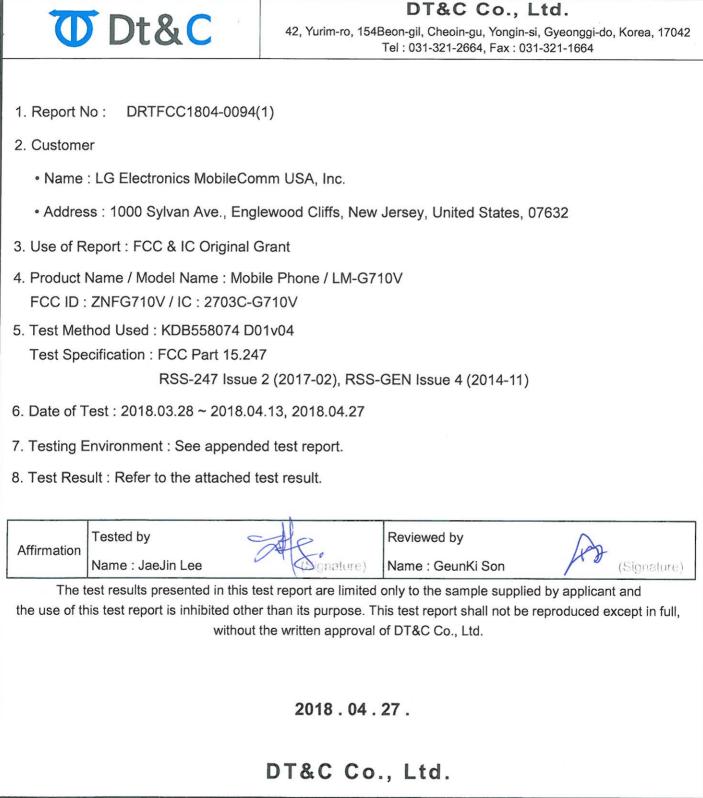
# **TEST REPORT**



If this report is required to confirmation of authenticity, please contact to report@dtnc.net

## **Test Report Version**

Test Report No.	Date	Description
DRTFCC1804-0094	Apr. 23, 2018	Initial issue
DRTFCC1804-0094(1)	Apr. 27, 2018	Updated the Section 8.5 and APPENDIX III



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## **1. EUT DESCRIPTION**

FCC Equipment Class	Digital Transmission System(DTS)
Product	Mobile Phone
Model Name	LM-G710V
Add Model Name	NA
Power Supply	DC 3.85 V
Frequency Range	• 802.11b/g/n(20 MHz) : 2412 MHz ~ 2462 MHz
Max. RF Output Power	2.4GHz Band • 802.11b : 18.96 dBm • 802.11g : 22.00 dBm • 802.11n (HT20) : 21.84 dBm • 802.11ac (VHT20) : 21.66 dBm
Modulation Type	• 802.11b: CCK, DSSS • 802.11g/n: OFDM
Antenna Specification	Antenna type: PIFA Antenna gain: -1.53 dBi

## 2. INFORMATION ABOUT TESTING

#### 2.1 Test mode

Test	Worst case data rate	Tested Frequency(MHz)					
mode	monor outor data rato	Lowest	Middle	Highest			
TM 1	TM 1 802.11b 2412		2437	2462			
TM 2	802.11g 6 Mbps	2412	2437	2462			
ТМ 3	802.11n(HT20) MCS 0			2462			
TM 4	802.11ac(VHT20) MCS 0	2412	2437	2462			

Note 1: The worst case data rate was determined as above test mode according to the average power measurements. Note 2: The power measurement results for all modes and data rate were reported.

#### 2.2 Auxiliary equipment

Equipment	Model No.	Serial No.	Manufacturer	Note	
-	-	-	-	-	
-			-	-	

#### 2.3 Tested environment

Temperature	: 21 ~ 25 °C
Relative humidity content	: 41 ~ 44 %
Details of power supply	: DC 3.85 V

#### 2.4 EMI suppression Device(s) / Modifications

EMI suppression device(s) added and/or modifications made during testing  $\rightarrow$  None

#### 2.5 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with requirements of ANSI C 63.4-2014 and ANSI C 63.10-2013. All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95 % level of confidence.

Test items	Measurement uncertainty
Transmitter Output Power	0.7 dB (The confidence level is about 95 %, k = 2)
Conducted spurious emission	1.1 dB (The confidence level is about 95 %, k = 2)
AC conducted emission	2.4 dB (The confidence level is about 95 %, k = 2)
Radiated spurious emission (1 GHz Below)	5.1 dB (The confidence level is about 95 %, k = 2)
Radiated spurious emission (1 GHz ~ 18 GHz)	5.4 dB (The confidence level is about 95 %, k = 2)
Radiated spurious emission (18 GHz Above)	5.3 dB (The confidence level is about 95 %, k = 2)

### **3. SUMMARY OF TESTS**

FCC Part	RSS Std.	Parameter	Limit	Test Condition	Status Note 1
15.247(a)	RSS-247 [5.2]	6 dB Bandwidth	> 500 kHz		С
15.247(b)	RSS-247 [5.4]	Transmitter Output Power	< 1 Watt		С
15.247(d)	RSS-247 [5.5]	Out of Band Emissions / Band Edge	20 dBc in any 100 kHz BW	Conducted	С
15.247(e)	RSS-247 [5.2]	Fransmitter Power Spectral Density < 8 dBm/3 kHz			С
-	RSS-Gen [6.6]	Occupied Bandwidth (99 %)	RSS-Gen(6.6)		С
15.247(d) 15.205 15.209	RSS-247 [5.5] RSS-GEN [8.9] RSS-GEN [8.10]	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	FCC 15.209 limits	Radiated	C Note 2,3
15.207	RSS-Gen [8.8]	AC Line Conducted Emissions FCC 15.207 limits		AC Line Conducted	С
15.203	RSS-Gen [8.3]	Antenna Requirements	FCC 15.203	-	С

Note 1: C=Comply NC=Not Comply NT=Not Tested NA=Not Applicable

Note 2: For radiated emission tests below 30 MHz were performed on semi-anechoic chamber which is correlated with OATS.

Note 3: This test item was performed in each axis and the worst case data was reported.

### 4. TEST METHODOLOGY

Generally the tests were performed according to the KDB558074 D01v04. And ANSI C63.10-2013 was used to reference appropriate EUT setup and maximizing procedures of radiated spurious emission and AC line conducted emission testing

#### 4.1 EUT configuration

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

#### 4.2 EUT exercise

The EUT was operated in the test mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

#### 4.3 General test procedures

#### **Conducted Emissions**

The power-line conducted emission test procedure is not described on the KDB558074 D01v04.

So this test was fulfilled with the requirements in Section 6.2 of ANSI C63.10-2013.

The EUT is placed on the wooden table, which is 0.8 m above ground plane and the conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-peak and Average detector

#### **Radiated Emissions**

Basically the radiated tests were performed with KDB558074 D01v04. But some requirements and procedures like test site requirements, EUT setup and maximizing procedure were fulfilled with the requirements in Section 5 and 6 of the ANSI C63.10 as stated on section 12.1 of the KDB558074 D01V04.

The EUT is placed on a non-conductive table. For emission measurements at or below 1 GHz, the table height is 80 cm. For emission measurements above 1 GHz, the table height is 1.5 m. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the highest emission, the relative positions of the EUT were rotated through three orthogonal axes.

#### 4.4 Description of test modes

The EUT has been tested with all modes of operating conditions to determine the worst case emission characteristics. A test program is used to control the EUT for staying in continuous transmitting mode.



### 5. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

## 6. FACILITIES AND ACCREDITATIONS

#### 6.1 Facilities

#### DT&C Co., Ltd.

The 3 m test site and conducted measurement facility used to collect the radiated data are located at the 42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 17042. The test site comply with the requirements of § 2.948 according to ANSI 63.4-2014.

#### - FCC MRA Accredited Test Firm No. : KR0034

#### - IC Test site No. : 5740A-3

www.dtnc.net			
Telephone	•	+ 82-31-321-2664	
FAX	•	+ 82-31-321-1664	

#### 6.2 Equipment

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, loop, horn. Spectrum analyzers with pre-selectors and peak, quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

### 7. ANTENNA REQUIREMENTS

#### 7.1 According to FCC 47 CFR §15.203

An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

## The internal antenna is attached on the main PCB using the special spring tension. (Refer to Internal Photo file.) Therefore this E.U.T Complies with the requirement of §15.203



### 8. TEST RESULT

#### 8.1 6dB bandwidth

#### Test Requirements and limit, §15.247(a)

The bandwidth at 6 dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the receive antenna while the EUT is operating in transmission mode at the appropriate frequencies.

#### The minimum permissible 6 dB bandwidth is 500 kHz.

#### Test Configuration:

Refer to the APPENDIX I.

#### Test Procedure:

The transmitter output is connected to the Spectrum Analyzer and used following test procedure of KDB558074

#### D01V04

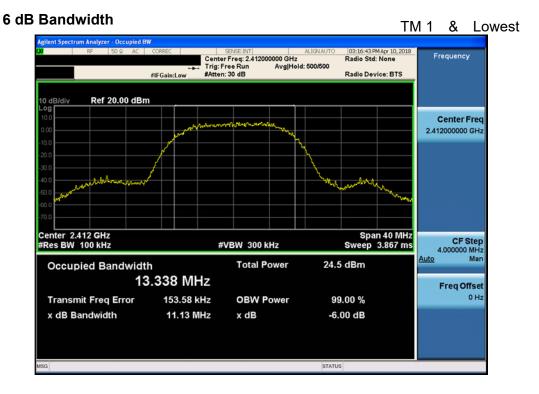
- 1. Set resolution bandwidth (RBW) = 100 kHz.
- 2. Set the video bandwidth (VBW)  $\ge$  3 x RBW.
- (RBW : 100 kHz / VBW : 300 kHz)
- 3. Detector = **Peak**.
- 4. Trace mode = **Max hold**.
- 5. Sweep = Auto couple.
- 6. Allow the trace to stabilize.

7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

#### Test Results: Comply

Test Mode	Frequency	Test Results[MHz]		
	Lowest	11.210		
TM 1	Middle	11.210		
	Highest	11.660		
	Lowest	12.630		
TM 2	Middle	15.120		
	Highest	15.090		
	Lowest	12.560		
ТМ 3	Middle	15.110		
	Highest	15.090		
	Lowest	13.830		
TM 4	Middle	15.070		
	Highest	15.050		

#### RESULT PLOTS

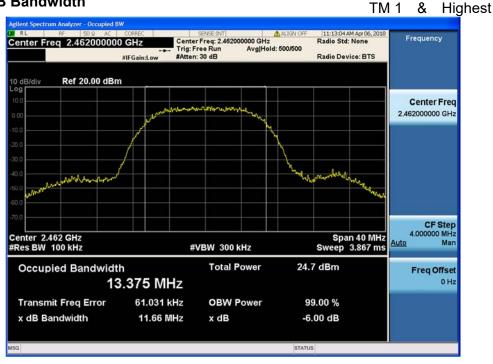


#### 6 dB Bandwidth

#### TM 1 & Middle



🛈 Dt&C



🛈 Dt&C

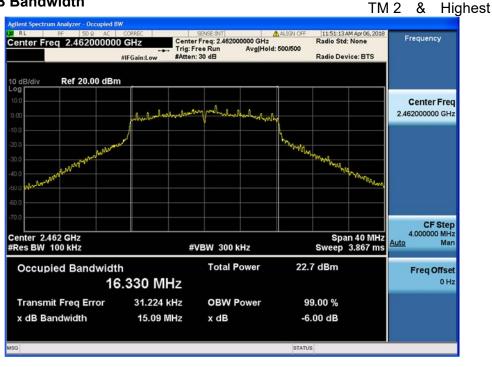


#### 6 dB Bandwidth



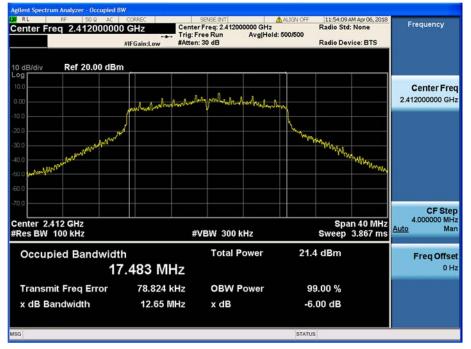


🛈 Dt&C



🛈 Dt&C

TM 3 & Lowest

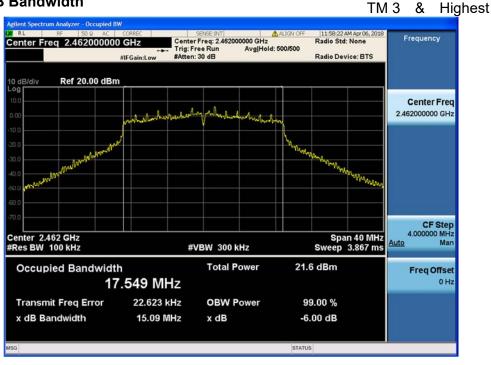


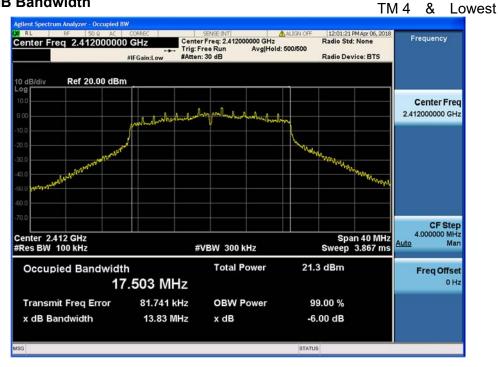
#### 6 dB Bandwidth

TM 3 & Middle



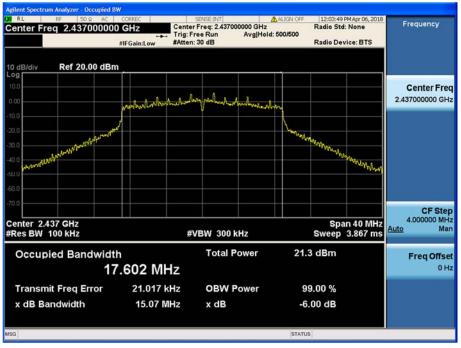
🛈 Dt&C



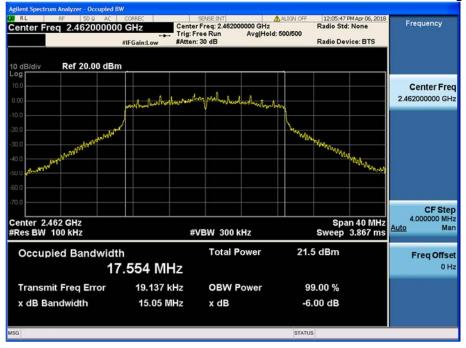


#### 6 dB Bandwidth

TM 4 & Middle



TM 4 & Highest

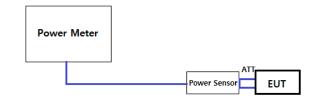


#### 8.2 Maximum peak conducted output power

#### Test Requirements and limit, §15.247(b)

The maximum permissible conducted output power is 1 Watt.

#### Test Configuration



#### Test Procedure

#### 1. PKPM1 Peak power meter method of KDB558074 D01V04

The maximum conducted output powers were measured using a broadband peak RF power meter which has greater video bandwidth than DUT's DTS bandwidth and utilize a fast-responding diode detector.

#### 2. Method AVGPM-G (Measurement using a gated RF average power meter) of KDB558074 D01V04

The average conducted output powers were measured using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since this measurement is made only during the ON time of the transmitter, no duty cycle correction is required.



#### Test Results: Comply

Free			Maxim	um Peak Co	nducted Ou	tput Power	(dBm) for <u>8</u>	02.11b	
Freq. (MHz)	Det.	Data Rate [Mbps]							
		1	2	5.5	11	-	-	-	-
2412	PK	18.80	18.78	18.84	18.90	-	-	-	-
2412	AV	15.87	15.83	15.92	15.94	-	-	-	-
2437	PK	18.70	18.75	18.77	18.91	-	-	-	-
2437	AV	15.80	15.75	15.80	15.81	-	-	-	-
2462	PK	18.92	18.94	18.91	18.96	-	-	-	-
2402	AV	15.98	15.94	15.99	16.01	-	-	-	-

<b>F</b> ire a			Maxim	um Peak Co	nducted Ou	tput Power	(dBm) for <u>8</u>	02.11g	
Freq. (MHz)	Det.	Data Rate [Mbps]							
		6	9	12	18	24	36	48	54
2412	PK	20.05	20.10	20.07	20.65	20.59	21.83	21.86	21.64
2412	AV	15.24	15.16	15.19	14.20	14.13	12.31	12.24	12.31
2437	PK	19.83	19.88	19.85	20.60	20.43	21.88	21.91	21.90
2437	AV	15.25	15.09	15.13	14.31	14.22	12.51	12.44	12.35
2462	PK	20.03	20.07	20.16	20.40	20.50	21.76	21.77	22.00
2402	AV	15.33	15.33	15.25	14.34	14.22	12.52	12.51	12.44

Free			Maximum	Peak Condu	icted Outpu	t Power (dB	m) for <u>802.</u>	<u>11n(HT20)</u>	
Freq. (MHz)	Det. Data Rate [MCS]								
		0	1	2	3	4	5	6	7
2412	PK	18.98	18.99	19.70	19.67	21.84	21.53	21.47	20.45
2412	AV	13.94	13.89	13.11	13.22	12.26	12.21	11.20	11.21
2437	PK	18.66	18.67	19.65	19.60	21.79	21.44	21.41	20.44
2437	AV	14.02	14.01	13.03	13.14	12.21	12.15	11.31	11.25
2462	PK	18.95	18.79	19.68	19.62	21.75	21.41	21.50	21.42
2402	AV	14.13	14.03	13.08	13.10	12.22	12.13	11.23	11.18



Eno e			Maxim	num Peak Co	onducted O	utput Power	(dBm) for <u>8</u>	302.11ac(V	HT20)			
Freq. (MHz)	Det.	Data Rate [MCS]										
		0	1	2	3	4	5	6	7	8		
2412	PK	19.02	19.03	19.79	19.67	21.49	21.44	21.51	20.63	19.75		
2412	AV	13.97	13.95	13.14	13.11	12.24	12.18	11.23	11.21	10.30		
2437	PK	18.73	18.71	19.77	19.71	21.43	21.38	21.66	20.70	19.81		
2437	AV	13.98	13.88	13.11	13.06	12.30	12.25	11.28	11.27	10.33		
2462	PK	19.04	19.04	19.88	19.75	21.53	21.54	21.42	20.60	19.88		
2402	AV	14.08	14.04	13.22	13.25	12.33	12.21	11.35	11.38	10.41		

#### 8.3 Maximum power spectral density

#### Test requirements and limit, §15.247(e)

The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

#### **Test Configuration:**

Refer to the APPENDIX I.

#### Test Procedure

#### Method PKPSD of KDB558074 D01V04 is used.

- 1. Set analyzer center frequency to DTS channel center frequency.
- 2. Set the span to 1.5 times the DTS bandwidth.
- 3. Set the RBW to : **3 kHz** ≤ RBW ≤ **100 kHz**
- 4. Set the VBW ≥ **3 x RBW**
- 5. Detector = **Peak**
- 6. Sweep time = **Auto couple**
- 7. Trace mode = Max hold.
- 8. Allow trace to fully stabilize.

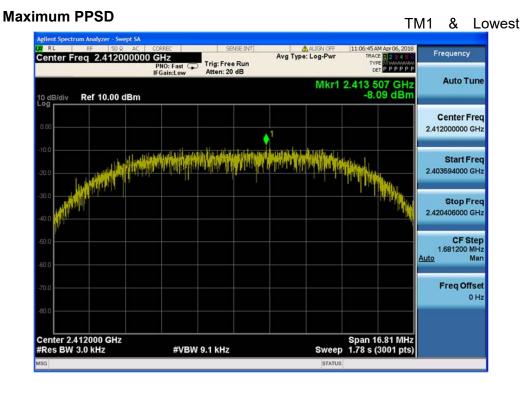
9. Use the **peak marker function** to determine the maximum amplitude level within the RBW.

10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

#### Test Results: Comply

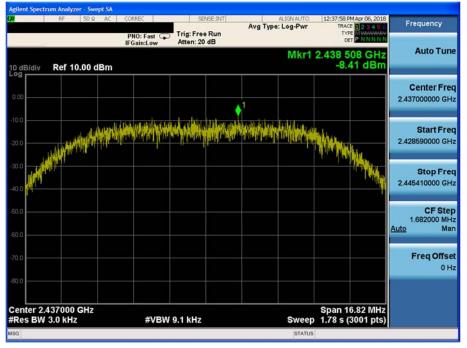
Test Mode	Frequency	RBW	PKPSD [dBm]
	Lowest	3 kHz	-8.09
TM 1	Middle	3 kHz	-8.41
	Highest	3 kHz	-6.82
	Lowest	3 kHz	-7.56
TM 2	Middle	3 kHz	-7.38
	Highest	3 kHz	-8.22
	Lowest	3 kHz	-8.94
ТМ 3	Middle	3 kHz	-9.56
	Highest	3 kHz	-9.86
	Lowest	3 kHz	-9.91
TM 4	Middle	3 kHz	-9.65
	Highest	3 kHz	-8.37

#### RESULT PLOTS



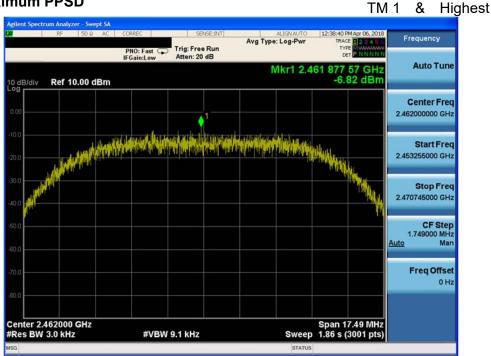
#### Maximum PPSD

TM 1 & Middle



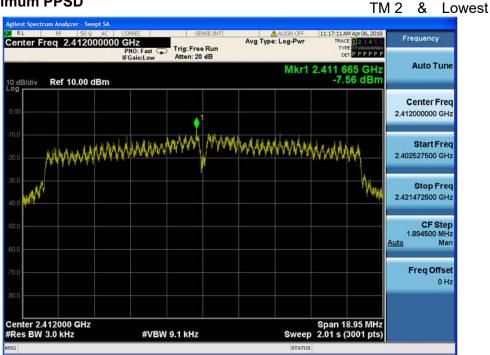
# TDt&C

#### Maximum PPSD



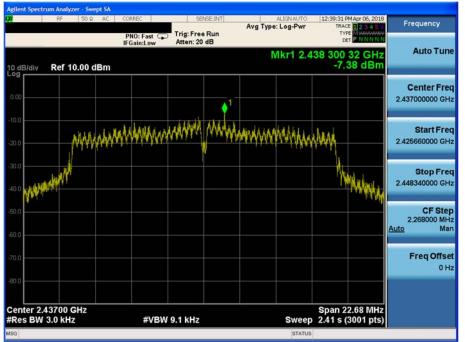
# 🛈 Dt&C

#### Maximum PPSD

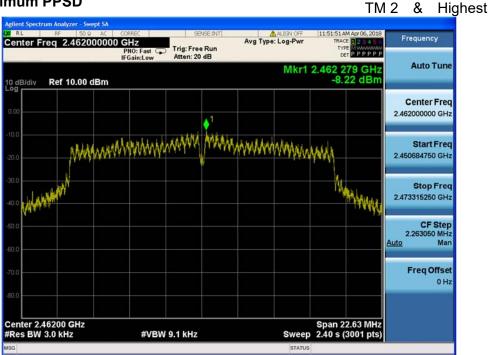


#### **Maximum PPSD**

TM 2 & Middle

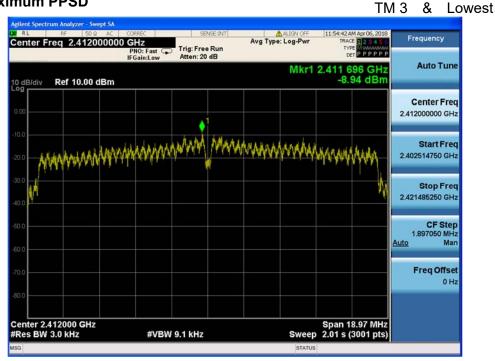


#### Maximum PPSD



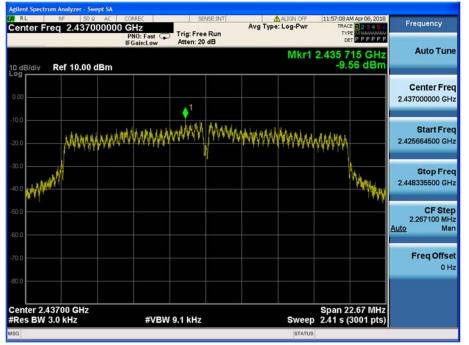
#### Maximum PPSD

🛈 Dt&C



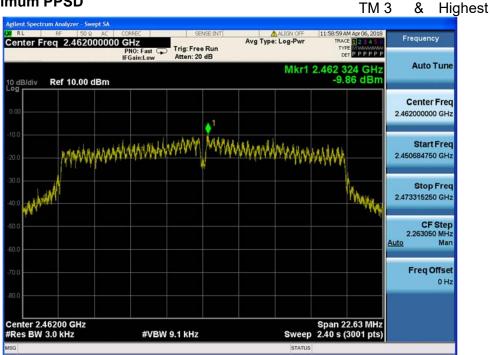
#### **Maximum PPSD**

TM 3 & Middle



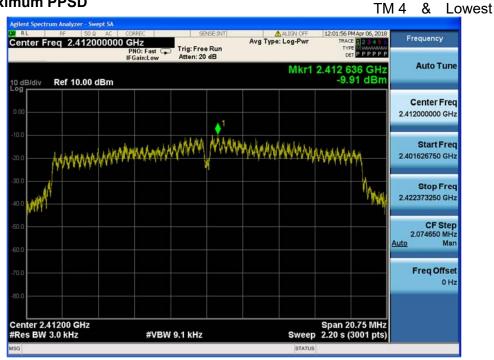
# TDt&C

#### Maximum PPSD



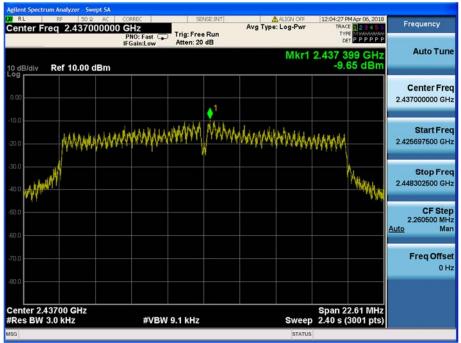


#### **Maximum PPSD**



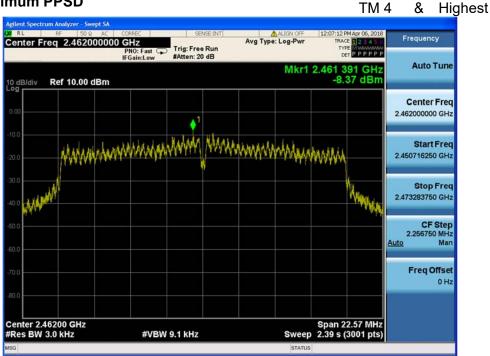
#### **Maximum PPSD**

TM 4 & Middle



# TDt&C

#### Maximum PPSD





#### 8.4 Out of band emissions at the band edge / conducted spurious emissions

#### Test requirements and limit, §15.247(d)

**§15.247(d)** specifies that in any 100 kHz bandwidth outside of the authorized frequency band, the power shall be attenuated according to the following conditions:

If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to **15.247(b)(3)** requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated **by at least 20 dB** relative to the maximum measured in-band peak PSD level.

If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to **15.247(b)(3)** requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in band average PSD level. In either case, attenuation to levels below the general emission limits specified in §15.209(a) is not required.

#### Test Configuration:

Refer to the APPENDIX I.

#### Test Procedure

The transmitter output is connected to a spectrum analyzer.

#### - Measurement Procedure 1 – Reference Level of KDB558074 D01v04

- 1. Set instrument center frequency to DTS channel center frequency.
- 2. Set the span to  $\geq$  1.5 times the DTS bandwidth.
- 3. Set the RBW = 100 kHz.
- 4. Set the VBW  $\geq$  3 x RBW.
- 5. Detector = Peak.
- 6. Sweep time = **Auto couple**.
- 7. Trace mode = Max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum PSD level.

#### - Measurement Procedure 2 - Unwanted Emissions of KDB558074 D01v04

- 1. Set the center frequency and span to encompass frequency range to be measured.
- 2. Set the RBW = 100 kHz. (Actual 1 MHz , See below note)
- 3. Set the VBW ≥ 3 x RBW. (Actual 3 MHz, See below note)
- 4. Detector = **Peak**.
- 5. Ensure that the number of measurement points  $\geq$  Span / RBW.
- 6. Sweep time = Auto couple.
- 7. Trace mode = **Max hold.**
- 8. Allow the trace to stabilize. (this may take some time, depending on the extent of the span)
- 9. Use the peak marker function to determine the maximum amplitude level.

**Note :** The conducted spurious emission was tested with below settings. **Frequency range: 9 kHz ~ 30 MHz RBW = 100 kHz, VBW = 300 kHz, SWEEP TIME = AUTO, DETECTOR = PEAK, TRACE = MAX HOLD, SWEEP POINT : 40001** 

Frequency range: 30 MHz ~ 10 GHz, 10 GHz ~25 GHz RBW = 1 MHz, VBW = 3 MHz, SWEEP TIME = AUTO, DETECTOR = PEAK, TRACE = MAX HOLD, SWEEP POINT : 40001

LIMIT LINE = 20 dB below of the reference level of above measurement procedure Step 2. (RBW = 100 kHz, VBW = 300 kHz)

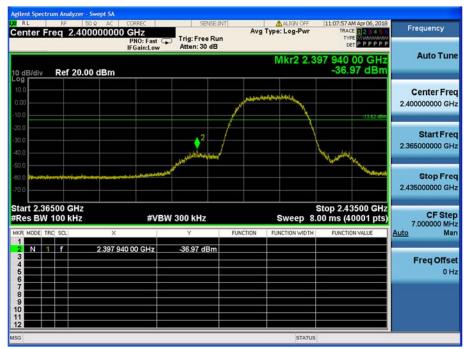
If the emission level with above setting was close to the limit (ie, less than 3 dB margin) then zoom scan is required using RBW = 100 kHz, VBW = 300 kHz, SPAN = 100 MHz and BINS = 2001 to get accurate emission level within 100 kHz BW.

#### RESULT PLOTS

TM1 & Lowest

Reference n Analyzer - Swept SA 11:07:12 AM Apr 06, 2018 TRACE 12 3 4 5 TYPE DET P P P P P P RI SENSE:INT Frequency Avg Type: Log-Pwr Center Freq 2.412000000 GHz Trig: Free Run Atten: 30 dB PNO: Fast 😱 IFGain:Low Mkr1 2.413 496 GHz 6.38 dBm Auto Tune Ref 20.00 dBm 0 dB/div **Center Freq** 2.412000000 GHz MAN Start Freq 2.403594000 GHz Stop Freq 2.420406000 GHz CF Step 1.681200 MHz Man Auto Freq Offset 0 Hz Center 2.412000 GHz #Res BW 100 kHz Span 16.81 MHz Sweep 1.80 ms (3001 pts) #VBW 300 kHz

#### Low Band-edge



RL enter F	reg 15.0045		SENSE:IN	Avg	ALIGN OFF	11:08:19 AM Apr 06, 2018 TRACE 2 3 4 5 1	Frequency
		PNO: Fast IFGain:Low	Trig: Free Run Atten: 30 dB			DET P P P P P	
dB/div	Ref 20.00 dE	3m			ſ	/lkr2 281.9 kHz -53.88 dBm	Auto Tur
							Center Fre 15.004500 Mi
0						-13.62 dBr	Start Fre 9.000 ki
	1980-338.algelgriszygeszingtégri	Sutter Sun System Stranger	ىرى مەرەرىيە رەرارىيە ئەتەردارىيە بەرەرىيە بەرەر	nero, vill an friedrich and i	alalisis da ang ang ang ang ang ang ang ang ang an	fry./agets.ety.et.org.a	Stop Fr 30.000000 M
es BW	100 kHz	#VI	BW 300 kHz		Sweep 5	Stop 30.00 MHz .33 ms (40001 pts)	2.999100 M
es BW	100 kHz RC SCL	× 281.9 kHz	Y -53.88 dBm	FUNCTION	Sweep 5.	Stop 30.00 MHz 33 ms (40001 pts) FUNCTION VALUE	2.999100 M
R MODE T	100 kHz RC SCL	X	Y	FUNCTION		.33 ms (40001 pts)	CF Ste 2.999100 Mi <u>Auto</u> M Freq Offs 0 I
R MODE TI	100 kHz RC SCL	× 281.9 kHz	Y -53.88 dBm	FUNCTION		.33 ms (40001 pts)	2.999100 M Auto M Freq Offs

RF 50	R AC CORRE PNO: IFGai	: Fast Trig: Free n:Low Atten: 30	Run	ALIGNAUTO ype: Log-Pwr	12:41:40 PM Apr 06, 2018 TRACE 1 2 3 4 5 0 TYPE MULTINE DET P N N N N N	Frequency
0 dB/div Ref 20.00	dBm			Mkr4	6.227 35 GHz -44.84 dBm	Auto Tune
og 0.00 0.00	V1				-13 62 dBm	Center Fre 5.015000000 GH
0.0		2	4 			Start Fre 30.000000 MH
50.0 50.0 70.0					المعلقي ومعدين المحكة المحكة	Stop Fre 10.000000000 GF
tart 30 MHz Res BW 1.0 MHz KR MODE TRC SCL	× 2.414 33 0	#VBW 3.0 MHz	FUNCTION	Sweep 18 FUNCTION WIDTH	Stop 10.000 GHz 3.7 ms (40001 pts) FUNCTION VALUE	CF Ste 997.000000 MH <u>Auto</u> Ma
2 N 1 F 3 N 1 F 5 6 7 8	2.414 33 ( 3.147 37 ( 2.644 38 ( 6.227 35 (	GHz -43.64 dB GHz -43.91 dB	m m			Freq Offs 0 H
9						

RL RF S	0 Q AC CORREC	SENSE:INT	ALIGN OFF	11:09:06 AM Apr 06, 2018	Francisco
enter Freq 17.50	PNO: Fast C IFGain:Low	Trig: Free Run Atten: 30 dB	Avg Type: Log-Pwr	TRACE	Frequency
0 dB/div Ref 20.0	0 dBm		Mkr3 2	0.724 250 GHz -38.91 dBm	Auto Tun
og 0.00 0.00				-13 62 oBin	Center Fre 17.500000000 GH
0.0			<b>↓</b> <sup>3</sup> <b>↓</b>	21	Start Fre 10.000000000 GH
0.0					Stop Fre 25.000000000 GH
tart 10.000 GHz Res BW 1.0 MHz	#VB	W 3.0 MHz	Sweep 4	Stop 25.000 GHz 0.0 ms (40001 pts)	CF Ste 1.50000000 GH Auto Ma
1 N 1 f 2 N 1 f 3 N 1 f 4 5 6	24.976 375 GHz 21.834 250 GHz 20.724 250 GHz	-36.14 dBm -38.27 dBm -38.91 dBm			Freq Offse
7 8 9 0 1 2					
1911 No. 1911					

#### TM 1 & Middle

#### Reference



	CORREC	SENSE:INT	ALIGN OFF	11:11:00 AM Apr 06, 2018 TRACE 2 2 4 5 4	Frequency
enter Freg 15.004500	PNO: Fast C	Trig: Free Run Atten: 30 dB	Avg Type: Log-Pwr	TYPE MULTINUM DET PPPPP	
dB/div Ref 20.00 dBm	n		Γ	Vkr2 287.2 kHz -54.83 dBm	Auto Tun
9					Center Fre 15.004500 MH
0				-13.91 dBm	
0					Start Fre 9.000 kH
0 Carlon and Carlos an	nhainatattilikananyokseestes	alunaishadheanallajalataainaa	ป	สะสระประวัตร์เหตุสาราชสายเราสาราวรัง	Stop Fre 30.000000 MH
art 9 kHz es BW 100 kHz	#VBV	V 300 kHz	Sweep 5.	Stop 30.00 MHz .33 ms (40001 pts)	CF Ste 2.999100 MH
R MODE TRC SCL	× 287.2 kHz	-54.83 dBm	UNCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Ma
N 1 f					
N 1 F N 1 F	287.2 kHz	-54,83 dBm			Freq Offso 0 H
N 1 f		-54.83 dBm			

PN0: Fast         Trig: Free Run Atten: 30 dB         Mkr5 9.938 68 GHz 44.84 dBm         Auto T           dB/div         Ref 20.00 dBm         0 </th <th>RF</th> <th>50 Q AC CORREC</th> <th>SENSE:INT</th> <th>ALIGNAUTO</th> <th>12:43:55 PM Apr 06, 2018</th> <th>Frequency</th>	RF	50 Q AC CORREC	SENSE:INT	ALIGNAUTO	12:43:55 PM Apr 06, 2018	Frequency
Start F         Start F           1         <		PNO: Fast 😱 IFGain:Low		Avg Type: Log-Pwr	TYPE MIAMAMAMA	
0       0	dB/div Ref 20.0	00 dBm		Mkr		Auto Tur
Model         X         Y         Function         Function         Function         Value         Auto           R         MODEL         X         Y         Function         Function <t< th=""><th>9 3.0 .00 </th><th></th><th></th><th></th><th>-13.91 eBm</th><th>Center Fre 5.015000000 GH</th></t<>	9 3.0 .00 				-13.91 eBm	Center Fre 5.015000000 GH
Stop F         Stop I         Stop I<	10	Q <sup>3</sup> Q <sup>24</sup>			5	Start Fre 30.000000 MF
KR         MODE         THC         #VBW 3.0 MHz         Sweep         18.7 ms (40001 pts)         997.000000           KR         MODE         TRC SCL         X         Y         FUNCTION         FUNCTION WIDTH         FUNCTION VALUE         Auto           1         N         1         f         2.434 27 GHz         12.76 dBm         FUNCTION         FUNCTION WIDTH         FUNCTION VALUE         Auto           3         N         1         f         2.698 81 GHz         -42.47 dBm         FUNCTION         FUNCTION VIDTH         FUNCTION VALUE         Freq Of           3         N         1         f         3.292 68 GHz         -43.08 dBm         Freq Of         Freq Of           6         -         <					المتناقين الترسنين الكليك كالمكار الكليك كالكليك	Stop Fre 10.000000000 GF
2         N         1         f         3.175 04 GHz         42.47 dBm           N         1         f         2.669 81 GHz         42.97 dBm         Freq Of           N         1         f         3.292 68 GHz         42.97 dBm         Freq Of           N         1         f         3.292 68 GHz         42.97 dBm         Freq Of           N         1         f         9.938 68 GHz         44.84 dBm         Freq Of	Res BW 1.0 MHz	x	Y FU		8.7 ms (40001 pts)	CF Ste 997.000000 Mł <u>Auto</u> Ma
	3 N 1 f 4 N 1 f N 1 f	3.175 04 GHz 2.669 81 GHz 3.292 68 GHz	-42.47 dBm -42.97 dBm -43.08 dBm			Freq Offs 0 ł

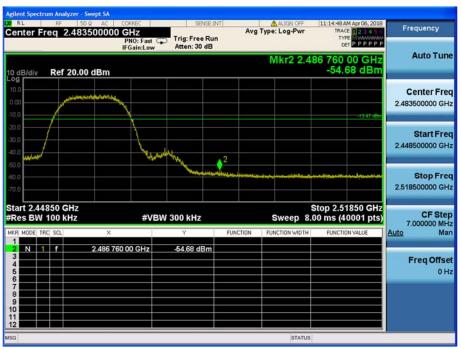
RL RF 50 R AC enter Freq 17.50000000	OGREC OGHZ PNO: Fast IFGain:Low	Trig: Free Run Atten: 30 dB	ALIGN OFF Avg Type: Log-Pwr	11:11:46 AM Apr 06, 2018 TRACE 2 3 4 5 TYPE MUMANNA DET P P P P P	Frequency
dB/div Ref 20.00 dBm			Mkr3 1	6.454 500 GHz -39.47 dBm	Auto Tune
99 0.0 00				-13.91 05m	Center Fre 17.500000000 GH
		3	\$ <sup>2</sup>	1	Start Fre 10.000000000 GH
					Stop Fre 25.00000000 GH
art 10.000 GHz Res BW 1.0 MHz	#VBV	V 3.0 MHz	Sweep 4	Stop 25.000 GHz 0.0 ms (40001 pts)	CF Ste
2 N 1 f 21.277	125 GHz 000 GHz 500 GHz	-36,42 dBm -37,46 dBm -39,47 dBm	FUNCTION FUNCTION WIDTH	FUNCTION VALUE	Auto Ma Freg Offso
4 5 6 7 7 8 9					0H

## TM1 & Highest

#### Reference



#### **High Band-edge**



RL	RF 50 \$	R 🕼 DC	CORREC	SENSE:11		ALIGN OFF		Apr 06, 2018	E
nter Fr	req 15.004	1500 N	PNO: Fast C IFGain:Low	Trig: Free Run Atten: 30 dB		Type: Log-Pwr	TYPE	123450 MWWWWWW PPPPPP	Frequency
iB/div	Ref 20.00	dBm				Γ	Akr2 281 -55.1	.9 kHz 8 dBm	Auto Tun
0								-13:47 UDro	Center Fre 15.004500 MH
									Start Fre 9.000 kH
	مصبرا المصادل عاليه	ist, consumed	دىلىدرىيدى مەركەر كەركەر ك يەركەر كەركەر	hhi an	n, a, mal ana an manda	ndtreventlike verseten hadhän	urum Hingshig	nipari shugʻos	Stop Fre 30.000000 Mi
art 9 kH	lz 100 kHz		#VB	W 300 kHz		Sweep 5		.00 MHz 001 pts)	CF Ste 2.999100 Mi
03 014				× I	FUNCTION	FUNCTION WIDTH	DINCTION	VALUE	Auto Ma
R MODE TR	f		281.9 kHz 281.9 kHz	-55.18 dBm	FUNCTION	FUNCTION WIDTH	FUNCTION		
R MODE TR	f		281.9 kHz 281.9 kHz	-55.18 dBm -55.18 dBm	FUNCTION	2 PORCHON WIDTH	FORCHUR		Freq Offs 0 F

RF 50	PNO: Fas	Trig: Free Run Atten: 30 dB	Avg	ALIGNAUTO Type: Log-Pwr	12:44:58 PM Apr 06, 2018 TRACE 2 3 4 5 0 TYPE MUNICIPAL DET P NNNNN	Frequency
dB/div Ref 20.00	) dBm			Mkr	4 5.796 40 GHz -44.96 dBm	Auto Tun
•g 0.0 0.00					-13:47 uBm	Center Fre 5.015000000 GH
0.0	$\diamond^2$			3		Start Fre 30.000000 MH
0.0					تحدثه محد الملك المحد الملك المحد	Stop Fre 10.00000000 GF
tart 30 MHz Res BW 1.0 MHz		/BW 3.0 MHz		and a supervision of the second se	Stop 10.000 GHz 8.7 ms (40001 pts)	CF Ste 997.000000 MH
KR         MODE         TRC         SCL           1         N         1         f           2         N         1         f           3         N         1         f           4         N         1         f           5	× 2.461 18 GHz 3.171 05 GHz 6.426 75 GHz 5.796 40 GHz	-43.69 dBm -44.94 dBm	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	Auto Ma Freq Offs 0 H
6 7 8 9 9 0						
2 <b>2</b>				STATUS		

Bm	☐ Trig: Free Run Atten: 30 dB	Avg Type: Log-Pwr Mkr3 1	TRACE 123450 TYPE MULTINE DET P P P P P P	Frequency Auto Tun
Bm		Mkr3 1	6.472 875 GHz	Auto Tup
			-39.89 dBm	Auto Tun
				Center Fre 17.500000000 GH
	3		2 1/	Start Fre 10.000000000 GH
				Stop Fre 25.000000000 GH
#VBV				CF Ste 1.50000000 GH Auto Ma
24,953 125 GHz 21,955 000 GHz 16.472 875 GHz	-35.92 dBm -38.37 dBm -39.89 dBm			Freq Offse 0 H
	× 24.953 125 GHz 21.955 000 GHz	#VBW 3.0 MHz 24.9553 125 GHz - 35.92 dBm 21.955 000 GHz - 38.97 dBm	#VBW 3.0 MHz         Sweep 4/           X         Y         FUNCTION         FUNCTION WIDTH           24.9553 125 GHz         -35.92 dBm         FUNCTION         FUNCTION WIDTH           21.955 000 GHz         -38.97 dBm         FUNCTION         FUNCTION	X         Y         Function         Function         Function         Value           21 355 000 GHz         -35 92 dBm         -35 92 dBm         -

## TM 2 & Lowest

#### Reference



Low Band-edge



RL enter F	<sup>RF</sup> reg 15.0	50 g 🛕 DC		SENSE:	Avg	ALIGN OFF	11:18:45 AM Apr 06, 2018 TRACE 1 2 3 4 5 0	Frequency
			PNO: Fast ( IFGain:Low	Trig: Free Ru Atten: 30 dB	n			
dB/div	Ref 20.	00 dBm				ſ	4 Mkr2 281.9 kHz -54.44 dBm	Auto Tur
g .0								Center Fre
0								15.004500 M
0							-12.73 dBn	
.0								9.000 kl
.0								9.000 ki
.0							المحمد	Stop Fr
.0	******	and ministry and	(2),1%-28,44,8~2,-21	12 million (12 mil	458.0000 1000 1000 1000 1000 1000 1000 100	4°8738444,84994,9499494994994	ale goolee, she gool and a state of	30.000000 M
art 9 kH			40.05	W 200 kHz		Current E	Stop 30.00 MHz	CF Ste
ES BW	100 kHz	×	#VB	W 300 kHz	FUNCTION	FUNCTION WIDTH	33 ms (40001 pts)	2.999100 M Auto M
N 1	f		281.9 kHz 281.9 kHz	-54,44 dBm -54,44 dBm	Tonenon	Tonenon morn	TORCHORTALOC	
			201.9 KHZ	-04.44 UDIII				Freq Offs
								01

<b>Q</b> RF 501	Ω AC CORREC PNO: Fast ( IFGain:Low	Trig: Free Run Atten: 30 dB		ALIGN AUTO Type: Log-Pwr	12:46:04 PM Apr 06, 2018 TRACE 2 3 4 5 TYPE MULTINE DET P NNNNN	Frequency
10 dB/div Ref 20.00		Pittelli OV UD		Mkr4	4 7.576 79 GHz -44.90 dBm	Auto Tune
-og 10.0 0.00 10.0	V1				-12-73 @6	Center Freq 5.015000000 GHz
20.0			\$ <sup>3</sup>	4		Start Freq 30.000000 MHz
50.0 60.0 70.0					المتألف متعدية المحك المحك	Stop Free 10.000000000 GH;
Start 30 MHz #Res BW 1.0 MHz	#VE	W 3.0 MHz	FUNCTION	Sweep 1	Stop 10.000 GHz 8.7 ms (40001 pts) FUNCTION VALUE	CF Step 997.000000 MH: Auto Mar
1 N 1 f 2 N 1 f 3 N 1 f 4 N 1 f 5 6	2.412 83 GHz 2.659 34 GHz 5.785 68 GHz 7.576 79 GHz	13,51 dBm -43,61 dBm -44,63 dBm -44,90 dBm				Freq Offset
8 9 10 11						

RL RF SC	0 Q AC CORREC	SENSE:INT	ALIGN OFF	11:19:31 AM Apr 06, 2018	E
enter Freq 17.50	D0000000 GHz PNO: Fast IFGain:Low	Trig: Free Run Atten: 30 dB	Avg Type: Log-Pwr	TRACE 23450 TYPE MULTURE DET PPPPP	Frequency
0 dB/div Ref 20.0	0 dBm		Mkr3 2	1.800 125 GHz -38.21 dBm	Auto Tun
og 10.0 1.00					Center Fre 17.500000000 GH
80.0			$\diamond^2 \diamond$	31	Start Fre 10.000000000 GH
50.0 <b>Multi Carlos Constantes de la constante </b>					Stop Fre 25.000000000 GH
tart 10.000 GHz Res BW 1.0 MHz	100	W 3.0 MHz		Stop 25.000 GHz 0.0 ms (40001 pts)	CF Ste 1.50000000 GH
KR MODE TRC SCL 1 N 1 F 2 N 1 F	× 24.987 250 GHz 21.220 750 GHz	-36.14 dBm -37.96 dBm	FUNCTION FUNCTION WDTH	FUNCTION VALUE	<u>Auto</u> Ma
3 N 1 f 4 5 6 7	21.800 125 GHz	-38.21 dBm			Freq Offse 0 H
8					
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2					

## TM 2 & Middle

### Reference



	DC CORREC	SENSE:INT	ALIGN OFF	11:50:17 AM Apr 06, 2018	Frequency
enter Freg 15.004	500 MHz PNO: Fast C IFGain:Low	Trig: Free Run Atten: 30 dB	Avg Type: Log-Pwr	TRACE	
dB/div Ref 20.00	dBm		Γ	/kr2 281.9 kHz -53.82 dBm	Auto Tun
9				-42.07 dbn	Center Fre 15.004500 MH
0					Start Fre 9.000 k⊦
2					
0 2	موسط المعالية المعال المعالية المعالية الم	นสุดาร์สุดสาว	ประกังสีเพราะประการการการการการการการการการการการการการก	สหรี่รูปการแรสาวประสุดสีริสุดเชื้องประจำกับและ	and the second
2		W 300 KHz		Stop 30.00 MHz 33 ms (40001 pts)	Stop Fre 30.000000 MH CF Ste 2.999100 MH
art 9 kHz es BW 100 kHz MODE TRC SCL N 1 f	#VB) × 281.9 kHz	W 300 kHz Y Fi -53.82 dBm		Stop 30.00 MHz 33 ms (40001 pts)	30.000000 MH CF Ste 2.999100 MH
art 9 kHz tes BW 100 kHz	#VB\ ×	W 300 kHz	Sweep 5	Stop 30.00 MHz 33 ms (40001 pts)	30.000000 MF CF Ste 2.999100 MF
2 art 9 kHz tes BW 100 kHz R MODE TRC SCL N 1 7	#VB) × 281.9 kHz	W 300 kHz Y Fi -53.82 dBm	Sweep 5	Stop 30.00 MHz 33 ms (40001 pts)	30.000000 MH CF Ste 2.999100 MH Auto Ma Freq Offs

RF	50 Q AC	CORREC	SENSE:INT		ALIGNAUTO	12:46:59 PM Apr 06, 2018	Francisco
		PNO: Fast G	Trig: Free Run Atten: 30 dB	Avg Type	: Log-Pwr	TRACE 2 3 4 5 9 TYPE MUMMUMU DET P NNNN	Frequency
dB/div Ref 20	0.00 dBm				Mkr	6.379 15 GHz -45.02 dBm	Auto Tun
0	V1					-43 07 dBn	Center Fre 5.015000000 GH
0		$\rangle^2 \diamond^3$		5	an (fa stimulation as	¢ <sup>4</sup>	Start Fre 30.000000 MF
							Stop Fre 10.000000000 GF
art 30 MHz es BW 1.0 MH MODE TRC SCL	×	#VBV	¥ 3.0 MHz 13.15 dBm		Sweep 18	Stop 10.000 GHz 3.7 ms (40001 pts) FUNCTION VALUE	CF Ste 997.000000 MH Auto Ma
N 1 F N 1 F N 1 F N 1 F	2.65 3.13 9.31	53 61 GHz 53 65 GHz 78 62 GHz 79 15 GHz	43.31 dBm 43.76 dBm 44.66 dBm 45.02 dBm				Freq Offs 0 F

enter Freq 17.50	O Q AC CORREC 000000000 GHz PN0: Fast C IFGain:Low	Trig: Free Run Atten: 30 dB	ALIGN OFF Avg Type: Log-Pwr	11:50:43 AM Apr 06, 2018 TRACE 2 3 4 5 0 TYPE MUSEUM DET P P P P P	Frequency
0 dB/div Ref 20.00	0 dBm		Mkr3 2	3.987 500 GHz -36.76 dBm	Auto Tune
0.00 0.00 0.00					Center Free 17.500000000 GH
				<b>→</b> <sup>3</sup> - 2	Start Free 10.000000000 GH
0.0					Stop Fre 25.000000000 GH
tart 10.000 GHz Res BW 1.0 MHz		W 3.0 MHz		Stop 25.000 GHz 0.0 ms (40001 pts)	CF Ste 1.50000000 GH
KR MODE TRC SCL 1 N 1 f 2 N 1 f 3 N 1 f 4 6 6 6	X 24,927 250 GHz 24,741 250 GHz 23,987 500 GHz	Y FL -36.40 dBm -36.64 dBm -36.76 dBm	NCTION FUNCTION WIDTH	FUNCTION VALUE	<u>Auto</u> Mai Freq Offse 0 H
9					

#### TM 2 & Highest

#### pr 06, 2 Avg Type: Log-Pwr 11:52:08 AM Frequency Center Freq 2.462000000 GHz PN0: Fast Call Trig: Free Run IFGain:Low Atten: 30 dB RACE 1 2 3 4 5 TYPE MULTURE DET PPPPP Mkr1 2.463 275 GHz 7.24 dBm Auto Tune Ref 20.00 dBm 0 dB/div **Center Freq** 2.462000000 GHz A A Start Freq 2.450684750 GHz Stop Freq N 2.473315250 GHz CF Step 2.263050 MHz Man Auto **Freq Offset** 0 Hz Center 2.46200 GHz #Res BW 100 kHz Span 22.63 MHz Sweep 2.20 ms (3001 pts) #VBW 300 kHz

#### **High Band-edge**



### Reference

RL RF enter Freq 15	50 9 A DC 5.004500 M	Hz	SENSE:IN	Avg	ALIGN OFF Type: Log-Pwr	11:52:57 AM Apr 06, 2018 TRACE 1 2 3 4 5 TYPE	Frequency
		PNO: Fast G IFGain:Low	Atten: 30 dB		Mkr2	18.851 6 MHz -59.21 dBm	Auto Tun
dB/div Ref 2	0.00 dBm					-09.21 GBII	Center Fre 15.004500 MH
0							Start Fre 9.000 kH
	eg fi se si	وربعهد تبده المراد ومساوين	intermenter and	Pristing the second	lendershad ashterine	ะเราะหม่อต่างสีระกังสุดที่ <sup>1</sup> ชากังแรกเหล่	Stop Fre 30.000000 MH
0							1
art 9 kHz tes BW 100 kH		#VB	W 300 kHz	DIRECTION		Stop 30.00 MHz 33 ms (40001 pts)	2.999100 Mi
art 9 kHz kes BW 100 kH R MODE TRC SCL N 1 f	x	#VB) 282.7 kHz 251 6 MHz	W 300 kHz -55.81 dBm -59.21 dBm	FUNCTION	Sweep 5.		CF Ste 2.999100 Mi <u>Auto</u> Mi
art 9 kHz kes BW 100 kH R MODE TRC SCL N 1 f	x	282.7 kHz	ې -55.81 dBm	FUNCTION		33 ms (40001 pts)	2.999100 MH

	Ω AC CORREC	SENSE:INT		ALIGNAUTO	12:47:57 PM Apr 06, 2018	Frequency
	PNO: Fast C	Trig: Free Run Atten: 30 dB	Avg T	'ype: Log-Pwr	TRACE 23450 TYPE MUNICIPALITY	
dB/div Ref 20.00		Atten. So do		Mkr5	3.902 35 GHz -47.33 dBm	
00 0.00 0.00					-12.76 dBm	Center Fred 5.015000000 GH
	aabaa aabaaa aabaa aabaa aabaa aabaa aabaa aabaa aabaa aabaaa aabaaaa aabaaaaa aabaaaaaa	5	\$⁴			Start Fre 30.000000 MH
		الثلاثة التوميينية م محمد المحمد الم	متنتقر شتر محمد مع			<b>Stop Fre</b> 10.000000000 GH
tart 30 MHz Res BW 1.0 MHz	#VB	W 3.0 MHz	FUNCTION	Sweep 18	Stop 10.000 GHz 3.7 ms (40001 pts)	
KR MODE TRC SCL		13.75 dBm				
1 N 1 F 2 N 1 F 3 N 1 F 4 N 1 F 5 N 1 F 6	2.461 18 GHz 2.779 73 GHz 3.102 75 GHz 5.801 13 GHz 3.902 35 GHz	-43.85 dBm -44.17 dBm -45.18 dBm -47.33 dBm				Freq Offse 0 H
1 N 1 f 2 N 1 f 3 N 1 f 4 N 1 f 5 N 1 f	2.779 73 GHz 3.102 75 GHz 5.801 13 GHz	-43.85 dBm -44.17 dBm -45.18 dBm				

RL RF 50	D AC CORREC	SENSE:INT	ALIGN OFF	11:53:23 AM Apr 06, 2018	
enter Freq 17.50	PNO: Fast IFGain:Low	Trig: Free Run Atten: 30 dB	Avg Type: Log-Pwr	TRACE	Frequency
0 dB/div Ref 20.0	0 dBm		Mkr3 2	1.852 250 GHz -38.78 dBm	Auto Tun
og 10.0 0.00				-12.76 dBe	Center Fre 17.500000000 GH
20.0				3∂2_∂	Start Fre 10.000000000 GH
50.0 <b></b>					Stop Fre 25.000000000 GH
tart 10.000 GHz Res BW 1.0 MHz	x		Sweep 4	Stop 25.000 GHz 0.0 ms (40001 pts) FUNCTION VALUE	CF Ste 1.50000000 GH <u>Auto</u> Ma
1 N 1 f 2 N 1 f 3 N 1 f 4 5 6 6 7 8	24.837 250 GHz 24.212 500 GHz 21.852 250 GHz	-36,35 dBm -36,79 dBm -38,78 dBm			Freq Offse 0 H
9					

## TM 3 & Lowest

#### Reference



Low Band-edge



	ାନ୍ନ 🛕 DC 🔋 COR		SENSE:		ALIGN OFF	11:55:46 AM Apr 06, 2018	Frequency	
nter Freg 15.00	PN	NO: Fast Gain:Low	Trig: Free Ru Atten: 30 dB		Type: Log-Pwr	TRACE 2345 TYPE DET PPPPP		
dB/div Ref 20.00	) dBm				1	Mkr2 281.9 kHz -55.99 dBm	Auto Tun	
						-13.65 aBr	Center Fre 15.004500 MH	
0							Start Fre 9.000 k⊦	
							Stop Fre 30.000000 MH	
and a second second for the second second	utriouistitititiininititi	testanismistatisti	unat illiple spinister by i	ng Ayiyaan ing ciridagaa	strinisseff dit seine hans da		and the second	
art 9 kHz	ndfræmskete fotski af met af ge		V 300 kHz	n Aguscingsisteres		Stop 30.00 MHz .33 ms (40001 pts)	30.000000 MH	
art 9 kHz tes BW 100 kHz R MODE TRC SCL	× 281	#VBV 9 kHz	∛ 300 kHz -55.99 dBm	FUNCTION		Stop 30.00 MHz	30.000000 MH	
art 9 kHz es BW 100 kHz	× 281	#VBV	V 300 kHz Y		Sweep 5	Stop 30.00 MHz .33 ms (40001 pts)	30.000000 MH CF Ste 2.999100 MH	

RF 50	Ω AC CORREC PNO: Fast C	SENSE:INT	ALIGNAUTO Avg Type: Log-Pwr	12:48:58 PM Apr 06, 2018 TRACE 2 3 4 5 0 TYPE	Frequency
0 dB/div Ref 20.00	IFGain:Low	Atten: 30 dB	Mkr	7 5.790 67 GHz -45.67 dBm	Auto Tune
0.0 0.00 0.00				-13.85 GBm	Center Fre 5.015000000 GH
0.0			7		Start Fre 30.000000 MH
					Stop Fre 10.000000000 GH
tart 30 MHz Res BW 1.0 MHz	x		Sweep 1	Stop 10.000 GHz 8.7 ms (40001 pts) FUNCTION VALUE	CF Ste 997.000000 MH Auto Ma
1 N 1 F 2 N 1 F 3 N 1 F 4 N 1 F 5 N 1 F 5 N 1 F 7 N 1 F 7 N 1 F 8 9	2.412 08 GHz 3.301 41 GHz 3.125 44 GHz 2.730 62 GHz 3.438 00 GHz 2.224 40 GHz 5.790 67 GHz	11.59 dBm 43.82 dBm 44.19 dBm 44.68 dBm 45.02 dBm 45.46 dBm 45.67 dBm			Freq Offs 01

RL	RF 50	DA AC C	ORREC	SENSE: IN	π	ALIGN OFF	11:56:12 AN	Apr 06, 2018		
enter Fr	eq 17.50	0000000	GHz PNO: Fast G FGain:Low	Trig: Free Run Atten: 30 dB		Type: Log-Pwr	TYPE	123456 MWWWWW PPPPPP		
Mkr3 23.216 875 GHz -38.67 dBm -38.67 dBm							Auto Tu			
og 10.0 0.00 10.0								-13.65 dBm	Center Free 17.500000000 GH	
20.0 30.0 40.0							3	\$0	Start Fre 10.000000000 GH	
50.0 <b>446044</b> 50.0									Stop Fre 25.000000000 GH	
Res BW 1	.0 MHz	×	#VBV	V 3.0 MHz	FUNCTION	Sweep 4	Stop 25. 0.0 ms (40	001 pts)	CF Ste 1.50000000 GH Auto Ma	
2 N 1 f 24. 3 N 1 f 23. 4 5 5 6		24.741 6 24.468 2 23.216 8	50 GHz	-35 23 dBm -36 91 dBm -38.67 dBm					Freq Offse 0 H	
7 8 9										
1										