



BEC INCORPORATED

CERTIFICATION APPLICATION TEST REPORT

TEST STANDARDS:

**FCC Part 15 Subpart C, ISED RSS-Gen, ISED RSS-247
DTS Intentional Radiator**

**Woodstream Model VSB1
Victor Smart Base with BLE Radio**

**FCC ID: SNA-VSB1
ISED ID: 9458A-VSB1**

**REPORT BEC-2430-01
REPORT DATE: 08/03/2026**

CUSTOMER:

**Woodstream Corporation
69 North Locust Street
Lititz, PA 17543**

PREPARED BY:

JR Fanella, Test Engineer

REVIEWED and APPROVED BY:

Steve Fanella, Quality Manager

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TABLE OF CONTENTS

Notice to Customer	4
Revision History	4
1.0 Administrative Information.....	5
1.1 Project Details	5
1.2 Preface.....	6
1.3 Laboratory and Customer Information.....	6
1.4 Measurement Uncertainty	7
1.5 Test Result Summary Table	8
1.6 Condition of Received Sample.....	8
1.7 Climatic Environment	9
1.8 Test Equipment	9
2.0 Equipment Under Test	9
2.1 EUT General Description.....	10
2.2 Product Category.....	10
2.3 Product Classification	10
2.4 Test Configuration.....	10
2.5 Test Configuration Rationale	10
2.6 Test Configuration Diagrams	10
2.7 EUT Information, Interconnection Cabling and Support Equipment	12
2.8 Test Signals and Test Modulation.....	13
2.9 Antenna Gain.....	14
2.10 Grounding.....	14
2.11 EUT Modifications	14
3.0 Applicable Requirements, Methods, and Procedures	15
3.1 Applicable Requirements	15
3.1.1 FCC Requirements	15
3.1.2 Innovation, Science and Economic Development Canada (ISED)	15
3.1.3 Basic Test Methods and Test Procedures	15
3.1.4 Deviations or Exclusions from the Requirements	15
4.0 Test Results.....	16
4.1 Antenna Requirement.....	16
4.2 External RF power amps/antenna modifications	16
4.3 Duty Cycle of the DTS Fundamental Transmission	16
4.3.1 Duty Cycle Measurement Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (02/26/2026)	17
4.4 Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands (FCC Section 15.247(d), RSS-247 Clause 6.1)	18
4.4.1 Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands Test Procedure	18
4.4.2 Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands Reference Measurement at 2402 MHz Channel 0, 1 Mbps Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (03/02/2026)	19
4.4.3 Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands at 2402 MHz Channel 0, 1 Mbps Test Results	20



4.4.4	Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands Reference Measurement at 2440 MHz Channel 19, 1 Mbps Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (03/02/2026)	23
4.4.5	Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands at 2440 MHz Channel 19, 1 Mbps Test Results	24
4.4.6	Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands Reference Measurement at 2480 MHz Channel 39, 1 Mbps Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (03/02/2026)	27
4.4.7	Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands at 2480 MHz Channel 39, 1 Mbps Test Results	28
4.4.8	Conducted Spurious Emissions in Non-restricted Frequency Bands Rx Mode Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (03/02/2026)	31
4.5	Radiated Spurious Emissions in Non-restricted and Restricted Frequency Bands, 30 MHz – 25 GHz (47 CFR 15.205 & 15.209)(RSS-GEN Clause 8.9 & 8.10)	34
4.5.1	Non-Restricted and Restricted Bands Test Facility	34
4.5.2	Non-restricted and Restricted Bands Radiated Spurious Emissions Test Procedure .	35
4.5.3	Radiated Spurious Emissions in Non-restricted and Restricted Bands of Operation, 30 MHz – 1000 MHz Woodstream Model VSB1 Victor Smart Base Sample 2430-01 Test Results (02/11/2026).....	36
4.5.7	Radiated Spurious Emissions in Non-Restricted and Restricted Bands of Operation, 1 GHz – 18 GHz Woodstream Model VSB1 Victor Smart Base Sample 2430-01 Test Results (02/13/2026).....	40
4.5.11	Radiated Spurious Emissions in Non-Restricted and Restricted Bands of Operation, 18 GHz – 25 GHz Test Results (02/18/2026).....	44
4.6	DTS 6 dB Bandwidth (FCC Section 15.247(a)(2) RSS-247 Clause 6.3.1)	45
4.6.1	DTS 6 dB Bandwidth – Test Procedure	45
4.6.2	DTS 6 dB Occupied Bandwidth Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (02/26/2026).....	45
4.6.3	DTS 6 dB Bandwidth Analyzer Screen Captures.....	46
4.7	99% Occupied Bandwidth RSS-Gen Clause 6.7.....	48
4.7.1	99% Occupied Bandwidth – Test Procedure.....	48
4.7.2	99% Occupied Bandwidth Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (02/26/2026)	48
4.7.3	DTS 99% Occupied Bandwidth Analyzer Screen Captures.....	49
4.8	Maximum Conducted Output Power and EIRP (FCC Part 15.247(b)(3), RSS-247 Clause 6.3.2)	51
4.8.1	Maximum Conducted Output Power Test Procedure.....	51
4.8.2	Maximum Conducted Output Power Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (02/26/2026)	51
4.8.3	Maximum Conducted Output Power Analyzer Screen Captures	52
4.8.4	EIRP Calculation RSS-247 (02/26/2026).....	55
4.9	Power Spectral Density (FCC Section 15.247(e), RSS-247 Clause 6.3.1)	56
4.9.1	Power Spectral Density Test Procedure	56
4.9.2	Power Spectral Density Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (02/26/2026)	56
4.9.3	Power Spectral Density Analyzer Screen Captures.....	57
4.10	Band Edge Measurement (FCC Part 15.247(d))	59
4.10.1	Band Edge Measurement Test Procedure.....	59



4.10.2	Low Band Edge Measurement Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (12/09/2025).....	60
4.10.3	High Band Edge Measurement Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (12/09/2025).....	61
4.11	Conducted Emissions	62
4.11.1	Conducted Emissions AC Power Port Test Procedure.....	62
Appendix A – Test Equipment.....		63
Appendix B – Open Area Test Site Layout Diagram		65
Appendix C – Emissions Shielded Room Layout Diagram.....		66

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Revision History

Revision #	Description of Changes	Date of Changes	Date Released
0	Test Report Initial Release	N/A	08/03/2026
1	Appendix A Edited for Clarification of Pre-compliance Equipment used and Added the High Pass Filter to the List. Section 3.1.3 was edited to add standards ANSI/USEMCSC C63.2-2023 and ANSI C63.10a-2024 for ISED. Section 4.5 Radiated Spurious Emissions was edited to add a statement regarding the use of a High Pass Filter to attenuate the Fundamental during testing. Section 4.11 AC Mains Conducted Emissions was added and explained that it is N/A since the EUT is Battery Powered.	08/21/2026	08/21/2026
2	Section 3.1.3 was edited to add the two other releases of ANSI C63.10	8/27/2026	8/27/2026



1.0 Administrative Information

1.1 Project Details

Project Number	BEC-2430
EUT Manufacturer	Woodstream Corporation
EUT Model Number	VSB1
EUT Description	Victor Smart Base with BLE Radio
EUT Sample Type	Radiated Emissions Test Sample
EUT Sample Number	2430-01
EUT Serial Number	N/A
EUT Sample Types	Antenna Conducted Test Sample
EUT Sample Number	2430-02
EUT Serial Number	N/A
FCC ID	SNA-VSB1
ISED ID	9458A-VSB1
Radio Chip Manufacturer	Silicon Labs
Radio Chip Model Number	EFR32BG21B010F1024IM32
Radio Type	BLE
Frequency of Operation	2402 MHz – 2480 MHz
Frequencies Tested	Low (2402 MHz), Middle (2440 MHz), High (2480 MHz)
Antenna Gain	- 6.39 dBi
Antenna Type	Inverted F PCB Trace
Modulation	GFSK
Data Rate	1 Mbps
Signal Classification	Digital Transmission System (DTS)
Date Samples Received	02/06/2026
Test Dates	02/11/2026 – 03/02/2026
EUT Test Firmware	1.1.3
Sample Types	Pre-Production Units Suitable for Test



Applicable FCC Rules	FCC Rules Part 15.247: Operation within the bands 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz Direct Sequence System
Applicable ISED Rules	RSS-Gen: General Requirements for Compliance of Radio Apparatus & RSS-247: Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and License-Exempt Local Area Network (LE-LAN) Devices

1.2 Preface

This report documents product testing conducted to verify compliance of the specified EUT with applicable standards and requirements as identified herein. EUT, test instrument configurations, test procedures, and recorded data are generally described in this report. The reader is referred to the applicable test standards for detailed procedures. The following table summarizes the test results obtained during this evaluation.

1.3 Laboratory and Customer Information

Test Laboratory Location	BEC Incorporated 970 East High Street Pottstown, PA 19464
BEC Test Personnel	JR Fanella / Steve Fanella
BEC Laboratory Number FCC Registration	US1118
BEC Laboratory Number ISED Registration	7342A-1
Test Performed For	Woodstream Corporation 69 North Locust Street Lititz, PA 17543
Customer Technical Contact	Matt Kauffman
Customer Reference Number	PO # 4600009170



1.4 Measurement Uncertainty

Measurement	Measurement Distance	Frequency Range	Measurement Limit	Expanded Uncertainty (dB)
Radiated Disturbance	3 Meter	30 MHz – 1 GHz	Class A or B	4.78
Radiated Disturbance Fully Anechoic Chamber	3 Meter	1 GHz – 18 GHz	Class A or B	5.33
Conducted Disturbance AC Mains	N/A	150 kHz – 30 MHz	Class A or B	2.69

No adjustments to measured data presented in this report are required because all values of uncertainty are less than the CISPR 16-4-2:2018 recommendations. These uncertainties have a coverage factor of $k = 2$, which yields approximately a 95% level of confidence for the near-normal distribution typical of most measurement results.

FCC Registered Test Site Number: US1118
ISED Registered Test Site Number: 7342A-1

Test Measurement	ETSI TR 100 028 and CISPR 16-4-2 Limits	BEC Value
Radio Frequency	± 0.5 ppm	± 0.027 ppm
RF Power, Conducted	± 1.5 dB	± 1.45 dB
Conducted Spurious Emission of Transmitter, Valid up to 6 GHz	± 3 dB	± 0.9 dB
Radiated Emission of Transmitter, Valid up to 6 GHz	± 5.2 dB	± 4.87 dB
Radiated Emission of Receiver, Valid up to 6 GHz	± 5.2 dB	± 4.87 dB
Radiated Emission of Transmitter, Valid up to 18 GHz	± 5.5 dB	± 4.90 dB
Radiated Emission of Receiver, Valid up to 18 GHz	± 5.5 dB	± 4.90 dB
Occupied Bandwidth	± 5 %	± 2 %
Temperature	± 2.5 ° C	± 0.5 ° C
Humidity	± 10 %	± 2.5 %

These uncertainties have a coverage factor of $k = 1.96$ or $k = 2$, (which provide confidence levels of respectively 95 % and 95.45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)). Principles for the calculation of measurement uncertainty are contained in ETSI TR 100 028 [i.3], in particular in annex D of ETSI TR 100 028-2 [i.3].



1.5 Test Result Summary Table

The Woodstream Model VSB1 with BLE radios were tested and found to be compliant to the sections of the FCC Part 15 Subpart C and ISSED standards listed below:

Report Section	FCC Part 15, Subpart C	RSS-Gen	RSS-247	Test Description	Result
4.1	15.203	Annex A 10(g)		Antenna Requirement	PASS
4.2	15.204	8.3		External RF power amplifiers and antenna modifications	PASS
4.3	ANSI C63.10, Section 11.6			Duty Cycle	Measured
4.4	15.247(d)		6.1	DTS Emissions in non-restricted frequency Bands 30 MHz to 25 GHz Conducted Spurious Emission	PASS
4.5	15.205, 15.209 15.35(b)	8.9, 8.10	6.3	DTS Emissions in restricted frequency Bands 30 MHz to 25 GHz Radiated Spurious Emission	PASS
4.6	15.247(a)(2)		6.3.1	6 dB Occupied Bandwidth	PASS
4.7	2.1049(h)	6.7		99% Occupied Bandwidth	PASS
4.8	15.247(b)(3)		6.3.2	Maximum Conducted Output Power and EIRP	PASS
4.9	15.247(e)		6.3.1	Antenna Port, Power Spectral Density	PASS
4.10	15.247(d)			Band Edge Measurement	PASS
4.11	15.207(b)	7.4.2		AC Mains Conducted Emissions	Not Applicable

1.6 Condition of Received Sample

An evaluation of the EUT was conducted in order to verify test subject identity and condition and to ensure suitability for testing. No evidence of physical damage was noted. The test item condition was deemed acceptable for the performance of the requested test services.



1.7 Climatic Environment

The following were the general environmental conditions inside the laboratory during testing:

Temperature: $22^{\circ}\text{C} \pm 5^{\circ}\text{C}$

Humidity: $50\% \pm 20\%$

Barometric Pressure: $1010 - 1050\text{ mb} \pm 20\%$

1.8 Test Equipment

All test equipment is checked to manufacturer's specifications and, when applicable, have current N.I.S.T. traceable, ISO 9002 conforming certificates of calibration. Test equipment used for the tests described herein is listed in Appendix A.

2.0 Equipment Under Test

Unless otherwise noted in the individual test results sections, testing was performed on the EUT as follows.



2.1 EUT General Description

The Victor VSB1 Smart Rodent Trap Base is a device designed to detect when a snap trap placed on the base has been triggered, as well as whether the rodent was caught or escaped, via use of a piezo vibration sensor. The device will report these triggers to the V-Link app via the Amazon Sidewalk network when they happen, as well as a daily status message. It runs on 2 AAA alkaline batteries. The BLE radio transmits between the frequencies of 2402 MHz and 2480 MHz.

2.2 Product Category

FCC Part 15, Subpart C (Section 15.247), ISSED RSS-Gen, ISSED RSS-247

2.3 Product Classification

Intentional Radiator Testing Requirements, DTS Operation within the band of 2400 MHz – 2483.5 MHz.

2.4 Test Configuration

The Victor VSB1 Smart Rodent Trap Base Sample # 2340-02 was tested without the enclosure for all antenna conducted measurements. The Victor VSB1 Smart Rodent Trap Base Sample # 2340-01 was tested within the trap enclosure during all radiated emissions tests. The samples have the ability to be programmed through Tera-term program to transmit at specific BLE frequencies with or without modulation with maximized output power. The samples can also be placed into a Receive Mode.

2.5 Test Configuration Rationale

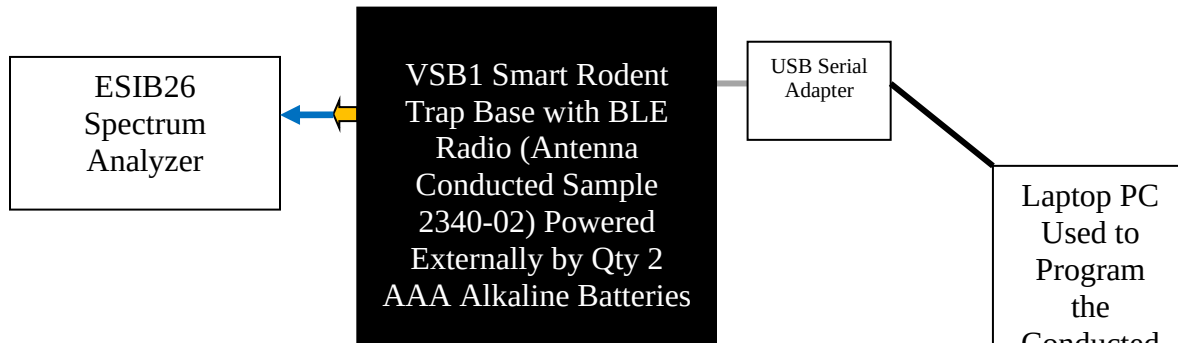
The modified antenna conduction sample unit is a pre-production unit that allow direct connection access to the BLE radio of the Victor VSB1 Smart Rodent Trap Base without a transmission antenna for all required antenna conducted measurements. The unmodified radiated emissions sample unit is a pre-production unit but has the typical antennas installed for all required radiated emissions tests.

2.6 Test Configuration Diagrams

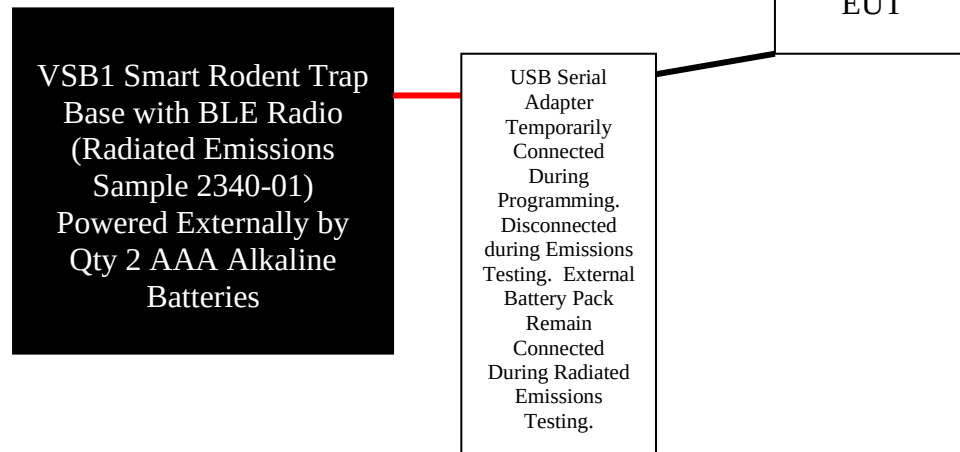
Block diagrams of the EUT configuration showing interconnection cables are illustrated below. The drawing shows the physical hardware layout used for the tests along with I/O cables and AC power distribution.



Antenna Conducted Test Configuration (modified with SMA connector in place of antenna)



Radiated Emission Test Configuration (un-modified EUT)





2.7 EUT Information, Interconnection Cabling and Support Equipment

EUT Hardware

Description	Manufacturer	Model	Serial Number	Sample Number
Lora Radio Victor Smart Base (Radiated Emissions Sample)	Woodstream Corporation	VSB1	N/A	2430-01
Lora Radio Victor Smart Base (Antenna Conducted Sample Modified with SMA)				2430-02

Interconnection Cable List (Conducted Test Setup)

Manufacturer	Model	Type	Shielding	Length	Description
Suhner	S 04272B	Antenna Conducted RF Measurement Cable	Braided with Foil	0.7 Meter	Measurement Cable from the Antenna SMA Connector of the EUT to the input of the Rohde and Schwarz ESIB26 Receiver. BEC Asset # BEC-962

Support Equipment

Description	Manufacturer	Model	Serial Number
Powered Serial Adapter	Woodstream	2457159A_Y40	none
Lap Top Computer	Dell	Inspiron 15-3567	E4B4B16C-F475-4A3F- 9795-A06C5CB4AB43



2.8 Test Signals and Test Modulation

By design this product does not have an external Modulation input connector, therefore, normal operating modulation was used for all testing reported herein. The only test where modulation was not active was during testing of the Maximum Peak Power Output FCC Section 15.247(b) (3) (Section 4.6 of this report) to ensure that the un-modulated carrier was not higher than the modulated carrier.

The control unit in this product is a digital frequency transmitter. The EUT transmits to a discrete frequency on a specific channel. The Woodstream Model VSB1 has 40 Channels available for 1 Mbps. The Channels and frequencies that can be transmitted by the EUT are as follows:

Channel	Frequency (MHz)	Type	Channel	Frequency (MHz)	Type
0	2402	Data	21	2444	Data
1	2404	Data	22	2446	Data
2	2406	Data	23	2448	Data
3	2408	Data	24	2450	Data
4	2410	Data	25	2452	Data
5	2412	Data	26	2454	Data
6	2414	Data	27	2456	Data
7	2416	Data	28	2458	Data
8	2418	Data	29	2460	Data
9	2420	Data	30	2462	Data
10	2422	Data	31	2464	Data
11	2424	Data	32	2466	Data
12	2426	Data	33	2468	Data
13	2428	Data	34	2470	Data
14	2430	Data	35	2472	Data
15	2432	Data	36	2474	Data
16	2434	Data	37	2476	Advertising
17	2436	Data	38	2478	Advertising
18	2438	Data	39	2480	Advertising
19	2440	Data			
20	2442	Data			

For the required testing, the EUT was configured to transmit at low Channel 0 (2402 MHz), middle Channel 19 (2440 MHz) and high Channel 39 (2480 MHz) for 1 Mbps. The EUT operates with a 1.07 MHz Operational Channel Bandwidth. The EUT has the option to be programmed to operate with maximum output power with GFSK modulation or with Constant Wave (CW) signal.



2.9 Antenna Gain

The antenna gain was derived using the formulae outlined in Appendix G of ANSI C63.10. The maximum peak output of the transmitter was measured at the SMA connector. The maximum radiated emission from the EUT with the internal antenna attached was measured at a distance of 3 meters from the EUT. The resultant antenna gain was the difference between EIRP at the transmitter terminals and the EIRP calculated from the field strength measured at 3 Meters. The antenna gain value was calculated to be - 6.39 dBi

2.10 Grounding

There was no ground connection used; the EUT is battery powered and self-contained.

2.11 EUT Modifications

The Victor VSB1 Smart Rodent Trap Base Radiated Emissions Test Samples 2340-01 were not modified. An SMA connector was added directly to the antenna output on the main board of the Victor VSB1 Smart Rodent Trap Base Antenna Conducted Test Sample 2340-02



3.0 Applicable Requirements, Methods, and Procedures

3.1 Applicable Requirements

The results of the measurement of the radio disturbance characteristics of the EUT described herein may be applied and where appropriate, provide a presumption of compliance to one or more of the following requirements or to other requirements at the discretion of the customer, regulatory agencies, or other entities.

3.1.1 FCC Requirements

Code of Federal Regulations: Title 47 – Telecommunication

Chapter I - Federal Communications Commission

Sub-chapter A – General

Part 15 – Radio Frequency Devices

Subpart C - Intentional Radiators

15.247 Operation within the bands 902-928 MHz,
2400-2483.5 MHz, and 5725-5850 MHz

3.1.2 Innovation, Science and Economic Development Canada (ISED)

RSS-Gen Issue 6 July 30, 2026 General Requirements for Compliance of Radio Apparatus

RSS-247 Issue 4 July 2025: Digital Transmission Systems, Frequency Hopping Systems and Licence-Exempt Local Area Network Devices in 902-928 MHz, 2400-2483.5 MHz, 5150-5350 MHz, and 5470-5895 MHz bands.

3.1.3 Basic Test Methods and Test Procedures

KDB Document 558074 D01 15.247 Meas Guidance v05r02, Guidance for Performing Compliance Measurements on Digital Transmission Systems, Frequency Hopping Spread Spectrum System, and Hybrid System Devices Operating under Section 15.247 of the FCC Rules.

ANSI C63.10-2013 American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

ANSI C63.10-2020+Cor.1-2023 American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

ANSI C63.10-2020+Cor.1-2023+C63.10a-2024 American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

ANSI/USEMCSC C63.2-2023 American National Standard for Specifications of Electromagnetic Interference and Field Strength Measuring Instrumentation in the Frequency Range 9 kHz to 40 GHz

3.1.4 Deviations or Exclusions from the Requirements

No deviations or exclusions were made.



4.0 Test Results

4.1 Antenna Requirement

The antenna used by the Victor VSB1 Smart Rodent Trap Base is an Inverted-F PCB Trace Antenna. There are no detachable parts of the antenna. The antenna is not replaceable, nor changeable, and therefore complies with the requirements of this section.

4.2 External RF power amps/antenna modifications

There are no RF power amplifier kits available to be used with the Victor VSB1 Smart Rodent Trap Base. There are no detachable parts of the antenna. The antenna is not replaceable, nor changeable, and therefore complies with the requirements of this section.

4.3 Duty Cycle of the DTS Fundamental Transmission

The duty cycle of the DTS transmission should be greater than or equal to 98%. This ensures that the various emissions measured for this certification test will be made with the transmitter fully active. Duty cycles less than 98% can be used and a duty cycle correction factor can be calculated to reduce the peak level of the emission for radiated emission tests. The procedure of ANSI C63.10, Section 11.6 was used to evaluate the duty cycle of this device.

Spectrum Analyzer Settings

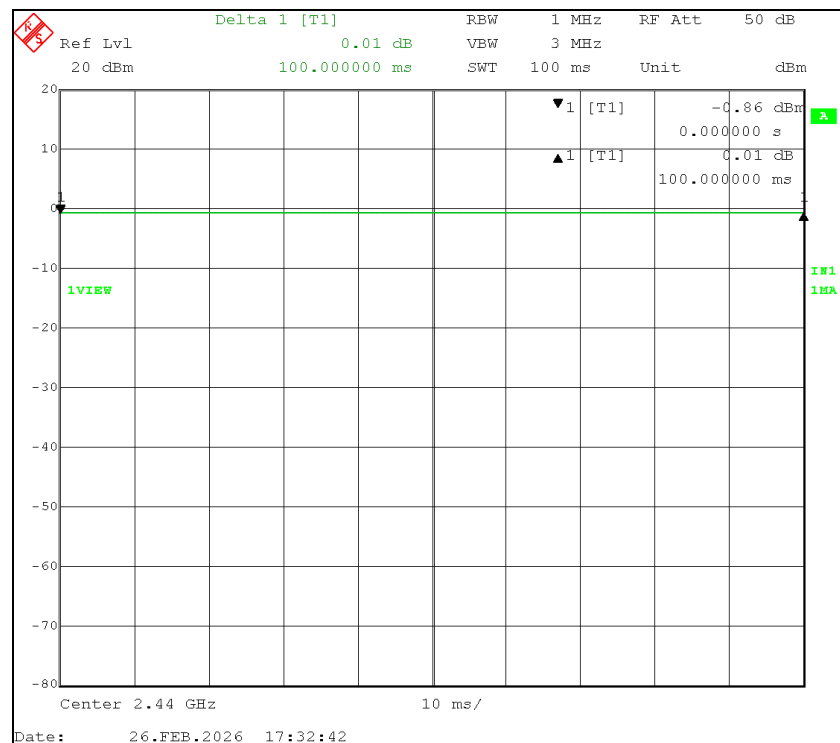
OBW	1.07	MHz
RBW	1	MHz
VBW	3	MHz
Span	Zero	MHz
Attenuation	50	ms
Reference Level	20	dBm



4.3.1 Duty Cycle Measurement Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (02/26/2026)

BEC Incorporated tested the duty cycle of the BLE Radio from the Woodstream Model VSB1 Victor Smart Base. Transmission was set to Power Output - 0 at middle Channel 19 - 2440 MHz with GFSK modulation at 1 Mbps using the radio control test software. The Duty Cycle of the transmitter was measured to be 100% and no duty cycle correction factor was required to be calculated.

BLE Transmission at Middle Channel 19 - 2440 MHz / Power = 0 / 1 Mbps Data Rate Duty Cycle





4.4 Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands (FCC Section 15.247(d), RSS-247 Clause 6.1)

4.4.1 Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands Test Procedure

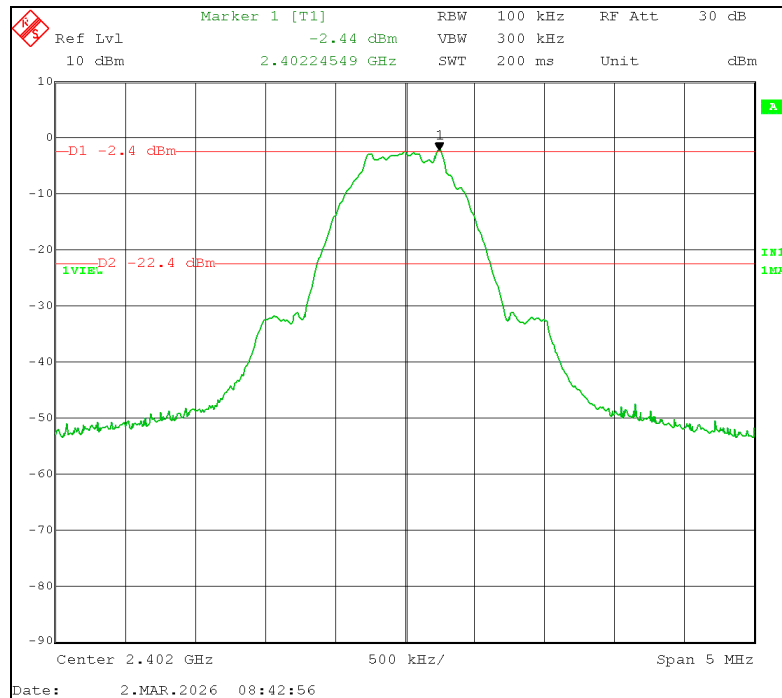
Measurements of the emissions in non-restricted frequency bands were made at the low Channel 0 (2402 MHz), middle Channel 19 (2440 MHz) and high Channel 39 (2480 MHz) for 1 Mbps. The EUT was set to transmit a signal at maximum output power with GFSK modulation. The procedure for the test is ANSI C63.10, Section 11.11. The frequency spectrum from 30 MHz to 25 GHz was divided into separate bands: 30 - 500 MHz, 500 - 1000 MHz, 1 – 10 GHz and 10 - 15 GHz, 15- 20 GHz and 20 - 25 GHz. Each of the three fundamental test frequencies was measured for the reference value to determine the -20 dBc value.

Spectrum Analyzer Settings

Emission Level: BLE Radio, GFSK modulation			
Spectrum Analyzer Settings			ANSI C63.10 requirement
Span	Varies	-	Encompass spectrum divided into bands
RBW	100 kHz		47 CFR Part 15.247 (d)
VBW	300 kHz		$\geq 3 \times \text{RBW}$
Sweep	Varies		Auto



4.4.2 Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands Reference Measurement at 2402 MHz Channel 0, 1 Mbps Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (03/02/2026)

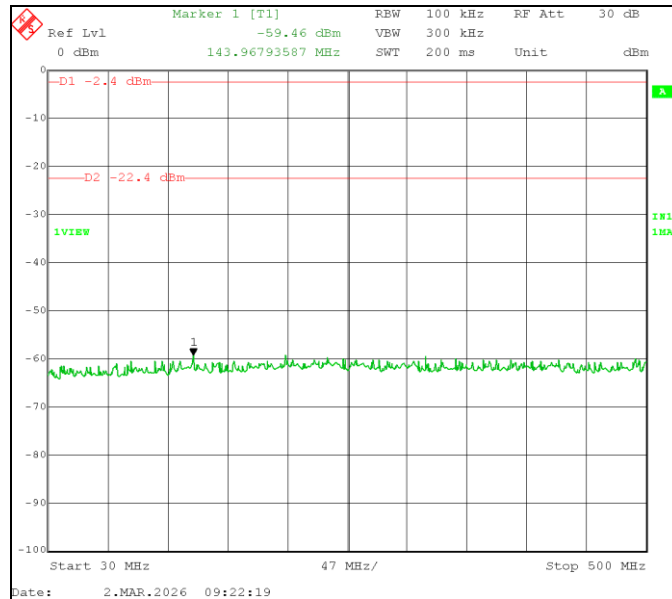


The peak level of -2.4 dBm is the maximum peak output of the Woodstream Model VSB1 Victor Smart Base. The conducted spurious emissions from the antenna port must be 20 dB down from this peak. The resultant limit is therefore -22.4 dBm and is displayed on the plots below.

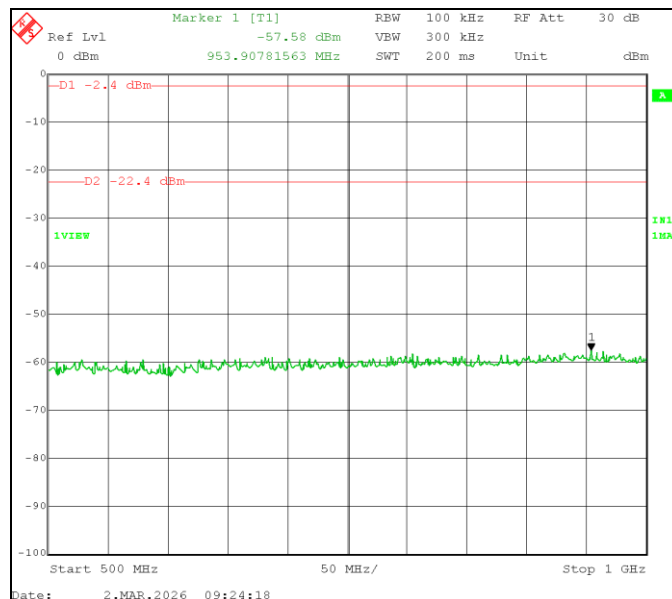


4.4.3 Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands at 2402 MHz Channel 0, 1 Mbps Test Results

30 MHz – 500 MHz

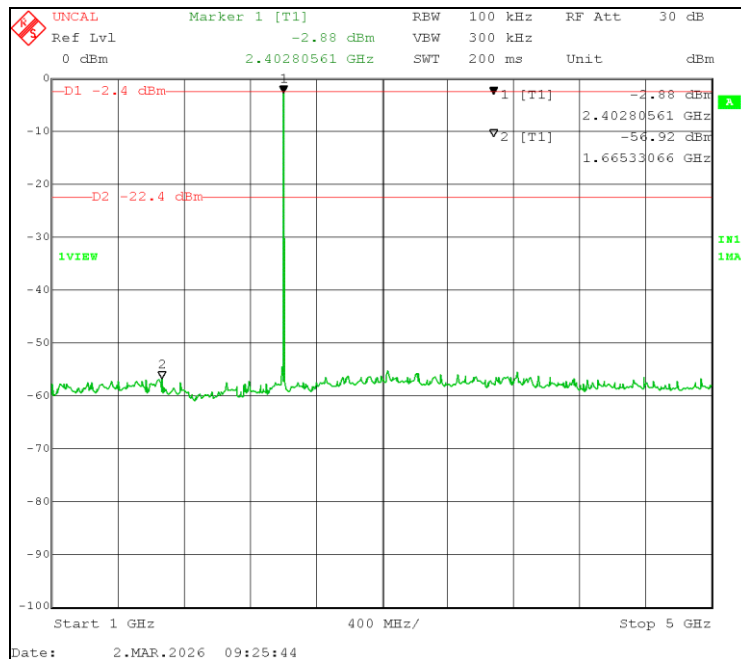


500 MHz – 1000 MHz

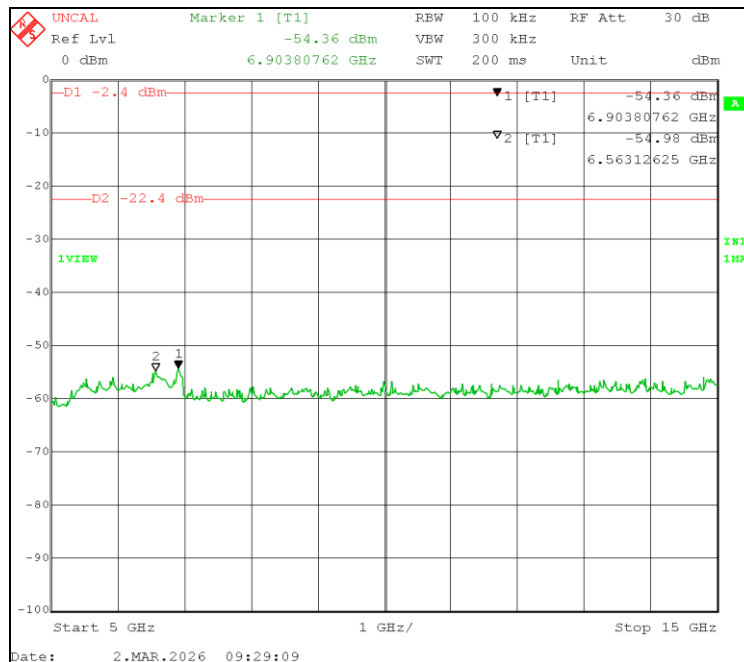




1 GHz – 5 GHz

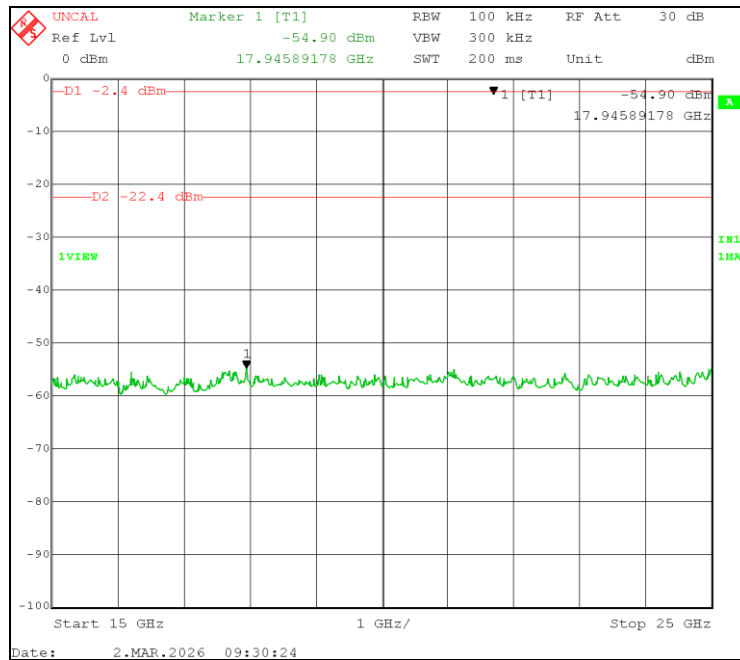


5 GHz – 15 GHz





15 GHz – 25 GHz

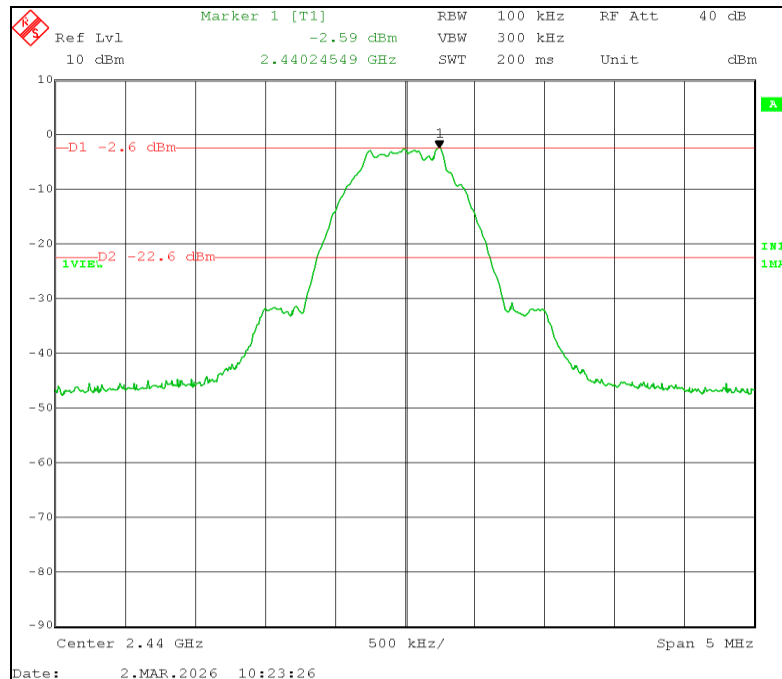


Test Results of Highest Emissions: Channel 0, 1 Mbps (Frequency 2402 MHz)

Frequency	Peak	20 dB below Max Peak Reference	Margin	Result
MHz	dBm	dBc	dB	
6563.1	-54.98	-22.40	-32.58	PASS
6903.8	-54.36	-22.40	-31.96	PASS
17945.9	-54.90	-22.40	-32.50	PASS



4.4.4 Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands Reference Measurement at 2440 MHz Channel 19, 1 Mbps Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (03/02/2026)

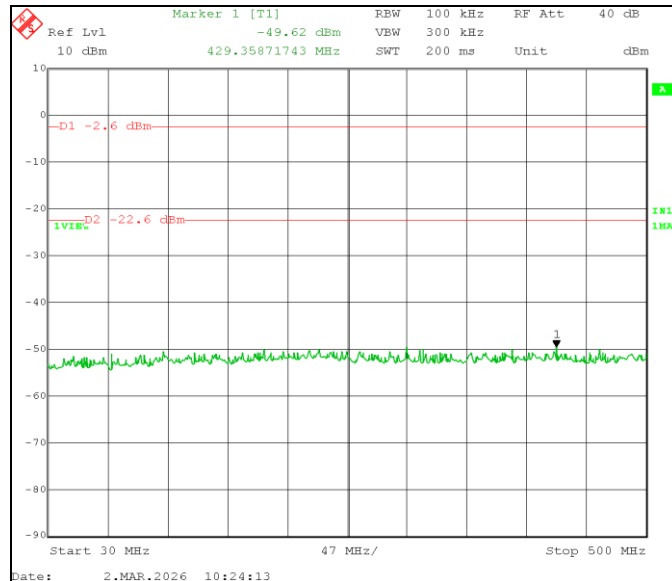


The peak level of -2.6 dBm is the maximum peak output of the Woodstream Model VSB1 Victor Smart Base. The conducted spurious emissions from the antenna port must be 20 dB down from this peak. The resultant limit is therefore -22.6 dBm and is displayed on the plots below.

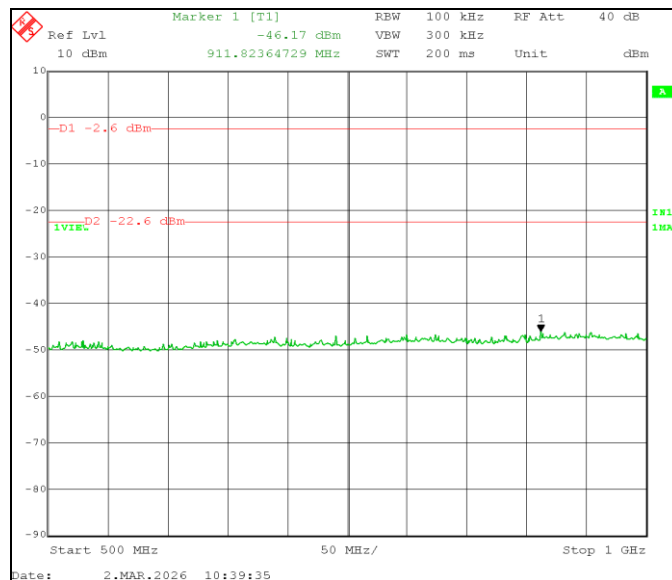


4.4.5 Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands at 2440 MHz Channel 19, 1 Mbps Test Results

30 MHz – 500 MHz

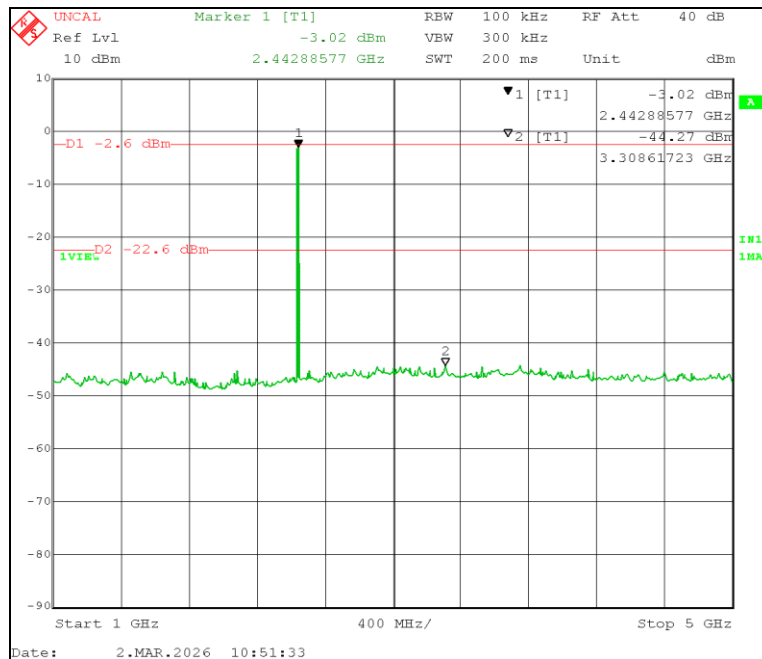


500 MHz – 1000 MHz

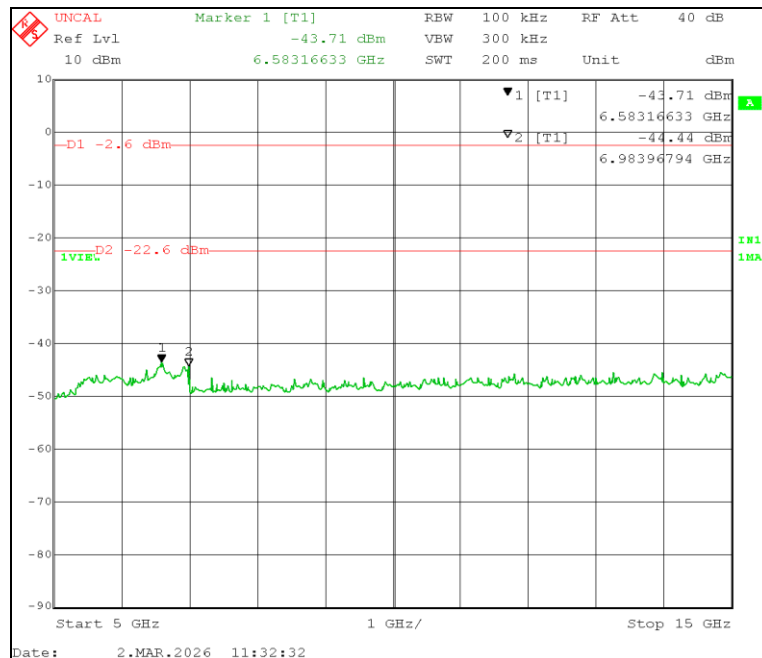




1 GHz – 5 GHz

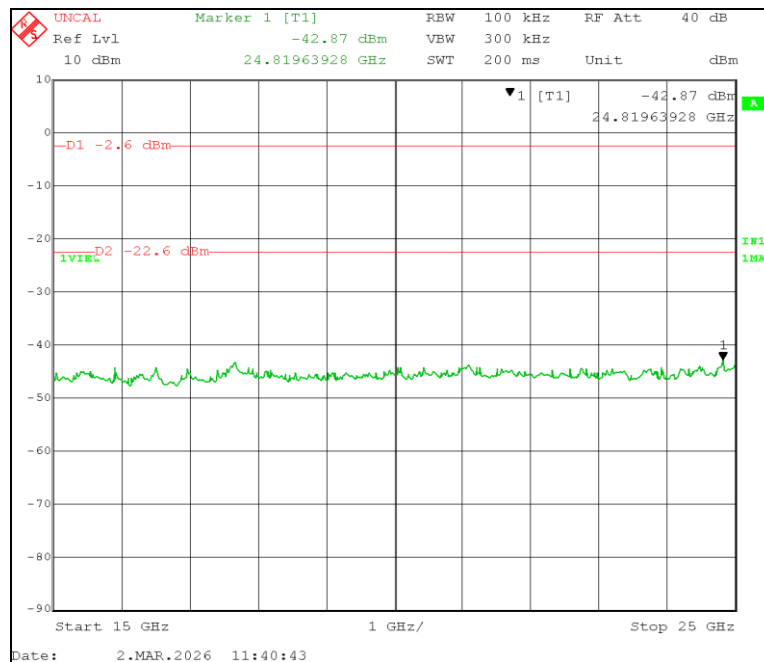


5 GHz – 15 GHz





15 GHz – 25 GHz

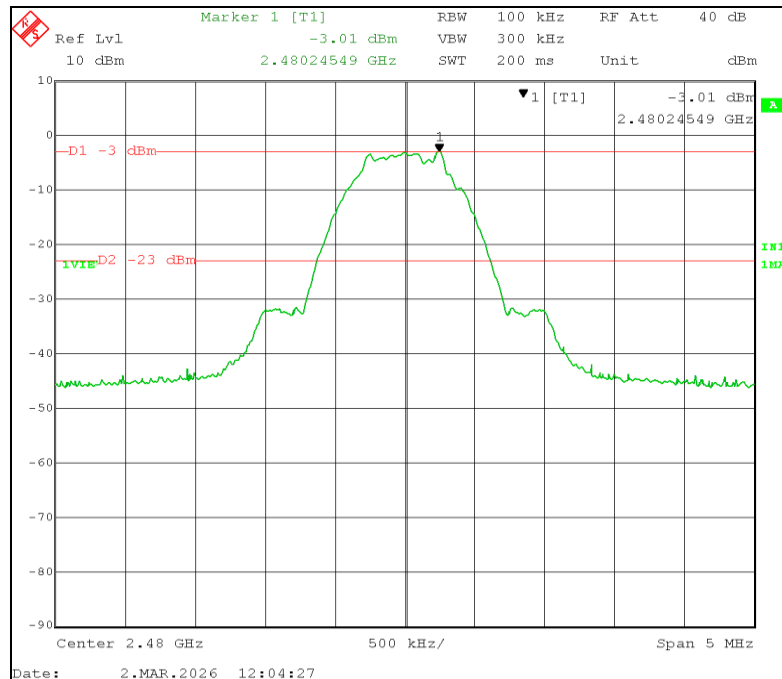


Test Results of Highest Emissions: Channel 19, 1 Mbps (Frequency 2440 MHz)

Frequency	Peak	20 dB below Max Peak Reference	Margin	Result
MHz	dBm	dBc	dB	
3308.6	-44.27	-22.60	-21.67	PASS
6583.2	-43.71	-22.60	-21.11	PASS
24819.6	-42.87	-22.60	-20.27	PASS



4.4.6 Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands Reference Measurement at 2480 MHz Channel 39, 1 Mbps Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (03/02/2026)

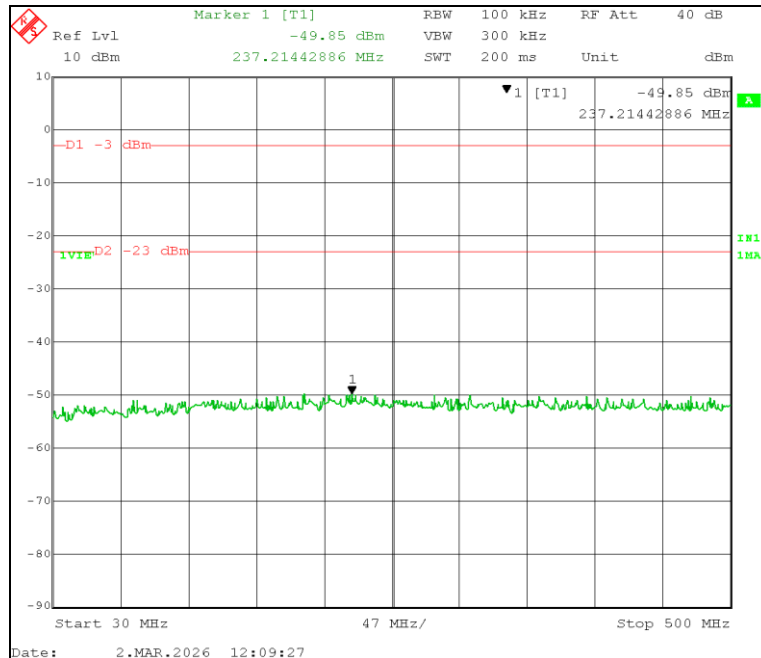


The peak level of -3.0 dBm is the maximum peak output of the Woodstream Model VSB1 Victor Smart Base. The conducted spurious emissions from the antenna port must be 20 dB down from this peak. The resultant limit is therefore -23.0 dBm and is displayed on the plots below.

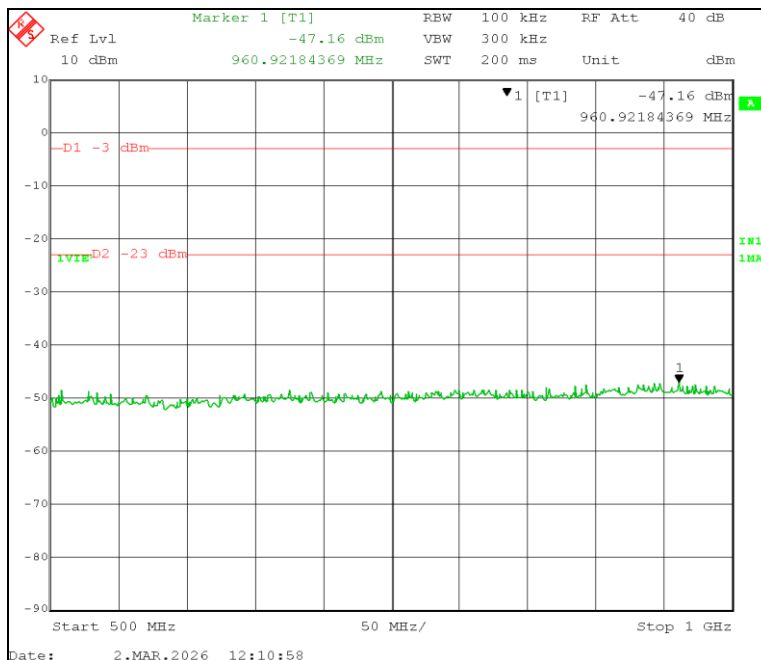


4.4.7 Antenna Conducted Spurious Emissions in Non-restricted Frequency Bands at 2480 MHz Channel 39, 1 Mbps Test Results

30 MHz – 500 MHz

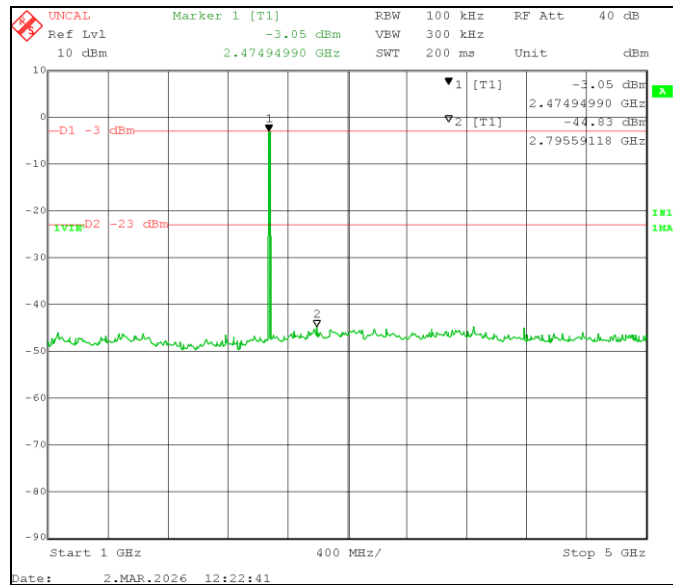


500 MHz – 1000 MHz

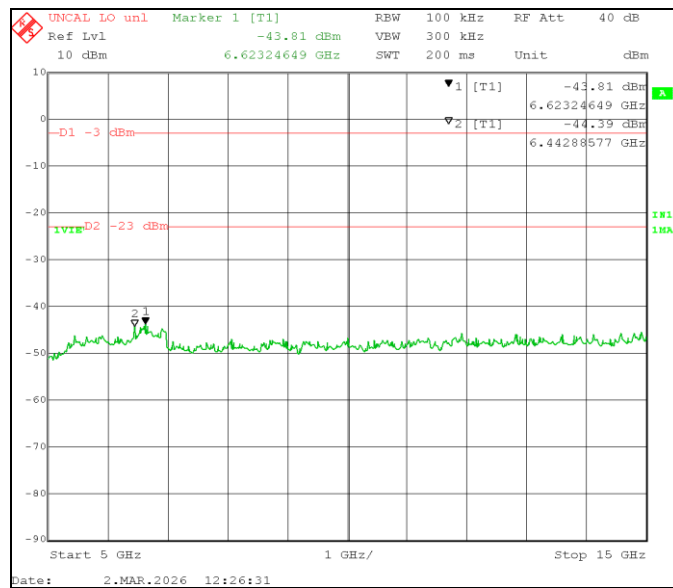




1 GHz – 5 GHz

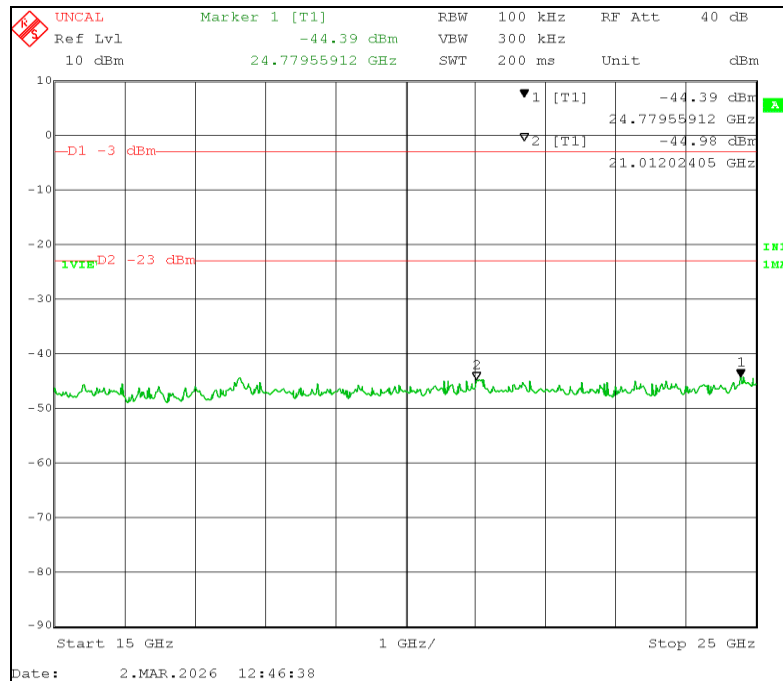


5 GHz – 15 GHz





15 GHz – 25 GHz



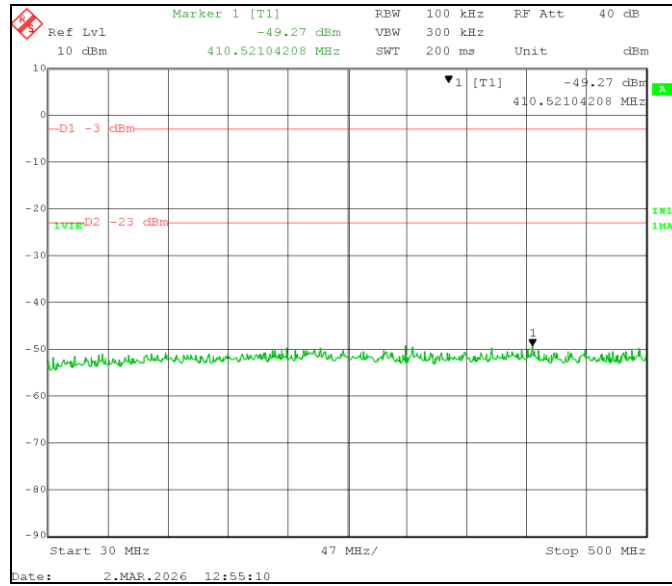
Test Results of Highest Emissions: Channel 39, 1 Mbps (Frequency 2480 MHz)

Frequency	Peak	20 dB below Max Peak Reference	Margin	Result
MHz	dBm	dBc	dB	
6442.9	-44.38	-23.00	-21.38	PASS
6623.2	-43.81	-23.00	-20.81	PASS
24779.6	-44.39	-23.00	-21.39	PASS

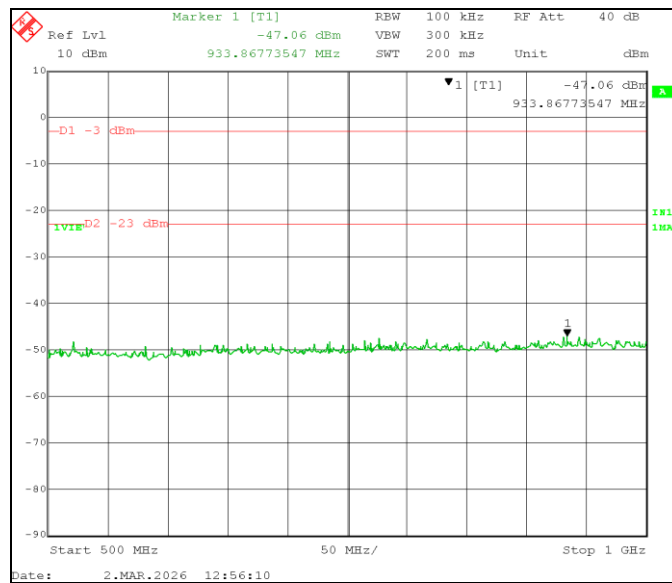


4.4.8 Conducted Spurious Emissions in Non-restricted Frequency Bands Rx Mode Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (03/02/2026)

30 MHz – 500 MHz

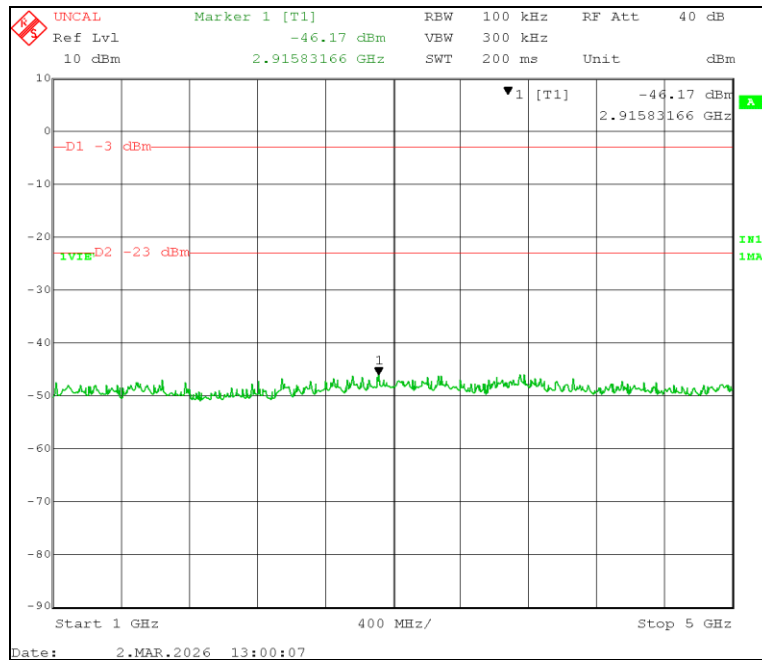


500 MHz – 1000 MHz

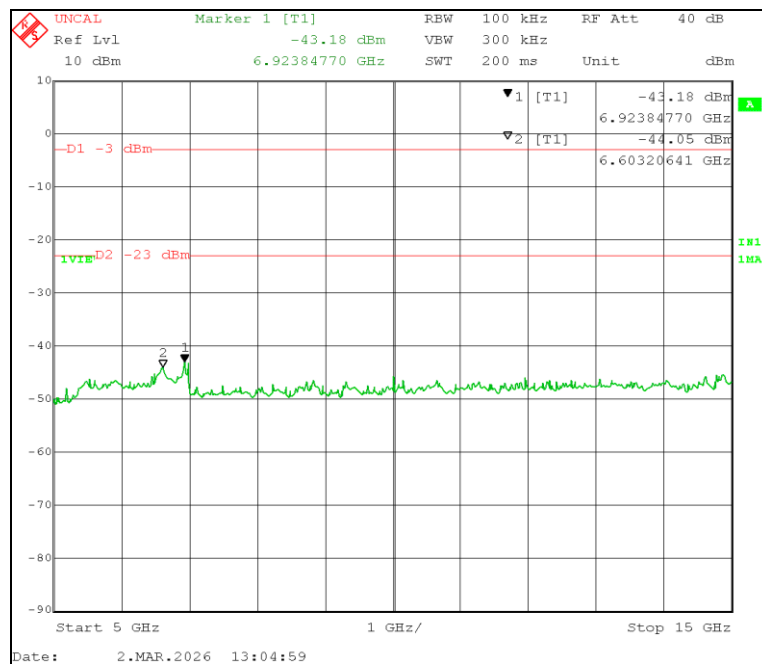




1 GHz – 5 GHz

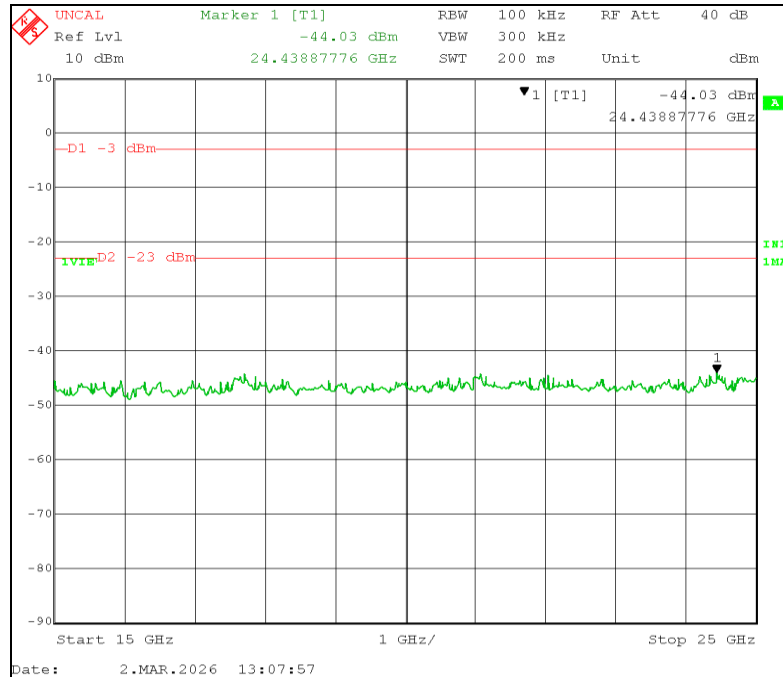


5 GHz – 15 GHz





15 GHz – 25 GHz



Test Results: The Antenna Conducted Spurious Emissions of the Woodstream Model VSB1 Victor Smart Base at Low, Middle and High Frequencies, are below the carrier 20 dBc limit and therefore compliant with the limits specified in FCC Section 15.247(d).



4.5 Radiated Spurious Emissions in Non-restricted and Restricted Frequency Bands, 30 MHz – 25 GHz (47 CFR 15.205 & 15.209)(RSS-GEN Clause 8.9 & 8.10)

The emissions from the Woodstream Victor Smart Bases, which fall in the restricted bands of operation and unrestricted bands of operation, detailed in this section, comply with the limits of 15.209. The Woodstream Model VSB1 was tested at the low Channel 0 (2402 MHz), middle Channel 19 (2440 MHz) and high Channel 39 (2480 MHz) for 1 Mbps. The EUT was set to transmit a signal at maximum output power (setting of 20) with GFSK modulation. The EUT was also tested in the Rx Mode. A High Pass Filter was used to attenuate the Fundamental of the Transmitter when measuring the radiated spurious emissions.

Measurement of the signals was performed with the EUT on a turntable and a variable height antenna mast at 3 meters distance. The signals residing in restricted bands of operation are indicated in the tables below.

4.5.1 Non-Restricted and Restricted Bands Test Facility

OATS

The Open Area Test Site (OATS) is an all-weather facility with a wooden enclosure that contains a ground level 4-foot diameter turntable capable of rotating equipment 360 degrees. The enclosure is free of reflective metallic objects and extraneous electromagnetic signals. This non-metallic enclosure and the 3 meter and 10 meter test range existing outside the enclosure rest upon a protective insulating material, which in turn covers a flat, metal, continuous ground plane.

Instrumentation for remote control of the antenna mast, turntable, and other equipment are controlled by personnel indoors. The EUT and support peripherals required for EUT operation were placed on a table 80 cm high for tabletop equipment or directly on the turntable surface for floor standing equipment. The test site complies with the requirements of ANSI C63.4 and ANSI C63.10.

SR#1

The Semi-Anechoic Shielded Room (SR#1) is a ferrite and absorber lined chamber which houses a 5-foot diameter turntable capable of rotating equipment 360 degrees and antenna mast for Horizontal and Vertical polarity measurements. The enclosure is free of reflective metallic objects and extraneous electromagnetic signals. The 3 meter shielded enclosure has a raised computer floor with metal tile bottoms providing a continuous ground plane.

Instrumentation for remote control of the antenna mast, turntable, and other equipment are controlled by personnel outside the chamber. The EUT and support peripherals required for EUT operation were placed on a table 80 cm high for tabletop equipment or directly on the turntable surface for floor standing equipment.

The chamber complies with the requirements of ANSI C63.4 and ANSI C63.10.



4.5.2 Non-restricted and Restricted Bands Radiated Spurious Emissions Test Procedure

Radiated Emissions 30 MHz – 40 GHz

The EMI receiver was set to quasi-peak mode for frequencies from 30 MHz to 1 GHz and the appropriate CISPR bandwidths were employed. The receiver was set to average mode for frequencies above 1 GHz with the appropriate CISPR bandwidths were employed.

Three orthogonal positions of the EUT were evaluated for maximum emissions. The position of the EUT lying flat with the front side facing the Antenna was determined to be the axis that produced the highest emissions (X Axis), therefore all of the radiated emissions testing was performed with the EUTs in this position.

Measurements were taken using the Woodstream Model VSB1 Victor Smart Bases. The VSB1 was tested transmitting at the low Channel 0 (2402 MHz), middle Channel 19 (2440 MHz) and high Channel 39 (2480 MHz) for 1 Mbps. The EUTs were set to transmit a signal at an Output Power setting of 0 in the Constant Stream mode with GFSK modulation. The EUT was also tested in the Rx Mode.

Significant emissions found during the preliminary scans were maximized by rotating the turntable and varying the antenna height. Both horizontal and vertical antenna polarities were also investigated for suspect emissions. The signals are maximized and measured using the in house generated RADE or off the shelf TILE software.

Field strengths were calculated as follows:

Field Strength (dBμV/m) = Meter Reading (dBμV) + Antenna Factor (dB/m) + Cable Loss (dB) – Amplifier Gain (dB)

The following tables are the highest emissions recorded and summarized. Restricted band signals are marked with an asterisk. Other spurious emissions are shown to demonstrate compliance of the EUT to 15.209 limits.

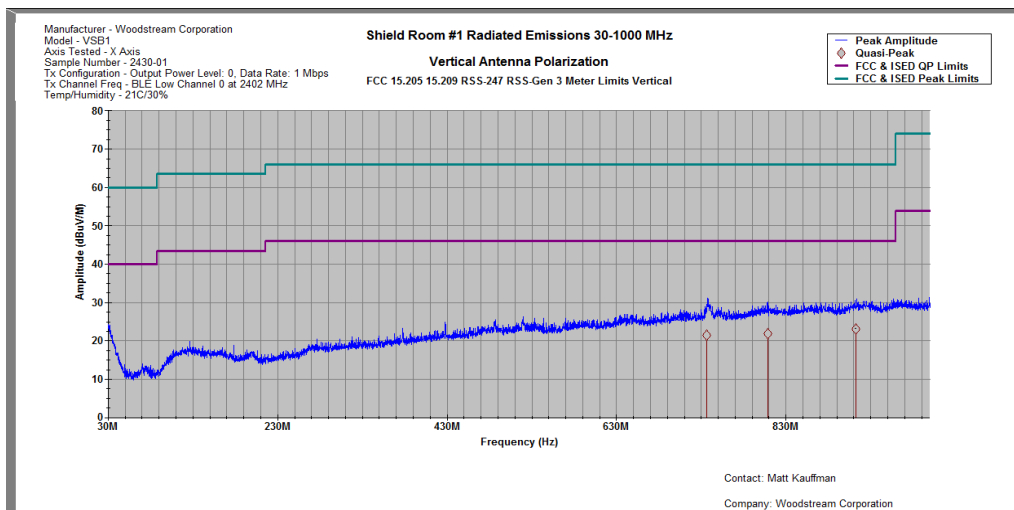
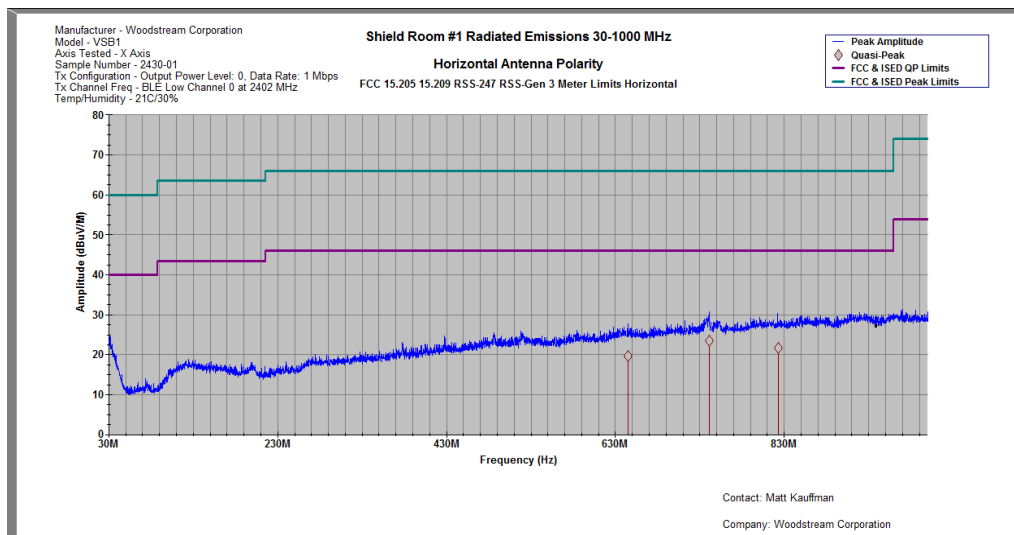
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
*0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			



4.5.3 Radiated Spurious Emissions in Non-restricted and Restricted Bands of Operation, 30 MHz – 1000 MHz Woodstream Model VSB1 Victor Smart Base Sample 2430-01 Test Results (02/11/2026)

Low Channel 0 (2402 MHz) / Output Power – 0 / Data Rate - 1 Mbps

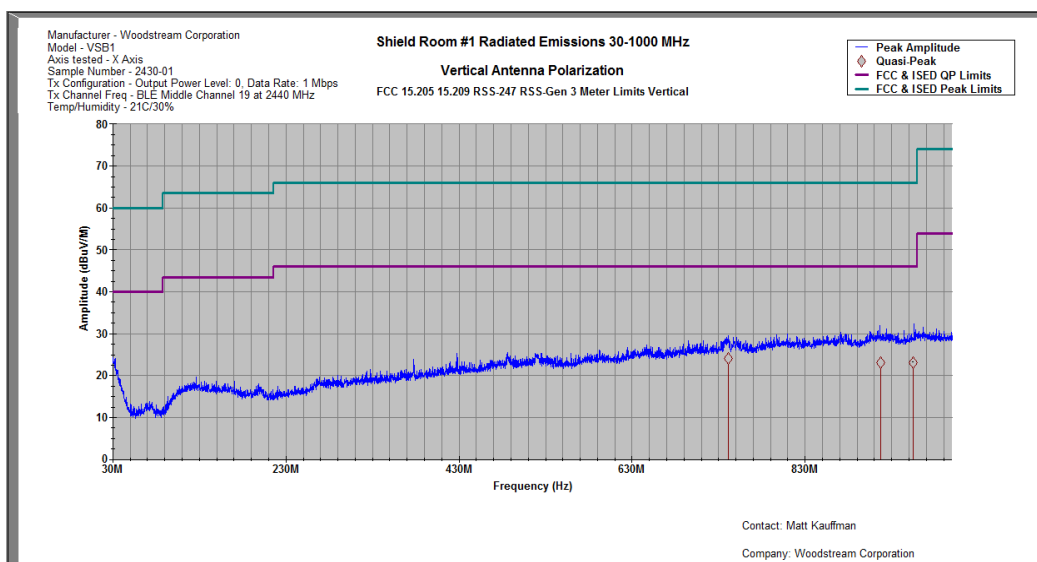
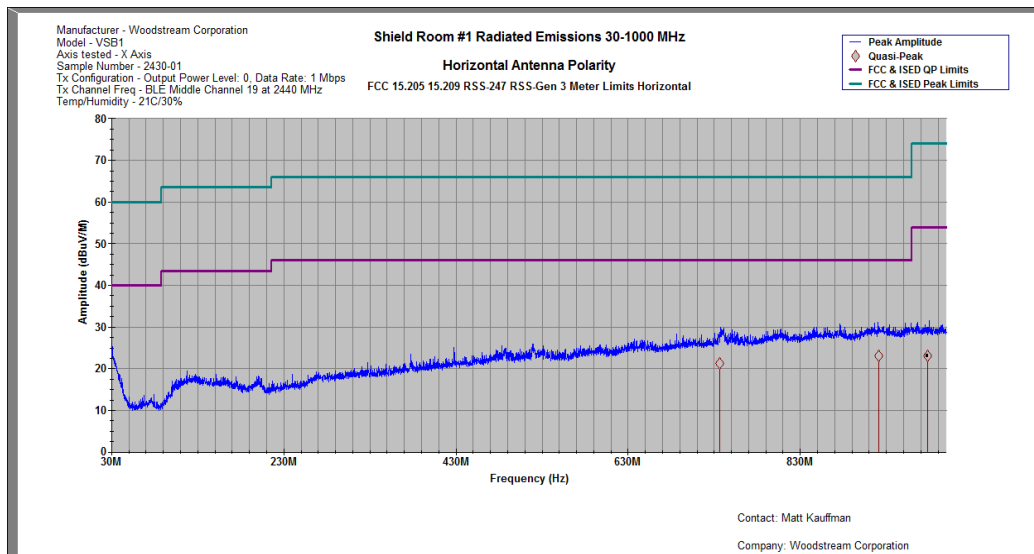
VSB1 Sample 2430-01 Tested @ Low Channel 0 2402 MHz at 0 Power											
Frequency	Peak Corrected	Quasi-Peak	Antenna	Turntable	Antenna	Correction	Peak Limit	Peak	QP Limit	QP Margin	Results
MHz	dBuV/m	Corrected	Polarity	Angle	Height	Factor	dBuV/m	Margin	dBuV/m	dB	
			H or V	degrees	cm	dB					
644.787	21.17	19.58	H	238	188	0.46	66.02	-44.85	46.02	-26.44	PASS
736.723	26.93	21.41	V	027	204	1.57	66.02	-39.09	46.02	-24.61	PASS
741.315	23.72	23.56	H	253	255	1.70	66.02	-42.30	46.02	-22.46	PASS
808.389	25.49	21.90	V	022	245	3.05	66.02	-40.53	46.02	-24.12	PASS
822.892	22.53	21.63	H	051	163	3.08	66.02	-43.49	46.02	-24.39	PASS
912.818	24.84	23.08	V	075	169	4.15	66.02	-41.18	46.02	-22.94	PASS
* Restricted Band Signal											





Middle Channel 19 (2440 MHz) / Output Power – 0 / Data Rate - 1 Mbps

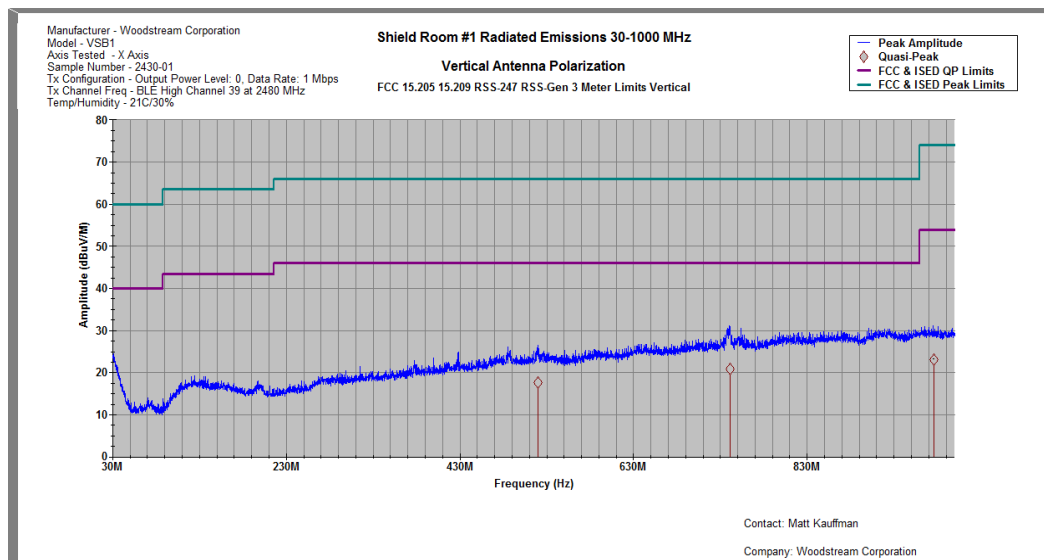
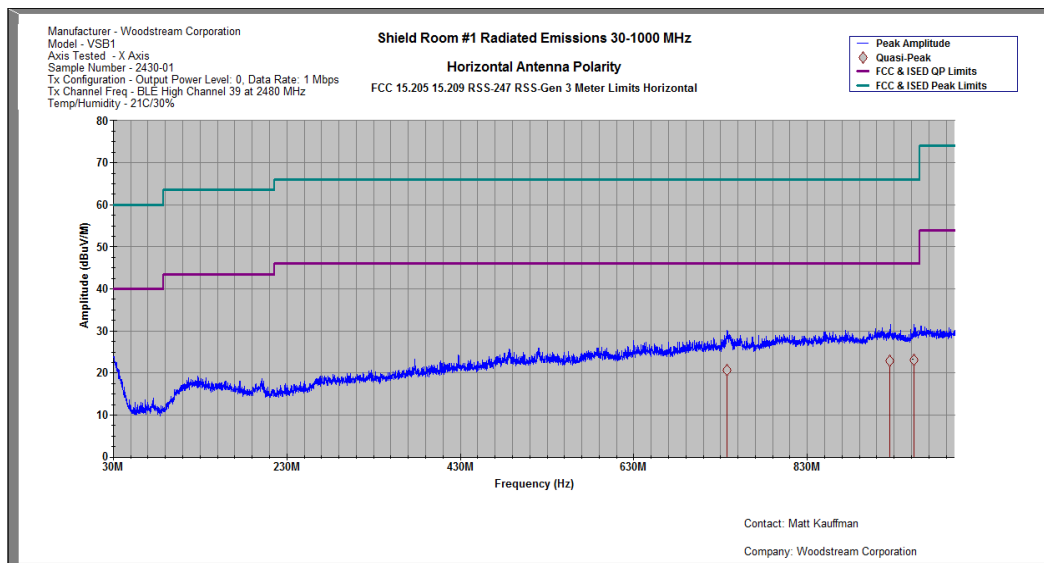
VSB1 Sample 2430-01 Tested @ Middle Channel 19 2440 MHz at 0 Power											
Frequency	Peak Corrected	Quasi-Peak Corrected	Antenna	Turntable	Antenna	Correction	Peak Limit	Peak	QP Limit	QP Margin	Results
MHz	dBuV/m	dBuV/m	H or V	Angle	Height	Factor	dBuV/m	dB	dBuV/m	dB	
736.178	23.29	21.23	H	345	250	1.57	66.02	-42.73	46.02	-24.79	PASS
740.895	26.51	24.15	V	070	125	1.68	66.02	-39.51	46.02	-21.87	PASS
916.888	24.19	23.14	V	346	228	4.23	66.02	-41.83	46.02	-22.88	PASS
920.657	26.68	23.11	H	024	232	4.26	66.02	-39.34	46.02	-22.91	PASS
955.067	24.69	23.05	V	162	193	4.59	66.02	-41.33	46.02	-22.97	PASS
*978.117	24.07	23.09	H	046	198	4.77	73.98	-49.91	53.98	-30.89	PASS
* Restricted Band Signal											





High Channel 39 (2480.0 MHz) / Output Power – 0 / Data Rate - 1 Mbps

VSB1 Sample 2430-01 Tested @ High Channel 39 2480 MHz at 0 Power											
Frequency	Peak Corrected	Quasi-Peak Corrected	Antenna Polarity	Turntable Angle	Antenna Height	Correction Factor	Peak Limit	Peak Margin	QP Limit	QP Margin	Results
MHz	dBuV/m	dBuV/m	H or V	degrees	cm	dB	dBuV/m	dB	dBuV/m	dB	
519.989	20.23	17.57	V	302	126	-1.53	66.02	-45.79	46.02	-28.45	PASS
737.139	22.88	20.63	H	359	241	1.58	66.02	-43.14	46.02	-25.39	PASS
741.510	24.98	20.92	V	114	193	1.70	66.02	-41.04	46.02	-25.10	PASS
924.935	23.82	22.83	H	128	131	4.35	66.02	-42.20	46.02	-23.19	PASS
952.439	24.78	23.07	H	327	245	4.62	66.02	-41.24	46.02	-22.95	PASS
*976.291	23.56	23.17	V	037	156	4.77	73.98	-50.42	53.98	-30.81	PASS
* Restricted Band Signal											

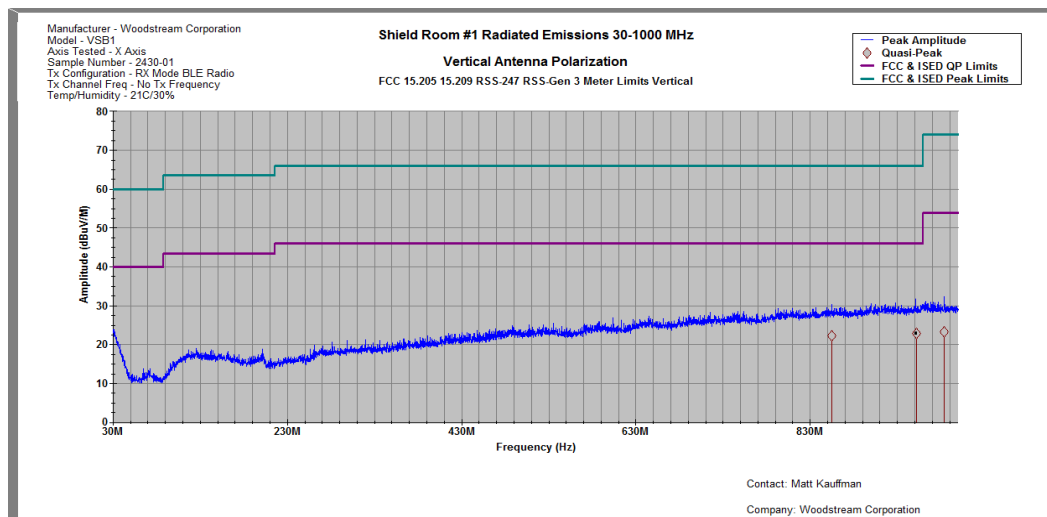
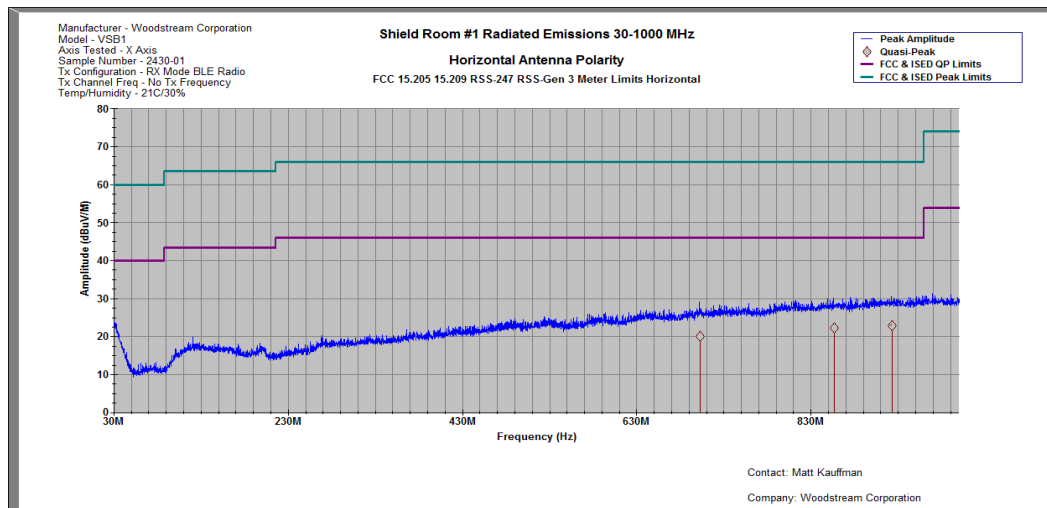




Receive Mode

VSB1 Sample 2430-01 Tested in BLE RX Mode

Frequency	Peak Corrected	Quasi-Peak	Antenna	Turntable	Antenna	Correction	Peak Limit	Peak	QP Limit	QP Margin	Results
MHz	dBuV/m	Corrected	Polarity	Angle	Height	Factor	dBuV/m	Margin	dBuV/m	dB	
702.263	21.00	20.12	H	003	115	1.21	66.02	-45.02	46.02	-25.90	PASS
854.254	24.62	22.31	V	125	185	3.44	66.02	-41.40	46.02	-23.71	PASS
856.583	24.41	22.26	H	254	137	3.45	66.02	-41.61	46.02	-23.76	PASS
922.705	25.42	22.86	H	196	202	4.32	66.02	-40.60	46.02	-23.16	PASS
951.644	23.33	22.90	V	344	194	4.59	66.02	-42.69	46.02	-23.12	PASS
*983.672	26.11	23.34	V	332	143	4.83	73.98	-47.87	53.98	-30.64	PASS
* Restricted Band Signal											



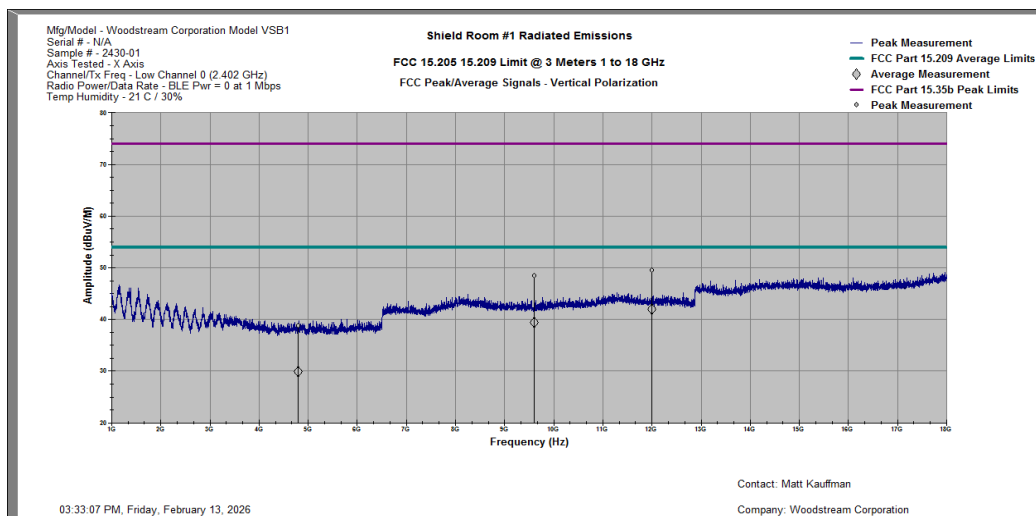
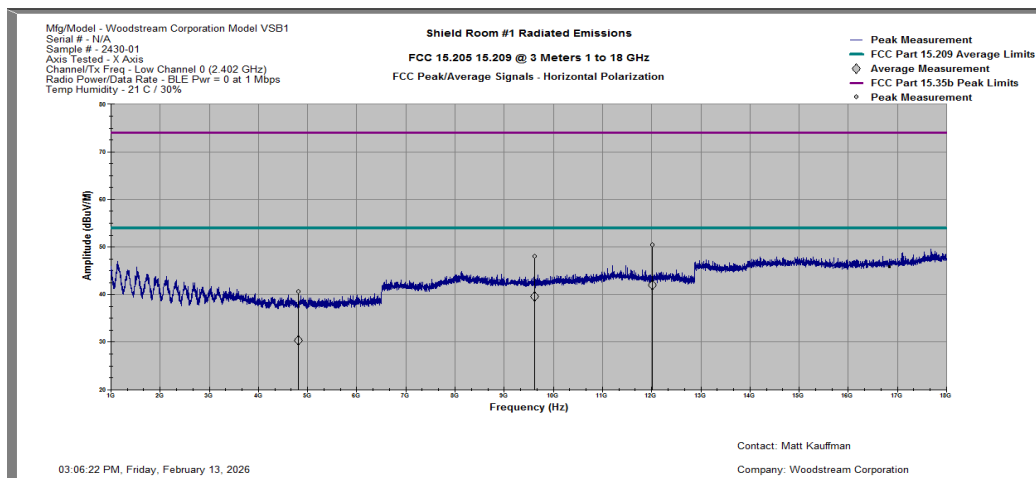
Test Results: The Woodstream Model VSB1 Victor Smart Base, operating in BLE transmit mode and receive mode, comply with the requirements of 47 CFR Part 15.205 and RSS-Gen Section 8.10 for restricted bands of operation with a margin of 21.87 dB.



4.5.7 Radiated Spurious Emissions in Non-Restricted and Restricted Bands of Operation, 1 GHz – 18 GHz Woodstream Model VSB1 Victor Smart Base Sample 2430-01 Test Results (02/13/2026)

Low Channel 0 (2402 MHz) / Output Power – 0 / Data Rate - 1 Mbps

VSB1 Sample 2430-01 Tested @ Low Channel 0 2402 MHz at 0 Power											
Frequency	Peak Corrected	Average Corrected	Antenna Polarity	Turntable Angle	Antenna Height	Correction Factor	FCC 15.209 RSS-Gen Average Limit	Average Margin	15.35(b) RSS-Gen Peak Limit	Peak Margin	Results
GHz	dBuV/m	dBuV/m	H or V	degrees	cm	dB	dBuV/m	dB	dBuV/m	dB	
*4.803	38.89	29.91	V	190	101	3.48	53.98	-24.08	73.98	-35.09	Pass
*4.805	40.70	30.40	H	258	186	3.49	53.98	-23.58	73.98	-33.28	Pass
9.598	48.54	39.38	V	126	157	7.97	53.98	-14.60	73.98	-25.44	Pass
9.617	47.98	39.52	H	021	106	7.94	53.98	-14.46	73.98	-26.00	Pass
*11.999	49.58	41.92	V	009	111	9.18	53.98	-12.06	73.98	-24.40	Pass
*12.022	50.40	42.01	H	255	105	9.22	53.98	-11.97	73.98	-23.58	Pass
* Restricted Band Signal											

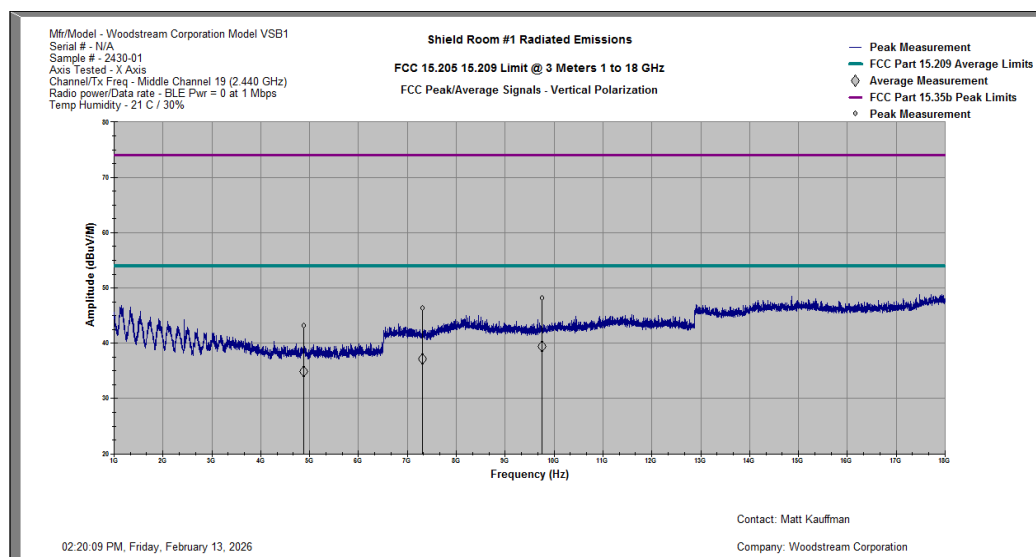
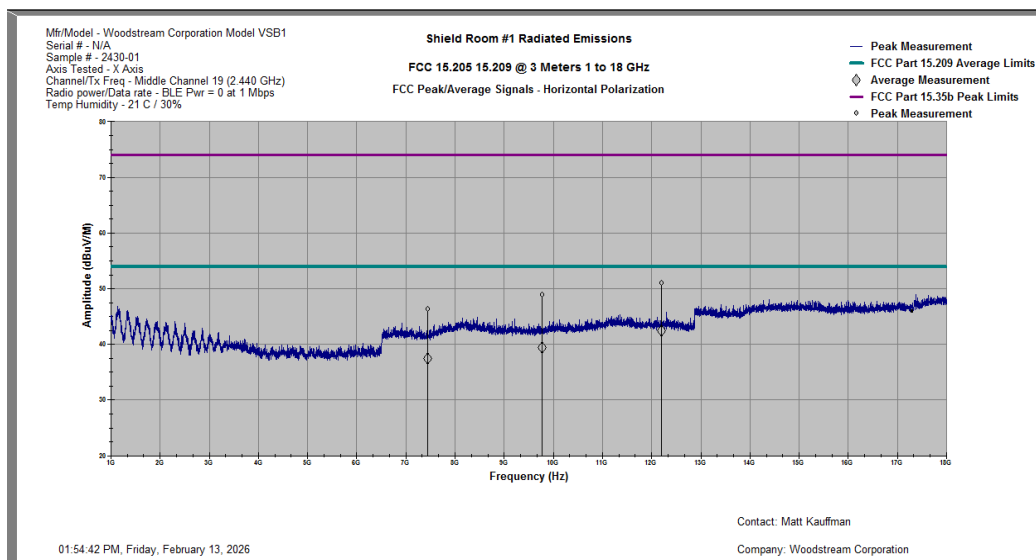




Middle Channel 19 (2440 MHz) / Output Power – 0 / Data Rate - 1 Mbps

VS81 Sample 2430-01 Tested @ Middle Channel 0 2440 MHz at 0 Power

Frequency	Peak Corrected	Average Corrected	Antenna Polarity	Turntable Angle	Antenna Height	Correction Factor	FCC 15.209 RSS-Gen Average Limit	Average Margin	15.35(b) RSS-Gen Peak Limit	Peak Margin	Results
GHz	dBuV/m	dBuV/m	H or V	degrees	cm	dB	dBuV/m	dB	dBuV/m	dB	
*4.880	43.12	34.89	V	150	102	3.72	53.98	-19.09	73.98	-30.86	Pass
*7.314	46.37	37.22	V	79	210	6.31	53.98	-16.76	73.98	-27.61	Pass
*7.446	46.35	37.47	H	156	135	6.52	53.98	-16.51	73.98	-27.63	Pass
9.756	48.23	39.44	V	224	115	7.86	53.98	-14.54	73.98	-25.75	Pass
9.763	48.96	39.41	H	206	102	7.86	53.98	-14.57	73.98	-25.02	Pass
*12.201	51.01	42.46	H	309	239	9.04	53.98	-11.52	73.98	-22.97	Pass
* Restricted Band Signal											

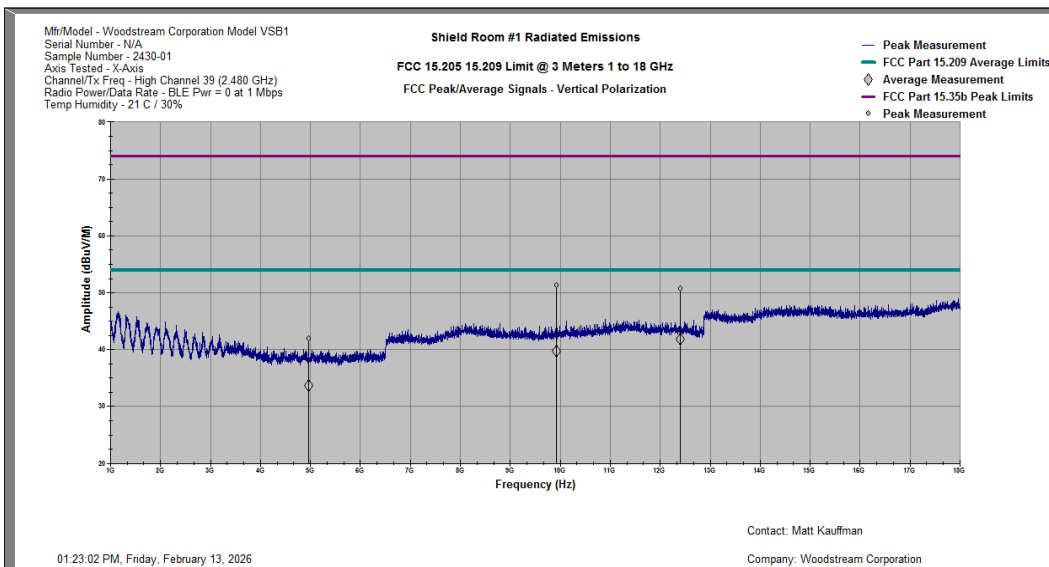
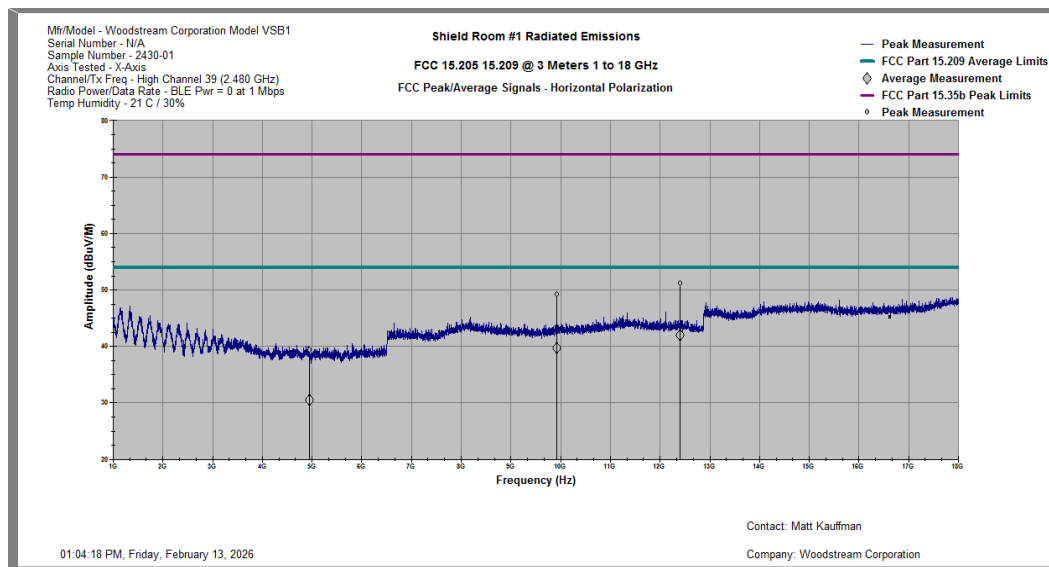




High Channel 39 (2480.0 MHz) / Output Power – 0 / Data Rate - 1 Mbps

VSB1 Sample 2430-01 Tested @ High Channel 0 2480 MHz at 0 Power

Frequency	Peak Corrected	Average Corrected	Antenna Polarity	Turntable Angle	Antenna Height	Correction Factor	FCC 15.209 RSS-Gen Average Limit	Average Margin	15.35(b) RSS-Gen Peak Limit	Peak Margin	Results
GHz	dBuV/m	dBuV/m	H or V	degrees	cm	dB	dBuV/m	dB	dBuV/m	dB	
*4.952	39.49	30.49	H	210	224	3.66	53.98	-23.49	73.98	-34.49	Pass
*4.960	42.06	33.68	V	167	103	3.66	53.98	-20.30	73.98	-31.92	Pass
9.916	51.39	39.68	V	202	124	7.85	53.98	-14.31	73.98	-22.59	Pass
9.926	49.20	39.71	H	120	207	7.87	53.98	-14.27	73.98	-24.78	Pass
*12.404	50.78	41.88	V	132	100	9.05	53.98	-12.10	73.98	-23.70	Pass
*12.407	51.22	41.99	H	357	102	9.06	53.98	-11.99	73.98	-22.76	Pass
* Restricted Band Signal											

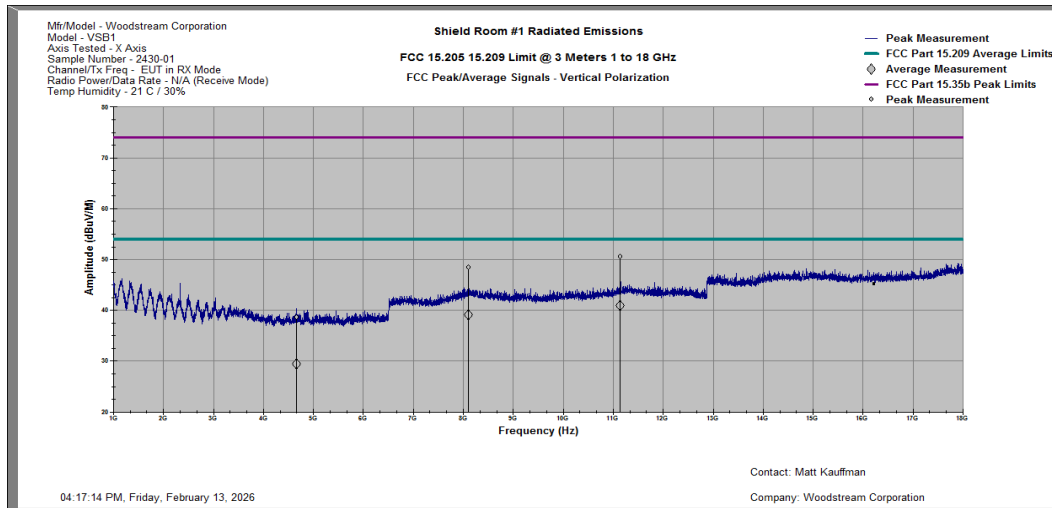
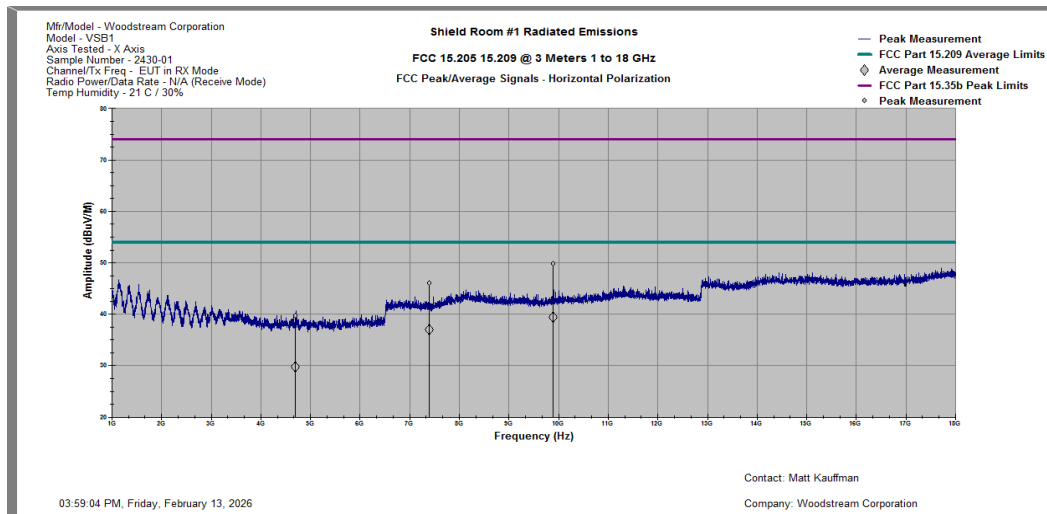




Receive Mode

VS1 Sample 2430-01 Tested in Rx Mode

Frequency	Peak Corrected	Average Corrected	Antenna Polarity	Turntable Angle	Antenna Height	Correction Factor	FCC 15.209 RSS-Gen Average Limit	Average Margin	15.35(b) RSS-Gen Peak Limit	Peak Margin	Results
GHz	dBuV/m	dBuV/m	H or V	degrees	cm	dB	dBuV/m	dB	dBuV/m	dB	
* 4.658	38.63	29.49	V	250	102	2.91	53.98	-24.49	73.98	-35.35	Pass
* 4.699	39.65	29.76	H	1	121	2.96	53.98	-24.22	73.98	-34.33	Pass
* 7.399	46.00	37.06	H	296	101	6.41	53.98	-16.92	73.98	-27.98	Pass
* 8.096	48.50	39.14	V	359	234	6.86	53.98	-14.84	73.98	-25.48	Pass
9.897	49.77	39.38	H	128	154	7.81	53.98	-14.60	73.98	-24.21	Pass
* 11.141	50.60	40.99	V	308	144	8.02	53.98	-12.99	73.98	-23.38	Pass
* Restricted Band Signal											



Test Results: The Woodstream Model VSB1 Victor Smart Base, operating in BLE transmit mode and receive mode, comply with the requirements of 47 CFR Part 15.205 and RSS-Gen Section 8.10 for restricted bands of operation with a margin of 11.52 dB.



4.5.11 Radiated Spurious Emissions in Non-Restricted and Restricted Bands of Operation, 18 GHz – 25 GHz Test Results (02/18/2026)

Measurements were made in the frequency range of 18 GHz to 25 GHz for the Woodstream Model VSB1 Victor Smart Base. The Woodstream Model VSB1 was tested at the low Channel 0 (2402 MHz), middle Channel 19 (2440 MHz) and high Channel 39 (2480 MHz) for 1 Mbps. The EUTs were set to transmit a signal at output power setting of 0 with GFSK modulation. The EUTs were also tested in the Rx Mode. There were no significant signals found when testing the EUTs in this frequency range. Test results for all configurations tested are available upon request.



4.6 DTS 6 dB Bandwidth (FCC Section 15.247(a)(2) RSS-247 Clause 6.3.1)

4.6.1 DTS 6 dB Bandwidth – Test Procedure

The minimum DTS (6 dB) bandwidth, specified in FCC Section 15.247(a) (2) was measured using a Spectrum Analyzer with 100 kHz resolution bandwidth and 300 kHz video bandwidth. The Woodstream Model VSB1 Victor Smart Base was tested at the low Channel 0 (2402 MHz), middle Channel 19 (2440 MHz) and high Channel 39 (2480 MHz). The EUTs were set to transmit a signal at output power setting of 0 with GFSK modulation and 1 Mbps Data Rate. The test procedure of ANSI C63.10, Section 11.8, Option 1, was used.

Spectrum Analyzer Settings:

Measurement Analyzer Settings			ANSI C63.10 Requirement
Span	3 MHz		2 to 5 times OBW
RBW	30 kHz		1 - 5 % of OBW (min 100 kHz)
VBW	100 kHz		≈3 times RBW
Sweep Time	5 ms		Auto
99% OBW	1.06 MHz	Ref Level & Attenuation	10 dB Reference Level with 40 dB Attenuation

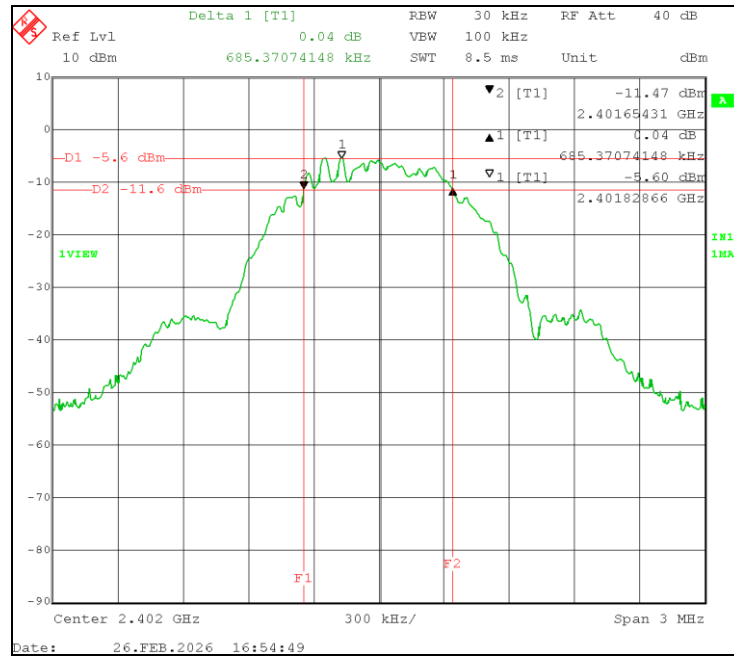
4.6.2 DTS 6 dB Occupied Bandwidth Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (02/26/2026)

Channel	Frequency	Measured 6 dB BW	47 CFR 15.247(a)(2) & RSS-247 5.2 Minimum Limit	Margin	Result
	MHz	kHz	kHz	kHz	
0	2402.0	685.40	500.00	185.40	PASS
19	2440.0	685.40	500.00	185.40	PASS
39	2480.0	685.40	500.00	185.40	PASS

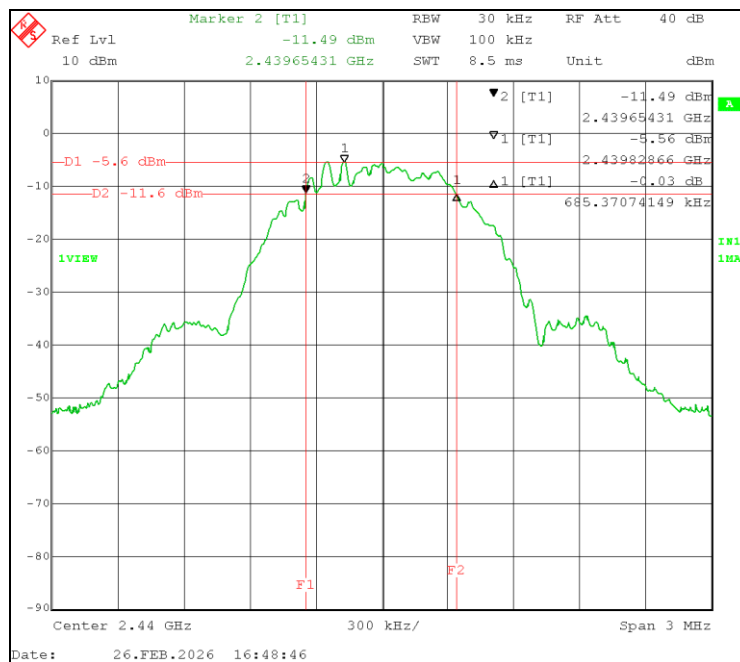


4.6.3 DTS 6 dB Bandwidth Analyzer Screen Captures

Channel 0: 2402 MHz GFSK 1 Mbps

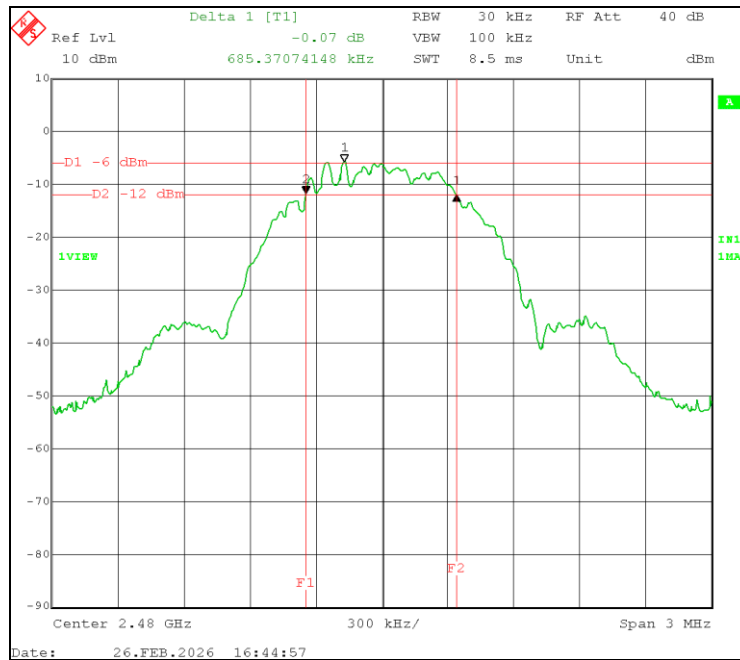


Channel 19: 2440 MHz GFSK 1 Mbps





Channel 39: 2480 MHz GFSK 1 Mbps



Test Results: The DTS 6 dB Occupied Bandwidth measurements for the Woodstream Model VSB1 Victor Smart Base were measured and are compliant to FCC and ISSED requirements.



4.7 99% Occupied Bandwidth RSS-Gen Clause 6.7

4.7.1 99% Occupied Bandwidth – Test Procedure

The 99% Occupied Bandwidth measurement per RSS-Gen Clause 6.7 was measured using a Spectrum Analyzer with 100 kHz resolution bandwidth and 300 kHz video bandwidth. The Woodstream Model VSB1 Victor Smart Base was tested at the low Channel 0 (2402 MHz), middle Channel 19 (2440 MHz) and high Channel 39 (2480 MHz). The EUTs were set to transmit a signal at output power setting of 0 with GFSK modulation and 1 Mbps Data Rate. The test procedure of ANSI C63.10, Section 6.9.3 was used.

Spectrum Analyzer Settings:

SA Settings		ANSI C63.10 requirement
Span	3 MHz	(2 to 5 Times OBW)
RBW	30 kHz	(1 to 5% of OBW)
VBW	100 kHz	$\geq(3 \times \text{RBW})$
Sweep Time	5 ms	Auto
OBW	1 MHz	

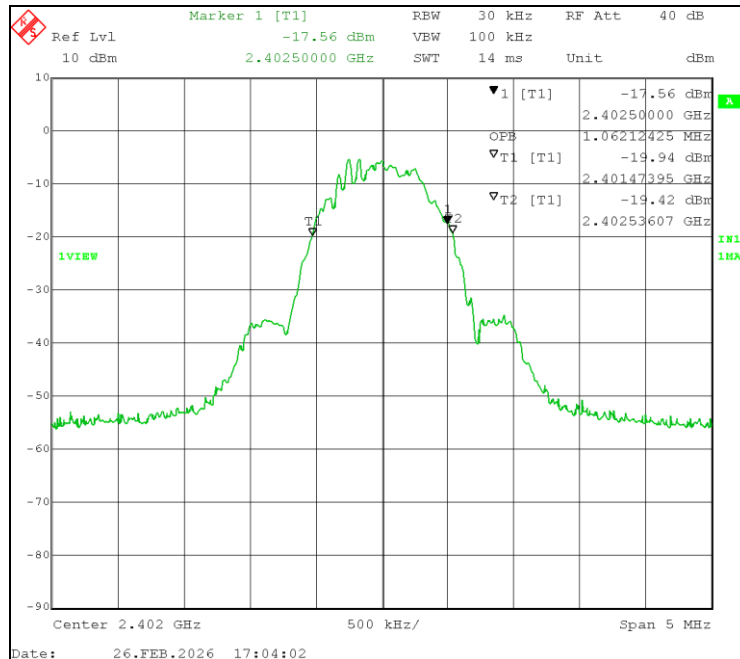
4.7.2 99% Occupied Bandwidth Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (02/26/2026)

BLE Tx Channel	Frequency (MHz)	Measured 99% Occupied BW (MHz)
0	2402.0	1.062
19	2440.0	1.062
39	2480.0	1.062

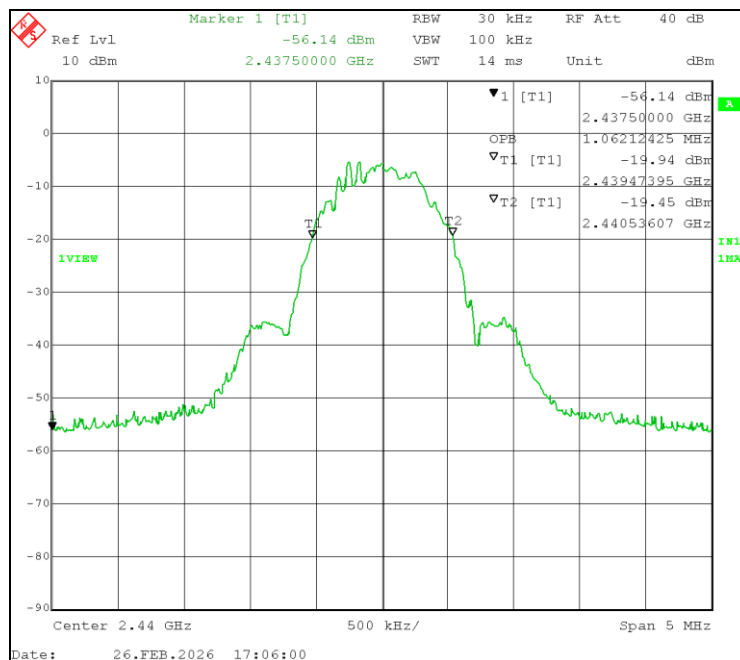


4.7.3 DTS 99% Occupied Bandwidth Analyzer Screen Captures

Channel 0: 2402 MHz GFSK 1 Mbps

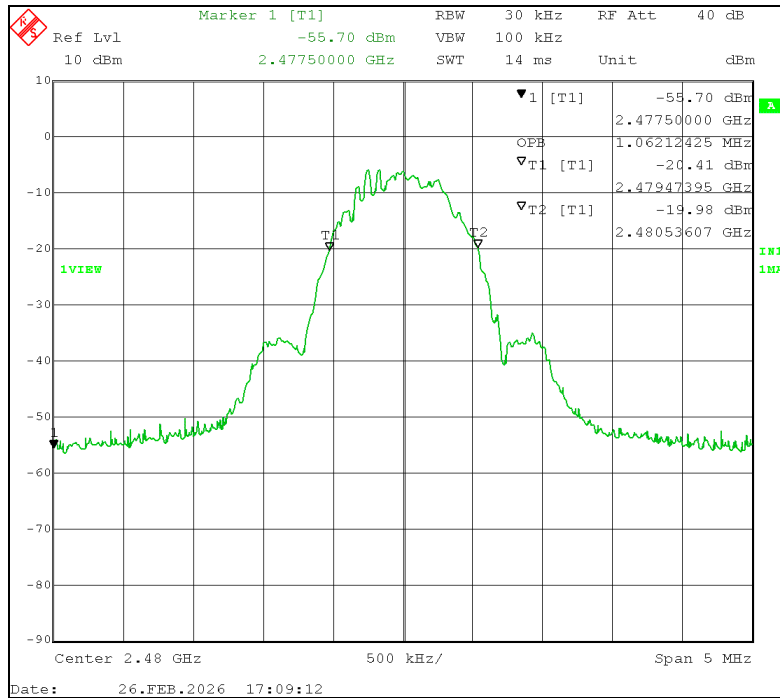


Channel 19: 2440 MHz GFSK 1 Mbps





Channel 39: 2480 MHz GFSK 1 Mbps



Test Results: The DTS 99% Occupied Bandwidth measurements for the Woodstream Model VSB1 Victor Smart Base were measured for RSS-Gen Section 6.7 requirement.



4.8 Maximum Conducted Output Power and EIRP (FCC Part 15.247(b)(3), RSS-247 Clause 6.3.2)

4.8.1 Maximum Conducted Output Power Test Procedure

A conducted power measurement of the output frequency was measured according to ANSI C63.10, Section 11.9.1.1. Spectrum Analyzer Resolution Bandwidth and Frequency Span were based upon the Operating Bandwidth (OBW) measured in the previous section. The Woodstream Model VSB1 Victor Smart Base was tested at the low Channel 0 (2402 MHz), middle Channel 19 (2440 MHz) and high Channel 39 (2480 MHz). The EUTs were set to transmit a signal at output power setting of 0 with GFSK modulation and 1 Mbps Data Rate.

Spectrum Analyzer Settings:

Measurement Analyzer Settings	
Span	3 MHz
RBW	1 MHz
VBW	3 MHz
Sweep Time	5 ms
Attenuation	40 dB
Ref Level	10 dBm
OBW	1 MHz

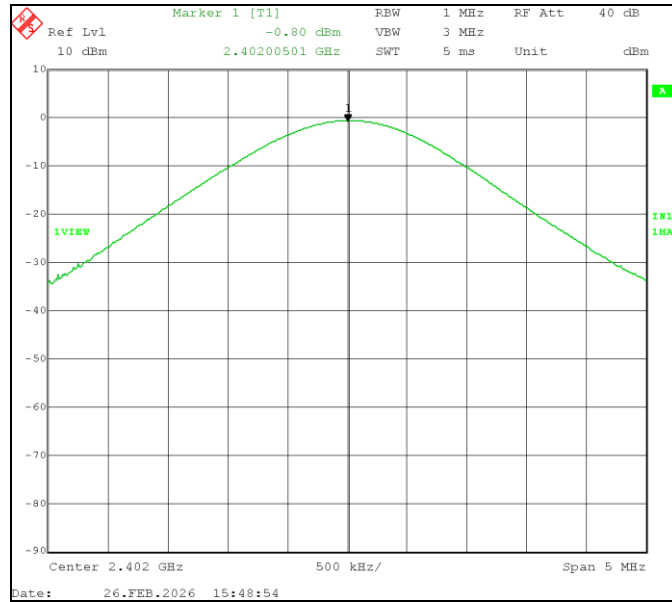
4.8.2 Maximum Conducted Output Power Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (02/26/2026)

BLE Tx Channel	Modulation	Frequency (MHz)	Measured Peak Level (dBm)	Cable # 962 Loss (dB)	Corrected Peak Level		Limit		Margin	
					dBm	Watts	dBm	Watts	dBm	Watts
0	None	2402.0	-0.80	0.377	-0.42	0.001	30.00	1.000	-30.42	-0.999
19		2440.0	-0.80	0.375	-0.43	0.001	30.00	1.000	-30.43	-0.999
39		2480.0	-1.30	0.377	-0.92	0.001	30.00	1.000	-30.92	-0.999
0	GFSK (1 Mbps)	2402.0	-0.80	0.377	-0.42	0.001	30.00	1.000	-30.42	-0.999
19		2440.0	-0.80	0.375	-0.43	0.001	30.00	1.000	-30.43	-0.999
39		2480.0	-1.25	0.377	-0.87	0.001	30.00	1.000	-30.87	-0.999

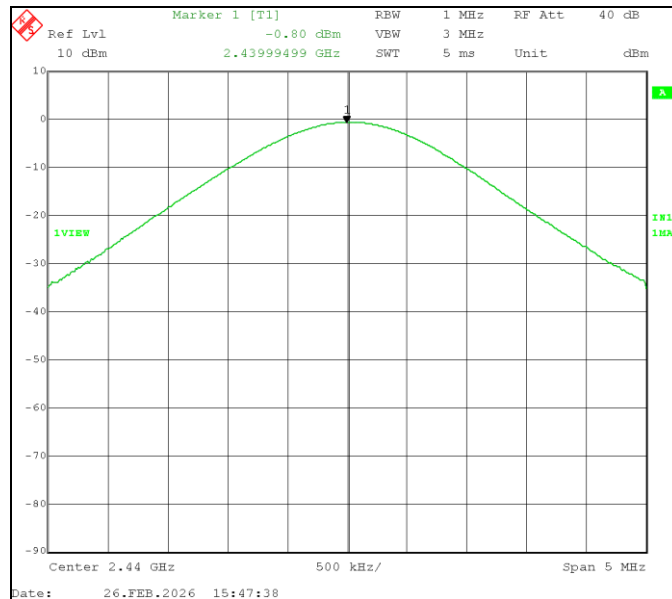


4.8.3 Maximum Conducted Output Power Analyzer Screen Captures

Channel 0: 2402 MHz No Modulation

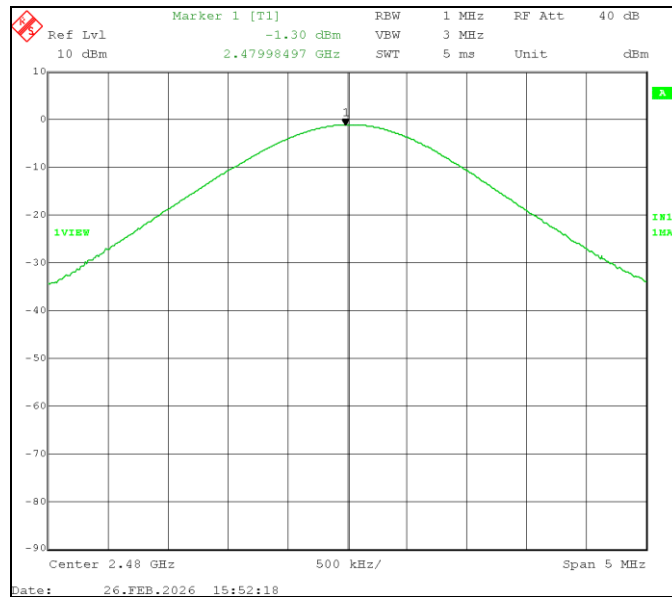


Channel 19: 2440 MHz No Modulation

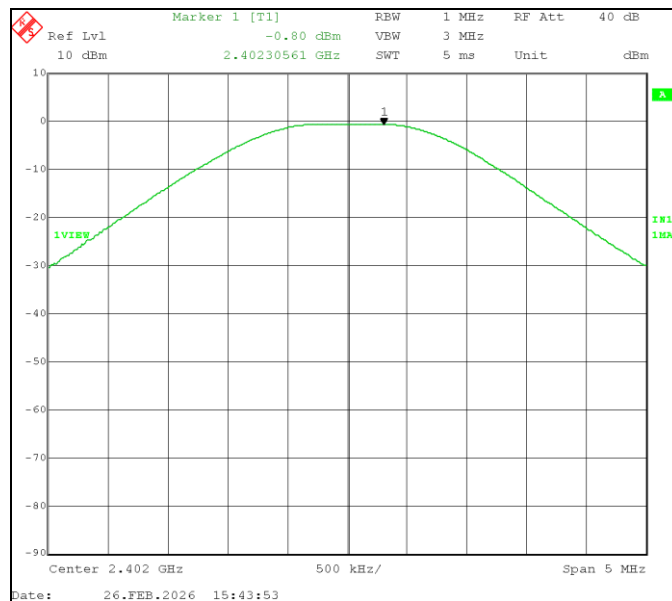




Channel 39: 2480 MHz No Modulation

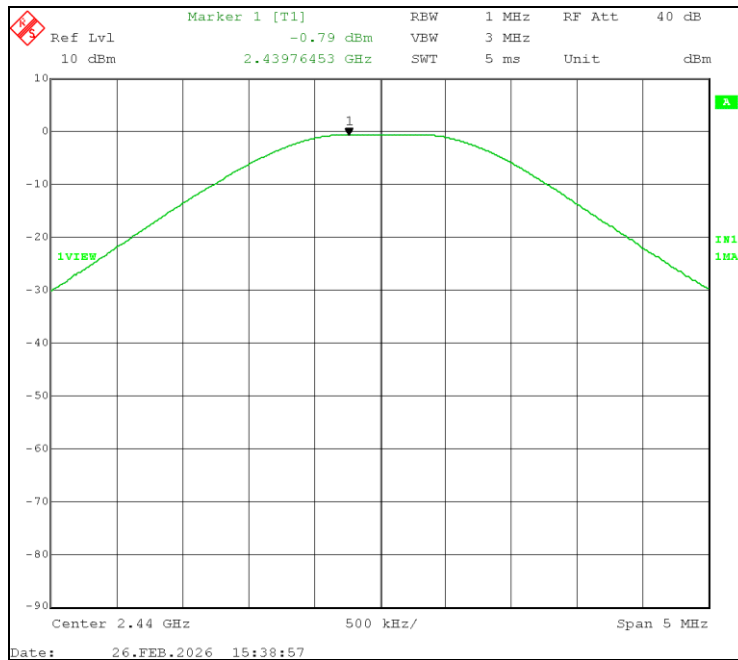


Channel 0: 2402 MHz GFSK Modulation 1 Mbps

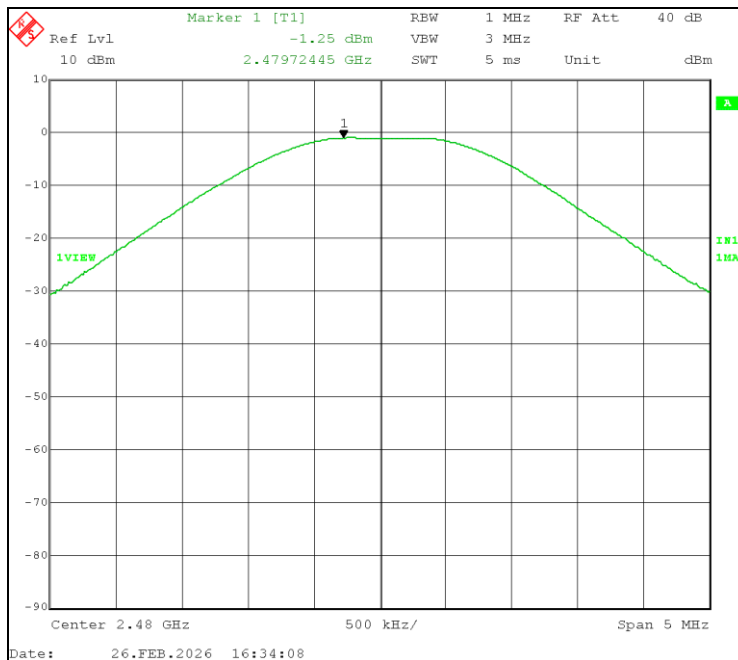




Channel 19: 2440 MHz GFSK Modulation 1 Mbps



Channel 39: 2480 MHz GFSK Modulation 1 Mbps



Test Results: The Maximum Conducted Output Power peak measurements for the Woodstream Model VSB1 Victor Smart Base, with and without modulation, are compliant with the limits specified in FCC Section 15.247(b)(3).



4.8.4 EIRP Calculation RSS-247 (02/26/2026)

The gain of the antenna used in the Woodstream Model VSB1 Victor Smart Base is -6.39 dBi. Applying the antenna gain to the maximum peak transmitter output produces the following values of EIRP.

BLE Tx Channel	Modulation	Frequency (MHz)	Corrected Measured Level		Antenna Gain		EIRP				Result
			dBm	Watts	Isotropic (dBi)	Numeric	Total		Limit	Margin	
							dBm	Watts	Watts	Watts	
0	None	2402.0	-0.42	0.0009	-6.39	0.230	-6.81	0.000	4.00	-4.000	Pass
19		2440.0	-0.43	0.0009			-6.82	0.000		-4.000	Pass
39		2480.0	-0.92	0.0008			-7.31	0.000		-4.000	Pass
0	GFSK (1 Mbps)	2402.0	-0.42	0.0009			-6.81	0.000		-4.000	Pass
19		2440.0	-0.43	0.0009			-6.82	0.000		-4.000	Pass
39		2480.0	-0.87	0.0008			-7.26	0.000		-4.000	Pass

Test Results: The results in the above table show compliance to the ISSED requirements for EIRP limits of RSS-247.



4.9 Power Spectral Density (FCC Section 15.247(e), RSS-247 Clause 6.3.1)

4.9.1 Power Spectral Density Test Procedure

A conducted power measurement of the output frequency was measured using a peak detector for the Woodstream Model VSB1 Victor Smart Base BLE transmitter. The Woodstream Model VSB1 Victor Smart Base was tested at the low Channel 0 (2402 MHz), middle Channel 19 (2440 MHz) and high Channel 39 (2480 MHz). The EUTs were set to transmit a signal at output power setting of 0 with GFSK modulation and 1 Mbps Data Rate. The test procedure of ANSI C63.10, Section 11.10.2 (PKPSD) was used.

Spectrum Analyzer Settings:

Measurement Analyzer Settings		
6 dB BW	0.685	MHz
RBW (Between 3 kHz and 100 kHz)	3	kHz
VBW (3 X RBW)	10	kHz
Span (1.5 X the OCW Bandwidth)	1.0275	MHz
Sweep (Auto)	290	ms
Attenuation	40	dB
Ref Level	10	dBm

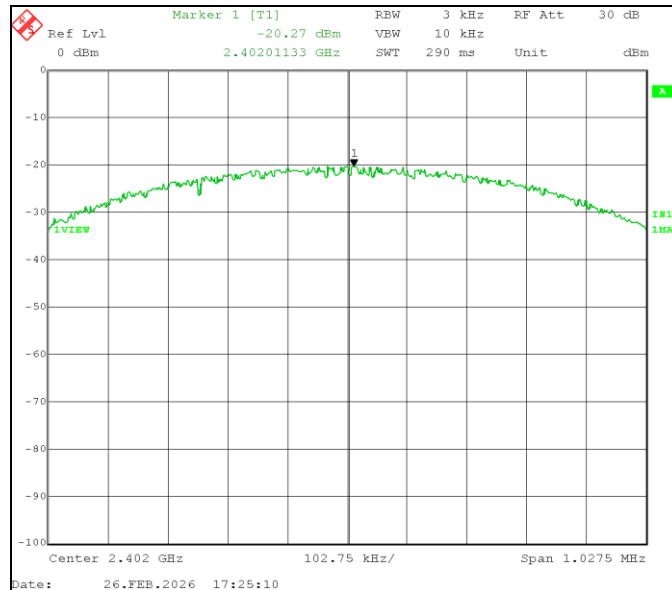
4.9.2 Power Spectral Density Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (02/26/2026)

Channel	Modulation Information	Frequency (MHz)	Peak Measured PSD Level	Cable #BEC-962 Correction Factor	Corrected PSD Measurement	Limit	Margin
			dBm	dB	dBm	dBm	dBm
0	GFSK (1 Mbps)	2402.0	-20.27	0.377	-19.89	8.00	-27.89
19		2440.0	-20.42	0.375	-20.05	8.00	-28.05
39		2480.0	-20.69	0.377	-20.31	8.00	-28.31

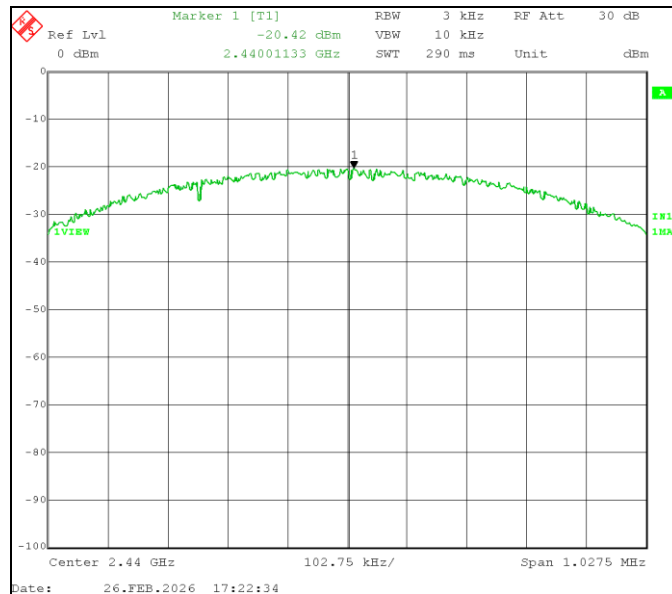


4.9.3 Power Spectral Density Analyzer Screen Captures

Channel 39, 2402 MHz, GFSK Modulation 1 Mbps

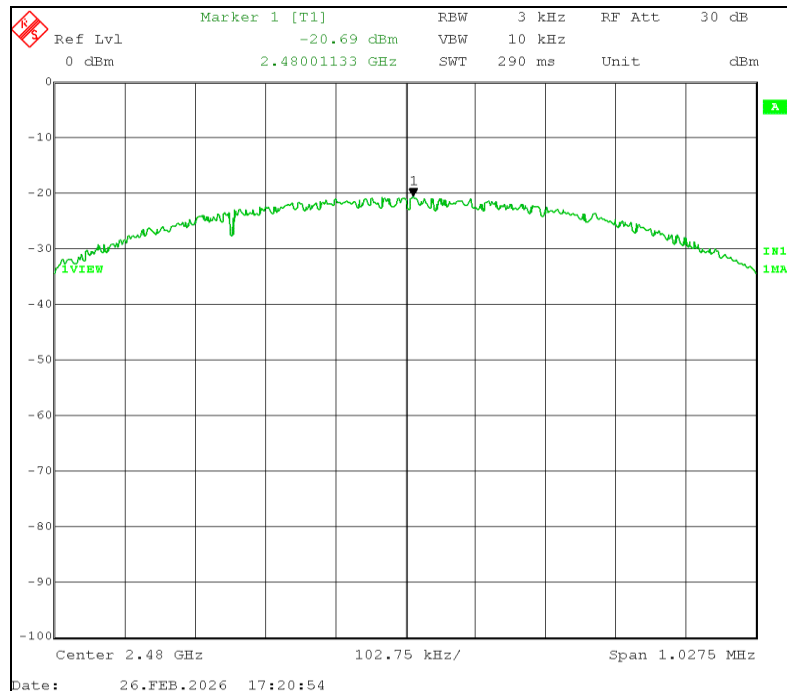


Channel 19, 2440 MHz, GFSK Modulation 1 Mbps





Channel 0, 2480 MHz, GFSK Modulation 1 Mbps



Test Results: The Power Spectral Density measurements of the Woodstream Model VSB1 Victor Smart Base are compliant with the limits specified in FCC Section 15.247(e) and RSS-247.



4.10 Band Edge Measurement (FCC Part 15.247(d))

4.10.1 Band Edge Measurement Test Procedure

Band edge measurements were recorded on the EUT while operating with a modulated carrier. The Woodstream Model VSB1 Victor Smart Base was tested at the low Channel 0 (2402 MHz) and high Channel 39 (2480 MHz). The EUTs were set to transmit a signal at output power setting of 0 with GFSK modulation and 1 Mbps Data Rate. The Authorized Band Edge measurements were made using the Relative Method of Section 6.10.4 of ANSI C63.10. The Spectrum Analyzer Screens below show emissions between the modulated carrier, at low and high frequencies and the lower and upper band edges.

Spectrum Analyzer Settings:

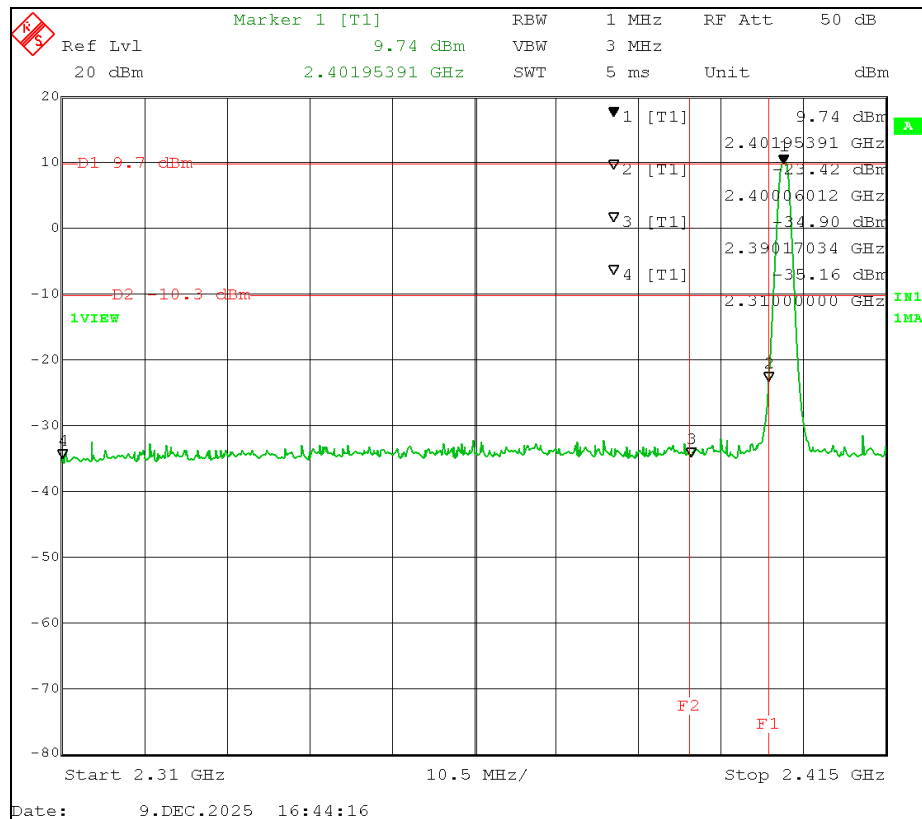
Measurement Analyzer Settings	
RBW	1 MHz
VBW	3 MHz
Sweep	5 ms

	Lower Edge	Upper Edge
Authorized Band:	2400 MHz	2483.5 MHz
Nearest Restricted Bands:	2310-2390 MHz	2483.5-2500 MHz



4.10.2 Low Band Edge Measurement Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (12/09/2025)

Channel 0, 2402 MHz, GFSK Modulation 1 Mbps

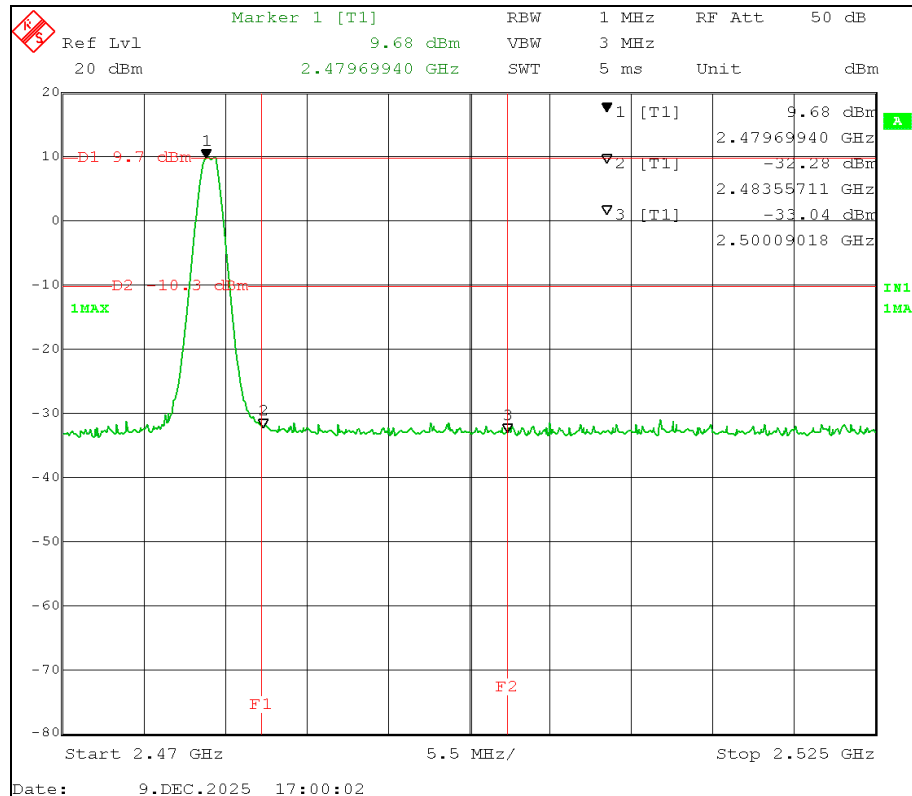


Test Mode	Frequency (MHz)	Peak Measurement of Transmitter @ 2.402 GHz (dBm)	Band Edge Measurement Low Tx Channel				Result
			Measured Peak Level (dBm) @ Lower Band Edge of 2.4 GHz and Showing Peak Emissions at the Restricted Band of 2310 MHz - 2390 MHz	Limit (dB) 20 dB Below the Tx Peak Amplitude (-20 dBc)		Margin	
Low Tx Channel 0 at Output Power of 0 with GFSK Modulation	2402.0	9.74	-23.42	-10.30		-13.12	PASS



4.10.3 High Band Edge Measurement Test Results Woodstream Model VSB1 Victor Smart Base Sample 2430-02 (12/09/2025)

Channel 39, 2480 MHz, GFSK Modulation 1 Mbps



Test Mode	Frequency (MHz)	Peak Measurement of Transmitter @ 2.480 GHz (dBm)	Band Edge Measurement High Tx Channel				Result
			Measured Peak Level (dBm) @ High Band Edge of 2.4835 GHz and Showing Peak Emissions at the Restricted Band of 2483.5 MHz - 2500.0 MHz	Limit (dB) 20 dB Below the Tx Peak Amplitude (-20 dBc)		Margin	
High Tx Channel 39 at Output Power of 0 with GFSK Modulation	2480.0	9.68	-32.28	-10.30		-21.98	PASS

Test Results: The Band Edge measurements of the Woodstream Model VSB1 Victor Smart Base show that emissions at the band edges of the Operating Frequency Bandwidth are below the Carrier Peak Level – 20 dBc required by 47 CFR Part 15.247(d) and ISSED RSS-247, Section 5.5.



4.11 Conducted Emissions

4.11.1 Conducted Emissions AC Power Port Test Procedure

AC Power Line

Conducted emissions at the power line input of the EUT were measured with an EMI receiver set to the appropriate detector and CISPR bandwidth, which was connected to the RF output of a 50 Ω , 50 μ H Line Impedance Stabilization Network (LISN) installed in each power line. Measurements were made over the frequency range of 150 kHz to 30 MHz while the EUT was operating as described in the EUT section of this report. The significant amplitudes of emissions measured on the AC power lines of the EUT were recorded as follows:

Emission (dB μ V) = Meter Reading (dB μ v) + Cable Loss (dB) + LISN Factor (dB) + Limiter Loss (dB)

Results: The Woodstream Model VSB1 Victor Smart Base is a battery powered device and does not require AC Mains Conducted Emissions testing.



Appendix A – Test Equipment

Equipment	Manufacturer	Model #	Serial #	BEC #	Calibration Date	Calibration Cycle	Calibration Due Date
EMI Receiver (20 Hz – 26.5 GHz)	Rohde & Schwarz	ESIB 26	836119/006	1010	05/19/26	3 Years	05/19/29
Antenna (30 MHz - 6 GHz)	Sunol Sciences	JB6	A022108	712	06/27/24	3 Years	06/27/27
EMC Analyzer (9 kHz - 26.5 GHz)	Hewlett Packard	8593EM	3710A00214	1026	04/16/25	3 Years	04/16/28
Amplifier System (0.5 – 50 GHz)	Hewlett Packard	83015A 83017A	3123A00360 & 3332A00219	1027	06/16/24	3 Years	06/16/27
Double Ridged Horn Antenna (1 - 18 GHz)	EMCO	3115	9705-5225	1028	12/05/24	3 Years	12/05/27
Antenna (18 - 26.5 GHz)	Hewlett Packard	84125- 80008	N/A	1056	01/21/25	3 Years	01/21/28
OATS Site (30 MHz – 1 GHz)	BEC	N/A	N/A	705	10/08/25	1 Year	10/08/26
Temp/Humidity Meter	Control Company	4096	250064603	780	02/04/25	2 Years	02/04/27
3.5 GHz High Pass Filter	Hewlett Packard	84300- 80038	005	779	09/09/25	3 Years	09/09/28
Software (Tile Instrument Control System)	Quantum Change/EMC Systems	Version 3	N/A	N/A	No Cal. Required	No Cal. Required	No Cal. Required
Radiated Emissions Test Software	BEC	RADE	2.2	N/A	No Cal. Required	No Cal. Required	No Cal. Required



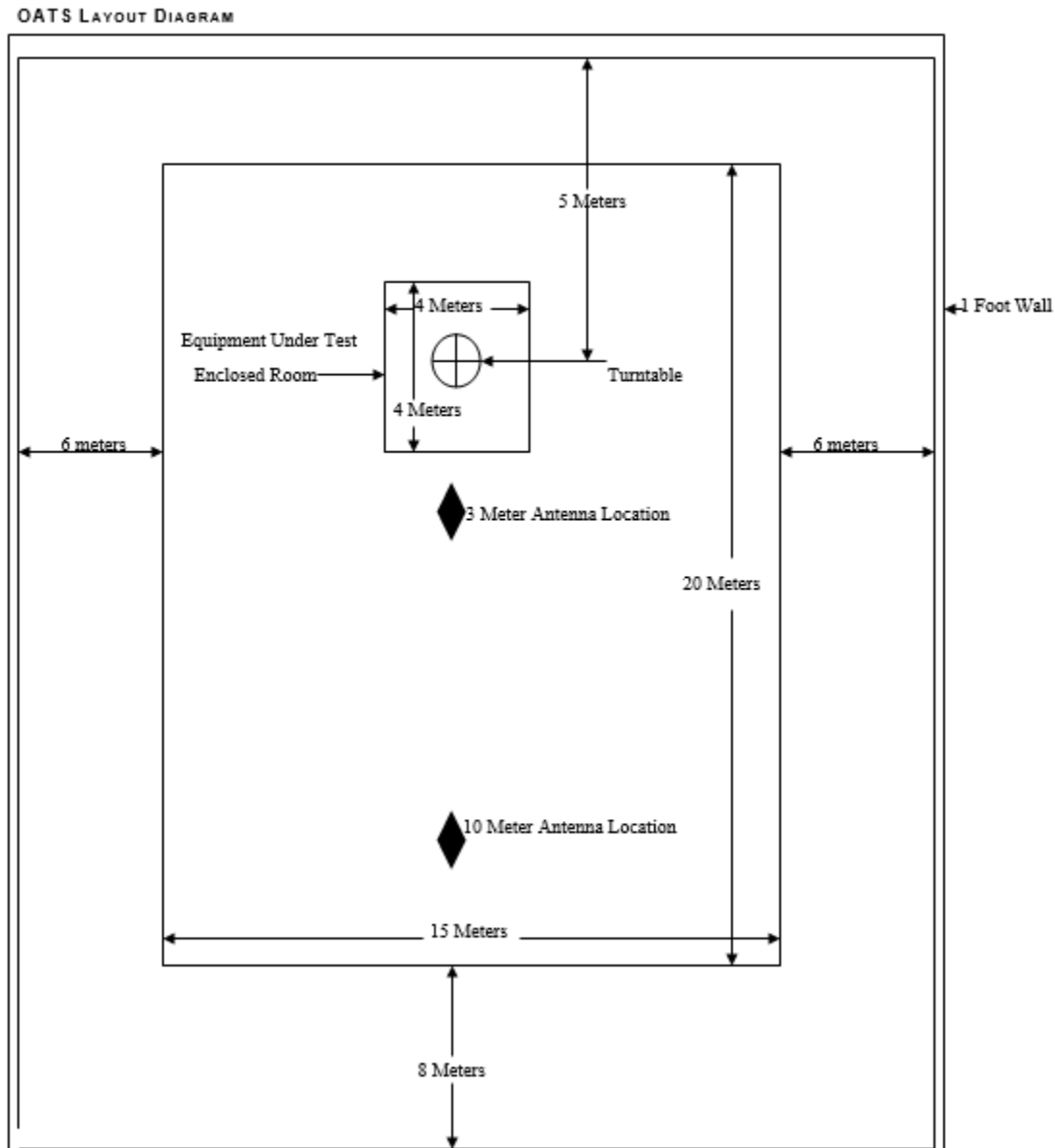
Screen Room	ETS Lindgren	26W-2/2-0	6065	880	No Cal. Required	No Cal. Required	No Cal. Required
DC Power Supply	Tektronix	PS281	TW50114	922	No Cal. Required	No Cal. Required	No Cal. Required
SMA RF Cable-Antenna Conducted Test Setup	Suhner	04272	None	962	07/14/23	3 Years	07/14/26

Equipment Used Only for Pre-Compliance

Equipment	Manufacturer	Model #	Serial #	BEC #	Calibration Date	Calibration Cycle	Calibration Due Date
9 kHz-3 GHz Pre-Scan EMC Analyzer	Agilent	E7402A	US39440162	883	06/21/21	5 Years	06/21/26
Pre-Scan Amplifier (.09 – 1300 MHz)	Hewlett Packard	8447F	3313A06658	807	01/13/26	5 Years	01/13/31



Appendix B – Open Area Test Site Layout Diagram





Appendix C – Emissions Shielded Room Layout Diagram

SITE DESCRIPTION

The chamber is a 3 Meter semi-anechoic chamber with the ferrite absorbers on all walls and ceiling and is re-categorized as a Fully anechoic chamber when absorbers are added in between the test area and measurement antenna. The turn-table and mast are controlled externally by the ETS Lindgren 2090 Controller. The metal computer floor provides the ground plane for the site. Inside room dimensions are 22' Long by 13' Wide by 11'5" High. Outside room dimensions are 22'8" Long by 14' Wide by 12'9" High.

