

Test Information:

Serial No.:	20XN-2	Test Date:	2024/08/13
Test Site:	RF	Test Mode:	Transmitting
Tester:	Chin Qin	Test Result:	Pass

Environmental Conditions:

Temperature: (°C):	25.8	Relative Humidity: (%)	54	ATM Pressure: (kPa)	100.3
-----------------------	------	------------------------------	----	------------------------	-------

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
zhuoxiang	Coaxial Cable	SMA-178	211001	N/A	N/A
R&S	Spectrum Analyzer	FSU26	200256	2024/04/01	2025/03/31

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

6dB Emission Bandwidth**BLE 1M**

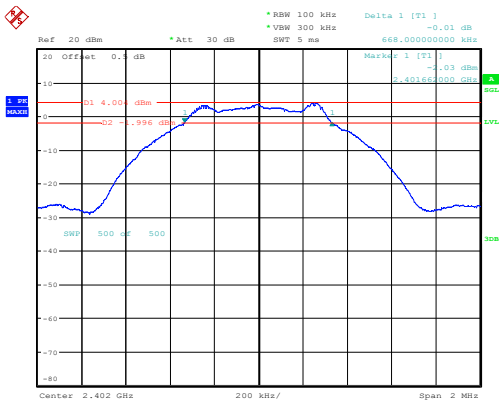
Mode	Value (MHz)	Limit (MHz)	Result
Low	0.668	≥ 0.5	Pass
Middle	0.668	≥ 0.5	Pass
High	0.672	≥ 0.5	Pass

BLE 2M

Mode	Value (MHz)	Limit (MHz)	Result
Low	1.180	≥ 0.5	Pass
Middle	1.244	≥ 0.5	Pass
High	1.180	≥ 0.5	Pass

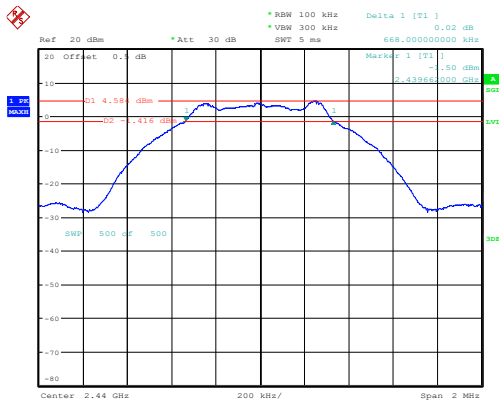
BLE 1M

Low 0.668MHz



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 19:57:11

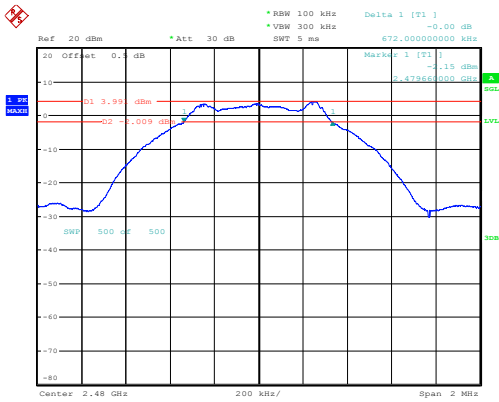
Middle 0.668MHz



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:01:20

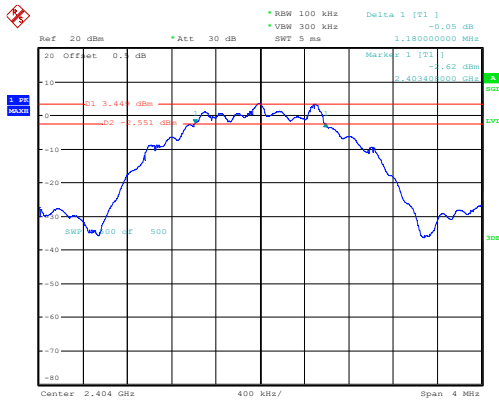
BLE 2M

High 0.672MHz



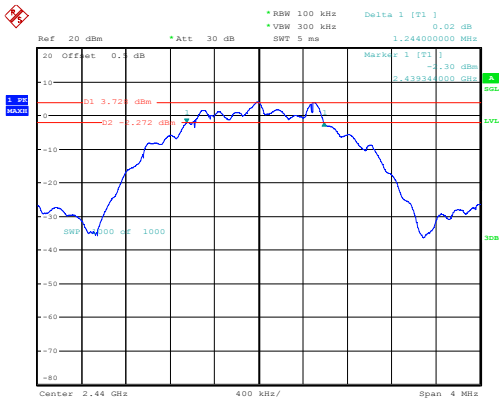
ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:05:54

Low 1.180MHz



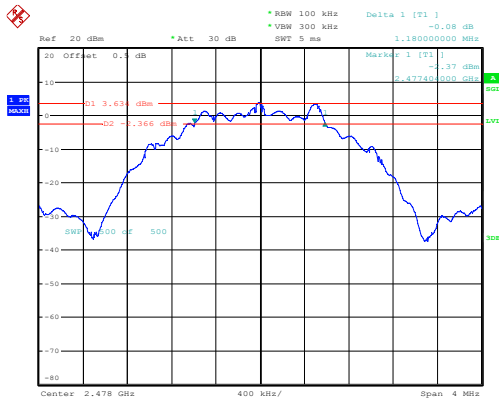
ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:15:49

Middle 1.244MHz



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:40:26

High 1.180MHz



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:23:50

99% Occupied Bandwidth**BLE 1M**

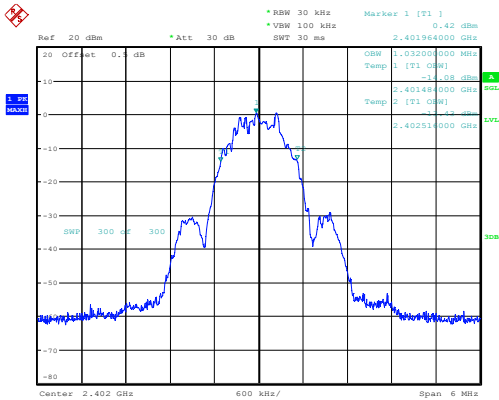
Mode	99% OBW (MHz)
Low	1.032
Middle	1.032
High	1.032

BLE 2M

Mode	99% OBW (MHz)
Low	2.064
Middle	2.064
High	2.070

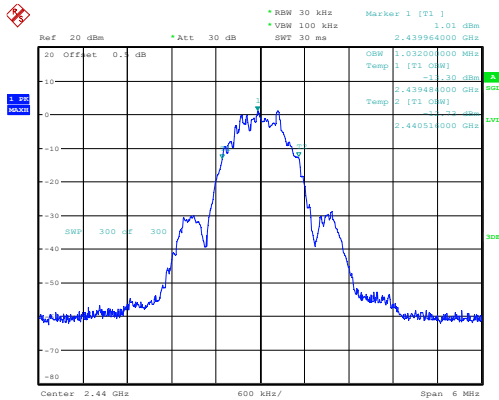
BLE 1M

Low 1.032MHz



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:48:59

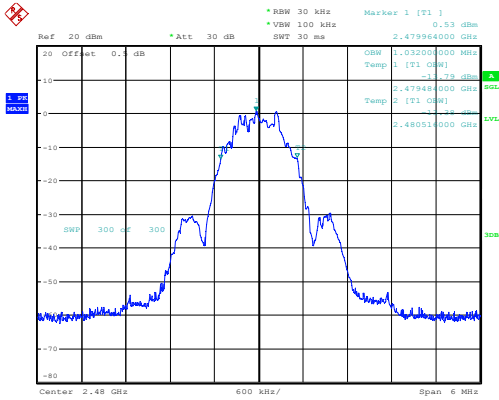
Middle 1.032MHz



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:49:52

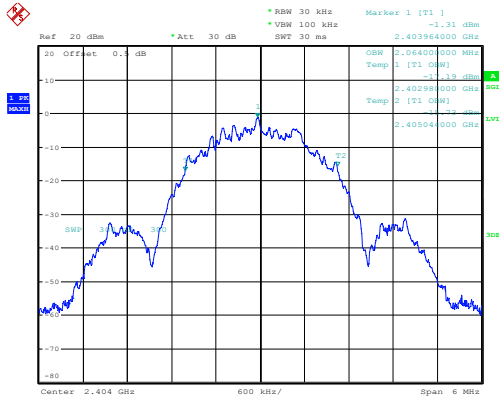
BLE 2M

High 1.032MHz



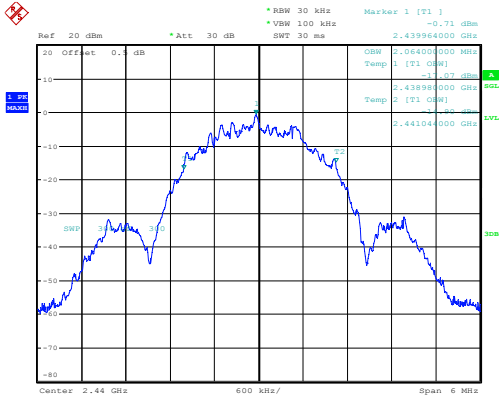
ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:50:46

Low 2.064MHz



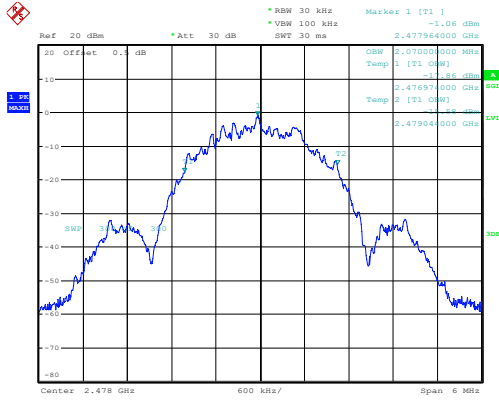
ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:54:33

Middle 2.064MHz



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:44:51

High 2.070MHz



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:47:49

Maximum Conducted Output Power**BLE 1M**

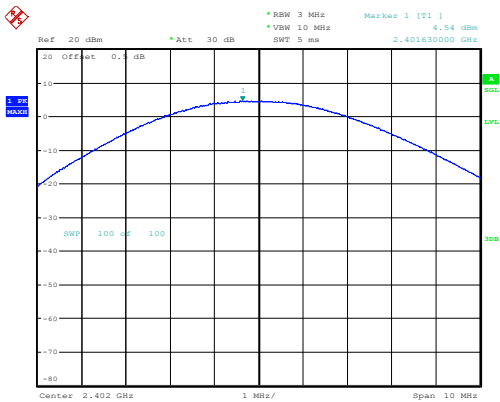
Mode	Value (dBm)	Limit (dBm)	Result
Low	4.54	30.00	Pass
Middle	5.08	30.00	Pass
High	4.58	30.00	Pass

BLE 2M

Mode	Value (dBm)	Limit (dBm)	Result
Low	4.74	30.00	Pass
Middle	5.17	30.00	Pass
High	4.91	30.00	Pass

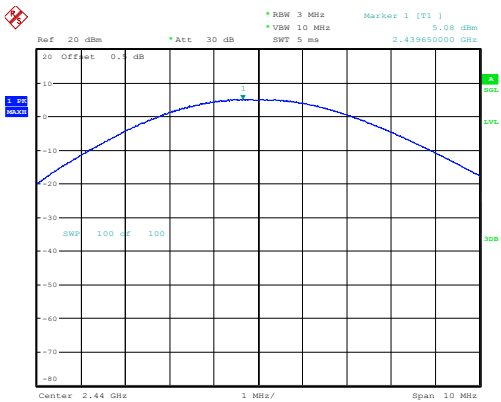
BLE 1M

Low 4.54dBm



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 19:57:26

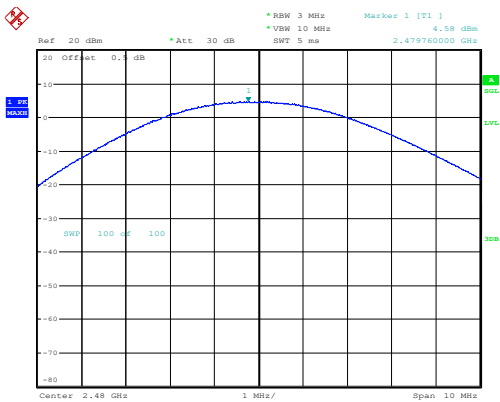
Middle 5.08dBm



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:01:35

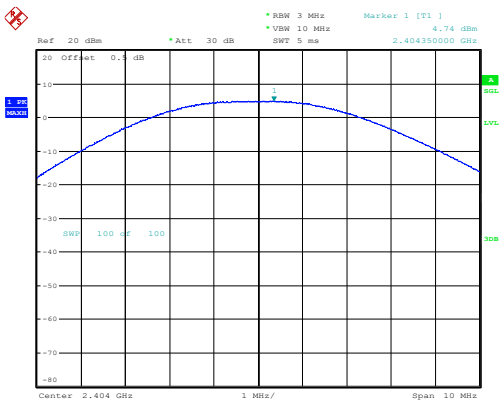
BLE 2M

High 4.58dBm



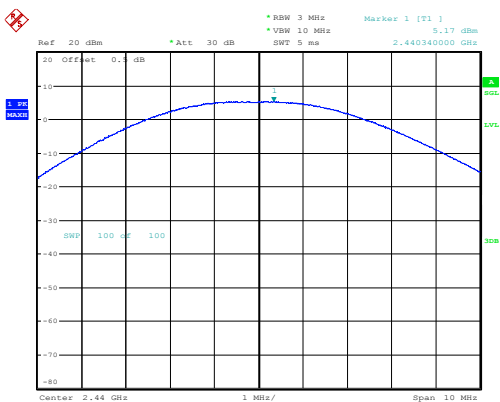
ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:06:08

Low 4.74dBm



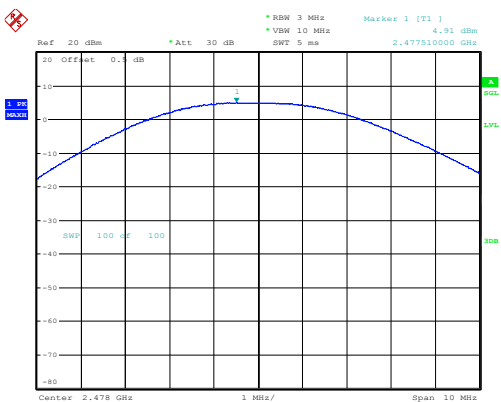
ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:17:14

Middle 5.17dBm



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:12:50

High 4.91dBm



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:25:22

Power Spectral Density**BLE 1M**

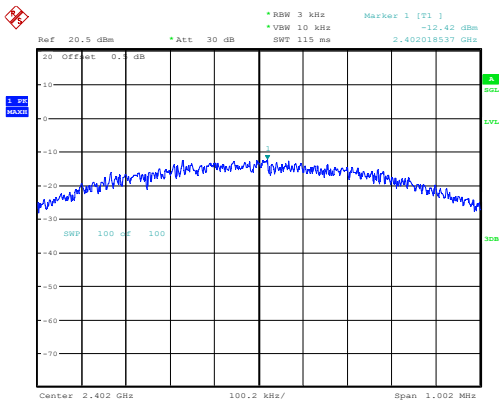
Mode	Value (dBm/3kHz)	Limit (dBm/3kHz)	Result
Low	-12.42	8	Pass
Middle	-11.86	8	Pass
High	-12.39	8	Pass

BLE 2M

Mode	Value (dBm/3kHz)	Limit (dBm/3kHz)	Result
Low	-14.52	8	Pass
Middle	-14.02	8	Pass
High	-14.31	8	Pass

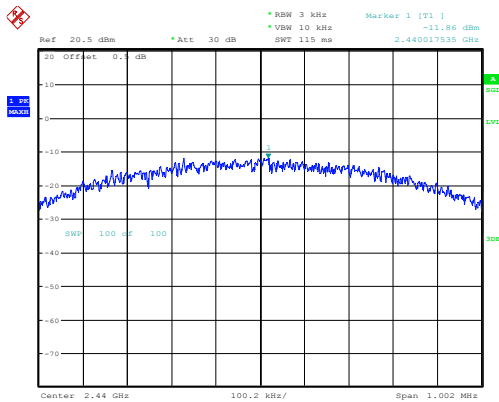
BLE 1M

Low -12.42dBm/3kHz



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 19:57:49

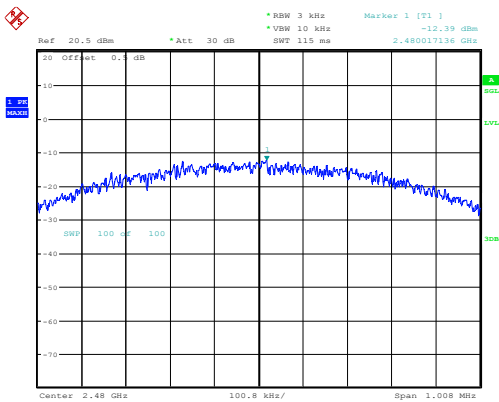
Middle -11.86dBm/3kHz



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:02:28

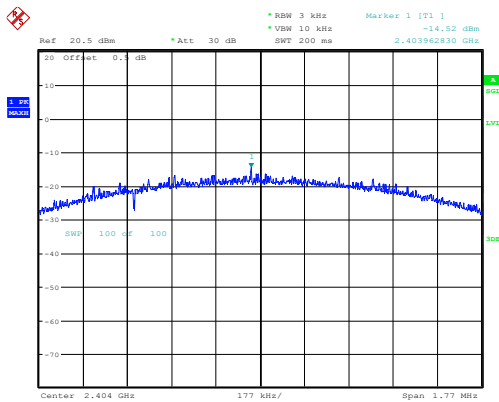
BLE 2M

High -12.39dBm/3kHz



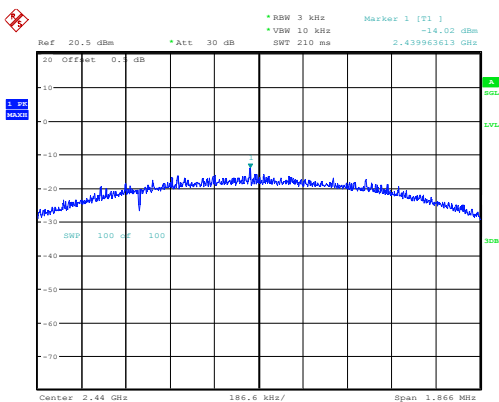
ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:06:31

Low -14.52dBm/3kHz



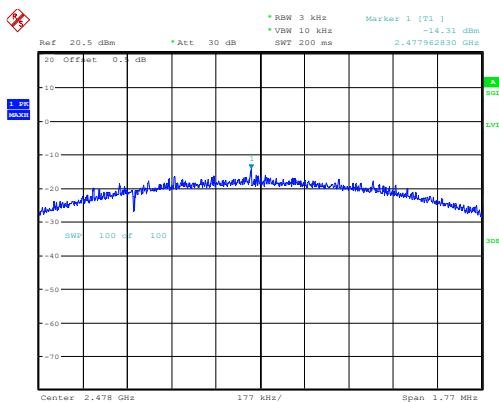
ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:21:23

Middle -14.02dBm/3kHz



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:41:13

High -14.31dBm/3kHz



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:31:21

100 kHz Bandwidth of Frequency Band Edge**BLE 1M**

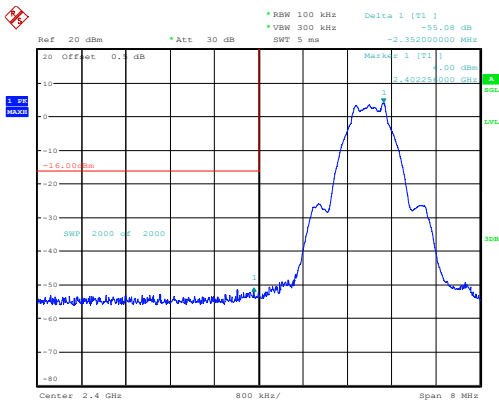
Mode	Value (dB)	Limit (dB)	Result
Low	55.08	20	Pass
High	56.91	20	Pass

BLE 2M

Mode	Value (dB)	Limit (dB)	Result
Low	55.86	20	Pass
High	54.42	20	Pass

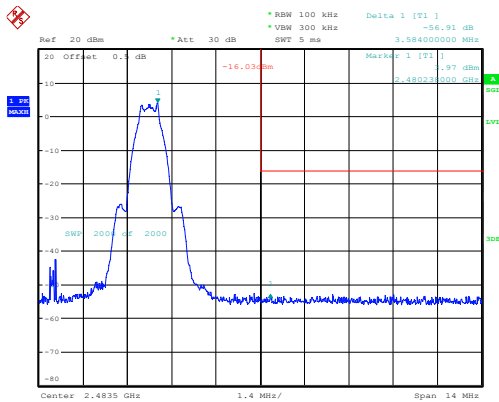
BLE 1M

Low 55.08dB



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 19:56:36

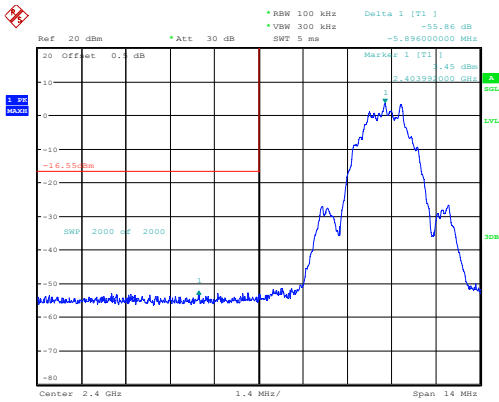
High 56.91dB



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:05:20

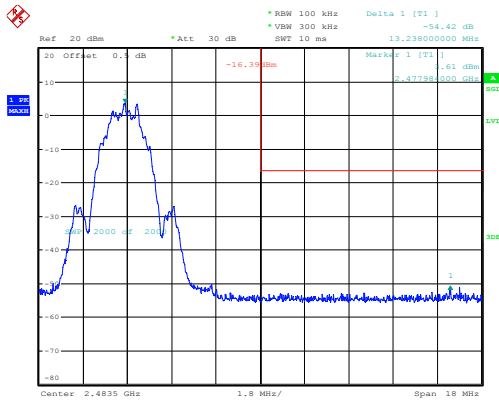
BLE 2M

Low 55.86dB



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:20:33

High 54.42dB



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:30:16

Duty Cycle**BLE 1M**

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)	1/Ton (Hz)	VBW Setting (kHz)
Middle	2.132	2.510	84.94	0.71	469	0.500

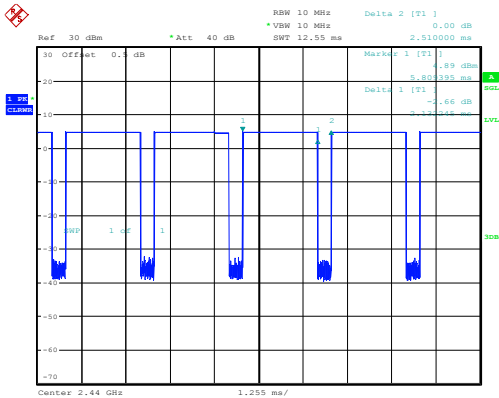
BLE 2M

Mode	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor (dB)	1/Ton (Hz)	VBW Setting (kHz)
Middle	1.061	1.880	56.44	2.48	943	1

$$\text{Duty Cycle} = \text{Ton}/(\text{Ton}+\text{Toff})*100\%$$

BLE 1M

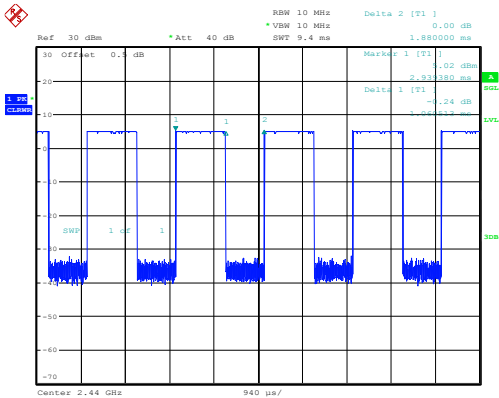
Middle



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 19:54:01

BLE 2M

Middle



ProjectNo.:2403V87404E-RF Tester:Chin Qin
Date: 13.AUG.2024 20:10:31