

Report No. 379524-01

Test Report

Product	DECT Base Station
Name and address of the applicant	Panasonic Corporation of North America Two Riverfront Plaza, 9 th Floor Newark, 07102-5490, NJ, USA
Name and address of the manufacturer	Panasonic Corporation 1-62, 4-chome, Minoshima, Hakata-ku Fukuoka, 812-8531, Japan
Model	KX-TGP700
Rating	5.5V DC (Input: 120V ~ 60Hz, 200mA, Output: 5.5V _{DC} , 1A)
Trademark	Panasonic
Serial number	/
Additional information	DECT 6.0
Tested according to	FCC Part 15, subpart D Isochronous UPCS Device, 1920 – 1930 MHz Industry Canada RSS 213, Issue 3 2 GHz License-Exempt Personal Communications Services (LE-PCS) Devices
Order number	379524
Tested in period	2019.10.01 to 2019.11.11
Issue date	2019.12.06
Name and address of the testing laboratory	Instituttveien 6 CAB Number: FCC: NO0001 ISED: NO0470 TEL: +47 22 96 03 30 FAX: +47 22 96 05 50 An accredited technical test executed under the Norwegian accreditation scheme
	Free arc Svorc G. Subabbab Prepared by [Frode Sveinsen] Approved by [G.Suhanthakumar] Coept in full without the written approval of Nemko. Opinions and interpretations expressed within this ditation. This report was originally distributed electronically with digital signatures. For more information

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1 INFORMATION

1.1 Tested Item

Name	Panasonic
Model name	KX-TGP700
FCC ID	ACJ96NKX-TGP700
ISED ID	216A-KXTGP700
Serial number	/
Hardware identity and/or version	PNLB2816ZA
Software identity and/or version	Ver 00.04
Tested to IC Radio Standard (RSS)	RSS-213 Issue 3, RSS-GEN Issue 5
Test Site IC Reg. Number	IC 2040D-1
Frequency Range	1921.536 – 1928.448 MHz
Number of Channels	5 RF Channels, 5x12 = 60 TDMA Duplex Channels
Type of Modulation	Digital (Gaussian Frequency Shift Keying)
Conducted Output Power	65 mW (Peak)
Antenna Connector	None (Integral Antennas)
Number of Transceivers	2
Number of Antennas	4 (2 antennas per transceiver)
Antenna Diversity	Yes
Power Supply	AC Adaptor Model PNLV236 or Power over Ethernet
Interfaces	Ethernet
Companion Device for Monitoring Tests	DECT Handset Model KX-TPA70 (ACJ96NKX-TPA70)

1.2 Description of Tested Device

The EUT is a DECT Base Station with dual transceivers and is a responding device as described in ANSI C63.17 and is designed to operate together with a DECT Handset, which is the initiating device.

The EUT contains two DECT transceivers that operate independently, but on different channels. Both transceivers are identical, and they both have two antennas each. The two antennas in each radio part are separated by a diversity switch.



1.3 Test Conditions

Temperature:	20 – 23 °C
Relative humidity:	30 – 50 %
Normal test voltage:	120 V AC or 48V DC

The values are the limit registered during the test period.

All tests were performed with the EUT powered from the AC adaptor.

1.4 Test Engineer(s)

Frode Sveinsen

1.5 Digital Modulation Techniques

The EUT uses Multi Carrier / Time Division Multiple Access / Time Division Duplex and Digital GFSK modulation. For further details see the operational description provided by the applicant.

Requirement, FCC 15.319(b), RSS-213 Issue 3, clause 5.1:

All transmissions must use only digital modulation techniques.

1.6 Labeling Requirements

See separate documents showing the label design and the placement of the label on the EUT.

Requirements FCC 15.19

The FCC Identifier shall be displayed on the label, and the device(s) shall bear the following statement in a conspicuous location on the device or in the user manual if the device is too small:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The label itself shall be of a permanent type, not a paper label, and shall last the lifetime of the equipment.

1.7 Antenna Requirement

Does the EUT have detachable antenna(s)?		⊠ NO				
If detachable, is the antenna connector(s) non-standard?						
The tested equipment has only integral antennas. The conducted tests were performed on a sample with a						

The tested equipment has only integral antennas. The conducted tests were performed on a sample with a temporary antenna connector.

Requirement: FCC 15.203, 15.204, 15.317, RSS-GEN Issue 5, clause 6.8



1.8 Channel Frequencies

UPCS CHANNEL	FREQUENCY (MHz)
Upper Band Edge	1930.000
0 (Highest)	1928.448
1	1926.720
2	1924.992
3	1923.264
4 (Lowest)	1921.536
Lower Band Edge	1920.000

Requirement: FCC 15.303, RSS-213 Issue 3, clause 5.1:

Within 1920 -1930 MHz band for isochronous devices.

1.9 Other Comments

The Monitoring and Time and Spectrum Window Access tests were performed with Test Set-Up 6 (Ref. clause 5). A clock signal from the base unit was used to synchronize the Pulse Pattern Generator and the Spectrum Analyzer to the start of the DECT time window. The EUT was limited by administrative commands to operate on only two frequency carriers. For the tests where the EUT was required to operate on only one frequency carrier, one carrier was blocked by applying a CW interfering signal from RF Generator 3. The Pulse Pattern Generator was used to apply time synchronized interference to time windows where this was required.

Since the EUT was programmed to operate on only two RF carriers, it was only necessary with two RF generators for the monitoring tests, however a third generator was applied for the tests that required specific time slots to be blocked.

The tested EUT supports both normal DECT slot length and DECT Long slot. Long slot is an extended DECT slot that allows a higher data rate for bit rates higher than 32kbps.

This EUT supports Least Interfered Channel procedure (LIC), the Monitoring and Time and Spectrum Window Access tests were conducted as specified for EUTs that support LIC procedure.

All tests except Power-Line Conducted Emissions were performed in conducted mode with a temporary antenna connector.



2 TEST REPORT SUMMARY

2.1 General

All measurements are traceable to national standards.

The tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC CFR47 Part 15D for Isochronous UPCS Devices and Industry Canada RSS-213 Issue 3 / RSS-GEN Issue 5 / RSP-100 Issue 11.

All tests were conducted is accordance with ANSI C63.4-2014 and ANSI C63.17-2013.

Antenna Gain tests were made in a 3m fully-anechoic chamber.

A description of the test facility is on file with FCC and ISED.

⊠ New Submission

Production Unit

□ Class II Permissive Change

PUB Equipment Code

Pre-production Unit
 Family Listing



THIS TEST REPORT APPLIES ONLY TO THE ITEM(S) AND CONFIGURATIONS TESTED.

Deviations from, additions to, or exclusions from the test specifications are described in "Summary of Test Data".

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2.2 Test Summary

Name of test	FCC CFR 47 Paragraph #	IC RSS-213 Paragraph #	Verdict
Power Line Conducted Emission	15.107(a) 15.207(a)	5.4 RSS-GEN 7.2 / 8.8	Complies
Digital Modulation Techniques	15.319(b)	5.1	Complies
Labeling requirements	15.19(a)(3)	RSP-100 3.1	Complies
Antenna Requirement	15.317, 15.203	RSS-GEN 6.8	Complies
Channel Frequencies	15.303	5.1	Complies
Automatic discontinuation of transmission	15.319(f)	5.2	Complies
Emission Bandwidth	15.323(a)	5.5	Complies
Occupied Bandwidth	N/A	RSS-GEN 6.7	Complies
In-band emissions	15.323(d)	5.8.2	Complies
Out-of-band emissions	15.323(d)	5.8.1	Complies
Maximum Transmit Power and Antenna Gain	15.319(c)(e), 15.31(e)	5.6 RSS-GEN 8.3	Complies
Power Spectral Density	15.319(d)	5.7	Complies
Carrier frequency stability	15.323(f)	5.3	Complies
Frame repetition stability	15.323(e)	5.2 (13)	Complies
Frame period and jitter	15.323(e)	5.2 (13)	Complies
Monitoring threshold, Least interfered channel	15.323(c)(2)(5)(9)	5.2 (2)(5)(9)	Complies
Monitoring of intended transmit window and maximum reaction time	15.323(c)(1)	5.2 (1)	Complies
Threshold monitoring bandwidth	15.323(c)(7)	5.2 (7)	Complies
Reaction time and monitoring interval	15.323(c)(1)(5)(7)	5.2 (1)(5)(7)	Complies
Access criteria test interval	15.323(c)(4)(6)	5.2 (4)(6)	Complies
Access Criteria functional test	15.323(c)(4)(6)	5.2 (4)(6)	Complies
Acknowledgements	15.323(c)(4)	5.2 (4)	Complies
Transmission duration	15.323(c)(3)	5.2 (3)	Complies
Dual access criteria	15.323(c)(10)	5.2 (10)	N/A ¹
Alterative monitoring interval	15.323(c)(11)(12)	5.2 (11)(12)	N/A ²
Spurious Emissions (Radiated)	15.319(g) 15.109(a) 15.209(a)	RSS-GEN 7.3 / 8.9	N/A ³

¹ Only applies for EUT that can be initiating device

² The client declares that the tested equipment does not implement this provision

³ Not required if the Conducted Out-of-Band Emissions test is Passed

Revision history

Version	Date	Comment	Sign
1.0	2019-11-13	First edition	FS
2.0	2019-12-06	Corrected Antenna Gain values	FS



3 TEST RESULTS

3.1 Power Line Conducted Emissions

FCC Part 15.207

ISED RSS-213 Issue 3, Clause 6.3; RSS-GEN Issue 5, Clause 7.2 / 8.8

Measurement procedure:	ANSI C63.4-2014 using 50 $\mu\text{H}/\text{50}$ ohms LISN
Test Results:	Complies
Measurement Data:	See attached plots

Highest measured value (L1 and N):

Powered from AC Adaptor, 120V 60Hz:

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBμV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter
0.352		37.15	48.92	11.77	1000	9	N	OFF
0.688	34.97		56.00	21.03	1000	9	Ν	OFF
0.728	41.80		56.00	14.20	1000	9	N	OFF

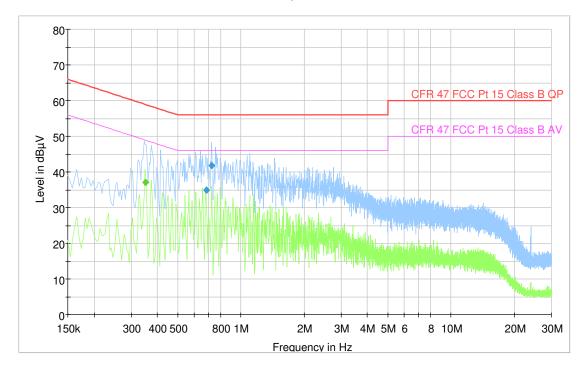
Powered from PoE Switch, 120V 60Hz - 48V DC

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBμV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter
0.360		41.58	48.73	7.15	1000	9	L1	OFF
0.720	45.72		56.00	10.28	1000	9	Ν	OFF
0.720		42.94	46.00	3.06	1000	9	L1	OFF
1.084		42.31	46.00	3.69	1000	9	Ν	OFF
1.084	43.66		56.00	12.34	1000	9	Ν	OFF
1.444		41.29	46.00	4.71	1000	9	Ν	OFF
1.444	43.68		56.00	12.32	1000	9	Ν	OFF

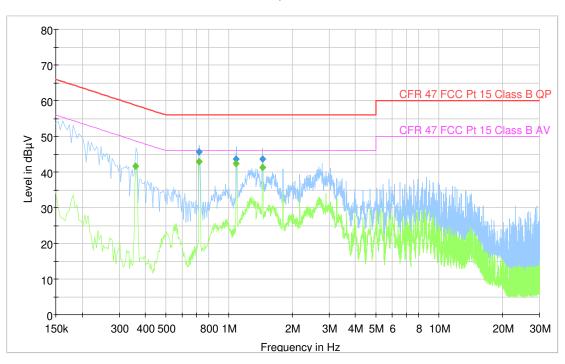


Powered from AC Adaptor, 120V 60Hz:

Full Spectrum



Powered from PoE Switch, 120V 60Hz – 48V DC:



Full Spectrum



3.2 Automatic Discontinuation of Transmission

Does the EUT transmit Control and S		
TYPE OF EUT :		

The following tests simulate the reaction of the EUT in case of either absence of information to transmit or operational failure after a connection with the companion device is established.

Number	Test	EUT Reaction	Verdict
1	Power removed from EUT	Α	Pass
2	Switch Off EUT	N/A	Pass
3	Hook-On by EUT	N/A	Pass
4	Power Removed from Companion Device	В	Pass
5	Switch Off Companion Device	В	Pass
6	Hook-On by Companion Device	В	Pass

- Connection breakdown, Cease of all transmissions А

- Connection breakdown, EUT transmits control and signaling information

B C - Connection breakdown, Companion Device transmits control and signaling information

N/A - Not Applicable (EUT does not have On/Off switch and cannot perform Hook-On)

Requirements, FCC 15.319(f), RSS-213 Issue 3, Clause 5.2:

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude transmission of control and signaling information or use of repetitive codes used by certain digital technologies to complete frame or burst intervals.



3.3 Output Power

Test Method:

ANSI C63.17, clause 6.1.2 KDB 662911 D01

Test Results: Complies

Measurement Data:

Maximum Output Power

Radio Part #	Channel No.	Frequency (MHz)	Maximum Conducted Output Power (dBm)	Maximum Antenna Gain (dBi)	Maximum Radiated Output Power (dBm)
1	4	1921.536	14.97	2.0*	16.97
2			14.85	2.0*	16.85
1+2			17.92	4.0*	21.92
1	2	1924.992	15.07	2.0*	17.07
2			14.98	2.0*	16.98
1+2			18.04	4.0*	22.04
1	0	1928.448	15.16	2.0*	17.16
2			15.04	2.0*	17.04
1+2			18.11	4.0*	22.11

*Antenna Gain is value declared by manufacturer

Total Output Power is calculated using the method in KDB 662911 D01 clause E) 1).

Radio Part 1 and 2 can operate simultaneously on two different channels. Both radio parts are fully independent of each other and are not correlated, but they both transmit DECT signaling and modulation.

For this test it was also checked that input voltage variation of 85 and 115% of nominal value did not have any effect on the measured output power.

Limit:

Conducted: 100 µW x SQRT(<i>B</i>)	where B is the measured Emission Bandwidth in Hz
FCC 15.319(c)(e):	20.78 dBm (119 mW)
ISED RSS-213, Issue 3:	20.47 dBm (111 mW)

The antenna gain is below 3 dBi, no reduction in transmit power is necessary.

Requirements,

FCC 15.319(c)(e):

Peak transmit power shall not exceed 100 microwatts multiplied by the square root of the emission bandwidth in Hertz.

RSS-213 Issue 3, clause 5.6:

Peak transmit power shall not exceed 100 microwatts multiplied by the square root of the occupied bandwidth in Hertz.

FCC 15.319(c)(e); RSS-213 Issue 3, clause 5.6:

The peak transmit power shall be reduced by the amount in decibels that the maximum directional gain of the antenna exceeds 3 dBi.



				M1[1] 15.12
0 dBm	M1			61.50
· · · · ·	.			
dBm				
dBm				
0 dBm				
o ubiii				
0 dBm				
0 dBm				
Murman				hoursense
0 dBm				
0 dBm				
0 dBm				
				S2
= 1.921536 GHz		1001	pts	50.0
Marker Table Type Ref Trc	X-Value	Y-Value	Function	Function Result
M1 1	61.5 µs	Y-Value 15.12 dBm	TD Pow Peak TD Pow RMS	Function Result 15.12 dBm 14.97 dBm

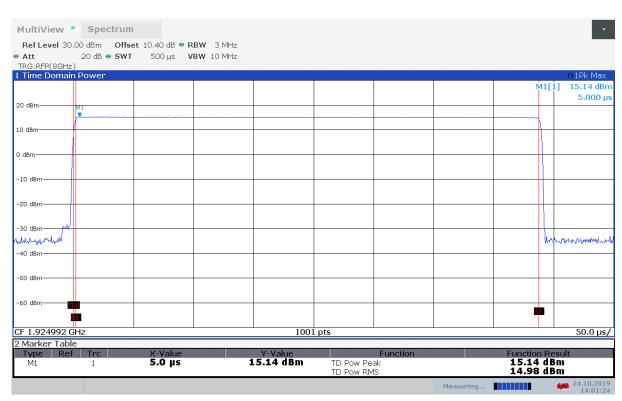


Lower Channel, Radio Part 1

Lower Channel, Radio Part 2



MultiView	Spectr	um					-
Ref Level 30	.00 dBm C)ffset 10.40 dB = RBW	3 MHz				
🖷 Att	20 dB 🖷 S	WT 500 µs VBW 1	0 MHz				
TRG:RFP(8GHz 1 Time Domain) Dower						o1Pk Max
I TIME Bomai						M1[1
							51.500 μs
20 dBm		M1					
10 dBm							
0 dBm							
o ubiii							
-10 dBm							
-20 dBm							
-30 dBm							
Monorman						Un Un	mangenterration
-40 dBm							
-50 dBm							
-60 dBm-	KG					52	
'							
CF 1.924992 C			1001	pts			50.0 µs/
2 Marker Tabl		V Voluo	V Valua	Function		Eupotion D	o o ult
Type Ref	1 Trc	X-Value 51.5 μs	Y-Value 15.22 dBm	TD Pow Peak TD Pow RMS		Function R 15.22 d 15.07 d	Bm Bm
	~			101000100	✓ Measuring		24.10.2019



Middle Channel, Radio Part 1

Middle Channel, Radio Part 2



MultiView S	3m Offset 10.40 dB •	DBW 3 MHz			•
		VBW 10 MHz			
TRG:RFP(8GHz) 1 Time Domain Poy					A 1 DIL March
1 Time Domain Pov	ver			MIL	01Pk Max 1] 15.31 dBm
					52.000 µs
20 dBm	91 T				
10 dBm					
0 dBm					
o ubiii					
-10 dBm					
-20 dBm					
-30 dBm					
Marundard					mound
-40 dBm					
-50 dBm					
-50 uBm					
-60 dBm					
				9 2	
CF 1.928448 GHz		100	1 pts		
2 Marker Table		100	or pis		50.0 μs/
	rc X-Value	Y-Value	Function	Function R	esult
M1	1 52.0 μs	15.31 dBm	TD Pow Peak TD Pow RMS	15.31 d 15.16 d	Bm Bm
				Measuring	24.10.2019

Upper Channe	, Radio Part 1
--------------	----------------

MultiView	Spectru	Im					•
Ref Level 3	0.00 dBm Of	ifset 10.40 dB 🖷 RBW 💠	3 MHz				
Att TRG:RFP(8GH	20 dB 🖷 SV	VT 500 µs VBW 1	0 MHz				
Time Doma	in Power						●1Pk Max
						M1[1 -
20 dBm							4.000 μ
	×						
.0 dBm	-						
) dBm	-						
10 dBm							
-20 dBm	1						
-30 dBm 📈 📈							
how when the							Myonom
40 dBm						- m	and designed
50 dBm							
60 dBm	TRG						
	91					S2	
CF 1.928448	GHz		1001	pts			50.0 µs/
2 Marker Tab							
Type Re M1	ef Trc 1	X-Value 4.0 μs	Y-Value 15.15 dBm	TD Pow Peak TD Pow RMS		Function R 15.17 d 15.04 d	esult 3m 3m
	~				✓ Measuring		24.10.2019 14:02:43

Upper Channel, Radio Part 2



3.4 Emission Bandwidth *B*

Test Method:

ANSI C63.17, clause 6.1.3.

Test Results: Complies

Measurement Data:

Channel No.	Frequency (MHz)	Emission Bandwidth <i>B</i> (MHz)		
4	1921.536	1.43		
0	1928.448	1.43		

Channel No.	Frequency (MHz)	Occupied Bandwidth (MHz)		
2	1924.992	1.24		

Requirements, FCC 15.323(a), RSS-213 Issue 3, clause 5.5:

The Emission Bandwidth *B* shall be larger than 50 kHz and less than 2.5 MHz.

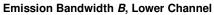
No requirements for 6 and 12 dB Bandwidth, these values are only used for testing Monitoring Bandwidth if the Simple Compliance test fails (ANSI C63.17, clause 7.4).

RSS-GEN Issue 5, clause 6.7:

Occupied Bandwidth (99%) is measured according to RSS-GEN Issue 5, clause 6.7. No requirement specified.

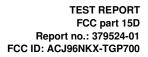








Emission Bandwidth *B*, Upper Channel







99% Bandwidth, Middle Channel



3.5 **Power Spectral Density**

Test Method:

ANSI C63.17, clause 6.1.5 KDB 662911 D01

Test Results: Complies

Measurement Data:

Radio Part #	Channel No.	Frequency (MHz)	Power Spectral Density (dBm / 3kHz)	Total Power Spectral Density (dBm/3kHz)
1	4	1921.536	-7.2	-4.2
	0	1928.448	-7.0	-4.0
2	4	1921.536	-6.8	-3.8
	0	1928.448	-6.7	-3.7

Averaged over 1000 sweeps

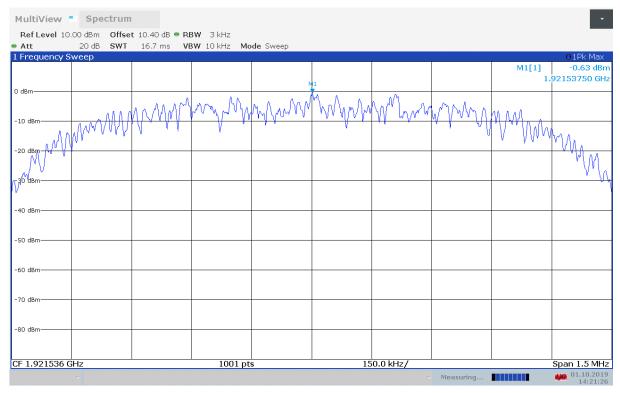
Total PSD is calculated using the method in KDB 662911 D01 clause E) 2) c)

Requirements, FCC 15.319(d), RSS-213 Issue 3, clause 5.7

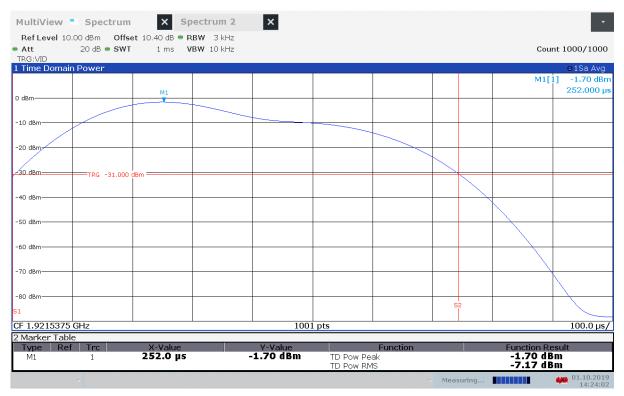
The Power Spectral Density shall be less than 3 mW (4.77 dBm) when averaged over at least 100 sweeps.



PSD Lower Channel, Radio Part 1:



Overview

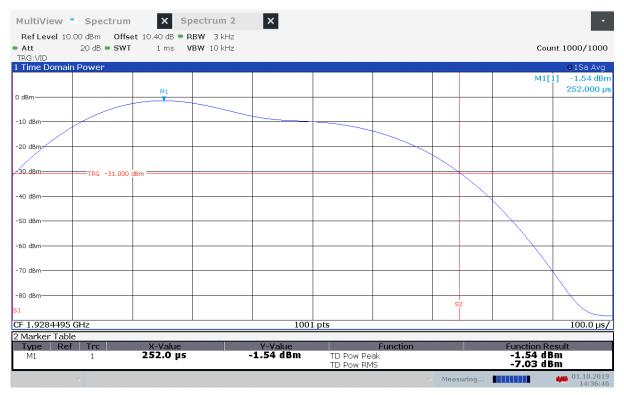




PSD Upper Channel, Radio Part 1:

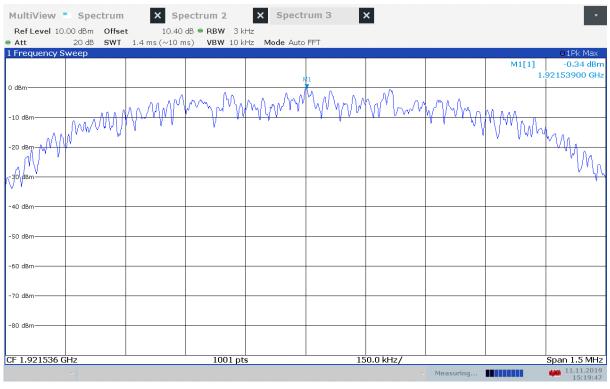
MultiView	Spectrum	n X Sp	ectrum 2	×					-
Ref Level 10.0	00 dBm Offse	t 10.40 dB 🖷 R	BW 3 kHz						
Att	20 dB SWT	16.7 ms V	BW 10 kHz Mo	de Sweep					
1 Frequency Sv	weep								●1Pk Max
				N	1			M1[1]	-0.52 dBm 92844950 GHz
0 dBm		A AA AM	m. M.	n. n Man	holinde	h.MA	mode		
-10 dBm			r •	W VW I	- V V V) V V	1 W W W			
	WAAAAAA		V,		, v		, · · · /	l.vhmv	M.
-20 dBm									M
130 dBm									<u>н</u>
40.40.00									
-40 dBm									
-50 dBm									
-60 dBm									
-70 dBm									
-80 dBm									
CF 1.928448 G	Hz		1001 pt	s	15	50.0 kHz/			Span 1.5 MHz
							Measuring		01.10.2019 14:36:12

Overview

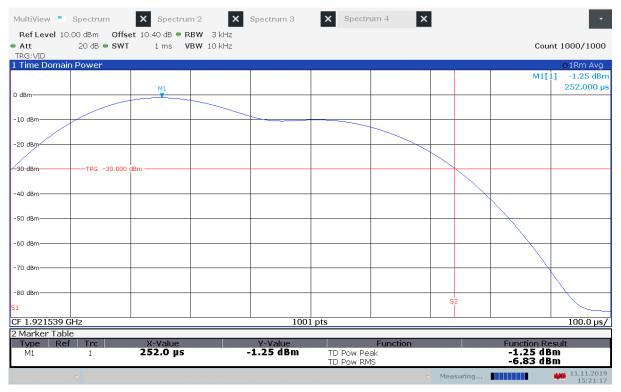




PSD Lower Channel, Radio Part 2:

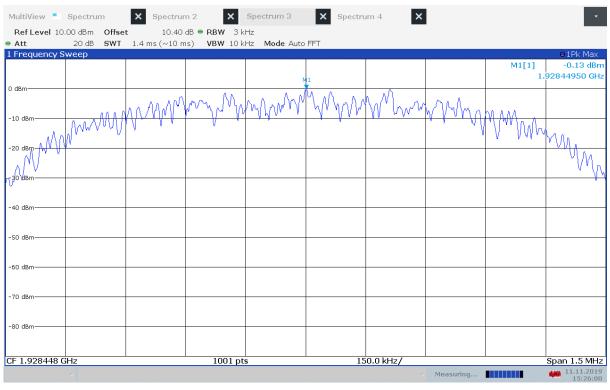


Overview

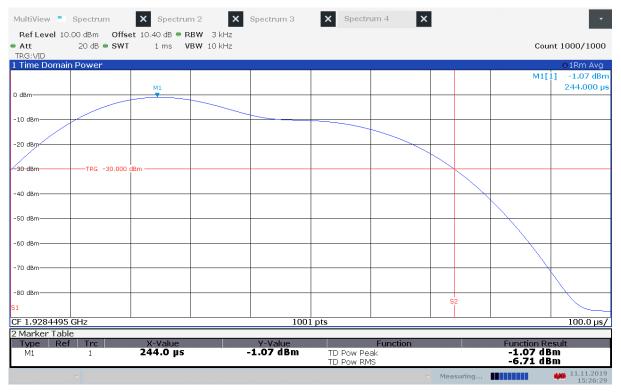




PSD Upper Channel, Radio Part 2:



Overview





3.6 In-Band Unwanted Emissions, Conducted

Test Method:

ANSI C63.17, clause 6.1.6.1.

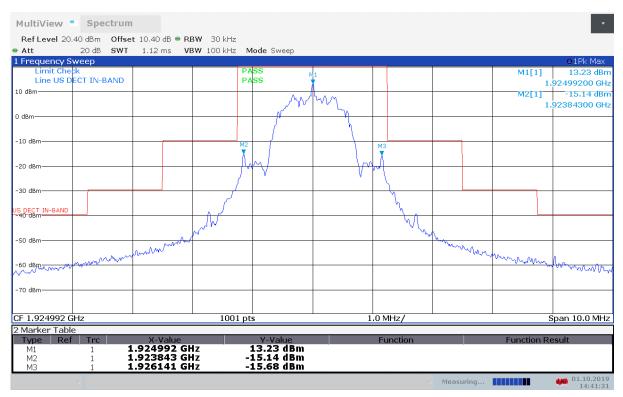
Test Results: Complies

Measurement Data:

See plots.

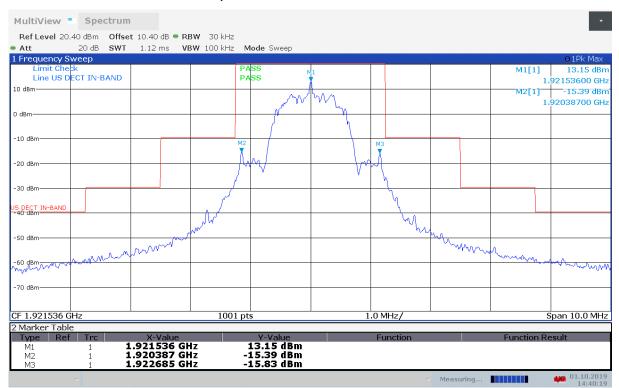
Requirements, FCC 15.323(d), RSS-213 Issue 3, clause 5.8.2:

 $B < f \le 2B$: at least 30 dB below max. permitted peak power 2B < $f \le 3B$: at least 50 dB below max. permitted peak power 3B < $f \le$ UPCS Band Edge : at least 60 dB below max. permitted peak power





In-Band Unwanted Emissions, Conducted



Lower Channel

Frequency Sweep				o 1Pk Ma
Limit Check		PASS M1		M1[1] 13.28 dE
Line US DECT IN-BA	ND	PASS		1.92844800 G
dBm		^//m	~	M2[1] -14.91 dE
		1 1 1 1		1.92729900 G
dBm			- M	
			η Ι	
0 dBm		M2		
		The second secon	M3	
0 dBm		Ashal	1 mg A	
o dom			V P~(
			<u>h</u>	
0 dBm		J"	2	
DECT IN-BAND			1 1	
0 dBm	1.1.1			
	and w		Manue	
0 dBm				
	1. M. m. Martin			Man was a second and the second and the second seco
0 dBm	vivin -			- The second sec
Winner				
0 dBm				
- 1.928448 GHz	10	001 pts	1.0 MHz/	Span 10.0 M
Marker Table			· · ·	
	X-Value	Y-Value	Function	Function Result

Upper Channel



3.7 Out-of-band Emissions, Conducted

Test Method:

ANSI C63.17, clause 6.1.6.2.

Test Results: Complies

Measurement Data:

Radio Part #	Carrier #	Frequency (MHz)	Emission Level (dBm)	Total Emission Level (dBm)	Limit (dBm)	Margin (dB)
1	04	1537.23	-56.8	-53.8	-39.5	14.3
		2113.69	-47.8	-44.8	-39.5	5.3
		2305.85	-50.1	-47.1	-39.5	7.6
		2882.31	-52.1	-49.1	-39.5	9.6
		3843.08	-50.6	-47.6	-39.5	8.1
	02	1540.00	-57.1	-54.1	-39.5	14.6
		2117.49	-48.1	-45.1	-39.5	5.6
		2309.99	-50.4	-47.4	-39.5	7.9
		2887.49	-52.8	-49.8	-39.5	10.3
		3849.99	-50.7	-47.7	-39.5	8.2
	00	1542.76	-56.8	-53.8	-39.5	14.3
		2121.29	-48.4	-45.4	-39.5	5.9
		2314.14	-50.6	-47.6	-39.5	8.1
		2892.68	-52.4	-49.4	-39.5	9.9
		3856.91	-50.6	-47.6	-39.5	8.1
2	04	1537.23	-55.5	-52.5	-39.5	13.0
		2113.69	-50.6	-47.6	-39.5	8.1
		2305.85	-49.6	-46.6	-39.5	7.1
		2882.31	-59.8	-56.8	-39.5	17.3
		3843.08	-57.6	-54.6	-39.5	15.1
	02	1540.00	-55.2	-52.2	-39.5	12.7
		2117.49	-50.3	-47.3	-39.5	7.8
		2309.99	-49.5	-46.5	-39.5	7.0
		2887.49	-60.7	-57.7	-39.5	18.2
		3849.99	-57.2	-54.2	-39.5	14.7
	00	1542.76	-55.1	-52.1	-39.5	12.6
		2121.29	-50.3	-47.3	-39.5	7.8
		2314.14	-49.8	-46.8	-39.5	7.3
		2892.68	-60.7	-57.7	-39.5	18.2
		3856.91	-57.4	-54.4	-39.5	14.9

Total Emission Level is calculated using the method described in KDB 662911 D01 clause E) 3) a) (iii)

Requirements, FCC 15.323(d), RSS-213 Issue 3, clause 5.8.1:

 $f \le 1.25$ MHz outside UPCS band : ≤ -9.5 dBm

1.25MHz $\leq f \leq$ 2.5MHz outside UPCS band :	≤ -29.5 dBm
$f \ge 2.5$ MHz outside UPCS band :	≤ -39.5 dBm



Lower Channel:

MultiView	Spectrum	n							•
Ref Level 10.0	00 dBm Offs	et 10.40 dB 🖲	RBW 30 kHz						
Att	20 dB SWT	110 ms	VBW 100 kHz I	Mode Sweep					
1 Frequency Sv									o1Pk Max
Limit Chec				ASS				M1[1]	-59.73 dBm
Line US DE	CT OUT-OF-B	AND	Р	ASS					547.530 MHz
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm									
10.10									
US DEET OUT-OF-B/	AND								
-50 dBm									
					M1				
-60 dBm				a still a second shadow and	1 Matter 1 1			1	
hyperminishing	mentalismum hold than	molinamene	when when which wh	Mar March Markey and Markey	Marker and Marker	and	monthlymphic	manyhannapulationed	Martha and show here has
NG 70 dBm									
-80 dBm									
10.0 MHz		1	1001 p	ts	9	9.0 MHz/	1	1	1.0 GHz
							Measuring		01.10.2019 15:07:22

MultiView	Spectrum								•
	.00 dBm Offse								
Att 1 Frequency S		96.7 ms VB	SW 100 kHz M	ode Sweep					●1Pk Max
Limit Che	ck ECT OUT-OF-BA	ND	PA PA					M1[1]	-60.03 dBm 1.537560 GHz
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm									
JST DEEM OUT-OF-	BAND								
-50 dBm									
-60 dBm						M1			
-70 dBm	ymhour how	uhrunhannahihin	www.www.halawahah	warmen and	when have and	mbrochiber	adaption Association Massee Ma	han habaran	mannan
-80 dBm									
1.0 GHz			1001 pt	6	87	7.0 MHz/			1.87 GHz
	$\overline{\nabla}$						Measuring		01.10.2019 15:06:34



Lower Channel:

MultiView	Spectru	ım							-
Ref Level 10	.00 dBm Of	fset 10.40 dB	• RBW 30 kHz						
 Att 	20 dB SV	/T 5.56 ms	VBW 100 kHz M	1ode Sweep					
1 Frequency S Limit Che			P4	SS				M1[1]	01Pk Max -63,43 dBm
	ECT OUT-OF	-BAND		ss					.9126820 GHz
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm									
USPERMOUT-OF-									
US'DECT'OUT-OF-	BAND								N
-50 dBm									
									J
-60 dBm								M1	ult ^w
and the s	And the second		unnhunn		المحمد المحمد المحمد	-	a a . a . Modullado	marked by Mr. Connorth	www.
-70 dBm	g he have been been been been been been been be	how we we wanted	and the particulation	how we have a realized and the	NOW SHARE AND	andrama and a state	all and a second se	aldad. o.	
-80 dBm									
1.87 GHz	I		1001 pt	S	5	.0 MHz/	I		1.92 GHz
							Measuring		01.10.2019 15:05:42



Upper Channel:

MultiView 🔳 Spectrum							•
Ref Level 10.00 dBm Offset	10.40 dB 🖷 RBW 30 kHz						
	7.78 ms VBW 100 kHz M	lode Sweep					
1 Frequency Sweep Limit Check	PA	SS				M1[1]	o 1Pk Max
Line US DECT OUT-OF-BAN		ss				M1[1]	-63.17 dBm .9561190 GHz
0 dBm							19901190 012
C dbm							
US DEET OUT-OF-BAND							
-2D dBm							
-30 dBm							
-40 dBm							
k							
450 dBm							
N							
-60 dBm	M1 V						
Marken Marken Marken and	work warmen and a determined the	abarata maken	haven's marine	house have been the	A MAN WANT AMA AND A	and another and the	montheart
-60 38m	L. L. M March Mb. March and		Company of the second	444- 4 Q - 1 - 1 - 1 - 1		and the second	
-80 dBm							
	1001						
1.93 GHz	1001 pt	S	/	.0 MHz/			2.0 GHz
					Measuring		14:45:07

Frequency Sweep								●1Pk Ma>
Limit Check		PA					M1[1]	-52.57 dB
Line US DECT OUT-OF-B	ND	PA	SS					3.84820 G
dBm							M2[1]	-53.09 dE
								2.11790 G
0 dBm								+
0 dBm								
D dBm								
o ubin								
DEEP OUT-OF-BAND								
0 ¹ dBm	M3		M1					+
T T	Y							
OldBm	n from .			and market have	A D-American Mark & day of	191. A 1246 58		
All Brown when we have the second s	Mutury	markownitaspech	have been been been been been been been be	www.ananama	and a set of paper dispersion.	horner	moundante	mandonation
D dBm								
o dalli								
D dBm								+
0 GHz		1001 pts		40	0.0 MHz/			6.0 G
Varker Table		1001 pt	,	-10	010 101127			0.00
Type Ref Trc	X-Value		Y-Value		Function		Function R	ocult
M1 1	3.8482 GHz	- "	52.57 dBm		TUNCUUT		T UNCLION R	esuit
M2 1	2.1179 GHz		53.09 dBm					
M3 1	2.8891 GHz		55.61 dBm					



MultiView	Spectrum	I							-
Ref Level 10	.00 dBm Offse	t 10.40 dB 🖷 RB	3W 30 kHz						
 Att 1 Frequency S 	20 dB SWT	667 ms VE	3W 100 kHz M	ode Sweep					o 1Pk Max
Limit Che Line US D		ND	PA PA					M1[1]	-64.35 dBm 10.63640 GHz
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm									
US DEEP OUT-OF-I	BAND								
-50 dBm									
-60 dBm			And the states	homen	Weren and		M1	had unally	mather
Mayor dBm	an and an and	en alla hanna an a	and the second	Marina	a - a - an	er-walandententententententententententententente	ebeels and a Plana .	of Code case and	
-80 dBm									
6.0 GHz			1001 pt:	S	60	0.0 MHz/			12.0 GHz
	~						Measuring		01.10.2019 14:48:47

Att 20 dB SWT	889 ms VBW 100 kHz M					o1Pk Max
Limit Check Line US DECT OUT-OF-BAN		SS SS			M1[1]	-61.37 dB 17.72630 GF
dBm						
10 dBm						
20 dBm						
30 dBm						
49년8월 OUT-OF-BAND						
50 dBm						
60 dBm				MI	Automatica da alterrativo	mannethan
	warman warman	multiplan all and and	Marian - manufactures	and the second sec		C MARGEORY CONTRACTOR
70 dBm						
80 dBm						
12.0 GHz	1001 pt:		800.0 MHz/			20.0 0



Lower Channel:

Att 20 dB SWT 1.12 ms	BIT TOOTALE INDUG ONICO	Ψ				
Frequency Sweep Limit Check	PASS				141513	O1Pk Max
Line US DECT OUT-OF-BAND	PASS				M1[1]	-56.81 dBr .53723000 GH
dBm					-	150720000 01
LO dBm						
20 dBm						
30 dBm						
Peter OUT-OF-BAND						
50 dBm						
		111				
50 dBm		A				
50 dBm		NW m				
man mark mark mark	marmann	- hom	mound	mmm	mmmmm	manning
80 dBm						
lultiView Spectrum	1001 pts		1.0 MHz/	Measuring		01.10.201
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB F Att 20 dB SWT 1.12 ms N	RBW 30 kHz			Measuring		01.10.201 15:14:3
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB • F Att 20 dB SWT 1.12 ms V Frequency Sweep	RBW 30 kHz /BW 100 kHz Mode Swee			Measuring		•••• 01.10.201 15:14:3 •• 1Pk Max
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB F Att 20 dB SWT 1.12 ms N	RBW 30 kHz			Measuring	M1[1]	• 01.10.201 15:14:3 • 0 1Pk Max -47.84 dB
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB = F Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Check Line US DECT OUT-OF-BAND	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	• 01.10.201 15:14:3 • 0 1Pk Max -47.84 dBi
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB = F Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Check Line US DECT OUT-OF-BAND	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	• 01.10.201 15:14:3 • 0 1Pk Max -47.84 dB
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB F F Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Check Line US DECT OUT-OF-BAND dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	• 01.10.201 15:14:3 • 0 1Pk Max -47.84 dB
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB F F Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Check Line US DECT OUT-OF-BAND dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	• 01.10.201 15:14:3 • 0 1Pk Max -47.84 dBi
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB F Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Chelk Line US DECT OUT-OF-BAND dBm 10 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	•••• 01.10.201 15:14:3 ••••••••••••••••••••••••••••••••••••
MultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB = F Att 20 dB SWT 1.12 ms Frequency Sweep Limit Check Line US DECT OUT-OF-BAND dBm 10 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	•••• 01.10.201 15:14:3 ••••••••••••••••••••••••••••••••••••
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB F Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Chetk Line US DECT OUT-OF-BAND dBm 10 dBm 20 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	•••• 01.10.201 15:14:3 ••••••••••••••••••••••••••••••••••••
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB F Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Check Line US DECT OUT-OF-BAND dBm 10 dBm 20 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	•••• 01.10.201 15:14:3 ••••••••••••••••••••••••••••••••••••
MultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB = F Att 20 dB SWT 1.12 ms Frequency Sweep Limit Chelk Limit Chelk Line US DECT OUT-OF-BAND dBm 10 dBm 20 dBm 30 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	• 01.10.201 15:14:3 • 01Pk Max -47.84 dBr
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB S H Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Chetk Line US DECT OUT-OF-BAND dBm 10 dBm 20 dBm 30 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	• 01.10.201 15:14:3 • 01Pk Max -47.84 dBr
MultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB = F Att 20 dB SWT 1.12 ms Frequency Sweep Limit Chelk Limit Chelk Line US DECT OUT-OF-BAND dBm 10 dBm 20 dBm 30 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	Span 10.0 MH
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB • F Att 20 dB Erequency Sweep Limit Check Line US DECT OUT-OF-BAND dBm 10 dBm 30 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	• 01.10.201 15:14:3 • 01Pk Max -47.84 dBr
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB • F Att 20 dB Erequency Sweep Limit Check Line US DECT OUT-OF-BAND dBm 10 dBm 30 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	• 01.10.201 15:14:3 • 01Pk Max -47.84 dBr
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB F Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Chekk Line US DECT OUT-OF-BAND dBm 0 dBm 10 dBm 0 0 30 dBm 9 50 dBm 50 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1]	• 01.10.201 15:14:3 • 01Pk Max -47.84 dBr
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB F Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Chekk Line US DECT OUT-OF-BAND dBm 0 dBm 10 dBm 0 0 30 dBm 9 50 dBm 50 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS			Measuring	M1[1] 2	• 01.10.201 15:14:3 • 1Pk Max -47.84 dBi .11369000 GF
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB S M Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Check Line US DECT OUT-OF-BAND dBm 10 dBm 20 dBm 50 dBm 50 dBm 50 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS PASS ASS ASS ASS ASS ASS A			Measuring	M1[1] 2	• 01.10.201 15:14:3 • 1Pk Max -47.84 dBi .11369000 GF
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB = F Att 20 dB SWT 1.12 ms Frequency Sweep Limit Check Limit Check Limit Check Lime US DECT OUT-OF-BAND dBm 10 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS PASS ASS ASS ASS ASS ASS A				M1[1] 2	• 01.10.201 15:14:3 • 1Pk Max -47.84 dBi .11369000 GF
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB = F Att 20 dB SWT 1.12 ms Frequency Sweep Limit Chelk Line US DECT OUT-OF-BAND dBm 10 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS PASS ASS ASS ASS ASS ASS A				M1[1] 2	• 01.10.201 15:14:3 • 1Pk Max -47.84 dBi .11369000 GF
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB = F Att 20 dB Swarp Limit Chelk Limit Chelk Line US DECT OUT-OF-BAND dBm 0 20 dBm 90 dBm 30 dBm 90 dBm 50 dBm 50 dBm	RBW 30 kHz /BW 100 kHz Mode Swee PASS PASS ASS ASS ASS ASS ASS A				M1[1] 2	• 01.10.201 15:14:3 • 1Pk Max -47.84 dBi .11369000 GF
Spectrum Ref Level 10.00 dBm Offset 10.40 dB = F Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Chekk Limit Chek D V Imit Chek Limit Chek Imit Chek	RBW 30 kHz /BW 100 kHz Mode Swee PASS PASS ASS ASS ASS ASS ASS A				M1[1] 2	•••• 01.10.201 15:14:3 ••••••••••••••••••••••••••••••••••••



Lower Channel:

Att 20 dB SWT 1.12 ms VE Frequency Sweep Limit Check	PASS	▼F			M1[1]	● 1Pk Max -50.05 dB
Line US DECT OUT-OF-BAND	PASS					30585000 GI
38m						
0 dBm						
) dBm						
) dBm						
been out-of-BAND						
40 m		M1				
) dBm		mpm				
l dBm	<u>├</u>	x. and head and				
manhahan han han han han han han han han	mound	h	when when	mmmmmm	amamm	mm
) dBm						
2 2059 (1)=	1001 pts					
2.3058 GHz	TOUT pts		1.0 MHz/		2	Span 10.0 M
Ref Level 10.00 dBm 🛛 Offset 10.40 dB 🖷 RI			~	Measuring		01.10.20 15:15:
ultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB Ri Att 20 dB SWT 1.12 ms VE requency Sweep	3W 100 kHz Mode Swe	ep		Measuring		o 1Pk Ma
ultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB • RI Att 20 dB SWT 1.12 ms VE		ep		Measuring	M1[1]	o 1Pk Ma -52.08 di
ultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB Ri Rit 20 dB SWT 1.12 ms VE requency Sweep Limit Chelk Line US DECT OUT-OF-BAND	3W 100 kHz Mode Swe	ep		Measuring	M1[1]	0 1Pk Ma -52.08 df
LIITIVIEW Spectrum Ref Level 10.00 dBm Offset 10.40 dB RI Ref Level 10.00 dB SWT 1.12 ms VE requency Sweep Limit Chekk Line US DECT OUT-OF-BAND Bm	3W 100 kHz Mode Swe	ер 		Measuring	M1[1]	o 1Pk Ma -52.08 dl
LIITIVIEW Spectrum Ref Level 10.00 dBm Offset 10.40 dB RI Ref Level 10.00 dB SWT 1.12 ms VE requency Sweep Limit Chekk Line US DECT OUT-OF-BAND Bm	3W 100 kHz Mode Swe	ер 		Measuring	M1[1]	0 1Pk Ma -52.08 df
ultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB Ri Ref Level 20 dB SWT 1.12 ms VE requency Sweep Limit Chekk Line US DECT OUT-OF-BAND Bm	3W 100 kHz Mode Swe	ep		Measuring	M1[1]	o 1Pk Ma -52.08 dl
ultiView Spectrum tef Level 10.00 dBm Offset 10.40 dB • Ri tut 20 dB swr 1.12 ms requency Sweep Limit Chekk Line US DECT OUT-OF-BAND Bm dBm	3W 100 kHz Mode Swe	ep		Measuring	M1[1]	o 1Pk Ma -52.08 dl
ultiView Spectrum Att 20 dB SWT 1.12 ms VE requency Sweep Limit Chelk Line US DECT OUT-OF-BAIND Bm dBm dBm	3W 100 kHz Mode Swe	ep 		Measuring	M1[1]	0 1Pk Ma -52.08 df
ultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB Ri Att 20 dB SWT 1.12 ms VE Limit Chelk Line US DECT OUT-OF-BAND IBm 0 dBm 0 dBm	3W 100 kHz Mode Swe	ер 		Measuring	M1[1]	0 1Pk Ma -52.08 dE
ultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB RI Att 20 dB SWT 1.12 ms VE Frequency Sweep Limit Check Line US DECT OUT-OF-BAIND IBm 0 dBm 0 dBm 0 dBm 0 dBm 0 dBm 0 dBm	3W 100 kHz Mode Swe	ep		Measuring	M1[1]	0 1Pk Ma -52.08 dE
ultiView Spectrum tef Level 10.00 dBm Offset 10.40 dB = RI tt 20 dB SWT 1.12 ms VE Total Imit Check Line US DECT OUT-OF-BAND Bm dBm dBm dBm dBm dBm dBm	W 100 kHz Mode Swe	M1		Measuring	M1[1]	o 1Pk Ma -52.08 dl
IltiView Spectrum ef Level 10.00 dBm Offset 10.40 dB = Ri tt 20 dB SWT 1.12 ms VE requency Sweep Limit Check Line US DECT OUT-OF-BAND 3m dBm dBm dBm dBm dBm dBm dBm	W 100 kHz Mode Swe			Measuring	M1[1]	0 1Pk Ma -52.08 df 88231000 G
LIITIView Spectrum Ref Level 10.00 dBm Offset 10.40 dB PRI Ref Level 10.00 dBm Offset 10.40 dB PRI LIITI 20 dB SWT 1.12 ms VE requency Sweep Lint Chek Line US DECT OUT-OF-BAND Bm dBm dBm dBm dBm dBm dBm dBm dBm dBm	W 100 kHz Mode Swe	M1			M1[1]	0 1Pk Ma -52.08 dl 88231000 G
ultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB = Ri Att 20 dB SWT 1.12 ms VE Frequency Sweep Limit Check Lime US DECT OUT-OF-BAND JBm JBM	W 100 kHz Mode Swe	M1			M1[1]	•••• 01.10.20 15:15: ••••••••••••••••••••••••••••••••
AultiView Spectrum Ref Level 10.00 dBm Offset 10.40 dB = Ri Att 20 dB SWT 1.12 ms VE Frequency Sweep Limit Chekk Line US DECT OUT-OF-BAND dBm dBm dBm 10 dBm	W 100 kHz Mode Swe	M1 M1 MM Mayor Market			M1[1] 2.	0 1Pk Ma -52.08 dl 88231000 G



Lower Channel:

Att 20 Frequency Swee	dB SWT	1.12 ms VE	SW 100 kHz M	eue enreep					●1Pk Max
Limit Check	-P		PA	SS				M1[1]	-50.58 dBr
Line US DECT	OUT-OF-BA	ND	PA	ss					84308000 GH
) dBm									
10 dBm									
20 dBm									
30 dBm									
4048mout-of-BAND									
50 dBm				M	1				
				M	hon Mr.				
.60 dBm		A & 4 () () () () () () () () () (man		and al	Mar mar	An norman	mann	man
70 dBm		op ou competingen							
80 dBm									
F 3.8431 GHz			1001 pts	S	1	.0 MHz/		5	Span 10.0 MH

Att 20 dB SWT 1.12 n I Frequency Sweep	ns VBW 100 kHz Mod					●1Pk Max
Limit Check	PAS				M1[1]	-57.05 dB
Line US DECT OUT-OF-BAND	PASS	;			1	.54000000 GH
l dBm						
10 dBm						
20 dBm						
30 dBm						
48년만 OUT-OF-BAND						
50 dBm						
60 dBm		M1				
		Many				
70 dBm Man Marine Ma	mummun	www. ww	mmmmm	mmuhan	mound	promision
30 dBm						
F 1.54 GHz	1001 pts		1.0 MHz/		l,	 Span 10.0 MH



Att 20 dB SWT 1.12 ms V Frequency Sweep							o1Pk Ma≽
Limit Check Line US DECT OUT-OF-BAND	PAS PAS					M1[1]	-48.08 dB 11749000 GI
dBm							
0 dBm							
0 dBm							
0 dBm							
9년8월 OUT-OF-BAND							
DECT-OUT-OF-BAND		м	1				
0 dBm							
		m	WM				
D dBm			Ì				
Marine Mari	naman	m	han	montation	manghanna	mmmmm	manna
0 dBm							
2.1175 GHz	1001 pts		1	.0 MHz/			Span 10.0 Mi
	RBW 30 kHz				Measuring		01.10.20
RefLevel 10.00 dBm Offset 10.40 dB ● R Att 20 dB SWT 1.12 ms V					Measuring		01.10.20 15:25:
RefLevel 10.00 dBm Offset 10.40 dB ● R Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Che≴k	/BW 100 kHz Mo	de Sweep			Measuring		•••• 01.10.20 15:25: • 1Pk Ma
RefLevel 10.00 dBm Offset 10.40 dB ● R Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Chesk Line US DECT OUT-OF-BAND	/BW 100 kHz Mo	de Sweep			Measuring	M1[1]	•••• 01.10.20 15:25: ••••••••••••••••••••••••••••••••••
Ref Level 10.00 dBm Offset 10.40 dB ● R Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Check Line US DECT OUT-OF-BAND	/BW 100 kHz Mo	de Sweep			Measuring	M1[1]	• 01.10.20 15:25: 0 1Pk Ma -50.39 dE
Ref Level 10.00 dBm Offset 10.40 dB ● R Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Che ^{‡k} Line US DECT OUT-OF-BAND dBm	/BW 100 kHz Mo	de Sweep			Measuring	M1[1]	• 01.10.20 15:25: 0 1Pk Ma -50.39 dE
Ref Level 10.00 dBm Offset 10.40 dB ● R Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Che ^t k Line US DECT OUT-OF-BAND dBm	/BW 100 kHz Mo	de Sweep			Measuring	M1[1]	• 01.10.20 15:25: 0 1Pk Ma -50.39 dE
Ref Level 10.00 dBm Offset 10.40 dB Ref Level 10.00 dBm Offset 10.40 dB Ref Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Check Line US DECT OUT-OF-BAND dBm	/BW 100 kHz Mo	de Sweep			Measuring	M1[1]	• 01.10.20 15:25: 0 1Pk Ma -50.39 dE
Ref Level 10.00 dBm Offset 10.40 dB ■ R Att 20 dB SWT 1.12 ms V Frequency Sweep Line US DECT OUT-OF-BAND dBm 0 dBm 0 dBm 0 dBm	/BW 100 kHz Mo	de Sweep			Measuring	M1[1]	• 01.10.20 15:25:: • 192 • 193 • 193
Ref Level 10.00 dBm Offset 10.40 dB ■ R Att 20 dB SWT 1.12 ms V Frequency Sweep Line US DECT OUT-OF-BAND dBm 0 dBm 0 dBm 0 dBm	/BW 100 kHz Mo	de Sweep			Measuring	M1[1]	• 01.10.20 15:25: 0 1Pk Ma -50.39 dE
Ref Level 10.00 dBm Offset 10.40 dB Ref Level 10.00 dBm Offset 10.40 dB Ref Line US DECT OUT-OF-BAND	/BW 100 kHz Mo	de Sweep			Measuring	M1[1]	• 01.10.20 15:25: 0 1Pk Ma -50.39 dE
Ref Level 10.00 dBm Offset 10.40 dB R Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Che k Line US DECT OUT-OF-BAND dBm 0 dBm 0 dBm 0 dBm 0 dBm 0 dBm 0 dBm	/BW 100 kHz Mo	de Sweep	1		Measuring	M1[1]	• 01.10.20 15:25:: • 192 • 193 • 193
Ref Level 10.00 dBm Offset 10.40 dB R Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Che k V V V Line US DECT OUT-OF-BAND dBm 0 dBm 0 0 dBm 0	/BW 100 kHz Mo	de Sweep			Measuring	M1[1]	• 01.10.20 15:25: 0 1Pk Ma -50.39 dE
Ref Level 10.00 dBm Offset 10.40 dB R Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Chelk V V Line US DECT OUT-OF-BAND dBm 0 dBm 0 dBm 0 dBm 0 0 dBm 0 0 0 0 dBm 0 0 0	/BW 100 kHz Mo	de Sweep			Measuring	M1[1]	• 01.10.20 15:25:: • 192 • 193 • 193
Ref Level 10.00 dBm Offset 10.40 dB R Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Chesk V V V Line US DECT OUT-OF-BAND D D D D D 0 dBm 0 dBm 0 D </td <td>/BW 100 kHz Mo PAS PAS</td> <td>de Sweep</td> <td>1 1 1 1 1 1</td> <td></td> <td></td> <td>M1[1] 2.</td> <td>• 11.10.20 15:25: • 1Pk Ma -50.39 dt 30999000 G</td>	/BW 100 kHz Mo PAS PAS	de Sweep	1 1 1 1 1 1			M1[1] 2.	• 11.10.20 15:25: • 1Pk Ma -50.39 dt 30999000 G
Ref Level 10.00 dBm Offset 10.40 dB R Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Check V V Line US DECT OUT-OF-BAND JBm JBm JBm JBm JBm JBm 0 dBm 0 dBm JBm JBm <td>/BW 100 kHz Mo PAS PAS</td> <td>de Sweep</td> <td>1 1 1 1 1 1</td> <td></td> <td>Measuring</td> <td>M1[1] 2.</td> <td>• 11.10.20 15:25: • 1Pk Ma -50.39 dt 30999000 G</td>	/BW 100 kHz Mo PAS PAS	de Sweep	1 1 1 1 1 1		Measuring	M1[1] 2.	• 11.10.20 15:25: • 1Pk Ma -50.39 dt 30999000 G
Ref Level 10.00 dBm Offset 10.40 dB R Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Chelk V V V Line US DECT OUT-OF-BAND 0	/BW 100 kHz Mo PAS PAS	de Sweep	1 1 1 1 1 1			M1[1] 2.	• 11.10.20 15:25: • 1Pk Ma -50.39 dt 30999000 G
Ref Level 10.00 dBm Offset 10.40 dB R Att 20 dB SWT 1.12 ms V Frequency Sweep Limit Chelk Limit Chelk Limit Chelk Limit Chelk Limit Chelk Limit Chelk ECT OUT-OF-BAND dBm 0 dBm 0 dBm 0 dBm 0 0 dBm 0	/BW 100 kHz Mo PAS PAS	de Sweep	1 1 1 1 1 1			M1[1] 2.	• 11.10.20 15:25: • 1Pk Mar -50.39 dB 30999000 G
Line US DECT OUT-OF-BAND dBm 10 dBm 20 dBm 30 dBm 40 glBm OUT-OF-BAND 50 dBm 60 dBm	/BW 100 kHz Mo PAS PAS	de Sweep				M1[1] 2.	01Pk Max -50.39 dB 30999000 Gl



MultiView	Spectrum	1							-
		t 10.40 dB 🖷 RE	3W 30 kHz						
Att		1.12 ms VB	3 W 100 kHz 🛛 🛛	lode Sweep					
1 Frequency S Limit Che			PA	SS				M1[1]	• 1Pk Max -52.77 dBm
	ECT OUT-OF-BA	ND	PA	ss					88749000 GHz
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm									
US DEEM OUT-OF-	BAND								
-50 dBm					1				
				M	M				
-60 dBm				- (have	man -				
man	manna	mmmm	mmm	www	Mar	mon	www.	mmm	mound
-70 dBm									
-80 dBm									
CF 2.8875 GH	Z		1001 pt	S	1	.0 MHz/		S	Span 10.0 MHz
							Measuring		01.10.2019
									15:20:35
Mulhi3/Gonza	Enoctrum						_		- 15:20:35
	Spectrum								• 15:20:35
RefLevel 10	.00 dBm Offse	t 10.40 dB 🖷 RE		lode Sweep					• 15:20:35
Ref Level 10 Att Frequency S	00 dBm Offse 20 dB SWT Sweep		3W 100 kHz M						• 1Pk Max
Ref Level 10 Att 1 Frequency S Limit Che	00 dBm Offse 20 dB SWT Sweep	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	lode Sweep SS SS				M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US E	00 dBm Offse 20 dB SWT Sweep	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS				M1[1]	• 1Pk Max
Ref Level 10 Att 1 Frequency S Limit Che	00 dBm Offse 20 dB SWT Sweep	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS				M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US D 0 dBm	00 dBm Offse 20 dB SWT Sweep	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS				M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US E	00 dBm Offse 20 dB SWT Sweep	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS				M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US D 0 dBm	00 dBm Offse 20 dB SWT Sweep	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS				M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US D 0 dBm -10 dBm	00 dBm Offse 20 dB SWT Sweep	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS				M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att I Frequency 8 Limit Che Line US 0 0 dBm -10 dBm -20 dBm	00 dBm Offse 20 dB SWT Sweep	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS				M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US D 0 dBm -10 dBm	00 dBm Offse 20 dB SWT Sweep	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS				M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm -30 dBm	.00 dBm Offse 20 dB SWT Sweep CCT OUT-OF-BA	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS				M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att I Frequency 8 Limit Che Line US 0 0 dBm -10 dBm -20 dBm	.00 dBm Offse 20 dB SWT Sweep CCT OUT-OF-BA	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS				M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm	.00 dBm Offse 20 dB SWT Sweep CCT OUT-OF-BA	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS				M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm -30 dBm	.00 dBm Offse 20 dB SWT Sweep CCT OUT-OF-BA	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS SS	р 			M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm	.00 dBm Offse 20 dB SWT Sweep CCT OUT-OF-BA	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS SS				M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm	.00 dBm Offse 20 dB SWT Sweep CCT OUT-OF-BA	t 10.40 dB ● RE 1.12 ms VB	W 100 kHz M	SS SS	r Model of the second s			M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US E 0 dBm -10 dBm -20 dBm -30 dBm -50 dBm -50 dBm	.00 dBm Offse 20 dB SWT Sweep CCT OUT-OF-BA	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M	SS SS		Manana		M1[1]	• 1Pk Max -50.66 dBm
Ref Level 10 Att 1 Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm	.00 dBm Offse 20 dB SWT Sweep CCT OUT-OF-BA	t 10.40 dB ● RE 1.12 ms VB	W 100 kHz M	SS SS				M1[1]	0 1Pk Max -50.66 dBm 84999000 GHz
Ref Level 10 Att 1 Frequency S Limit Che Line US E 0 dBm -10 dBm -20 dBm -30 dBm -50 dBm -60 dBm -70 dBm	.00 dBm Offse 20 dB SWT Sweep CCT OUT-OF-BA	t 10.40 dB ● RE 1.12 ms VB	W 100 kHz M	SS SS		Manna		M1[1]	0 1Pk Max -50.66 dBm 84999000 GHz
Ref Level 10 Att 1 Frequency S Limit Che Line US E 0 dBm -10 dBm -20 dBm -30 dBm -50 dBm -50 dBm	.00 dBm Offse 20 dB SWT Sweep CCT OUT-OF-BA	t 10.40 dB ● RE 1.12 ms VB	W 100 kHz M	SS SS				M1[1]	0 1Pk Max -50.66 dBm 84999000 GHz
Ref Level 10 Att 1 Frequency S Limit Che Lime US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -60 dBm -70 dBm	.00 dBm Offse 20 dB SWT Sweep CCT OUT-OF-BA	t 10.40 dB ● RE 1.12 ms VB	3W 100 kHz M PA PA	ss ss	hory hy			M1[1] 3.	0 1Pk Max -50.66 dBm 84999000 GHz
Ref Level 10 Att 1 Frequency S Limit Che Line US E 0 dBm -10 dBm -20 dBm -30 dBm -50 dBm -60 dBm -70 dBm	.00 dBm Offse 20 dB SWT Sweep CCT OUT-OF-BA	t 10.40 dB ● RE 1.12 ms VB	W 100 kHz M	ss ss	hory hy			M1[1] 3.	0 1Pk Max -50.66 dBm 84999000 GHz



Upper Channel:

MultiView Spectrum	1						•
Ref Level 10.00 dBm Offse	t 10.40 dB ● RBW 30 kHz						
Att 20 dB SWT	1.12 ms VBW 100 kHz N	/lode Sweep					
1 Frequency Sweep							o1Pk Max
Limit Check		ASS				M1[1]	-56.75 dBm
Line US DECT OUT-OF-B/	AND Pr	ASS				1.	54276000 GHz
0 dBm							
-10 dBm							
-20 dBm							
-30 dBm							
10-10-							
US DEEP OUT-OF-BAND							
-50 dBm							
		M					
		X					
-60 dBm		m	M.				
			Max.				
-70 dBm	www.w.w.	s man and	mm	mmmm	mound	monum	mound
-80 dBm							
CF 1.5428 GHz	1001 pt	ts	1	0 MHz/	•	5	pan 10.0 MHz
					Measuring		01.10.2019 15:28:05

MultiView Spectrum				-
Ref Level 10.00 dBm Offset 10.40 dB •				
Att 20 dB SWT 1.12 ms I Frequency Sweep	VBW 100 kHz Mode Sweep		c	1Pk Max
Limit Check Line US DECT OUT-OF-BAND	PASS PASS		M1[1] -4	18.40 dBm 9000 GHz
0 dBm				
-10 dBm				
-20 dBm				
-30 dBm				
Jst 日本語 OUT-OF-BAND		M1		
-50 dBm		Am.		
-60 dBm	- Mar An			
Man Man Man Mark Mark Mark Mark Mark Mark Mark Mark	ummmm M	lunnunun	many	man
-80 dBm				
CF 2.1213 GHz	1001 pts	1.0 MHz/		10.0 MHz
$\overline{\nabla}$		~	Measuring 🚺 🦇	01.10.2019 15:28:41



Upper Channel:

MultiView	Spectrun	n							•
RefLevel 10	.00 dBm Offs	et 10.40 dB 🖷	RBW 30 kHz						
🗢 Att	20 dB SWT	1.12 ms	VBW 100 kHz M	lode Sweep					
1 Frequency S Limit Che			PA	SS				M1[1]	● 1Pk Max -50.55 dBm
	ECT OUT-OF-B	AND		ss				M1[1]	-50.55 dBm 31414000 GHz
0 dBm									51111000 0112
-10 dBm									
-20 dBm									
-30 dBm									
US4DEEPTOUT-OF-	AND.								
03 DECT 001-0P-	BAND								
-50 dBm					11				
-30 0811					Ń				
				~~~	LMM				
-60 dBm				ſ					
mound	mpannon	monorm	mmmm	Alm	hum	monter	mount	mmmmm	mmmm
-70 dBm									
-80 dBm									
05.0.01.41.014			1001	_					
CF 2.3141 GH			1001 pt	S	1	.0 MHz/			pan 10.0 MHz
							Measuring		15:29:15

Frequency Sweep							●1Pk Max
Limit Check Line US DECT OUT-OF-BAN		PASS PASS				M1[1]	-52.39 dB 89268000 GF
dBm						2.	59208000 Gr
10 dBm							
20 dBm							
30 dBm							
49deem OUT-OF-BAND							
50 dBm		M	L				
60 dBm		March	the start				
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	rmman Minna Mara	mm	hyper	unununu	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mmmmm	m
80 dBm							



MultiView	Spectrum								-
RefLevel 10.0	00 dBm Offse	t 10.40 dB 🖷 I	RBW 30 kHz						
Att		1.12 ms	/BW 100 kHz M	ode Sweep					
1 Frequency Sv Limit Chec			PA	<u>ee</u>					o 1Pk Max
	CT OUT-OF-BA	ND	PA					M1[1]	-50.55 dBm 85691000 GHz
0 dBm									00001000 012
10 40									
-10 dBm									
-20 dBm									
-30 dBm									
US DEEM OUT-OF-B	AND								
					L				
-50 dBm				N	1				
				M	h. M				
-60 dBm					Why m				
-70 dBm	man	mm	mannam	r v	V	Marman	mmmm	www.www	mmm
10 00.0									
00.40.0									
-80 dBm									
CF 3.8569 GHz		1	1001 pts	6	1	.0 MHz/	1	<u></u>	Span 10.0 MHz
							Measuring		01.10.2019 15:31:12



Lower Channel:

MultiView	Spectrum	× Sp	ectrum 2	× Specti	rum 3	×			
		t 10.40 dB 🖷 RE							
Att	15 dB SWT	1.12 ms VB	SW 100 kHz M	lode Auto Sweep	0				O I DI: Mari
1 Frequency Sy Limit Che			PA	ss				M1[1]	 1Pk Max -55.45 dBm
	ECT OUT-OF-B#	ND		ss					53723000 GHz
0 dBm									
-10 dBm									
20 0.000									
-20 dBm									
-30 dBm									
STREET OUT-OF-B									
3 DECT 001-0F-6	AND								
-50 dBm				P	1				
					X				
-60 dBm				from A	My				
					h				
-70 dBm-				⊢ <i>M</i> ′′	μ M				
Manantan	www.me	www.www.	naman	anna	Warm	mmm	whenther	mann	mmmm
00 40									
-80 dBm									
CF 1.53723 GH	lz		1001 pt	S	1	LOMHz/			j Span 10.0 MHz
	~						Measuring		11.11.2019
MultiView -	Spectrum	× Sp	ectrum 2	× Spectr	rum 3	×			15:16:30
Ref Level 10.0	.00 dBm Offse	t 10.40 dB 🖷 RE	30 kHz	_	-	×			15:16:30
Ref Level 10.0 Att	.00 dBm Offse 15 dB SWT		30 kHz	_	-	×			•
Ref Level 10.0 Att Frequency Sy	.00 dBm Offse 15 dB SWT weep	t 10.40 dB 🖷 RE	3W 30 kHz 3W 100 kHz M	lode Auto Sweep	-	×			e 1Pk Max
Ref Level 10.0 Att Frequency Sy Limit Che	.00 dBm Offse 15 dB SWT weep	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	_	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Frequency Sy Limit Ches Line US Di	00 dBm Offse 15 dB SWT weep	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Frequency Sy Limit Ches Line US Di	00 dBm Offse 15 dB SWT weep	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10. Att Frequency Sv Limit Che Line US D	00 dBm Offse 15 dB SWT weep	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10. Att Frequency Sv Limit Che Line US D	00 dBm Offse 15 dB SWT weep	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Frequency Sv Limit Che Line US D 0 dBm -10 dBm	00 dBm Offse 15 dB SWT weep	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Frequency Sv Limit Che Line US D 0 dBm -10 dBm	00 dBm Offse 15 dB SWT weep	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	•
Ref Level 10.0 Att Frequency Sv Limit Che Line US D 0 dBm -10 dBm	00 dBm Offse 15 dB SWT weep	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Frequency SV Limit Che- Line US D 0 dBm -10 dBm -20 dBm	00 dBm Offse 15 dB SWT weep	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Frequency SV Limit Che- Line US D 0 dBm -10 dBm -20 dBm	00 dBm Offse 15 dB SWT weep	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Frequency SX Limit Che- Limit Che- Line US D 0 dBm -10 dBm -20 dBm -30 dBm	00 dBm Offse 15 dB SWT weep k ECT OUT-OF-B/	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Limit Che- Line US D 0 dBm -10 dBm -20 dBm -30 dBm	00 dBm Offse 15 dB SWT weep k ECT OUT-OF-B/	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Linit Che- Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -30 dBm	00 dBm Offse 15 dB SWT weep k ECT OUT-OF-B/	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Linit Che- Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -30 dBm	00 dBm Offse 15 dB SWT weep k ECT OUT-OF-B/	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Linit Che- Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -30 dBm	00 dBm Offse 15 dB SWT weep k ECT OUT-OF-B/	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep SS SS		×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Limit Chec Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm	00 dBm Offse 15 dB SWT weep k ECT OUT-OF-B/	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep	-	×		M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Limit Chec Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm	00 dBm Offse 15 dB SWT weep k ECT OUT-OF-B/	t 10.40 dB • RE 1.12 ms VB	3W 30 kHz 3W 100 kHz M PA	lode Auto Sweep SS SS				M1[1]	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Frequency SX Limit Cher Line US DI 0 dBm -10 dBm -20 dBm -20 dBm -30 dBm -30 dBm -50 dBm -60 dBm	OO dBm Offse 15 dB SWT weep 5k ECT OUT-OF-B/	t 10.40 dB • RB 1.12 ms VB	3W 30 kHz M 3W 100 kHz M PA PA	lode Auto Sweer				M1[1] 2:	0 1Pk Max -50.56 dBm 11369000 GHz
Ref Level 10.0 Att Frequency SV Limit Cher Line US DI 0 dBm 	00 dBm Offse 15 dB SWT weep k ECT OUT-OF-B/	t 10.40 dB • RB 1.12 ms VB	3W 30 kHz M 3W 100 kHz M PA PA	lode Auto Sweer				M1[1] 2:	0 1Pk Max -50.56 dBm
Ref Level 10.0 Att Frequency Sy Limit Che- Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -60 dBm -70 dBm	OO dBm Offse 15 dB SWT weep 5k ECT OUT-OF-B/	t 10.40 dB • RB 1.12 ms VB	3W 30 kHz M BW 100 kHz M PA PA	lode Auto Sweer				M1[1] 2:	0 1Pk Max -50.56 dBm 11369000 GHz
Ref Level 10.0 Att Frequency Sy Limit Che- Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -60 dBm -70 dBm	OO dBm Offse 15 dB SWT weep 5k ECT OUT-OF-B/	t 10.40 dB • RB 1.12 ms VB	3W 30 kHz M BW 100 kHz M PA PA	lode Auto Sweer				M1[1] 2:	0 1Pk Max -50.56 dBm 11369000 GHz
Ref Level 10.0 Att Frequency Sy Limit Che- Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -60 dBm -70 dBm	OO dBm Offse 15 dB SWT weep 5k ECT OUT-OF-B/	t 10.40 dB • RB 1.12 ms VB	3W 30 kHz M BW 100 kHz M PA PA	lode Auto Sweer				M1[1] 2:	0 1Pk Max -50.56 dBm 11369000 GHz
Ref Level 10.0 Att Frequency Sy Limit Che	00 dBm Offse 15 dB SWT weep k ECT OUT-OF-B/	t 10.40 dB • RB 1.12 ms VB	3W 30 kHz M BW 100 kHz M PA PA	lode Auto Sweep				M1[1] 2	0 1Pk Max -50.56 dBm 11369000 GHz



Lower Channel:

MultiView 👛 Spectrum	X Spectrum 2 X Spectr	rum 3 ×	•
Ref Level 10.00 dBm Offset 10.			
Att 15 dB SWT 1.1 1 Frequency Sweep	12 ms VBW 100 kHz Mode Auto Sweep		o1Pk Max
Limit Check	PASS		M1[1] -49.59 dBm
Line US DECT OUT-OF-BAND	PASS		2.30584000 GHz
0 dBm			
-10 dBm			
-20 dBm			
-30 dBm			
JS4968POUT-OF-BAND			
	N	in the second	
-50 dBm	`````````````````````````````````		
	m	WM	
-60 dBm		www.wy	
-70 dBm			
man	mannah	Jun marine marine and	marran man
-80 dBm			
CF 2.30585 GHz	1001 pts	1.0 MHz/	Span 10.0 MHz
		Moacuring	11.11.2019
MultiView Spectrum	X Spectrum 2 X Spectr	• Measuring	11.11.2019 15:17:31
MultiView Spectrum Ref Level 10.00 dBm Offset 10. Att 15 dB SWT 1.1		rum 3 X	↓ 11.1.2019 15:17:31
Ref Level 10.00 dBm Offset 10. Att 15 dB SWT 1.1 Frequency Sweep	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweet	rum 3 X	0.1Pk Max
Ref Level 10.00 dBm Offset 10. Att 15 dB SWT 1.1 I Frequency Sweep Limit Chelak I	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10. Att 15 dB SWT 1.1 I Frequency Sweep Limit Check Line US DECT OUT-OF-BAND	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweet	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10. Att 15 dB SWT 1.1 I Frequency Sweep Limit Check Line US DECT OUT-OF-BAND	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.00 Att 15 dB SWT 1.1 1 Frequency Sweep Limit Chesk Lime US DECT OUT-OF-BAND 0 dBm 0 0	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.00 Att 15 dB SWT 1.1 1 Frequency Sweep Limit Chesk Lime US DECT OUT-OF-BAND 0 dBm 0 0	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.0 Att 15 dB SWT 1.1 I Frequency Sweep Limit Chesk Lime US DECT OUT-OF-BAND 0 dBm -10 dBm -10 dBm	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.0 Att 15 dB SWT 1.1 I Frequency Sweep Limit Chesk Lime US DECT OUT-OF-BAND 0 dBm -10 dBm -10 dBm	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.0 Att 15 dB SWT 1.1 I Frequency Sweep Limit Chesk Line US DECT OUT-OF-BAND 0 dBm -10 dBm -20 dBm	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.0 Att 15 dB SWT 1.1 I Frequency Sweep Limit Chesk Line US DECT OUT-OF-BAND 0 dBm -10 dBm -20 dBm	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.4 Att 15 dB SWT 1.1 1 Frequency Sweep Limit Chelk Line US DECT OUT-OF-BAND 0 dBm 0 dBm -10 dBm -20 dBm -30 dBm	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.4 Att 15 dB SWT 1.1 1 Frequency Sweep Limit Chelk Line US DECT OUT-OF-BAND 0 dBm 0 dBm -10 dBm -20 dBm -30 dBm	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.4 Att 15 dB SWT 1.1 1 Frequency Sweep Limit Chelk Line US DECT OUT-OF-BAND 0 dBm 0 dBm -10 dBm -20 dBm -30 dBm	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10. Att 15 dB SWT 1.1 I Frequency Sweep Limit Chelsk I	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.0 Att 15 dB SWT 1.1 1 Frequency Sweep Limit Chelk Lime US DECT OUT-OF-BAND 0 0 dBm -0 -0 -0 -0 -0 -20 dBm -30 dBm -0 -0 -0 -0	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	0 1Pk Max
Ref Level 10.00 dBm Offset 10.0 Att 15 dB SWT 1.1 1 Frequency Sweep Limit Chelk Lime US DECT OUT-OF-BAND 0 0 dBm -0 -0 -0 -0 -0 -20 dBm -30 dBm -0 -0 -0 -0	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.0 Att 15 dB SWT 1.1 I Frequency Sweep Limit Che3k Limit Che3k Lime US DECT OUT-OF-BAND 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -50 dBm -50 dBm -50 dBm -50 dBm	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sween PASS PASS I I I I I I I I I I I I I I I I I I I	rum 3 X	• 15:17:31 • 0 1Pk Max • M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.0 Att 15 dB SWT 1.1 I Frequency Sweep Limit Chesk Line US DECT OUT-OF-BAND 0 0 dBm -0 dBm -0 -0 -20 dBm -0 -0 -0 -0 -30 dBm -0 -0 -0 -0 -50 dBm -0 -0 -0 -0	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS PASS	rum 3 X	0 1Pk Max M1[1] -59.75 dBm
Ref Level 10.00 dBm Offset 10.0 Att 15 dB SWT 1.1 I Frequency Sweep Limit Che3k Limit Che3k Lime US DECT OUT-OF-BAND 0 dBm -0 dBm - - - -20 dBm - - - - -30 dBm - - - - -50 dBm - - - - -60 dBm - - - -	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sween PASS PASS I I I I I I I I I I I I I I I I I I I	rum 3 X	0 1Pk Max M1[1] -59.75 dBm 2.88231000 GHz
Ref Level 10.00 dBm Offset 10.0 Att 15 dB SWT 1.1 I Frequency Sweep Limit Chesk Line US DECT OUT-OF-BAND 0 0 dBm -0 dBm -0 -0 -20 dBm -0 -0 -0 -0 -30 dBm -0 -0 -0 -0 -50 dBm -0 -0 -0 -0	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS PASS	rum 3 X	0 1Pk Max M1[1] -59.75 dBm 2.88231000 GHz
Ref Level 10.00 dBm Offset 10.0 Att 15 dB SWT 1.1 I Frequency Sweep Limit Chesk Lime US DECT OUT-OF-BAND 0 dBm -10 dBm	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS PASS	rum 3 X	0 1Pk Max M1[1] -59.75 dBm 2.88231000 GHz
Ref Level 10.00 dBm Offset 10. Att 15 dB SWT 1.1 I Frequency Sweep Limit Chesk Line US DECT OUT-OF-BAND 0 0 dBm -0 dBm -0 -0 -20 dBm -0 -0 -0 -0 -30 dBm -0 -0 -0 -0 -50 dBm -0 -0 -0 -0 -60 dBm -0 -0 -0 -0	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS PASS 	rum 3 X	0 1Pk Max M1[1] -59.75 dBm 2.88231000 GHz
Ref Level 10.00 dBm Offset 10.0 Att 15 dB SWT 1.1 Frequency Sweep Limit Che 5k Limit Che 5k Limit Che 5k Lime US DECT OUT-OF-BAND 0 dBm 0 0 dBm 0 -10 dBm	40 dB • RBW 30 kHz 12 ms VBW 100 kHz Mode Auto Sweep PASS PASS	rum 3 X	



Lower Channel:

MultiView	Spectru	m ×	Spectrum 2	× Spectr	um 3	×			-
Ref Level 10.	00 dBm Offe	set 10.40 dB	• RBW 30 kHz			_			
Att	15 dB SW	T 1.12 ms	VBW 100 kHz I	Node Auto Sweep	1				
1 Frequency S	weep								o1Pk Max
Limit Che				ASS				M1[1]	-57.58 dBm
Line US D	ECT OUT-OF-I	BAND	P	ASS				3.	84308000 GHz
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm									
30 0011									
USPERMOUT-OF-E	AND								
-50 dBm									
				M	1				
-60 dBm				man man	MML M				
-70 dBm North March North	manner	mmmmm	manna	* √	- W W	manthing	im Mognor	monowow	mmmm
-80 dBm		_							
CF 3.84308 GH	lz		1001 p	ts	1	L.0 MHz/	1	۱ ٤	Span 10.0 MHz
	7						Measuring		# 11.11.2019 15:18:40

Middle Channel:

Frequency Sweep							O1Pk Max
Limit Check	PA					M1[1]	-55.23 dB
Line US DECT OUT-OF-BAND	PA	SS				1.	54000000 GI
dBm							
0 dBm							
0 dBm							
o ubin							
D dBm							
BEEM OUT-OF-BAND							
0 dBm							
0 dBm							
			Ŵ				
		A.V.	MA				
0 dBm	more and and and and	North I	hundra	many	manna	mmmmmm	mm
0 dBm							



Middle Channel:

MultiView			m 2 🗙	Spectrum 3	× Spectru	um 4 🛛 🗙	l		•
Ref Level 10 Att	.00 dBm Offse 15 dB SWT		3W 30 kHz 3W 100 kHz M	Inde Auto Sween					
1 Frequency S									o1Pk Max
Limit Che	ck			SS				M1[1]	-50.29 dBm
Line US D	ECT OUT-OF-BA	ND	PA	ss				2.	11749000 GHz
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm									
-40 d8m									
USTREET OUT-OF-	BAND			IV	1				
-50 dBm									
-60 dBm				A//	М				
co abiii				M	1 V.M				
-70 dBm	mmmmm	munun	mmMM	hur	hvu	month.	monorm	mannon	Munhung
-80 dBm									
CF 2.11749 G	lz	I	1001 pt	S	1	.0 MHz/	I	5	pan 10.0 MHz
	~					7	Measuring		11.11.2019 15:22:40

MultiView Spectrum 🗙 Spectrur	m 2 X Spectrum 3	X Spectrum 4 X		-
RefLevel 10.00 dBm Offset 10.40 dB • RE	3W 30 kHz			
● Att 15 dB SWT 1.12 ms VB	3W 100 kHz Mode Auto Swee	.b		
1 Frequency Sweep				o1Pk Max
Limit Check Line US DECT OUT-OF-BAND	PASS PASS		M1[1]	-49.53 dBm
	1,700		2	2.30999000 GHz
0 dBm				
-10 dBm				
-20 dBm				
20 0011				
-30 dBm				
US DEEM OUT-OF-BAND				
-50 dBm				
-30 46/1	0.0	1.		
		Alan .		
-60 dBm	M Y	W VWA		
	/ V			
-70 dBm	an all all			
-70 dBm	a survey and the second	man harmon war	mmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmmm	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
-80 dBm				
-00 ubiii				
CF 2.30999 GHz	1001 pts	1.0 MHz/		Span 10.0 MHz
v		7	Measuring	11.11.2019 15:23:28



Att	15 dB SWT								
Frequency S									●1Pk Ma
Limit Che	ck ECT OUT-OF-BA	ND	PA PA					M1[1]	-60.66 dB
dBm				00				2	.88749000 GI
ubiii									
LO dBm									
20 dBm									
30 dBm									
DEEP OUT-OF-E	AND								
0 dBm									
				h	1				
0 dBm					*				
				m.M	IA A				
O dBm	manna	moundman	. a. h a A		K. MMAL	M	A market A	mannam	he as no an-
an manner and a	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	he was we we we	- marcher contr	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		the control at the a		An Charles	
0 dBm									
- 2.88749 GF			1001						
	▼ Spectrum	× Spectru		s Spectrum 3	X Spectr	_	• Measuring		11.11.20
	Spectrum 00 dBm Offse	t 10.40 dB 🖷 RE	m 2 🗙 1	Spectrum 3	× Spectr	_	_		Span 10.0 Mł
Ref Level 10. Att Frequency S	Spectrum 00 dBm Offse 15 dB SWT weep		m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 I ode Auto Sweep	× Spectr	_	_		•••• 11.11.20 15:24: 0 1Pk Ma
Ref Level 10. Att Frequency S Limit Che	Spectrum 00 dBm Offse 15 dB SWT weep sk	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 dE
Ref Level 10. Att Frequency S Limit Che Line US D	Spectrum 00 dBm Offse 15 dB SWT weep	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 df
Ref Level 10. Att Frequency S Limit Che Line US D	Spectrum 00 dBm Offse 15 dB SWT weep sk	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 di
Ref Level 10. Att Frequency S Limit Che Line US D	Spectrum 00 dBm Offse 15 dB SWT weep sk	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 di
Ref Level 10. Att Frequency S Limit Che Line US D dBm	Spectrum 00 dBm Offse 15 dB SWT weep sk	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 df
Ref Level 10. Att Frequency S Limit Che Line US D dBm	Spectrum 00 dBm Offse 15 dB SWT weep sk	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 di
Ref Level 10. Att Frequency S Limit Che Line US D /Bm	Spectrum 00 dBm Offse 15 dB SWT weep sk	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 di
Ref Level 10. Att Frequency S Limit Che Line US D J&Bm 0 dBm 0 dBm	Spectrum 00 dBm Offse 15 dB SWT weep sk	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 di
Ref Level 10. Att Frequency S Limit Che Line US D J&Bm 0 dBm 0 dBm	Spectrum 00 dBm Offse 15 dB SWT weep sk	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 di
Ref Level 10. Att Frequency S Limit Che Line US D J&Bm 0 dBm 0 dBm 0 dBm	Spectrum 00 dBm Offse 15 dB SWT weep 5k ECT OUT-OF-BA	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 di
Ref Level 10. Att Frequency S Limit Che Line US D JBm 0 dBm 0 dBm 0 dBm	Spectrum 00 dBm Offse 15 dB SWT weep 5k ECT OUT-OF-BA	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 df
Ref Level 10. Att Frequency S Limit Che Line US D dBm 0 dBm 0 dBm 0 dBm	Spectrum 00 dBm Offse 15 dB SWT weep 5k ECT OUT-OF-BA	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 dE
Ref Level 10. Att Frequency S Limit Che Line US D dBm 0 dBm 0 dBm 0 dBm	Spectrum 00 dBm Offse 15 dB SWT weep 5k ECT OUT-OF-BA	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 dE
Ref Level 10. Att Frequency S Limit Chei Line US D dBm 10 dBm 20 dBm 30 dBm 90 dBm 50 dBm	Spectrum 00 dBm Offse 15 dB SWT weep 5k ECT OUT-OF-BA	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 dE
Ref Level 10. Att Frequency S Limit Chei Line US D dBm .0 dBm	Spectrum 00 dBm Offse 15 dB SWT weep 5k ECT OUT-OF-BA	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 dE
Ref Level 10. Att Frequency S Limit Chei Line US D dBm .0 dBm	Spectrum 00 dBm Offse 15 dB SWT weep 5k ECT OUT-OF-BA	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_	_	M1[1]	•••• 11.11.20 15:24: 0 1Pk Ma -57.21 dE
Ref Level 10. Att Frequency S Limit Che Line US D dBm 0 dBm 0 dBm 0 dBm 0 dBm 0 dBm 0 dBm 0 dBm	Spectrum 00 dBm Offse 15 dB SWT weep 5k ECT OUT-OF-BA	t 10.40 dB • RE 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	_		M1[1]	• 11.11.20 • 12.24: • 12
Ref Level 10. Att Frequency S Limit Che Line US D dBm 0 dBm 0 dBm 0 dBm 9 gEPTOUT-OF-E	Spectrum 00 dBm Offse 15 dB SWT weep 5k ECT OUT-OF-BA	t 10.40 dB • Re 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	um 4		M1[1] 3	• 11.11.20 15:24: • 1Pk Ma -57.21 dE 84999000 G
Ref Level 10. Att Frequency S Limit Che Line US D dBm 0 dBm 0 dBm 0 dBm 9 dBm 0 dBm 0 dBm	Spectrum 00 dBm Offse 15 dB SWT weep 5k ECT OUT-OF-BA	t 10.40 dB • Re 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	um 4		M1[1] 3	• 11.11.20 • 12.4: • 12.4:
Ref Level 10. Att Frequency S Limit Che Limit Che Limit Che Limit Che All Che	Spectrum 00 dBm Offse 15 dB SWT weep 5k ECT OUT-OF-BA	t 10.40 dB • Re 1.12 ms VE	m 2 X 3W 30 kHz 3W 100 kHz M	Spectrum 3 Iode Auto Sweep SS	× Spectr	um 4		M1[1] 3	• 11.11.20 15:24: • 1Pk Ma -57.21 dE 84999000 G



MultiView 🎴	Spectrum	× Spectrum 2	2	Spectrum 3	× Spectr	um 4 🗙			-
		t 10.40 dB 🖷 RBW							
Att 1 Frequency S		1.12 ms VBW	100 kHz M	ode Auto Sweep)				●1Pk Max
Limit Che	ck	ND	PA					M1[1]	-55.09 dBm
	ECT OUT-OF-BA	IND	PA	55				1	.54276000 GHz
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm									
STREET OUT-OF-	BAND								
-50 dBm				Ν	1				
-60 dBm				M	WY				
				, N	M.				
-70 dBm	mmm	ne a adate o command	Amon a Ame	~ M	- There	mount	Maria Maria	mannon	ManManMan
1.		amon a stan more a s]	1
-80 dBm									
CF 1.54276 GI	-lz		1001 pts	6	1	0 MHz/			J Span 10.0 MHz
							Measuring		11.11.2019
MultiView 💻	Spectrum	× Spectrum 2	2 ×	Spectrum 3	× Spectr	_			15:27:08
RefLevel 10	.00 dBm Offse	X Spectrum 2 t 10.40 dB ● RBW 1.12 ms VBW	30 kHz		_	_			15:27:08
Ref Level 10 Att Frequency S	.00 dBm Offse 15 dB SWT weep	t 10.40 dB • RBW	30 kHz 100 kHz M	ode Auto Sweep	_	_			o 1Pk Max
Ref Level 10 Att Frequency S Limit Che	15 dB Offse 15 dB SWT Sweep	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	0 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Line US E	.00 dBm Offse 15 dB SWT weep	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	• 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Line US E	15 dB Offse 15 dB SWT Sweep	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	• 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Line US D dBm	15 dB Offse 15 dB SWT Sweep	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	• 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Line US D dBm	15 dB Offse 15 dB SWT Sweep	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	• 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Line US D dBm 10 dBm	15 dB Offse 15 dB SWT Sweep	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	• 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Line US D dBm -10 dBm	15 dB Offse 15 dB SWT Sweep	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	• 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm	15 dB Offse 15 dB SWT Sweep	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	• 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm	15 dB Offse 15 dB SWT Sweep	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	0 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm -30 dBm	.00 dBm Offse 15 dB SWT weep sk ECT OUT-OF-BA	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	0 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm -30 dBm	.00 dBm Offse 15 dB SWT weep sk ECT OUT-OF-BA	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	o 1Pk Max
RefLevel 10 Att Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm	.00 dBm Offse 15 dB SWT weep sk ECT OUT-OF-BA	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	• 1Pk Max -50.31 dBm
RefLevel 10 Att Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm	.00 dBm Offse 15 dB SWT weep sk ECT OUT-OF-BA	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS		_		M1[1]	• 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm	.00 dBm Offse 15 dB SWT weep sk ECT OUT-OF-BA	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS	_	_		M1[1]	0 1Pk Max -50.31 dBm
RefLevel 10 Att Frequency S Limit Che Line US D d dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm	.00 dBm Offse 15 dB SWT weep sk ECT OUT-OF-BA	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M	ode Auto Sweep SS SS		_		M1[1]	0 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Limit Che Line US D dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -50 dBm -60 dBm	AND	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M PA PA	ode Auto Sweep		um 4 ×		M1[1] 2	0 1Pk Max -50.31 dBm 12129000 GHz
Ref Level 10 Att Frequency S Limit Che Limit Che Limit Che 10 dBm -10 dBm -20 dBm -30 dBm -50 dBm -50 dBm -60 dBm	AND	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M PA PA	ode Auto Sweep		um 4 ×		M1[1] 2	0 1Pk Max -50.31 dBm
Ref Level 10 Att Frequency S Limit Che Limit Che Line US E 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -60 dBm -70 dBm	AND	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M PA PA	ode Auto Sweep		um 4 ×		M1[1] 2	0 1Pk Max -50.31 dBm 12129000 GHz
Ref Level 10 Att Frequency S Limit Che Limit Che Line US E 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -60 dBm -70, dBm	AND	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M PA PA	ode Auto Sweep		um 4 ×		M1[1] 2	0 1Pk Max -50.31 dBm 12129000 GHz
Ref Level 10 Att Frequency S Limit Che Limit Che Line US D 0 dBm -10 dBm -20 dBm -30 dBm -30 dBm -50 dBm -60 dBm -70 dBm -80 dBm	AND	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M PA PA	ode Auto Sweep		um 4		M1[1] 2	• 1Pk Max -50.31 dBm 12129000 GHz
Att Frequency S Limit Che Line US E 0 dBm	AND	t 10.40 dB • RBW 1.12 ms VBW	30 kHz 100 kHz M PA PA	ode Auto Sweep		um 4		M1[1] 2	0 1Pk Max -50.31 dBm 12129000 GHz



	m Offset 10.40 dB 🖷 🖡			
		/BW 100 kHz Mode Auto Swee		o 1Pk Max
Limit Check		PASS		M1[1] -49.75 dBm
Line US DECT C	UT-OF-BAND	PASS		2.31414000 GHz
) dBm				
-10 dBm				
10 000				
-20 dBm				
-30 dBm				
co abiii				
SBEEP OUT-OF-BAND				
			41	
-50 dBm				
		- MM	When	
-60 dBm		- P		
70 dBm	mannon			
mmmmmm	mannam	- Markan Markan	and a second	montantimation
-80 dBm				
CF 2.31414 GHz		1001 pts	1.0 MHz/	Span 10.0 MHz
, 2,31414 GHZ		1001 pts		Measuring
MultiView Spec	trum 🗙 Spectr			
	m Offset 10.40 dB 🖷 F		X Spectrum 4	
Att 15 d	m Offset 10.40 dB ● F dB SWT 1.12 ms V			
Att 15 of Frequency Sweep	m Offset 10.40 dB ● F dB SWT 1.12 ms V	RBW 30 kHz /BW 100 kHz Mode Auto Swee		• 01Pk Max
Att 15 c	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Chesk Line US DECT C	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz /BW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Chesk Line US DECT C	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz /BW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Check Line US DECT C	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz /BW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Check Line US DECT C	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz /BW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Check Line US DECT C	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz /BW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Check Line US DECT C dBm 10 dBm	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz /BW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Check Line US DECT C dBm 10 dBm	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz /BW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Check Line US DECT C dBm 10 dBm 20 dBm	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz /BW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Check Line US DECT C dBm 10 dBm 20 dBm	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz JBW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Check Line US DECT C dBm 10 dBm 20 dBm	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz JBW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Check Line US DECT C dBm 10 dBm 20 dBm 30 dBm	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz JBW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Check Line US DECT C dBm 10 dBm 20 dBm 30 dBm	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz JBW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 of Frequency Sweep Limit Chesk Line US DECT C dBm 10 dBm 20 dBm 30 dBm 30 dBm	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz JBW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 of Frequency Sweep Limit Cheik Line US DECT C 0 dBm 10 dBm 20 dBm 30 dBm 30 dBm	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz JBW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Check	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz JBW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 of Frequency Sweep Limit Cheik Line US DECT C 0 dBm 10 dBm 20 dBm 30 dBm 30 dBm	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz JBW 100 kHz Mode Auto Swee PASS		M1[1] -60.73 dBm
Att 15 c Frequency Sweep Limit Check Line US DECT C 0 dBm 10 dBm 20 dBm 30 dBm 30 dBm 50 dBm	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz Mode Auto Sweet		M1[1] -60.73 dBm
Att 15 of Frequency Sweep Limit Check Lime US DECT C dBm 10 dBm 20 dBm 30 dBm 30 dBm 50 dBm 50 dBm 60 dBm 50 dBm	m Offset 10.40 dB • F B SWT 1.12 ms V UT-OF-BAND	RBW 30 kHz Mode Auto Sweet		M1[1] -60.73 dBm 2.89267000 GHz
Att 15 of Frequency Sweep Limit Check Lime US DECT C dBm 10 dBm 20 dBm 30 dBm 30 dBm 50 dBm 50 dBm 60 dBm 70 dBm	m Offset 10.40 dB • F dB SWT 1.12 ms N	RBW 30 kHz Mode Auto Sweet		M1[1] -60.73 dBm 2.89267000 GHz
Att 15 of Frequency Sweep Limit Check Lime US DECT C dBm 10 dBm 20 dBm 30 dBm 30 dBm 50 dBm 50 dBm 60 dBm 70 dBm	m Offset 10.40 dB • F B SWT 1.12 ms V UT-OF-BAND	RBW 30 kHz Mode Auto Sweet		M1[1] -60.73 dBm 2.89267000 GHz
Att 15 of Frequency Sweep Limit Check Lime US DECT C dBm 10 dBm 20 dBm 30 dBm 30 dBm 50 dBm 50 dBm 60 dBm 50 dBm	m Offset 10.40 dB • F B SWT 1.12 ms V UT-OF-BAND	RBW 30 kHz Mode Auto Sweet		M1[1] -60.73 dBm 2.89267000 GHz
Att 15 of Frequency Sweep Limit Check Lime US DECT C dBm 10 dBm 20 dBm 30 dBm 30 dBm 50 dBm 50 dBm 60 dBm 60 dBm	m Offset 10.40 dB • F B SWT 1.12 ms V UT-OF-BAND	RBW 30 kHz Mode Auto Sweet		M1[1] -60.73 dBm 2.89267000 GHz
Att 15 of Frequency Sweep Limit Check Lime US DECT C dBm 10 dBm 20 dBm 30 dBm 30 dBm 50 dBm 50 dBm 60 dBm 60 dBm	m Offset 10.40 dB • F B SWT 1.12 ms V UT-OF-BAND	RBW 30 kHz Mode Auto Sweet		M1[1] -60.73 dBm 2.89267000 GHz

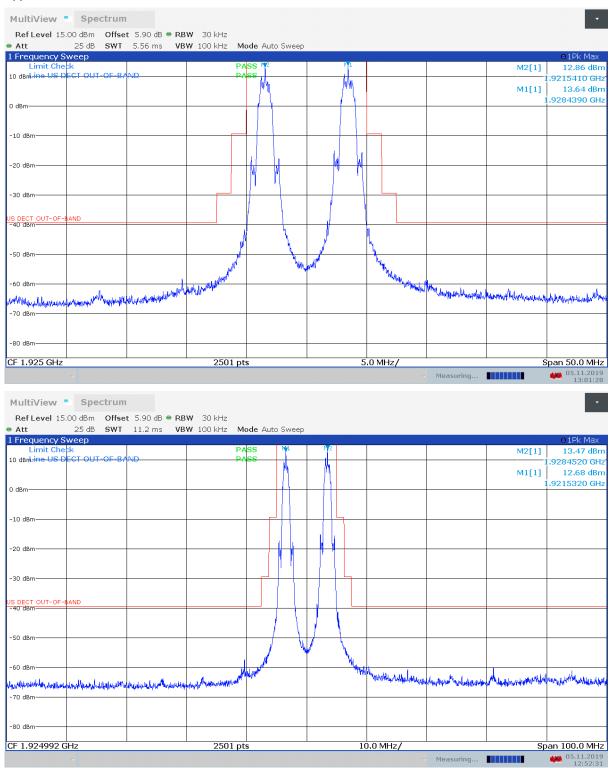


	2 ms VBW 100 kHz M	ode Auto Sweep					
Frequency Sweep Limit Check	PA	20				N14543	O1Pk Max
Line US DECT OUT-OF-BAND	PA					M1[1]	-57,42 dBr 85690000 GH
) dBm							55690000 GH
10 dBm							
20 dBm							
30 dBm							
SEEP OUT-OF-BAND							
50 dBm							
60 dBm			. <u>/</u>				
70_dBm		and from	Muy ha	mohum			
10 abm	man march and m		~	whomen	wwwwwwww	man www	annan an a
80 dBm							
CF 3.85691 GHz	1001 pts		1	.0 MHz/		c	pan 10.0 M



Out-of-Band Emissions, Conducted, Radio Part 1+2 at same time

Upper and Lower Channel:





3.8 Carrier Frequency Stability

Test Method:

ANSI C63.17, clause 6.2.1.

Test Results: Complies

Measurement Data:

Long Term Frequency Stability is measured with the HP53310A Modulation Domain analyzer. The HP53310A is logged by a computer programmed to get new readings as fast as possible over the noted time period or number of readings. The peak-to-peak difference was recorded and the mean value and deviation in ppm was calculated.

The Carrier Frequency Stability over Power Supply Voltage and over Temperature is measured with a Frequency Domain Analyzer in histogram mode.

Carrier Frequency Stability over Time at Nominal Temperature

Average Mean Carrier	Max. Diff.	Min. Diff.	Max. Dev.	Limit
Frequency (MHz)	(kHz)	(kHz)	(ppm)	
1925.003708	15.571	7.819	-2.0	±10 ppm

Deviation ppm = ((Diff. - Mean Diff) / Mean Carrier Freq.) x 10⁶

Deviation (ppm) is calculated from 3000 readings.

Frequency Stability over Power Supply Voltage at Nominal Temperature

Voltage	Measured Carrier Frequency (MHz)	Difference (kHz)	Deviation (ppm)	Limit
V _{nom}	1924.9986	0	0	
85% of V _{nom}	1924.9986	0.0	0.0	±10 ppm
115% of V _{nom}	1924.9986	0.0	0.0	

Deviation ppm = ((Mean – Measured Frequency) / Mean) x 10⁶

Frequency Stability over Temperature

Temperature	Measured Carrier Frequency (MHz)	Difference (kHz)	Deviation (ppm)	Limit
T = +20 °C	1924.9986	0	0	
T = -20 °C	1924.9986	0.0	0.0	±10 ppm
T = +50 °C	1924.9953	-3.3	-1.7	

Deviation ppm = ((Mean – Measured Frequency) / Mean) x 10⁶

Ref. FCC 15.323(e), RSS-213 Issue 3, clause 5.3



3.9 Frame Repetition Stability

Test Method:

ANSI C63.17, clause 6.2.2.

Test Results: Complies

Measurement Data:

The envelope of the RF signal from the EUT is detected with a Crystal Detector and the mean and standard deviation of the frame repetition frequency is then gated over 100 frames and measured with a Frequency Domain Analyzer. The frame repetition stability is 3 times the standard deviation.

Carrier Frequency	Mean	Standard Deviation (µHz)	Frame Repetition
(MHz)	(Hz)		Stability (ppm)
1924.992	100.000	0.841	0.025

Limit:

Frame Repetition Stability	±10 ppm (TDMA)
----------------------------	----------------

Ref. FCC 15.323(e), RSS-213 Issue 3, clause 5.2

3.10 Frame Period and Jitter

Test Method:

ANSI C63.17, clause 6.2.3.

Test Results: Complies

Measurement Data:

The envelope of the RF signal from the EUT is detected with a Crystal Detector and the frame period and jitter is measured with a Frequency Domain Analyzer over at least 100.000 frames.

Carrier Frequency	Frame Period	Max Jitter	3xStandard Deviation of
(MHz)	(ms)	(µs)	Jitter (μs)
1924.992	10.000	-0.031	

Max Jitter = (1/ (Frame period + Pk-Pk/2)) - (1/Frame Period), when Pk-Pk and Frame Period are in Hz

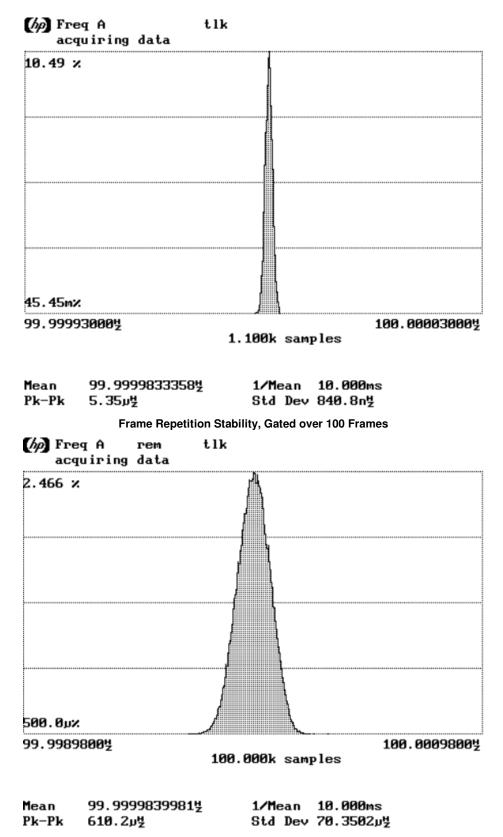
3xSt.Dev.Jitter = 3x (1/(Frame Period + St.Dev) - 1/St.Dev) x 10⁶

Limit:

Frame Period	20 or 10 ms
Max Jitter	25 μs
3 times St.Dev of Jitter	12.5 µs

Ref. FCC 15.323(e), RSS-213 Issue 3, clause 5.2





Frame Period and Jitter



3.11 Monitoring Threshold, Least Interfered Channel

Monitoring Threshold Limits:

Threshold Level:

 $T_L = -174 + 10 \log B + 30 + P_{MAX} - P_{EUT} (dBm)$

B is measured Emission Bandwidth (FCC 15.323) or Occupied Bandwidth (RSS-213 Issue 3) in Hz P_{MAX} is the power limit in dBm

 $\mathsf{P}_{\mathsf{EUT}}$ is measured Transmitter Power in dBm

Calculated values:

	FCC 15.323, RSS-213 Issue 3, clause 5.2
Threshold Level (FCC 15.323)	-76.9 dBm
Threshold Level (RSS-213 Issue 3)	-77.8 dBm

Least Interfered Channel Procedure (LIC) may only be used by systems with more than 20 duplex system access channels. Systems with less than 20 duplex system access channels are not allowed to transmit when interferer level is above Threshold Level.

Measurement Procedure:

Test only when Least Interfered Channel Procedure is NOT used:		
Lower Threshold	N/A	The EUT uses LIC procedure

Least Interfered Channel (LIC) Procedure Test, FCC 15.323(b), (c)(2) and (c)(5)

ANSI C63.17 clause 7.3.2 ref.	Observation	Verdict
b) f_1 at T _L + U _M + 7 dB, f_2 at T _L + U _M	Transmission always on f2	Pass
c) f_1 at T _L + U _M , f_2 at T _L + U _M +7 dB	Transmission always on f_l	Pass
d) f_1 at $T_L + U_M + 1$ dB, f_2 at $T_L + U_M - 6$ dB	Transmission always on f2	Pass
e) f_1 at T _L + U _M - 6 dB, f_2 at T _L + U _M + 1 dB	Transmission always on f_l	Pass

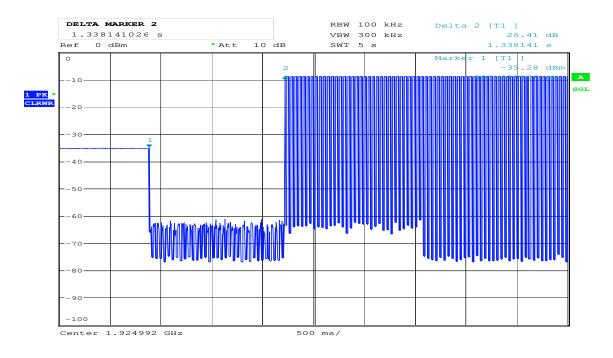


Selected Channel Confirmation, FCC 15.323(c)(1) and (5)

ANSI C63.17 clause 7.3.3	Observation	Verdict
b) Shall not transmit on <i>f</i> ₁	EUT transmits on f2	Pass
d) Shall not transmit on f_2	EUT transmits on <i>f</i> ₁	Pass

Limits:

	FCC 15.323, RSS-213 Issue 3, clause 5.2
Threshold Level + 6 dB margin (FCC 15.323)	-70.9 dBm
Threshold Level + 6 dB margin (RSS-213 Issue 3)	-71.8 dBm



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7.3.4 Selected Channel Confirmation, Connection >s After Interferer Removed



3.12 Threshold Monitoring Bandwidth

This test is only required if a dedicated monitoring receiver is used. However, if the test is not carried out the manufacturer shall declare and provide proper evidence that the monitoring is made through the radio receiver used for communication.

Measurement Procedure:

Simple Compliance Test, ANSI C63.17, clause 7.4.1

More Detailed Test, ANSI C63.17, clause 7.4.2

The test is passed if either the Simple Compliance Test or the More Detailed test is passed.

During this test the spectrum analyzer is observed visually to see if the EUT transmits or not.

Test Results:

Test performed	Observation	Verdict
Simple Compliance test, at $\pm 30\%$ of B	N/A	N/A
More Detailed Test, at -6 dB points	N/A	N/A
More Detailed Test, at -12 dB points	N/A	N/A

The more detailed test must be pass at both the -6 and -12 dB points if the Simple Compliance test fails.

Comment: The manufacturer declares that the tested EUT uses the same receiver for monitoring and communication, this test is therefore not required.

Limits, FCC 15.323(c)(7), RSS-213 Issue 3, clause 5.2:

The monitoring system bandwidth must be equal to or greater than the emission bandwidth of the intended transmission.



3.13 Reaction Time and Monitoring Interval

Measurement Procedure

ANSI C63.17, clause 7.5

Test results:

By administrative commands and out-of-operating region interference, the EUT is restricted to operate on two RF carrier frequencies.

A CW interferer signal at a level T_L is applied on f_1 and time-synchronized pulsed interference at a level $T_L + U_M dB$ is applied on f_2 . The level on f_2 was raised 6 dB for part d) with 35 µs pulses.

The pulses are synchronized with the EUT timeslots and applied centered within all timeslots.

For both tests the test is passed if the EUT transmits on f_l .

Pulse Width, ref. to ANSI C63.17 clause 7.5	Observation	Verdict
c) > largest of 50 μ s and 50*SQRT(1.25/ <i>B</i>)	EUT transmits on f_I	Pass
 d) > largest of 35 µs and 35*SQRT(1.25/B), and with interference level raised 6 dB 	EUT transmits on f_i	Pass

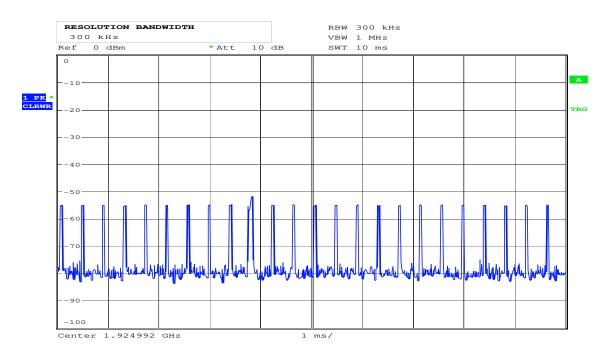
Comment: The test was performed with pulse lengths of 50 µs and 35 µs.

Limits, FCC 15.323(c)(1), (5) and (7), RSS-213 Issue 3, clause 5.2:

The maximum reaction time must be less than 50xSQRT (1.25/emission bandwidth in MHz) microseconds for signals at the applicable threshold level but shall not be required to be less than 50 μ s.

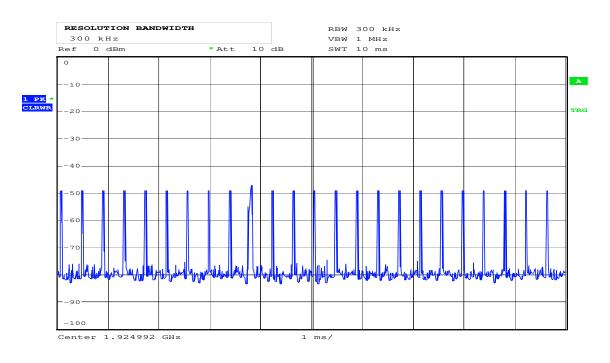
If a signal is detected that is 6 dB or more above the applicable threshold level, the maximum reaction time shall be 35xSQRT (1.25/emission bandwidth in MHz) microseconds but shall not be required to be less than 35 μ s.





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50 µs Pulses





35 µs Pulses



3.14 Time and Spectrum Window Access Procedure

This requirement is only for EUTs which transmit unacknowledged control and signaling information.

Measurement Procedure:

Timing for EUTs using control and signaling channel type transmissions: ANSI C63.17, clause 8.1

Test results:

Access Criteria, ref. to ANSI C63.17 clause 8.1.1	Observation	Verdict
b) Check that the EUT transmits on the interference free time- slot	EUT transmits on the interference free time-slot	Pass
b) The EUT must terminate or pause in its repetitive transmission of the control and signalling channel on the open channel to repeat the access criteria not less frequently than every 30 s	Transmission paused every 1.28 s	Pass

If FCC 15.323(c)(6) option, If Random Waiting Interval is NOT implemented

Access Criteria, ref. to ANSI C63.17 clause 8.1.2	Observation	Verdict
b) Check that the EUT changes to an interference-free slot when interference is introduced on the time slot in use	EUT changes to the interference-free time-slot, and stays there	Pass

If FCC 15.323(c)(6) option, Only if Random Waiting Interval is implemented

Access Criteria, ref. to ANSI C63.17 clause 8.1.3	Observation	Verdict
b-d) Check that the EUT uses random waiting interval before continuing transmission on an interfered time slot	N/A	N/A

Comment: The tested EUT does not support the Random Waiting Interval option.

Limits:

FCC 15.323(c)(4), RSS-213 Issue 3, clause 5.2, RSS-213 Issue 3, clause 5.2:

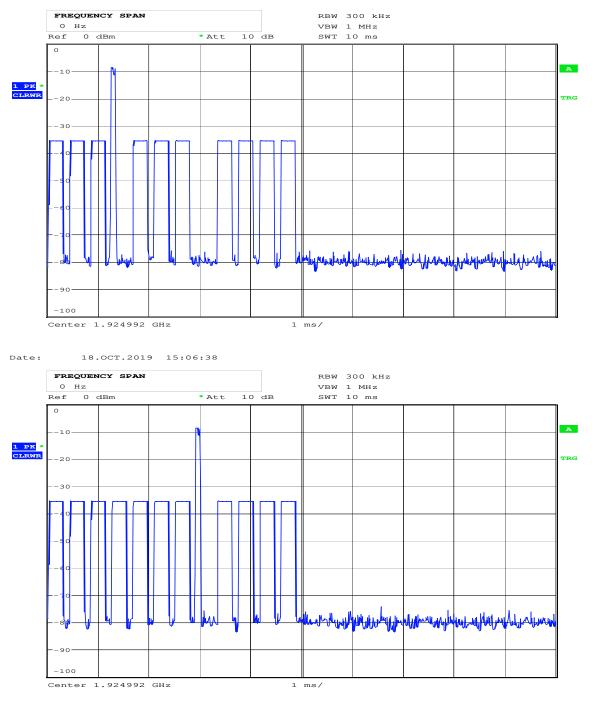
Once access to specific combined time and spectrum windows is obtained an acknowledgement from a system participant must be received by the initiating transmitter within one second or transmission must cease. Periodic acknowledgements must be received at least every 30 seconds or transmission must cease. Channels used exclusively for control and signaling information may transmit continuously for 30 seconds without receiving an acknowledgement, at which time the access criteria must be repeated.

FCC 15.323(c)(6), RSS-213 Issue 3, clause 5.2, RSS-213 Issue 3, clause 5.2:

If the selected combined time and spectrum windows are unavailable, the device may either monitor and select different windows or seek to use the same windows after waiting an amount of time, randomly chosen from a uniform random distribution between 10 and 150 milliseconds, commencing when the channel becomes available



Access Criteria

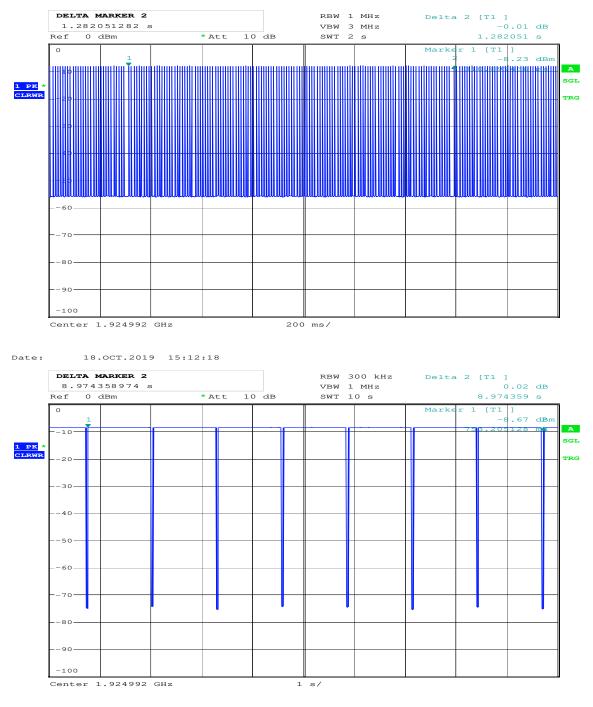


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8.1.2 Functional Test, Before and After



Access Criteria



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8.1.1 b) Access Criteria check Interval



3.15 Acknowledgements and Transmission Duration

Measurement Procedure:

Acknowledgements: ANSI C63.17, clause 8.2.1

Transmission Duration: ANSI C63.17, clause 8.2.2

During the test **Initial transmission without acknowledgements** the signal from the EUT to the companion device is blocked by circulators in addition to the tunable attenuator.

The test **Transmission time after loss of acknowledgements** is performed by cutting-off the signal from the companion device by a RF switch and measuring the time until the EUT stops transmitting.

The **Transmission Duration** test is performed by monitoring the slot in use and measuring the time until the EUT changes to a different slot.

Test Results:

Acknowledgements

Test ref. to ANSI C63.17 clause 8.2.1	Observation	Verdict
a) Initial transmission without acknowledgements	Not applicable for EUT that transmits control and signaling information	N/A
c) Transmission time after loss of acknowledgements	5.0 sec	Pass

Transmission Duration

Test ref. to ANSI C63.17 clause 8.2.2	Observation	Verdict
b) Transmission duration on same time and frequency window	Only for initiating device that controls which time slot is used	N/A

Comment: /

Limits, FCC 15.323(c)(3) and (4), RSS-213 Issue 3, clause 5.2:

Occupation of the same combined time and spectrum windows by a device or group of cooperating devices continuously over a period of time longer than 8 hours is not permitted without repeating the access criteria.

Once access to specific combined time and spectrum windows is obtained an acknowledgement from a system participant must be received by the initiating transmitter within one second or transmission must cease.

Periodic acknowledgements must be received at least every 30 seconds or transmission must cease. Channels used exclusively for control and signaling information may transmit continuously for 30 seconds without receiving an acknowledgement, at which time the access criteria must be repeated.



3.16 Dual Access Criteria Check

Measurement Procedure:

EUTs that does not implement the LIC procedure: ANSI C63.17, clause 8.3.1

EUTs that implement the LIC procedure: ANSI C63.17, clause 8.3.2

This test is required for equipment that uses the access criteria in FCC 15.323(c)(10).

Test Results:

EUTs that do NOT implements the LIC procedure:

Test ref. to ANSI C63.17 clause 8.3.1	Observation	Verdict
b) EUT is restricted to a single carrier <i>f</i> ^{<i>j</i>} for TDMA systems. The Test is Pass if EUT can transmit	N/A	N/A
c) d) Interference at level T_L + U_M on all timeslots except one $\textbf{receive}$ slot where interference is at least 10 dB below T_L	N/A	N/A
e) f) Interference at level $T_L + U_M$ on all timeslots except one transmit slot where interference is at least 10 dB below T_L	N/A	N/A

EUTs that implements the LIC procedure:

Test ref. to ANSI C63.17 clause 8.3.2	Observation	Verdict
b) EUT is restricted to a single carrier f_i for TDMA systems. The Test is Pass if EUT can transmit	0	
c) d) Transmission on interference-free receive time/spectrum window	N/A	N/A
e) f) Transmission on interference-free transmit time/spectrum window	N/A	N/A

Comment: This test is only applicable for EUT that can be initiating device.

Limits, FCC 15.323(c)(10), RSS-213 Issue 3, clause 5.2:

An initiating device may attempt to establish a duplex connection by monitoring both its intended transmit and receive time and spectrum windows. If both the intended transmit and receive time and spectrum windows meet the access criteria, then the initiating device can initiate a transmission in the intended transmit time and spectrum window. If the power detected by the responding device can be decoded as a duplex connection signal from the initiating device, then the responding device may immediately begin transmitting on the receive time and spectrum window monitored by the initiating device.



3.17 Alternative Monitoring Interval

Test procedure described in ANSI C63.17 clause 8.4.

This test is required if the EUT implements the provisions of FCC 15.323(c)(11).

Test result:

Not Tested. The tested EUT does not implement this provision. See manufacturers' declaration.



4 Measurement Uncertainty

Measurement Uncertainty Values		
Test Item	Uncertainty	
Output Power		±0.5 dB
Power Spectral Density		±0.5 dB
Out of Band Emissions, Conducted (RBW < 100 kHz)	< 3.6 GHz	±0.6 dB
	> 3.6 GHz	±0.9 dB
Spurious Emissions, Radiated	< 1 GHz	±2.5 dB
	> 1 GHz	±2.2 dB
Emission Bandwidth	±4 %	
Power Line Conducted Emissions		+2.9 / -4.1 dB
Spectrum Mask Measurements	Frequency	±5 %
	Amplitude	±1.0 dB
Frequency Error		±0.6 ppm
Timing and Jitter Measurements		±2.0 ns
Frame Timing Measurements	±1.4 ppm	
Receiver Blocking Levels		±1.0 dB
Temperature Uncertainty		±1 °C

All uncertainty values are expanded standard uncertainty to give a confidence level of 95%, based on coverage factor k=2



5 Test Setups

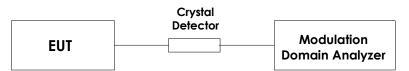
5.1 Frequency Measurements



Test Set-up 1

This setup is used for measuring Carrier frequency stability at normal and extreme temperatures.

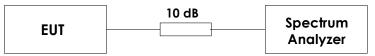
5.2 Timing Measurements



Test Set-up 2

This setup is used for measuring Frame repetition stability, Frame period and Jitter.

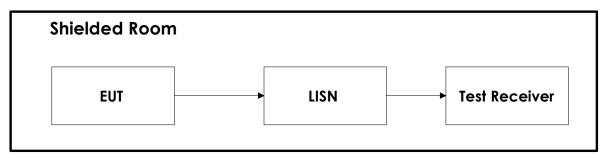
5.3 Conducted Emission Test



Test Set-up 3

This setup is used for all conducted emission tests.

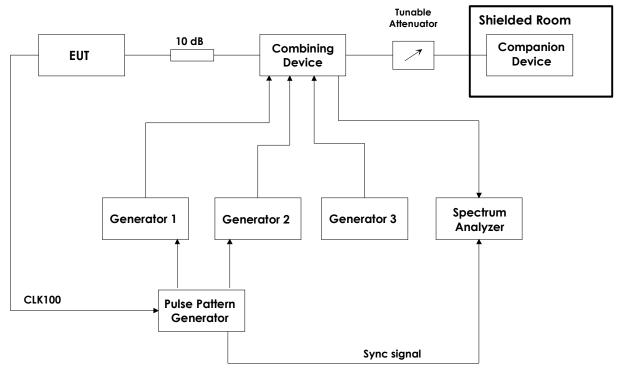
5.4 Power Line Conducted Emissions Test



Test Set-Up 5



5.5 Monitoring Tests



Test Set-Up 6

This test setup is used for all Monitoring and Time and Spectrum Access Procedure tests. The path loss from the signal generators to the EUT is measured with a power meter before the testing is started.

The CLK100 is used to synchronize the Pulse-/ Pattern generator to the start of the DECT frame, this signal always comes from the base station. If the EUT is a DECT Portable Part (i.e. a handset) the CLK100 signal will come from the Companion Device.

The sync signal to the Spectrum Analyzer is the CLK100 signal that is regenerated in the Pulse-/ Pattern Generator, this is used to synchronize the Spectrum Analyzer to the DECT frame when in zero span. The Pulse-/ Pattern Generator is used for tests that require time synchronized pulses or blocking of specific time slots.



6 Test Equipment Used

To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment and ancillaries are identified (numbered) by the testhouse.

No.	Model number	Description	Manufacturer	Ref. no.	Cal. date	Cal. Due
1	FSW43	Spectrum Analyzer	Rohde & Schwarz	LR 1690	2019.01	2020.01
2	SME03	Signal generator	Rohde & Schwarz	LR 1238	COU	
3	SMIQ03B	Signal generator	Rohde & Schwarz	LR 1516	COU	
4	SMHU52	Signal generator	Rohde & Schwarz	LR 1240	COU	
5	53310A	Modulation Domain Analyzer	Hewlett Packard	LR 1483	2018.03	2020.03
6	81110A	Pulse-/ Pattern Generator	Agilent	LR 1725	COU	
7	8470B	Crystal Detector	Hewlett Packard	LR 1207	N/A	
8	ESCI3	Measuring Receiver	Rohde & Schwarz	N-4259	2019.10	2020.10
9	6810.17B	Attenuator	Suhner	LR 1669	COU	
10	745-69	Step Attenuator	Narda	LR 1442	N/A	
11	WE 1506A	Power Splitter	Weinchel	LR 244	COU	
12	WE 1506A	Power Splitter	Weinchel	LR 245	COU	
13	H-9	Hybrid	Anzac	LR 86	COU	
14	H-9	Hybrid	Anzac	LR 257	COU	
15	S212DS	RF Switch	Narda	LR 1244	N/A	
16	ESH3-Z5	Two Line V-Network	Rohde & Schwarz	LR 1076	COU	
17	ESH3-Z2	Pulse Limiter	Rohde & Schwarz	LR 1074	COU	
18	6812B	AC Power Source	Agilent	LR 1515	COU	
19	Model 87 V	Multimeter	Fluke	N-4672	2018.11	2020.11
20	87H35-1	Circulator	Racal-MESL	s.no.: 140	N/A	
21	87H35-1	Circulator	Racal-MESL	s.no.: 141	N/A	
22	87H35-1	Circulator	Racal-MESL	s.no.: 142	N/A	
23	FSU26	Spectrum Analyzer	Rohde & Schwarz	LR 1504	2018.01	2020.01
24	TY80	Climatic Chamber	ACS	LR 1083	2019.04	2020.04
25	U2000A	Average Power Sensor	Agilent	LR 1523	2019.03	2020.03
26	Model 4324-4	Power Divider (4 to 1)	Narda	LR 1602	COU	
27	FS108P	PoE switch	Netgear	2HK11B3W00AB8		

COU = Cal on use

The software listed below has been used for one or more tests.

No.	Manufacturer	Name	Version	Comment
1	Rohde & Schwarz	EMC32	10.50.10	Power Line Conducted test software
2	Rohde & Schwarz	EMC32	10.50.10	Radiated Emission test software
3	Rohde & Schwarz	GPIBShot	2.7	Screenshots from R&S Spectrum Analyzers
4	Agilent	Intuitlink Data Capture	2.1.0	Screenshots from HP 53310A