

Test Report

Test report no.: 21065784-20925-1

Date of issue: 2021-09-03

Test result: The test item - **passed** - and complies with the listed standards.

Applicant

Mitsubishi Electric Corporation Sanda Works

Manufacturer

Mitsubishi Electric Corporation

Test Item

R1LOW-R

RF-Spectrum Testing according to:

FCC 47 CFR Part 15

Radio Frequency Devices (Subpart C)

RSS-247

Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

RSS-Gen

General Requirements for Compliance of Radio Apparatus

Tested by
(name, function, signature)

Karsten Gerald
Head of Laboratory RF


signature

Approved by
(name, function, signature)

Dr.-Ing. Harald Ansorge
Managing Director


signature

Applicant and Test item details	
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Test item description	Automotive Display Audio
Model/Type reference	R1LOW-R
Standard specific information	
FCC ID	UJH-R1LOW-R
IC	662K-R1LOWR
PMN	R1LOW-R
HVIN	NR-0C-R-DV
FVIN	N/A
HMN	N/A
Frequency	2.4 GHz ISM band (2400 – 2483.5 MHz)
Technology	Bluetooth Low Energy (BLE)
Antenna	Sheet metal antenna
Power supply	9 – 16.5V DC Battery
Temperature range	-40 °C to +75 °C

Disclaimer and Notes

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Within this test report, a ☒ point / ☐ comma is used as a decimal separator.
If otherwise, a detailed note is added adjoined to its use.

IBL-Lab GmbH does not take test samples. The sample used for testing is provided by the applicant.

Decision rule: Binary Statement for Simple Acceptance Rule according ILAC-G8:09/2019

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2 GENERAL INFORMATION

2.1 Administrative details

Testing laboratory	IBL-Lab GmbH Heinrich-Hertz-Allee 7 66386 Sankt Ingbert / Germany Fon: +49 6894 38938-0 Fax: +49 6894 38938-99 URL: www.ib-lenhardt.de E-Mail: info@ib-lenhardt.de
Accreditation	The testing laboratory is accredited by Deutsche Akkreditierungsstelle GmbH (DAkkS) in compliance with DIN EN ISO/IEC 17025:2018. Scope of testing and registration number: - Electronics D-PL-21375-01-01 - Electromagnetic Compatibility D-PL-21375-01-02 - Electromagnetic Compatibility and Telecommunication (FCC requirements) D-PL-21375-01-03 - Telecommunication (TC) and Electromagnetic Compatibility (EMC) for Canadian Standards D-PL-21375-01-04 - ISED Company Number 27156 - Testing Laboratory CAB Identifier DE0020 - Telekommunikation (TK) D-PL-21375-01-05 Website DAkkS: https://www.dakks.de/ The Deutsche Akkreditierungsstelle GmbH (DAkkS) is also a signatory to ILAC Mutual Recognition Arrangement
Testing location	IBL-Lab GmbH Heinrich-Hertz-Allee 7 66386 St. Ingbert / Germany
Date of receipt of test samples	2021-07-07
Start – End of tests	2021-07-08 – 2021-07-22

2.2 Possible test case verdicts

Test sample meets the requirements	P (PASS)
Test sample does not meet the requirements	F (FAIL)
Test case does not apply to the test sample	N/A (Not applicable)
Test case not performed	N/P (Not performed)

2.3 Observations

No additional observations other than the reported observations within this test report have been made.

2.4 Opinions and Interpretations

No appropriate opinions or interpretations according ISO/IEC 17025:2017 clause 7.8.7 are within this test report.

2.5 Revision History

-0 Initial Version

-1 Revision: administrative modification/correction

Page 55/56, Plot 20: Replacement of uncorrect test protocol by correct one. No impact on test verdict.

This test report 21065784-20925-1 replaces the previous test report 21065784-20925-0.

Utilisation, publication and control of previous report editions is under responsibility of the applicant.

2.6 Further documents

List of further applicable documents belonging to the present test report:

- no additional documents -

3 ENVIRONMENTAL & TEST CONDITIONS

3.1 Environmental conditions

Temperature	20°C ± 5°C
Relative humidity	25-75 % r.H.
Barometric Pressure	860-1060 mbar
Power supply	230 V / 50 Hz

3.2 Normal and extreme test conditions

	minimum	nominal	maximum
Temperature	-/-	+25 °C	-/-
Relative humidity	-/-	50 % r.h.	-/-
Power supply	-/-	12.6 V DC	-/-

4 TEST STANDARDS AND REFERENCES

Test standard (accredited)	Description
FCC 47 CFR Part 15	Radio Frequency Devices (Subpart C)
RSS-247	Digital Transmission Systems (DTSS), Frequency Hopping Systems (FHSS) and Licence-Exempt Local Area Network (LE-LAN) Devices
RSS-Gen	General Requirements for Compliance of Radio Apparatus

Test standard (not accredited)	Description
none	---

Reference	Description
ANSI C63.4-2014	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
ANSI C63.10-2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
558074 D01 15.247 Meas Guide v05r02	Guidance for compliance measurements on digital transmission systems, frequency hopping spread spectrum systems and hybrid system devices operating under section 15.247 of the FCC rules

5 EQUIPMENT UNDER TEST (EUT)

5.1 Product Description

Automotive Display Audio

*: as declared by applicant

5.2 Test Item Description

Model name*	R1LOW-R
Serial number*	radiated EUT: 60338 conducted EUT: 60337
PCB identifier*	NJ00193611
Hardware status*	NR-0C-R-DV
Software status*	Android 10

*: as declared by applicant; please see Annex A, B for EUT photographs.

5.3 Technical Data of Equipment

Operational frequency band*	2.4 GHz ISM band (2400 – 2483.5 MHz)
Transmitter*	Chip QCA6574AU with 48 MHz TCXO (Module UGKZ5A3006A)
Technology	Bluetooth Low Energy (BLE)
Modulation type*	GFSK
Data rate*	1 Mb/s
Number of channels*	40 (3 advertising channels / 37 data channels)
Channel bandwidth*	2 MHz
Channel spacing*	2 MHz
Antenna*	Sheet metal antenna
Antenna gain*	-3.55 dBi
Rated RF Output Power*	< 2.5 mW (+4 dBm); Power Class: Class2
Power supply*	9 – 16.5V DC Battery
Temperature range*	-40 °C to +75 °C

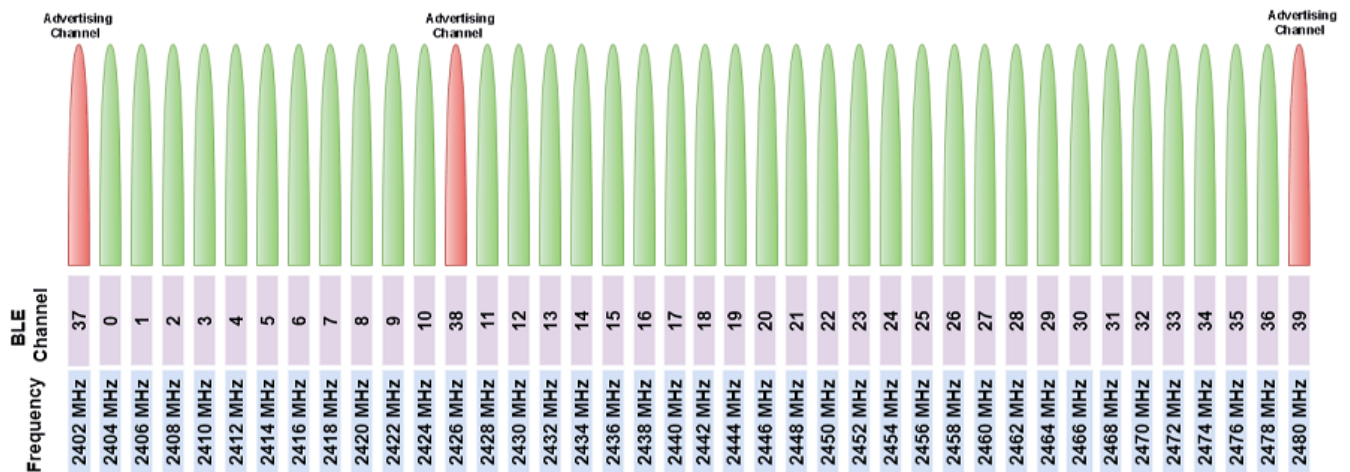
*: as declared by applicant

5.4 Additional Information

Model differences	None
Ancillaries tested with	None
Additional equipment used for testing	Notebook with test tool

5.5 Test modes

Mode 1	GFSK, 1 Mbit/s
Low Channel	CH37 = 2402 MHz
Mid Channel	CH17 = 2440 MHz
High Channel	CH39 = 2480 MHz



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6 SUMMARY OF TEST RESULTS

Test specification
FCC 47 CFR Part 15 RSS-247 / RSS-Gen

Clause	Requirement / Test Case	Result - Remark	Verdict
§15.247(a)(2) RSS-247, 5.2 (a)	DTS bandwidth (6 dB)	KDB 558074, clause: 8.2	- PASS -
RSS Gen, 6.7	Occupied bandwidth (99%)	-/-	- PASS -
§15.247(b)(3) RSS-247, 5.4 (d)	RF output power (conducted peak power)	KDB 558074, clause: 8.3.1	- PASS -
§15.247(b)(4) RSS-247, 5.4 (d)	Antenna gain (calculated)	-/-	- PASS -
§15.247(e) RSS-247, 5.2 (b)	Peak power spectral density (PSD)	KDB 558074, clause: 8.4	- PASS -
§15.247(d) RSS-247, 5.5	Band edge compliance (BEC), conducted	KDB 558074, clause: 8.5	- PASS -
§15.247(d) RSS-247, 5.5	Band edge compliance (BEC), radiated	KDB 558074, clause: 8.7	- PASS -
§15.247(d) RSS-247, 5.5	Conducted spurious emissions (CSE)	KDB 558074 DTS clause: 8.5	- PASS -
§15.247(d) / §15.209 RSS-247, 5.5 / RSS-Gen, 8.9	Radiated spurious emissions (RSE)	-/-	- PASS -
§15.207 RSS-Gen, 8.8	AC conducted emissions	EUT is battery powered	- N/A -

Comments and observations

Following pages show requirements and references of FCC Part 15.247, ANSI C63.10 and KDB 558074 only. Same tests are also applicable and valid for RSS-247, with clauses given in table above.

7 TEST RESULTS

7.1 DTS Bandwidth (6 dB)

Applicability

This requirement applies to all types of DTS equipment.

Description

The DTS Bandwidth is defined as the 6 dB bandwidth.

Limit

§15.247

(a)(2) The minimum 6 dB bandwidth shall be at least 500 kHz.

Test procedure

ANSI C63.10, 11.8

The steps are as follows:

- a) Set RBW = 100 kHz.
 - b) Set the VBW $\geq [3 \times \text{RBW}]$.
 - c) Detector = peak.
 - d) Trace mode = max hold.
 - e) Sweep = auto couple.
 - f) Allow the trace to stabilize.
 - g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.
- The automatic bandwidth measurement capability of an instrument may be employed using the 6 dB bandwidth mode.

Test setup: 8.4 with conducted test sample (see section 5.2)

Test Results

EUT Mode	DTS Bandwidth (6 dB)			Limit [kHz]
	low channel [kHz]	mid channel [kHz]	high channel [kHz]	
Mode 1	712.9	712.9	712.9	≥ 500

Comment:

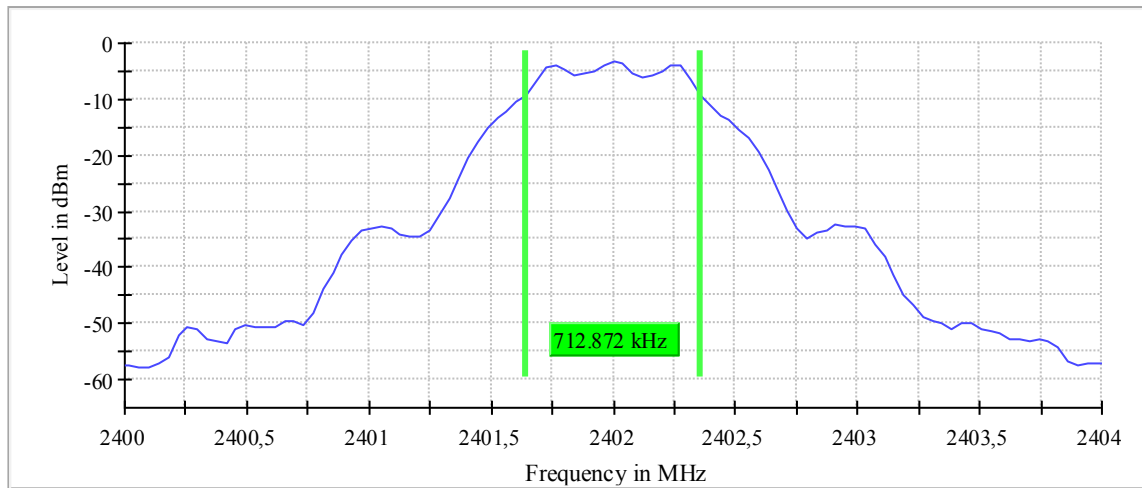
Verdict

- PASS -

see next plots

Plot 1: Mode 1, DTS Bandwidth, low channel

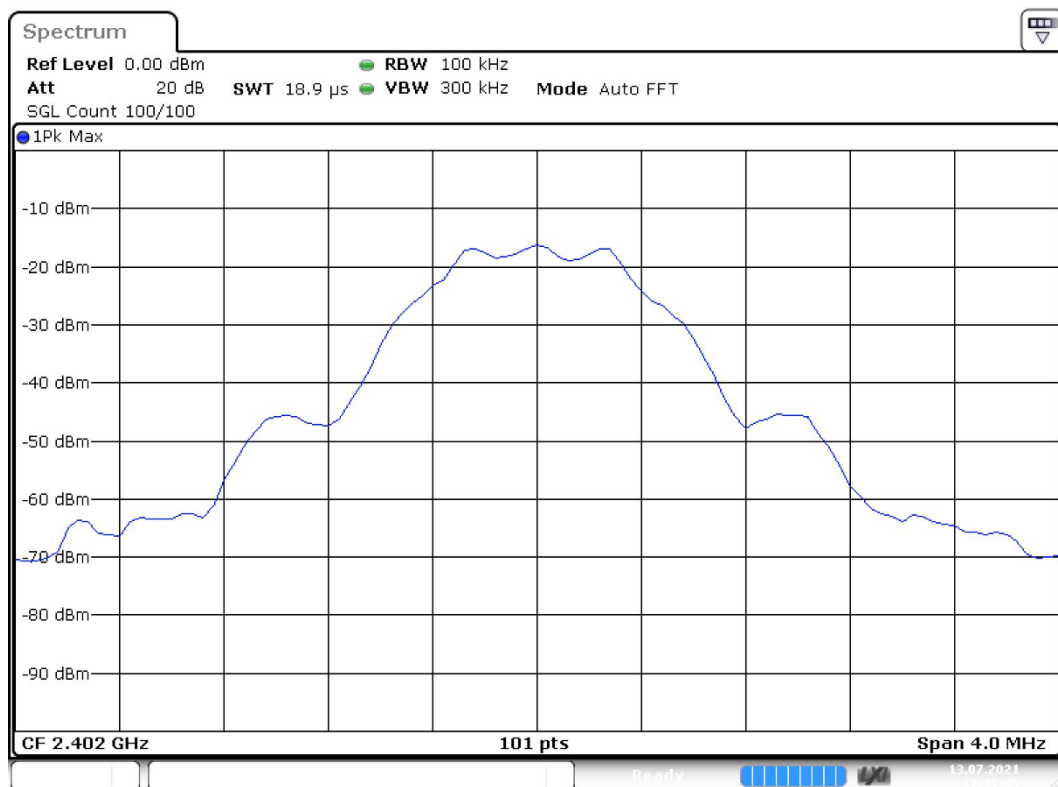
6 dB Bandwidth



DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.712872	0.500000	---	2401.643564	2402.356436

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	-3.3	PASS



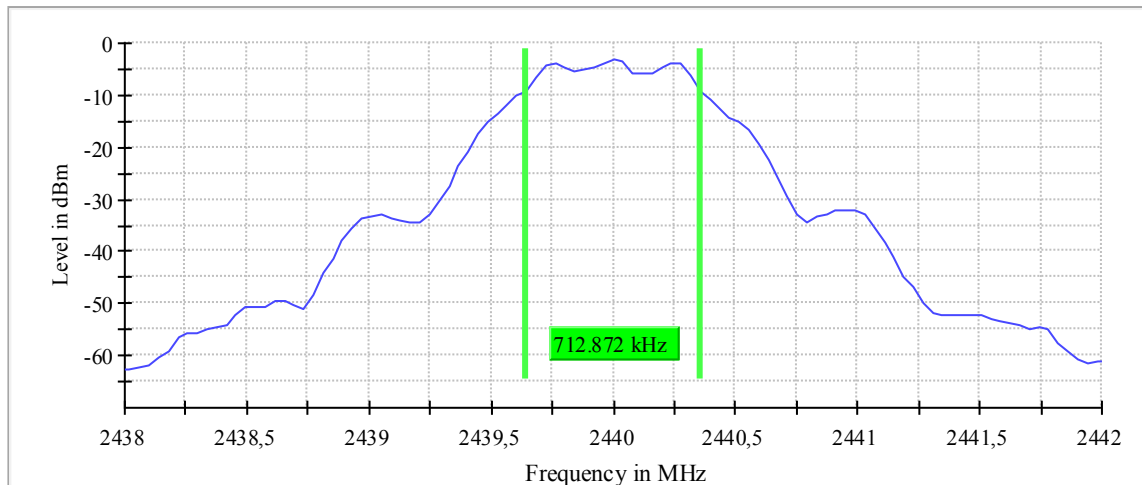
Date: 13.JUL.2021 11:41:06

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.40400 GHz	2.40400 GHz
Span	4.000 MHz	4.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 80
SweepTime	18.938 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	20.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.01 dB	0.50 dB

Plot 2: Mode 1, DTS Bandwidth, mid channel

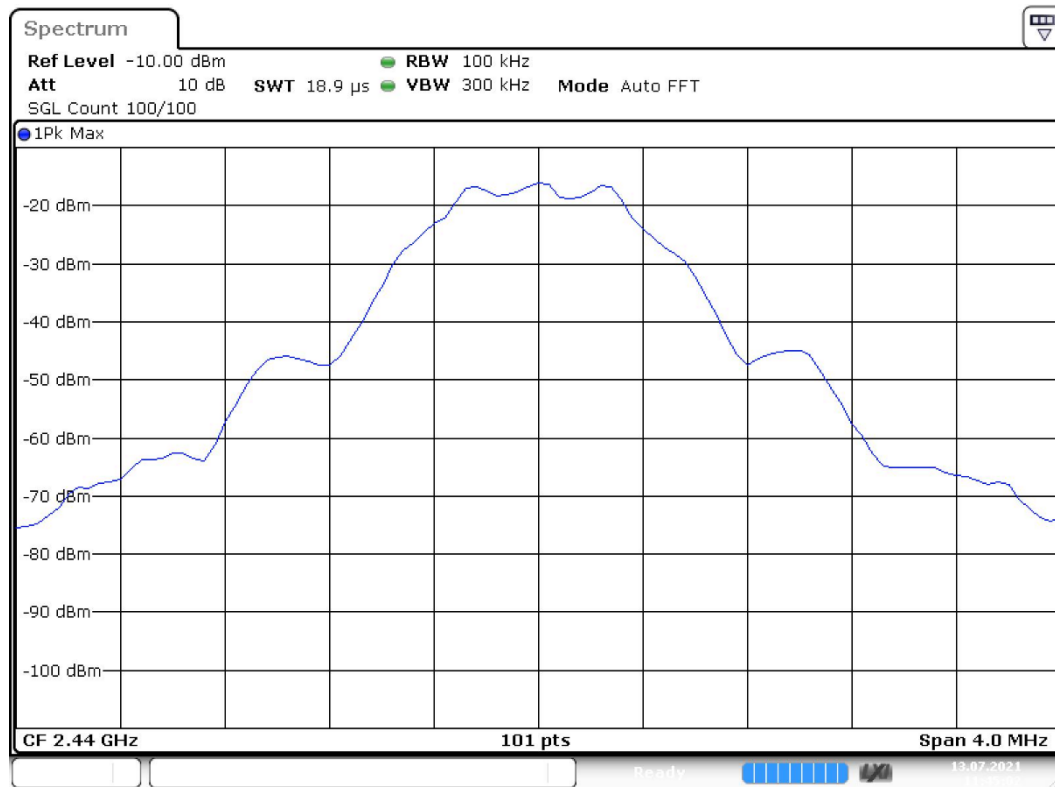
6 dB Bandwidth



DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.712872	0.500000	---	2439.643564	2440.356436

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	-3.1	PASS



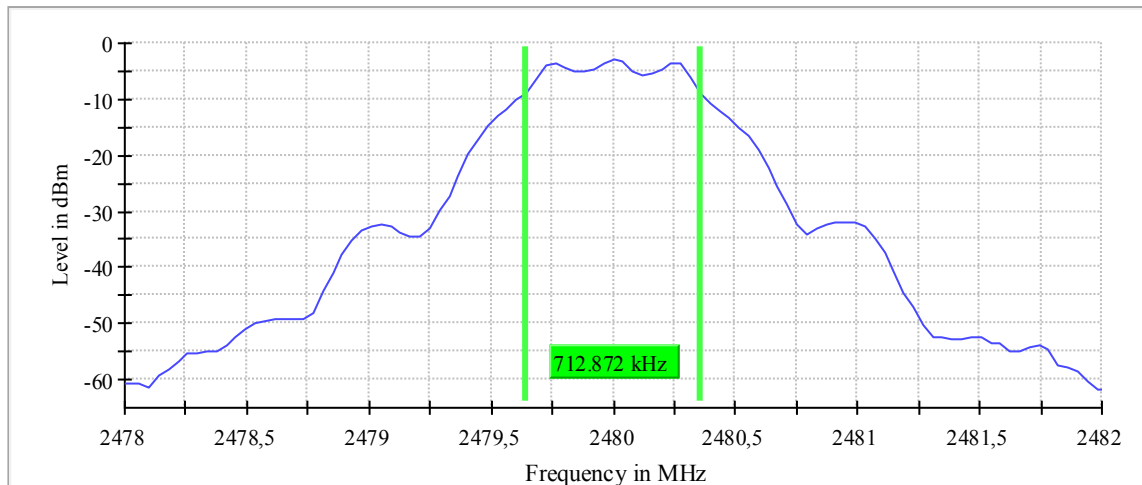
Date: 13.JUL 2021 11:45:02

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43800 GHz	2.43800 GHz
Stop Frequency	2.44200 GHz	2.44200 GHz
Span	4.000 MHz	4.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 80
SweepTime	18.938 μ s	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	8 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.12 dB	0.50 dB

Plot 3: Mode 1, DTS Bandwidth, high channel

6 dB Bandwidth



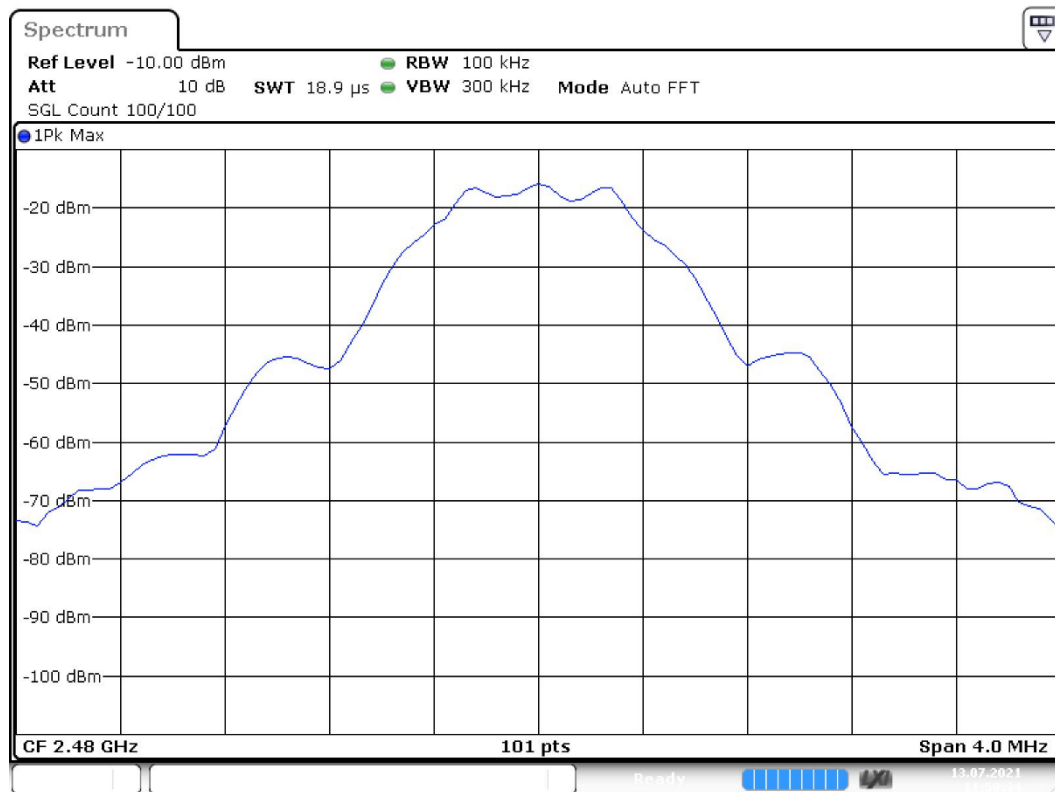
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.712872	0.500000	---	2479.643564	2480.356436

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	-2.9	PASS

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Date: 13. JUL. 2021 11:50:35

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47800 GHz	2.47800 GHz
Stop Frequency	2.48200 GHz	2.48200 GHz
Span	4.000 MHz	4.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 80
SweepTime	18.938 μ s	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	7 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.34 dB	0.50 dB

7.2 Occupied Bandwidth (99% OBW)

Applicability

This requirement applies to all types of DTS equipment.

Description

The Occupied Channel Bandwidth is the bandwidth that contains 99 % of the power of the signal (RSS-Gen).

Limit

No limit defined.

Test procedure

ANSI C63.10, 6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

The following procedure shall be used for measuring 99% power bandwidth:

- The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
- The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.
- Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.
- Step a) through step c) might require iteration to adjust within the specified range.
- Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.
- If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.
- The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

Test setup: 8.4 with conducted test sample (see section 5.2)

Test Results

EUT Mode	Occupied Bandwidth (99%)		
	low channel [kHz]	mid channel [kHz]	high channel [kHz]
Mode 1	1050	1050	1050

Comment:

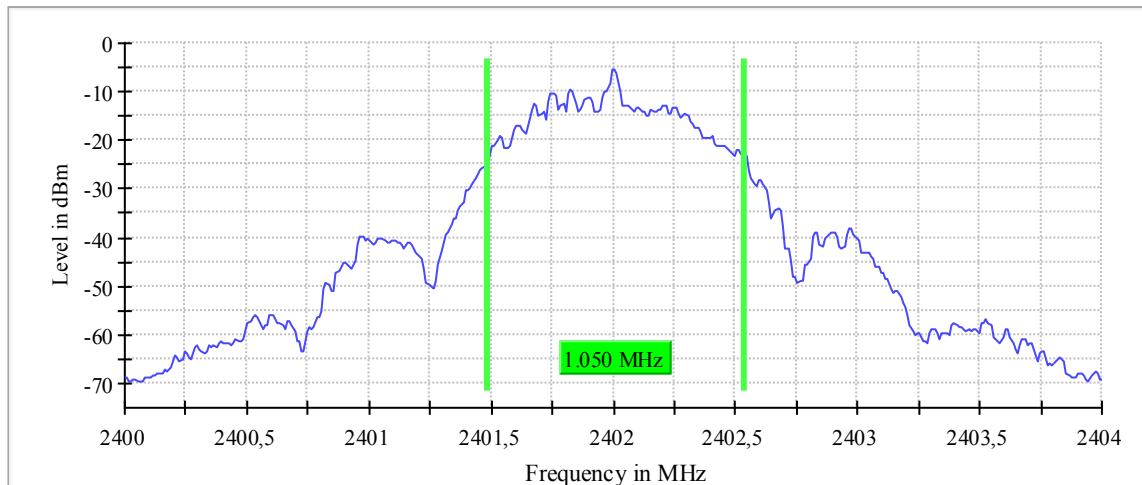
Verdict

- PASS -

see next plots

Plot 4: Mode 1, 99% Occupied Bandwidth, low channel

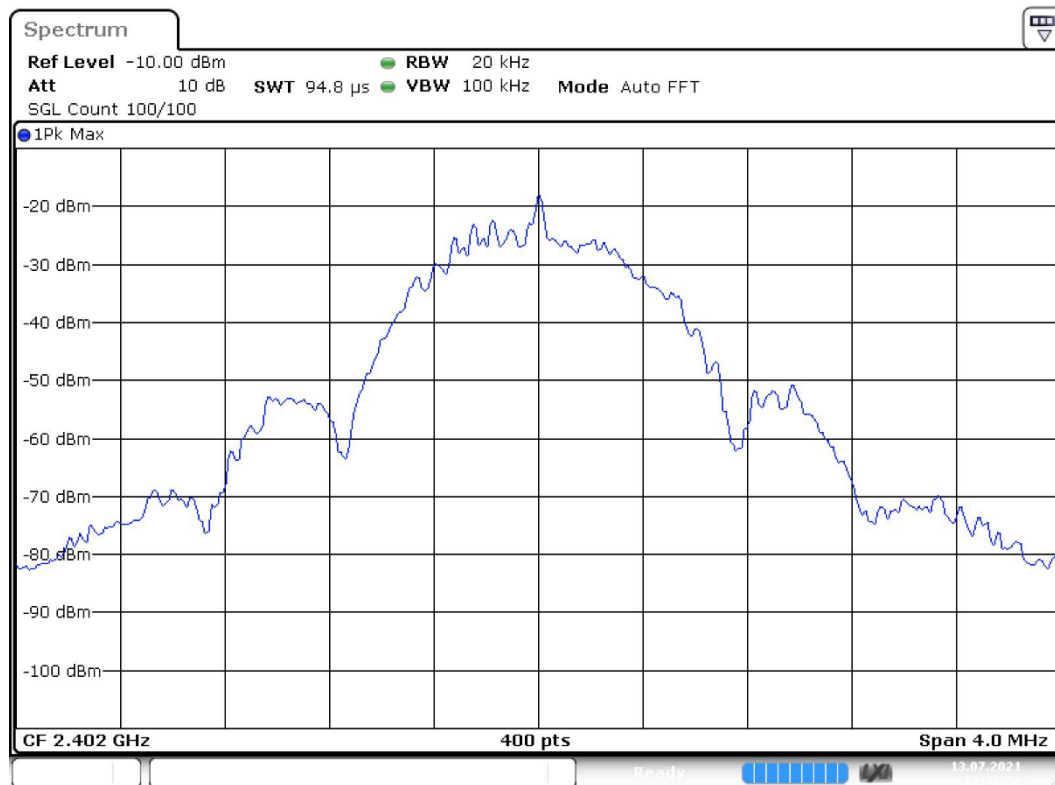
99 % Bandwidth



DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.050000	---	---	2401.485000	2402.535000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2402.000000	PASS



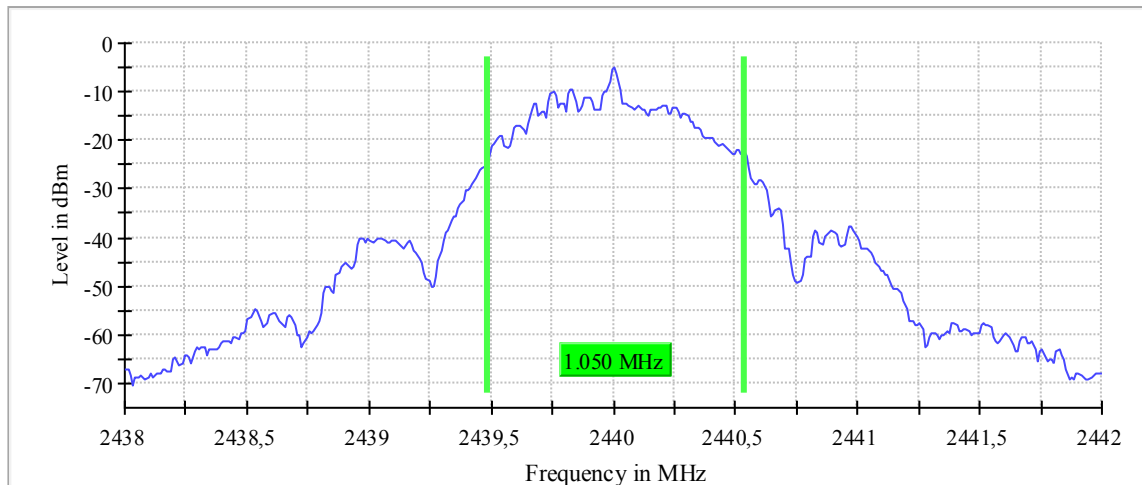
Date: 13.JUL 2021 11:41:56

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.40400 GHz	2.40400 GHz
Span	4.000 MHz	4.000 MHz
RBW	20.000 kHz	≥ 20.000 kHz
VBW	100.000 kHz	≥ 60.000 kHz
SweepPoints	400	~ 400
SweepTime	94.824 μ s	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.10 dB	0.30 dB

Plot 5: Mode 1, 99% Occupied Bandwidth, mid channel

99 % Bandwidth



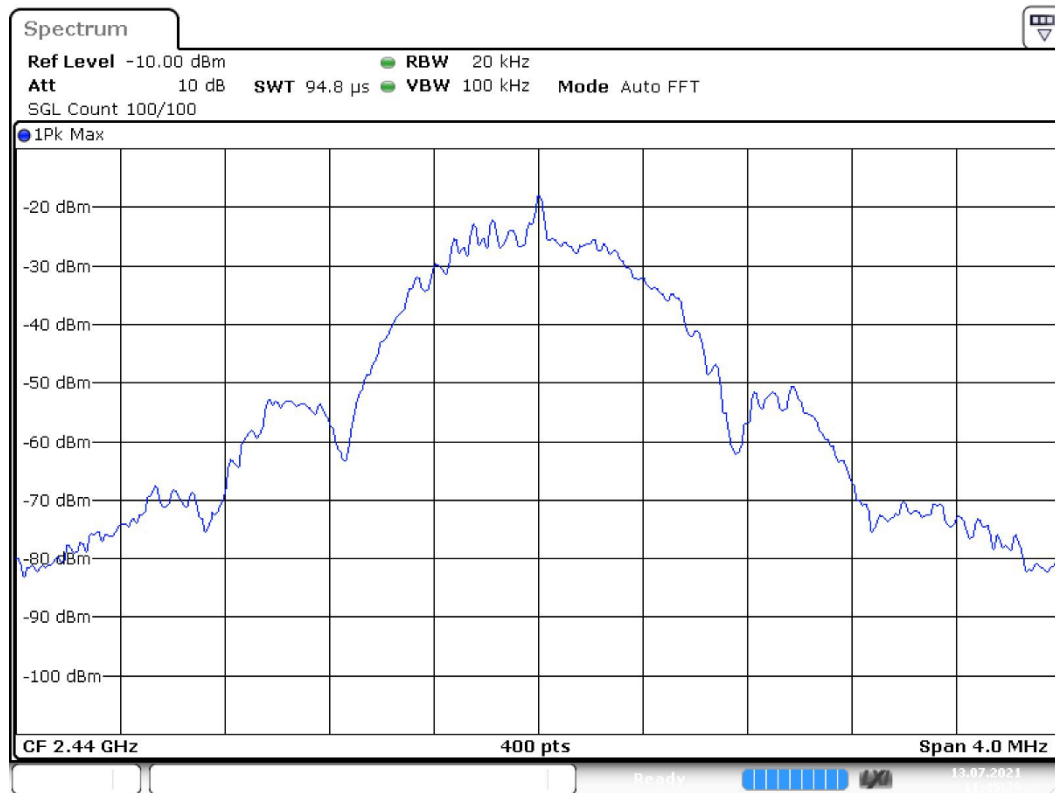
DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.050000	---	---	2439.485000	2440.535000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2440.000000	PASS

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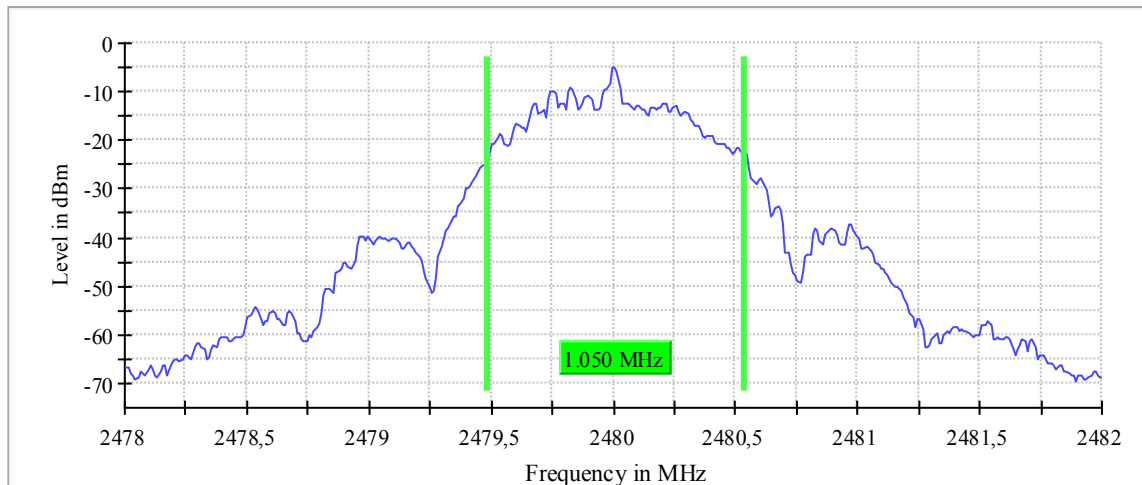
Date: 13. JUL 2021 11:45:29

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43800 GHz	2.43800 GHz
Stop Frequency	2.44200 GHz	2.44200 GHz
Span	4.000 MHz	4.000 MHz
RBW	20.000 kHz	≥ 20.000 kHz
VBW	100.000 kHz	≥ 60.000 kHz
SweepPoints	400	~ 400
SweepTime	94.824 μ s	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	6 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.07 dB	0.30 dB

Plot 6: Mode 1, 99% Occupied Bandwidth, high channel

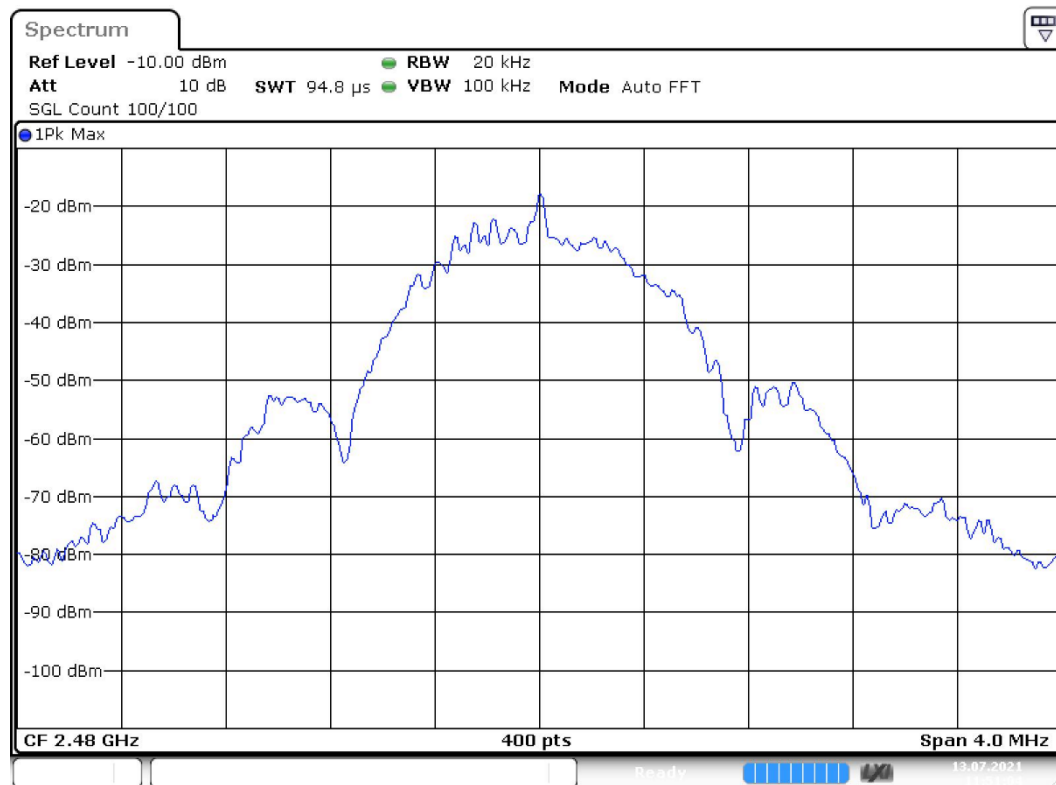
99 % Bandwidth



DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.050000	---	---	2479.485000	2480.535000

(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
2480.000000	PASS



Date: 13.JUL 2021 11:51:04

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47800 GHz	2.47800 GHz
Stop Frequency	2.48200 GHz	2.48200 GHz
Span	4.000 MHz	4.000 MHz
RBW	20.000 kHz	≥ 20.000 kHz
VBW	100.000 kHz	≥ 60.000 kHz
SweepPoints	400	~ 400
SweepTime	94.824 μ s	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.30 dB	0.30 dB
Run	5 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.16 dB	0.30 dB

7.3 RF Output Power (Conducted Peak Power)

Applicability

This requirement applies to all types of DTS equipment.

Description

The RF Output Power is defined as the conducted peak output power.

Limit

§15.247

(b) The maximum peak conducted output power of the intentional radiator shall not exceed the following:

(3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the *maximum conducted output power* is the highest total transmit power occurring in any mode.

(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi.

Test procedure

ANSI C63.10, 11.9.1.1

The following procedure shall be used when an instrument with a resolution bandwidth that is greater than the DTS bandwidth is available to perform the measurement:

- Set the RBW $\geq$ DTS bandwidth.
- Set VBW $\geq [3 \times \text{RBW}]$.
- Set span $\geq [3 \times \text{RBW}]$.
- Sweep time = auto couple.
- Detector = peak.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use peak marker function to determine the peak amplitude level.

Test setup: 8.4 with conducted test sample (see section 5.2)

Test Results

EUT Mode	RF Output Power (Conducted Peak Power)			Limit [dBm]
	low channel [dBm]	mid channel [dBm]	high channel [dBm]	
Mode 1	-3.1	-2.9	-2.7	30

Comment:

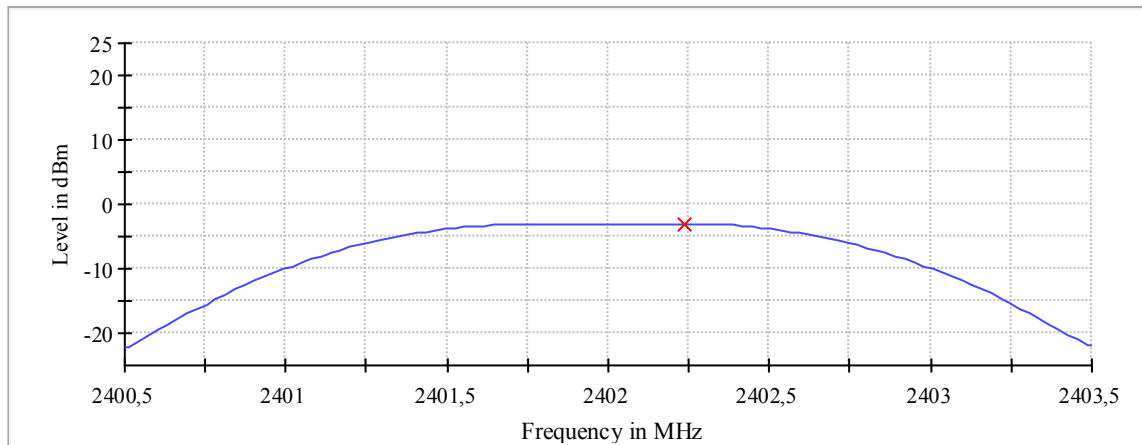
Verdict

- PASS -

see next plots

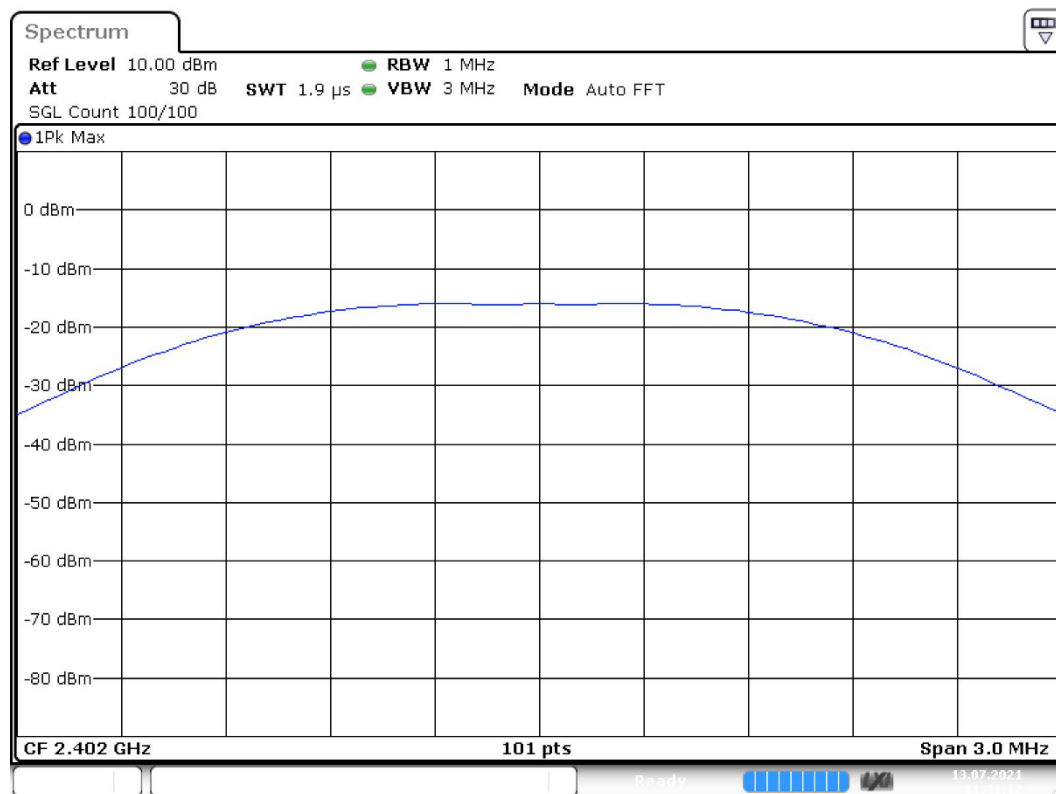
Plot 7: Mode 1, Peak Power, low channel

Peak Power



— Connector 1 × Peak Connector 1

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2402.000000	-3.1	30.0	PASS



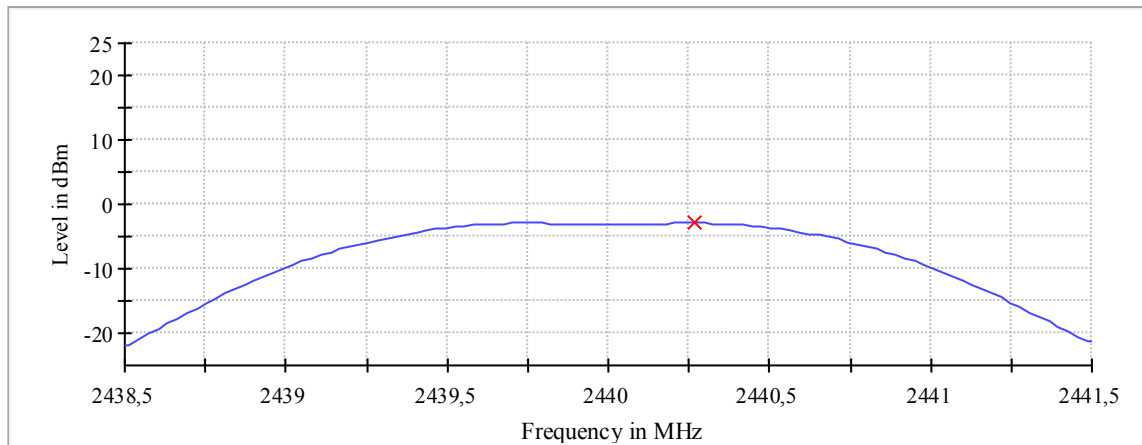
Date: 13.JUL.2021 11:41:13

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40050 GHz	2.40050 GHz
Stop Frequency	2.40350 GHz	2.40350 GHz
Span	3.000 MHz	3.000 MHz
RBW	1.000 MHz	≥ 712.873 kHz
VBW	3.000 MHz	≥ 3.000 MHz
SweepPoints	101	~ 101
SweepTime	1.907 μ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.05 dB	0.50 dB

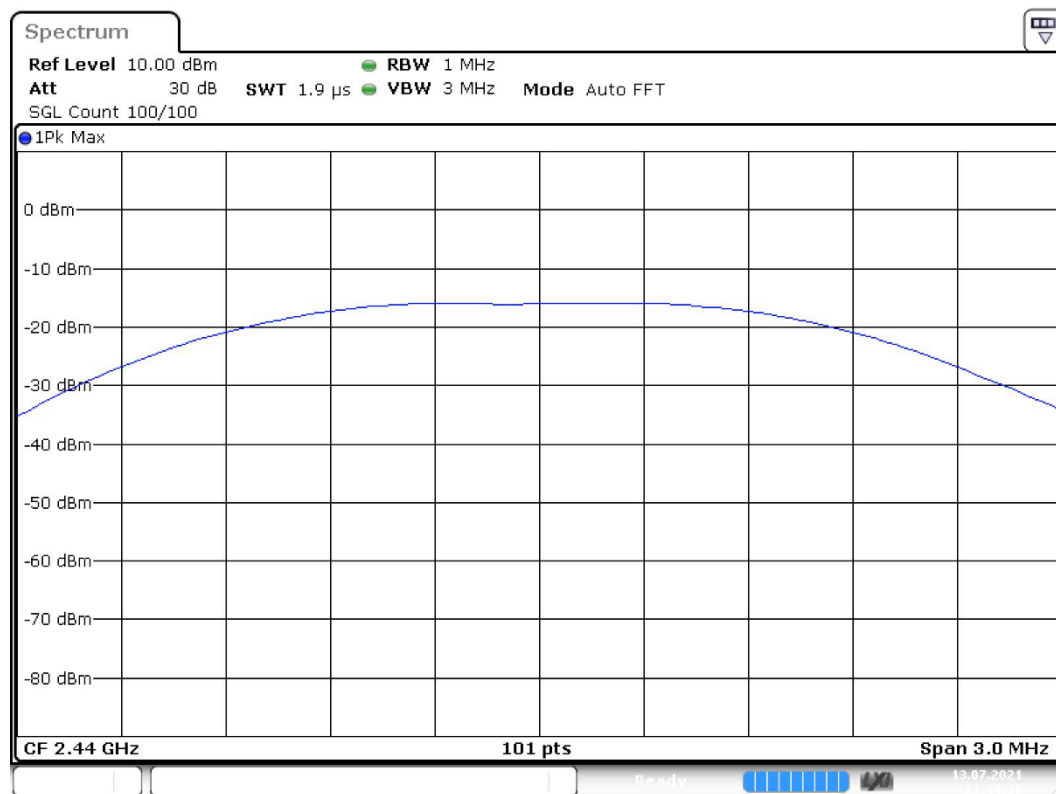
Plot 8: Mode 1, Peak Power, mid channel

Peak Power



— Connector 1 × Peak Connector 1

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2440.000000	-2.9	30.0	PASS



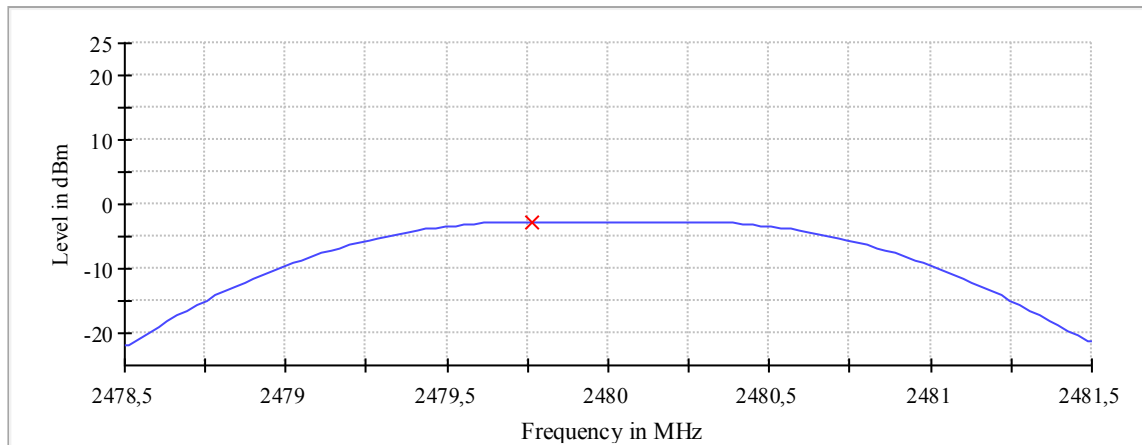
Date: 13.JUL.2021 11:44:40

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43850 GHz	2.43850 GHz
Stop Frequency	2.44150 GHz	2.44150 GHz
Span	3.000 MHz	3.000 MHz
RBW	1.000 MHz	≥ 712.873 kHz
VBW	3.000 MHz	≥ 3.000 MHz
SweepPoints	101	~ 101
SweepTime	1.907 μ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB

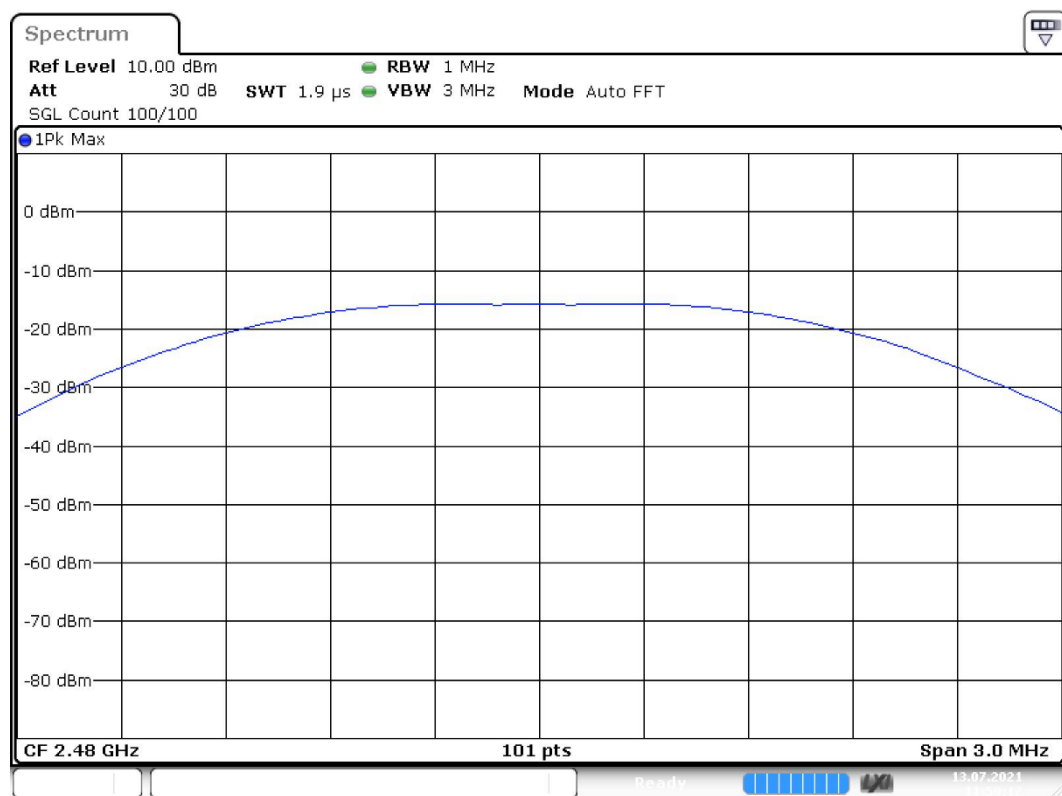
Plot 9: Mode 1, Peak Power, high channel

Peak Power



— Connector 1 × Peak Connector 1

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	-2.7	30.0	PASS



Date: 13.JUL.2021 11:50:13

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47850 GHz	2.47850 GHz
Stop Frequency	2.48150 GHz	2.48150 GHz
Span	3.000 MHz	3.000 MHz
RBW	1.000 MHz	≥ 712.873 kHz
VBW	3.000 MHz	≥ 3.000 MHz
SweepPoints	101	~ 101
SweepTime	1.907 μ s	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.00 dB	0.50 dB