FCC Measurement/Technical Report on

LEXI-R422

FCC ID: XPYUBX22VA03
IC: 8595A-UBX22VA03

Test Report Reference: MDE_UBLOX_2308_FCC_01

Test Laboratory:
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(((DAkkS
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Akkreditierungsstelle
D-PL-12140-01-01
D-PL-12140-01-02
D-PL-12140-01-03

Note:
The following test results relate only to the devices specified in this document. This report shall not be reproduced in parts without the written approval of the test laboratory.

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1 APPLIED STANDARDS AND TEST SUMMARY

1.1 APPLIED STANDARDS

Type of Authorization
Certification for a cellular mobile device.

Applicable FCC Rules

Prepared in accordance with the requirements of FCC Rules and Regulations as listed in 47 CFR Ch.1 Parts 2 and 27, (10-1-22 Edition). The following subparts are applicable to the results in this test report.

Part 2, Subpart J - Equipment Authorization Procedures, Certification

Part 22, Subpart H – Cellular Radiotelephone Service

§ 22.905 – Channels for cellular service
§ 22.913 – Effective radiated power limits
§ 22.917 – Emission limitations for cellular equipment

Part 24, Subpart E – Broadband PCS

§ 24.232 – Power and antenna height limits
$ 24.235 – Frequency stability
§ 24.238 – Emission limitations for Broadband PCS equipment

Part 27; Miscellaneous Wireless Communications Services
Subpart C – Technical standards

§ 27.50 – Power and duty cycle limits
§ 27.53 – Emission limits
§ 27.54 – Frequency stability

Subpart P – Regulations Governing Licensing and Use of 900 MHz7 Broadband Service in the 897.5 – 900.5 MHz and 936.5 – 939.5 MHz Bands

§ 27.1507 – Effective radiated power limits for 900 MHz broadband systems
§ 27.1509 – Emission limits
§ 27.54 – Frequency stability

Part 90; Private Land Mobile Radio Services

Subpart S—REGULATIONS GOVERNING LICENSING AND USE OF FREQUENCIES IN THE 806-824, 851-869, 896-901, AND 935-940 MHZ BANDS

§ 90.635 – Limitations on power and antenna height
§ 90.669 – Emission limitations
§ 90.539 – Frequency stability

Subpart R—REGULATIONS GOVERNING THE LICENSING AND USE OF FREQUENCIES IN THE 763-775 AND 793-805 MHZ BANDS

§ 90.635 – Limitations on power and antenna height
§ 90.543 – Emission limitations
§ 90.539 – Frequency stability

The tests were selected and performed with reference to:

- FCC Public Notice 971168 applying "Measurement guidance for certification of licensed digital transmitters" 971168 D01 v03r01, 2018-04-09
- If measurements procedures of the KDB 971168 have been used - which deviate from the ANSI C63.26 - this is explicitly marked with a *) in the FCC Final Result column in the measurement summary table in chapter 1.3
- ANSI C63.26: 2015

1.2 FCC-IC CORRELATION TABLE

Correlation of measurement requirements for
Cellular Mobile Devices
from
FCC and ISED Canada

Measurement	FCC reference	ISED reference
RF Output Power	§ 2.1046 § 22.913	RSS-GEN Issue 5, 6.12 RSS-132 Issue 4, 5.4
Peak-Average-Ratio	-	RSS 132 Issue 4: 5.4
Emission and Occupied bandwidth	§ 2.1049	RSS-GEN Issue 5, 6.7
Spurious Emission at Antenna Terminals	§ 2.1051 § 22.917	RSS-GEN Issue 5, 6.13 RSS-132 Issue 4, 5.5
Band Edge Compliance	§ 2.1051 § 22.917	RSS-GEN Issue 4, 6.13 RSS-132 Issue 4, 5.5
Frequency stability	§ 2.1055 § 22.355	RSS-GEN Issue 5, 6.11 RSS-132 Issue 4: 5.3
Field strength of spurious radiation	§ 2.1053 § 22.917	RSS-GEN Issue 5, 6.13 RSS-132 Issue 4: 5.5

Correlation of measurement requirements for Cellular Mobile Devices from FCC and ISED Canada

Measurement	FCC reference	ISED reference
RF Output Power	§ 2.1046 § 24.232	RSS-GEN Issue 5, 6.12 RSS-133 Issue 6, 6.4
Peak-Average-Ratio	§ 24.232	RSS 133 Issue 6: 6.4
Emission and Occupied bandwidth	§ 2.1049	RSS-GEN Issue 5, 6.7
Spurious Emission at Antenna Terminals	§ 2.1051 § 24.238	RSS-GEN Issue 5, 6.13 RSS-133 Issue 6, 6.5
Band Edge Compliance	§ 2.1051 § 24.238	RSS-GEN Issue 5, 6.13 RSS-133 Issue 6, 6.5
Frequency stability	§ 2.1055 § 24.235	RSS-GEN Issue 5, 6.11 RSS-133 Issue 6: 6.3
Field strength of spurious radiation	§ 2.1053 § 24.236	RSS-GEN Issue 5, 6.13 RSS-133 Issue 6: 6.5

Correlation of measurement requirements for
Cellular Mobile Devices
from
FCC and ISED Canada

Measurement	FCC reference	ISED reference
RF Output Power	§ 2.1046 § 27.50	RSS-GEN Issue 5, 6.12 RSS-130 Issue 2, 4.6.2/4.6.3 RSS-139 Issue 4, 5.5 RSS-199 Issue 4, 5.5
Peak to Average-Ratio	§ 27.50	RSS-130 Issue 2: 4.6.1 RSS 139 Issue 4: 5.5 RSS-199 Issue 4, 5.5
Emission and Occupied bandwidth	§ 2.1049	RSS-GEN Issue 5, 6.7
Spurious Emission at Antenna Terminals	§ 2.1051 § 27.53	RSS-GEN Issue 5, 6.13 RSS-130 Issue 2: 4.7.1/4.7.2 RSS-139 Issue 4, 5.6 RSS-199 Issue 4, 5.6
Band Edge Compliance	§ 2.1051 § 27.53	RSS-GEN Issue 5, 6.13 RSS-130 Issue 2: 4.7.1/4.7.2 RSS-139 Issue 4, 5.6 RSS-199 Issue 4, 5.6
Frequency stability	§ 2.1055 § 27.54	RSS-GEN Issue 5, 6.11 RSS-130 Issue 2: 4.5 RSS-139 Issue 4: 5.4 RSS-199 Issue 4, 5.4
Field strength of spurious radiation	§ 2.1053 § 27.53	RSS-GEN Issue 5, 6.13 RSS-130 Issue 2: 4.7.1/4.7.2 RSS-139 Issue 4: 5.6 RSS-199 Issue 4, 5.4

Correlation of measurement requirements for Cellular Mobile Devices from FCC and ISED Canada

Measurement	FCC reference	ISED reference
RF Output Power	§ 2.1046 § 90.635	RSS-GEN Issue 5, 6.12 RSS-140 Issue 1, 4.3
Peak to Average-Ratio	§ 90.635	RSS-140 Issue 1, 4.3
Emission and Occupied bandwidth	§ 2.1049	RSS-GEN Issue 5, 6.7
Spurious Emission at Antenna Terminals	§ 2.1051 § 90.543	RSS-GEN Issue 5, 6.13 RSS-140 Issue 1, 4.4
Band Edge Compliance	§ 2.1051 § 90.543	RSS-GEN Issue 5, 6.13 RSS-140 Issue 1, 4.4
Frequency stability	§ 2.1055 § 90.539	RSS-GEN Issue 5, 6.11 RSS-140 Issue 1, 4.2
Field strength of spurious radiation	§ 2.1053 § 90.543	RSS-GEN Issue 5, 6.13 RSS-140 Issue 1, 4.4

1.3 MEASUREMENT SUMMARY

47 CFR CHAPTER I FCC PART 22 Subpart H   § 2.1046 § 22.913

RF Output Power
The measurement was performed according to ANSI C63.26: 2015;   **Final Result**
5.2.4.1 Narrowband Signal: 5.2.4.3.3

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	**Setup**	**Date**	**FCC**	**IC**
GSM, GSM 850 EDGE, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850 EDGE, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850 EDGE, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed

RF Output Power
The measurement was performed according to ANSI C63.26: 2015;   **Final Result**
5.2.4.1 Narrowband Signal: 5.2.4.3.3

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	**Setup**	**Date**	**FCC**	**IC**
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, high channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, high channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, high channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, low channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, low channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, low channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, mid channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed

RF Output Power

The measurement was performed according to ANSI C63.26: 2015;   **Final Result**
5.2.4.1 Narrowband Signal: 5.2.4.3.3

OP-Mode	Setup	Date	FCC	IC
Technology, Radio Technology, Operating Frequency, ChBW, Measurement method				
CAT-M1, eFDD 5 16QAM, mid channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 16QAM, mid channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
NB-IoT, eFDD 5 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 QPSK, high channel, 0.2 MHz, 3, conducted	S01_AB01	2023-08-29	Passed	Passed

47 CFR CHAPTER I FCC PART 22 Subpart H   § 2.1046 § 22.913

RF Output Power
The measurement was performed according to ANSI C63.26: 2015;   **Final Result**
5.2.4.1 Narrowband Signal: 5.2.4.3.3

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
NB-IoT, eFDD 5 QPSK, high channel, 0.2 MHz, 6, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 QPSK, low channel, 0.2 MHz, 3, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 QPSK, low channel, 0.2 MHz, 6, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 QPSK, mid channel, 0.2 MHz, 3, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 5 QPSK, mid channel, 0.2 MHz, 6, conducted	S01_AB01	2023-08-29	Passed	Passed

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Frequency Stability
The measurement was performed according to ANSI C63.26: 2015; 5.6   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
GSM, GSM 850 EDGE, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-22	Passed	Passed
GSM, GSM 850, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-22	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AE01	2023-10-01	Passed	Passed
NB-IoT, eFDD 5 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-01	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 1, conducted	---	---	---	---

COMMENT: tested for FCC Part 90

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Spurious emissions at antenna terminals
The measurement was performed according to ANSI C63.26: 2015; 5.7.4   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
GSM, GSM 850 EDGE, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-25	Passed	Passed
GSM, GSM 850 EDGE, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-25	Passed	Passed
GSM, GSM 850 EDGE, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-25	Passed	Passed
GSM, GSM 850, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-25	Passed	Passed
GSM, GSM 850, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-25	Passed	Passed
GSM, GSM 850, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-25	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-10	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-10	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-10	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-10	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-10	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-10	Passed	Passed

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Spurious emissions at antenna terminals
The measurement was performed according to ANSI C63.26: 2015; 5.7.4   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
NB-IoT, eFDD 5 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 5 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 5 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed

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Field strength of spurious radiation
The measurement was performed according to ANSI C63.26: 2015;
5.5.2.3.1   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
GSM, GSM 850, high channel, 0.2 MHz, radiated	S01_AE01	2023-11-06	Passed	Passed
GSM, GSM 850, low channel, 0.2 MHz, radiated	S01_AE01	2023-11-06	Passed	Passed
GSM, GSM 850, mid channel, 0.2 MHz, radiated	S01_AE01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 1, radiated	S01_AG01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 1, radiated	S01_AG01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 1, radiated	S01_AG01	2023-11-06	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 1.4 MHz, 1, radiated	S01_AE01	2023-11-06	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 1.4 MHz, 1, radiated	S01_AE01	2023-11-06	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 1.4 MHz, 1, radiated	S01_AE01	2023-11-06	Passed	Passed
NB-IoT, eFDD 5 QPSK, high channel, 0.2 MHz, 1, radiated	S01-AA01	2023-11-06	Passed	Passed
NB-IoT, eFDD 5 QPSK, low channel, 0.2 MHz, 1, radiated	S01-AA01	2023-11-06	Passed	Passed
NB-IoT, eFDD 5 QPSK, mid channel, 0.2 MHz, 1, radiated	S01-AA01	2023-11-06	Passed	Passed

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Emission and occupied bandwidth
The measurement was performed according to ANSI C63.26: 2015; 5.4.3
(relative meas. Procedure [26dB for GSM, EGDE, WCDMA, HSDPA, HSUPA])
5.4.4 (Power bandwidth (99%))   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
GSM, GSM 850 EDGE, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850 EDGE, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850 EDGE, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed

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Emission and occupied bandwidth
The measurement was performed according to ANSI C63.26: 2015; 5.4.3　　**Final Result**
(relative meas. Procedure [26dB for GSM, EGDE, WCDMA, HSDPA, HSUPA])
5.4.4 (Power bandwidth (99%))

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 5 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AE01	2023-10-19	Passed	Passed
CAT-M1, eFDD 5 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AE01	2023-10-19	Passed	Passed
CAT-M1, eFDD 5 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AE01	2023-10-19	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-21	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-21	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 5 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 5 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 5 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 5 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 5 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 5 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-21	Passed	Passed

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Band edge compliance
The measurement was performed according to ANSI C63.26: 2015; 5.7.3　　**Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
GSM, GSM 850 EDGE, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850 EDGE, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 850, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AE01	2023-10-24	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AE01	2023-10-24	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-29	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-29	Passed	Passed
CAT-M1, eFDD 5 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 5 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
NB-IoT, eFDD 5 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 5 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 5 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 5 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed

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Peak to Average Ratio
The measurement was performed according to ANSI C63.26: 2015; 5.2.3.4 **Final Result**
(broadband noise-like signal using CCDF [LTE, CAT-M1, NB-IoT]) 5.2.6
(alternative procedure for PAPR [GSM, EDGE, WCDMA, HSDPA, HSUPA])

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
GSM, GSM 850 EDGE, high channel, 0.2 MHz, conducted	S01_AE01	2023-11-02	Passed	Passed
GSM, GSM 850 EDGE, low channel, 0.2 MHz, conducted	S01_AE01	2023-11-02	Passed	Passed
GSM, GSM 850 EDGE, mid channel, 0.2 MHz, conducted	S01_AE01	2023-11-02	Passed	Passed
GSM, GSM 850, high channel, 0.2 MHz, conducted	S01_AE01	2023-11-02	Passed	Passed
GSM, GSM 850, low channel, 0.2 MHz, conducted	S01_AE01	2023-11-02	Passed	Passed
GSM, GSM 850, mid channel, 0.2 MHz, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 5 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 5 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 5 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 5 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 5 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 5 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 5 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 5 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 5 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 5 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 5 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 5 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed

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RF Output Power
The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1 **Final Result**
Narrowband Signal: 5.2.4.3.3

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
GSM, GSM 1900 EDGE, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-20	Passed	Passed
GSM, GSM 1900 EDGE, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-20	Passed	Passed
GSM, GSM 1900 EDGE, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-20	Passed	Passed
GSM, GSM 1900, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 1900, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 1900, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
CAT-M1, eFDD 2 16QAM, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed

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RF Output Power

The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1   **Final Result**
Narrowband Signal: 5.2.4.3.3

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 2 16QAM, high channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, high channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, high channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, low channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, low channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, low channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, mid channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, mid channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 16QAM, mid channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed

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RF Output Power

The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1 **Final Result**
Narrowband Signal: 5.2.4.3.3

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 2 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, high channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, high channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, high channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, low channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, low channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, low channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, mid channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, mid channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 16QAM, mid channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed

RF Output Power
The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1   **Final Result**
Narrowband Signal: 5.2.4.3.3

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	**Setup**	**Date**	**FCC**	**IC**
CAT-M1, eFDD 25 QPSK, high channel, 5 MHz, 1, conducted	S01_AE01	2023-10-26	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 5 MHz, 1, conducted	S01_AE01	2023-10-30	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 5 MHz, 3, conducted	S01_AE01	2023-10-30	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 5 MHz, 6, conducted	S01_AE01	2023-10-30	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 5 MHz, 1, conducted	S01_AE01	2023-10-26	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
NB-IoT, eFDD 2 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-31	Passed	Passed
NB-IoT, eFDD 2 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-31	Passed	Passed
NB-IoT, eFDD 2 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-31	Passed	Passed
NB-IoT, eFDD 2 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AB01	2023-11-10	Passed	Passed
NB-IoT, eFDD 2 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-31	Passed	Passed
NB-IoT, eFDD 2 QPSK, high channel, 0.2 MHz, 3, conducted	S01_AB01	2023-11-10	Passed	Passed
NB-IoT, eFDD 2 QPSK, high channel, 0.2 MHz, 6, conducted	S01_AB01	2023-11-10	Passed	Passed
NB-IoT, eFDD 2 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AB01	2023-11-10	Passed	Passed
NB-IoT, eFDD 2 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-31	Passed	Passed
NB-IoT, eFDD 2 QPSK, low channel, 0.2 MHz, 3, conducted	S01_AB01	2023-11-10	Passed	Passed
NB-IoT, eFDD 2 QPSK, low channel, 0.2 MHz, 6, conducted	S01_AB01	2023-11-10	Passed	Passed
NB-IoT, eFDD 2 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-11-10	Passed	Passed
NB-IoT, eFDD 2 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-31	Passed	Passed
NB-IoT, eFDD 2 QPSK, mid channel, 0.2 MHz, 3, conducted	S01_AB01	2023-11-10	Passed	Passed
NB-IoT, eFDD 2 QPSK, mid channel, 0.2 MHz, 6, conducted	S01_AB01	2023-11-10	Passed	Passed

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Frequency Stability

The measurement was performed according to ANSI C63.26: 2015; 5.6   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
GSM, GSM 1900 EDGE, mid channel, 0.2 MHz, conducted	S01_AE01	2023-11-02	Passed	Passed
GSM, GSM 1900, mid channel, 0.2 MHz, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 2 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed

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Spurious emissions at antenna terminals

The measurement was performed according to ANSI C63.26: 2015; 5.7.4   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
GSM, GSM 1900 EDGE, high channel, 0.2 MHz, conducted	S01_AB01	2023-11-02	Passed	Passed
GSM, GSM 1900 EDGE, low channel, 0.2 MHz, conducted	S01_AB01	2023-11-02	Passed	Passed
GSM, GSM 1900 EDGE, mid channel, 0.2 MHz, conducted	S01_AB01	2023-11-02	Passed	Passed
GSM, GSM 1900 GPRS, high channel, 0.2 MHz, conducted	S01_AB01	2023-11-02	Passed	Passed
GSM, GSM 1900 GPRS, low channel, 0.2 MHz, conducted	S01_AB01	2023-11-02	Passed	Passed
GSM, GSM 1900 GPRS, mid channel, 0.2 MHz, conducted	S01_AB01	2023-11-02	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 2 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 2 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 2 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed

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Field strength of spurious radiation

The measurement was performed according to ANSI C63.26: 2015; 5.5.2.3.1   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
GSM, GSM 1900 EDGE, high channel, 0.2 MHz, radiated	S01_AA01	2023-11-06	Passed	Passed
GSM, GSM 1900 EDGE, low channel, 0.2 MHz, radiated	S01_AA01	2023-11-06	Passed	Passed
GSM, GSM 1900 EDGE, mid channel, 0.2 MHz, radiated	S01_AA01	2023-11-06	Passed	Passed
GSM, GSM 1900, high channel, 0.2 MHz, radiated	S01_AA01	2023-11-06	Passed	Passed
GSM, GSM 1900, low channel, 0.2 MHz, radiated	S01_AA01	2023-11-06	Passed	Passed
GSM, GSM 1900, mid channel, 0.2 MHz, radiated	S01_AA01	2023-11-06	Passed	Passed

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Field strength of spurious radiation
The measurement was performed according to ANSI C63.26: 2015; 5.5.2.3.1

Final Result

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 2 QPSK, high channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-06	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-06	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-06	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-06	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-06	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-06	Passed	Passed
NB-IoT, eFDD 2 QPSK, high channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-06	Passed	Passed
NB-IoT, eFDD 2 QPSK, low channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-06	Passed	Passed
NB-IoT, eFDD 2 QPSK, mid channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-06	Passed	Passed

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Emission and occupied bandwidth
The measurement was performed according to ANSI C63.26: 2015; 5.4.3 (relative meas. Procedure [26dB for GSM, EGDE, WCDMA, HSDPA, HSUPA]) 5.4.4 (Power bandwidth (99%))

Final Result

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
GSM, GSM 1900 EDGE, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-20	Passed	Passed
GSM, GSM 1900 EDGE, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-20	Passed	Passed
GSM, GSM 1900 EDGE, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-20	Passed	Passed
GSM, GSM 1900, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 1900, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 1900, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
CAT-M1, eFDD 2 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-21	Passed	Passed
CAT-M1, eFDD 2 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-21	Passed	Passed
CAT-M1, eFDD 2 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-21	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-21	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-21	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-21	Passed	Passed
CAT-M1, eFDD 25 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 25 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 25 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
NB-IoT, eFDD 2 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 2 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 2 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 2 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 2 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 2 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed

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Band edge compliance

The measurement was performed according to ANSI C63.26: 2015; 5.7.3   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	**Setup**	**Date**	**FCC**	**IC**
GSM, GSM 1900 EDGE, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-20	Passed	Passed
GSM, GSM 1900 EDGE, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-20	Passed	Passed
GSM, GSM 1900, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 1900, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
CAT-M1, eFDD 2 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 2 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 25 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-29	Passed	Passed
CAT-M1, eFDD 25 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-29	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-29	Passed	Passed
CAT-M1, eFDD 25 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-29	Passed	Passed
NB-IoT, eFDD 2 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 2 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 2 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 2 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed

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Peak to Average Ratio

The measurement was performed according to ANSI C63.26: 2015; 5.2.3.4   **Final Result**
(broadband noise-like signal using CCDF [LTE, CAT-M1, NB-IoT]) 5.2.6
(alternative procedure for PAPR [GSM, EDGE, WCDMA, HSDPA, HSUPA])

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	**Setup**	**Date**	**FCC**	**IC**
GSM, GSM 1900 EDGE, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-20	Passed	Passed
GSM, GSM 1900 EDGE, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-20	Passed	Passed
GSM, GSM 1900 EDGE, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-20	Passed	Passed
GSM, GSM 1900, high channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 1900, low channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
GSM, GSM 1900, mid channel, 0.2 MHz, conducted	S01_AE01	2023-10-19	Passed	Passed
CAT-M1, eFDD 2 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 2 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 2 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 2 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 2 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 2 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 25 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 25 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 25 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 25 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed

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Peak to Average Ratio

The measurement was performed according to ANSI C63.26: 2015; 5.2.3.4 (broadband noise-like signal using CCDF [LTE, CAT-M1, NB-IoT]) 5.2.6 (alternative procedure for PAPR [GSM, EDGE, WCDMA, HSDPA, HSUPA])

Final Result

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 25 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 25 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
NB-IoT, eFDD 2 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 2 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 2 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 2 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 2 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 2 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed

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RF Output Power

The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1, Wideband Signal: 5.2.4.4

Final Result

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 12 16QAM, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, high channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 16QAM, high channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, high channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, low channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 16QAM, low channel, 3 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 16QAM, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, low channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, mid channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 16QAM, mid channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 16QAM, mid channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed

RF Output Power
The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1,   **Final Result**
Wideband Signal: 5.2.4.4

OP-Mode	**Setup**	**Date**	**FCC**	**IC**
Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method				
CAT-M1, eFDD 12 QPSK, high channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 3 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 3 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 16QAM, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 13 16QAM, high channel, 5 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 13 16QAM, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 16QAM, low channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 16QAM, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 16QAM, mid channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 16QAM, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 16QAM, mid channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 QPSK, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 13 QPSK, high channel, 5 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed

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RF Output Power

The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1, **Final Result**
Wideband Signal: 5.2.4.4

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 13 QPSK, high channel, 5 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 13 QPSK, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 QPSK, low channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 QPSK, low channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 QPSK, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 QPSK, mid channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 QPSK, mid channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 QPSK, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 QPSK, mid channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 13 QPSK, mid channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, high channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, high channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, high channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, low channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, low channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, low channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, mid channel, 10 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, mid channel, 3 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 16QAM, mid channel, 5 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed

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RF Output Power
The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1, **Final Result**
Wideband Signal: 5.2.4.4

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	**Setup**	**Date**	**FCC**	**IC**
CAT-M1, eFDD 4 QPSK, high channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 10 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 10 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 3 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 3 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 5 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 5 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 16QAM, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 16QAM, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, high channel, 10 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, high channel, 3 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, high channel, 5 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 16QAM, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, low channel, 10 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, low channel, 3 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, low channel, 5 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 16QAM, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, mid channel, 10 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed

RF Output Power
The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1,   **Final Result**
Wideband Signal: 5.2.4.4

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	**Setup**	**Date**	**FCC**	**IC**
CAT-M1, eFDD 66 16QAM, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, mid channel, 3 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, mid channel, 5 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 10 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 10 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 10 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 3 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 3 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 3 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 5 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 5 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 5 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 10 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 10 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 10 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 3 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 3 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 3 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 5 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 5 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 5 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 10 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 10 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 3 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 3 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 5 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 5 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 16QAM, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 16QAM, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 16QAM, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed

RF Output Power

The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1, **Final Result** Wideband Signal: 5.2.4.4

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 8 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 16QAM, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 16QAM, mid channel, 3 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, high channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, low channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, mid channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, mid channel, 3 MHz, 1, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, mid channel, 3 MHz, 3, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, mid channel, 3 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
NB-IoT, eFDD 12 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 QPSK, high channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 QPSK, high channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 QPSK, low channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 QPSK, low channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 QPSK, mid channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 12 QPSK, mid channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 QPSK, high channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 QPSK, high channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 QPSK, low channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 QPSK, low channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 QPSK, mid channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 13 QPSK, mid channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed

RF Output Power

The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1, **Final Result**
Wideband Signal: 5.2.4.4

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	**Setup**	**Date**	**FCC**	**IC**
NB-IoT, eFDD 4 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 QPSK, high channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 QPSK, high channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 QPSK, low channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 QPSK, low channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 QPSK, mid channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 4 QPSK, mid channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 QPSK, high channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 QPSK, high channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 QPSK, low channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 QPSK, low channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 QPSK, mid channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 66 QPSK, mid channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 QPSK, high channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 QPSK, high channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 QPSK, low channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 QPSK, low channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 QPSK, mid channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 8 QPSK, mid channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed

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RF Output Power

The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1, **Final Result**
Wideband Signal: 5.2.4.4

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
NB-IoT, eFDD 85 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 QPSK, high channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 QPSK, high channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 QPSK, low channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 QPSK, low channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 QPSK, mid channel, 0.2 MHz, 3, conducted	S01_AE01	2023-11-02	Passed	Passed
NB-IoT, eFDD 85 QPSK, mid channel, 0.2 MHz, 6, conducted	S01_AE01	2023-11-02	Passed	Passed

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Frequency Stability

The measurement was performed according to ANSI C63.26: 2015; 5.6   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 12 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-11-03	Passed	Passed
CAT-M1, eFDD 13 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-11-03	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-11-03	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-11-03	Passed	Passed
CAT-M1, eFDD 8 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-11-03	Passed	Passed
NB-IoT, eFDD 12 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-11-03	Passed	Passed
NB-IoT, eFDD 13 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-11-03	Passed	Passed
NB-IoT, eFDD 4 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-11-03	Passed	Passed
NB-IoT, eFDD 66 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-11-03	Passed	Passed
NB-IoT, eFDD 8 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-11-03	Passed	Passed
NB-IoT, eFDD 85 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-11-03	Passed	Passed

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Spurious emissions at antenna terminals

The measurement was performed according to ANSI C63.26: 2015; 5.7.4   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 12 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-12-10	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-12-10	Passed	Passed

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Spurious emissions at antenna terminals
The measurement was performed according to ANSI C63.26: 2015; 5.7.4   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	**Setup**	**Date**	**FCC**	**IC**
CAT-M1, eFDD 12 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 13 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 13 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 13 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-11-10	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-11-10	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-11-10	Passed	Passed
CAT-M1, eFDD 8 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-12-10	Passed	Passed
CAT-M1, eFDD 8 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-12-10	Passed	Passed
CAT-M1, eFDD 8 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-12-10	Passed	Passed
NB-IoT, eFDD 12 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 12 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 12 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 13 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 13 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 13 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 4 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 4 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 4 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 8 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 8 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 8 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 66 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 66 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AB01	2023-10-12	Passed	Passed
NB-IoT, eFDD 66 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-10-12	Passed	Passed
NB-IoT, eFDD 85 QPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 85 QPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed
NB-IoT, eFDD 85 QPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-17	Passed	Passed

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Field strength of spurious radiation
The measurement was performed according to ANSI C63.26: 2015;
5.5.2.3.1   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	**Setup**	**Date**	**FCC**	**IC**
CAT-M1, eFDD 12 QPSK, high channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 13 QPSK, high channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 13 QPSK, low channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed

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Field strength of spurious radiation
The measurement was performed according to ANSI C63.26: 2015; **Final Result**
5.5.2.3.1

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 13 QPSK, mid channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 8 QPSK, high channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 8 QPSK, low channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
CAT-M1, eFDD 8 QPSK, mid channel, 1.4 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 12 QPSK, high channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 12 QPSK, low channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 12 QPSK, mid channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 13 QPSK, high channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 13 QPSK, low channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 13 QPSK, mid channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 4 QPSK, high channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-10	Passed	Passed
NB-IoT, eFDD 4 QPSK, low channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-10	Passed	Passed
NB-IoT, eFDD 4 QPSK, mid channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-10	Passed	Passed
NB-IoT, eFDD 66 QPSK, high channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 66 QPSK, low channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 66 QPSK, mid channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 8 QPSK, high channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 8 QPSK, low channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 8 QPSK, mid channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 85 QPSK, high channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 85 QPSK, low channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed
NB-IoT, eFDD 85 QPSK, mid channel, 0.2 MHz, 1, radiated	S01_AA01	2023-11-07	Passed	Passed

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Emission and occupied bandwidth
The measurement was performed according to ANSI C63.26: 2015; 5.4.3 **Final Result**
(relative meas. Procedure [26dB for GSM, EGDE, WCDMA, HSDPA, HSUPA])
5.4.4 (Power bandwidth (99%))

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 12 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed

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Emission and occupied bandwidth
The measurement was performed according to ANSI C63.26: 2015; 5.4.3 **Final Result**
(relative meas. Procedure [26dB for GSM, EGDE, WCDMA, HSDPA, HSUPA])
5.4.4 (Power bandwidth (99%))

OP-Mode	Setup	Date	FCC	IC
Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method				
CAT-M1, eFDD 13 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 13 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 13 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 13 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 13 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 13 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 4 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 4 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 4 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 66 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 66 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 66 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 8 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 8 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 8 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 8 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 8 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 8 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
NB-IoT, eFDD 12 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-22	Passed	Passed
NB-IoT, eFDD 12 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-22	Passed	Passed
NB-IoT, eFDD 12 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-22	Passed	Passed
NB-IoT, eFDD 12 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 12 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 12 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 13 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-22	Passed	Passed
NB-IoT, eFDD 13 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-22	Passed	Passed
NB-IoT, eFDD 13 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-22	Passed	Passed
NB-IoT, eFDD 13 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-22	Passed	Passed
NB-IoT, eFDD 13 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-22	Passed	Passed
NB-IoT, eFDD 13 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-22	Passed	Passed
NB-IoT, eFDD 4 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 4 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 4 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 4 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 4 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 4 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 66 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 66 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed

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Emission and occupied bandwidth
The measurement was performed according to ANSI C63.26: 2015; 5.4.3   **Final Result**
(relative meas. Procedure [26dB for GSM, EGDE, WCDMA, HSDPA, HSUPA])
5.4.4 (Power bandwidth (99%))

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
NB-IoT, eFDD 66 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 66 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 66 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 66 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 8 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 8 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 8 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 8 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 8 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 8 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AB01	2023-08-21	Passed	Passed
NB-IoT, eFDD 85 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 85 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 85 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 85 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 85 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 85 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed

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Band edge compliance
The measurement was performed according to ANSI C63.26: 2015; 5.7.3   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 12 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 13 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 13 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 13 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 13 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 4 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 4 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 66 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-29	Passed	Passed
CAT-M1, eFDD 66 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-29	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-29	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-29	Passed	Passed
CAT-M1, eFDD 8 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-28	Passed	Passed
CAT-M1, eFDD 8 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed

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Band edge compliance
The measurement was performed according to ANSI C63.26: 2015; 5.7.3 **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 8 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-28	Passed	Passed
NB-IoT, eFDD 12 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 12 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 12 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 12 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 13 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 13 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 13 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 13 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 4 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 4 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 4 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 4 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 66 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 66 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 66 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 66 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 8 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 8 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 8 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 8 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 85 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 85 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 85 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed
NB-IoT, eFDD 85 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-18	Passed	Passed

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Peak to Average Ratio
The measurement was performed according to ANSI C63.26: 2015; 5.2.3.4 **Final Result**
(broadband noise-like signal using CCDF [LTE, CAT-M1, NB-IoT]) 5.2.6
(alternative procedure for PAPR [GSM, EDGE, WCDMA, HSDPA, HSUPA])

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 12 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 12 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 12 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 12 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 12 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 12 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 13 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AE01	2023-10-30	Passed	Passed
CAT-M1, eFDD 13 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AE01	2023-10-30	Passed	Passed
CAT-M1, eFDD 13 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AE01	2023-10-30	Passed	Passed
CAT-M1, eFDD 13 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AE01	2023-10-30	Passed	Passed

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Peak to Average Ratio

The measurement was performed according to ANSI C63.26: 2015; 5.2.3.4   **Final Result**
(broadband noise-like signal using CCDF [LTE, CAT-M1, NB-IoT]) 5.2.6
(alternative procedure for PAPR [GSM, EDGE, WCDMA, HSDPA, HSUPA])

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	**Setup**	**Date**	**FCC**	**IC**
CAT-M1, eFDD 13 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AE01	2023-10-30	Passed	Passed
CAT-M1, eFDD 13 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AE01	2023-10-30	Passed	Passed
CAT-M1, eFDD 4 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 4 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 4 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 4 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 4 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AE01	2023-10-12	Passed	Passed
CAT-M1, eFDD 4 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 66 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 66 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 66 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 66 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 66 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 66 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 8 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 8 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 8 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 8 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AE01	2023-10-30	Passed	Passed
CAT-M1, eFDD 8 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 8 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
NB-IoT, eFDD 12 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 12 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 12 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 12 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-24	Passed	Passed
NB-IoT, eFDD 12 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-24	Passed	Passed
NB-IoT, eFDD 12 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-24	Passed	Passed
NB-IoT, eFDD 13 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-30	Passed	Passed
NB-IoT, eFDD 13 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-30	Passed	Passed
NB-IoT, eFDD 13 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-30	Passed	Passed
NB-IoT, eFDD 13 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-24	Passed	Passed
NB-IoT, eFDD 13 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-24	Passed	Passed
NB-IoT, eFDD 13 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-24	Passed	Passed
NB-IoT, eFDD 4 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 4 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 4 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 4 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 4 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 4 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 66 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-30	Passed	Passed
NB-IoT, eFDD 66 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-30	Passed	Passed
NB-IoT, eFDD 66 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-30	Passed	Passed
NB-IoT, eFDD 66 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-24	Passed	Passed
NB-IoT, eFDD 66 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-24	Passed	Passed
NB-IoT, eFDD 66 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-24	Passed	Passed

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Peak to Average Ratio

The measurement was performed according to ANSI C63.26: 2015; 5.2.3.4   **Final Result**
(broadband noise-like signal using CCDF [LTE, CAT-M1, NB-IoT]) 5.2.6
(alternative procedure for PAPR [GSM, EDGE, WCDMA, HSDPA, HSUPA])

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	**Setup**	**Date**	**FCC**	**IC**
NB-IoT, eFDD 8 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 8 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 8 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 8 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 8 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 8 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 85 BPSK, high channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 85 BPSK, low channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 85 BPSK, mid channel, 0.2 MHz, 1, conducted	S01_AE01	2023-10-25	Passed	Passed
NB-IoT, eFDD 85 QPSK, high channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-24	Passed	Passed
NB-IoT, eFDD 85 QPSK, low channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-24	Passed	Passed
NB-IoT, eFDD 85 QPSK, mid channel, 0.2 MHz, 12, conducted	S01_AE01	2023-10-24	Passed	Passed

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RF Output Power

The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1,   **Final Result**
Wideband Signal: 5.2.4.4

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	**Setup**	**Date**	**FCC**	**IC**
CAT-M1, eFDD 26 16QAM, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 5 MHz, 1, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 16QAM, high channel, 5 MHz, 5, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 5 MHz, 1, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 5 MHz, 5, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 10 MHz, 5, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 5 MHz, 5, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 5 MHz, 1, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 5 MHz, 3, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 5 MHz, 6, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed

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RF Output Power
The measurement was performed according to ANSI C63.26: 2015; 5.2.4.1,   **Final Result**
Wideband Signal: 5.2.4.4

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	**Setup**	**Date**	**FCC**	**IC**
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 5 MHz, 1, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 5 MHz, 3, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 5 MHz, 6, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 3, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-23	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 10 MHz, 1, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 10 MHz, 3, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 10 MHz, 6, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 5 MHz, 1, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 5 MHz, 3, conducted	S01_AB01	2023-11-06	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 5 MHz, 6, conducted	S01_AB01	2023-11-06	Passed	Passed

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Frequency Stability
The measurement was performed according to ANSI C63.26: 2015; 5.6   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	**Setup**	**Date**	**FCC**	**IC**
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AB01	2023-11-03	Passed	Passed

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Spurious emissions at antenna terminals
The measurement was performed according to ANSI C63.26: 2015; 5.7.4   **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	**Setup**	**Date**	**FCC**	**IC**
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 1, conducted	S01_AE01	2023-10-10	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 1, conducted	S01_AE01	2023-10-10	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 1, conducted	S01_AE01	2023-10-10	Passed	Passed

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Field strength of spurious radiation
The measurement was performed according to ANSI C63.26: 2015;   **Final Result**
5.5.2.3.1

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	**Setup**	**Date**	**FCC**	**IC**
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 1, radiated	S01_AG01	2023-11-10	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 1, radiated	S01_AG01	2023-11-10	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 1, radiated	S01_AG01	2023-11-10	Passed	Passed

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Emission and occupied bandwidth
The measurement was performed according to ANSI C63.26: 2015; 5.4.3 **Final Result**
(relative meas. Procedure [26dB for GSM, EGDE, WCDMA, HSDPA, HSUPA])
5.4.4 (Power bandwidth (99%))

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 26 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-22	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AE01	2023-10-19	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AE01	2023-10-19	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AE01	2023-10-19	Passed	Passed

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Band Edge
The measurement was performed according to ANSI C63.26: 2015; 5.7.3 **Final Result**

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 26 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-29	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AB01	2023-08-29	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-29	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-08-29	Passed	Passed

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Peak to Average Ratio
The measurement was performed according to ANSI C63.26: 2015; 5.2.3.4 **Final Result**
(broadband noise-like signal using CCDF [LTE, CAT-M1, NB-IoT]) 5.2.6
(alternative procedure for PAPR [GSM, EDGE, WCDMA, HSDPA, HSUPA])

OP-Mode Technology, Radio Technology, Operating Frequency, ChBW, Ressource Blocks, Measurement method	Setup	Date	FCC	IC
CAT-M1, eFDD 26 16QAM, high channel, 1.4 MHz, 5, conducted	S01_AB01	2023-12-10	Passed	Passed
CAT-M1, eFDD 26 16QAM, low channel, 1.4 MHz, 5, conducted	S01_AE01	2023-10-30	Passed	Passed
CAT-M1, eFDD 26 16QAM, mid channel, 1.4 MHz, 5, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 26 QPSK, high channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 26 QPSK, low channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed
CAT-M1, eFDD 26 QPSK, mid channel, 1.4 MHz, 6, conducted	S01_AB01	2023-10-12	Passed	Passed

N/A: Not applicable
N/P: Not performed
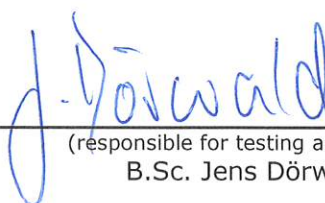
2 REVISION HISTORY / SIGNATURES

Report version control			
Version	**Release date**	**Change Description**	**Version validity**
initial	2023-12-12	--	valid
--	--	--	--

COMMENT: -

_____
(responsible for accreditation scope)
Dipl.-Ing. Marco Kullik

_____
(responsible for testing and report)
B.Sc. Jens Dörwald

layers

7 layers GmbH, Borsigstr. 11
40880 Ratingen, Germany
Phone +49 (0)2102 749 0

3 ADMINISTRATIVE DATA

3.1 TESTING LABORATORY

Company Name: 7layers GmbH

Address: Borsigstr. 11
                                    40880 Ratingen
                                    Germany

The test facility is accredited by the following accreditation organisation:

Laboratory accreditation no: DAkkS D-PL-12140-01-01| -02 | -03

FCC Designation Number: DE0015

FCC Test Firm Registration: 929146

ISED CAB Identifier   DE0007; ISED#: 3699A

Responsible for accreditation scope: Dipl.-Ing. Marco Kullik

Report Template Version: 2022-05-25

3.2 PROJECT DATA

Responsible for testing and report: B.Sc. Jens Dörwald

Employees who performed the tests: documented internally at 7Layers

Date of Report: 2023-12-12

Testing Period: 2023-08-22 to 2023-11-10

3.3 APPLICANT DATA

Company Name: u-blox AG

Address: Zürcherstrasse 68
                                     8800 Thalwil
                                     Switzerland

Contact Person: Mr. Giulio Comar

3.4 MANUFACTURER DATA

Company Name: please see Applicant Data
Address:
Contact Person:

4 TEST OBJECT DATA

4.1 GENERAL EUT DESCRIPTION

Kind of Device product description	LTE CAT-M1 / NB-IoT / EGPRS Module
Product name	LEXI-R422
Type	LEXI-R422
Declared EUT data by the supplier	
General product description	The EUT is LTE CAT-M1 / NB-IoT module. It supports the following relevant bands for FCC/ISED approval GSM/EDGE: 850 / 1900 CAT-M1: eFDD2 / LTE eFDD4 / eFDD5 / eFDD8 / eFDD12 / eFDD13 / eFDD25 / eFDD26 / eFDD66 NB-IoT: eFDD2 / LTE eFDD4 / eFDD5 / eFDD8 / eFDD12 / eFDD13 / eFDD66 / eFDD85
Voltage Level	3.8 V
Voltage Type	DC

4.2 EUT MAIN COMPONENTS

Sample Name	Sample Code	Description
aa01	DE1015179aa01	Standard Sample
Sample Parameter	**Value**	
Serial No.	356666490012406	
HW Version	UBX-427C00	
SW Version	01.25,A01.11	
Comment	-	

Sample Name	Sample Code	Description
ab01	DE1015179ab01	RF Sample
Sample Parameter	**Value**	
Serial No.	356666490012588	
HW Version	UBX-427C00	
SW Version	01.25,A01.11	
Comment	-	

Sample Name	Sample Code	Description
ae01	DE1015179ae01	Standard Sample
Sample Parameter	**Value**	
Serial No.	356666490012422	
HW Version	UBX-427C00	
SW Version	01.25,A01.11	
Comment	-	

Sample Name	Sample Code	Description
ag01	DE1015179ag01	Standard Sample
Sample Parameter	**Value**	
Serial No.	356666490012836	
HW Version	UBX-427C00	
SW Version	01.25,A01.11	
Comment	-	

NOTE:The short description is used to simplify the identification of the EUT in this test report.

4.3   ANCILLARY EQUIPMENT

For the purposes of this test report, ancillary equipment is defined as equipment which is used in conjunction with the EUT to provide operational and control features to the EUT. It is necessary to configure the system in a typical fashion, as a customer would normally use it. But nevertheless Ancillary Equipment can influence the test results.

Device	Details (Manufacturer, Type Model, OUT Code)	Description
-	-	-

4.4   AUXILIARY EQUIPMENT

For the purposes of this test report, auxiliary equipment is defined as equipment which is used temporarily to enable operational and control features especially used for the tests of the EUT which is not used during normal operation or equipment that is used during the tests in combination with the EUT but is not subject of this test report. It is necessary to configure the system in a typical fashion, as a customer would normally use it.
But nevertheless Auxiliary Equipment can influence the test results.

Device	Details (Manufacturer, Type Model, HW, SW, S/N)	Description
-	-	-

4.5   EUT SETUPS

This chapter describes the combination of EUTs and equipment used for testing. The rationale for selecting the EUTs, ancillary and auxiliary equipment and interconnecting cables, is to test a representative configuration meeting the requirements of the referenced standards.

Setup	Combination of EUTs	Description and Rationale
S01_AE01	ae01	RF-sample
S01_AB01	ab01	RF-sample
S01_AG01	ag01	RF-sample
S01_AA01	aa01	RF-sample

4.6 OPERATING MODES / TEST CHANNELS

This chapter describes the operating modes of the EUTs used for testing.

GSM / EDGE 850		LOW	MID	HIGH
	Cell BW [MHz]	0.2	0.2	0.2
	CH no.	128	190	251
	f [MHz]	824.2	836.6	848.8

GSM / EDGE 1900		LOW	MID	HIGH
	Cell BW [MHz]	0.2	0.2	0.2
	CH no.	512	661	810
	f [MHz]	1850.2	1880.0	1909.8

CAT-M1 eFDD 2		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	1.4	1.4	1.4	3	3	3	5	5	5
	CH no.	18607	18900	19193	18615	18900	19185	18625	18900	19175
	f [MHz]	1850.7	1880.0	1909.3	1851.5	1880.0	1908.5	1852.5	1880.0	1907.5
		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	10	10	10	-	-	-	-	-	-
	CH no.	18650	18900	19150	-	-	-	-	-	-
	f [MHz]	1855.0	1880.0	1905.0	-	-	-	-	-	-

CAT-M1 eFDD 4		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	1.4	1.4	1.4	3	3	3	5	5	5
	CH no.	19957	20175	20393	19965	20175	20385	19975	20175	20375
	f [MHz]	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	10	10	10	-	-	-	-	-	-
	CH no.	20000	20175	20350	-	-	-	-	-	-
	f [MHz]	1715.0	1732.5	1750.0	-	-	-	-	-	-

CAT-M1 eFDD 5		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	1.4	1.4	1.4	3	3	3	5	5	5
	CH no.	20407	20525	20643	20415	20525	20635	20425	20525	20625
	f [MHz]	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	10	10	10	-	-	-	-	-	-
	CH no.	20450	20525	20600	-	-	-	-	-	-
	f [MHz]	829.0	836.5	844.0	-	-	-	-	-	-

CAT-M1 eFDD 8		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	1.4	1.4	1.4	-	3	-	-	-	-
	CH no.	21632	21640	21648	-	20525	-	-	-	-
	f [MHz]	898.2	899.0	899.8	-	899.0	-	-	-	-
		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	-	-	-	-	-	-	-	-	-
	CH no.	-	-	-	-	-	-	-	-	-
	f [MHz]	-	-	-	-	-	-	-	-	-

CAT-M1 eFDD 12		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	1.4	1.4	1.4	3	3	3	5	5	5
	CH no.	23017	23095	23173	23025	23095	23165	23035	23095	23155
	f [MHz]	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	10	10	10	-	-	-	-	-	-
	CH no.	23060	23095	23130	-	-	-	-	-	-
	f [MHz]	704.0	707.5	711.0	-	-	-	-	-	-

CAT-M1 eFDD 13		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	5	5	5	10	10	10	-	-	-
	CH no.	23205	23230	23255	-	23230	-	-	-	-
	f [MHz]	779.5	782.0	784.5	-	782.0	-	-	-	-
		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	-	-	-	-	-	-	-	-	-
	CH no.	-	-	-	-	-	-	-	-	-
	f [MHz]	-	-	-	-	-	-	-	-	-

CAT-M1 eFDD 25		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	1.4	1.4	1.4	3	3	3	5	5	5
	CH no.	26047	26365	26683	26055	26365	26675	26065	26365	26665
	f [MHz]	1850.7	1882.5	1914.3	1851.5	1882.5	1913.5	1852.5	1882.5	1912.5
		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	10	10	10	-	-	-	-	-	-
	CH no.	26090	26365	26640	-	-	-	-	-	-
	f [MHz]	1855.0	1882.5	1910.0	-	-	-	-	-	-

CAT-M1 eFDD 26 (Part 22)		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	1.4	1.4	1.4	3	3	3	5	5	5
	CH no.	26797	26915	27033	26805	26915	27025	26815	26915	27015
	f [MHz]	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	10	10	10	-	-	-	-	-	-
	CH no.	26840	26915	26990	-	-	-	-	-	-
	f [MHz]	829.0	836.5	844	-	-	-	-	-	-

CAT-M1 eFDD 26 (Part 90)		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	1.4	1.4	1.4	3	3	3	5	5	5
	CH no.	26697	26740	26783	26705	26740	26776	26715	26740	26766
	f [MHz]	814.7	819.0	823.3	815.5	819.0	822.5	816.5	819.0	821.5
		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	-	10	-	-	-	-	-	-	-
	CH no.	-	26740	-	-	-	-	-	-	-
	f [MHz]	-	819.0	-	-	-	-	-	-	-

CAT-M1 eFDD 66		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	1.4	1.4	1.4	3	3	3	5	5	5
	CH no.	131979	132322	132665	131987	132322	132657	131997	132322	132647
	f [MHz]	1710.7	1745.0	1779.3	1711.5	1745.0	1778.5	1712.5	1745.0	1777.5
		LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
	Cell BW [MHz]	10	10	10	-	-	-	-	-	-
	CH no.	132022	132322	132622	-	-	-	-	-	-
	f [MHz]	1715.0	1745.0	1775.0	-	-	-	-	-	-

NB-IoT eFDD 2		LOW	MID	HIGH
	Cell BW [MHz]	0.2	0.2	0.2
	CH no.	18601	18900	19199
	f [MHz]	1850.1	1880.0	1909.9

NB-IoT eFDD 4		LOW	MID	HIGH
	Cell BW [MHz]	0.2	0.2	0.2
	CH no.	19951	20175	20399
	f [MHz]	1710.1	1745.5	1754.9

NB-IoT eFDD 5		LOW	MID	HIGH
	Cell BW [MHz]	0.2	0.2	0.2
	CH no.	20401	20525	20649
	f [MHz]	824.1	836.5	848.9

NB-IoT eFDD 8		LOW	MID	HIGH
	Cell BW [MHz]	0.2	0.2	0.2
	CH no.	21626	21640	21654
	f [MHz]	897.6	899.0	900.4

NB-IoT eFDD 12		LOW	MID	HIGH
	Cell BW [MHz]	0.2	0.2	0.2
	CH no.	23011	23095	23178
	f [MHz]	699.1	707.5	715.8

NB-IoT eFDD 13		LOW	MID	HIGH
	Cell BW [MHz]	0.2	0.2	0.2
	CH no.	23181	23230	23279
	f [MHz]	777.1	782.0	786.9

NB-IoT eFDD 66		LOW	MID	HIGH
	Cell BW [MHz]	0.2	0.2	0.2
	CH no.	131973	132322	132671
	f [MHz]	1710.1	1745.0	1779.9

NB-IoT eFDD 85		LOW	MID	HIGH
	Cell BW [MHz]	0.2	0.2	0.2
	CH no.	134004	134092	134180
	f [MHz]	698.2	707.0	715.8

4.7   PRODUCT LABELLING

4.7.1   FCC ID LABEL

Please refer to the documentation of the applicant.

4.7.2   LOCATION OF THE LABEL ON THE EUT

Please refer to the documentation of the applicant.

5 TEST RESULTS
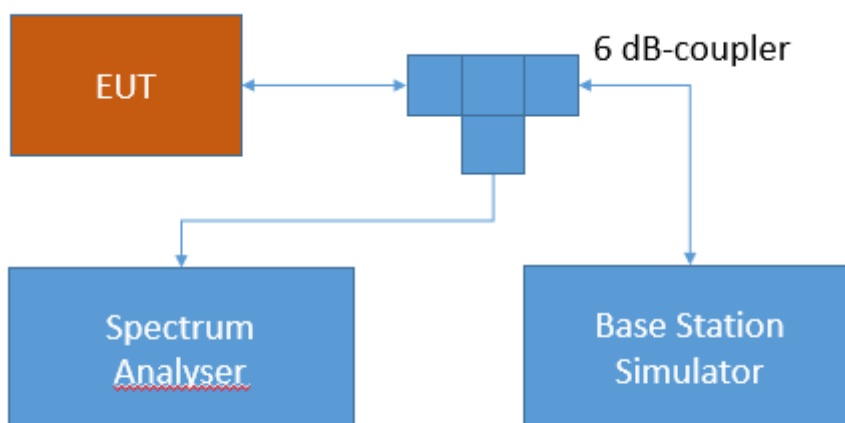
5.1 RF OUTPUT POWER

Standard **FCC PART 22 Subpart H**

The test was performed according to:
ANSI C63.26: 2015; 5.2.4.1 Narrowband Signal: 5.2.4.3.3

5.1.1 TEST DESCRIPTION

This test case is intended to demonstrate compliance to the applicable RF Output power test case per § 2.1046 and RSS-GEN 6.12. The limit and the requirements come from the applicable rule part and ISED RSS-Standard for the operating band of the cellular device.

The EUT was connected to the test setup according to the following diagram:

Test Setup FCC Part 22/24/27/90 Cellular;
RF Output power

The attenuation of the measuring and stimulus path are known for each measured frequency and are considered.

The Spectrum Analyzer settings can be directly found in the measurement diagrams.

5.1.2 TEST REQUIREMENTS / LIMITS

FCC Part 22, § 22.913

(a) *Maximum ERP.* The ERP of transmitters in the Cellular Radiotelephone Service must not exceed the limits in this section.

(5) The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

RSS-132; 5.4 Transmitter Output Power and Equivalent Isotropically Radiated Power

The transmitter output power shall be measured in terms of average power. The equivalent radiated power (e.r.p.) shall not exceed 7 watts for mobile equipment and 3 watts for portable equipment.

5.1.3 TEST PROTOCOL

Ambient temperature: 20 - 28 °C
Relative humidity: 30 - 40 %

Radio Technology	Channel	Resource Blocks / Subcarrier	Band-width [MHz]	Peak Cond. Power [dBm]	Average Cond. Power [dBm]	RMS Cond. Power [dBm]	FCC ERP Limit [W]	IC ERP Limit [W]	Max. Antenna Gain FCC [dBd]	Max. Antenna Gain IC [dBd]
GSM 850	low	-	0.2	31.94	31.28	31.43	7.0	7	7.03	7.03
GSM 850	mid	-	0.2	31.93	31.29	31.39	7	7	7.07	7.07
GSM 850	high	-	0.2	31.94	31.31	31.42	7	7	7.04	7.04
GSM 850 EDGE	low	-	0.2	29.26	26.33	26.67	7	7	11.79	11.79
GSM 850 EDGE	mid	-	0.2	29.26	26.14	26.56	7	7	11.90	11.90
GSM 850 EDGE	high	-	0.2	29.26	26.22	26.69	7	7	11.77	11.77
CAT-M1 eFDD 5 QPSK	low	1	1.4	-	-	22.88	7	7	15.58	15.58
CAT-M1 eFDD 5 QPSK	low	3	1.4	-	-	21.85	7	7	16.61	16.61
CAT-M1 eFDD 5 QPSK	low	6	1.4	-	-	20.88	7	7	17.58	17.58
CAT-M1 eFDD 5 QPSK	mid	1	1.4	-	-	22.91	7	7	15.55	15.55
CAT-M1 eFDD 5 QPSK	mid	3	1.4	-	-	21.85	7	7	16.61	16.61
CAT-M1 eFDD 5 QPSK	mid	6	1.4	-	-	20.78	7	7	17.68	17.68
CAT-M1 eFDD 5 QPSK	high	1	1.4	-	-	22.84	7	7	15.62	15.62
CAT-M1 eFDD 5 QPSK	high	3	1.4	-	-	21.86	7	7	16.60	16.60
CAT-M1 eFDD 5 QPSK	high	6	1.4	-	-	20.76	7	7	17.70	17.70
CAT-M1 eFDD 5 16QAM	low	1	1.4	-	-	21.67	7	7	16.79	16.79
CAT-M1 eFDD 5 16QAM	low	5	1.4	-	-	20.77	7	7	17.69	17.69
CAT-M1 eFDD 5 16QAM	mid	1	1.4	-	-	21.90	7	7	16.56	16.56
CAT-M1 eFDD 5 16QAM	mid	5	1.4	-	-	20.75	7	7	17.71	17.71
CAT-M1 eFDD 5 16QAM	high	1	1.4	-	-	21.72	7	7	16.74	16.74
CAT-M1 eFDD 5 16QAM	high	5	1.4	-	-	20.76	7	7	17.70	17.70
CAT-M1 eFDD 5 QPSK	low	1	3	-	-	22.92	7	7	15.54	15.54
CAT-M1 eFDD 5 QPSK	low	3	3	-	-	21.80	7	7	16.66	16.66
CAT-M1 eFDD 5 QPSK	low	6	3	-	-	20.88	7	7	17.58	17.58
CAT-M1 eFDD 5 QPSK	mid	1	3	-	-	22.88	7	7	15.58	15.58
CAT-M1 eFDD 5 QPSK	mid	3	3	-	-	21.81	7	7	16.65	16.65
CAT-M1 eFDD 5 QPSK	mid	6	3	-	-	20.71	7	7	17.75	17.75
CAT-M1 eFDD 5 QPSK	high	1	3	-	-	22.80	7	7	15.66	15.66
CAT-M1 eFDD 5 QPSK	high	3	3	-	-	21.79	7	7	16.67	16.67
CAT-M1 eFDD 5 QPSK	high	6	3	-	-	20.69	7	7	17.77	17.77
CAT-M1 eFDD 5 16QAM	low	1	3	-	-	21.71	7	7	16.75	16.75
CAT-M1 eFDD 5 16QAM	low	5	3	-	-	20.73	7	7	17.73	17.73
CAT-M1 eFDD 5 16QAM	mid	1	3	-	-	21.85	7	7	16.61	16.61
CAT-M1 eFDD 5 16QAM	mid	5	3	-	-	20.71	7	7	17.75	17.75
CAT-M1 eFDD 5 16QAM	high	1	3	-	-	21.71	7	7	16.75	16.75
CAT-M1 eFDD 5 16QAM	high	5	3	-	-	20.72	7	7	17.74	17.74
CAT-M1 eFDD 5 QPSK	low	1	5	-	-	22.92	7	7	15.54	15.54
CAT-M1 eFDD 5 QPSK	low	3	5	-	-	21.76	7	7	16.70	16.70
CAT-M1 eFDD 5 QPSK	low	6	5	-	-	21.80	7	7	16.66	16.66
CAT-M1 eFDD 5 QPSK	mid	1	5	-	-	22.81	7	7	15.65	15.65
CAT-M1 eFDD 5 QPSK	mid	3	5	-	-	21.80	7	7	16.66	16.66
CAT-M1 eFDD 5 QPSK	mid	6	5	-	-	21.72	7	7	16.74	16.74
CAT-M1 eFDD 5 QPSK	high	1	5	-	-	22.80	7	7	15.66	15.66
CAT-M1 eFDD 5 QPSK	high	3	5	-	-	21.77	7	7	16.69	16.69
CAT-M1 eFDD 5 QPSK	high	6	5	-	-	21.69	7	7	16.77	16.77
CAT-M1 eFDD 5 16QAM	low	1	5	-	-	22.60	7	7	15.86	15.86
CAT-M1 eFDD 5 16QAM	low	5	5	-	-	20.71	7	7	17.75	17.75
CAT-M1 eFDD 5 16QAM	mid	1	5	-	-	22.83	7	7	15.63	15.63
CAT-M1 eFDD 5 16QAM	mid	5	5	-	-	20.71	7	7	17.75	17.75
CAT-M1 eFDD 5 16QAM	high	1	5	-	-	22.61	7	7	15.85	15.85
CAT-M1 eFDD 5 16QAM	high	5	5	-	-	20.70	7	7	17.76	17.76
CAT-M1 eFDD 5 QPSK	low	1	10	-	-	22.92	7	7	15.54	15.54
CAT-M1 eFDD 5 QPSK	low	3	10	-	-	22.79	7	7	15.67	15.67
CAT-M1 eFDD 5 QPSK	low	6	10	-	-	21.75	7	7	16.71	16.71
CAT-M1 eFDD 5 QPSK	mid	1	10	-	-	22.90	7	7	15.56	15.56
CAT-M1 eFDD 5 QPSK	mid	3	10	-	-	22.70	7	7	15.76	15.76
CAT-M1 eFDD 5 QPSK	mid	6	10	-	-	21.70	7	7	16.76	16.76
CAT-M1 eFDD 5 QPSK	high	1	10	-	-	22.46	7	7	16.00	16.00
CAT-M1 eFDD 5 QPSK	high	3	10	-	-	22.65	7	7	15.81	15.81
CAT-M1 eFDD 5 QPSK	high	6	10	-	-	21.68	7	7	16.78	16.78
CAT-M1 eFDD 5 16QAM	low	1	10	-	-	22.63	7	7	15.83	15.83
CAT-M1 eFDD 5 16QAM	low	5	10	-	-	21.73	7	7	16.73	16.73
CAT-M1 eFDD 5 16QAM	mid	1	10	-	-	22.87	7	7	15.59	15.59
CAT-M1 eFDD 5 16QAM	mid	5	10	-	-	21.58	7	7	16.88	16.88
CAT-M1 eFDD 5 16QAM	high	1	10	-	-	22.31	7	7	16.15	16.15
CAT-M1 eFDD 5 16QAM	high	5	10	-	-	21.60	7	7	16.86	16.86
CAT-M1 eFDD 26 QPSK	low	1	1.4	-	-	22.85	7	7	15.61	15.61
CAT-M1 eFDD 26 QPSK	low	3	1.4	-	-	21.93	7	7	16.53	16.53
CAT-M1 eFDD 26 QPSK	low	6	1.4	-	-	20.98	7	7	17.48	17.48

CAT-M1 eFDD 26 QPSK	mid	1	1.4	-	-	22.82	7	7	15.64	15.64
CAT-M1 eFDD 26 QPSK	mid	3	1.4	-	-	21.92	7	7	16.54	16.54
CAT-M1 eFDD 26 QPSK	mid	6	1.4	-	-	21.00	7	7	17.46	17.46
CAT-M1 eFDD 26 QPSK	high	1	1.4	-	-	22.70	7	7	15.76	15.76
CAT-M1 eFDD 26 QPSK	high	3	1.4	-	-	22.02	7	7	16.44	16.44
CAT-M1 eFDD 26 QPSK	high	6	1.4	-	-	20.98	7	7	17.48	17.48
CAT-M1 eFDD 26 16QAM	low	1	1.4	-	-	22.00	7	7	16.46	16.46
CAT-M1 eFDD 26 16QAM	low	5	1.4	-	-	20.89	7	7	17.57	17.57
CAT-M1 eFDD 26 16QAM	mid	1	1.4	-	-	21.90	7	7	16.56	16.56
CAT-M1 eFDD 26 16QAM	mid	5	1.4	-	-	20.94	7	7	17.52	17.52
CAT-M1 eFDD 26 16QAM	high	1	1.4	-	-	22.00	7	7	16.46	16.46
CAT-M1 eFDD 26 16QAM	high	5	1.4	-	-	20.98	7	7	17.48	17.48
CAT-M1 eFDD 26 QPSK	low	1	3	-	-	23.02	7	7	15.44	15.44
CAT-M1 eFDD 26 QPSK	low	3	3	-	-	21.80	7	7	16.66	16.66
CAT-M1 eFDD 26 QPSK	low	6	3	-	-	20.99	7	7	17.47	17.47
CAT-M1 eFDD 26 QPSK	mid	1	3	-	-	23.03	7	7	15.43	15.43
CAT-M1 eFDD 26 QPSK	mid	3	3	-	-	21.94	7	7	16.52	16.52
CAT-M1 eFDD 26 QPSK	mid	6	3	-	-	20.94	7	7	17.52	17.52
CAT-M1 eFDD 26 QPSK	high	1	3	-	-	22.97	7	7	15.49	15.49
CAT-M1 eFDD 26 QPSK	high	3	3	-	-	21.91	7	7	16.55	16.55
CAT-M1 eFDD 26 QPSK	high	6	3	-	-	20.89	7	7	17.57	17.57
CAT-M1 eFDD 26 16QAM	low	1	3	-	-	21.88	7	7	16.58	16.58
CAT-M1 eFDD 26 16QAM	low	5	3	-	-	20.73	7	7	17.73	17.73
CAT-M1 eFDD 26 16QAM	mid	1	3	-	-	21.88	7	7	16.58	16.58
CAT-M1 eFDD 26 16QAM	mid	5	3	-	-	20.86	7	7	17.60	17.60
CAT-M1 eFDD 26 16QAM	high	1	3	-	-	21.89	7	7	16.57	16.57
CAT-M1 eFDD 26 16QAM	high	5	3	-	-	20.78	7	7	17.68	17.68
CAT-M1 eFDD 26 QPSK	low	1	5	-	-	23.08	7	7	15.38	15.38
CAT-M1 eFDD 26 QPSK	low	3	5	-	-	21.93	7	7	16.53	16.53
CAT-M1 eFDD 26 QPSK	low	6	5	-	-	21.92	7	7	16.54	16.54
CAT-M1 eFDD 26 QPSK	mid	1	5	-	-	22.99	7	7	15.47	15.47
CAT-M1 eFDD 26 QPSK	mid	3	5	-	-	21.93	7	7	16.53	16.53
CAT-M1 eFDD 26 QPSK	mid	6	5	-	-	21.85	7	7	16.61	16.61
CAT-M1 eFDD 26 QPSK	high	1	5	-	-	22.97	7	7	15.49	15.49
CAT-M1 eFDD 26 QPSK	high	3	5	-	-	21.95	7	7	16.51	16.51
CAT-M1 eFDD 26 QPSK	high	6	5	-	-	21.86	7	7	16.60	16.60
CAT-M1 eFDD 26 16QAM	low	1	5	-	-	23.13	7	7	15.33	15.33
CAT-M1 eFDD 26 16QAM	low	5	5	-	-	20.88	7	7	17.58	17.58
CAT-M1 eFDD 26 16QAM	mid	1	5	-	-	22.87	7	7	15.59	15.59
CAT-M1 eFDD 26 16QAM	mid	5	5	-	-	20.87	7	7	17.59	17.59
CAT-M1 eFDD 26 16QAM	high	1	5	-	-	23.14	7	7	15.32	15.32
CAT-M1 eFDD 26 16QAM	high	5	5	-	-	20.94	7	7	17.52	17.52
CAT-M1 eFDD 26 QPSK	low	1	10	-	-	23.06	7	7	15.40	15.40
CAT-M1 eFDD 26 QPSK	low	3	10	-	-	22.81	7	7	15.65	15.65
CAT-M1 eFDD 26 QPSK	low	6	10	-	-	21.77	7	7	16.69	16.69
CAT-M1 eFDD 26 QPSK	mid	1	10	-	-	23.12	7	7	15.34	15.34
CAT-M1 eFDD 26 QPSK	mid	3	10	-	-	22.93	7	7	15.53	15.53
CAT-M1 eFDD 26 QPSK	mid	6	10	-	-	21.82	7	7	16.64	16.64
CAT-M1 eFDD 26 QPSK	high	1	10	-	-	22.68	7	7	15.78	15.78
CAT-M1 eFDD 26 QPSK	high	3	10	-	-	22.93	7	7	15.53	15.53
CAT-M1 eFDD 26 QPSK	high	6	10	-	-	21.86	7	7	16.60	16.60
CAT-M1 eFDD 26 16QAM	low	1	10	-	-	22.84	7	7	15.62	15.62
CAT-M1 eFDD 26 16QAM	low	5	10	-	-	21.75	7	7	16.71	16.71
CAT-M1 eFDD 26 16QAM	mid	1	10	-	-	23.17	7	7	15.29	15.29
CAT-M1 eFDD 26 16QAM	mid	5	10	-	-	21.82	7	7	16.64	16.64
CAT-M1 eFDD 26 16QAM	high	1	10	-	-	22.64	7	7	15.82	15.82
CAT-M1 eFDD 26 16QAM	high	5	10	-	-	21.83	7	7	16.63	16.63
NB-IoT eFDD 5 QPSK	low	1	0.2	-	-	22.01	7	7	16.45	16.45
NB-IoT eFDD 5 QPSK	low	3	0.2	-	-	21.43	7	7	17.03	17.03
NB-IoT eFDD 5 QPSK	low	6	0.2	-	-	21.22	7	7	17.24	17.24
NB-IoT eFDD 5 QPSK	low	12	0.2	-	-	20.43	7	7	18.03	18.03
NB-IoT eFDD 5 QPSK	mid	1	0.2	-	-	21.85	7	7	16.61	16.61
NB-IoT eFDD 5 QPSK	mid	3	0.2	-	-	21.28	7	7	17.18	17.18
NB-IoT eFDD 5 QPSK	mid	6	0.2	-	-	21.21	7	7	17.25	17.25
NB-IoT eFDD 5 QPSK	mid	12	0.2	-	-	20.39	7	7	18.07	18.07
NB-IoT eFDD 5 QPSK	high	1	0.2	-	-	21.77	7	7	16.69	16.69
NB-IoT eFDD 5 QPSK	high	3	0.2	-	-	21.27	7	7	17.19	17.19
NB-IoT eFDD 5 QPSK	high	6	0.2	-	-	21.20	7	7	17.26	17.26
NB-IoT eFDD 5 QPSK	high	12	0.2	-	-	20.35	7	7	18.11	18.11
NB-IoT eFDD 5 BPSK	low	1	0.2	-	-	21.81	7	7	16.65	16.65
NB-IoT eFDD 5 BPSK	mid	1	0.2	-	-	21.61	7	7	16.85	16.85
NB-IoT eFDD 5 BPSK	high	1	0.2	-	-	21.65	7	7	16.81	16.81

Remark: Please see next sub-clause for the measurement plot.

COMMENT: The max. antenna gain is regarding the output power not SAR / MPE.
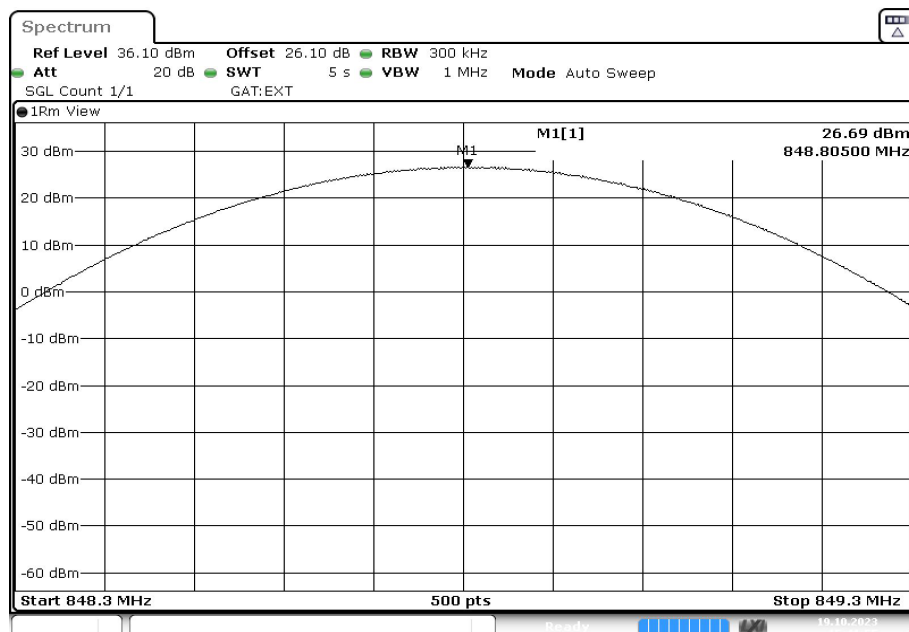
5.1.4 MEASUREMENT PLOT (EXAMPLE PLOT, SHOWING WORST CASE, IF APPLICABLE)

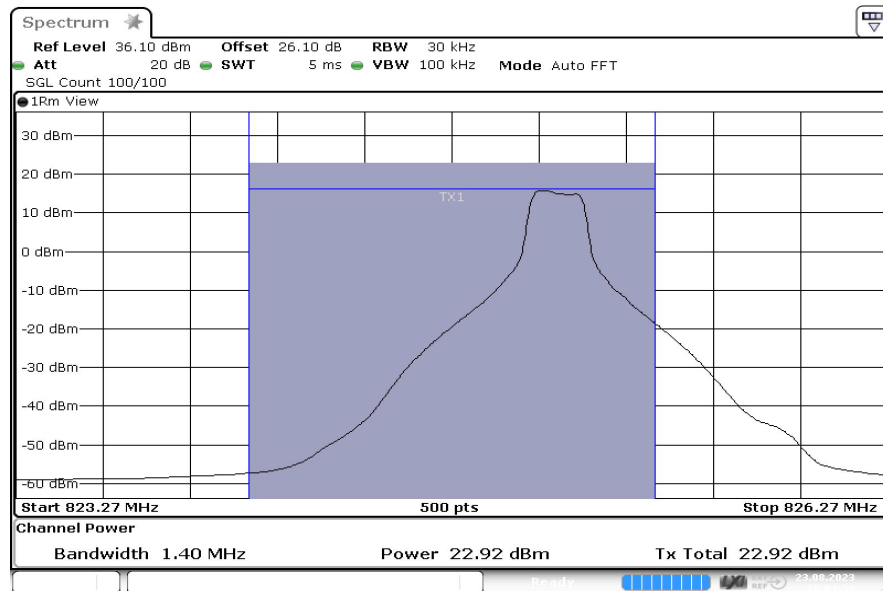Technology = GSM, Radio Technology = GSM 850, Operating Frequency = low channel (S01_AE01)
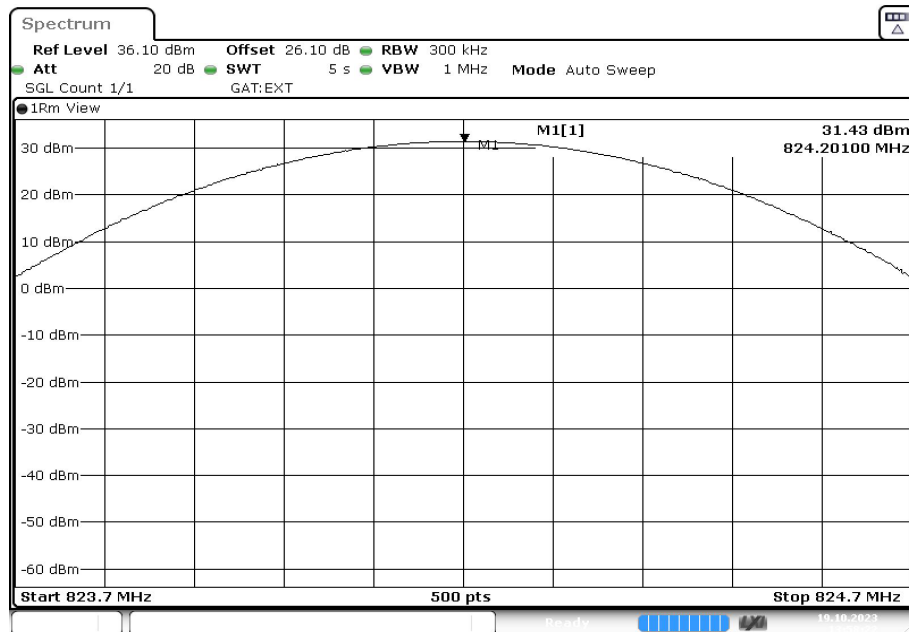
Date: 19.OCT.2023 13:58:22

Technology = GSM, Radio Technology = GSM 850 EDGE, Operating Frequency = high channel (S01_AE01)


Date: 19.OCT.2023 15:41:55

Technology = CAT-M1, Radio Technology = eFDD 5 16QAM, Operating Frequency = low channel, ChBW = 10 MHz, Ressource Blocks = 1
(S01_AB01)

Date: 23.AUG.2023 10:03:57

Technology = CAT-M1, Radio Technology = eFDD 26 16QAM, Operating Frequency = mid channel, ChBW = 10 MHz, Ressource Blocks = 1
(S01_AB01)
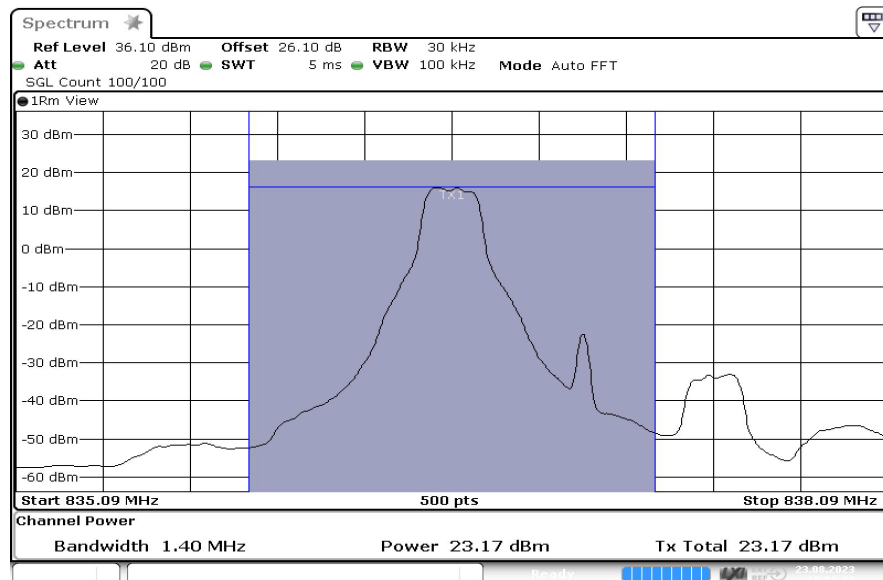
Date: 23.AUG.2023 10:58:01

CAT-M1 eFDD26 10MHz 16QAM RBs=1 Channel=mid

Technology = NB-IoT, Radio Technology = eFDD 5 BPSK, Operating Frequency = mid channel,
ChBW = 0.2 MHz, Ressource Blocks = 1
(S01_AB01)

Date: 2.NOV.2023 08:39:28
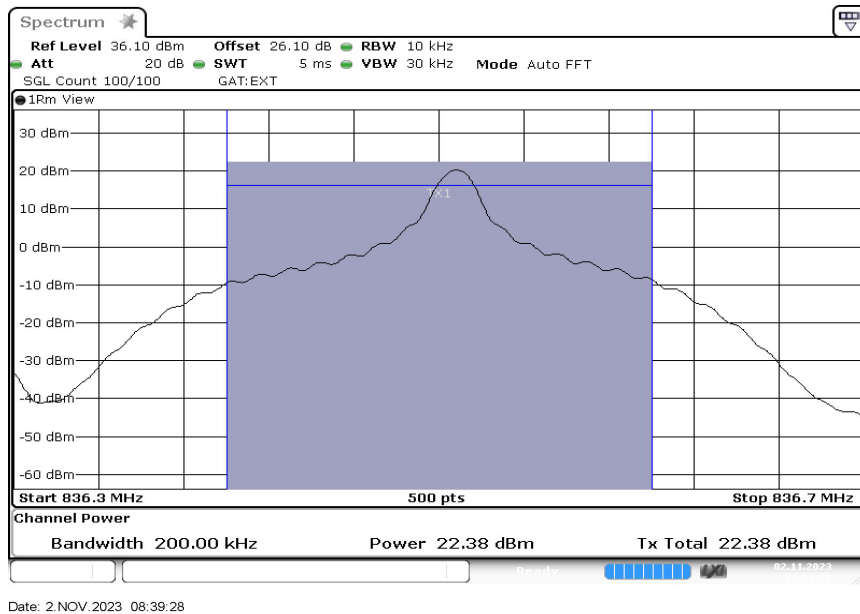
5.1.5   TEST EQUIPMENT USED
- Radio Lab

5.2 FREQUENCY STABILITY

Standard **FCC PART 22 Subpart H**

The test was performed according to:
ANSI C63.26: 2015; 5.6

5.2.1 TEST DESCRIPTION

This test case is intended to demonstrate compliance to the applicable frequency stability test case per § 2.1055 and RSS-GEN 6.11. The limit and the requirements come from the applicable rule part and ISED RSS-Standard for the operating band of the cellular device.

The EUT was connected to the test setup according to the following diagram:

Test Setup FCC Part 22/24/27/90 Cellular;
Frequency stability

The attenuation of the measuring / stimulus path is known for each measured frequency and are considered.

5.2.2 TEST REQUIREMENTS / LIMITS

FCC Part 22, § 22.355

Except as otherwise provided in this part, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table C-1 of this section.

Table C-1—Frequency Tolerance for Transmitters in the Public Mobile Services

Frequency Range [MHz]	Mobile Devices > 3 W [ppm]	Mobile Devices ≤ 3 W [ppm]
25 – 50	20.0	50.0
50 – 450	5.0	50.0
450 – 512	5.0	5.0

821 – 896	2.5	2.5
928 - 929	n/a	n/a
929 – 960	n/a	n/a
2110 - 2220	n/a	n/a

RSS-132; 5.3 Frequency Stability

The carrier frequency shall not depart from the reference frequency in excess of ±2.5 ppm for mobile stations.

In lieu of meeting the above stability values, the test report may show that the frequency stability is sufficient to ensure that the occupied bandwidth stays within each of the sub-bands (see Section 5.1) when tested to the temperature and supply voltage variations specified in RSS-Gen.

5.2.3 TEST PROTOCOL

GSM850

Temp. °C	Duration min	Voltage	Limit Hz	Freq. error Average (Hz)	Freq. error Max. (Hz)	Verdict
-30	0			3	8	passed
-30	5	normal	2095.5	5	8	passed
-30	10			6	7	passed
-20	0			4	7	passed
-20	5	normal	2095.5	3	8	passed
-20	10			7	9	passed
-10	0			5	6	passed
-10	5	normal	2095.5	3	7	passed
-10	10			4	5	passed
0	0			2	9	passed
0	5	normal	2095.5	3	10	passed
0	10			4	7	passed
10	0			4	6	passed
10	5	normal	2095.5	4	8	passed
10	10			6	7	passed
20	0			6	11	passed
20	5	low	2095.5	4	13	passed
20	10			8	13	passed
20	0			3	8	passed
20	5	high	2095.5	4	6	passed
20	10			4	9	passed
20	0			7	10	passed
20	5	high	2095.5	7	11	passed
20	10			6	9	passed
30	0			4	7	passed
30	5	normal	2095.5	2	7	passed
30	10			6	9	passed
40	0			5	8	passed
40	5	normal	2095.5	5	6	passed
40	10			4	7	passed
50	0			6	11	passed
50	5	normal	2095.5	4	9	passed
50	10			3	5	passed

EDGE850

Temp. °C	Duration min	Voltage	Limit Hz	Freq. error Average (Hz)	Freq. error Max. (Hz)	Verdict
-30	0			7	11	passed
-30	5	normal	2095.5	8	13	passed
-30	10			8	17	passed
-20	0			6	10	passed
-20	5	normal	2095.5	6	11	passed
-20	10			8	11	passed
-10	0			5	10	passed
-10	5	normal	2095.5	6	9	passed
-10	10			6	12	passed
0	0			7	9	passed
0	5	normal	2095.5	8	7	passed
0	10			5	13	passed
10	0			4	9	passed
10	5	normal	2095.5	6	12	passed
10	10			3	8	passed
20	0			2	7	passed
20	5	low	2095.5	1	7	passed
20	10			1	6	passed
20	0			3	6	passed
20	5	high	2095.5	5	12	passed
20	10			5	11	passed
20	0			2	5	passed
20	5	high	2095.5	3	6	passed
20	10			2	6	passed
30	0			4	9	passed
30	5	normal	2095.5	7	7	passed
30	10			6	8	passed
40	0			5	10	passed
40	5	normal	2095.5	9	11	passed
40	10			8	9	passed
50	0			6	8	passed
50	5	normal	2095.5	4	9	passed
50	10			7	12	passed

CAT-M1 eFDD5

Temp. °C	Duration min	Voltage	Limit Hz	Freq. error Average (Hz)	Freq. error Max. (Hz)	Verdict
-30	0	normal	2091.25	4	11	passed
-30	5			5	9	passed
-30	10			3	10	passed
-20	0	normal	2091.25	7	18	passed
-20	5			-9	14	passed
-20	10			7	16	passed
-10	0	normal	2091.25	6	-12	passed
-10	5			4	-13	passed
-10	10			5	10	passed
0	0	normal	2091.25	3	9	passed
0	5			1	5	passed
0	10			7	13	passed
10	0	normal	2091.25	-6	-12	passed
10	5			3	13	passed
10	10			8	19	passed
20	0	low	2091.25	-4	-10	passed
20	5			-6	-12	passed
20	10			-6	-13	passed
20	0	high	2091.25	7	-18	passed
20	5			5	-16	passed
20	10			5	14	passed
20	0	high	2091.25	4	12	passed
20	5			8	15	passed
20	10			7	16	passed
30	0	normal	2091.25	4	-10	passed
30	5			-9	-17	passed
30	10			-6	-13	passed
40	0	normal	2091.25	4	9	passed
40	5			7	9	passed
40	10			5	13	passed
50	0	normal	2091.25	6	-16	passed
50	5			6	-15	passed
50	10			7	-16	passed

NB-IoT eFDD5

Temp. °C	Duration min	Voltage	Limit Hz	Freq. error Average (Hz)	Freq. error Max. (Hz)	Verdict
-30	0			14	22	passed
-30	5	normal	2091.25	16	26	passed
-30	10			14	24	passed
-20	0			14	26	passed
-20	5	normal	2091.25	16	26	passed
-20	10			17	25	passed
-10	0			16	28	passed
-10	5	normal	2091.25	16	27	passed
-10	10			15	25	passed
0	0			19	27	passed
0	5	normal	2091.25	16	24	passed
0	10			18	22	passed
10	0			15	21	passed
10	5	normal	2091.25	18	26	passed
10	10			16	24	passed
20	0			10	18	passed
20	5	low	2091.25	9	16	passed
20	10			9	19	passed
20	0			14	19	passed
20	5	high	2091.25	16	23	passed
20	10			19	28	passed
20	0			12	18	passed
20	5	high	2091.25	9	20	passed
20	10			10	21	passed
30	0			17	27	passed
30	5	normal	2091.25	18	26	passed
30	10			18	29	passed
40	0			14	26	passed
40	5	normal	2091.25	16	27	passed
40	10			18	27	passed
50	0			15	29	passed
50	5	normal	2091.25	19	31	passed
50	10			16	30	passed

COMMENT: Frequency stability for CAT-M1 eFDD26 were tested for FCC Part 90

5.2.4   TEST EQUIPMENT USED

- Radio Lab

5.3 SPURIOUS EMISSIONS AT ANTENNA TERMINALS

Standard   **FCC PART 22 Subpart H**

The test was performed according to:
ANSI C63.26: 2015; 5.7.4

5.3.1 TEST DESCRIPTION

This test case is intended to demonstrate compliance to the applicable conducted spurious emission test case per § 2.1051 and RSS-GEN 6.13. The limit comes from the applicable rule part and ISED RSS-Standard for the operating band of the cellular device.

The EUT was connected to the test setup according to the following diagram:
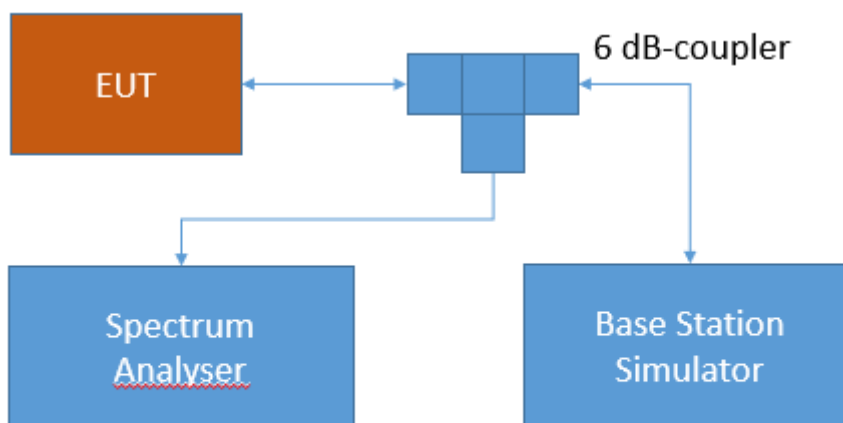
Test Setup FCC Part 22/24/27/90 Cellular;
Spurious Emissions at antenna terminal

The attenuation of the measuring and stimulus path are known for each measured frequency and are considered.

The Spectrum Analyzer settings can be directly found in the measurement diagrams.

5.3.2 TEST REQUIREMENTS / LIMITS

FCC Part 2.1051; Measurement required: Spurious emissions at antenna terminal:

The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated

under the conditions specified in §2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

Part 22, Subpart H – Cellular Radiotelephone Service

§22 917 – Emission limitations for cellular equipment

(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.

RSS-132; 5.5 Transmitter Unwanted Emissions

Mobile and base station equipment shall comply with the limits in (i) and (ii) below.

1. In the first 1.0 MHz band immediately outside and adjacent to each of the sub-bands specified in Section 5.1, the power of emissions per any 1% of the occupied bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 $\log_{10}$p (watts).

2. After the first 1.0 MHz immediately outside and adjacent to each of the sub-bands, the power of emissions in any 100 kHz bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least 43 + 10 $\log_{10}$ p (watts). If the measurement is performed using 1% of the occupied bandwidth, power integration over 100 kHz is required.

5.3.3   TEST PROTOCOL

Ambient temperature: 20 - 28 °C
Relative humidity: 30 - 40 %

Radio Technology	Channel	Detector	Trace	Resolution Bandwidth /kHz	Frequency /MHz	Peak Value /dBm	Limit /dBm	Margin to Limit /dB
GSM 850	low	rms	maxhold	3	824.0	-14.5	-13	1.50
GSM 850	mid	rms	maxhold	-	-	-	-13	> 20
GSM 850	high	rms	maxhold	3	849.0	-16.91	-13	3.91

Radio Technology	Channel	Detector	Trace	Resolution Bandwidth /kHz	Frequency /MHz	Peak Value /dBm	Limit /dBm	Margin to Limit /dB
EDGE 850	low	rms	maxhold	3	824.0	-25.05	-13	12.05
EDGE 850	mid	rms	maxhold	-	-	-	-13	> 20
EDGE 850	high	rms	maxhold	3	849.0	-23.41	-13	10.41

Radio Technology	Channel	Detector	Trace	Resolution Bandwidth /kHz	Frequency /MHz	Peak Value /dBm	Limit /dBm	Margin to Limit /dB
CAT-M1 eFDD 5	low	rms	maxhold	5	824.0	-42.14	-17.5	24.64
CAT-M1 eFDD 5	mid	rms	maxhold	-	-	-	-13	> 20
CAT-M1 eFDD 5	high	rms	maxhold	5	849.0	-45.89	-17.5	28.39

Radio Technology	Channel	Detector	Trace	Resolution Bandwidth /kHz	Frequency /MHz	Peak Value /dBm	Limit /dBm	Margin to Limit /dB
CAT-M1 eFDD 26	low	rms	maxhold	5	824.0	-41.63	-17.5	24.13
CAT-M1 eFDD 26	mid	rms	maxhold	-	-	-	-13	> 20
CAT-M1 eFDD 26	high	rms	maxhold	5	849.0	-45.28	-17.5	27.78

Radio Technology	Channel	Detector	Trace	Resolution Bandwidth /kHz	Frequency /MHz	Peak Value /dBm	Limit /dBm	Margin to Limit /dB
NB-IoT eFDD 5	low	rms	maxhold	2	824.0	-34.54	-13	21.54
NB-IoT eFDD 5	mid	rms	maxhold	-	-	-	-13	> 20
NB-IoT eFDD 5	high	rms	maxhold	2	849.0	-21.52	-13	8.52

Remark: Please see next sub-clause for the measurement plot.

5.3.4 MEASUREMENT PLOT (EXAMPLE PLOT, SHOWING WORST CASE, IF APPLICABLE)

Technology = GSM, Radio Technology = GSM 850, Operating Frequency = low channel (S01_AE01)
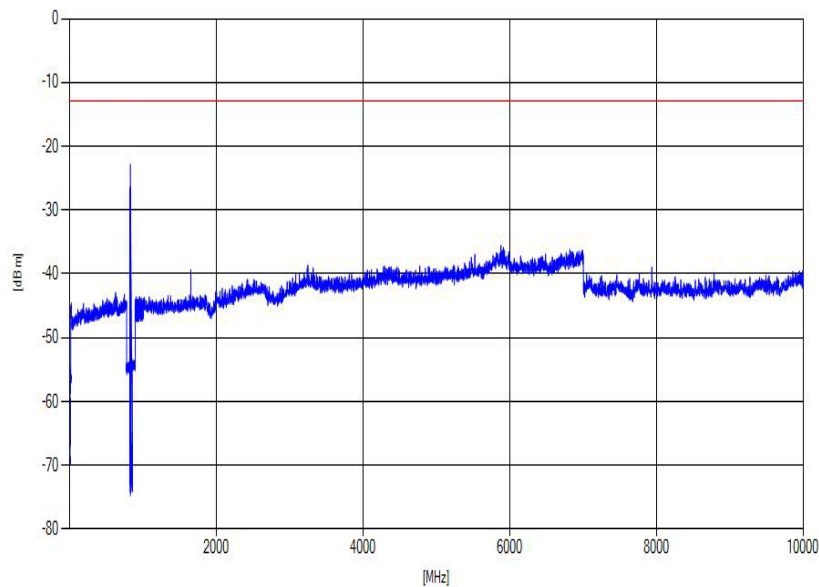
Technology = GSM, Radio Technology = GSM 850 EDGE, Operating Frequency = high channel
(S01_AE01)
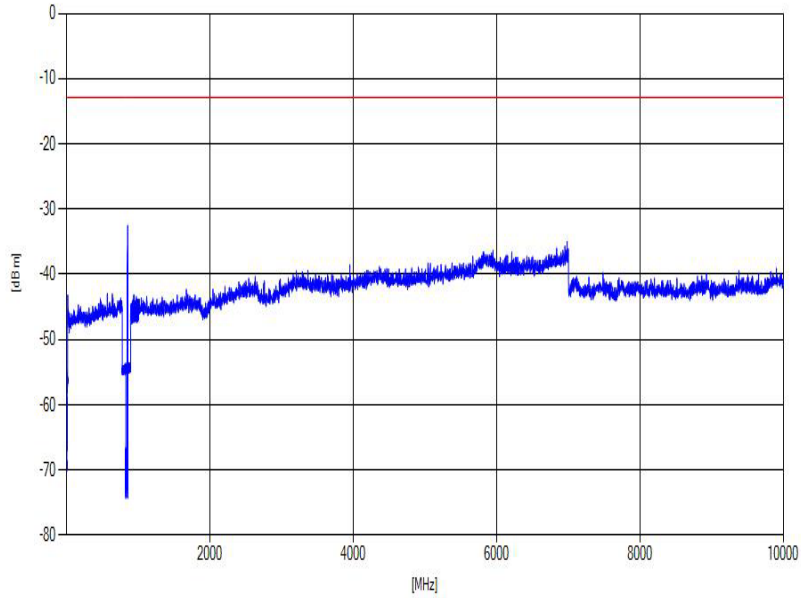
Technology = CAT-M1, Radio Technology = eFDD 26, Operating Frequency = low channel
(S01_AB01)
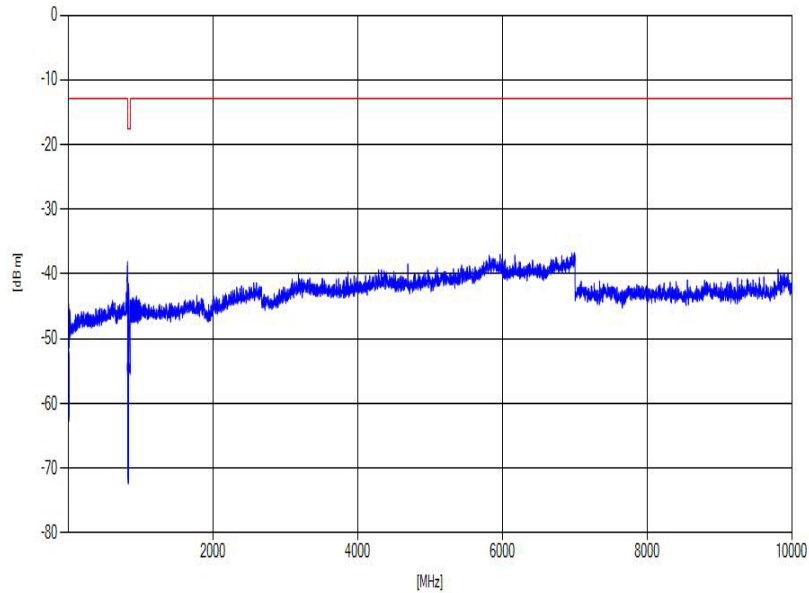
Technology = CAT-M1, Radio Technology = eFDD 5, Operating Frequency = low channel (S01_AB01)
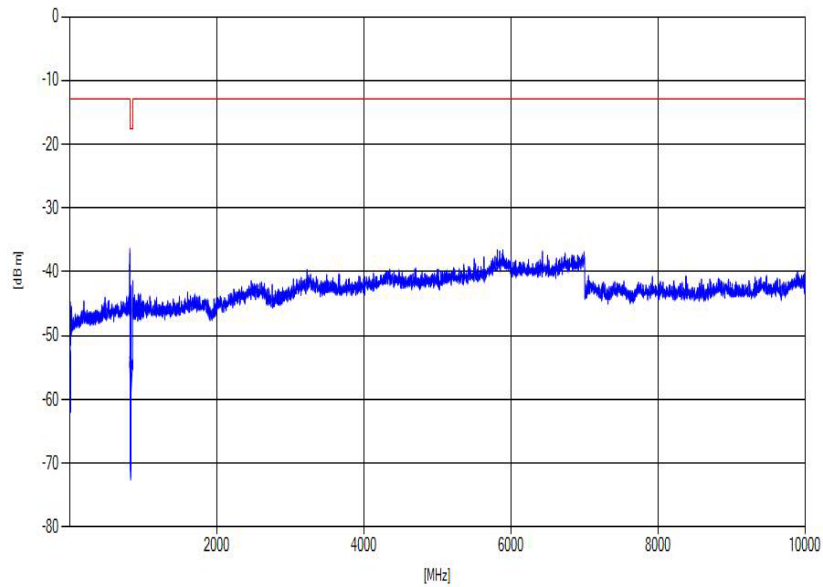
Technology = NB-IoT, Radio Technology = eFDD 5, Operating Frequency = low channel (S01_AE01)
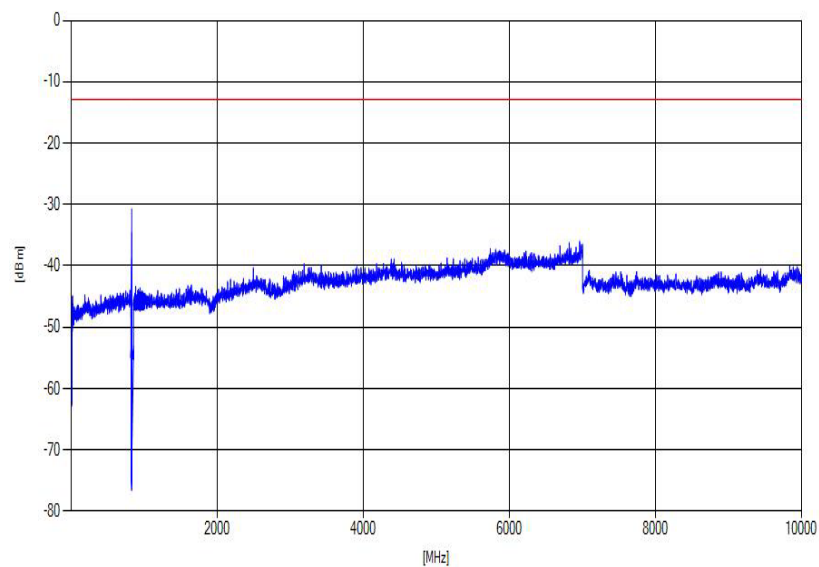
Test Equipment used
- Radio Lab

5.4   FIELD STRENGTH OF SPURIOUS RADIATION

Standard   **FCC PART 22 Subpart H**

The test was performed according to:
ANSI C63.26: 2015; 5.5.2.3.1

5.4.1   TEST DESCRIPTION

This test case is intended to demonstrate compliance to the applicable radiated spurious emission measurements per § 2.1053 and RSS-GEN 6.13. The limit and requirements come from the applicable rule part and ISED RSS-Standard for the operating band of the cellular device.

The EUT was connected to the test setup according to the following diagram:

Frequency Range: 30 MHz – 1 GHz:
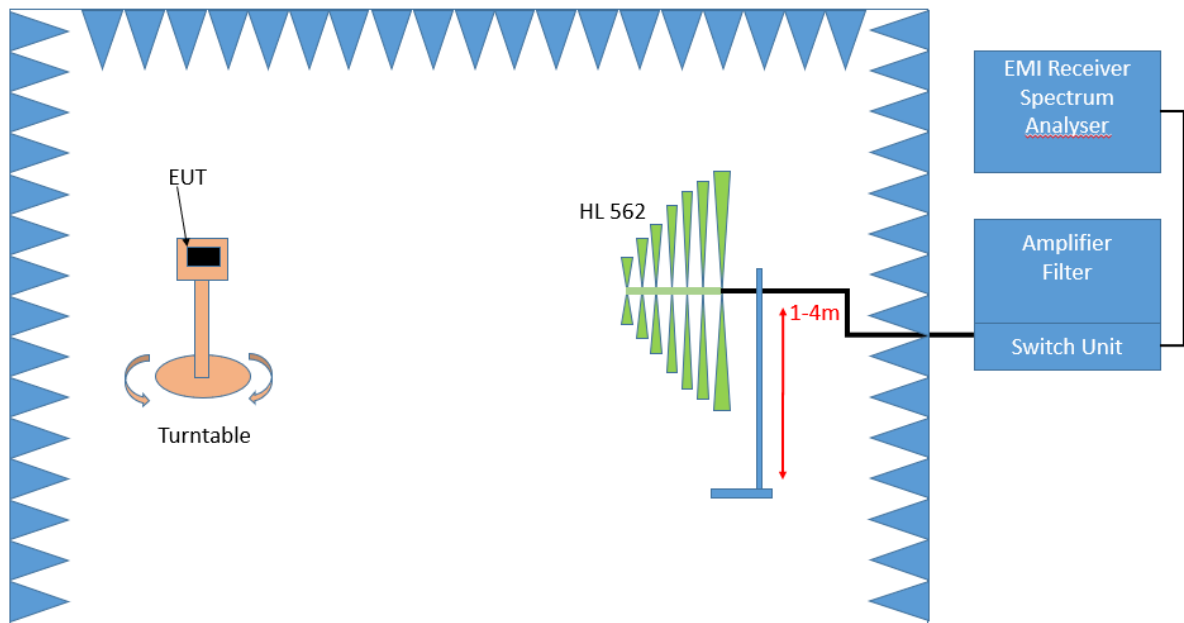
Test Setup; Spurious Emission Radiated (SAC), 30 MHz- 1GHz

Frequency Range: 1 GHz – 26.5 GHz
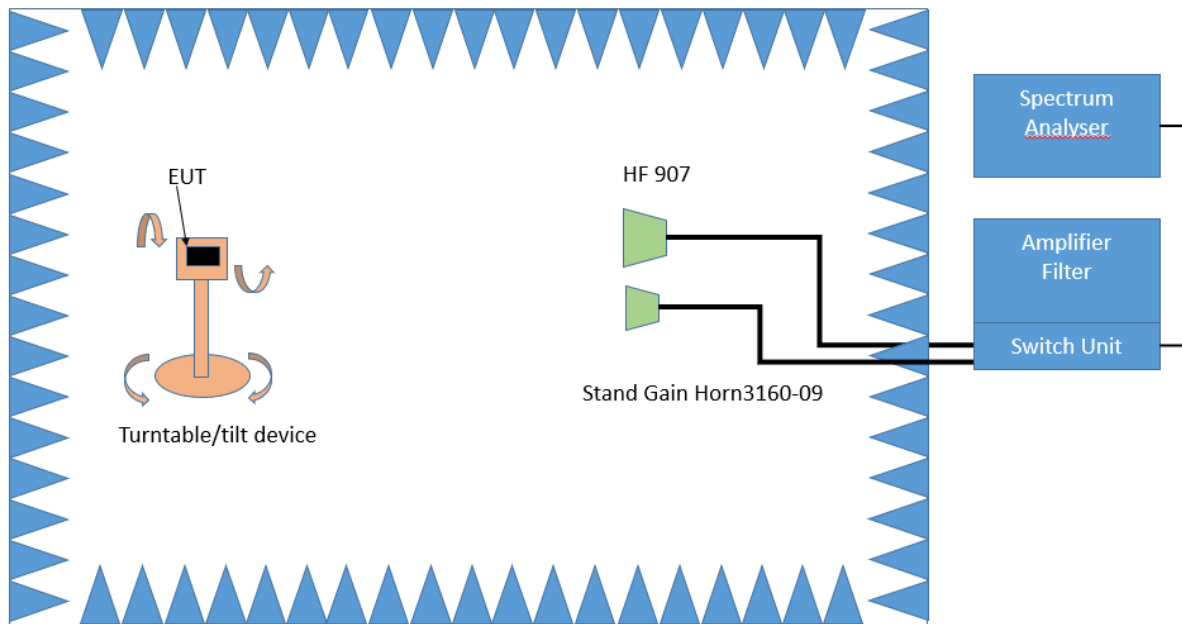
Test Setup; Spurious Emission Radiated (FAC), 1 GHz-26.5 GHz

The test set-up was made in accordance to the general provisions of ANSI C63.26 in a typical installation configuration. The Equipment Under Test (EUT) was set up on a non-conductive table 1.0 x 2.0 m² in the semi-anechoic chamber. The influence of the EUT support table that is used between 30–1000 MHz was evaluated.

The measurement procedure is implemented into the EMI test software EMC32 from R&S. Exploratory tests are performed at 3 orthogonal axes to determine the worst-case orientation of a body-worn or handheld EUT. The final test on all kind of EUTs is also performed at 3 axes. A pre-check is performed while the EUT is powered from a DC power source.

1. Measurement above 30 MHz and up to 1 GHz

Step 1: Preliminary scan
This is a preliminary test to identify the highest amplitudes relative to the limit.
Settings for step 1:
- Antenna distance: 3 m
- Detector: Peak
- RBW: 100 kHz
- VBW: 300 kHz
- Sweep time: coupled
- Turntable angle range: −180° to 90°
- Turntable step size: 90°
- Height variation range: 1 – 3 m
- Height variation step size: 2 m
- Polarisation: Horizontal + Vertical
Intention of this step is, to determine the radiated EMI-profile of the EUT. Afterwards the relevant emissions for the final measurement are identified.

Step 2: Adjustment measurement
In this step the accuracy of the turntable azimuth and antenna height will be improved. This is necessary to find out the maximum value of every frequency.
For each frequency, which was determined the turntable azimuth and antenna height will be adjusted. The turntable azimuth will slowly vary by ± 45° around this value. During this action, the value of emission is continuously measured. The turntable azimuth at the highest emission

will be recorded and adjusted. In this position, the antenna height will also slowly vary by ± 100 cm around the antenna height determined. During this action, the value of emission is also continuously measured. The antenna height of the highest emission will also be recorded and adjusted.
- Detector: Peak
- Measured frequencies: in step 1 determined frequencies
- RBW: 100 kHz
- VBW: 300 kHz
- Sweep time: coupled
- Turntable angle range: ± 45 ° around the determined value
- Height variation range: ± 100 cm around the determined value
- Antenna Polarisation: max. value determined in step 1

Step 3: Final measurement with RMS detector
With the settings determined in step 3, the final measurement will be performed:
EMI receiver settings for step 4:
- Detector: RMQ
- Measured frequencies: in step 1 determined frequencies
- RBW: 100 kHz
- VBW: 300 kHz
- Sweep time: 1 s

After the measurement a plot will be generated which contains a diagram with the results of the preliminary scan and a chart with the frequencies and values of the results of the final measurement.

3. Measurement above 1 GHz
The following modifications apply to the measurement procedure for the frequency range above 1 GHz:
Step 1:
The Equipment Under Test (EUT) was set up on a non-conductive support (tilt device) at 1.5 m height in the fully-anechoic chamber.
All steps were performed with one height (1.5 m) of the receiving antenna only.
The EUT is turned during the preliminary measurement across the elevation axis, with a step size of 90 °.
The turn table step size (azimuth angle) for the preliminary measurement is 45 °.
- Antenna distance: 3 m
- Detector: Peak
- RBW: 1 MHz
- VBW: 3 MHz
- Sweep time: coupled
- Turntable angle range: −180° to 90°
- Turntable step size: 90°
- Polarisation: Horizontal + Vertical

Step 2:
Due to the fact, that in this frequency range the test is performed in a fully anechoic room, the height scan of the receiving antenna instep 2 is omitted. Instead of this, a maximum search with a step size ± 45° for the elevation axis is performed.
The turn table azimuth will slowly vary by ± 22.5°.
The elevation angle will slowly vary by ± 45°
EMI receiver settings (for all steps):
- Detector: Peak,
- RBW: 1 MHz
- VBW: 3 MHz

- Sweep time: coupled
Step 3:
Spectrum analyser settings for step 3:
- Detector: RMS
- Measured frequencies: in step 1 determined frequencies
- RBW: 1 MHz
- VBW: 3 MHz
- Sweep Time: 1 s

5.4.2   TEST REQUIREMENTS / LIMITS

FCC Part 2.1053; Measurement required: Field strength of spurious radiation:

Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of §2.1049, as appropriate.

Part 22, Subpart H – Cellular Radiotelephone Service

§ 22 917 – Emission limitations for cellular equipment

(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.

RSS-132; 5.5 Transmitter Unwanted Emissions
Mobile and base station equipment shall comply with the limits in (i) and (ii) below.
1. In the first 1.0 MHz band immediately outside and adjacent to each of the sub-bands specified in Section 5.1, the power of emissions per any 1% of the occupied bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least $43 + 10 \log_{10} p$ (watts).
2. After the first 1.0 MHz immediately outside and adjacent to each of the sub-bands, the power of emissions in any 100 kHz bandwidth shall be attenuated (in dB) below the transmitter output power P (dBW) by at least $43 + 10 \log_{10} p$ (watts). If the measurement is performed using 1% of the occupied bandwidth, power integration over 100 kHz is required.

5.4.3 TEST PROTOCOL

Ambient temperature: 20 - 28 °C
Relative humidity: 30 - 40 %

Radio Technology	Channel	Detector	Trace	Resolution Bandwidth /kHz	Frequency /MHz	Peak Value /dBm	Limit /dBm	Margin to Limit /dB
GSM 850	low	rms	maxhold	3	823.9	-26.41	-13	13.41
GSM 850	mid	rms	maxhold	-	-	-	-13	> 20
GSM 850	high	rms	maxhold	3	849.0	-26.94	-13	13.94

Radio Technology	Channel	Detector	Trace	Resolution Bandwidth /kHz	Frequency /MHz	Peak Value /dBm	Limit /dBm	Margin to Limit /dB
EDGE 850	low	rms	maxhold	3	824.0	-34.99	-13	21.99
EDGE 850	mid	rms	maxhold	-	-	-	-13	> 20
EDGE 850	high	rms	maxhold	3	849.0	-34.77	-13	21.77

Radio Technology	Channel	Detector	Trace	Resolution Bandwidth /kHz	Frequency /MHz	Peak Value /dBm	Limit /dBm	Margin to Limit /dB
CAT-M1 eFDD 5	low	rms	maxhold	20	823.9	-30.91	-13	17.91
CAT-M1 eFDD 5	mid	rms	maxhold	-	-	-	-13	> 20
CAT-M1 eFDD 5	high	rms	maxhold	100	850.0	-50.28	-13	37.28

Radio Technology	Channel	Detector	Trace	Resolution Bandwidth /kHz	Frequency /MHz	Peak Value /dBm	Limit /dBm	Margin to Limit /dB
CAT-M1 eFDD 26	low	rms	maxhold	20	823.9	-29.63	-13	16.63
CAT-M1 eFDD 26	mid	rms	maxhold	-	-	-	-13	> 20
CAT-M1 eFDD 26	high	rms	maxhold	100	850.3	-49.91	-13	36.91

Radio Technology	Channel	Detector	Trace	Resolution Bandwidth /kHz	Frequency /MHz	Peak Value /dBm	Limit /dBm	Margin to Limit /dB
NB-IoT eFDD 5	low	rms	maxhold	3	824.0	-21.18	-13	8.18
NB-IoT eFDD 5	mid	rms	maxhold	-	-	-	-13	> 20
NB-IoT eFDD 5	high	rms	maxhold	3	849.0	-19.99	-13	6.99

Remark: Please see next sub-clause for the measurement plot.

5.4.4 MEASUREMENT PLOT (EXAMPLE PLOT, SHOWING WORST CASE, IF APPLICABLE)
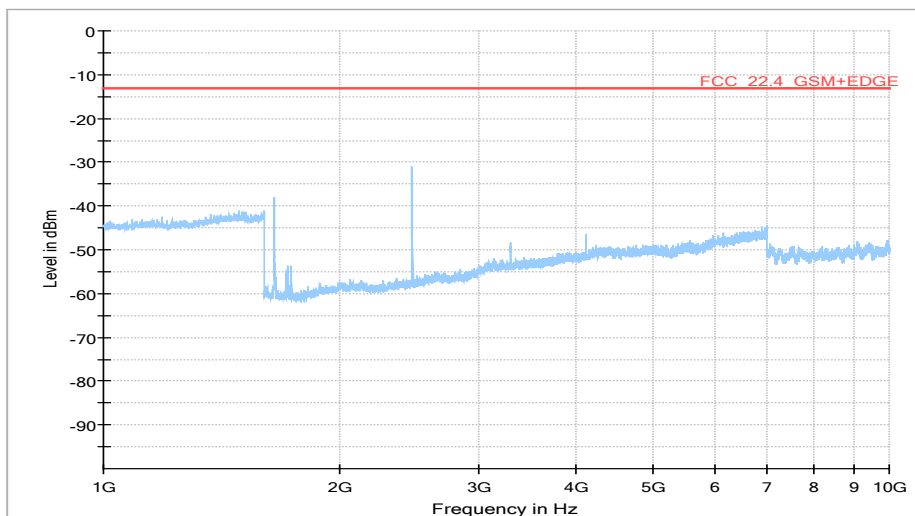
Technology = GSM, Radio Technology = GSM 850, Operating Frequency = low channel (S01_AE01)
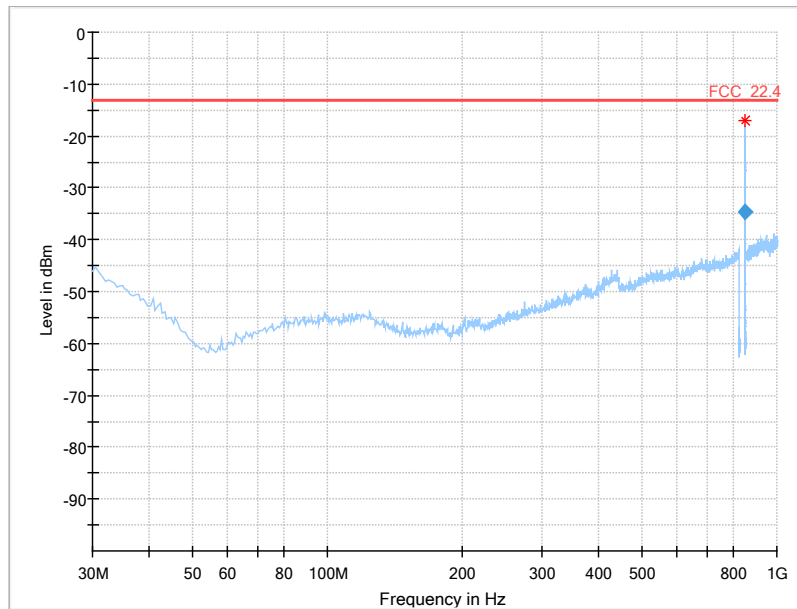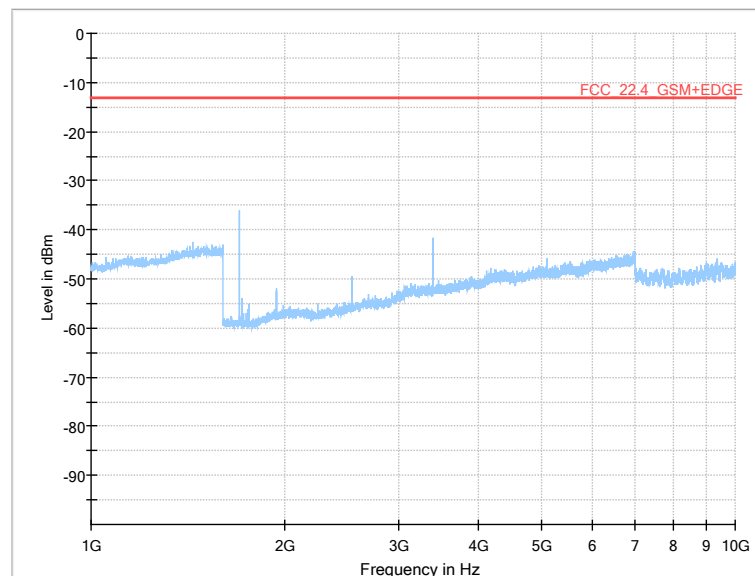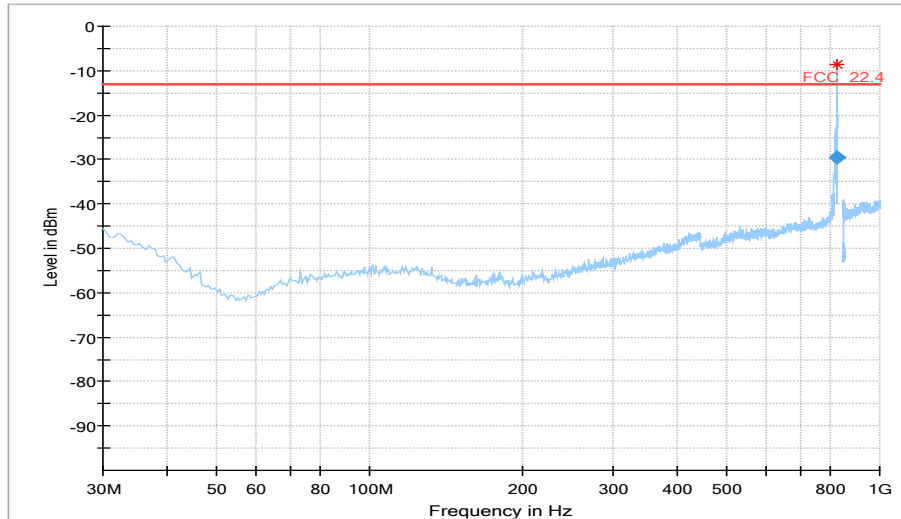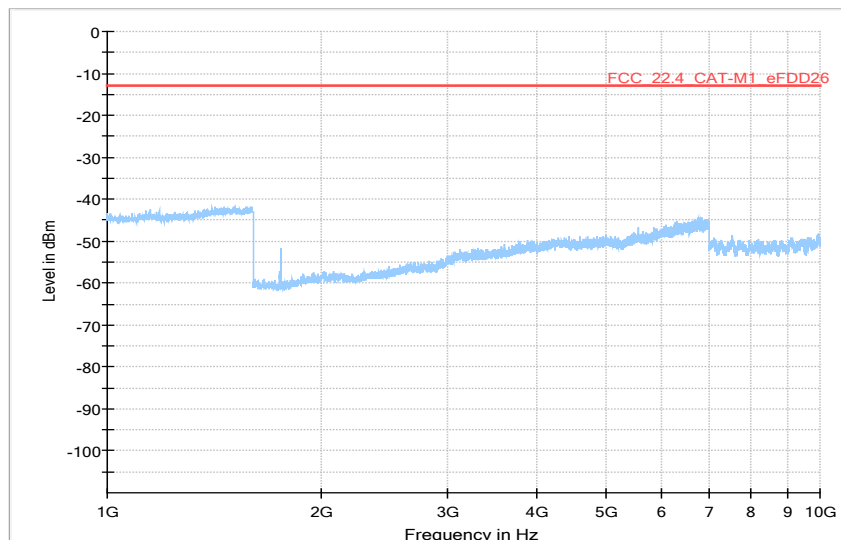
30 MHz 1 GHz
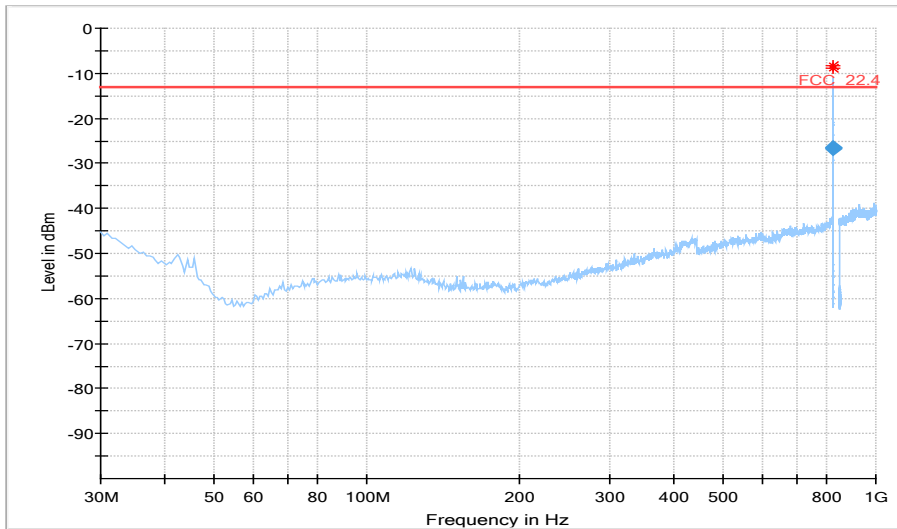
Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
823.983000	-26.41	-13.00	13.41	1000.0	3.000	110.0	H	-18.0	-72.9
823.995000	-26.74	-13.00	13.74	1000.0	3.000	113.0	H	-13.0	-72.9

1 GHz – 10 GHz

Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
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Technology = EDGE, Radio Technology = EDGE 850, Operating Frequency = high channel (S01_AE01)
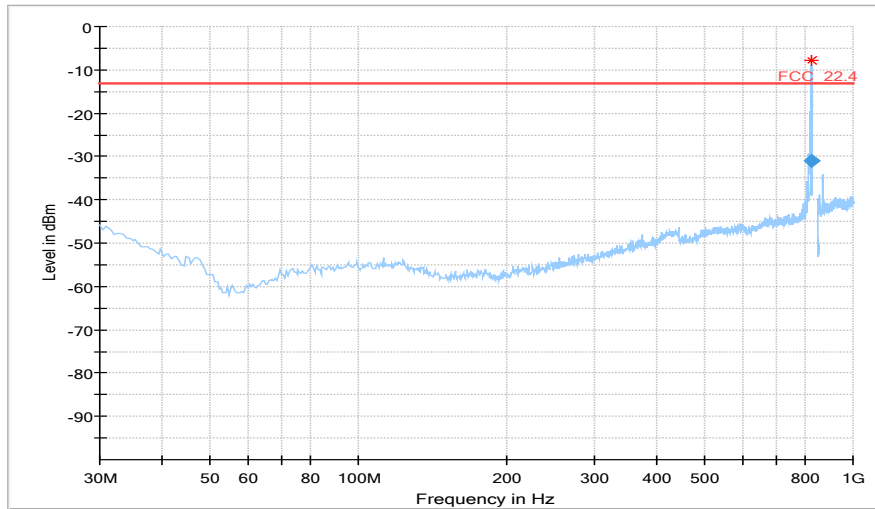
30 MHz 1 GHz

Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
849.033000	-34.77	-13.00	21.77	1000.0	3.000	102.0	H	-177.0	-73.1

1 GHz -10 GHz

Final_Result

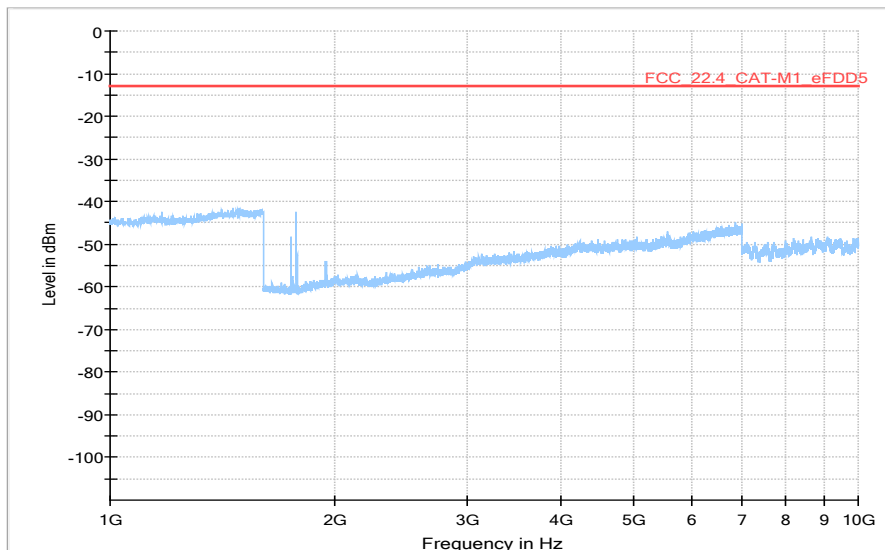| Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
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Technology = CAT-M1, Radio Technology = eFDD 26, Operating Frequency = low channel
(S01_AG01)
30 MHz 1 GHz

Final_Result

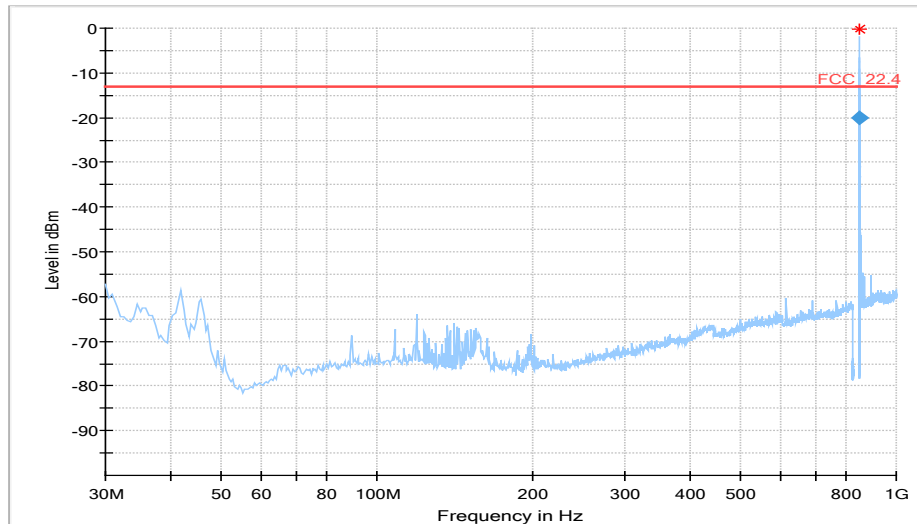| Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
823.996000	-29.63	-13.00	16.63	1000.0	20.000	105.0	H	10.0	-72.9

1 GHz -10 GHz

Final_Result

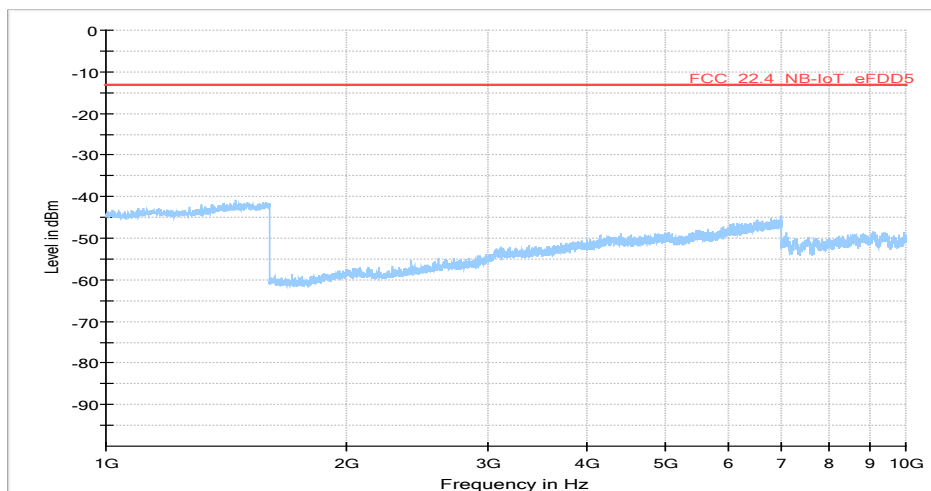| Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
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Technology = CAT-M1, Radio Technology = eFDD 5, Operating Frequency = low channel
(S01_AE01)
30 MHz 1 GHz

Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
823.994000	-30.91	-13.00	17.91	1000.0	20.000	103.0	H	34.0	-72.9

1 GHz -10 GHz

Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
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Technology = NB-IoT, Radio Technology = eFDD 5, Operating Frequency = high channel (S01_AA01)

30 MHz 1 GHz

Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
849.000000	-19.99	-13.00	6.99	1000.0	3.000	100.0	H	70.0	-73.1

1 GHz -10 GHz

Final_Result

Frequency (MHz)	RMS (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
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5.4.5 TEST EQUIPMENT USED

- Radiated Emissions

5.5 EMISSION AND OCCUPIED BANDWIDTH

Standard   **FCC PART 22 Subpart H**

The test was performed according to:
ANSI C63.26: 2015; 5.4.3 (relative meas. Procedure [26dB for GSM, EGDE, WCDMA, HSDPA, HSUPA]) 5.4.4 (Power bandwidth (99%))

5.5.1 TEST DESCRIPTION

This test case is intended to demonstrate compliance to the applicable conducted spurious emission test case per FCC §2.1049 and RSS-GEN 6.7. The limit and the requirements come from the applicable rule part and ISED RSS-Standard for the operating band of the cellular device.

The EUT was connected to the test setups according to the following diagram:
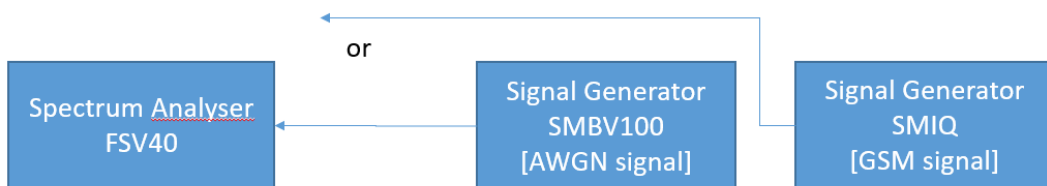
FCC Part 22/24/27/90; Industrial Signal Booster
Test Setup step 1: Measuring characteristics of test signals
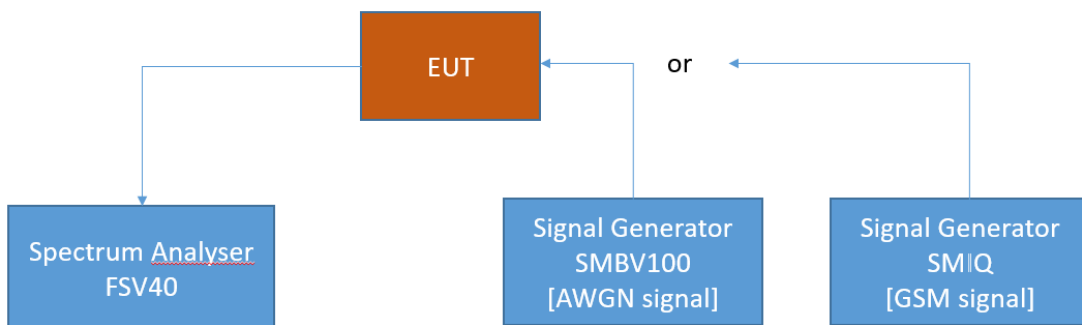
FCC Part 22/24/27/90; Industrial Signal Booster
Test Setup step 2; Occupied Bandwidth/Input-versus-output spectrum

The attenuation of the measuring and stimulus path are known for each measured frequency and are considered.

The Spectrum Analyzer settings can be directly found in the measurement diagrams.

5.5.2 TEST REQUIREMENTS / LIMITS

FCC Part 2.1049; Occupied Bandwidth:

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions as applicable:

(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 user.

(i) Transmitters designed for other types of modulation—when modulated by an appropriate signal of sufficient amplitude to be representative of the type of service in which used. A description of the input signal should be supplied.

RSS-GEN; 6.6 Occupied Bandwidth

The emission bandwidth (×dB) is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated × dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3× the resolution bandwidth.

When the occupied bandwidth limit is not stated in the applicable RSS or reference measurement method, the transmitted signal bandwidth shall be reported as the 99% emission bandwidth, as calculated or measured.

5.5.3 TEST PROTOCOL

Ambient temperature: 20 - 28 °C
Relative humidity: 30 - 40 %

Radio Technology	Channel	Resource Blocks / Subcarrier	Bandwidth [MHz]	Nominal BW [MHz]	26 dB BW [kHz]	99 % BW [kHz]
GSM 850	low	-	0.2	0	315	244
GSM 850	mid	-	0.2	0	319	244
GSM 850	high	-	0.2	0	317	250
GSM 850 EDGE	low	-	0.2	0	289	228
GSM 850 EDGE	mid	-	0.2	0	291	228
GSM 850 EDGE	high	-	0.2	0	287	226
CAT-M1 eFDD 5 QPSK	low	6	1.4	1	-	1098
CAT-M1 eFDD 5 QPSK	mid	6	1.4	1	-	1092
CAT-M1 eFDD 5 QPSK	high	6	1.4	1	-	1092
CAT-M1 eFDD 5 16QAM	low	5	1.4	1	-	930
CAT-M1 eFDD 5 16QAM	mid	5	1.4	1	-	930
CAT-M1 eFDD 5 16QAM	high	5	1.4	1	-	930
CAT-M1 eFDD 26 QPSK	low	6	1.4	1	-	1092
CAT-M1 eFDD 26 QPSK	mid	6	1.4	1	-	1092
CAT-M1 eFDD 26 QPSK	high	6	1.4	1	-	1098
CAT-M1 eFDD 26 16QAM	low	5	1.4	1	-	930
CAT-M1 eFDD 26 16QAM	mid	5	1.4	1	-	924
CAT-M1 eFDD 26 16QAM	high	5	1.4	1	-	924
NB-IoT eFDD 5 QPSK	low	12	0.2	0	-	186
NB-IoT eFDD 5 QPSK	mid	12	0.2	0	-	188
NB-IoT eFDD 5 QPSK	high	12	0.2	0	-	186
NB-IoT eFDD 5 BPSK	low	1	0.2	0	-	134
NB-IoT eFDD 5 BPSK	mid	1	0.2	0	-	128
NB-IoT eFDD 5 BPSK	high	1	0.2	0	-	136

Remark: Please see next sub-clause for the measurement plot.