TEST REPORT ADDENDUM - CONDUCTED



Test of: Radwin Ltd. AP0168031 Wireless Module

To: FCC CFR 47 15.407 & ISED RSS-247

Test Report Serial No.: RDWN49-U5_Conducted Addendum Rev A

This report supersedes: NONE

Issue Date: 17th November 2017

As a result of the 6 Mbyte FCC file size limitation potentially large test reports require to be split into smaller components. This document is the Master document controlling Addendum reports as listed below. This Master document combined with the Addendums demonstrate compliance with the standard

Master Document Number	Addendum Reports
RDWN49-U5_Master	RDWN49-U5_Conducted Addendum
	RDWN49-U5_Radiated Addendum

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MiCOM Labs is an ISO 17025 Accredited Testing Laboratory



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1. TEST RESULTS

1.1. Peak Transmit Power

Conducted Test Conditions for Maximum Conducted Output Power							
Standard:	FCC CFR 47:15.407	Ambient Temp. (°C):	24.0 - 27.5				
Test Heading:	Maximum Conducted Output Power	32 - 45					
Standard Section(s):	15.407 (a) Pressure (mBars): 999 - 1001						
Reference Document(s):	See Normative References						

Test Procedure for Maximum Conducted Output Power Measurement

Method PM (Measurement using an RF average power meter). KDB 789033 defines a methodology using an average wideband power meter. Measurements were made while the EUT was operating in a continuous transmission mode (100% duty cycle) at the appropriate center frequency. All operational modes and frequency bands were measured independently and the resultant calculated. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured and reported separately. A summation (Σ) of each antenna port output power is provided which includes any offset due to Duty Cycle Correction Factor (DCCF). Testing was performed under ambient conditions at nominal voltage.

Test configuration and setup used for the measurement was per the Conducted Test Set-up section specified in this document. Supporting Information

Calculated Power = $A + G + Y + 10 \log (1/x) dBm$

A = Total Power [$10*Log10 (10^{a/10} + 10^{b/10} + 10^{c/10} + 10^{d/10})$]

G = Antenna Gain

Y = Beamforming Gain

x = Duty Cycle (average power measurements only)

Limits Maximum Conducted Output Power

Operating Frequency Band 5150-5250 MHz

15. 407 (a)(1)

- (i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).
- (ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
- (iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.



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(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5250-5350 and 5470 - 5725 MHz

15. 407 (a)(2)

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5725 - 5850 MHz

15. 407 (a)(3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.



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Equipment Configuration for Peak Transmit Power

Variant:	10 MHz	Duty Cycle (%):	100.0
Data Rate:	3.25 MBit/s	Antenna Gain (dBi):	12.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Fixed Point-to-point		

Test Measurement Results									
Test Measured Conducted Output Power (dBm)				er (dBm)	Calculated	Minimum			
Frequency		Port(s)			Power Bandwidth		Total 26 dB Limit Margin Power Bandwidth		EUT Power Setting
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dB	Setting
5730.0	19.58	17.87	17.83		23.28		30.00	-6.72	19.50
5787.0	22.86	22.12	21.42		26.94		30.00	-3.06	24.50
5845.0	19.74	18.34	18.95		23.82		30.00	-6.18	19.50

Traceability to Industry Recognized Test Methodologies				
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER			
Measurement Uncertainty:	±1.33 dB			



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Equipment Configuration for Peak Transmit Power

Variant:	20 MHz	Duty Cycle (%):	100.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	12.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Fixed Point-to-point		

Test Measur	Test Measurement Results								
Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power Setting
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dB	Setting
5735.0	19.71	17.98	18.13		23.45		30.00	-6.55	19.50
5787.0	25.27	25.20	24.66		29.82		30.00	-0.18	28.00
5840.0	19.74	18.35	18.99		23.84		30.00	-6.16	19.50

Traceability to Industry Recognized Test Methodologies					
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER				
Measurement Uncertainty:	±1.33 dB				



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Equipment Configuration for Peak Transmit Power

Variant:	40 MHz	Duty Cycle (%):	100.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	12.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Fixed Point-to-point		

Test Measur	Test Measurement Results								
Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dB	Setting
5745.0	21.91	19.97	19.60		25.39		30.00	-4.61	21.00
5787.0	25.09	24.96	24.46		29.62		30.00	-0.38	28.00
5830.0	20.96	19.24	19.96		24.88		30.00	-5.12	20.50

Traceability to Industry Recognized Test Methodologies					
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER				
Measurement Uncertainty:	±1.33 dB				



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Equipment Configuration for Peak Transmit Power

Serial #:

Variant:	80 MHz	Duty Cycle (%):	100.0
Data Rate:	29.30 MBit/s	Antenna Gain (dBi):	12.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Fixed Point-to-point		

Test Measur	Test Measurement Results								
Test Frequency	Measure	d Conducted Por	•	er (dBm)	Calculated Total Power	Minimum 26 dB Bandwidth	Limit	Margin	EUT Power
MHz	а	b	С	d	Σ Port(s) dBm	MHz	dBm	dB	Setting
5765.0	17.89	15.72	15.60		21.31		30.00	-8.69	17.50
5787.0	25.35	24.83	24.43		29.66		30.00	-0.34	29.00
5810.0	17.92	15.90	17.20		21.86		30.00	-8.14	17.50

Traceability to Industry Recognized Test Methodologies				
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER			
Measurement Uncertainty:	±1.33 dB			



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1.2. 6 dB & 99% Bandwidth

Conducted Test Conditions for 6 dB and 99% Bandwidth					
Standard:	FCC CFR 47:15.407	CC CFR 47:15.407 Ambient Temp. (°C): 24.0 - 27.5			
Test Heading:	6 dB and 99 % Bandwidth	Rel. Humidity (%):	32 - 45		
Standard Section(s):	15.407 (a)	Pressure (mBars):	999 - 1001		
Reference Document(s):	See Normative References				

Test Procedure for 6 dB and 99% Bandwidth Measurement

The bandwidth at 6 dB and 99 % is measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency. The Resolution Bandwidth was set to 100 kHz.

Testing was performed under ambient conditions at nominal voltage. Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured and reported.

Test configuration and setup used for the measurement was per the Conducted Test Set-up section specified in this document.



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Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	10 MHz	Duty Cycle (%):	100.0
Data Rate:	3.25 MBit/s	Antenna Gain (dBi):	12.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Fixed Point-to-point		

Test Measurement Results								
Test	Measured 6 dB Bandwidth (MHz) 6 dB Bandwidth (vidth (MILL=)		
Frequency		Por	t(s)		6 db bandi	wiath (WHZ)		
MHz	а	b	С	d	Highest	Lowest		
5730.0	<u>8.750</u>	<u>8.830</u>	<u>8.750</u>		8.830	8.750		
5787.0	8.750	<u>8.830</u>	<u>8.830</u>		8.830	8.750		
5845.0	<u>8.750</u>	<u>8.750</u>	<u>8.750</u>		8.750	8.750		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)		
MHz	а	b	C	d	Highest	Lowest	
5730.0	<u>11.610</u>	<u>10.880</u>	9.310		11.610	9.310	
5787.0	<u>10.560</u>	<u>13.634</u>	11.864		13.634	10.560	
5845.0	9.798	<u>12.773</u>	<u>12.530</u>		12.773	9.798	

Traceability to Industry Recognized Test Methodologies				
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK			
Measurement Uncertainty:	±2.81 dB			



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Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	20 MHz	Duty Cycle (%):	100.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	12.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Fixed Point-to-point		

Test Measurement Results								
Test	Measured 6 dB Bandwidth (MHz)							
Frequency		Por	t(s)		6 dB Bandwidth (MHz)			
MHz	а	b	С	d	Highest	Lowest		
5735.0	<u>17.500</u>	<u>17.500</u>	<u>17.500</u>		17.500	17.500		
5787.0	<u>17.500</u>	<u>17.500</u>	<u>17.500</u>		17.500	17.500		
5840.0	<u>17.500</u>	<u>17.500</u>	<u>17.500</u>		17.500	17.500		

Test	M	easured 99% E	Bandwidth (MF	łz)	99% Bandwidth (MHz)		
Frequency		Por	t(s)		00 /0 241141	vider (iiii iz)	
MHz	а	b	С	d	Highest	Lowest	
5735.0	<u>19.269</u>	<u>19.066</u>	<u>18.011</u>		19.269	18.011	
5787.0	<u>20.518</u>	<u>24.612</u>	21.940		24.612	20.518	
5840.0	<u>19.488</u>	23.482	<u>23.375</u>		23.482	19.488	

Traceability to Industry Recognized Test Methodologies				
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK			
Measurement Uncertainty:	±2.81 dB			



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Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	40 MHz	Duty Cycle (%):	100.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	12.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Fixed Point-to-point		

Test Measure	Test Measurement Results							
Test	M	easured 6 dB E	Bandwidth (MF	łz)	6 dB Bandwidth (MHz)			
Frequency	Port(s)			6 GB Bandy	vidin (MHZ)			
MHz	а	b	С	d	Highest	Lowest		
5745.0	<u>36.000</u>	<u>35.300</u>	<u>36.300</u>		36.300	35.300		
5787.0	<u>36.000</u>	36.000	35.700		36.000	35.700		
5830.0	36.000	36.000	<u>35.700</u>		36.000	35.700		

Test	Measured 99% Bandwidth (MHz)				99% Bandwidth (MHz)		
Frequency	Port(s)						
MHz	а	b	С	d	Highest	Lowest	
5745.0	<u>39.586</u>	<u>47.090</u>	<u>37.004</u>		47.090	37.004	
5787.0	<u>39.115</u>	<u>52.372</u>	<u>46.064</u>		52.372	39.115	
5830.0	<u>37.571</u>	<u>54.897</u>	49.927		54.897	37.571	

Traceability to Industry Recognized Test Methodologies				
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK			
Measurement Uncertainty:	±2.81 dB			



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Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	80 MHz	Duty Cycle (%):	100.0
Data Rate:	29.30 MBit/s	Antenna Gain (dBi):	12.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Fixed Point-to-point		

Test Measurement Results								
Test	Me	easured 6 dB E	Bandwidth (MF	łz)	C dD Dan dwidth (MIII)			
Frequency	Port(s)			6 dB Bandwidth (MHz				
MHz	а	b	С	d	Highest	Lowest		
5765.0	74.700	<u>75.300</u>	<u>74.700</u>		75.300	74.700		
5787.0	<u>75.300</u>	74.000	<u>75.300</u>		75.300	74.000		
5810.0	<u>75.300</u>	<u>74.000</u>	<u>74.700</u>		75.300	74.000		

Test	M	easured 99% E	Bandwidth (MF	lz)	99% Bandwidth (MHz)		
Frequency	Port(s)			55 % Banawiath (Mile)			
MHz	а	b	С	d	Highest	Lowest	
5765.0	<u>78.878</u>	<u>96.190</u>	<u>79.207</u>		96.190	78.878	
5787.0	<u>96.745</u>	<u>112.681</u>	<u>100.555</u>		112.681	96.745	
5810.0	<u>91.058</u>	<u>111.016</u>	104.314		111.016	91.058	

Traceability to Industry Recognized Test Methodologies				
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK			
Measurement Uncertainty:	±2.81 dB			



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1.3. Power Spectral Density

Conducted Test Conditions for Power Spectral Density					
Standard:	FCC CFR 47:15.407	Ambient Temp. (°C):	24.0 - 27.5		
Test Heading:	Power Spectral Density	Rel. Humidity (%):	32 - 45		
Standard Section(s):	15.407 (a)	Pressure (mBars):	999 - 1001		
Reference Document(s):	See Normative References				

Test Procedure for Power Spectral Density

The in-band power spectral density was measured using the test technique specified in KDB 789033. A 1 MHz measurement bandwidth was implemented for the analyzer sweep. Once the sweep is complete the analyzer trace data is downloaded and used for post processing purposes.

Where the device operated with multiple antenna ports i.e. MIMO device, each port was measured separately. The Peak Power Spectral Density is the highest level found across the emission bandwidth. With multiple antenna port measurements the numerical analyzer data from each port is summed (å) and a link to this additional graphic is provided.

Test configuration and setup used for the measurement was per the Conducted Test Set-up section specified in this document.

Measure and sum the spectra across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The individual spectra are then summed mathematically in linear power units. Unlike in-band power measurements, in which the sum involves a single measured value (output power) from each output, measurements for compliance with PSD limits involve summing entire spectra across corresponding frequency bins on the various outputs. Consistency is maintained for any device with multiple transmitter outputs to be certain the individual outputs are all aligned with the same span and same number of points. In this instance, the linear power spectrum value within the first spectral bin of output 0 is summed with that in the first spectral bin of output 1, and the first spectral bin of output 2, and so on up to the Nth output to obtain the true value for the first frequency bin of the summed spectrum. The summed spectrum value for each frequency bin is computed in this fashion. These summed spectral values were post processed and the resulting numerical and graphical data presented.

NOTE: It may be observed that spectrum in some plots break the limit line however this in itself does NOT constitute a failure. In all cases a spectrum summation plot is provided in order to prove compliance. A failure occurs only after the summation of all spectrum plots have been summed and are found to be greater than the limit line.

Supporting Information Calculated Power = A + 10 log (1/x) dBm A = Total Power Spectral Density [$10*Log10 (10^{a/10} + 10^{b/10} + 10^{c/10} + 10^{d/10})$] x = Duty Cycle

Limits Power Spectral Density

Operating Frequency Band 5150-5250 MHz

15. 407 (a)(1)

- (i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).
- (ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.



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(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5250-5350 and 5470 - 5725 MHz

15. 407 (a)(2)

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Operating Frequency Band 5725 - 5850 MHz

15 407 (a)(3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.



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Equipment Configuration for Power Spectral Density

Variant:	10 MHz	Duty Cycle (%):	100.0
Data Rate:	3.25 MBit/s	Antenna Gain (dBi):	12.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Fixed Point-to-point		

Test Measurem	Test Measurement Results							
Test	Test Measured Power Spectral Density							
Frequency	Port(s) (dBm/500 KHz)				Peak Marker + DCCF (+0 dB)	Limit	Margin	
MHz	а	b	С	d	dBm/500 KHz	dBm/500 KHz	dB	
5730.0	<u>14.894</u>	<u>14.235</u>	<u>13.323</u>		<u>18.514</u>	30.0	-11.5	
5787.0	<u>14.552</u>	14.606	14.402		<u>18.523</u>	30.0	-11.4	
5845.0	<u>14.239</u>	14.483	<u>14.616</u>		<u>18.529</u>	30.0	-11.4	

Traceability to Industry Recognized Test Methodologies				
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK			
Measurement Uncertainty:	±2.81 dB			

DCCF - Duty Cycle Correction Factor



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Equipment Configuration for Power Spectral Density

Variant:	20 MHz	Duty Cycle (%):	100.0
Data Rate:	6.50 MBit/s	Antenna Gain (dBi):	12.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Fixed Point-to-point		

Test Measurem	Test Measurement Results						
Test Measured Power Spectral Density				Summation			
Frequency		Port(s) (dBm/500 KHz)			Peak Marker + DCCF (+0 dB)	Limit	Margin
MHz	а	b	С	d	dBm/500 KHz	dBm/500 KHz	dB
5735.0	<u>11.674</u>	<u>10.956</u>	<u>10.300</u>		<u>15.449</u>	30.0	-14.5
5787.0	<u>11.457</u>	<u>11.377</u>	11.348		<u>15.922</u>	30.0	-14.0
5840.0	<u>11.266</u>	<u>11.083</u>	<u>11.583</u>		<u>15.883</u>	30.0	-14.1

Traceability to Industry Recognized Test Methodologies					
Work Instruction: WI-03 MEASURING RF SPECTRUM MASK					
Measurement Uncertainty:	±2.81 dB				

DCCF - Duty Cycle Correction Factor



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Equipment Configuration for Power Spectral Density

Variant:	40 MHz	Duty Cycle (%):	100.0
Data Rate:	13.50 MBit/s	Antenna Gain (dBi):	12.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Fixed Point-to-point		

Test Measurement Results							
Test	incusured rower opecual bensity		Summation Peak Marker +		Margin		
Frequency		Port(s) (dBm/500 KHz)			DCCF (+0 dB)		Margin
MHz	а	b	С	d	dBm/500 KHz	dBm/500 KHz	dB
5745.0	<u>8.262</u>	<u>8.454</u>	<u>7.863</u>		<u>12.464</u>	30.0	-17.5
5787.0	7.885	8.289	8.079		<u>12.663</u>	30.0	-17.3
5830.0	<u>8.470</u>	<u>8.609</u>	<u>8.730</u>		<u>12.759</u>	30.0	-17.2

Traceability to Industry Recognized Test Methodologies					
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK				
Measurement Uncertainty:	±2.81 dB				

DCCF - Duty Cycle Correction Factor



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Equipment Configuration for Power Spectral Density

Variant:	80 MHz	Duty Cycle (%):	100.0
Data Rate:	29.30 MBit/s	Antenna Gain (dBi):	12.50
Modulation:	OFDM	Beam Forming Gain (Y)(dB):	Not Applicable
TPC:	Not Applicable	Tested By:	CC
Engineering Test Notes:	Fixed Point-to-point		

Test Measurement Results							
Test Measured Power Spectral Density			Summation				
Frequency		Port(s) (dB	m/500 KHz)	Peak Marker + Limit Ma DCCF (+0 dB)			Margin
MHz	а	b	С	d	dBm/500 KHz	dBm/500 KHz	dB
5765.0	<u>6.029</u>	<u>5.224</u>	<u>5.120</u>		<u>9.786</u>	30.0	-20.2
5787.0	<u>5.824</u>	<u>5.871</u>	<u>5.459</u>		9.970	30.0	-20.0
5810.0	<u>5.173</u>	<u>5.415</u>	<u>5.655</u>		9.899	30.0	-20.1

Traceability to Industry Recognized Test Methodologies					
Work Instruction: WI-03 MEASURING RF SPECTRUM MASK					
Measurement Uncertainty:	±2.81 dB				

DCCF - Duty Cycle Correction Factor



Title: Radwin Ltd. AP0168031 Wireless Module **To:** FCC CFR 47 15.407, ISED RSS-247

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A. <u>APPENDIX - GRAPHICAL IMAGES</u>



Stop 5755.000 MHz

Span 50.000 MHz

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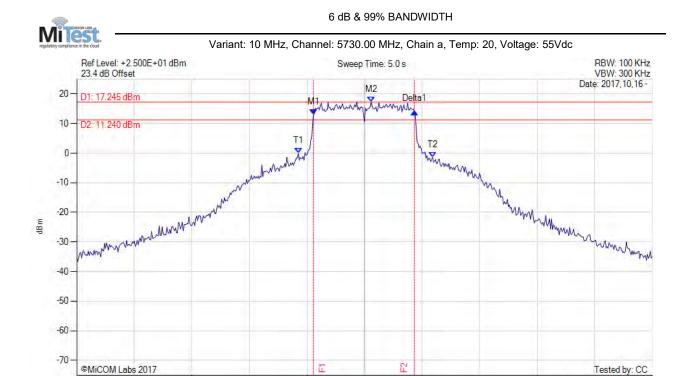
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A.1. 6 dB & 99% Bandwidth

Start 5705.000 MHz



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 8.750 MHz Measured 99% Bandwidth: 11.610 MHz

Step 5.000 MHz



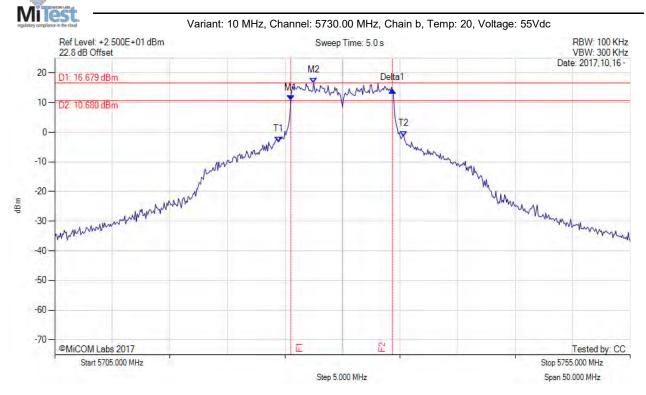
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 8.830 MHz Measured 99% Bandwidth: 10.880 MHz

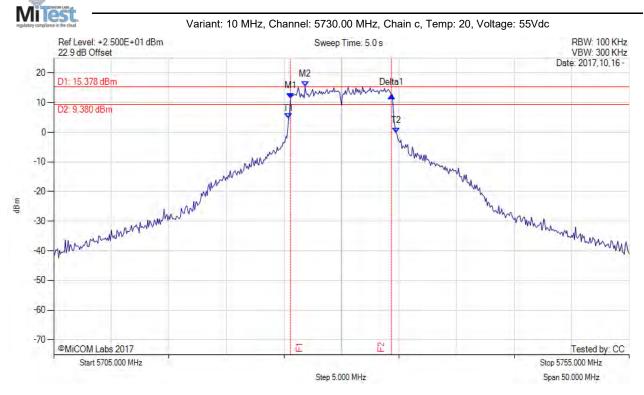


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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 8.750 MHz Measured 99% Bandwidth: 9.310 MHz



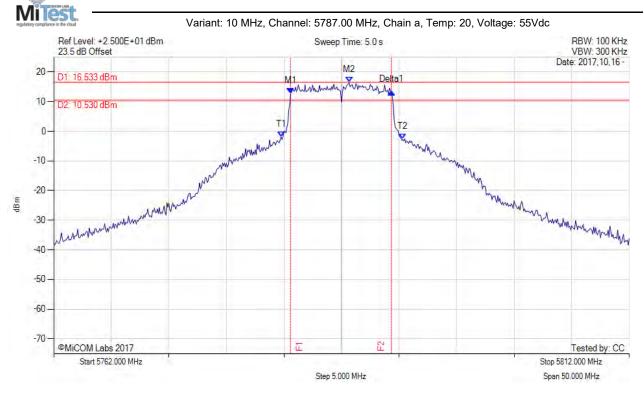
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1 : 5782.580 MHz : 12.802 dBm M2 : 5787.670 MHz : 16.533 dBm Delta1 : 8.750 MHz : 0.498 dB T1 : 5781.750 MHz : -1.820 dBm T2 : 5792.333 MHz : -2.691 dBm OBW : 10.560 MHz	Measured 6 dB Bandwidth: 8.750 MHz Measured 99% Bandwidth: 10.560 MHz



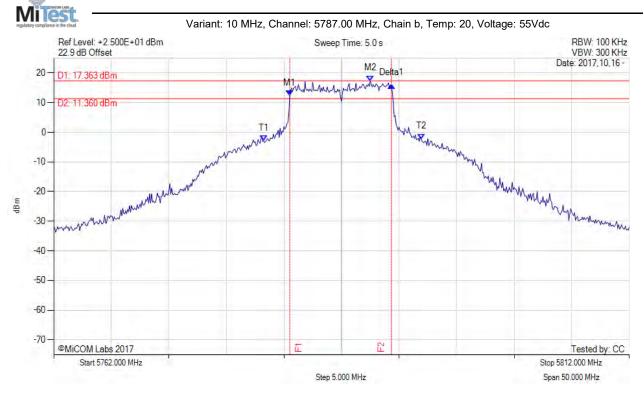
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 8.830 MHz Measured 99% Bandwidth: 13.634 MHz

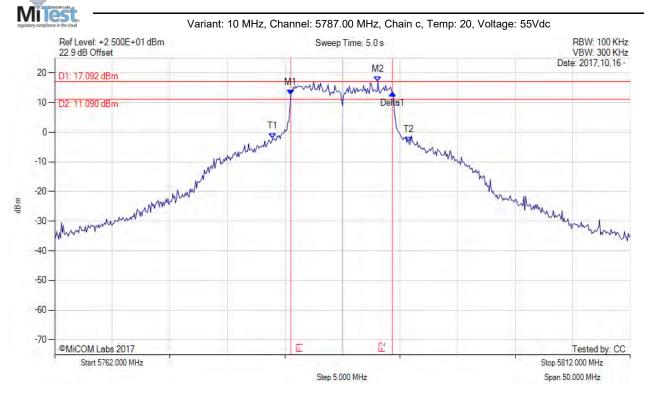


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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 8.830 MHz Measured 99% Bandwidth: 11.864 MHz

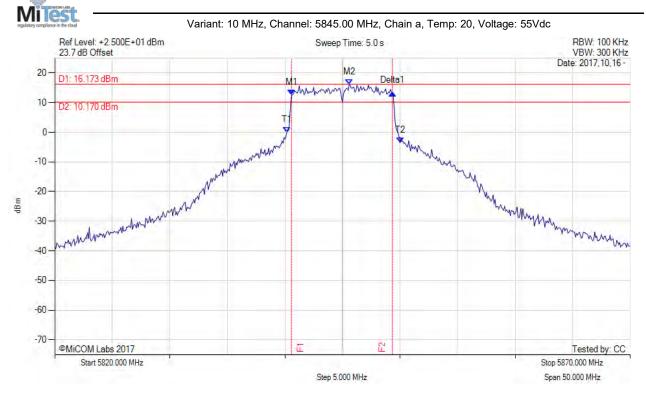


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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 8.750 MHz Measured 99% Bandwidth: 9.798 MHz



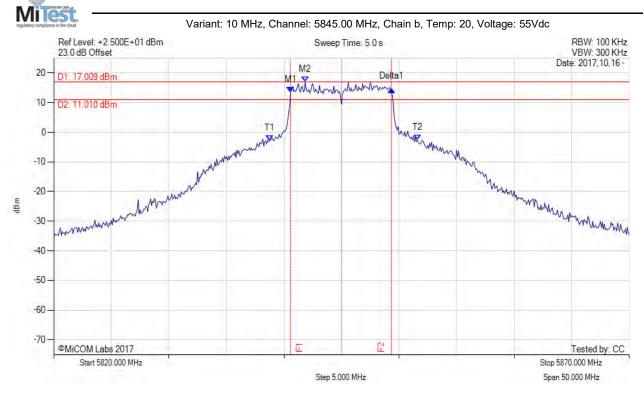
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1: 5840.580 MHz: 13.531 dBm M2: 5841.830 MHz: 17.009 dBm Delta1: 8.750 MHz: 1.042 dB T1: 5838.750 MHz: -2.880 dBm T2: 5851.583 MHz: -2.571 dBm OBW: 12.773 MHz	Measured 6 dB Bandwidth: 8.750 MHz Measured 99% Bandwidth: 12.773 MHz

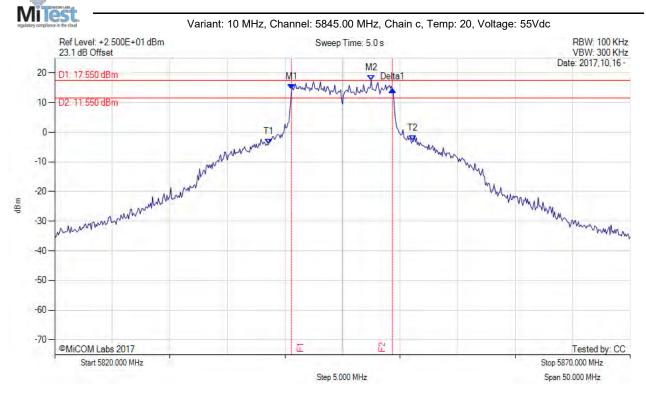


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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1: 5840.580 MHz: 14.451 dBm M2: 5847.500 MHz: 17.550 dBm Delta1: 8.750 MHz: 0.047 dB T1: 5838.583 MHz: -4.002 dBm T2: 5851.083 MHz: -2.893 dBm OBW: 12.530 MHz	Measured 6 dB Bandwidth: 8.750 MHz Measured 99% Bandwidth: 12.530 MHz



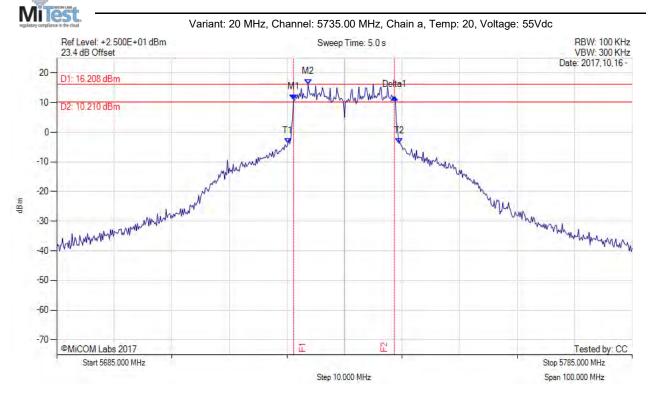
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1: 5726.170 MHz: 11.066 dBm M2: 5728.670 MHz: 16.208 dBm Delta1: 17.500 MHz: 0.902 dB T1: 5725.167 MHz: -3.772 dBm T2: 5744.500 MHz: -3.734 dBm OBW: 19.269 MHz	Measured 6 dB Bandwidth: 17.500 MHz Measured 99% Bandwidth: 19.269 MHz



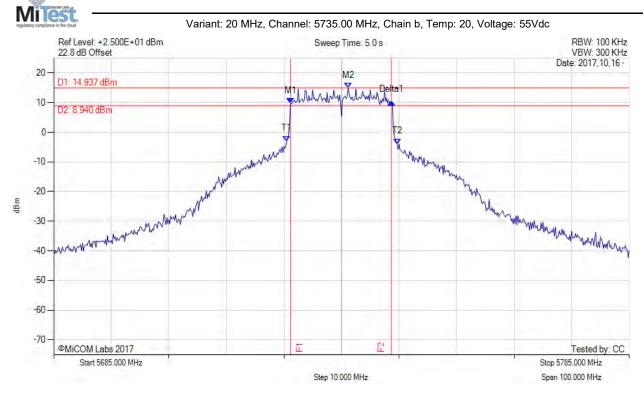
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
	M1: 5726.170 MHz: 9.766 dBm M2: 5736.170 MHz: 14.937 dBm Delta1: 17.500 MHz: 0.487 dB T1: 5725.500 MHz: -2.952 dBm T2: 5744.667 MHz: -3.890 dBm OBW: 19.066 MHz	Measured 6 dB Bandwidth: 17.500 MHz Measured 99% Bandwidth: 19.066 MHz



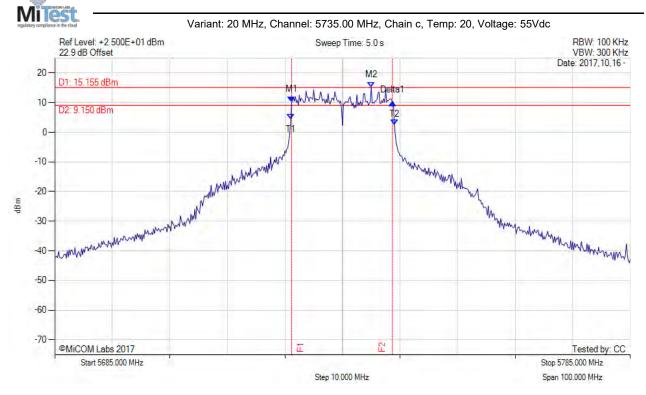
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
	M1: 5726.170 MHz: 10.228 dBm M2: 5740.000 MHz: 15.155 dBm Delta1: 17.500 MHz: -0.205 dB T1: 5726.000 MHz: 4.458 dBm T2: 5744.000 MHz: 2.661 dBm OBW: 18.011 MHz	Measured 6 dB Bandwidth: 17.500 MHz Measured 99% Bandwidth: 18.011 MHz



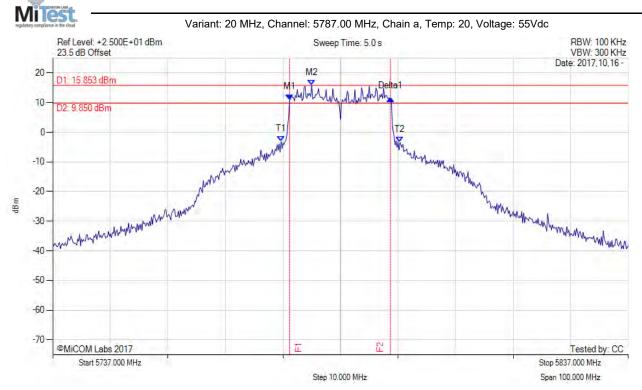
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1: 5778.170 MHz: 11.077 dBm M2: 5782.000 MHz: 15.853 dBm Delta1: 17.500 MHz: 0.370 dB T1: 5776.667 MHz: -3.140 dBm T2: 5797.333 MHz: -3.373 dBm OBW: 20.518 MHz	Measured 6 dB Bandwidth: 17.500 MHz Measured 99% Bandwidth: 20.518 MHz



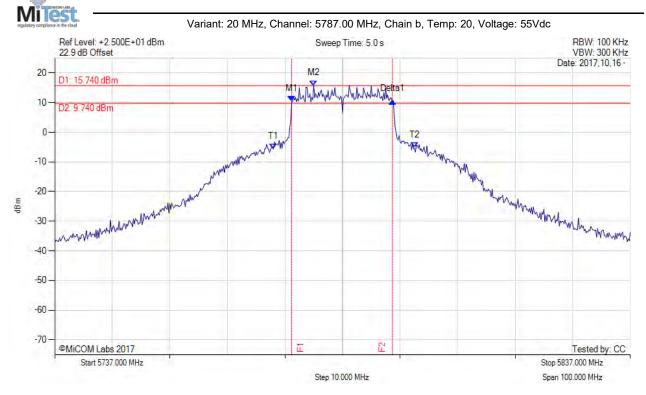
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
1	M1: 5778.170 MHz: 10.576 dBm M2: 5782.000 MHz: 15.740 dBm Delta1: 17.500 MHz: -0.088 dB T1: 5775.000 MHz: -5.647 dBm T2: 5799.500 MHz: -5.271 dBm OBW: 24.612 MHz	Measured 6 dB Bandwidth: 17.500 MHz Measured 99% Bandwidth: 24.612 MHz



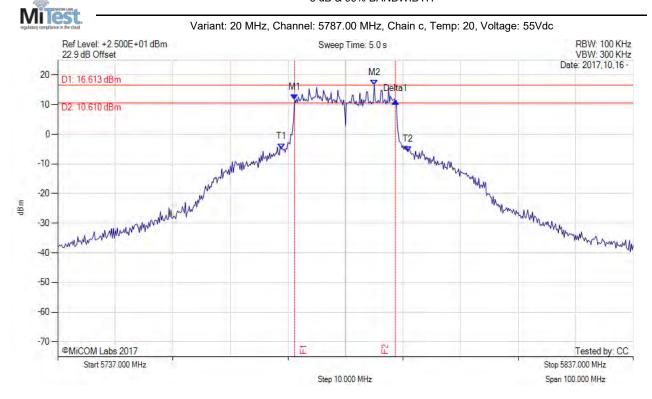
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1: 5778.170 MHz: 11.676 dBm M2: 5792.000 MHz: 16.613 dBm Delta1: 17.500 MHz: -0.574 dB T1: 5775.833 MHz: -5.014 dBm T2: 5797.833 MHz: -5.926 dBm OBW: 21.940 MHz	Measured 6 dB Bandwidth: 17.500 MHz Measured 99% Bandwidth: 21.940 MHz

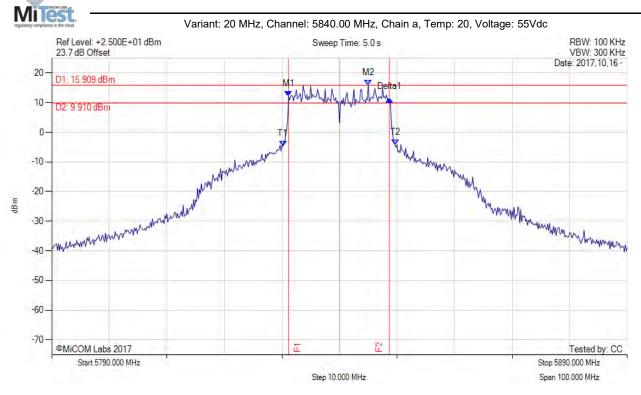


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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 17.500 MHz Measured 99% Bandwidth: 19.488 MHz



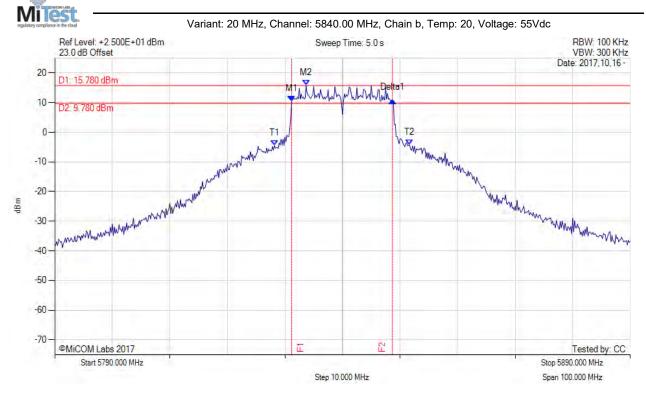
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 17.500 MHz Measured 99% Bandwidth: 23.482 MHz

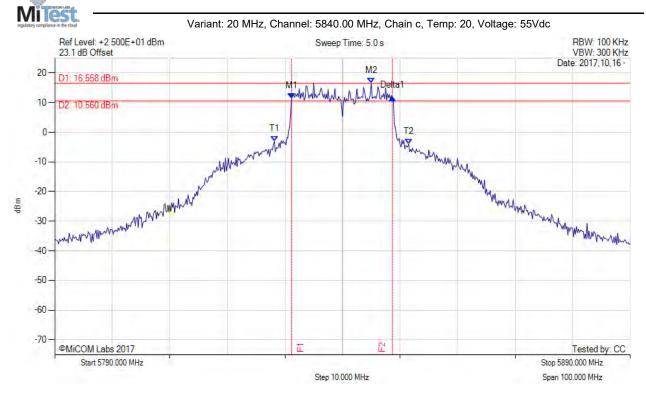


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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 17.500 MHz Measured 99% Bandwidth: 23.375 MHz

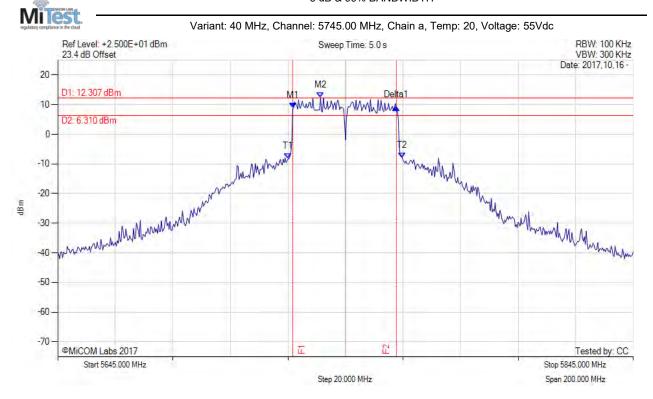


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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 36.000 MHz Measured 99% Bandwidth: 39.586 MHz



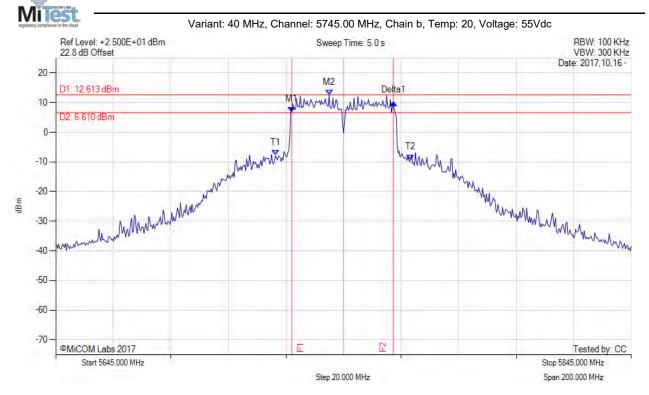
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 35.300 MHz Measured 99% Bandwidth: 47.090 MHz



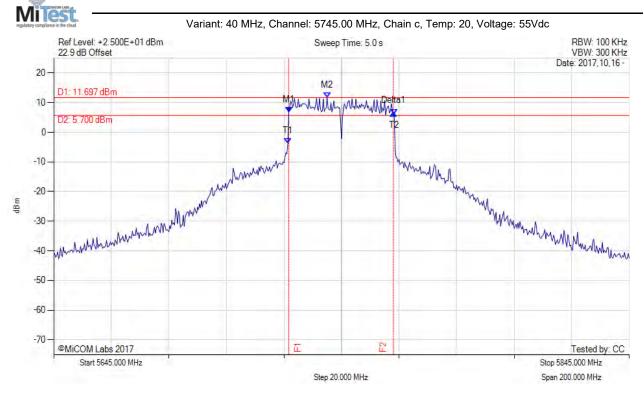
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 36.300 MHz Measured 99% Bandwidth: 37.004 MHz



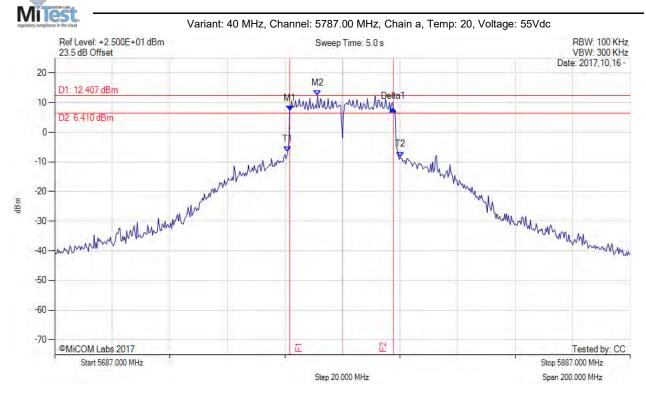
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
	M1: 5768.700 MHz: 7.272 dBm M2: 5778.300 MHz: 12.407 dBm Delta1: 36.000 MHz: 0.669 dB T1: 5768.000 MHz: -6.512 dBm T2: 5807.000 MHz: -8.339 dBm OBW: 39.115 MHz	Measured 6 dB Bandwidth: 36.000 MHz Measured 99% Bandwidth: 39.115 MHz



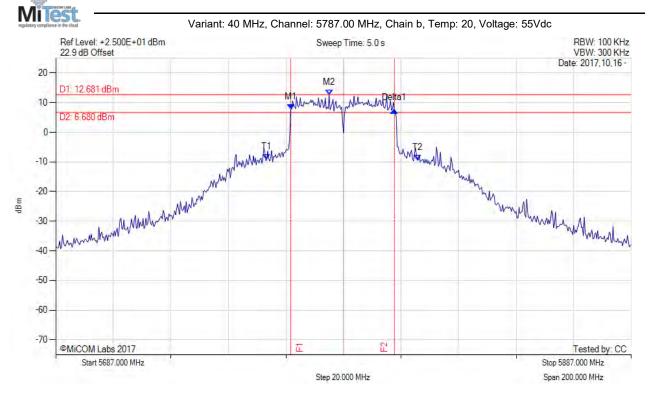
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1: 5768.700 MHz: 7.743 dBm M2: 5782.000 MHz: 12.681 dBm Delta1: 36.000 MHz: -0.325 dB T1: 5760.333 MHz: -9.130 dBm T2: 5812.667 MHz: -9.355 dBm OBW: 52.372 MHz	Measured 6 dB Bandwidth: 36.000 MHz Measured 99% Bandwidth: 52.372 MHz



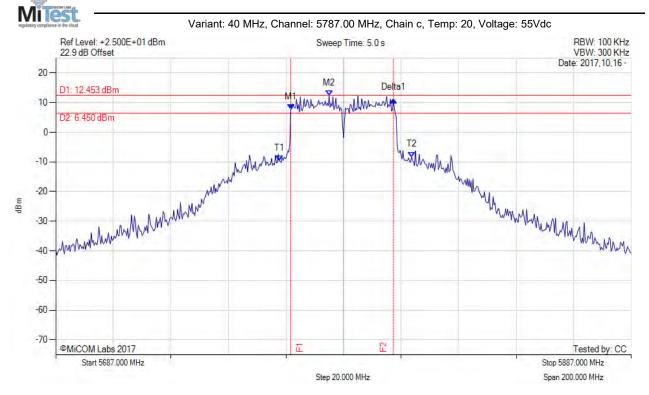
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1: 5768.700 MHz: 7.676 dBm M2: 5782.000 MHz: 12.453 dBm Delta1: 35.700 MHz: 3.171 dB T1: 5764.667 MHz: -9.699 dBm T2: 5810.667 MHz: -8.346 dBm OBW: 46.064 MHz	Measured 6 dB Bandwidth: 35.700 MHz Measured 99% Bandwidth: 46.064 MHz



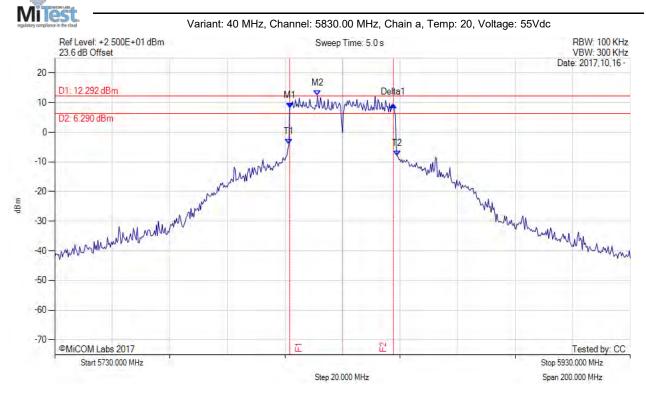
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 36.000 MHz Measured 99% Bandwidth: 37.571 MHz



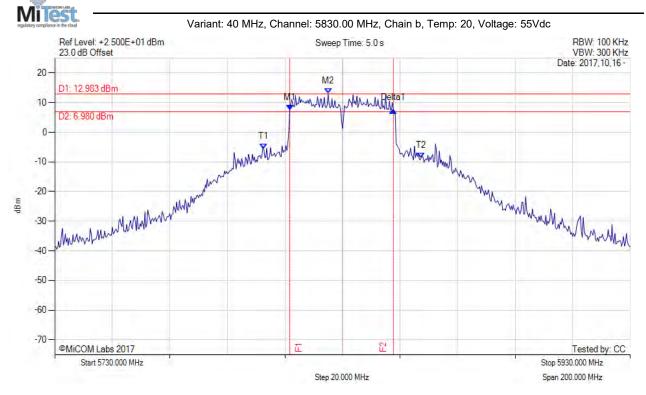
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
		Measured 6 dB Bandwidth: 36.000 MHz Measured 99% Bandwidth: 54.897 MHz



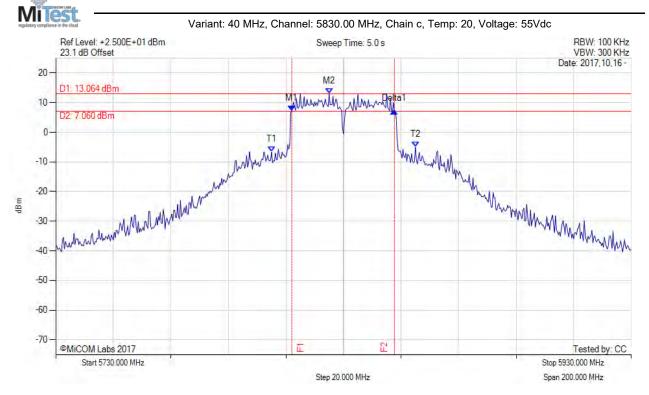
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1: 5812.000 MHz: 7.305 dBm M2: 5825.000 MHz: 13.064 dBm Delta1: 35.700 MHz: -0.077 dB T1: 5805.000 MHz: -6.674 dBm T2: 5855.000 MHz: -4.971 dBm OBW: 49.927 MHz	Measured 6 dB Bandwidth: 35.700 MHz Measured 99% Bandwidth: 49.927 MHz

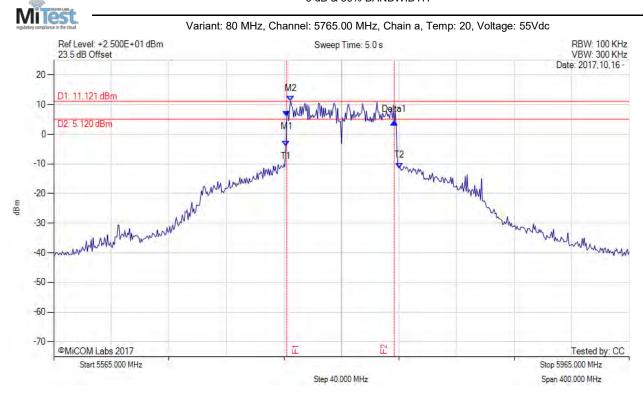


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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
		Measured 6 dB Bandwidth: 74.700 MHz Measured 99% Bandwidth: 78.878 MHz

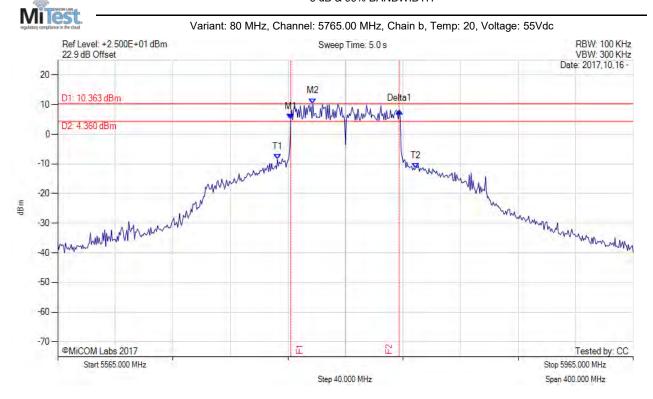


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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1: 5727.000 MHz: 5.094 dBm M2: 5742.300 MHz: 10.363 dBm Delta1: 75.300 MHz: 2.765 dB T1: 5717.667 MHz: -8.490 dBm T2: 5813.667 MHz: -11.432 dBm OBW: 96.190 MHz	Measured 6 dB Bandwidth: 75.300 MHz Measured 99% Bandwidth: 96.190 MHz



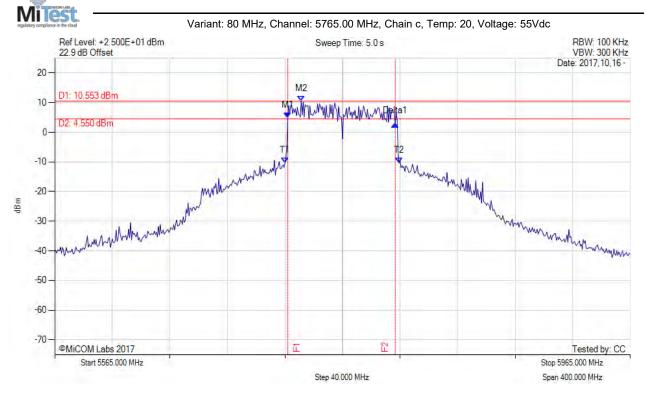
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1: 5727.000 MHz: 4.886 dBm M2: 5736.300 MHz: 10.553 dBm Delta1: 74.700 MHz: -1.992 dB T1: 5725.000 MHz: -10.299 dBm T2: 5804.333 MHz: -10.403 dBm OBW: 79.207 MHz	Measured 6 dB Bandwidth: 74.700 MHz Measured 99% Bandwidth: 79.207 MHz



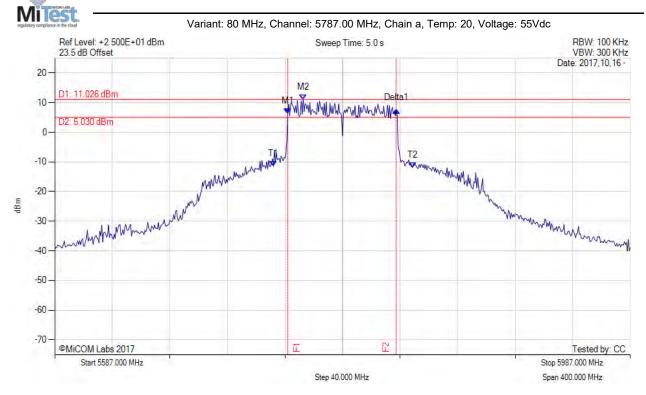
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20	M1: 5749.000 MHz: 6.278 dBm M2: 5759.700 MHz: 11.026 dBm Delta1: 75.300 MHz: 1.118 dB T1: 5739.000 MHz: -11.413 dBm T2: 5835.667 MHz: -11.879 dBm OBW: 96.745 MHz	Measured 6 dB Bandwidth: 75.300 MHz Measured 99% Bandwidth: 96.745 MHz

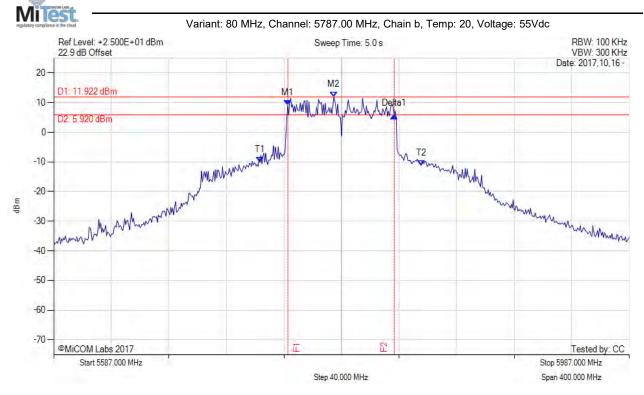


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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH	M1: 5749.700 MHz: 9.132 dBm M2: 5781.700 MHz: 11.922 dBm Delta1: 74.000 MHz: -3.621 dB T1: 5730.333 MHz: -10.147 dBm T2: 5842.333 MHz: -11.161 dBm OBW: 112.681 MHz	Measured 6 dB Bandwidth: 74.000 MHz Measured 99% Bandwidth: 112.681 MHz



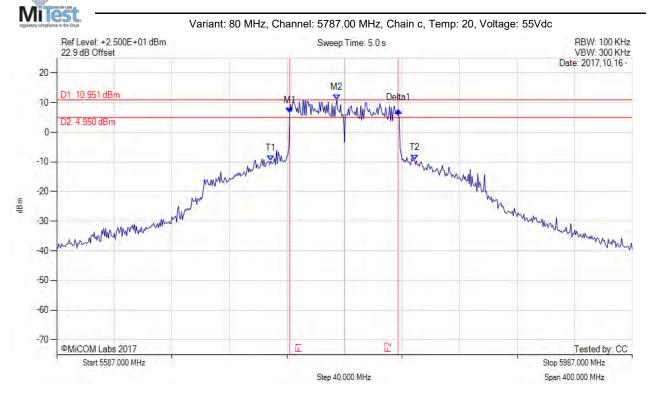
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 75.300 MHz Measured 99% Bandwidth: 100.555 MHz



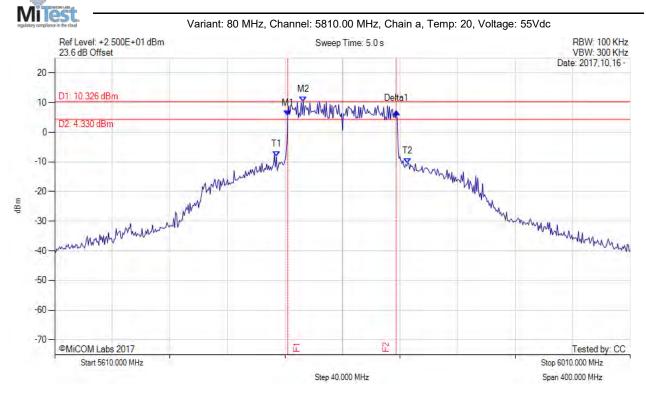
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 75.300 MHz Measured 99% Bandwidth: 91.058 MHz



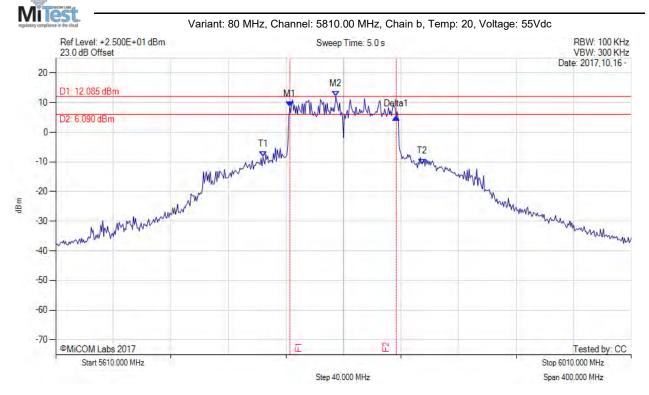
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = MAXH		Measured 6 dB Bandwidth: 74.000 MHz Measured 99% Bandwidth: 111.016 MHz



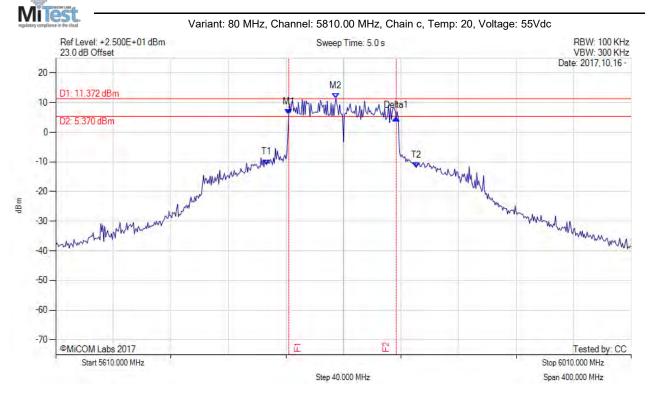
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6 dB & 99% BANDWIDTH



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20	M1: 5772.000 MHz: 5.942 dBm M2: 5804.700 MHz: 11.372 dBm Delta1: 74.700 MHz: -1.075 dB T1: 5756.667 MHz: -10.901 dBm T2: 5860.667 MHz: -11.867 dBm OBW: 104.314 MHz	Measured 6 dB Bandwidth: 74.700 MHz Measured 99% Bandwidth: 104.314 MHz



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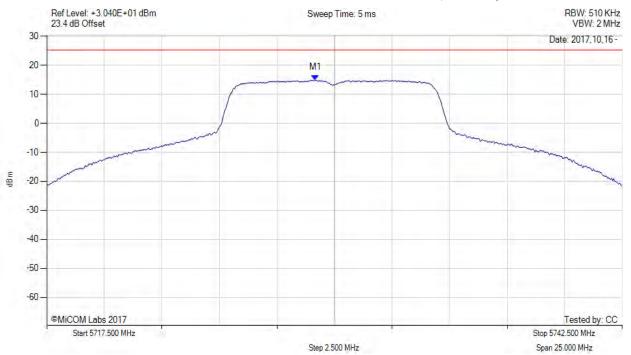
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POWER SPECTRAL DENSITY

A.2. Power Spectral Density

Variant: 10 MHz, Channel: 5730.00 MHz, Chain a, Temp: 20, Voltage: 55Vdc Ref Level: +3.040E+01 dBm Sweep Time: 5 ms 23.4 dB Offset



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER Sweep Count = +100 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5729.170 MHz : 14.894 dBm	Limit: ≤ 25.230 dBm



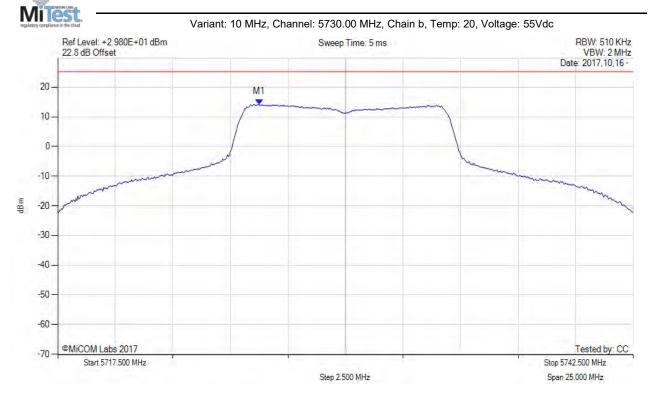
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5726.250 MHz: 14.235 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



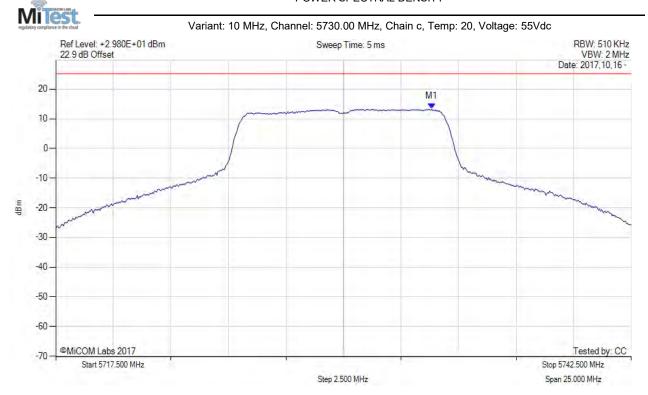
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5733.830 MHz: 13.323 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



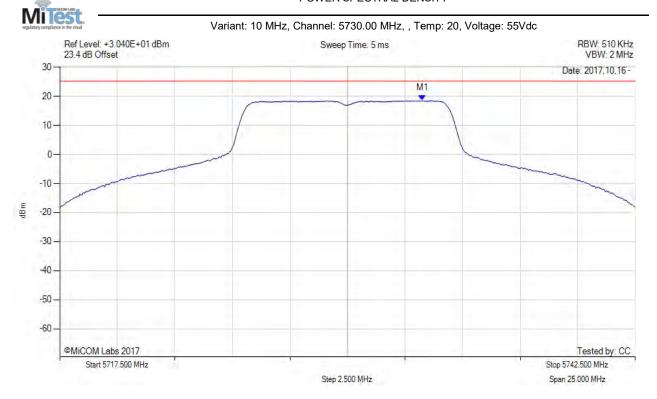
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5733.250 MHz: 18.514 dBm	Channel Frequency: 5730.00 MHz
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



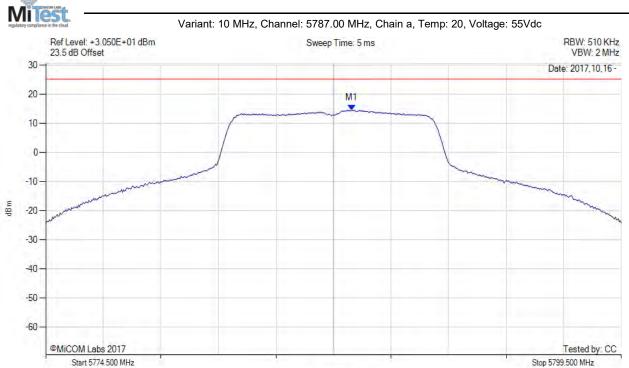
Span 25.000 MHz

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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5787.790 MHz: 14.552 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

Step 2.500 MHz

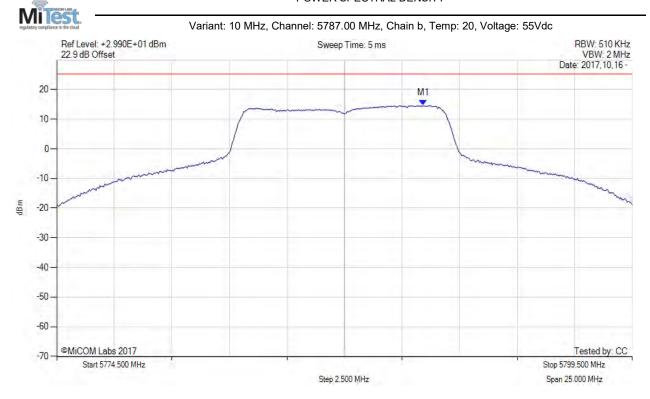


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5790.420 MHz: 14.606 dBm	Channel Frequency: 5787.00 MHz
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



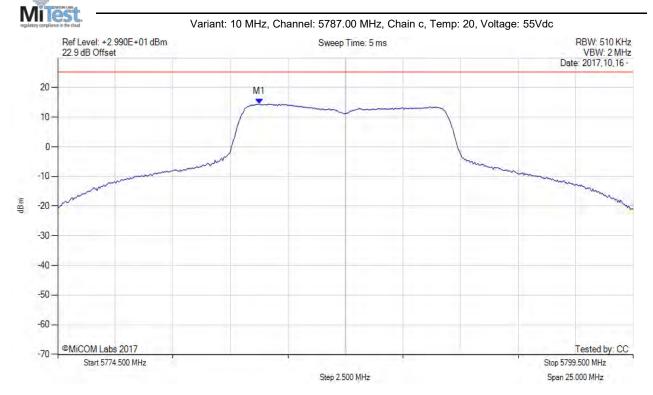
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5783.250 MHz: 14.402 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



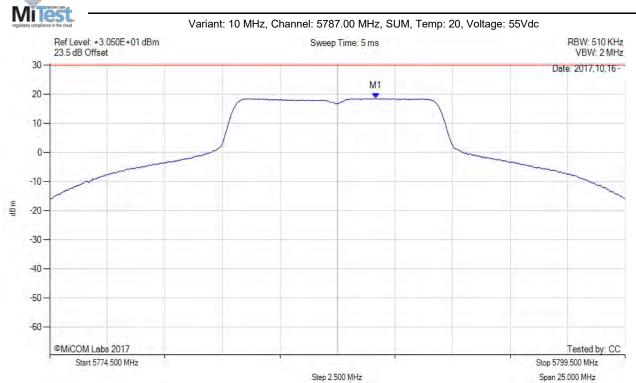
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5788.700 MHz: 18.523 dBm	Limit: ≤ 30.0 dBm
Sweep Count = +100	M1 + DCCF : 5788.700 MHz : 18.523 dBm	Margin: -11.4 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor : +0 dB	
Trace Mode = VIEW		

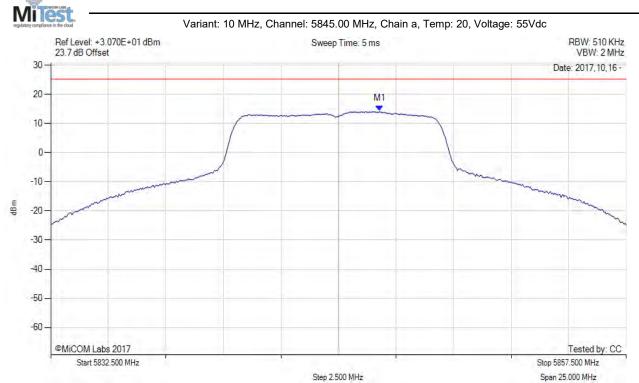


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results	
Detector = AVER	M1: 5846.790 MHz: 14.239 dBm	Limit: ≤ 25.230 dBm	
Sweep Count = +100			
RF Atten (dB) = 20			
Trace Mode = VIEW			



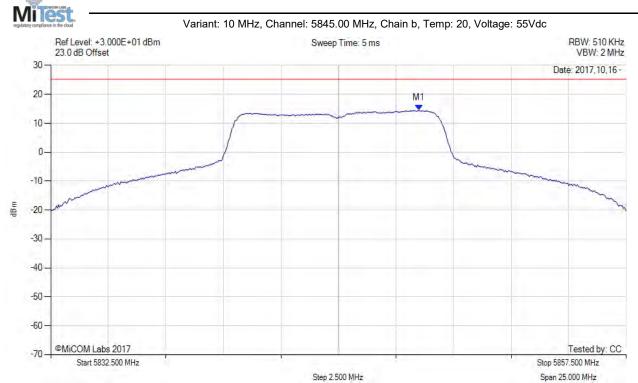
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5848.500 MHz: 14.483 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



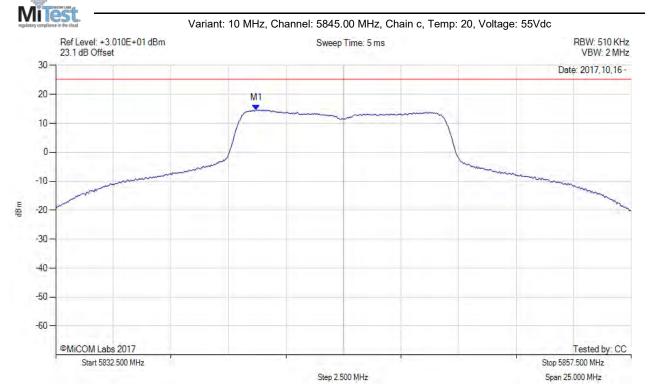
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5841.210 MHz: 14.616 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



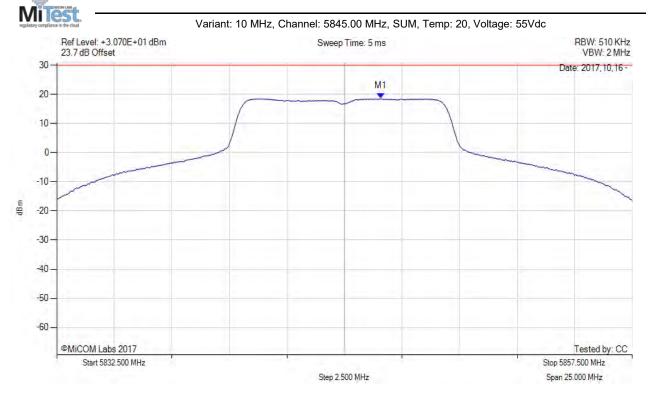
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5846.600 MHz: 18.529 dBm	Limit: ≤ 30.0 dBm
Sweep Count = +100	M1 + DCCF : 5846.600 MHz : 18.529 dBm	Margin: -11.4 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor : +0 dB	
Trace Mode = VIEW		



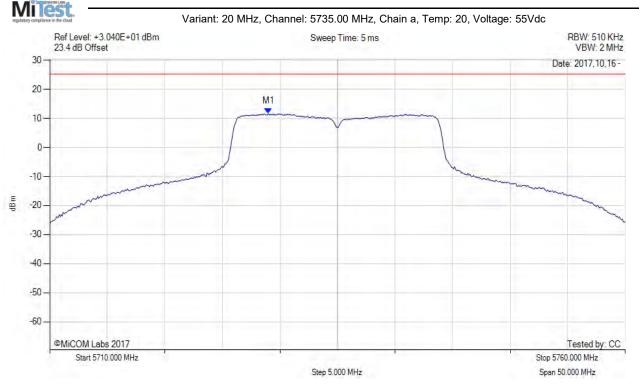
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5729.000 MHz: 11.674 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

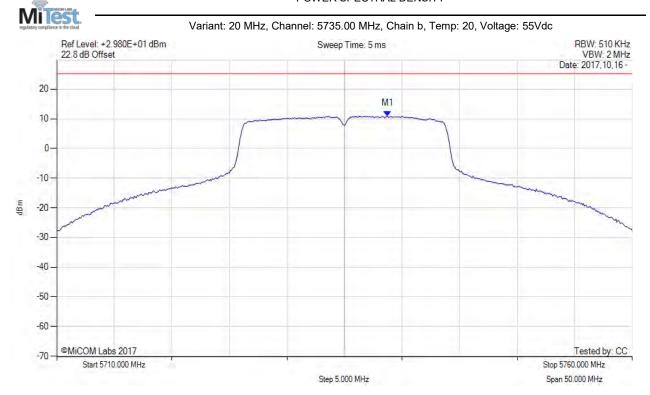


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5738.750 MHz: 10.956 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



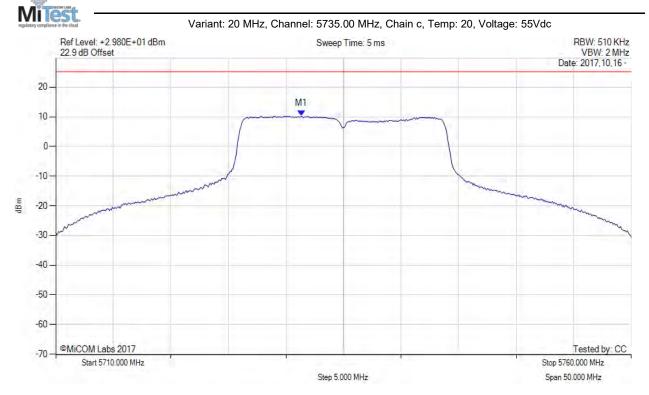
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5731.330 MHz: 10.300 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



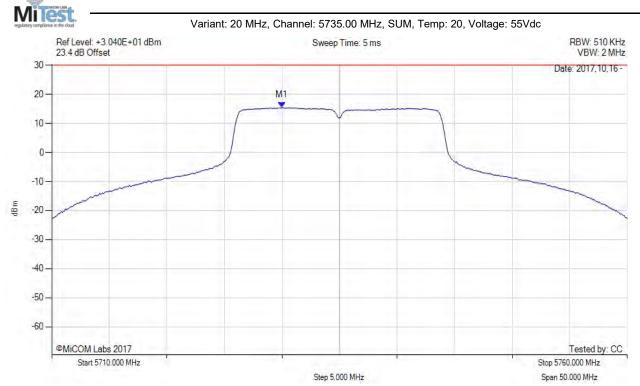
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1 : 5730.000 MHz : 15.449 dBm	Limit: ≤ 30.0 dBm
Sweep Count = +100	M1 + DCCF : 5730.000 MHz : 15.449 dBm	Margin: -14.5 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0 dB	
Trace Mode = VIEW		



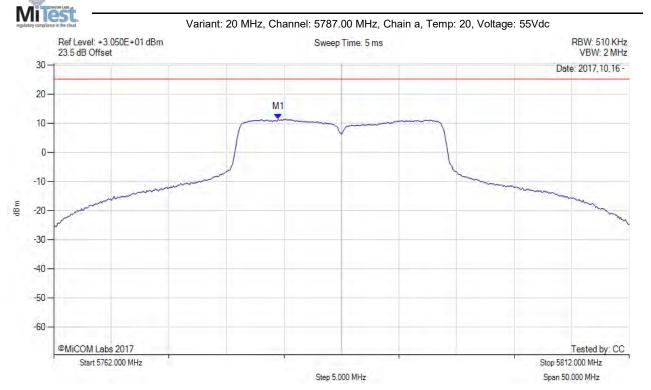
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5781.500 MHz: 11.457 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

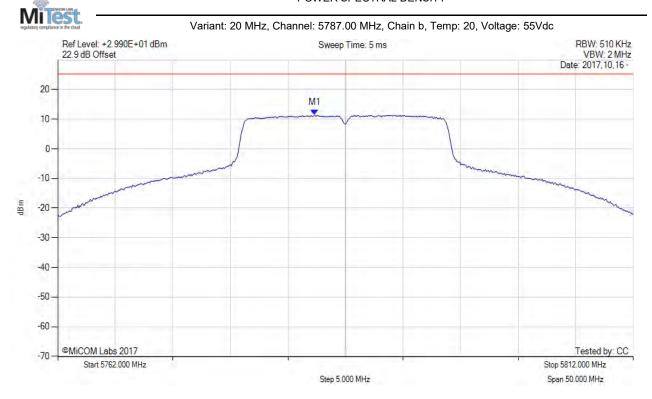


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5784.330 MHz: 11.377 dBm	Channel Frequency: 5787.00 MHz
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

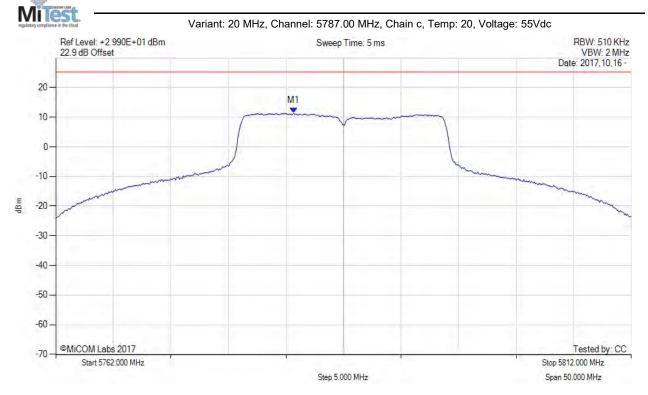


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5782.670 MHz: 11.348 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



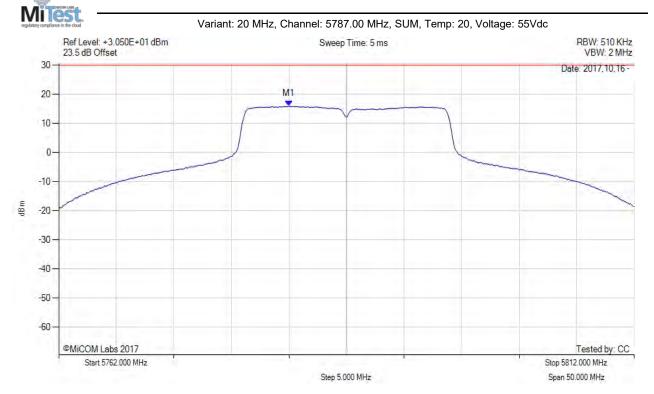
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5782.000 MHz: 15.922 dBm	Limit: ≤ 30.0 dBm
Sweep Count = +100	M1 + DCCF : 5782.000 MHz : 15.922 dBm	Margin: -14.0 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0 dB	
Trace Mode = VIEW		



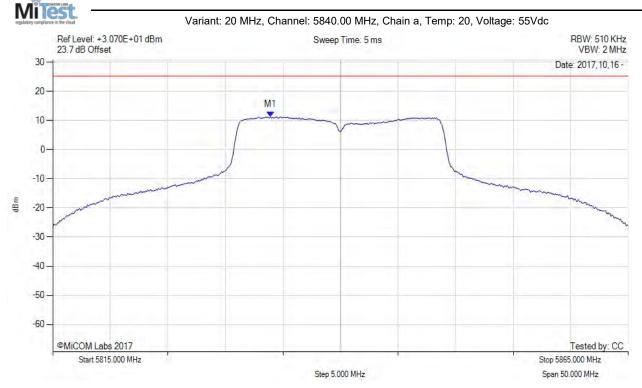
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5833.920 MHz: 11.266 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

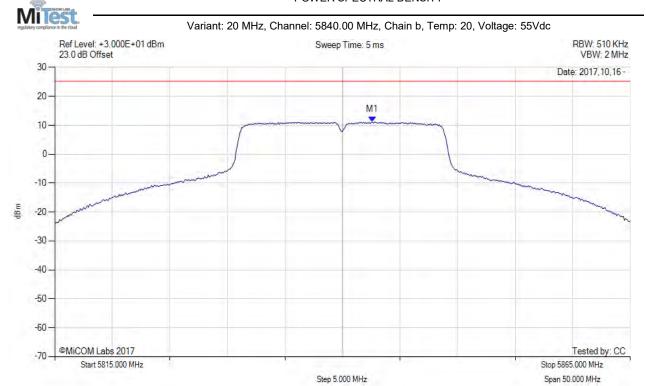


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results	
Detector = AVER	M1: 5842.580 MHz: 11.083 dBm	Limit: ≤ 25.230 dBm	
Sweep Count = +100			
RF Atten (dB) = 20			
Trace Mode = VIEW			

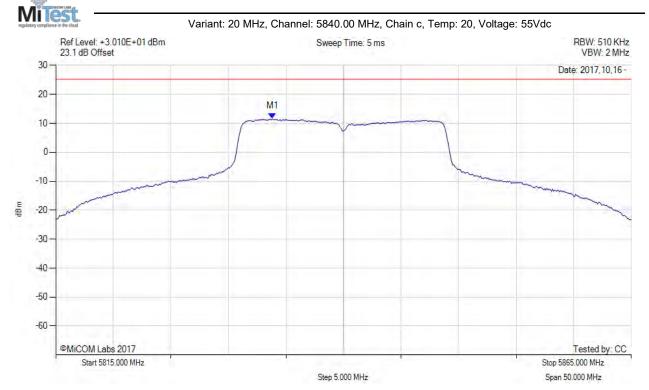


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5833.830 MHz: 11.583 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

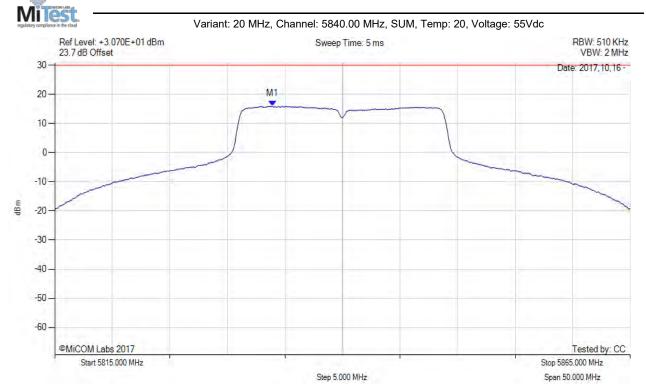


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5833.900 MHz: 15.883 dBm	Limit: ≤ 30.0 dBm
Sweep Count = +100	M1 + DCCF : 5833.900 MHz : 15.883 dBm	Margin: -14.1 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor : +0 dB	
Trace Mode = VIEW		



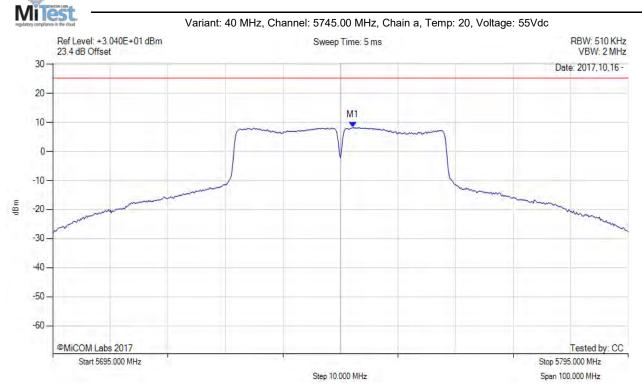
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5747.170 MHz: 8.262 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

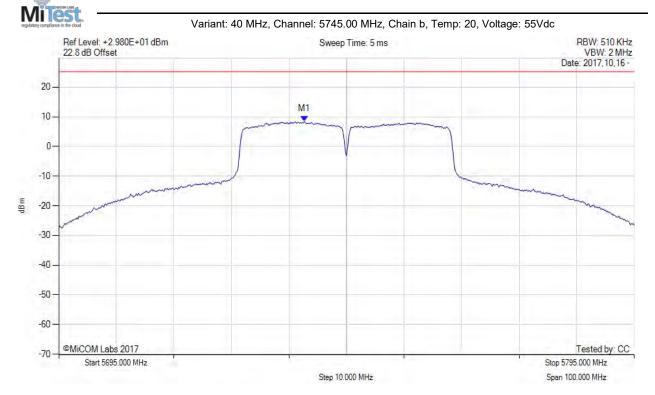


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5737.670 MHz: 8.454 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



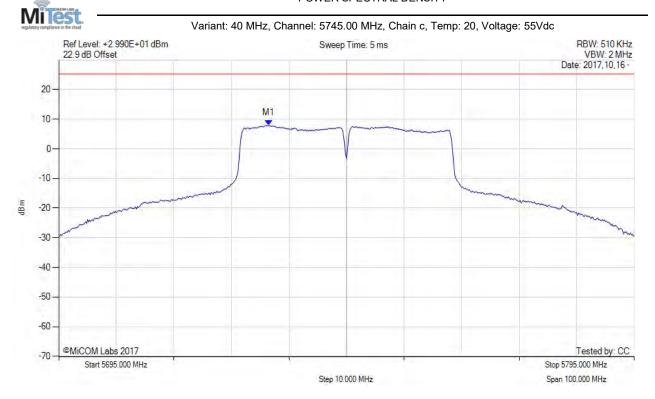
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5731.500 MHz: 7.863 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

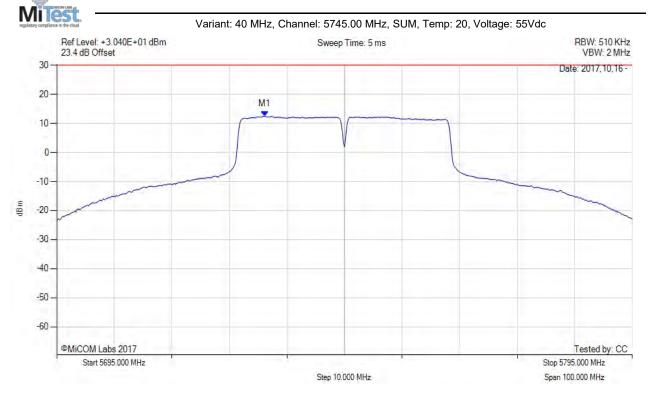


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1 : 5731.200 MHz : 12.464 dBm	Limit: ≤ 30.0 dBm
Sweep Count = +100	M1 + DCCF : 5731.200 MHz : 12.464 dBm	Margin: -17.5 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor : +0 dB	
Trace Mode = VIEW		



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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5785.000 MHz: 7.885 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



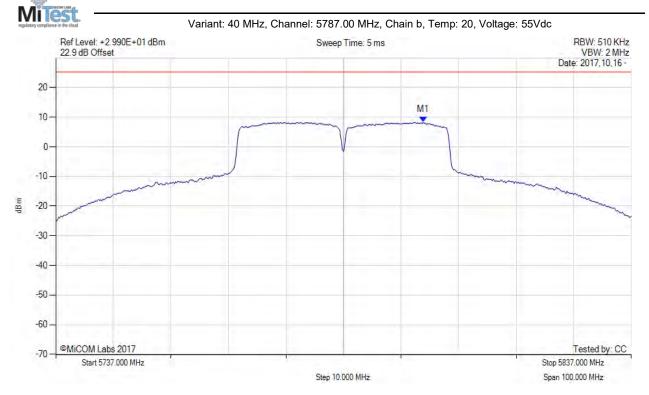
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5800.830 MHz: 8.289 dBm	Channel Frequency: 5787.00 MHz
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



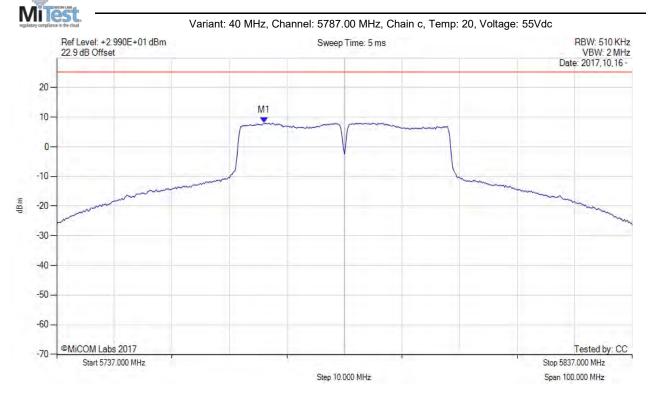
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5773.000 MHz: 8.079 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



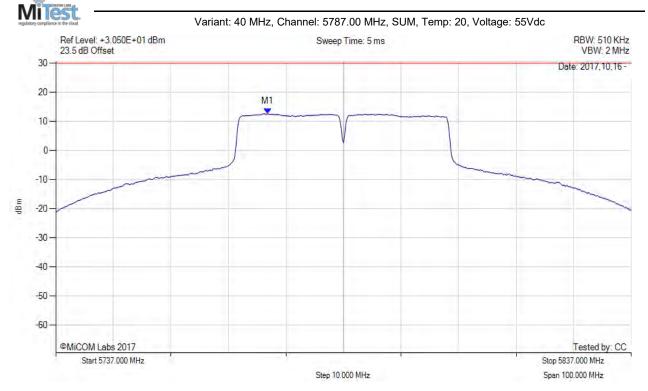
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5773.800 MHz: 12.663 dBm	Limit: ≤ 30.0 dBm
Sweep Count = +100	M1 + DCCF : 5773.800 MHz : 12.663 dBm	Margin: -17.3 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0 dB	
Trace Mode = VIEW		



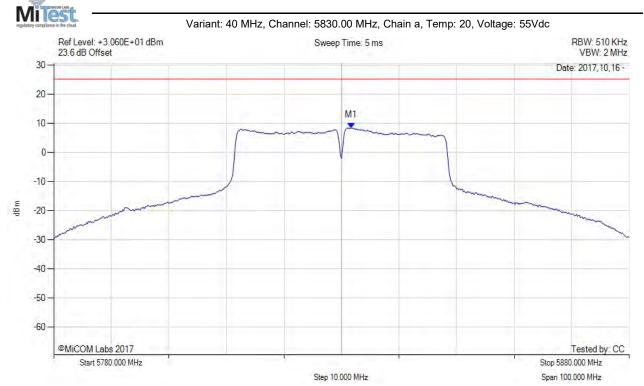
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5831.670 MHz: 8.470 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

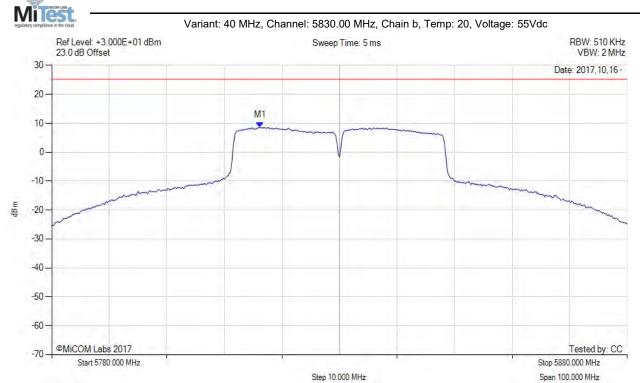


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5816.170 MHz: 8.609 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

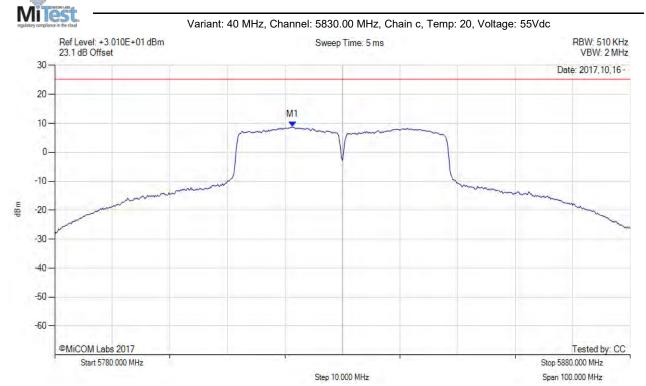


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5821.330 MHz: 8.730 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



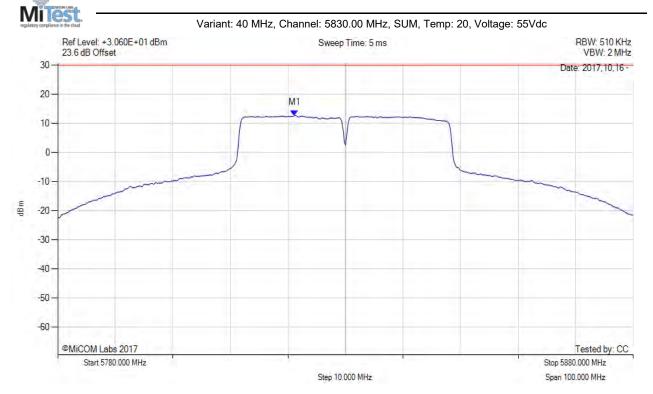
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5821.200 MHz: 12.759 dBm	Limit: ≤ 30.0 dBm
Sweep Count = +100	M1 + DCCF : 5821.200 MHz : 12.759 dBm	Margin: -17.2 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0 dB	
Trace Mode = VIEW		



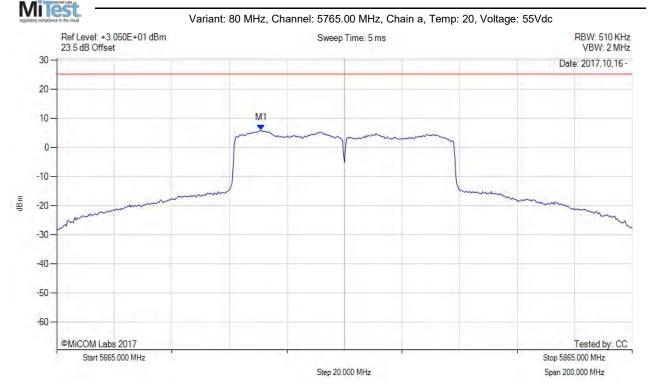
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5736.000 MHz: 6.029 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



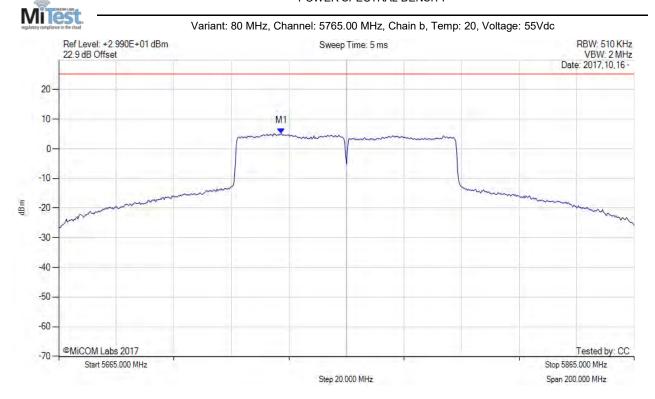
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5742.300 MHz: 5.224 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



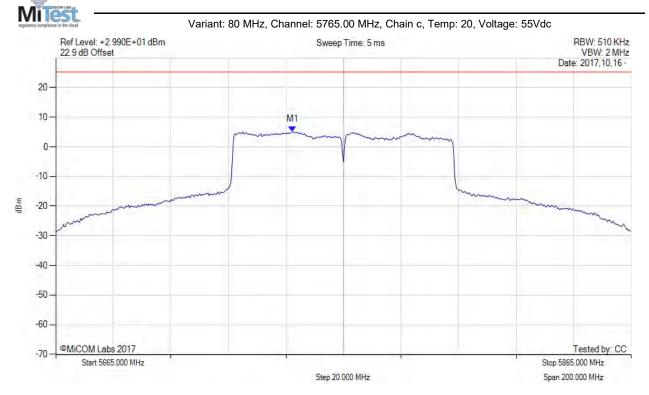
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5747.300 MHz: 5.120 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



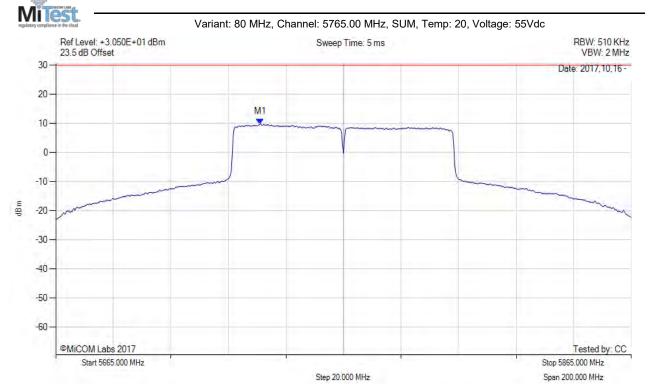
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5736.000 MHz: 9.786 dBm	Limit: ≤ 30.0 dBm
Sweep Count = +100	M1 + DCCF : 5736.000 MHz : 9.786 dBm	Margin: -20.2 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor : +0 dB	
Trace Mode = VIEW		

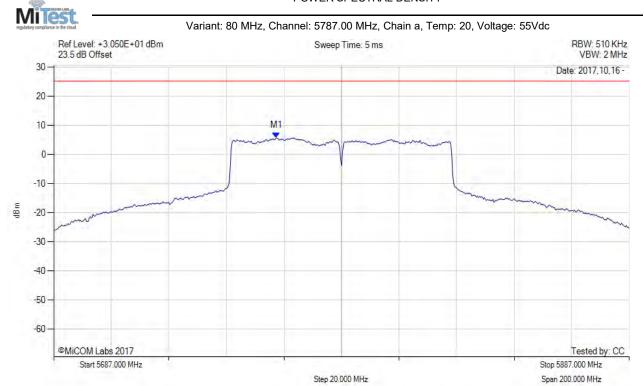


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5764.300 MHz: 5.824 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		

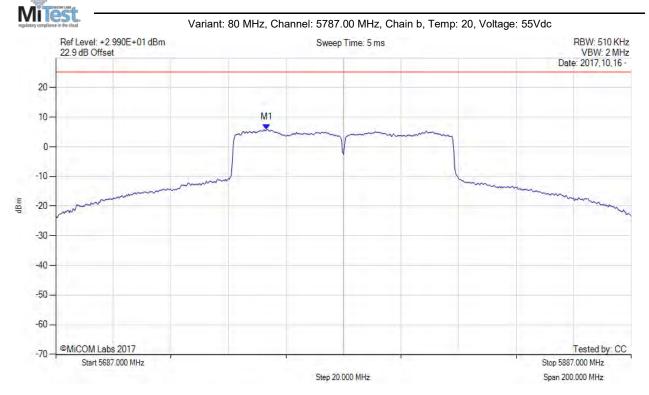


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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5760.300 MHz: 5.871 dBm	Channel Frequency: 5787.00 MHz
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



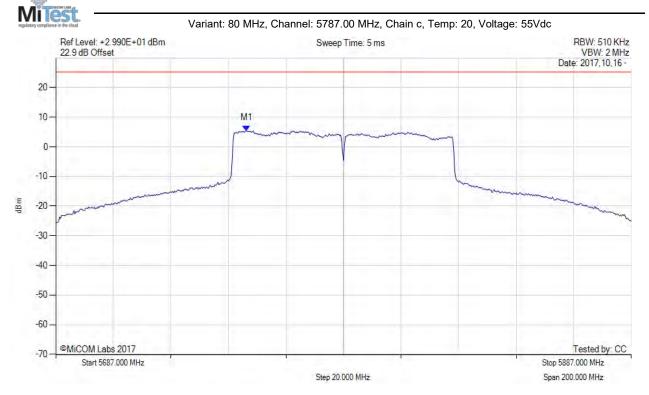
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5753.300 MHz: 5.459 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



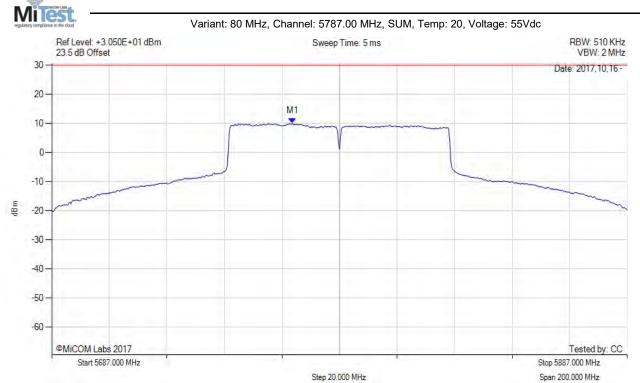
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5770.700 MHz: 9.970 dBm	Limit: ≤ 30.0 dBm
Sweep Count = +100	M1 + DCCF : 5770.700 MHz : 9.970 dBm	Margin: -20.0 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor: +0 dB	
Trace Mode = VIEW		



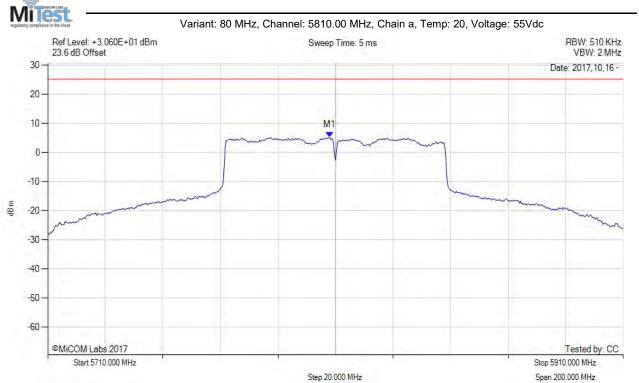
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5808.000 MHz: 5.173 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5785.000 MHz: 5.415 dBm	Limit: ≤ 25.230 dBm
Sweep Count = +100		
RF Atten (dB) = 20		
Trace Mode = VIEW		



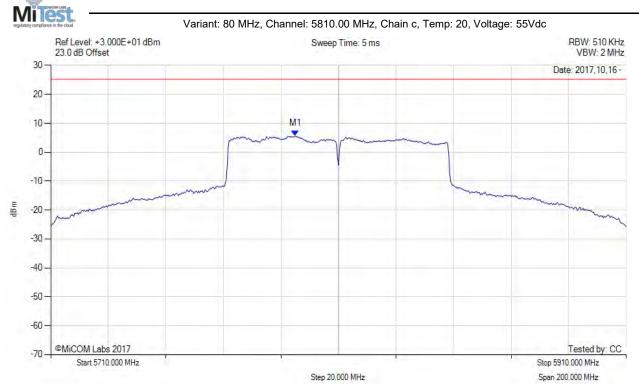
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results	
Detector = AVER	M1: 5795.000 MHz: 5.655 dBm	Limit: ≤ 25.230 dBm	
Sweep Count = +100			
RF Atten (dB) = 20			
Trace Mode = VIEW			



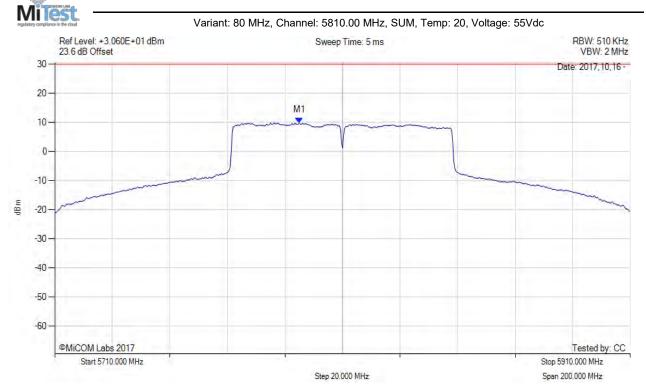
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POWER SPECTRAL DENSITY



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVER	M1: 5795.000 MHz: 9.899 dBm	Limit: ≤ 30.0 dBm
Sweep Count = +100	M1 + DCCF : 5795.000 MHz : 9.899 dBm	Margin: -20.1 dB
RF Atten (dB) = 20	Duty Cycle Correction Factor : +0 dB	
Trace Mode = VIEW		



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