
FCC Part 90 Rules Test Report

Report No.: AGC00589170701FE10

FCC ID : T4KD868UV
PRODUCT DESIGNATION : DMR Digital Radio
BRAND NAME : N/A
MODEL NAME : D868UV
CLIENT : Qixiang Electron Science & Technology Co., Ltd
DATE OF ISSUE : Jul. 09,2017
STANDARD(S) : FCC Part 90 Rules
: FCC Part 22 Rules
REPORT VERSION : V 1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd



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Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Jul. 09,2017	Valid	Original Report

VERIFICATION OF COMPLIANCE

Applicant:	Qixiang Electron Science & Technology Co., Ltd
	Qixiang Building, Tangxi Industrial Zone, Luojiang, Quanzhou, Fujian, 362011 China
Manufacturer:	Qixiang Electron Science & Technology Co., Ltd
	Qixiang Building, Tangxi Industrial Zone, Luojiang, Quanzhou, Fujian, 362011 China
Product Designation:	DMR Digital Radio
Brand Name:	N/A
Test Model	D868UV
Date of Test:	Jul. 06, 2017 to Jul. 09, 2017

WE HEREBY CERTIFY THAT:

The above equipment was tested by Dongguan Precise Testing Service Co., Ltd. The data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in TIA/EIA 603. The sample tested as described in this report is in compliance with the FCC Rules Part 90 and FCC Rules Part 22 requirements

The test results of this report relate only to the tested sample identified in this report.

Tested by



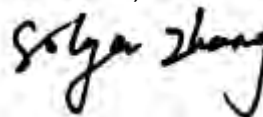
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1. GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION

The EUT is a **DIGITAL/ANALOG RADIO** designed for voice/data communication. It is designed by way of utilizing the FM/4FSK modulation achieves the system operating.

A major technical description of EUT is described as following:

Communication Type	Voice / Data
Hardware Version	VER2.0
Software Version	V1.0
Modulation	FM/4FSK
Emission Type	11K0F3E, 7K60FXD, 7K60FXW
Emission Bandwidth	Analog:6.215KHz(7W),6.218KHz(5W) ---VHF-12.5KHz Analog:6.219KHz(2.5W),6.222KHz(1W) ---VHF-12.5KHz Analog:14.96KHz(7W),14.03KHz(5W) ---VHF-25KHz Analog:14.05KHz(2.5W),14.05KHz(1W) ---VHF-25KHz Digital: 9.659KHz(7W), 9.680 KHz(5W) ---VHF-12.5KHz Digital:9.355KHz(2.5W),9.404KHz(1W) ---VHF-12.5KHz Analog:6.227KHz(6W),6.229KHz(5W) ---UHF -12.5KHz Analog:6.228KHz(2.5W),6.229KHz(1W) ---UHF -12.5KHz Analog:14.02KHz(6W),14.07KHz(5W) ---UHF -25KHz Analog:14.07KHz(2.5W),14.04KHz(1W) ---UHF -25KHz Digital:9.719KHz(6W), 9.937KHz(5W) ---UHF-12.5KHz Digital:9.618KHz(2.5W), 9.535KHz(1W) ---UHF-12.5KHz
Peak Frequency Deviation	1.95KHz
Audio Frequency Response	10.98 dB
Maximum Transmitter Power	Analog:38.31 dBm(7W), 36.75dBm (5W) ---VHF-12.5KHz Analog:33.69 dBm(2.5W), 29.82dBm (1W) ---VHF-12.5KHz Analog:38.23 dBm(7W), 36.68dBm (5W) ---VHF-12.5KHz Analog:33.63 dBm(2.5W), 29.72dBm (1W) ---VHF-12.5KHz Digital: 38.35 dBm(7W), 36.84dBm (5W) ---VHF-25KHz Digital: 33.75 dBm(2.5W), 29.71dBm (1W) ---VHF-25KHz Analog:37.71 dBm(6W), 36.82dBm (5W) --- UHF-12.5KHz Analog:33.90 dBm(2.5W), 29.86dBm (1W) --- UHF-12.5KHz Analog:37.73 dBm(6W), 36.86dBm (5W) --- UHF-25KHz Analog:33.84 dBm(2.5W), 29.86dBm (1W) ---UHF-25KHz Digital: 37.61 dBm(6W), 36.85dBm (5W) ---UHF-12.5KHz Digital: 33.81 dBm(2.5W), 29.82dBm (1W) ---UHF-12.5KHz
Output power Modification	VHF:7W/5W/2.5W/1W UHF: 6W/5W/2.5W/1W (It was fixed by the manufacturer, any individual can't arbitrarily change it.)

Data Rate	9600bps/12.5KHz(Channel Spacing)	
Antenna Designation	Detachable	
Antenna Gain	2.15 dBi	
Power Supply	DC 7.4V, 2000mAh (by battery)	
Adapter Parameter	INPUT: AC 100V-240V , 50/60Hz , 0.3A OUTPUT: DC 12V, 1A	
Limiting Voltage	DC 6V-8.51V	
Operation Frequency Range and Channel	Frequency Range: 136 MHz to 174 MHz (VHF) 400 MHz to 480 MHz (UHF) Channel Separation: 12.5KHz,25KHz (Analog), 12.5KHz(Digital)	
	Bottom Channel: 136.025MHz Middle Channel:151.85MHz Middle Channel:155.025MHz Middle Channel:161.61MHz Top Channel: 173.975MHz	Bottom Channel: 400.025MHz Middle Channel: 453.225MHz Middle Channel: 454.025MHz Top Channel: 479.975MHz
Frequency Tolerance	1.264ppm	

Frequency Range (MHz)	Rated Transmit Power(W)(Conducted)	Transmit Mode/Emission Designator
400-480	6W/5W/2.5W/1W	11K0F3E(Analog Voice;NB)
400-480	6W/5W/2.5W/1W	7K60FXD/7K60FXW(9600Data/Digital Voice NB)

Frequency Range (MHz)	Rated Transmit Power(W)(Conducted)	Transmit Mode/Emission Designator
136-174	7W/5W/2.5W/1W	11K0F3E(Analog Voice;NB)
136-174	7W/5W/2.5W/1W	7K60FXD/7K60FXW(9600Data/Digital Voice NB)

Channel No. (6.25KHz)	Channel No. (12.5KHz)	12.5KHz Channel Spaced 400MHz Band Plan(MHz)
1	1-2	400.025
2		
3	3-4	440.025
4		
5	5-6	479.975
6		

Channel No.	Channel No.	12.5KHz Channel Spaced 400MHz Band
-------------	-------------	------------------------------------

(6.25KHz)	(12.5KHz)	Plan(MHz)
1	1-2	136.025
2		
3	3-4	155.025
4		
5	5-6	173.975
6		

FCC Rules and Regulations Part 2.202: Necessary Bandwidth and Emission Bandwidth

Voice –FM Analog (12.5KHz)

Calculation:

Max modulation (M) in kHz : 3.0

Max deviation(D) in kHz:2.5

Constant factor (K): 1(assumed)

$B_n = 2XM + 2XDK = 11.0 \text{ KHz}$

Emission designator: 11K0F3E

9600 Digital Voice/data (12.5KHz)

Calculation:

Data rate in bps(R)=9600

Deviation Peak deviation of carrier(D)=2359.585

Constant factor (K): 1 (default)

$B_n = 3.86D + 1.27RK = 3.86(2359.585) + 0.27(9600)(1) = 11.7 \text{ KHz}$

Emission designator: 11K0FXD

1.2 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for FCC ID: T4KD868UV, filing to comply with Part 2, Part 22, and Part 90 of the Federal Communication Commission rules.

1.3 TEST METHODOLOGY

The radiated emission testing was performed according to the procedures of TIA/EIA 603 and FCC CFR 47 Rules of 2.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055, 2.1057.

1.4 TEST FACILITY

Site	Dongguan Precise Testing Service Co., Ltd.
Location	Building D, Baoding Technology Park, Guangming Road2, Dongcheng District, Dongguan, Guangdong, China.
Description	The test site is constructed and calibrated to meet the FCC requirements in documents TIA/EIA 603
FCC Registration No.	371540

1.5 SPECIAL ACCESSORIES

Not available for this EUT intended for grant.

1.6 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

2. SYSTEM TEST CONFIGURATION

2.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT EXERCISE

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

2.3 GENERAL TECHNICAL REQUIREMENTS

For FCC Part 90& Part 22 requirements:

- (1). Section 90.205 & 22.565: RF Output Power
- (2). Section 90.207: Modulation Characteristic
- (3). Section 90.209 & 22.359: Occupied Bandwidth
- (4). Section 90.210 & 22.359: Emission Mask
- (5). Section 90.213 & 22.355: Frequency Tolerance
- (6). Section 90.214: Transient Frequency Behavior

2.4 CONFIGURATION OF TESTED SYSTEM

Fig. 2-1 Configuration of Tested System



Table 2-1 Equipment Used in Tested System

Item	Equipment	Model No.	Identifier	Note
1	DMR Digital Radio	D868UV	FCC ID: T4KD868UV	EUT

3. SUMMARY OF TEST RESULTS

FCC Rules	Description Of Test	Result
§90.205 & 22.565	Maximum Transmitter Power	Compliant
§90.207	Modulation Characteristic	Compliant
§90.209& 22.359	Occupied Bandwidth	Compliant
§90.210& 22.359	Emission Mask	Compliant
§90.213& 22.355	Frequency Tolerance	Compliant
§90.214	Transient Frequency Behavior	Compliant

LIST OF EQUIPMENTS USED

NAME OF EQUIPMENT	MANUFACTURER	MODEL	SERIAL NO.	Cal. Date	Cal. Due
CLIMATE CHAMBER	EXPERY	TN-400	TN2007SR038	2017.06.20	2018.06.19
ATTENUATOR	WEINSCHTEL CORP	58-30-33	ML030	2017.06.20	2018.06.19
DC POWER SUPPLY	ZHAOXIN	RXN-605D	N/A	2017.06.20	2018.06.19
MODULATION ANALYZER	HP	8920B	3104A03367	2017.06.20	2018.06.19
SIGNAL GENERATOR	AGILENT	E4421B	122501288	2017.07.02	2018.07.01
SIGNAL GENERATOR	R&S	SMT03	A0304261	2017.07.02	2018.07.01
EMI Test Receiver	Rohde & Schwarz	ESCI	101417	2017.07.02	2018.07.01
Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3355	2017.07.02	2018.07.01
Substitution Antenna	SCHWARZBECK	VULB9160	9168-494	2017.07.02	2018.07.01
Signal Amplifier	SCHWARZBECK	BBV 9475	9745-0013	2017.07.02	2018.07.01
RF Cable	SCHWARZBECK	AK9515E	96221	2017.07.02	2018.07.01
3m Anechoic Chamber	CHENGYU	966	PTS-001	2017.06.02	2018.06.01
MULTI-DEVICE Positioning Controller	Max-Full	MF-7802	MF780208339	N/A	N/A
Active loop antenna (9K-30MHz)	Schwarzbeck	FMZB1519	1519-038	2017.06.02	2018.06.01
Spectrum analyzer	Agilent	E4407B	MY46185649	2017.06.02	2018.06.01
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	2017.06.02	2018.06.01
Substitution ANTENNA	EM	EM-AH-10180	67	2017.06.02	2018.06.01
Modulation Domain Analyzer	HP	53310A	3121A02467	2017.06.02	2018.06.01
EMI Test Receiver	Rohde & Schwarz	ESCI	101417	2017.06.02	2018.06.01
RF Cable	SCHWARZBECK	AK9515E	96222	2017.06.02	2018.06.01
Shielded Room	CHENGYU	843	PTS-002	2017.06.02	2018.06.01

Note: 8920B can generate audio modulation frequency.

4. DESCRIPTION OF TEST MODES

RF TEST MODES

The EUT (DMR Digital Radio) has been tested under normal operating condition. (The top channel, the middle channel and the bottom channel) are chosen for testing at each channel separation.

Analog:

No.	TEST MODES	CHANNEL SEPARATION
1	Low Channel	12.5 KHz
2	Middle Channel	12.5 KHz
3	High Channel	12.5 KHz
4	Low Channel	25 KHz
5	Middle Channel	25 KHz
6	High Channel	25 KHz

Digital:

No.	TEST MODES	CHANNEL SEPARATION
1	Low Channel	12.5 KHz
2	Middle Channel	12.5 KHz
3	High Channel	12.5 KHz

Note: Only the result of the worst case was recorded in the report.

5. FREQUENCY TOLERANCE

5.1 PROVISIONS APPLICABLE

- a). According to FCC §2.1055, § 22.355 and §90.213, the frequency stability shall be measured with variation of ambient temperature from -30°C to $+50^{\circ}\text{C}$ centigrade.
- b). According to FCC Part 2 Section 2.1055(d)(2), for battery powered equipment, the frequency stability shall be measured with reducing primary supply voltage to the battery operating end point, which is specified by the manufacturer.
- c). According to FCC Part 90 Section 90.213, the frequency tolerance must be maintained within 0.00025% for 12.5 KHz channel separation and 0.0001% for 6.25 KHz channel separation.

5.2 MEASUREMENT PROCEDURE

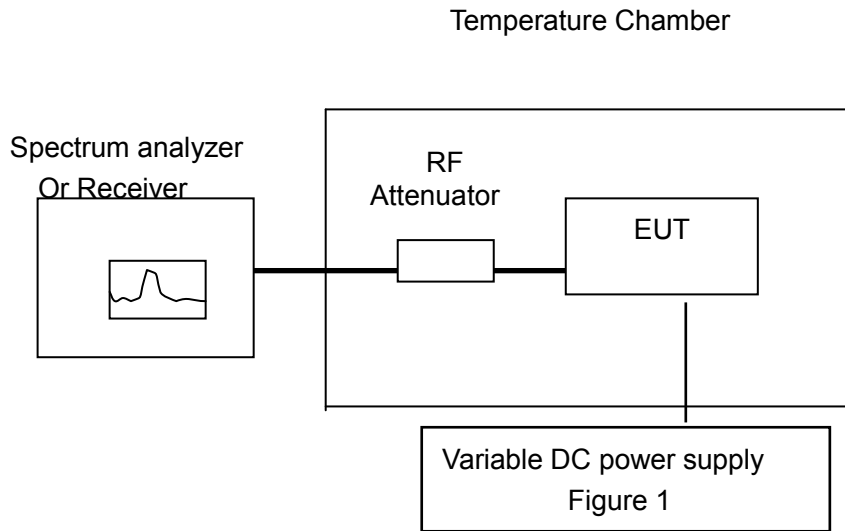
5.2.1 Frequency stability versus environmental temperature

1. Setup the configuration per figure 1 for frequencies measurement inside an environment chamber, Install new battery in the EUT.
2. Turn on EUT and set SA center frequency to the EUT radiated frequency. Set SA Resolution Bandwidth to 1KHz and Video Resolution Bandwidth to 1KHz and Frequency Span to 50KHz. Record this frequency as reference frequency.
3. Set the temperature of chamber to 50°C . Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. While maintaining a constant temperature inside the chamber, turn the EUT on and measure the EUT operating frequency.
4. Repeat step 2 with a 10°C decreased per stage until the lowest temperature -30°C is measured, record all measured frequencies on each temperature step.

5.2.2 Frequency stability versus input voltage

1. Setup the configuration per figure 1 for frequencies measured at temperature if it is within 15°C to 25°C . Otherwise, an environment chamber set for a temperature of 20°C shall be used. The EUT shall be powered by DC 7.4V.
2. Set SA center frequency to the EUT radiated frequency. Set SA Resolution Bandwidth to 1 KHz and Video Resolution Bandwidth to 1KHz. Record this frequency as reference frequency.
3. Supply the EUT primary voltage at the operating end point which is specified by manufacturer and record the frequency.

5.3 TEST SETUP BLOCK DIAGRAM



5.3 TEST RESULT

VHF-Analog-12.5KHz:

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-7W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 7.40	0.800	0.854	0.646	5
40	DC 7.40	0.532	0.662	0.966	
30	DC 7.40	0.712	0.837	0.686	
20	DC 7.40	0.946	0.573	0.672	
10	DC 7.40	0.712	0.804	0.657	
0	DC 7.40	0.864	0.765	0.542	
-10	DC 7.40	0.915	1.037	0.941	
-20	DC 7.40	0.665	0.643	0.709	
-30	DC 7.40	0.761	0.992	0.943	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 7.40 V	0.845	1.068	5
40	DC 7.40 V	0.874	0.684	
30	DC 7.40 V	0.738	0.807	
20	DC 7.40 V	0.904	0.536	
10	DC 7.40 V	0.763	0.604	
0	DC 7.40 V	0.708	0.524	
-10	DC 7.40 V	0.528	0.897	
-20	DC 7.40 V	0.807	0.980	
-30	DC 7.40 V	0.663	0.712	
Result	Pass			

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) -7W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.29	1.048	0.812	0.770	5
40	DC 6.29	0.945	0.670	0.515	
30	DC 6.29	1.043	0.646	0.920	
20	DC 6.29	0.565	0.927	1.076	
10	DC 6.29	0.715	0.976	0.965	
0	DC 6.29	0.940	0.898	0.902	
-10	DC 6.29	0.794	0.959	0.993	
-20	DC 6.29	0.516	0.787	0.791	
-30	DC 6.29	0.706	1.066	0.884	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 6.29	0.985	1.067	5
40	DC 6.29	0.729	0.570	
30	DC 6.29	1.049	0.773	
20	DC 6.29	1.030	0.539	
10	DC 6.29	0.877	0.762	
0	DC 6.29	0.872	1.005	
-10	DC 6.29	1.072	0.868	
-20	DC 6.29	0.598	1.013	
-30	DC 6.29	1.080	1.000	
Result	Pass			

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) -7W

Environment Temperature(°C)	Power	Reference Frequency			Limit:
	(V)	136.025MHz	155.025MHz	173.975MHz	ppm
50	DC 8.51	0.861	0.674	0.875	5
40	DC 8.51	0.781	1.049	0.508	
30	DC 8.51	0.723	0.624	0.733	
20	DC 8.51	0.605	0.711	0.606	
10	DC 8.51	0.974	0.965	0.702	
0	DC 8.51	0.667	0.969	0.806	
-10	DC 8.51	0.634	0.825	0.824	
-20	DC 8.51	0.649	0.955	0.682	
-30	DC 8.51	0.865	0.815	0.626	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 8.51	0.792	1.043	5
40	DC 8.51	1.059	0.579	
30	DC 8.51	0.899	0.887	
20	DC 8.51	1.094	0.569	
10	DC 8.51	1.039	0.750	
0	DC 8.51	0.772	0.884	
-10	DC 8.51	0.709	0.797	
-20	DC 8.51	0.614	0.663	
-30	DC 8.51	0.910	0.733	
Result	Pass			

(4) Frequency stability versus input voltage (Battery endpoint is 6V) -**7W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.00	0.854	0.718	0.981	5
40	DC 6.00	0.868	1.098	0.642	
30	DC 6.00	0.772	0.574	0.781	
20	DC 6.00	0.743	0.646	0.903	
10	DC 6.00	0.607	0.627	0.702	
0	DC 6.00	0.664	0.674	0.657	
-10	DC 6.00	0.889	0.929	0.823	
-20	DC 6.00	0.773	0.662	0.988	
-30	DC 6.00	1.080	0.507	0.941	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 6.00 V	0.856	1.006	5
40	DC 6.00 V	0.860	0.508	
30	DC 6.00 V	0.697	1.073	
20	DC 6.00 V	0.923	1.087	
10	DC 6.00 V	0.654	0.573	
0	DC 6.00 V	0.805	0.858	
-10	DC 6.00 V	0.633	0.613	
-20	DC 6.00 V	0.564	1.066	
-30	DC 6.00 V	1.028	0.706	
Result	Pass			

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-**5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 7.40	0.892	0.900	1.097	5
40	DC 7.40	0.629	0.508	0.578	
30	DC 7.40	0.957	1.002	0.672	
20	DC 7.40	0.638	0.889	0.784	
10	DC 7.40	0.861	0.926	0.894	
0	DC 7.40	0.964	0.746	0.728	
-10	DC 7.40	0.908	1.008	0.801	
-20	DC 7.40	0.937	1.033	0.978	
-30	DC 7.40	0.891	0.533	0.518	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit: ppm
	(V)	151.85MHz	161.61MHz	
50	DC 7.40 V	0.804	1.264	5
40	DC 7.40 V	1.099	0.923	
30	DC 7.40 V	0.988	0.644	
20	DC 7.40 V	1.057	0.743	
10	DC 7.40 V	0.654	0.933	
0	DC 7.40 V	0.659	0.650	
-10	DC 7.40 V	0.767	0.989	
-20	DC 7.40 V	0.664	1.066	
-30	DC 7.40 V	1.060	0.557	
Result	Pass			

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-5W**

Environment Temperature(°C)	Power	Reference Frequency			Limit: ppm
	(V)	136.025MHz	155.025MHz	173.975MHz	
50	DC 6.29	0.659	0.925	0.953	5
40	DC 6.29	1.061	0.696	0.939	
30	DC 6.29	1.060	0.762	0.916	
20	DC 6.29	0.699	0.945	0.671	
10	DC 6.29	0.635	1.048	0.675	
0	DC 6.29	0.930	0.565	0.922	
-10	DC 6.29	1.048	0.828	0.869	
-20	DC 6.29	1.086	0.538	0.722	
-30	DC 6.29	0.718	0.892	0.862	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit: ppm
	(V)	151.85MHz	161.61MHz	
50	DC 6.29	1.062	0.693	5
40	DC 6.29	0.688	1.049	
30	DC 6.29	0.664	1.081	
20	DC 6.29	0.664	0.816	
10	DC 6.29	0.730	0.592	
0	DC 6.29	0.763	0.668	
-10	DC 6.29	0.600	0.769	
-20	DC 6.29	0.522	0.557	
-30	DC 6.29	0.875	0.655	
Result	Pass			

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 8.51	0.558	0.626	0.683	5
40	DC 8.51	1.015	1.036	0.659	
30	DC 8.51	0.808	0.545	0.953	
20	DC 8.51	0.689	0.786	1.053	
10	DC 8.51	0.623	0.739	0.555	
0	DC 8.51	0.761	0.721	1.088	
-10	DC 8.51	0.832	1.081	1.005	
-20	DC 8.51	0.780	0.987	1.052	
-30	DC 8.51	0.966	1.083	1.010	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 8.51	1.031	0.606	5
40	DC 8.51	0.927	0.674	
30	DC 8.51	0.622	0.773	
20	DC 8.51	1.014	1.054	
10	DC 8.51	0.919	1.066	
0	DC 8.51	0.909	0.813	
-10	DC 8.51	0.669	0.639	
-20	DC 8.51	0.777	0.952	
-30	DC 8.51	0.923	0.923	
Result	Pass			

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.00	0.783	0.916	0.545	5
40	DC 6.00	0.690	0.742	0.885	
30	DC 6.00	0.802	0.891	0.577	
20	DC 6.00	1.006	1.087	0.615	
10	DC 6.00	0.586	0.659	0.825	
0	DC 6.00	0.921	0.804	0.714	
-10	DC 6.00	1.038	0.586	0.673	
-20	DC 6.00	0.772	1.060	0.653	
-30	DC 6.00	0.747	0.521	0.932	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 6.00 V	0.726	0.655	5
40	DC 6.00 V	0.914	0.568	
30	DC 6.00 V	0.920	0.618	
20	DC 6.00 V	0.906	0.723	
10	DC 6.00 V	0.886	1.007	
0	DC 6.00 V	0.746	0.556	
-10	DC 6.00 V	0.672	0.836	
-20	DC 6.00 V	0.821	0.869	
-30	DC 6.00 V	0.733	0.691	
Result	Pass			

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-2.5W

Environment Temperature(°C)	Power	Reference Frequency			Limit:
	(V)	136.025MHz	155.025MHz	173.975MHz	ppm
50	DC 7.40	0.861	1.086	0.695	5
40	DC 7.40	1.050	0.665	0.923	
30	DC 7.40	0.753	0.572	0.777	
20	DC 7.40	0.521	0.835	0.887	
10	DC 7.40	1.068	0.544	0.654	
0	DC 7.40	0.997	1.041	0.703	
-10	DC 7.40	0.941	0.563	0.917	
-20	DC 7.40	0.740	0.636	0.954	
-30	DC 7.40	0.958	0.624	0.519	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 7.40 V	0.636	0.689	5
40	DC 7.40 V	0.554	0.780	
30	DC 7.40 V	1.091	0.726	
20	DC 7.40 V	0.747	0.665	
10	DC 7.40 V	1.066	0.839	
0	DC 7.40 V	0.956	1.035	
-10	DC 7.40 V	0.594	0.908	
-20	DC 7.40 V	0.699	0.974	
-30	DC 7.40 V	0.725	0.981	
Result	Pass			

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-2.5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.29	0.689	0.896	0.745	5
40	DC 6.29	0.771	0.733	0.850	
30	DC 6.29	1.066	0.719	0.780	
20	DC 6.29	0.558	0.780	0.895	
10	DC 6.29	0.978	0.990	0.842	
0	DC 6.29	0.747	1.010	0.942	
-10	DC 6.29	0.664	0.795	1.034	
-20	DC 6.29	0.690	0.872	0.720	
-30	DC 6.29	0.906	0.575	0.967	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 6.29	0.829	1.073	5
40	DC 6.29	1.038	0.835	
30	DC 6.29	0.737	0.850	
20	DC 6.29	0.608	0.689	
10	DC 6.29	0.700	0.956	
0	DC 6.29	0.940	0.936	
-10	DC 6.29	0.872	1.035	
-20	DC 6.29	1.046	0.761	
-30	DC 6.29	1.094	0.988	
Result	Pass			

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-2.5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 8.51	0.856	0.505	0.822	5
40	DC 8.51	0.865	0.603	1.090	
30	DC 8.51	0.749	0.920	0.746	
20	DC 8.51	0.888	0.582	0.557	
10	DC 8.51	1.066	0.848	0.863	
0	DC 8.51	1.058	0.984	0.718	
-10	DC 8.51	0.916	0.684	0.805	
-20	DC 8.51	0.626	1.024	1.060	
-30	DC 8.51	0.645	1.074	0.831	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit: ppm
	(V)	151.85MHz	161.61MHz	
50	DC 8.51	0.626	0.758	5
40	DC 8.51	0.562	0.781	
30	DC 8.51	0.978	0.940	
20	DC 8.51	0.702	0.559	
10	DC 8.51	0.577	0.801	
0	DC 8.51	0.583	0.722	
-10	DC 8.51	0.559	0.733	
-20	DC 8.51	0.862	1.012	
-30	DC 8.51	0.785	0.672	
Result	Pass			

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-2.5W**

Environment Temperature(°C)	Power	Reference Frequency			Limit: ppm
	(V)	136.025MHz	155.025MHz	173.975MHz	
50	DC 6.00	0.881	0.723	0.699	5
40	DC 6.00	0.561	0.698	0.778	
30	DC 6.00	0.536	0.629	0.520	
20	DC 6.00	0.519	0.526	0.729	
10	DC 6.00	1.068	0.763	0.736	
0	DC 6.00	0.749	0.815	0.758	
-10	DC 6.00	0.520	0.866	0.853	
-20	DC 6.00	0.835	0.749	0.649	
-30	DC 6.00	1.009	1.074	0.893	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit: ppm
	(V)	151.85MHz	161.61MHz	
50	DC 6.00 V	0.727	0.992	5
40	DC 6.00 V	0.712	0.984	
30	DC 6.00 V	0.546	0.673	
20	DC 6.00 V	1.045	0.895	
10	DC 6.00 V	0.905	0.868	
0	DC 6.00 V	0.752	0.996	
-10	DC 6.00 V	0.914	0.571	
-20	DC 6.00 V	0.993	0.986	
-30	DC 6.00 V	1.079	0.773	
Result	Pass			

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-1W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 7.40	0.656	0.809	0.862	5
40	DC 7.40	1.099	0.864	0.637	
30	DC 7.40	0.754	0.989	0.768	
20	DC 7.40	0.658	0.879	0.975	
10	DC 7.40	0.898	0.806	0.592	
0	DC 7.40	0.724	0.570	0.514	
-10	DC 7.40	0.514	0.961	0.929	
-20	DC 7.40	0.919	0.652	0.732	
-30	DC 7.40	0.605	0.568	0.546	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 7.40 V	1.034	0.687	5
40	DC 7.40 V	0.636	0.555	
30	DC 7.40 V	0.752	0.834	
20	DC 7.40 V	1.084	0.753	
10	DC 7.40 V	1.060	0.776	
0	DC 7.40 V	0.628	0.881	
-10	DC 7.40 V	1.077	0.639	
-20	DC 7.40 V	0.695	0.971	
-30	DC 7.40 V	0.794	0.889	
Result	Pass			

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) -1W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.29	0.788	1.062	0.699	5
40	DC 6.29	0.887	0.518	1.095	
30	DC 6.29	0.662	0.863	0.703	
20	DC 6.29	0.729	0.893	0.557	
10	DC 6.29	0.636	0.782	0.556	
0	DC 6.29	0.754	0.628	0.809	
-10	DC 6.29	0.518	0.875	0.735	
-20	DC 6.29	0.851	1.012	0.697	
-30	DC 6.29	0.854	0.615	0.894	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 6.29	0.582	1.013	5
40	DC 6.29	0.506	0.587	
30	DC 6.29	0.579	0.543	
20	DC 6.29	0.968	1.026	
10	DC 6.29	0.638	0.621	
0	DC 6.29	0.879	1.048	
-10	DC 6.29	0.952	0.607	
-20	DC 6.29	1.091	0.693	
-30	DC 6.29	0.795	1.077	
Result	Pass			

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) -1W

Environment Temperature(°C)	Power	Reference Frequency			Limit:
	(V)	136.025MHz	155.025MHz	173.975MHz	ppm
50	DC 8.51	0.617	0.813	0.916	5
40	DC 8.51	0.529	1.009	1.094	
30	DC 8.51	1.049	0.516	0.637	
20	DC 8.51	0.617	0.669	0.781	
10	DC 8.51	0.576	0.576	0.898	
0	DC 8.51	0.876	0.833	0.793	
-10	DC 8.51	0.721	1.019	0.810	
-20	DC 8.51	0.918	1.022	0.689	
-30	DC 8.51	0.521	0.639	0.967	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 8.51	1.096	0.666	5
40	DC 8.51	0.862	0.810	
30	DC 8.51	0.937	0.804	
20	DC 8.51	0.834	0.808	
10	DC 8.51	0.701	0.811	
0	DC 8.51	1.059	0.727	
-10	DC 8.51	0.569	1.025	
-20	DC 8.51	0.836	0.849	
-30	DC 8.51	0.500	0.708	
Result	Pass			

(4) Frequency stability versus input voltage (Battery endpoint is 6V) -1W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.00	0.748	0.659	0.516	5
40	DC 6.00	0.859	0.577	0.584	
30	DC 6.00	0.626	0.887	0.657	
20	DC 6.00	0.526	0.747	0.723	
10	DC 6.00	0.653	0.849	0.843	
0	DC 6.00	0.599	0.576	0.628	
-10	DC 6.00	0.656	0.627	0.575	
-20	DC 6.00	1.055	0.838	0.500	
-30	DC 6.00	0.645	0.571	0.916	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 6.00 V	0.564	0.665	5
40	DC 6.00 V	1.032	0.845	
30	DC 6.00 V	0.594	0.906	
20	DC 6.00 V	0.543	0.661	
10	DC 6.00 V	0.922	0.922	
0	DC 6.00 V	0.780	0.717	
-10	DC 6.00 V	0.518	0.735	
-20	DC 6.00 V	0.525	0.952	
-30	DC 6.00 V	0.829	0.681	
Result	Pass			

VHF-Analog-25KHz:

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-**7W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 7.40	1.055	1.091	0.728	5
40	DC 7.40	0.846	1.099	0.915	
30	DC 7.40	0.522	1.017	1.077	
20	DC 7.40	0.619	0.642	0.561	
10	DC 7.40	0.623	0.978	0.784	
0	DC 7.40	0.651	1.011	0.622	
-10	DC 7.40	0.663	0.988	0.681	
-20	DC 7.40	0.693	0.790	1.038	
-30	DC 7.40	0.607	0.843	0.535	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 7.40 V	1.079	0.911	5
40	DC 7.40 V	0.896	0.516	
30	DC 7.40 V	0.504	0.699	
20	DC 7.40 V	0.987	0.560	
10	DC 7.40 V	0.654	0.590	
0	DC 7.40 V	0.701	0.934	
-10	DC 7.40 V	1.026	0.727	
-20	DC 7.40 V	0.989	0.526	
-30	DC 7.40 V	0.804	0.711	
Result	Pass			

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) -**7W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.29	0.822	0.970	0.529	5
40	DC 6.29	0.905	1.013	0.700	
30	DC 6.29	0.898	0.644	0.689	
20	DC 6.29	0.850	0.805	1.050	
10	DC 6.29	0.751	1.041	0.576	
0	DC 6.29	0.515	0.777	0.816	
-10	DC 6.29	1.060	1.075	0.719	
-20	DC 6.29	0.744	0.734	1.025	
-30	DC 6.29	0.640	0.567	0.591	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 6.29	0.786	1.047	5
40	DC 6.29	0.598	0.724	
30	DC 6.29	0.607	0.513	
20	DC 6.29	1.020	0.891	
10	DC 6.29	0.820	1.090	
0	DC 6.29	0.707	0.792	
-10	DC 6.29	0.998	1.034	
-20	DC 6.29	0.644	0.659	
-30	DC 6.29	0.775	0.540	
Result	Pass			

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) -7W

Environment Temperature(°C)	Power	Reference Frequency			Limit:
	(V)	136.025MHz	155.025MHz	173.975MHz	ppm
50	DC 8.51	0.870	0.857	0.764	5
40	DC 8.51	0.932	0.786	1.093	
30	DC 8.51	0.954	0.813	1.073	
20	DC 8.51	0.731	0.792	0.556	
10	DC 8.51	0.508	1.026	1.053	
0	DC 8.51	0.759	0.867	1.020	
-10	DC 8.51	0.904	0.696	0.702	
-20	DC 8.51	0.679	0.613	0.711	
-30	DC 8.51	0.501	0.674	1.078	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 8.51	0.925	0.995	5
40	DC 8.51	0.777	0.569	
30	DC 8.51	1.097	0.771	
20	DC 8.51	0.769	0.696	
10	DC 8.51	0.911	1.095	
0	DC 8.51	1.015	0.851	
-10	DC 8.51	0.870	0.873	
-20	DC 8.51	1.040	0.643	
-30	DC 8.51	0.839	0.838	
Result	Pass			

(4) Frequency stability versus input voltage (Battery endpoint is 6V) -7W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.00	1.100	0.823	0.788	5
40	DC 6.00	0.581	0.894	0.903	
30	DC 6.00	0.807	1.071	0.756	
20	DC 6.00	0.785	0.963	0.920	
10	DC 6.00	1.020	0.761	0.911	
0	DC 6.00	1.080	0.610	0.866	
-10	DC 6.00	0.744	0.534	0.959	
-20	DC 6.00	0.864	0.937	0.691	
-30	DC 6.00	0.708	1.029	0.762	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 6.00 V	0.580	0.594	5
40	DC 6.00 V	1.083	1.084	
30	DC 6.00 V	1.085	1.097	
20	DC 6.00 V	0.998	0.955	
10	DC 6.00 V	0.971	0.830	
0	DC 6.00 V	0.875	0.527	
-10	DC 6.00 V	0.845	0.994	
-20	DC 6.00 V	0.968	0.874	
-30	DC 6.00 V	0.835	0.796	
Result	Pass			

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-5W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 7.40	0.621	0.847	0.986	5
40	DC 7.40	0.587	0.655	0.568	
30	DC 7.40	0.650	1.098	0.751	
20	DC 7.40	0.539	0.597	0.745	
10	DC 7.40	0.920	0.583	0.554	
0	DC 7.40	0.705	0.523	0.837	
-10	DC 7.40	0.542	0.819	0.959	
-20	DC 7.40	0.844	0.885	0.777	
-30	DC 7.40	0.646	0.855	0.617	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit: ppm
	(V)	151.85MHz	161.61MHz	
50	DC 7.40 V	0.931	0.840	5
40	DC 7.40 V	0.985	0.622	
30	DC 7.40 V	0.545	0.868	
20	DC 7.40 V	0.964	0.556	
10	DC 7.40 V	0.903	1.021	
0	DC 7.40 V	0.657	0.679	
-10	DC 7.40 V	0.706	1.090	
-20	DC 7.40 V	1.019	0.625	
-30	DC 7.40 V	0.813	0.960	
Result	Pass			

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-5W**

Environment Temperature(°C)	Power	Reference Frequency			Limit: ppm
	(V)	136.025MHz	155.025MHz	173.975MHz	
50	DC 6.29	0.707	0.858	0.720	5
40	DC 6.29	0.736	0.666	0.562	
30	DC 6.29	0.778	0.871	1.001	
20	DC 6.29	1.076	1.003	0.605	
10	DC 6.29	0.572	0.729	0.796	
0	DC 6.29	0.511	0.528	0.941	
-10	DC 6.29	0.984	0.801	0.917	
-20	DC 6.29	0.660	0.662	0.793	
-30	DC 6.29	0.744	0.748	0.977	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit: ppm
	(V)	151.85MHz	161.61MHz	
50	DC 6.29	0.567	0.570	5
40	DC 6.29	1.045	1.052	
30	DC 6.29	0.696	0.806	
20	DC 6.29	0.903	0.868	
10	DC 6.29	0.840	0.752	
0	DC 6.29	0.572	0.911	
-10	DC 6.29	0.753	0.717	
-20	DC 6.29	0.784	0.997	
-30	DC 6.29	0.533	0.648	
Result	Pass			

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 8.51	0.983	0.569	0.979	5
40	DC 8.51	0.523	1.075	0.629	
30	DC 8.51	0.602	0.894	0.562	
20	DC 8.51	0.590	0.645	0.690	
10	DC 8.51	0.885	0.720	0.962	
0	DC 8.51	1.022	0.921	0.978	
-10	DC 8.51	0.818	0.967	1.028	
-20	DC 8.51	0.861	0.717	0.664	
-30	DC 8.51	0.765	0.704	0.980	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 8.51	0.576	0.840	5
40	DC 8.51	0.894	0.878	
30	DC 8.51	0.654	1.051	
20	DC 8.51	0.970	0.504	
10	DC 8.51	0.762	0.507	
0	DC 8.51	0.816	1.052	
-10	DC 8.51	0.728	0.890	
-20	DC 8.51	0.898	0.940	
-30	DC 8.51	0.861	1.023	
Result	Pass			

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.00	0.665	0.725	0.973	5
40	DC 6.00	0.966	0.519	0.911	
30	DC 6.00	1.034	0.930	1.060	
20	DC 6.00	0.561	1.009	0.657	
10	DC 6.00	0.952	1.019	0.780	
0	DC 6.00	1.043	0.581	1.036	
-10	DC 6.00	0.791	0.872	0.790	
-20	DC 6.00	1.061	0.729	0.830	
-30	DC 6.00	0.829	0.701	0.954	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 6.00 V	0.505	0.583	5
40	DC 6.00 V	0.718	0.510	
30	DC 6.00 V	1.099	1.094	
20	DC 6.00 V	0.728	0.908	
10	DC 6.00 V	0.923	0.992	
0	DC 6.00 V	0.621	0.852	
-10	DC 6.00 V	0.727	0.857	
-20	DC 6.00 V	0.946	0.925	
-30	DC 6.00 V	0.667	1.099	
Result	Pass			

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-2.5W

Environment Temperature(°C)	Power	Reference Frequency			Limit:
	(V)	136.025MHz	155.025MHz	173.975MHz	ppm
50	DC 7.40	0.515	0.875	0.542	5
40	DC 7.40	0.599	0.791	0.630	
30	DC 7.40	0.749	0.568	0.733	
20	DC 7.40	0.826	0.656	0.860	
10	DC 7.40	0.801	0.890	0.923	
0	DC 7.40	0.858	0.677	0.894	
-10	DC 7.40	0.705	0.643	1.016	
-20	DC 7.40	0.582	0.644	0.603	
-30	DC 7.40	0.535	0.973	0.731	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 7.40 V	0.806	1.000	5
40	DC 7.40 V	0.573	1.035	
30	DC 7.40 V	0.503	1.084	
20	DC 7.40 V	0.567	0.636	
10	DC 7.40 V	0.767	0.768	
0	DC 7.40 V	0.680	1.024	
-10	DC 7.40 V	0.599	0.749	
-20	DC 7.40 V	0.783	1.093	
-30	DC 7.40 V	0.751	1.002	
Result	Pass			

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-2.5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.29	0.800	1.058	0.659	5
40	DC 6.29	0.543	0.763	0.913	
30	DC 6.29	0.818	0.916	1.088	
20	DC 6.29	0.558	1.066	1.022	
10	DC 6.29	0.843	0.808	0.765	
0	DC 6.29	0.757	1.061	0.535	
-10	DC 6.29	0.893	0.850	0.846	
-20	DC 6.29	0.632	1.007	0.737	
-30	DC 6.29	0.795	0.742	0.521	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 6.29	1.096	1.005	5
40	DC 6.29	0.613	0.692	
30	DC 6.29	0.501	0.762	
20	DC 6.29	0.531	0.508	
10	DC 6.29	0.560	0.818	
0	DC 6.29	0.514	0.752	
-10	DC 6.29	0.554	0.847	
-20	DC 6.29	0.618	0.821	
-30	DC 6.29	0.841	0.969	
Result	Pass			

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-2.5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 8.51	1.072	1.002	0.978	5
40	DC 8.51	1.069	0.971	0.642	
30	DC 8.51	0.641	0.582	0.616	
20	DC 8.51	1.001	0.549	1.090	
10	DC 8.51	0.824	0.711	0.866	
0	DC 8.51	1.050	0.639	0.667	
-10	DC 8.51	0.685	0.528	0.700	
-20	DC 8.51	0.668	0.523	0.593	
-30	DC 8.51	0.608	0.931	0.801	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 8.51	0.789	0.757	5
40	DC 8.51	0.700	0.627	
30	DC 8.51	0.661	1.008	
20	DC 8.51	1.058	0.844	
10	DC 8.51	0.908	0.845	
0	DC 8.51	0.952	0.726	
-10	DC 8.51	0.862	0.984	
-20	DC 8.51	0.930	0.535	
-30	DC 8.51	0.965	1.007	
Result	Pass			

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-2.5W**

Environment Temperature(°C)	Power	Reference Frequency			Limit:
	(V)	136.025MHz	155.025MHz	173.975MHz	ppm
50	DC 6.00	0.503	0.593	0.952	5
40	DC 6.00	0.549	0.954	0.966	
30	DC 6.00	0.839	0.924	1.091	
20	DC 6.00	0.525	0.994	1.086	
10	DC 6.00	0.724	0.710	1.065	
0	DC 6.00	0.747	1.057	0.905	
-10	DC 6.00	0.880	0.530	1.028	
-20	DC 6.00	0.565	0.866	1.016	
-30	DC 6.00	0.980	0.675	1.070	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 6.00 V	1.090	0.751	5
40	DC 6.00 V	0.754	0.598	
30	DC 6.00 V	0.743	0.620	
20	DC 6.00 V	1.014	0.877	
10	DC 6.00 V	1.024	0.578	
0	DC 6.00 V	1.099	0.717	
-10	DC 6.00 V	0.719	0.601	
-20	DC 6.00 V	0.689	0.950	
-30	DC 6.00 V	0.581	0.772	
Result	Pass			

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-1W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 7.40	0.567	1.033	0.868	5
40	DC 7.40	0.810	1.072	0.814	
30	DC 7.40	0.952	1.048	0.904	
20	DC 7.40	0.617	0.821	0.697	
10	DC 7.40	0.640	0.732	0.796	
0	DC 7.40	0.917	0.623	0.574	
-10	DC 7.40	0.985	0.697	0.763	
-20	DC 7.40	0.527	1.003	0.701	
-30	DC 7.40	0.866	0.744	0.535	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 7.40 V	0.672	0.767	5
40	DC 7.40 V	0.867	0.869	
30	DC 7.40 V	1.065	1.058	
20	DC 7.40 V	0.965	0.948	
10	DC 7.40 V	0.967	1.067	
0	DC 7.40 V	0.672	1.072	
-10	DC 7.40 V	0.788	0.586	
-20	DC 7.40 V	0.570	0.790	
-30	DC 7.40 V	0.547	0.995	
Result	Pass			

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) -1W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.29	0.716	0.626	0.959	5
40	DC 6.29	0.613	0.777	0.877	
30	DC 6.29	0.923	0.969	0.627	
20	DC 6.29	0.779	0.614	0.706	
10	DC 6.29	0.692	0.785	0.824	
0	DC 6.29	0.638	0.790	0.638	
-10	DC 6.29	0.755	1.056	0.942	
-20	DC 6.29	0.661	0.838	1.093	
-30	DC 6.29	0.806	0.676	0.996	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit: ppm
	(V)	151.85MHz	161.61MHz	
50	DC 6.29	0.750	0.714	5
40	DC 6.29	0.957	0.920	
30	DC 6.29	0.705	1.074	
20	DC 6.29	0.529	0.821	
10	DC 6.29	0.812	0.514	
0	DC 6.29	1.004	0.717	
-10	DC 6.29	0.950	1.037	
-20	DC 6.29	0.839	0.608	
-30	DC 6.29	0.585	0.630	
Result	Pass			

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-1W**

Environment Temperature(°C)	Power	Reference Frequency			Limit: ppm
	(V)	136.025MHz	155.025MHz	173.975MHz	
50	DC 8.51	1.077	0.711	0.560	5
40	DC 8.51	0.709	1.016	0.704	
30	DC 8.51	0.785	0.706	0.681	
20	DC 8.51	0.708	0.531	0.707	
10	DC 8.51	0.856	0.588	0.695	
0	DC 8.51	1.018	0.742	0.666	
-10	DC 8.51	0.819	0.630	1.012	
-20	DC 8.51	0.589	0.545	0.739	
-30	DC 8.51	1.021	0.556	0.720	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit: ppm
	(V)	151.85MHz	161.61MHz	
50	DC 8.51	0.529	1.069	5
40	DC 8.51	1.036	0.677	
30	DC 8.51	0.968	1.097	
20	DC 8.51	0.740	0.996	
10	DC 8.51	0.826	0.944	
0	DC 8.51	0.725	0.598	
-10	DC 8.51	0.515	0.982	
-20	DC 8.51	0.608	1.087	
-30	DC 8.51	0.712	0.921	
Result	Pass			

(4) Frequency stability versus input voltage (Battery endpoint is 6V) -1W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.00	0.813	0.556	0.714	5
40	DC 6.00	0.560	0.620	1.083	
30	DC 6.00	0.586	0.714	0.875	
20	DC 6.00	1.007	0.728	0.838	
10	DC 6.00	0.849	0.748	0.908	
0	DC 6.00	0.714	0.839	0.906	
-10	DC 6.00	1.033	0.912	1.016	
-20	DC 6.00	0.505	0.645	1.009	
-30	DC 6.00	1.012	0.901	0.670	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 6.00 V	1.032	0.574	5
40	DC 6.00 V	0.932	0.722	
30	DC 6.00 V	0.682	0.687	
20	DC 6.00 V	0.722	0.505	
10	DC 6.00 V	0.573	0.660	
0	DC 6.00 V	0.948	1.071	
-10	DC 6.00 V	0.574	0.752	
-20	DC 6.00 V	0.731	0.735	
-30	DC 6.00 V	1.048	0.886	
Result	Pass			

Digital-12.5KHz:

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-7W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 7.40	0.761	0.781	0.947	5
40	DC 7.40	0.820	0.693	0.886	
30	DC 7.40	0.962	0.836	0.795	
20	DC 7.40	0.546	1.034	0.729	
10	DC 7.40	0.601	1.071	0.968	
0	DC 7.40	0.644	0.649	0.830	
-10	DC 7.40	0.656	1.022	0.595	
-20	DC 7.40	1.016	0.735	0.908	
-30	DC 7.40	1.033	0.711	0.803	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 7.40 V	0.845	0.904	5
40	DC 7.40 V	0.556	0.761	
30	DC 7.40 V	1.017	0.844	
20	DC 7.40 V	0.910	0.748	
10	DC 7.40 V	0.608	0.545	
0	DC 7.40 V	1.049	0.744	
-10	DC 7.40 V	0.693	1.029	
-20	DC 7.40 V	1.009	0.952	
-30	DC 7.40 V	0.659	0.822	
Result	Pass			

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) -7W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.29	0.922	0.890	0.975	5
40	DC 6.29	0.789	0.511	0.701	
30	DC 6.29	0.639	0.630	0.824	
20	DC 6.29	0.942	0.829	0.640	
10	DC 6.29	0.858	0.744	0.589	
0	DC 6.29	0.853	1.004	0.856	
-10	DC 6.29	0.555	0.510	0.956	
-20	DC 6.29	0.971	0.814	0.820	
-30	DC 6.29	0.768	0.855	0.847	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 6.29	0.613	0.747	5
40	DC 6.29	0.601	0.906	
30	DC 6.29	0.870	1.034	
20	DC 6.29	0.613	0.595	
10	DC 6.29	0.748	0.642	
0	DC 6.29	0.995	0.801	
-10	DC 6.29	0.910	0.595	
-20	DC 6.29	0.883	0.867	
-30	DC 6.29	0.767	0.735	
Result	Pass			

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) -7W

Environment Temperature(°C)	Power	Reference Frequency			Limit:
	(V)	136.025MHz	155.025MHz	173.975MHz	ppm
50	DC 8.51	0.585	0.586	0.818	5
40	DC 8.51	1.068	0.916	0.943	
30	DC 8.51	0.718	0.525	0.892	
20	DC 8.51	0.538	1.028	0.949	
10	DC 8.51	0.941	0.965	0.889	
0	DC 8.51	0.778	0.685	0.631	
-10	DC 8.51	0.537	0.890	0.567	
-20	DC 8.51	0.659	0.882	0.964	
-30	DC 8.51	0.615	0.726	0.970	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 8.51	0.795	0.908	5
40	DC 8.51	0.912	0.791	
30	DC 8.51	1.038	0.603	
20	DC 8.51	0.797	1.034	
10	DC 8.51	0.975	0.813	
0	DC 8.51	0.668	0.692	
-10	DC 8.51	1.053	0.932	
-20	DC 8.51	0.742	1.015	
-30	DC 8.51	1.081	0.714	
Result	Pass			

(4) Frequency stability versus input voltage (Battery endpoint is 6V) -7W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.00	0.596	0.806	0.596	5
40	DC 6.00	0.888	0.557	1.075	
30	DC 6.00	0.885	0.956	0.951	
20	DC 6.00	0.841	0.872	0.718	
10	DC 6.00	0.619	0.759	0.676	
0	DC 6.00	0.508	0.504	0.630	
-10	DC 6.00	1.063	0.978	0.920	
-20	DC 6.00	0.669	0.585	0.726	
-30	DC 6.00	0.913	0.961	0.702	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 6.00 V	0.734	0.529	5
40	DC 6.00 V	1.097	0.945	
30	DC 6.00 V	0.855	0.590	
20	DC 6.00 V	1.031	1.071	
10	DC 6.00 V	0.788	1.023	
0	DC 6.00 V	1.058	0.903	
-10	DC 6.00 V	0.716	1.018	
-20	DC 6.00 V	0.612	1.093	
-30	DC 6.00 V	0.540	0.656	
Result	Pass			

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-5W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 7.40	0.665	1.003	1.004	5
40	DC 7.40	0.709	1.096	1.087	
30	DC 7.40	0.973	0.769	1.095	
20	DC 7.40	0.913	0.699	0.713	
10	DC 7.40	0.823	0.675	0.900	
0	DC 7.40	0.802	0.642	0.798	
-10	DC 7.40	0.635	1.034	1.061	
-20	DC 7.40	0.872	0.729	0.963	
-30	DC 7.40	0.548	1.031	0.992	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit: ppm
	(V)	151.85MHz	161.61MHz	
50	DC 7.40 V	0.610	0.826	5
40	DC 7.40 V	1.067	0.593	
30	DC 7.40 V	0.547	0.678	
20	DC 7.40 V	0.624	0.504	
10	DC 7.40 V	0.735	1.047	
0	DC 7.40 V	0.973	1.099	
-10	DC 7.40 V	0.521	1.087	
-20	DC 7.40 V	0.879	0.504	
-30	DC 7.40 V	0.519	0.904	
Result	Pass			

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-5W**

Environment Temperature(°C)	Power	Reference Frequency			Limit: ppm
	(V)	136.025MHz	155.025MHz	173.975MHz	
50	DC 6.29	0.779	0.935	0.894	5
40	DC 6.29	0.692	0.623	0.805	
30	DC 6.29	0.537	0.623	0.594	
20	DC 6.29	0.975	0.894	0.733	
10	DC 6.29	1.023	0.852	0.952	
0	DC 6.29	0.690	1.021	0.739	
-10	DC 6.29	1.036	0.637	0.837	
-20	DC 6.29	0.654	0.991	1.010	
-30	DC 6.29	0.703	1.044	0.765	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit: ppm
	(V)	151.85MHz	161.61MHz	
50	DC 6.29	0.536	1.009	5
40	DC 6.29	1.083	0.895	
30	DC 6.29	1.081	0.589	
20	DC 6.29	0.771	1.090	
10	DC 6.29	0.640	0.950	
0	DC 6.29	0.692	0.943	
-10	DC 6.29	0.710	0.759	
-20	DC 6.29	0.932	0.804	
-30	DC 6.29	0.654	0.870	
Result	Pass			

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 8.51	0.610	1.006	0.538	5
40	DC 8.51	0.916	0.884	0.708	
30	DC 8.51	1.060	0.599	1.028	
20	DC 8.51	0.594	1.085	1.026	
10	DC 8.51	0.696	0.734	0.974	
0	DC 8.51	0.859	0.830	1.099	
-10	DC 8.51	0.888	0.541	0.652	
-20	DC 8.51	1.028	0.754	0.873	
-30	DC 8.51	0.933	0.644	1.011	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 8.51	0.685	0.535	5
40	DC 8.51	1.040	0.568	
30	DC 8.51	0.951	0.714	
20	DC 8.51	1.020	0.641	
10	DC 8.51	0.776	0.536	
0	DC 8.51	0.752	0.801	
-10	DC 8.51	1.030	0.773	
-20	DC 8.51	1.029	0.865	
-30	DC 8.51	0.815	1.091	
Result	Pass			

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.00	0.993	0.836	1.041	5
40	DC 6.00	0.608	0.598	0.860	
30	DC 6.00	0.542	0.868	0.942	
20	DC 6.00	0.640	0.564	0.949	
10	DC 6.00	0.741	0.707	0.865	
0	DC 6.00	0.782	0.585	0.683	
-10	DC 6.00	1.086	0.595	0.548	
-20	DC 6.00	0.784	0.512	0.512	
-30	DC 6.00	0.975	1.002	0.993	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 6.00 V	0.627	0.855	5
40	DC 6.00 V	0.727	0.508	
30	DC 6.00 V	0.973	1.011	
20	DC 6.00 V	0.582	0.712	
10	DC 6.00 V	1.003	0.793	
0	DC 6.00 V	0.822	0.730	
-10	DC 6.00 V	0.831	1.077	
-20	DC 6.00 V	0.854	0.510	
-30	DC 6.00 V	0.897	0.588	
Result	Pass			

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-2.5W

Environment Temperature(°C)	Power	Reference Frequency			Limit:
	(V)	136.025MHz	155.025MHz	173.975MHz	ppm
50	DC 7.40	0.847	0.541	0.937	5
40	DC 7.40	0.978	0.583	0.930	
30	DC 7.40	0.966	0.672	0.642	
20	DC 7.40	0.741	0.761	1.029	
10	DC 7.40	0.599	0.789	0.943	
0	DC 7.40	0.727	0.626	1.080	
-10	DC 7.40	0.618	0.612	0.736	
-20	DC 7.40	0.703	0.732	0.672	
-30	DC 7.40	0.594	0.721	0.832	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 7.40 V	0.731	0.874	5
40	DC 7.40 V	0.855	0.702	
30	DC 7.40 V	0.853	0.645	
20	DC 7.40 V	0.532	1.032	
10	DC 7.40 V	0.810	0.708	
0	DC 7.40 V	0.951	0.856	
-10	DC 7.40 V	0.720	0.825	
-20	DC 7.40 V	1.074	0.617	
-30	DC 7.40 V	1.021	0.694	
Result	Pass			

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-2.5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.29	1.036	1.027	0.555	5
40	DC 6.29	0.627	1.078	0.684	
30	DC 6.29	0.878	0.954	0.949	
20	DC 6.29	0.813	1.085	0.845	
10	DC 6.29	0.586	0.994	0.848	
0	DC 6.29	0.651	1.064	0.618	
-10	DC 6.29	0.638	0.959	0.846	
-20	DC 6.29	0.871	0.515	0.574	
-30	DC 6.29	0.765	0.746	0.771	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 6.29	0.933	0.714	5
40	DC 6.29	0.506	0.859	
30	DC 6.29	0.931	0.584	
20	DC 6.29	0.652	0.719	
10	DC 6.29	1.014	1.095	
0	DC 6.29	0.611	0.599	
-10	DC 6.29	0.792	0.741	
-20	DC 6.29	0.542	0.646	
-30	DC 6.29	0.826	0.823	
Result	Pass			

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-2.5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 8.51	0.875	1.005	0.704	5
40	DC 8.51	1.070	0.951	1.083	
30	DC 8.51	0.660	0.596	0.989	
20	DC 8.51	0.547	0.645	0.989	
10	DC 8.51	0.712	1.020	0.996	
0	DC 8.51	0.882	0.878	0.792	
-10	DC 8.51	0.843	1.001	0.594	
-20	DC 8.51	0.531	1.077	0.758	
-30	DC 8.51	0.619	0.778	1.059	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 8.51	0.741	0.682	5
40	DC 8.51	0.934	0.566	
30	DC 8.51	1.051	0.583	
20	DC 8.51	0.535	0.512	
10	DC 8.51	0.616	0.926	
0	DC 8.51	0.944	0.843	
-10	DC 8.51	0.612	0.584	
-20	DC 8.51	0.899	0.962	
-30	DC 8.51	0.712	0.839	
Result	Pass			

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-2.5W**

Environment Temperature(°C)	Power	Reference Frequency			Limit:
	(V)	136.025MHz	155.025MHz	173.975MHz	ppm
50	DC 6.00	0.744	0.804	0.797	5
40	DC 6.00	0.792	0.939	0.933	
30	DC 6.00	0.747	1.043	0.609	
20	DC 6.00	1.056	1.069	0.620	
10	DC 6.00	0.773	0.755	0.652	
0	DC 6.00	0.965	0.980	1.074	
-10	DC 6.00	0.502	0.625	0.589	
-20	DC 6.00	1.071	0.844	0.968	
-30	DC 6.00	0.943	0.899	0.752	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit:
	(V)	151.85MHz	161.61MHz	ppm
50	DC 6.00 V	1.069	0.847	5
40	DC 6.00 V	0.540	0.754	
30	DC 6.00 V	0.547	1.009	
20	DC 6.00 V	0.559	1.096	
10	DC 6.00 V	0.829	0.552	
0	DC 6.00 V	0.812	1.028	
-10	DC 6.00 V	1.060	1.049	
-20	DC 6.00 V	0.716	0.981	
-30	DC 6.00 V	0.865	0.659	
Result	Pass			

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-1W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 7.40	0.848	0.663	0.965	5
40	DC 7.40	0.876	0.543	0.648	
30	DC 7.40	0.527	0.917	0.728	
20	DC 7.40	0.785	0.909	0.809	
10	DC 7.40	1.093	0.884	0.718	
0	DC 7.40	0.897	0.525	1.079	
-10	DC 7.40	0.761	1.087	1.080	
-20	DC 7.40	0.951	0.714	0.685	
-30	DC 7.40	1.000	1.058	0.743	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 7.40 V	0.664	0.951	5
40	DC 7.40 V	1.022	0.869	
30	DC 7.40 V	1.068	0.720	
20	DC 7.40 V	0.703	0.824	
10	DC 7.40 V	0.631	0.553	
0	DC 7.40 V	0.807	1.028	
-10	DC 7.40 V	0.696	0.580	
-20	DC 7.40 V	0.665	0.615	
-30	DC 7.40 V	0.953	0.664	
Result	Pass			

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) -1W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.29	0.932	1.065	1.067	5
40	DC 6.29	0.766	1.038	0.693	
30	DC 6.29	1.057	0.886	0.826	
20	DC 6.29	0.743	0.937	0.721	
10	DC 6.29	1.003	0.759	1.061	
0	DC 6.29	0.734	0.510	0.749	
-10	DC 6.29	0.768	0.930	1.059	
-20	DC 6.29	0.932	0.777	0.829	
-30	DC 6.29	0.923	0.565	0.628	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit: ppm
	(V)	151.85MHz	161.61MHz	
50	DC 6.29	0.881	0.748	5
40	DC 6.29	1.069	0.753	
30	DC 6.29	0.676	0.556	
20	DC 6.29	1.070	1.079	
10	DC 6.29	0.750	0.838	
0	DC 6.29	0.966	0.704	
-10	DC 6.29	0.650	0.679	
-20	DC 6.29	1.098	0.955	
-30	DC 6.29	0.561	0.771	
Result	Pass			

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) -1W

Environment Temperature(°C)	Power	Reference Frequency			Limit: ppm
	(V)	136.025MHz	155.025MHz	173.975MHz	
50	DC 8.51	0.846	0.839	1.095	5
40	DC 8.51	0.746	0.949	0.570	
30	DC 8.51	0.942	0.597	0.560	
20	DC 8.51	0.994	0.743	0.693	
10	DC 8.51	0.680	1.040	0.703	
0	DC 8.51	0.712	0.738	0.990	
-10	DC 8.51	0.836	0.526	0.708	
-20	DC 8.51	0.831	0.543	0.854	
-30	DC 8.51	0.875	0.640	0.896	
Result	Pass				

Environment Temperature(°C)	Power	Reference Frequency		Limit: ppm
	(V)	151.85MHz	161.61MHz	
50	DC 8.51	0.947	0.518	5
40	DC 8.51	0.820	0.810	
30	DC 8.51	0.521	0.791	
20	DC 8.51	0.700	0.632	
10	DC 8.51	0.818	0.538	
0	DC 8.51	0.855	0.949	
-10	DC 8.51	0.772	1.038	
-20	DC 8.51	0.883	0.770	
-30	DC 8.51	0.969	0.611	
Result	Pass			

(4) Frequency stability versus input voltage (Battery endpoint is 6V) -1W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		136.025MHz	155.025MHz	173.975MHz	
50	DC 6.00	0.985	0.687	0.644	5
40	DC 6.00	0.778	0.765	1.077	
30	DC 6.00	0.910	0.531	0.647	
20	DC 6.00	0.529	1.026	0.607	
10	DC 6.00	0.571	0.939	1.046	
0	DC 6.00	0.726	0.852	0.842	
-10	DC 6.00	1.060	0.760	0.841	
-20	DC 6.00	0.916	0.583	1.009	
-30	DC 6.00	0.779	0.672	0.604	
Result	Pass				

Environment Temperature(°C)	Power (V)	Reference Frequency		Limit: ppm
		151.85MHz	161.61MHz	
50	DC 6.00 V	0.998	0.855	5
40	DC 6.00 V	0.642	0.975	
30	DC 6.00 V	0.565	0.961	
20	DC 6.00 V	0.536	0.627	
10	DC 6.00 V	0.638	1.074	
0	DC 6.00 V	0.944	0.822	
-10	DC 6.00 V	0.691	0.791	
-20	DC 6.00 V	0.694	0.996	
-30	DC 6.00 V	0.882	0.505	
Result	Pass			

UHF:

Analog-12.5KHz:

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V) **-6W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 7.40	0.963	0.591	1.050	2.5
40	DC 7.40	0.629	0.863	0.929	
30	DC 7.40	0.736	1.068	0.766	
20	DC 7.40	0.640	0.974	0.957	
10	DC 7.40	1.091	0.551	0.753	
0	DC 7.40	0.669	1.081	0.831	
-10	DC 7.40	0.842	0.833	0.655	
-20	DC 7.40	0.880	0.542	0.594	
-30	DC 7.40	1.092	0.642	0.703	
Result	Pass				

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-6W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.29	0.565	1.018	0.691	2.5
40	DC 6.29	0.513	0.610	0.821	
30	DC 6.29	1.028	0.604	0.699	
20	DC 6.29	0.862	0.832	0.805	
10	DC 6.29	0.524	0.643	0.936	
0	DC 6.29	0.904	0.844	1.083	
-10	DC 6.29	0.936	0.506	1.097	
-20	DC 6.29	0.674	0.533	0.593	
-30	DC 6.29	0.826	0.622	0.744	
Result	Pass				

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-6W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 8.51	0.657	0.738	0.502	2.5
40	DC 8.51	1.049	0.801	0.983	
30	DC 8.51	0.771	0.838	1.058	
20	DC 8.51	1.037	1.018	0.978	
10	DC 8.51	0.795	0.556	0.725	
0	DC 8.51	1.084	0.912	0.779	
-10	DC 8.51	0.514	0.643	0.608	
-20	DC 8.51	0.909	0.672	0.661	
-30	DC 8.51	0.856	0.880	0.686	
Result	Pass				

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-6W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.00	0.620	0.784	1.062	2.5
40	DC 6.00	0.772	0.682	0.877	
30	DC 6.00	1.050	0.591	1.079	
20	DC 6.00	0.626	0.921	1.035	
10	DC 6.00	1.014	0.660	0.764	
0	DC 6.00	0.621	0.827	0.518	
-10	DC 6.00	0.917	0.727	0.839	
-20	DC 6.00	0.745	0.529	0.615	
-30	DC 6.00	0.703	0.573	0.808	
Result	Pass				

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 7.40	0.589	0.719	1.049	2.5
40	DC 7.40	0.828	0.565	0.736	
30	DC 7.40	1.070	0.669	0.930	
20	DC 7.40	1.084	0.689	0.504	
10	DC 7.40	0.583	0.532	0.971	
0	DC 7.40	0.500	0.758	0.514	
-10	DC 7.40	0.808	0.850	0.536	
-20	DC 7.40	0.994	0.618	0.654	
-30	DC 7.40	0.596	0.836	0.629	
Result	Pass				

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.29	0.940	0.774	1.096	2.5
40	DC 6.29	0.703	1.086	0.534	
30	DC 6.29	0.994	0.578	0.989	
20	DC 6.29	0.609	1.060	0.654	
10	DC 6.29	0.796	0.868	0.891	
0	DC 6.29	0.895	0.604	0.706	
-10	DC 6.29	0.605	0.819	0.731	
-20	DC 6.29	0.706	0.768	1.050	
-30	DC 6.29	0.631	0.502	0.789	
Result	Pass				

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 8.51	0.920	0.696	0.690	2.5
40	DC 8.51	0.754	0.851	1.042	
30	DC 8.51	0.736	0.544	0.934	
20	DC 8.51	0.857	1.066	0.728	
10	DC 8.51	0.778	0.623	0.762	
0	DC 8.51	1.098	0.755	0.834	
-10	DC 8.51	1.078	0.999	0.914	
-20	DC 8.51	1.016	0.675	0.502	
-30	DC 8.51	1.070	0.829	0.846	
Result	Pass				

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.00	0.720	0.771	0.920	2.5
40	DC 6.00	0.850	0.526	1.092	
30	DC 6.00	0.652	0.796	0.555	
20	DC 6.00	0.502	0.888	0.879	
10	DC 6.00	0.902	0.718	0.935	
0	DC 6.00	0.868	1.033	0.961	
-10	DC 6.00	0.988	0.612	1.035	
-20	DC 6.00	0.995	0.629	1.046	
-30	DC 6.00	0.522	0.504	0.893	
Result	Pass				

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-2.5W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 7.40	0.581	0.914	1.069	2.5
40	DC 7.40	0.949	0.749	0.689	
30	DC 7.40	0.715	0.835	1.045	
20	DC 7.40	1.094	0.721	0.534	
10	DC 7.40	0.966	0.720	1.064	
0	DC 7.40	0.619	1.025	0.956	
-10	DC 7.40	0.607	0.800	0.995	
-20	DC 7.40	0.731	0.639	0.834	
-30	DC 7.40	0.655	0.631	0.773	
Result	Pass				

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) -2.5W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.29	0.505	1.043	0.592	5
40	DC 6.29	0.526	0.663	0.759	
30	DC 6.29	1.017	1.033	0.800	
20	DC 6.29	1.034	0.708	0.819	
10	DC 6.29	0.510	0.657	0.929	
0	DC 6.29	0.779	0.547	0.883	
-10	DC 6.29	0.702	0.518	1.087	
-20	DC 6.29	0.963	1.079	0.863	
-30	DC 6.29	0.723	0.594	0.623	
Result	Pass				

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) -2.5W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 8.51	1.036	0.692	0.775	2.5
40	DC 8.51	0.710	0.969	0.839	
30	DC 8.51	0.578	0.660	0.504	
20	DC 8.51	0.577	0.511	0.645	
10	DC 8.51	0.696	0.854	0.504	
0	DC 8.51	0.940	0.918	0.824	
-10	DC 8.51	0.550	0.863	0.684	
-20	DC 8.51	1.045	0.577	0.977	
-30	DC 8.51	0.785	1.049	0.814	
Result	Pass				

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-2.5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.00	0.938	0.834	0.540	2.5
40	DC 6.00	1.077	0.537	0.596	
30	DC 6.00	0.946	0.591	0.668	
20	DC 6.00	0.959	0.649	0.915	
10	DC 6.00	0.526	0.588	1.036	
0	DC 6.00	0.728	0.725	0.563	
-10	DC 6.00	0.574	0.893	0.964	
-20	DC 6.00	0.570	0.922	0.921	
-30	DC 6.00	0.595	0.818	1.054	
Result	Pass				

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V) **-1W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 7.40	0.724	1.033	0.828	2.5
40	DC 7.40	0.813	1.021	0.732	
30	DC 7.40	0.630	0.535	0.886	
20	DC 7.40	0.668	1.063	0.976	
10	DC 7.40	0.800	0.849	0.896	
0	DC 7.40	0.577	1.047	1.014	
-10	DC 7.40	0.592	0.900	0.563	
-20	DC 7.40	1.052	0.537	0.619	
-30	DC 7.40	0.654	0.504	1.029	
Result	Pass				

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-1W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.29	0.926	0.578	0.787	2.5
40	DC 6.29	0.870	0.966	0.797	
30	DC 6.29	0.611	0.731	1.029	
20	DC 6.29	0.625	0.698	0.643	
10	DC 6.29	0.762	0.782	0.620	
0	DC 6.29	1.034	0.668	0.853	
-10	DC 6.29	1.047	0.972	1.096	
-20	DC 6.29	1.030	0.817	1.094	
-30	DC 6.29	0.504	0.803	1.094	
Result	Pass				

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-1W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 8.51	0.891	0.732	0.913	2.5
40	DC 8.51	0.868	0.984	0.969	
30	DC 8.51	1.066	0.892	0.574	
20	DC 8.51	0.980	0.568	0.777	
10	DC 8.51	0.907	1.062	1.075	
0	DC 8.51	0.919	0.681	0.568	
-10	DC 8.51	1.090	1.031	0.538	
-20	DC 8.51	0.890	0.748	0.855	
-30	DC 8.51	0.781	1.095	0.561	
Result	Pass				

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-1W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.00	0.632	0.989	0.952	2.5
40	DC 6.00	0.892	0.908	0.859	
30	DC 6.00	0.656	1.070	1.012	
20	DC 6.00	0.958	0.744	0.692	
10	DC 6.00	1.050	0.928	0.789	
0	DC 6.00	0.546	0.708	0.960	
-10	DC 6.00	0.637	0.648	1.057	
-20	DC 6.00	0.984	0.698	0.928	
-30	DC 6.00	1.077	0.682	0.919	
Result	Pass				

Analog-25KHz:

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-**6W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 7.40	1.070	0.605	0.699	2.5
40	DC 7.40	0.624	0.653	0.522	
30	DC 7.40	0.904	0.985	0.670	
20	DC 7.40	0.899	0.768	0.804	
10	DC 7.40	0.574	0.543	0.675	
0	DC 7.40	0.784	0.862	1.007	
-10	DC 7.40	0.913	0.651	0.843	
-20	DC 7.40	1.064	0.572	0.909	
-30	DC 7.40	0.604	0.715	0.845	
Result	Pass				

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) -**6W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.29	1.040	0.907	0.690	2.5
40	DC 6.29	0.589	0.517	0.918	
30	DC 6.29	0.803	0.733	0.657	
20	DC 6.29	0.827	0.767	0.755	
10	DC 6.29	1.016	0.506	0.502	
0	DC 6.29	0.775	0.676	0.702	
-10	DC 6.29	1.070	0.669	1.004	
-20	DC 6.29	1.059	0.807	0.649	
-30	DC 6.29	0.920	0.746	0.829	
Result	Pass				

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) -**6W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 8.51	0.635	0.752	0.963	2.5
40	DC 8.51	0.774	0.887	0.814	
30	DC 8.51	0.971	0.842	0.512	
20	DC 8.51	0.710	1.071	0.660	
10	DC 8.51	0.808	0.616	0.699	
0	DC 8.51	0.993	0.610	0.643	
-10	DC 8.51	1.046	0.612	0.839	
-20	DC 8.51	0.639	0.924	0.742	
-30	DC 8.51	0.872	0.968	1.025	
Result	Pass				

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-6W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.00	0.677	0.798	0.898	2.5
40	DC 6.00	0.853	0.634	0.812	
30	DC 6.00	0.803	0.550	0.832	
20	DC 6.00	0.724	1.021	0.866	
10	DC 6.00	1.010	0.573	0.923	
0	DC 6.00	0.773	0.635	0.872	
-10	DC 6.00	1.042	0.864	0.786	
-20	DC 6.00	0.820	0.968	0.938	
-30	DC 6.00	0.671	0.772	0.508	
Result	Pass				

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 7.40	0.817	0.841	0.552	2.5
40	DC 7.40	0.846	0.504	1.005	
30	DC 7.40	0.864	0.717	0.922	
20	DC 7.40	0.783	0.588	0.832	
10	DC 7.40	0.682	0.555	0.544	
0	DC 7.40	0.829	1.080	1.014	
-10	DC 7.40	0.693	0.534	1.076	
-20	DC 7.40	0.821	0.965	0.502	
-30	DC 7.40	0.536	0.523	0.518	
Result	Pass				

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.29	1.092	0.811	0.606	2.5
40	DC 6.29	1.068	0.519	1.070	
30	DC 6.29	0.514	0.886	1.092	
20	DC 6.29	0.953	1.032	0.946	
10	DC 6.29	1.007	0.535	1.028	
0	DC 6.29	1.021	1.029	0.968	
-10	DC 6.29	0.581	0.833	1.078	
-20	DC 6.29	0.673	0.773	0.735	
-30	DC 6.29	0.809	1.070	0.886	
Result	Pass				

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 8.51	0.814	0.747	0.746	2.5
40	DC 8.51	0.617	0.644	0.877	
30	DC 8.51	0.944	0.868	0.678	
20	DC 8.51	0.717	1.024	1.070	
10	DC 8.51	0.832	0.597	0.727	
0	DC 8.51	0.722	1.084	1.076	
-10	DC 8.51	0.905	0.863	0.924	
-20	DC 8.51	0.817	0.554	0.695	
-30	DC 8.51	0.959	1.065	0.921	
Result	Pass				

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.00	1.074	0.608	0.925	2.5
40	DC 6.00	0.629	0.547	0.746	
30	DC 6.00	0.825	0.954	0.846	
20	DC 6.00	0.979	0.890	1.029	
10	DC 6.00	0.511	0.688	0.874	
0	DC 6.00	0.977	0.768	0.988	
-10	DC 6.00	0.784	1.062	0.887	
-20	DC 6.00	0.591	0.745	0.981	
-30	DC 6.00	1.015	0.854	0.584	
Result	Pass				

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-2.5W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 7.40	0.823	0.730	1.049	2.5
40	DC 7.40	0.749	1.007	0.725	
30	DC 7.40	0.799	0.967	0.521	
20	DC 7.40	0.831	0.683	0.845	
10	DC 7.40	0.995	0.714	0.756	
0	DC 7.40	1.042	0.959	1.031	
-10	DC 7.40	0.579	0.846	0.561	
-20	DC 7.40	0.819	0.985	1.092	
-30	DC 7.40	0.751	0.743	0.820	
Result	Pass				

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) -2.5W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.29	0.910	0.830	0.974	2.5
40	DC 6.29	0.947	0.709	0.909	
30	DC 6.29	0.555	1.027	0.561	
20	DC 6.29	0.546	0.892	1.066	
10	DC 6.29	0.668	0.820	0.724	
0	DC 6.29	0.739	0.871	0.614	
-10	DC 6.29	0.540	0.739	0.591	
-20	DC 6.29	0.629	0.564	0.981	
-30	DC 6.29	0.652	0.839	0.822	
Result	Pass				

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) -2.5W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 8.51	0.566	0.804	0.984	2.5
40	DC 8.51	0.665	0.550	0.912	
30	DC 8.51	0.662	0.716	0.680	
20	DC 8.51	0.857	1.080	0.604	
10	DC 8.51	0.531	0.900	0.699	
0	DC 8.51	0.838	0.506	0.807	
-10	DC 8.51	0.626	1.079	1.067	
-20	DC 8.51	0.721	0.679	0.830	
-30	DC 8.51	0.770	0.563	1.050	
Result	Pass				

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-2.5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.00	0.997	1.060	0.542	2.5
40	DC 6.00	0.967	0.967	0.831	
30	DC 6.00	0.908	0.791	0.705	
20	DC 6.00	0.878	0.795	0.591	
10	DC 6.00	1.058	0.600	0.564	
0	DC 6.00	0.812	1.034	0.887	
-10	DC 6.00	0.651	0.642	1.026	
-20	DC 6.00	0.823	0.928	0.690	
-30	DC 6.00	0.853	0.847	1.084	
Result	Pass				

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V) **-1W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 7.40	0.588	0.957	0.559	2.5
40	DC 7.40	1.088	0.566	0.822	
30	DC 7.40	0.563	1.022	1.019	
20	DC 7.40	0.813	0.731	0.662	
10	DC 7.40	0.593	0.962	1.029	
0	DC 7.40	0.804	0.877	1.031	
-10	DC 7.40	1.004	0.950	0.778	
-20	DC 7.40	0.891	0.629	0.730	
-30	DC 7.40	0.755	1.096	1.024	
Result	Pass				

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-1W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.29	0.521	0.787	0.879	2.5
40	DC 6.29	1.056	0.913	0.586	
30	DC 6.29	0.800	0.683	0.622	
20	DC 6.29	0.703	0.725	0.604	
10	DC 6.29	1.042	0.741	0.980	
0	DC 6.29	0.780	0.650	0.952	
-10	DC 6.29	0.581	0.720	0.835	
-20	DC 6.29	0.653	0.502	1.095	
-30	DC 6.29	0.998	0.965	0.541	
Result	Pass				

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-1W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 8.51	0.557	0.982	0.552	2.5
40	DC 8.51	0.907	0.855	1.024	
30	DC 8.51	0.986	0.975	0.848	
20	DC 8.51	0.833	0.593	1.099	
10	DC 8.51	0.796	0.631	0.979	
0	DC 8.51	0.860	0.902	0.606	
-10	DC 8.51	0.944	0.546	0.780	
-20	DC 8.51	1.055	0.840	0.597	
-30	DC 8.51	0.773	0.930	1.012	
Result	Pass				

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-1W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.00	0.712	0.882	0.958	2.5
40	DC 6.00	0.595	1.077	0.505	
30	DC 6.00	1.003	1.001	0.526	
20	DC 6.00	0.779	0.775	0.819	
10	DC 6.00	1.093	0.794	0.722	
0	DC 6.00	0.813	0.518	1.047	
-10	DC 6.00	0.790	0.735	0.953	
-20	DC 6.00	0.939	0.777	0.582	
-30	DC 6.00	0.763	1.064	0.978	
Result	Pass				

Digital-12.5KHz:

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V) **-6W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 7.40	0.921	0.676	0.516	2.5
40	DC 7.40	1.023	0.803	1.027	
30	DC 7.40	0.570	0.802	0.726	
20	DC 7.40	0.783	1.085	0.838	
10	DC 7.40	0.674	0.912	0.603	
0	DC 7.40	0.851	0.731	0.580	
-10	DC 7.40	0.614	0.918	0.587	
-20	DC 7.40	0.632	0.857	0.588	
-30	DC 7.40	0.885	0.793	1.002	
Result	Pass				

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-6W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.29	1.038	0.797	0.931	2.5
40	DC 6.29	1.045	0.739	0.640	
30	DC 6.29	0.840	0.739	1.073	
20	DC 6.29	0.507	0.844	0.760	
10	DC 6.29	0.506	0.684	1.074	
0	DC 6.29	1.047	0.826	0.719	
-10	DC 6.29	0.811	0.660	0.742	
-20	DC 6.29	0.903	0.722	0.534	
-30	DC 6.29	0.740	0.899	0.521	
Result	Pass				

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-6W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 8.51	0.823	1.080	0.582	2.5
40	DC 8.51	1.078	1.023	0.851	
30	DC 8.51	0.786	0.860	0.679	
20	DC 8.51	0.937	0.509	0.663	
10	DC 8.51	0.672	0.507	0.684	
0	DC 8.51	0.945	0.545	1.087	
-10	DC 8.51	0.908	0.889	0.774	
-20	DC 8.51	0.800	0.701	0.864	
-30	DC 8.51	0.866	0.667	0.514	
Result	Pass				

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-6W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.00	0.654	0.773	0.894	2.5
40	DC 6.00	0.866	0.955	1.020	
30	DC 6.00	0.648	1.039	1.052	
20	DC 6.00	0.563	0.986	0.760	
10	DC 6.00	1.097	0.661	1.004	
0	DC 6.00	1.030	0.621	0.579	
-10	DC 6.00	0.718	0.701	0.993	
-20	DC 6.00	0.835	0.977	0.794	
-30	DC 6.00	0.514	0.505	0.790	
Result	Pass				

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-**5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 7.40	0.965	0.978	0.681	2.5
40	DC 7.40	0.555	0.550	0.895	
30	DC 7.40	0.810	0.650	0.848	
20	DC 7.40	1.059	0.694	0.945	
10	DC 7.40	0.944	0.811	1.099	
0	DC 7.40	0.563	0.880	0.660	
-10	DC 7.40	0.922	0.921	0.651	
-20	DC 7.40	0.834	0.722	1.081	
-30	DC 7.40	0.751	0.754	1.083	
Result	Pass				

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) -**5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.29	0.895	0.665	0.571	2.5
40	DC 6.29	0.570	0.940	0.505	
30	DC 6.29	1.014	0.830	0.905	
20	DC 6.29	1.013	0.587	0.893	
10	DC 6.29	0.780	0.768	0.908	
0	DC 6.29	0.955	0.567	1.027	
-10	DC 6.29	0.556	0.931	0.816	
-20	DC 6.29	0.540	0.998	0.946	
-30	DC 6.29	0.789	0.764	1.004	
Result	Pass				

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) -**5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 8.51	0.615	1.014	0.906	2.5
40	DC 8.51	0.850	1.093	0.795	
30	DC 8.51	0.595	0.533	0.990	
20	DC 8.51	0.993	0.946	0.844	
10	DC 8.51	0.821	0.556	0.819	
0	DC 8.51	0.927	0.644	0.656	
-10	DC 8.51	1.021	1.094	1.075	
-20	DC 8.51	0.777	1.093	0.588	
-30	DC 8.51	0.806	0.526	0.791	
Result	Pass				

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.00	0.694	0.526	0.561	2.5
40	DC 6.00	1.040	0.905	1.011	
30	DC 6.00	0.948	0.795	0.720	
20	DC 6.00	1.097	0.573	1.072	
10	DC 6.00	0.827	0.631	0.881	
0	DC 6.00	0.833	0.738	1.032	
-10	DC 6.00	0.807	0.835	0.733	
-20	DC 6.00	0.895	0.788	1.075	
-30	DC 6.00	0.887	1.052	0.846	
Result	Pass				

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V)-2.5W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 7.40	0.511	0.925	1.037	2.5
40	DC 7.40	0.660	1.015	0.906	
30	DC 7.40	0.560	0.674	0.593	
20	DC 7.40	0.852	0.760	0.966	
10	DC 7.40	0.962	0.931	0.860	
0	DC 7.40	1.010	0.781	0.603	
-10	DC 7.40	0.931	0.680	0.780	
-20	DC 7.40	0.702	0.520	0.624	
-30	DC 7.40	0.907	0.501	0.528	
Result	Pass				

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) -2.5W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.29	0.996	0.679	0.619	2.5
40	DC 6.29	0.764	0.998	0.958	
30	DC 6.29	0.911	0.539	1.045	
20	DC 6.29	1.044	0.882	1.092	
10	DC 6.29	0.588	0.564	0.865	
0	DC 6.29	0.572	0.598	0.808	
-10	DC 6.29	0.862	0.922	0.761	
-20	DC 6.29	0.709	0.795	0.658	
-30	DC 6.29	1.031	0.711	1.007	
Result	Pass				

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) -2.5W

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 8.51	0.775	0.977	1.070	2.5
40	DC 8.51	0.605	0.847	0.520	
30	DC 8.51	0.531	0.972	0.663	
20	DC 8.51	1.064	0.920	0.890	
10	DC 8.51	0.607	0.709	0.910	
0	DC 8.51	0.833	1.089	0.780	
-10	DC 8.51	0.708	0.642	1.062	
-20	DC 8.51	0.712	0.723	0.602	
-30	DC 8.51	0.612	0.892	1.041	
Result	Pass				

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-2.5W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.00	0.750	0.558	0.673	2.5
40	DC 6.00	0.963	0.879	0.921	
30	DC 6.00	0.589	0.893	0.850	
20	DC 6.00	0.855	0.539	0.925	
10	DC 6.00	0.676	0.981	1.061	
0	DC 6.00	0.598	1.073	1.003	
-10	DC 6.00	0.957	0.859	0.966	
-20	DC 6.00	0.578	0.816	0.718	
-30	DC 6.00	0.655	0.932	0.979	
Result	Pass				

(1) Frequency stability versus input voltage (Supply nominal voltage is 7.40V) **-1W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 7.40	0.743	0.665	1.068	2.5
40	DC 7.40	0.559	0.846	0.971	
30	DC 7.40	0.687	0.500	0.806	
20	DC 7.40	0.964	0.691	0.619	
10	DC 7.40	1.018	0.537	1.011	
0	DC 7.40	0.940	0.953	0.511	
-10	DC 7.40	0.973	0.634	0.831	
-20	DC 7.40	0.688	0.646	0.743	
-30	DC 7.40	0.643	0.701	0.757	
Result	Pass				

(2) Frequency stability versus input voltage (Battery limiting voltage is 6.29V) **-1W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.29	0.662	0.727	0.815	2.5
40	DC 6.29	0.726	0.976	0.794	
30	DC 6.29	1.029	0.775	1.099	
20	DC 6.29	0.897	0.935	0.698	
10	DC 6.29	0.970	0.533	0.746	
0	DC 6.29	0.971	0.798	0.924	
-10	DC 6.29	1.054	0.639	1.043	
-20	DC 6.29	1.037	0.544	0.941	
-30	DC 6.29	0.881	0.591	0.890	
Result	Pass				

(3) Frequency stability versus input voltage (Battery Fully Charged voltage is 8.51V) **-1W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 8.51	0.618	1.017	0.726	2.5
40	DC 8.51	0.741	1.018	0.788	
30	DC 8.51	0.883	0.535	0.752	
20	DC 8.51	1.033	0.819	1.082	
10	DC 8.51	0.961	0.946	0.931	
0	DC 8.51	0.863	0.535	0.676	
-10	DC 8.51	0.543	0.807	0.564	
-20	DC 8.51	0.775	0.597	1.028	
-30	DC 8.51	0.932	0.972	0.603	
Result	Pass				

(4) Frequency stability versus input voltage (Battery endpoint is 6V) **-1W**

Environment Temperature(°C)	Power (V)	Reference Frequency			Limit: ppm
		400.025MHz	454.025MHz	479.975MHz	
50	DC 6.00	0.558	0.882	0.799	2.5
40	DC 6.00	0.775	0.740	0.895	
30	DC 6.00	0.567	0.565	0.518	
20	DC 6.00	0.904	0.573	0.857	
10	DC 6.00	0.723	0.508	0.732	
0	DC 6.00	0.833	0.732	0.925	
-10	DC 6.00	0.910	0.966	0.624	
-20	DC 6.00	0.509	0.635	0.891	
-30	DC 6.00	0.875	0.944	0.808	
Result	Pass				

6. EMISSION BANDWIDTH

6.1 PROVISIONS APPLICABLE

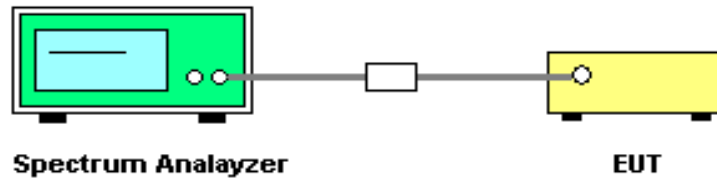
FCC Part 90 & FCC Part 22:

The authorized bandwidth shall be 11.25 KHz for 12.5 KHz channel separation and 20 KHz for 25 KHz channel separation.

6.2 MEASUREMENT PROCEDURE

- 1). The EUT was modulated by 2.5 KHz Sine wave audio signal, The level of the audio signal employed is 16 dB greater than that necessary to produce 50% of rated system deviation. Rated system deviation is 2.5 kHz (12.5 kHz channel spacing).
- 2). Set SPA Center Frequency = fundamental frequency, RBW=100Hz.VBW= 300 Hz, Span =50 KHz.
- 3). Set SPA Max hold. Mark peak, -26 dB.

6.3 TEST SETUP BLOCK DIAGRAM



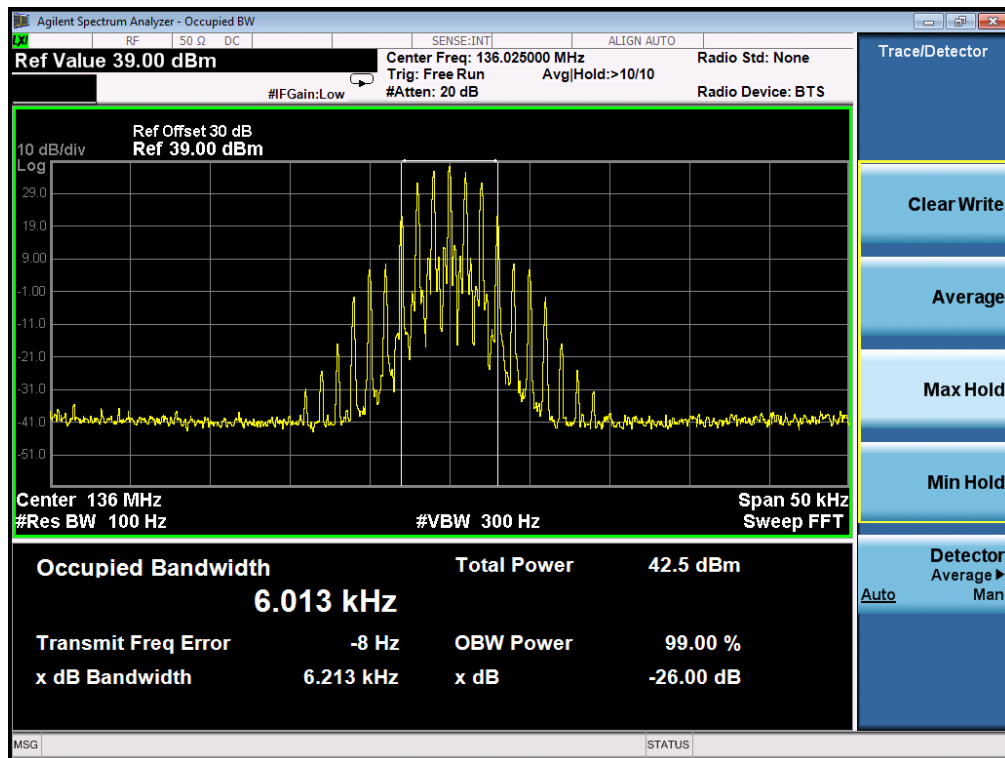
6.4 MEASUREMENT RESULT

VHF:

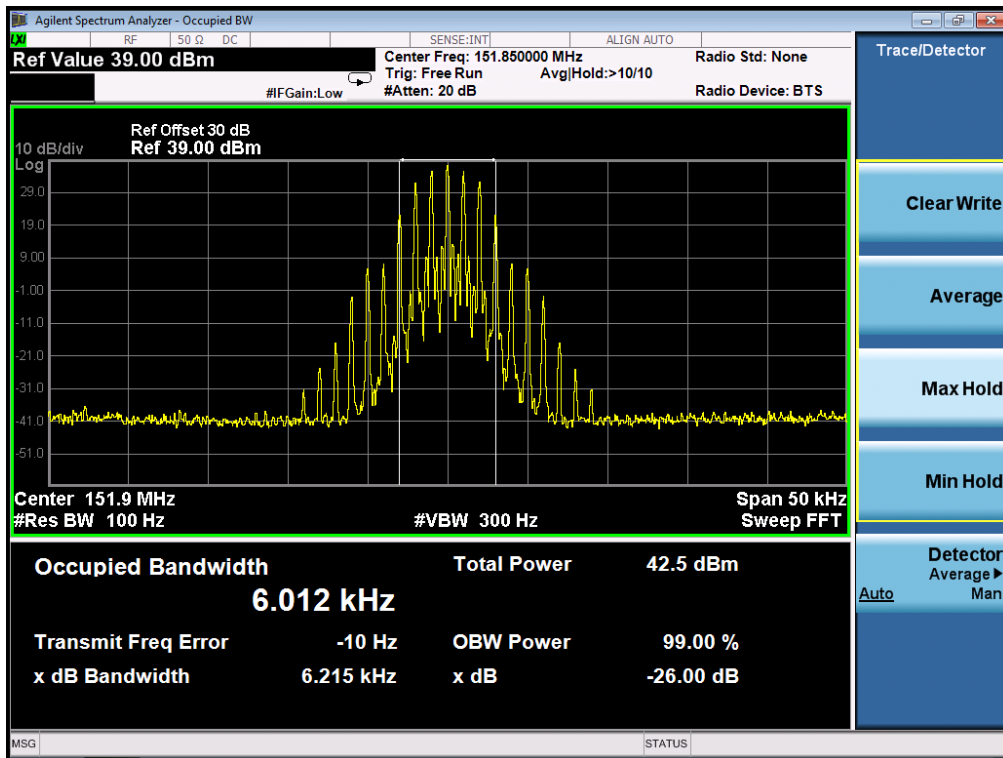
Analog-12.5:

26 dB Bandwidth Measurement Result			
Operating Frequency	12.5 KHz Channel Separation		
	Test Data	Limits	Result
136.025MHz	6.213KHz	11.25 KHz	Pass
151.850MHz	6.215KHz	11.25 KHz	Pass
155.025MHz	6.211KHz	11.25 KHz	Pass
161.61 MHz	6.209KHz	11.25 KHz	Pass
173.975MHz	6.204KHz	11.25 KHz	Pass

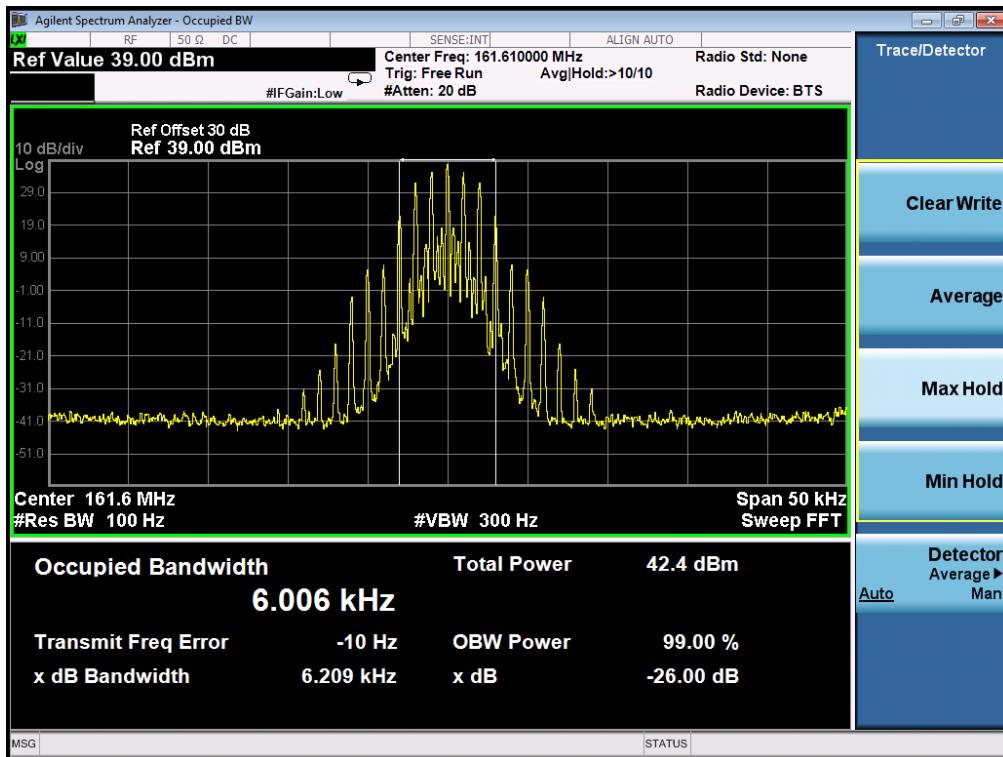
Occupied bandwidth of Bottom Channel (Maximum)-7W



Occupied bandwidth of Middle Channel (151.850 MHz)-7W

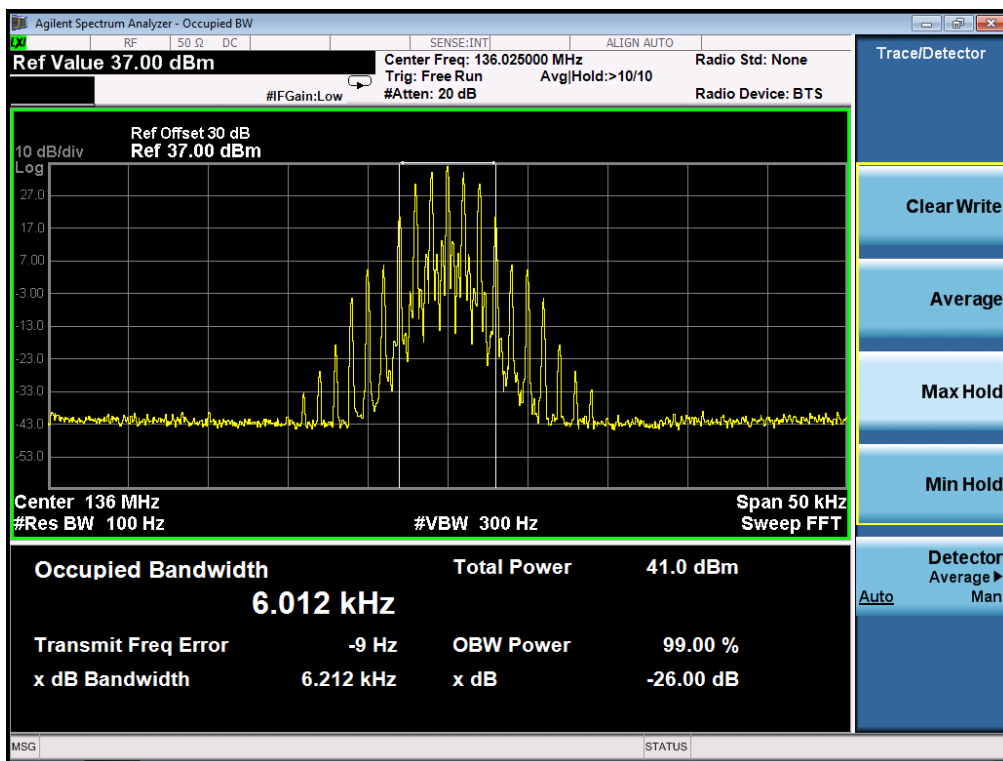


Occupied bandwidth of Middle Channel (161.610 MHz)-7W

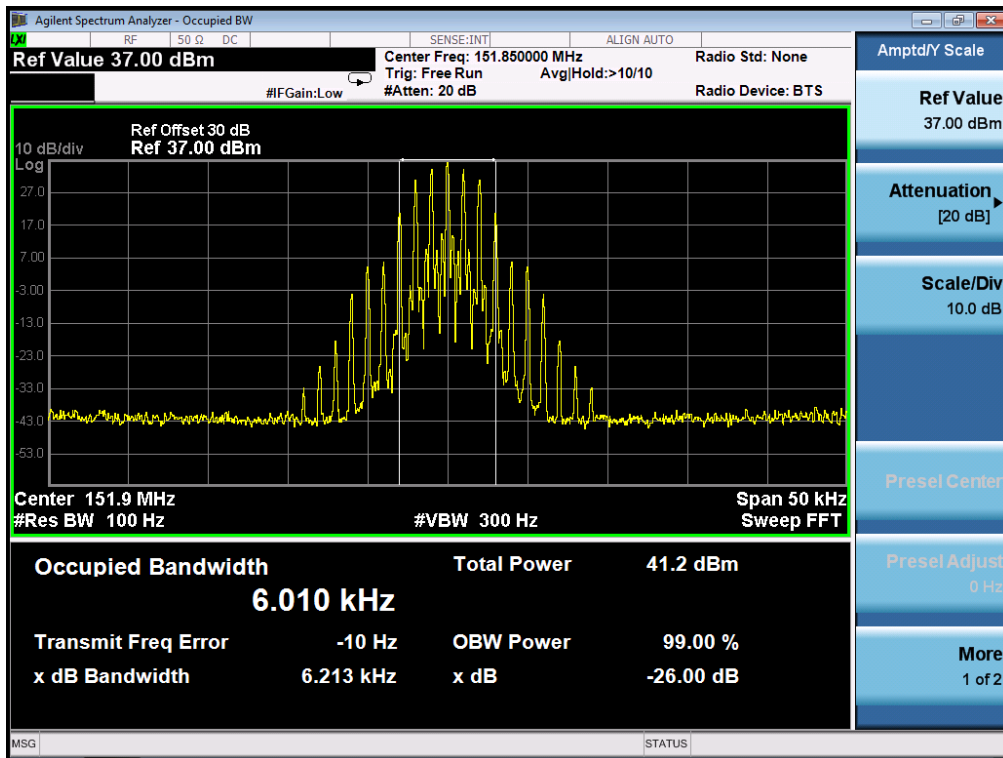


26 dB Bandwidth Measurement Result			
Operating Frequency	12.5 KHz Channel Separation		
	Test Data	Limits	Result
136.025MHz	6.212KHz	11.25 KHz	Pass
151.850MHz	6.213KHz	11.25 KHz	Pass
155.025MHz	6.192KHz	11.25 KHz	Pass
161.61 MHz	6.218KHz	11.25 KHz	Pass
173.975MHz	6.201KHz	11.25 KHz	Pass

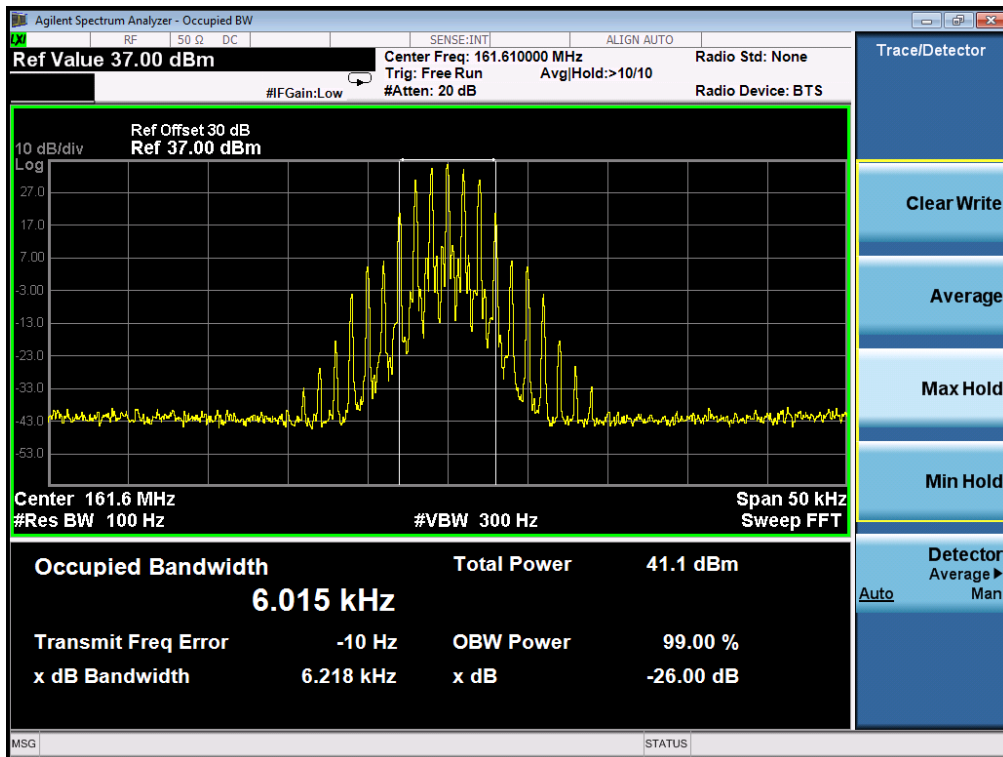
Occupied bandwidth of Bottom Channel (Maximum)-5W



Occupied bandwidth of Middle Channel (151.850 MHz)-5W

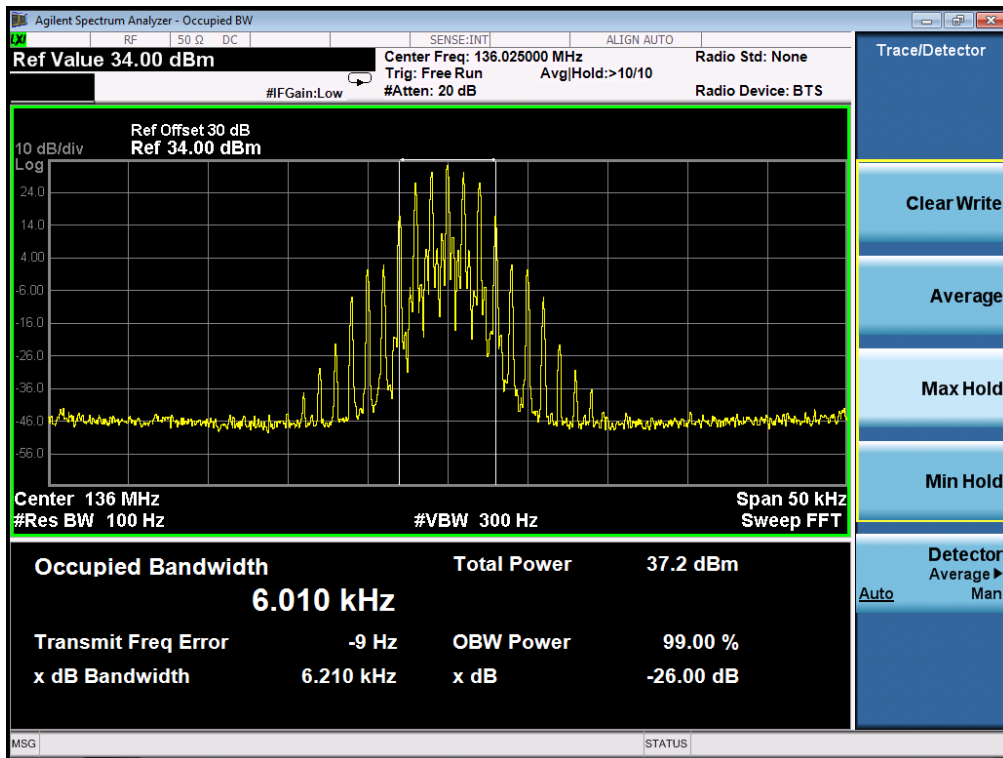


Occupied bandwidth of Middle Channel (161.610 MHz)-5W

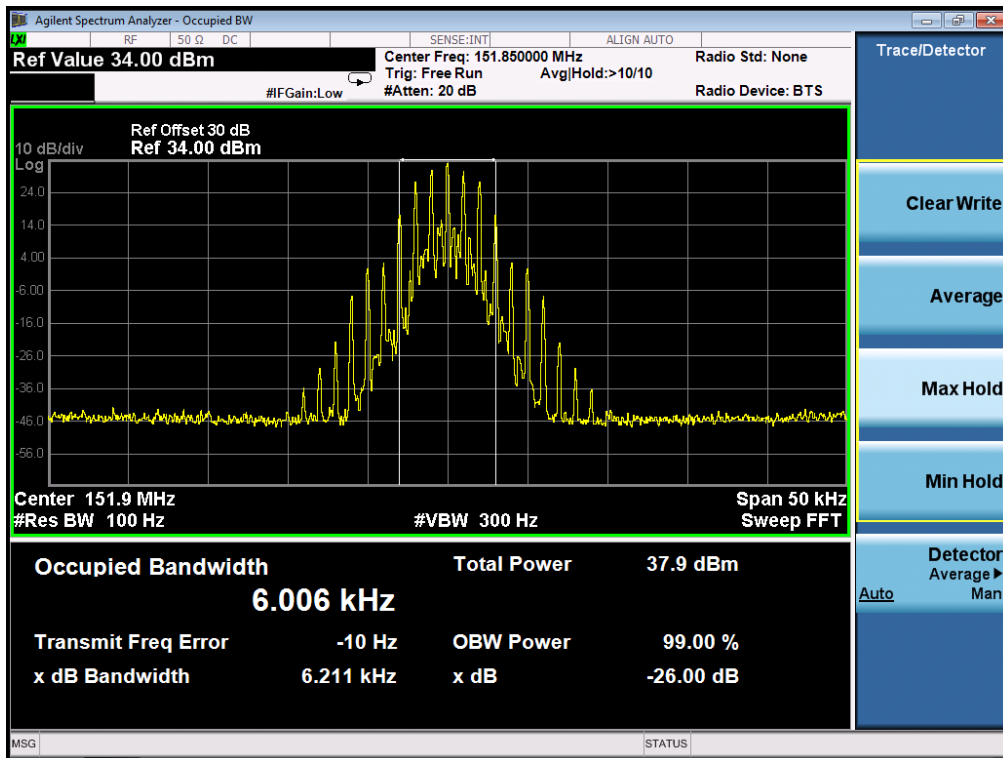


26 dB Bandwidth Measurement Result			
Operating Frequency	12.5 KHz Channel Separation		
	Test Data	Limits	Result
136.025MHz	6.210KHz	11.25 KHz	Pass
151.850MHz	6.211KHz	11.25 KHz	Pass
155.025MHz	6.208KHz	11.25 KHz	Pass
161.61 MHz	6.219KHz	11.25 KHz	Pass
173.975MHz	6.203KHz	11.25 KHz	Pass

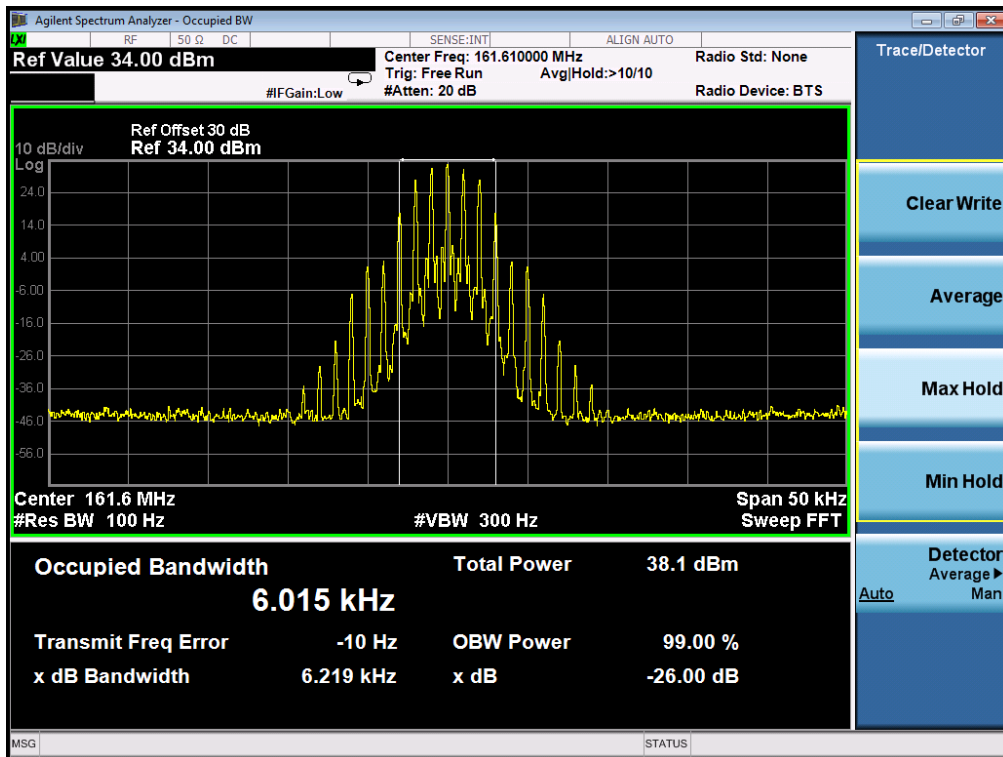
Occupied bandwidth of Bottom Channel (Maximum)-2.5W



Occupied bandwidth of Middle Channel (151.850 MHz)-2.5W

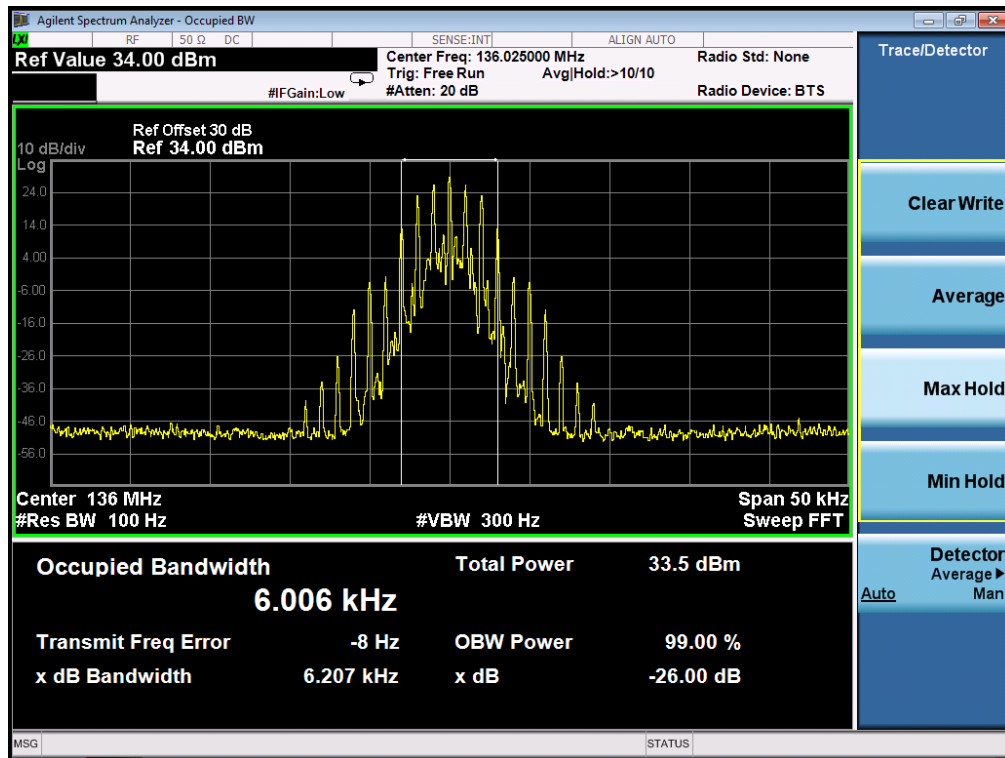


Occupied bandwidth of Middle Channel (161.610 MHz)-2.5W

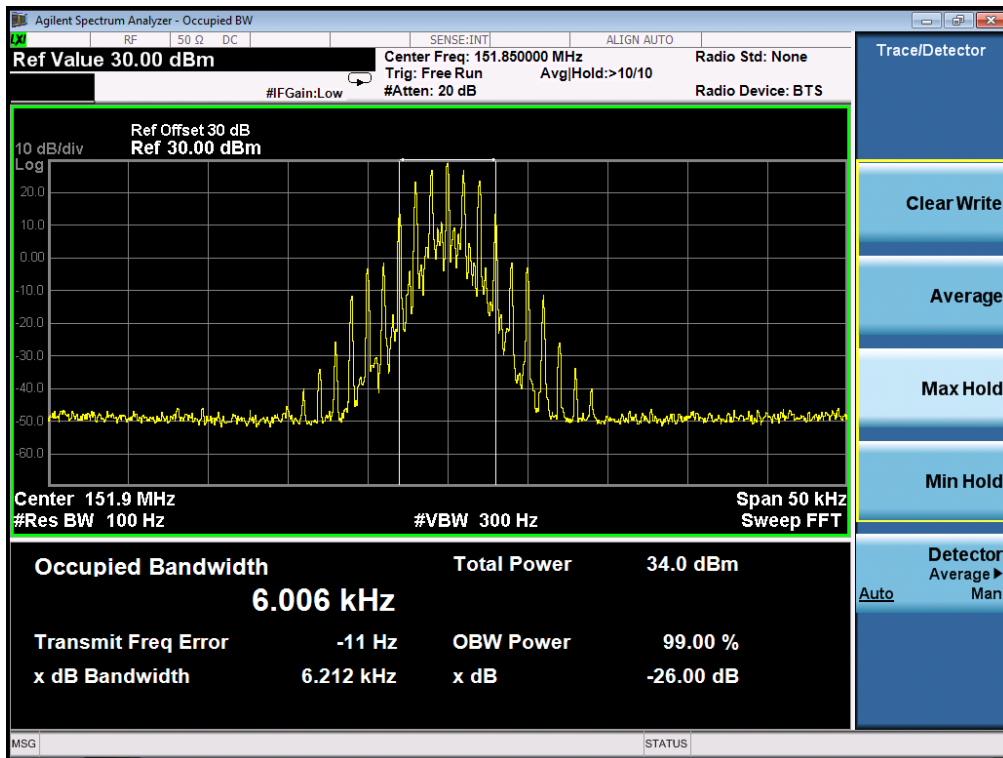


26 dB Bandwidth Measurement Result			
Operating Frequency	12.5 KHz Channel Separation		
	Test Data	Limits	Result
136.025MHz	6.207KHz	11.25 KHz	Pass
151.850MHz	6.212KHz	11.25 KHz	Pass
155.025MHz	6.196KHz	11.25 KHz	Pass
161.61 MHz	6.222KHz	11.25 KHz	Pass
173.975MHz	6.201KHz	11.25 KHz	Pass

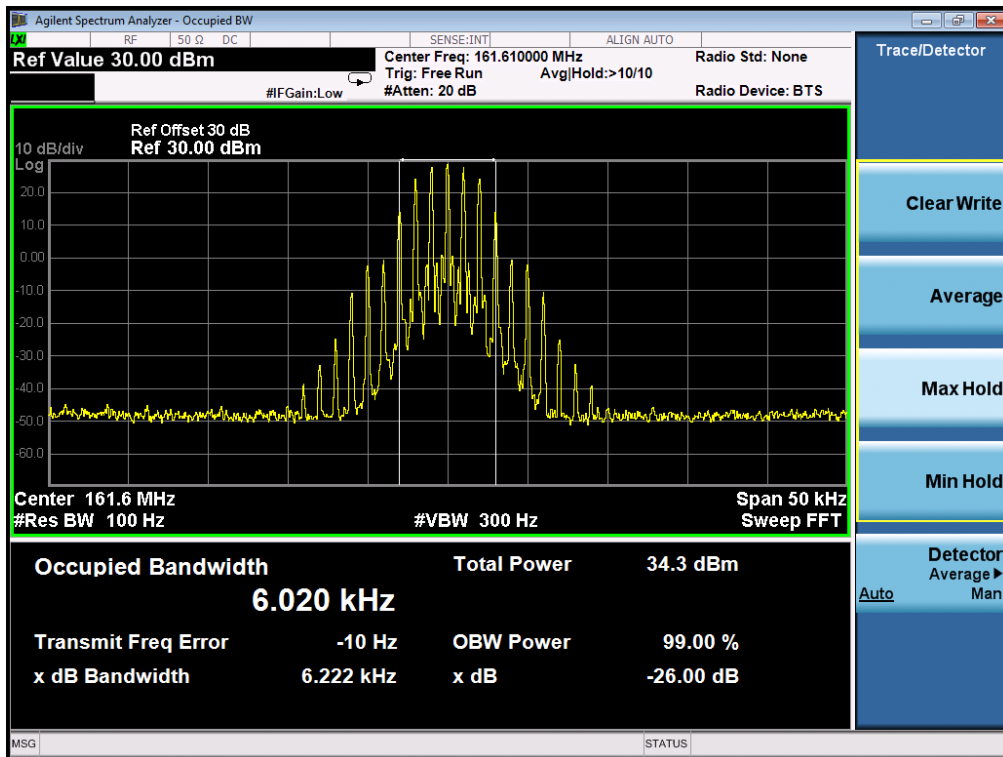
Occupied bandwidth of Bottom Channel (Maximum)-1W



Occupied bandwidth of Middle Channel (151.850 MHz)-1W



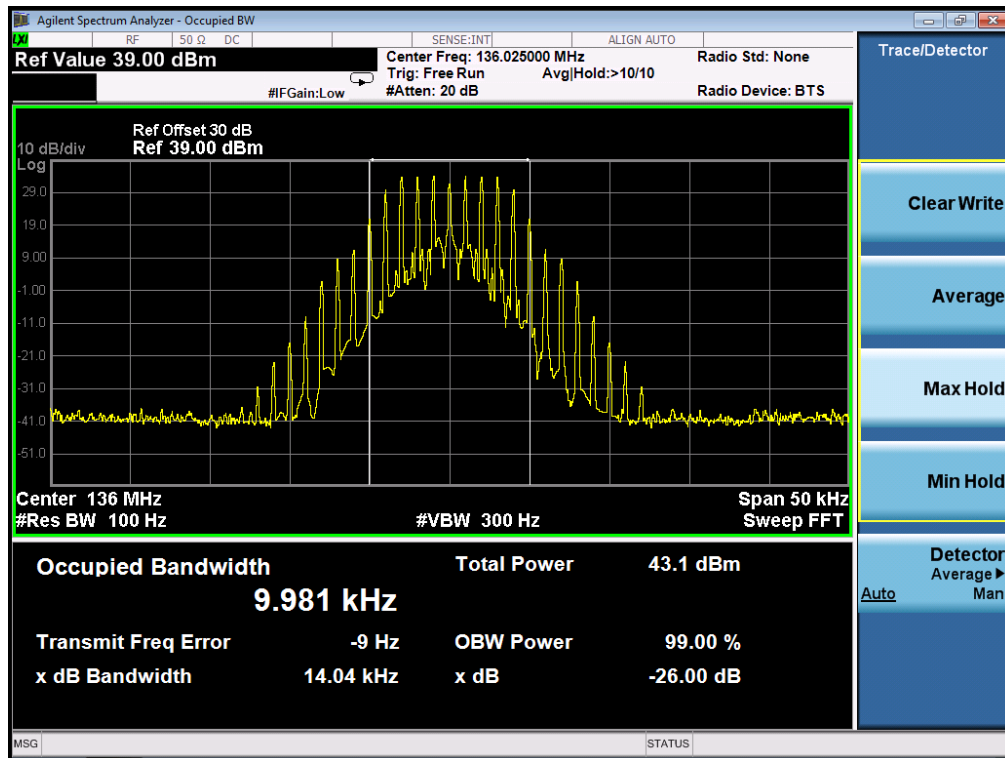
Occupied bandwidth of Middle Channel (161.610 MHz)-1W



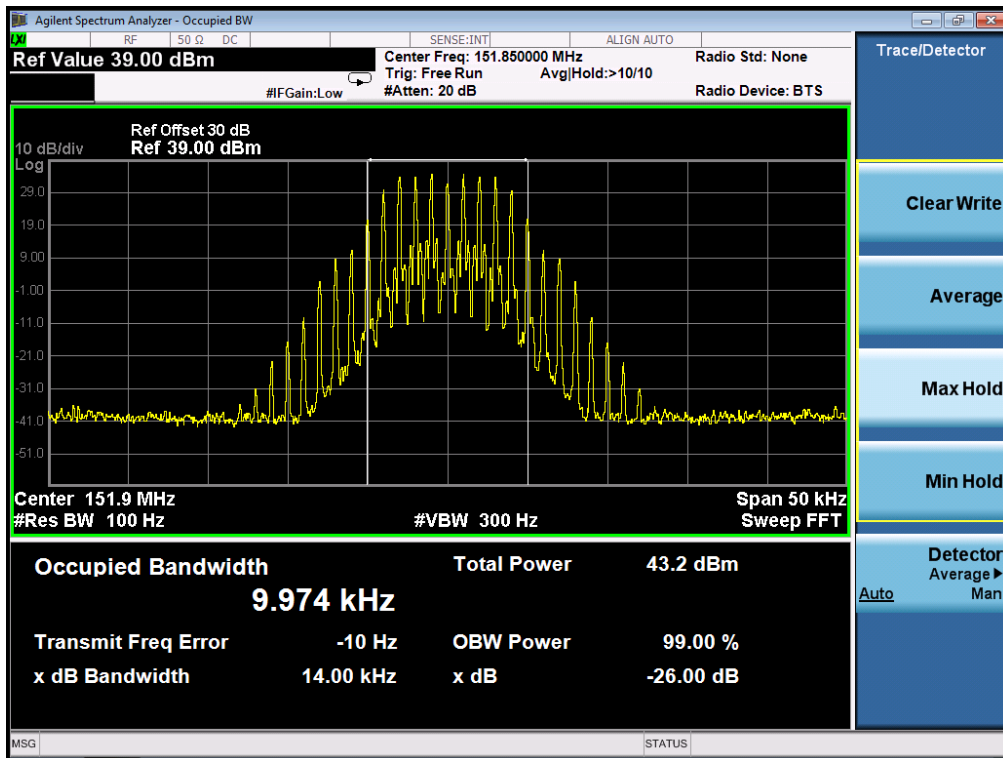
Analog-25KHz:

26 dB Bandwidth Measurement Result			
Operating Frequency	25 KHz Channel Separation		
	Test Data	Limits	Result
136.025MHz	14.04KHz	20 KHz	Pass
151.850MHz	14.00KHz	20 KHz	Pass
155.025MHz	13.98KHz	20 KHz	Pass
161.61 MHz	14.01KHz	20 KHz	Pass
173.975MHz	14.96KHz	20 KHz	Pass

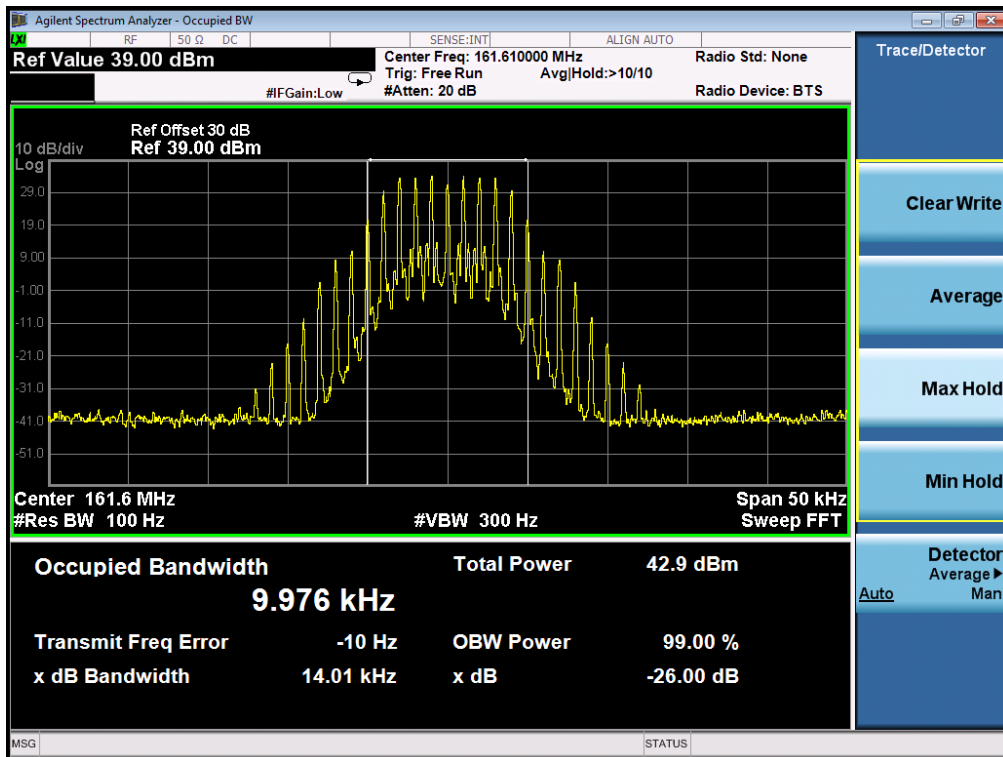
Occupied bandwidth of Bottom Channel (136.025MHz)-7W



Occupied bandwidth of Middle Channel (151.850 MHz)-7W

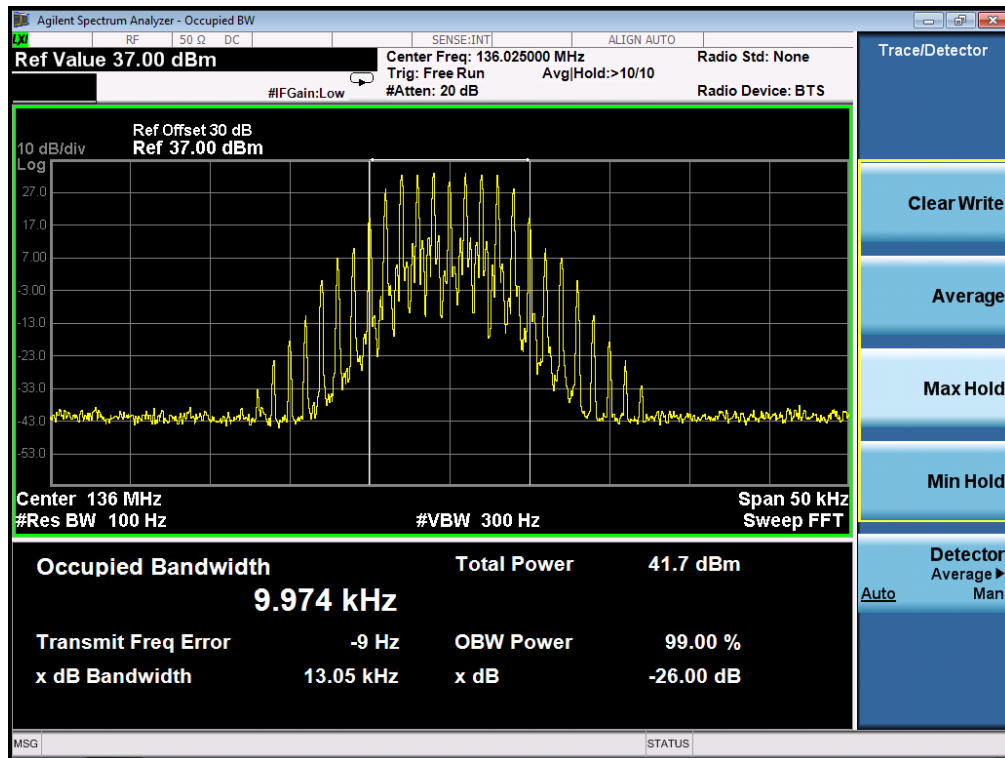


Occupied bandwidth of Middle Channel (161.610 MHz)-7W

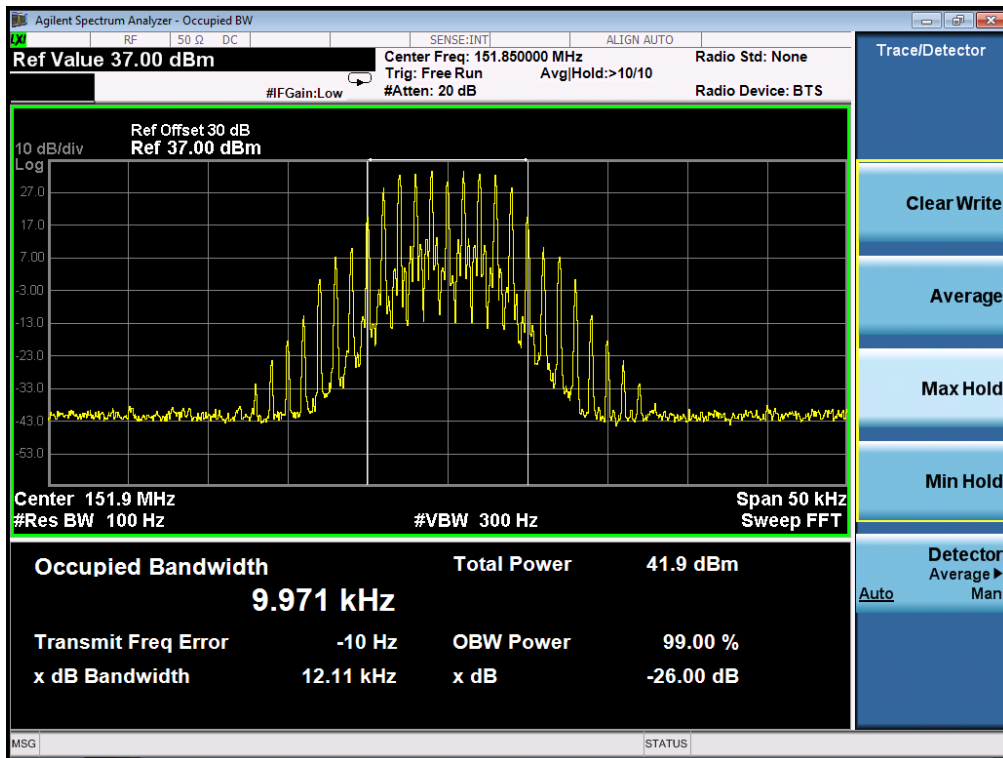


26 dB Bandwidth Measurement Result			
Operating Frequency	25 KHz Channel Separation		
	Test Data	Limits	Result
136.025MHz	13.05KHz	20 KHz	Pass
151.850MHz	12.11KHz	20 KHz	Pass
155.025MHz	13.92KHz	20 KHz	Pass
161.61 MHz	14.03KHz	20 KHz	Pass
173.975MHz	13.52KHz	20 KHz	Pass

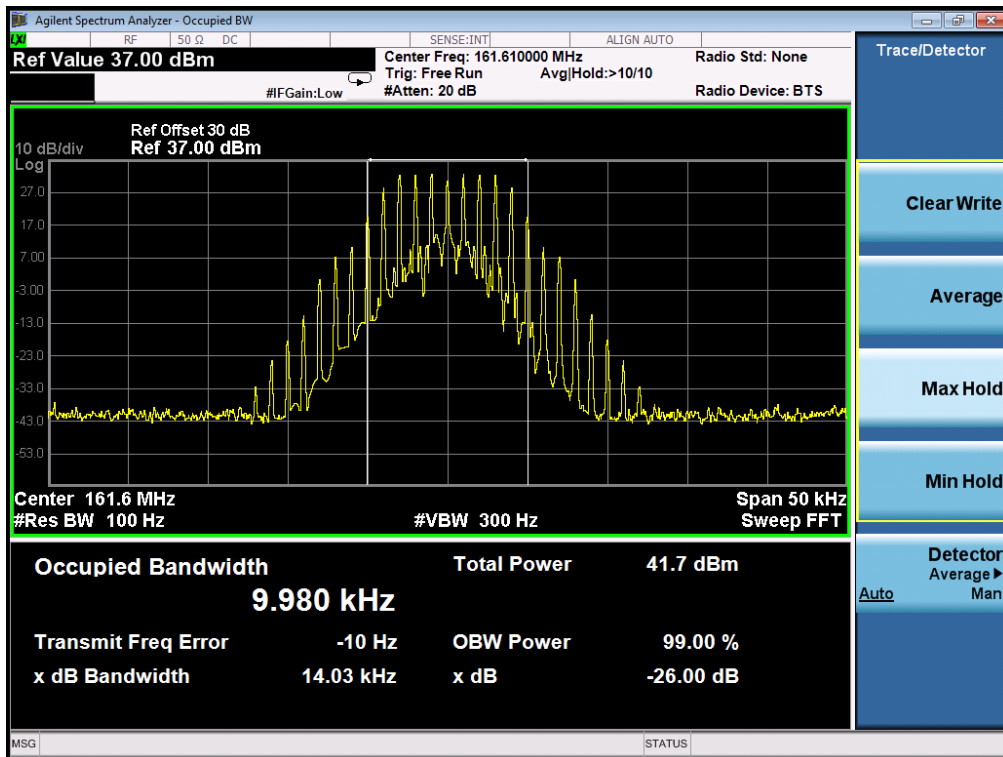
Occupied bandwidth of Bottom Channel (136.025MHz)-5W



Occupied bandwidth of Middle Channel (151.850 MHz)-5W



Occupied bandwidth of Middle Channel (161.610 MHz)-5W



26 dB Bandwidth Measurement Result			
Operating Frequency	25 KHz Channel Separation		
	Test Data	Limits	Result
136.025MHz	14.04KHz	20 KHz	Pass
151.850MHz	14.05KHz	20 KHz	Pass
155.025MHz	13.86KHz	20 KHz	Pass
161.61 MHz	12.11KHz	20 KHz	Pass
173.975MHz	13.13KHz	20 KHz	Pass

Occupied bandwidth of Bottom Channel (136.025MHz)-2.5W

