

RF Test Data for Bluetooth LE (Conducted Measurements)

General Description of EUT	
Product Name:	Water Valve
Test Model:	NAS-WV07W
Test Standards:	ETSI EN 300 328 V2.2.2:2019
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 5V
Test Engineer:	Rick. chen
Note: For a more detailed features description, please refer to the report TBR-C-202412-0109-4 The report only show the worst case data.	

Contents

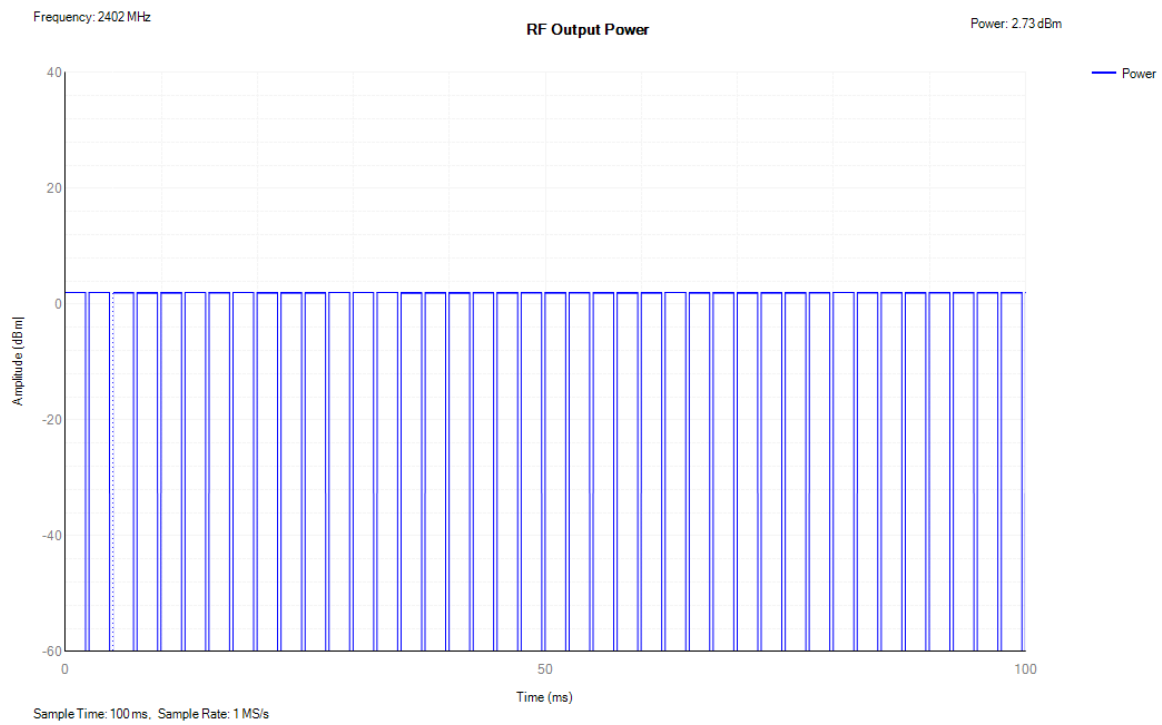
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1. RF Output Power

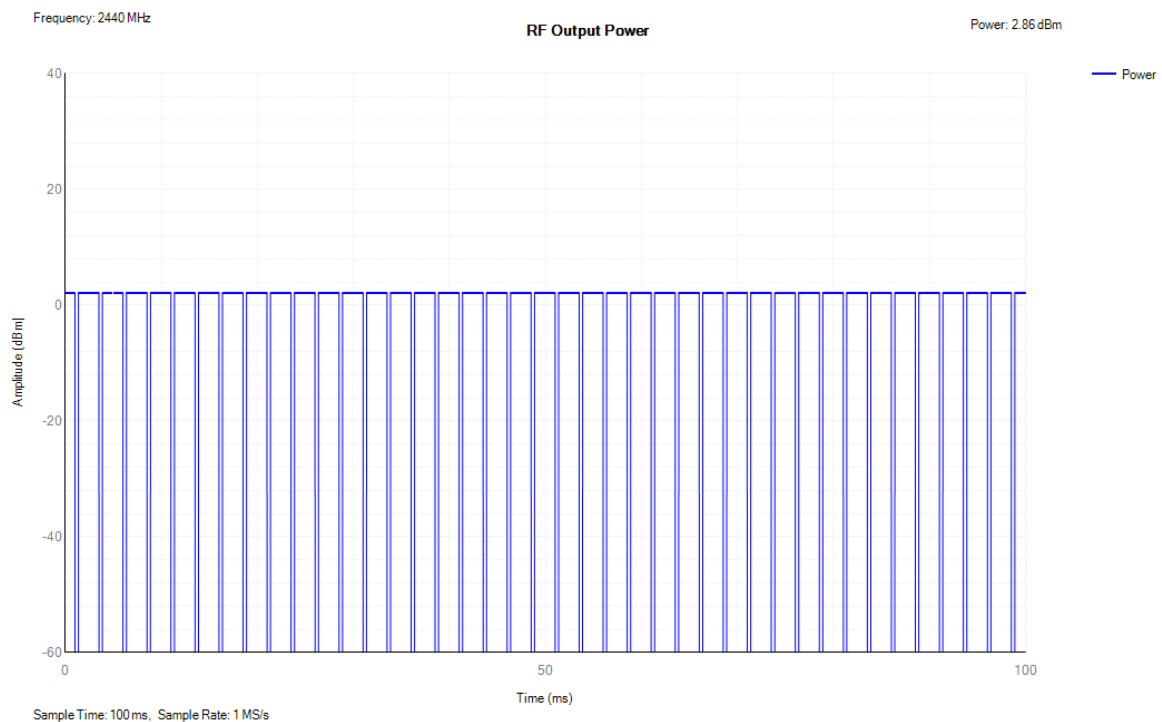
Condition	Mode	Frequency (MHz)	Antenna	Max EIRP (dBm)	Limit (dBm)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	2.73	20	Pass
NVNT	BLE 1Mbps	2440	Ant1	2.86	20	Pass
NVNT	BLE 1Mbps	2480	Ant1	3.3	20	Pass
NVNT	BLE 2Mbps	2402	Ant1	2.89	20	Pass
NVNT	BLE 2Mbps	2440	Ant1	2.71	20	Pass
NVNT	BLE 2Mbps	2480	Ant1	3.05	20	Pass

Test Graphs

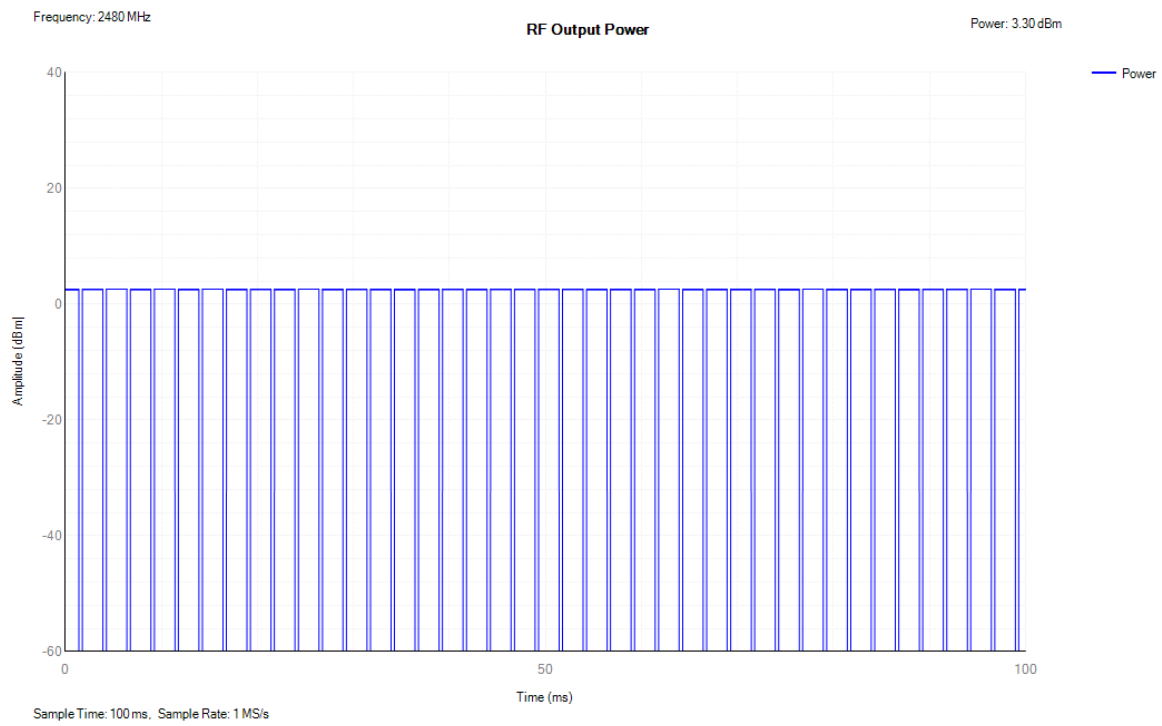
Power NVNT BLE 1Mbps 2402MHz Ant1



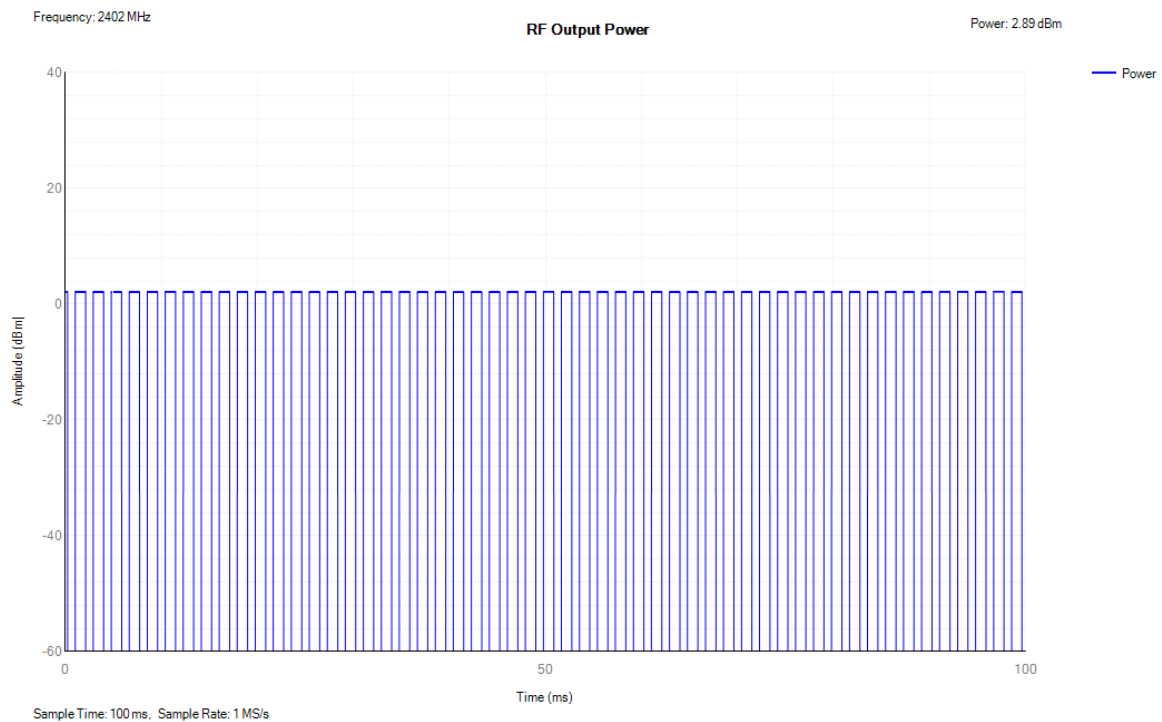
Power NVNT BLE 1Mbps 2440MHz Ant1



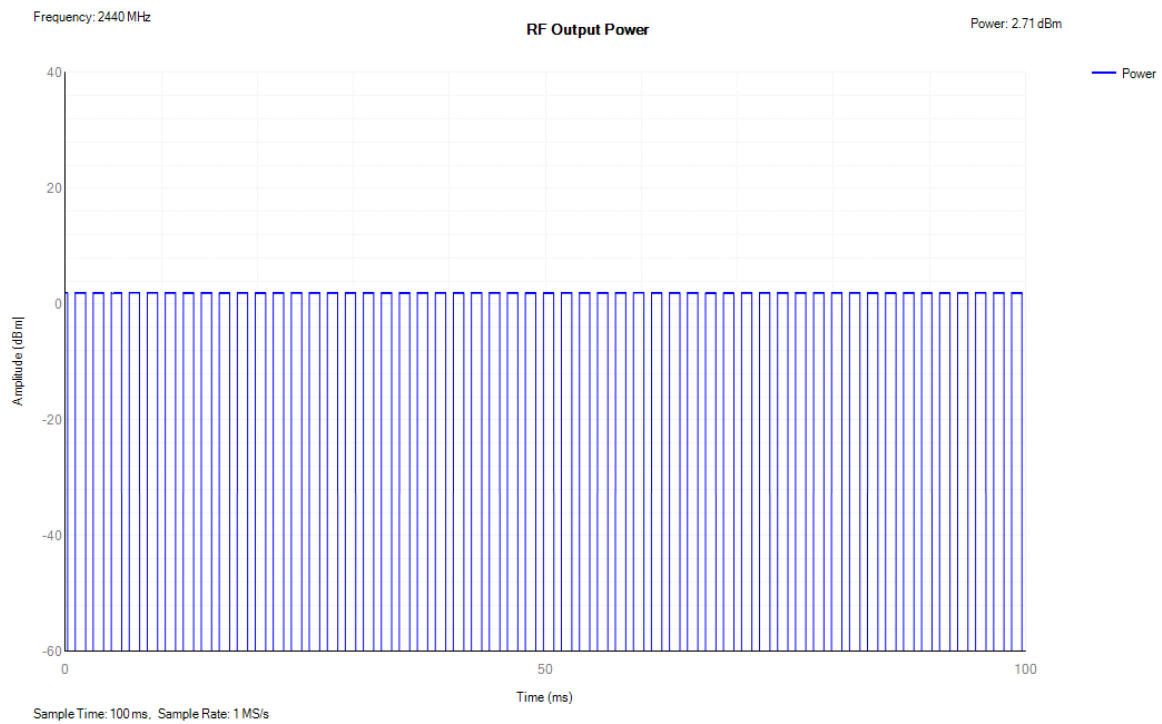
Power NVNT BLE 1Mbps 2480MHz Ant1



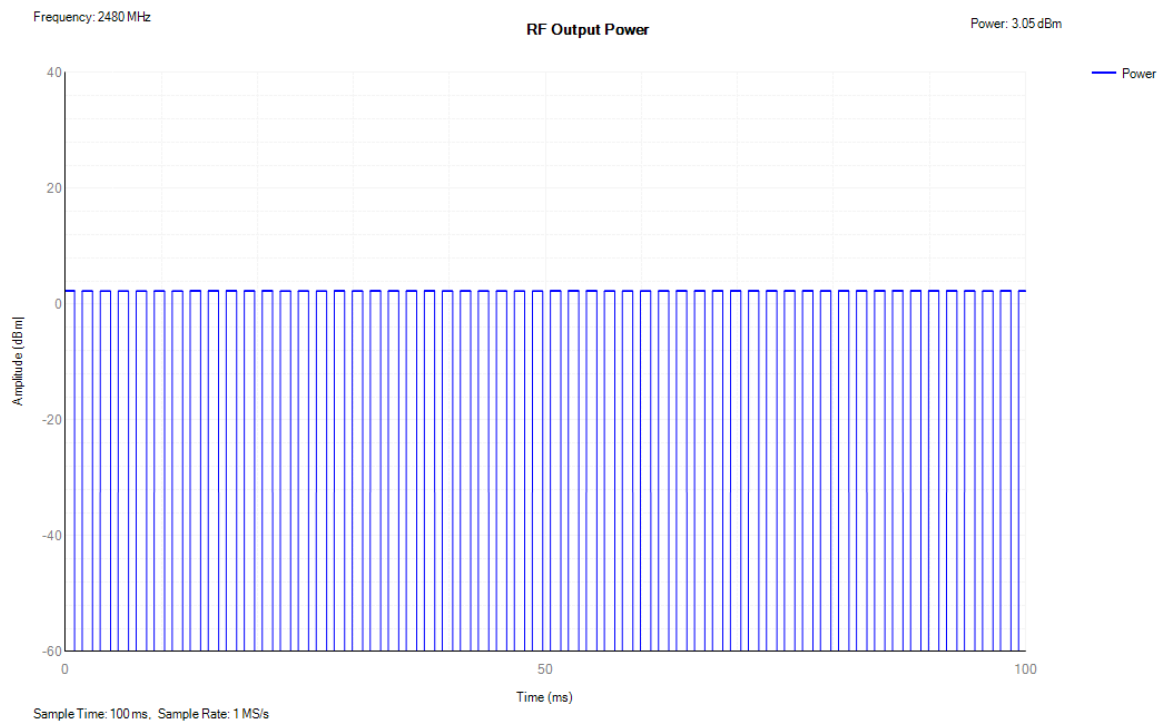
Power NVNT BLE 2Mbps 2402MHz Ant1



Power NVNT BLE 2Mbps 2440MHz Ant1



Power NVNT BLE 2Mbps 2480MHz Ant1

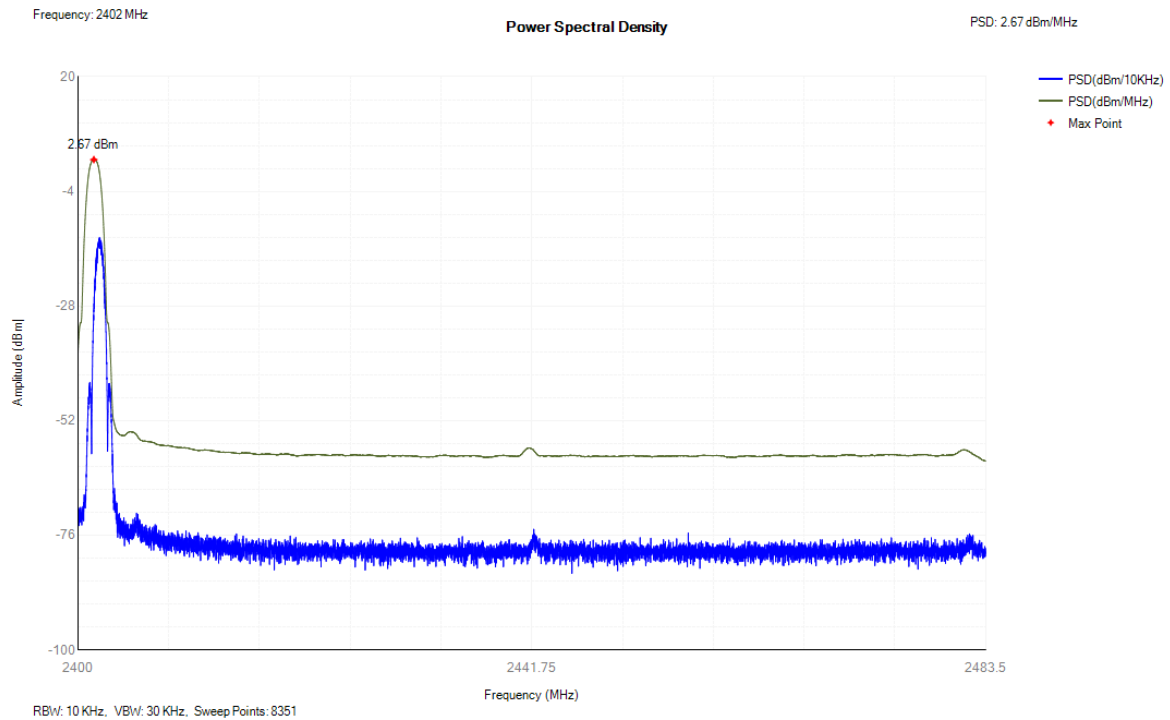


2. Power Spectral Density

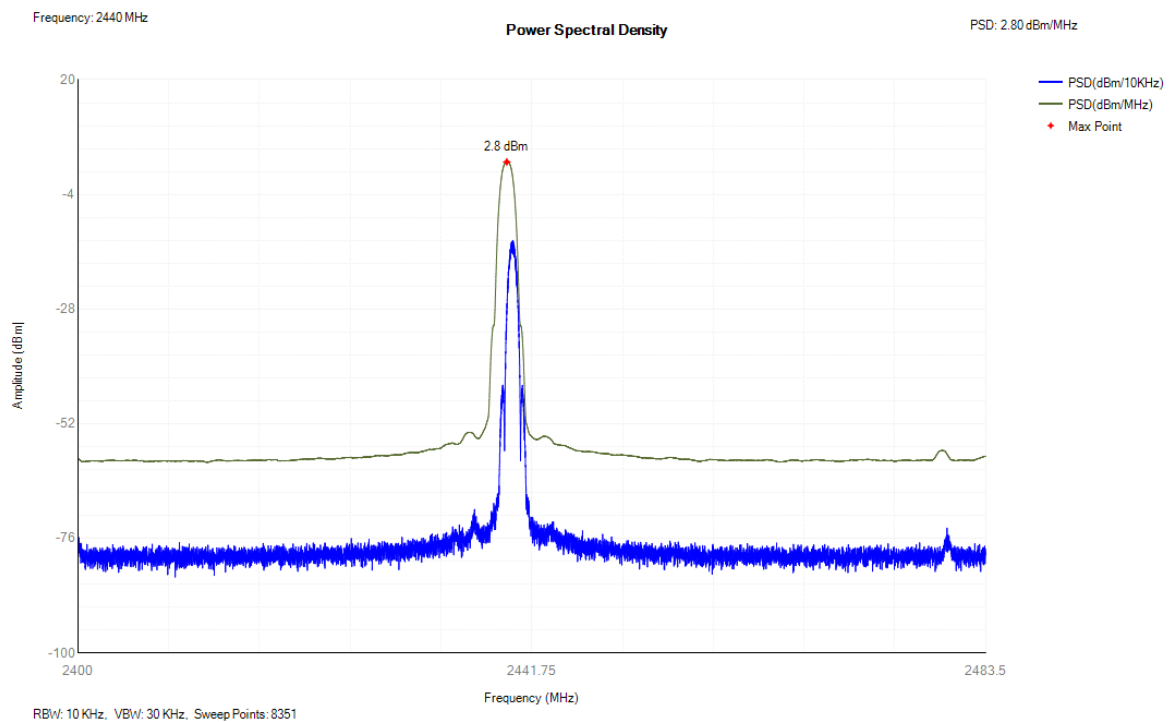
Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	2.67	10	Pass
NVNT	BLE 1Mbps	2440	Ant1	2.8	10	Pass
NVNT	BLE 1Mbps	2480	Ant1	3.24	10	Pass
NVNT	BLE 2Mbps	2402	Ant1	1.7	10	Pass
NVNT	BLE 2Mbps	2440	Ant1	1.53	10	Pass
NVNT	BLE 2Mbps	2480	Ant1	1.87	10	Pass

Test Graphs

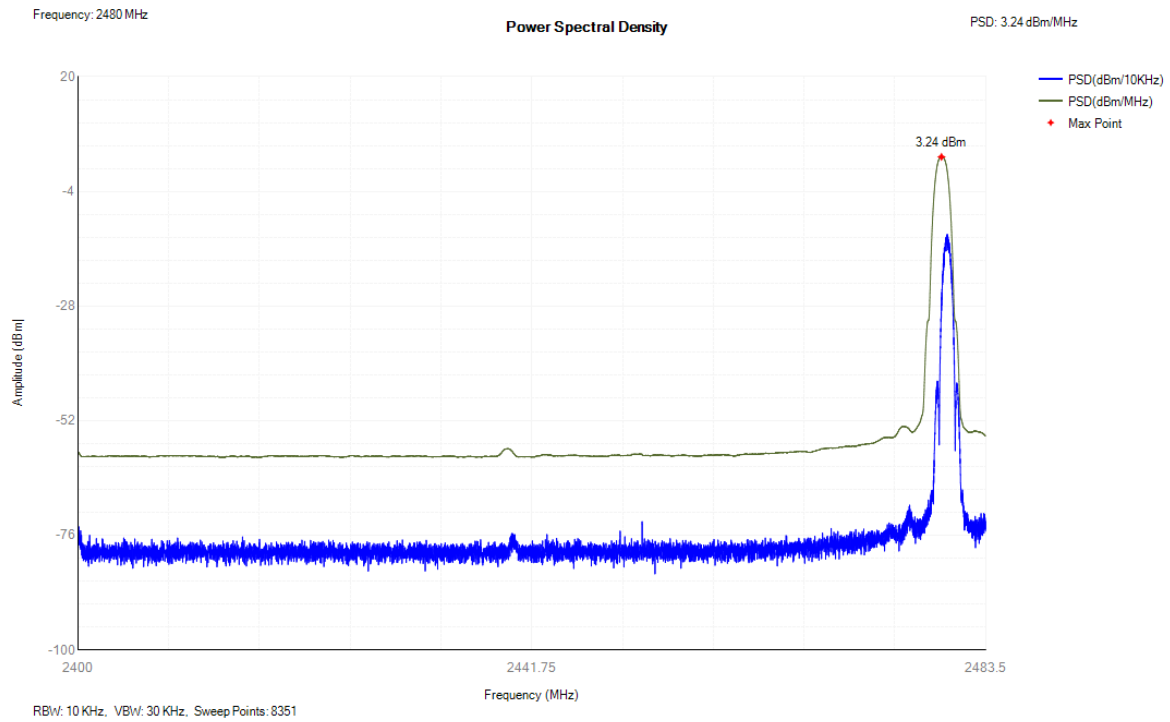
PSD NVNT BLE 1Mbps 2402MHz Ant1



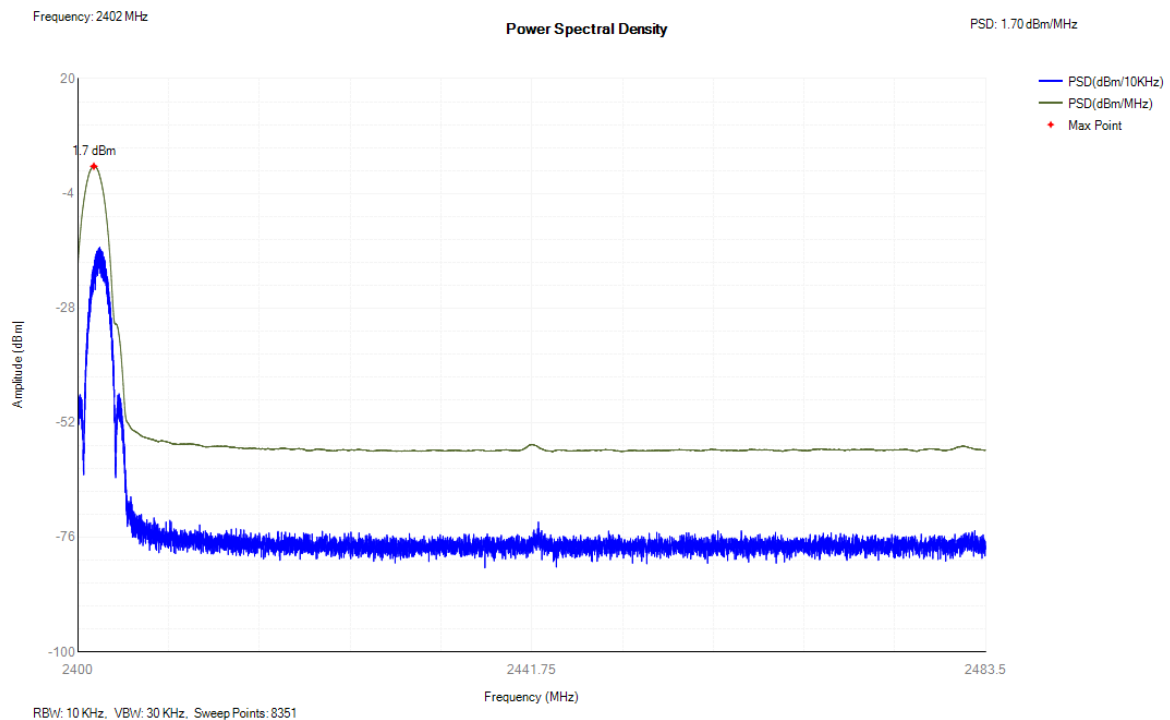
PSD NVNT BLE 1Mbps 2440MHz Ant1



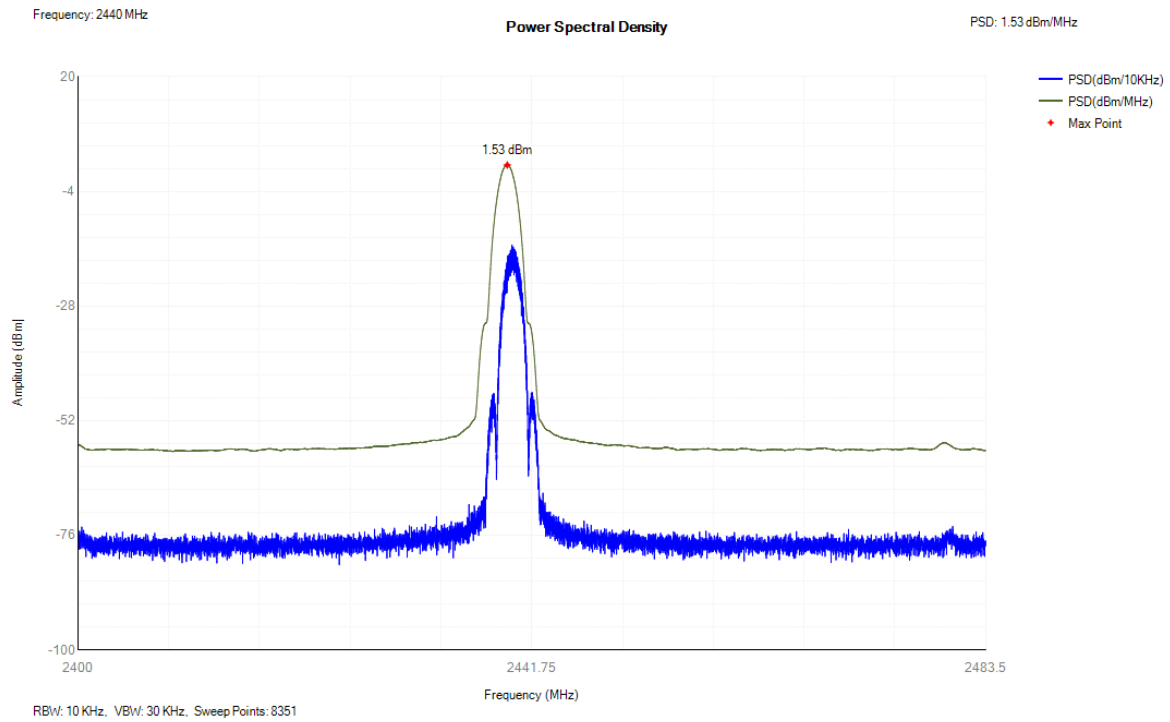
PSD NVNT BLE 1Mbps 2480MHz Ant1



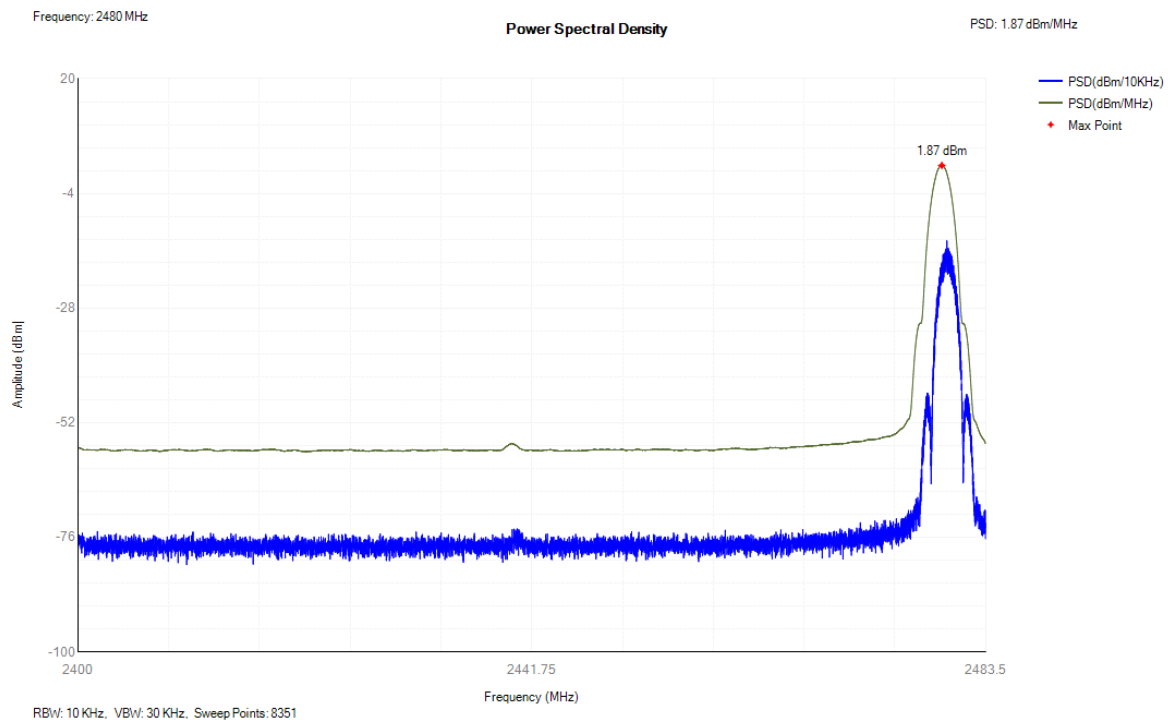
PSD NVNT BLE 2Mbps 2402MHz Ant1



PSD NVNT BLE 2Mbps 2440MHz Ant1



PSD NVNT BLE 2Mbps 2480MHz Ant1

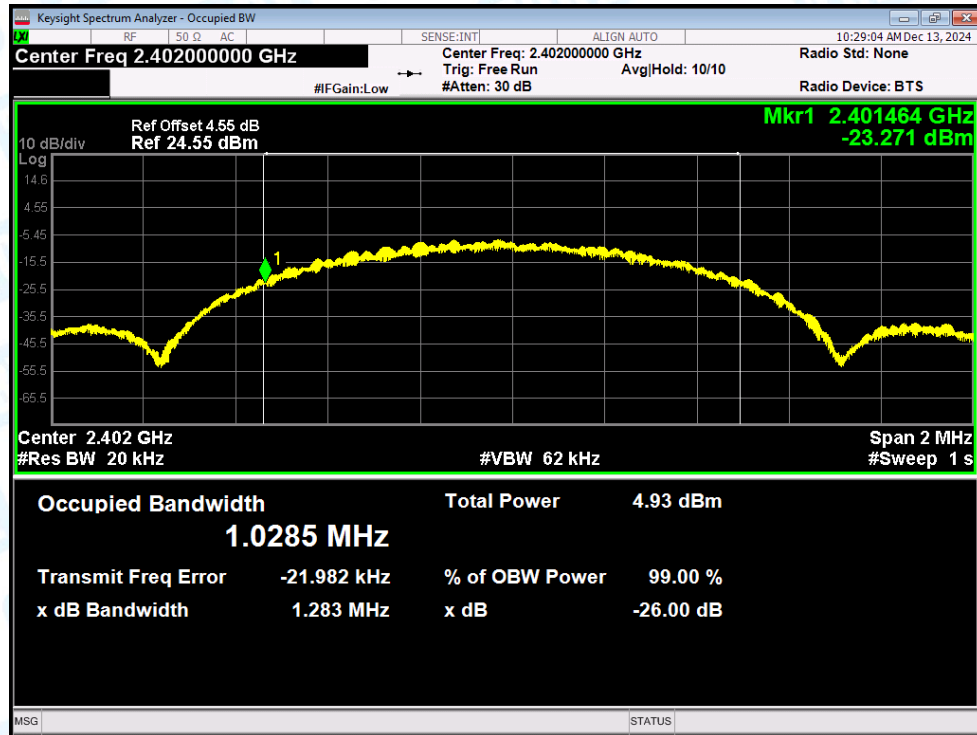


3. Occupied Channel Bandwidth

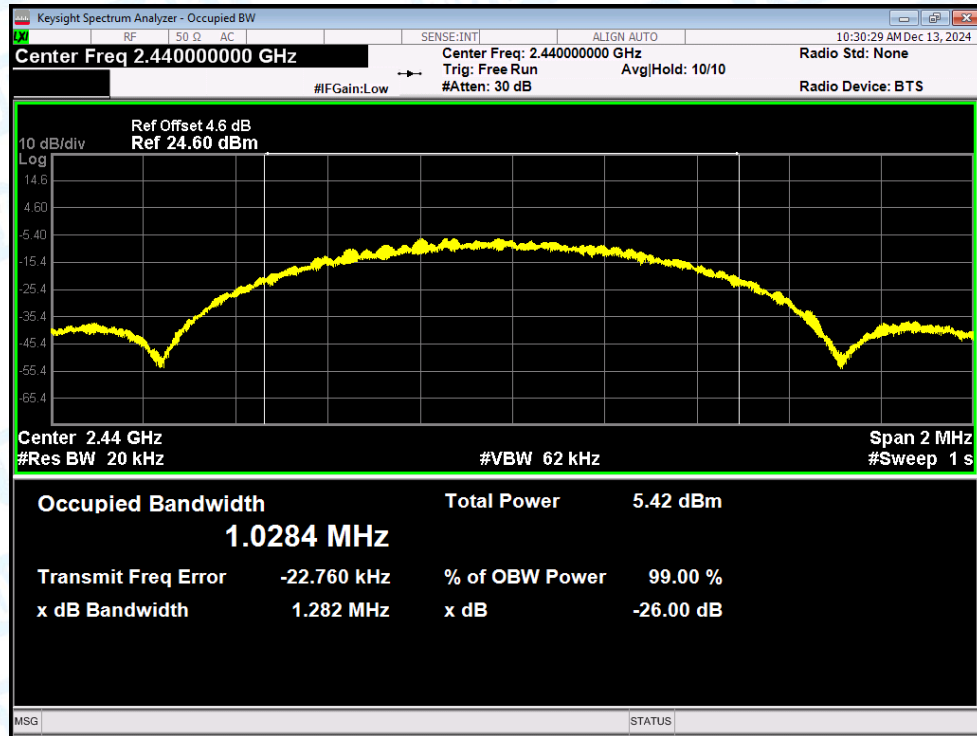
Condition	Mode	Frequency (MHz)	Antenna	Center Frequency (MHz)	OBW (MHz)	Lower Edge (MHz)	Upper Edge (MHz)	Limit OBW (MHz)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	2401.978	1.028	2401.464	2402.492	2400 - 2483.5MHz	Pass
NVNT	BLE 1Mbps	2440	Ant1	2439.977	1.028	2439.463	2440.491	2400 - 2483.5MHz	Pass
NVNT	BLE 1Mbps	2480	Ant1	2479.976	1.026	2479.463	2480.489	2400 - 2483.5MHz	Pass
NVNT	BLE 2Mbps	2402	Ant1	2401.978	2.06	2400.947	2403.008	2400 - 2483.5MHz	Pass
NVNT	BLE 2Mbps	2440	Ant1	2439.978	2.061	2438.947	2441.008	2400 - 2483.5MHz	Pass
NVNT	BLE 2Mbps	2480	Ant1	2479.978	2.062	2478.947	2481.009	2400 - 2483.5MHz	Pass

Test Graphs

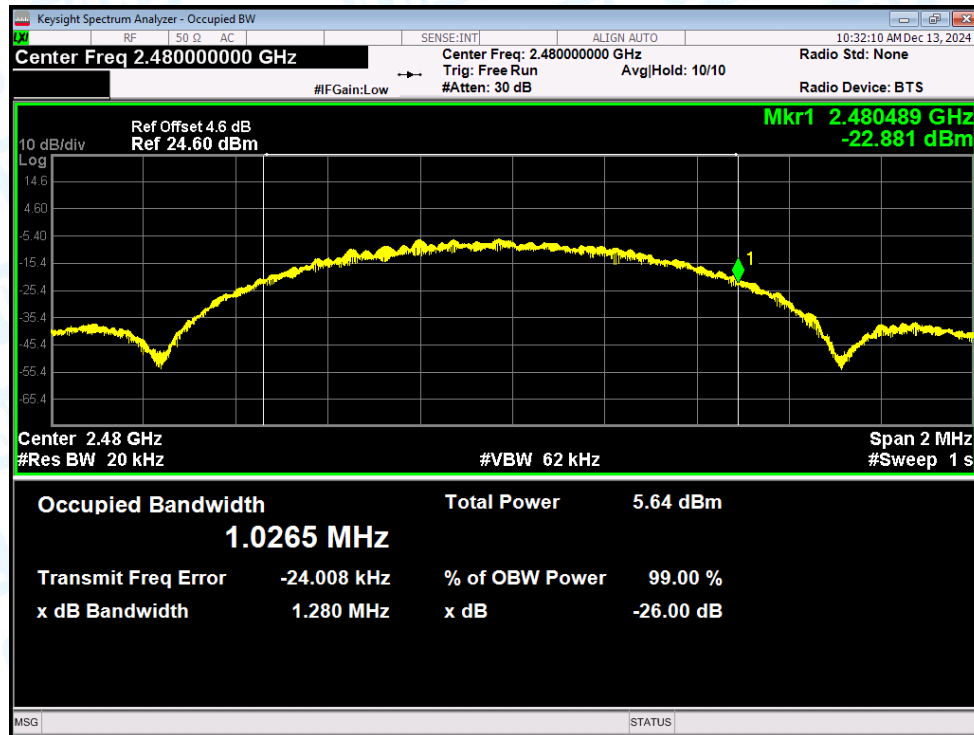
OBW NVNT BLE 1Mbps 2402MHz Ant1



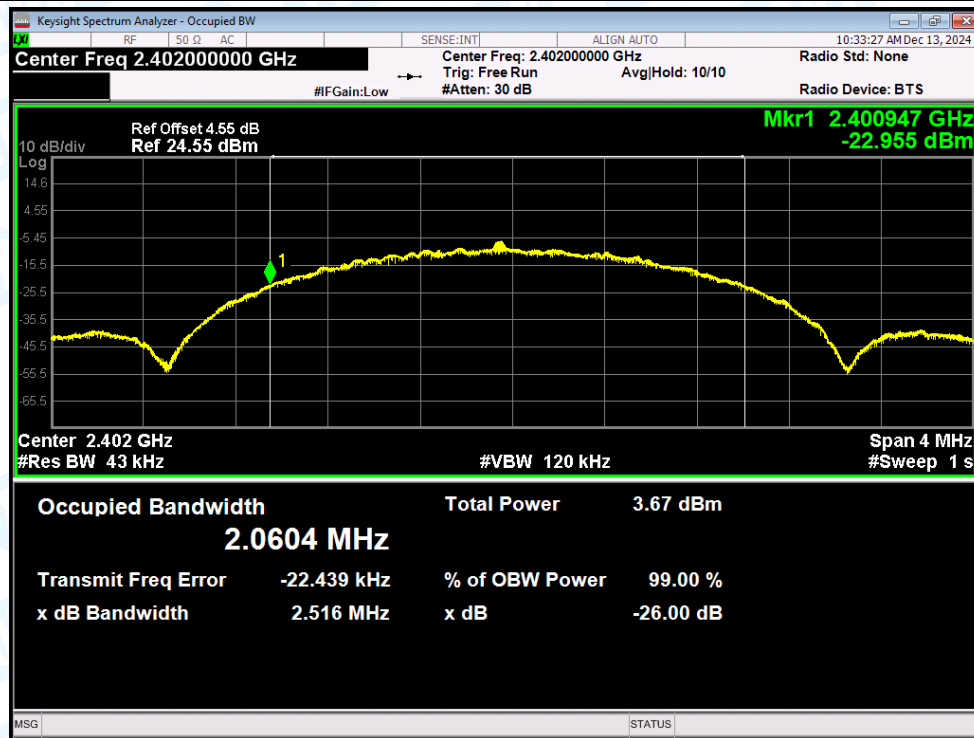
OBW NVNT BLE 1Mbps 2440MHz Ant1



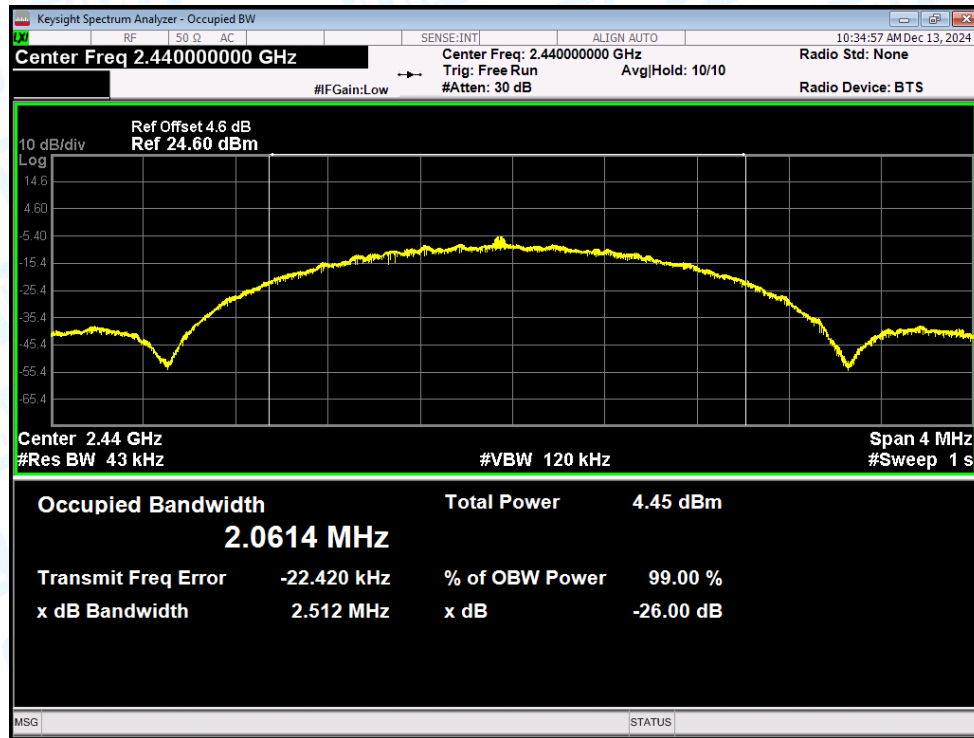
OBW NVNT BLE 1Mbps 2480MHz Ant1



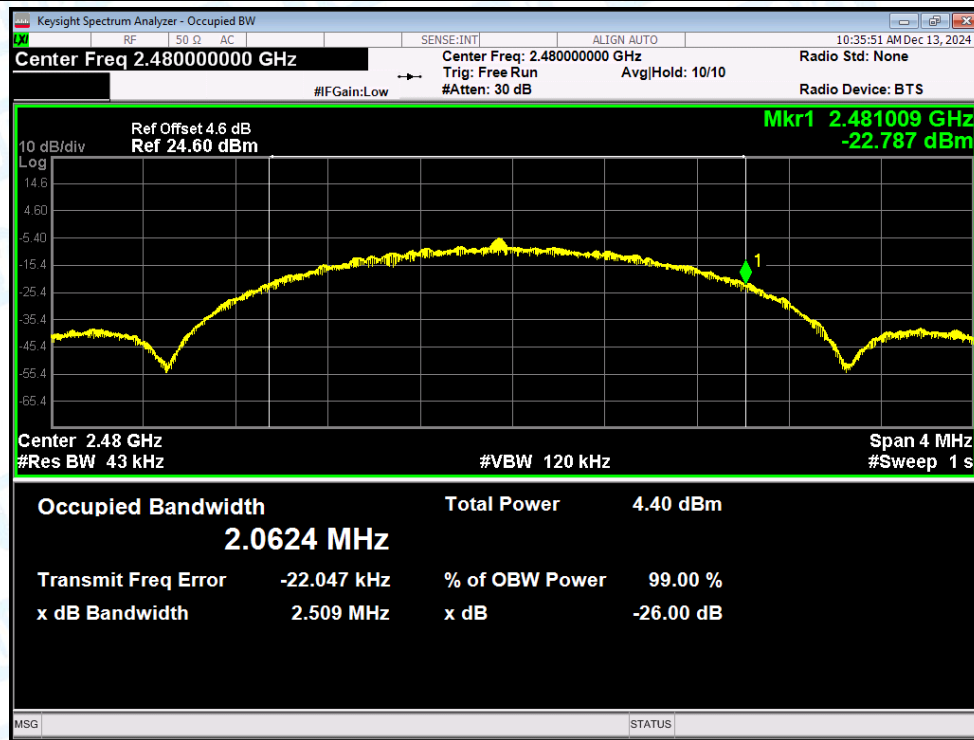
OBW NVNT BLE 2Mbps 2402MHz Ant1



OBW NVNT BLE 2Mbps 2440MHz Ant1



OBW NVNT BLE 2Mbps 2480MHz Ant1

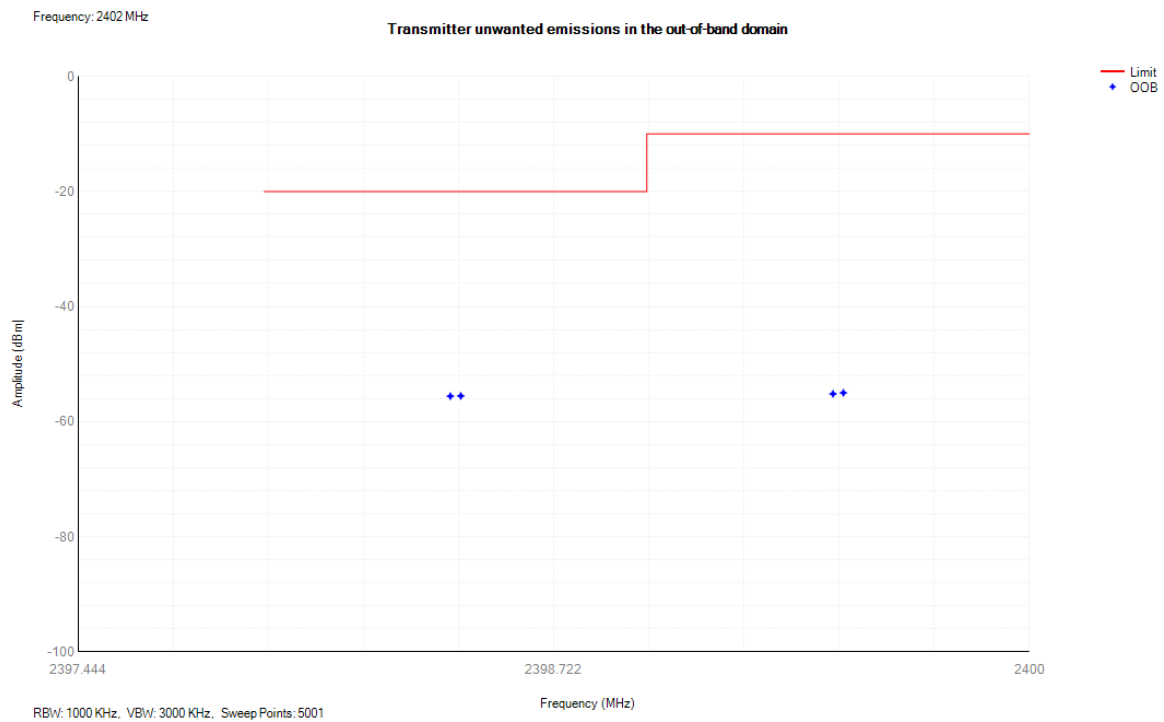


4. Transmitter unwanted emissions in the out-of-band domain

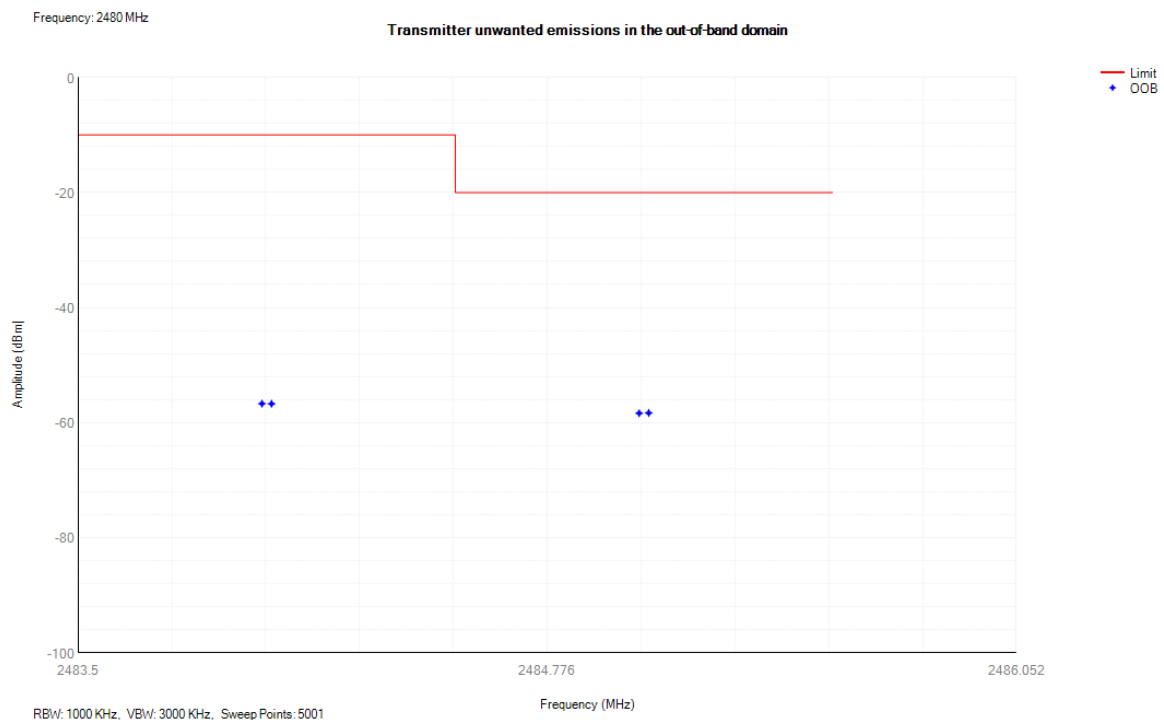
Condition	Mode	Frequency (MHz)	Antenna	OOB Frequency (MHz)	Level (dBm/MHz)	Limit (dBm/MHz)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	2399.5	-54.99	-10	Pass
NVNT	BLE 1Mbps	2402	Ant1	2399.472	-55.17	-10	Pass
NVNT	BLE 1Mbps	2402	Ant1	2398.472	-55.53	-20	Pass
NVNT	BLE 1Mbps	2402	Ant1	2398.444	-55.57	-20	Pass
NVNT	BLE 1Mbps	2480	Ant1	2484	-56.7	-10	Pass
NVNT	BLE 1Mbps	2480	Ant1	2484.026	-56.72	-10	Pass
NVNT	BLE 1Mbps	2480	Ant1	2485.026	-58.36	-20	Pass
NVNT	BLE 1Mbps	2480	Ant1	2485.052	-58.31	-20	Pass
NVNT	BLE 2Mbps	2402	Ant1	2399.5	-34.88	-10	Pass
NVNT	BLE 2Mbps	2402	Ant1	2398.5	-54.16	-10	Pass
NVNT	BLE 2Mbps	2402	Ant1	2398.44	-54.76	-10	Pass
NVNT	BLE 2Mbps	2402	Ant1	2397.44	-57.97	-20	Pass
NVNT	BLE 2Mbps	2402	Ant1	2396.44	-58.65	-20	Pass
NVNT	BLE 2Mbps	2402	Ant1	2396.38	-58.91	-20	Pass
NVNT	BLE 2Mbps	2480	Ant1	2484	-56.36	-10	Pass
NVNT	BLE 2Mbps	2480	Ant1	2485	-57.97	-10	Pass
NVNT	BLE 2Mbps	2480	Ant1	2485.062	-58.18	-10	Pass
NVNT	BLE 2Mbps	2480	Ant1	2486.062	-59.02	-20	Pass
NVNT	BLE 2Mbps	2480	Ant1	2487.062	-59.91	-20	Pass
NVNT	BLE 2Mbps	2480	Ant1	2487.124	-59.83	-20	Pass

Test Graphs

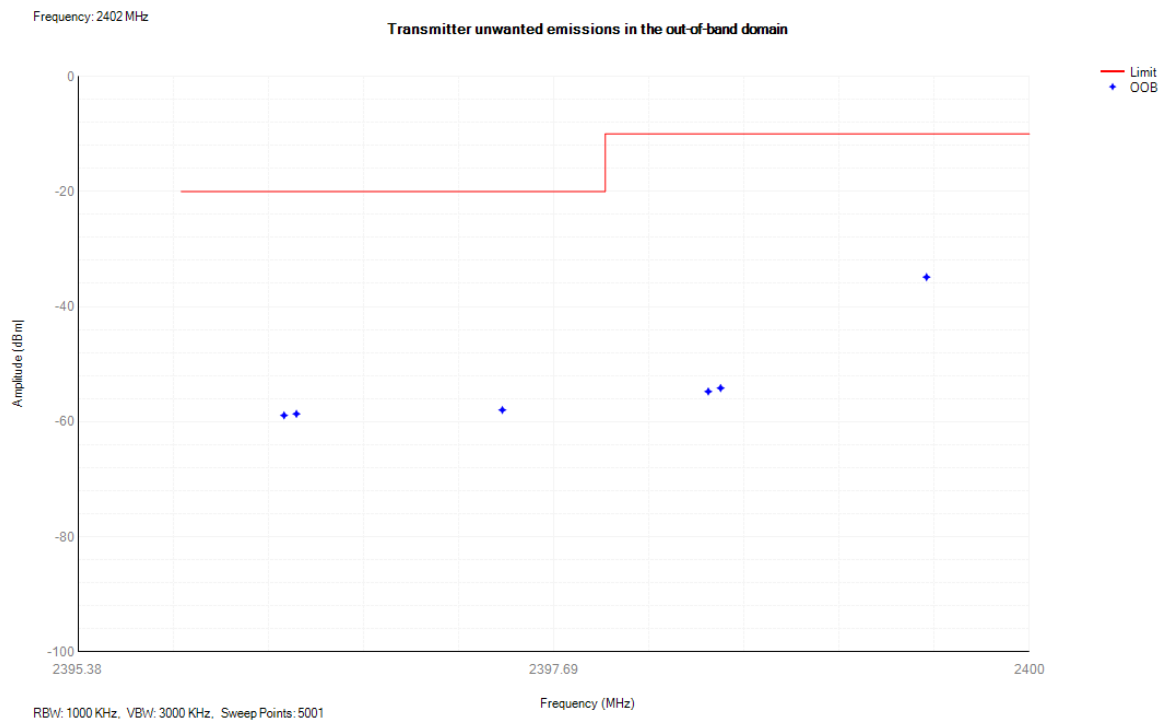
Tx. Emissions OOB NVNT BLE 1Mbps 2402MHz Ant1



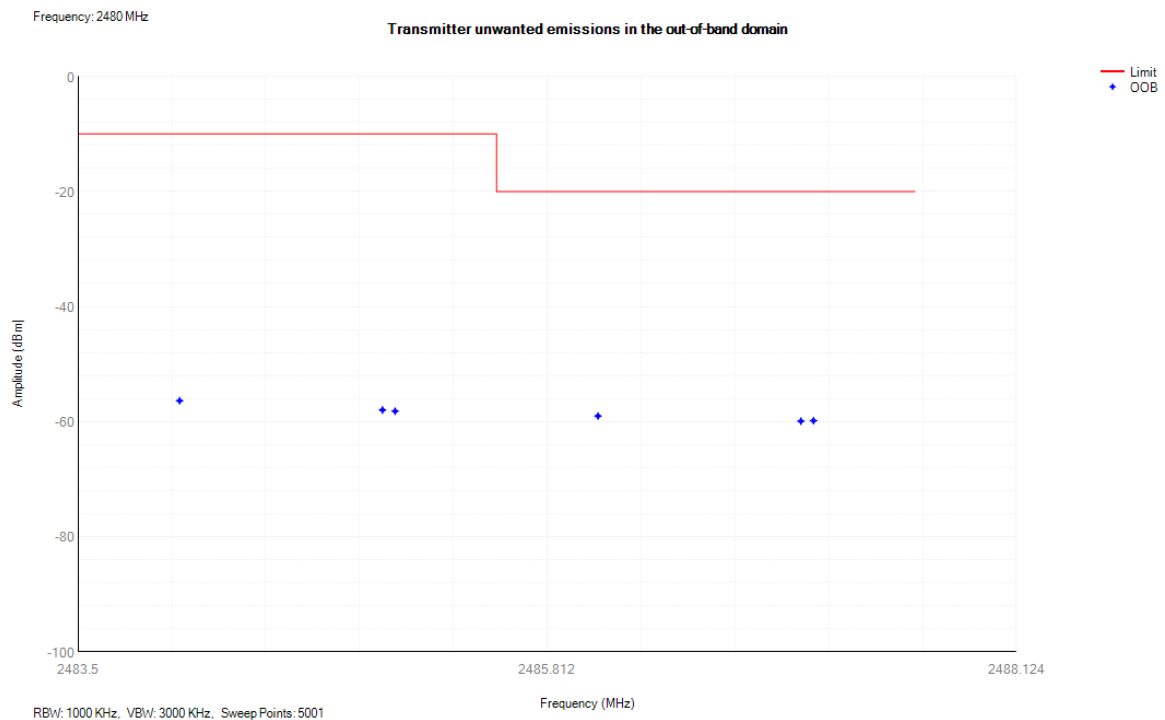
Tx. Emissions OOB NVNT BLE 1Mbps 2480MHz Ant1



Tx. Emissions OOB NVNT BLE 2Mbps 2402MHz Ant1



Tx. Emissions OOB NVNT BLE 2Mbps 2480MHz Ant1

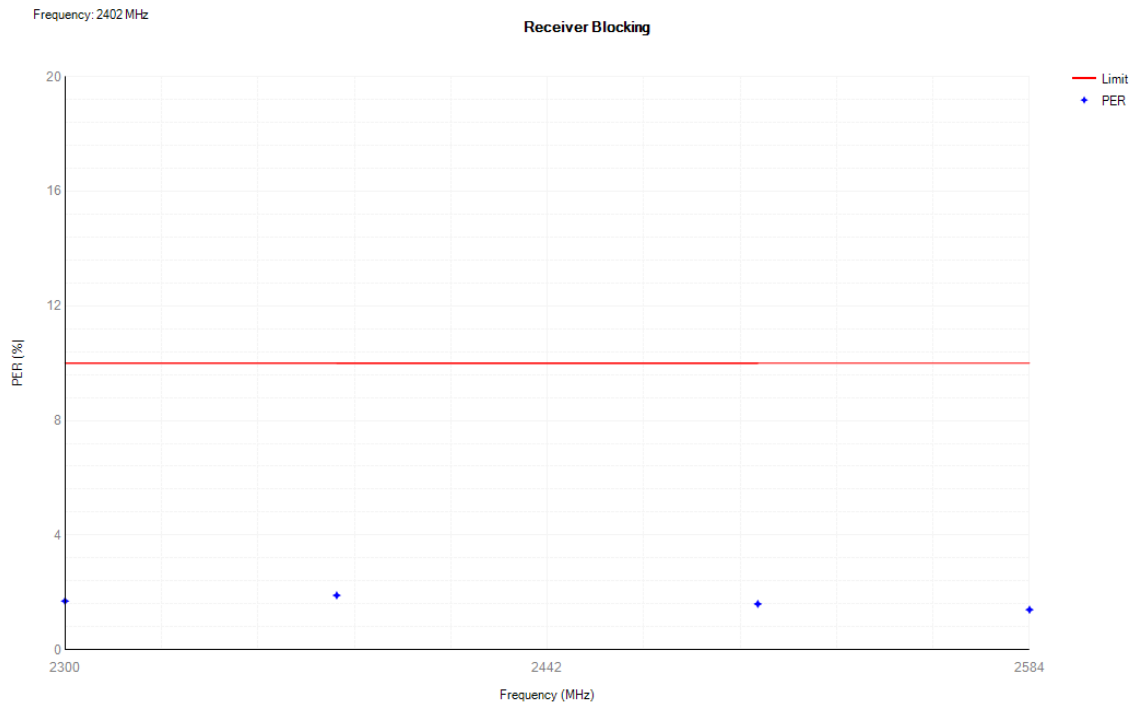


5. Receiver Blocking

Condition	Mode	Frequency (MHz)	Antenna	Wanted Power (dBm)	Blocking Frequency (MHz)	Blocking Power (dBm)	PER (%)	Limit (%)	Verdict
NVNT	BLE 1Mbps	2402	Ant1	-68.88	2380	-33.27	1.9	10	Pass
NVNT	BLE 1Mbps	2402	Ant1	-68.88	2504	-33.27	1.6	10	Pass
NVNT	BLE 1Mbps	2402	Ant1	-68.88	2300	-33.27	1.7	10	Pass
NVNT	BLE 1Mbps	2402	Ant1	-68.88	2584	-33.27	1.4	10	Pass
NVNT	BLE 1Mbps	2480	Ant1	-68.89	2380	-33.27	1.5	10	Pass
NVNT	BLE 1Mbps	2480	Ant1	-68.89	2504	-33.27	1.7	10	Pass
NVNT	BLE 1Mbps	2480	Ant1	-68.89	2300	-33.27	1.6	10	Pass
NVNT	BLE 1Mbps	2480	Ant1	-68.89	2584	-33.27	1.3	10	Pass

Test Graphs

Rx. Blockings NVNT BLE 1Mbps 2402MHz Ant1



Rx. Blockings NVNT BLE 1Mbps 2480MHz Ant1



-----END OF THE REPORT-----