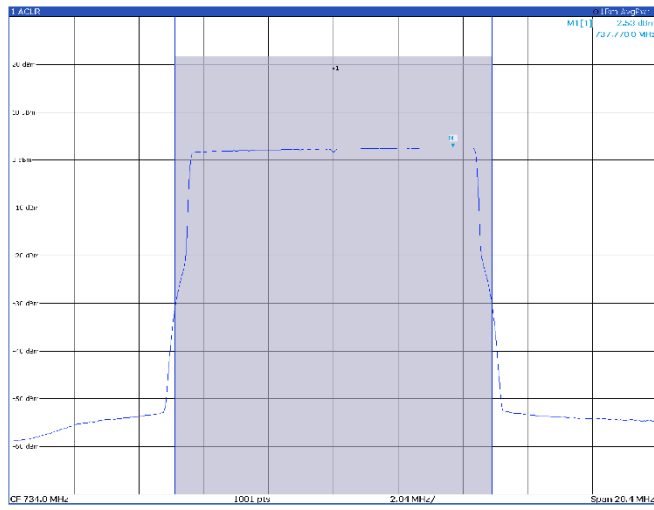


Result Summary			
Channel	Bandwidth	Offset	Power
11 (dof)	5.000 MHz		22.33 dBm
12 (dof)			22.33 dBm

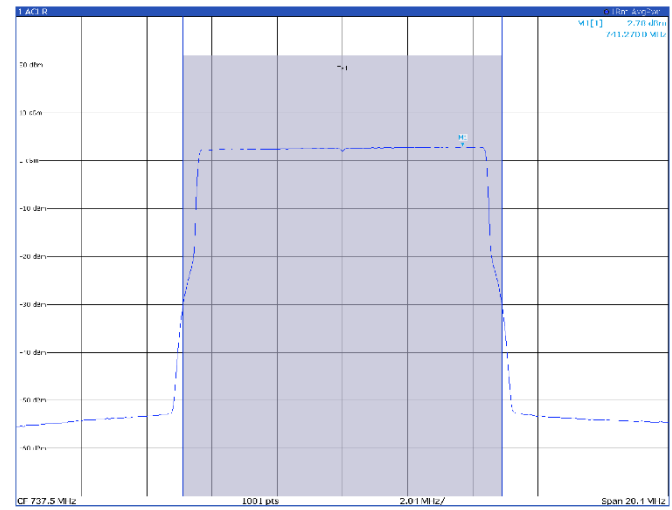
Band B12

10 MHz

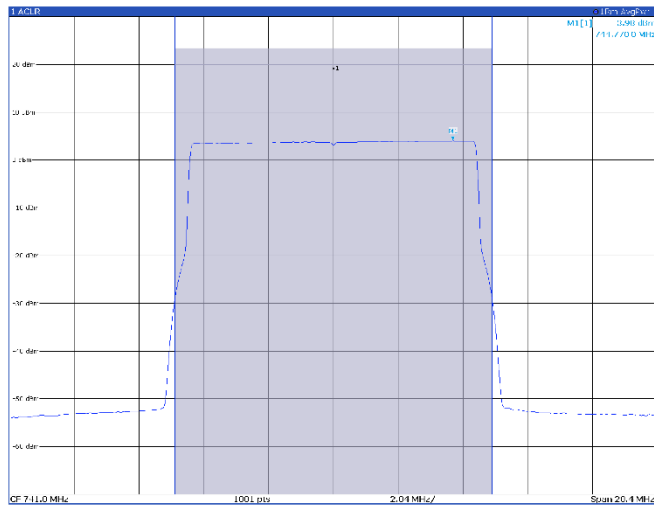
TM1.1, 10 MHz, low channel



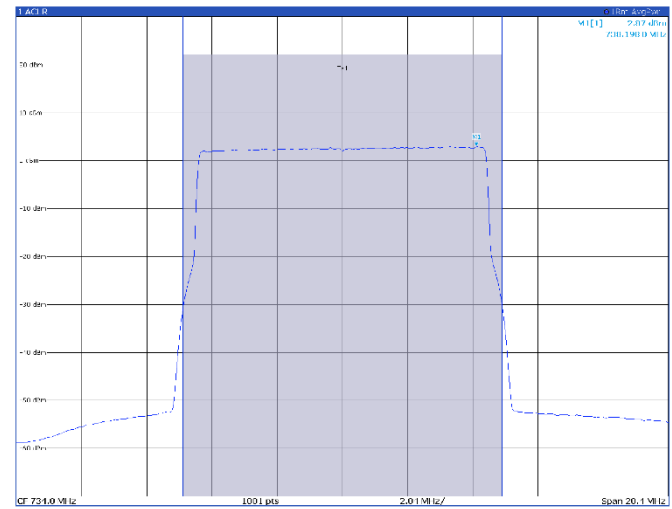
TM1.1, 10 MHz, mid channel



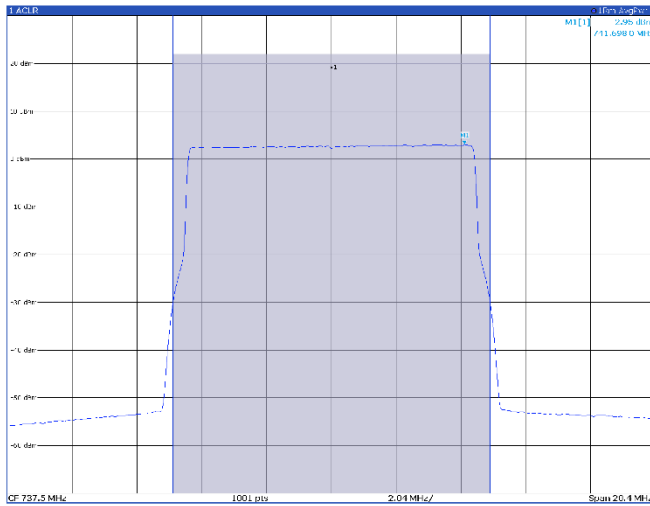
TM1.1, 10 MHz, high channel



TM3p1, 10 MHz, low channel

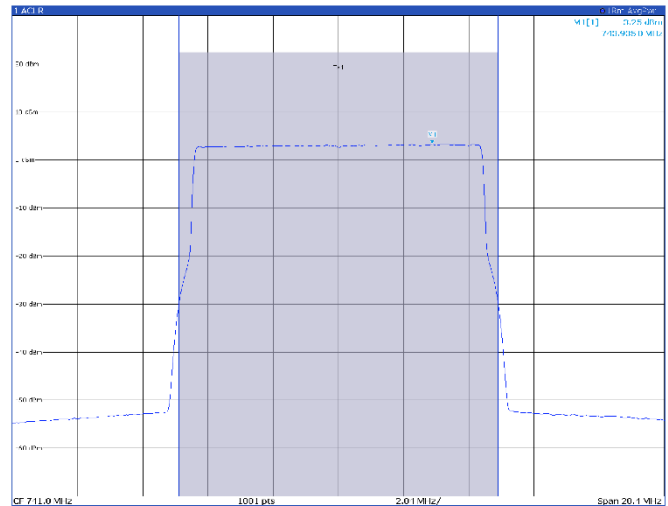


TM3p1, 10 MHz, mid channel



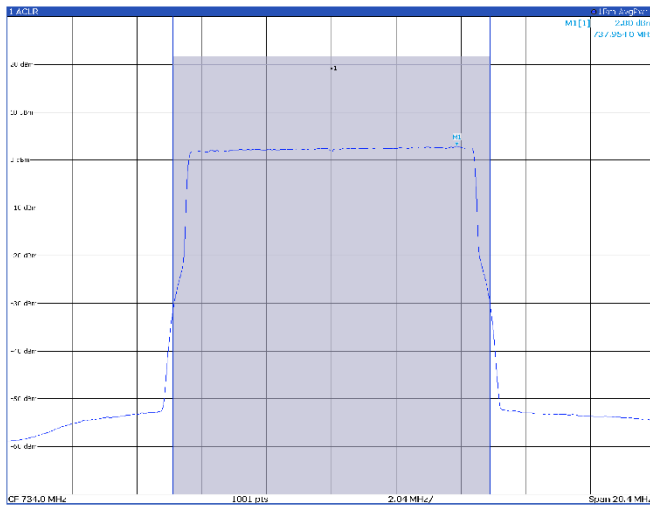
2 Result Summary			
Channel	Bandwidth	Offset	Power
1 (dof)	10.000 MHz		21.97 dBm
Totals			21.97 dBm

TM3p1, 10 MHz, high channel



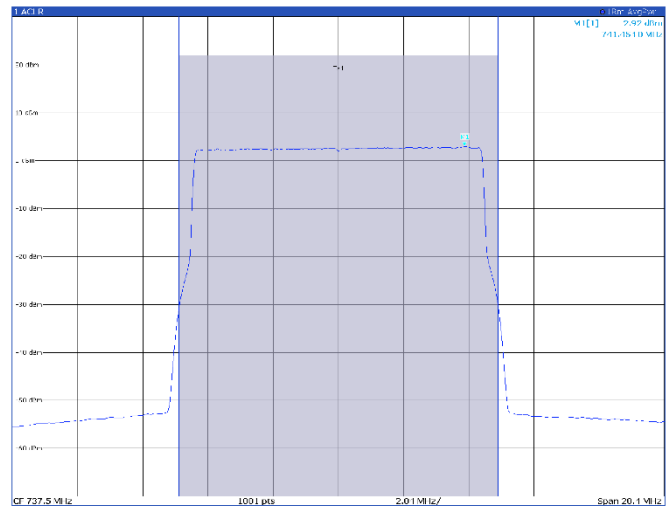
2 Result Summary			
Channel	Bandwidth	Offset	Power
1 (dof)	10.000 MHz		22.30 dBm
Totals			22.30 dBm

TM3p1a, 10 MHz, low channel



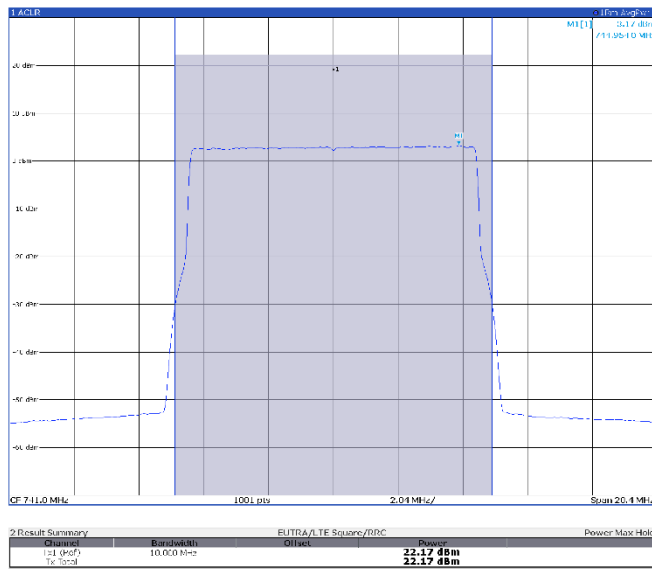
2 Result Summary			
Channel	Bandwidth	Offset	Power
1 (dof)	10.000 MHz		21.59 dBm
Totals			21.59 dBm

TM3p1a, 10 MHz, mid channel

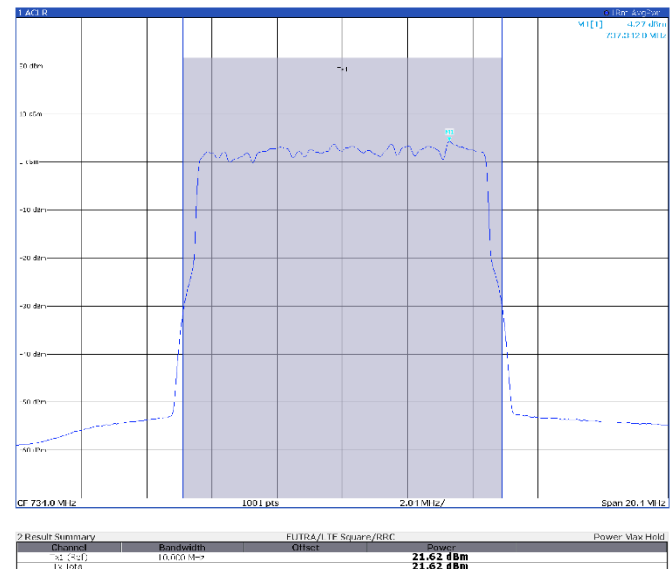


2 Result Summary			
Channel	Bandwidth	Offset	Power
1 (dof)	10.000 MHz		21.92 dBm
Totals			21.92 dBm

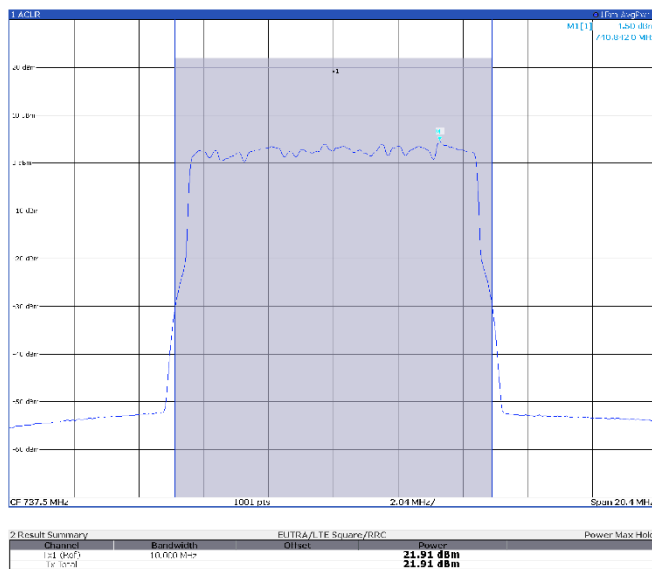
TM3p1a, 10 MHz, high channel



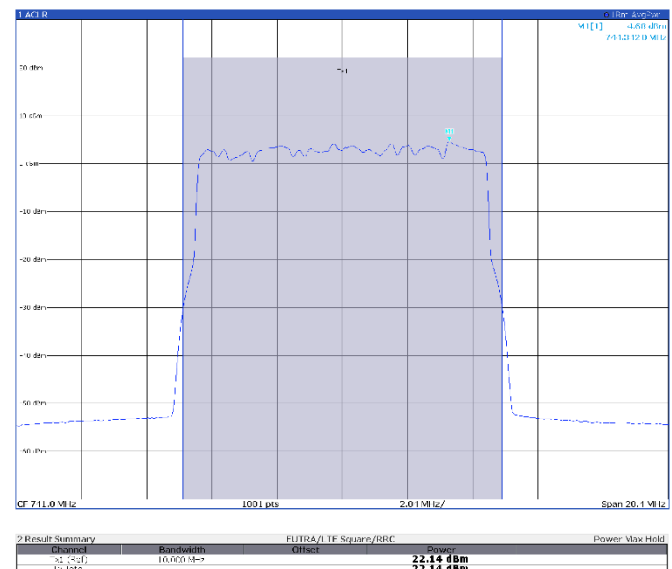
TM3p3, 10 MHz, low channel



TM3p3, 10 MHz, mid channel



TM3p3, 10 MHz, high channel

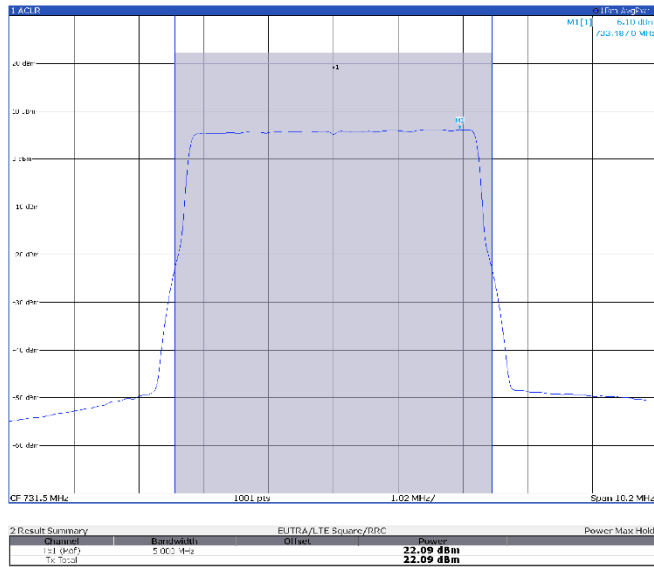


Antenna port 2

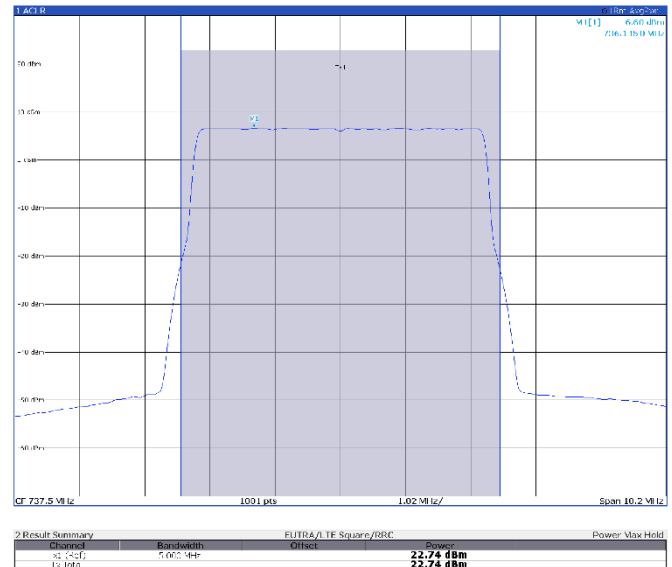
Band B12

5 MHz

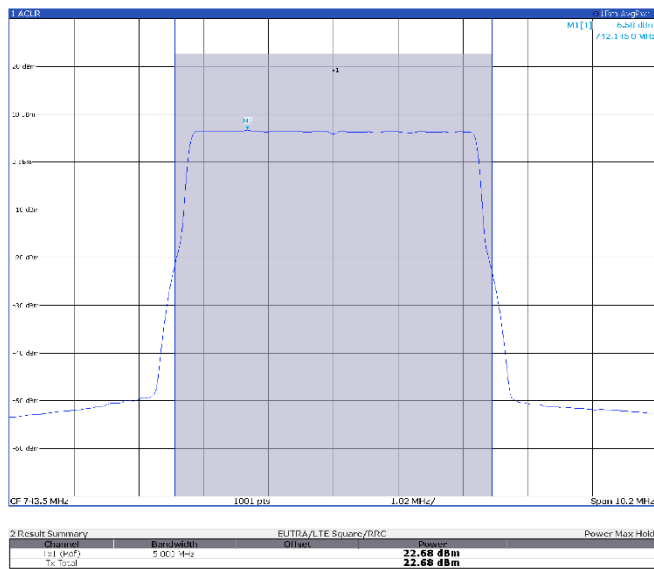
TM1.1, 5 MHz, low channel



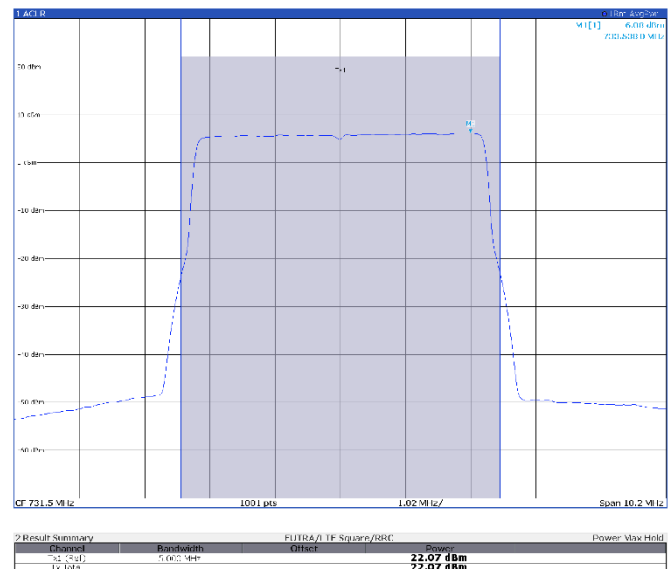
TM1.1, 5 MHz, mid channel



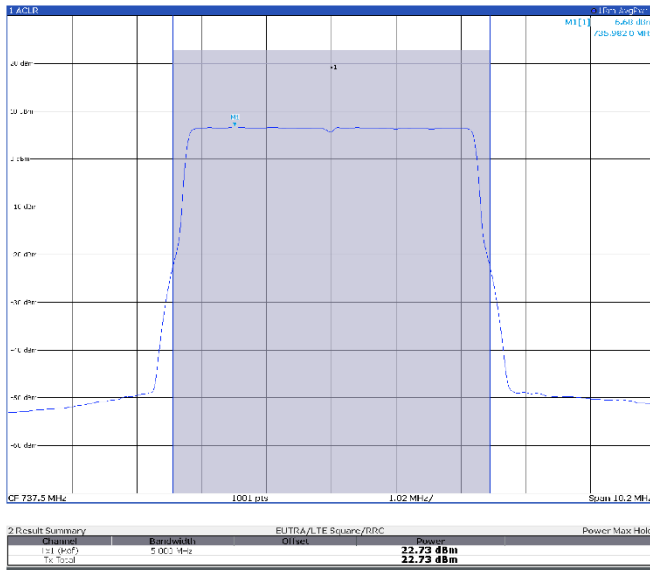
TM1.1, 5 MHz, high channel



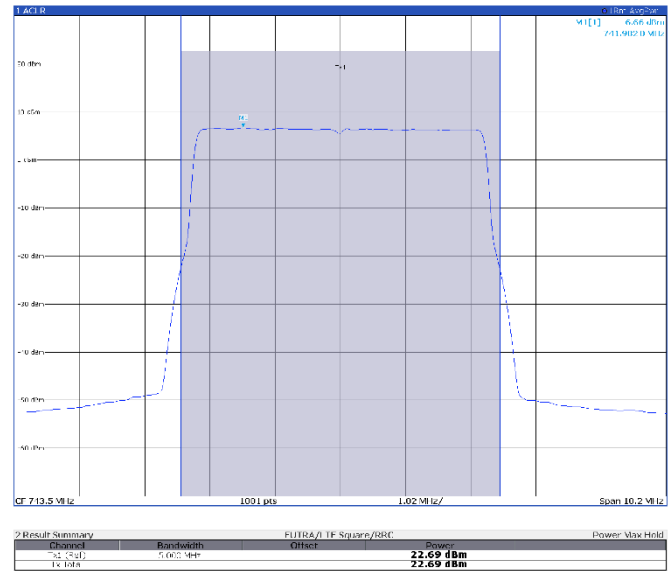
TM3p1, 5 MHz, low channel



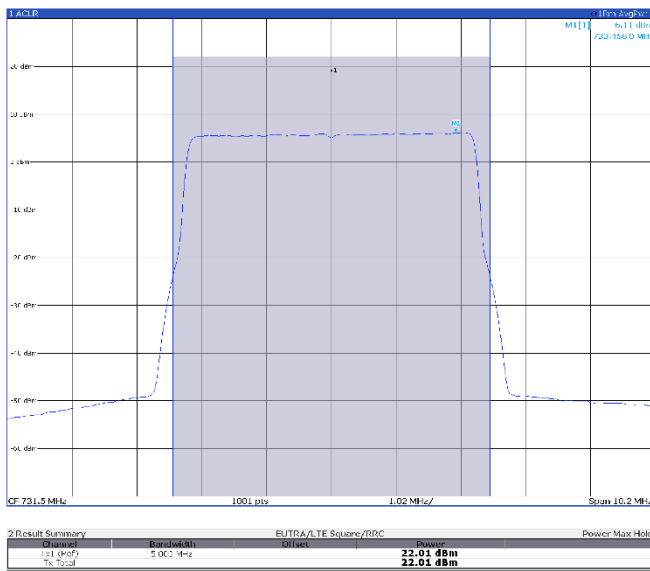
TM3p1, 5 MHz, mid channel



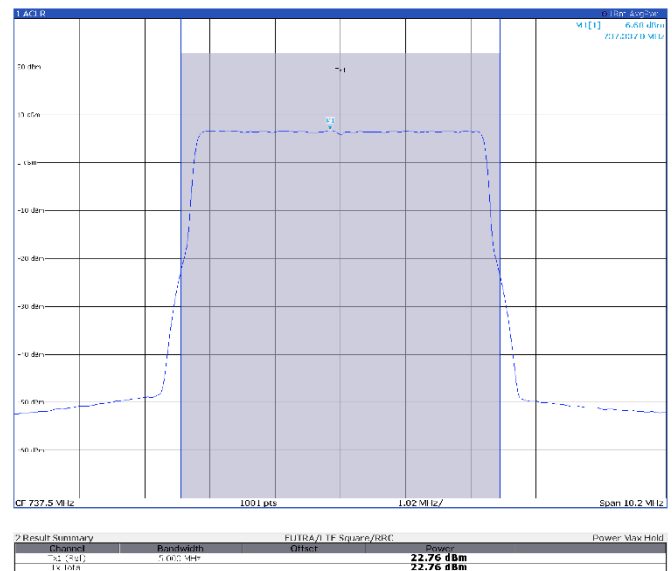
TM3p1, 5 MHz, high channel



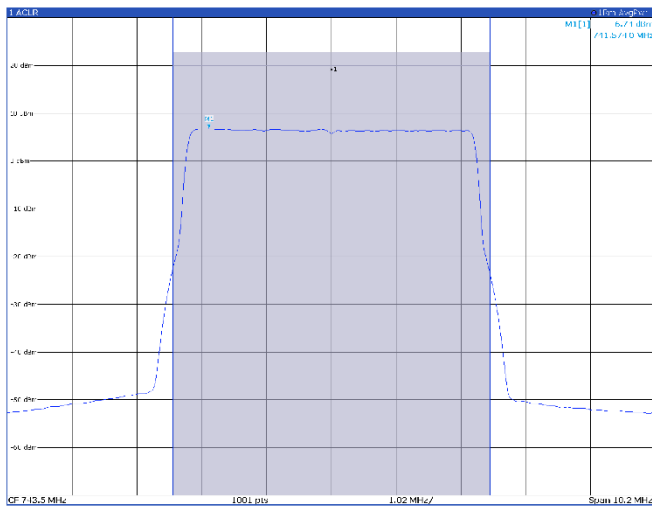
TM3p1a, 5 MHz, low channel



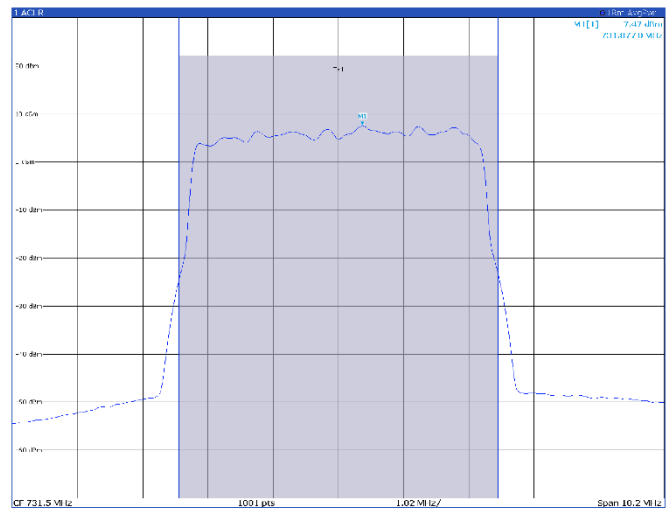
TM3p1a, 5 MHz, mid channel



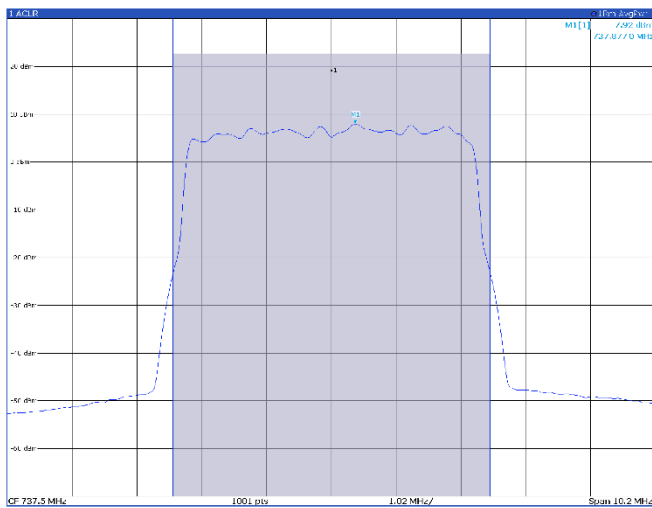
TM3p1a, 5 MHz, high channel



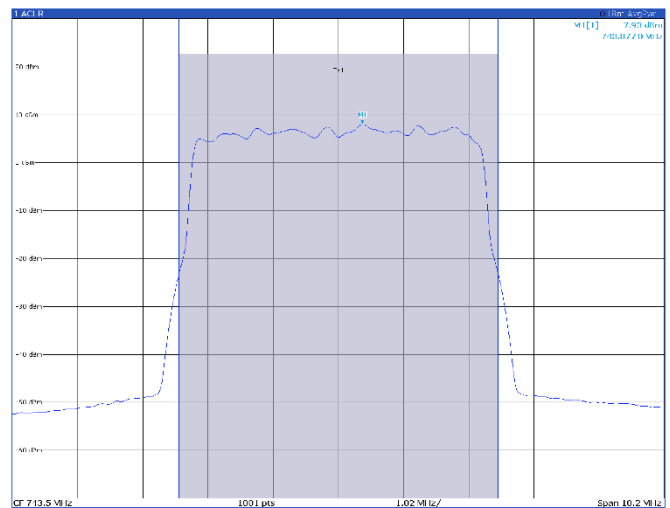
TM3p3, 5 MHz, low channel



TM3p3, 5 MHz, mid channel



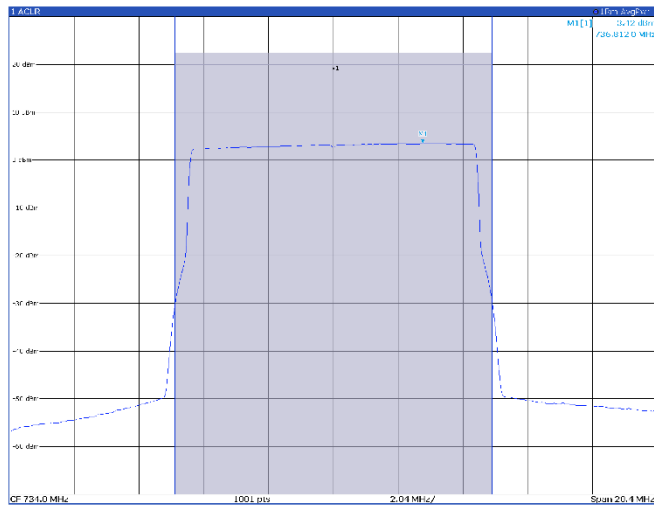
TM3p3, 5 MHz, high channel



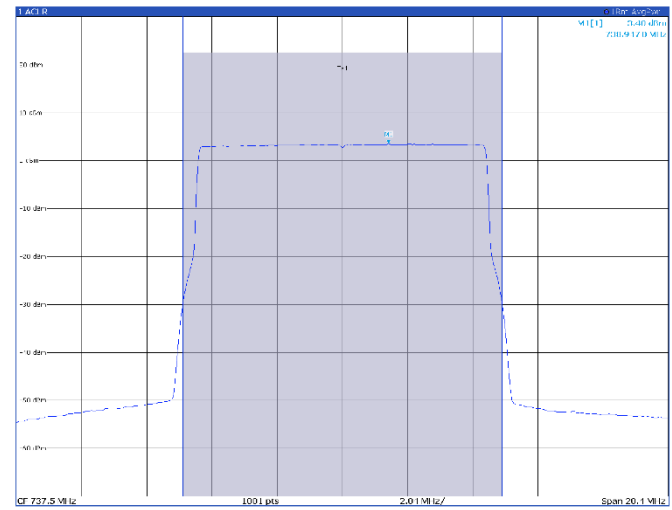
Band B12

10 MHz

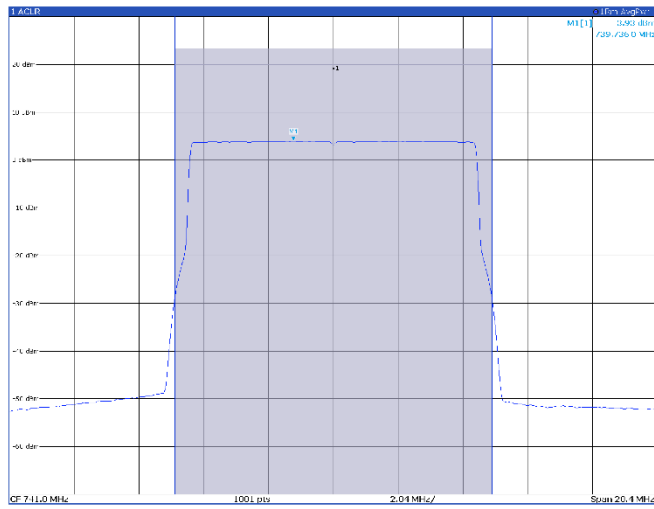
TM1.1, 10 MHz, low channel



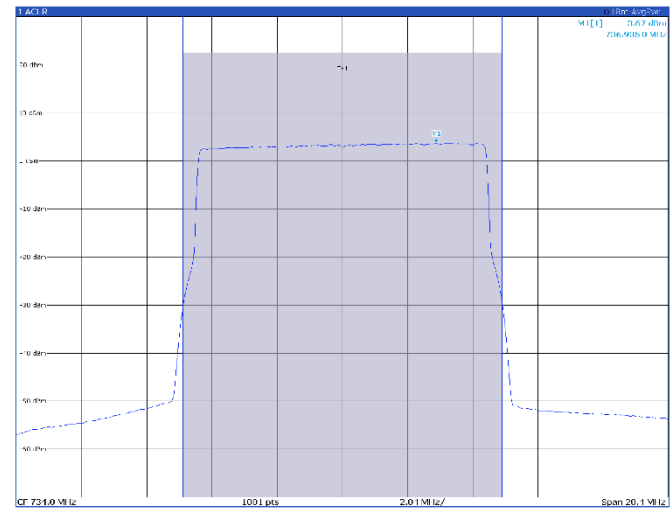
TM1.1, 10 MHz, mid channel



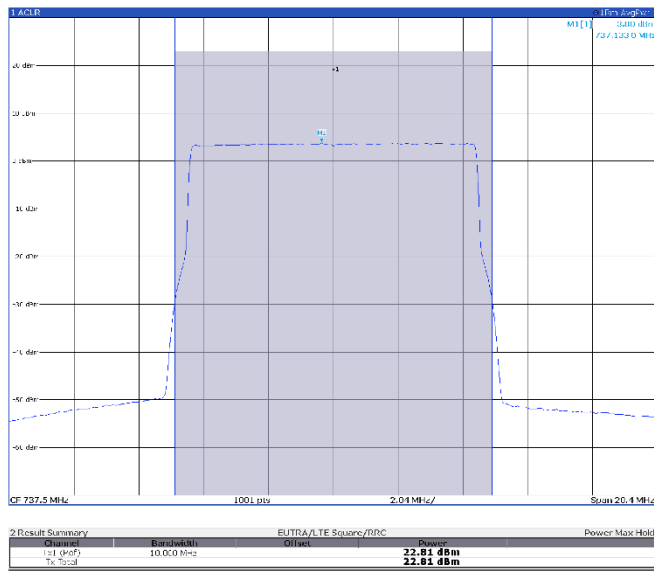
TM1.1, 10 MHz, high channel



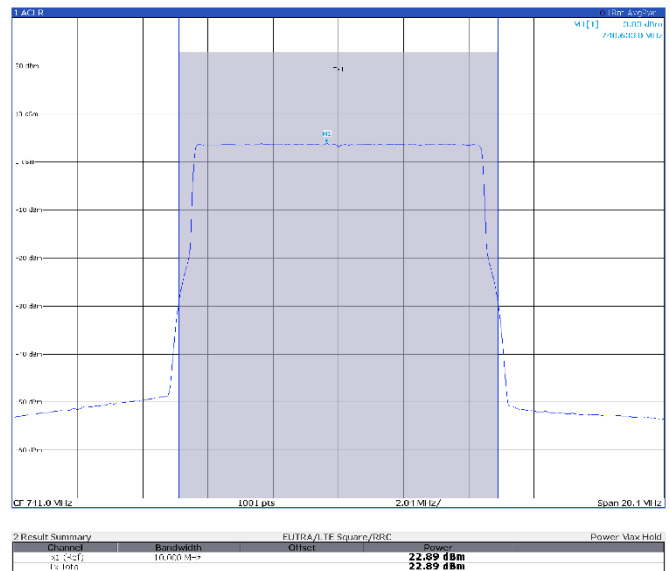
TM3p1, 10 MHz, low channel



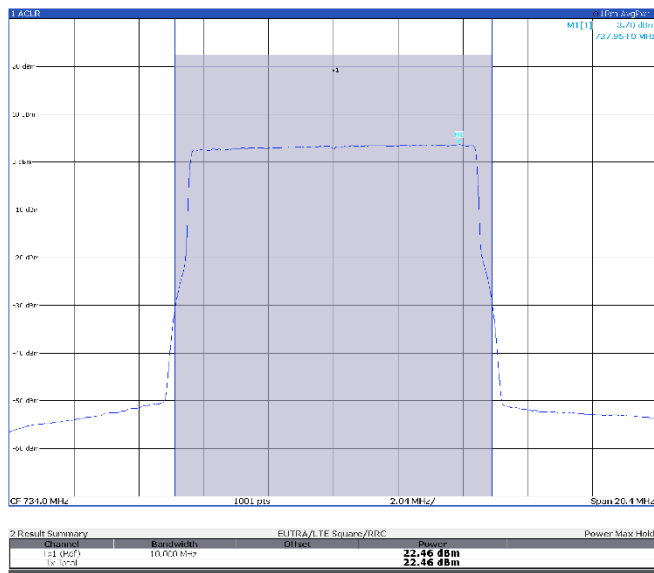
TM3p1, 10 MHz, mid channel



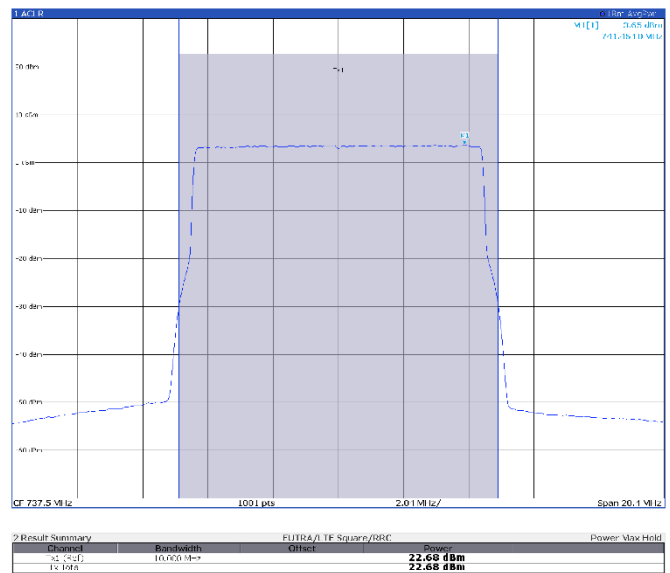
TM3p1, 10 MHz, high channel



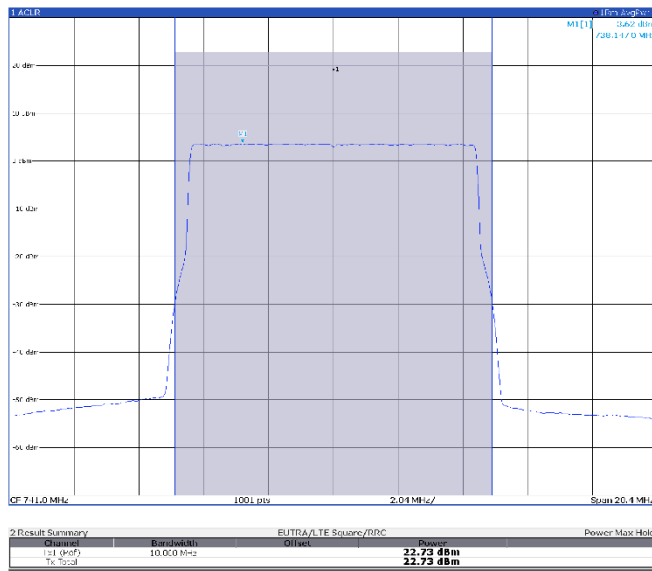
TM3p1a, 10 MHz, low channel



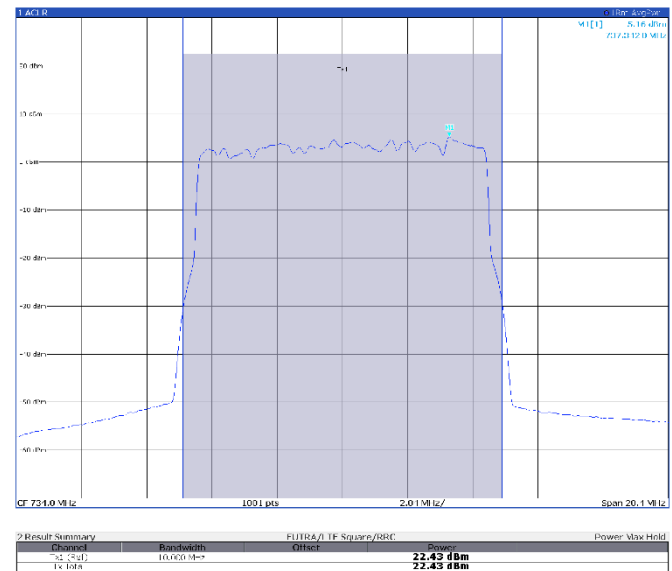
TM3p1a, 10 MHz, mid channel



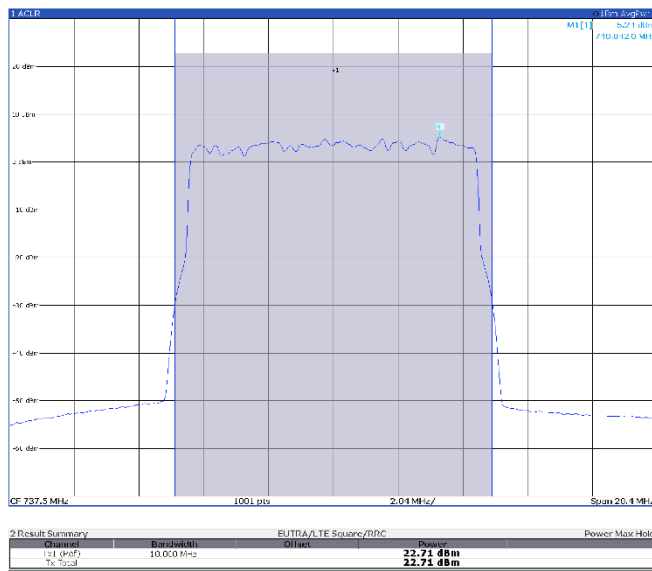
TM3p1a, 10 MHz, high channel



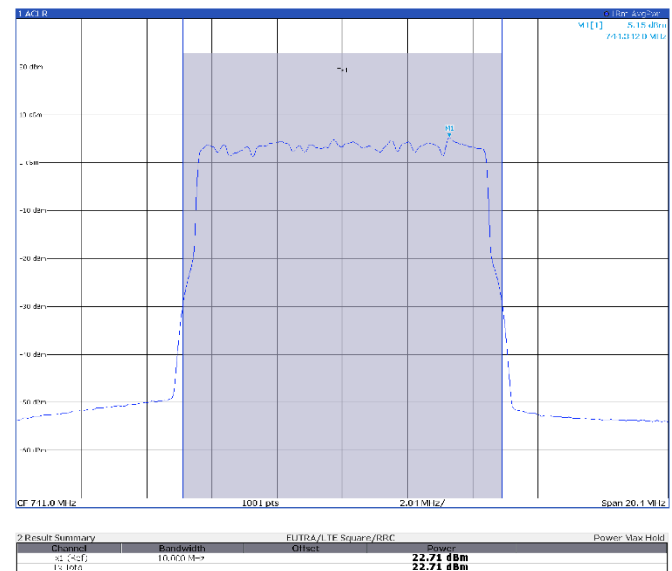
TM3p3, 10 MHz, low channel



TM3p3, 10 MHz, mid channel



TM3p3, 10 MHz, high channel



8.5 FCC §27.50(d)(5) Peak to Average Power Ratio

8.5.1 Definitions and limits

d) (5) Equipment employed must be authorized in accordance with the provisions of § 24.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

(6) Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, sensitivity, and any other relevant factors, so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

8.5.2 Test summary

Test start date	November 22, 2024	Temperature	22 °C
Test end date	December 13, 2024	Air pressure	1001 mbar
Test engineer	O. Frau	Relative humidity	62%
Verdict	Pass		

8.5.3 Observations, settings and special notes

Test method: ANSI C63.26 Section 5.2.3.4.

Spectrum analyzer settings:

Resolution bandwidth	≥ OBW
Number of counts	The necessary number up to stabilizes the measured
Trace mode	Clear/Write

8.5.4 Test equipment used

Equipment	Manufacturer	Model no.	Asset no.
Spectrum Analyzer	Rohde & Schwarz	FSW43	101767

8.5.5 Test data

Antenna 1

Band B12:

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	5 MHz	1	731.5	8.36	13	-4.64
B12	5 MHz	1	737.5	8.48	13	-4.52
B12	5 MHz	1	743.5	8.44	13	-4.56

Peak to average power ratio, TM1.1

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	5 MHz	1	731.5	8.40	13	-4.60
B12	5 MHz	1	737.5	8.46	13	-4.54
B12	5 MHz	1	743.5	8.40	13	-4.60

Peak to average power ratio, TM3p1

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	5 MHz	1	731.5	8.24	13	-4.76
B12	5 MHz	1	737.5	8.28	13	-4.72
B12	5 MHz	1	743.5	8.22	13	-4.78

Peak to average power ratio, TM3p1a

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	5 MHz	1	731.5	8.42	13	-4.58
B12	5 MHz	1	737.5	8.44	13	-4.56
B12	5 MHz	1	743.5	8.40	13	-4.60

Peak to average power ratio, TM3p3

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	10 MHz	1	734.0	8.62	13	-4.38
B12	10 MHz	1	737.5	8.62	13	-4.38
B12	10 MHz	1	741.0	8.60	13	-4.40

Peak to average power ratio, TM1.1

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	10 MHz	1	734.0	8.32	13	-4.68
B12	10 MHz	1	737.5	8.40	13	-4.60
B12	10 MHz	1	741.0	8.46	13	-4.54

Peak to average power ratio, TM3p1

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	10 MHz	1	734.0	8.38	13	-4.62
B12	10 MHz	1	737.5	8.42	13	-4.58
B12	10 MHz	1	741.0	8.42	13	-4.58

Peak to average power ratio, TM3p1a

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	10 MHz	1	734.0	8.52	13	-4.48
B12	10 MHz	1	737.5	8.50	13	-4.50
B12	10 MHz	1	741.0	8.48	13	-4.52

Peak to average power ratio, TM3p3

Antenna 2

Band B12:

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	5 MHz	2	731.5	8.46	13	-4.54
B12	5 MHz	2	737.5	8.52	13	-4.48
B12	5 MHz	2	743.5	8.50	13	-4.50

Peak to average power ratio, TM1.1

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	5 MHz	2	731.5	8.32	13	-4.68
B12	5 MHz	2	737.5	8.36	13	-4.64
B12	5 MHz	2	743.5	8.42	13	-4.58

Peak to average power ratio, TM3p1

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	5 MHz	2	731.5	8.30	13	-4.70
B12	5 MHz	2	737.5	8.30	13	-4.70
B12	5 MHz	2	743.5	8.28	13	-4.72

Peak to average power ratio, TM3p1a

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	5 MHz	2	731.5	8.38	13	-4.62
B12	5 MHz	2	737.5	8.36	13	-4.64
B12	5 MHz	2	743.5	8.38	13	-4.60

Peak to average power ratio, TM3p3

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	10 MHz	2	734.0	8.40	13	-4.60
B12	10 MHz	2	737.5	8.36	13	-4.64
B12	10 MHz	2	741.0	8.36	13	-4.64

Peak to average power ratio, TM1.1

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	10 MHz	2	734.0	8.44	13	-4.56
B12	10 MHz	2	737.5	8.34	13	-4.66
B12	10 MHz	2	741.0	8.56	13	-4.44

Peak to average power ratio, TM3p1

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	10 MHz	2	734.0	8.38	13	-4.62
B12	10 MHz	2	737.5	8.42	13	-4.58
B12	10 MHz	2	741.0	8.42	13	-4.58

Peak to average power ratio, TM3p1a

Band	OBW Declared	Port	Channel (MHz)	0.1% (dB)	0.1% Limit (dB)	Margin (dB)
B12	10 MHz	2	734.0	8.48	13	-4.52
B12	10 MHz	2	737.5	8.50	13	-4.50
B12	10 MHz	2	741.0	8.52	13	-4.68

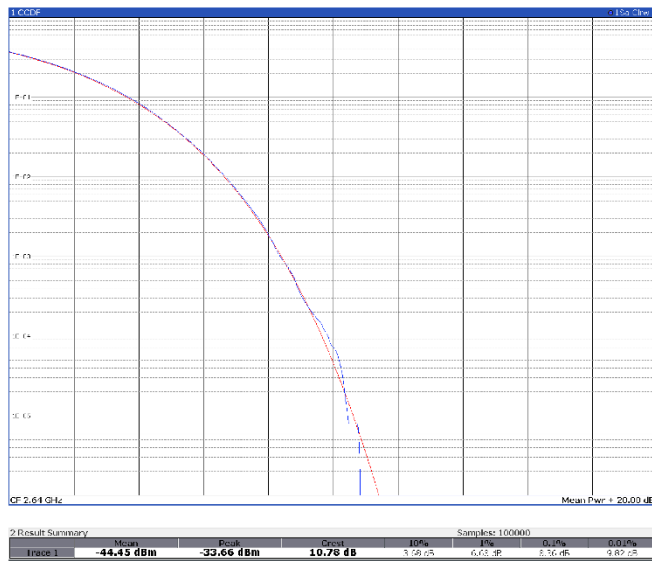
Peak to average power ratio, TM3p3

Antenna port 1

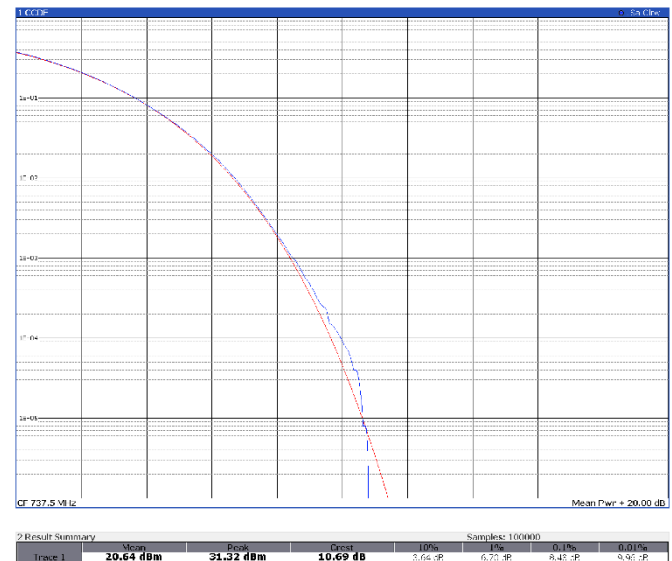
Band B12

5 MHz

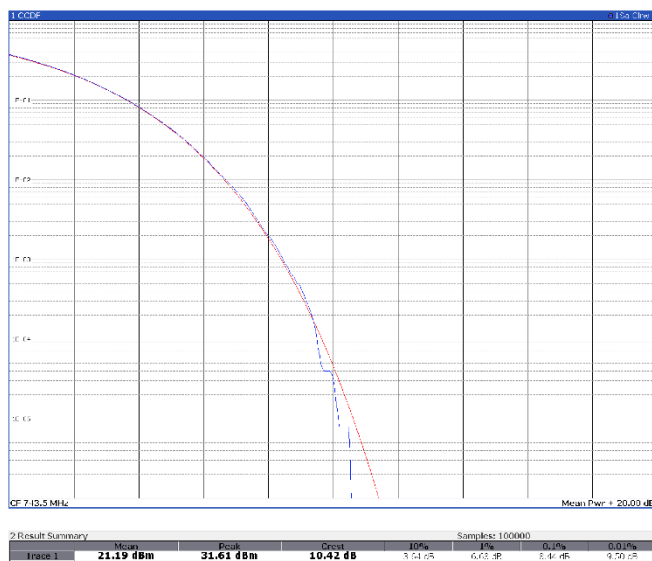
TM1.1, 5 MHz, low channel



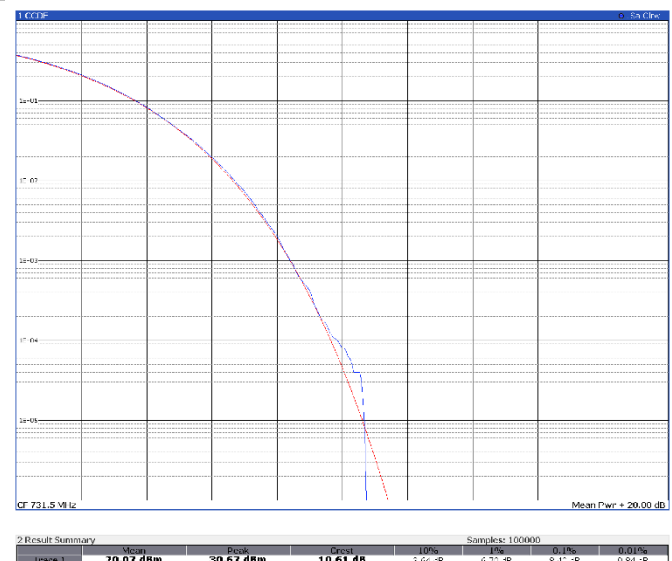
TM1.1, 5 MHz, mid channel



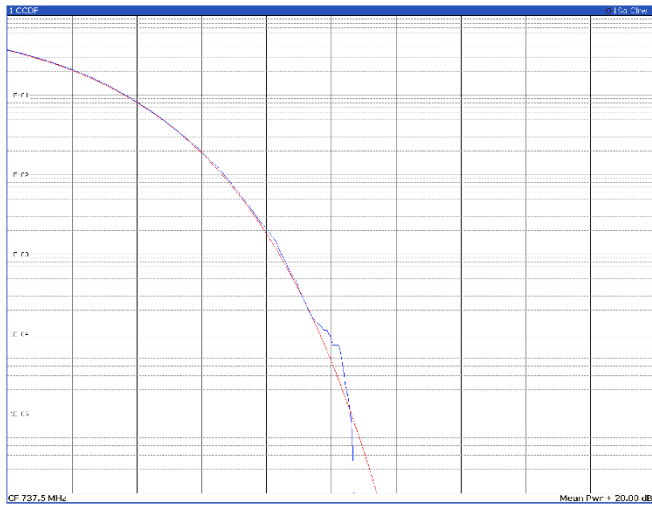
TM1.1, 5 MHz, high channel



TM3p1, 5 MHz, low channel

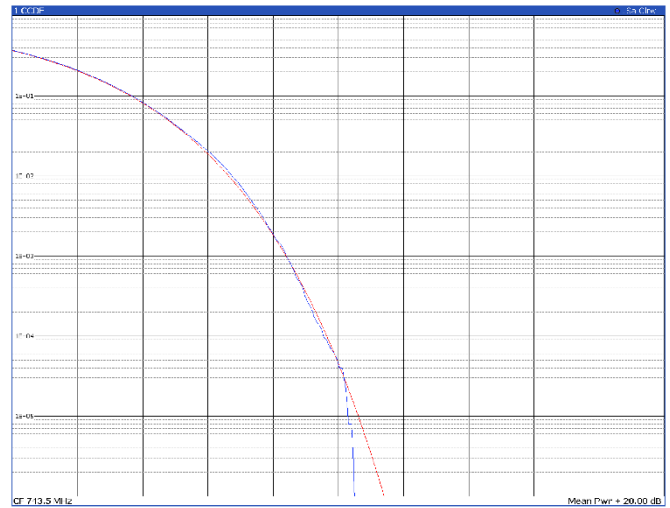


TM3p1, 5 MHz, mid channel



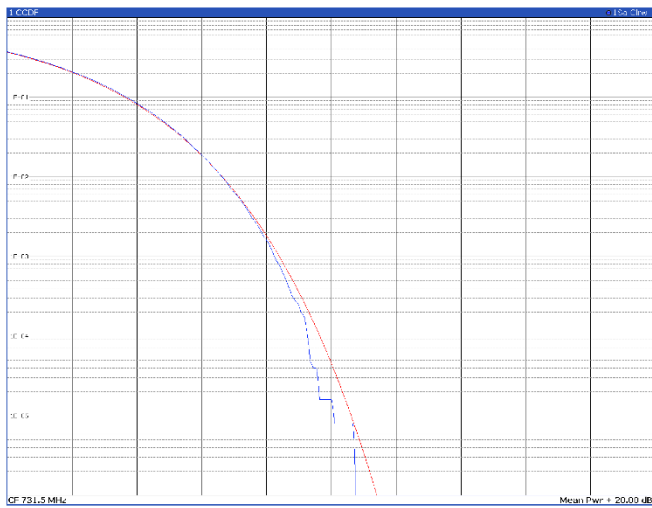
2 Result Summary		Sample: 100000	
Mean	Peak	Crest	10%
Trace 1	20.66 dBm	31.26 dBm	10.59 dB
			1.0%
			0.1%
			0.01%

TM3p1, 5 MHz, high channel



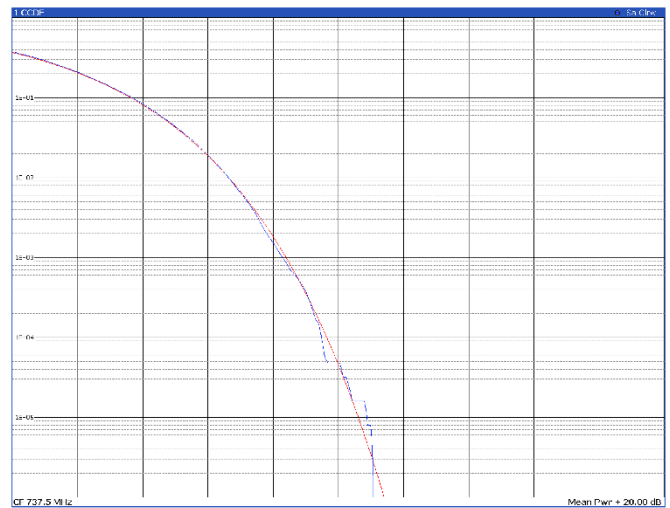
2 Result Summary		Sample: 100000	
Mean	Peak	Crest	10%
Trace 1	21.16 dBm	31.55 dBm	10.40 dB
			1.0%
			0.1%
			0.01%

TM3p1a, 5 MHz, low channel



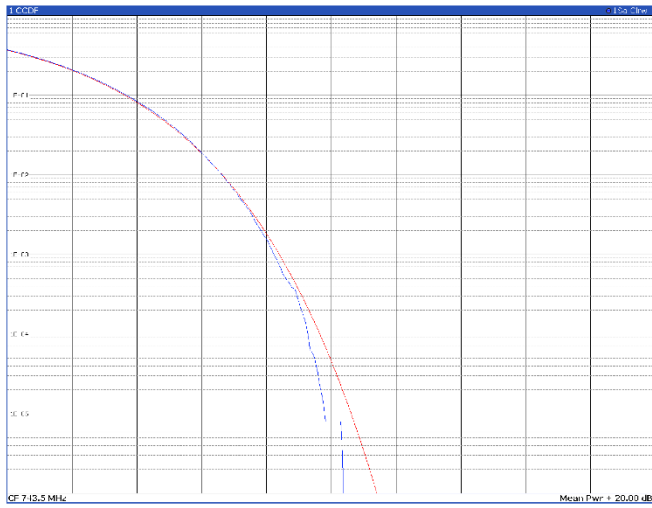
2 Result Summary		Sample: 100000	
Mean	Peak	Crest	10%
Trace 1	20.13 dBm	30.76 dBm	10.63 dB
			1.0%
			0.1%
			0.01%

TM3p1a, 5 MHz, mid channel



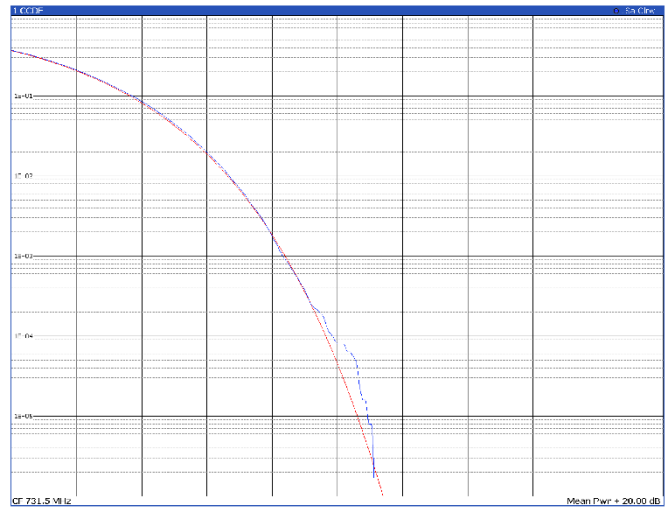
2 Result Summary		Sample: 100000	
Mean	Peak	Crest	10%
Trace 1	20.66 dBm	31.65 dBm	10.99 dB
			1.0%
			0.1%
			0.01%

TM3p1a, 5 MHz, high channel



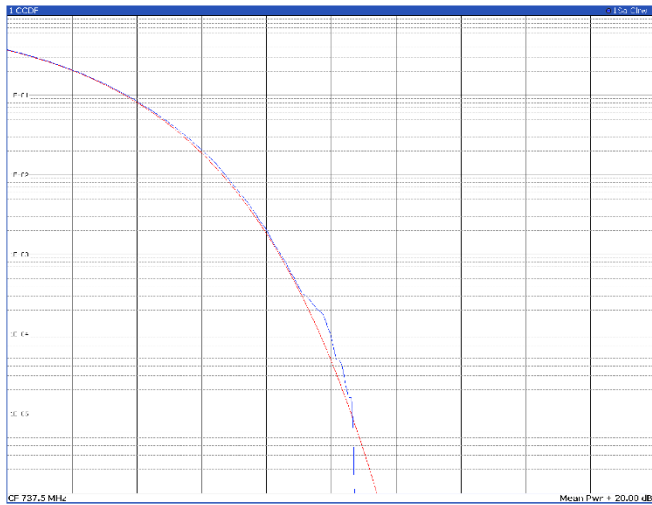
2 Result Summary						
Sample: 100000						
Trace 1	Mean	Peak	Crest	10%	1%	0.01%
	21.18 dBm	31.43 dBm	10.26 dB	5.58 dB	6.02 dB	6.77 dB

TM3p3, 5 MHz, low channel



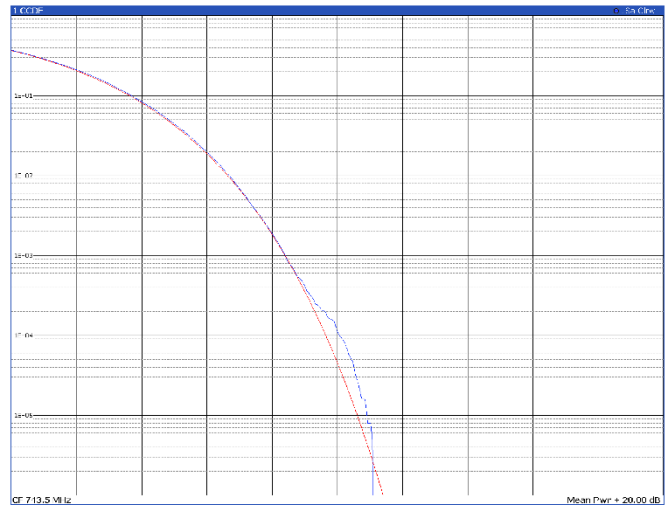
2 Result Summary						
Sample: 100000						
Trace 1	Mean	Peak	Crest	10%	1%	0.01%
	20.31 dBm	31.33 dBm	11.02 dB	5.71 dB	6.03 dB	6.81 dB

TM3p3, 5 MHz, mid channel



2 Result Summary						
Sample: 100000						
Trace 1	Mean	Peak	Crest	10%	1%	0.01%
	20.84 dBm	31.49 dBm	10.65 dB	5.58 dB	6.22 dB	6.44 dB

TM3p3, 5 MHz, high channel



2 Result Summary						
Sample: 100000						
Trace 1	Mean	Peak	Crest	10%	1%	0.01%
	21.38 dBm	32.36 dBm	10.98 dB	5.68 dB	6.03 dB	6.40 dB

Band B12

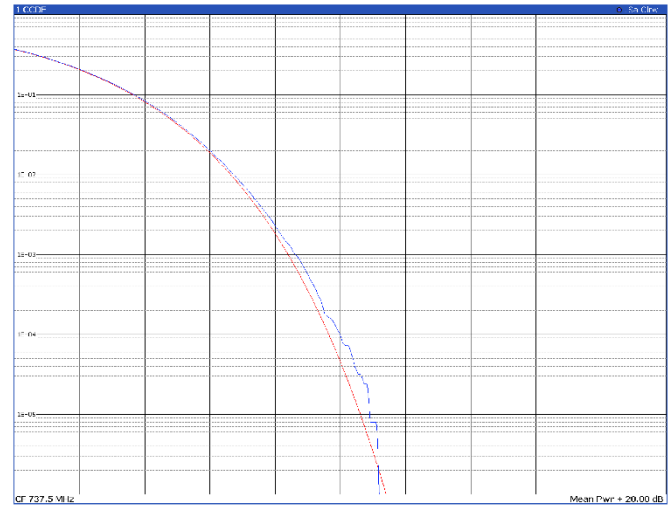
10 MHz

TM1.1, 10 MHz, low channel



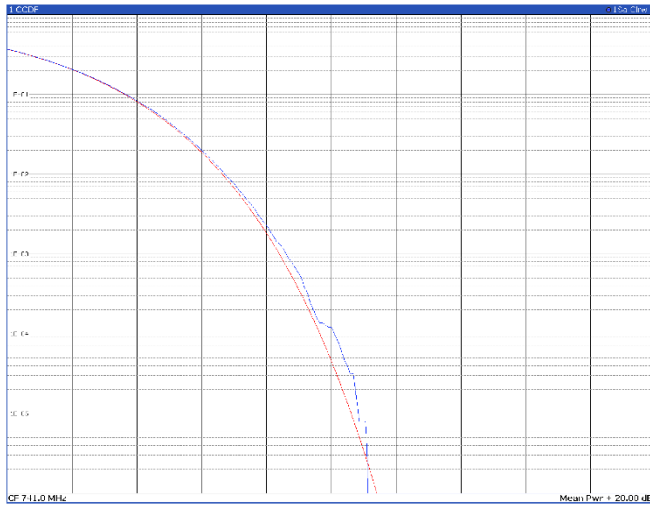
2 Result Summary						
Samples: 100000						
Trace 1	Mean	Peak	Crest	10%	1%	0.01%
	17.41 dBm	28.50 dBm	11.09 dB	3.56 dB	6.72 dB	9.94 dB

TM1.1, 10 MHz, mid channel



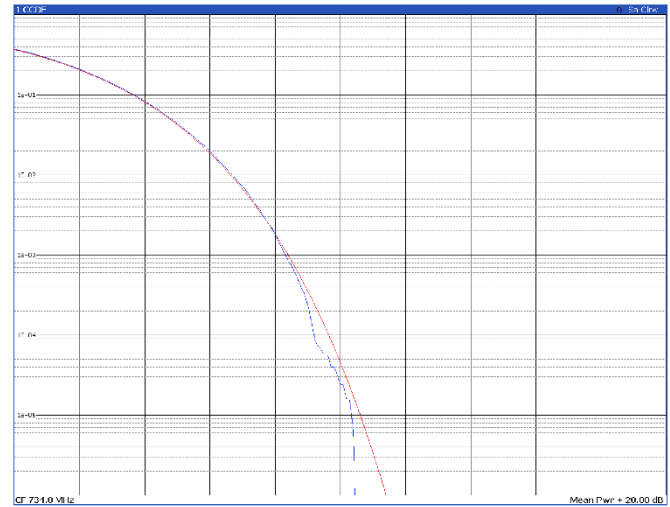
2 Result Summary						
Samples: 100000						
Trace 1	Mean	Peak	Crest	10%	1%	0.01%
	17.63 dBm	28.69 dBm	11.06 dB	3.60 dB	6.72 dB	9.95 dB

TM1.1, 10 MHz, high channel



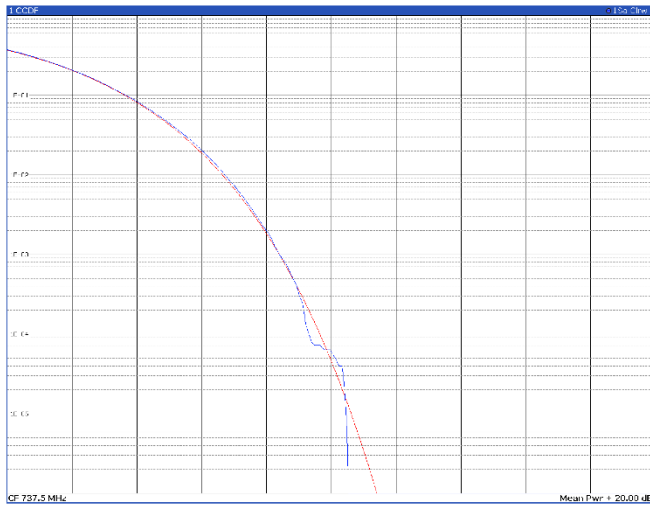
2 Result Summary						
Samples: 100000						
Trace 1	Mean	Peak	Crest	10%	1%	0.01%
	18.35 dBm	29.36 dBm	11.01 dB	3.56 dB	6.72 dB	10.12 dB

TM3p1, 10 MHz, low channel



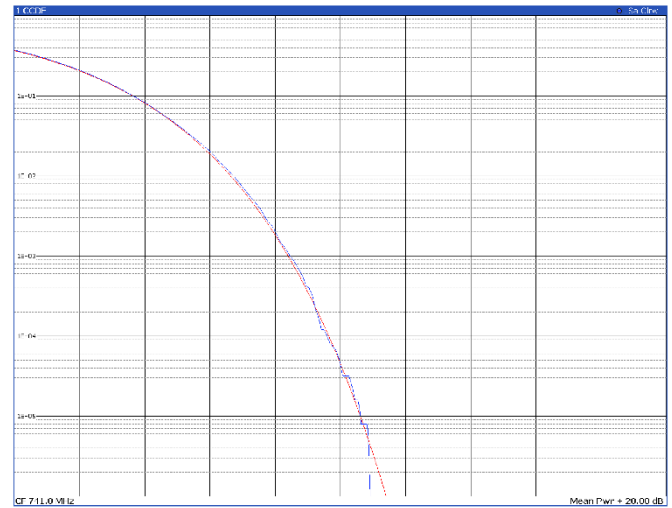
2 Result Summary						
Samples: 100000						
Trace 1	Mean	Peak	Crest	10%	1%	0.01%
	17.42 dBm	27.76 dBm	10.34 dB	3.65 dB	6.63 dB	9.91 dB

TM3p1, 10 MHz, mid channel



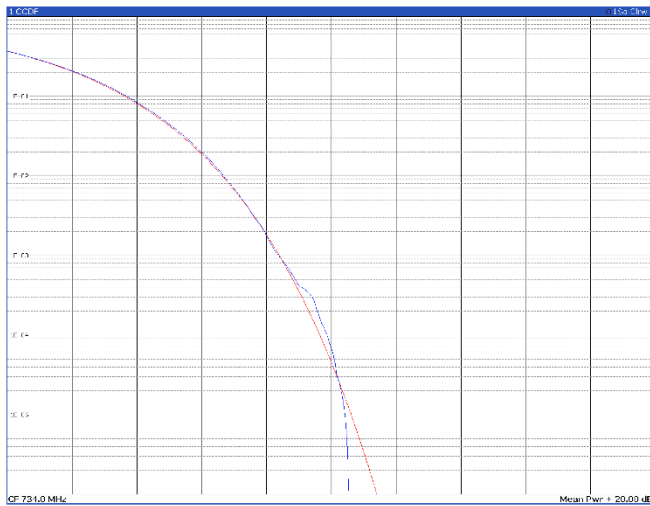
2 Result Summary		Sample: 100000	
Mean	Peak	Crest	10%
Trace 1	17.65 dBm	28.06 dBm	10.43 dB
			10%
			1%
			0.1%
			0.01%

TM3p1, 10 MHz, high channel



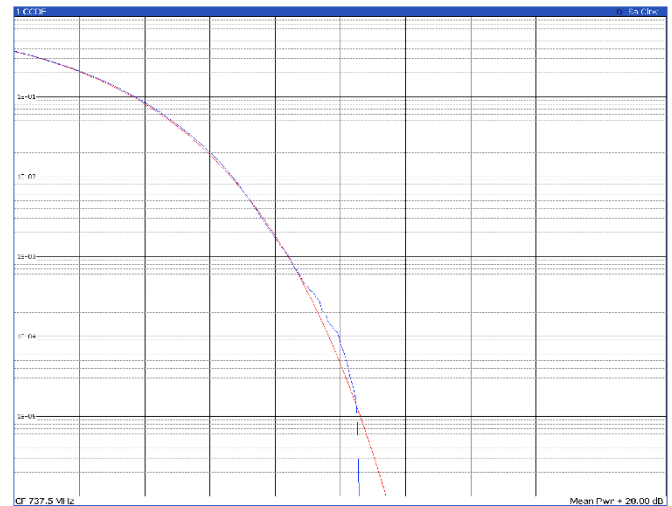
2 Result Summary		Sample: 100000	
Mean	Peak	Crest	10%
Trace 1	17.91 dBm	28.72 dBm	10.61 dB
			10%
			1%
			0.1%
			0.01%

TM3p1a, 10 MHz, low channel



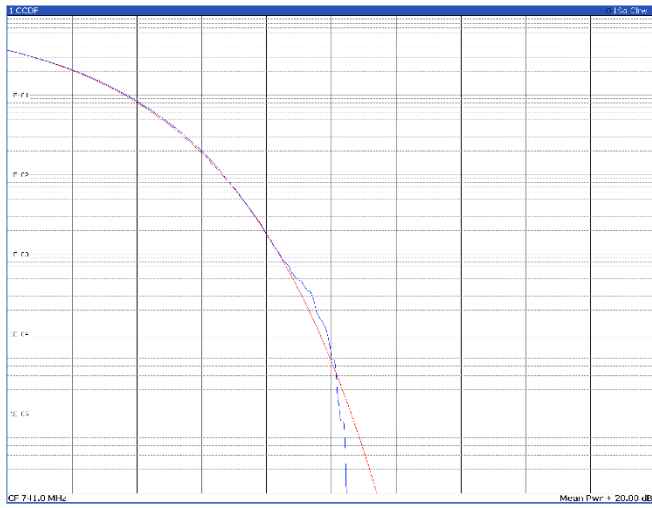
2 Result Summary		Sample: 100000	
Mean	Peak	Crest	10%
Trace 1	17.35 dBm	27.74 dBm	10.39 dB
			10%
			1%
			0.1%
			0.01%

TM3p1a, 10 MHz, mid channel



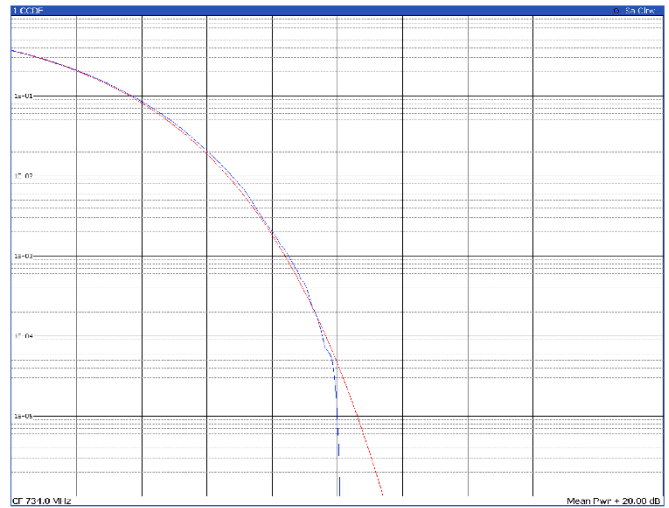
2 Result Summary		Sample: 100000	
Mean	Peak	Crest	10%
Trace 1	17.60 dBm	28.10 dBm	10.51 dB
			10%
			1%
			0.1%
			0.01%

TM3p1a, 10 MHz, high channel



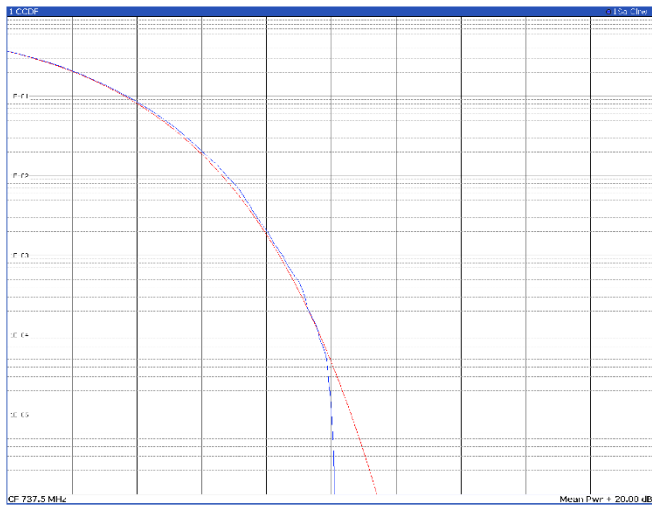
2 Result Summary		Sample: 100000	
Trace 1	Mean	Peak	Crest
	17.88 dBm	28.28 dBm	10.39 dB
			10%
			1%
			0.1%
			0.01%

TM3p3, 10 MHz, low channel



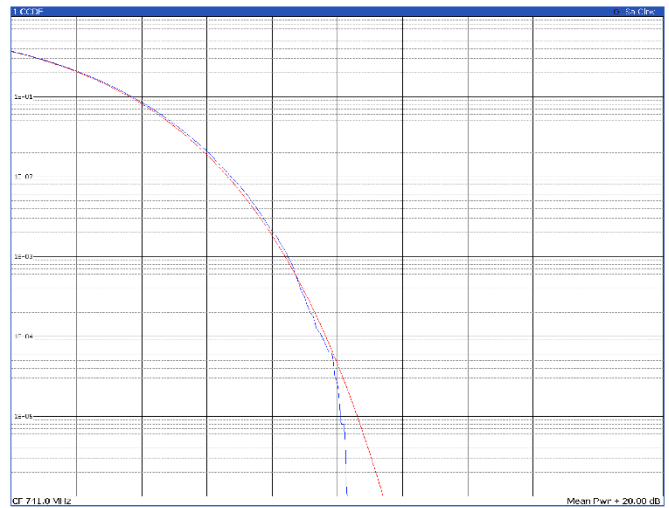
2 Result Summary		Sample: 100000	
Trace 1	Mean	Peak	Crest
	17.42 dBm	27.40 dBm	9.96 dB
			10%
			1%
			0.1%
			0.01%

TM3p3, 10 MHz, mid channel



2 Result Summary		Sample: 100000	
Trace 1	Mean	Peak	Crest
	17.68 dBm	27.64 dBm	9.96 dB
			10%
			1%
			0.1%
			0.01%

TM3p3, 10 MHz, high channel



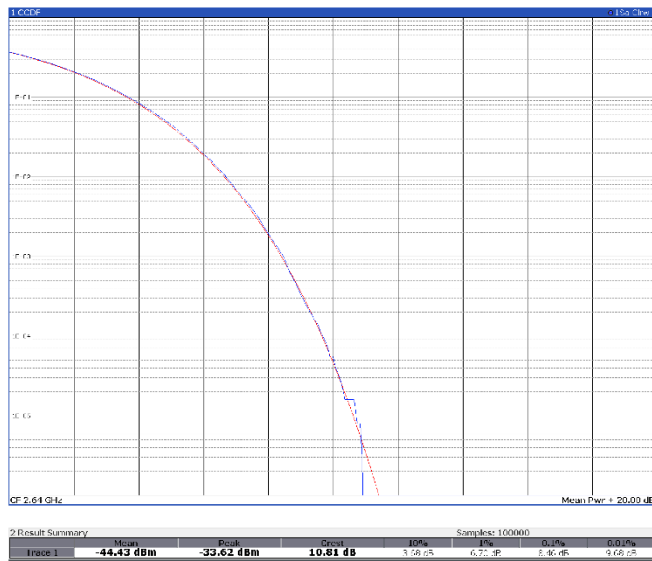
2 Result Summary		Sample: 100000	
Trace 1	Mean	Peak	Crest
	17.97 dBm	28.13 dBm	10.16 dB
			10%
			1%
			0.1%
			0.01%

Antenna port 2

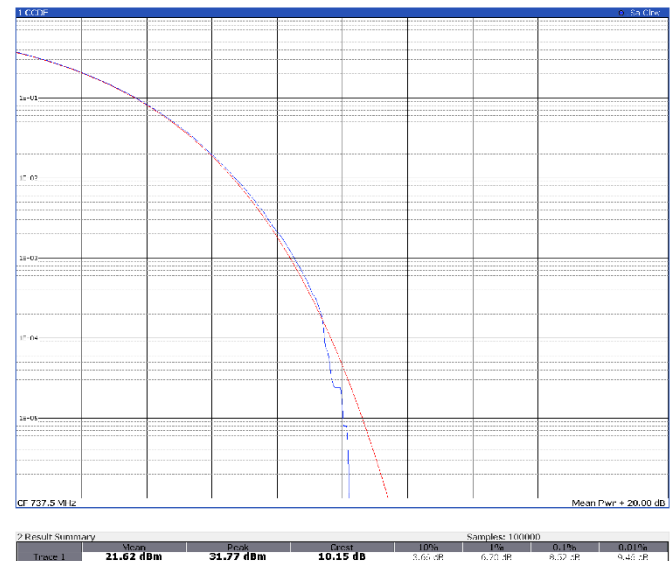
Band B12

5 MHz

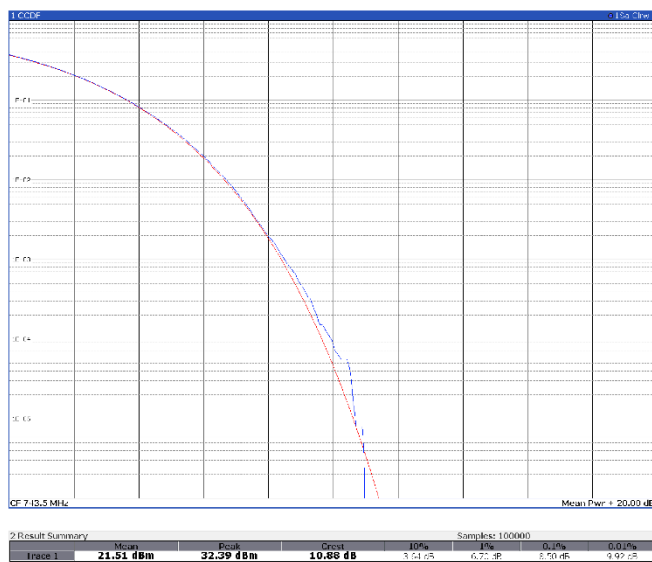
TM1.1, 5 MHz, low channel



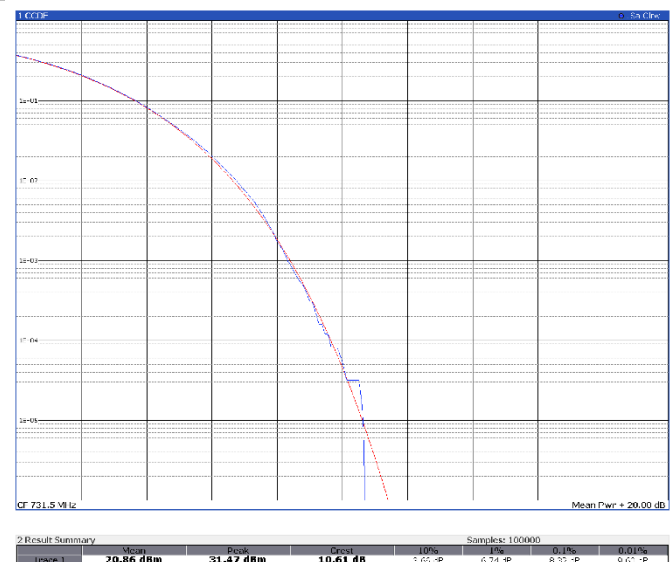
TM1.1, 5 MHz, mid channel



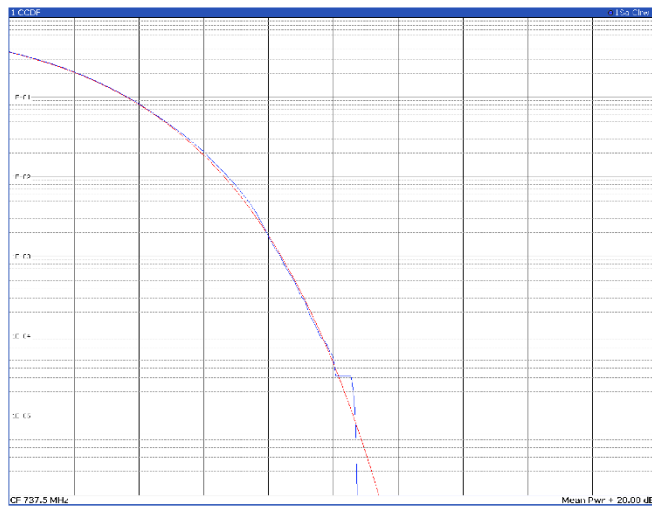
TM1.1, 5 MHz, high channel



TM3p1, 5 MHz, low channel

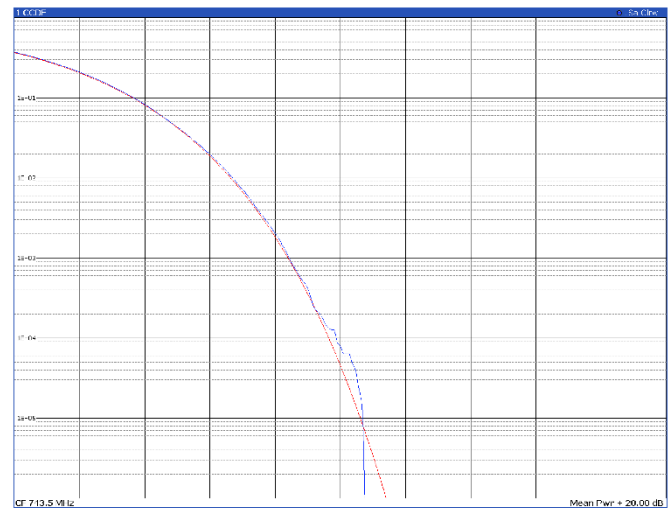


TM3p1, 5 MHz, mid channel



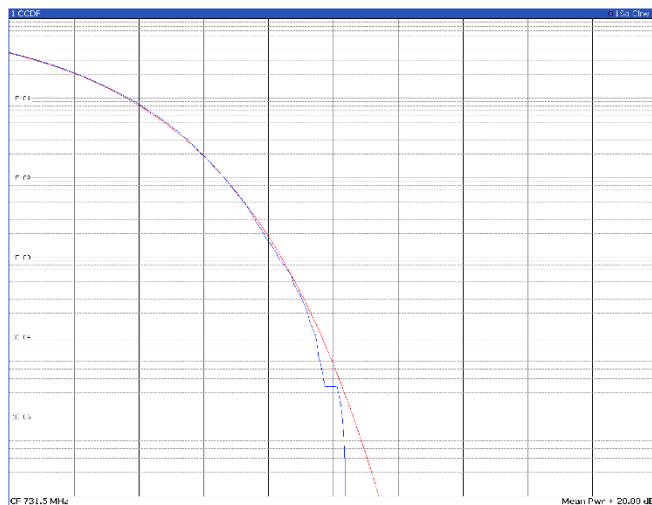
2 Result Summary		Sample: 100000					
	Mean	Peak	Crest	10%	1%	0.1%	0.01%
Trace 1	21.48 dBm	32.15 dBm	10.67 dB	9.56 dB	6.74 dB	5.56 dB	4.28 dB

TM3p1, 5 MHz, high channel



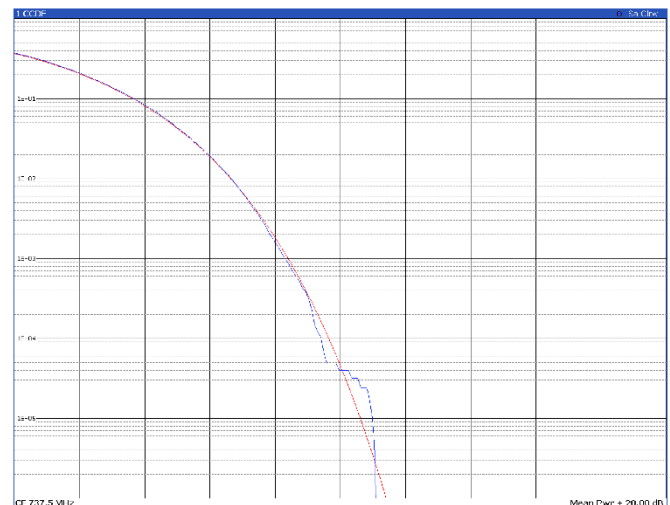
2 Result Summary		Sample: 100000					
	Mean	Peak	Crest	10%	1%	0.1%	0.01%
Trace 1	21.56 dBm	32.23 dBm	10.66 dB	9.60 dB	6.75 dB	5.47 dB	4.43 dB

TM3p1a, 5 MHz, low channel



2 Result Summary		Sample: 100000					
	Mean	Peak	Crest	10%	1%	0.1%	0.01%
Trace 1	20.88 dBm	31.13 dBm	10.25 dB	9.58 dB	6.64 dB	5.50 dB	4.46 dB

TM3p1a, 5 MHz, mid channel



2 Result Summary		Sample: 100000					
	Mean	Peak	Crest	10%	1%	0.1%	0.01%
Trace 1	21.59 dBm	32.62 dBm	11.03 dB	9.60 dB	6.60 dB	5.30 dB	4.40 dB