



FCC LISTED, REGISTRATION
NUMBER: 2764.01

Test Report No:
5006ERM.002A1

ISED LISTED REGISTRATION
NUMBER: 23595-1

Test Report

USA FCC Part 15.247, 15.205, 15.207, 15.209; & CANADA RSS-247, RSS-Gen
Radio Frequency Devices. Operation within the bands 902 - 928 MHz, 2400 -2483.5 MHz,
and 5725 - 5850 MHz

Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and
License-Exempt Local Area Network (LE-LAN) Devices.

(*) Identification of item tested	Infotainment Controller
(*) Trademark	User eXperience Computer-F (UXC-F)
(*) Model and /or type reference	User eXperience Computer-F (UXC-F)
(*) Derived model not tested	--
Other identification of the product	FCC ID: 2BS75CV-RQ5FN0GX IC ID: 216B-CVRQ5FN0GX HVIN: UXCF
(*) Features	Wi-Fi 2.4GHz/5GHz; Bluetooth v5.3
Manufacturer	Panasonic Automotive Systems America, LLC 776 Hwy 74 South, Peachtree City GA 30269 United States
Test method requested, standard	USA FCC Part 15.247 (11-18-2024): Operation within the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz. USA FCC Part 15.205 (11-18-2024): Restricted bands of operation. USA FCC Part 15.209 (11-18-2024) Edition: Radiated emission limits; general requirements. USA FCC Part 15.207 (11-18-2024 Edition): Conducted limits; general requirements CANADA RSS-247 Issue 4 (July 2025). CANADA RSS-Gen Issue 5 (April 2018)/A1 (March 2019)/A2 (Feb 2021). Guidance for Performing Compliance Measurements on Digital Transmission System, Frequency Hopping Spread Spectrum System, and Hybrid Systems Devices Operating Under Section 15.247 of the FCC Rules. 558074 D01 Meas Guidance v05r02 dated April 2, 2019. ANSI C63.10-2020/Cor1-2023+C63.10a-2024+Errata to C63.10a-2024: American National Standard for Testing Unlicensed Wireless Devices..
Summary	IN COMPLIANCE
Approved by (name / position & signature)	Domingo Galvez EMC&RF Lab Manager 
Date of issue	2026-02-27
Report template No	FDT08_25 (*) "Data provided by the client"

Digitally signed by Domingo Galvez Duenas
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Acronyms

Acronym ID	Acronym Description
	E.I.R.P.
Avg Power	Maximum Average Conducted Output Power
Detector	Detector used
Ebw	Emission Bandwidth
Equipment	Equipment Type
Freq	Frequency
Freq Rng	Frequency Range
Freq Sep	Frequency Separation
Inband Peak Lvl	Inband Peak Level
Lvl	Level
MP	Measurement Point
Mod	Modulation
NHC	Number of Hopping Channels
Occ Ch BW	Occupied Channel Bandwidth
Operation Band	Operation Band
PSD	Power Spectral Density
Peak Power	Maximum Peak Conducted Output Power
Pol	Polarization
Port	Active Port
RU	Resource Unit
Unwanted Freq	Unwanted Emissions Frequency
Unwanted Lvl	Unwanted Emissions Level

Competences and guarantees

DEKRA Certification Inc. is a testing laboratory accredited by A2LA (The American Association for Laboratory Accreditation), to perform the tests indicated in the Certificate 2764.01 and CAB ID US0215.

The laboratory is registered under Laboratory Registration No. 263434 and recognized under MRA Designation No. US1228.

DEKRA Certification Inc. is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA Certification Inc. has a calibration and maintenance program for its measurement equipment.

DEKRA Certification Inc. guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated on the report and, it is based on the knowledge and technical facilities available at DEKRA Certification at the time of performance of the test.

DEKRA Certification Inc. is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

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General conditions

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of DEKRA Certification Inc.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA Certification Inc. and the Accreditation Bodies.

Uncertainty

Uncertainty (factor k=2) was calculated according to the DEKRA Certification internal document PODT000.

Test case	Frequency (MHz)	U (k=2)	Units
RF Power and PSD	2402-2483	0.88	dB
Occupied Bandwidth		1.87	%
Band Edge		0.64	dB
Conducted Spurious Emission	30 - 1000	0.48	dB
	1000 - 40000	0.94	dB
Radiated Spurious Emission	30-180	4.27	dB
	180-1000	3.14	dB
	1000-18000	3.30	dB
	18000-40000	3.49	dB

Data provided by the client

The following data has been provided by the client:

1. Information relating to the description of the sample ("Identification of the item tested", "Trademark", "Model and/or type reference tested").
2. The sample consists of a Waymo User eXperience Computer-F (UXC-F) that is used to facilitate an Audio and Video interface between the WAYMO Compute Box and the output sources, i.e., displays, speakers (via DHU). The UXC-F provides an android operating system platform to host Waymo's apps. The UXC-F also, provides Rear View Camera (RVC), and BT(BLE)/Wi-Fi capabilities. .

DEKRA declines any responsibility with respect to the information provided by the client and that may affect the validity of results.

Usage of samples

Samples undergoing test have been selected by: The client.

The sample(s) is composed of the following elements, accessories and auxiliary equipment:

Id	Control Number	Description	Model	Serial N°	Date of Reception	Application
S/01	5006/02	Automotive Ethernet converter	Rad moon 2	RN8769	2025-09-03	Accessory
S/01	5006/03	USB type C to USB type A cable			2025-09-03	Accessory
S/01	5006/04	CAT-6 RJ45 LAN DSL Network Cable Ethernet			2025-09-03	Accessory
S/01	5006/05	Gigabit Ethernet Adapter	USB3GIGV1	15710S05400889	2025-09-03	Accessory
S/01	5006/06	Coaxial CBL SMA to Mini FAKRA 6"	095-820-176-006	--	2025-09-03	Accessory
S/01	5006/07	H-MTD Harness Z Quad Port to Single-Port ETH cable	--	--	2025-09-03	Accessory
S/01	5006/08	Antennas 4G MIMO (x2) & Wi-Fi Mini Fakra connect	MA323.A.009	--	2025-09-03	Accessory
S/01	5006/09	Main Harness			2025-09-03	Accessory
S/01	5006/15	Laptop DELL Latitude 7440	P174G	PASLAP000001700	2025-09-03	Accessory
S/01	5006/16	AC Adapter	LA65NM190 LPS	--	2025-09-03	Accessory
S/01	5006/22	Automotive Infotainment Head Unit	WA-267-SKGN-HE	7044	2025-09-03	Element Under Test

Notes referenced to samples during the project:

Id	Note
S/01	Sample S/01, was used for the following test(s): All Conducted and Radiated tests indicated in appendix A

Test sample description

Test Sample description (compulsory information for EMC and RF testing services)

Ports..... :	Port name and description		Cable				
			Specified max length [m]	Attached during test	Shielded	Coupled to patient ⁽³⁾	
	Power		3	[X]	[]	[]	
	A2B Main		3	[X]	[]	[]	
	DISP0 to DISP4		3	[X]	[X]	[]	
	RVC (camera)		3	[X]	[X]	[]	
	Ethernetz		3	[X]	[X]	[]	
BT/Wi-Fi		3	[X]	[X]	[]		
Supplementary information to the ports..... :							
Rated power supply :	Voltage and Frequency		Reference poles				
	[]	AC:	[]	[]	[]	[]	[]
	[]	AC:	[]	[]	[]	[]	[]
	[X]	DC: 9V to 16Vdc, 13.1V typ.					
	[]	DC:					
Rated Power..... :	200W						
Clock frequencies :	19.2MHz, 48MHz, 2.5GHz, 24.576MHz, 10MHz, 125MHz, 19.2MHz, 512kHz, 32.8kHz, 200k						
Other parameters..... :							
Software version..... :	v6.3						
Hardware version..... :	PP1						
Dimensions in cm (W x H x D)..... :	313 x 150.6 x 55mm						
Mounting position..... :	[]	Table top equipment					
	[]	Wall/Ceiling mounted equipment					
	[]	Floor standing equipment					
	[]	Hand-held equipment					
	[X]	Other: Mounted vertical w/ connector pointing down					
Modules/parts :	Module/parts of test item		Type	Manufacturer			
	Display		TFT	BOE Varitronix			
	A2B Evaluation Board		Audio	Analog Devices			
	Ethernet Adapter		Radmoon 2	Intrepid Control Sy			
	Camera		GMSL1	Geely			
Accessories (not part of the test item)..... :	Description		Type	Manufacturer			
							
							
							
							
							
							

Documents as provided by the applicant :	Description	File name	Issue date
	Declaration Equipment Data	FDT30_19	2025-12-18

(3) Only for Medical Equipment

Identification of the client

Panasonic Automotive Systems America, LLC
776 Hwy 74 South, Peachtree City
GA 30269 United States

Testing period and place

Test Location	DEKRA Certification Inc. 405 Glenn Dr. Suite 12, Sterling, VA 20164 United States of America
Date (start)	2025-08-25
Date (finish)	2026-01-16

Document history

Report number	Date	Description
5006ERM.002	2026-02-05	First release.
5006ERM.002A1	2026-02-27	Second release. The addresses of the manufacturer and client have been updated on the cover page and the Identification of the Client page. The laboratory registration number and MRA designation number have been added to the Competences and Guarantees section. This updated draft test report cancels and replaces the report 5006ERM.002

Environmental conditions

In the control chamber, the following limits were not exceeded during the test:

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 30 % Max. = 60 %
Air pressure	Min. = 860mbar Max. = 1060mbar

In the semianechoic chamber, the following limits were not exceeded during the test.

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 30 % Max. = 60 %
Air pressure	Min. = 860mbar Max. = 1060mbar

In the chamber for conducted measurements, the following limits were not exceeded during the test:

Temperature	Min. = 15 °C Max. = 35 °C
Relative humidity	Min. = 30 % Max. = 60 %
Air pressure	Min. = 860mbar Max. = 1060mbar

Remarks and comments

The tests have been performed by the technical personnel: Prudhvi Kothapalli, Yuqi Wang, Victor Albrecht, Juliana Cherry, Yuri Barone and Koji Nishimoto.

Testing verdicts

Fail	F
Inconclusive	I
Not applicable	N/A
Not measured	N/M
Pass	P

Summary

Requirement – Test case	FCC PART 15 PARAGRAPH / RSS-247	Verdict	Remark
RSS-Gen / FCC 15.207 - Continuous conducted emission on Power leads		N/A	Refer 1
RSS-Gen / RSS-247 - [99dBW] Transmitter 99% Occupied Bandwidth		P	--
RSS-247 / FCC 15.247 - [20dBW] 20 dB Bandwidth		P	--
RSS-247 / FCC 15.247 - [CFS] Carrier Frequency Separation		P	--
RSS-247 / FCC 15.247 - [DwT] Time of Occupancy (Dwell Time)		P	--
RSS-247 / FCC 15.247 - [NHC] Number of hopping channels		P	--
RSS-247 / FCC 15.247 - [6dBw] 6 dB Bandwidth		P	Refer 3
RSS-247 / FCC 15.247 - [Pkcp] Maximum Peak Conducted Output Power		P	--
RSS-247 / FCC 15.247 - [Bndedge] Band-edge emissions compliance (Transmitter)		P	--
RSS-247 / FCC 15.247 - [RSE] Emission limitations radiated (Transmitter)		P	--
RSS-247 / FCC 15.247 - [Psd] Power spectral density		P	Refer 3

Supplementary information and remarks:

- According with the requirements of FCC Rules and Regulations, title 47, Chapter I, Subchapter A, Part 15, Subpart C, §15.207 Conducted limits, (c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ battery power for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the AC power lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, AC adapters or battery eliminators or that connect to the AC power lines indirectly, obtaining their power through another device which is connected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.
- Test case applicable to BTEDR
- Test case applicable to BTLE and WLAN

List of equipment used during the test

FCC 47 CFR Part 15.247 / RSS-247

Test Equipment for RSS-247 5.5 / FCC 15.247 (d) [RSE]

Control Num	Equipment	Manufacturer	Serial	Model	Next calibration
01481	SEMI-ANECHOIC CHAMBER	FRANKONIA	-	SAC-3 Square L	---
01010	ESR7 EMI TEST RECEIVER	RHODE & SCHWARZ	101790	ESR7	2027-04-11
01472	ETHERNET SNMP THERMOMETER	HW GROUP	60038038794	HWg-STE Plain	2026-10-24
01108	ETHERNET SNMP THERMOMETER	HW GROUP	60038026954	HWg-STE Plain	2026-10-18
01213	CONTROL ROOM	FRANKONIA	F169021-1	CR	---
01473	ETHERNET SNMP THERMOMETER	HW GROUP	60038038777	HWg-STE Plain	2026-10-24
01057	3115 DOUBLE-RIDGED WAVEGUIDE HORN ANTENNA (750 MHz-18 GHz)	ETS LINDGREN	00211373	3115	2026-07-18
01014	FSV40 SIGNAL ANALYZER 40GHZ	RHODE & SCHWARZ	101626	FSV40	2026-10-04
01056	3116C DOUBLE-RIDGED WAVEGUIDE HORN ANTENNA (18-40GHz)	ETS LINDGREN	00213179	3116C	2026-02-23
01314	WIRELESS MEASUREMENT SOFTWARE R&S EMC32	RHODE & SCHWARZ	1040-OT102236	---	---
01065	3142E BICONILOG ANTENNA	ETS LINDGREN	00208587	3142E	2028-02-03
01564	CONTROL ROOM 2	FRANKONIA	F219025-1	CR	---
01567	FRANKONIA TRANSPARENT RF SQUARE TEST TABLE	FRANKONIA	RFSqtab02	RF Sq table	---
01566	FRANKONIA TRANSPARENT RF SQUARE TEST TABLE	FRANKONIA	RFSqtab01	RF Sq table	---
01179	SEMI-ANECHOIC CHAMBER	FRANKONIA	F169021	SAC 3plus 'L'	---
00981	LOW NOISE PREAMPLIFIER (1-18GHz)	BONN ELEKTRONIK	1711156B	BLMA0118-2A	2026-02-21
01111	ETHERNET SNMP THERMOMETER	HW GROUP	60038026577	HWg-STE Plain	2026-10-24

Test Equipment for RSS-247 5.5 / FCC 15.247 (d) [Bndedge]

Control Num	Equipment	Manufacturer	Serial	Model	Next calibration
01474	ETHERNET SNMP THERMOMETER	HW GROUP	60038038766	HWg-STE Plain	2026-10-24
01042	SMBV 100A VECTOR SIGNAL GENERATOR	ROHDE & SCHWARZ	262575	SMBV100A	2026-06-06
01491	SMB 100B SIGNAL GENERATOR	ROHDE & SCHWARZ	103471	SMB100B	2028-03-20
01569	SHIELDED CHAMBER - 2	FRANKONIA	F219025-3	RF Lab - 2	---
01374	ESR7 EMI TEST RECEIVER	ROHDE & SCHWARZ	102390	ESR7	2026-06-05
01313	WIRELESS MEASUREMENT SOFTWARE R&S WMS32	RHODE & SCHWARZ	---	---	---

Test Equipment for RSS-247 5.4 / FCC 15.247 (b) [Pkcp]

Control Num	Equipment	Manufacturer	Serial	Model	Next calibration
01374	ESR7 EMI TEST RECEIVER	ROHDE & SCHWARZ	102390	ESR7	2026-06-05
01313	WIRELESS MEASUREMENT SOFTWARE R&S WMS32	RHODE & SCHWARZ	---	---	---
01569	SHIELDED CHAMBER - 2	FRANKONIA	F219025-3	RF Lab - 2	---
01042	SMBV 100A VECTOR SIGNAL GENERATOR	ROHDE & SCHWARZ	262575	SMBV100A	2026-06-06
01474	ETHERNET SNMP THERMOMETER	HW GROUP	60038038766	HWg-STE Plain	2026-10-24
01491	SMB 100B SIGNAL GENERATOR	ROHDE & SCHWARZ	103471	SMB100B	2028-03-20

Test Equipment for RSS-247 5.4 / FCC 15.247 (b) [Avcp]

Control Num	Equipment	Manufacturer	Serial	Model	Next calibration
01569	SHIELDED CHAMBER - 2	FRANKONIA	F219025-3	RF Lab - 2	---
01313	WIRELESS MEASUREMENT SOFTWARE R&S WMS32	RHODE & SCHWARZ	---	---	---
01374	ESR7 EMI TEST RECEIVER	ROHDE & SCHWARZ	102390	ESR7	2026-06-05
01491	SMB 100B SIGNAL GENERATOR	ROHDE & SCHWARZ	103471	SMB100B	2028-03-20
01042	SMBV 100A VECTOR SIGNAL GENERATOR	ROHDE & SCHWARZ	262575	SMBV100A	2026-06-06
01474	ETHERNET SNMP THERMOMETER	HW GROUP	60038038766	HWg-STE Plain	2026-10-24

Test Equipment for RSS-247 5.2 (a) / FCC 15.247 (a) (2) [6dBw]

Control Num	Equipment	Manufacturer	Serial	Model	Next calibration
01042	SMBV 100A VECTOR SIGNAL GENERATOR	ROHDE & SCHWARZ	262575	SMBV100A	2026-06-06
01569	SHIELDED CHAMBER - 2	FRANKONIA	F219025-3	RF Lab - 2	---
01374	ESR7 EMI TEST RECEIVER	ROHDE & SCHWARZ	102390	ESR7	2026-06-05
01313	WIRELESS MEASUREMENT SOFTWARE R&S WMS32	RHODE & SCHWARZ	---	---	---
01474	ETHERNET SNMP THERMOMETER	HW GROUP	60038038766	HWg-STE Plain	2026-10-24
01491	SMB 100B SIGNAL GENERATOR	ROHDE & SCHWARZ	103471	SMB100B	2028-03-20

Test Equipment for 99dBw

Control Num	Equipment	Manufacturer	Serial	Model	Next calibration
01042	SMBV 100A VECTOR SIGNAL GENERATOR	ROHDE & SCHWARZ	262575	SMBV100A	2026-06-06
01474	ETHERNET SNMP THERMOMETER	HW GROUP	60038038766	HWg-STE Plain	2026-10-24
01374	ESR7 EMI TEST RECEIVER	ROHDE & SCHWARZ	102390	ESR7	2026-06-05

Control Num	Equipment	Manufacturer	Serial	Model	Next calibration
01569	SHIELDED CHAMBER - 2	FRANKONIA	F219025-3	RF Lab - 2	---
01491	SMB 100B SIGNAL GENERATOR	ROHDE & SCHWARZ	103471	SMB100B	2028-03-20
01313	WIRELESS MEASUREMENT SOFTWARE R&S WMS32	RHODE & SCHWARZ	---	---	---

Test Equipment for [Psd]

Control Num	Equipment	Manufacturer	Serial	Model	Next calibration
01569	SHIELDED CHAMBER - 2	FRANKONIA	F219025-3	RF Lab - 2	---
01042	SMBV 100A VECTOR SIGNAL GENERATOR	ROHDE & SCHWARZ	262575	SMBV100A	2026-06-06
01374	ESR7 EMI TEST RECEIVER	ROHDE & SCHWARZ	102390	ESR7	2026-06-05
01313	WIRELESS MEASUREMENT SOFTWARE R&S WMS32	RHODE & SCHWARZ	---	---	---
01491	SMB 100B SIGNAL GENERATOR	ROHDE & SCHWARZ	103471	SMB100B	2028-03-20
01474	ETHERNET SNMP THERMOMETER	HW GROUP	60038038766	HWg-STE Plain	2026-10-24

Test Equipment for RSS-247 5.1 (d) / FCC 15.247 (a) (1) (iii) [NHC]

Control Num	Equipment	Manufacturer	Serial	Model	Next calibration
01042	SMBV 100A VECTOR SIGNAL GENERATOR	ROHDE & SCHWARZ	262575	SMBV100A	2026-06-06
01474	ETHERNET SNMP THERMOMETER	HW GROUP	60038038766	HWg-STE Plain	2026-10-24
01491	SMB 100B SIGNAL GENERATOR	ROHDE & SCHWARZ	103471	SMB100B	2028-03-20
01374	ESR7 EMI TEST RECEIVER	ROHDE & SCHWARZ	102390	ESR7	2026-06-05
01313	WIRELESS MEASUREMENT SOFTWARE R&S WMS32	RHODE & SCHWARZ	---	---	---
01569	SHIELDED CHAMBER - 2	FRANKONIA	F219025-3	RF Lab - 2	---

Test Equipment for RSS-247 5.1 (b) / FCC 15.247 (a) (1) [CFS]

Control Num	Equipment	Manufacturer	Serial	Model	Next calibration
01042	SMBV 100A VECTOR SIGNAL GENERATOR	ROHDE & SCHWARZ	262575	SMBV100A	2026-06-06
01569	SHIELDED CHAMBER - 2	FRANKONIA	F219025-3	RF Lab - 2	---
01313	WIRELESS MEASUREMENT SOFTWARE R&S WMS32	RHODE & SCHWARZ	---	---	---
01374	ESR7 EMI TEST RECEIVER	ROHDE & SCHWARZ	102390	ESR7	2026-06-05
01491	SMB 100B SIGNAL GENERATOR	ROHDE & SCHWARZ	103471	SMB100B	2028-03-20
01474	ETHERNET SNMP THERMOMETER	HW GROUP	60038038766	HWg-STE Plain	2026-10-24

Test Equipment for RSS-247 5.1 (b) / FCC 15.247 (a) (1) [20dBW]

Control Num	Equipment	Manufacturer	Serial	Model	Next calibration
01491	SMB 100B SIGNAL GENERATOR	ROHDE & SCHWARZ	103471	SMB100B	2028-03-20
01374	ESR7 EMI TEST RECEIVER	ROHDE & SCHWARZ	102390	ESR7	2026-06-05
01313	WIRELESS MEASUREMENT SOFTWARE R&S WMS32	RHODE & SCHWARZ	---	---	---
01569	SHIELDED CHAMBER - 2	FRANKONIA	F219025-3	RF Lab - 2	---
01042	SMBV 100A VECTOR SIGNAL GENERATOR	ROHDE & SCHWARZ	262575	SMBV100A	2026-06-06
01474	ETHERNET SNMP THERMOMETER	HW GROUP	60038038766	HWg-STE Plain	2026-10-24

Appendix A: Test results. BTLE, BTEDR, WLAN

Appendix A

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 99dBw Occupied Channel Bandwidth 99% 22

 RSS-247 5.1 (b) / FCC 15.247 (a) (1) [20dBW] 20 dB Bandwidth 102

 RSS-247 5.1 (b) / FCC 15.247 (a) (1) [CFS] Carrier Frequency Separation..... 142

 RSS-247 5.1 (d) / FCC 15.247 (a) (1) (iii) [NHC] Number of hopping channels 148

 RSS-247 5.2 (a) / FCC 15.247 (a) (2) [6dBw] 6 dB Bandwidth 155

 RSS-247 5.4 / FCC 15.247 (b) [Pkcp] Maximum Peak Conducted Output Power..... 235

 RSS-247 6.6 / FCC 15.247 (d) [Bndedge] Band-edge emissions compliance (Transmitter) 316

 RSS-247 5.5 / FCC 15.247 (d) [RSE] Emission limitations radiated (Transmitter) 446

 [Psd] Power Spectral Density 478

PRODUCT INFORMATION

The following information is provided by the client:

Information	Description
Modulation	BTLE: GFSK BTEDR: GFSK , DPQSK, 8DPSK WLAN: CCK, DSSS, OFDM (BPSK QPSK, 16/64QAM)
Operating Frequency Range	2400 - 2483.5 MHz
Nominal Channel Bandwidth	BTLE: 1 MHz, 2 MHz, BTEDR: 1MHz WLAN: 20 MHz, 40 MHz
RF Output Power	BTLE: 10 dBm BTEDR: 10 dBm WLAN: 14 dBm
Antenna type	The Taoglas Comet MA323 is a low profile, puck style, adhesive/magnetic mount 3-in-1 antenna.
Antenna gain	1.90 dBi
Nominal Voltage	
- Supply Voltage	12 Vdc
- Type of power source	DC voltage
Equipment type	Bluetooth LE Bluetooth Classic (BR & EDR) WLAN according to IEEE 802.11 b/g/n/ax

DESCRIPTION OF TEST CONDITIONS

During transmitter test the EUT was being controlled by the SW tool to operate in a continuous transmit mode on the test channel as required and in each of the different modulation modes.

BLUETOOTH LOW ENERGY

TEST CONDITIONS	DESCRIPTION
TC#01 (1 Mbps)	<u>Power supply (V):</u> $V_{\text{nominal}} = 12\text{V}$ Data Rate: 1 Mbps Bandwidth: 1 MHz <u>Test Frequencies for conducted/Radiated tests:</u> Lowest range: 2402 MHz Middle channel: 2440 MHz Highest range: 2480 MHz
TC#02 (2 Mbps)	<u>Power supply (V):</u> $V_{\text{nominal}} = 12\text{V}$ Data Rate: 2 Mbps Bandwidth: 2 MHz <u>Test Frequencies for Conducted/Radiated tests:</u> Lowest range: 2402 MHz Middle channel: 2440 MHz Highest range: 2480 MHz

BLUETOOTH BR/EDR

TEST CONDITIONS	DESCRIPTION
TC#01	<u>Power supply (V):</u> Vnominal = 12V <u>Modulation:</u> GFSK <u>Test Frequencies for conducted/Radiated tests:</u> Lowest range: 2402 MHz Middle channel: 2441 MHz Highest range: 2480 MHz
TC#02	<u>Power supply (V):</u> Vnominal = 12V <u>Modulation:</u> PI/4-DQPSK <u>Test Frequencies for Conducted/Radiated tests:</u> Lowest range: 2402 MHz Middle channel: 2441 MHz Highest range: 2480 MHz
TC#03	<u>Power supply (V):</u> Vnominal = 12V <u>Modulation:</u> 8-DPSK <u>Test Frequencies for Conducted/Radiated tests:</u> Lowest range: 2402 MHz Middle channel: 2441 MHz Highest range: 2480 MHz

Note (1): A pre-scan was performed to determine the worst-case scenario. Worst-case scenario detected is shown in the test results.

The data rates of 1-DH5 for GFSK, 2-DH5 for pi/4DQPSK, 3-DH5 for 8DPSK were selected based on the preliminary testing that identified those rates corresponding to the worst cases

WLAN 802.11

Test Conditions	Description
TC/01 ⁽¹⁾ (b mode)	<u>Power supply (V):</u> $V_{\text{nominal}} = 12 \text{ VDC}$ <u>Channel Bandwidth:</u> 20 MHz <u>Test Frequencies for Conducted/Radiated tests:</u> SISOA, SISOB, MIMO Lowest channel: 2412 MHz Middle channel: 2437 MHz Highest channel: 2462 MHz
TC/02 ⁽¹⁾ (g mode)	<u>Power supply (V):</u> $V_{\text{nominal}} = 12 \text{ VDC}$ <u>Channel Bandwidth:</u> 20 MHz <u>Test Frequencies for Conducted/Radiated tests:</u> SISOA, SISOB, MIMO Lowest channel: 2412 MHz Middle channel: 2437 MHz Highest channel: 2462 MHz
TC/03 ⁽¹⁾ (n mode)	<u>Power supply (V):</u> $V_{\text{nominal}} = 12 \text{ VDC}$ <u>Channel Bandwidth:</u> 20 MHz <u>Test Frequencies for Conducted tests:</u> SISOA, SISOB, MIMO Lowest channel: 2412 MHz Middle channel: 2437 MHz Highest channel: 2462 MHz
TC/04 ⁽¹⁾ (ax mode)	<u>Power supply (V):</u> $V_{\text{nominal}} = 12 \text{ VDC}$ <u>Channel Bandwidth:</u> 20 MHz <u>Test Frequencies for Conducted tests:</u> SISOA, SISOB, MIMO Lowest channel: 2412 MHz Middle channel: 2437 MHz Highest channel: 2462 MHz

Note (1): For spurious emissions OFDM/OFDMA modes a preliminary scan was performed to determine the worst case. The following tables and plots show the results for the worst case in DSSS modulation (802.11b) and OFDM modulation (802.11g20).

The data rates of 11 Mbps for 802.11b, 54 Mbps for 802.11g, MCS0 for 802.11n20, MCS7 for 802.11n40, MCS0 for 802.11ax20 and MCS11 for 802.11ax40 were selected based on the preliminary testing that identified those rates corresponding to the worst cases.

The Radiated Spurious emissions are performed only on the worst-case modulations and configurations for all BTEDR, BTLE and WLAN technologies.

Note: A preliminary scan has been performed to determine the worst port configuration for Partial RU, one worst port configuration and MIMO results are shown in this report.

Directional Antenna Gain Calculations for CDD MIMO In-Band Measurements:

For 2Tx CDD MIMO modes, in accordance with KDB 662911 D01 v02r01 Section F)2)f)i), directional gain was calculated as follows:

- For power spectral density (PSD) measurements:

$$\text{Directional gain}_{\text{PSD}} = G_{\text{ANT}} + 10 \log(N_{\text{ANT}}/N_{\text{SS}}) \text{ dBi}$$

$$N_{\text{SS}} = 1 \text{ (worst case)}, N_{\text{ANT}} = 2, G_{\text{ANT}} = 1.90 \text{ dBi}$$

$$\text{Directional gain}_{\text{PSD}} = -2.5 + 10 \log(2/1) = 1.90 + 10 \log(2) = 1.90 + 3.01 = +4.91 \text{ dBi}$$

$$\text{PSD Antenna Gain MIMO Chain 0 \& 1: } +4.91 \text{ dBi}$$

- For power measurements:

$$\text{Directional gain}_{\text{POWER}} = G_{\text{ANT}} \text{ dBi } (N_{\text{ANT}} < 4)$$

$$\text{Directional gain}_{\text{POWER}} = G_{\text{ANT}} = 1.90 \text{ dBi}$$

$$\text{Power Antenna Gain MIMO Chain 0 \& 1: } 1.90 \text{ dBi}$$

Test cases details

FCC 47 CFR Part 15.247 / RSS-247

99dBw Occupied Channel Bandwidth 99%

Limits

RSS-Gen 6.7 / FCC 2.1049 - Occupied Channel Bandwidth 99%

The occupied bandwidth or the “99% emission bandwidth” is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained.

Modulation: BTLE (GFSK 1 Mbit/s)

Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Occ Ch BW (MHz)
[2400, 2483.5]	Digital Transmission System (DTS)	2402.00000	1	1.025
		2440.00000		1.025
		2480.00000		1.025

Verdict

Pass

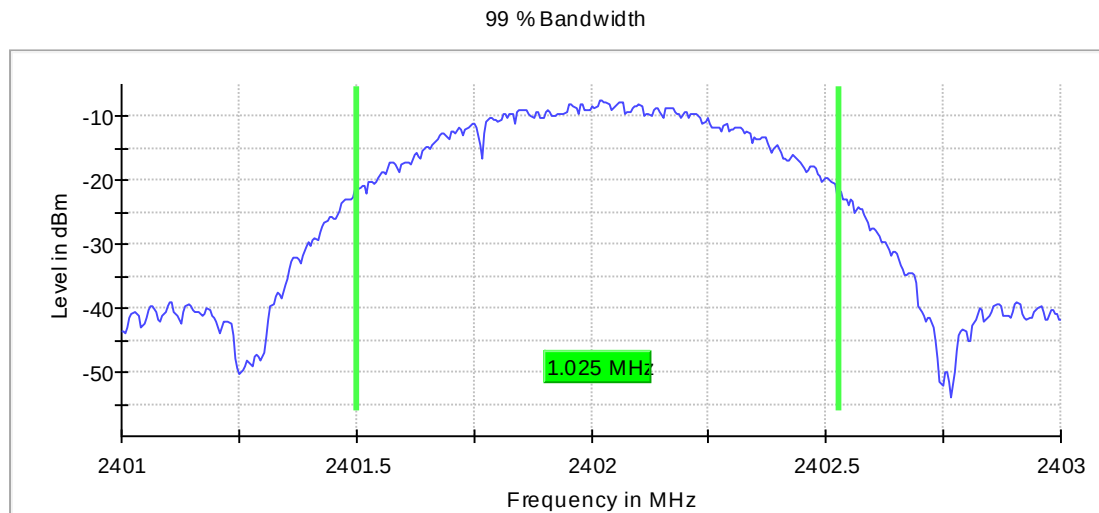
Attachments

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2402.00000 Active Port = 1

Modulation = BTLE (GFSK 1 Mbit/s)

Images:

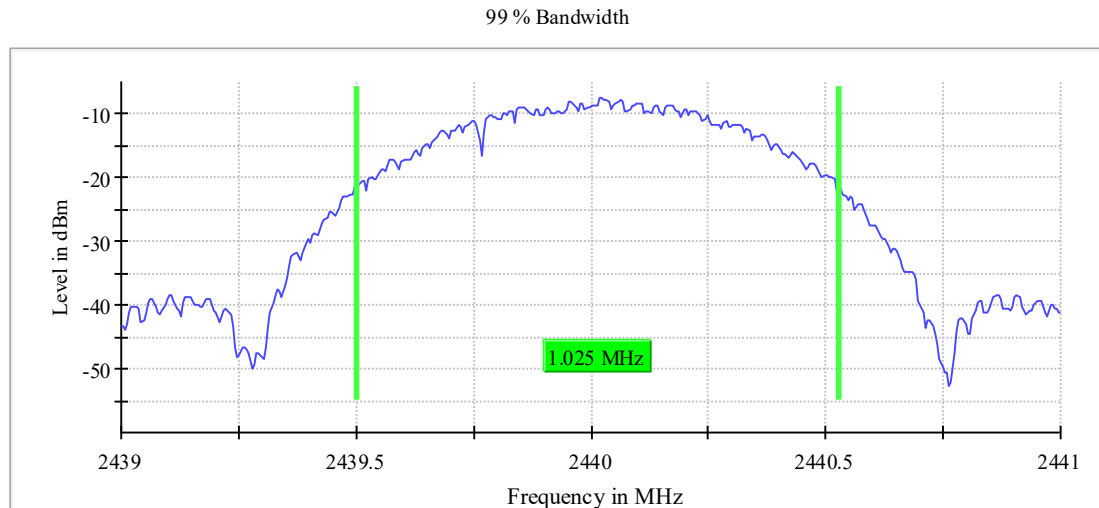


Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2440.00000 Active Port = 1

Modulation = BTLE (GFSK 1 Mbit/s)

Images:



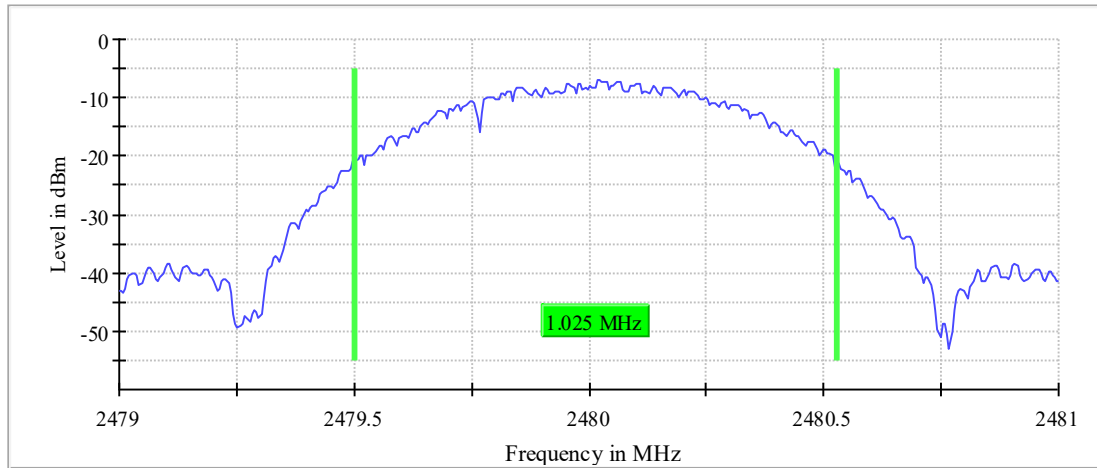
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2480.00000 Active Port = 1

Modulation = BTLE (GFSK 1 Mbit/s)

Images:

99 % Bandwidth



Date: 17.NOV.2025 17:34:40

Modulation: BTLE (GFSK 2 Mbit/s)
Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Occ Ch BW (MHz)
[2400, 2483.5]	Digital Transmission System (DTS)	2402.00000	1	1.020
		2440.00000		1.030
		2480.00000		1.020

Verdict

Pass

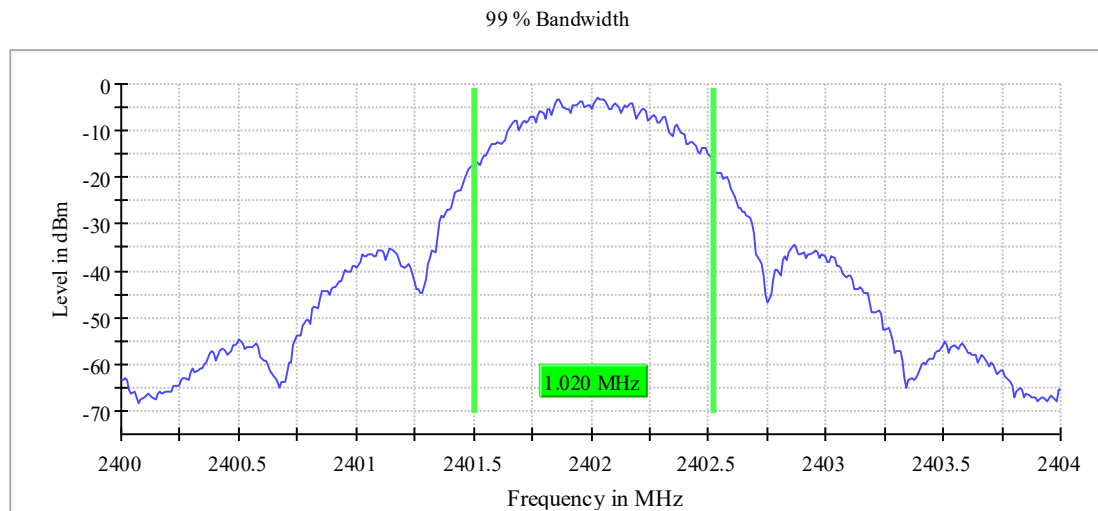
Attachments

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2402.00000 Active Port = 1

Modulation = BTLE (GFSK 2 Mbit/s)

Images:



Date: 17.NOV.2025 17:42:09

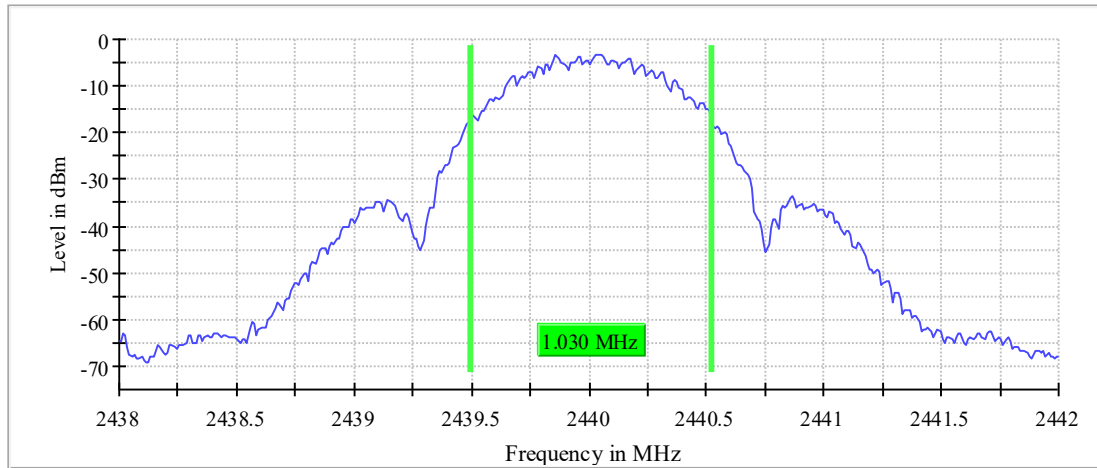
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2440.00000 Active Port = 1

Modulation = BTLE (GFSK 2 Mbit/s)

Images:

99 % Bandwidth



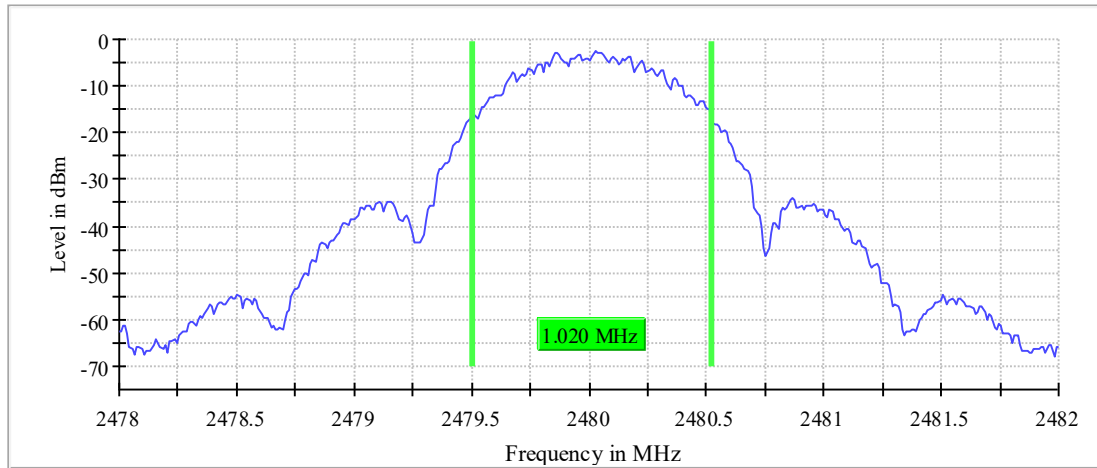
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2480.00000 Active Port = 1

Modulation = BTLE (GFSK 2 Mbit/s)

Images:

99 % Bandwidth



Date: 17.NOV.2025 17:45:21

Modulation: BT (GFSK 1-DH5)
Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Occ Ch BW (MHz)
[2400, 2483.5]	Frequency Hopping Spread Spectrum systems (FHSS)	2402.00000	1	0.845
		2441.00000		0.845
		2480.00000		0.845

Verdict

Pass

Attachments

Operation Band MHz = [2400,
2483.5]

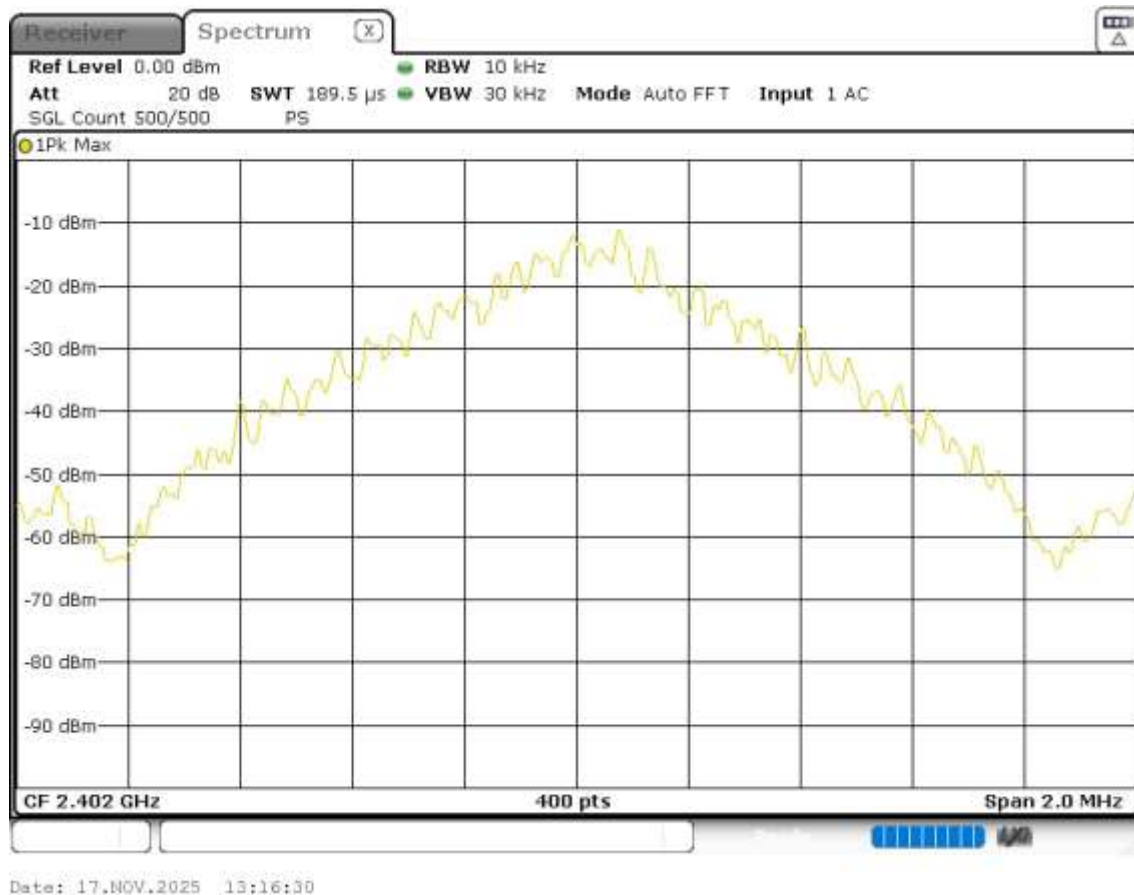
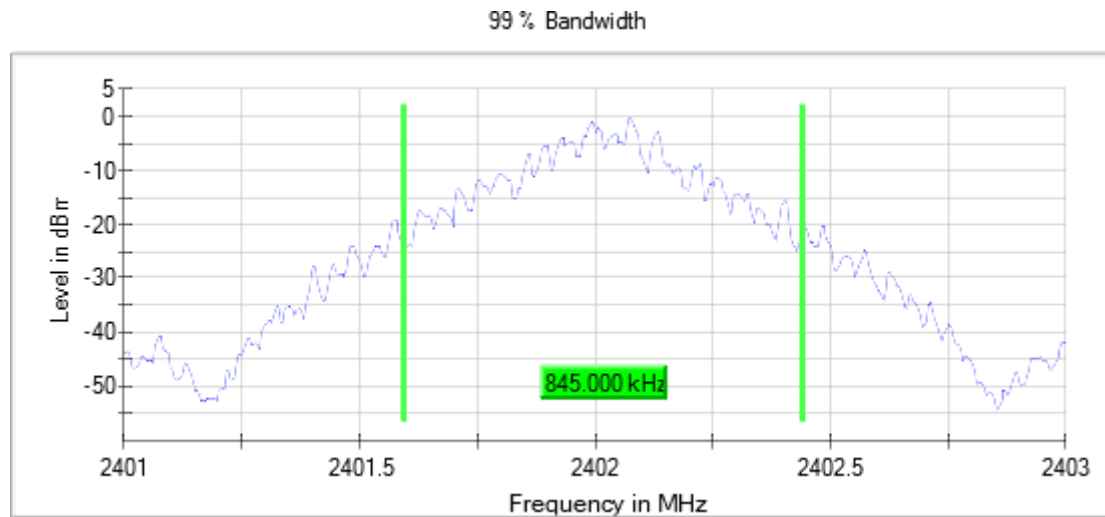
Equipment Type = Frequency Hopping Spread Spectrum systems
(FHSS)

Frequency MHz = 2402.00000

Active Port = 1

Modulation = BT (GFSK 1-DH5)

Images:



Operation Band MHz = [2400,
2483.5]

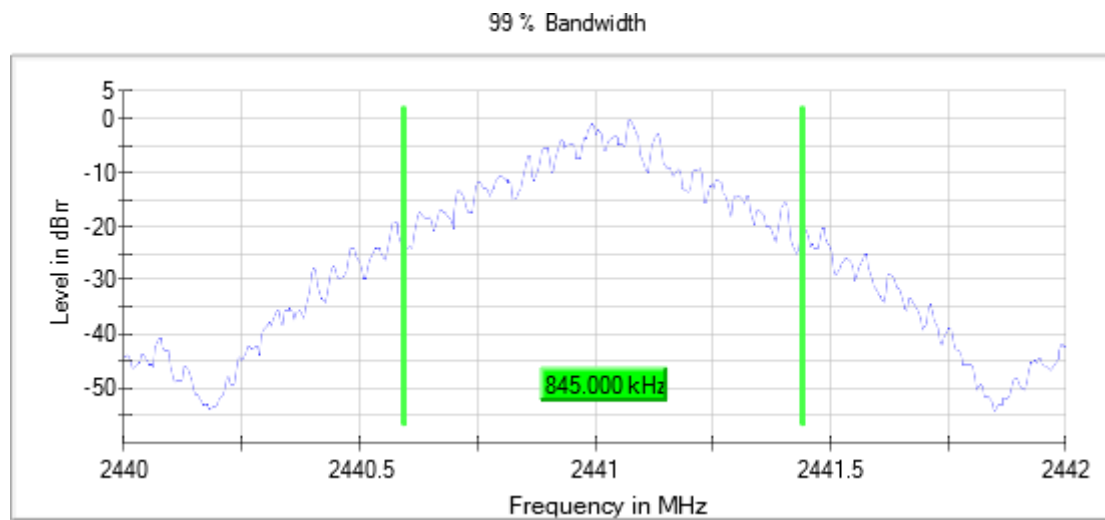
Equipment Type = Frequency Hopping Spread Spectrum systems
(FHSS)

Frequency MHz = 2441.00000

Active Port = 1

Modulation = BT (GFSK 1-DH5)

Images:



Date: 17.NOV.2025 13:16:28

Operation Band MHz = [2400,
2483.5]

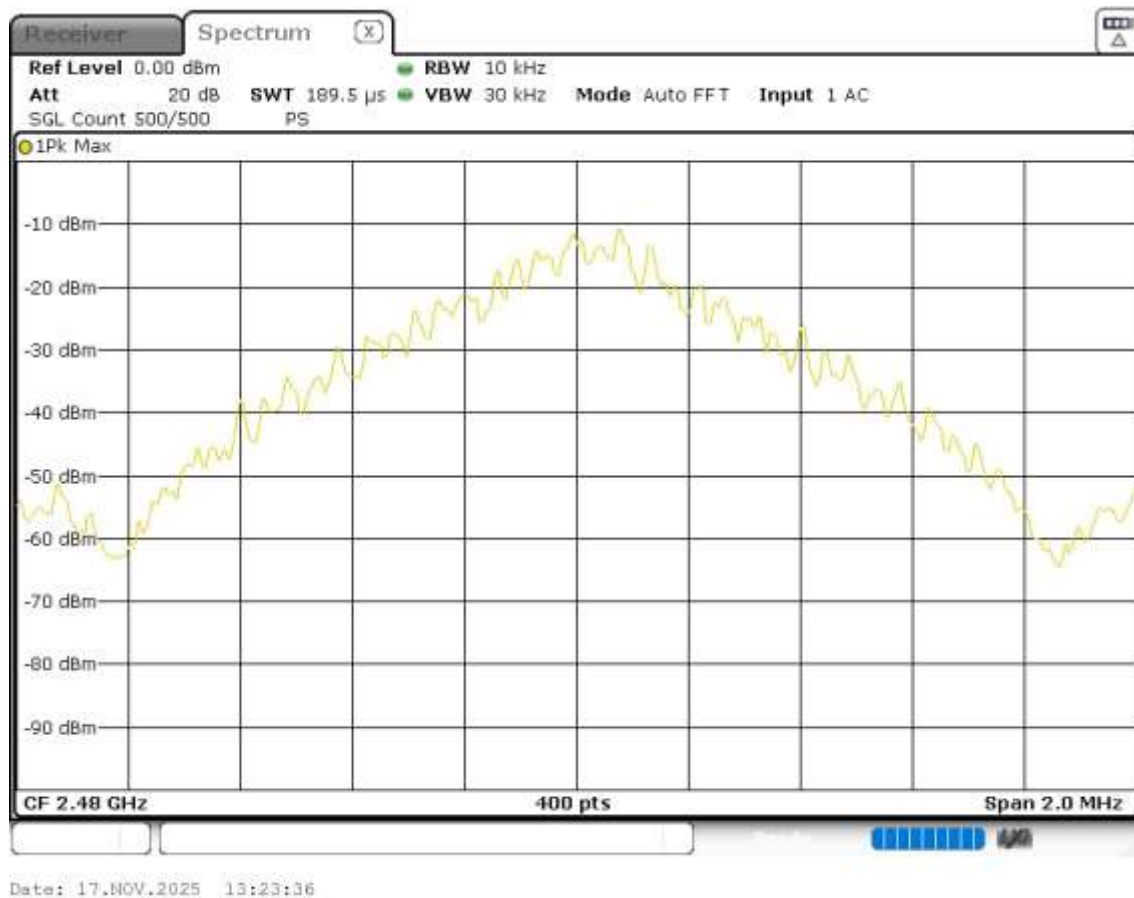
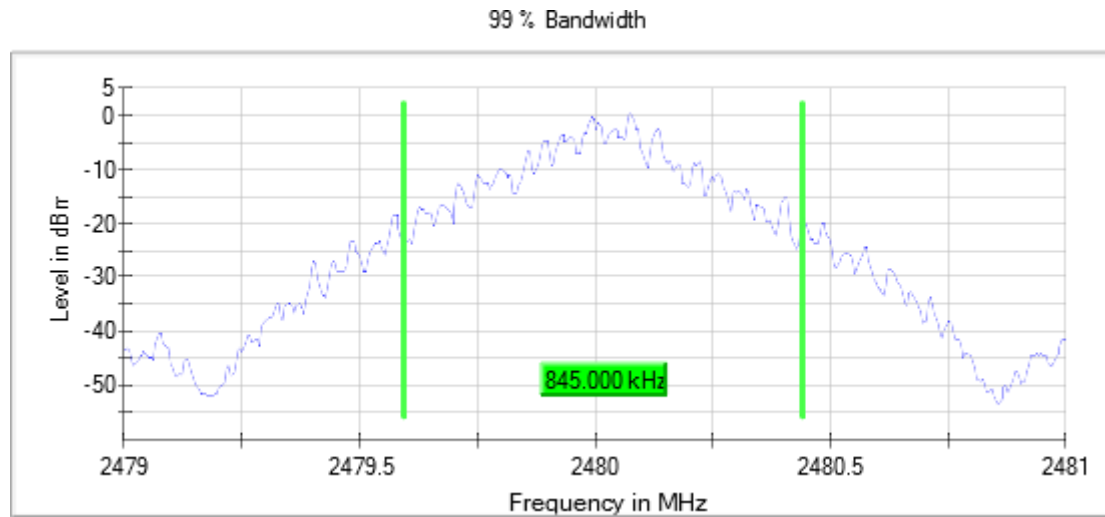
Equipment Type = Frequency Hopping Spread Spectrum systems
(FHSS)

Frequency MHz = 2480.00000

Active Port = 1

Modulation = BT (GFSK 1-DH5)

Images:



Modulation: BT (Pi/4 DQPSK 2-DH5)
Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Occ Ch BW (MHz)
[2400, 2483.5]	Frequency Hopping Spread Spectrum systems (FHSS)	2402.00000	1	1.195
		2441.00000		1.195
		2480.00000		1.200

Verdict

Pass

Attachments

Operation Band MHz = [2400,
2483.5]

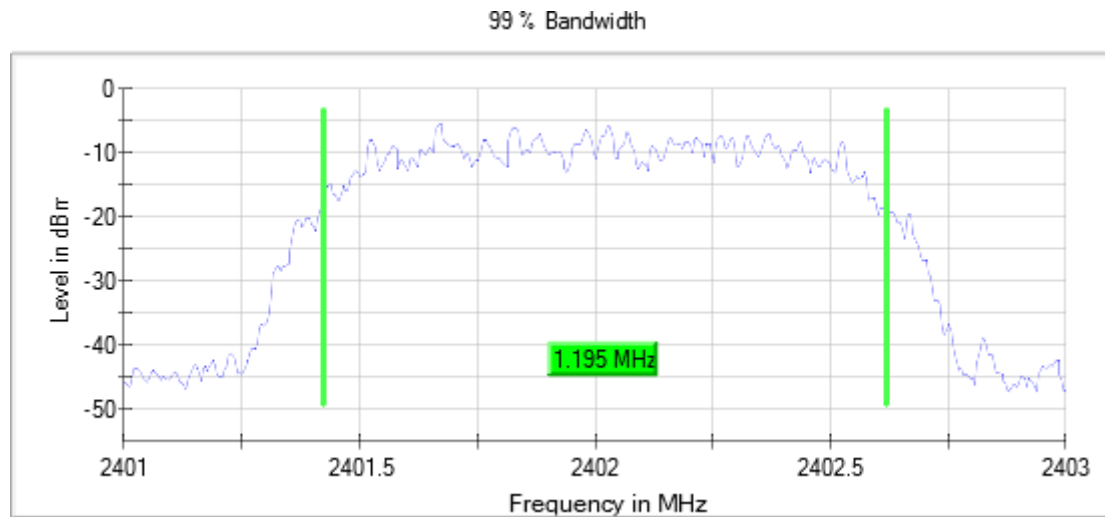
Equipment Type = Frequency Hopping Spread Spectrum systems
(FHSS)

Frequency MHz = 2402.00000

Active Port = 1

Modulation = BT (Pi/4 DQPSK 2-
DH5)

Images:



Date: 17.NOV.2025 14:01:49

Operation Band MHz = [2400,
2483.5]

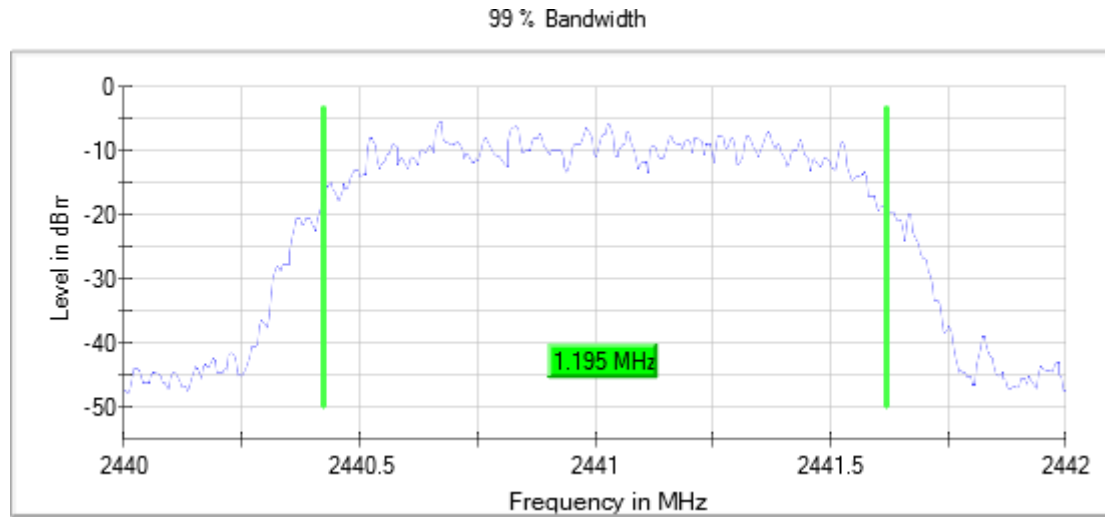
Equipment Type = Frequency Hopping Spread Spectrum systems
(FHSS)

Frequency MHz = 2441.00000

Active Port = 1

Modulation = BT (Pi/4 DQPSK 2-
DH5)

Images:



Operation Band MHz = [2400,
2483.5]

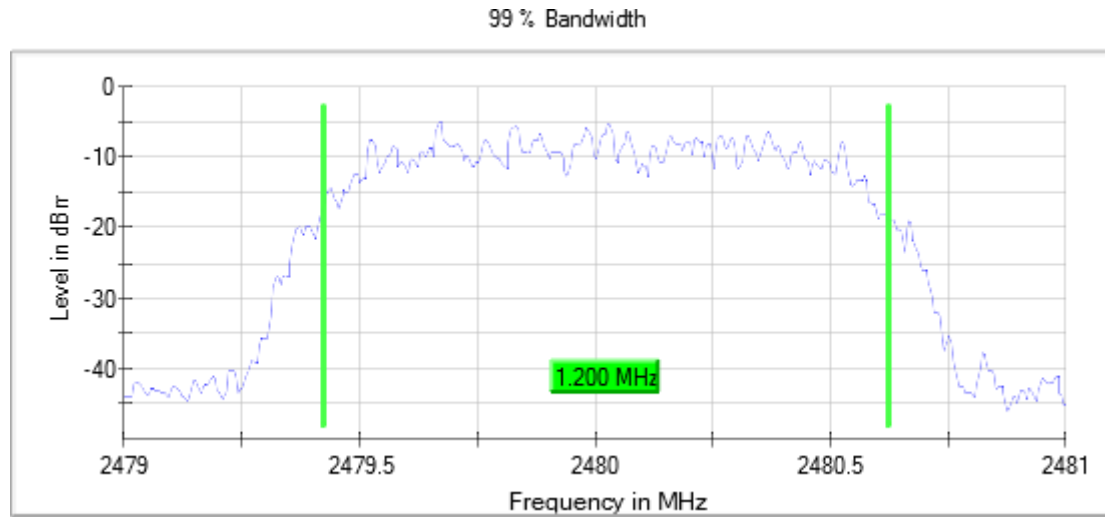
Equipment Type = Frequency Hopping Spread Spectrum systems
(FHSS)

Frequency MHz = 2480.00000

Active Port = 1

Modulation = BT (Pi/4 DQPSK 2-
DH5)

Images:



Modulation: BT (8DPSK 3-DH5)
Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Occ Ch BW (MHz)
[2400, 2483.5]	Frequency Hopping Spread Spectrum systems (FHSS)	2402.00000	1	1.205
		2441.00000		1.210
		2480.00000		1.210

Verdict

Pass

Attachments

Operation Band MHz = [2400,
2483.5]

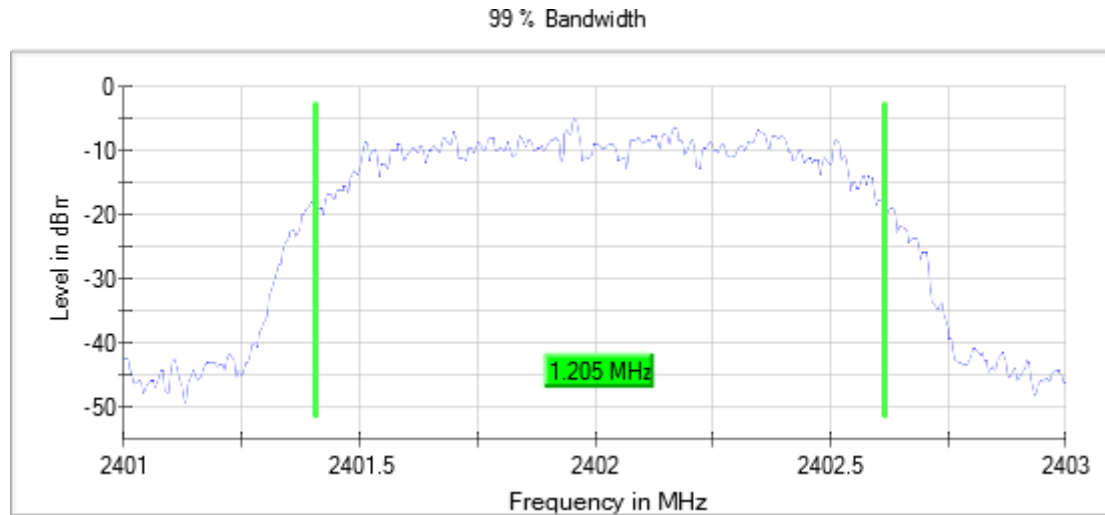
Equipment Type = Frequency Hopping Spread Spectrum systems
(FHSS)

Frequency MHz = 2402.00000

Active Port = 1

Modulation = BT (8DPSK 3-DH5)

Images:



Operation Band MHz = [2400,
2483.5]

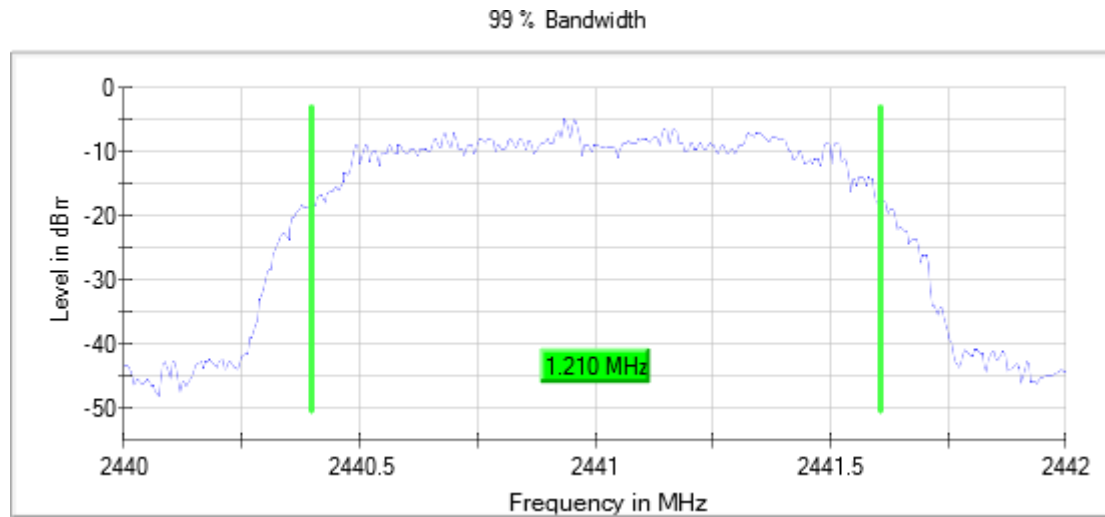
Equipment Type = Frequency Hopping Spread Spectrum systems
(FHSS)

Frequency MHz = 2441.00000

Active Port = 1

Modulation = BT (8DPSK 3-DH5)

Images:



Date: 17.NOV.2025 14:21:19

Operation Band MHz = [2400,
2483.5]

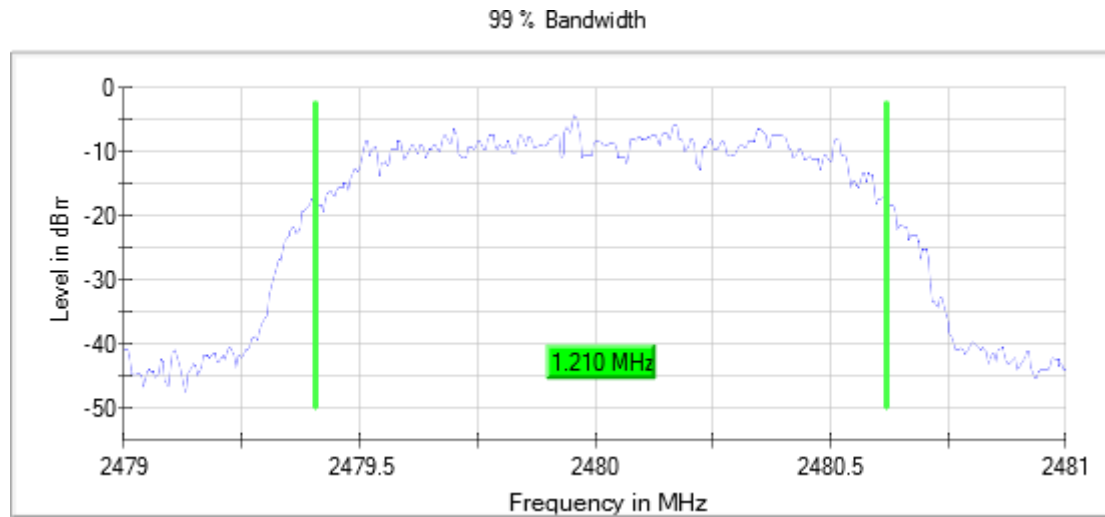
Equipment Type = Frequency Hopping Spread Spectrum systems
(FHSS)

Frequency MHz = 2480.00000

Active Port = 1

Modulation = BT (8DPSK 3-DH5)

Images:



Date: 17.NOV.2025 14:22:20

Modulation: 802.11b (DSSS 11 Mbit/s)
Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Occ Ch BW (MHz)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	1	13.200
			2	12.800
		2437.00000	1	13.100
			2	12.800
		2462.00000	1	13.100
			2	12.700
		2412.00000	1+2	13.200
		2437.00000		13.000
		2462.00000		13.000

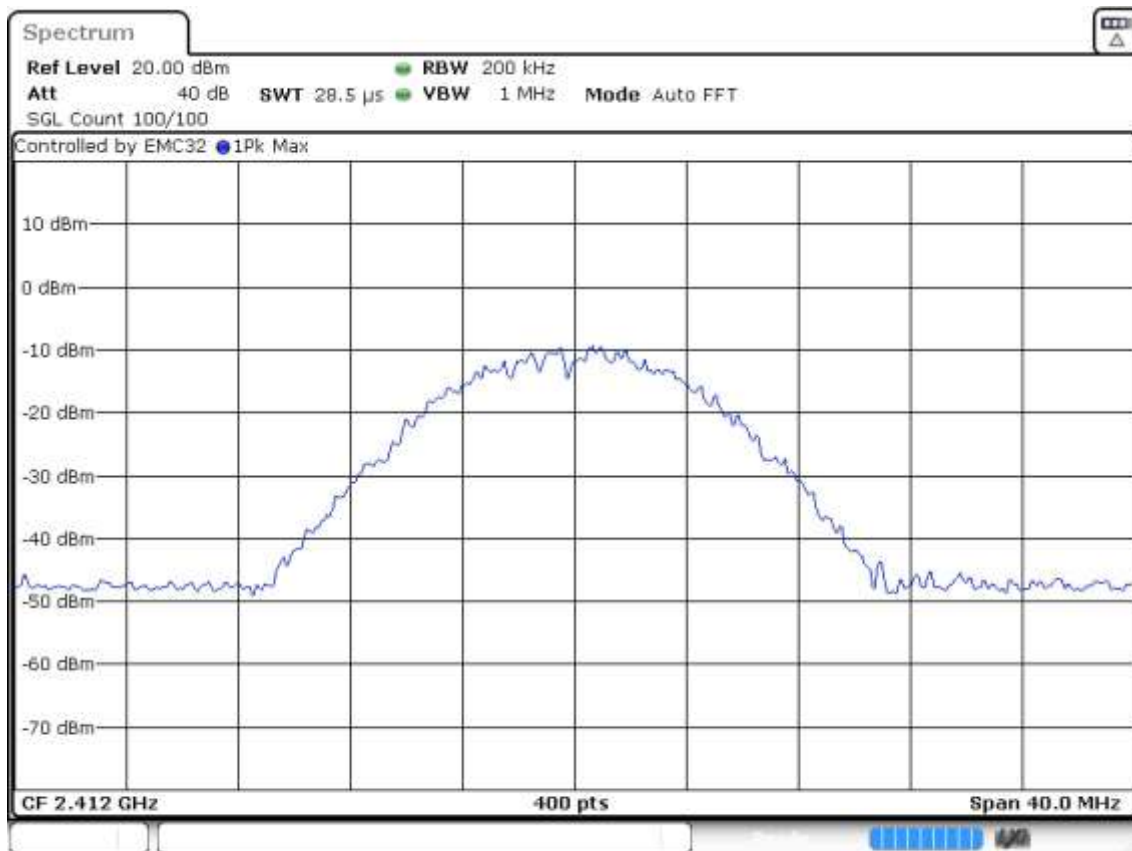
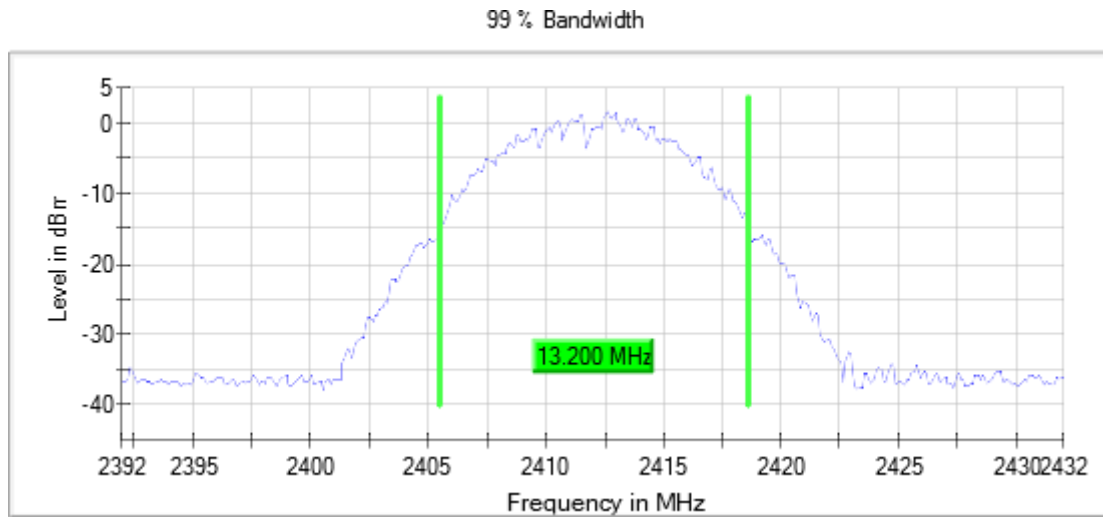
Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 1
Modulation = 802.11b (DSSS 11 Mbit/s)

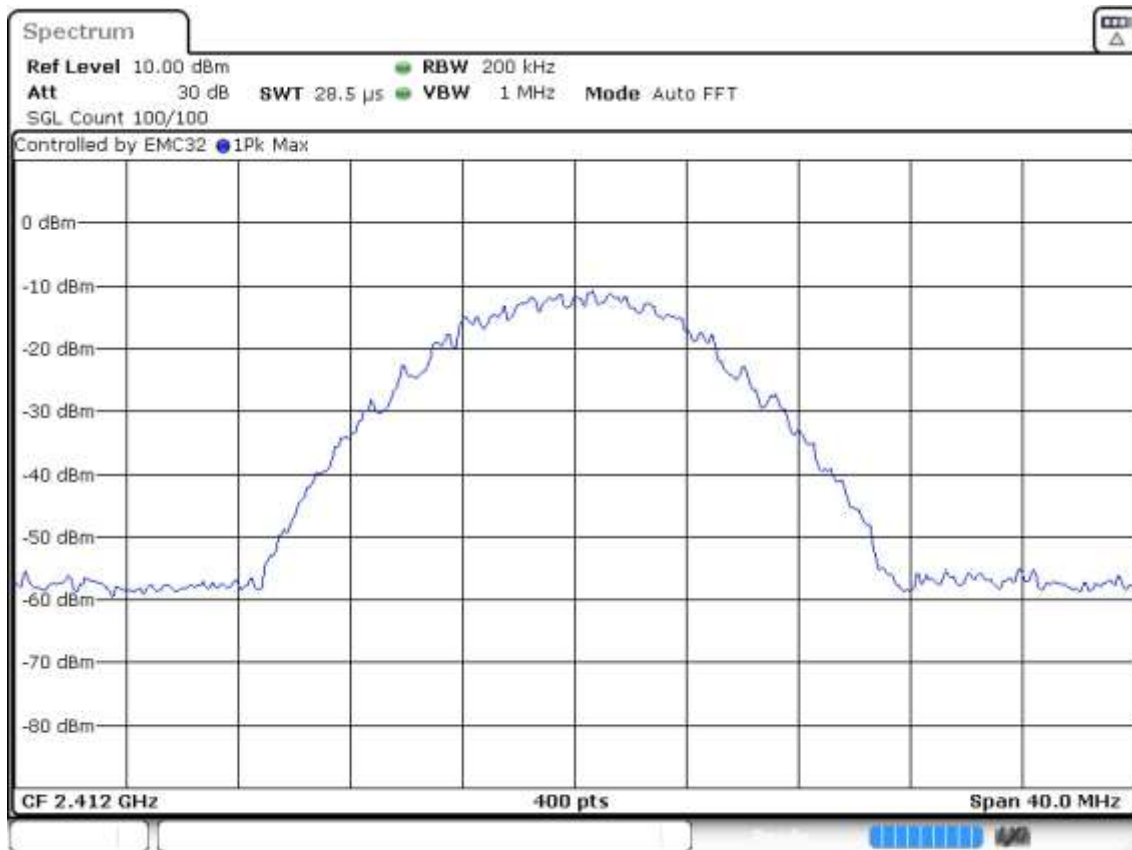
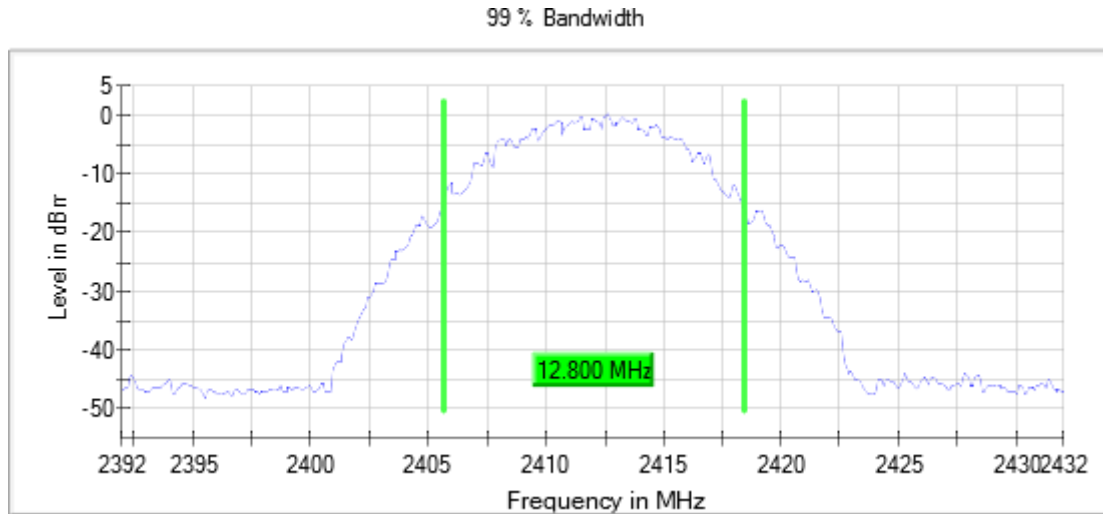
Images:



Date: 14.DEC.2025 11:20:18

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 2
Modulation = 802.11b (DSSS 11 Mbit/s)

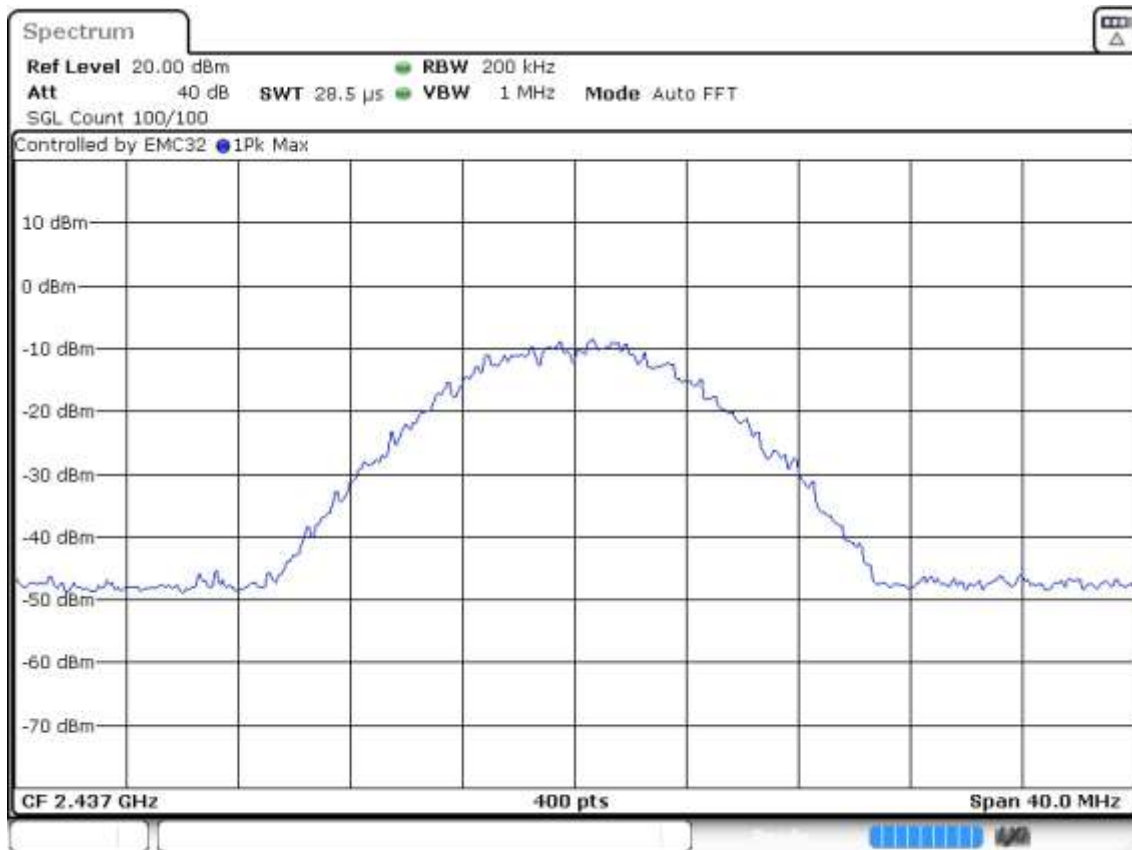
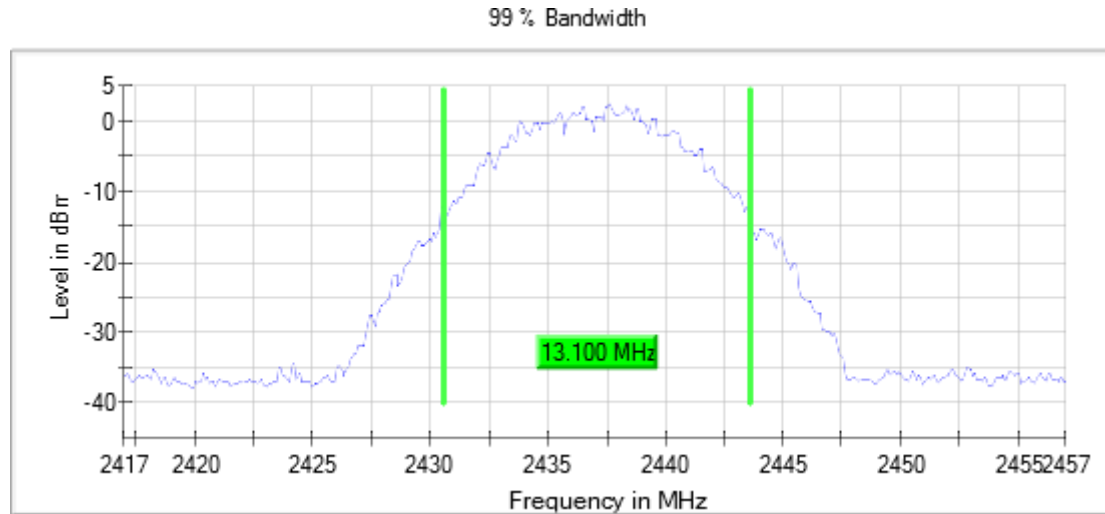
Images:



Date: 14 DEC 2025 17:04:41

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2437.00000 Active Port = 1
Modulation = 802.11b (DSSS 11 Mbit/s)

Images:



Date: 14 DEC. 2025 11:26:10

Operation Band MHz = [2400, 2483.5]

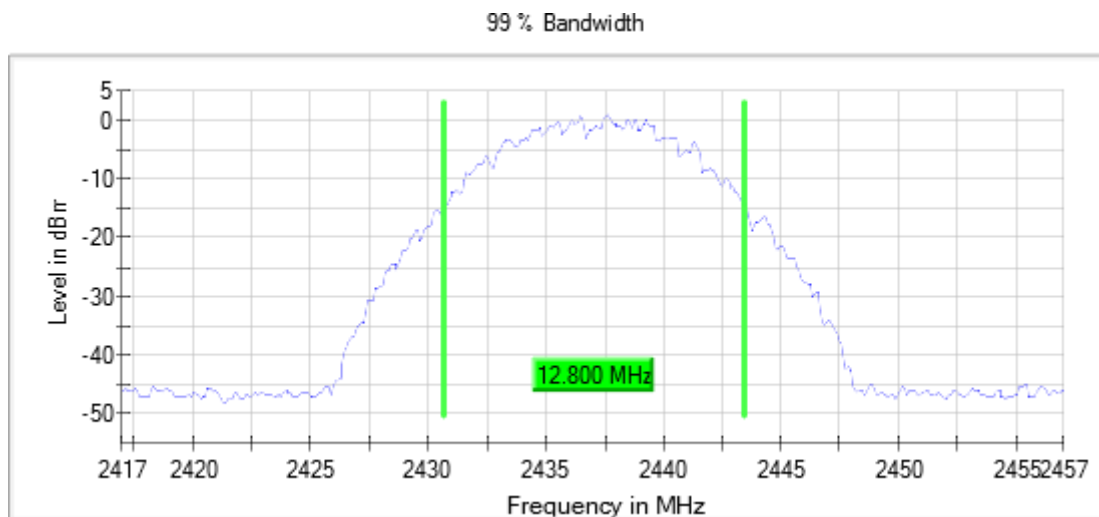
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000

Active Port = 2

Modulation = 802.11b (DSSS 11 Mbit/s)

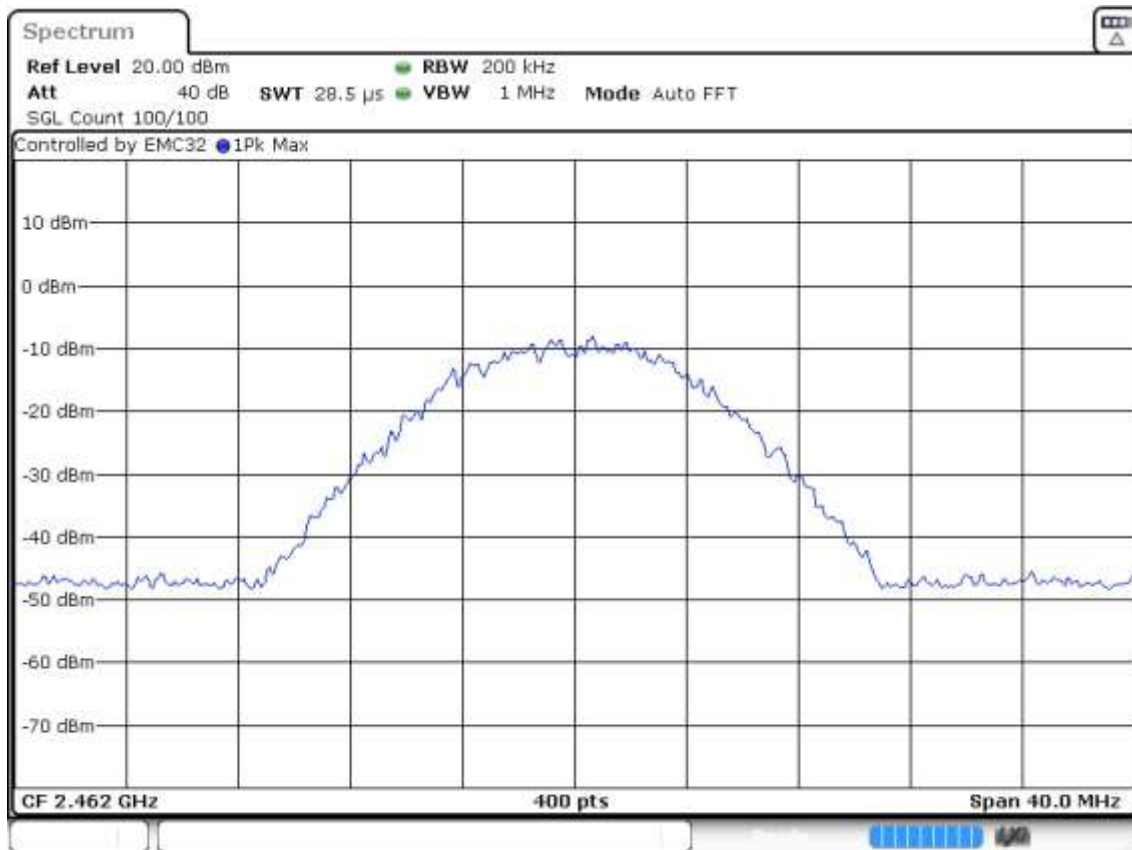
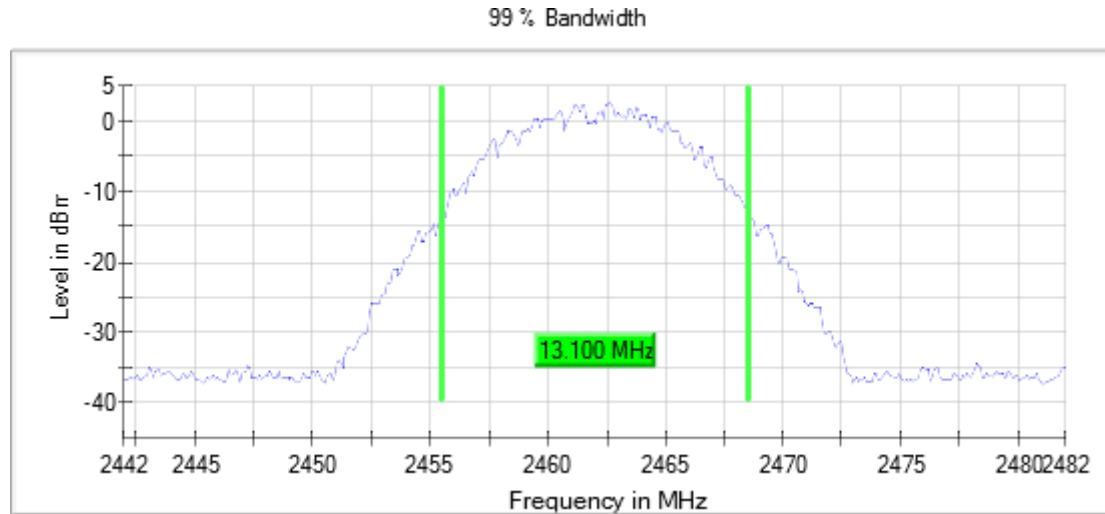
Images:



Date: 14 DEC 2025 17:17:03

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 1
Modulation = 802.11b (DSSS 11 Mbit/s)

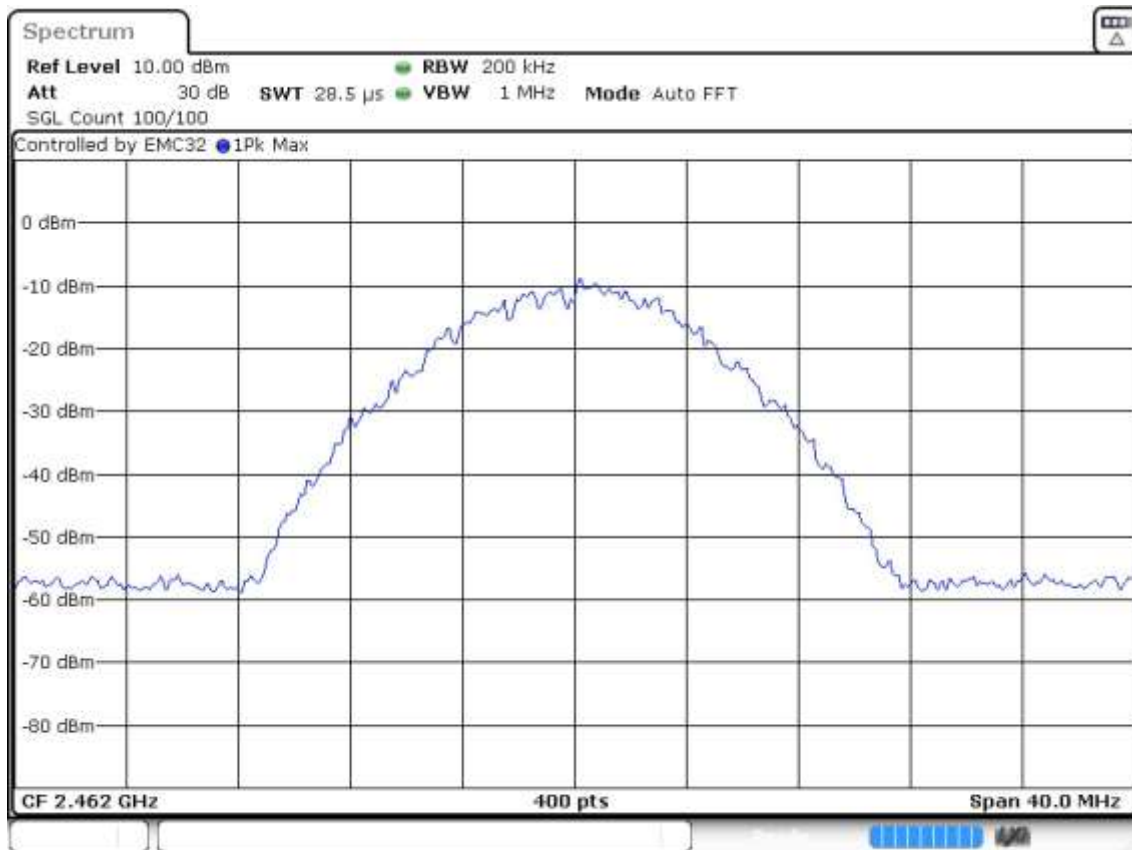
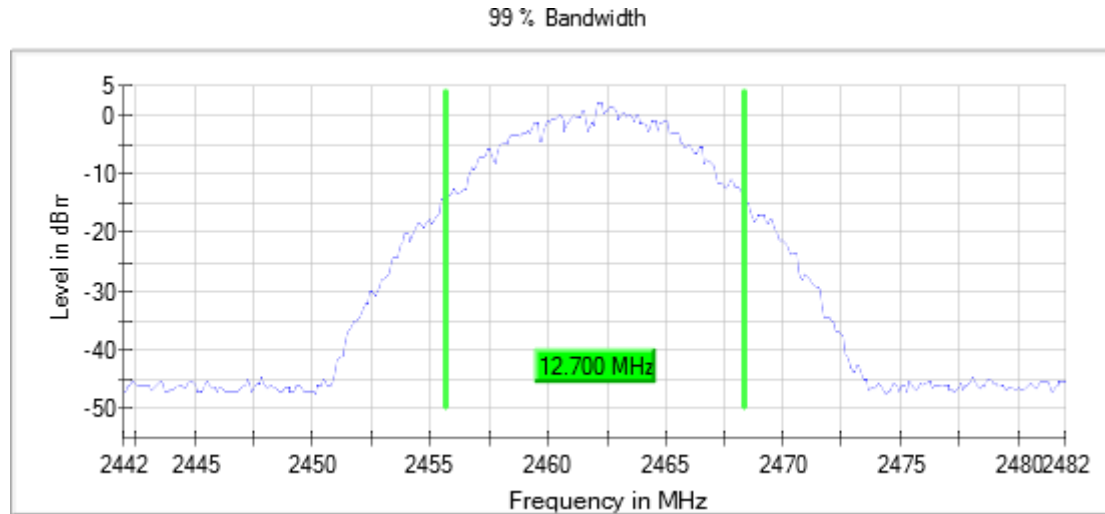
Images:



Date: 14 DEC. 2025 11:35:06

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 2
Modulation = 802.11b (DSSS 11 Mbit/s)

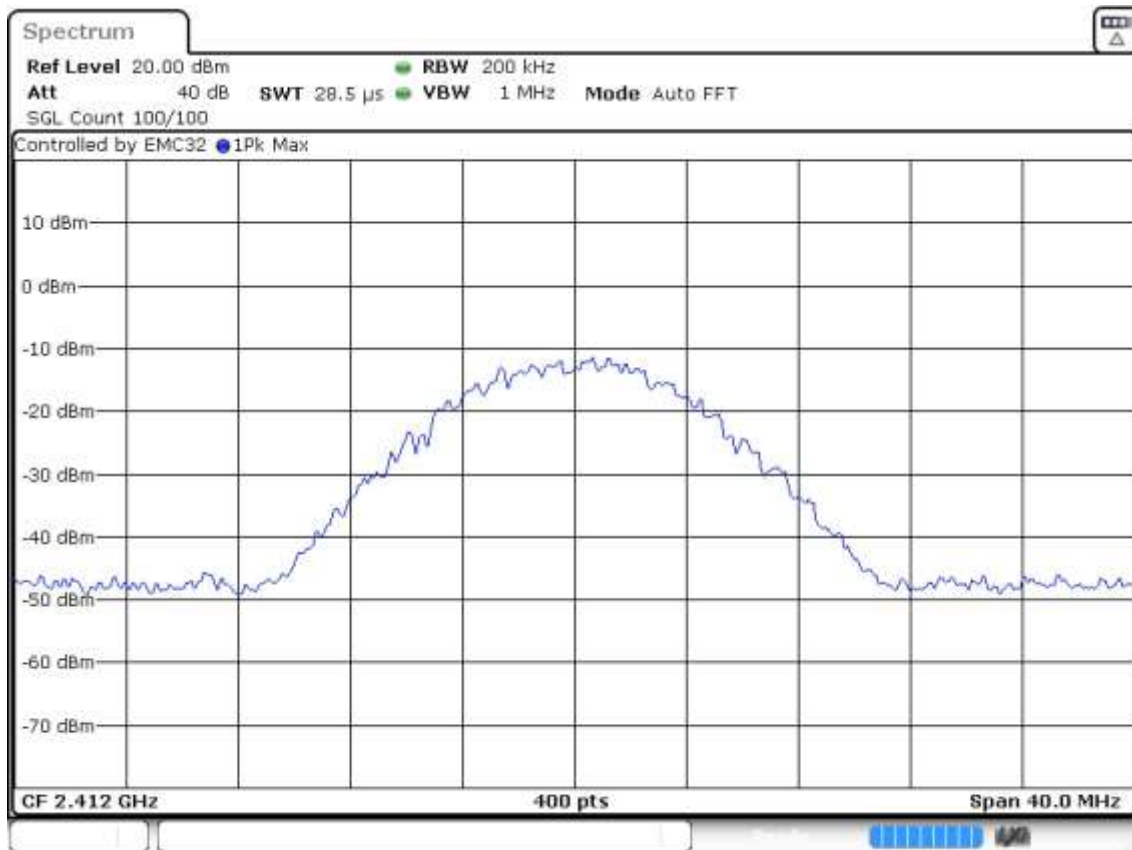
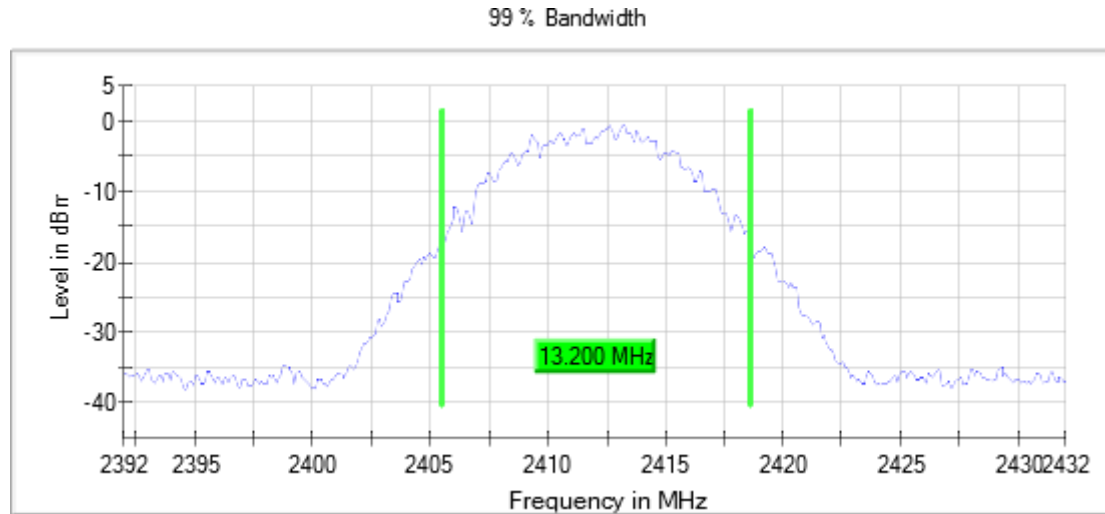
Images:



Date: 14 DEC. 2025 18:06:01

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 1+2
Modulation = 802.11b (DSSS 11 Mbit/s)

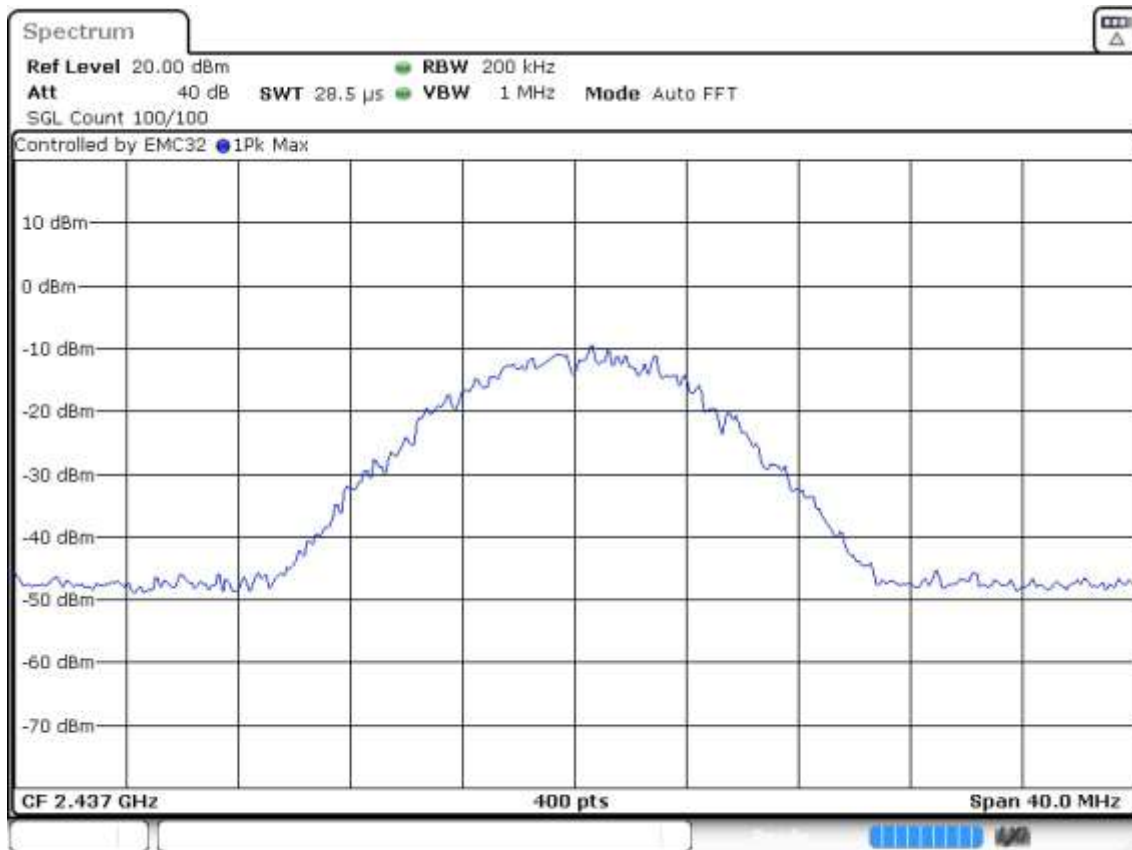
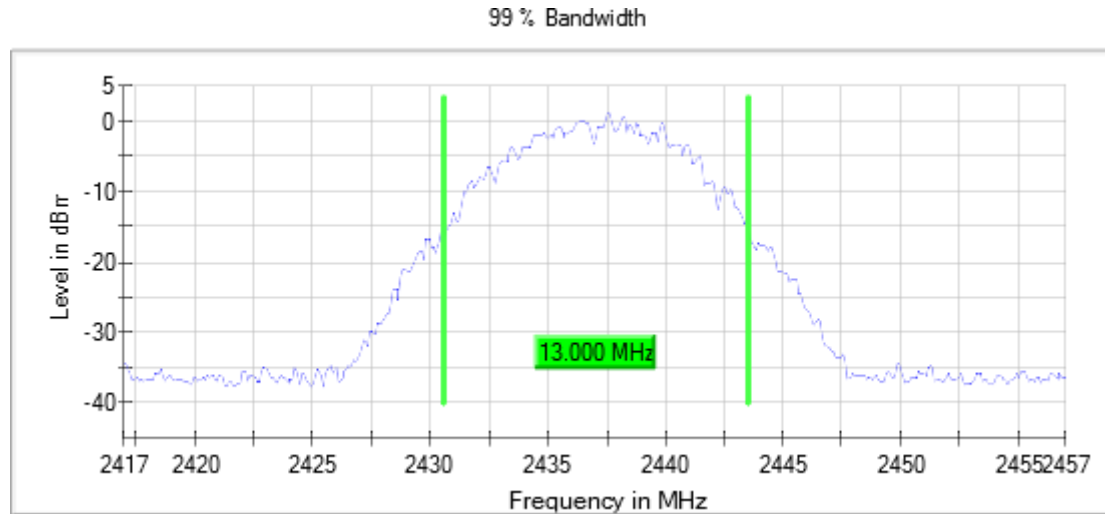
Images:



Date: 14.DEC.2025 18:17:13

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2437.00000 Active Port = 1+2
Modulation = 802.11b (DSSS 11 Mbit/s)

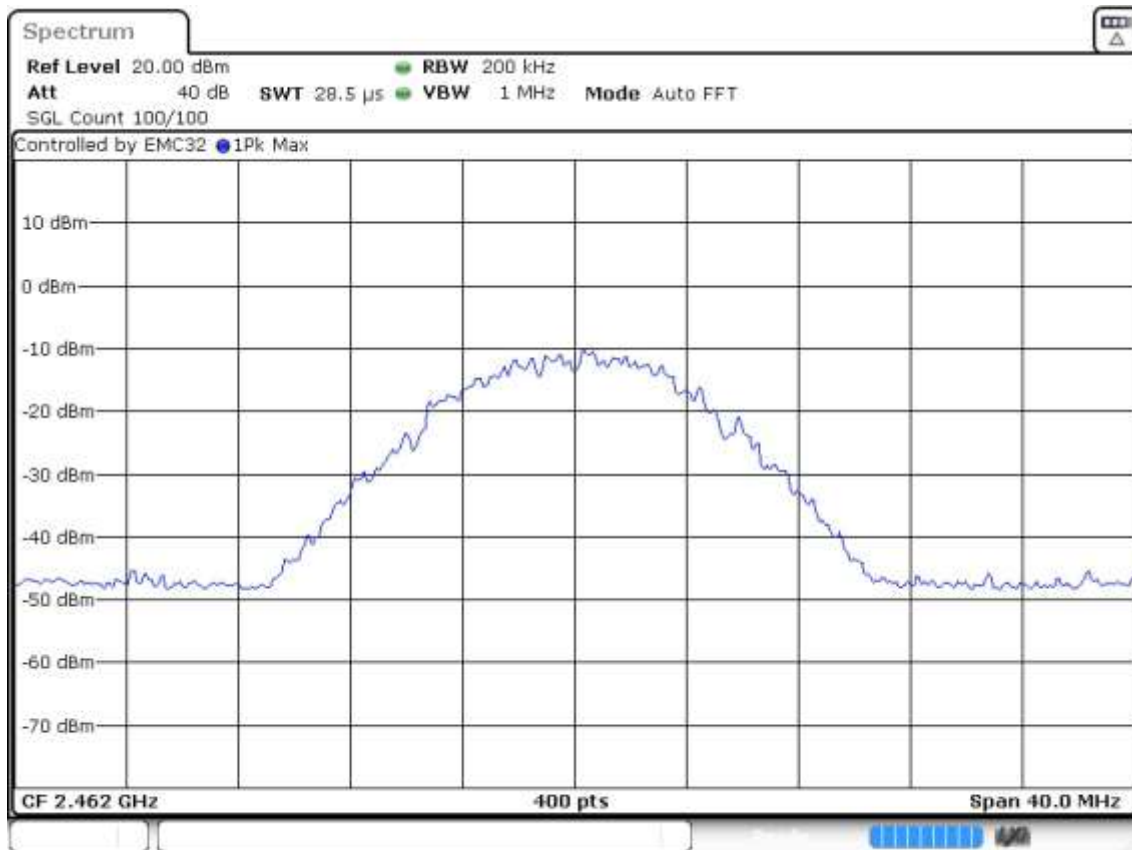
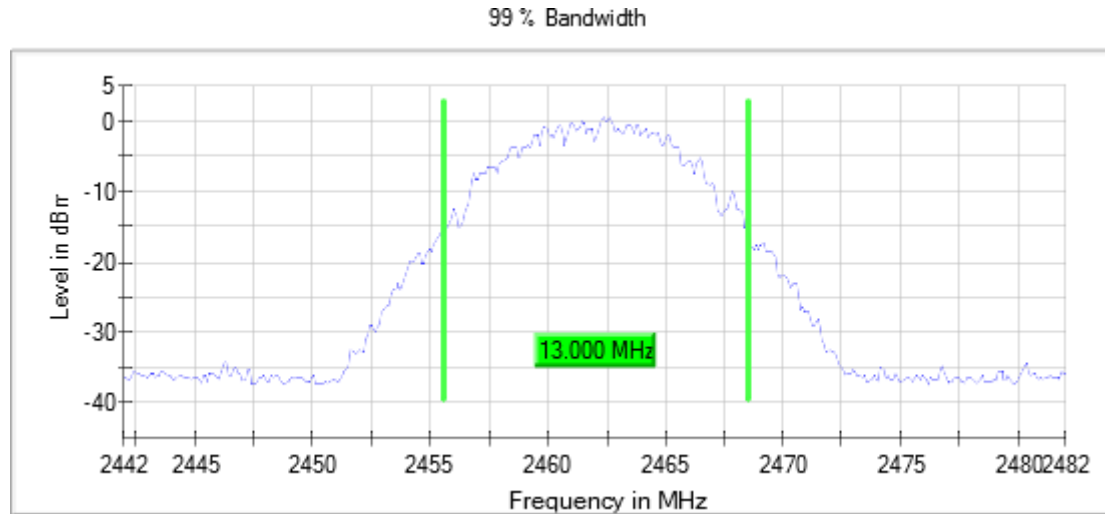
Images:



Date: 14.DEC.2025 18:23:17

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 1+2
Modulation = 802.11b (DSSS 11 Mbit/s)

Images:



Date: 14 DEC. 2025 18:29:13

Modulation: 802.11g (OFDM 54 Mbit/s)
Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Occ Ch BW (MHz)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	1	16.700
			2	16.700
		2437.00000	1	16.800
			2	16.600
		2462.00000	1	16.800
			2	16.600
		2412.00000	1+2	16.700
		2437.00000		16.800
		2462.00000		16.800

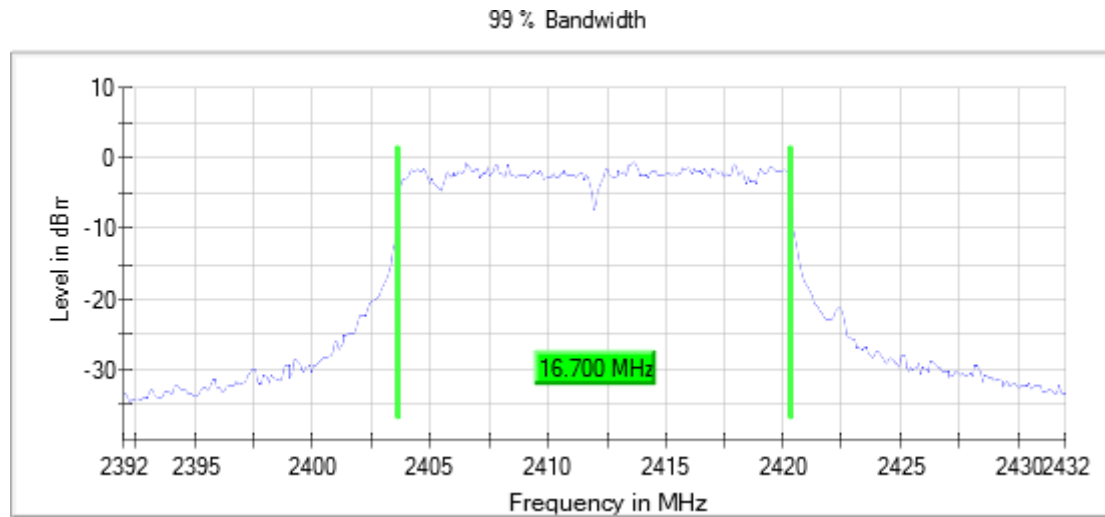
Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 1
Modulation = 802.11g (OFDM 54 Mbit/s)

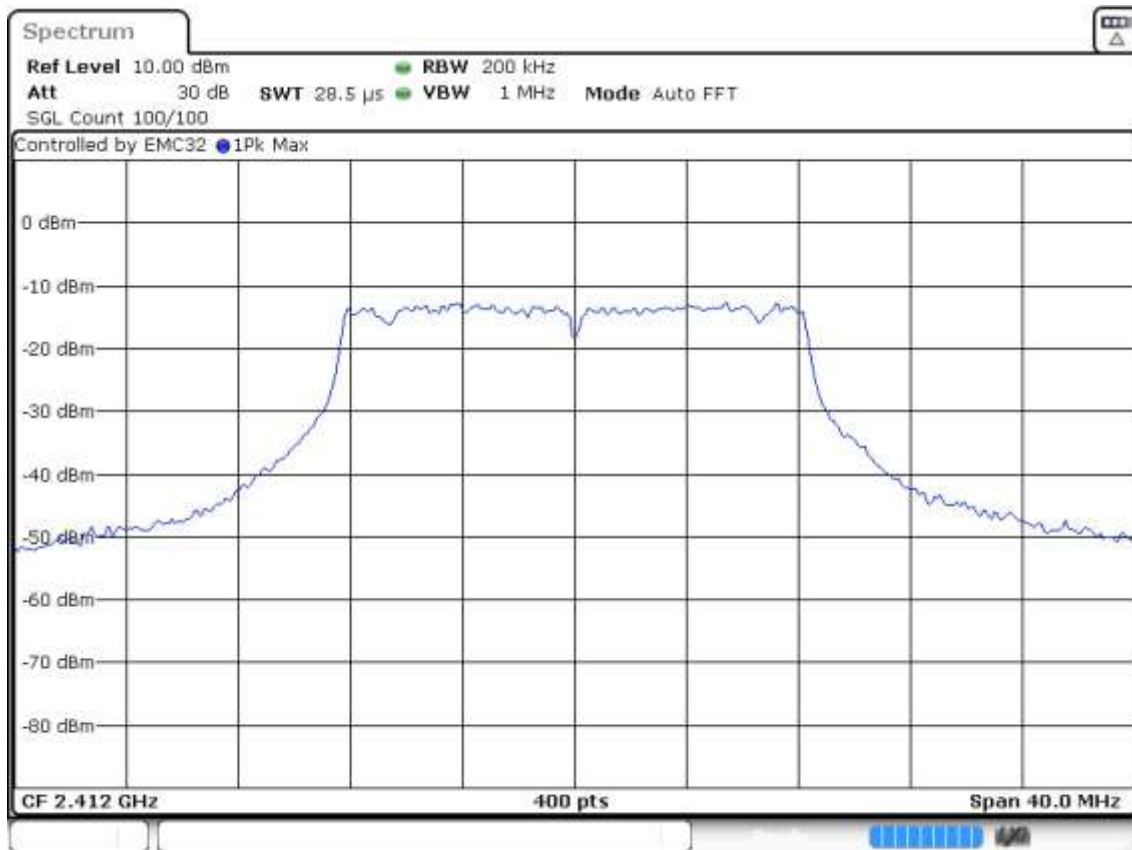
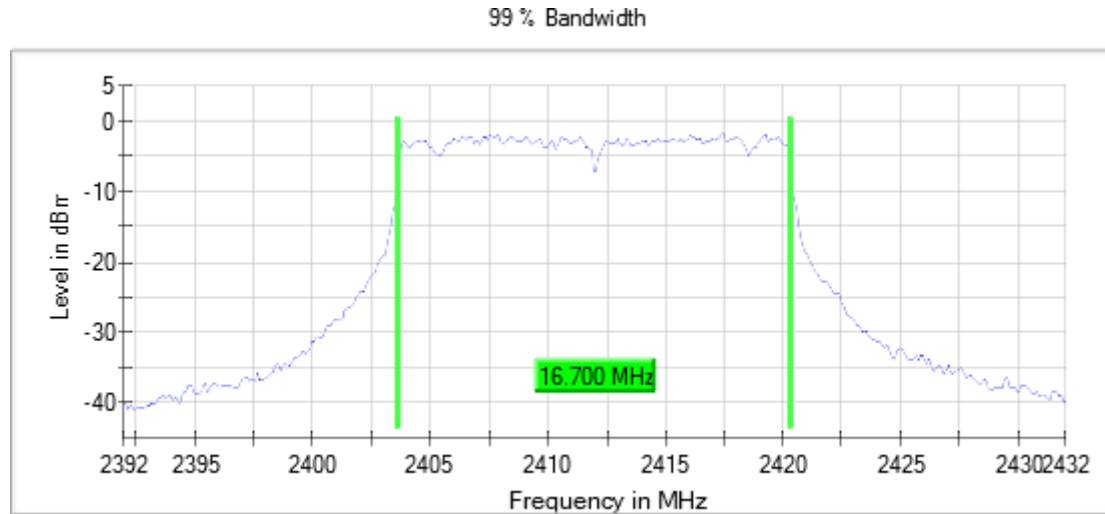
Images:



Date: 14.DEC.2025 11:50:29

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 2
Modulation = 802.11g (OFDM 54 Mbit/s)

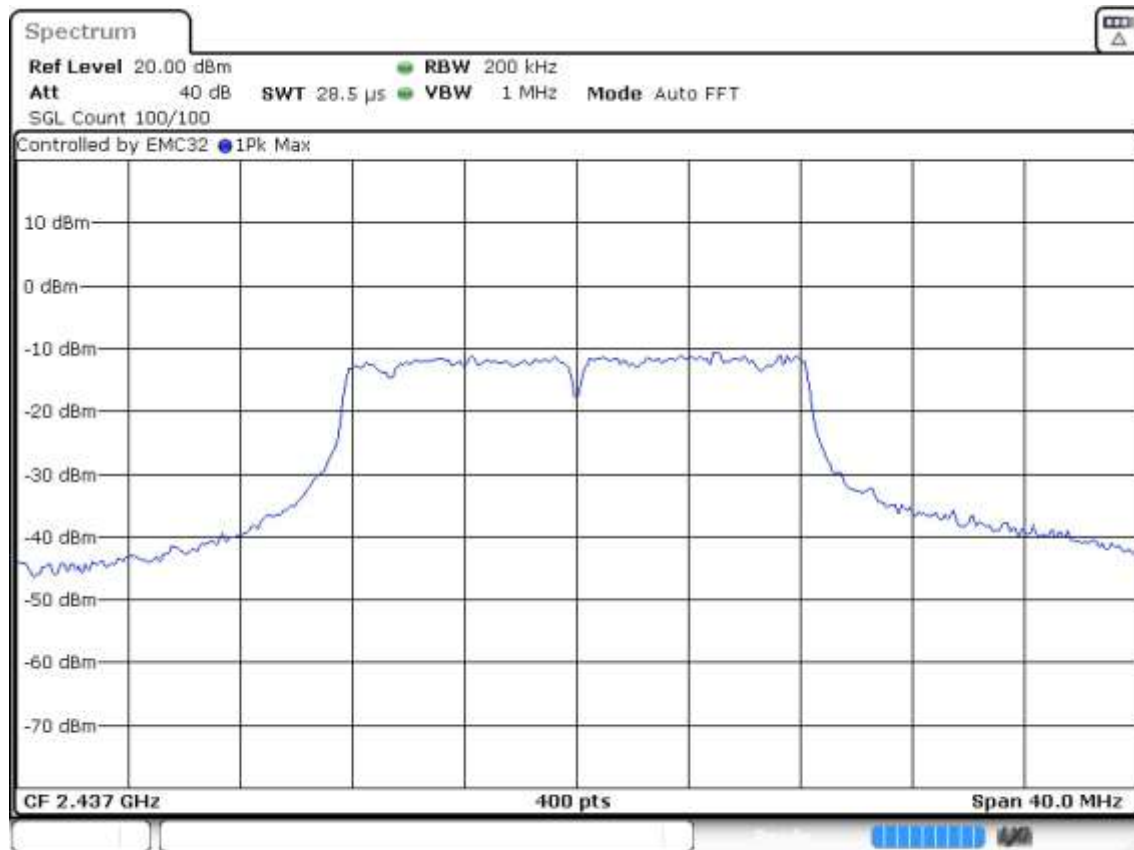
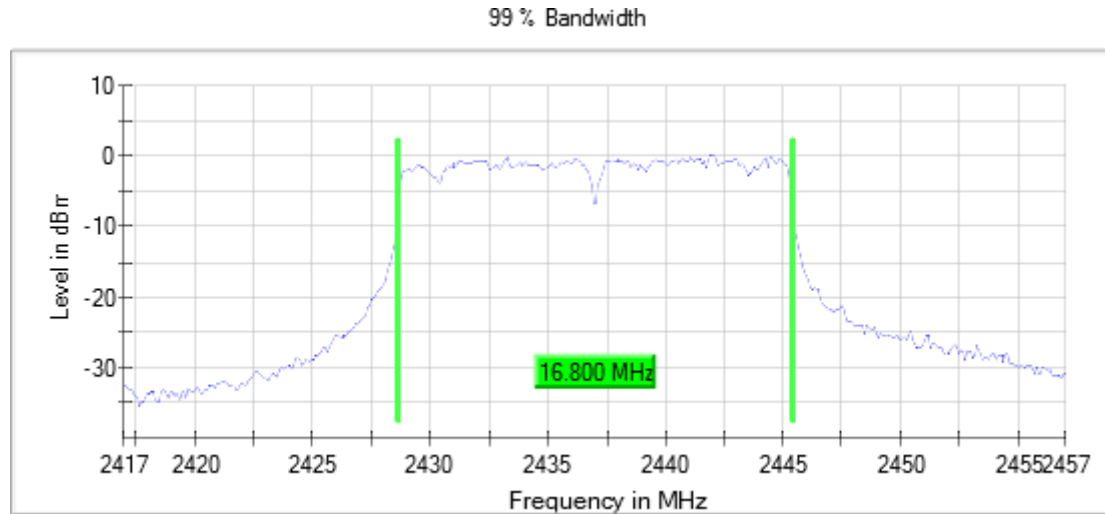
Images:



Date: 14 DEC. 2025 14:38:57

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2437.00000 Active Port = 1
Modulation = 802.11g (OFDM 54 Mbit/s)

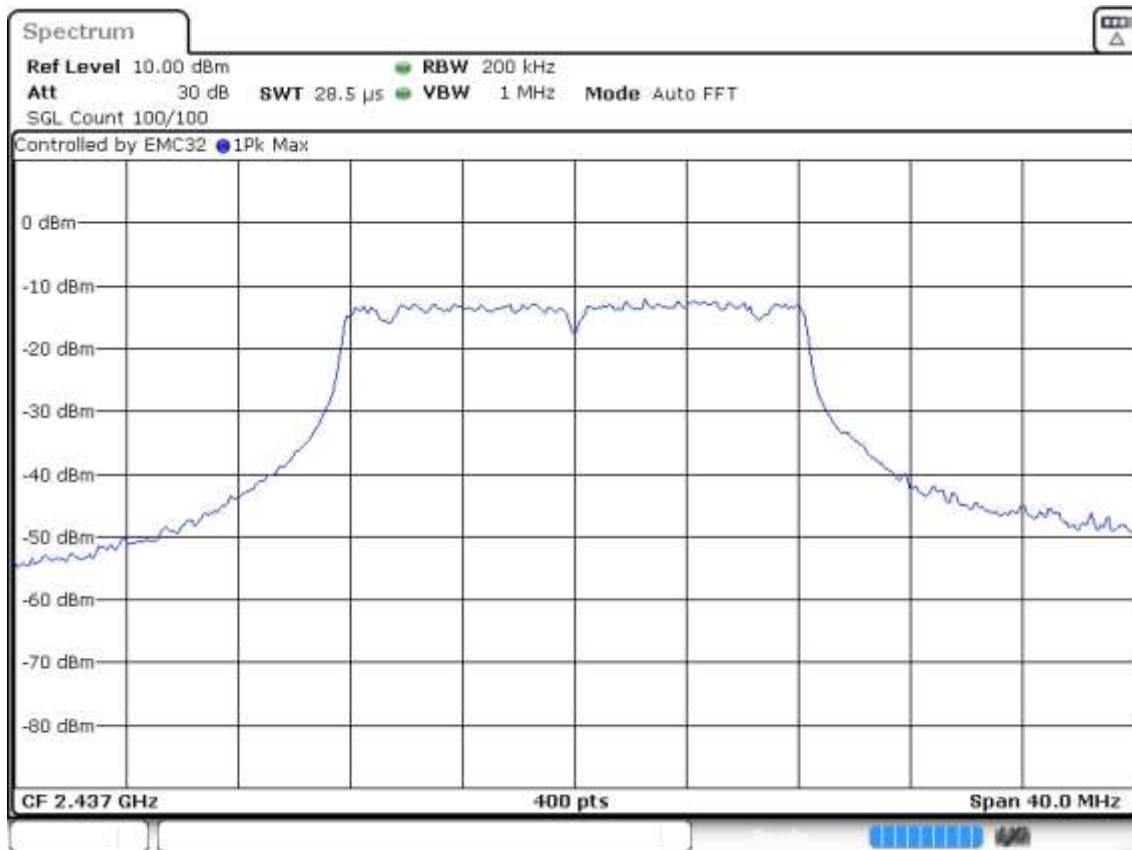
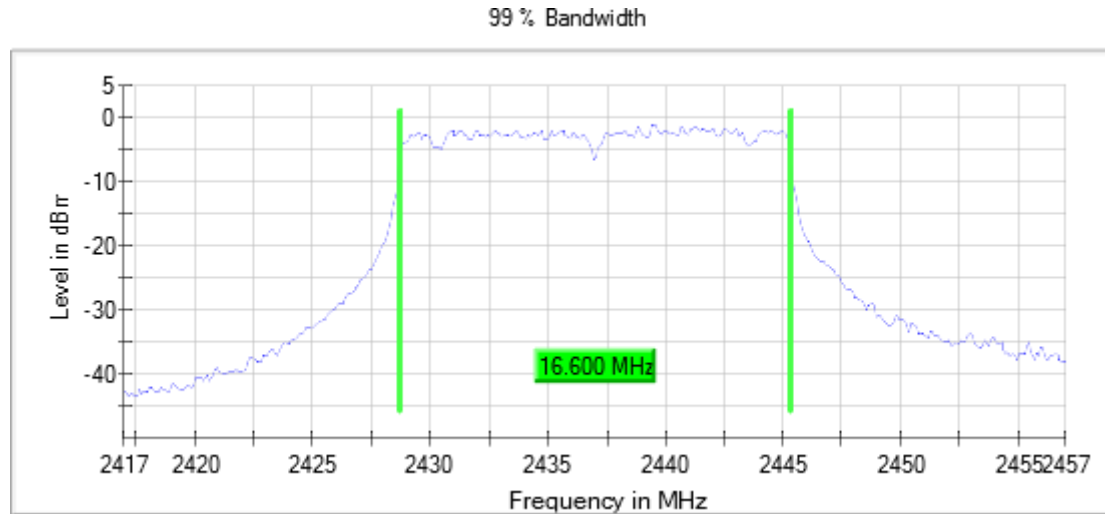
Images:



Date: 14 DEC. 2025 11:55:47

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2437.00000 Active Port = 2
Modulation = 802.11g (OFDM 54 Mbit/s)

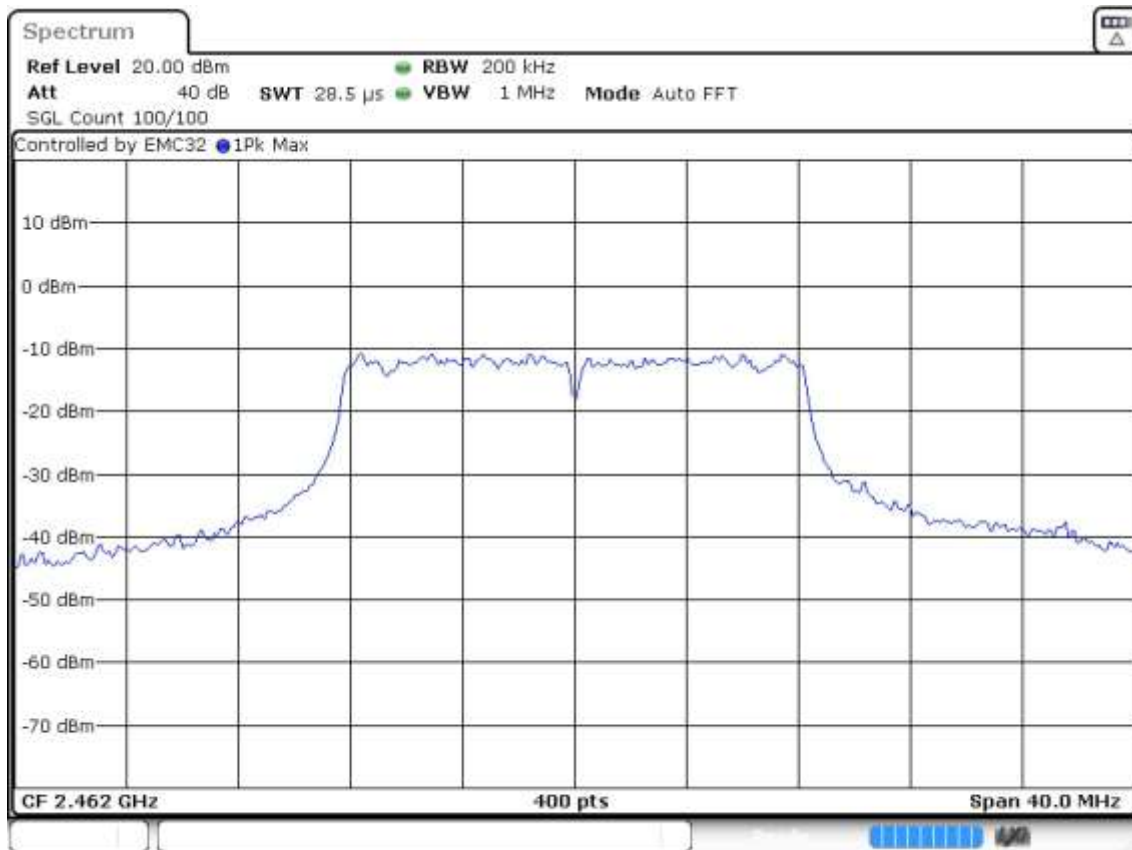
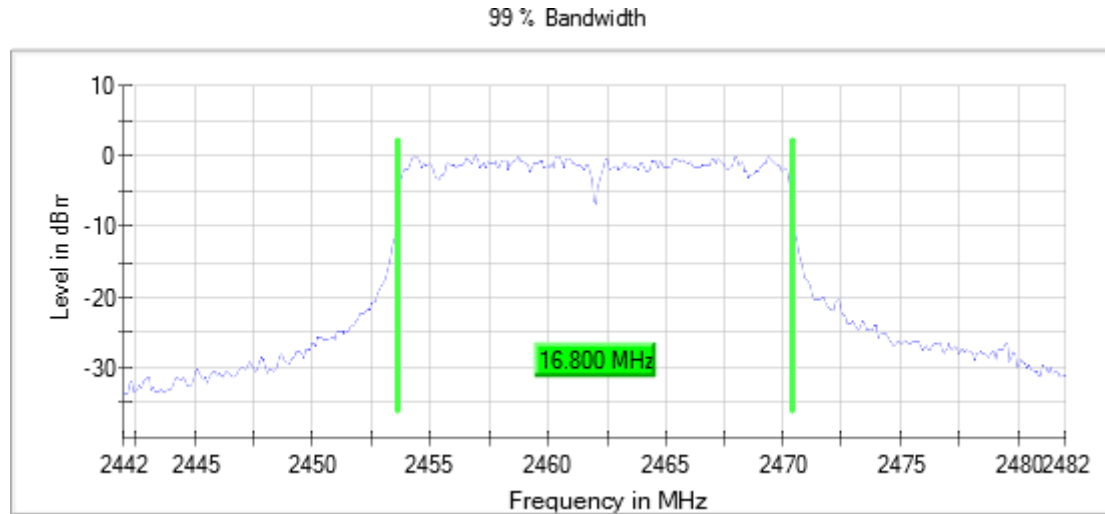
Images:



Date: 14 DEC 2025 14:59:19

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 1
Modulation = 802.11g (OFDM 54 Mbit/s)

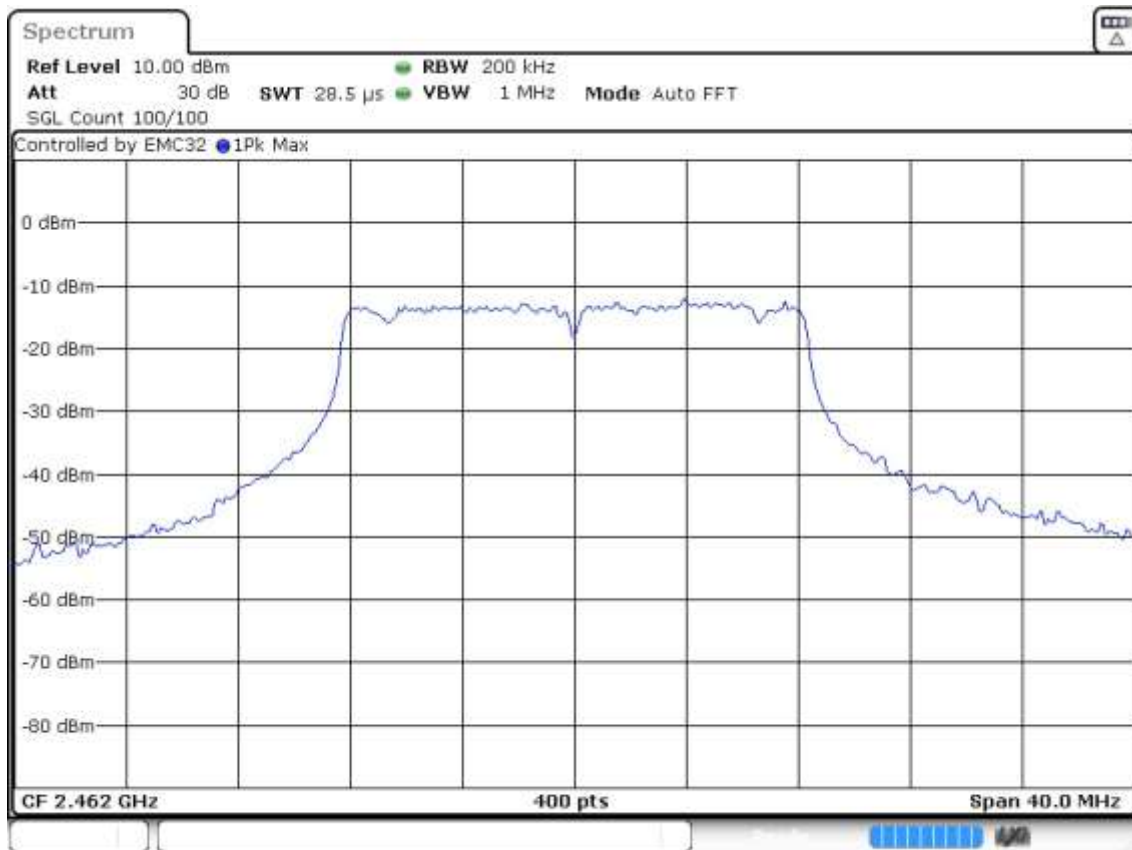
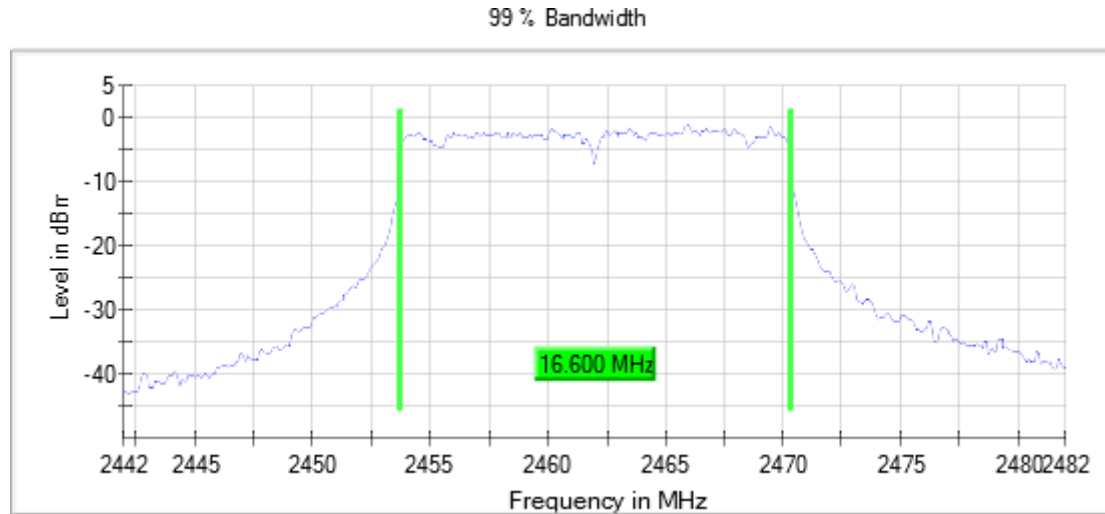
Images:



Date: 14 DEC 2025 12:15:36

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 2
Modulation = 802.11g (OFDM 54 Mbit/s)

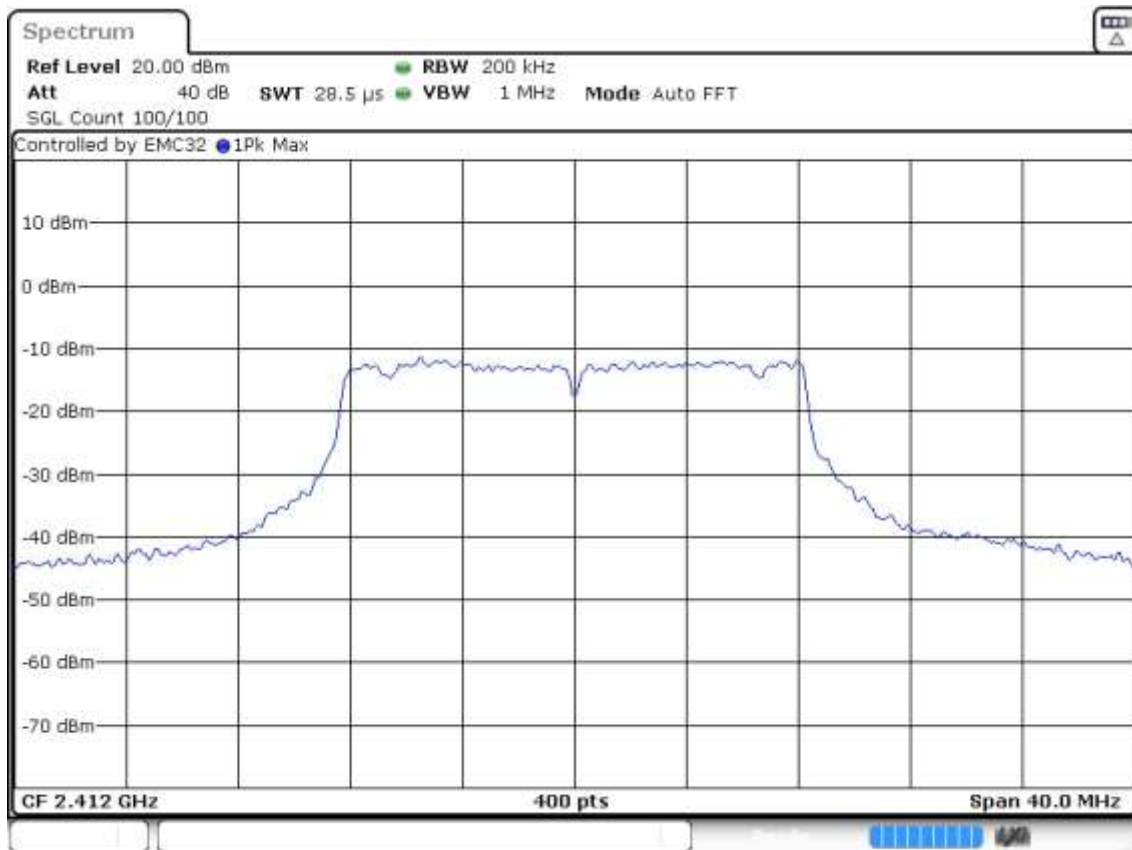
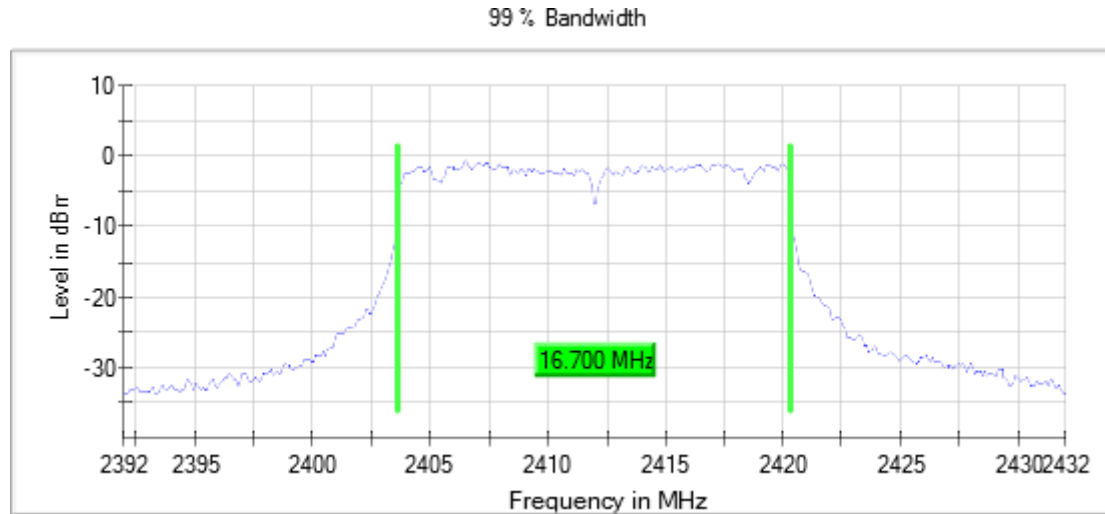
Images:



Date: 14 DEC. 2025 15:03:55

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2412.00000 Active Port = 1+2
Modulation = 802.11g (OFDM 54 Mbit/s)

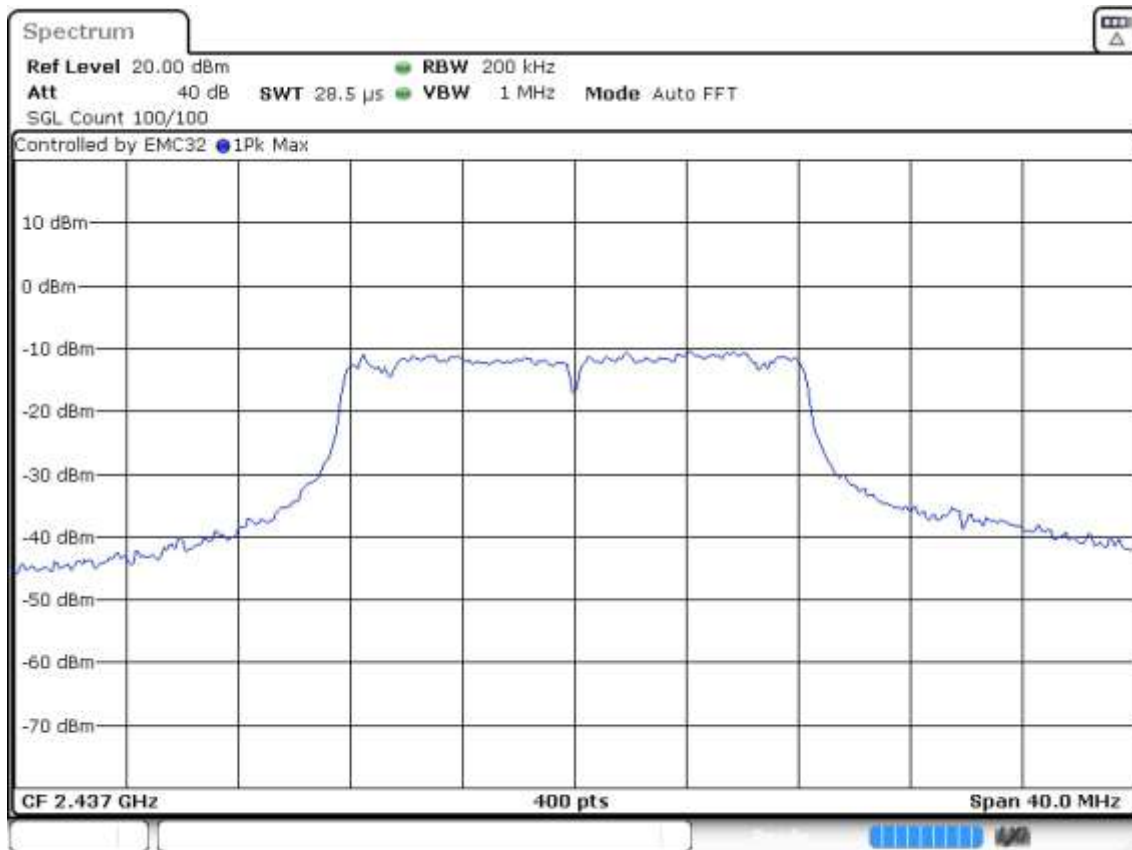
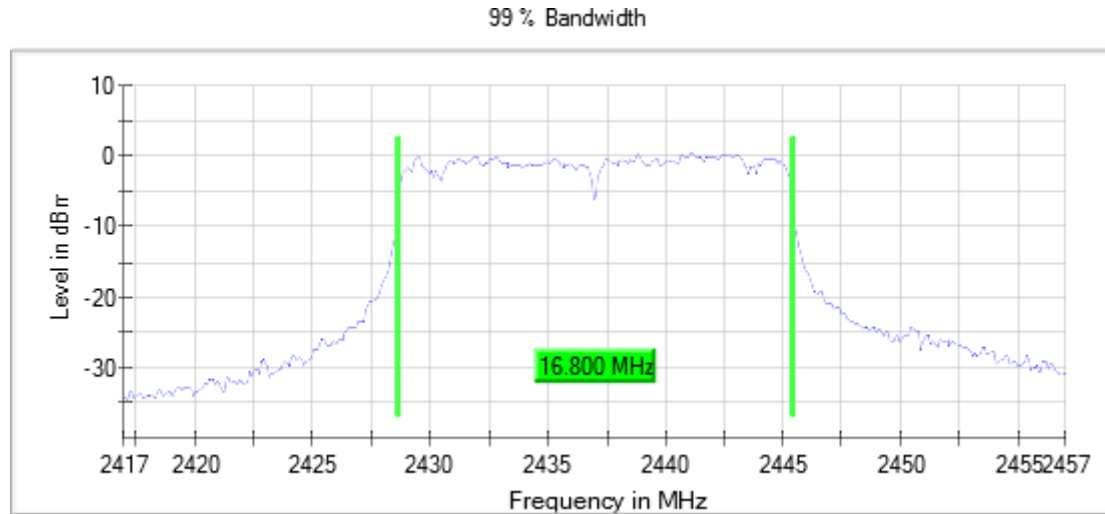
Images:



Date: 14.DEC.2025 18:45:31

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2437.00000 Active Port = 1+2
Modulation = 802.11g (OFDM 54 Mbit/s)

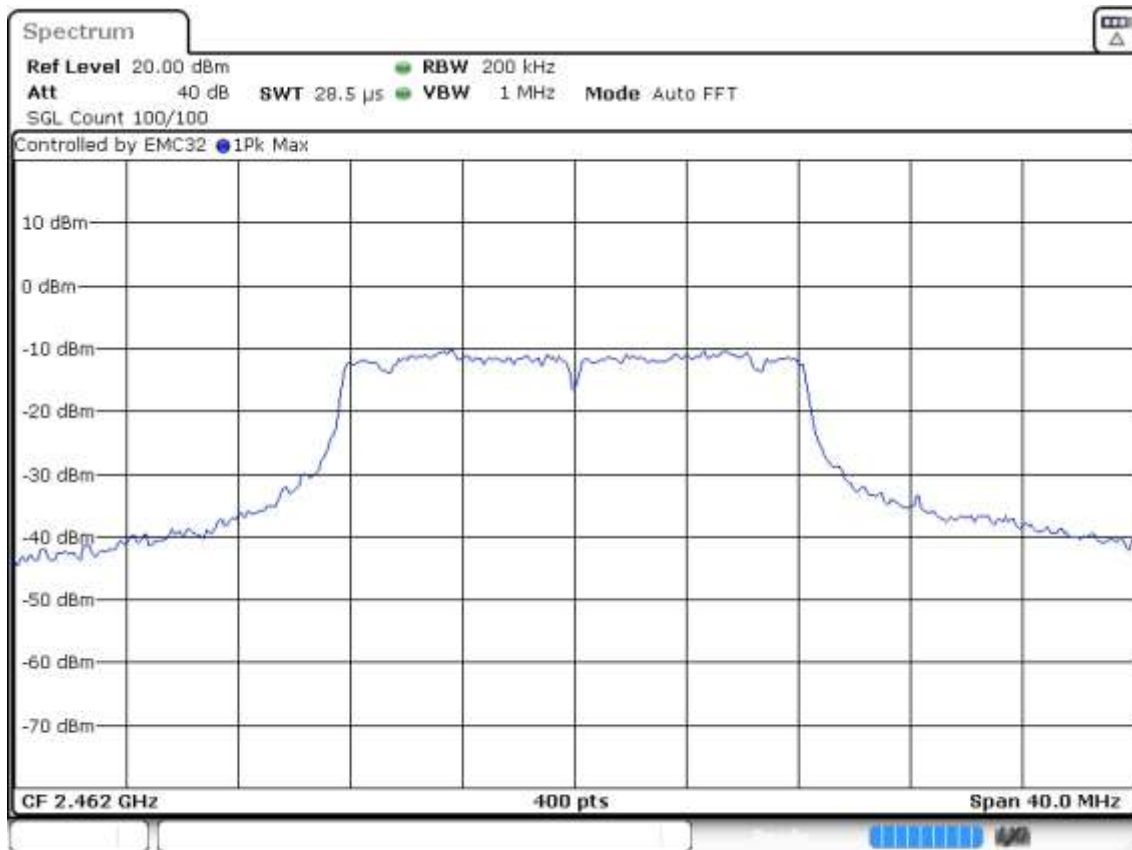
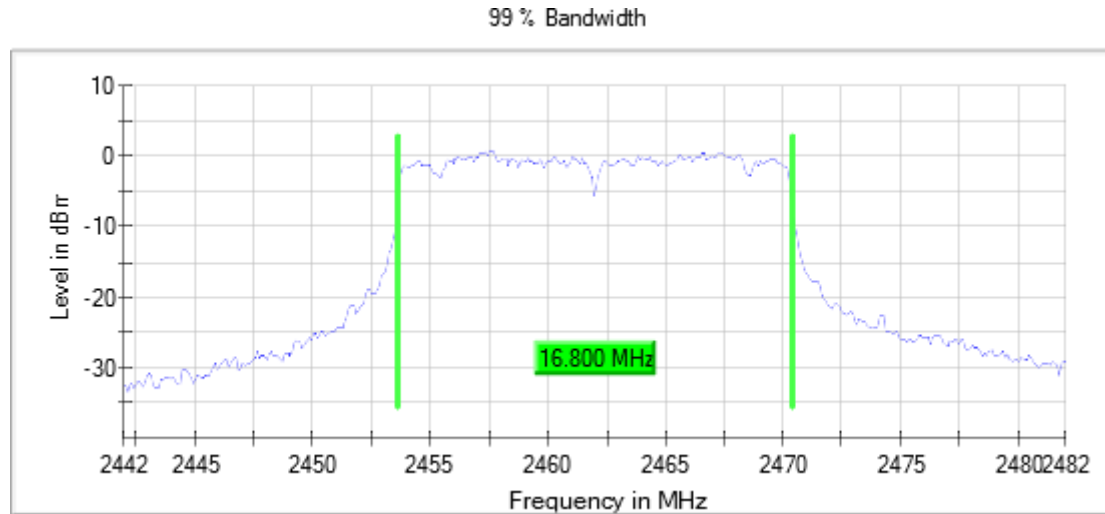
Images:



Date: 14 DEC 2025 21:23:58

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)
Frequency MHz = 2462.00000 Active Port = 1+2
Modulation = 802.11g (OFDM 54 Mbit/s)

Images:



Date: 14 DEC 2025 21:50:20

Modulation: 802.11n HT20 (OFDM MCS0)
Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Occ Ch BW (MHz)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	1	17.600
			2	17.500
		2437.00000	1	17.600
			2	17.500
		2462.00000	1	17.700
			2	17.500
		2412.00000	1+2	17.600
		2437.00000		17.600
		2462.00000		17.500

Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5]

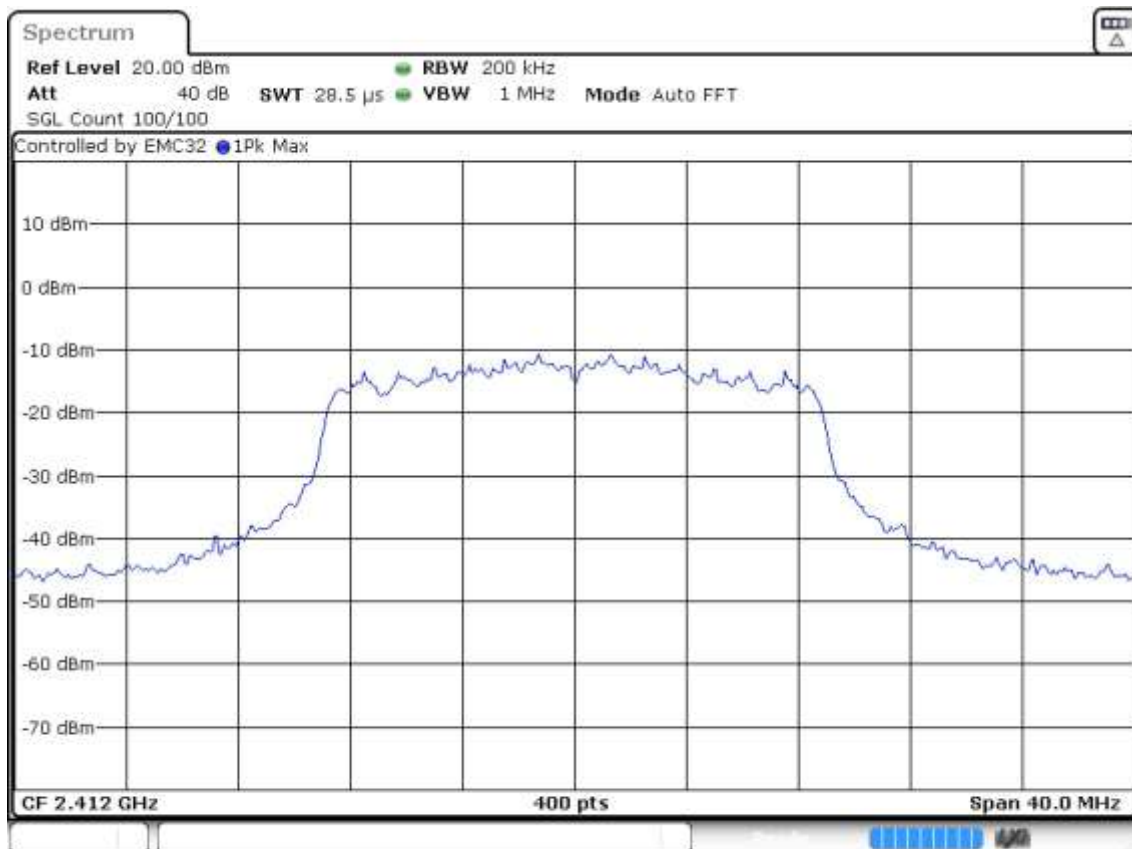
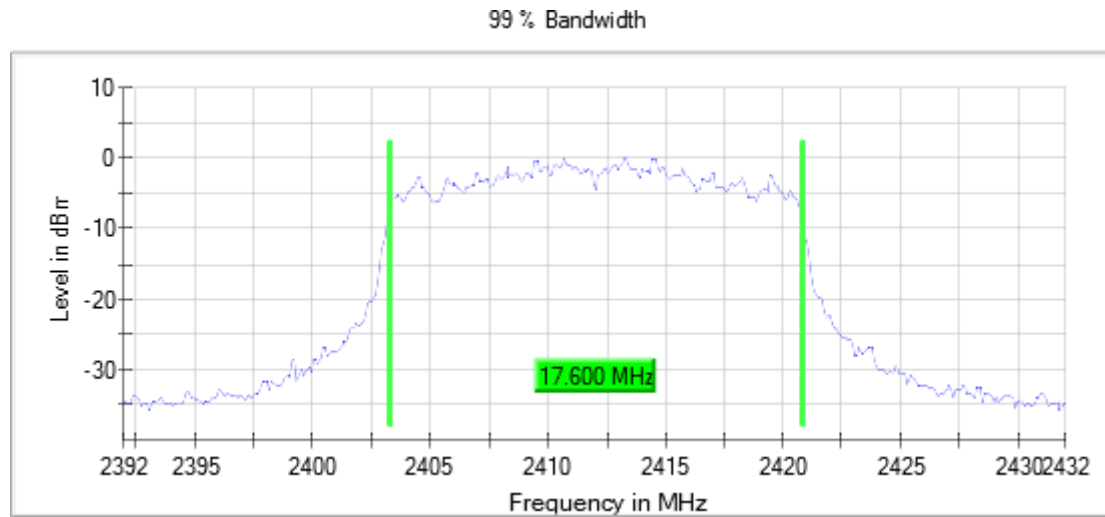
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000

Active Port = 1

Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Date: 14.DEC.2025 12:29:56

Operation Band MHz = [2400, 2483.5]

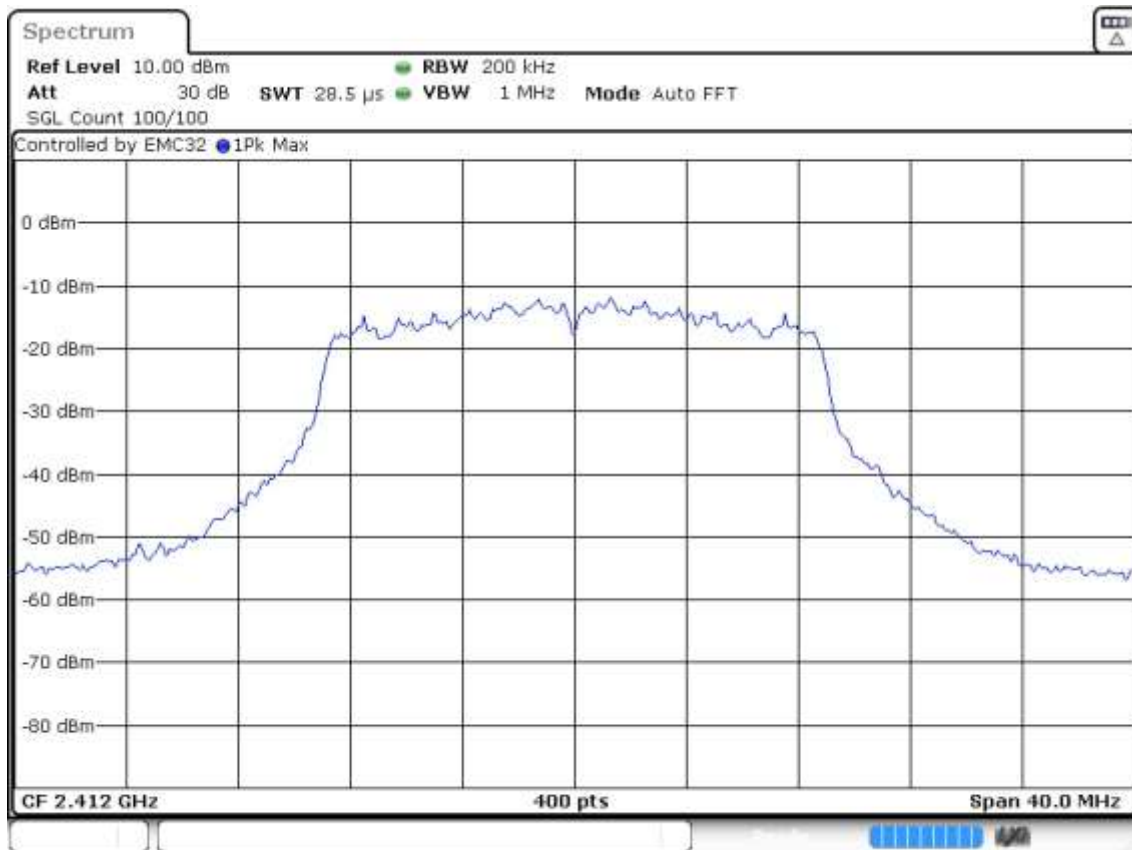
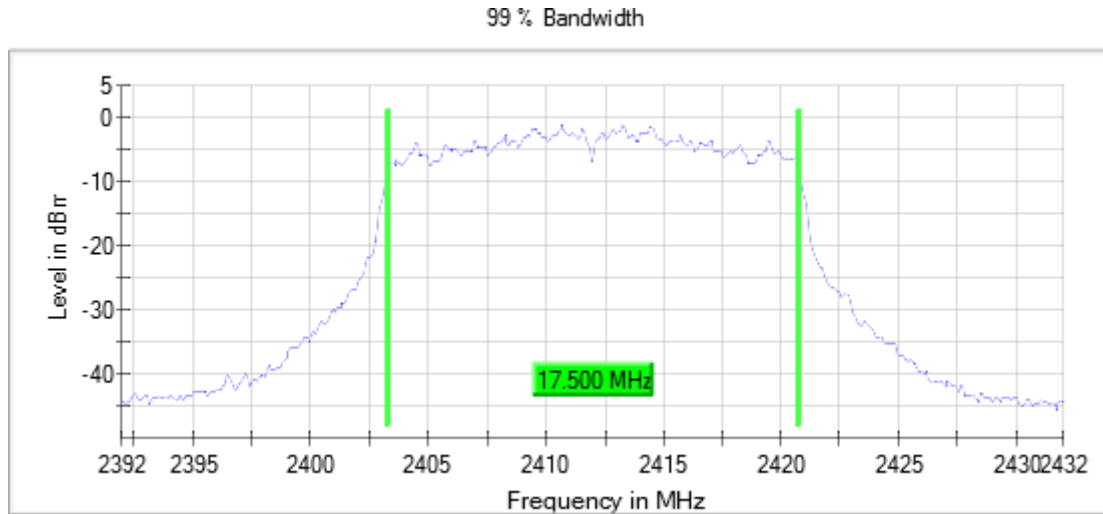
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000

Active Port = 2

Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Date: 14.DEC.2025 13:14:10

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

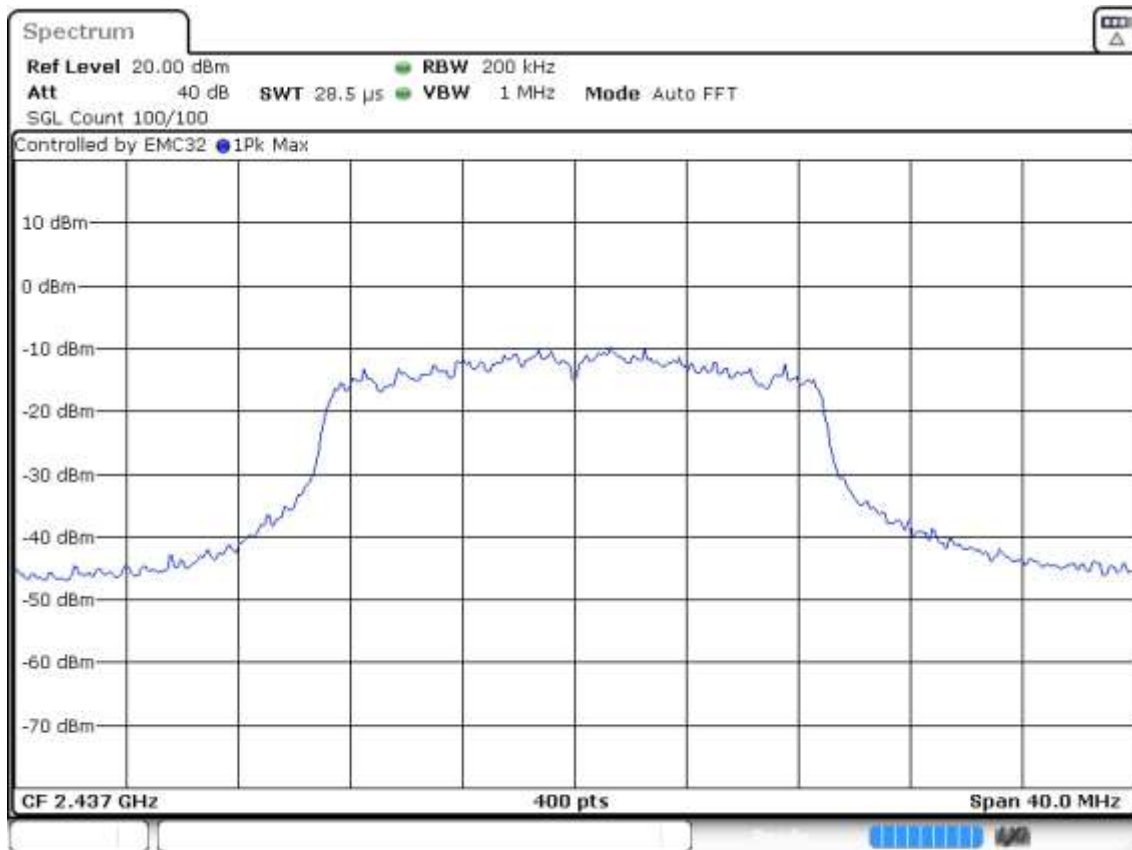
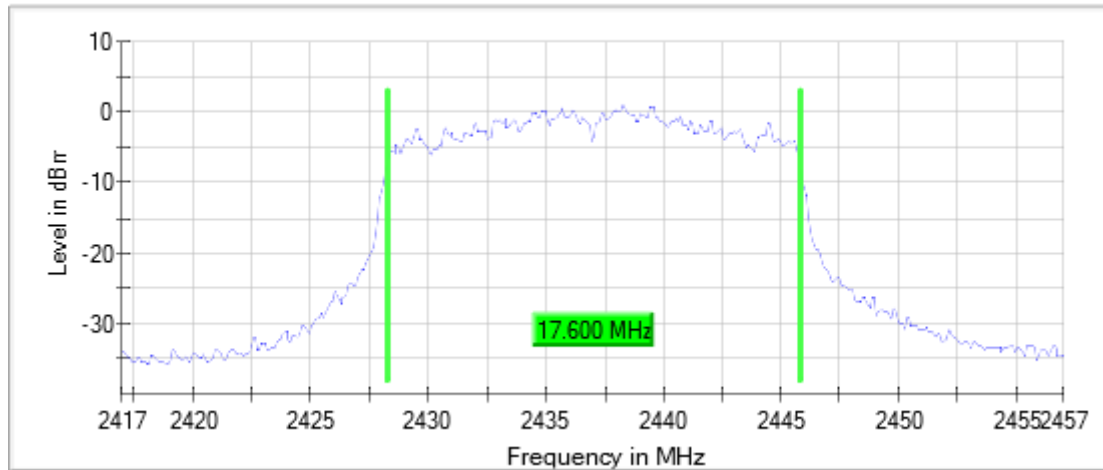
Frequency MHz = 2437.00000

Active Port = 1

Modulation = 802.11n HT20 (OFDM MCS0)

Images:

99 % Bandwidth



Date: 14 DEC. 2025 12:34:55

Operation Band MHz = [2400, 2483.5]

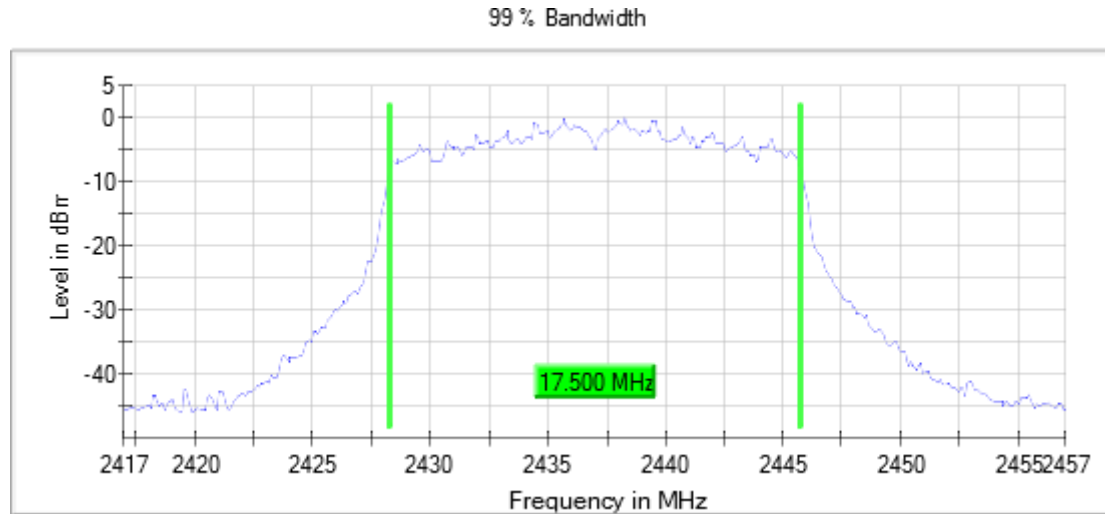
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000

Active Port = 2

Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Date: 14 DEC. 2025 13:21:21

Operation Band MHz = [2400, 2483.5]

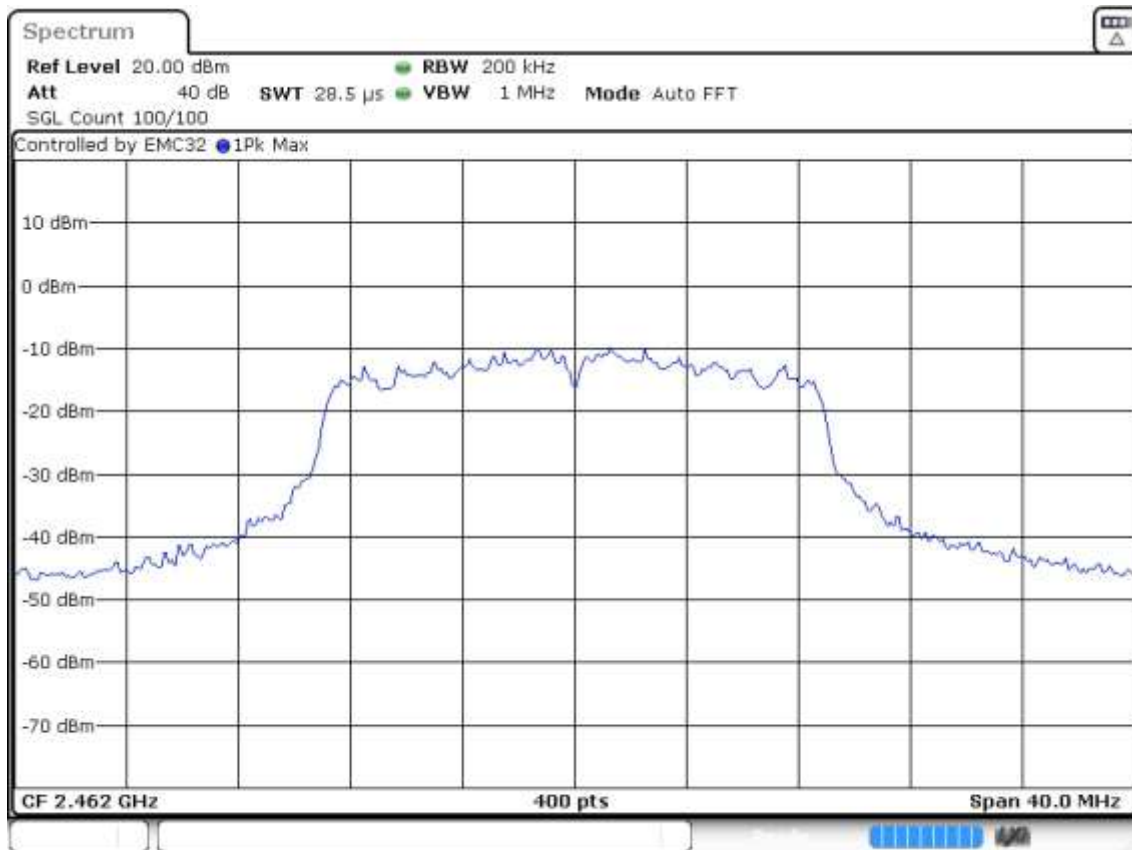
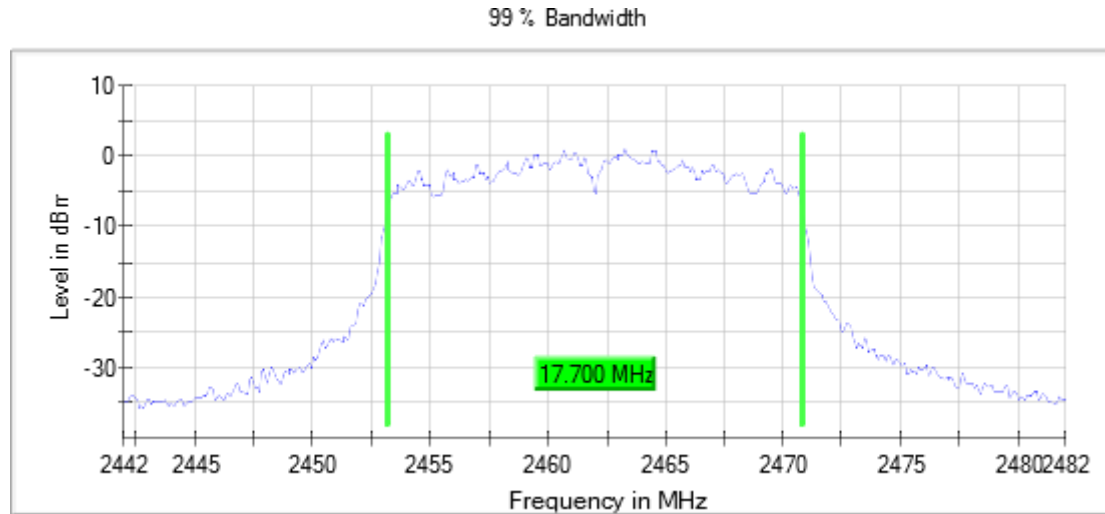
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000

Active Port = 1

Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Date: 14 DEC. 2025 12:48:49

Operation Band MHz = [2400, 2483.5]

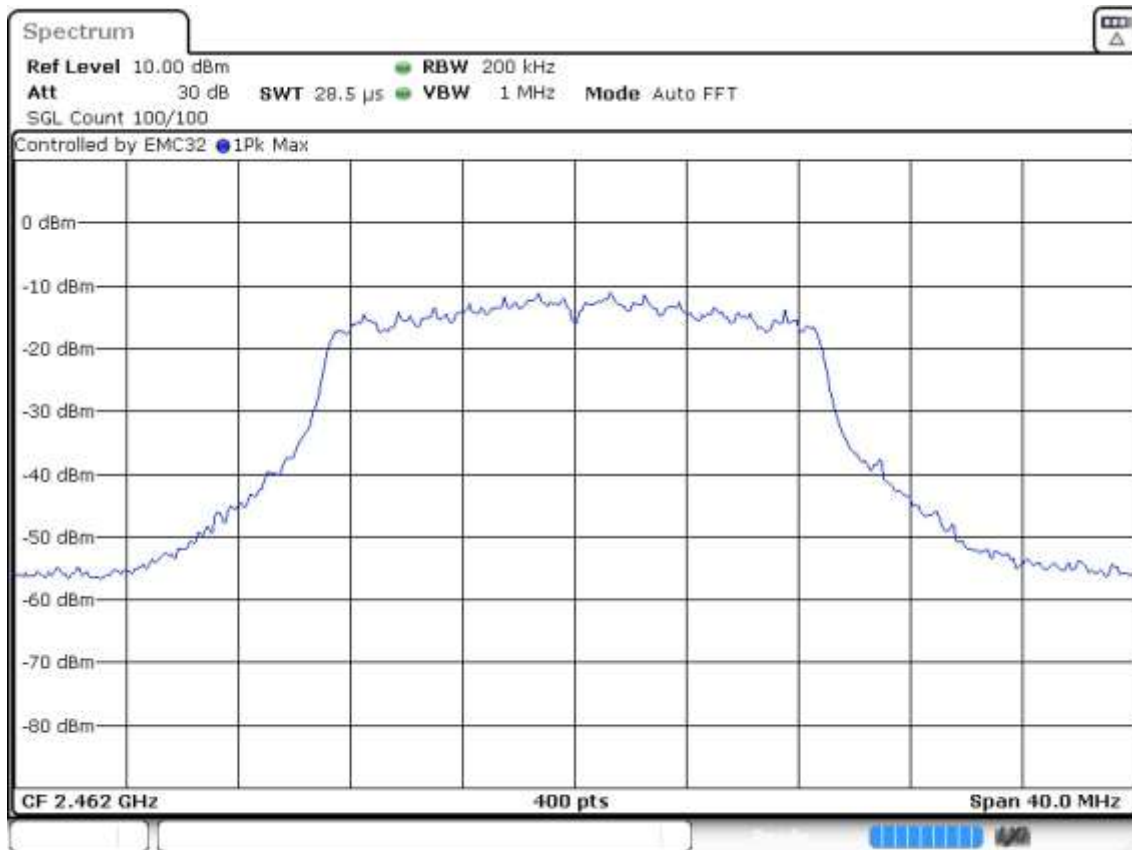
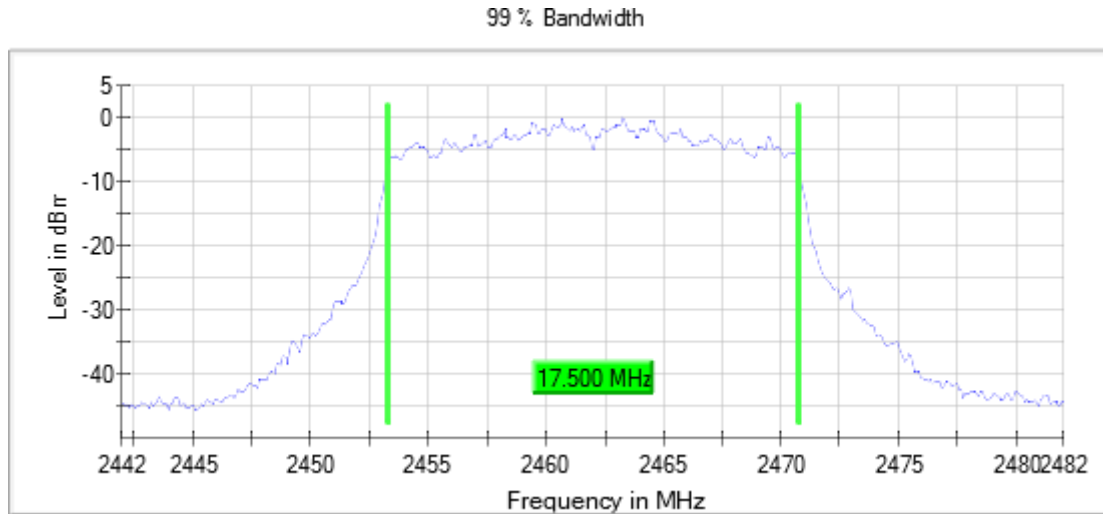
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000

Active Port = 2

Modulation = 802.11n HT20 (OFDM MCS0)

Images:



Date: 14 DEC. 2025 13:51:47

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

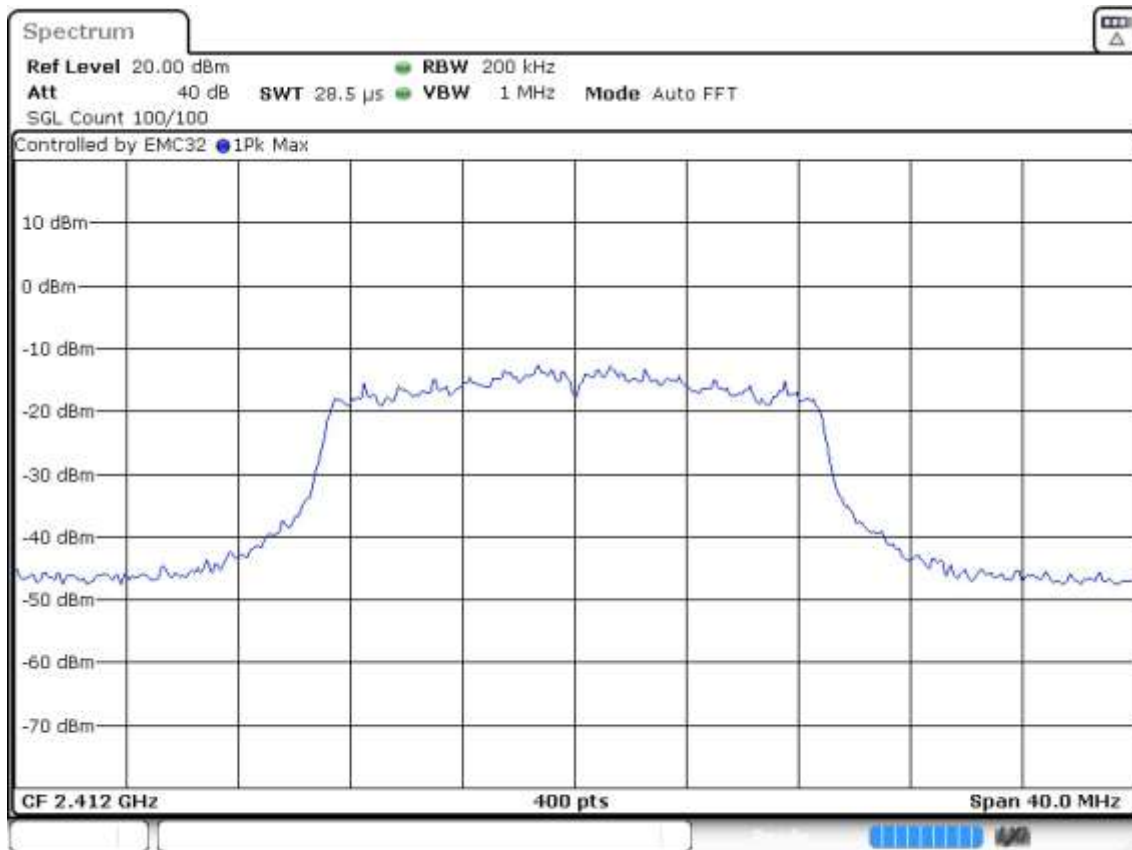
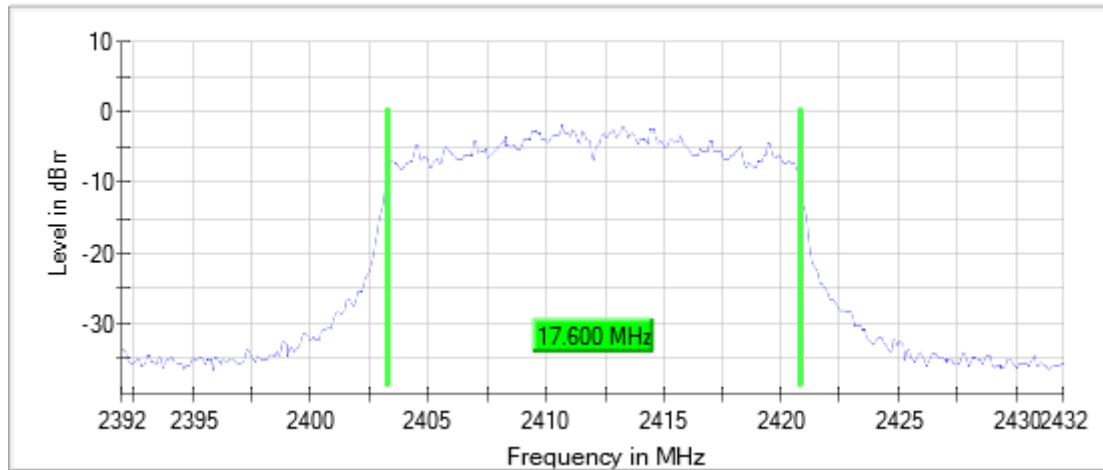
Frequency MHz = 2412.00000

Active Port = 1+2

Modulation = 802.11n HT20 (OFDM MCS0)

Images:

99 % Bandwidth



Date: 14 DEC 2025 22:54:14

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

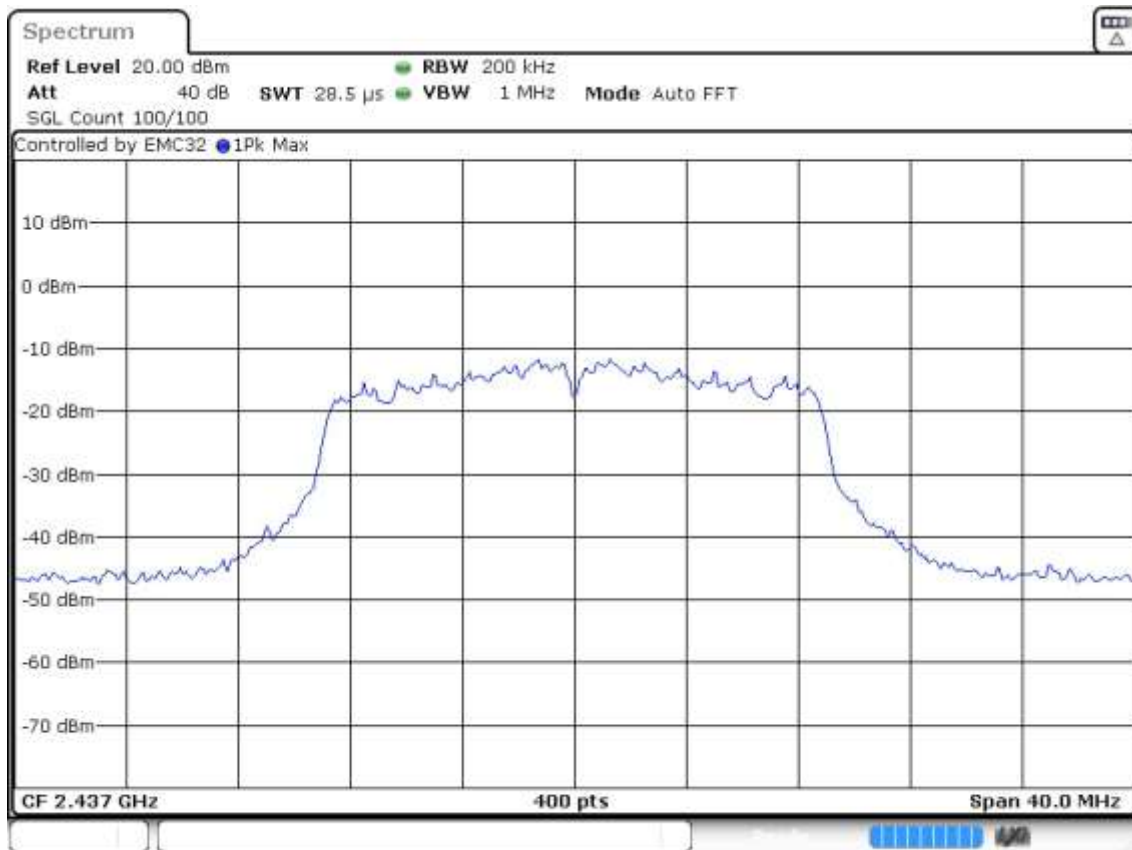
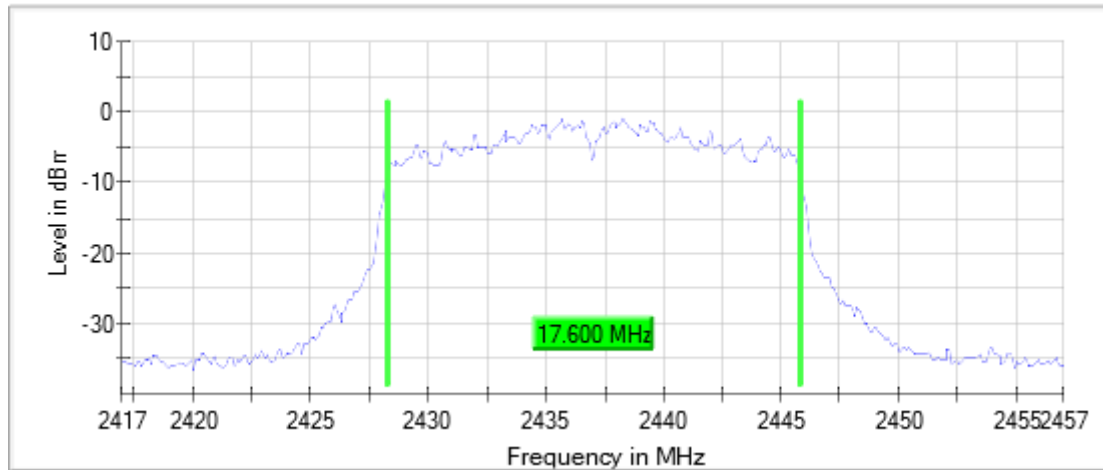
Frequency MHz = 2437.00000

Active Port = 1+2

Modulation = 802.11n HT20 (OFDM MCS0)

Images:

99 % Bandwidth



Date: 14 DEC. 2025 23:01:50

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

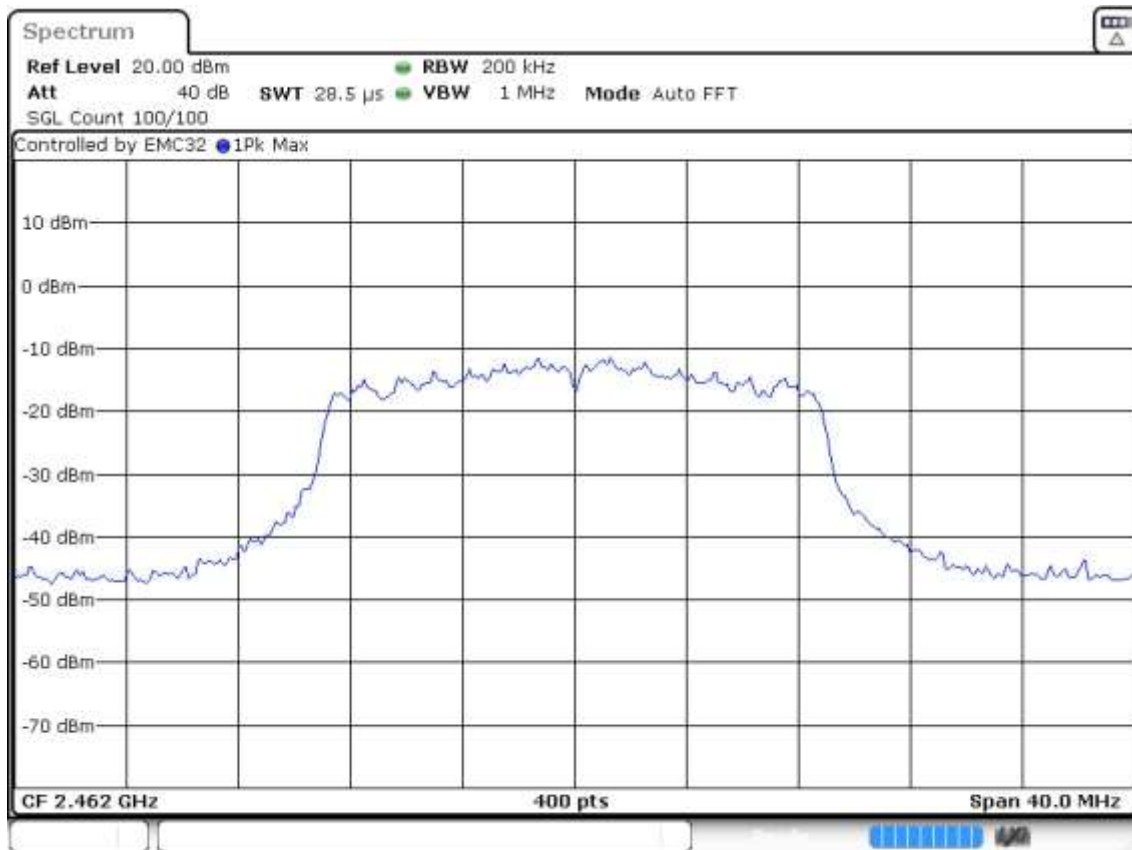
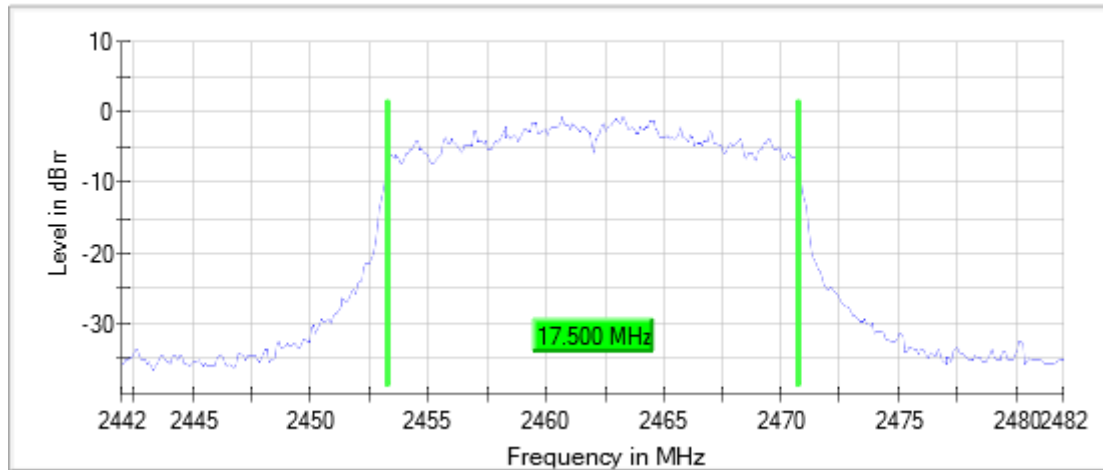
Frequency MHz = 2462.00000

Active Port = 1+2

Modulation = 802.11n HT20 (OFDM MCS0)

Images:

99 % Bandwidth



Date: 14 DEC. 2025 23:06:41

Modulation: 802.11n HT40 (OFDM MCS7)
Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Occ Ch BW (MHz)
[2400, 2483.5]	Digital Transmission System (DTS)	2422.00000	1	37.000
			2	37.000
		2437.00000	1	37.000
			2	37.000
		2452.00000	1	37.250
			2	37.000
		2422.00000	1+2	36.750
		2437.00000		37.000
		2452.00000		37.000

Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5]

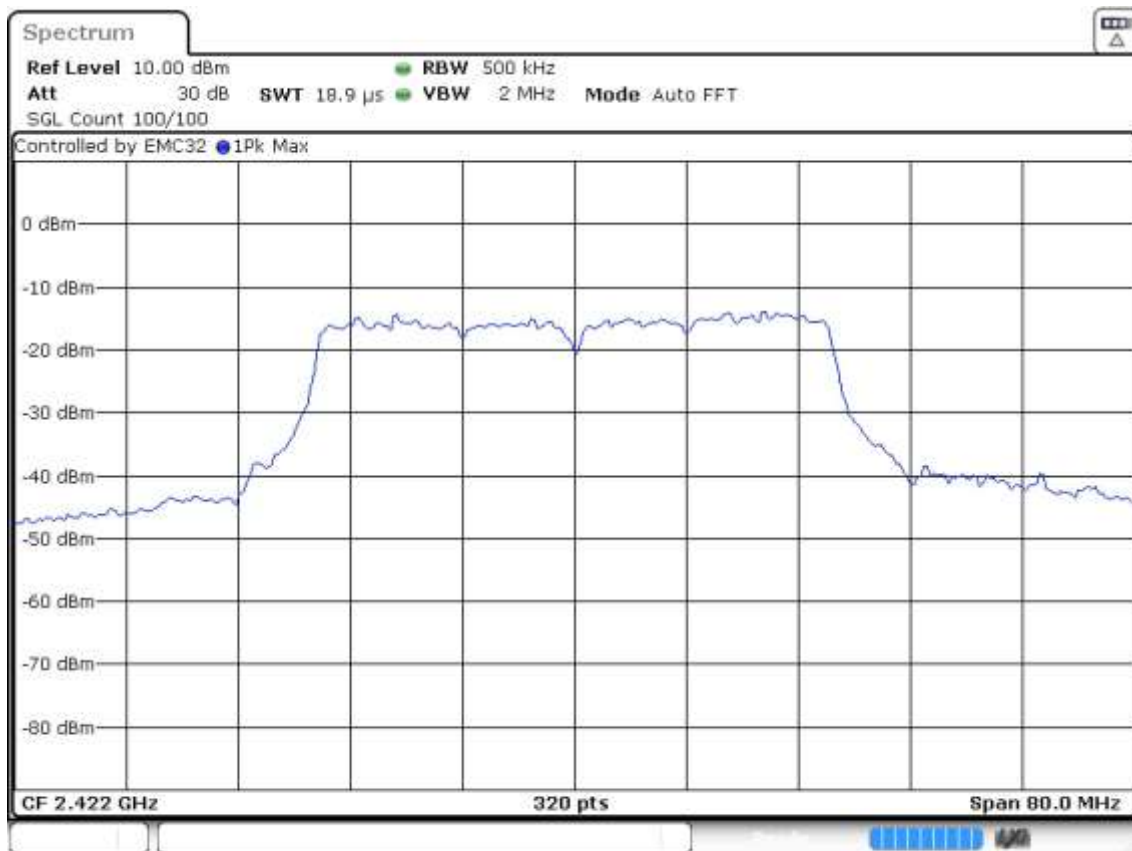
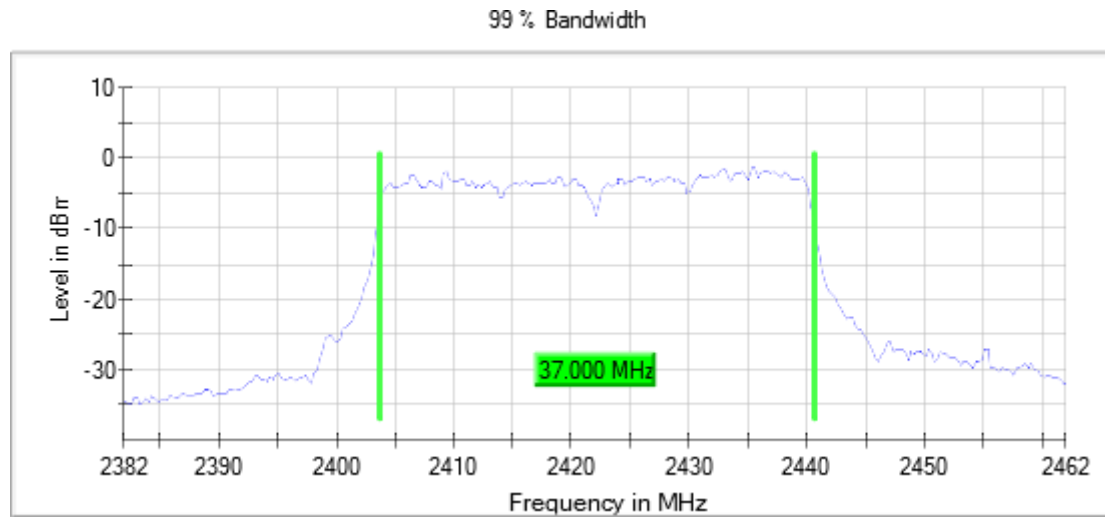
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2422.00000

Active Port = 1

Modulation = 802.11n HT40 (OFDM MCS7)

Images:



Date: 9 DEC. 2025 12:08:35

Operation Band MHz = [2400, 2483.5]

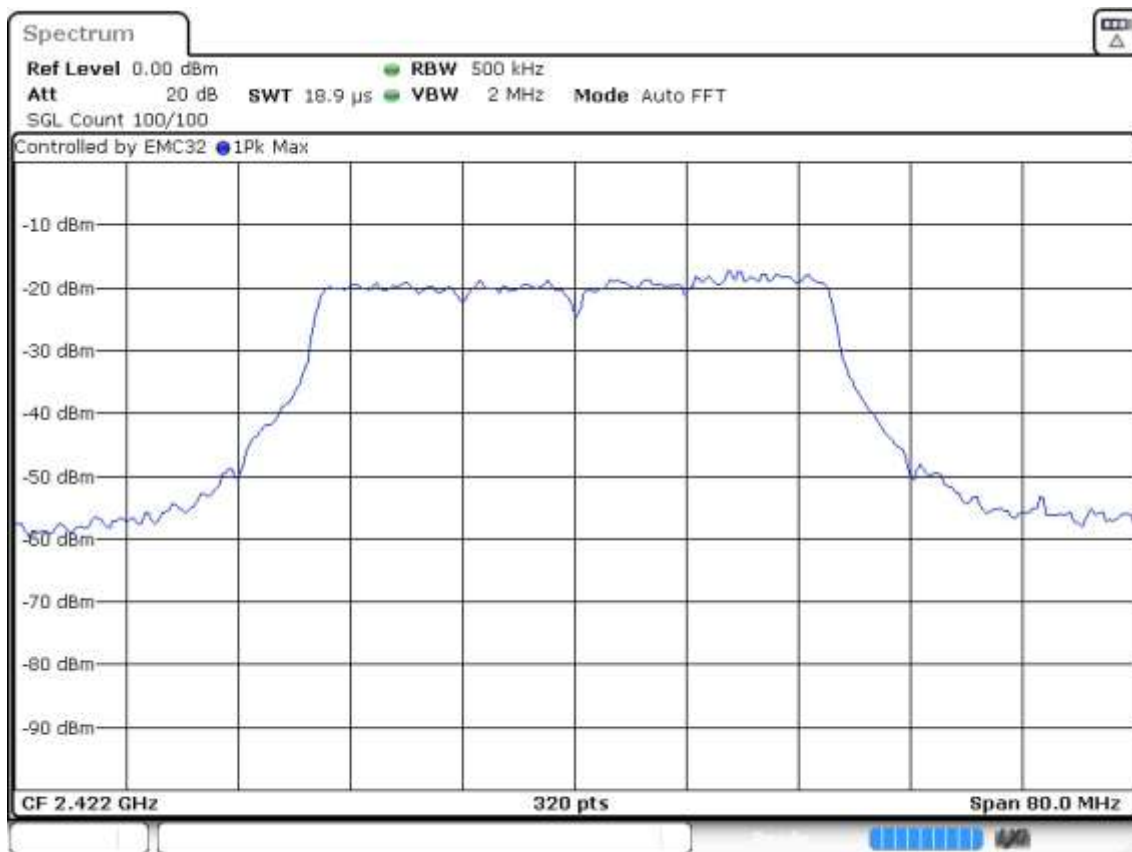
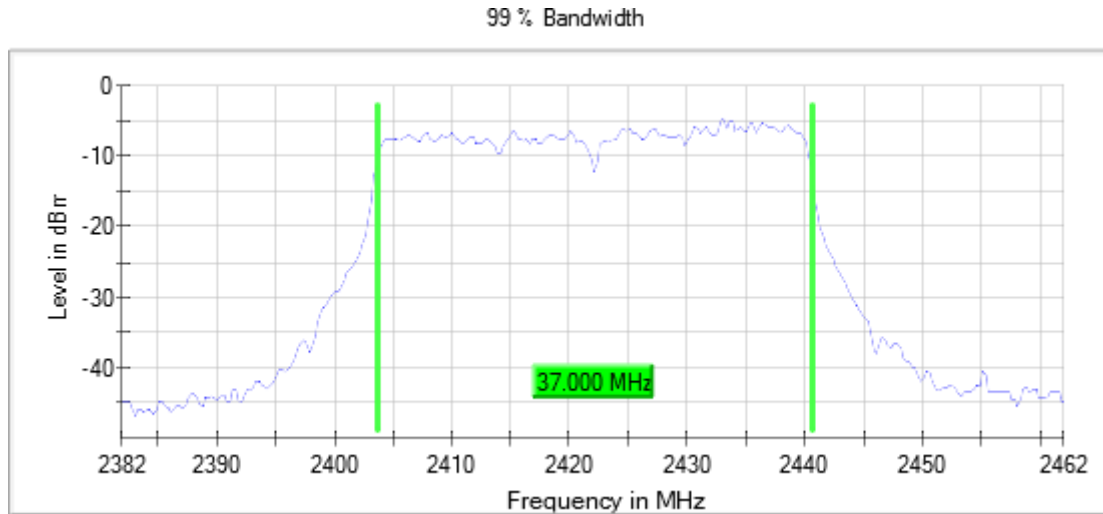
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2422.00000

Active Port = 2

Modulation = 802.11n HT40 (OFDM MCS7)

Images:



Date: 9.DEC.2025 16:10:48

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

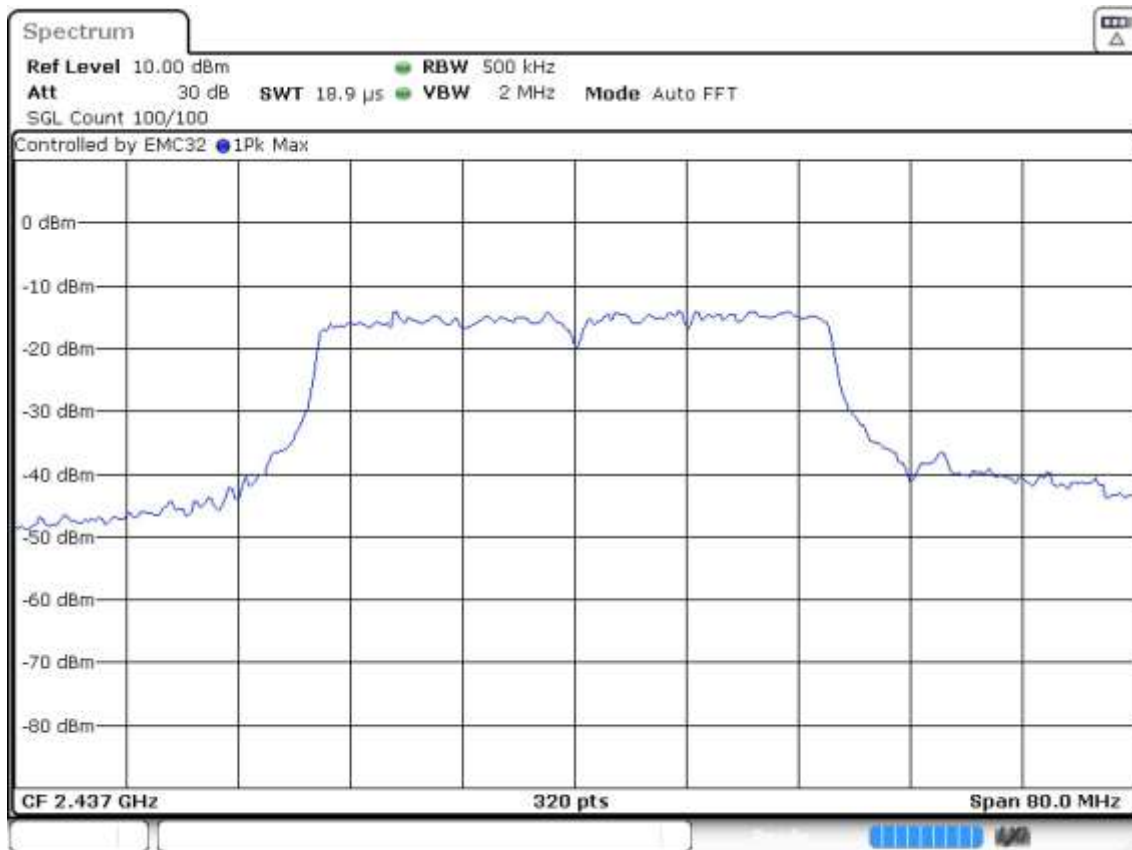
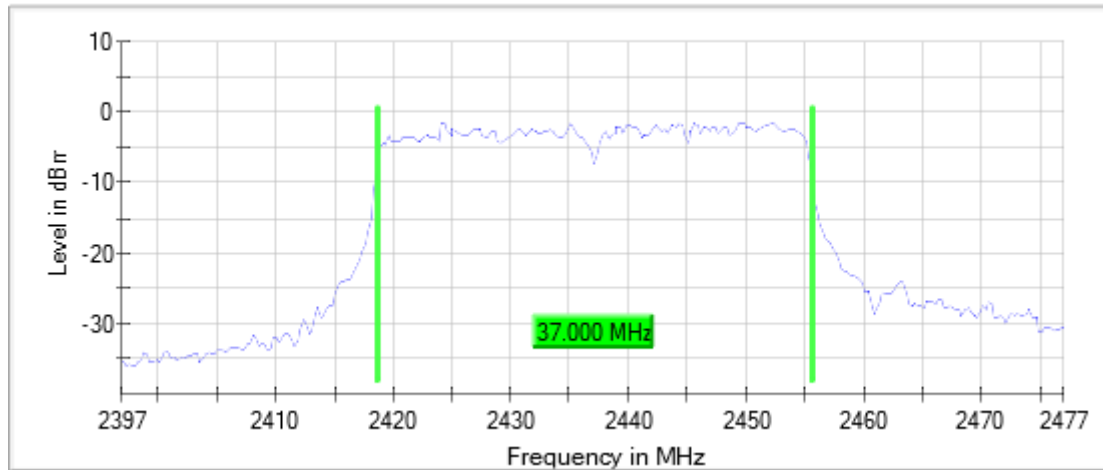
Frequency MHz = 2437.00000

Active Port = 1

Modulation = 802.11n HT40 (OFDM MCS7)

Images:

99 % Bandwidth



Date: 9.DEC.2025 12:18:12

Operation Band MHz = [2400, 2483.5]

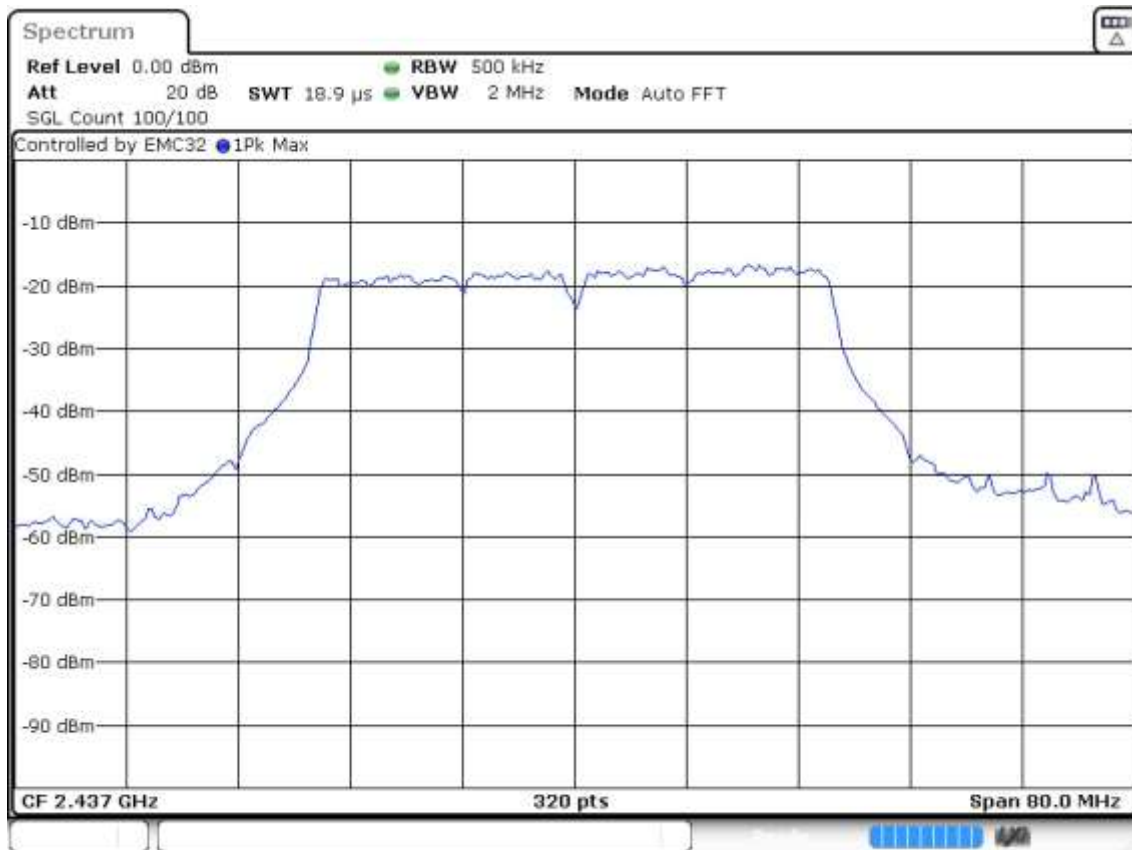
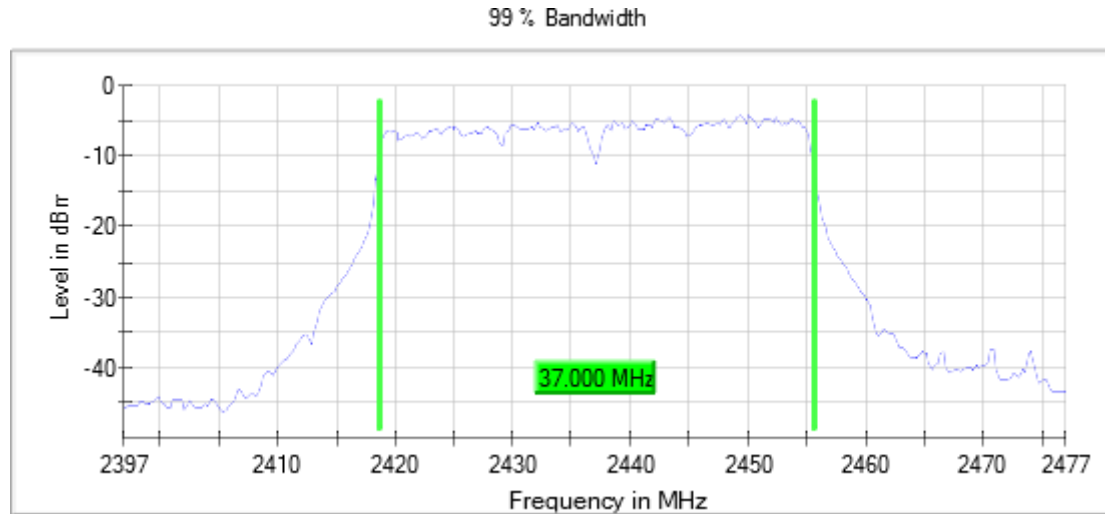
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000

Active Port = 2

Modulation = 802.11n HT40 (OFDM MCS7)

Images:



Date: 9.DEC.2025 16:21:14

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

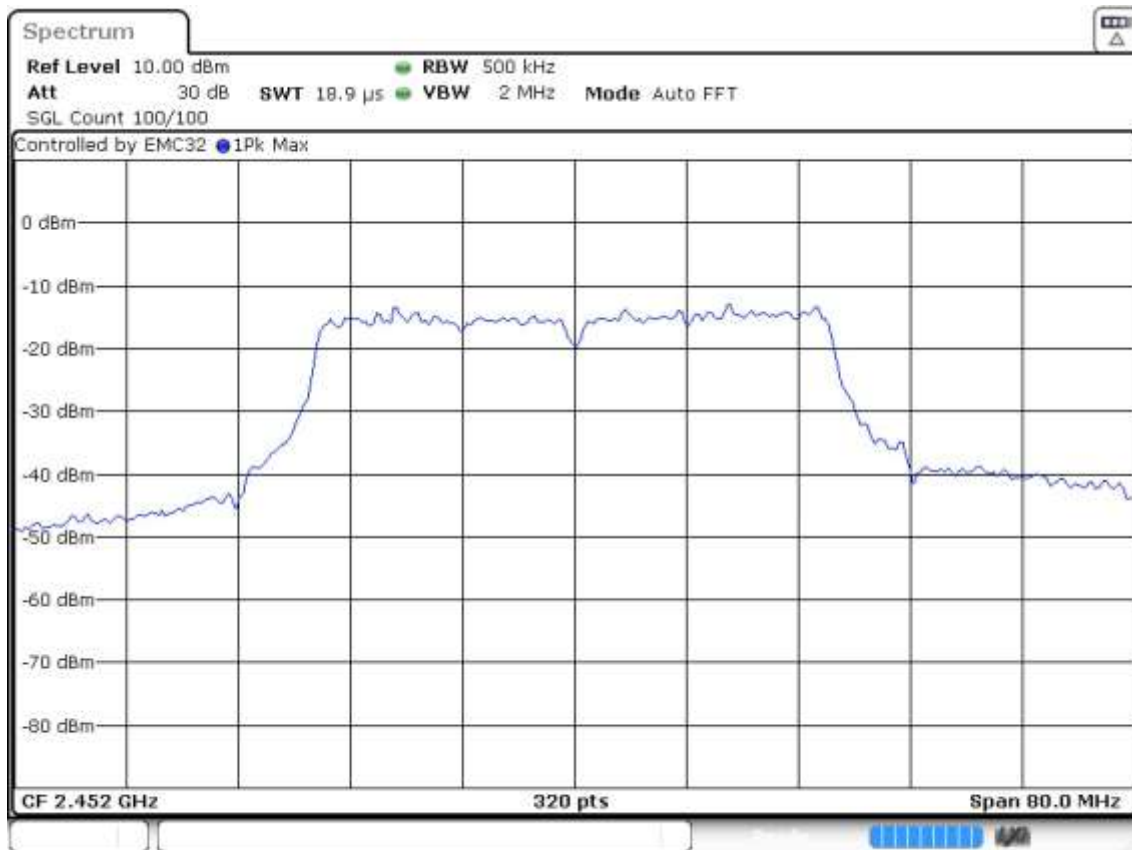
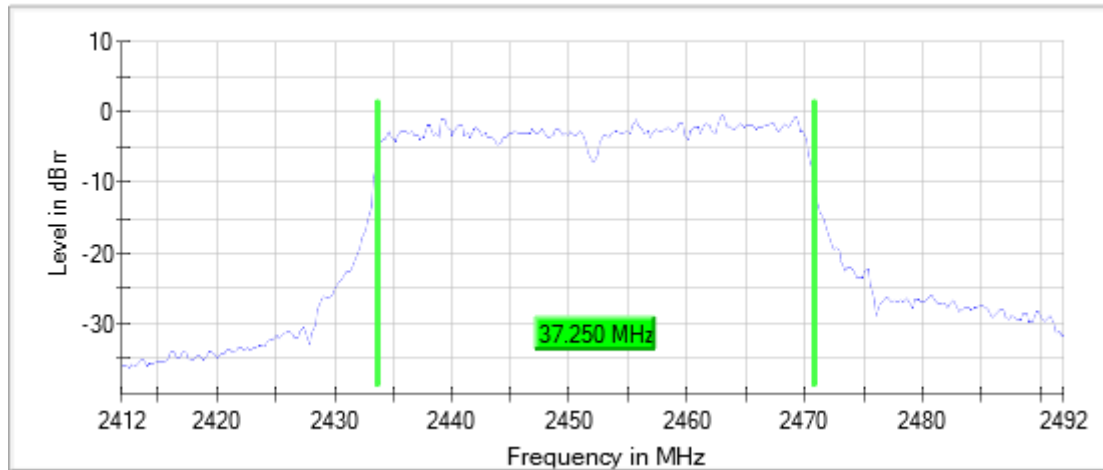
Frequency MHz = 2452.00000

Active Port = 1

Modulation = 802.11n HT40 (OFDM MCS7)

Images:

99 % Bandwidth



Date: 9.DEC.2025 12:25:18

Operation Band MHz = [2400, 2483.5]

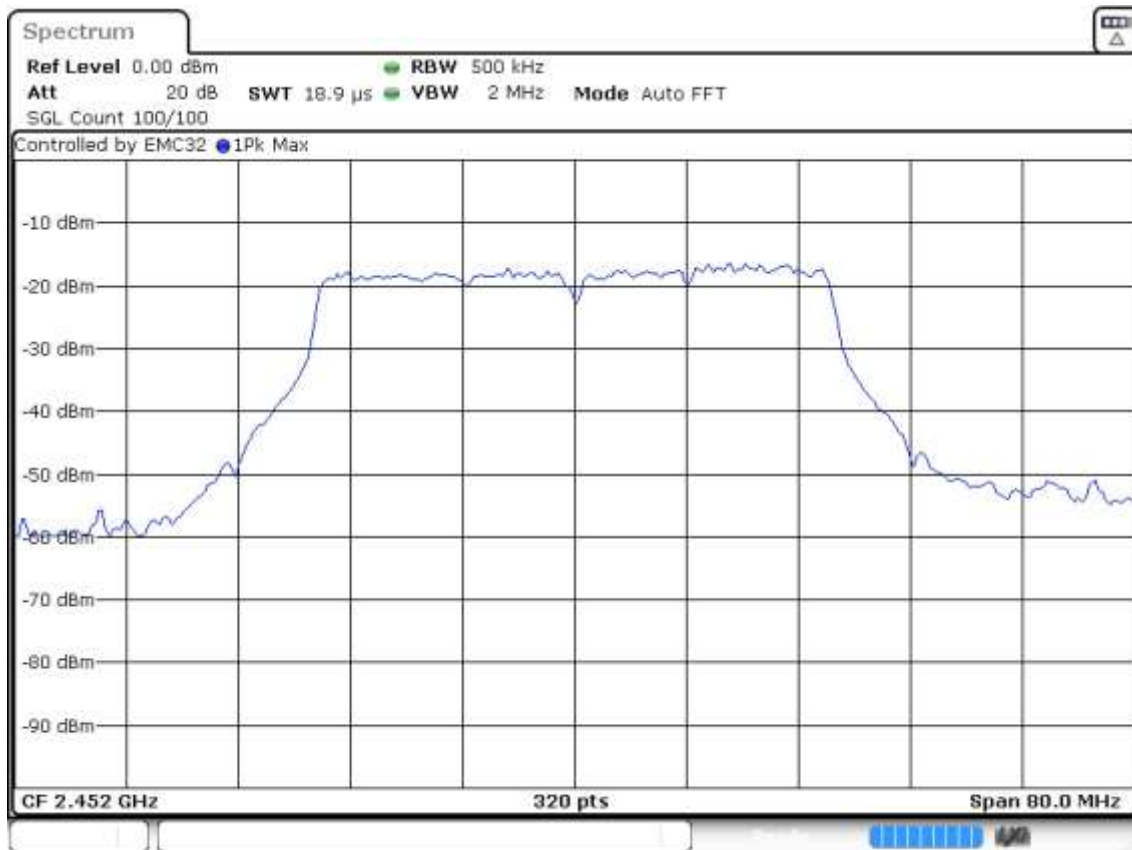
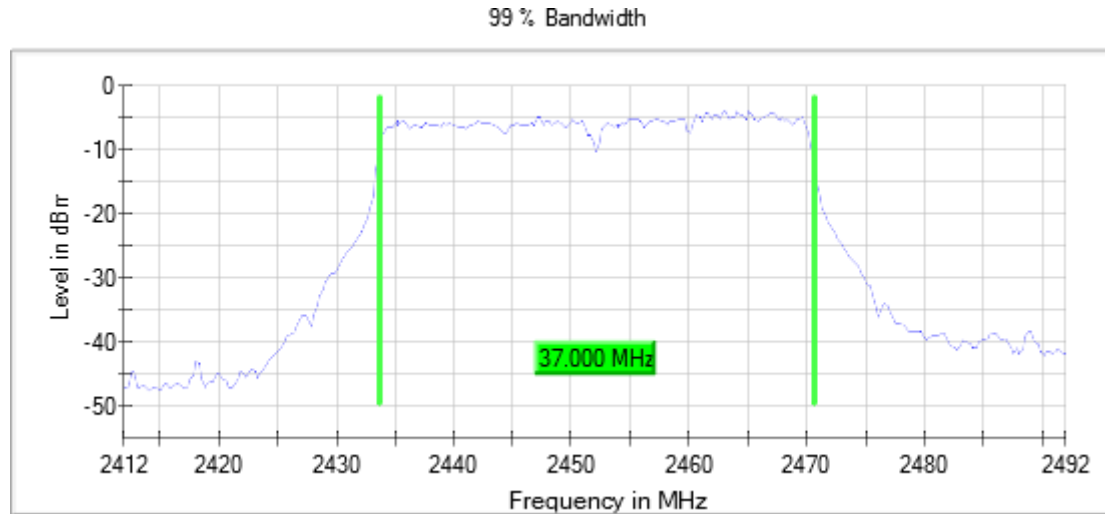
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2452.00000

Active Port = 2

Modulation = 802.11n HT40 (OFDM MCS7)

Images:



Date: 9.DEC.2025 16:41:42

Operation Band MHz = [2400, 2483.5]

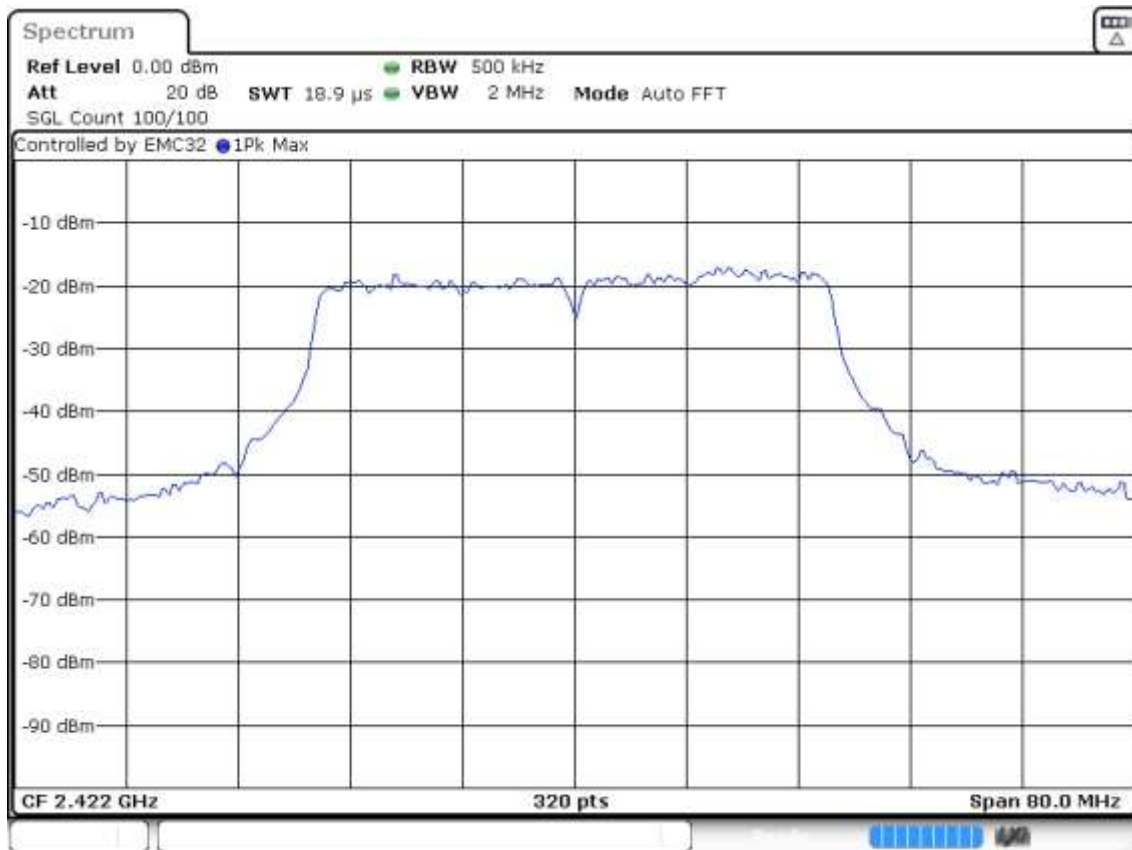
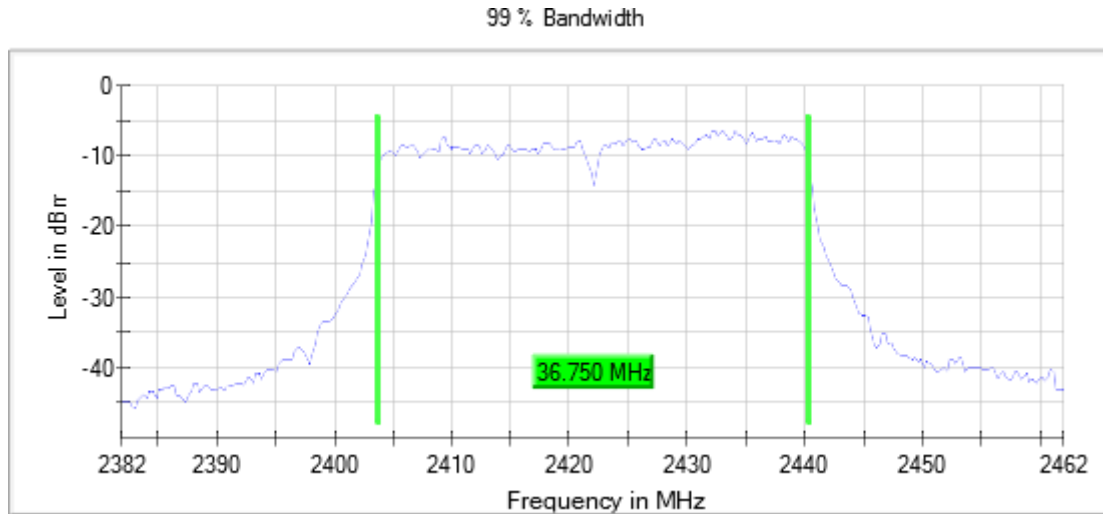
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2422.00000

Active Port = 1+2

Modulation = 802.11n HT40 (OFDM MCS7)

Images:



Date: 12 DEC 2025 17:59:24

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

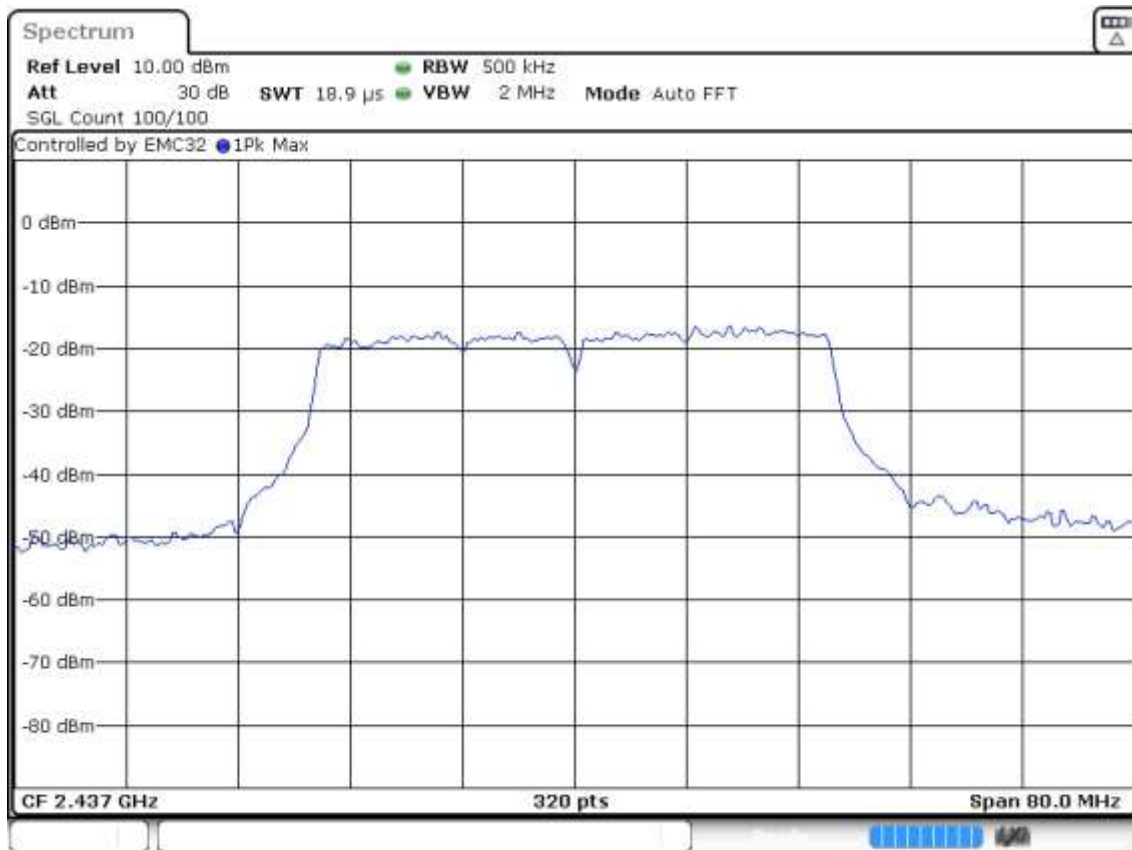
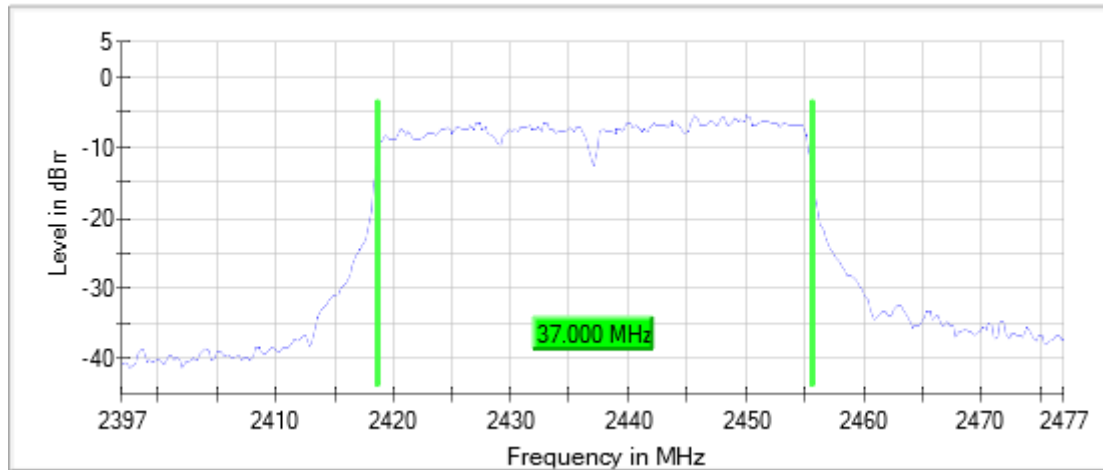
Frequency MHz = 2437.00000

Active Port = 1+2

Modulation = 802.11n HT40 (OFDM MCS7)

Images:

99 % Bandwidth



Date: 12 DEC 2025 18:10:19

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

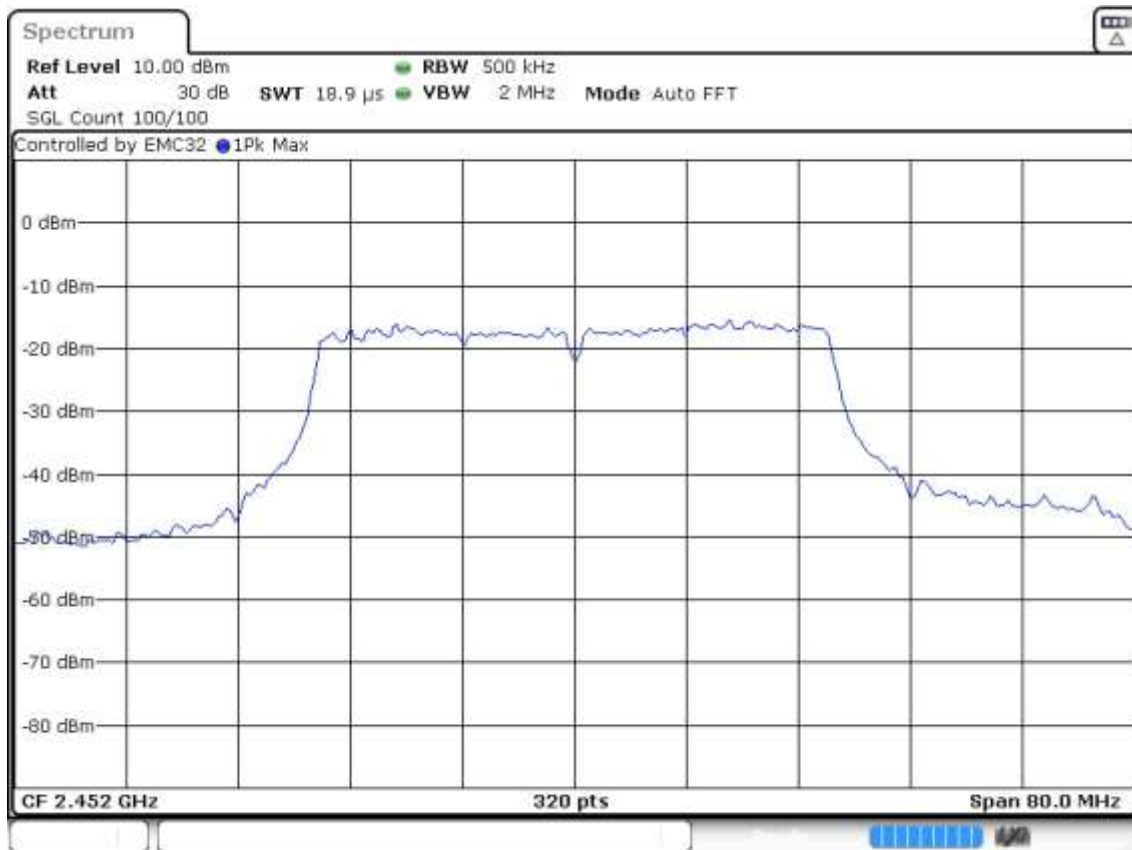
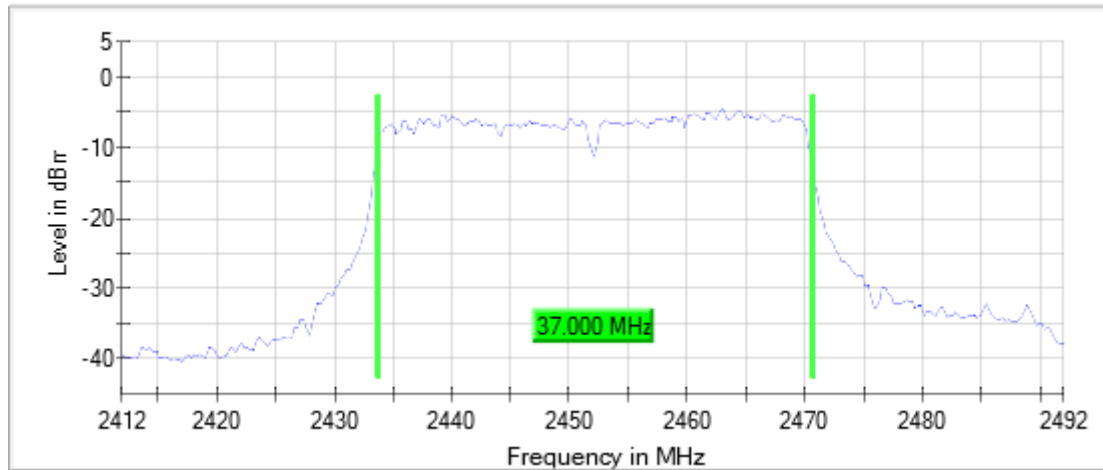
Frequency MHz = 2452.00000

Active Port = 1+2

Modulation = 802.11n HT40 (OFDM MCS7)

Images:

99 % Bandwidth



Date: 12 DEC.2025 18:16:14



Modulation: 802.11ax HE20 SS1 (OFDMA MCS0)
Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Occ Ch BW (MHz)
[2400, 2483.5]	Digital Transmission System (DTS)	2412.00000	1	18.900
			2	18.900
		2437.00000	1	18.900
			2	18.900
		2462.00000	1	18.900
			2	18.900
		2412.00000	1+2	19.000
		2437.00000		18.900
		2462.00000		18.900

Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5]

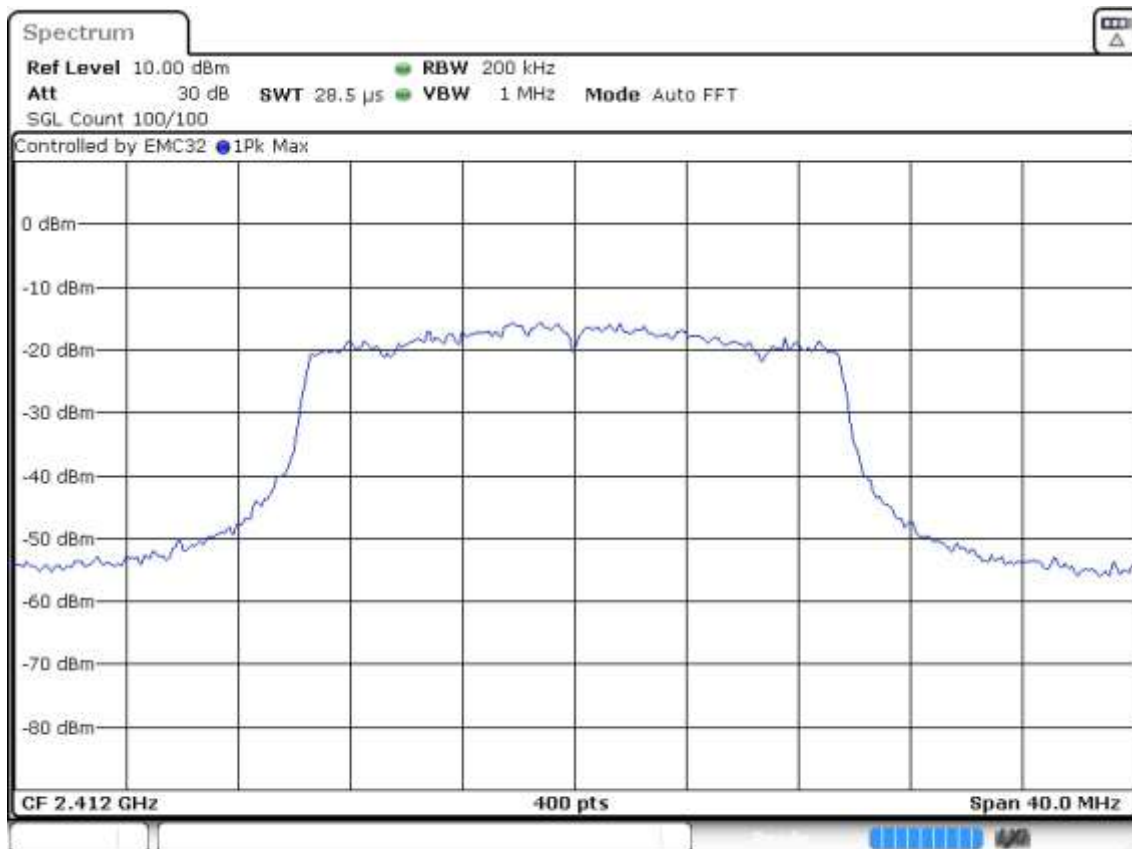
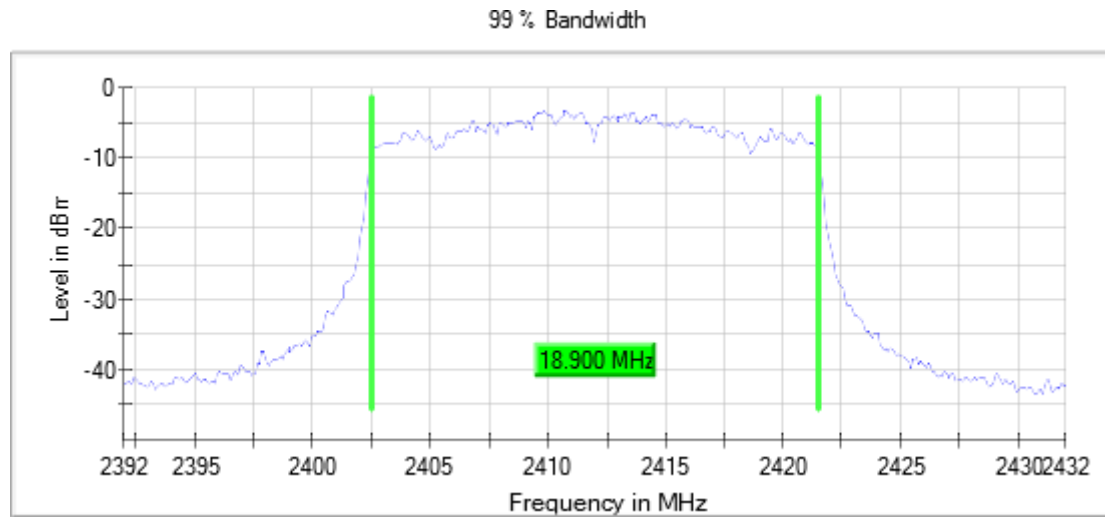
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000

Active Port = 1

Modulation = 802.11ax HE20 SS1 (OFDMA MCS0)

Images:



Date: 16.JAN.2026 11:25:24

Operation Band MHz = [2400, 2483.5]

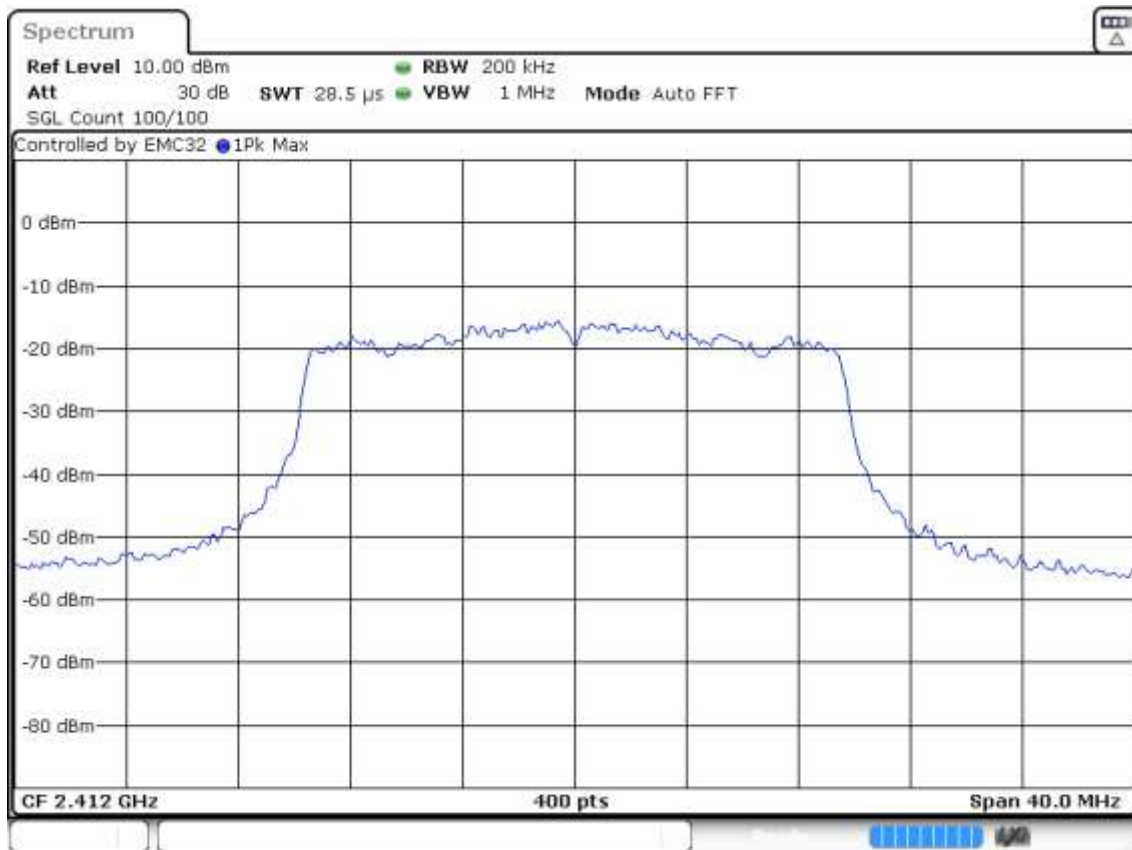
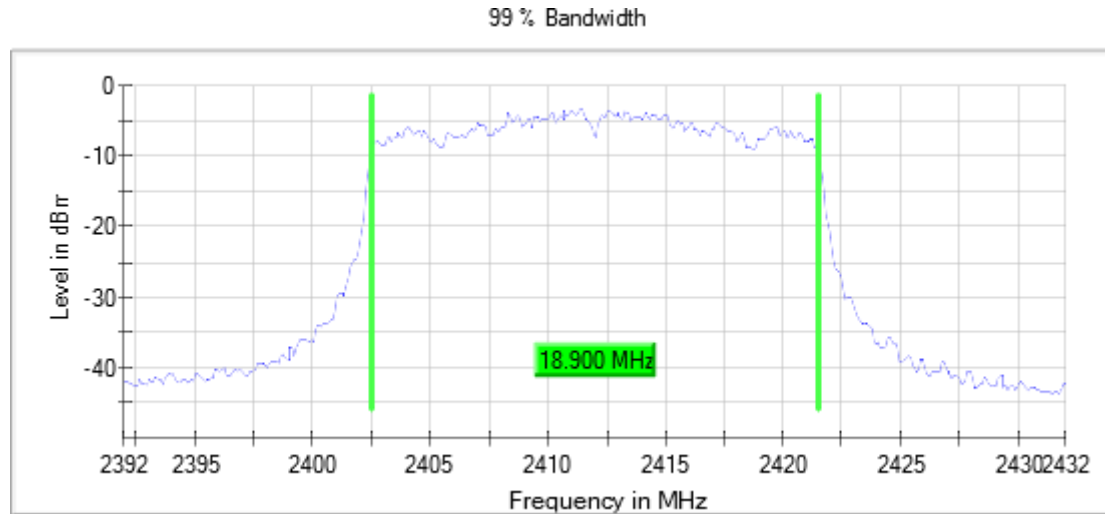
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000

Active Port = 2

Modulation = 802.11ax HE20 SS1 (OFDMA MCS0)

Images:



Date: 16 JAN 2026 10:30:30

Operation Band MHz = [2400, 2483.5]

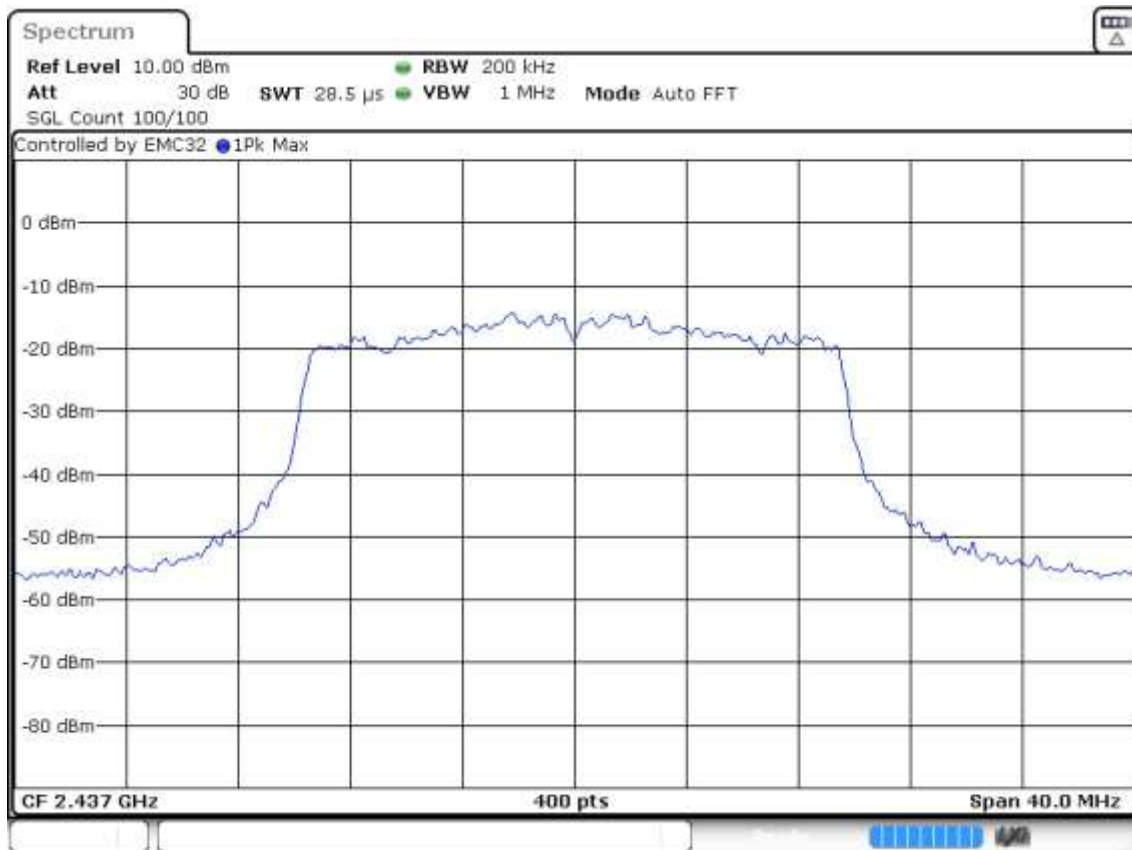
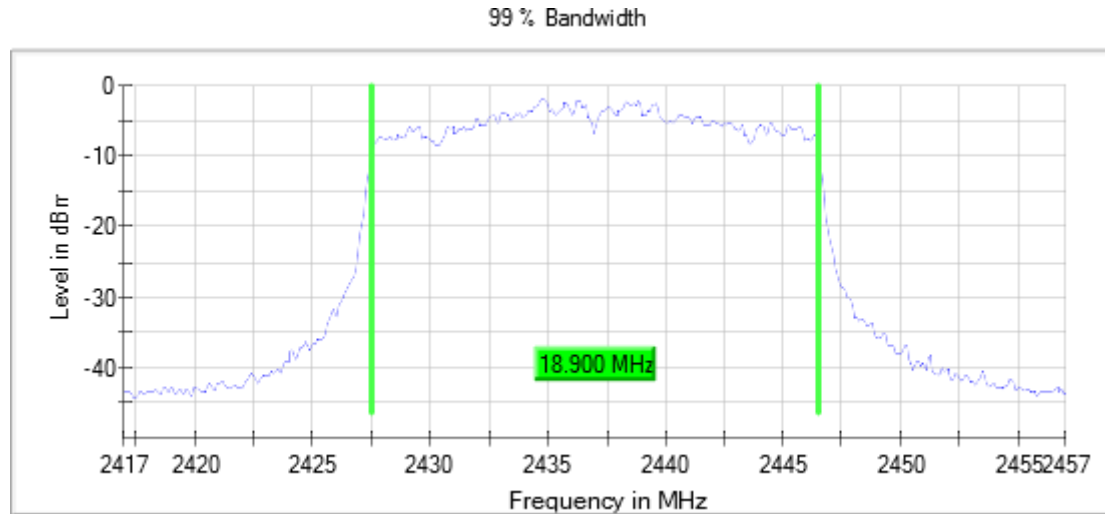
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000

Active Port = 1

Modulation = 802.11ax HE20 SS1 (OFDMA MCS0)

Images:



Date: 16 JAN 2026 11:32:07

Operation Band MHz = [2400, 2483.5]

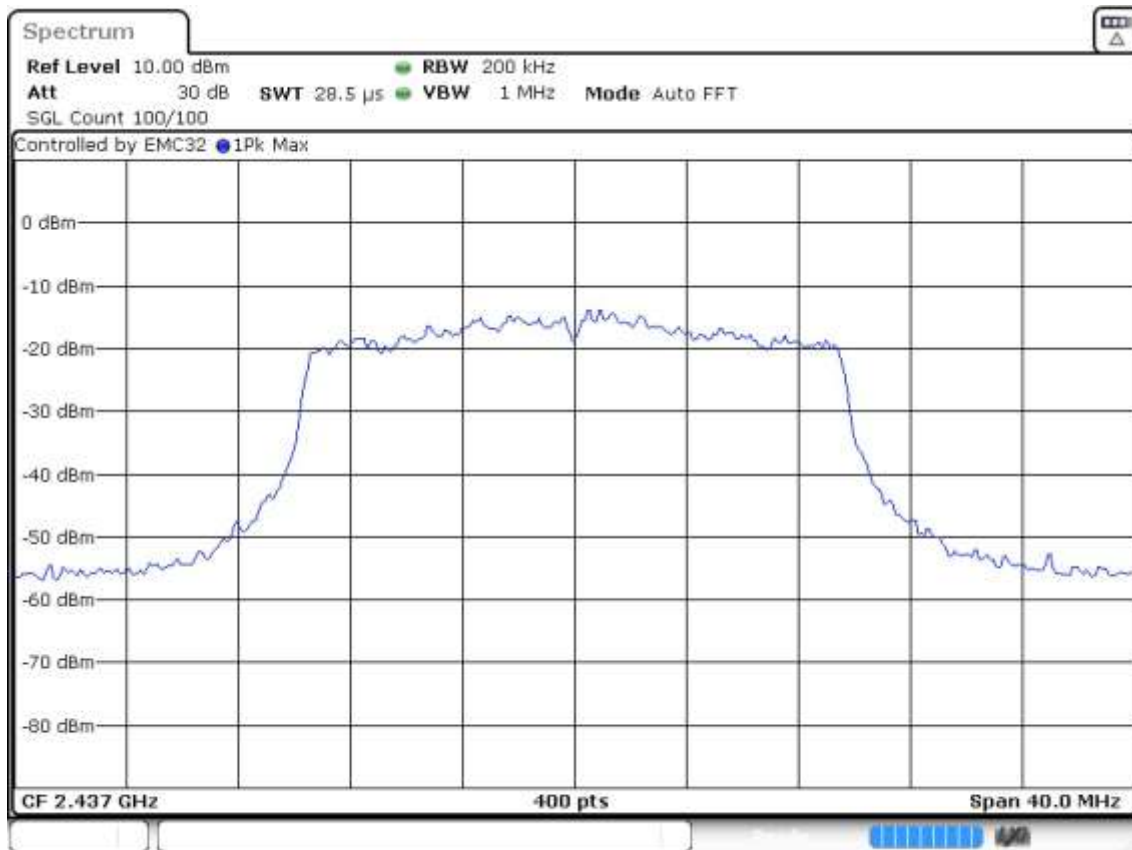
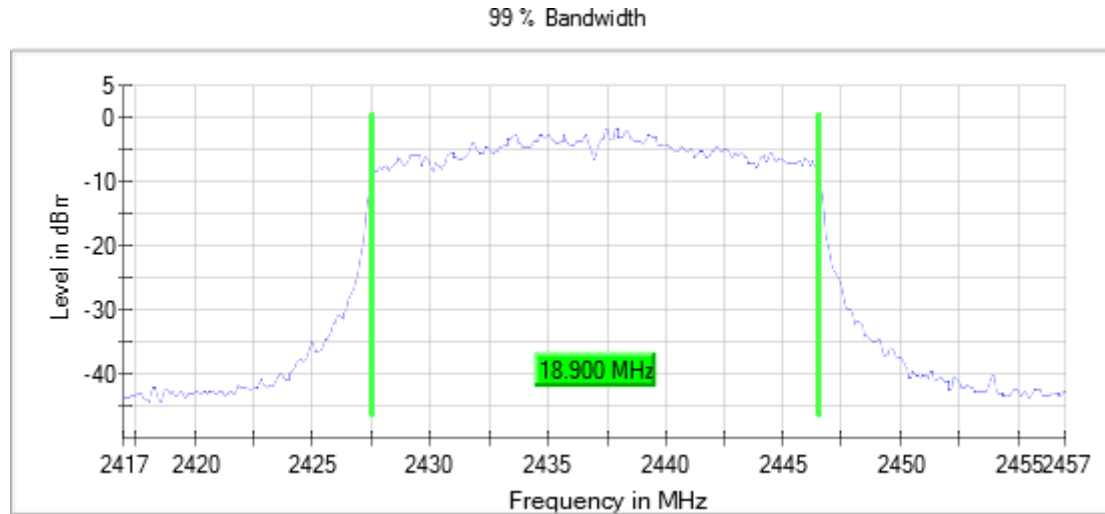
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000

Active Port = 2

Modulation = 802.11ax HE20 SS1 (OFDMA MCS0)

Images:



Date: 16 JAN 2026 10:40:58

Operation Band MHz = [2400, 2483.5]

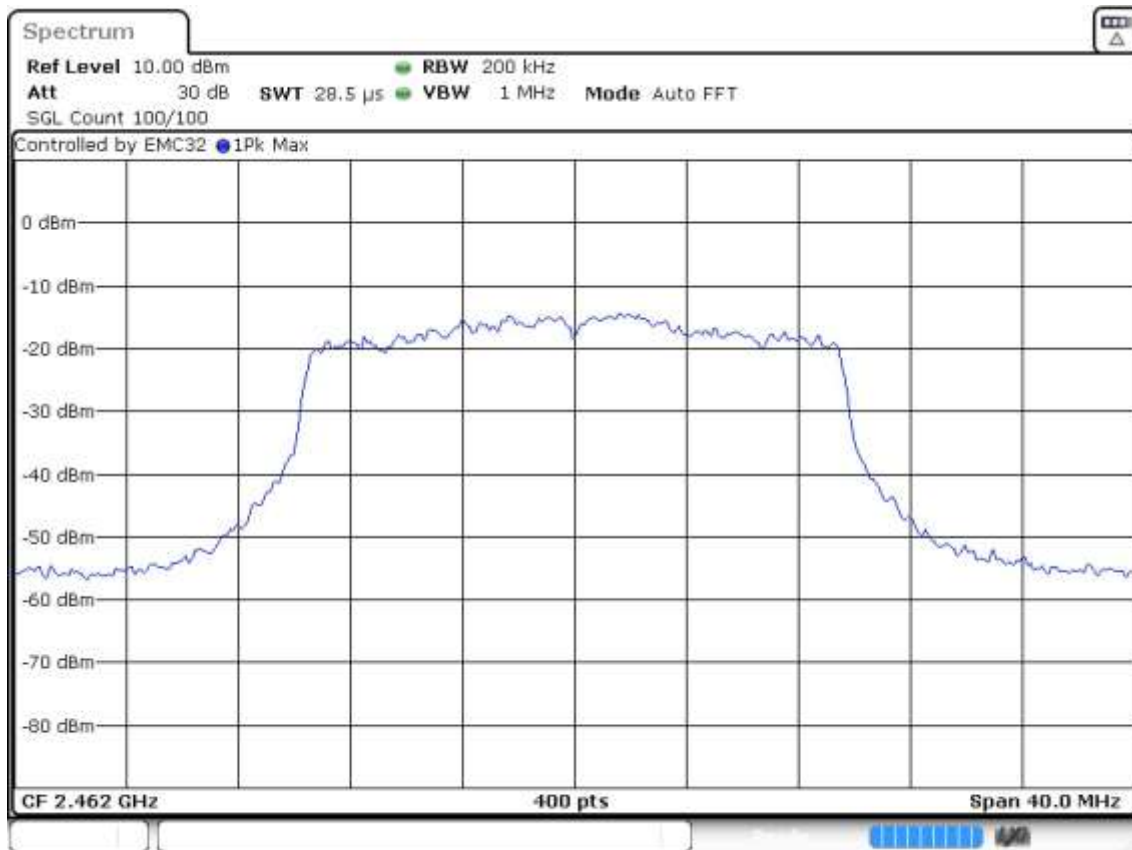
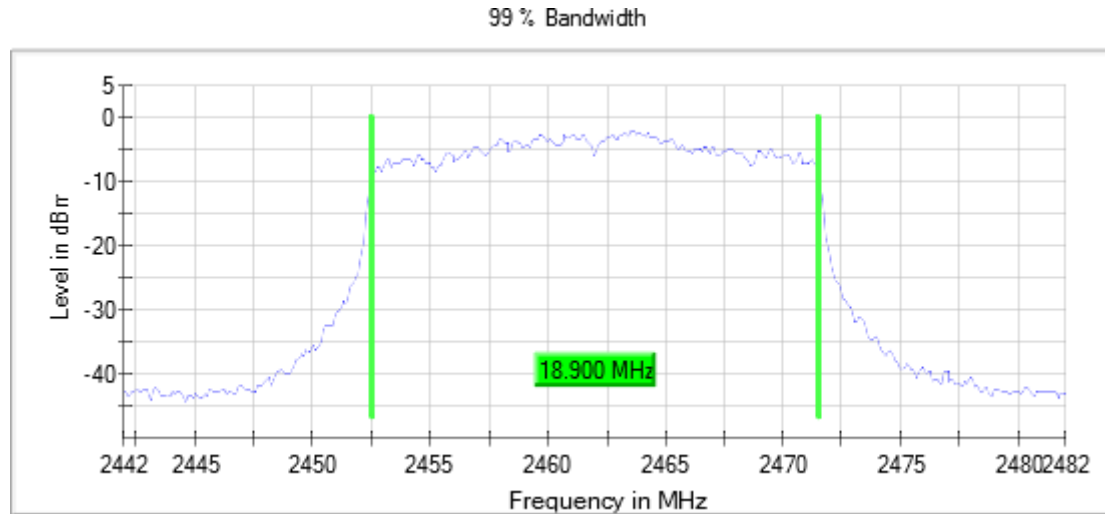
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000

Active Port = 1

Modulation = 802.11ax HE20 SS1 (OFDMA MCS0)

Images:



Date: 16 JAN 2026 11:36:09

Operation Band MHz = [2400, 2483.5]

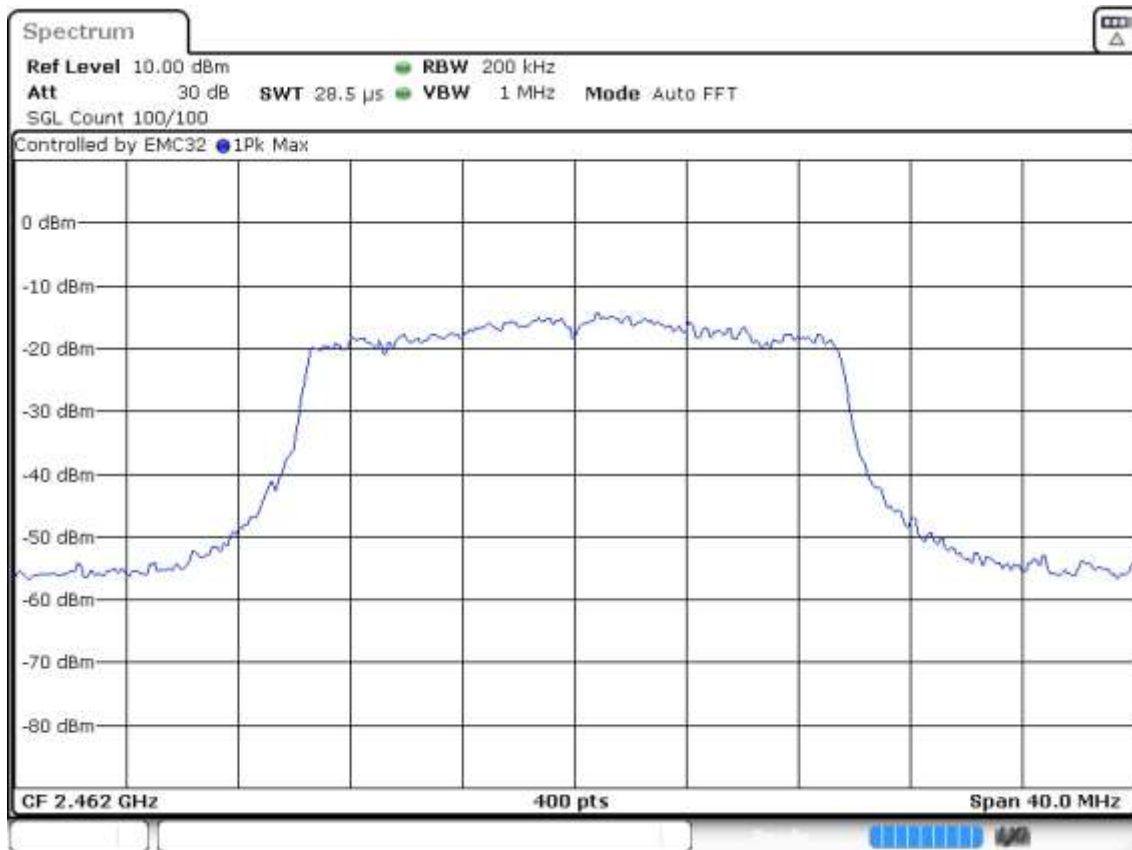
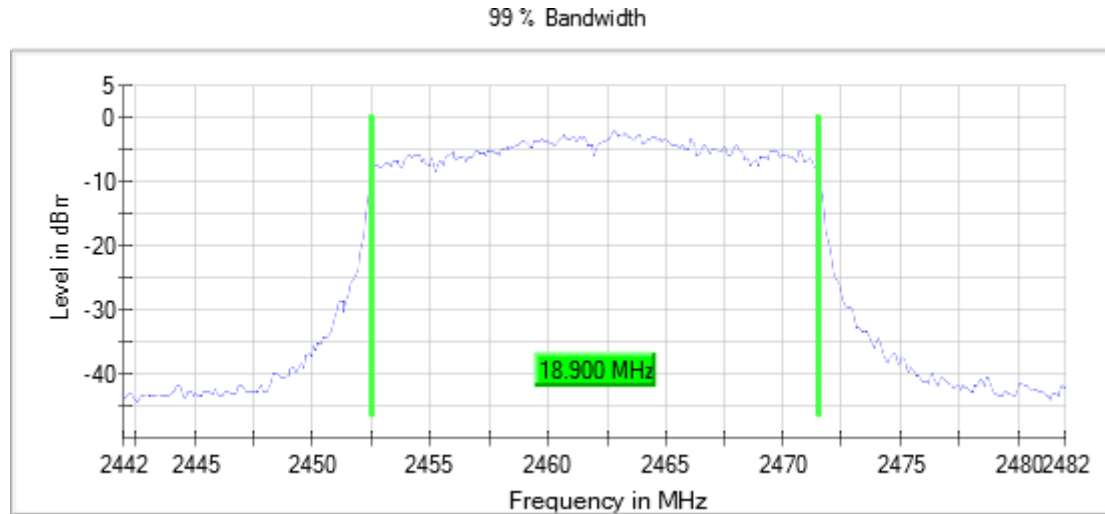
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2462.00000

Active Port = 2

Modulation = 802.11ax HE20 SS1 (OFDMA MCS0)

Images:



Date: 16 JAN 2026 10:47:31

Operation Band MHz = [2400, 2483.5]

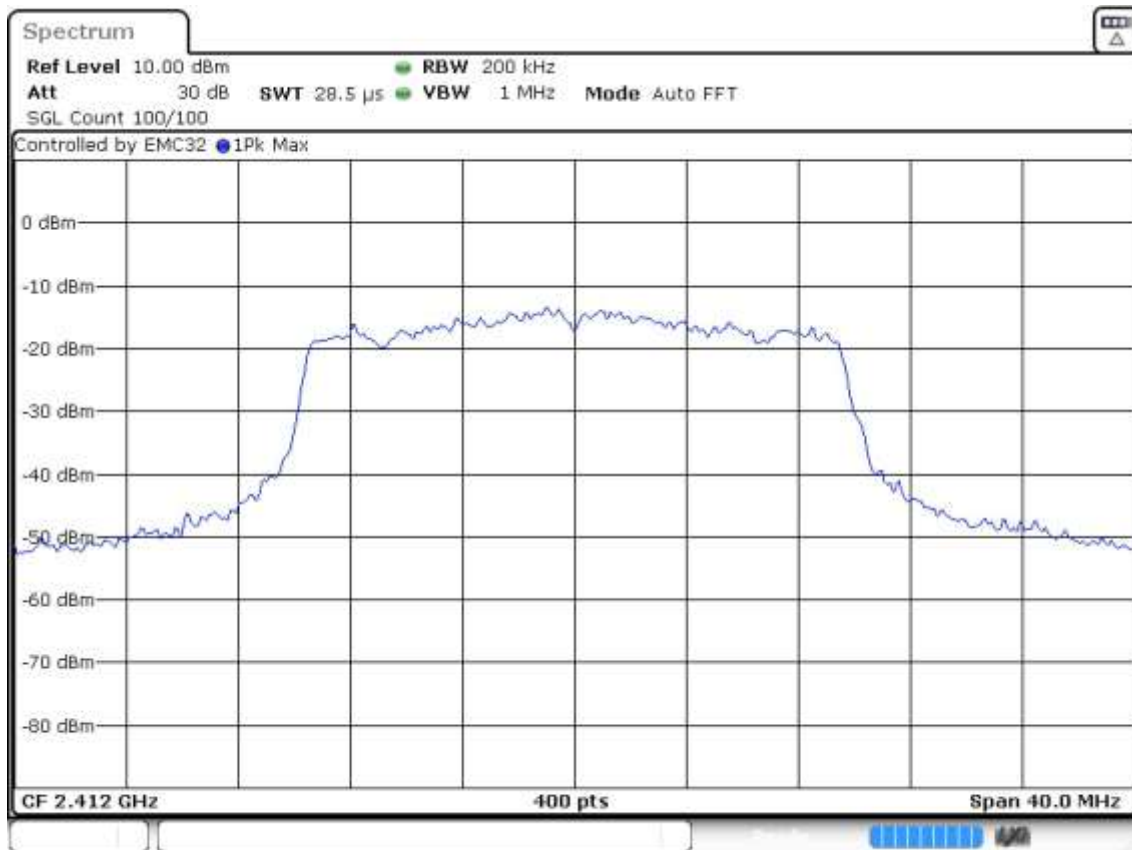
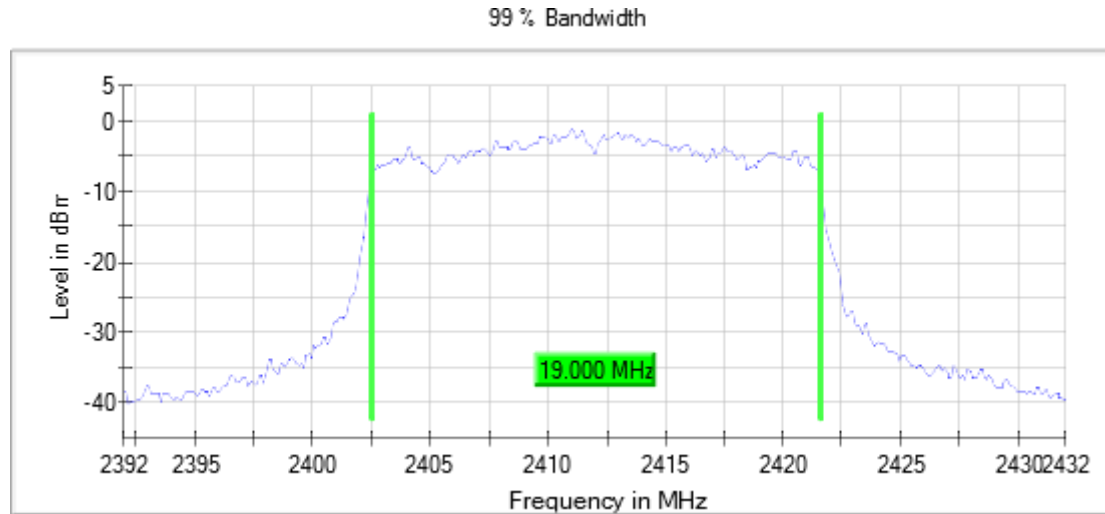
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2412.00000

Active Port = 1+2

Modulation = 802.11ax HE20 SS1 (OFDMA MCS0)

Images:



Date: 16 JAN 2026 10:57:52

Operation Band MHz = [2400, 2483.5]

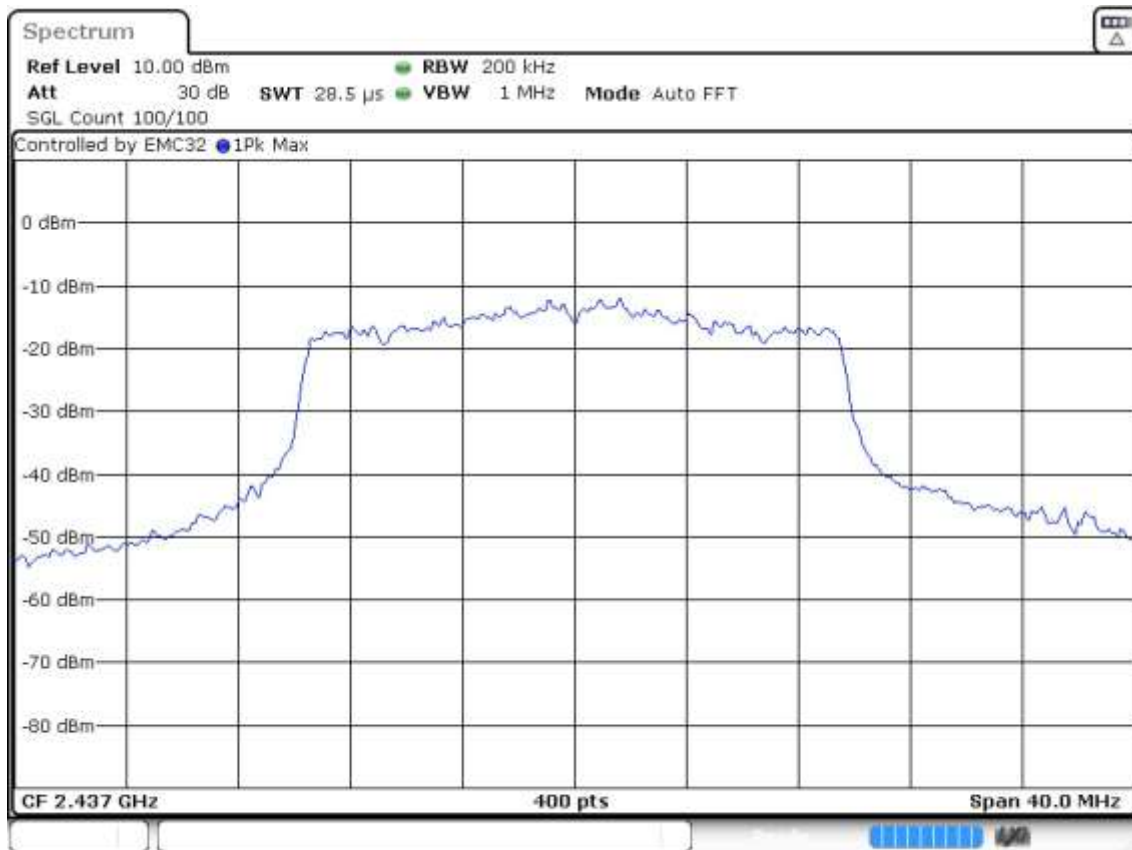
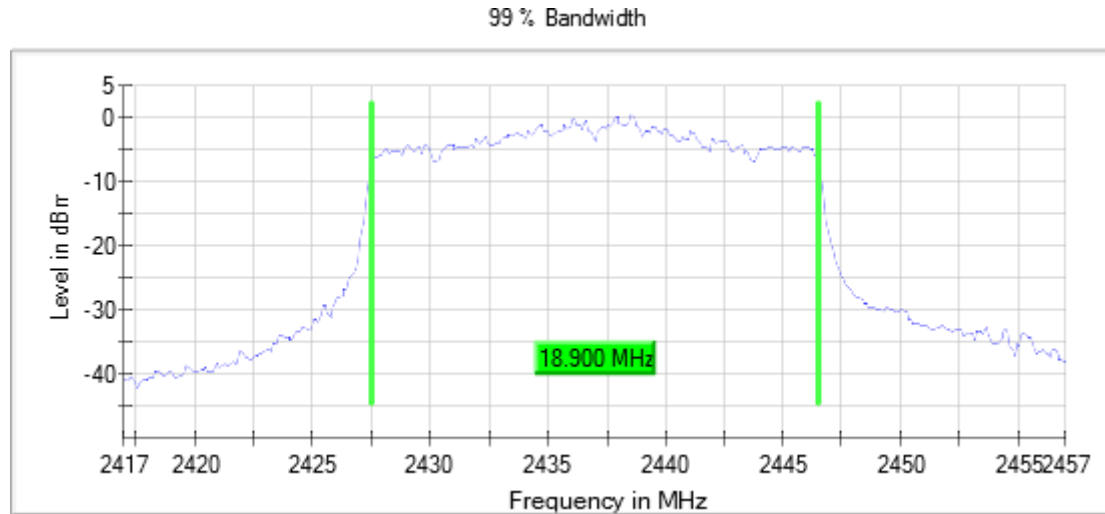
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000

Active Port = 1+2

Modulation = 802.11ax HE20 SS1 (OFDMA MCS0)

Images:



Date: 16 JAN 2026 11:07:07

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

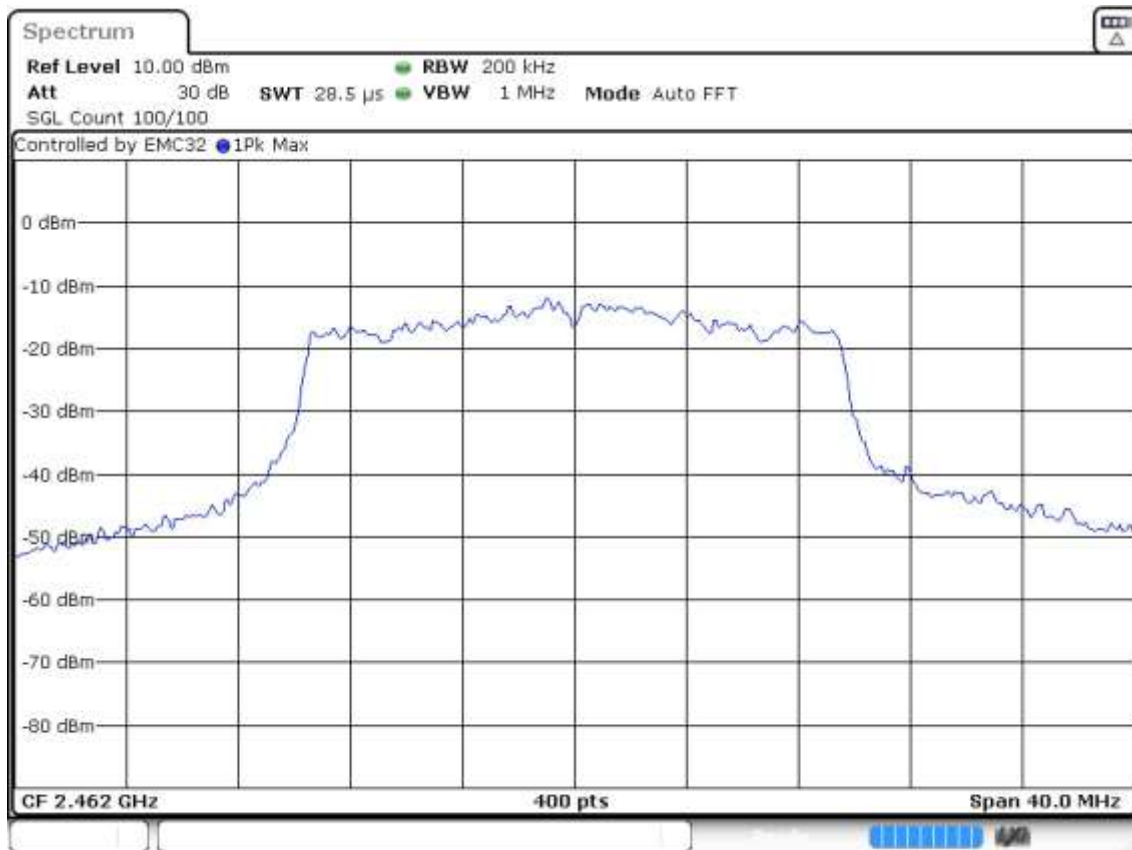
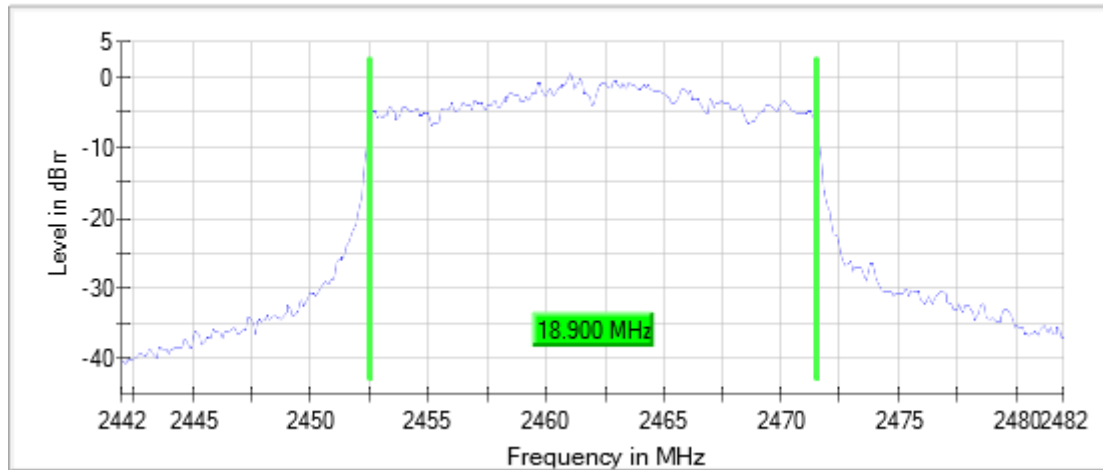
Frequency MHz = 2462.00000

Active Port = 1+2

Modulation = 802.11ax HE20 SS1 (OFDMA MCS0)

Images:

99 % Bandwidth



Date: 16.JAN.2026 11:16:41

Modulation: 802.11ax HE40 SS1 (OFDMA MCS11)
Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Occ Ch BW (MHz)
[2400, 2483.5]	Digital Transmission System (DTS)	2422.00000	1	38.250
			2	38.250
		2437.00000	1	38.250
			2	38.500
		2452.00000	1	38.250
			2	38.250
		2422.00000	1+2	38.500
		2437.00000		38.500
		2452.00000		38.250

Verdict

Pass

Attachments

Operation Band MHz = [2400, 2483.5]

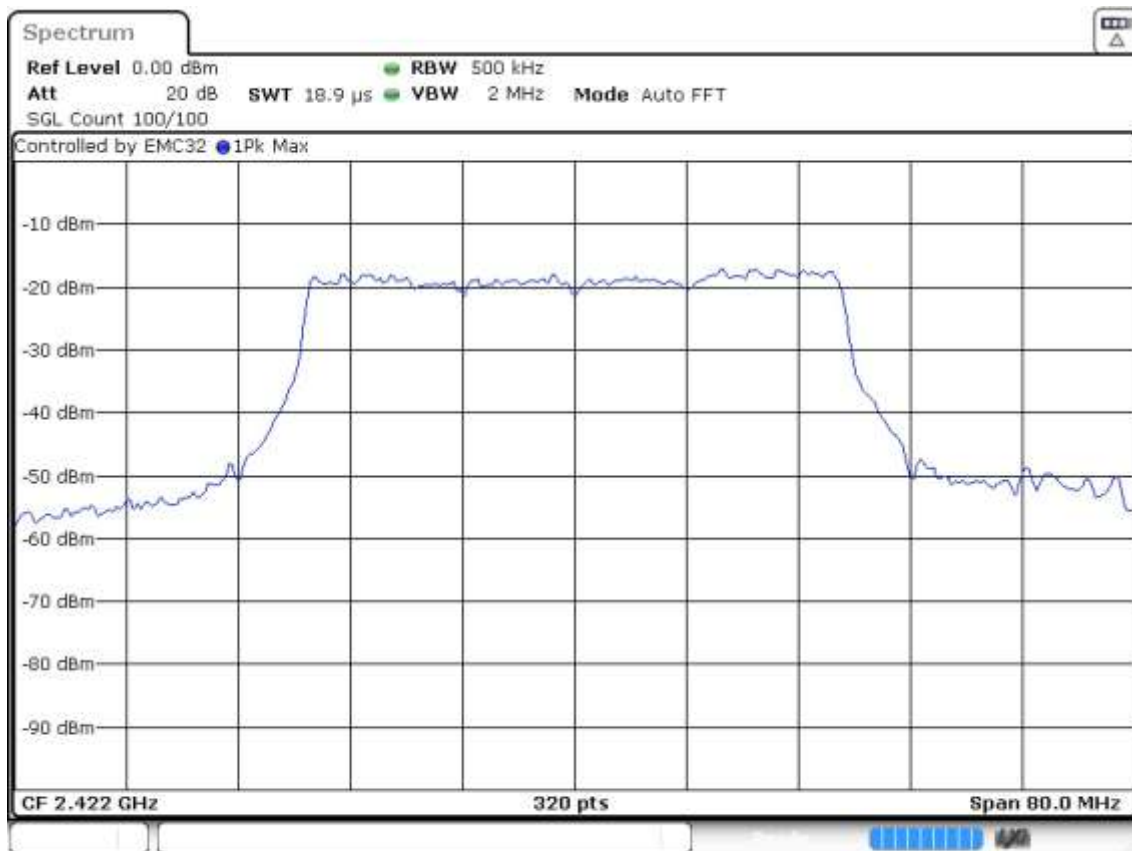
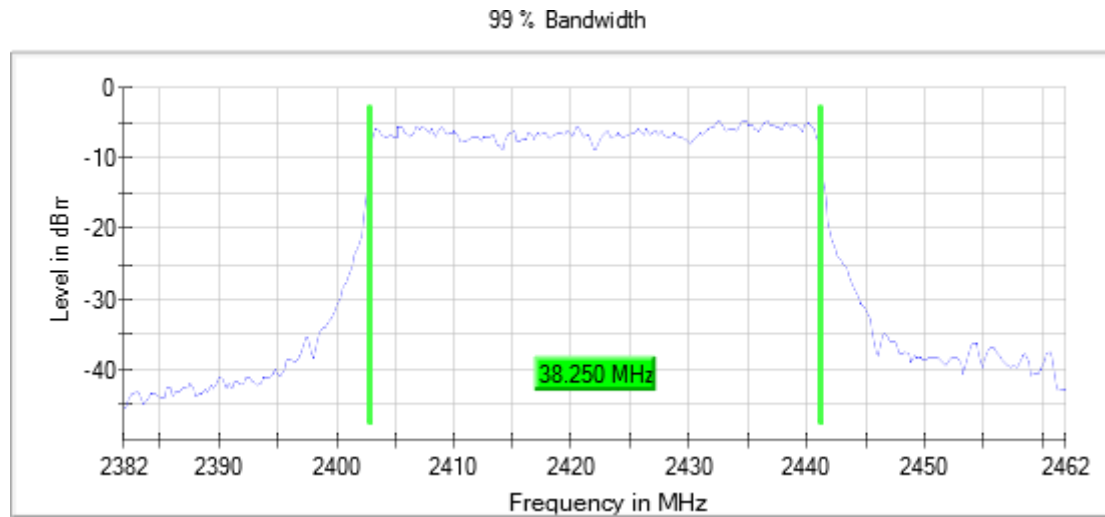
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2422.00000

Active Port = 1

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



Date: 9 DEC. 2025 12:44:50

Operation Band MHz = [2400, 2483.5]

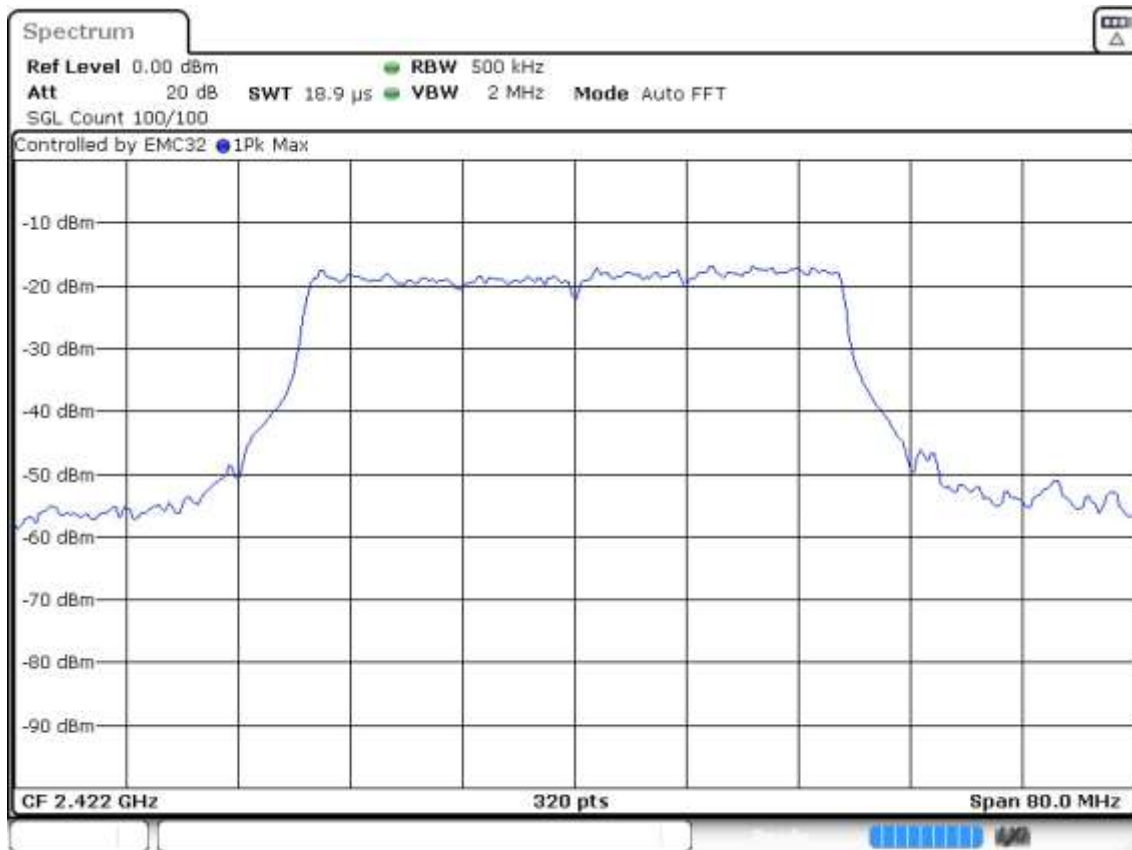
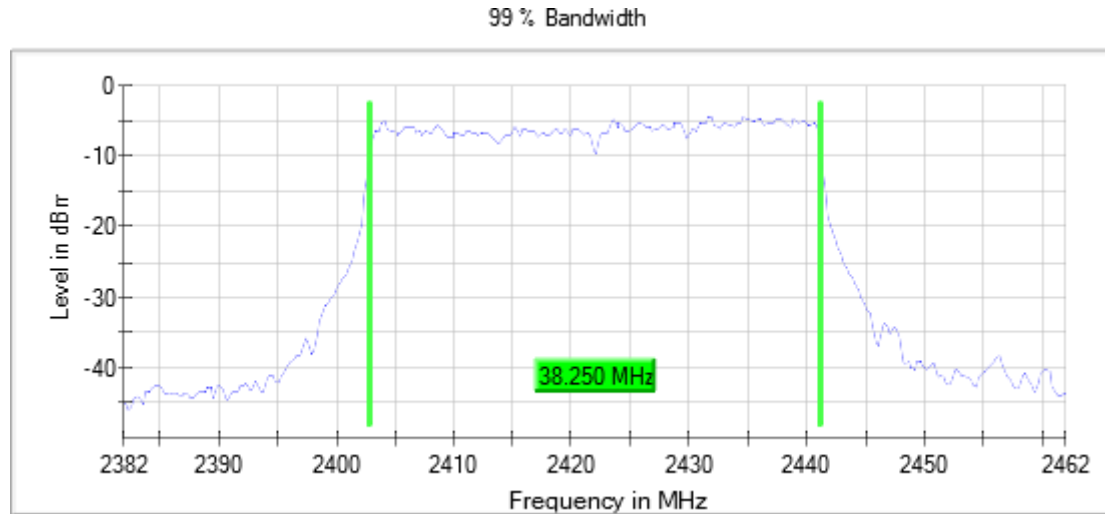
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2422.00000

Active Port = 2

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



Date: 9.DEC.2025 17:02:28

Operation Band MHz = [2400, 2483.5]

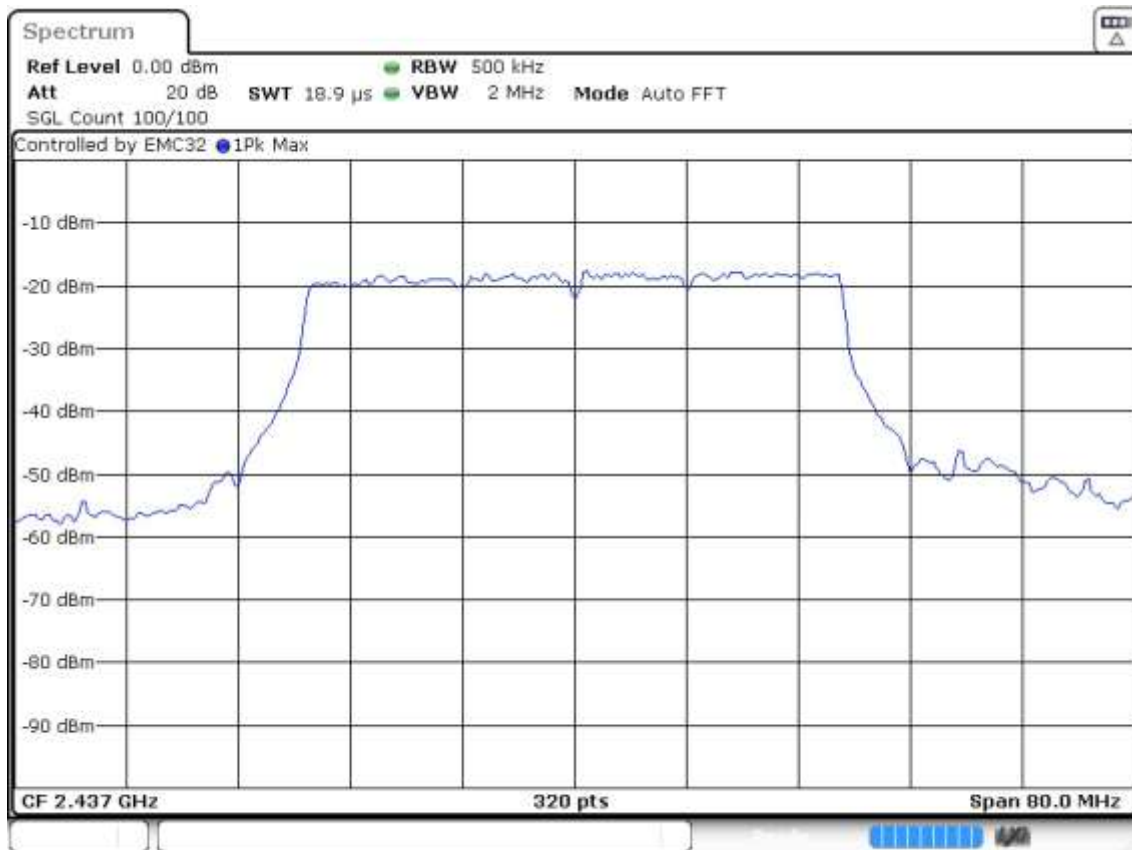
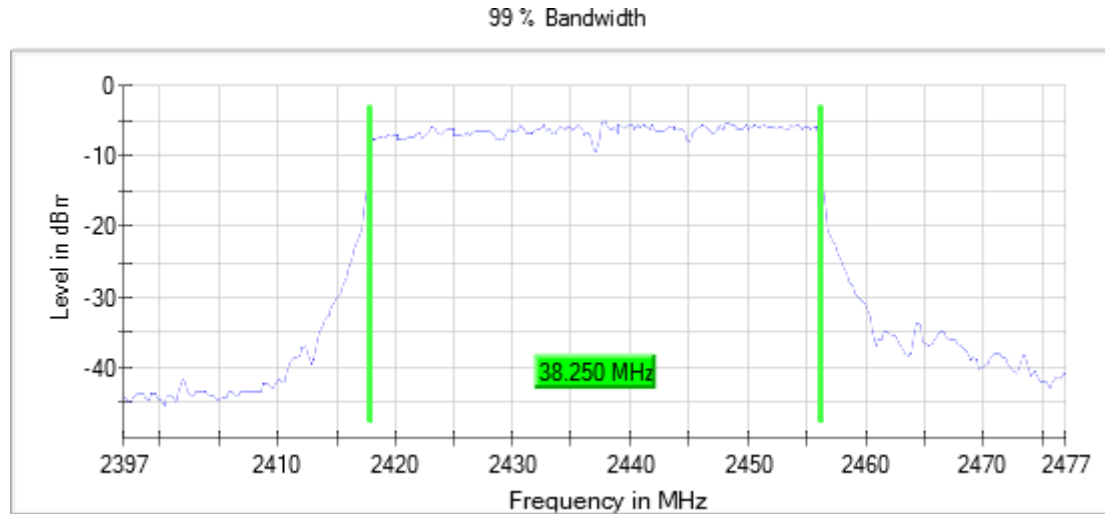
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000

Active Port = 1

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



Date: 9.DEC.2025 13:31:13

Operation Band MHz = [2400, 2483.5]

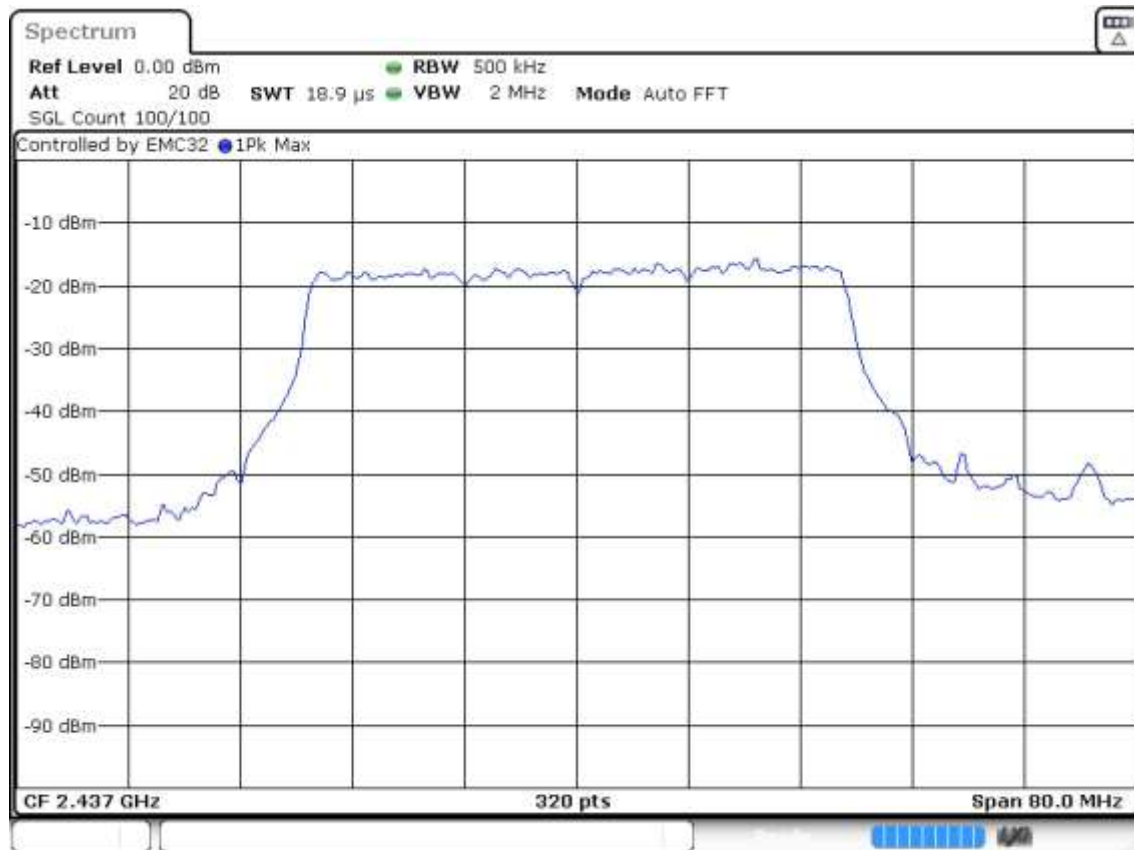
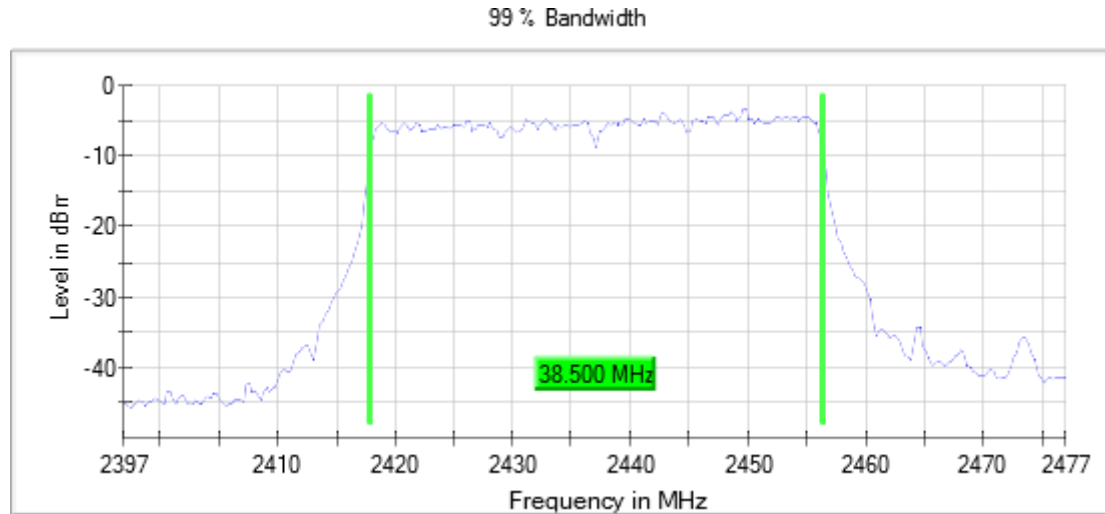
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2437.00000

Active Port = 2

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



Date: 9.DEC.2025 17:41:59

Operation Band MHz = [2400, 2483.5]

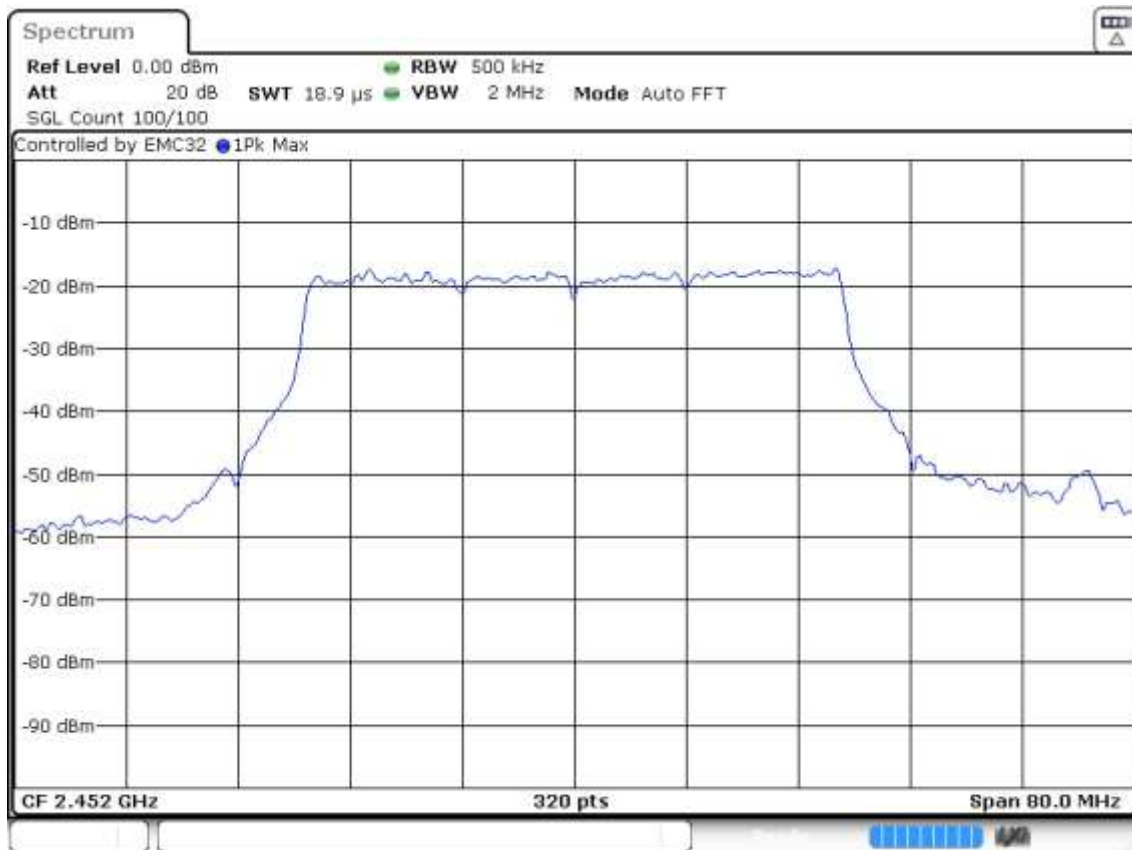
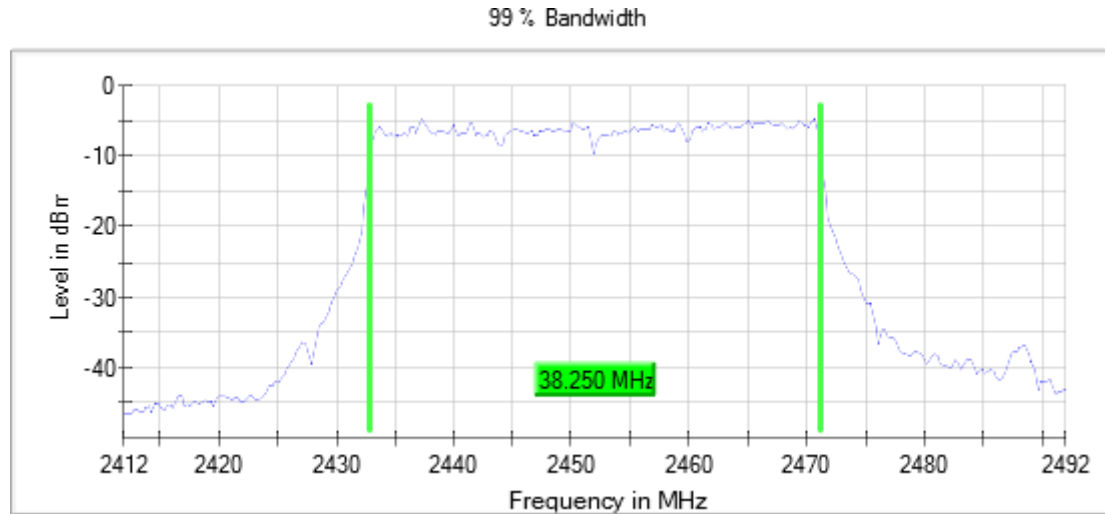
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2452.00000

Active Port = 1

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



Date: 9.DEC.2025 13:39:15

Operation Band MHz = [2400, 2483.5]

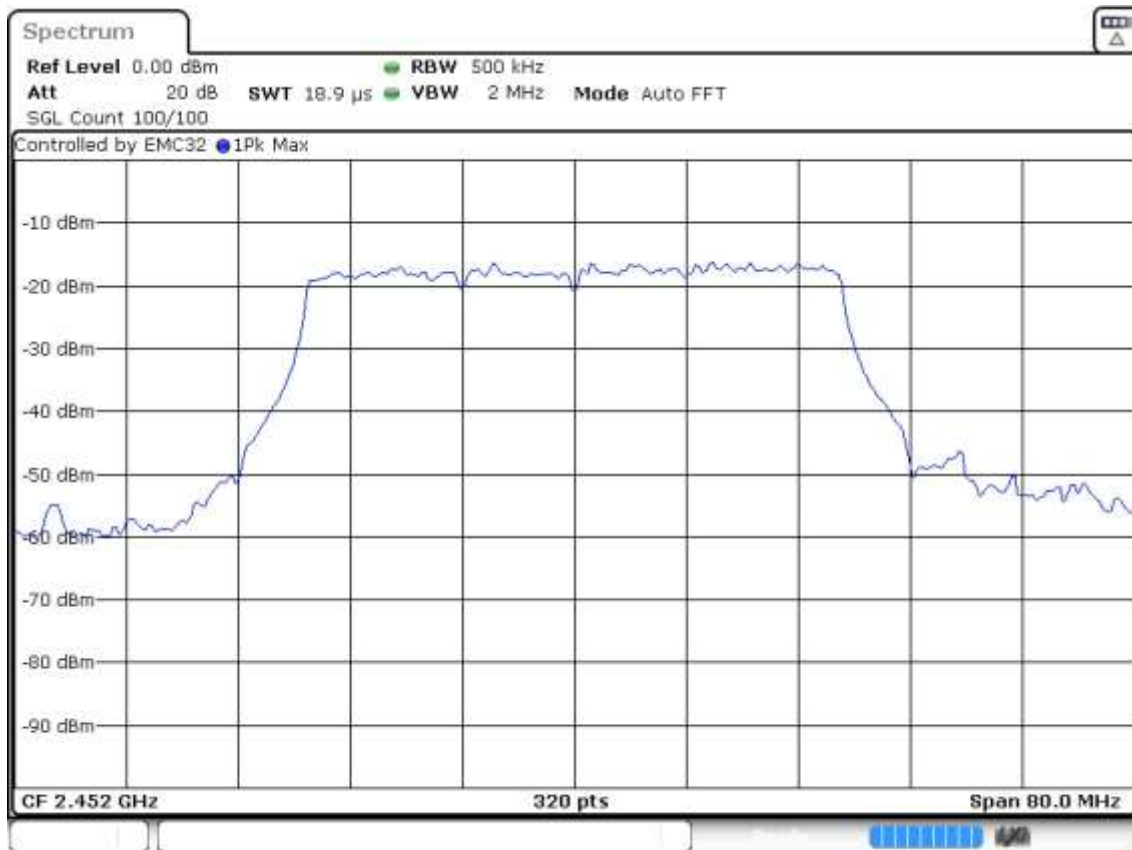
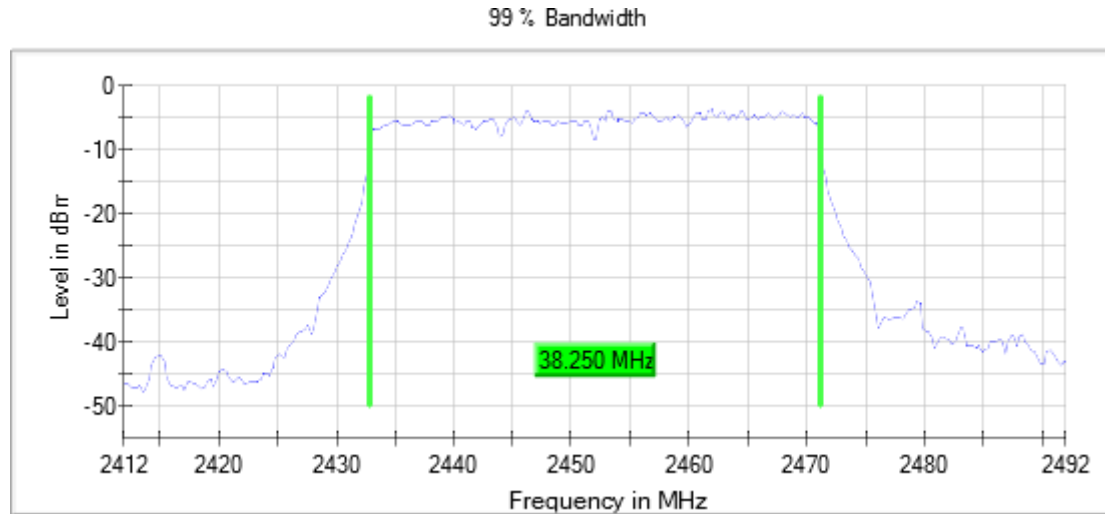
Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2452.00000

Active Port = 2

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



Date: 9.DEC.2025 17:48:18

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

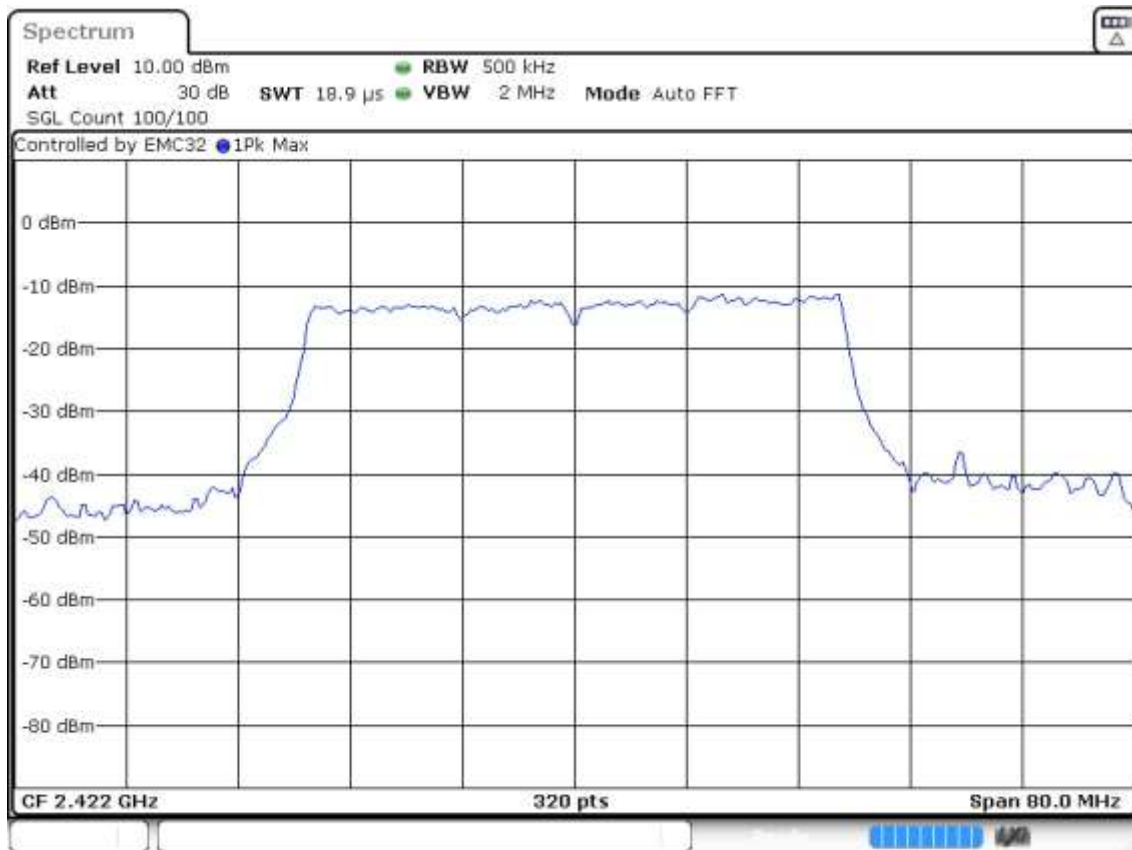
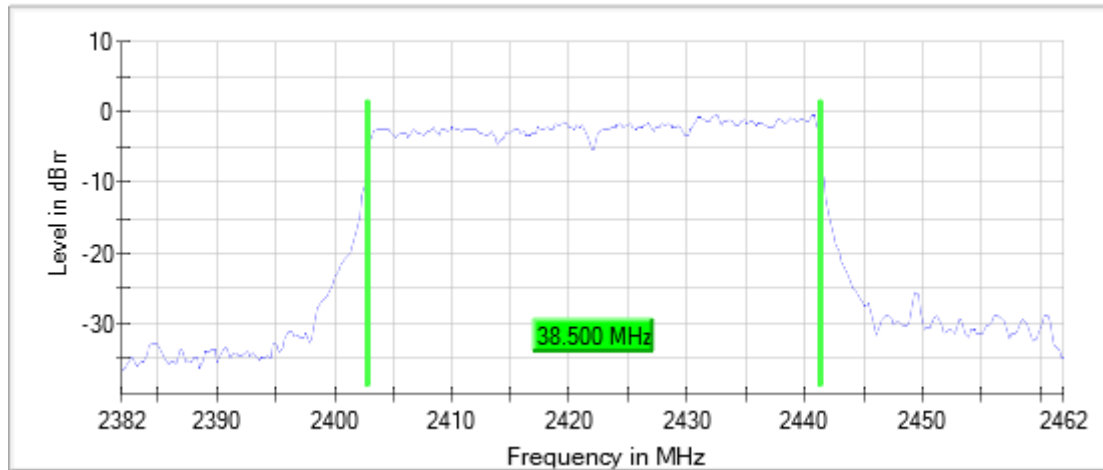
Frequency MHz = 2422.00000

Active Port = 1+2

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:

99 % Bandwidth



Date: 12 DEC. 2025 19:11:27

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

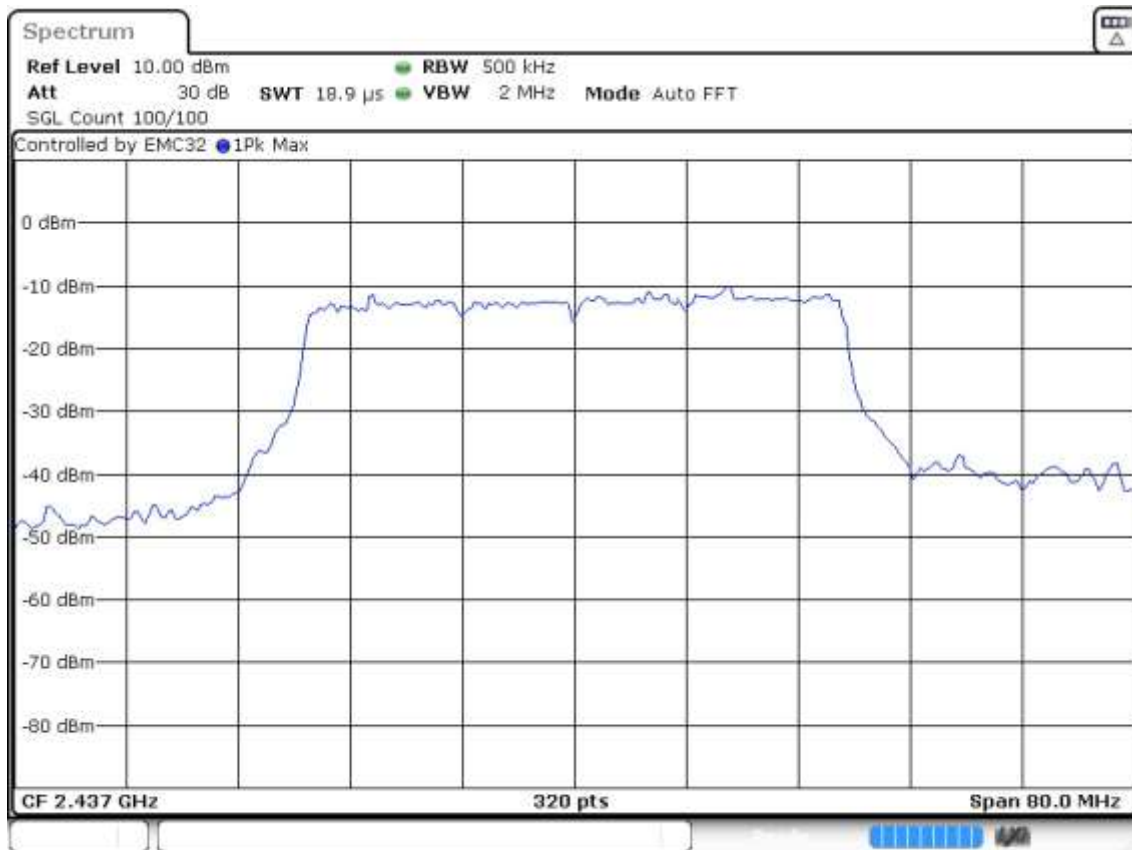
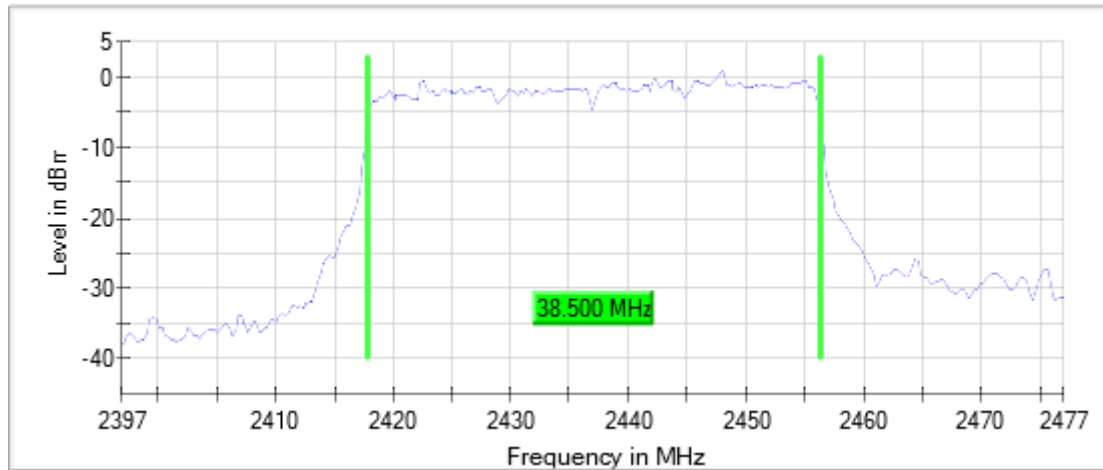
Frequency MHz = 2437.00000

Active Port = 1+2

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:

99 % Bandwidth



Date: 12 DEC 2025 19:23:53

Operation Band MHz = [2400, 2483.5]

Equipment Type = Digital Transmission System (DTS)

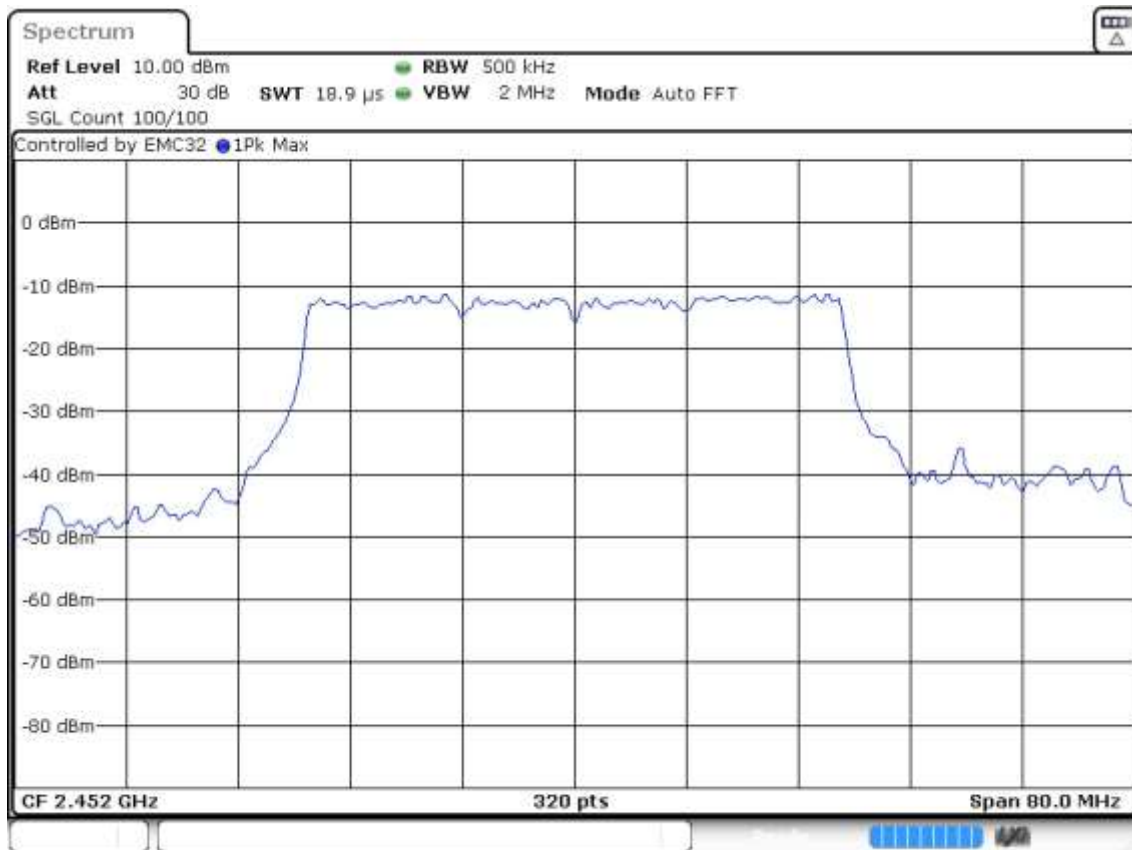
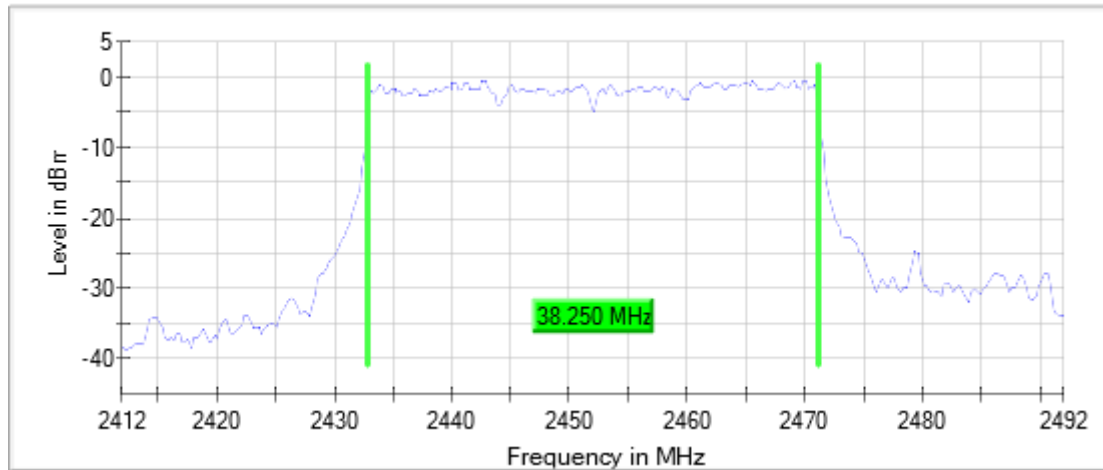
Frequency MHz = 2452.00000

Active Port = 1+2

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:

99 % Bandwidth



Date: 12 DEC 2025 19:29:55

RSS-247 5.1 (b) / FCC 15.247 (a) (1) [20dBW] 20 dB Bandwidth

Limits

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

Modulation: BTLE (GFSK 1 Mbit/s)

Results

Equipment	Freq (MHz)	Port	Ebw (MHz)
Digital Transmission System (DTS)	2402.00000	1	1.175
	2440.00000		1.175
	2480.00000		1.175

Verdict

Pass

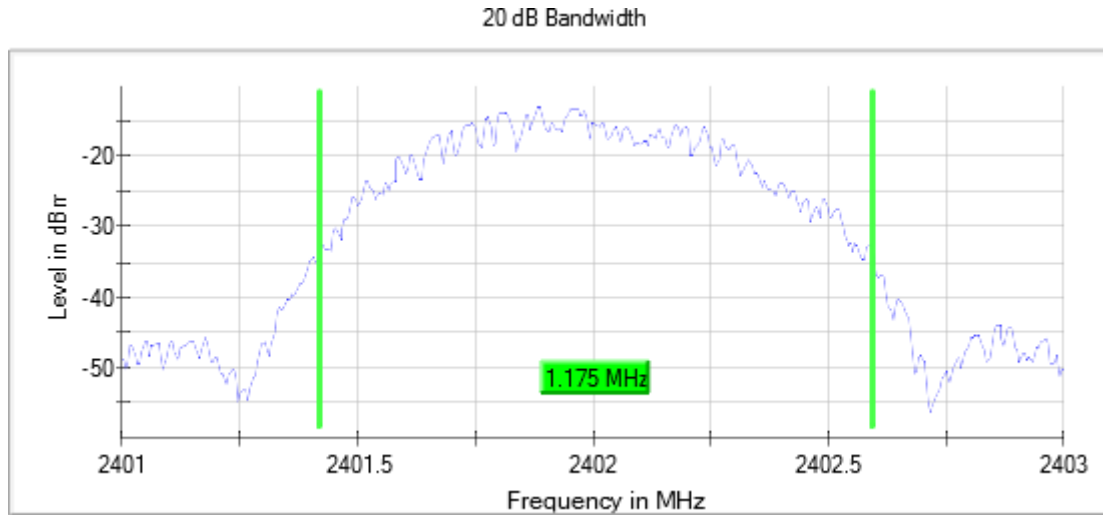
Attachments

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2402.00000

Active Port = 1

Modulation = BTLE (GFSK 1 Mbit/s)

Images:

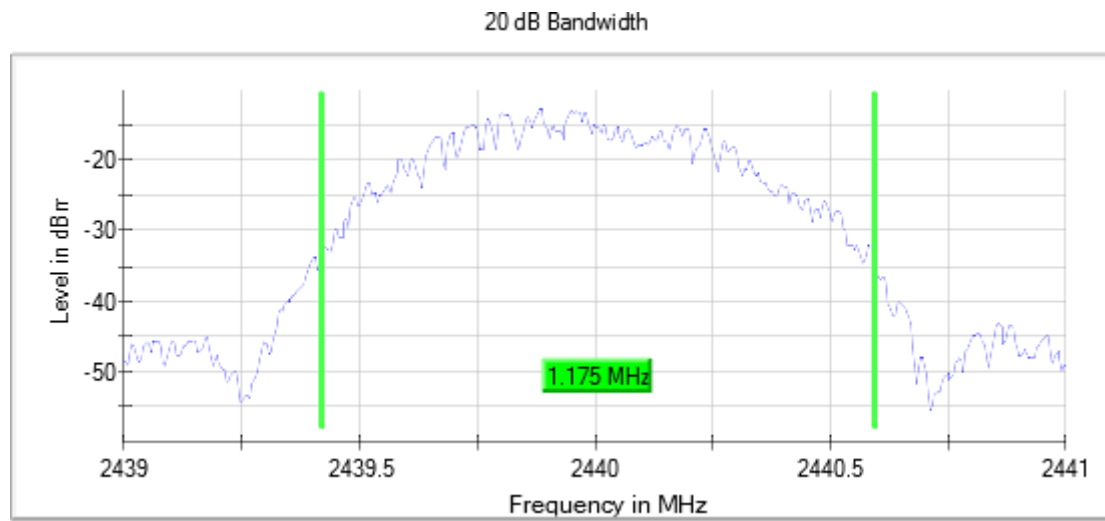


Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2440.00000

Active Port = 1

Modulation = BTLE (GFSK 1 Mbit/s)

Images:



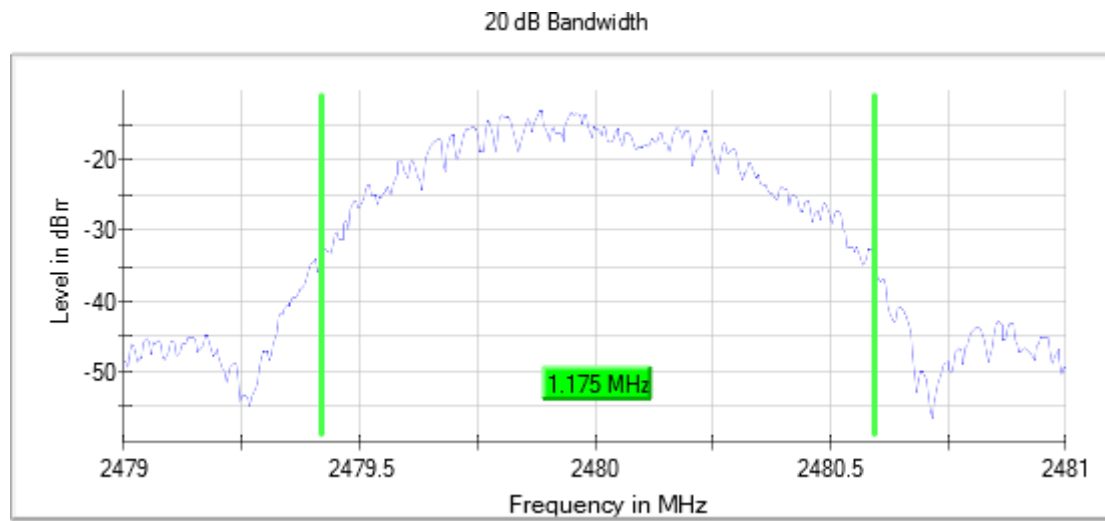
Date: 25.AUG.2025 20:14:00

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2480.00000

Active Port = 1

Modulation = BTLE (GFSK 1 Mbit/s)

Images:



Date: 25.AUG.2025 20:15:08

Modulation: BTLE (GFSK 2 Mbit/s)
Results

Equipment	Freq (MHz)	Port	Ebw (MHz)
Digital Transmission System (DTS)	2402.00000	1	2.220
	2440.00000		2.180
	2480.00000		2.180

Verdict

Pass

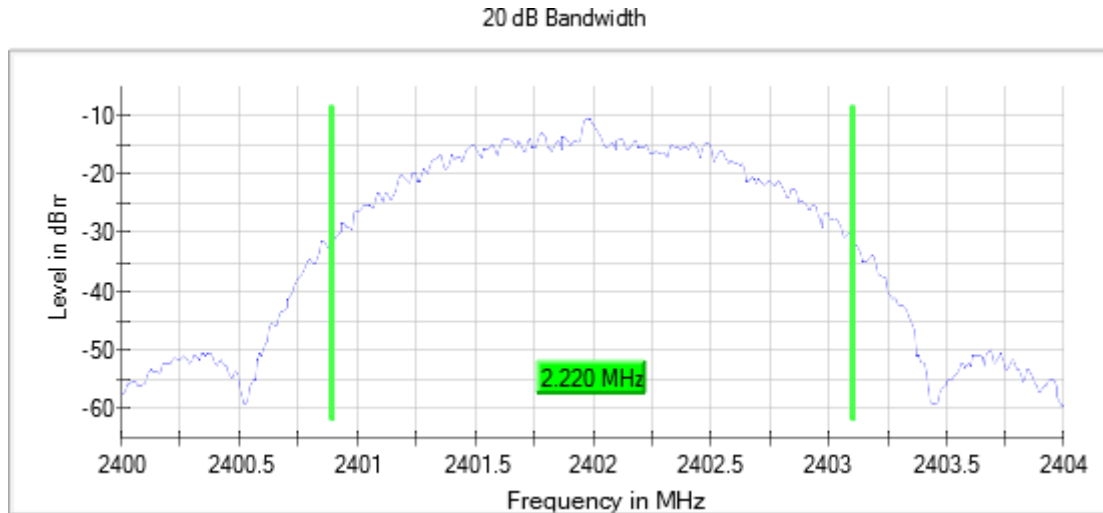
Attachments

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2402.00000

Active Port = 1

Modulation = BTLE (GFSK 2 Mbit/s)

Images:



Date: 25.AUG.2025 20:16:56

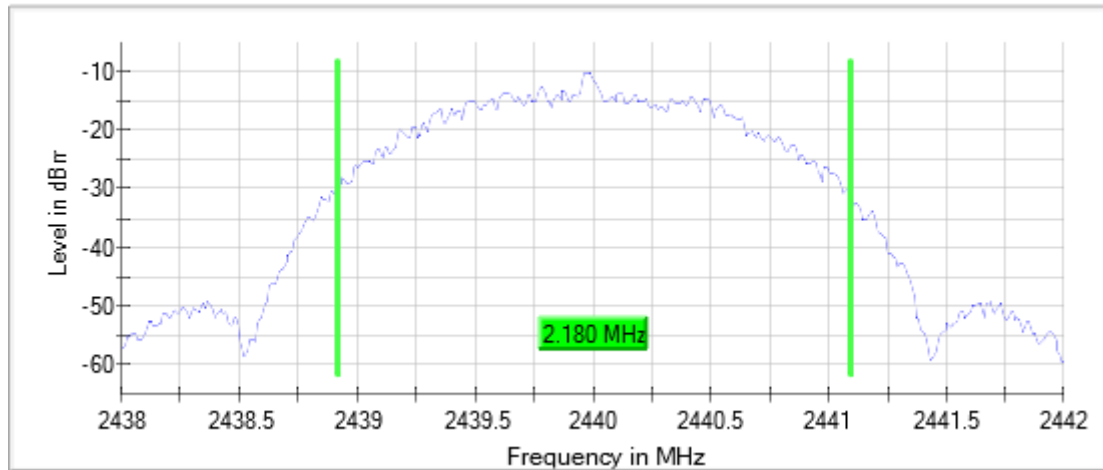
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2440.00000

Active Port = 1

Modulation = BTLE (GFSK 2 Mbit/s)

Images:

20 dB Bandwidth



Date: 25.AUG.2025 21:21:09

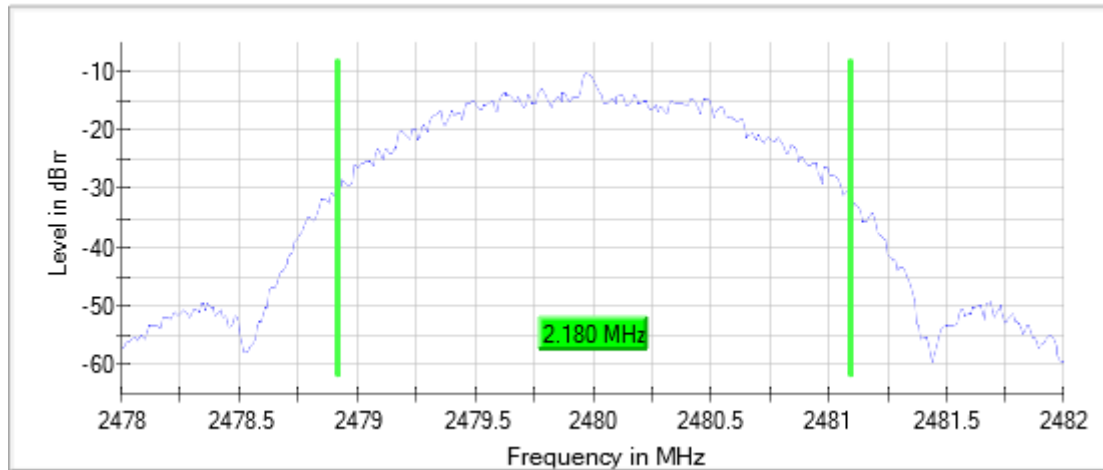
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2480.00000

Active Port = 1

Modulation = BTLE (GFSK 2 Mbit/s)

Images:

20 dB Bandwidth



Date: 25.AUG.2025 21:24:39

Modulation: BT (GFSK 1-DH5)
Results

Equipment	Freq (MHz)	Port	Ebw (MHz)
Frequency Hopping Spread Spectrum systems (FHSS)	2402.00000	1	0.885
	2441.00000		0.885
	2480.00000		0.885

Verdict

Pass

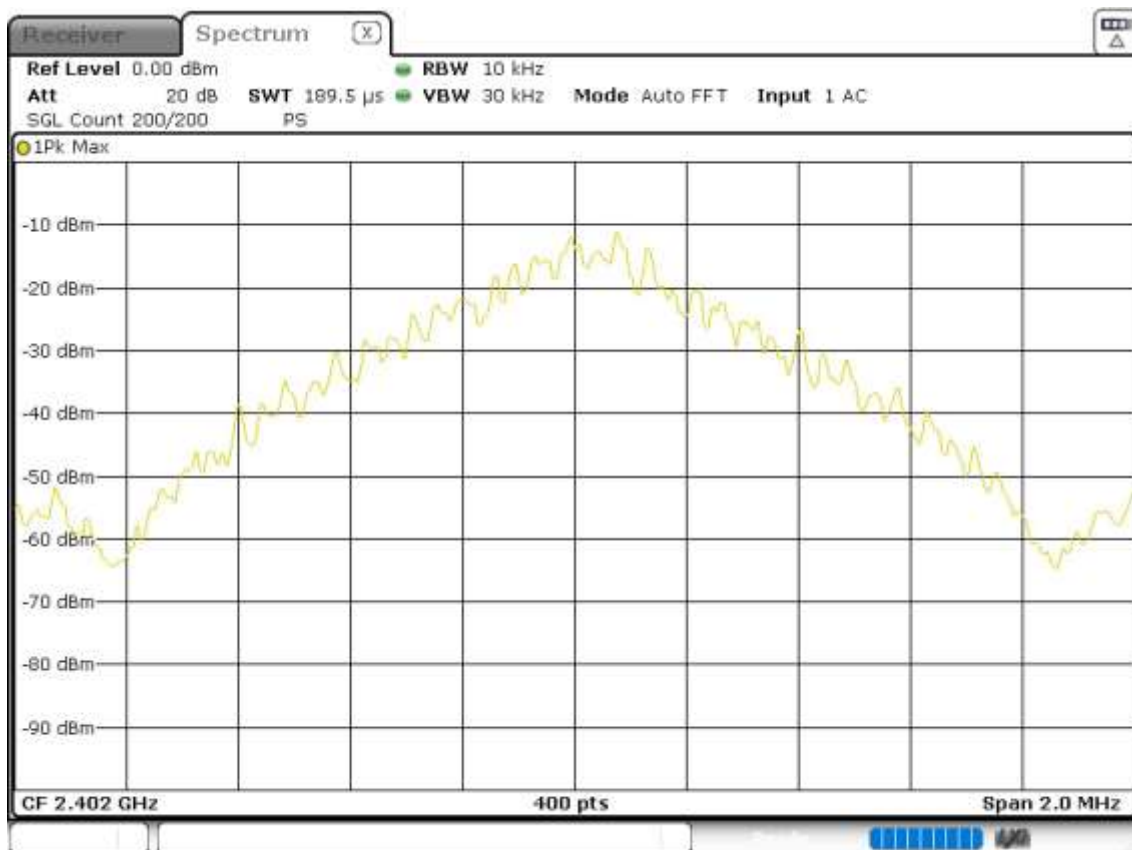
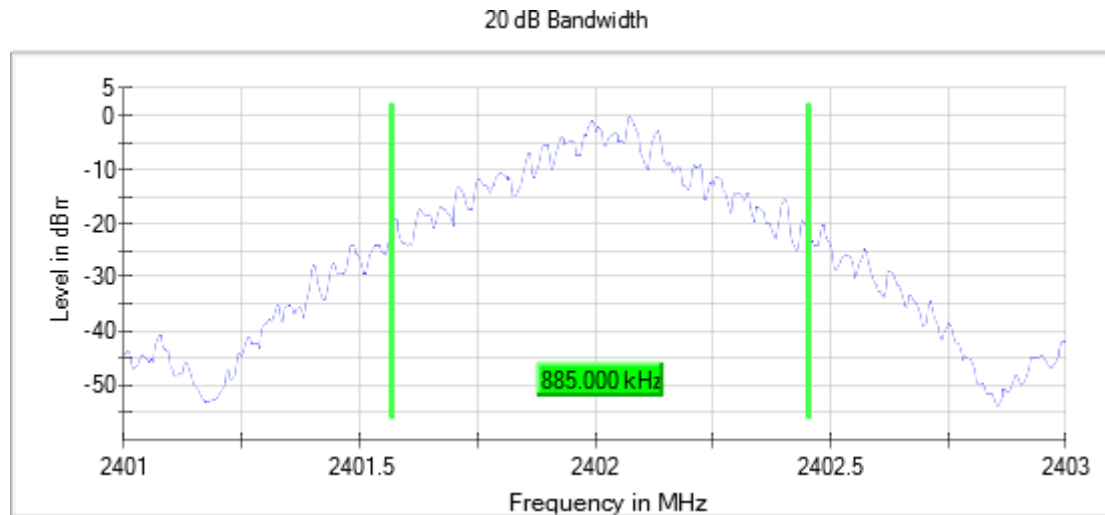
Attachments

Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS) Frequency MHz = 2402.00000

Active Port = 1

Modulation = BT (GFSK 1-DH5)

Images:



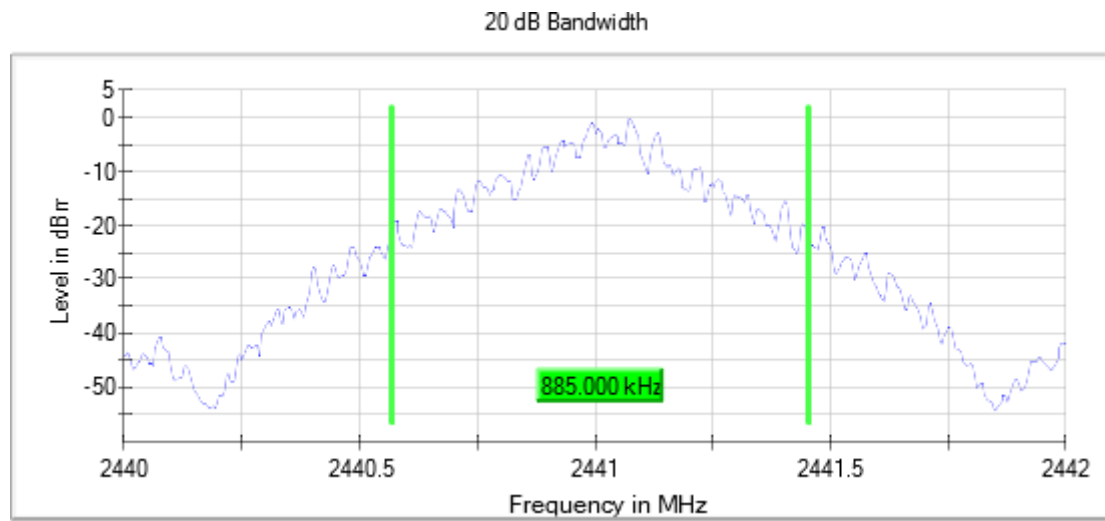
Date: 17.NOV.2025 13:15:47

Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS) Frequency MHz = 2441.00000

Active Port = 1

Modulation = BT (GFSK 1-DH5)

Images:



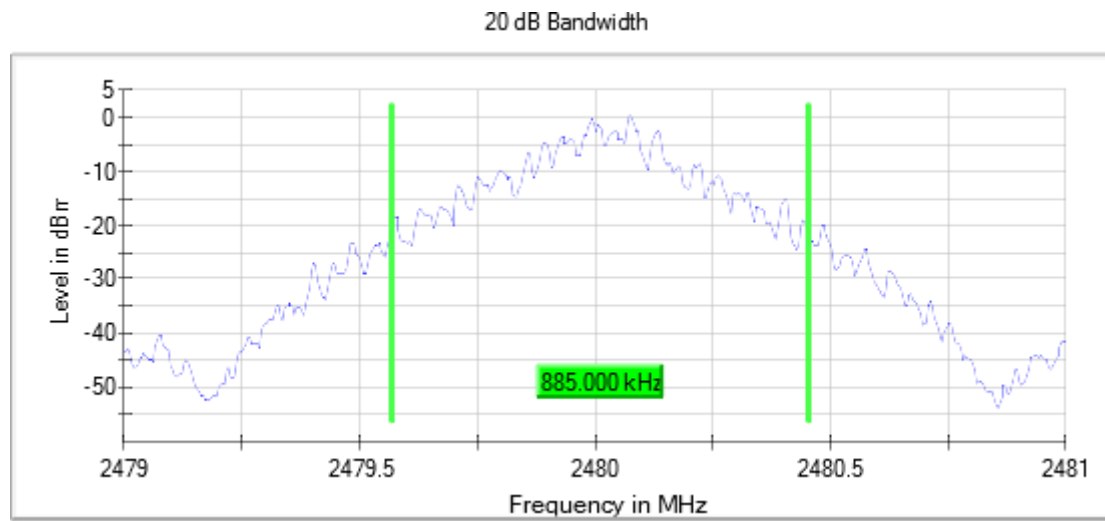
Date: 17.NOV.2025 13:17:45

Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS) Frequency MHz = 2480.00000

Active Port = 1

Modulation = BT (GFSK 1-DH5)

Images:



Date: 17.NOV.2025 13:22:52

Modulation: BT (Pi/4 DQPSK 2-DH5)
Results

Equipment	Freq (MHz)	Port	Ebw (MHz)
Frequency Hopping Spread Spectrum systems (FHSS)	2402.00000	1	1.340
	2441.00000		1.340
	2480.00000		1.340

Verdict

Pass

Attachments

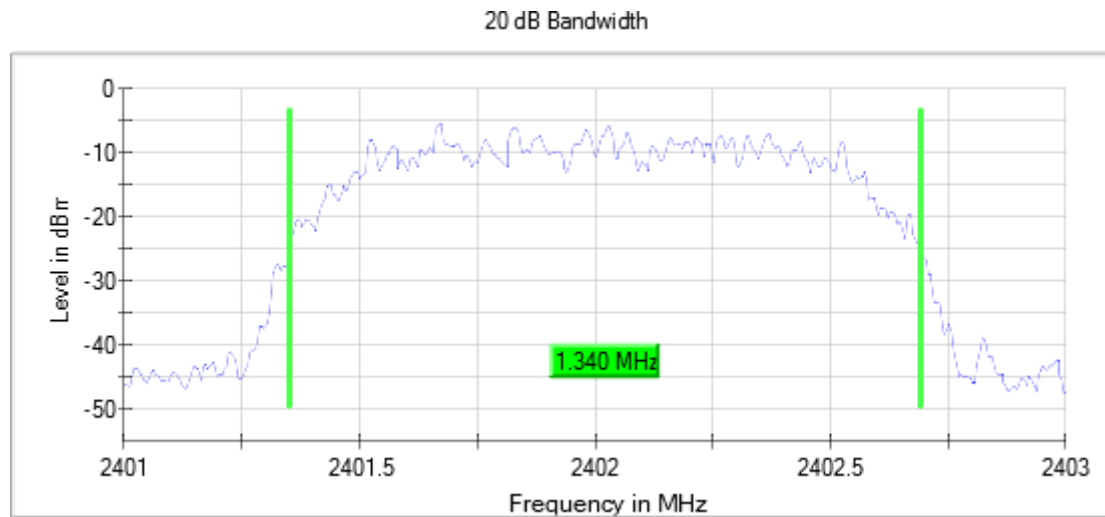
Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS)

Frequency MHz = 2402.00000

Active Port = 1

Modulation = BT (Pi/4 DQPSK 2-DH5)

Images:



Date: 17.NOV.2025 14:01:07

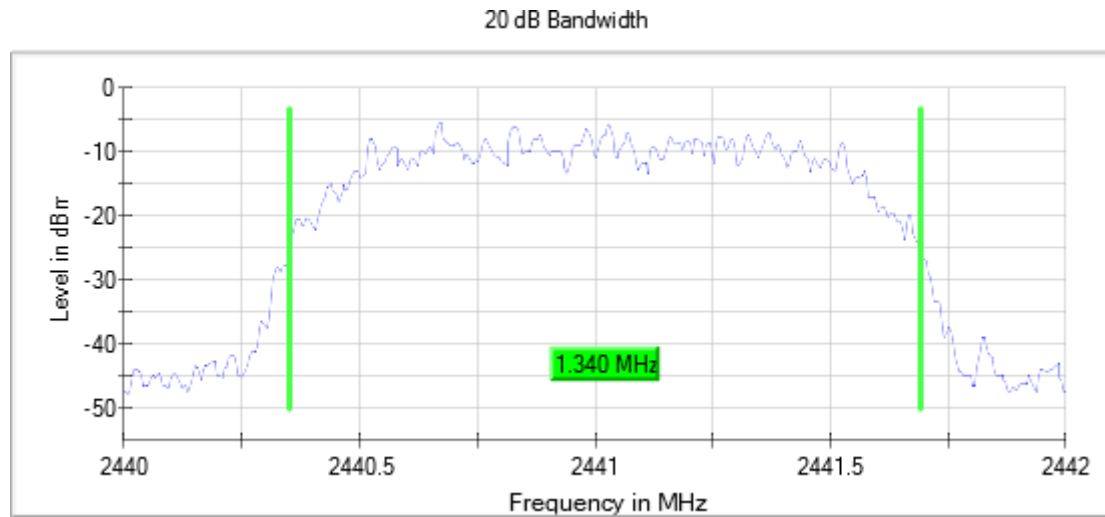
Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS)

Frequency MHz = 2441.00000

Active Port = 1

Modulation = BT (Pi/4 DQPSK 2-DH5)

Images:



Date: 17.NOV.2025 14:03:25

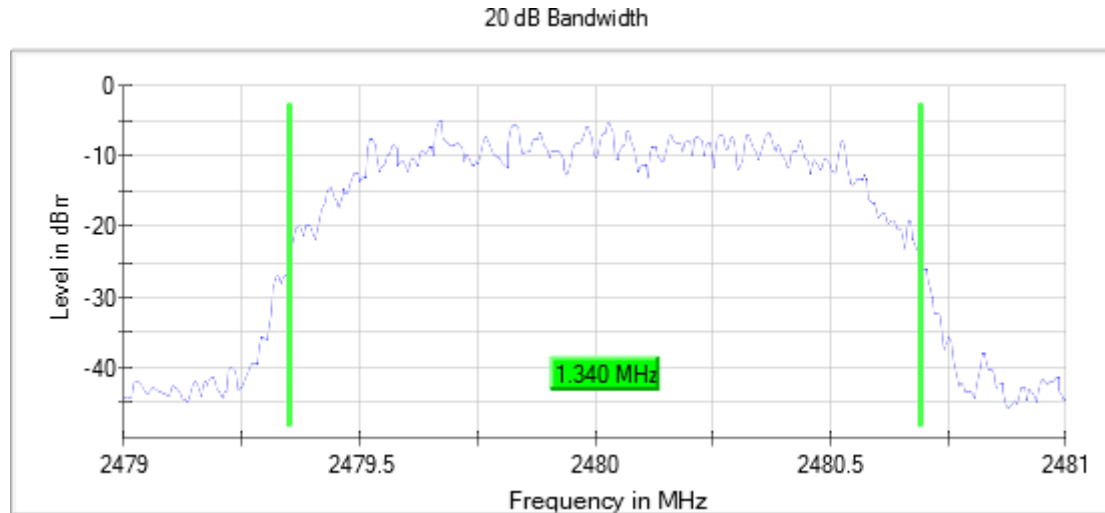
Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS)

Frequency MHz = 2480.00000

Active Port = 1

Modulation = BT (Pi/4 DQPSK 2-DH5)

Images:



Date: 17.NOV.2025 14:06:03

Modulation: BT (8DPSK 3-DH5)
Results

Equipment	Freq (MHz)	Port	Ebw (MHz)
Frequency Hopping Spread Spectrum systems (FHSS)	2402.00000	1	1.350
	2441.00000		1.355
	2480.00000		1.355

Verdict

Pass

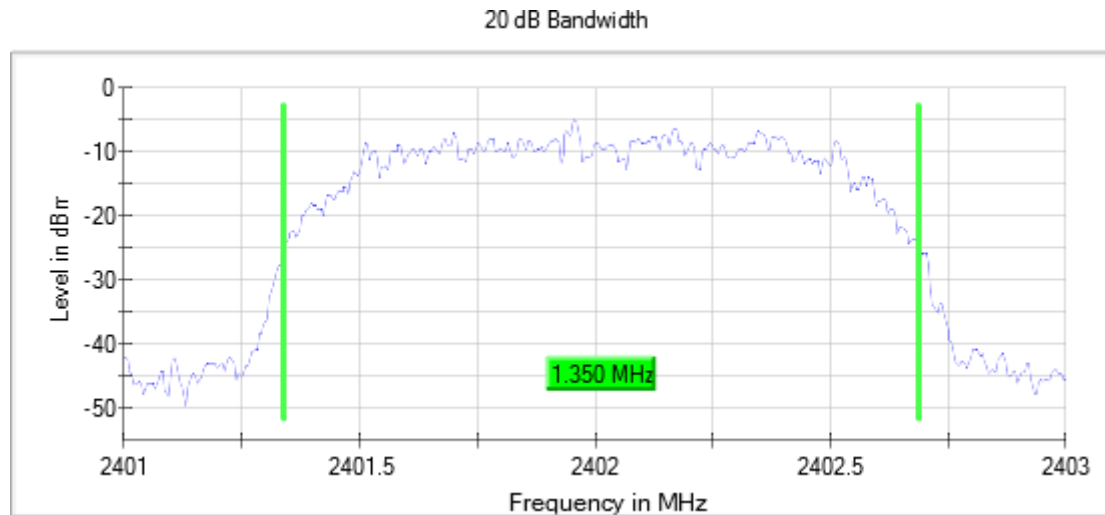
Attachments

Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS) Frequency MHz = 2402.00000

Active Port = 1

Modulation = BT (8DPSK 3-DH5)

Images:

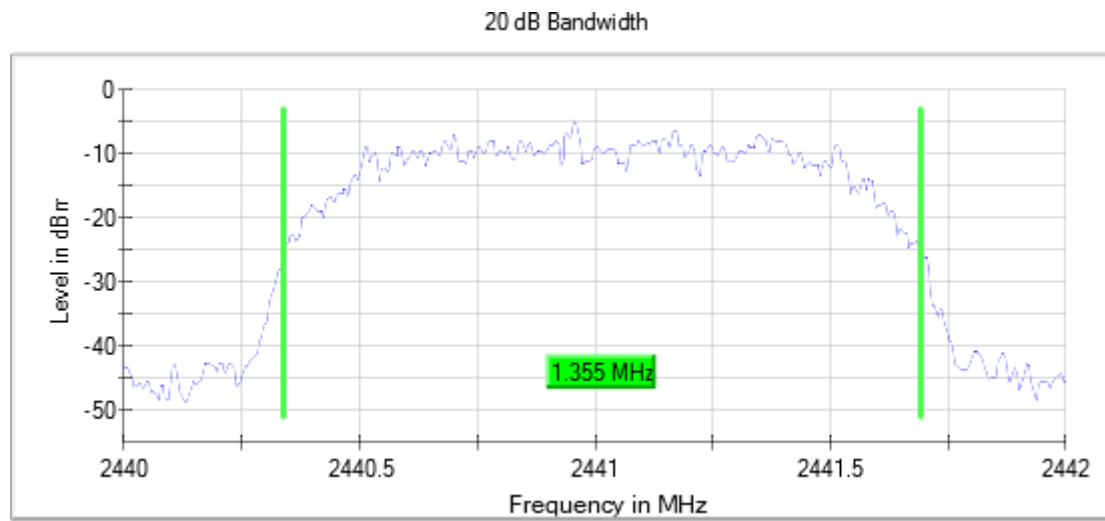


Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS) Frequency MHz = 2441.00000

Active Port = 1

Modulation = BT (8DPSK 3-DH5)

Images:



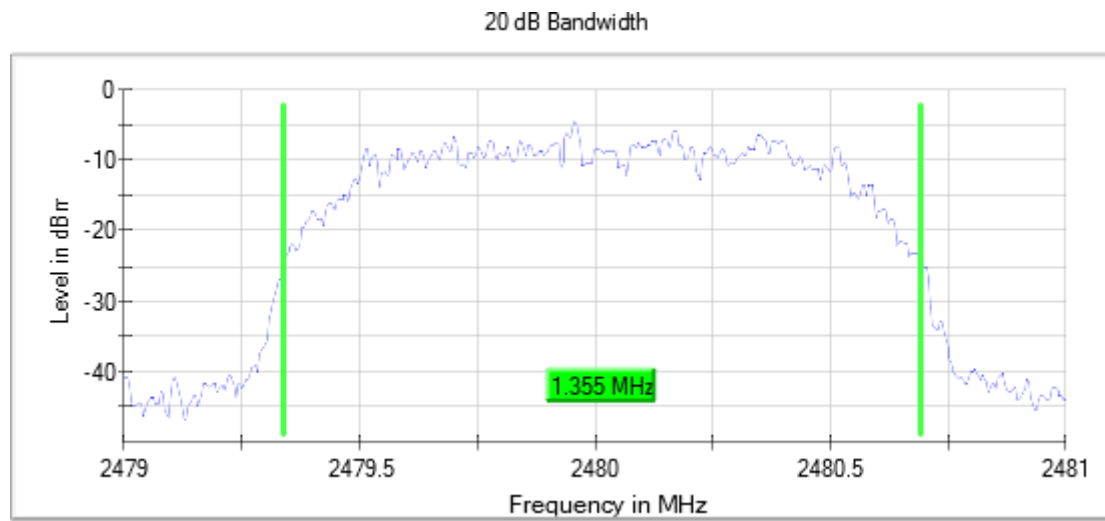
Date: 17.NOV.2025 14:20:28

Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS) Frequency MHz = 2480.00000

Active Port = 1

Modulation = BT (8DPSK 3-DH5)

Images:



Date: 17.NOV.2025 14:21:37

Modulation: 802.11n HT40 (OFDM MCS7)
Results

Equipment	Freq (MHz)	Port	Ebw (MHz)
Digital Transmission System (DTS)	2422.00000	1	41.750
		2	41.250
	2437.00000	1	41.250
		2	41.000
	2452.00000	1	41.750
		2	40.500
	2422.00000	1+2	40.000
	2437.00000		41.000
	2452.00000		40.500

Verdict

Pass

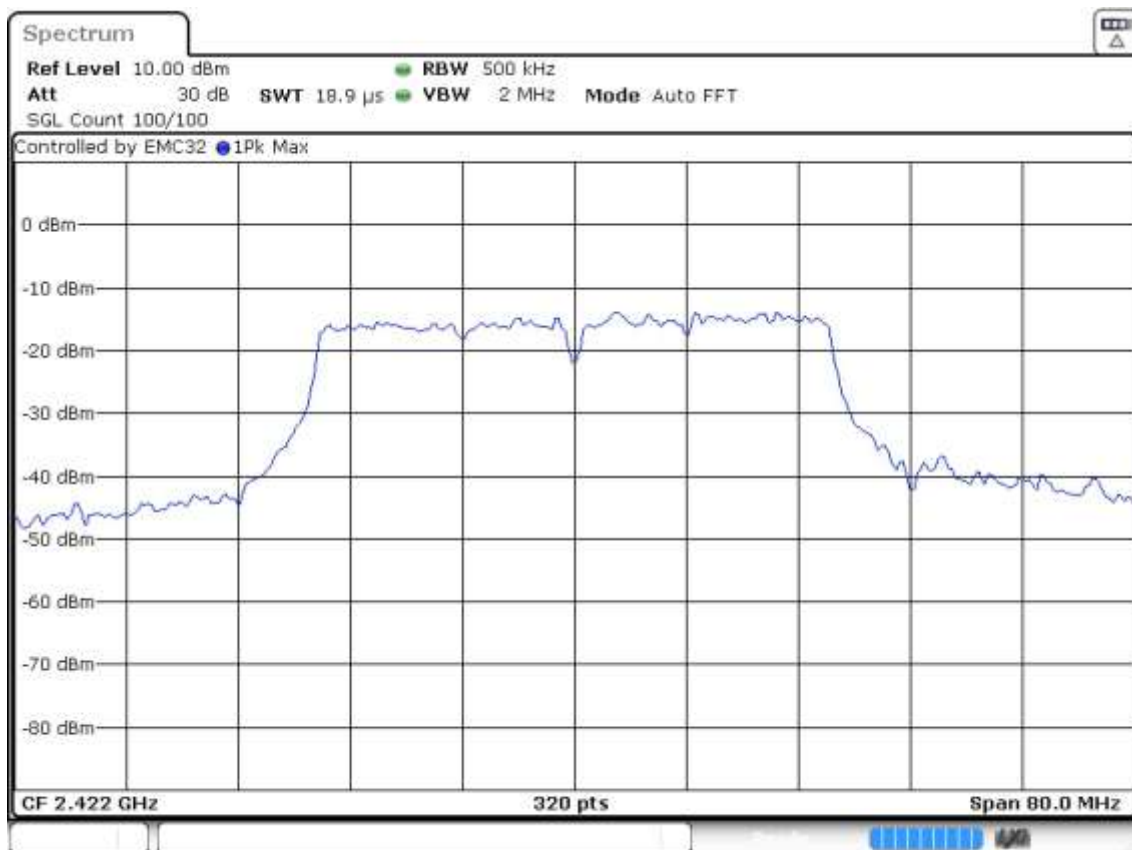
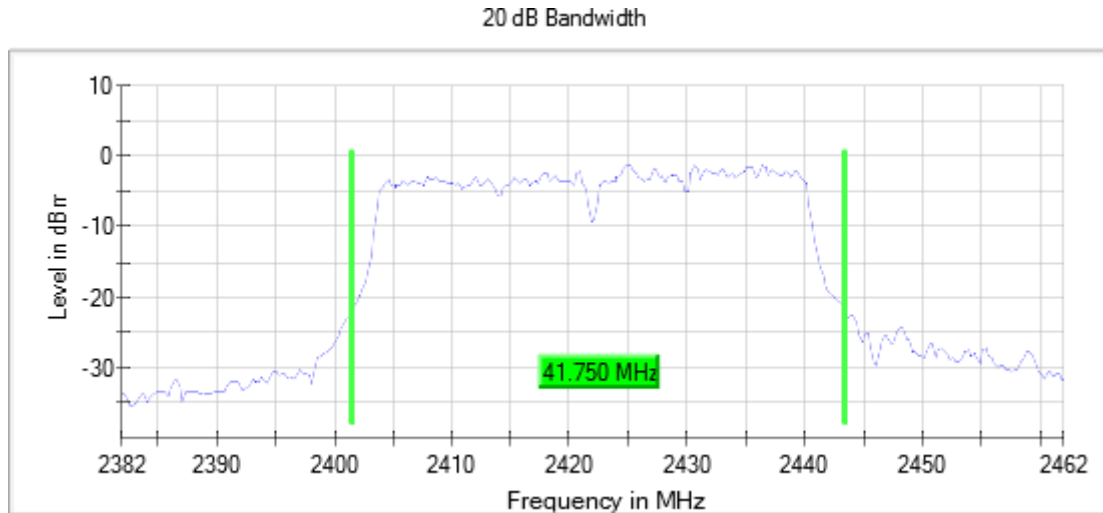
Attachments

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2422.00000

Active Port = 1

Modulation = 802.11n HT40 (OFDM MCS7)

Images:



Date: 9.DEC.2025 12:04:17

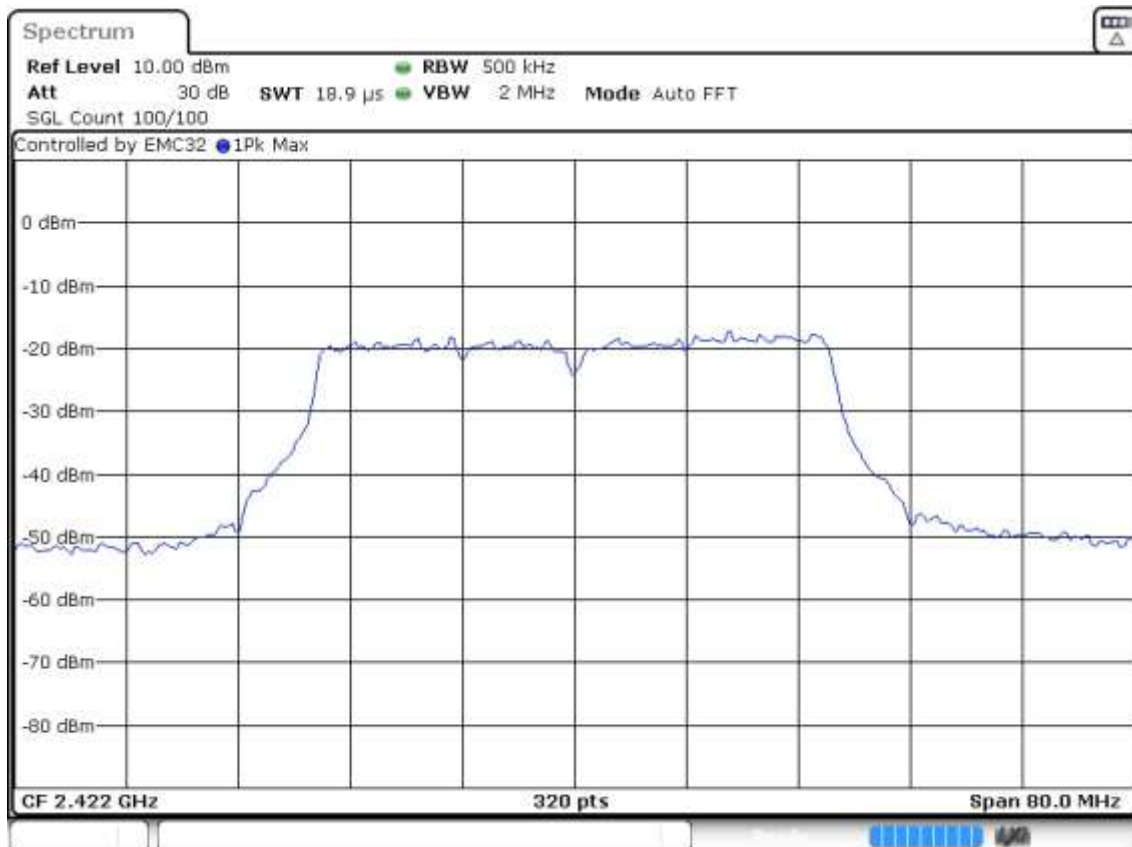
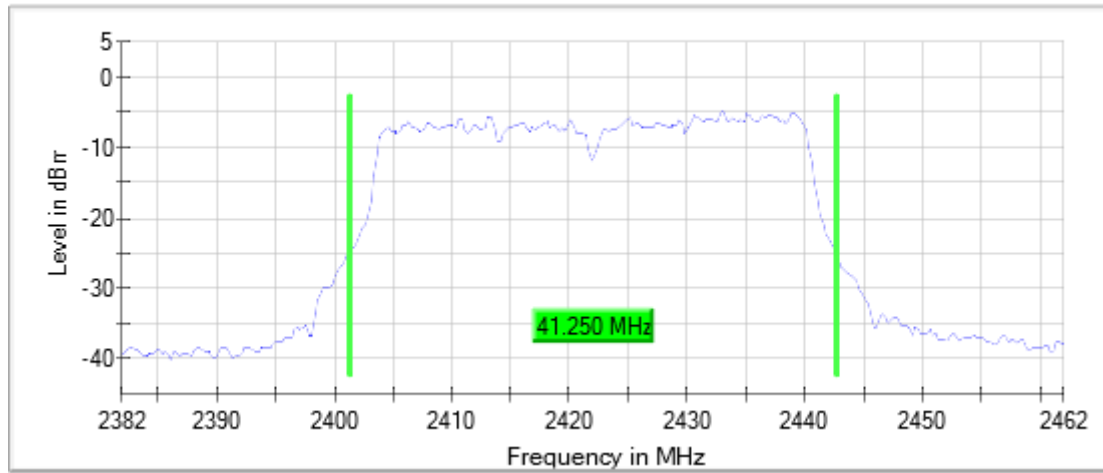
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2422.00000

Active Port = 2

Modulation = 802.11n HT40 (OFDM MCS7)

Images:

20 dB Bandwidth



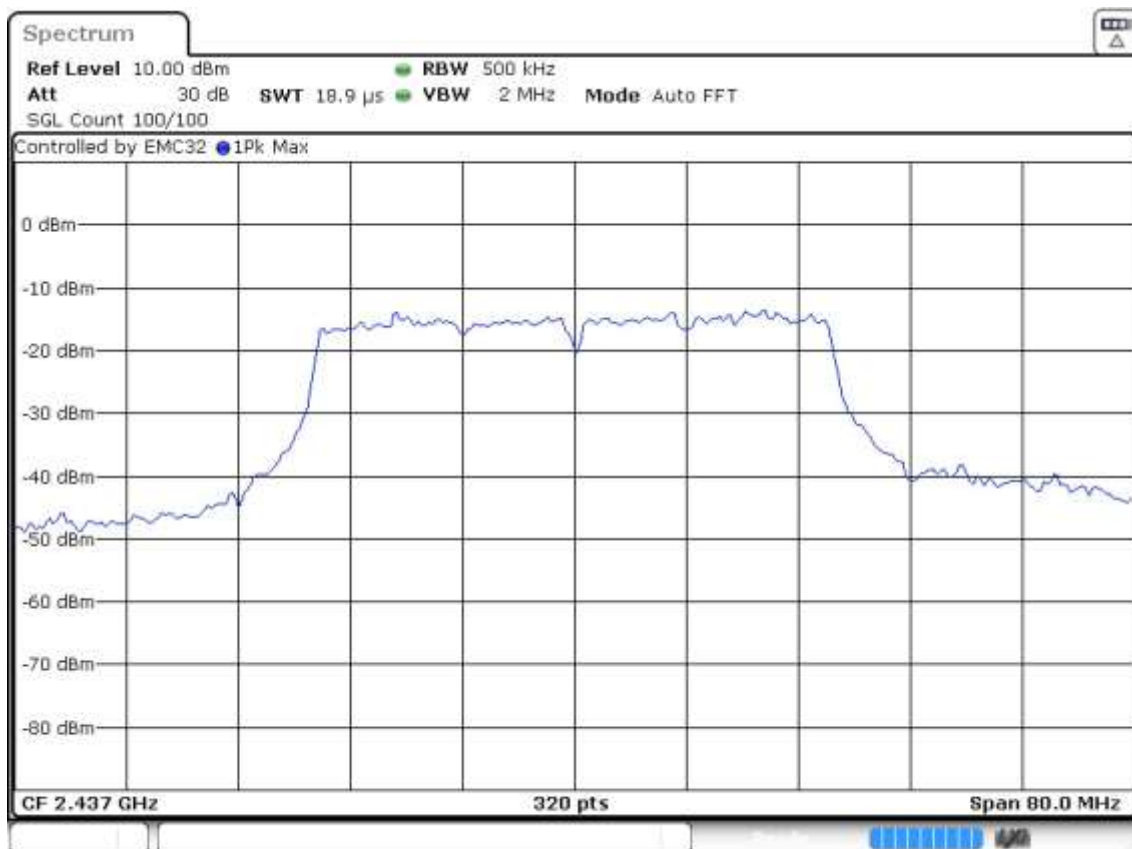
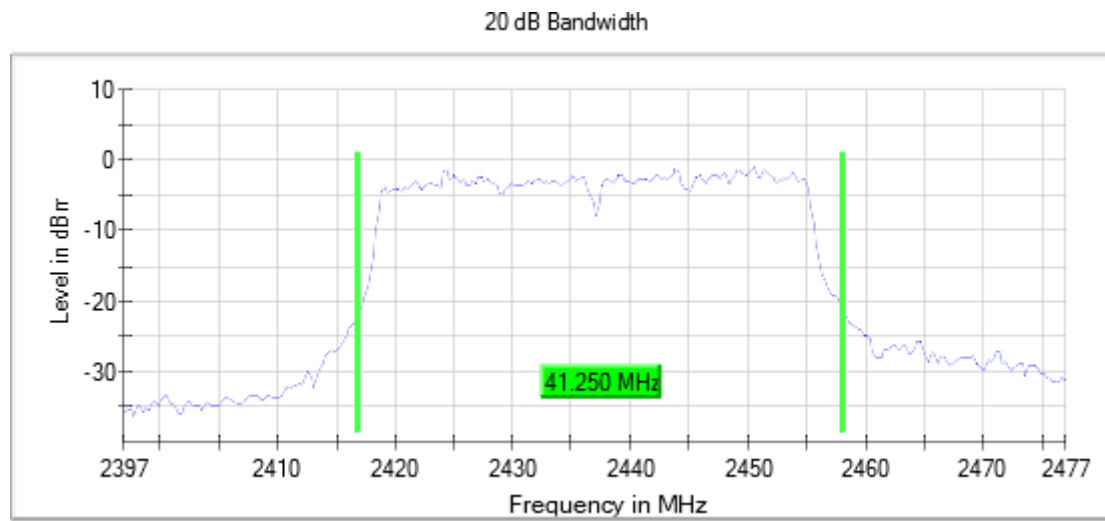
Date: 9.DEC.2025 16:07:20

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2437.00000

Active Port = 1

Modulation = 802.11n HT40 (OFDM MCS7)

Images:



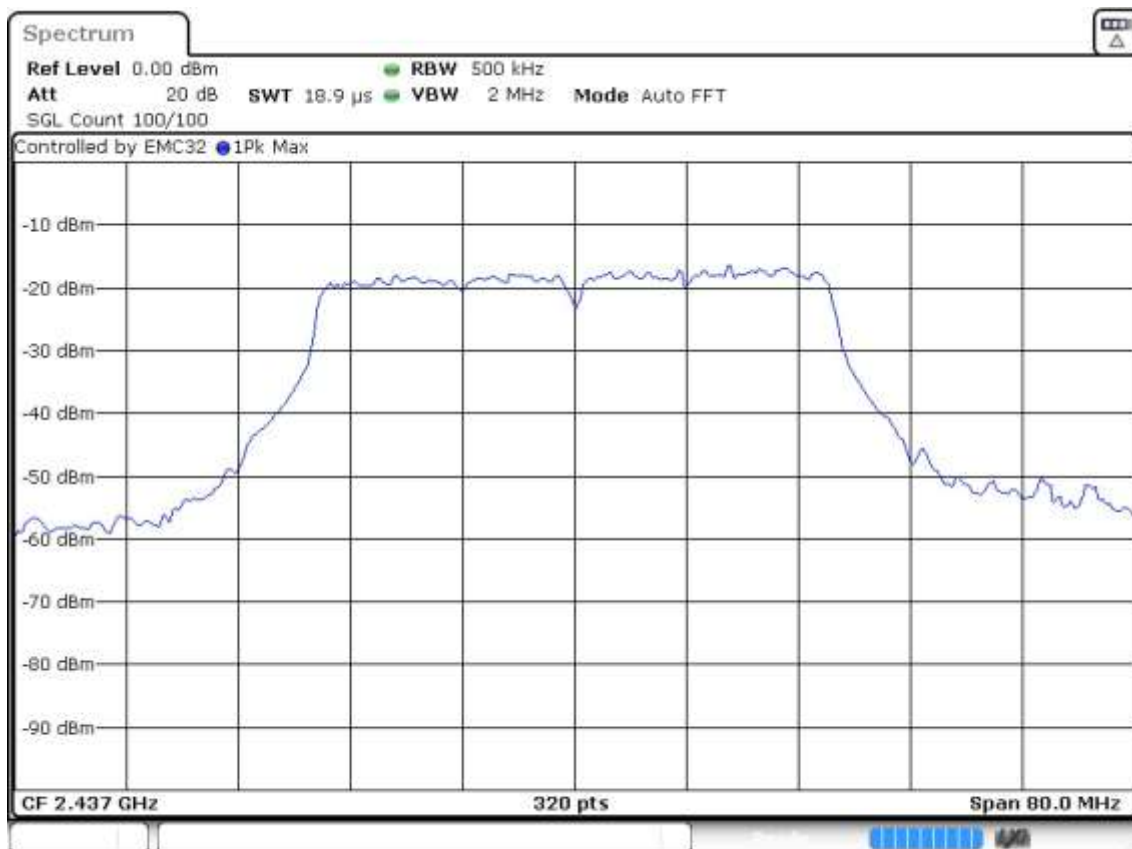
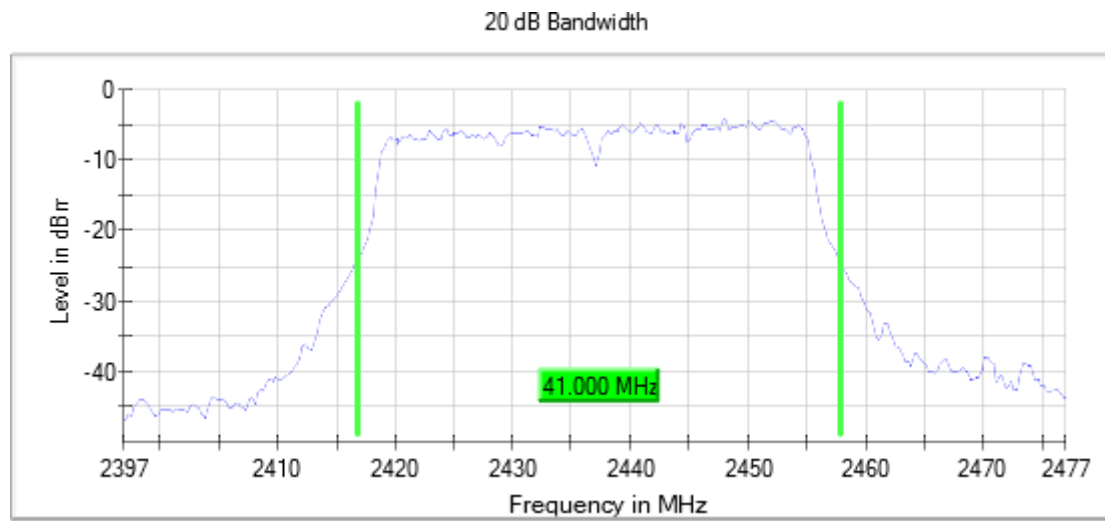
Date: 9.DEC.2025 12:14:13

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2437.00000

Active Port = 2

Modulation = 802.11n HT40 (OFDM MCS7)

Images:



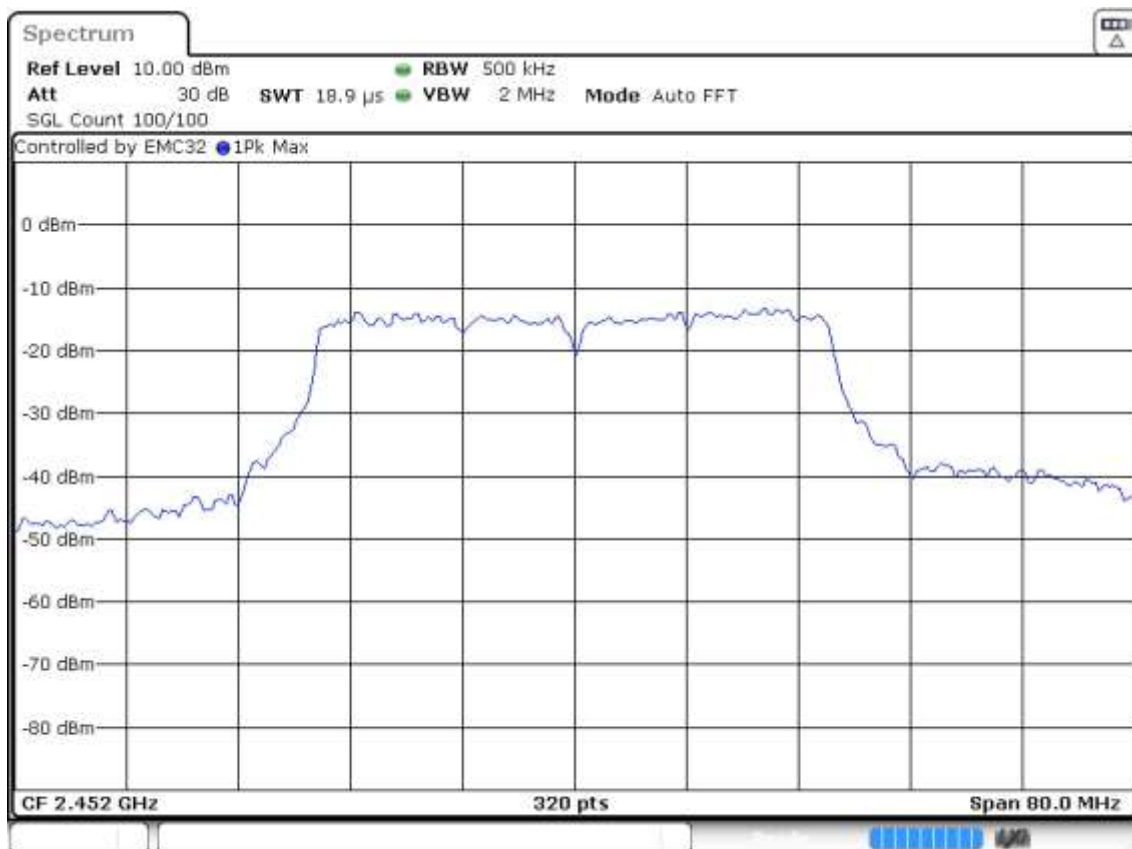
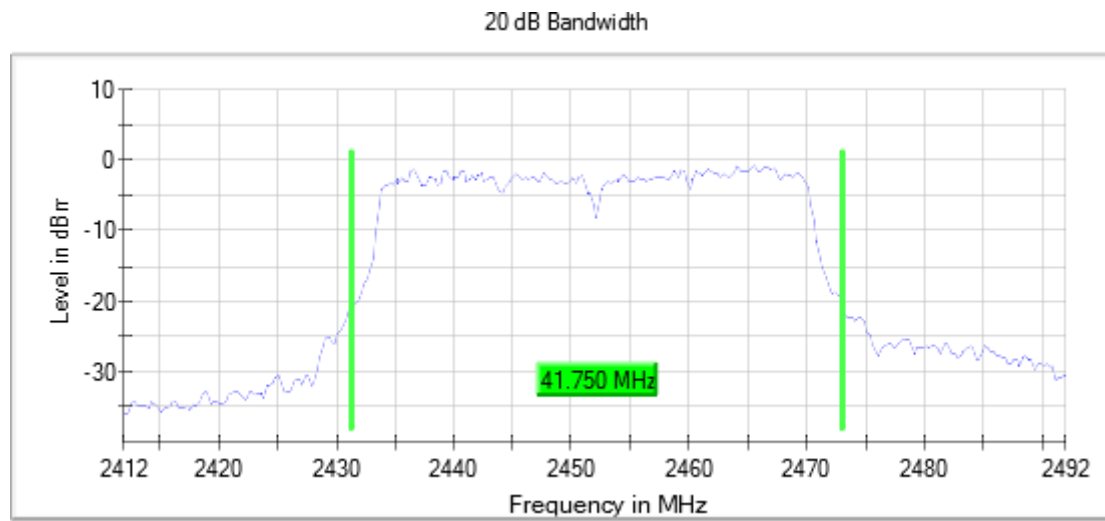
Date: 9.DEC.2025 16:17:17

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2452.00000

Active Port = 1

Modulation = 802.11n HT40 (OFDM MCS7)

Images:

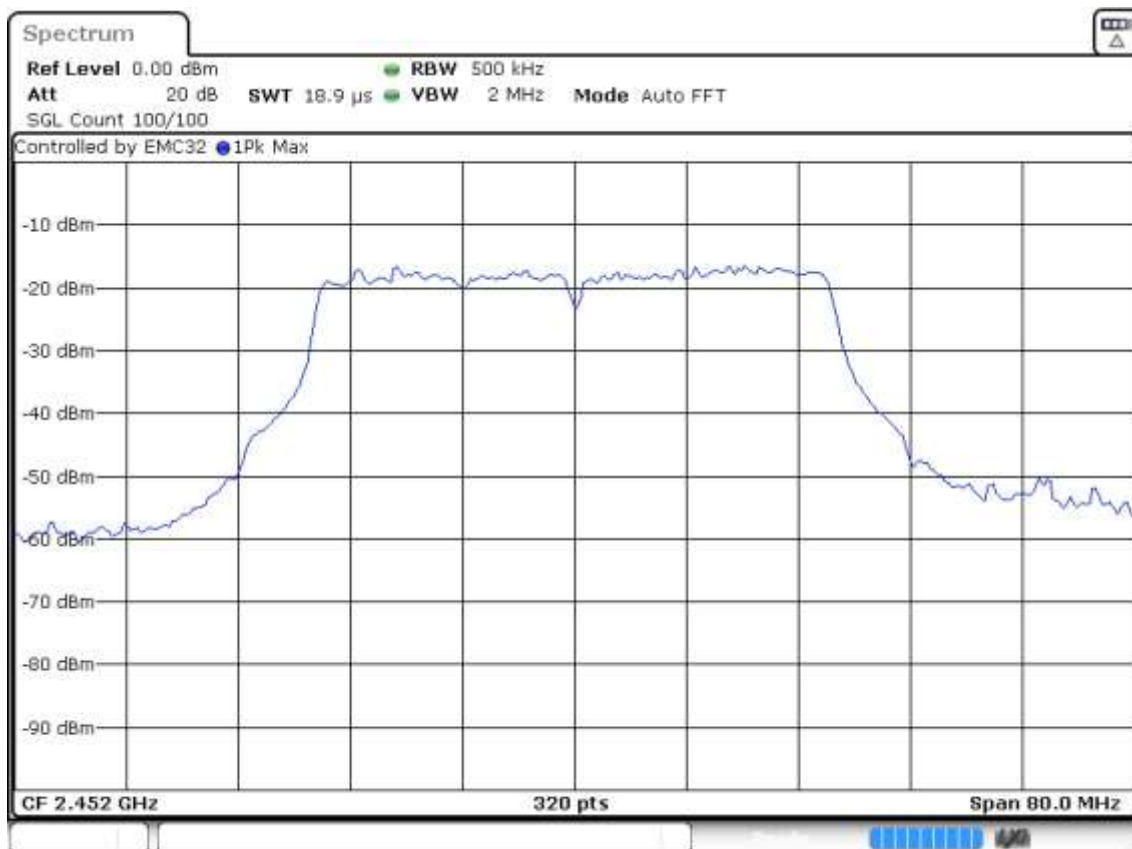
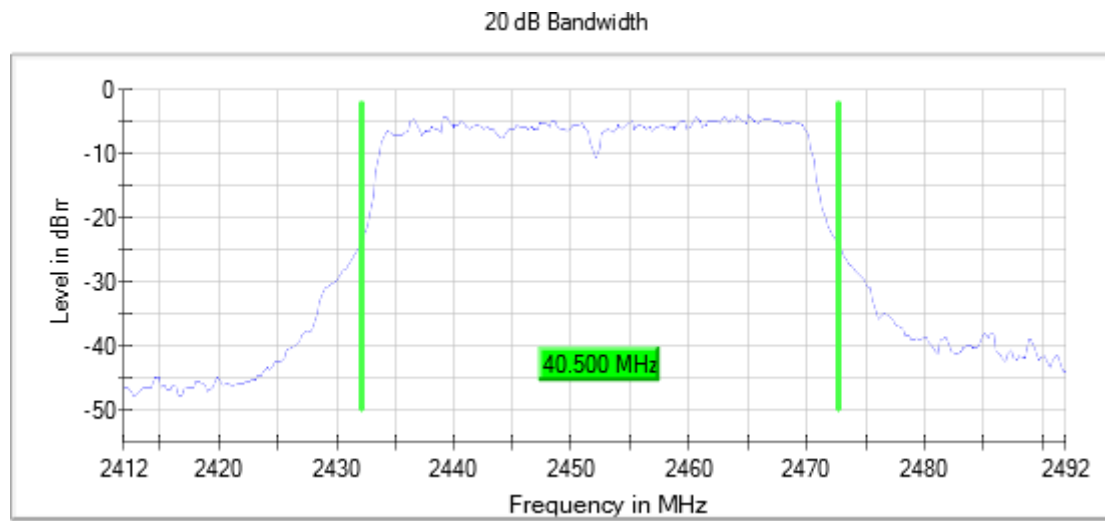


Date: 9.DEC.2025 12:21:13

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2452.00000

Active Port = 2 Modulation = 802.11n HT40 (OFDM MCS7)

Images:



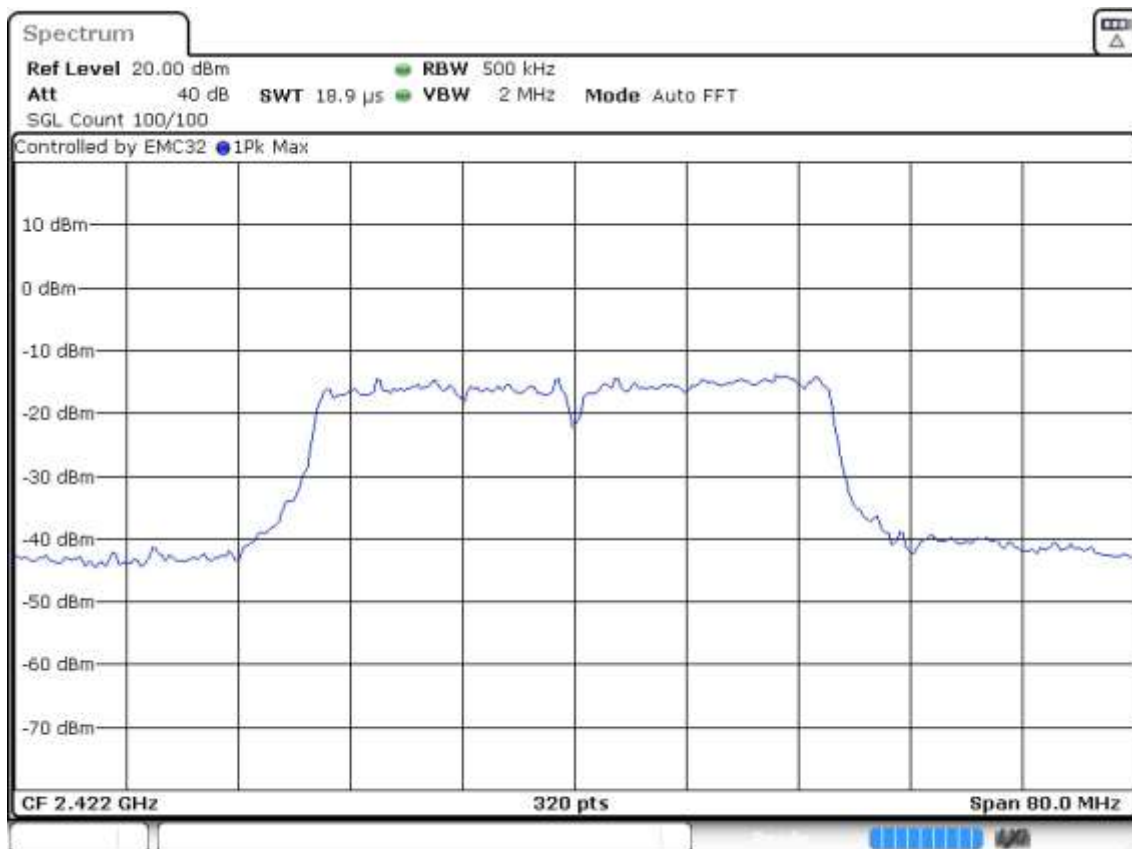
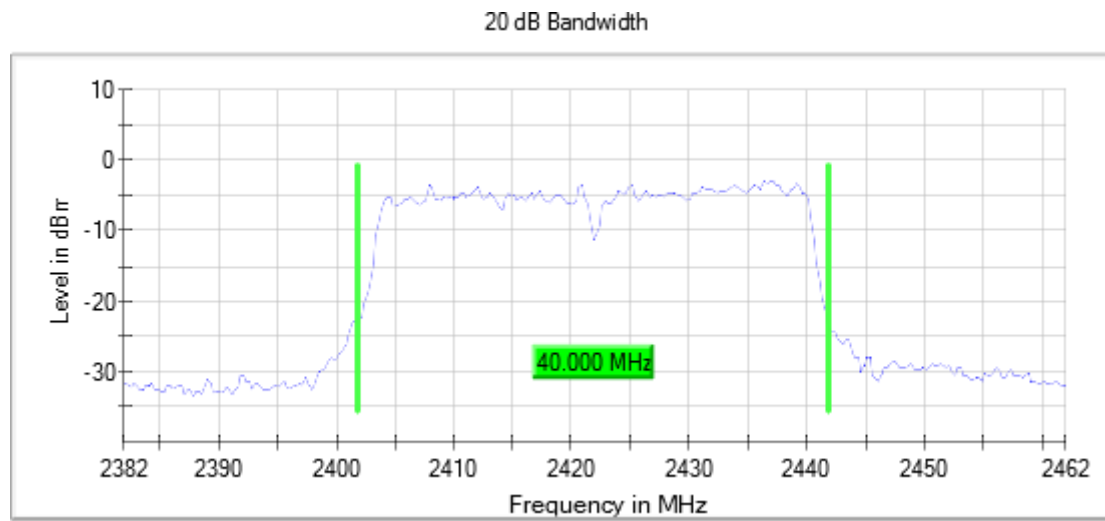
Date: 9.DEC.2025 16:37:25

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2422.00000

Active Port = 1+2

Modulation = 802.11n HT40 (OFDM MCS7)

Images:



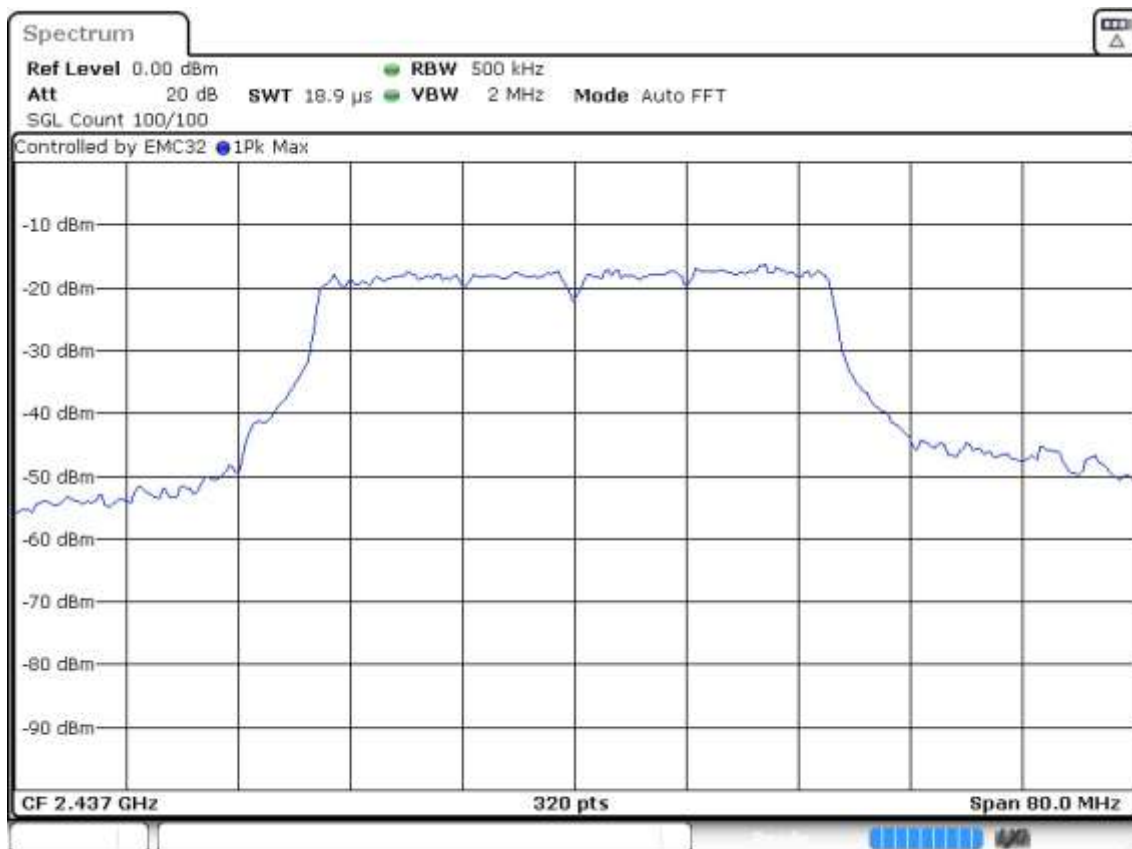
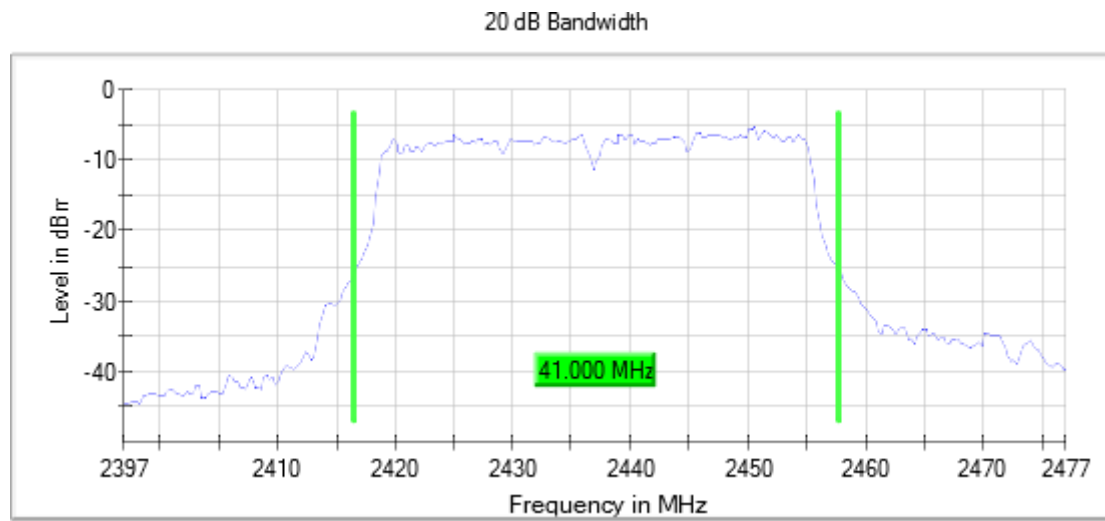
Date: 12 DEC 2025 17:56:21

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2437.00000

Active Port = 1+2

Modulation = 802.11n HT40 (OFDM MCS7)

Images:



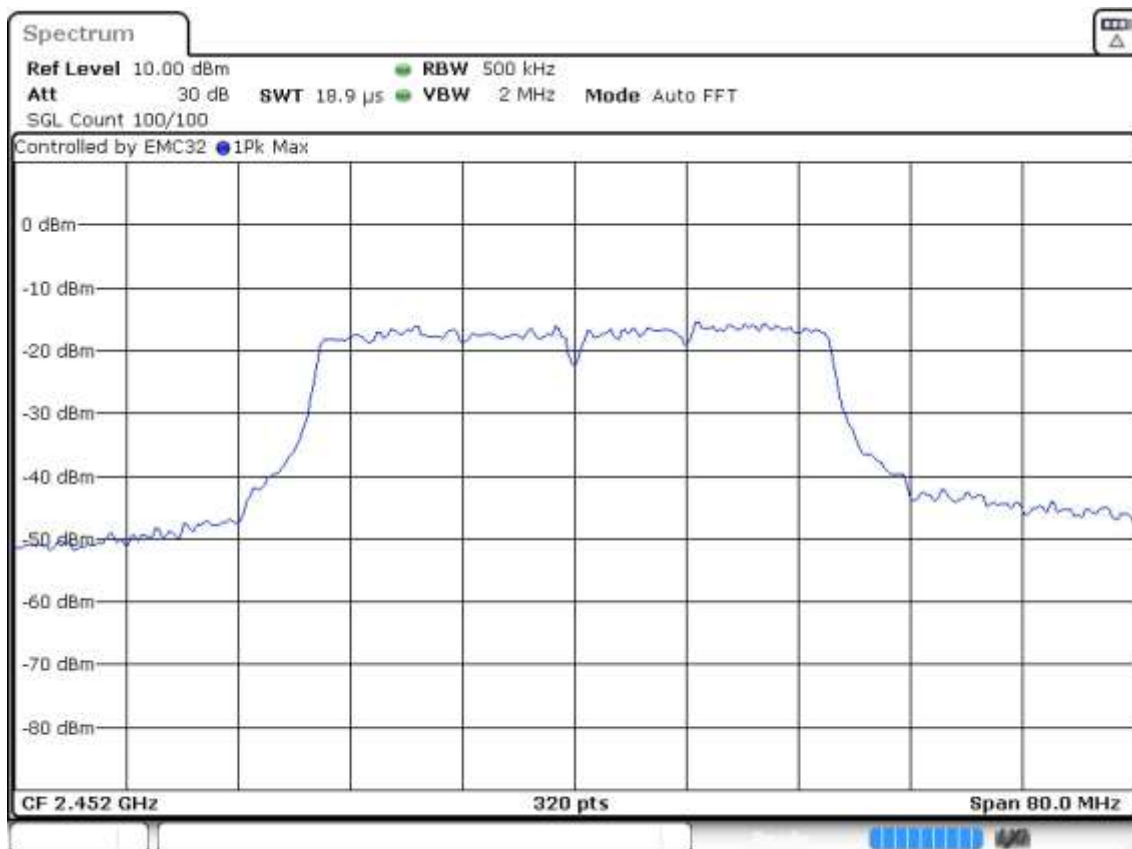
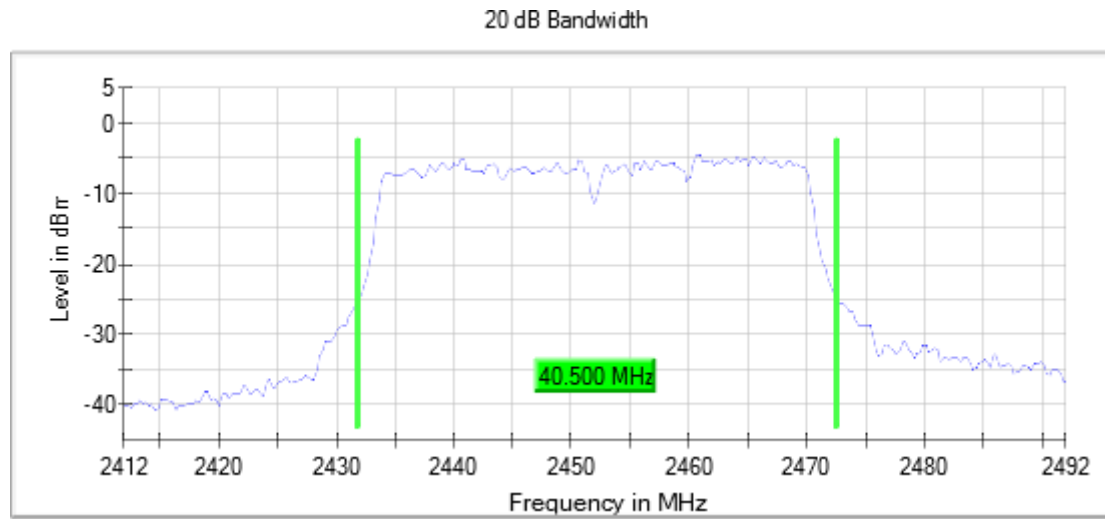
Date: 12 DEC 2025 18:06:53

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2452.00000

Active Port = 1+2

Modulation = 802.11n HT40 (OFDM MCS7)

Images:



Date: 12 DEC 2025 18:12:26

Modulation: 802.11ax HE40 SS1 (OFDMA MCS11)
Results

Equipment	Freq (MHz)	Port	Ebw (MHz)
Digital Transmission System (DTS)	2422.00000	1	42.000
		2	42.000
	2437.00000	1	41.500
		2	41.500
	2452.00000	1	41.500
		2	42.000
	2422.00000	1+2	42.250
	2437.00000		41.000
	2452.00000		42.250

Verdict

Pass

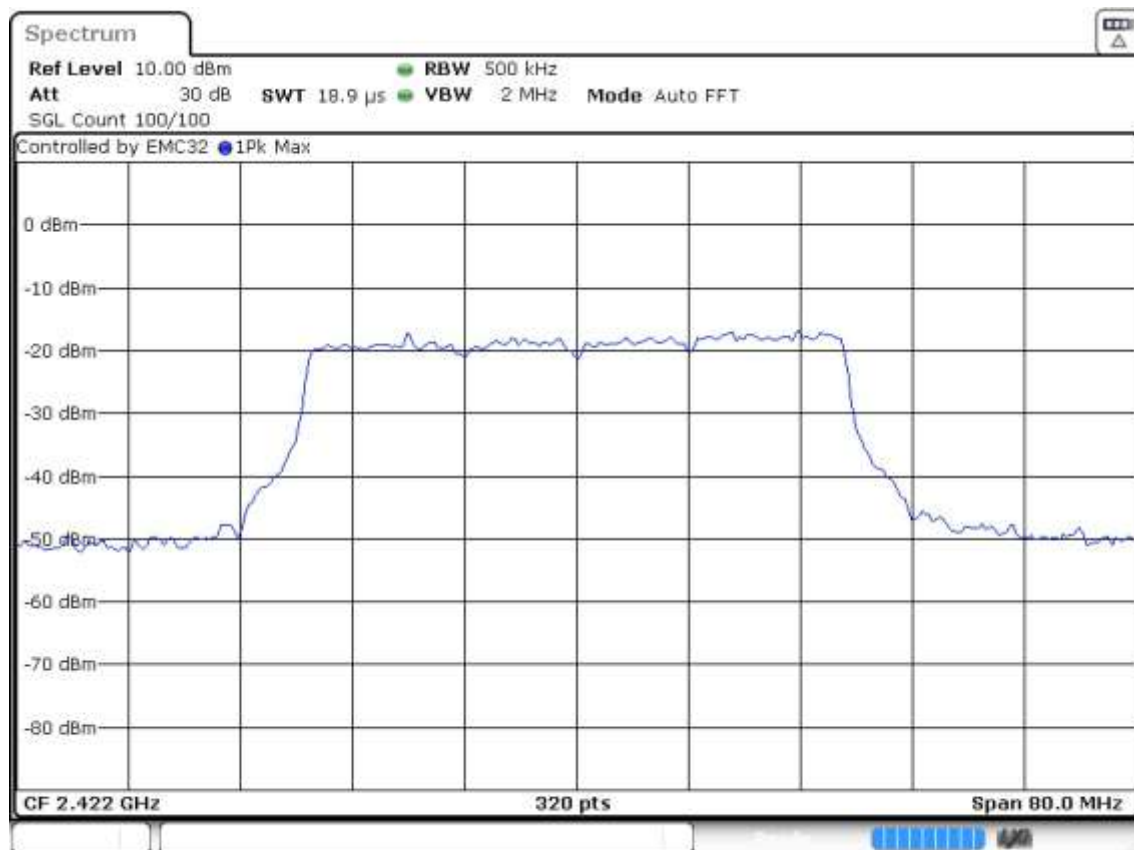
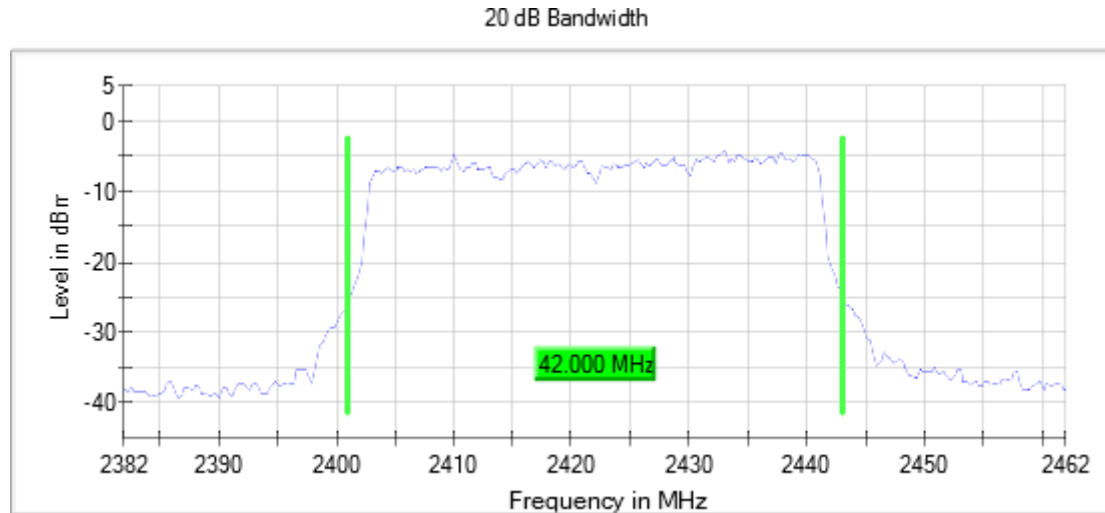
Attachments

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2422.00000

Active Port = 1

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



Date: 9 DEC 2025 12:40:36

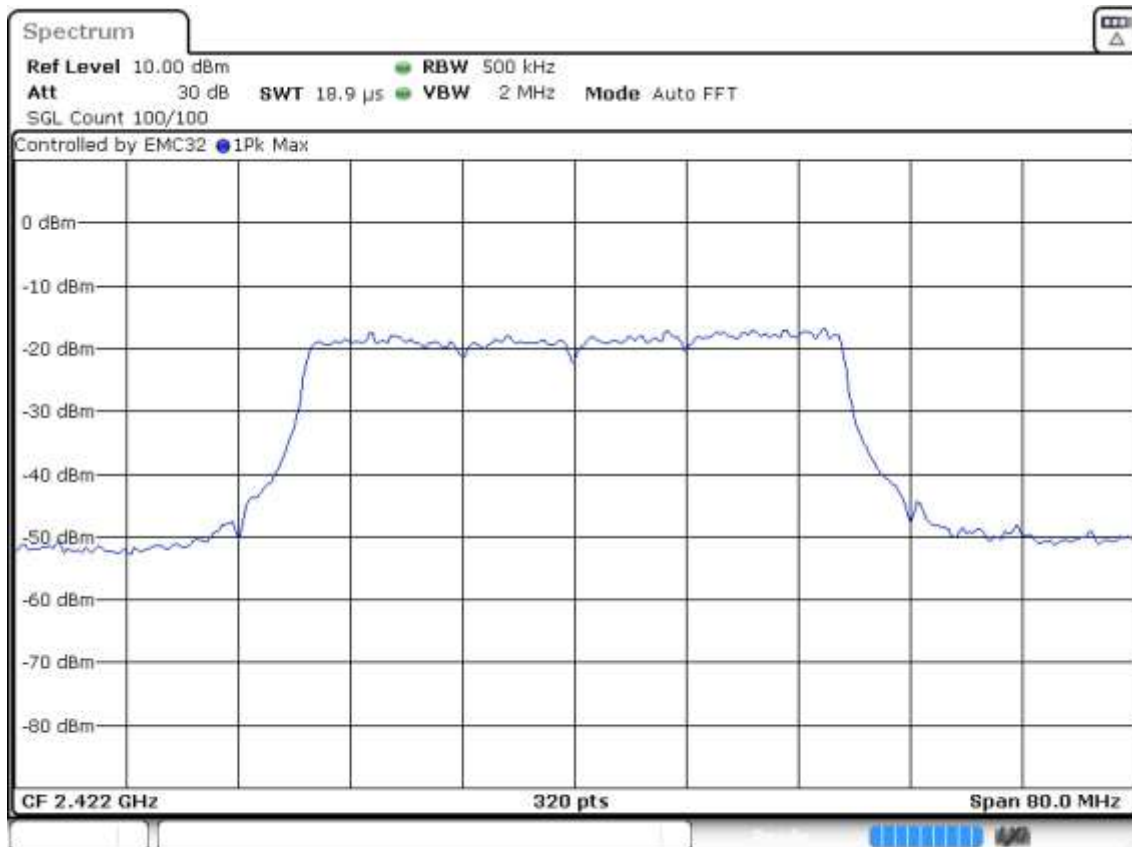
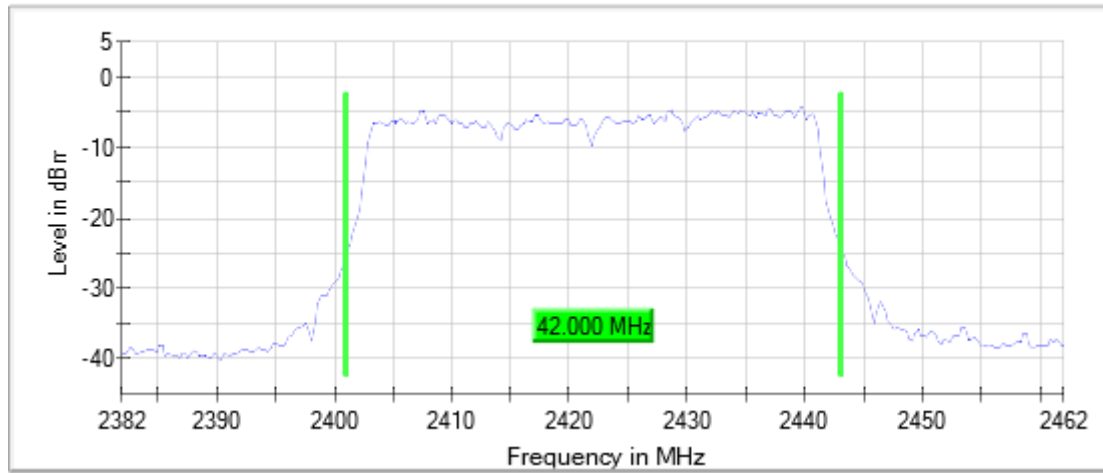
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2422.00000

Active Port = 2

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:

20 dB Bandwidth



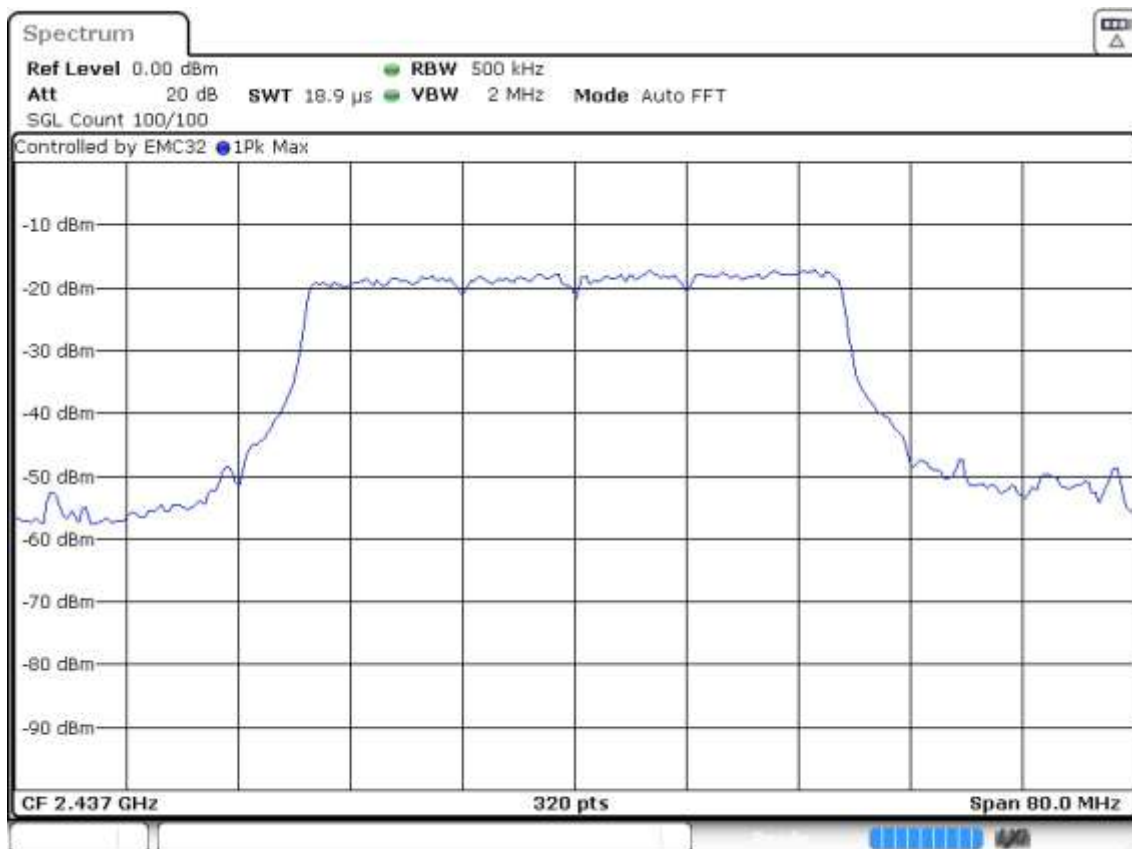
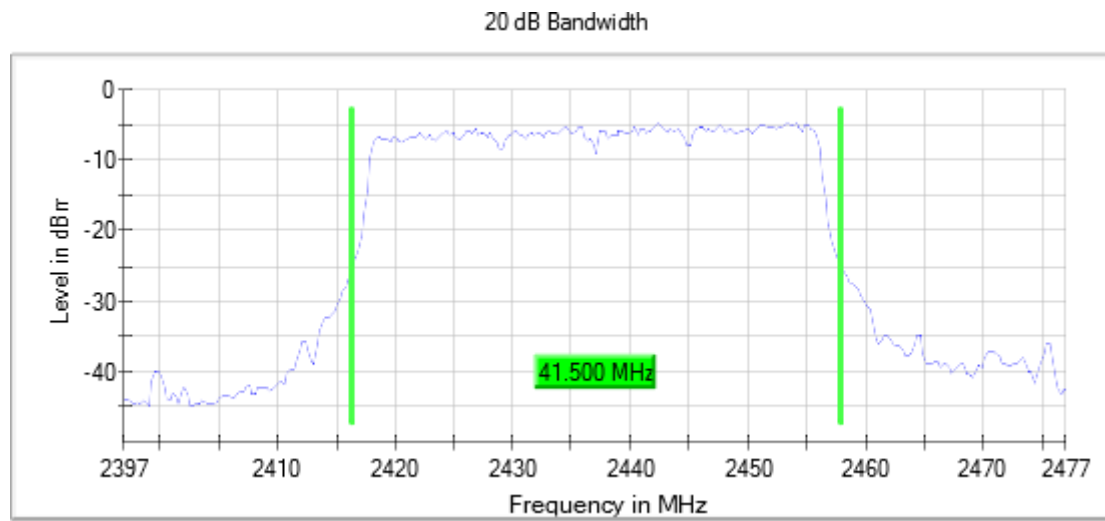
Date: 9.DEC.2025 16:57:57

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2437.00000

Active Port = 1

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



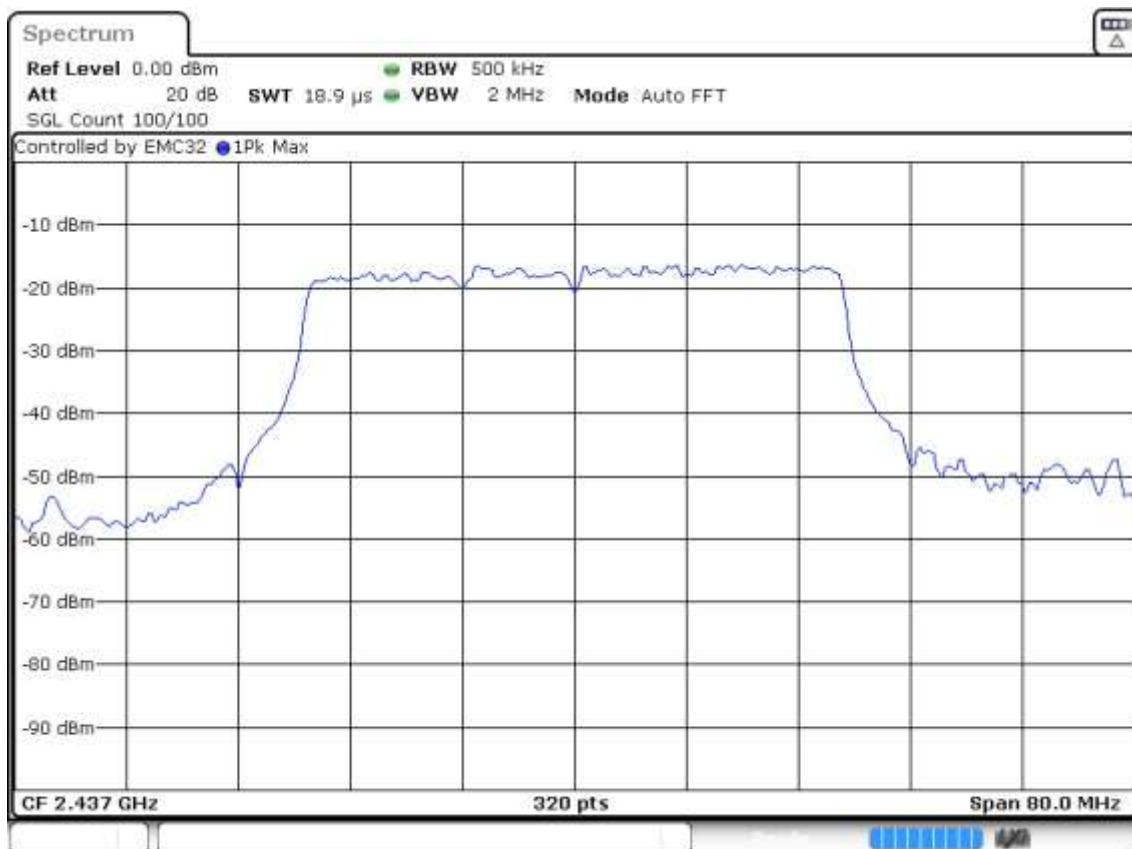
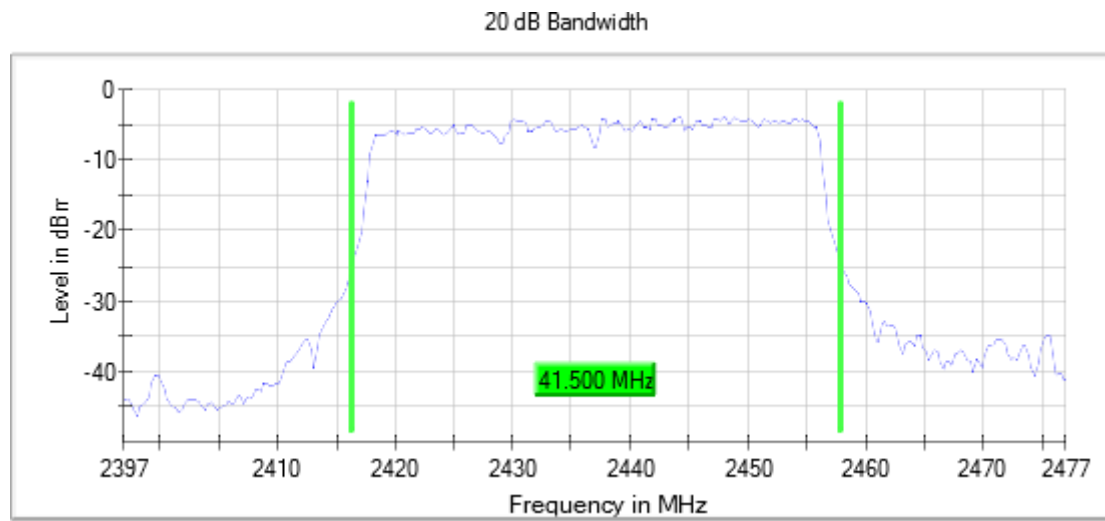
Date: 9.DEC.2025 13:28:35

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2437.00000

Active Port = 2

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



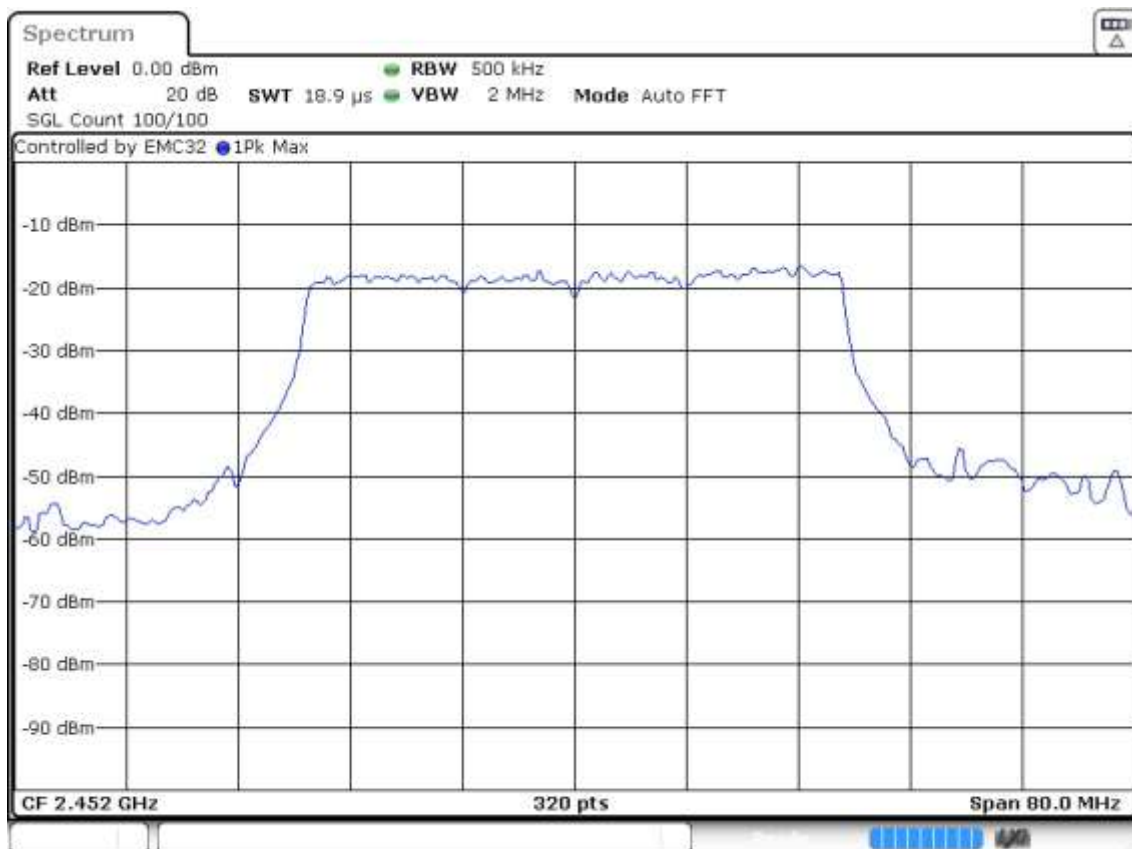
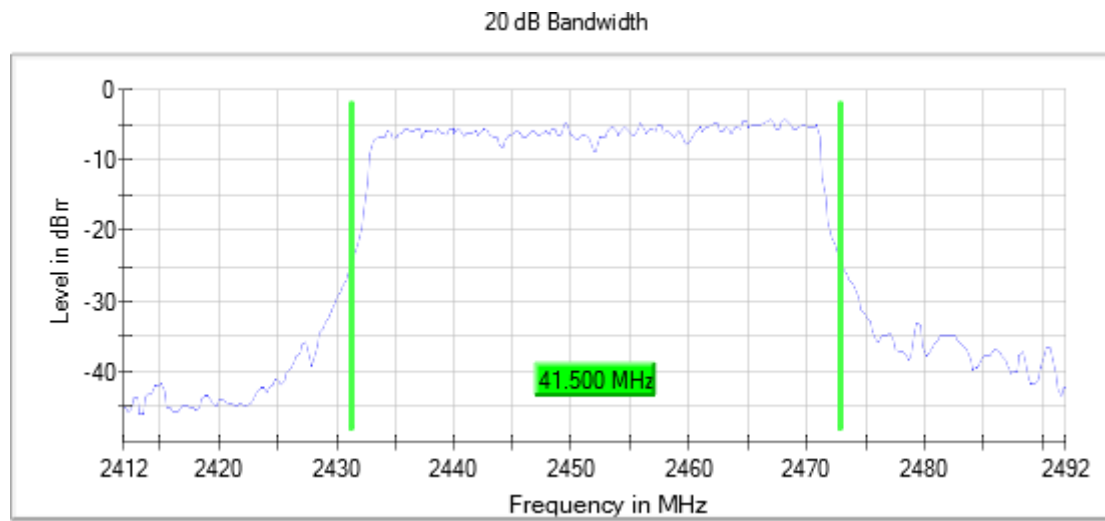
Date: 9.DEC.2025 17:37:35

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2452.00000

Active Port = 1

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



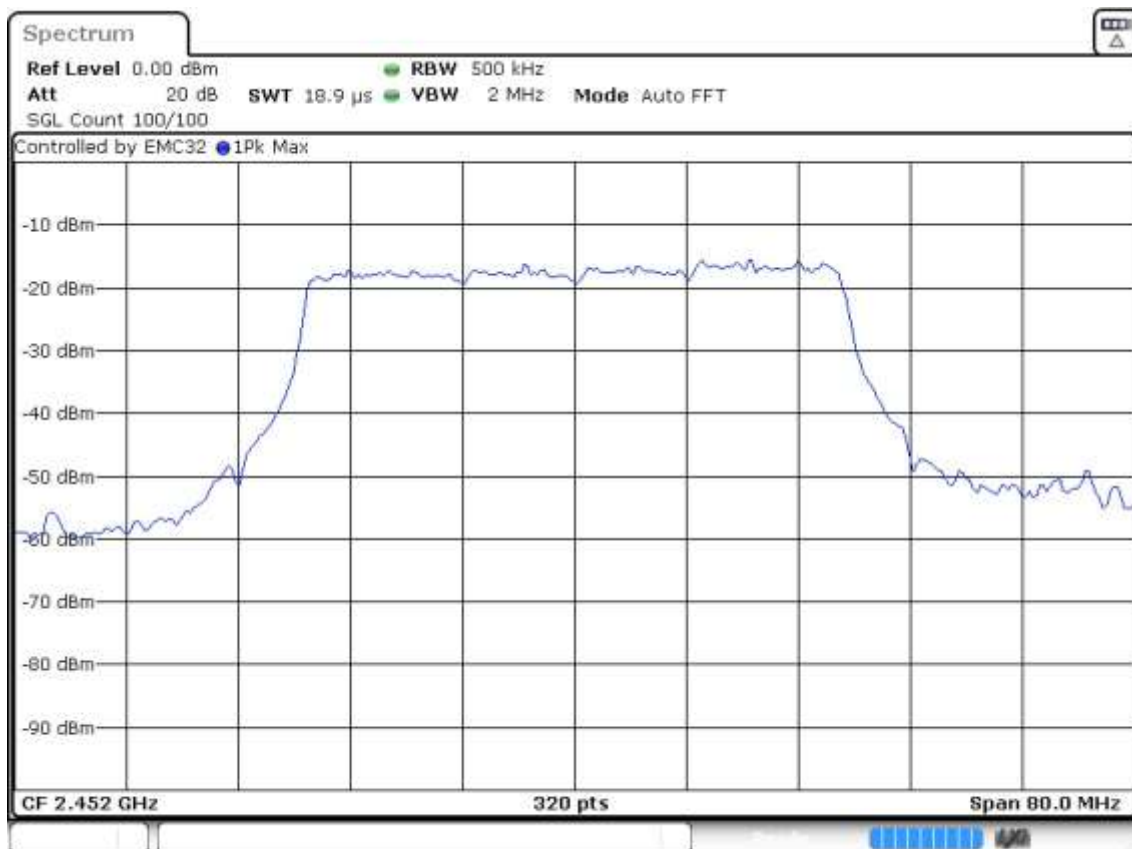
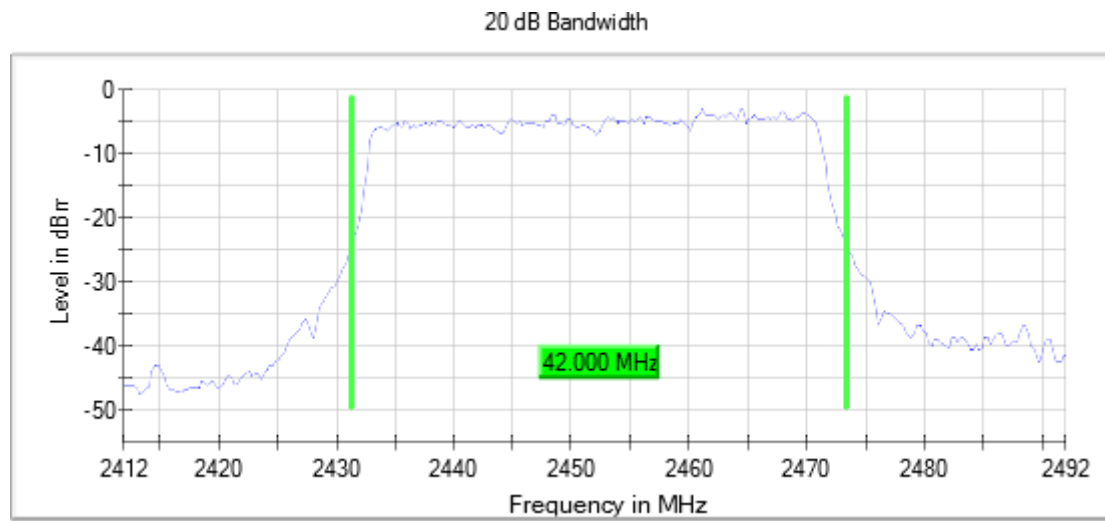
Date: 9.DEC.2025 13:34:38

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2452.00000

Active Port = 2

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



Date: 9.DEC.2025 17:44:08

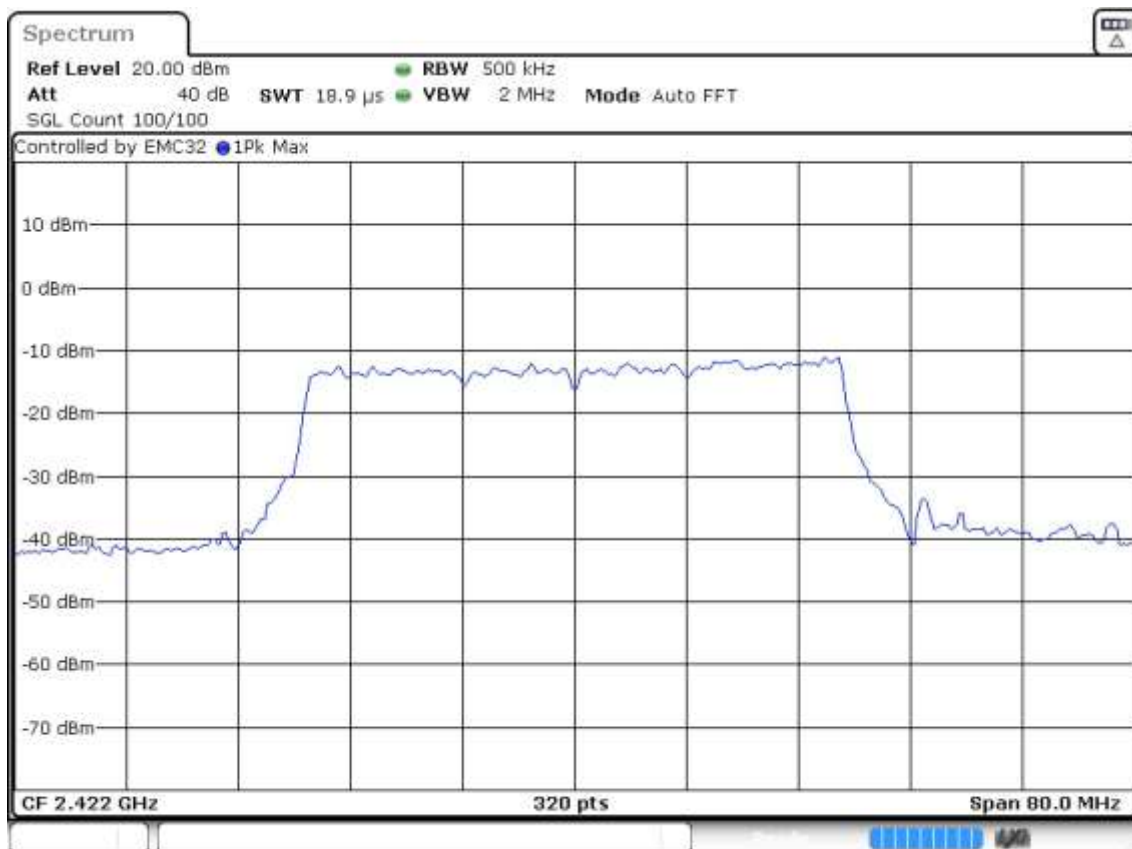
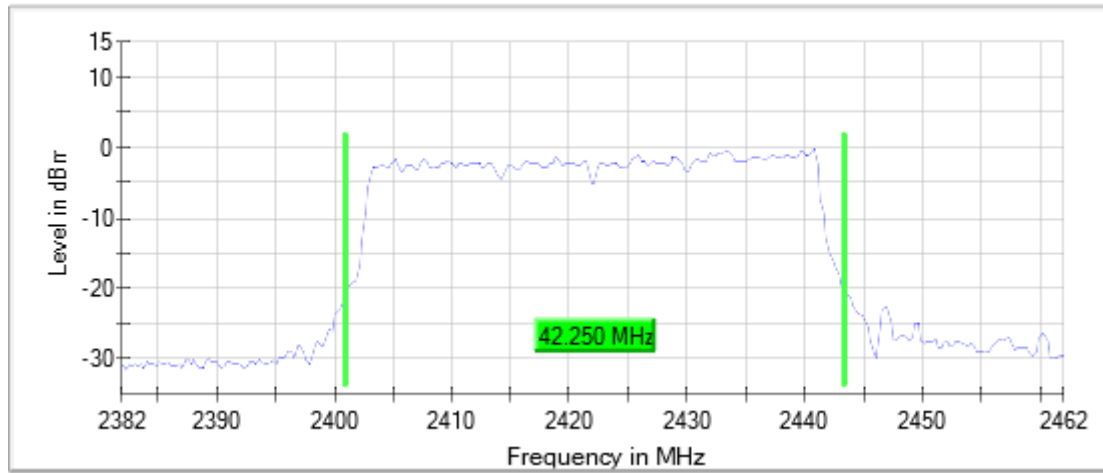
Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2422.00000

Active Port = 1+2

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:

20 dB Bandwidth



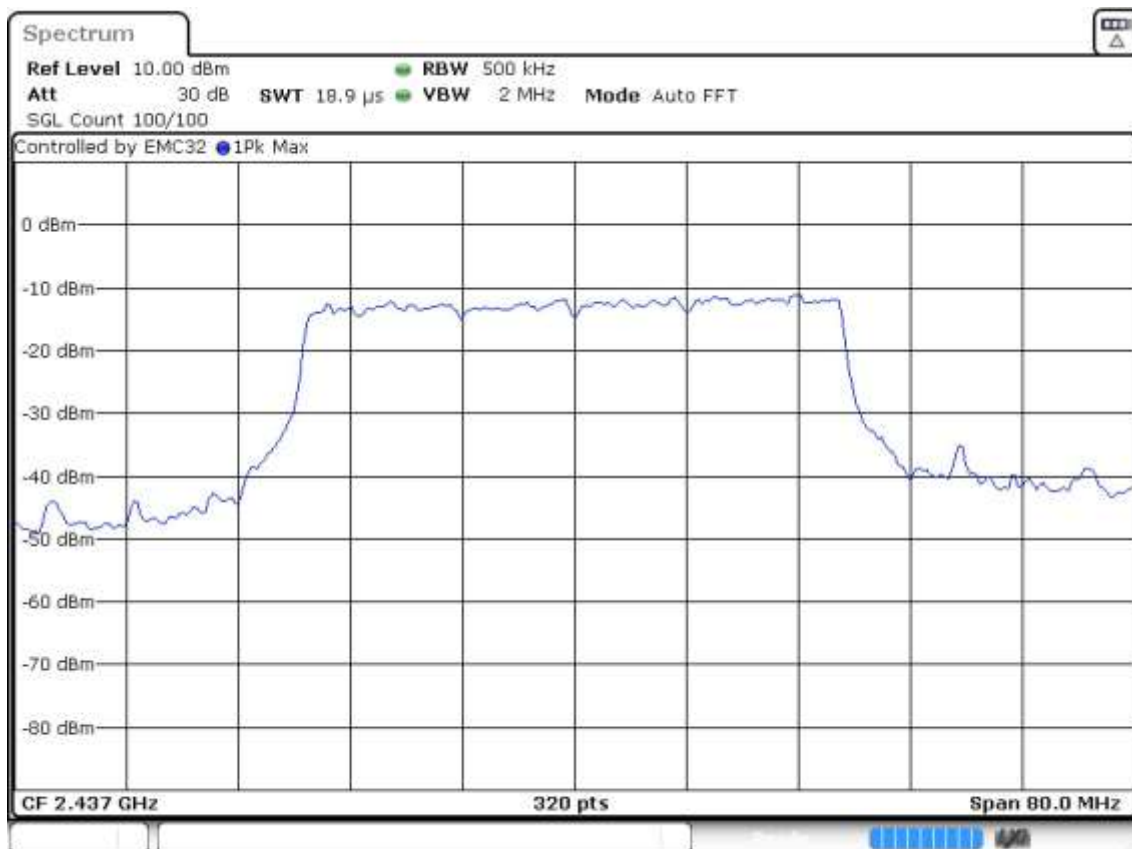
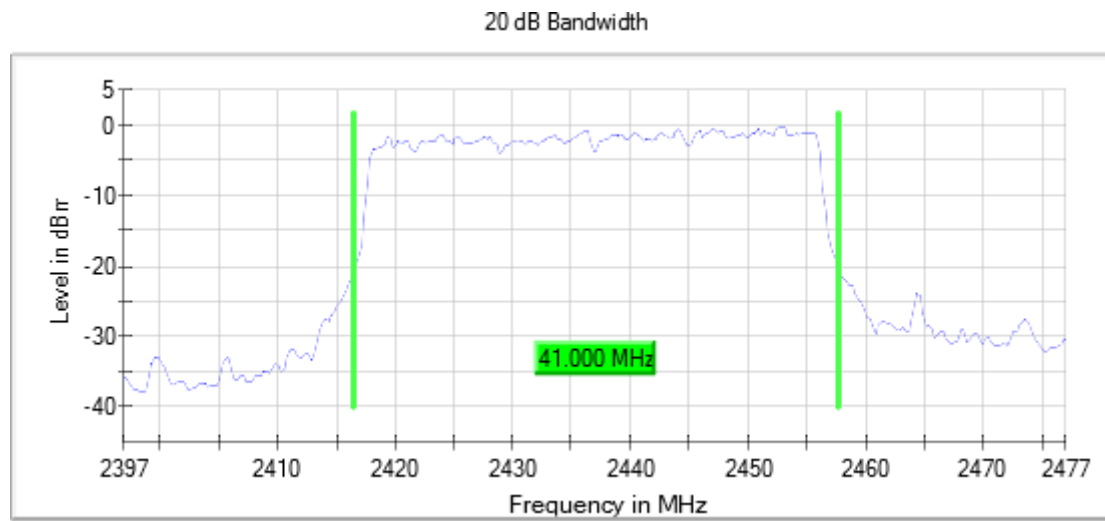
Date: 12 DEC 2025 19:06:56

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2437.00000

Active Port = 1+2

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



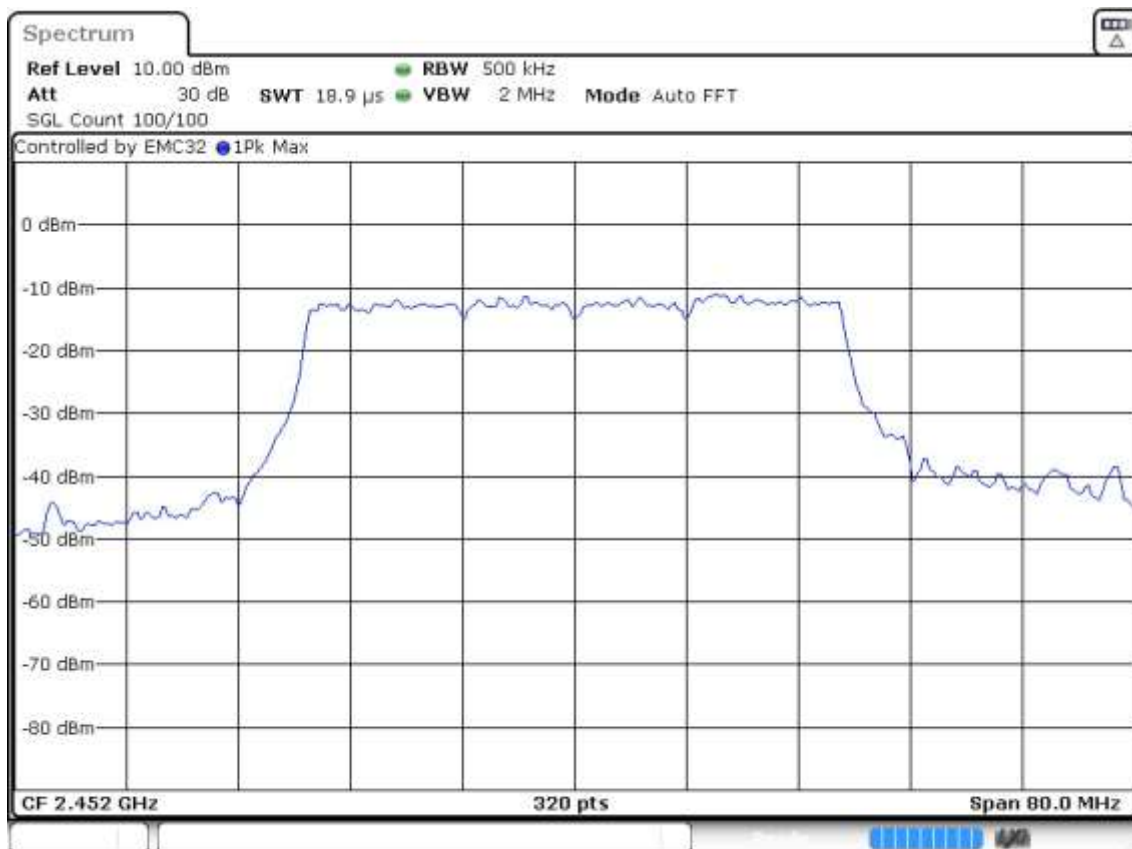
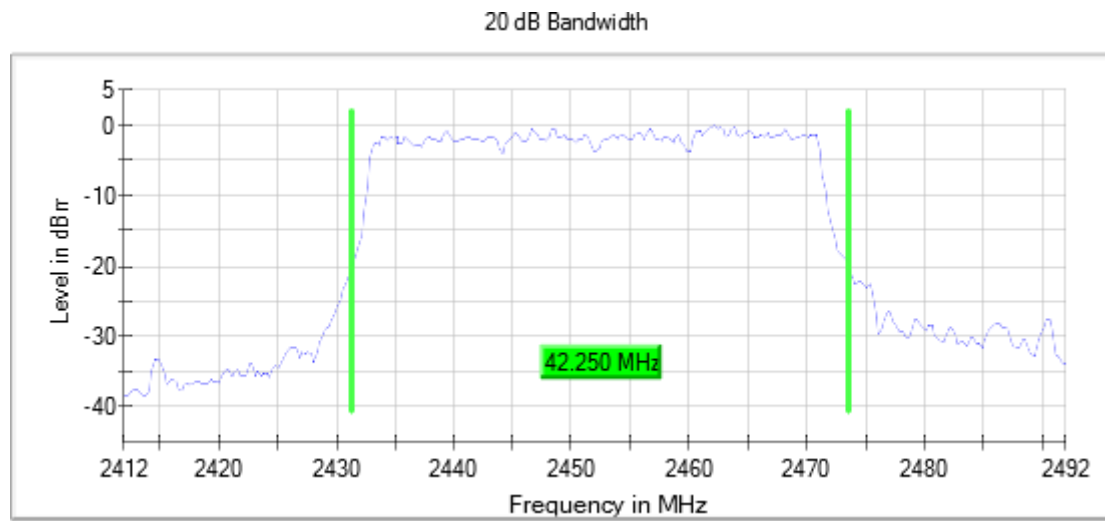
Date: 12 DEC 2025 19:19:11

Equipment Type = Digital Transmission System (DTS) Frequency MHz = 2452.00000

Active Port = 1+2

Modulation = 802.11ax HE40 SS1 (OFDMA MCS11)

Images:



Date: 12 DEC 2025 19:26:01

RSS-247 5.1 (b) / FCC 15.247 (a) (1) [CFS] Carrier Frequency Separation

Limits

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

Modulation: BT (GFSK 1-DH5)

Results

Equipment	Port	Freq Sep (MHz)
Frequency Hopping Spread Spectrum systems (FHSS)	1	0.98

Verdict

Pass

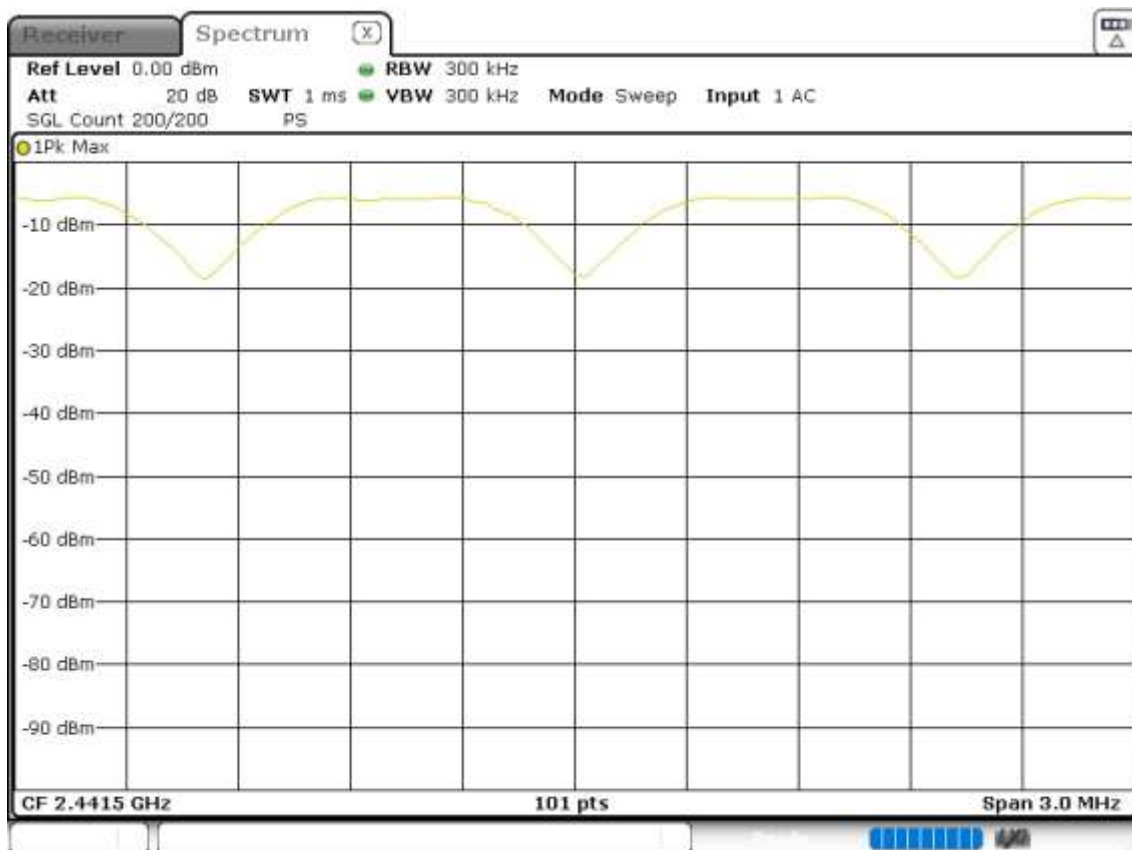
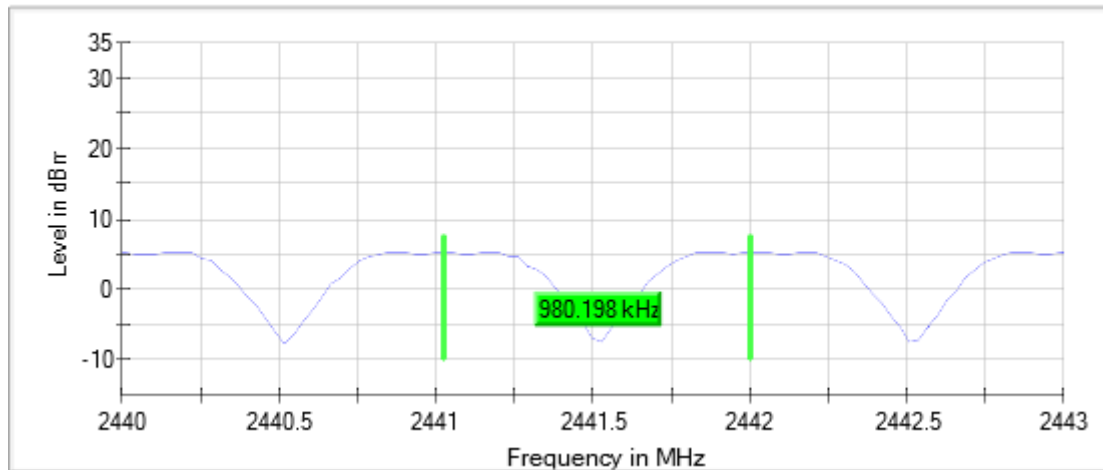
Attachments

Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS) Active Port = 1

Modulation = BT (GFSK 1-DH5)

Images:

CFS



Date: 17.NOV.2025 13:29:17

Modulation: BT (Pi/4 DQPSK 2-DH5)
Results

Equipment	Port	Freq Sep (MHz)
Frequency Hopping Spread Spectrum systems (FHSS)	1	1.04

Verdict

Pass

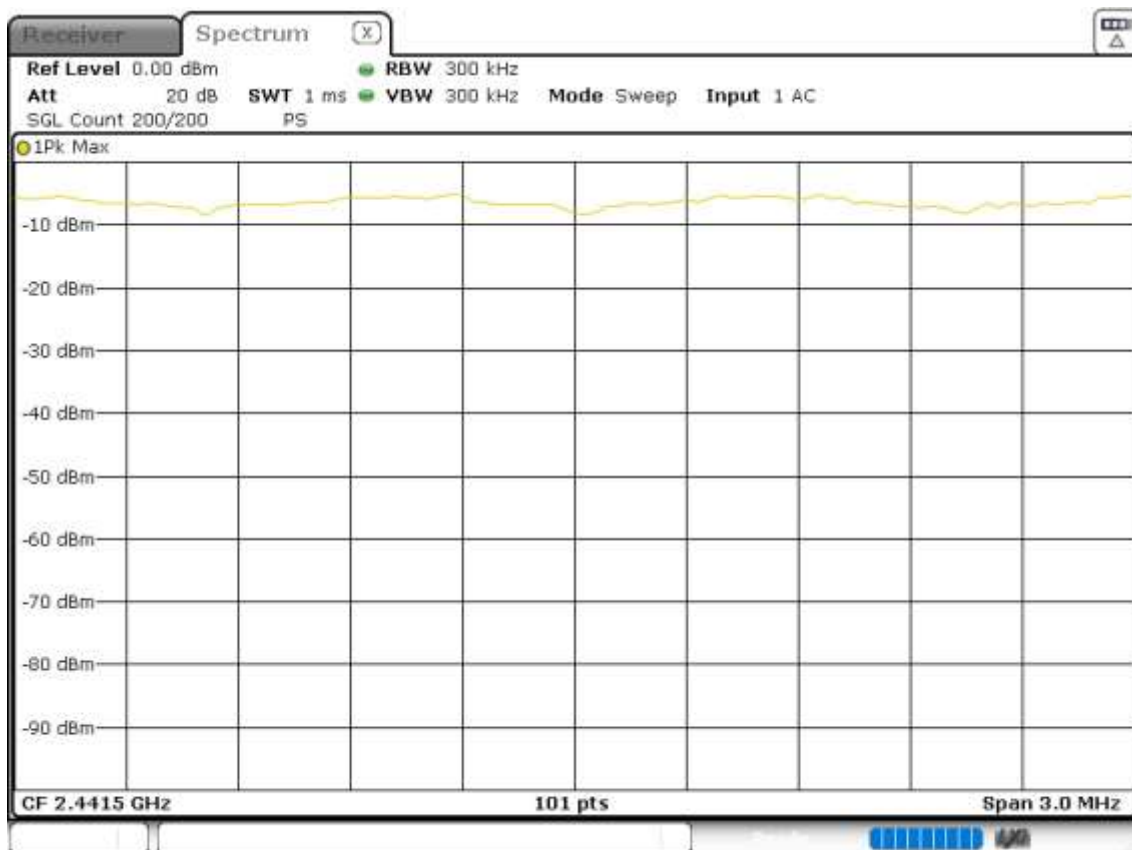
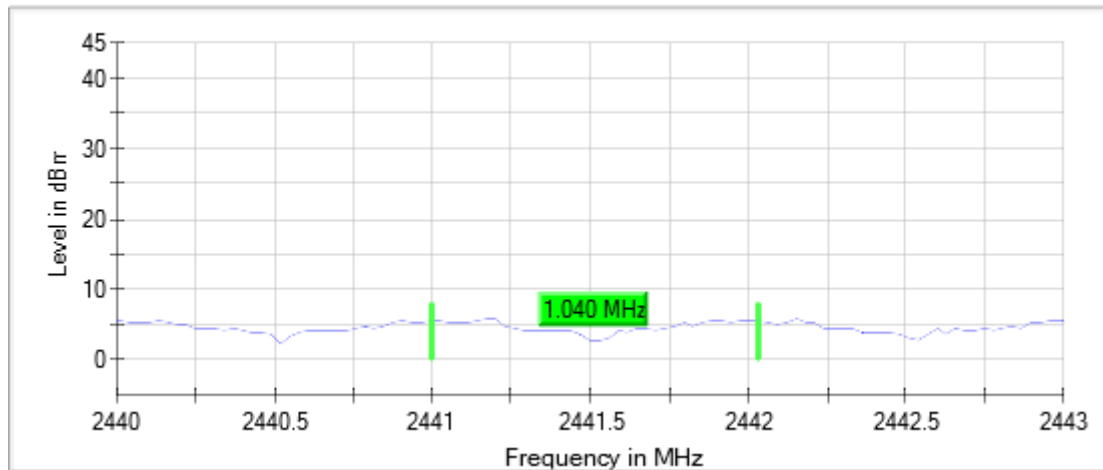
Attachments

Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS) Active Port = 1

Modulation = BT (Pi/4 DQPSK 2-DH5)

Images:

CFS



Date: 17.NOV.2025 14:07:39

Modulation: BT (8DPSK 3-DH5)
Results

Equipment	Port	Freq Sep (MHz)
Frequency Hopping Spread Spectrum systems (FHSS)	1	0.98

Verdict

Pass

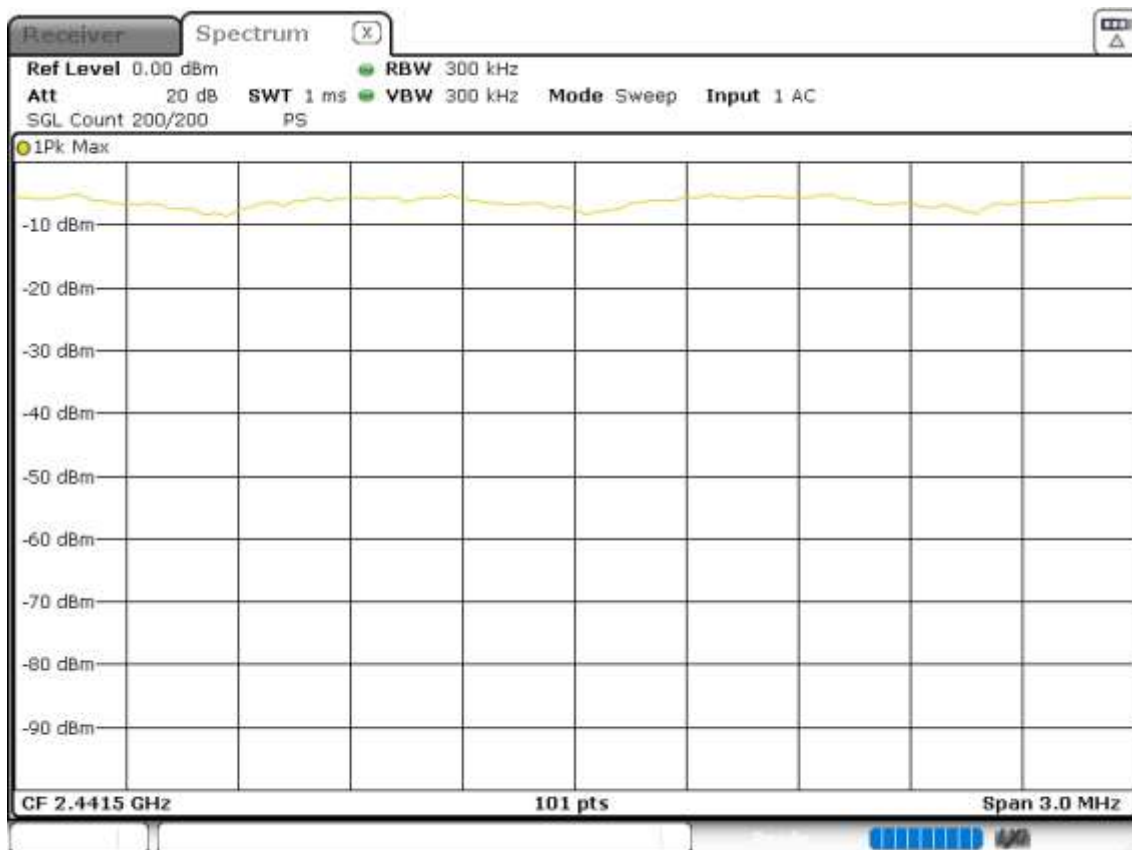
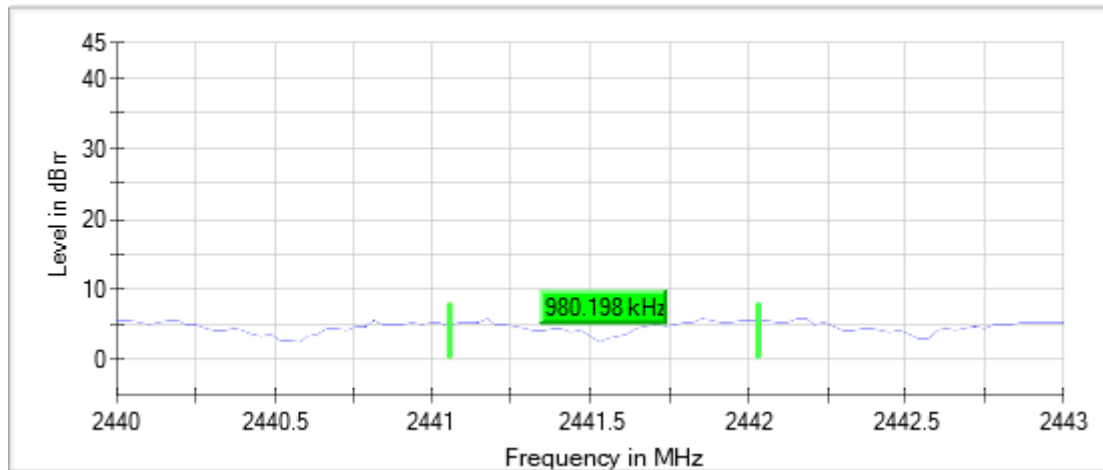
Attachments

Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS) Active Port = 1

Modulation = BT (8DPSK 3-DH5)

Images:

CFS



Date: 17.NOV.2025 14:23:08

RSS-247 5.1 (d) / FCC 15.247 (a) (1) (iii) [NHC] Number of hopping channels

Limits

Frequency hopping system in the 2400-2483.5 MHz band shall use at least 15 channels.

Modulation: BT (GFSK 1-DH5)

Results

Equipment	Port	NHC
Frequency Hopping Spread Spectrum systems (FHSS)	1	79

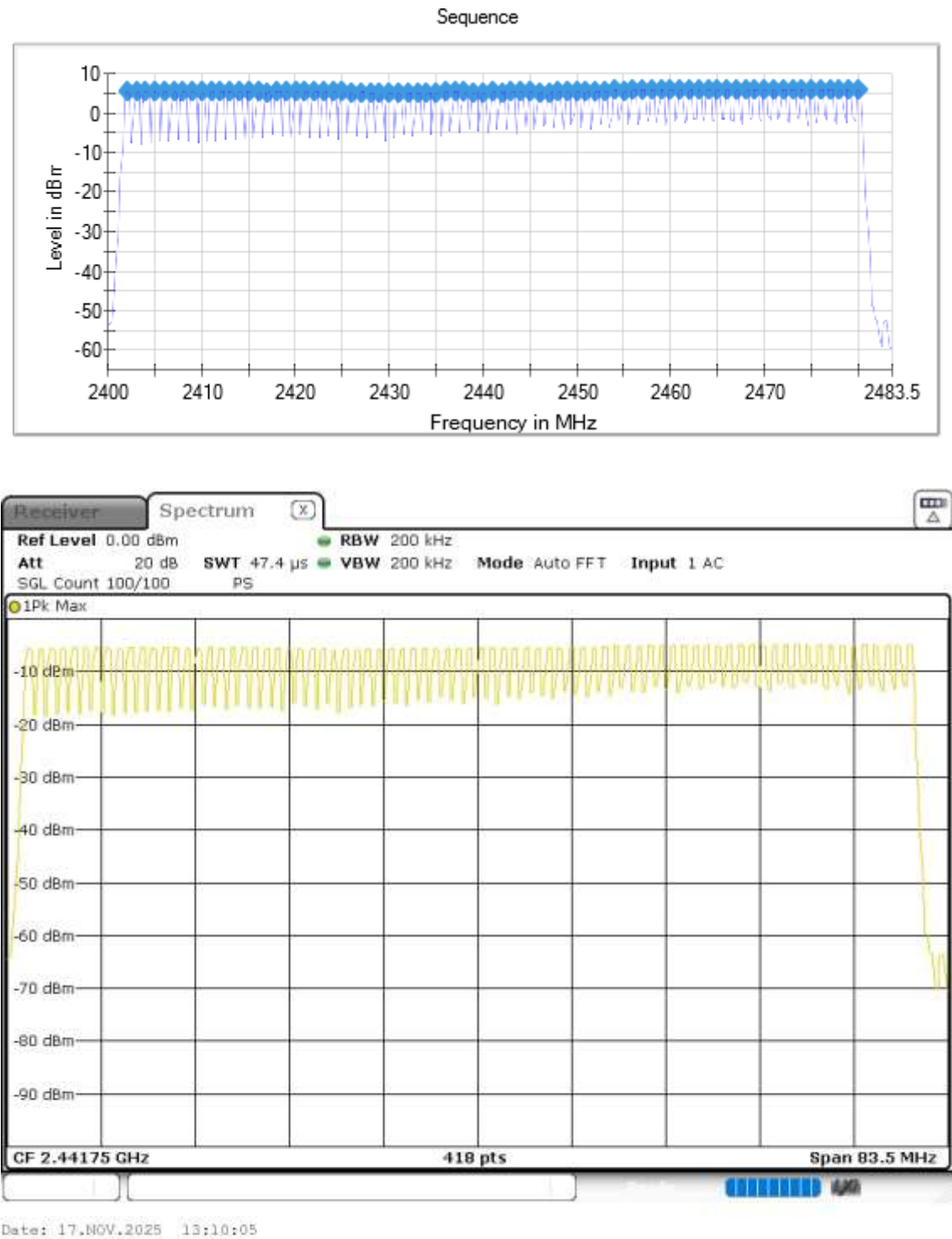
Verdict

Pass

Attachments

Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS) Active Port = 1
Modulation = BT (GFSK 1-DH5)

Images:



Tables:
Spectrum Analyzer Parameters

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	200.000 kHz	<= 299.000 kHz
VBW	200.000 kHz	>= 200.000 kHz
SweepPoints	418	~ 418
SweepTime	47.405 µs	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
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	46 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.12 dB	0.50 dB

Modulation: BT (Pi/4 DQPSK 2-DH5)

Results

Equipment	Port	NHC
Frequency Hopping Spread Spectrum systems (FHSS)	1	79

Verdict

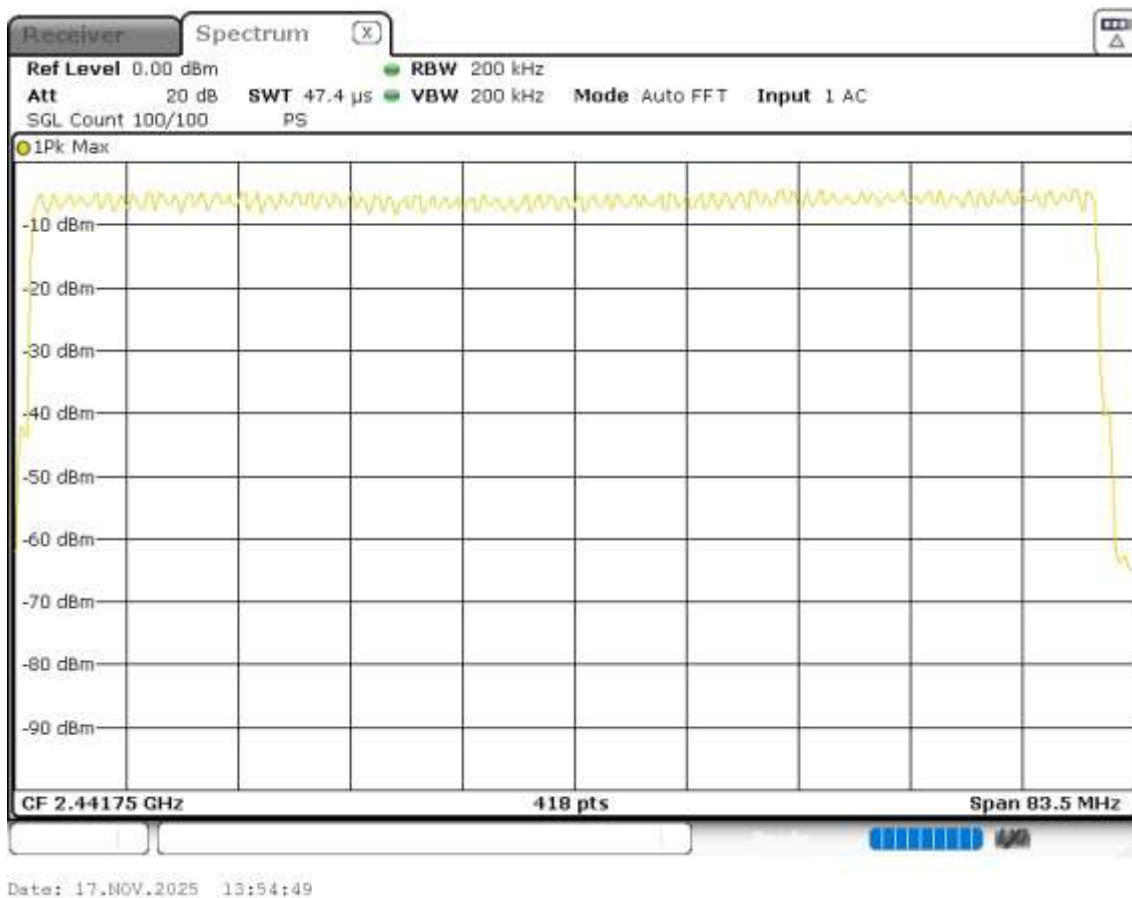
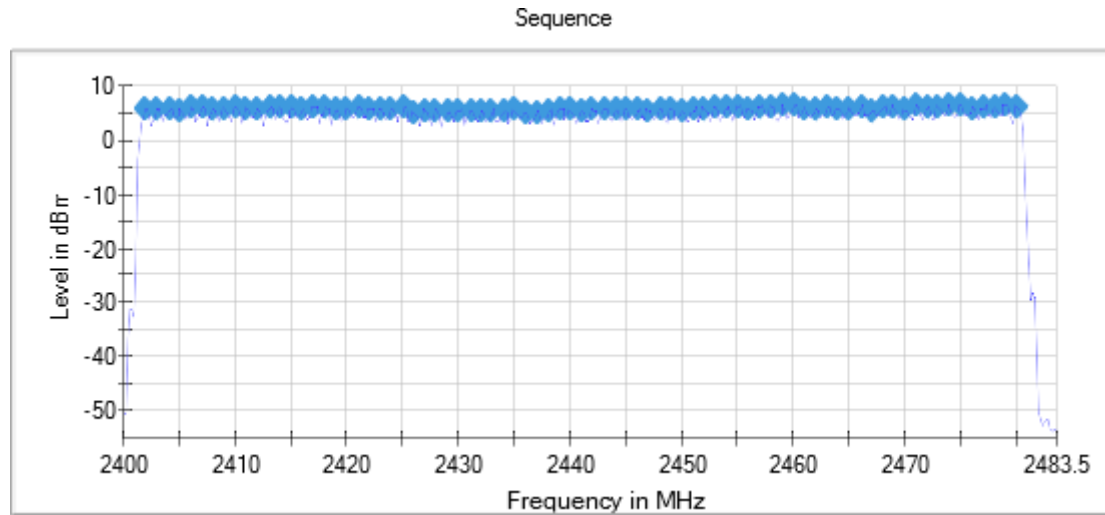
Pass

Attachments

Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS) Active Port = 1

Modulation = BT (Pi/4 DQPSK 2-DH5)

Images:



Tables:
Spectrum Analyzer Parameters

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	200.000 kHz	<= 299.000 kHz
VBW	200.000 kHz	>= 200.000 kHz
SweepPoints	418	~ 418
Sweeptime	47.405 µs	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
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	135 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.14 dB	0.50 dB

Modulation: BT (8DPSK 3-DH5)
Results

Equipment	Port	NHC
Frequency Hopping Spread Spectrum systems (FHSS)	1	79

Verdict

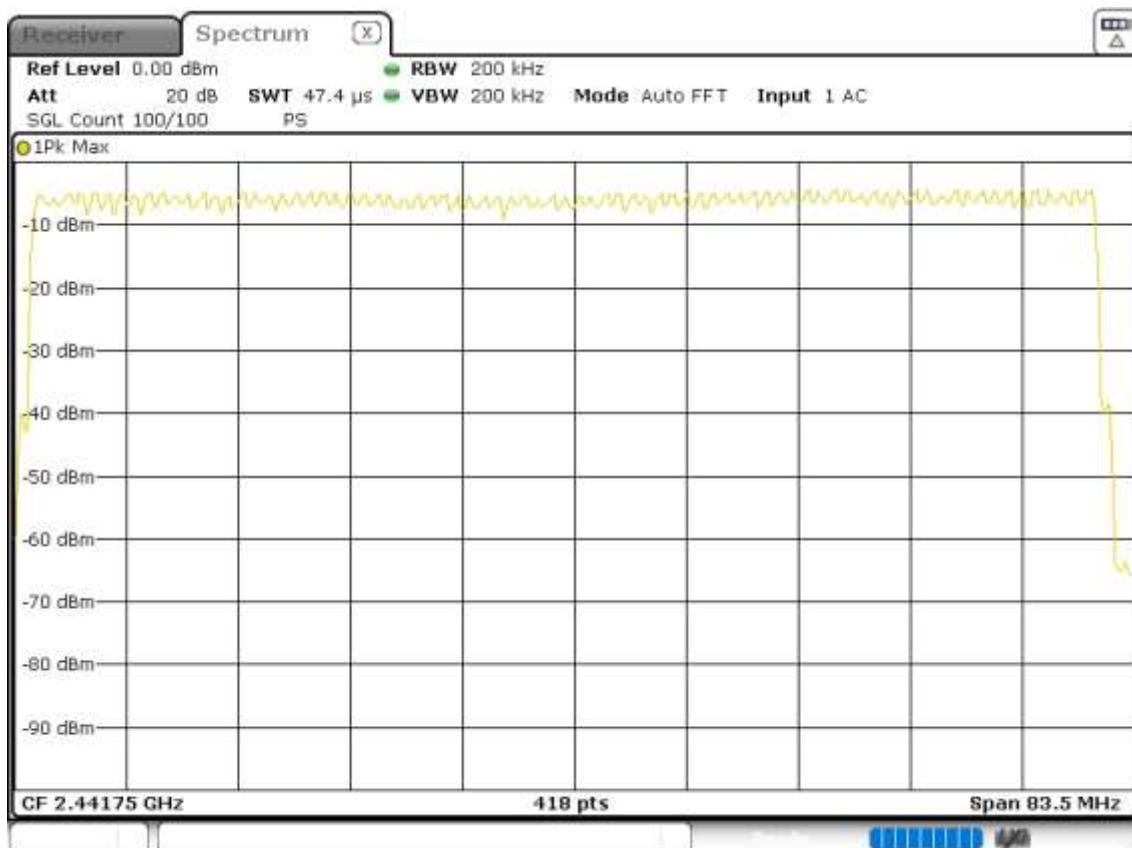
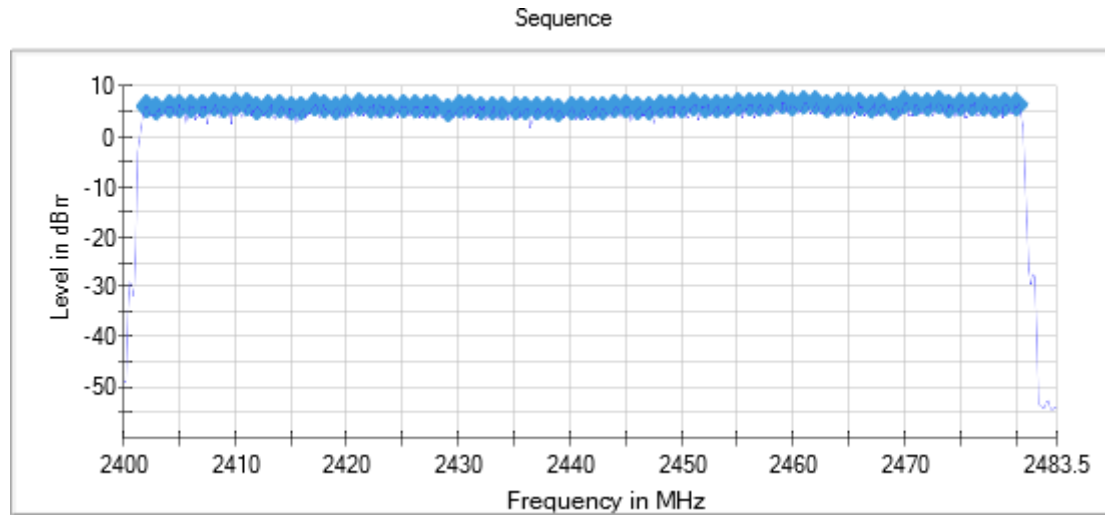
Pass

Attachments

Equipment Type = Frequency Hopping Spread Spectrum systems (FHSS) Active Port = 1

Modulation = BT (8DPSK 3-DH5)

Images:



Date: 17.NOV.2025 14:11:35

Tables:
Spectrum Analyzer Parameters

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.48350 GHz	2.48350 GHz
Span	83.500 MHz	83.500 MHz
RBW	200.000 kHz	<= 299.000 kHz
VBW	200.000 kHz	>= 200.000 kHz
SweepPoints	418	~ 418
Sweeptime	47.405 µs	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
Preamplifier	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	120 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.16 dB	0.50 dB

RSS-247 5.2 (a) / FCC 15.247 (a) (2) [6dBw] 6 dB Bandwidth

Limits

Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Modulation: BTLE (GFSK 1 Mbit/s)

Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Ebw (MHz)
[2400, 2483.5]	Digital Transmission System (DTS)	2402.00000	1	0.772
		2440.00000		0.792
		2480.00000		0.752

Verdict

Pass

Attachments

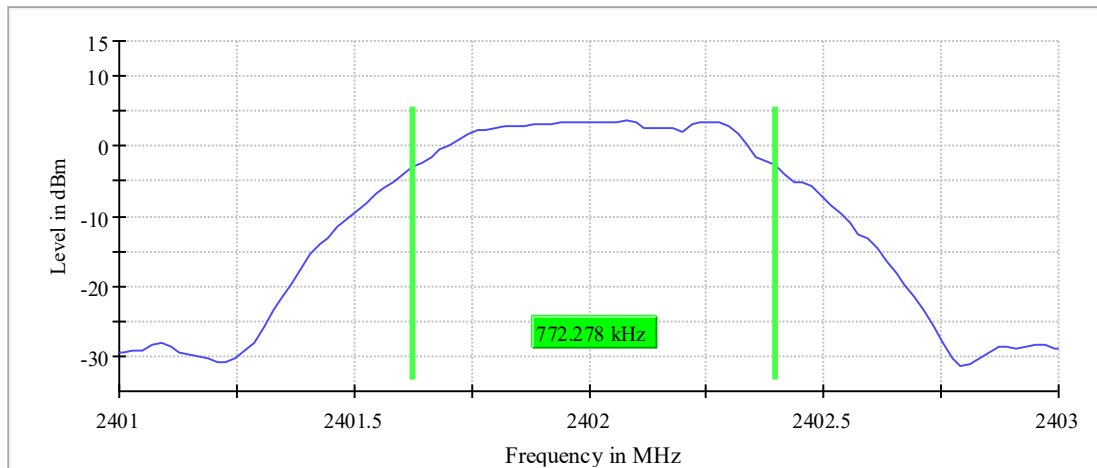
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2402.00000 Active Port = 1

Modulation = BTLE (GFSK 1 Mbit/s)

Images:

6 dB Bandwidth



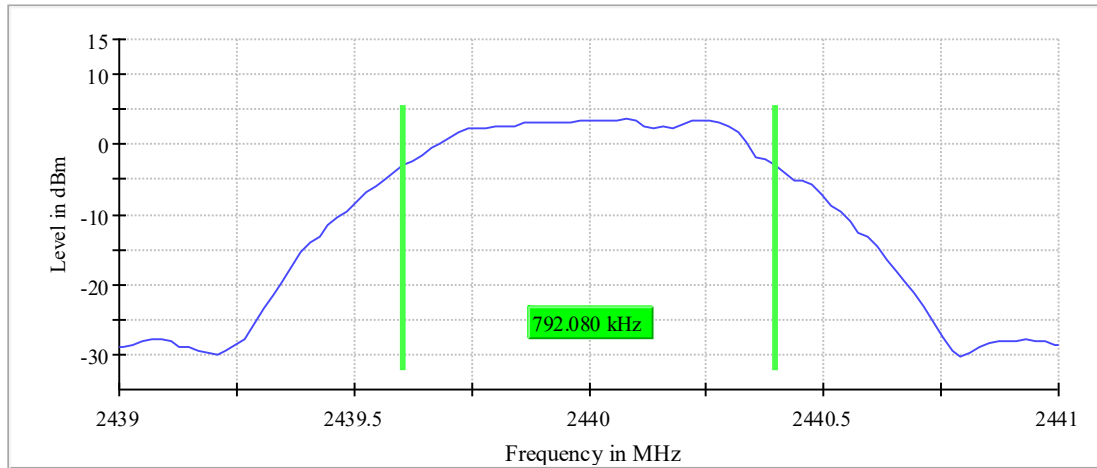
Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2440.00000 Active Port = 1

Modulation = BTLE (GFSK 1 Mbit/s)

Images:

6 dB Bandwidth



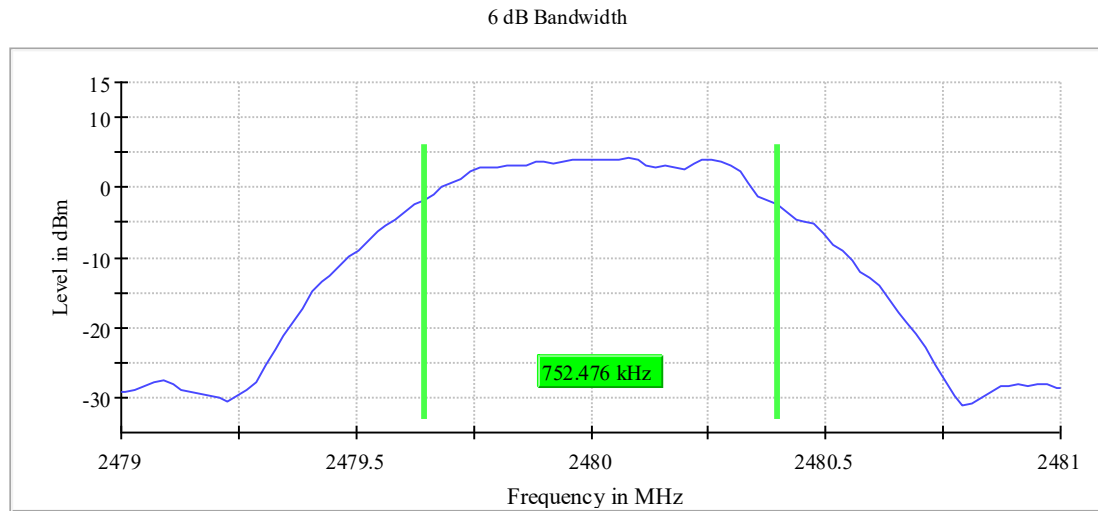
Date: 17.NOV.2025 17:33:19

Operation Band MHz = [2400, 2483.5] Equipment Type = Digital Transmission System (DTS)

Frequency MHz = 2480.00000 Active Port = 1

Modulation = BTLE (GFSK 1 Mbit/s)

Images:



Modulation: BTLE (GFSK 2 Mbit/s)
Results

Operation Band (MHz)	Equipment	Freq (MHz)	Port	Ebw (MHz)
[2400, 2483.5]	Digital Transmission System (DTS)	2402.00000	1	0.792
		2440.00000		0.832
		2480.00000		0.792

Verdict

Pass