# FCC PART 15C TEST REPORT FOR CERTIFICATION On Behalf of

Loud Technologies Inc.

Wireless Digital Mixer

Model Number: ProDX8

FCC ID: 2AD4XPRODX8

Prepared for: Loud Technologies Inc.

16220 Wood-Red Road NE, Woodinville, Washington 98072,

**USA** 

Prepared By: EST Technology Co., Ltd.

Santun(guantai Road), Houjie Town, DongGuan City,

GuangDong, China.

Tel: 86-769-83081888-808

Report Number: ESTE-R1603071

Date of Test : January 20~ March 23, 2016

Date of Report: March 30, 2016

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**Test Report Verification** 

	Test Report ve	1 III cation						
Applicant:	Loud Technologies Inc.							
Address:	16220 Wood-Red Road NE, V	Woodinville, Wa	shington 98072, USA					
Manufacturer	Loud Technologies Inc.							
Address:	16220 Wood-Red Road NE, V	Woodinville, Wa	shington 98072, USA					
E.U.T:	Wireless Digital Mixer							
<b>Model Number:</b>	ProDX8							
Power Supply:	DC 18V From Adapter Input AC 100-240V ~ 50/60Hz							
Took Waltages	AC 120V/60Hz							
Test Voltage:	AC 240V/60Hz							
Trade Name:	S	Serial No.:						
Date of Receipt:	January 20, 2016	Date of Test:	January 20~ March 23, 2016					
Test Specification:	FCC Rules and Regulations I ANSI C63.10:2013	Part 15 Subpart (	C:2015					
Test Result:	The device described above is tested by EST Technology Co., Ltd The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC Rules and Regulations Part 15 Subpart C requirements.							
	This report applies to above t in part without written approx	-	ly and shall not be reproduced nology Co., Ltd. Date: March 30, 2016					
Prepared by:	Tested by:		Approved by:					
Ada / Assistant	Tony. Tang / Engine	eer	Iceman.Hu / Manager					
	<del>-</del>		-					
Other Aspects: None.								
Abbreviations: OK/P=pas.	sed fail/F=failed n.a/N=not	applicable E.U	I.T=equipment under tested					
	a a single evaluation of one sample of		roducts ,It is not permitted to be					

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# 1. GENERAL INFORMATION

# 1.1. Description of Device (EUT)

Product Name	:	Wireless Digital Mixer
FCC ID	:	2AD4XPRODX8
Model Number	:	ProDX8
Operation frequency	:	2402MHz~2480MHz
Number of channel	:	79
Antenna	:	Internal antenna, 2.13dBi gain
Modulation	:	BT BDR: GFSK BT EDR: π/4-DQPSK BT EDR: 8-DPSK
Sample Type	:	Prototype production

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# 2. SUMMARY OF TEST

# 2.1. Summary of test result

<b>Description of Test Item</b>	Standard	Results
Maximum Peak Output Power	FCC Part 15: 15.247(b)(1) DA 00-705	PASS
20dB Bandwidth	FCC Part 15: 15.247a1 DA 00-705	PASS
Carrier Frequency Separation	FCC Part 15: 15.247(a)(1) DA 00-705	PASS
Number Of Hopping Channel	FCC Part 15: 15.247(a)(1)(iii) DA 00-705	PASS
Dwell Time	FCC Part 15: 15.247(a)(1)(iii) DA 00-705	PASS
Radiated Emission	FCC Part 15: 15.209 FCC Part 15: 15.247(d) ANSI C63.10:2013 DA 00-705	PASS
Band Edge Compliance	FCC Part 15: 15.247(d) DA 00-705	PASS
Power Line Conducted Emissions	FCC Part 15: 15.207 ANSI C63.10:201 DA 00-705	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

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#### 2.2. Test Facilities

EMC Lab : Certificated by CNAL, CHINA

Registration No.: L5288

Date of registration: December 07, 2015

Certificated by FCC, USA Registration No.: 989591

Date of registration: November 20, 2013

Certificated by Industry Canada Registration No.: 9405A-1

Date of registration: December 30, 2015

Certificated by VCCI, Japan

Registration No.: R-3663 & C-4103 Date of registration: July 25, 2011

Certificated by TUV Rheinland, Germany Registration No.: UA 50195514 0001 Date of registration: January 07, 2011

Certificated by TUV/PS, Shenzhen

Registration No.: SCN1017

Date of registration: January 27, 2011

Certificated by Intertek ETL SEMKO Registration No.: 2011-RTL-L1-18 Date of registration: April 28, 2011

Certificated by Siemic, Inc. Registration No.: SLCN021

Date of registration: November 8, 2011

Certificated by Nemko, Hong Kong

Registration No.: 175193

Date of registration: May 4, 2011

Name of Firm : EST Technology Co., Ltd.

Site Location : San Tun Management Zone, Houjie Town, Dongguan,

Guangdong, China

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#### 2.3. Measurement uncertainty

Test Item	Uncertainty
Uncertainty for Conduction emission test	2.54dB
Uncertainty for Radiation Emission test (30MHz-1GHz)	3.62
Uncertainty for Radiation Emission test (1GHz to 18GHz)	4.86
Uncertainty for radio frequency	7×10-8
Uncertainty for conducted RF Power	0.20dB
Uncertainty for Power density test	0.26dB

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

# 2.4. Assistant equipment used for test

#### 2.4.1. Adapter

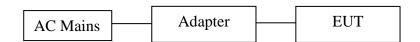
M/N : DYS612-18050W-1

Input : AC 100-240V~50/60Hz 0.4A MAX

Output : DC 18V 0.5A

# 2.5. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 (or 1.5) meter high above ground. EUT was be set into BT test mode by software before test.



(EUT: Wireless Digital Mixer)

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# 2.6. Test mode

The test software was used to control EUT work in Continuous TX mode, and select test channel, wireless mode

Mode	Channel	Frequency
	Low	2402MHz
GFSK	Middle	2441MHz
	High	2480MHz
	Low	2402MHz
8-DPSK	Middle	2441MHz
	High	2480MHz

#### 2.7. Channel List for Bluetooth

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
No.	(MHz)	No.	(MHz)	No.	(MHz)	No.	(MHz)
1	2402	2	2403	3	2404	4	2405
5	2406	6	2407	7	2408	8	2409
9	2410	10	2411	11	2412	12	2413
13	2414	14	2415	15	2416	16	2417
17	2418	18	2419	19	2420	20	2421
21	2422	22	2423	23	2424	24	2425
25	2426	26	2427	27	2428	28	2429
29	2430	30	2431	31	2432	32	2433
33	2434	34	2435	35	2436	36	2437
37	2438	38	2439	39	2440	40	2441
41	2442	42	2443	43	2444	44	2445
45	2446	46	2447	47	2448	48	2449
49	2450	50	2451	51	2452	52	2453
53	2454	54	2455	55	2456	56	2457
57	2458	58	2459	59	2460	60	2461
61	2462	62	2463	63	2464	64	2465
65	2466	66	2467	67	2468	68	2469
69	2470	70	2471	71	2472	72	2473
73	2474	74	2475	75	2476	76	2477
77	2478	78	2479	79	2480	-	_

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# 2.8. Test Equipment

# 2.8.1. For conducted emission test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESHS30	832354	June,28,15	1 Year
Artificial Mains Networ	Rohde & Schwarz	ENV216	101260	June,28,15	1 Year
Pulse Limiter	Rohde & Schwarz	ESEON ONE-Z2	101100	June,28,15	1 Year

# 2.8.2. For radiated emission test(30-1000MHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESVS10	100004	June,28,15	1 Year
Spectrum Analyzer	Agilent	E4411B	MY5014069 7	June,28,15	1 Year
Bilog Antenna	Teseq	CBL 6111D	27090	June,28,15	1 Year
Signal Amplifier	Agilent	310N	187037	June,28,15	1 Year

# 2.8.3. For radiated emission test(above 1GHz)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Horn Antenna	SCHWARZB ECK		BBHA9120D1 002	June,28,15	1 Year
Signal Amplifier	SCHWARZB ECK	BBV9718	9718-212	June,28,15	1 Year
Spectrum Analyzer	Agilent	E4408B	MY44211139	June,28,15	1 Year
RF Cable	Hubersuhner	RG 214/U	513423	June,28,15	1 Year

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# 3. MAXIMUM PEAK OUTPUT POWER

#### 3.1. Limit

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts, the e.i.r.p shall not exceed 4W

#### 3.2. Test Procedure

The transmitter output (antenna port) was connected to the spectrum analyzer

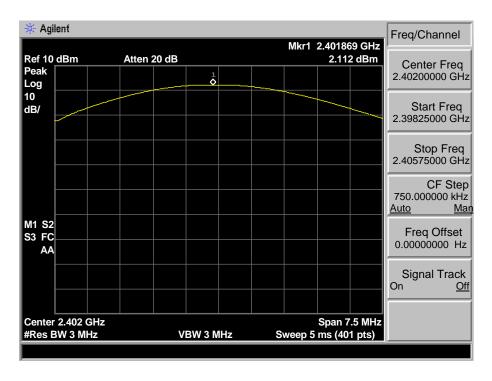
#### 3.3. Test Result

M/N: ProDX	.0					
Test date: 20	16-03-18	Test site: RF site	Tested b	y: Tony Tang	5	
Mode Freq		Result	Limit		Margin	
Mode	(MHz)	(dBm)	dBm	W	(dB)	
	2402	2.112	30.00	1	27.888	
GFSK	2441	2.078	30.00	1	27.922	
	2480	0.562	30.00	1	29.438	
	2402	1.715	21.00	0.125	19.285	
8-DPSK	2441	1.469	21.00	0.125	19.531	
	2480	-0.434	21.00	0.125	21.434	

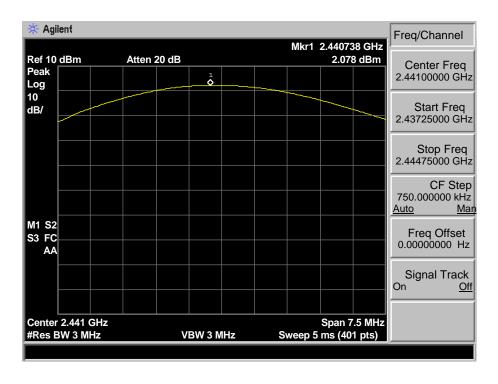
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#### 3.4. Test Data

#### GFSK 2402 MHz



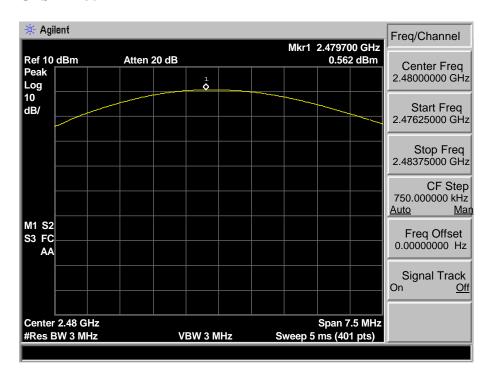
#### **GFSK 2441 MHz**





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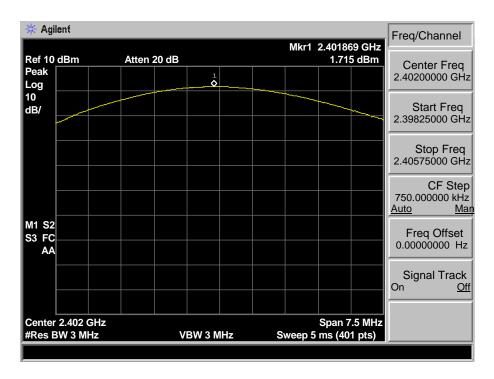
#### GFSK 2480 MHz



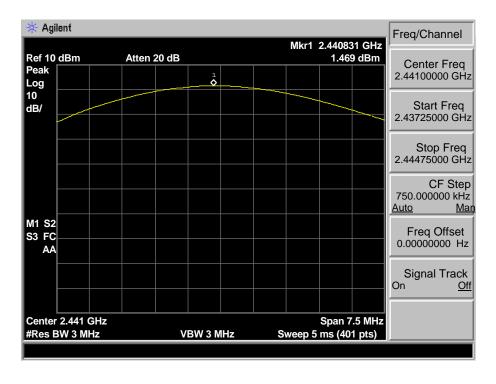


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#### 8-DPSK 2402 MHz



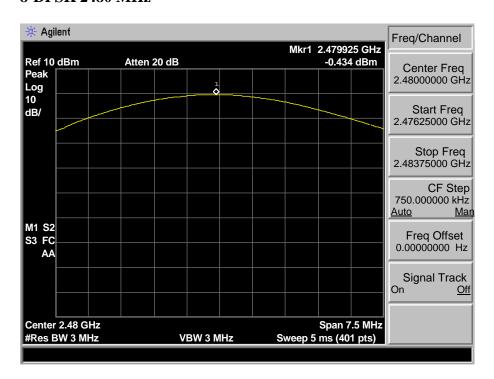
#### 8-DPSK 2441 MHz





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#### 8-DPSK 2480 MHz





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### 4. 20 DB BANDWIDTH

#### 4.1. Limit

Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

#### 4.2. Test Procedure

The transmitter output was coupled to a spectrum analyzer via a antenna. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30kHz RBW and 100kHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

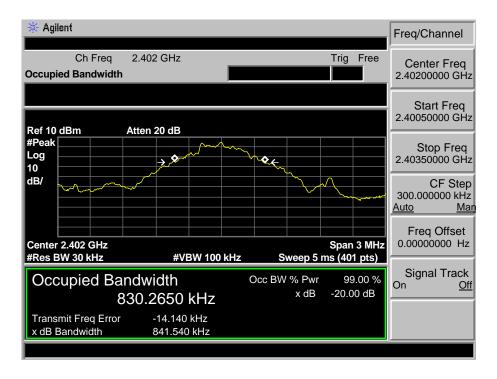
#### 4.3. Test Result

EUT: Wire M/N: ProD	less Digital N X8	Mixer			
Test date: 20	16-03-18	Test site: RF site	Tested by: Tony Tang		
Mode	Freq (MHz)	20dB Bandwidth (MHz)	Limit (kHz)	Conclusion	
GFSK	2402	0.842	/	PASS	
	2441	0.854	/	PASS	
	2480	0.835	/	PASS	
8-DPSK	2402	1.217	/	PASS	
	2441	1.209	/	PASS	
	2480	1.211	/	PASS	

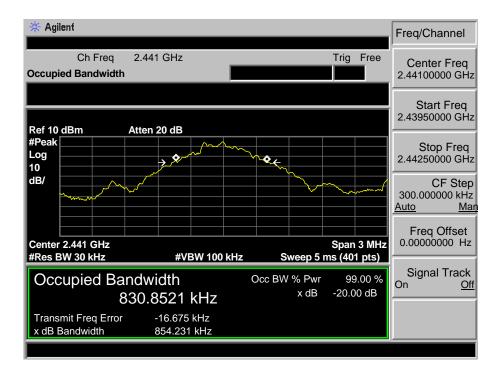
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#### 4.4. Test Data

#### GFSK 2402MHz



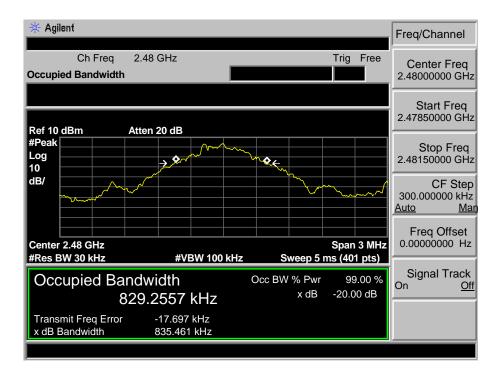
#### **GFSK 2441MHz**





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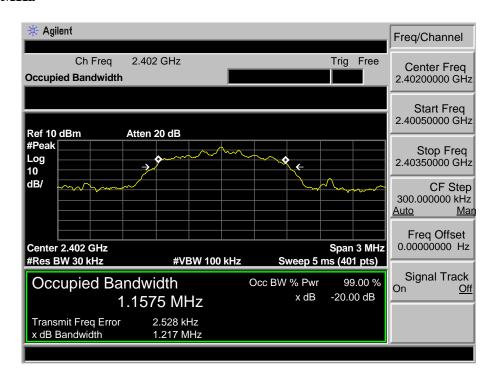
#### GFSK 2480MHz



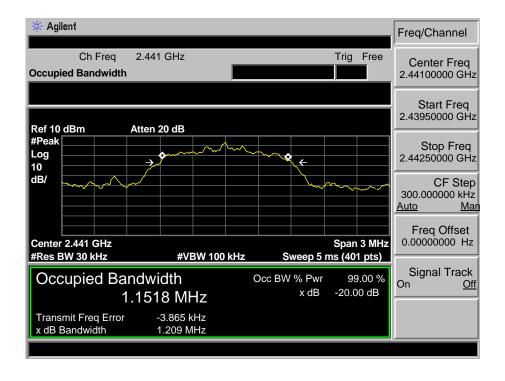


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#### 8-DPSK 2402MHz



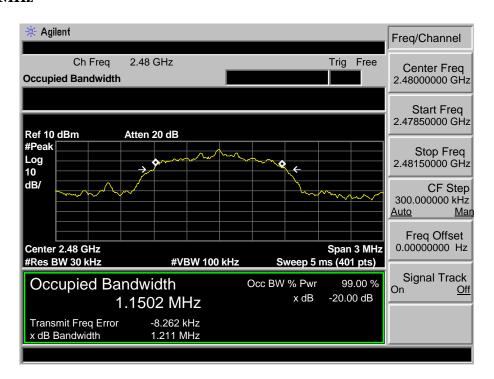
#### 8-DPSK 2441MHz





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#### 8-DPSK 2480MHz





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# 5. CARRIER FREQUENCY SEPARATION

#### 5.1. Limit

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

#### 5.2. Test Procedure

The transmitter output was coupled to a spectrum analyzer via a antenna. The carrier frequency was measured by spectrum analyzer with 100kHz RBW and 100kHz VBW.

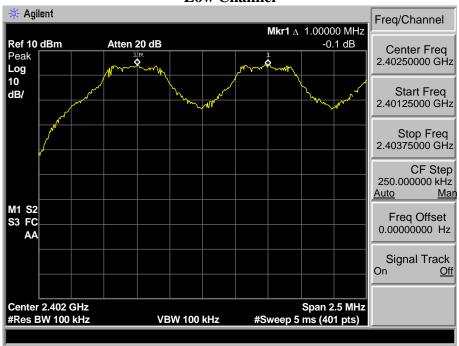
#### 5.3. Test Result

EUT: Wirel	ess Digital M	lixer		
M/N: ProD2	X8			
Test date: 2016-03-18			Test site: RF site Tested by: Tony Tang	
Mode	Channel	Channel		
		separation	Limit	Conclusion
		(MHz)		
	Low CH	1.000	0.842 MHz	PASS
GFSK	Mid CH	1.000	0.854 MHz	PASS
	High CH	1.000	0.835 MHz	PASS
8-DPSK	Low CH	1.000	> 2/3 of the 20dB Bandwidth or 25[kHz]( whichever is greater)	PASS
	Mid CH	1.000		PASS
	High CH	1.006		PASS

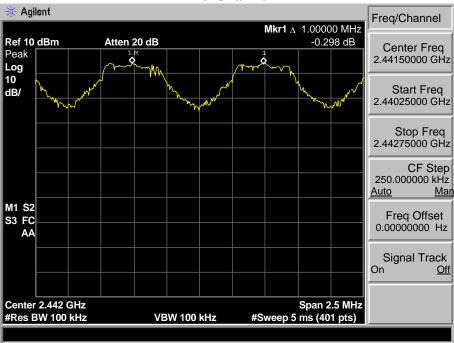
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#### 5.4. Test Data

**GFSK**Low Channel

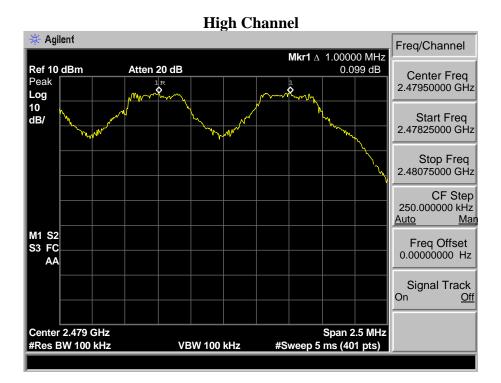


#### **Mid Channel**





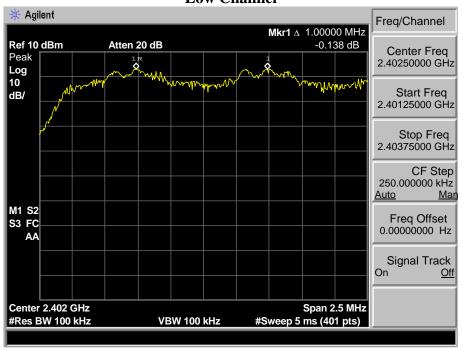
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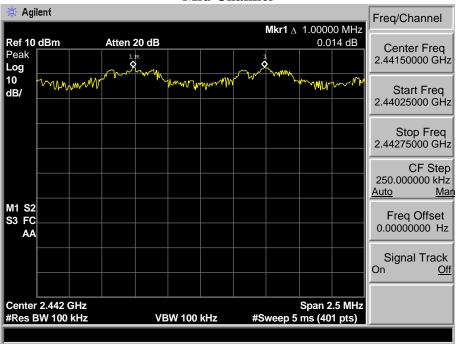


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8-DPSK Low Channel

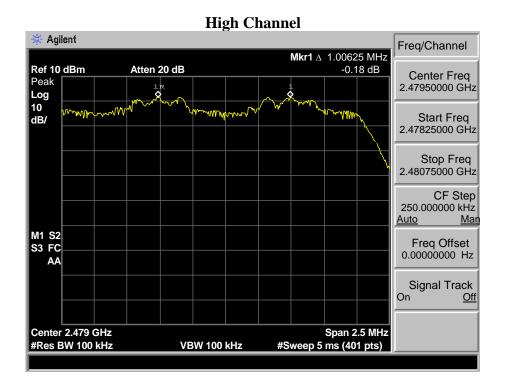


#### **Mid Channel**





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# 6. NUMBER OF HOPPING CHANNEL

#### 6.1. Limit

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

# 6.2. Test Procedure

The transmitter output was coupled to a spectrum analyzer via a antenna. The number of hopping channel was measured by spectrum analyzer with 300kHz RBW and 300kHz VBW.

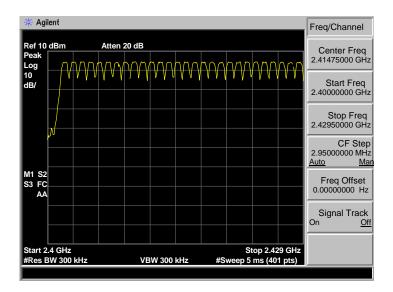
#### 6.3. Test Result

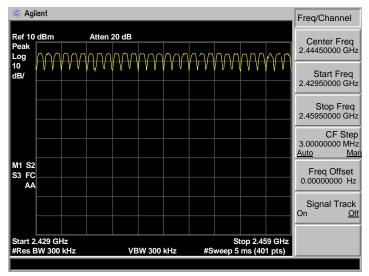
EUT: Wireless Digital Mixer M/N: ProDX8				
Test date: 20	16-03-18	Tested by: To	Tested by: Tony.Tang	
Mode	Number of hopping channel		Limit	Conclusion
GFSK	79		>15	PASS
8-DPSK	79		>15	PASS

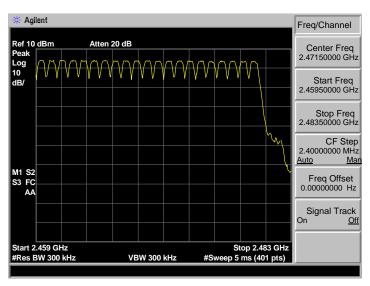
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#### 6.4. Test Data

#### **GFSK**



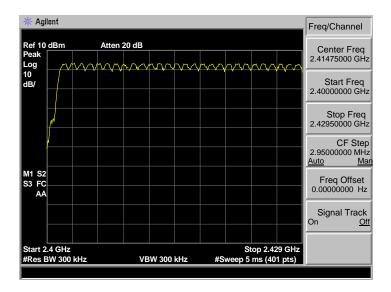


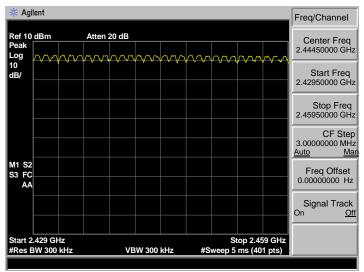


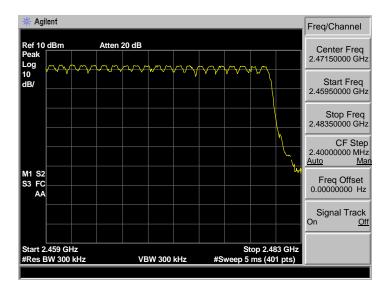


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#### 8-DPSK









#### 7. DWELL TIME

#### 7.1. Limit

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

#### 7.2. Test Procedure

- 1. Connect the antenna port of the EUT to the spectrum analyzer by a low lost cable.
- 2. Set the EUT to proper test mode with relative test software and hardware.
- 3. Spectrum analyzer setting: Centered Frequency = measured channel, RBW = 1MHz, VBW = 1MHz, Frequency Span = 0~Hz.
- 4. Set sweep time properly to capture the entire dwell time per hopping channel.
- 5. Set detector type to Peak and trace mode to Max Hold and make the measurement.
- 6. Repeat step 3-5 until all channels measured were complete.

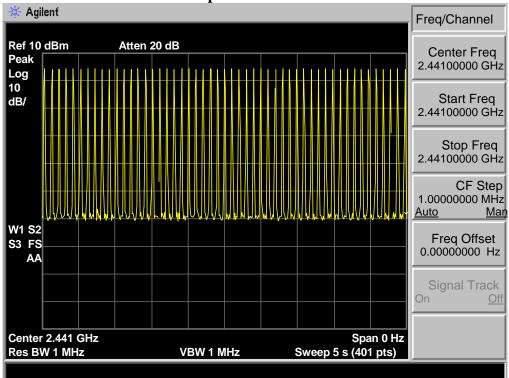
#### 7.3. Test Result

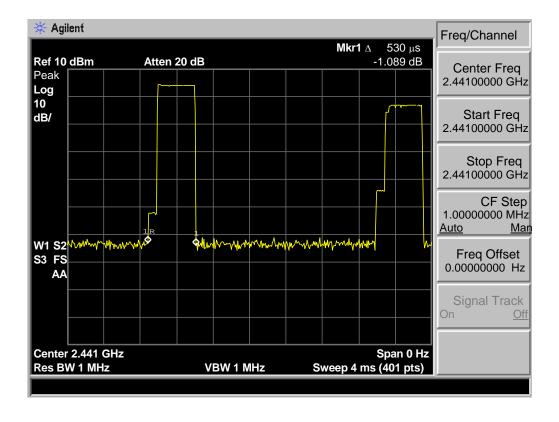
EUT: Wireless Digital M M/N: ProDX8	lixer		
Test date: 2016-03-18	Test site: RF site	Tested by: Tony Tang	
Mode	Dwell time (ms)	Limit	Conclusion
GFSK DH1	167.48	<400ms	PASS
GFSK DH3	287.56	<400ms	PASS
GFSK DH5	316.95	<400ms	PASS
8-DPSK 3DH1	148.52	<400ms	PASS
8-DPSK 3DH3	268.60	<400ms	PASS
8-DPSK 3DH5	333.06	<400ms	PASS

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#### 7.4. Test Data

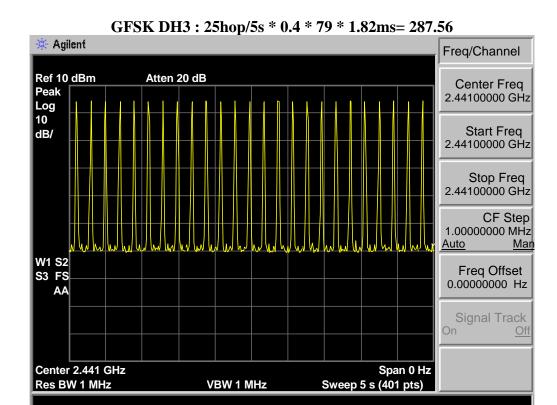
GFSK DH1: 50hop/5s \* 0.4 \* 79 \* 0.53ms = 167.48

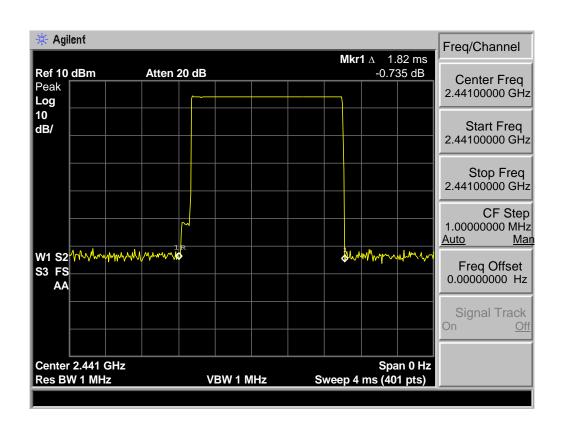






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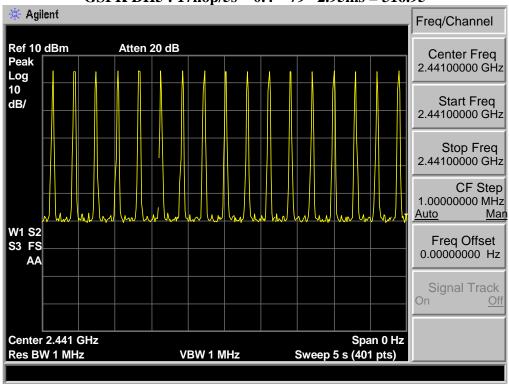


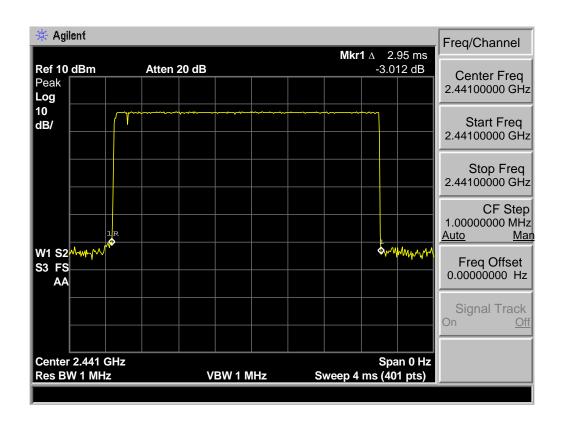




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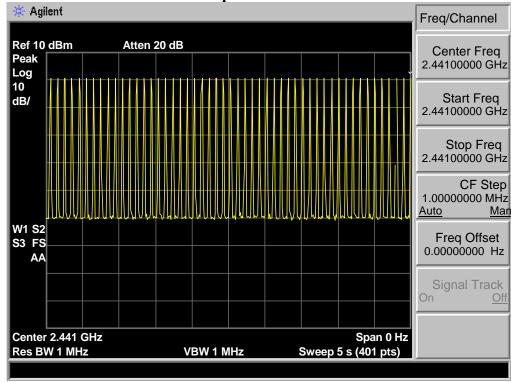


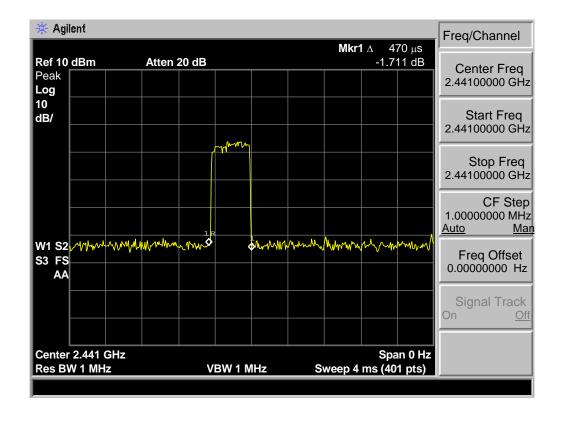




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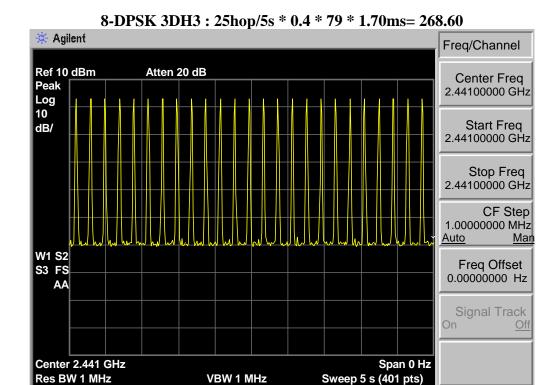


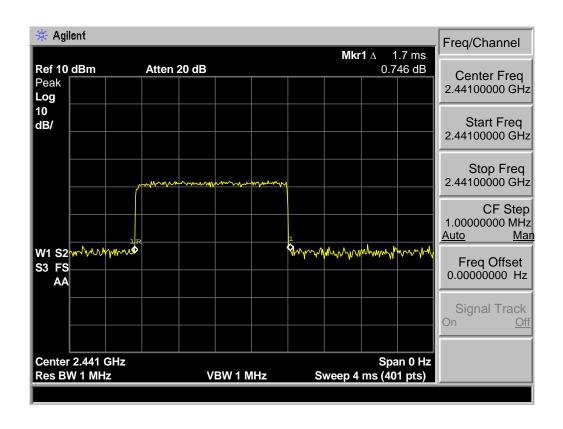






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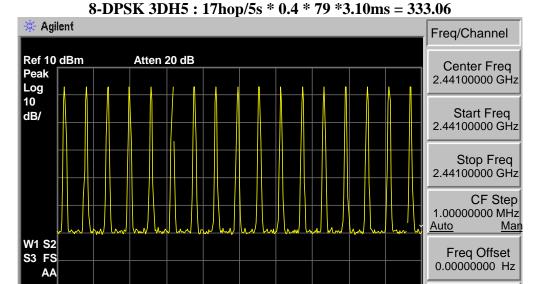




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Center 2.441 GHz

Res BW 1 MHz



VBW 1 MHz

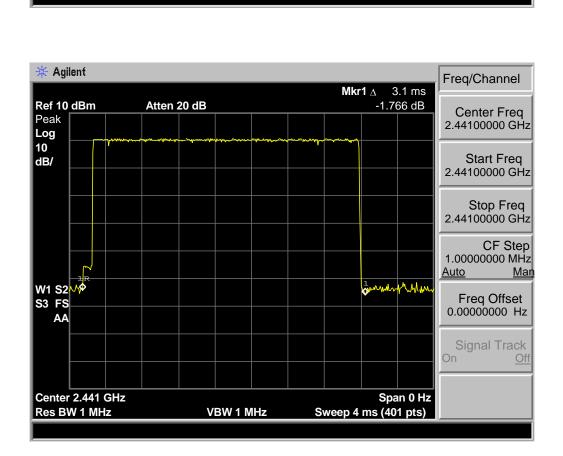
Signal Track

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On

Span 0 Hz

Sweep 5 s (401 pts)





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#### 8. RADIATED EMISSIONS

#### 8.1. Limit

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(2)

15.209 Limit

FREQUENCY		DISTANCE	FIELD STRENGTHS LIMIT	
M	IHz	Meters	μV/m	$dB(\mu V)/m$
30 ~	88	3	100	40.0
88 ~ 216		3	150	43.5
216 ~ 960		3	200	46.0
960 ~ 1000		3	500	54.0
Above	1000	3	74.0 dB(μV	/)/m (Peak)
AUUVC	1000	3	54.0 dB(μV)/m (Average)	

Remark : (1) Emission level  $dB\mu V = 20 \log$  Emission level  $\mu V/m$ 

- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

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## 8.2. Test Procedure

EUT was placed on a turn table, which is 0.8 meter high above ground for 30~1000MHz test, and which is 1.5 meter high above ground for above 1GHz test. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 1MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

PEAK detector, 1MHz/1MHz for PAEK measurement,

PEAK detector, 1MHz/10Hz for Average measurement

The frequency range from 30MHz to 10th harmonic (25GHz) are checked.

## 8.3. Test Result

#### PASS.

All the emissions from 30MHz to 25 GHz were comply with 15.209 limits.

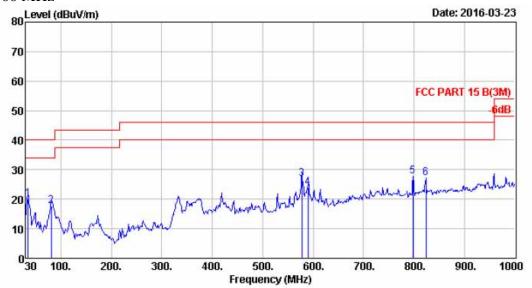
- Note: 1. For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.
  - 2. The frequency 2402MHz . 2441MHz and 2480MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

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# 8.4. Test Data

## 30 MHz - 1000 MHz



Site no. : 966 1# chamber Data no. : 395
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

Engineer : Tony

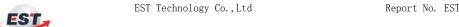
EUT : Wireless Digital Mixer

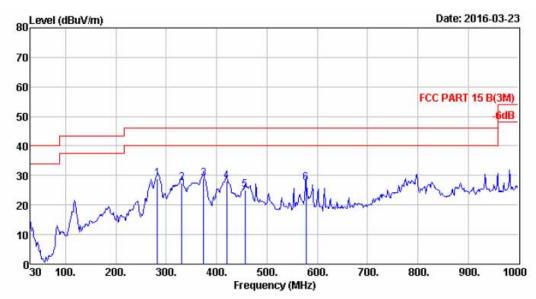
Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

Test Mode : GFSK TX 2402MHz

er everev	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	34.85	15.55	0.72	3.94	20.21	40.00	19.79	QP
2	80.44	7.07	1.25	9.34	17.66	40.00	22.34	QP
3	578.05	19.52	3.32	4.08	26.92	46.00	19.08	QP
4	589.69	19.43	3.37	1.08	23.88	46.00	22.12	QP
5	798.24	22.03	3.92	1.71	27.66	46.00	18.34	QP
6	823.46	22.40	3.79	0.88	27.07	46.00	18.93	QP





Data no. : 396

Site no. : 966 1# chamber Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit

: FCC PART 15 B(3M) : Temp:23.6';Humi:56%;Press:101.52kPa : Tony Env. / Ins.

Engineer

EUT : Wireless Digital Mixer

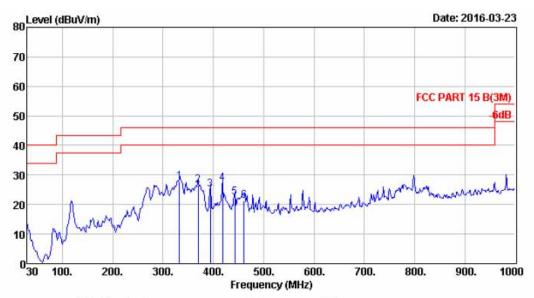
: DC 18V From Adapter Input AC 120V/60Hz Power

M/N : ProDX8

: GFSK TX 2402MHz Test Mode

	Freq.	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	282.20	12.45	2.33	14.03	28.81	46.00	17.19	QP
2	330.70	13.88	2.44	11.16	27.48	46.00	18.52	QP
3	374.35	14.93	2.70	11.26	28.89	46.00	17.11	QP
4	419.94	16.30	2.71	8.92	27.93	46.00	18.07	QP
5	456.80	16.73	2.93	5.44	25.10	46.00	20.90	QP
6	578.05	19.52	3.32	4.76	27.60	46.00	18.40	QP





Site no. : 966 1# chamber Data no. : 397
Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

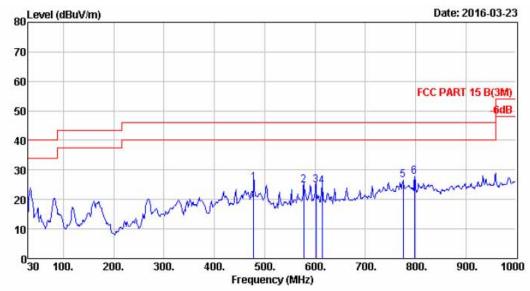
Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

Test Mode : GFSK TX 2441MHz

	Freq.	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	332.64	13.93	2.48	11.46	27.87	46.00	18.13	OP
2	369.50	14.84	2.65	9.00	26.49	46.00	19.51	QP
3	393.75	15.78	2.58	6.63	24.99	46.00	21.01	QP
4	418.00	16.30	2.74	8.05	27.09	46.00	18.91	QP
5	442.25	16.29	2.88	3.18	22.35	46.00	23.65	QP
6	460.68	16.87	2.99	1.51	21.37	46.00	24.63	QP





Site no. : 966 1# chamber Data no. : 398
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

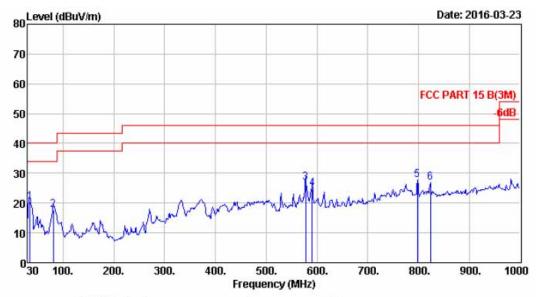
Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

Test Mode : GFSK TX 2441MHz

	ANT Freq. Factor (MHz) (dB/m)	Factor	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
		(00/m)	(00)	(4547)	(шьич/ш)	(dbuv/m)	(00)	
1	478.14	17.40	3.07	5.18	25.65	46.00	20.35	QP
2	578.05	19.52	3.32	1.89	24.73	46.00	21.27	QP
3	602.30	19.66	3.41	1.79	24.86	46.00	21.14	QP
4	613.94	19.94	3.39	1.02	24.35	46.00	21.65	QP
5	774.96	22.02	3.83	0.77	26.62	46.00	19.38	QP
6	798.24	22.03	3.92	1.94	27.89	46.00	18.11	QP





Site no. : 966 1# chamber Dis. / Ant. : 3m 27137 Data no. : 399 Ant. pol. : VERTICAL

: FCC PART 15 B(3M) Limit

: Temp:23.6';Humi:56%;Press:101.52kPa Env. / Ins.

Engineer

: Tony : Wireless Digital Mixer EUT

Power : DC 18V From Adapter Input AC 120V/60Hz

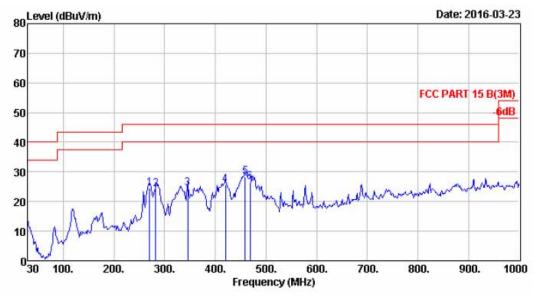
M/N : ProDX8

Test Mode : GFSK TX 2480MHz

	1087	ANT	Cable		Emission			
	Freq.	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	34.85	15.55	0.72	4.13	20.40	40.00	19.60	QP
2	80.44	7.07	1.25	9.44	17.76	40.00	22.24	QP
3	578.05	19.52	3.32	4.05	26.89	46.00	19.11	QP
4	590.66	19.45	3.37	2.12	24.94	46.00	21.06	QP
5	798.24	22.03	3.92	1.68	27.63	46.00	18.37	QP
6	823.46	22.40	3.79	0.55	26.74	46.00	19.26	QP



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Site no. : 966 1# chamber Data no. : 400
Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

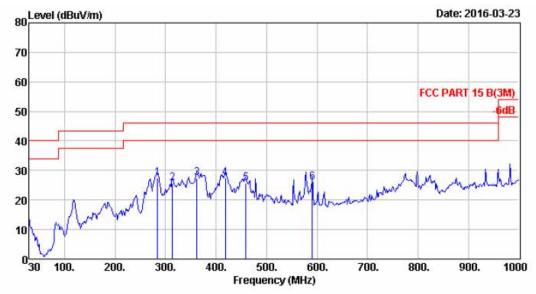
Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

Test Mode : GFSK TX 2480MHz

		ANT	Cable		Emission			
	Freq. (MHz)	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	270.56	12.53	2.27	9.78	24.58	46.00	21.42	QP
2	282.20	12.45	2.33	9.53	24.31	46.00	21.69	QP
3	345.25	14.32	2.54	7.65	24.51	46.00	21.49	QP
4	419.94	16.30	2.71	6.63	25.64	46.00	20.36	QP
5	458.74	16.80	3.00	8.57	28.37	46.00	17.63	QP
6	468.44	17.14	3.09	6.45	26.68	46.00	19.32	QP





Site no. : 966 l# chamber Data no. : 401

Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit : FCC PART 15 B(3M)

: Temp:23.6';Humi:56%;Press:101.52kPa : Tony Env. / Ins.

Engineer

EUT : Wireless Digital Mixer

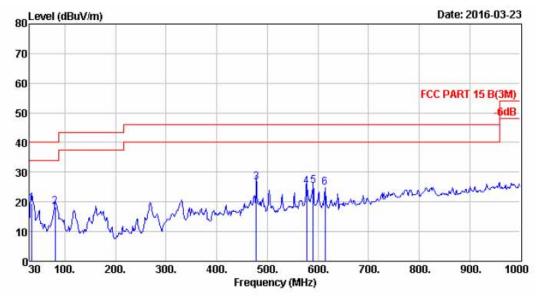
: DC 18V From Adapter Input AC 120V/60Hz Power

M/N : ProDX8

: 8-DPSK TX 2402MHz Test Mode

		ANT	Cable		Emission				
	Freq. (MHz)	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	
1	284.14	12.52	2.36	12.51	27.39	46.00	18.61	QP	
2	313.24	13.31	2.44	9.83	25.58	46.00	20.42	QP	
3	361.74	14.53	2.63	10.22	27.38	46.00	18.62	QP	
4	418.00	16.30	2.74	8.53	27.57	46.00	18.43	QP	
5	458.74	16.80	3.00	5.90	25.70	46.00	20.30	QP	
6	590.66	19.45	3.37	3.30	26.12	46.00	19.88	QP	





Site no. : 966 1# chamber Data no. : 402
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

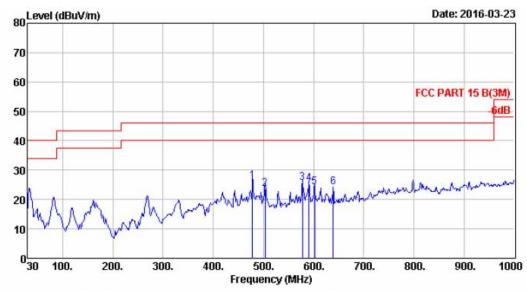
Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

Test Mode : 8-DPSK TX 2402MHz

	Freq.	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	34.85	15.55	0.72	3.35	19.62	40.00	20.38	QP
2	80.44	7.07	1.25	10.08	18.40	40.00	21.60	QP
3	478.14	17.40	3.07	6.22	26.69	46.00	19.31	QP
4	578.05	19.52	3.32	2.39	25.23	46.00	20.77	QP
5	590.66	19.45	3.37	2.43	25.25	46.00	20.75	QP
6	613 94	19 94	3 39	1 47	24 80	46 00	21 20	np





Site no. : 966 1# chamber Dis. / Ant. : 3m 27137 Limit Data no. : 403 Ant. pol. : VERTICAL

: FCC PART 15 B(3M) Limit

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

: Tony Engineer

EUT : Wireless Digital Mixer

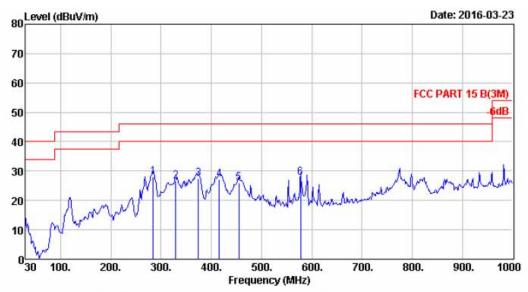
: DC 18V From Adapter Input AC 120V/60Hz Power

M/N : ProDX8

Test Mode : 8-DPSK TX 2441MHz

	Freq.	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	478.14	17.40	3.07	5.66	26.13	46.00	19.87	QP
2	503.36	17.90	3.12	2.64	23.66	46.00	22.34	QP
3	578.05	19.52	3.32	2.84	25.68	46.00	20.32	QP
4	590.66	19.45	3.37	2.42	25.24	46.00	20.76	QP
5	602.30	19.66	3.41	1.23	24.30	46.00	21.70	QP
6	639.16	20.03	3.56	0.54	24.13	46.00	21.87	QP





Site no. : 966 1# chamber Dis. / Ant. : 3m 27137 Limit : FCC PART 15 B(3M) Data no. : 404 Ant. pol. : HORIZONTAL

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

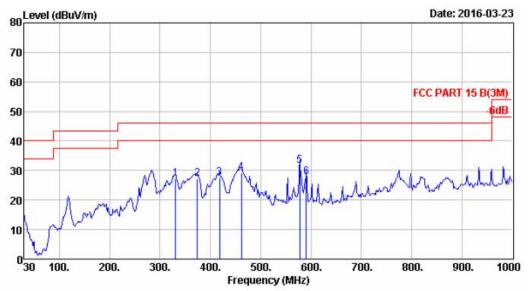
: DC 18V From Adapter Input AC 120V/60Hz Power

M/N : ProDX8

Test Mode : 8-DPSK TX 2441MHz

		ANT	Cable		Emission			
	Freq.	Factor (dB/m)	Loss (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	284.14	12.52	2.36	13.30	28.18	46.00	17.82	QP
2	328.76	13.82	2.44	10.44	26.70	46.00	19.30	QP
3	374.35	14.93	2.70	9.89	27.52	46.00	18.48	QP
4	416.06	16.30	2.75	8.02	27.07	46.00	18.93	QP
5	454.86	16.65	2.94	6.49	26.08	46.00	19.92	QP
6	578.05	19.52	3.32	4.80	27.64	46.00	18.36	QP





Data no. : 405

Site no. : 966 1# chamber Dis. / Ant. : 3m 27137 Ant. pol. : HORIZONTAL

Limit

: FCC PART 15 B(3M) : Temp:23.6';Humi:56%;Press:101.52kPa : Tony Env. / Ins.

Engineer

EUT : Wireless Digital Mixer

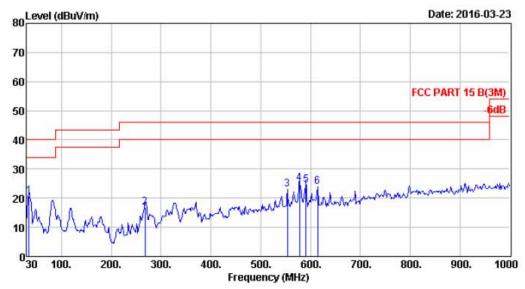
Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

: 8-DPSK TX 2480MHz Test Mode

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	330.70	13.88	2.44	10.71	27.03	46.00	18.97	QP
2	374.35	14.93	2.70	9.66	27.29	46.00	18.71	QP
3	418.00	16.30	2.74	8.43	27.47	46.00	18.53	QP
4	461.65	16.91	3.01	9.24	29.16	46.00	16.84	QP
5	578.05	19.52	3.32	8.70	31.54	46.00	14.46	QP
6	590.66	19.45	3.37	5.08	27.90	46.00	18.10	QP





Site no. : 966 1# chamber Data no. : 406
Dis. / Ant. : 3m 27137 Ant. pol. : VERTICAL

Limit : FCC PART 15 B(3M)

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

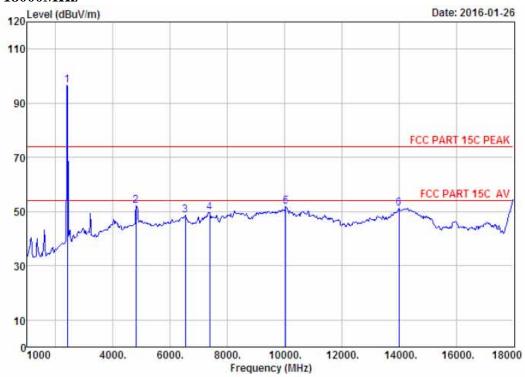
M/N : ProDX8

Test Mode : 8-DPSK TX 2480MHz

	Freq.	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	34.85	15.55	0.72	4.41	20.68	40.00	19.32	QP
2	267.65	12.71	2.26	1.84	16.81	46.00	29.19	QP
3	553.80	19.55	3.26	0.25	23.06	46.00	22.94	QP
4	578.05	19.52	3.32	2.13	24.97	46.00	21.03	QP
5	590.66	19.45	3.37	1.56	24.38	46.00	21.62	QP
6	613.94	19.94	3.39	0.47	23.80	46.00	22.20	QP



## 1000 MHz - 18000 MHz



Site no. : 1# 966 chamber Data no. : 51
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

Test Mode : GFSK TX 2402MHz

Pat 6 1 6 1 6 1	Freq.	Ant. Factor (dB/m)		•	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.00	27.61	6.62	34.18	96.74	96.79	74.00	-22.79	Peak
2	4804.00	31.25	11.77	31.81	41.10	52.31	74.00	21.69	Peak
3	6525.00	34.29	12.20	32.06	34.28	48.71	74.00	25.29	Peak
4	7375.00	36.57	11.59	31.98	33.50	49.68	74.00	24.32	Peak
5	10044.00	38.18	11.56	31.85	33.94	51.83	74.00	22.17	Peak
6	14005.00	41.46	10.90	33.95	32.84	51.25	74.00	22.75	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

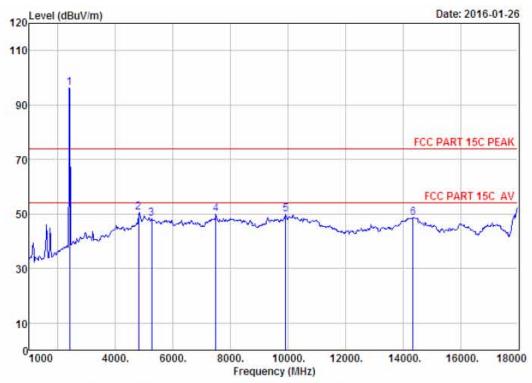
2. The emission levels that are 20dB below the official

limit are not reported.



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Site no. : 1# 966 chamber Data no. : 52

Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

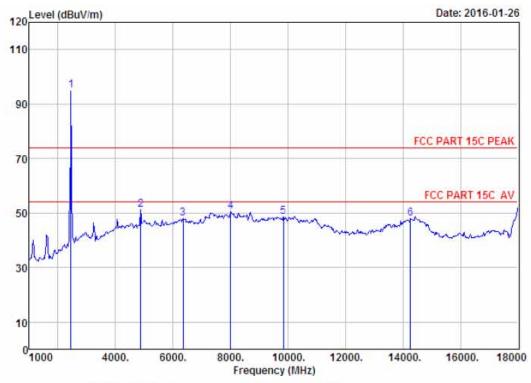
M/N : ProDX8

Test Mode : GFSK TX 2402MHz

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.00	27.61	6.62	34.18	96.40	96.45	74.00	-22.45	Peak
2	4804.00	31.25	11.77	31.81	39.24	50.45	74.00	23.55	Peak
3	5250.00	31.69	12.29	32.19	36.37	48.16	74.00	25.84	Peak
4	7494.00	36.48	11.62	31.87	33.63	49.86	74.00	24.14	Peak
5	9925.00	38,14	11,61	31.76	31.80	49.79	74.00	24.21	Peak
6	14345.00	41.76	10.92	32.93	28.96	48.71	74.00	25.29	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 55
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

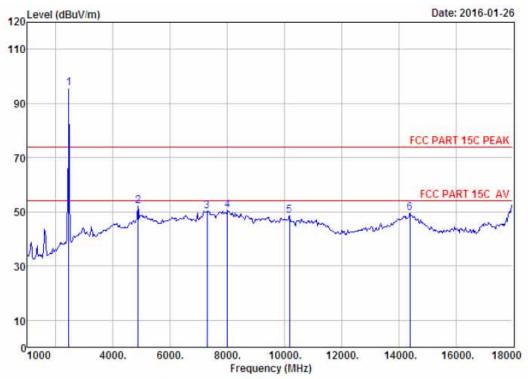
M/N : ProDX8

Test Mode : GFSK TX 2441MHz

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.00	27.60	6.67	34.12	94.93	95.08	74.00	-21.08	Peak
2	4882.00	31.37	12.07	31.90	39.66	51.20	74.00	22.80	Peak
3	6355.00	33.80	12.20	31.92	33.84	47.92	74.00	26.08	Peak
4	8004.00	37.01	11.40	31.22	33.31	50.50	74.00	23.50	Peak
5	9840.00	38,16	11.63	31.81	30.81	48.79	74.00	25.21	Peak
6	14260.00	41.68	10.92	33.19	28.62	48.03	74.00	25.97	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





: 1# 966 chamber Site no. Data no. : 56

: 3m ANT 1-18G : FCC PART 15C PEAK Dis. / Ant. Ant. pol. : HORIZONTAL

Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUI : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

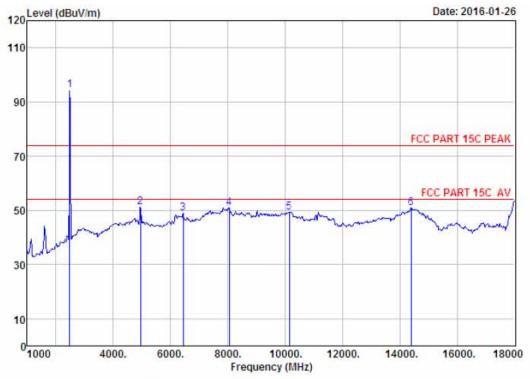
M/N : ProDX8

Test Mode : GFSK TX 2441MHz

	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.00	27.60	6.67	34.12	95.45	95.60	74.00	-21.60	Peak
2	4882.00	31.37	12.07	31.90	40.65	52.19	74.00	21.81	Peak
3	7290.00	36.54	11.56	32.02	34.21	50.29	74.00	23.71	Peak
4	B004.00	37.01	11.40	31.22	33.35	50.54	74.00	23.46	Peak
5	10180.00	38.42	11,49	32.11	30.83	48.63	74.00	25.37	Peak
6	14396.00	41.79	10.92	32.83	29.76	49.64	74.00	24.36	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





: 1# 966 chamber Site no. Data no. : 57

: 3m ANT 1-18G : FCC PART 15C PEAK Ant. pol. : HORIZONTAL Dis. / Ant.

Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

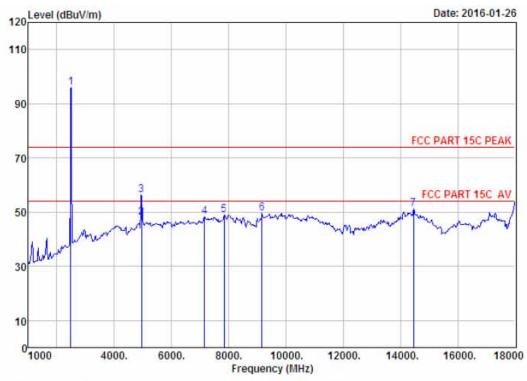
M/N : ProDX8

Test Mode : GFSK TX 2480MHz

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)		Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.58	6.71	34.03	94.27	94.53	74.00	-20.53	Peak
2	4960.00	31.49	12.44	31.97	39.28	51.24	74,00	22.76	Peak
3	6440.00	34.08	12.22	31.95	34.61	48.96	74.00	25.04	Peak
4	8055.00	36.91	11.41	31.31	33.93	50.94	74.00	23.06	Peak
5	10146.00	38.36	11.51	32.05	31.52	49.34	74.00	24.66	Peak
6	14396.00	41.79	10.92	32.83	31.02	50.90	74.00	23.10	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 58 : 3m ANT 1-18G : FCC PART 15C PEAK Dis. / Ant. Ant. pol. : VERTICAL

Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

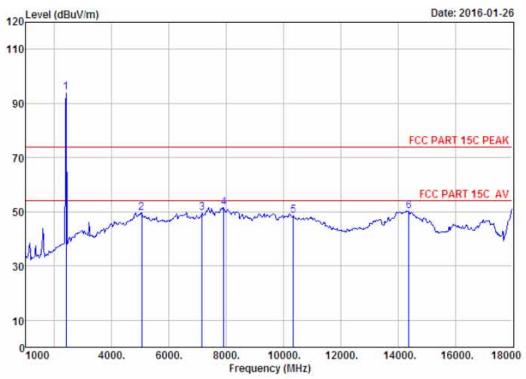
M/N : ProDX8

: GFSK TX 2480MHz Test Mode

10000000	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.58	6.71	34.03	95.75	96.01	74.00	-22.01	Peak
2	4960.00	31.49	12.44	31.97	36.00	47.96	54.00	6.04	Average
3	4960.00	31.49	12.44	31.97	44.41	56.37	74.00	17.63	Peak
4	7154.00	36.25	11.52	32.21	32.88	48.44	74.00	25.56	Peak
5	7834.00	36.68	11,47	31.40	32.14	48.89	74.00	25.11	Peak
6	9160.00	37.69	11.54	32.38	32.71	49.56	74.00	24.44	Peak
7	14464.00	41.85	10.93	32,96	31.42	51.24	74.00	22.76	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber

Data no. : 61 Ant. pol. : HORIZONTAL : 3m ANT 1-18G Dis. / Ant.

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

Engineer : Tony

; Wireless Digital Mixer EUT

Power : DC 18V From Adapter Input AC 120V/60Hz

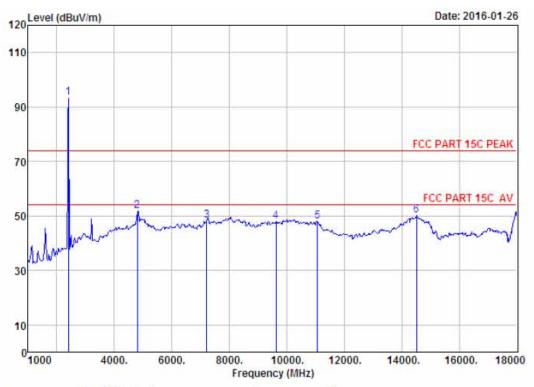
M/N : ProDX8

Test Mode : 8-DPSK TX 2402MHz

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.00	27.61	6.62	34.18	93.90	93.95	74.00	-19.95	Peak
2	5046.00	31.57	12.53	32.08	37.59	49.61	74.00	24.39	Peak
3	7154.00	36.25	11.52	32.21	33.99	49.55	74.00	24.45	Peak
4	7919.00	36.84	11.44	31.30	34.61	51.59	74.00	22.41	Peak
5	10350.00	38.71	11.39	32.43	31.09	48.76	74.00	25.24	Peak
6	14379.00	41.77	10.92	32.88	30.46	50.27	74.00	23.73	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 62
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

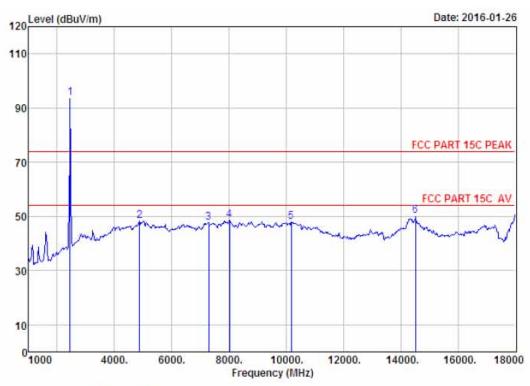
M/N : ProDX8

Test Mode : 8-DPSK TX 2402MHz

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2402.00	27,61	6.62	34.18	93.41	93,46	74.00	-19.46	Peak
2	4804.00	31.25	11.77	31.81	40.74	51.95	74.00	22.05	Peak
3	7222.00	36.52	11.54	32.09	32.29	48.26	74.00	25.74	Peak
4	9636.00	37.96	11.68	31.91	30.17	47.90	74.00	26.10	Peak
5	11064.00	39.48	11.24	33.78	30.91	47.85	74.00	26.15	Peak
6	14515.00	41.89	10.93	33.14	30.50	50.18	74.00	23.82	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





: 1# 966 chamber Site no.

Data no. : 65 Ant. pol. : HORIZONTAL : 3m ANT 1-18G Dis. / Ant.

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

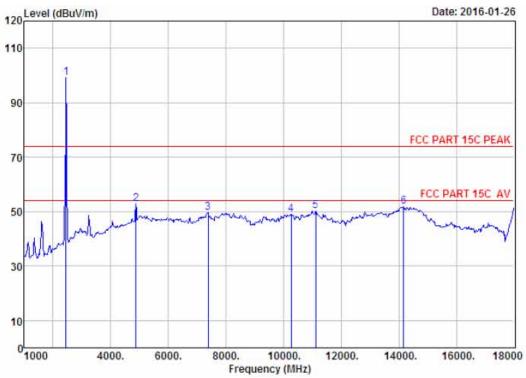
M/N : ProDX8

Test Mode : 8-DPSK TX 2441MHz

	Freq.	Ant. Factor (dB/m)		Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.00	27.60	6.67	34.12	93.45	93.60	74.00	-19.60	Peak
2	4876.00	31.37	12.07	31.90	36.76	48.30	74.00	25.70	Peak
3	7290.00	36.54	11.56	32.02	31.51	47.59	74.00	26.41	Peak
4	8021.00	36.98	11.40	31.25	31.47	48.60	74.00	25.40	Peak
5	10180.00	38.42	11.49	32.11	30.30	48.10	74.00	25.90	Peak
6	14515.00	41.89	10.93	33.14	30.65	50.33	74.00	23,67	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





: 1# 966 chamber Site no.

Data no. : 66 Ant. pol. : VERTICAL : 3m ANT 1-18G : FCC PART 15C PEAK Dis. / Ant.

Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUI : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

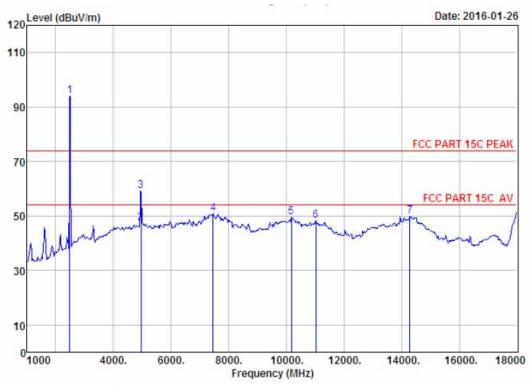
M/N : ProDX8

Test Mode : 8-DPSK TX 2441MHz

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2441.00	27.60	6.67	34.12	99.14	99.29	74.00	-25.29	Peak
2	4882.00	31.37	12.07	31.90	41.41	52.95	74.00	21.05	Peak
3	7375.00	36.57	11.59	31.98	33.56	49.74	74.00	24.26	Peak
4	10265.00	38.56	11.44	32.27	31.33	49.06	74.00	24.94	Peak
5	11115.00	39.44	11.20	33.87	33.48	50.25	74.00	23.75	Peak
6	14175.00	41.61	10.91	33.44	32.79	51.87	74.00	22.13	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Data no. : 67 Ant. pol. : VERTICAL : 1# 966 chamber Site no. : 3m ANT 1-18G : FCC PART 15C PEAK Dis. / Ant.

Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

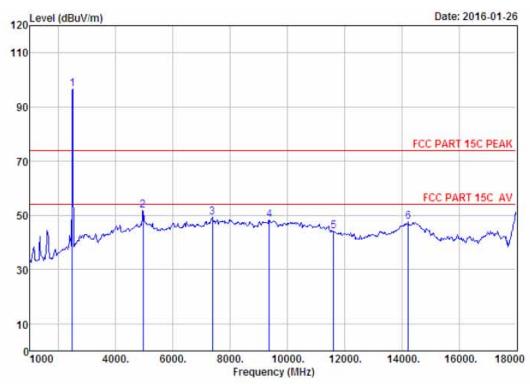
M/N : ProDX8

Test Mode : 8-DPSK TX 2480MHz

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2480.00	27.58	6.71	34.03	93.96	94.22	74.00	-20.22	Peak
2	4960.00	31.49	12.44	31.97	35.50	47.46	54.00	6.54	Average
3	4960.00	31.49	12.44	31.97	47.17	59.13	74.00	14.87	Peak
4	7460.00	36.52	11.61	31.91	34.72	50.94	74.00	23.06	Peak
5	10180.00	38.42	11.49	32.11	31.65	49.45	74.00	24.55	Peak
6	11030.00	39.50	11.27	33.71	31.21	48.27	74.00	25.73	Peak
7	14294.00	41.71	10.92	33.08	30.45	50.00	74.00	24.00	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





: 1# 966 chamber Site no.

Data no. : 68 Ant. pol. : HORIZONTAL : 3m ANT 1-18G : FCC PART 15C PEAK Dis. / Ant.

Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUI : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

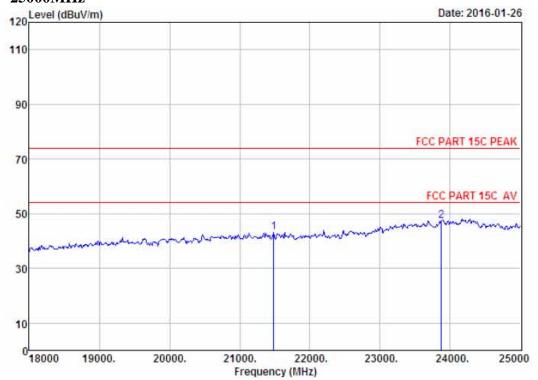
Test Mode : 8-DPSK TX 2480MHz

(MHz)	(dB/m)	Loss (dB)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
2480.00	27.58	6.71	34.03	96.36	96.62	74,00	-22,62	Peak
4960.00	31.49	12.44	31.97	39.94	51.90	74,00	22.10	Peak
7375.00	36.57	11.59	31.98	33.10	49.28	74.00	24.72	Peak
9364.00	38.02	11.64	32.06	30.74	48.34	74.00	25.66	Peak
11625.00	39.06	11.04	34.80	28.73	44.03	74.00	29.97	Peak
14226.00	41.66	10.91	33.29	28.41	47.69	74.00	26.31	Peak
	2480.00 4960.00 7375.00 9364.00 11625.00	2480.00 27.58 4960.00 31.49 7375.00 36.57 9364.00 38.02 11625.00 39.06	(MHz) (dB/m) (dB)  2480.00 27.58 6.71 4960.00 31.49 12.44 7375.00 36.57 11.59 9364.00 38.02 11.64 11625.00 39.06 11.04 14226.00 41.66 10.91	2480,00 27.58 6.71 34.03 4960,00 31.49 12.44 31.97 7375.00 36.57 11.59 31.98 9364.00 38.02 11.64 32.06 11625.00 39.06 11.04 34.80	2480.00 27.58 6.71 34.03 96.36 4960.00 31.49 12.44 31.97 39.94 7375.00 36.57 11.59 31.98 33.10 9364.00 38.02 11.64 32.06 30.74 11625.00 39.06 11.04 34.80 28.73	2480.00 27.58 6.71 34.03 96.36 96.62 4960.00 31.49 12.44 31.97 39.94 51.90 7375.00 36.57 11.59 31.98 33.10 49.28 9364.00 38.02 11.64 32.06 30.74 48.34 11625.00 39.06 11.04 34.80 28.73 44.03	2480.00 27.58 6.71 34.03 96.36 96.62 74.00 4960.00 31.49 12.44 31.97 39.94 51.90 74.00 7375.00 36.57 11.59 31.98 33.10 49.28 74.00 9364.00 38.02 11.64 32.06 30.74 48.34 74.00 11625.00 39.06 11.04 34.80 28.73 44.03 74.00	2480.00 27.58 6.71 34.03 96.36 96.62 74.00 -22.62 4960.00 31.49 12.44 31.97 39.94 51.90 74.00 22.10 7375.00 36.57 11.59 31.98 33.10 49.28 74.00 24.72 9364.00 38.02 11.64 32.06 30.74 48.34 74.00 25.66 11625.00 39.06 11.04 34.80 28.73 44.03 74.00 29.97

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



## 18000MHz - 25000MHz



: 1# 966 chamber Site no. Data no. : 79 : 3m ANT ABOVE 18G : FCC PART 15C PEAK Dis. / Ant. Ant. pol. : VERTICAL

Limit

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

: GFSK TX 2402MHz Test Mode

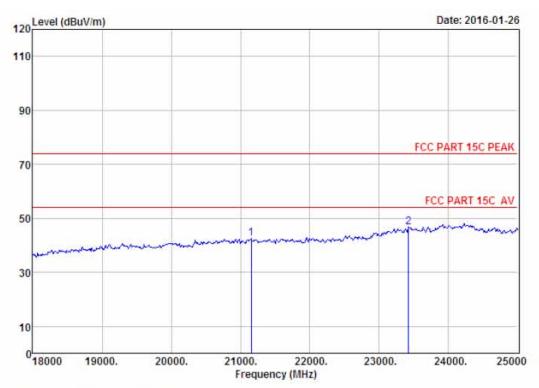
	Freq.			Amp Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21486.00	46.01	20.34	35.37	12.15	43.13	74.00	30.87	Peak
2	23873.00	45.63	21.94	32.93	12.67	47,31	74.00	26.69	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 1# 966 chamber Data no. : 80

: 3m ANT ABVOE 18G : FCC PART 15C PEAK Dis. / Ant. Ant, pol, : HORIZONTAL

Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

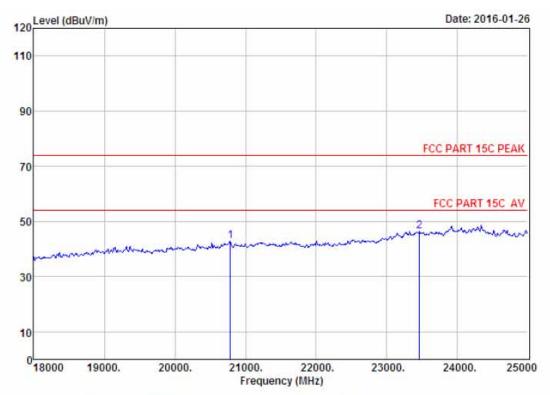
M/N : ProDX8

: GFSK TX 2402MHz Test Mode

	Freq.				Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	21150.00	46.21	20.20	35.67	11.94	42,68	74.00	31.32	Peak
2	23425.00	45.69	21.53	33.40	12.89	46.71	74.00	27,29	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 81

: 3m ANT ABVOE 18G : FCC PART 15C PEAK Ant, pol. : HORIZONTAL Dis. / Ant.

Limit

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

Engineer : Tony

EUI : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

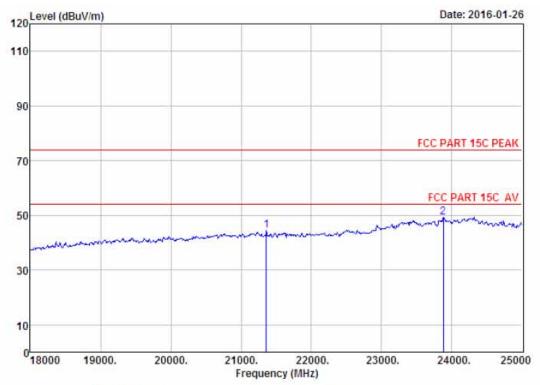
: ProDX8 M/N

: GFSK TX 2441MHz Test Mode

Freq.		Factor	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
20786.00				42.80	74.00 74.00	31.20 27.54	Peak Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





: 1# 966 chamber Data no. : 82 Ant. pol. : VERTICAL Site no. : 3m ANT ABOVE 18G : FCC PART 15C PEAK Dis. / Ant.

Limit

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

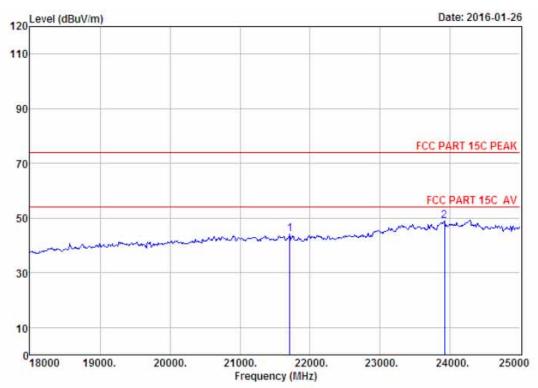
M/N : ProDX8

: GFSK TX 2441MHz Test Mode

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2	21360.00	46.08		35.49	13.53	44.40 49.30	74.00 74.00	29.60	Peak Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





: 1# 966 chamber Data no. : 83 Site no. Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL

: FCC PART 15C PEAK Limit

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

: Tony Engineer

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

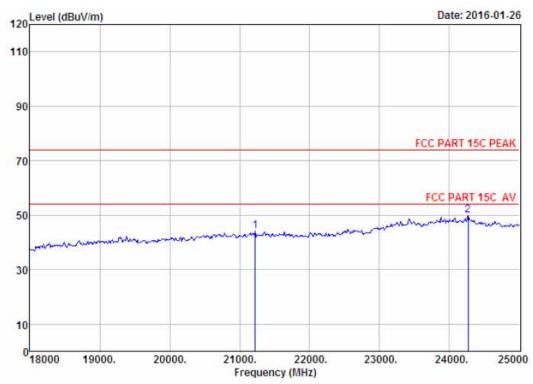
M/N

: ProDX8 : GFSK TX 2480MHz Test Mode

	Freq. (MHz)	Ant.	Cable	Amp		Emission			
		Freq. Factor	Factor Loss Factor I	Reading	Level	Limits	Margin	Remark	
		(dB/m)	(dB/m) (dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	21710.00	45,87	20.44	35.17	12.90	44.04	74.00	29,96	Peak
2	23915.00	45.62	21.97	32.88	14.33	49.04	74.00	24.96	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 84

Dis. / Ant. : 3m ANT ABVOE 18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

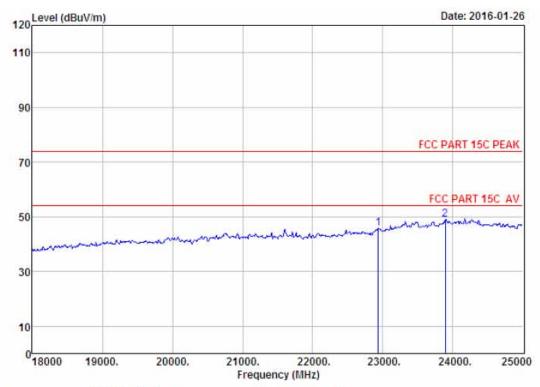
M/N : ProDX8

Test Mode : GFSK TX 2480MHz

	Freq.	Ant. Factor (dB/m)		T. 1	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2	21220.00 24265.00	THE RESERVE TO STREET, SALES	2272	35.60 33.23	13.27 15.24	44.07 49.85	74.00 74.00	29.93 24.15	Peak Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Dis. / Ant. : 3m ANT ABVOE 18G Data no. : 85

Ant. pol. : HORIZONTAL

: FCC PART 15C PEAK Limit

Env. / Ins. : Temp:23.6';Humi:56%;Press:101.52kPa

Engineer : Tony

: Wireless Digital Mixer EUT

Power : DC 18V From Adapter Input AC 120V/60Hz

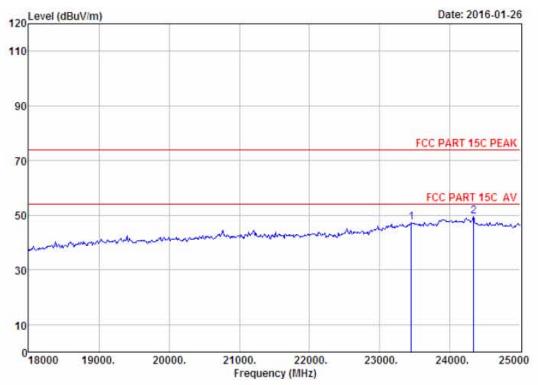
M/N : ProDX8

: 8-DPSK TX 2402MHz Test Mode

	Freq. (MHz)	Ant. Factor (dB/m)			Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	22935.00	45.63	21.11	33,93	12.92	45.73	74.00	28.27	Peak
2	23894.00	45.62	21.95	32.90	14.35	49.02	74.00	24.98	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 86

Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

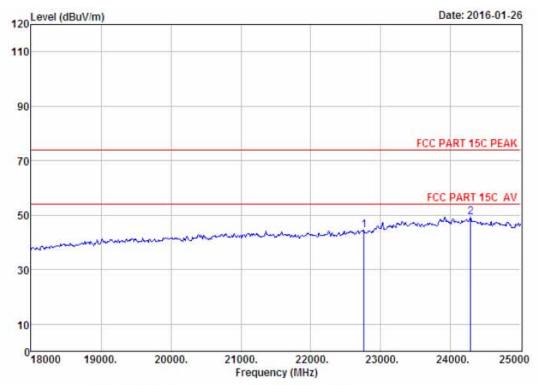
M/N : ProDX8

Test Mode : 8-DPSK TX 2402MHz

	Freq.				Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	23446.00	45.69	21.55	33.38	13.38	47.24	74.00	26.76	Peak
2	24335.00	45.67	22.23	33.30	14.99	49.59	74.00	24.41	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 87

Dis. / Ant. : 3m ANT ABOVE 18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

Test Mode : 8-DPSK TX 2441MHz

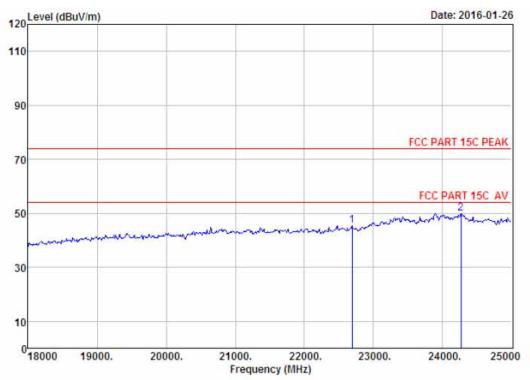
Freq. (MHz)	Ant. Factor (dB/m)		Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
22760.00 24286.00		34.11	11.82 14.73	44.42 49.36	74.00 74.00	29.58 24.64	Peak Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

 The emission levels that are 20dB below the official limit are not reported.



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Site no.

: 1# 966 chamber : 3m ANT ABVOE 18G Data no. : 88 Ant. pol. : HORIZONTAL Dis. / Ant.

: FCC PART 15C PEAK Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUI : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

Test Mode : 8-DPSK TX 2441MHz

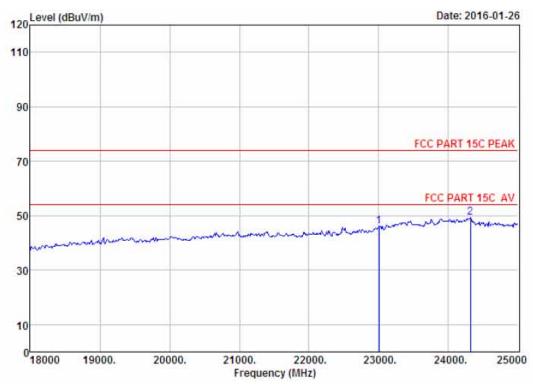
	Freq.				Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	22690.00	45.73	20.97	34.17	13.03	45,56	74.00	28.44	Peak
2	24265.00	45.65	22.19	33.23	15.19	49.80	74.00	24.20	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 1# 966 chamber

Data no. : 89 Ant. pol. : HORIZONTAL : 3m ANT ABVOE 18G : FCC PART 15C PEAK Dis. / Ant.

Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

Test Mode : 8-DPSK TX 2480MHz

	Freq.	Ant. Factor (dB/m)			Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	23005.00	45.60	21.15	33.85	13.23	46.13	74.00	27.87	Peak
2	24314.00	45.66	22.22	33,30	14.60	49.18	74.00	24.82	Peak

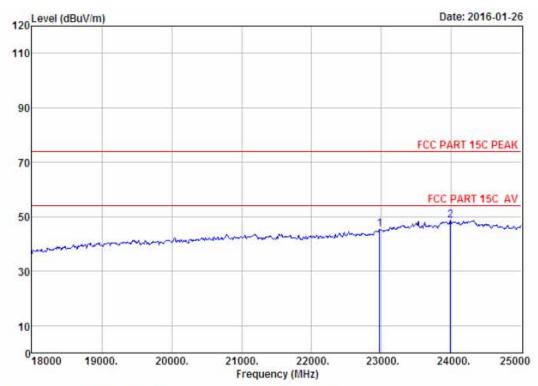
Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

2. The emission levels that are 20dB below the official limit are not reported.



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: 1# 966 chamber Data no. : 90 Site no. : 3m ANT ABOVE 18G : FCC PART 15C PEAK Dis. / Ant. Ant. pol. : VERTICAL

Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

: Tony Engineer

EUT : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

M/N : ProDX8

Test Mode : 8-DPSK TX 2480MHz

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	22970.00	45.61	21.13	33.88	12.67	45.53	74.00	28.47	Peak
2	23985.00	45.60	22.03	32.83	13.88	48.68	74.00	25.32	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

2. The emission levels that are 20dB below the official limit are not reported.



EST Technology Co., Ltd

# 9. BAND EDGE COMPLIANCE

# 9.1. Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

#### 9.2. Test Procedure

EUT was placed on a turn table, which is 1.5 m high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of emissions

Peak: RBW = 1MHz, VBW = 1MHz, Detector=PEAK detector, Sweep time = auto. AV: RBW = 1MHz, VBW = 10Hz, Detector=PEAK detector, Sweep time = auto.

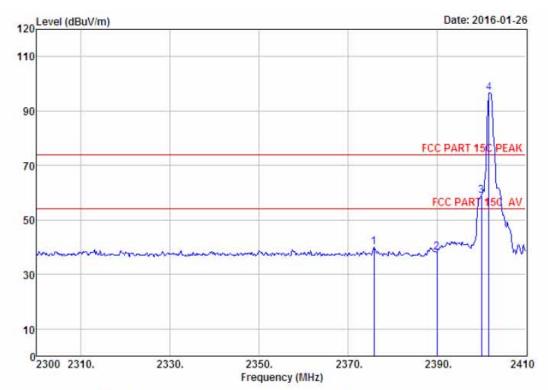
### 9.3. Test Result

Pass (The testing data was attached in the next pages.)

- Note: 1. For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.
  - 2. The frequency 2402MHz . 2441MHz and 2480MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

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# 9.4. Test Data



Site no. : 1# 966 chamber

Data no. : 53 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m ANT 1-18G

: FCC PART 15C PEAK Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

M/N : ProDX8

: GFSK TX 2402MHz (No Hopping) Test Mode

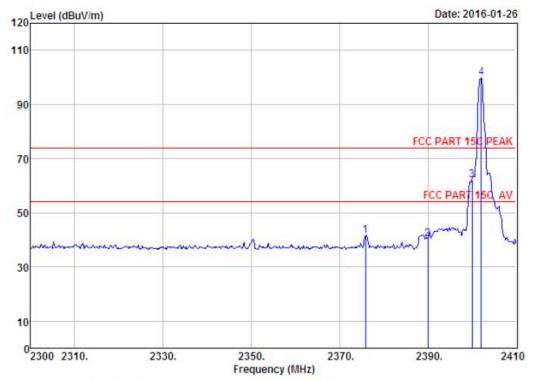
	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)		Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2375.90	27.64	6.60	34.19	39.88	39.93	74.00	34.07	Peak
2	2390.00	27.64	6,62	34.19	37.89	37.96	74.00	36.04	Peak
3	2400.00	27.61	6.62	34.18	58.78	58.83	74.00	15.17	Peak
4	2401.75	27.61	6.62	34.18	96.64	96.69	74.00	-22,69	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 1# 966 chamber Data no. : 54 : 3m ANT 1-18G : FCC PART 15C PEAK Dis. / Ant. Ant. pol. : VERTICAL

Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

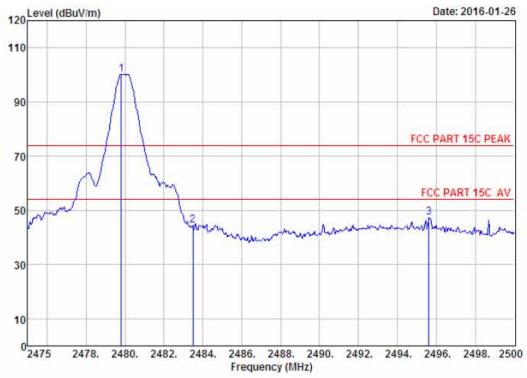
M/N : ProDX8

Test Mode : GFSK TX 2402MHz (No Hopping)

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2375.90	27.64	6.60	34.19	41.71	41.76	74.00	32.24	Peak
2	2390.00	27.64	6.62	34.19	40.33	40.40	74.00	33.60	Peak
3	2400.00	27.61	6.62	34.18	62.07	62.12	74.00	11.88	Peak
4	2402.08	27.61	6.62	34.18	99.74	99.79	74.00	-25.79	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 59
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Fower : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

Test Mode : GFSK TX 2480MHz (No Hopping)

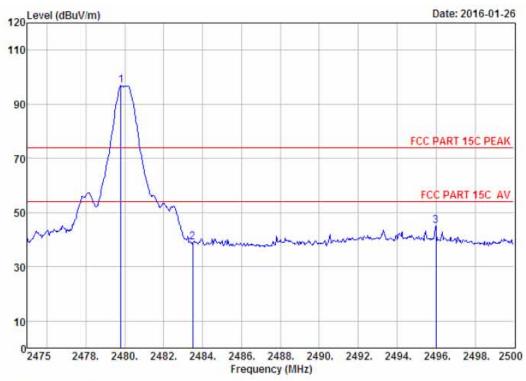
20000	Freq. (MHz)			*	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.80	27.58	6.71	34.03	100.00	100.26	74.00	-26.26	Peak
2	2483.50	27.58	6.71	34.03	44.07	44.33	74.00	29.67	Peak
3	2495.63	27.57	6.73	34.00	46.93	47.23	74.00	26.77	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

The emission levels that are 20dB below the official limit are not reported.



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Site no. : 1# 966 chamber Data no. : 60

Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

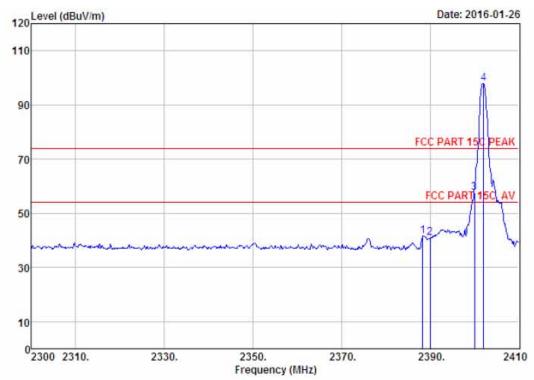
M/N : ProDX8

Test Mode : GFSK TX 2480MHz (No Hopping)

Margin Re (dB)	emark
-22.83 I	Peak
35.09	Peak
28.78 I	Peak
	(dB) -22.83 35.09

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 63 Ant. pol. : VERTICAL Dis. / Ant. : 3m ANT 1-18G Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

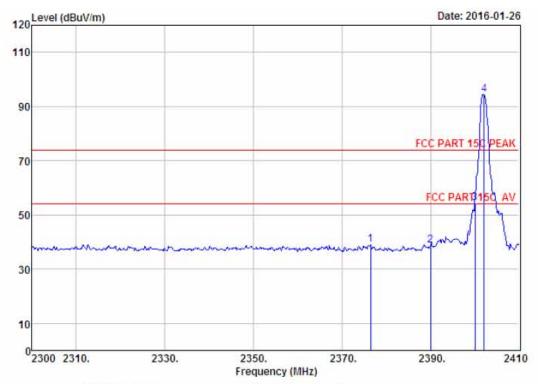
: ProDX8 M/N

Test Mode : 8-DPSK TX 2402MHz (No Hopping)

522222	Freq.				Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2388.33	27.64	6,62	34.19	41.44	41.51	74.00	32.49	Peak
2	2390.00	27.64	6.62	34.19	40.82	40.89	74.00	33.11	Peak
3	2400.00	27.61	6.62	34.18	57.40	57.45	74.00	16.55	Peak
4	2402.08	27.61	6.62	34.18	98.00	98.05	74.00	-24.05	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 64

Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

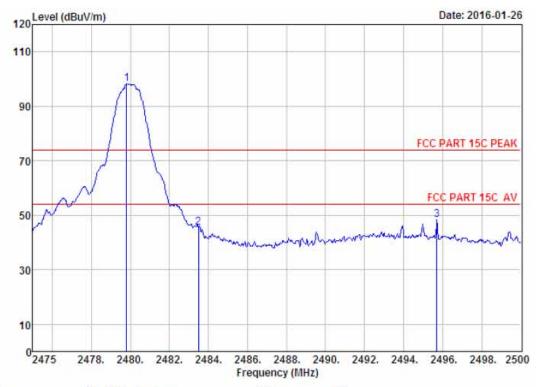
M/N : ProDX8

Test Mode : 8-DPSK TX 2402MHz (No Hopping)

	Freq.			Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2376.45	27.64	6.60	34.19	38.83	38.88	74.00	35.12	Peak
2	2390.00	27.64	6.62	34.19	38.80	38.87	74.00	35.13	Peak
3	2400.00	27.61	6.62	34.18	54.23	54.28	74.00	19.72	Peak
4	2402.08	27.61	6.62	34.18	94.36	94.41	74.00	-20.41	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 69

Dis. / Ant. : 3m ANT 1-18G Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

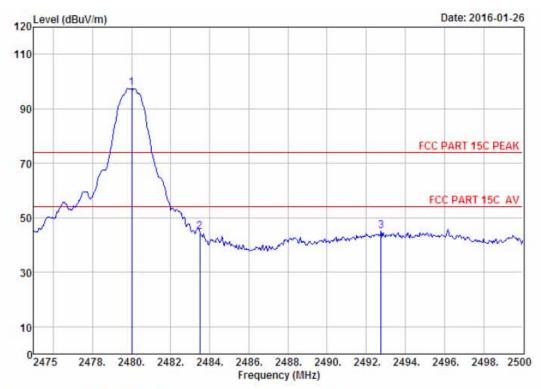
Test Mode : 8-DPSK TX 2480MHz (No Hopping)

	Freq. (MHz)				Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.80	27.58	6.71	34.03	97.85	98.11	74.00	-24.11	Peak
2	2483.50	27.58	6.71	34.03	45.10	45.36	74.00	28.64	Peak
3	2495.70	27.57	6.73	34.00	48.01	48.31	74.00	25.69	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.

 Emission Level= Antenna ractor + Caple Loss - Amp ractor + Readin
 The emission levels that are 20dB below the official limit are not reported.





Data no. : 70 Ant. pol. : VERTICAL Site no. : 1# 966 chamber Dis. / Ant. : 3m ANT 1-18G Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUI : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

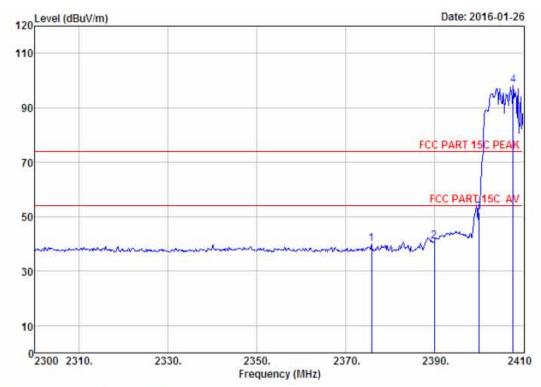
M/N : ProDX8

Test Mode : 8-DPSK TX 2480MHz (No Hopping)

		Ant.		Amp		Emission			
	Freq.	Factor	Loss	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
	(MHz)	(dB/m)	(dB)						
1	2480.00	27.58	6.71	34.03	97.29	97.55	74.00	-23.55	Peak
2	2483.50	27.58	6.71	34.03	44.39	44.65	74.00	29.35	Peak
3	2492.75	27.58	6.73	34.03	44.84	45.12	74.00	28.88	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Data no. : 71 Site no. : 1# 966 chamber Ant. pol. : VERTICAL Dis. / Ant. : 3m ANT 1-18G

: FCC PART 15C PEAK Limit

: Temp:23.6';Humi:56%;Press:101.52kPa : Tony Env. / Ins.

Engineer

EUT : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

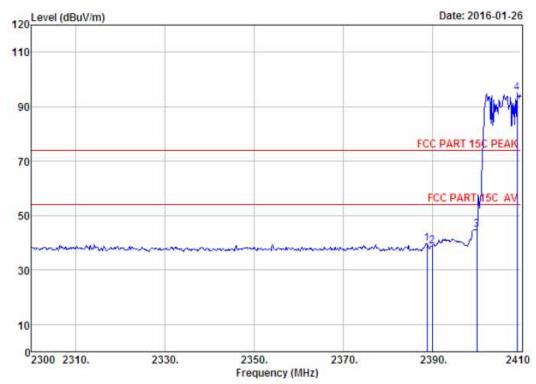
M/N : ProDX8

Test Mode : GFSK TX 2402MHz (Hopping On)

	Freq.			500	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2375.90	27.64	6.60	34.19	39.92	39.97	74.00	34.03	Peak
2	2390.00	27.64	6.62	34.19	40.84	40.91	74.00	33.09	Peak
3	2400.00	27.61	6.62	34.18	51.35	51.40	74.00	22.60	Peak
4	2407.80	27.61	6.64	34.18	98.28	98.35	74.00	-24.35	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





: 1# 966 chamber Site no.

Data no. : 72 Ant. pol. : HORIZONTAL : 3m ANT 1-18G : FCC PART 15C PEAK Dis. / Ant.

Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

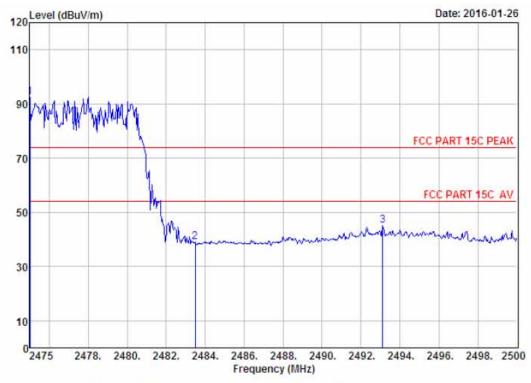
M/N : ProDX8

Test Mode : GFSK TX 2402MHz (Hopping On)

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limita (dBuV/m)	Margin (dB)	Remark
1	2388.88	27.64	6.62	34.19	39.55	39,62	74.00	34.38	Peak
2	2390.00	27.64	6.62	34.19	38.70	38.77	74.00	35.23	Peak
3	2400.00	27.61	6.62	34.18	44.62	44.67	74.00	29.33	Peak
4	2409.12	27.60	6.64	34.15	94.94	95.03	74.00	-21.03	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





: 1# 966 chamber Site no.

Data no. : 73 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m ANT 1-18G

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

: Tony Engineer

EUT : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

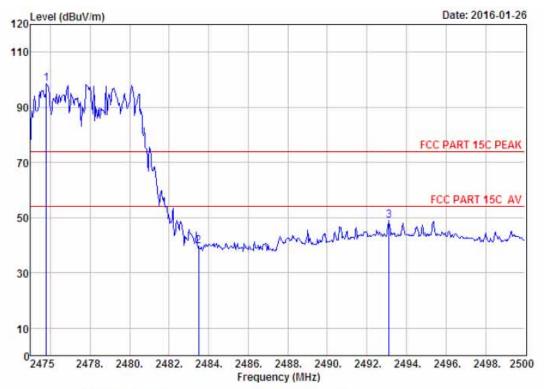
M/N : ProDX8

Test Mode : GFSK TX 2480MHz (Hopping On)

	Freq.	Factor			Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2475.00	27.58	6.71	34.06	92.29	92.52	74.00	-18.52	Peak
2	2483.50	27.58	6.71	34.03	38.65	38.91	74.00	35.09	Peak
3	2493,13	27.58	6.73	34.03	44.96	45.24	74.00	28.76	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 74 Dis. / Ant. : 3m ANT 1-18G Limit : FCC PART 15C PEAK Ant. pol. : VERTICAL

: Temp:23.6';Humi:56%;Press:101.52kPa Env. / Ins.

Engineer : Tony

EUI : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz : ProDX8 Power

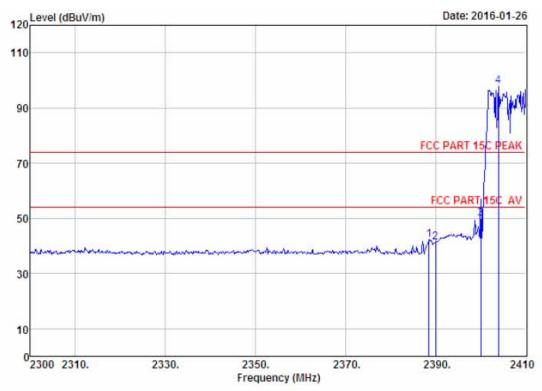
M/N

Test Mode : GFSK TX 2480MHz (Hopping On)

	Freq.				Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)		Remark
1	2475.80	27.58	6.71	34.06	98.18	98.41	74.00	-24.41	Peak
2	2483.50	27.58	6.71	34.03	39.52	39.78	74.00	34.22	Peak
3	2493.13	27.58	6.73	34.03	48.65	48.93	74.00	25.07	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





: 1# 966 chamber : 3m ANT 1-18G : FCC PART 15C PEAK Data no. : 75 Ant. pol. : VERTICAL Site no. Dis. / Ant.

Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

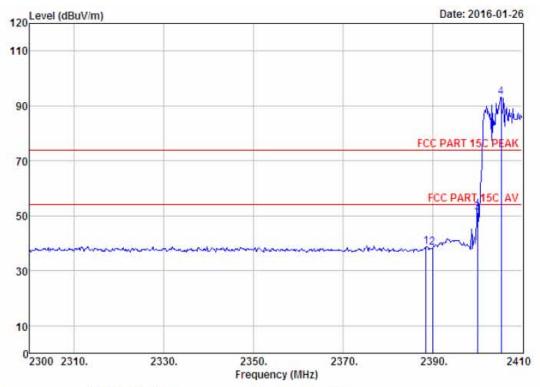
M/N : ProDX8

Test Mode : 8-DPSK TX 2402MHz (Hopping On)

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2388.55	27.64	6.62	34.19	42.24	42.31	74.00	31.69	Peak
2	2390.00	27.64	6.62	34.19	41.23	41.30	74.00	32.70	Peak
3	2400.00	27.61	6.62	34.18	49.88	49.93	74.00	24.07	Peak
4	2403.95	27.61	6.64	34.18	97.93	98.00	74.00	-24.00	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





: 1# 966 chamber Site no.

Data no. : 76 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m ANT 1-18G

: FCC PART 15C PEAK Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

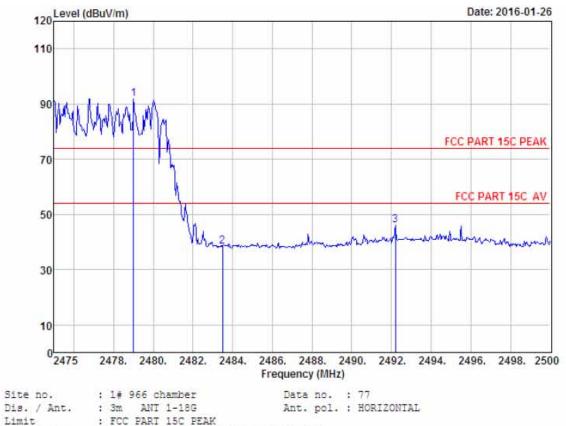
M/N : ProDX8

: 8-DPSK TX 2402MHz (Hopping On) Test Mode

Freq. (MHz)			Amp Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
2388.55	27.64	6.62	34.19	38.79	38.86	74.00	35.14	Peak
2390.00	27.64	6.62	34.19	38.23	38.30	74.00	35.70	Peak
2400.00	27.61	6.62	34.18	51.23	51.28	74.00	22.72	Peak
2405.38	27.61	6.64	34.18	93.08	93.15	74.00	-19.15	Peak
	(MHz) 2388.55 2390.00 2400.00	Freq. Factor (dB/m)  2388.55 27.64 2390.00 27.64 2400.00 27.61	Freq. Factor Loss (MHz) (dB/m) (dB) 2388.55 27.64 6.62	Freq. Factor Loss Factor (MHz) (dB/m) (dB) (dB)  2388.55 27.64 6.62 34.19 2390.00 27.64 6.62 34.19 2400.00 27.61 6.62 34.18	Freq. Factor Loss Factor Reading (MHz) (dB/m) (dB) (dB) (dBuV)  2388.55 27.64 6.62 34.19 38.79 2390.00 27.64 6.62 34.19 38.23 2400.00 27.61 6.62 34.18 51.23	Freq. Factor Loss Factor Reading Level (MHz) (dB/m) (dB) (dB) (dBuV) (dBuV/m)  2388.55 27.64 6.62 34.19 38.79 38.86 2390.00 27.64 6.62 34.19 38.23 38.30 2400.00 27.61 6.62 34.18 51.23 51.28	Freq. Factor Loss Factor Reading Level Limits (MHz) (dB/m) (dB) (dB) (dBuV) (dBuV/m) (dBuV/m)  2388.55 27.64 6.62 34.19 38.79 38.86 74.00 2390.00 27.64 6.62 34.19 38.23 38.30 74.00 2400.00 27.61 6.62 34.18 51.23 51.28 74.00	Freq. Factor Loss Factor Reading Level Limits Margin (MHz) (dB/m) (dB) (dB) (dBuV) (dBuV/m) (dBuV/m) (dB)  2388.55 27.64 6.62 34.19 38.79 38.86 74.00 35.14 2390.00 27.64 6.62 34.19 38.23 38.30 74.00 35.70 2400.00 27.61 6.62 34.18 51.23 51.28 74.00 22.72

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Data no. : 77 Ant. pol. : HORIZONTAL

: FCC PART 15C PEAK Limit

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUI : Wireless Digital Mixer

: DC 18V From Adapter Input AC 120V/60Hz Power

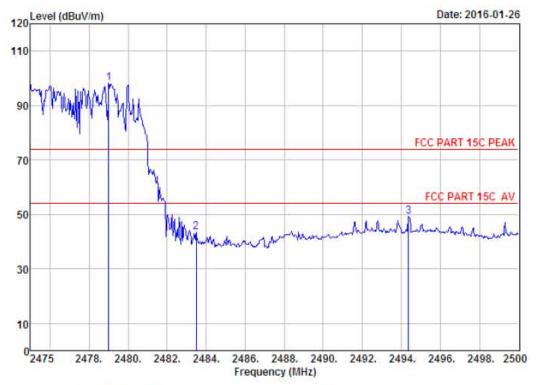
M/N : ProDX8

: 8-DPSK TX 2480MHz (Hopping On) Test Mode

	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)		Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.00	27.58	6.71	34.03	91.65	91,91	74.00	-17.91	Peak
2	2483.50	27.58	6.71	34.03	38.15	38.41	74.00	35.59	Peak
3	2492.20	27.58	6.73	34.03	45.88	46.16	74.00	27.84	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.





Site no. : 1# 966 chamber Data no. : 78
Dis. / Ant. : 3m ANT 1-18G Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : Temp:23.6'; Humi:56%; Press:101.52kPa

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8

Test Mode : 8-DPSK TX 2480MHz (Hopping On)

	Freq.			3 3 5 5	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2479.00	27.58	6.71	34.03	97.84	98.10	74.00	-24.10	Peak
2	2483.50	27.58	6.71	34.03	43.21	43.47	74.00	30.53	Peak
3	2494.38	27.57	6.73	34.00	49.05	49.35	74.00	24.65	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss - Amp Factor + Reading.



# 10. POWER LINE CONDUCTED EMISSIONS

### 10.1.Limit

	Maximum RF Line Voltage				
Frequency	Quasi-Peak Level	Average Level			
	dB(µV)	$dB(\mu V)$			
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*			
500kHz ~ 5MHz	56	46			
5MHz ~ 30MHz	60	50			

Notes: 1. \* Decreasing linearly with logarithm of frequency.

# 10.2.Test Procedure

The EUT was placed on a non-metallic table, 80 cm above the ground plane. The EUT was charged form PC's USB port which connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#).. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4: 2009 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS30) is set at 10kHz.

The frequency range from 150kHz to 30MHz is checked.

### 10.3.Test Result

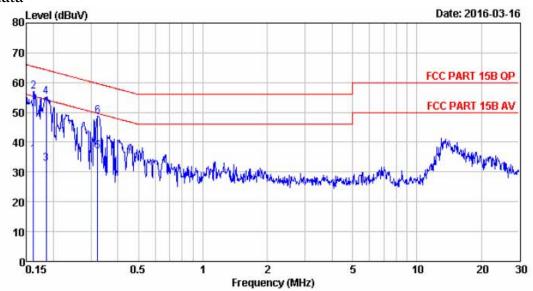
PASS. (All emissions not reported below are too low against the prescribed limits.)

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<sup>2.</sup> The lower limit shall apply at the transition frequencies.

# 10.4. Test data



Site no : 844 Shield Room Data no. : 97
Env. / Ins. : Temp:24.3'C Humi:58% Press:101.50kPa LINE Phase : NEUTRAL

Limit : FCC PART 15B QP

Engineer : Tony

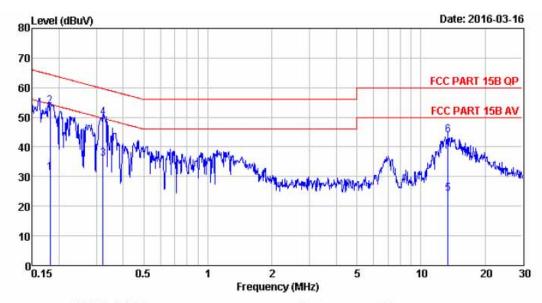
EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8 Test Mode : TX Mode

	Freq.	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.16	9.50	9.81	16.29	35.60	55.38	19.78	Average
2	0.16	9.50	9.81	37.75	57.06	65.38	8.32	QP
3	0.19	9.56	9.80	13.51	32.87	54.24	21.37	Average
4	0.19	9.56	9.80	35.73	55.09	64.24	9.15	QP
5	0.32	9.59	9.83	17.61	37.03	49.66	12.63	Average
6	0.32	9.59	9.83	29.42	48.84	59.66	10.82	QP

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Site no : 844 Shield Room Data no. : 99 Env. / Ins. : Temp:24.3'C Humi:58% Press:101.50kPa LINE Phase : LINE

Limit : FCC PART 15B QP

Engineer : Tony

EUT : Wireless Digital Mixer

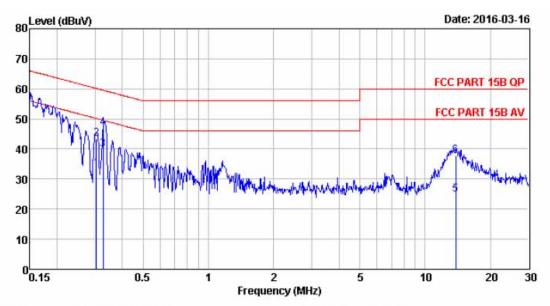
Power : DC 18V From Adapter Input AC 120V/60Hz

M/N : ProDX8 Test Mode : TX Mode

	Freq.	LISN Factor (dB)	Cable Loss (dB)	Reading (dBu∀)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.18	9.61	9.80	11.99	31.40	54.42	23.02	Average
2	0.18	9.61	9.80	34.34	53.75	64.42	10.67	QP
3	0.32	9.61	9.83	16.66	36.10	49.66	13.56	Average
4	0.32	9.61	9.83	30.58	50.02	59.66	9.64	QP
5	13.41	9.67	9.89	4.74	24.30	50.00	25.70	Average
6	13.41	9.67	9.89	24.33	43.89	60.00	16.11	QP



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Site no : 844 Shield Room Data no. : 101 Env. / Ins. : Temp:24.3'C Humi:58% Press:101.50kPa LINE Phase : LINE

Limit : FCC PART 15B QP

Engineer : Tony

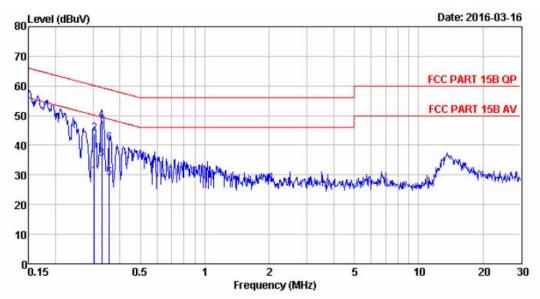
EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 240V/50Hz

M/N : ProDX8 Test Mode : TX Mode

	Freq.	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.30	9.61	9.83	13.96	33.40	50.15	16.75	Average
2	0.30	9.61	9.83	24.09	43.53	60.15	16.62	QP
3	0.33	9.61	9.83	20.46	39.90	49.53	9.63	Average
4	0.33	9.61	9.83	27.60	47.04	59.53	12.49	QP
5	13.84	9.67	9.91	5.32	24.90	50.00	25.10	Average
6	13 84	9 67	0 01	18 27	37 85	60.00	22 15	ΩD





Site no : 844 Shield Room Data no. : 103 Env. / Ins. : Temp:24.3'C Humi:58% Press:101.50kPa LINE Phase : NEUTRAL

Limit : FCC PART 15B QP

Engineer : Tony

EUT : Wireless Digital Mixer

Power : DC 18V From Adapter Input AC 240V/50Hz

M/N : ProDX8 Test Mode : TX Mode

	Freq.	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuv)	Limits (dBuv)	Margin (dB)	Remark
1	0.30	9.60	9.83	9.97	29.40	50.15	20.75	Average
2	0.30	9.60	9.83	24.52	43.95	60.15	16.20	QP
3	0.33	9.59	9.83	15.98	35.40	49.44	14.04	Average
4	0.33	9.59	9.83	29.02	48.44	59.44	11.00	QP
5	0.36	9.59	9.82	9.49	28.90	48.78	19.88	Average
6	0.36	9.59	9.82	21.44	40.85	58.78	17.93	ΩP



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# 11. ANTENNA REQUIREMENTS

## 11.1.Limit

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

### 11.2.Result

The antennas used for this product are internal Antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 2.13dBi.

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