

Radio Test report – REP051343

Applicant:

E-Shock S.r.l

Product: Communication module

Model: CU02

FCC ID: 2BOUM-CU02

IC : 33848-CU02

Contains:

Specifications:

- ◆ **FCC 47 CFR Part 22 Subpart H**
Cellular radiotelephone service. (Partial testing)
- ◆ **FCC 47 CFR Part 24 Subpart E**
Personal communications services. (Partial testing)
- ◆ **FCC 47 CFR Part 27**
Miscellaneous wireless communications services(Partial testing)
- ◆ **FCC 47 CFR Part 15 Subpart C, §15.247**
Operation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz (Partial testing)
RSS-247 Issue 2
RSS-Gen Issue 5

Tested by:	Daniele Guarnone Wireless/EMC Specialist  Firmato digitalmente da Guarnone Daniele
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Date of issue:	July 15, 2025
Reviewer signature	

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Test location

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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 S.p.A.. ISO/IEC 17025 accreditation.

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Section 1. Report summary

Applicant and manufacturer

Company name	E-SHOCK S.R.L.
Address	Viale Monza 259, 20126 Milano, Italy

Test specifications

FCC 47 CFR Part 15, Subpart C, Clause 15.247	Operation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz
FCC 47 CFR Part 15, Subpart E, Clause 15.407(b)	Unlicensed National Information Infrastructure Devices.
FCC 47 CFR Part 27, Subpart C, Clause 27.53	Miscellaneous wireless communications services
FCC Part 22 Subpart H	Cellular radiotelephone service.
FCC Part 24 Subpart E	Personal communications services
RSS-132, Issue 3, January 2013	Cellular Telephone Systems Operating in the Bands 824-849 MHz and 869-894 MHz
RSS-133, Issue 6, A1, January 2018	2 GHz Personal Communications Services
RSS-139, Issue 3, July 2015	Advanced Wireless Services (AWS) Equipment Operating in the Bands 1710-1780 MHz and 2110-2180 MHz
RSS-247, Issue 2, Feb 2017	Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices
RSS-130 Issue 2, February 2019	Equipment Operating in the Frequency Bands 617–652 MHz, 663–698 MHz, 698–756 MHz and 777–787 MHz

Test method

ANSI C63.10 v2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
ANSI C63.26-2015	American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services

Statement of compliance

In the configuration tested, the EUT was found compliant.

Testing was performed against all relevant requirements of the test standard except as noted in section 1.5 below. 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.

Exclusions

As per customer’s quotation, this report is for verification purpose of Class I permissive change; only output power and spurious emissions tests have been assessed, all other tests were excluded from the scope of this report.

Test report revision history

Revision #	Details of changes made to test report
REP051343	Original report issued

Section 2. Summary of test results

FCC Part 27 test results

Part	Test description	Verdict
§27.50(c)	Maximum output power at RF antenna connector	Not tested
§27.53	Spurious emissions at RF antenna connector	Pass
§27.53	Radiated spurious emissions	Not tested
§27.53(f)	Radiated spurious emissions within 1559–1610 MHz band	Not tested
§27.54	Frequency stability	Not tested
§2.1049	Occupied bandwidth	Not tested

Notes: None

FCC Part 22 Subpart H test results

Part	Test description	Verdict
§22.913	Effective radiated power limits	Not tested
§22.917(a)	Emission limitations for cellular equipment	Pass
§22.917(b)	Emission bandwidth	Not tested
§22.355	Frequency tolerance	Not tested

Notes: None

FCC Part 24 Subpart E, tests results

Part	Test description	Verdict
24.232(b)	Effective Radiated Power Limits	Not tested
24.238(a)	Field strength of spurious radiation	Pass
6.3	Frequency stability ¹	Not tested
6.4	Transmitter output power ¹	Not tested
6.5	Transmitter unwanted emissions ¹	Not tested

Notes: None

FCC Part 15 Subpart C, §15.247, test results

Part	Test description	Verdict
§15.247(a)(2)	Minimum 6 dB bandwidth	Not tested
§15.247(b)(3)	Maximum peak output power in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands	Not tested
§15.247(c)(1)	Fixed point-to-point operation with directional antenna gains greater than 6 dBi	Not applicable
§15.247(c)(2)	Transmitters operating in the 2400–2483.5 MHz band that emit multiple directional beams	Not applicable
§15.247(d)	Spurious emissions	Pass
§15.247(e)	Power spectral density	Not tested
§15.247(f)	Time of occupancy for hybrid systems	Not applicable

RSS-Gen Issue 5, general requirements test results

Part	Test description	Verdict
6.13	Radiated emission limits; general requirements.	Pass
6.13	Emission limits.	Pass
6.13	Out of band emissions.	Pass
6.13	Emission limits.	Pass
6.13	Emission limits.	Pass

Section 3. Equipment under test (EUT) details

Sample information

Receipt date	July 8, 2025
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EUT information

Product name	Connectivity system for vehicles
Model	CU02
Part number	800-007-003
Revision	--
Serial number	C2N-000-'0-010
Operating band	Band 2: TX (UL): 1855–1905 MHz /RX (DL): 1930–1990MHz Band 4: TX (UL): 1715–1750 MHz /RX (DL): 2110–2155MHz Band 5: TX (UL): 829–844 MHz /RX (DL): 869–894MHz WLAN: 2412 to 2462 MHz
Operating frequency	Band 2: TX (UL): 1855–1905 MHz /RX (DL): 1930–1990MHz Band 4: TX (UL): 1715–1750 MHz /RX (DL): 2110–2155MHz Band 5: TX (UL): 829–844 MHz /RX (DL): 869–894MHz WLAN: 2412 to 2462 MHz
Modulation	--
Channel bandwidth	--
Power requirements	8 -28 Vdc
Emission designator	--
Antenna information	The EUT uses a unique antenna coupling/ non-detachable antenna to the intentional radiator. LTE and WIFI module use embedded antenna
EUT (front)	

Product description and theory of operation

Hi-Performance camera for mobility solutions with ANPR capability (Automatic Number Plate Recognition), typical application: vehicle tracking, tolling and enforcement. The cameras can be equipped with one or two image sensors (OCR and Context functions) and an integrated illuminator. Option mounted: SSD, WiFi, LTE, GPS

EUT exercise details

EUT was set up to transmit continuously, at full power (24 dBm), on different LTE channels as required, with a 10 MHz bandwidth, at full power on WLAN channels and at full power on channels of Radar system. EUT was controlled and channels selected using a proprietary test software provided by client.

EUT setup diagram



Figure 0-1: Setup diagram

Section 4. Test conditions

Atmospheric conditions

Temperature	18÷33 °C
Relative humidity	30÷60 %
Air pressure	980÷1060 hPa

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.

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 5. Measurement uncertainty

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)
			40 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 6. Test equipment

Table 0-1: Equipment list

Equipment	Manufacturer	Model no.	Asset no.	Cal cycle	Next cal.
EMI receiver (20 Hz ÷ 8 GHz)	Rohde & Schwarz	ESU8	100202	2024-09	2025-09
EMI receiver (20 Hz ÷ 8 GHz)	Rohde & Schwarz	ESW44	101620	2024-09	2025-09
Trilog Antenna (30 MHz ÷ 7 GHz)	Schwarzbeck	VULB 9162	9162-025	2024-08	2027-08
Bilog antenna (1 ÷ 18 GHz)	Schwarzbeck	STLP 9148	9148-123	2024-08	2027-08
Preamplifier (1 ÷ 18 GHz)	Schwarzbeck	BBV 9718C	00121	2025-01	2026-01
Double Ridge Horn Antenna	RFSpin	DRH40	061106A40	2023-05	2026-05
Preamplifier (18 ÷ 40 GHz)	Sage	STB-1834034030-KFKF-L1	18490-01	2025-07	2026-07
Controller	Maturo	FCU3.0	10041	NCR	NCR
Tilt antenna mast	Maturo	TAM4.0-E	10042	NCR	NCR
Turntable	Maturo	TT4.0-ST	2.527	NCR	NCR
3m Semi anechoic chamber	Comtest	SAC-3	1711-150	2024-09	2026-09
Shielded room	Siemens	10m control room	1947	NCR	NCR
LISN	Rohde & Schwarz	ESH2-Z5	872 460/041	2024-09	2025-09
Shielded room	Siemens	Conducted emission test room	1862	NCR	NCR
Semi-anechoic chamber	Nemko S.p.a.	10m semi-anechoic chamber	530	2023-09	2025-09

Note: NCR - no calibration required, VOU - verify on use

Section 7. Testing data

FCC 27.53, 22.917(a), FCC 15.247(d) Radiated spurious emissions

7.1.1 Definitions and limits

FCC § 27.53 Emission limits.

(c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, in accordance with the following:

- (1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;
- (3) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $76 + 10 \log (P)$ dB in a 6.25 kHz band segment, for base and fixed stations;
- (4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;
- (5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;
- (6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

(h) AWS emission limits -

(1) General protection levels. Except as otherwise specified below, for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ dB

FCC § 22.917 Emission limitations for cellular equipment.

The rules in this section govern the spectral characteristics of emissions in the Cellular Radiotelephone Service.

(a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

(b) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a reference bandwidth as follows:

- (1) In the spectrum below 1 GHz, instrumentation should employ a reference bandwidth of 100 kHz or greater. In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy, provided that the measured power is integrated over the full required reference bandwidth (i.e., 100 kHz or 1 percent of emission bandwidth, as specified). 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.
- (2) In the spectrum above 1 GHz, instrumentation should employ a reference bandwidth of 1 MHz.

(c) Alternative out of band emission limit. Licensees in this service may establish an alternative out of band emission limit to be used at specified band edge(s) in specified geographical areas, in lieu of that set forth in this section, pursuant to a private contractual arrangement of all affected licensees and applicants. In this event, each party to such contract shall maintain a copy of the contract in their station files and disclose it to prospective assignees or transferees and, upon request, to the FCC.

(d) Interference caused by out of band emissions. If any emission from a transmitter operating in this service results in interference to users of another radio service, the FCC may require a greater attenuation of that emission than specified in this section.

FCC § 24.238 Emission limitations for Broadband PCS equipment.

The rules in this section govern the spectral characteristics of emissions in the Broadband Personal Communications Service.

(a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

Definitions and limits, continued

FCC 15.247(d) Spurious

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. 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)).

Table 0-1: FCC §15.209 – Radiated emission limits

Frequency, MHz	Field strength of emissions		Measurement distance, m
	$\mu\text{V/m}$	$\text{dB}\mu\text{V/m}$	
0.009–0.490	2400/F	$67.6 - 20 \times \log_{10}(F)$	300
0.490–1.705	24000/F	$87.6 - 20 \times \log_{10}(F)$	30
1.705–30.0	30	29.5	30
30–88	100	40.0	3
88–216	150	43.5	3
216–960	200	46.0	3
above 960	500	54.0	3

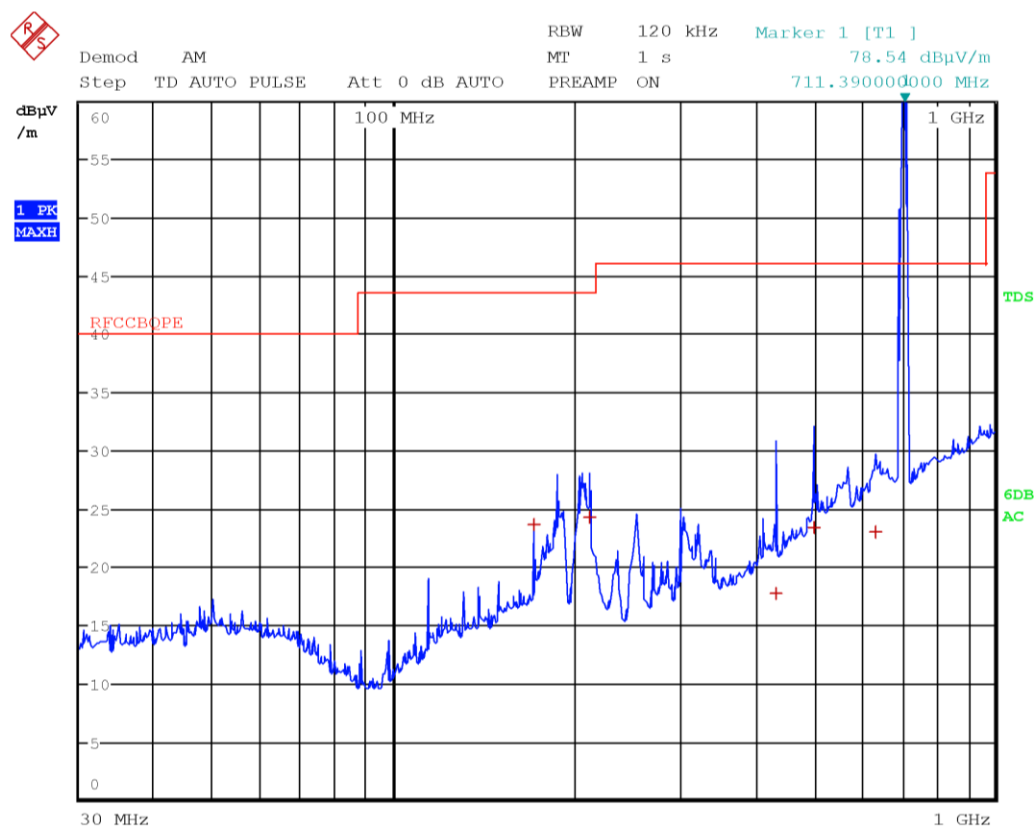
Notes: In the emission table above, the tighter limit applies at the band edges.

For frequencies above 1 GHz the limit on peak RF emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test

Table 0-2: FCC restricted frequency bands

MHz	MHz	MHz	GHz
0.090–0.110	16.42–16.423	399.9–410	4.5–5.15
0.495–0.505	16.69475–16.69525	608–614	5.35–5.46
2.1735–2.1905	16.80425–16.80475	960–1240	7.25–7.75
4.125–4.128	25.5–25.67	1300–1427	8.025–8.5
4.17725–4.17775	37.5–38.25	1435–1626.5	9.0–9.2
4.20725–4.20775	73–74.6	1645.5–1646.5	9.3–9.5
6.215–6.218	74.8–75.2	1660–1710	10.6–12.7
6.26775–6.26825	108–121.94	1718.8–1722.2	13.25–13.4
6.31175–6.31225	123–138	2200–2300	14.47–14.5
8.291–8.294	149.9–150.05	2310–2390	15.35–16.2
8.362–8.366	156.52475–156.52525	2483.5–2500	17.7–21.4
8.37625–8.38675	156.7–156.9	2690–2900	22.01–23.12
8.41425–8.41475	162.0125–167.17	3260–3267	23.6–24.0
12.29–12.293	167.72–173.2	3332–3339	31.2–31.8
12.51975–12.52025	240–285	3345.8–3358	36.43–36.5
12.57675–12.57725	322–335.4	3600–4400	Above 38.6

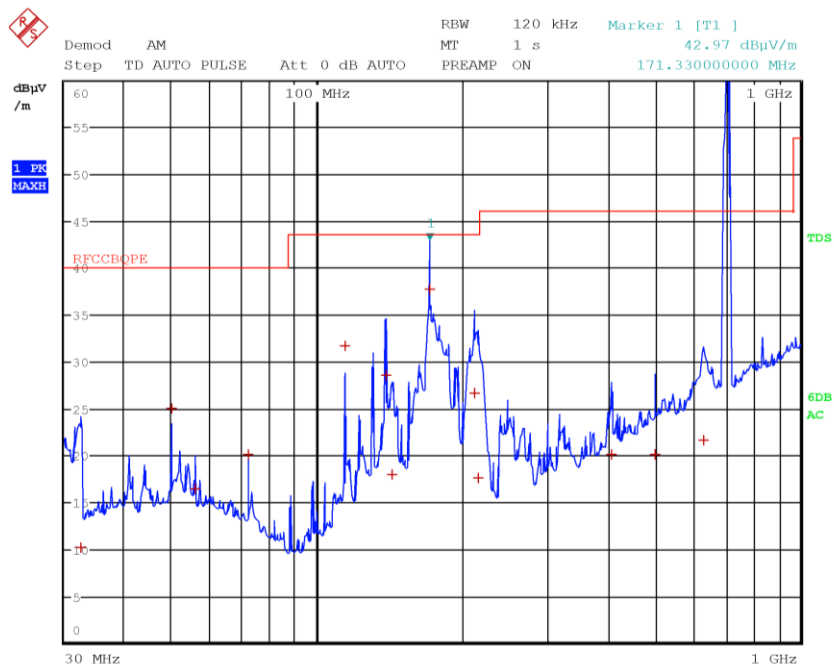
7.1.2 Observations, settings and special notes



Cabinet Radiated spurious emission below 1 GHz, tx LTE B12, WIFI CH 6, horizontal

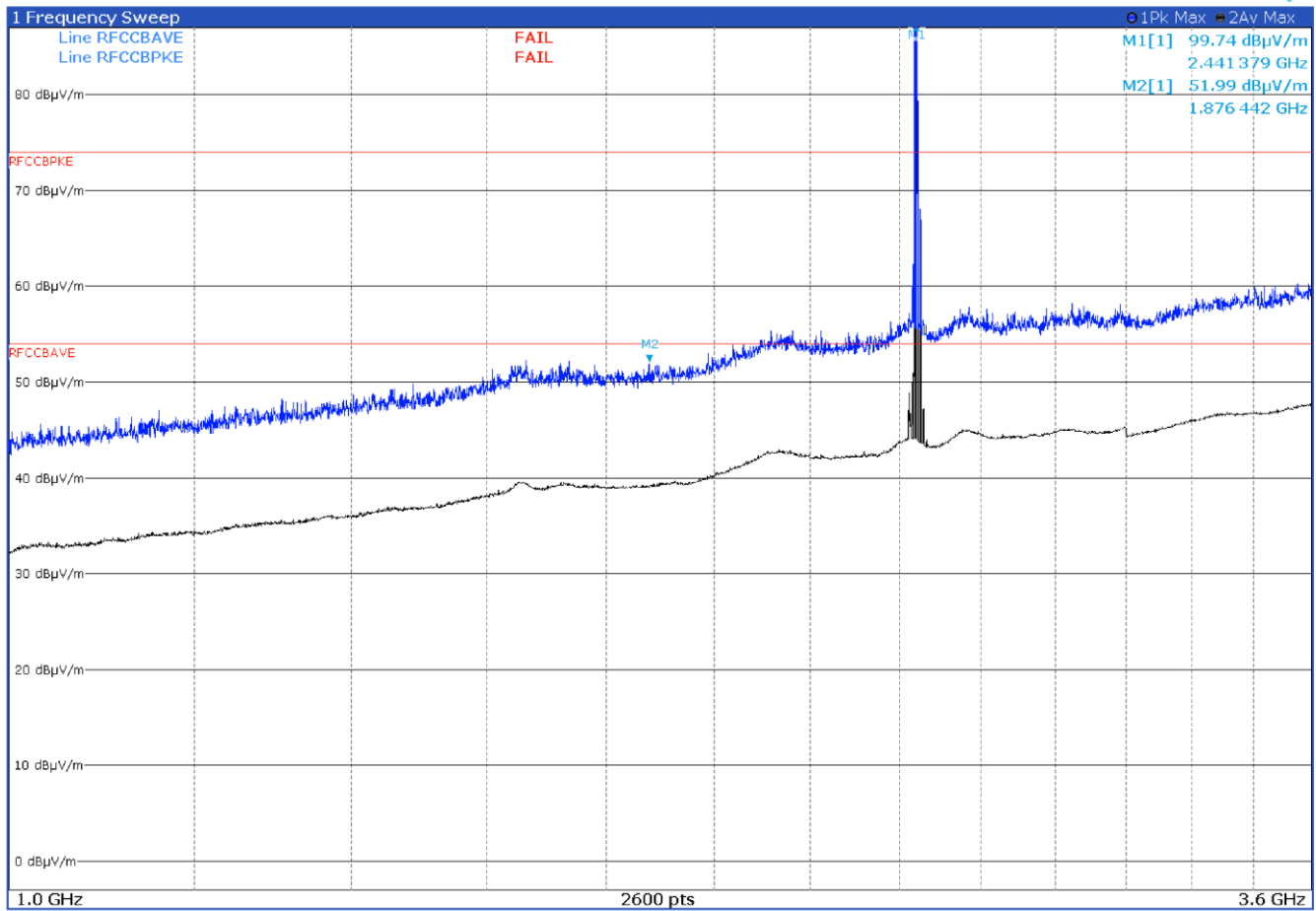
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
171.5400	23.6	43.5	-19.9	QP
212.1300	24.3	43.5	-19.2	QP
431.8200	17.7	46.0	-28.3	QP
500.0100	23.4	46.0	-22.6	QP
633.2700	23.1	46.0	-22.9	QP

Limit exceeded by carrier



Cabinet Radiated spurious emission below 1 GHz, tx on LTE B12, WIFI CH 6, vertical

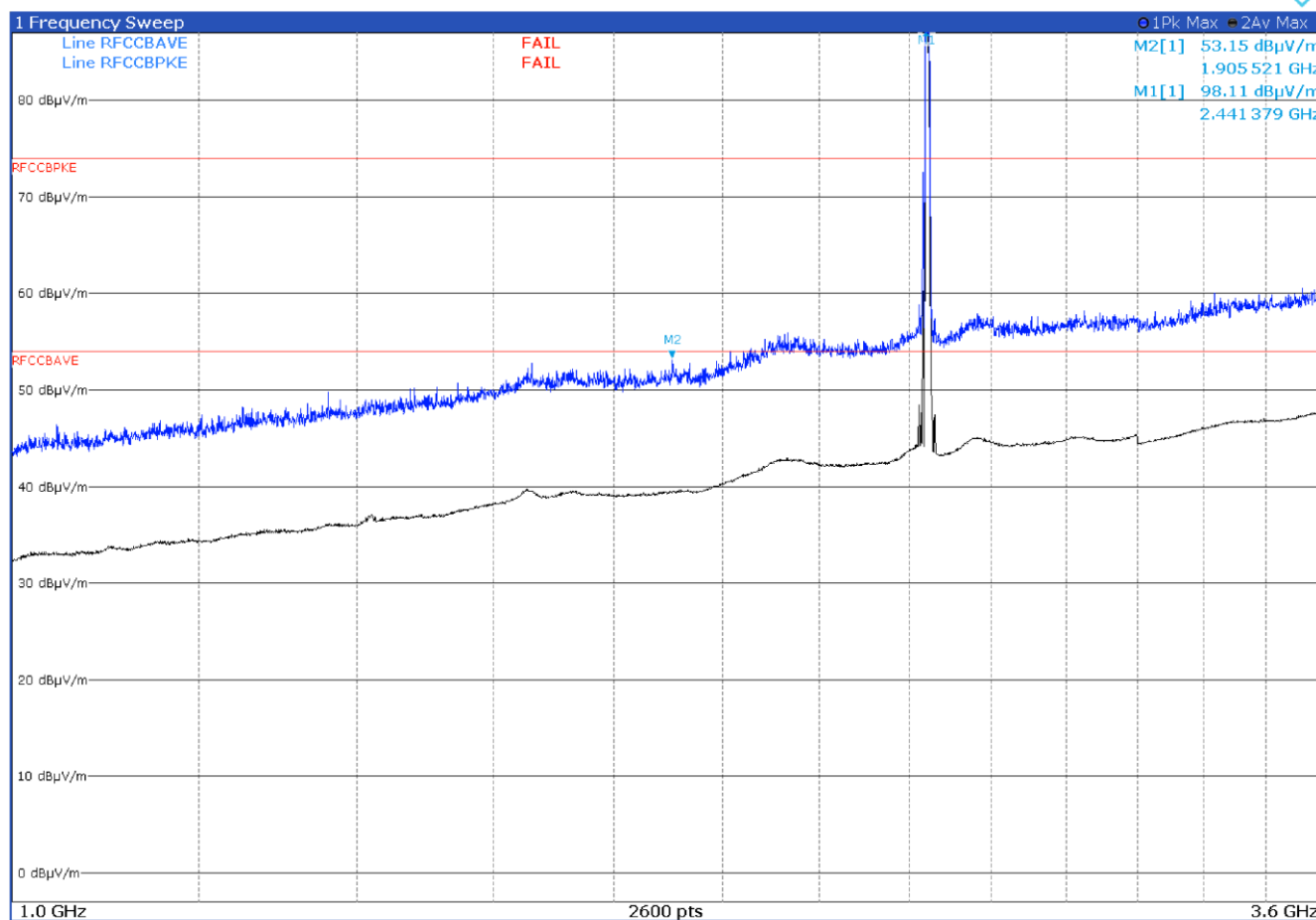
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
32.4900	10.2	40.0	-29.8	QP
50.0100	25.1	40.0	-14.9	QP
56.0100	16.5	40.0	-23.5	QP
72.0000	20.2	40.0	-19.8	QP
114.2700	31.8	43.5	-11.7	QP
138.7800	28.6	43.5	-14.9	QP
143.0100	18.0	43.5	-25.5	QP
171.3300	37.9	43.5	-5.6	QP
212.3400	26.7	43.5	-16.8	QP
215.7900	17.7	43.5	-25.8	QP
408.0000	20.2	46.0	-25.8	QP
499.9800	20.2	46.0	-25.8	QP
629.0400	21.6	46.0	-24.4	QP



Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
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Cabinet Radiated spurious emission above 1 GHz, tx on LTE B12, WIFI CH 6 horizontal,

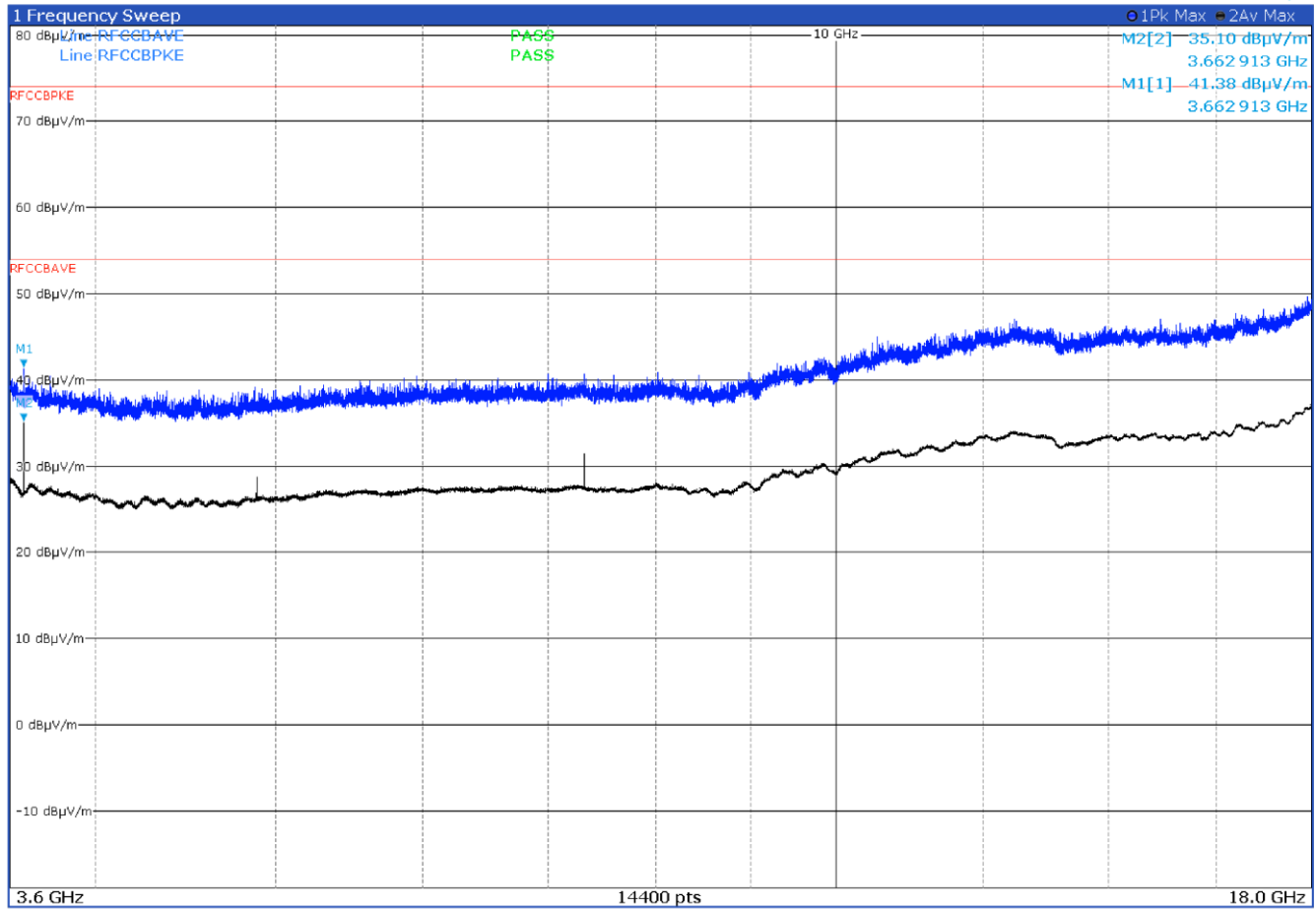
Limit exceeded by carrier



Cabinet Radiated spurious emission above 1 GHz, tx on B12, WIFI CH 6, vertical

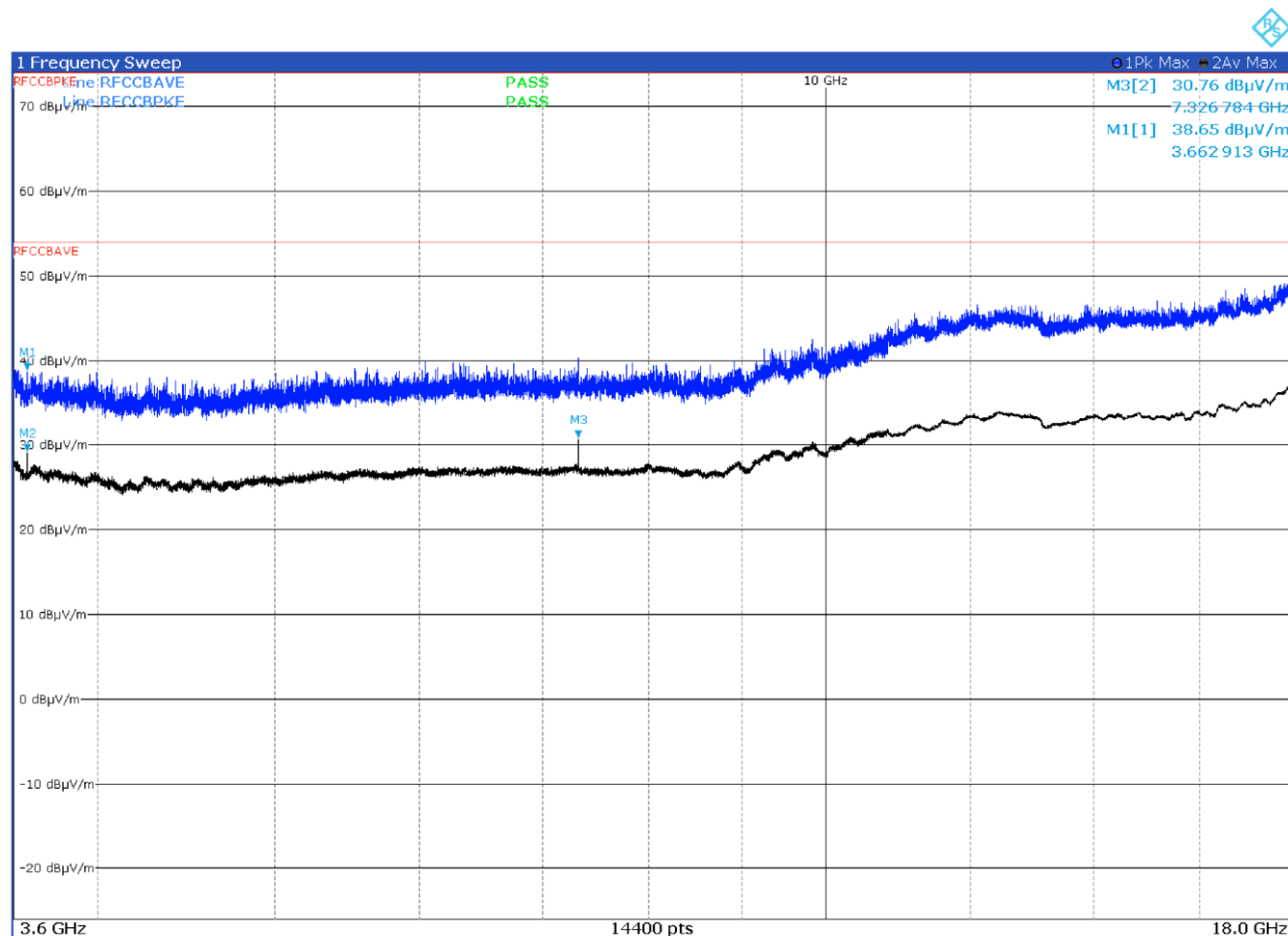
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
--	--	--	--	--

Limit exceeded by carrier



Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
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Cabinet Radiated spurious emission above 1 GHz, on B12, WIFI CH 6, vertical

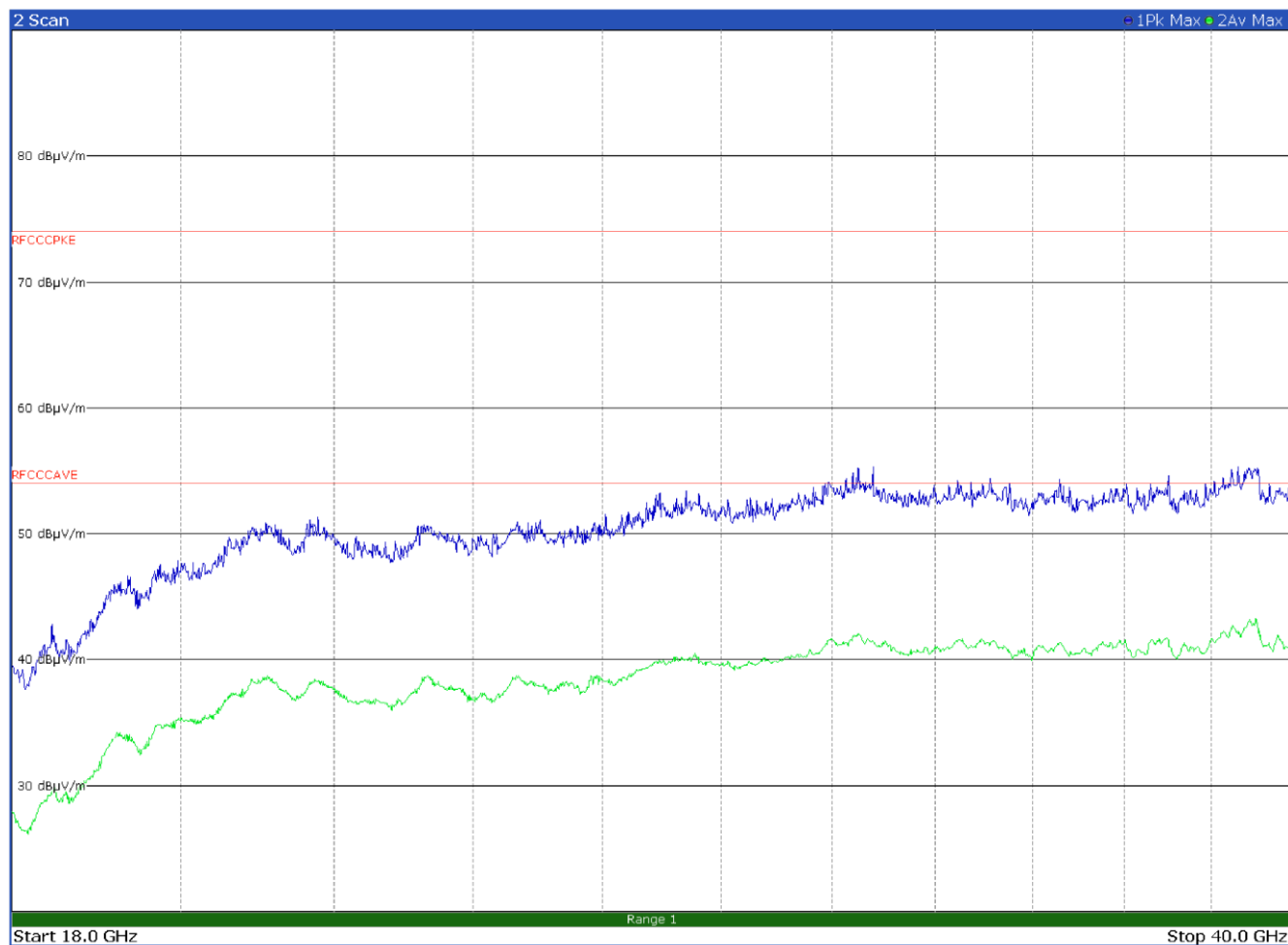


2 Marker Table

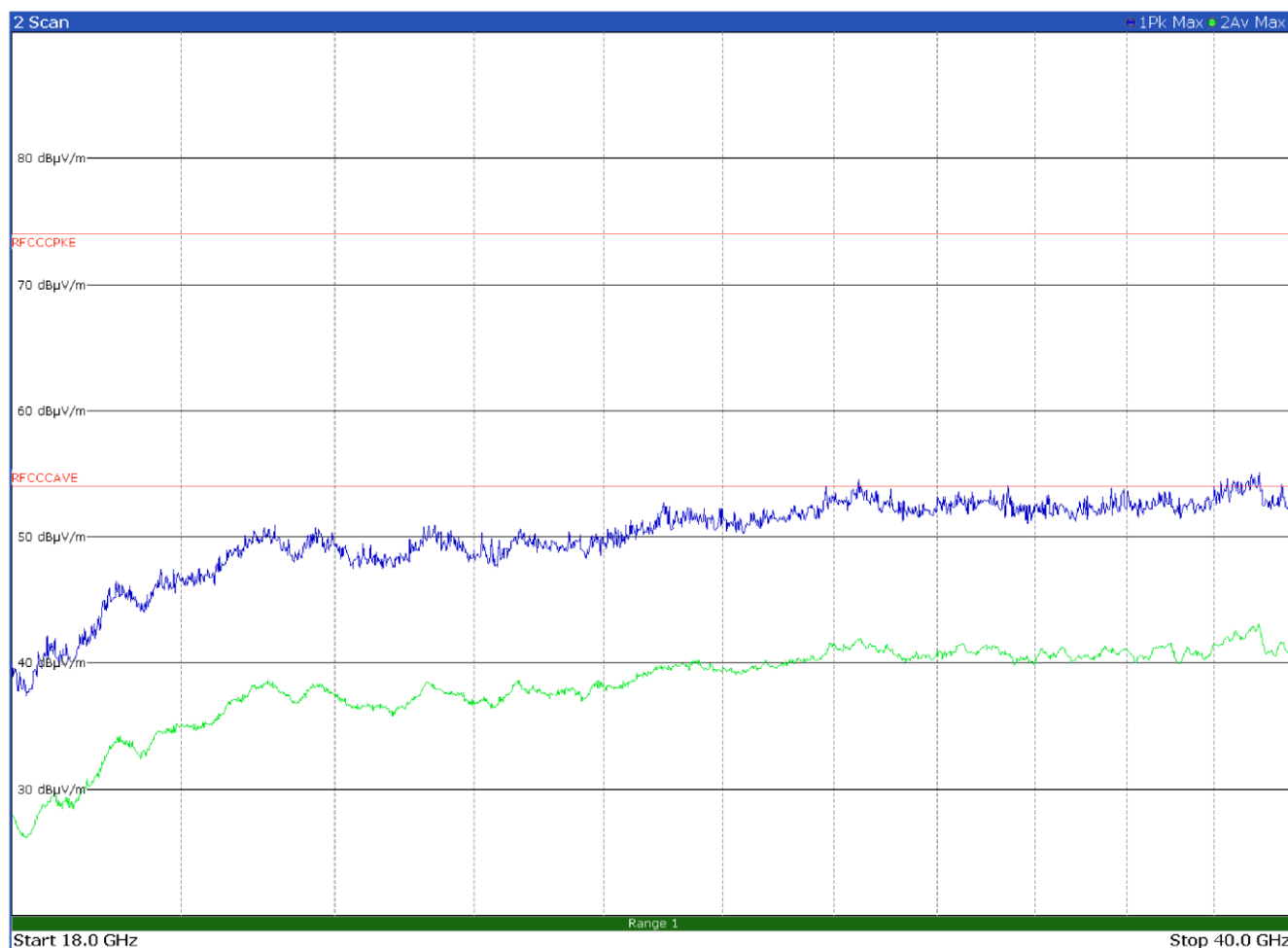
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	3.66291 GHz	38.65 dBμV/m		
M2		2	3.66291 GHz	29.11 dBμV/m		
M3		2	7.32678 GHz	30.76 dBμV/m		

Cabinet Radiated spurious emission above 1 GHz, tx on B12, WIFI CH 6, horizontal

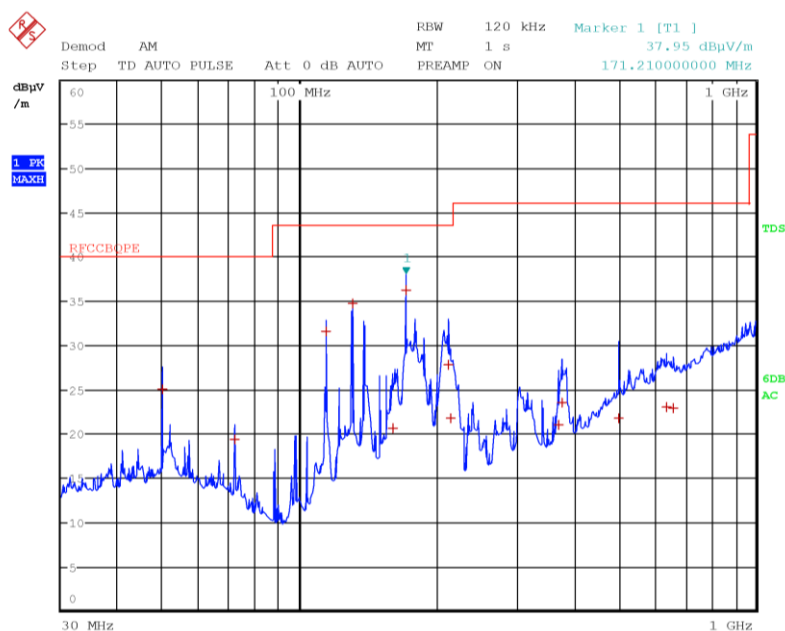
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
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Cabinet Radiated spurious emission above 18 GHz to 40 GHz, tx on B12, WIFI CH 6, Vertical

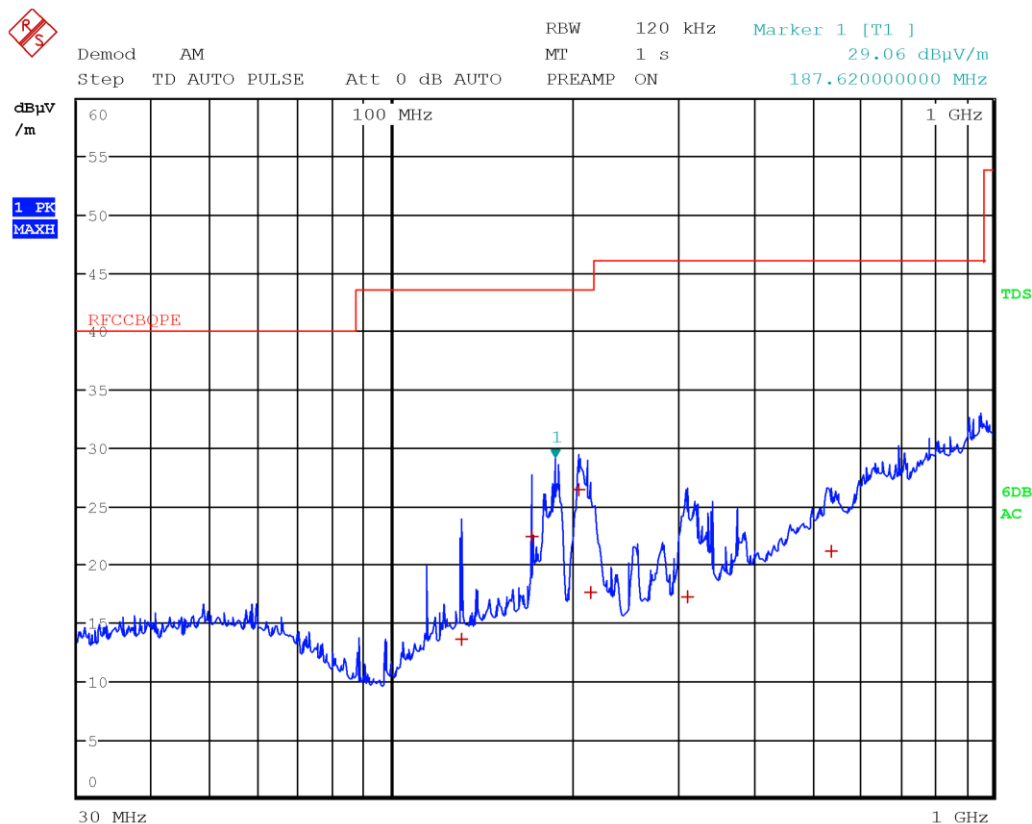


Cabinet Radiated spurious emission above 18 GHz to 40 GHz, tx on B12, WIFI CH 6, Horizontal



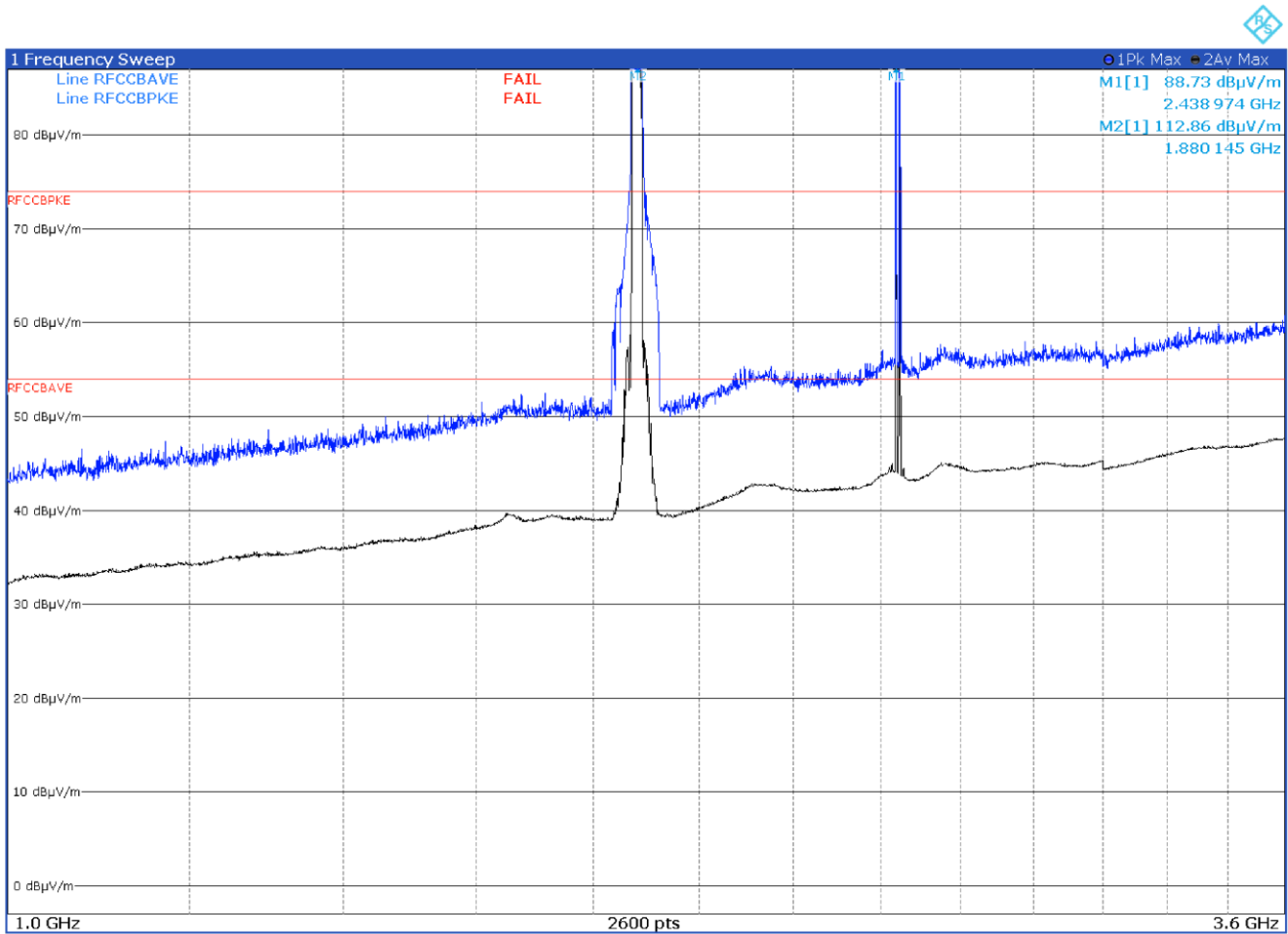
Cabinet Radiated spurious emission below 1 GHz, tx on LTE B2, WIFI CH 6, vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
50.0100	25.1	40.0	-14.9	QP
72.0000	19.4	40.0	-20.6	QP
114.2700	31.6	43.5	-11.9	QP
130.5000	34.8	43.5	-8.7	QP
160.2300	20.7	43.5	-22.8	QP
171.2100	36.3	43.5	-7.2	QP
212.2500	27.8	43.5	-15.7	QP
214.4100	21.8	43.5	-21.7	QP
370.5600	21.0	46.0	-25.0	QP
375.9900	23.5	46.0	-22.5	QP
500.0100	21.8	46.0	-24.2	QP
638.1900	23.0	46.0	-23.0	QP
660.3300	23.0	46.0	-23.0	QP



Cabinet Radiated spurious emission below 1 GHz, tx on LTE B2, WIFI CH 6, horizontal

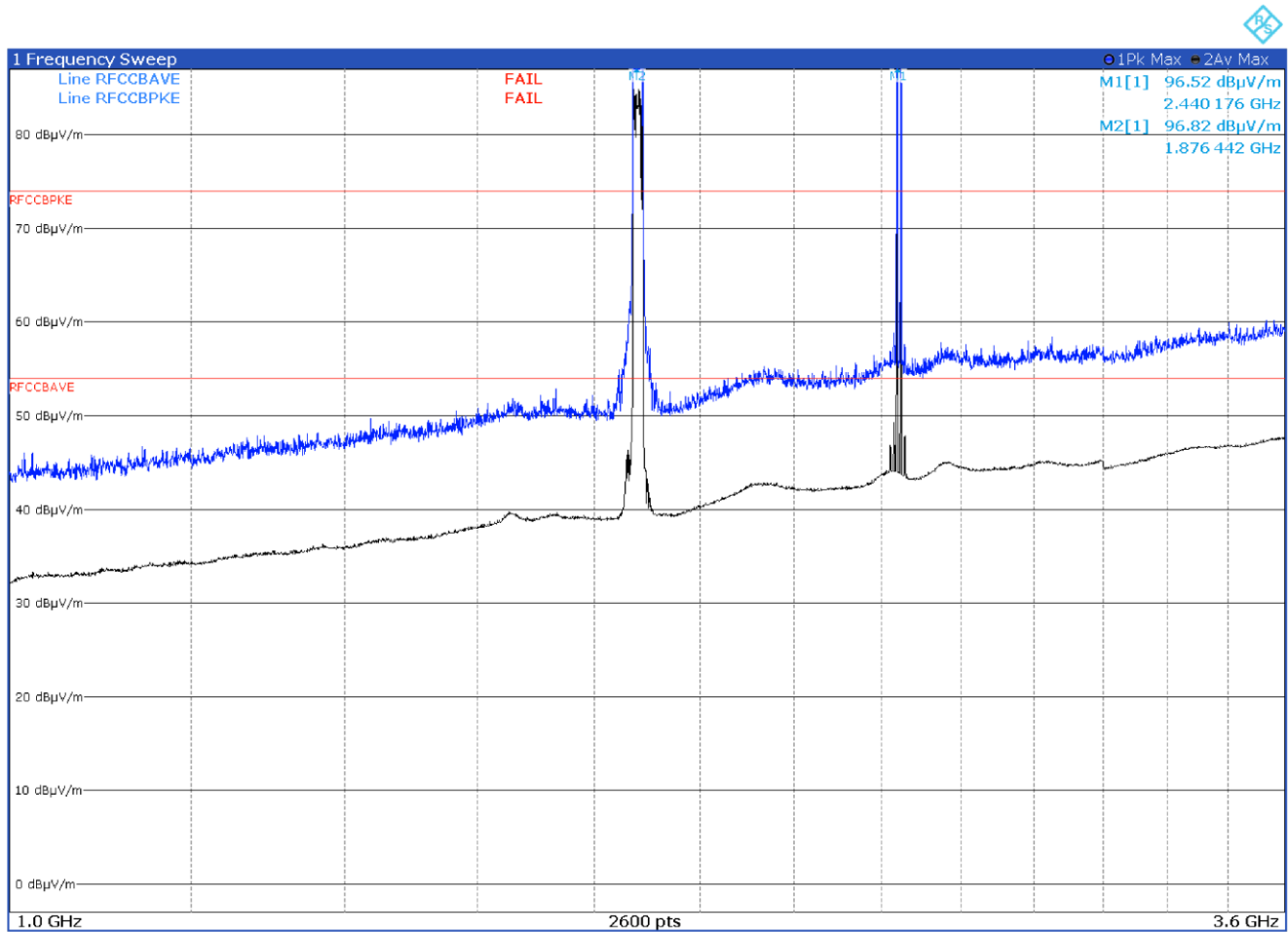
Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
130.5000	13.7	43.5	-29.8	QP
171.6300	22.4	43.5	-21.1	QP
205.5000	26.5	43.5	-17.0	QP
214.5300	17.6	43.5	-25.9	QP
310.1100	17.3	46.0	-28.7	QP
537.9300	21.2	46.0	-24.8	QP



Cabinet Radiated spurious emission 1 GHz to 3.6 GHz, tx on LTE B2, WIFI CH 6, vertical

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
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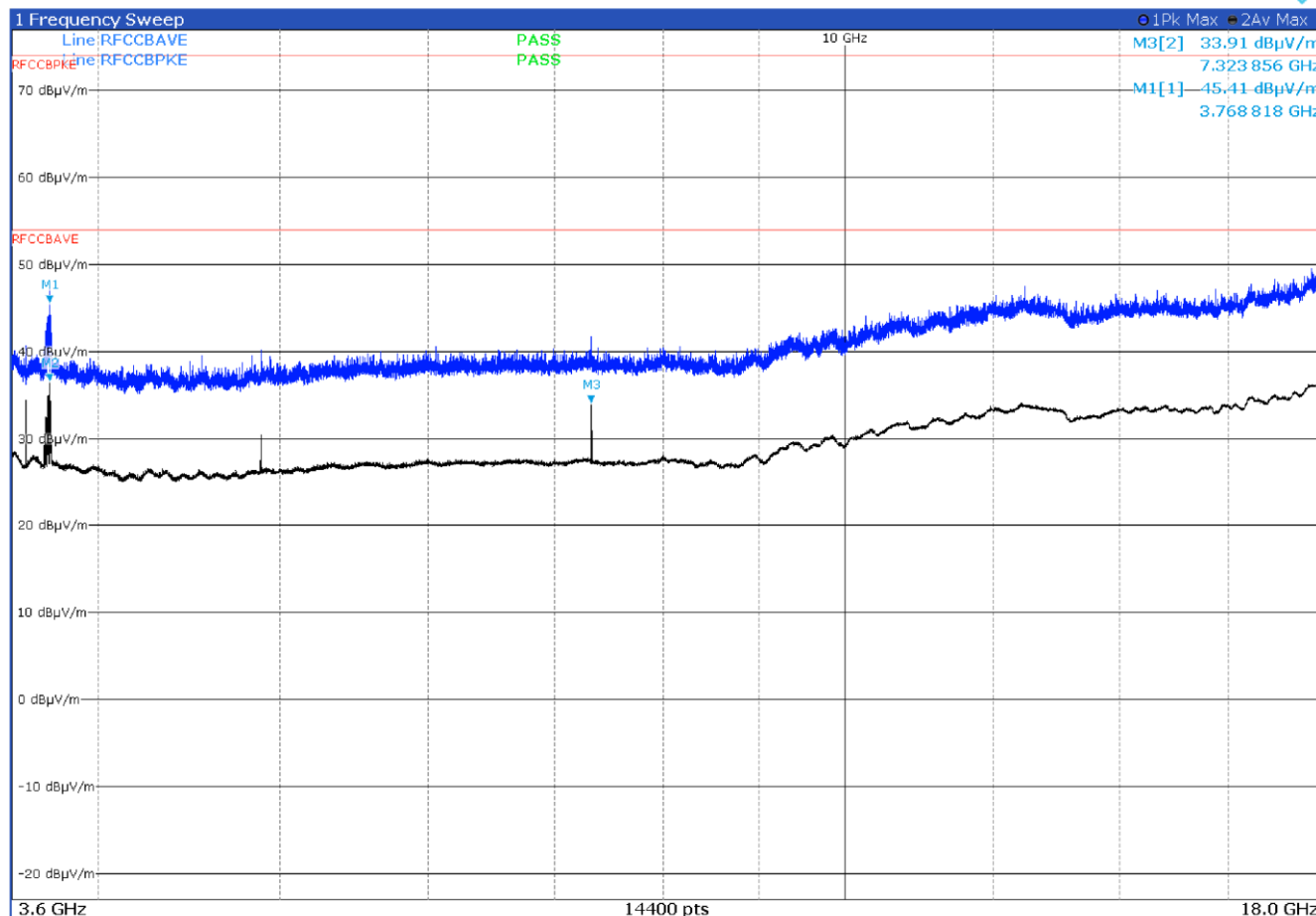
Limit exceeded by carriers



Cabinet Radiated spurious emission 1 GHz to 3.6 GHz, tx on LTE B2, WIFI CH 6, horizontal

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
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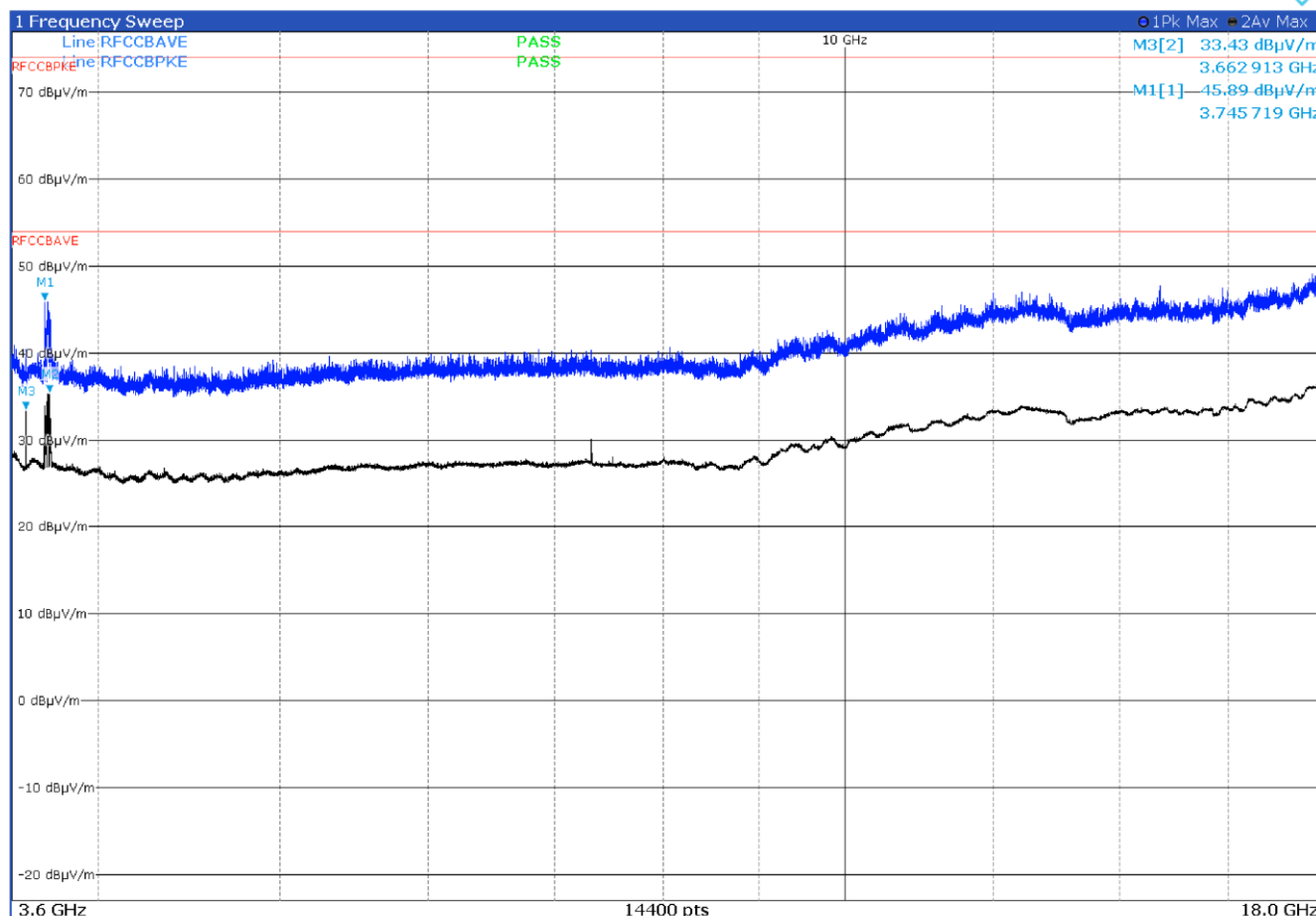
Limit exceeded by carriers



2 Marker Table						
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	3.768 82 GHz	45.41 dBµV/m		
M2		2	3.767 98 GHz	36.43 dBµV/m		
M3		2	7.323 86 GHz	33.91 dBµV/m		

Cabinet Radiated spurious emission Cabinet Radiated spurious emission 3.6 GHz to 18 GHz, tx on LTE B2, WIFI CH 6, horizontal

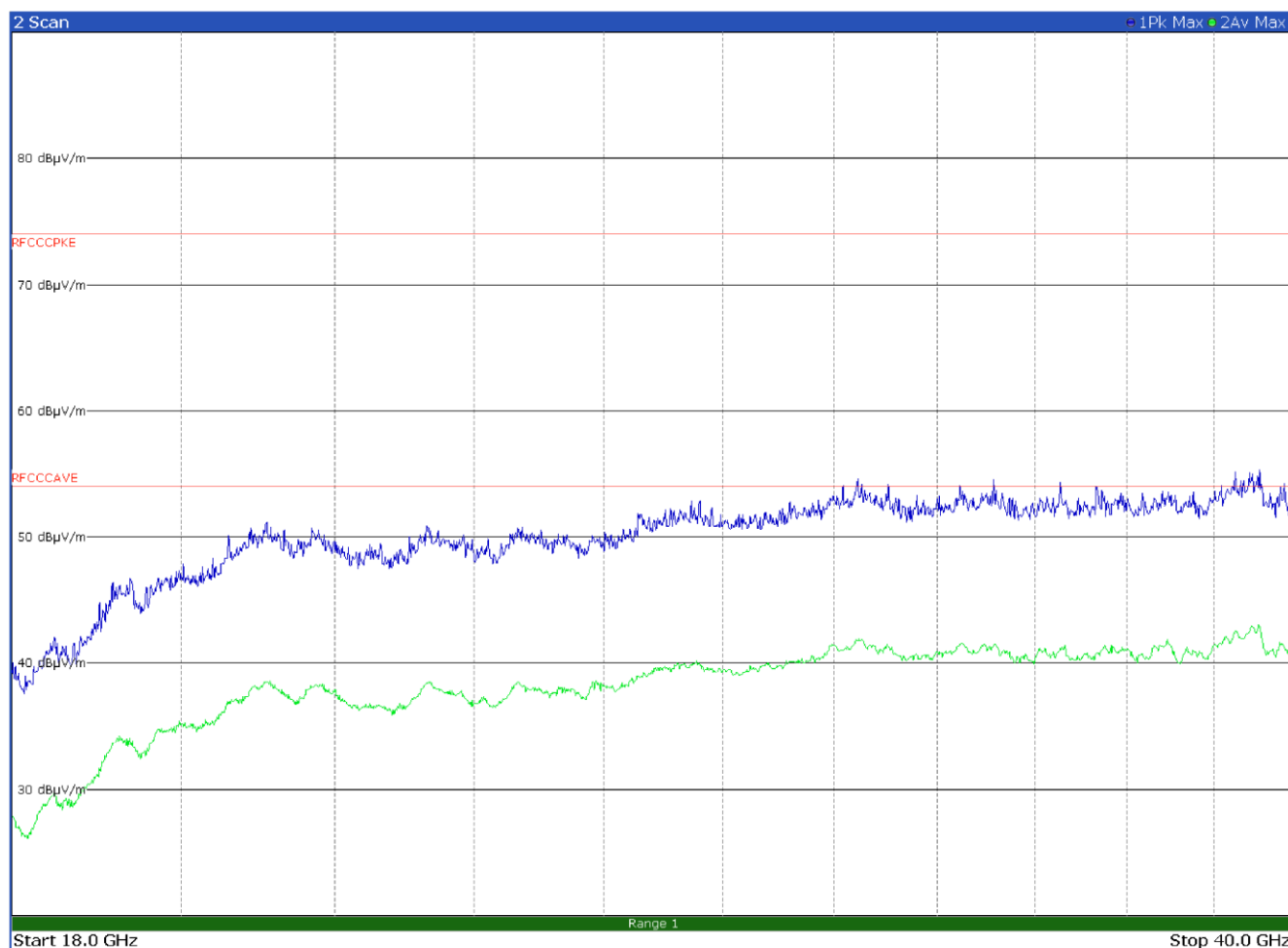
Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector



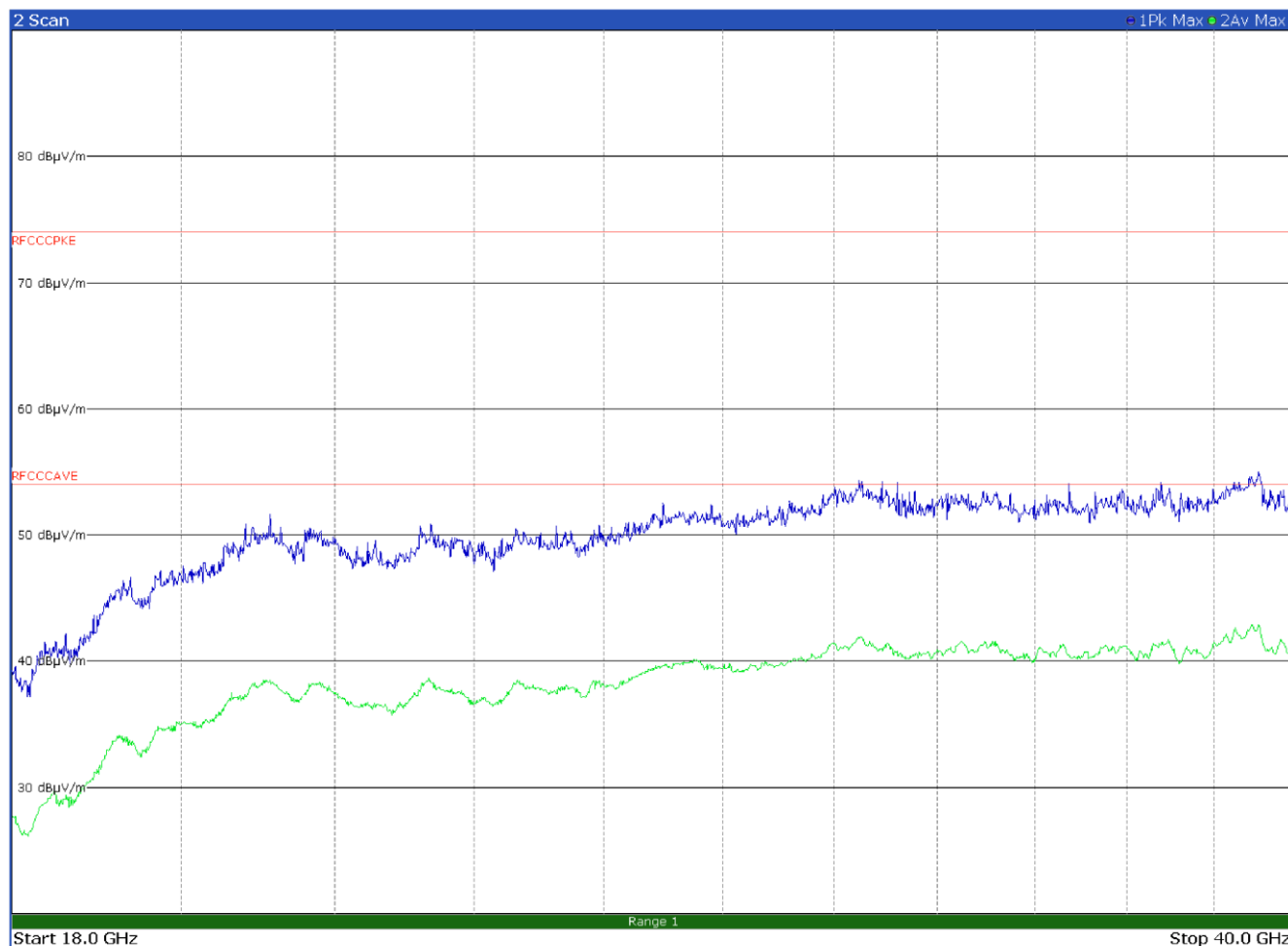
2 Marker Table						
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	3.745 72 GHz	45.89 dBµV/m		
M2		2	3.767 55 GHz	35.31 dBµV/m		
M3		2	3.662 91 GHz	33.43 dBµV/m		

Cabinet Radiated spurious emission 3.6 GHz to 18 GHz, 3.6 GHz to 18 GHz, tx on LTE B2, WIFI CH 6, vertical

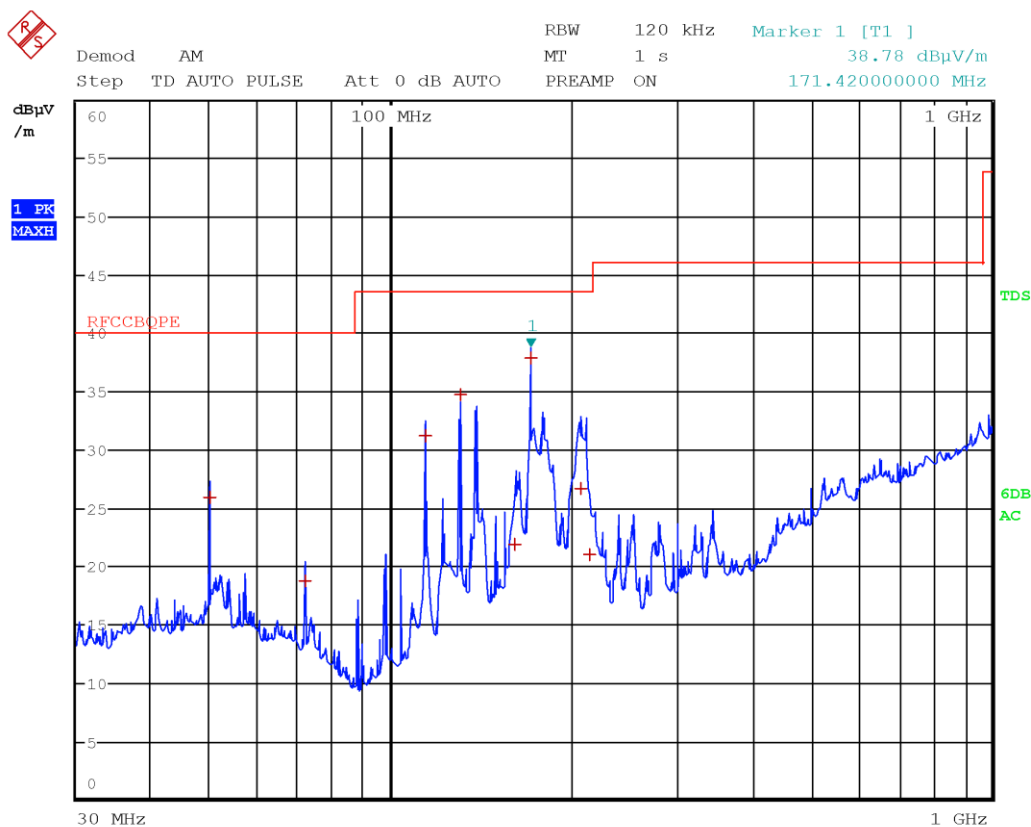
Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
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Cabinet Radiated spurious emission 18 GHz to 40 GHz, tx on LTE B2, WIFI CH 6, horizontal

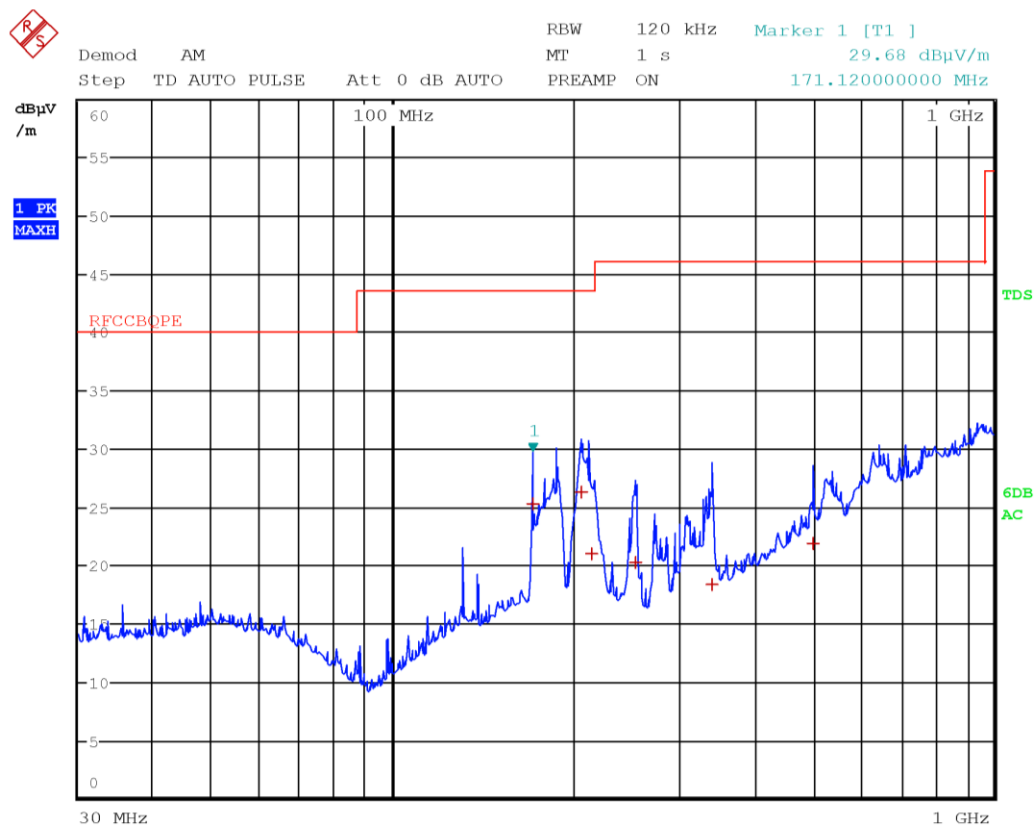


Cabinet Radiated spurious emission 18 GHz to 40 GHz, tx on LTE B2, WIFI CH 6, vertical



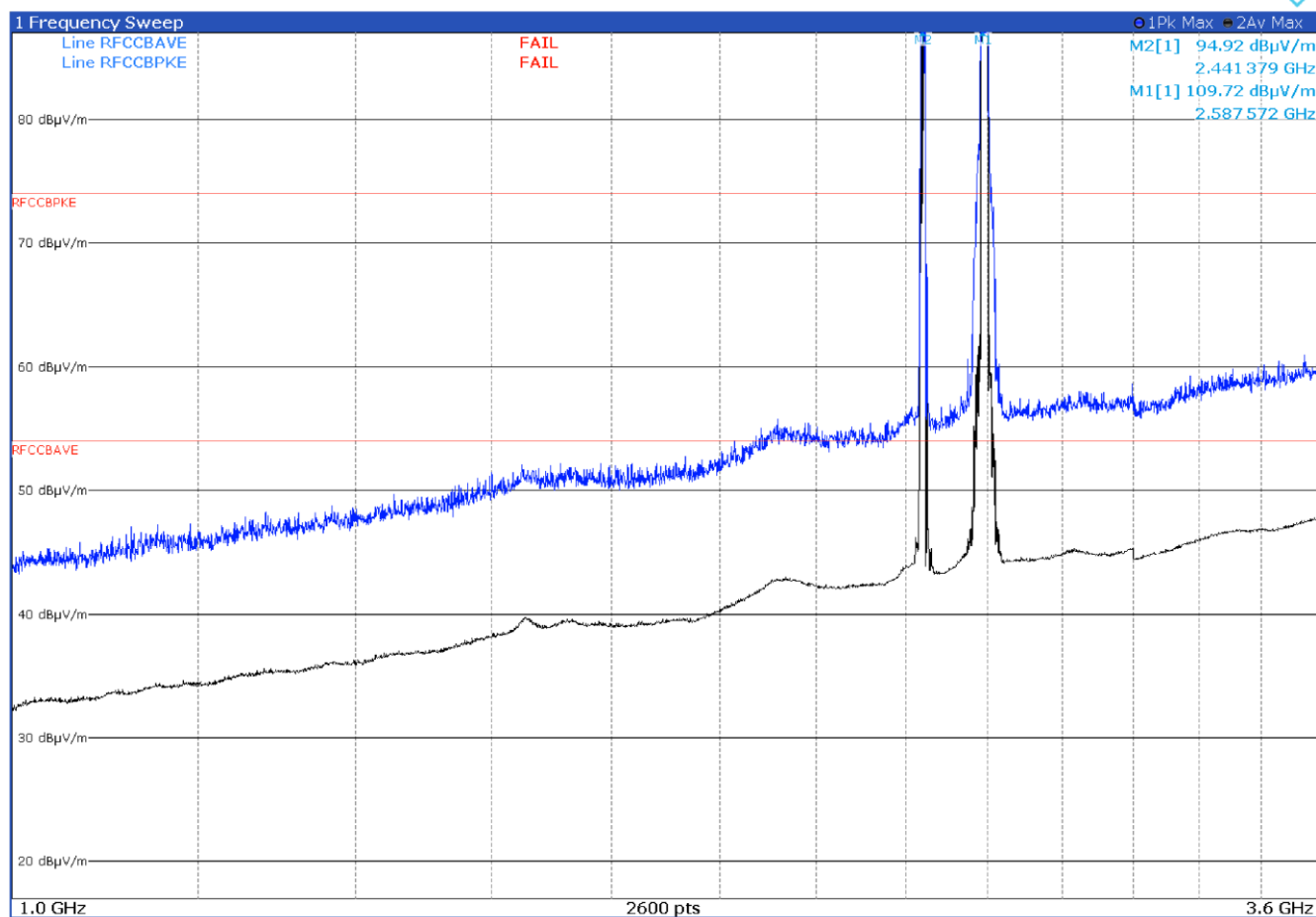
Cabinet Radiated spurious emission below 1 GHz, tx LTE B 41, WIFI CH 6, vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
50.0100	26.0	40.0	-14.0	QP
72.0000	18.8	40.0	-21.2	QP
114.3600	31.3	43.5	-12.2	QP
130.6500	34.7	43.5	-8.8	QP
161.0100	21.9	43.5	-21.6	QP
171.4200	38.0	43.5	-5.5	QP
207.3900	26.7	43.5	-16.8	QP
213.9300	21.0	43.5	-22.5	QP



Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
171.1200	25.3	43.5	-18.2	QP
205.9500	26.4	43.5	-17.1	QP
214.7400	21.0	43.5	-22.5	QP
253.4100	20.3	46.0	-25.7	QP
340.8000	18.4	46.0	-27.6	QP
499.9800	21.9	46.0	-24.1	QP

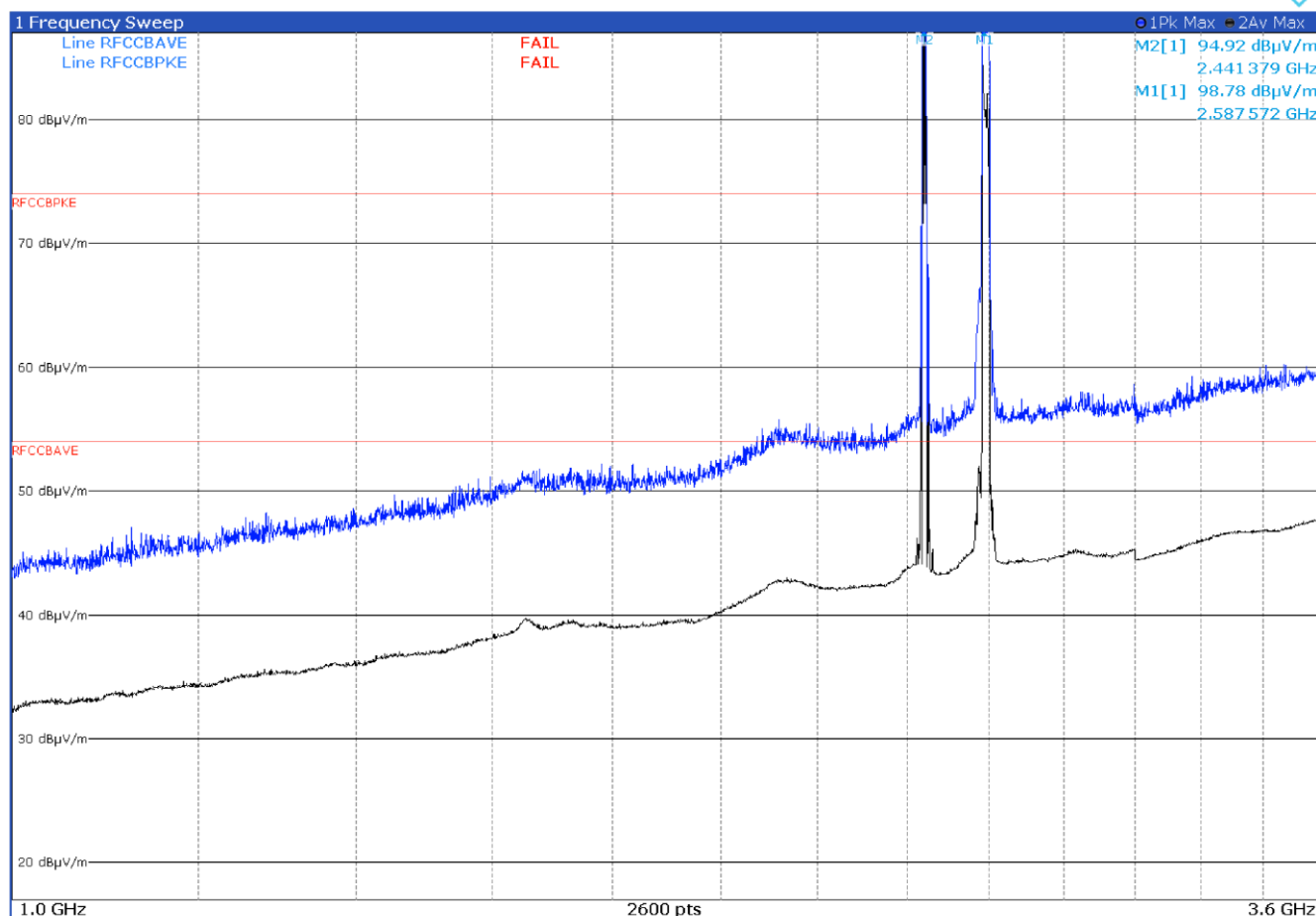
Cabinet Radiated spurious emission below 1 GHz, tx on LTE B41, WIFI CH 6, horizontal



Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
1200.0000	58.3	74.0	-15.7	Pk
1200.0000	43.6	54.0	-10.4	Av

Cabinet Radiated spurious emission above 1 GHz, tx LTE B41, WIFI CH 6, vertical

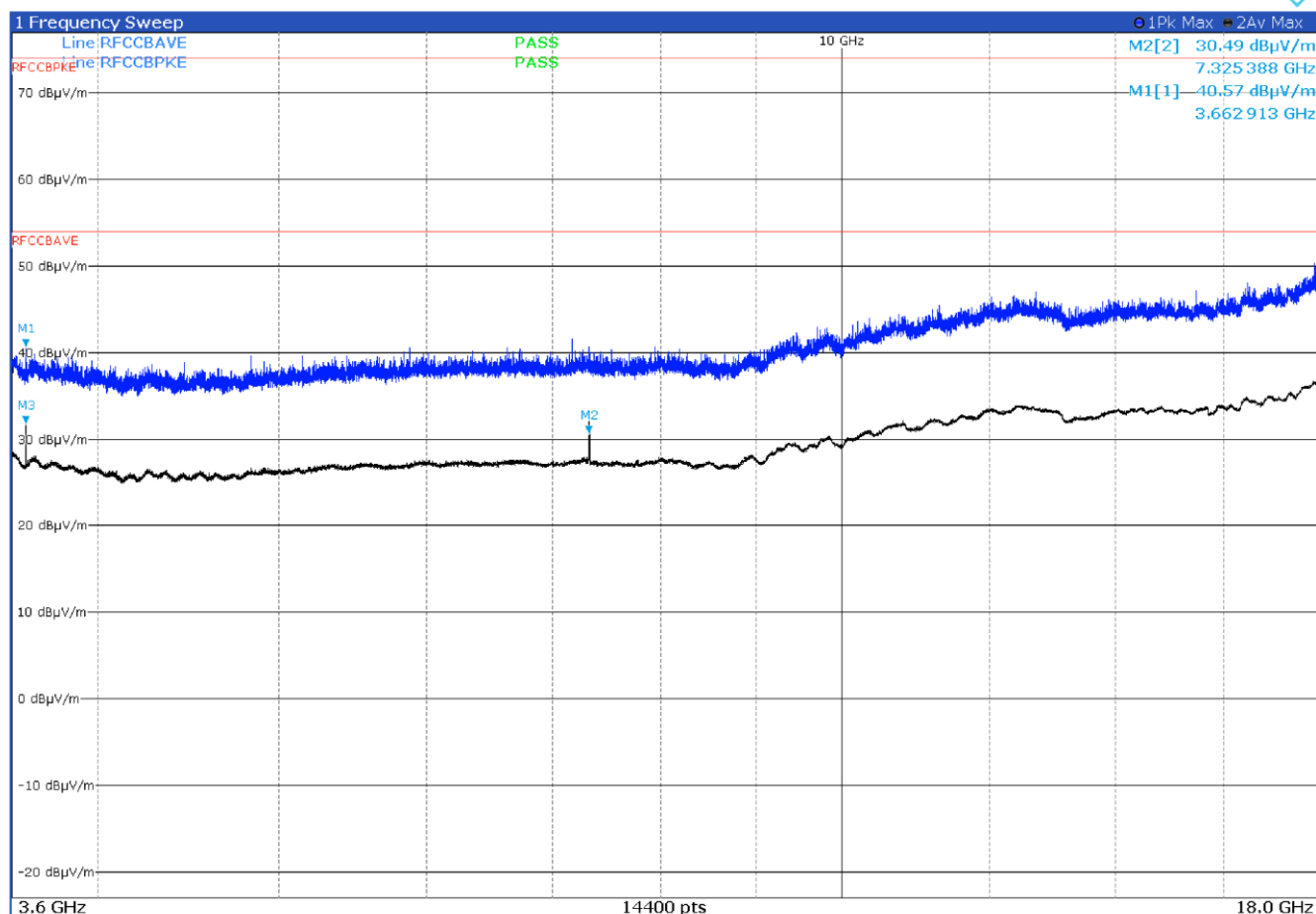
Limit exceeded by carriers



Cabinet Radiated spurious emission above 1 GHz, tx on LTE B41, WIFI CH 6, horizontal

Frequency (MHz)	Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1200.0000	55.4	74.0	-18.6	Pk

Limit exceeded by carriers



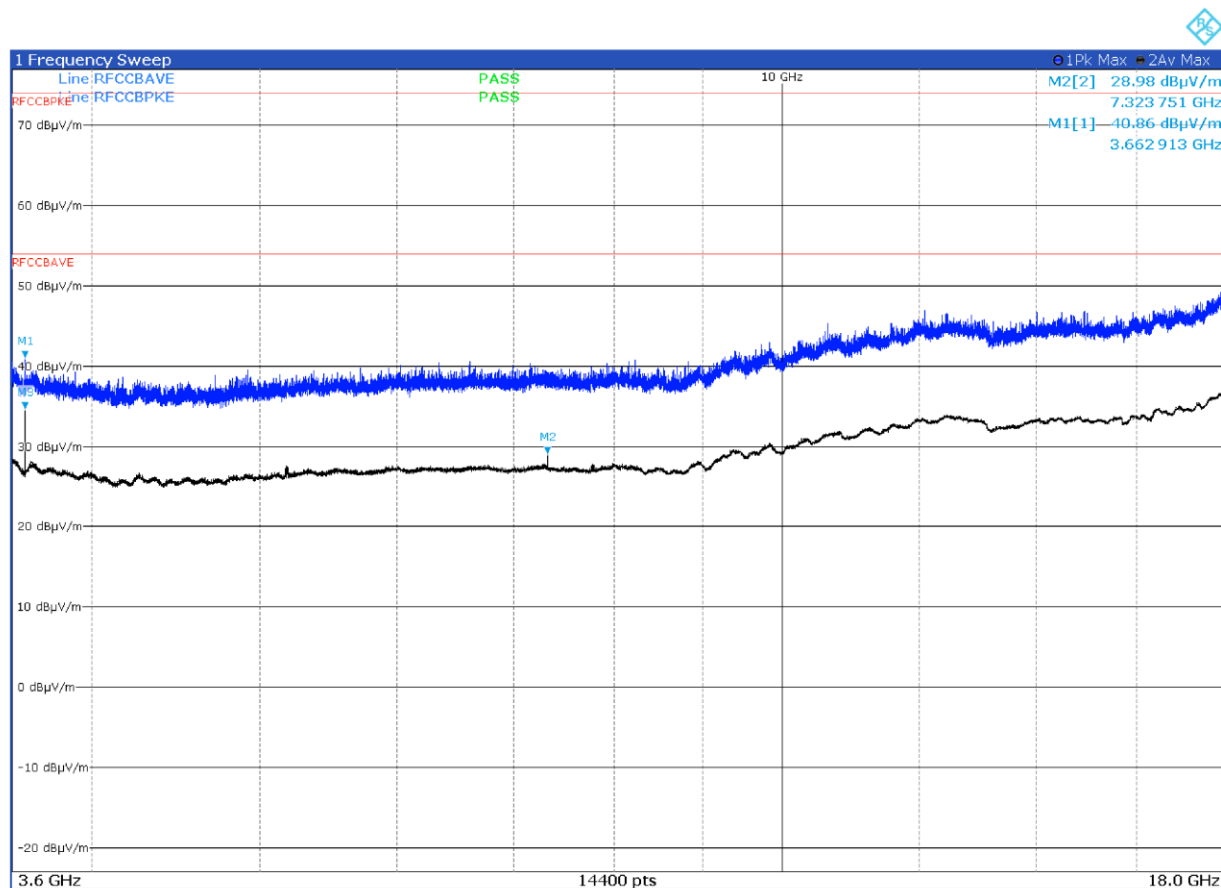
2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	3.66291 GHz	40.57 dBμV/m		
M2		2	7.32539 GHz	30.49 dBμV/m		
M3		2	3.66291 GHz	31.68 dBμV/m		

Cabinet Radiated spurious emission above 1 GHz, tx on LTE B41, WIFI CH6, horizontal

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
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Limit for LTE = -13 dBm = 82.2 dBμV/m

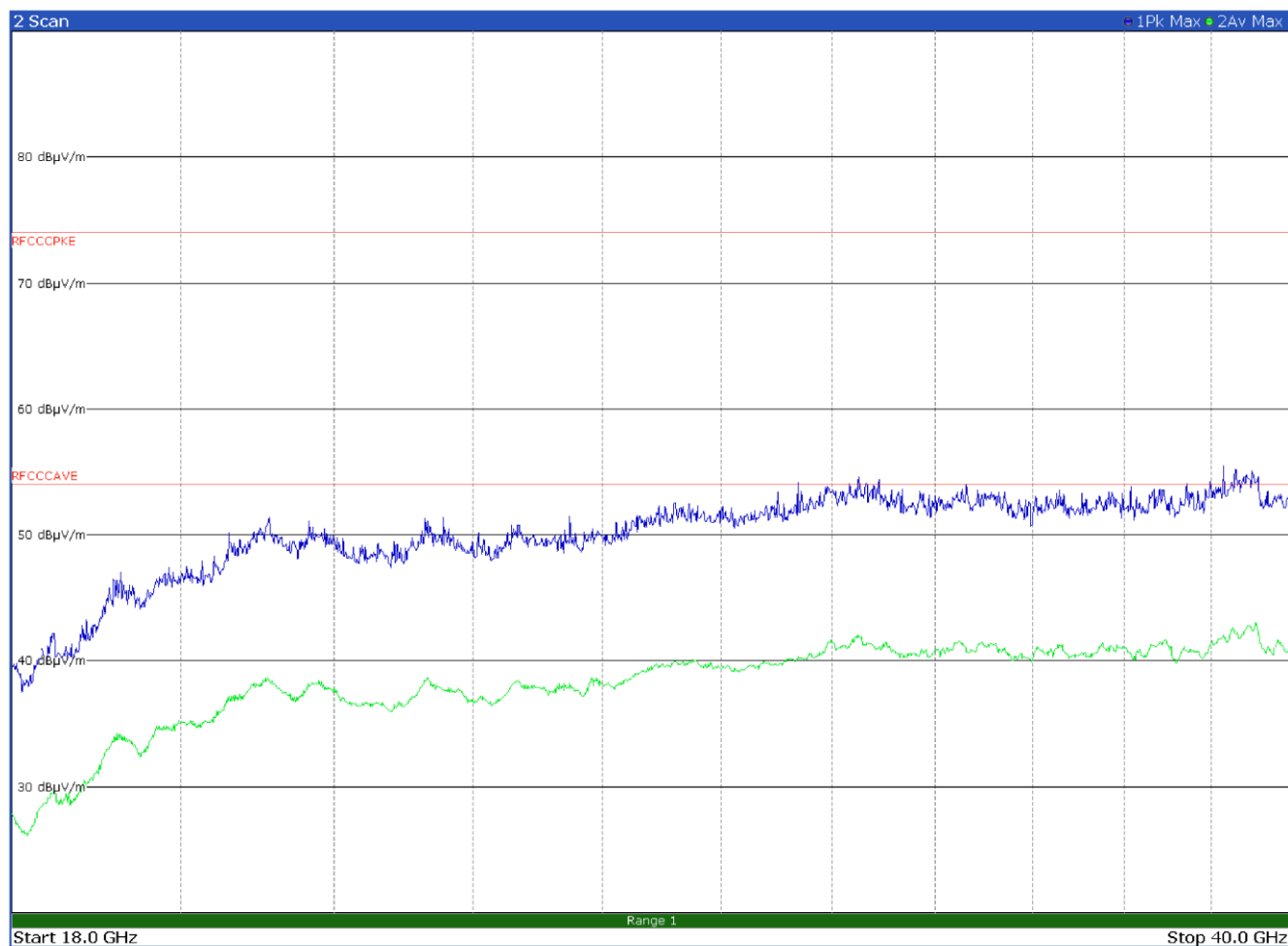


2 Marker Table						
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1		1	3.662 91 GHz	40.86 dBμV/m		
M2		2	7.323 75 GHz	28.98 dBμV/m		
M3		2	3.662 91 GHz	34.55 dBμV/m		

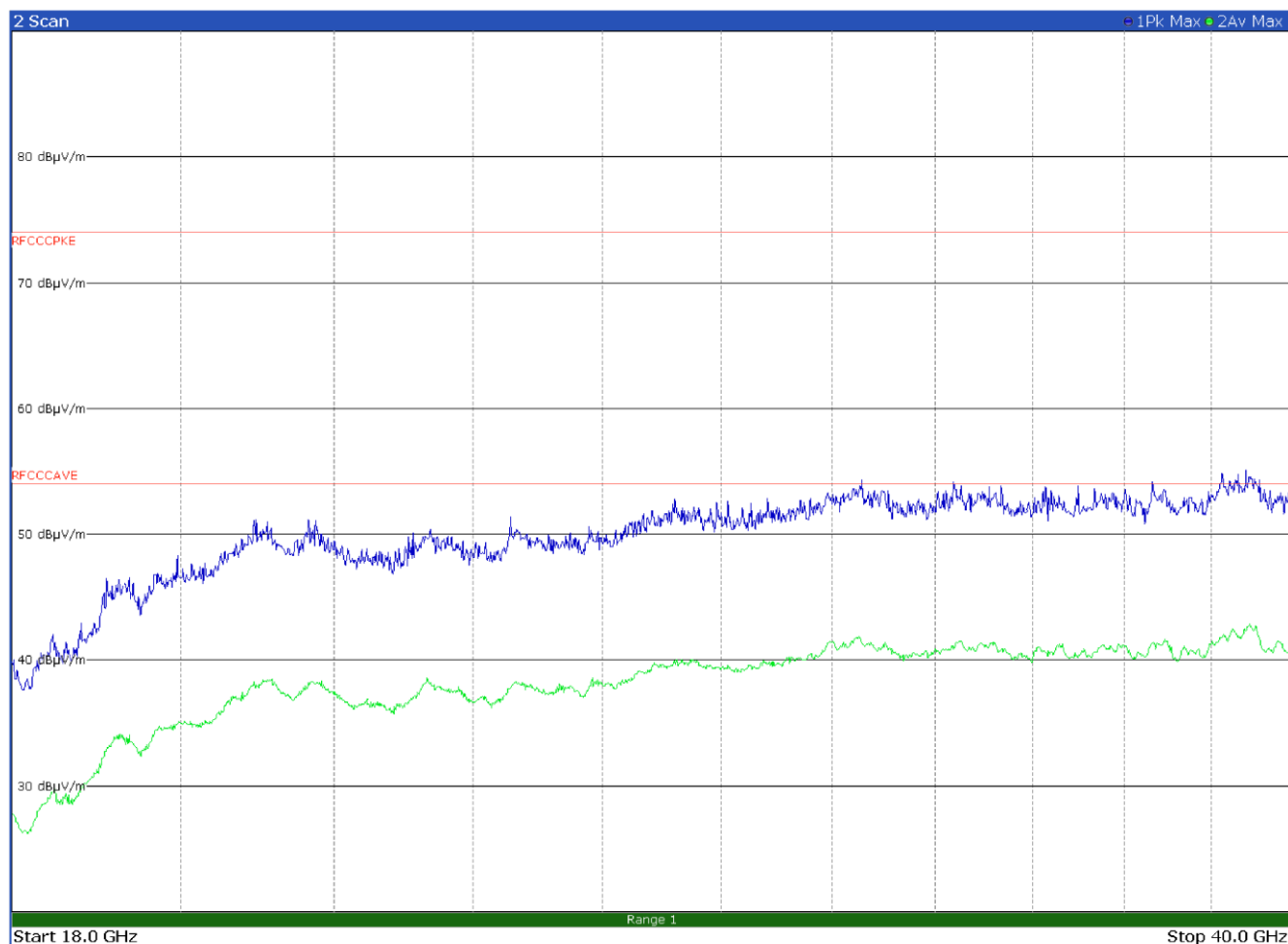
Cabinet Radiated spurious emission above 1 GHz, tx on on LTE B41, WIFI CH6, vertical

Frequency (MHz)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector
--	--	--	--	--

Limit for LTE = -13 dBm = 82.2 dBuV/m

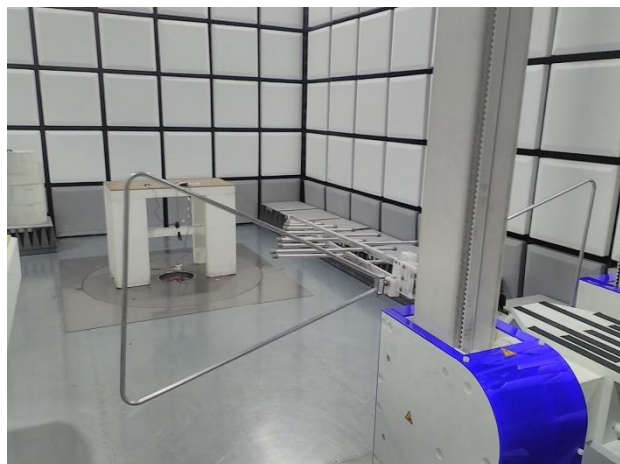


Cabinet Radiated spurious emission above 1 GHz, tx on on LTE B41, WIFI CH6, vertical



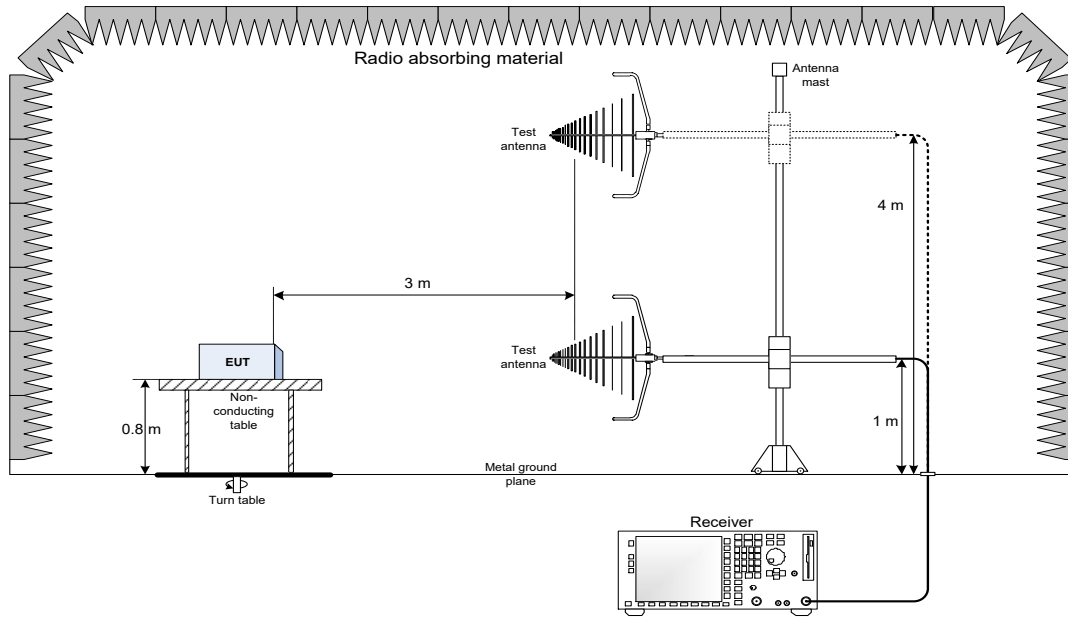
Cabinet Radiated spurious emission above 1 GHz, tx on on LTE B41, WIFI CH6, horizontal

Section 8. Photo set up



Section 9. Block diagrams of test set-ups

Radiated emissions set-up for frequencies below 1 GHz



Radiated emissions set-up for frequencies above 1 GHz

