Company: Silver Spring Networks

Test of: MicroAP 5
To: FCC CFR 47 Part 15.247 (FHSS) &
IC RSS-247 (900 – 928 MHz)

Report No.: SSNT135-U4_Conducted Rev A

TEST REPORT ADDENDUM - CONDUCTED

Issue Date: 1st February 2017

Master Document Number	Addendum Reports
SSNT135-U4_Master	SSNT135-U4_Conducted
	SSNT135-U4_Radiated

This report is only valid in conjunction with the reports listed in the above table. Together these reports address the requirements for the type of device operating under the standard as listed.

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1. MEASUREMENT AND PRESENTATION OF TEST DATA

The measurement and graphical data presented in this test report was generated automatically using state-of-the-art technology creating an easy to read report structure. Numerical measurement data is separated from supporting graphical data (plots) through hyperlinks. Numerical measurement data can be reviewed without scrolling through numerous graphical pages to arrive at the next data matrix.

Plots have been relegated into the Appendix 'Graphical Data'.

Test and report automation was performed by MiTest. MiTest is an automated test system developed by MiCOM Labs. MiTest is the first cloud based modular test system enabling end-to-end automation of regulatory compliance testing for conducted RF testing.

The MiCOM Labs "MiTest" Automated Test System" (Patent Pending)

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2. TEST RESULTS

2.1. 20 dB & 99% Bandwidth

Conducted Test Conditions for 20 dB and 99% Bandwidth			
Standard:	FCC CFR 47:15.247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	20 dB and 99 % Bandwidth	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (a)(1)(i)/(ii)	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for 20 dB and 99% Bandwidth Measurement

The bandwidth at 20 dB and 99 % was measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency.

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 specified in this document.

Limits for 20 dB and 99% Bandwidth

(a) Operation under the provisions of this Section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions:

(1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

(i) For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

(ii) Frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies. The maximum 20 dB bandwidth of the hopping channel is 1 MHz. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

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Equipment Configuration for 20 dB 99% Bandwidth

Variant:	100 kbps FSK	**Duty Cycle (%):**	99
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.3	0.115	--	--	--	0.115	0.115	0.5	-0.39
915.2	0.121	--	--	--	0.121	0.121	0.5	-0.38
926.9	0.114	--	--	--	0.114	0.114	0.5	-0.39

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.3	0.106	--	--	--	0.106		
915.2	0.103	--	--	--	0.103		
926.9	0.103	--	--	--	0.103		

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

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for 20 dB 99% Bandwidth

Variant:	150 kbps FSK	**Duty Cycle (%):**	99
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.4	0.181	--	--	--	0.181	0.181	0.5	-0.32
915.2	0.173	--	--	--	0.173	0.173	0.5	-0.33
927.6	0.183	--	--	--	0.183	0.183	0.5	-0.32

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.4	0.167	--	--	--	0.167		
915.2	0.164	--	--	--	0.164		
927.6	0.164	--	--	--	0.164		

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

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for 20 dB 99% Bandwidth			
Variant:	150 kbps GFSK	**Duty Cycle (%):**	99
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.3	0.183	--	--	--	0.183	0.183	0.5	-0.32
915.2	0.189	--	--	--	0.189	0.189	0.5	-0.31
926.9	0.174	--	--	--	0.174	0.174	0.5	-0.33

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.3	0.158	--	--	--	0.158		
915.2	0.161	--	--	--	0.161		
926.9	0.166	--	--	--	0.166		

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 20 dB 99% Bandwidth

Variant:	200 kbps GFSK	**Duty Cycle (%):**	99
Data Rate:	200.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.3	0.246	--	--	--	0.246	0.246	0.5	-0.25
915.2	0.227	--	--	--	0.227	0.227	0.5	-0.27
926.9	0.243	--	--	--	0.243	0.243	0.5	-0.26

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.3	0.213	--	--	--	0.213		
915.2	0.216	--	--	--	0.216		
926.9	0.216	--	--	--	0.216		

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

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for 20 dB 99% Bandwidth			
Variant:	300 kbps GFSK	**Duty Cycle (%):**	99
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.4	0.364	--	--	--	0.364	0.364	0.5	-0.14
915.2	0.367	--	--	--	0.367	0.367	0.5	-0.13
927.6	0.361	--	--	--	0.361	0.361	0.5	-0.14

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.4	0.333	--	--	--	0.333		
915.2	0.330	--	--	--	0.330		
927.6	0.330	--	--	--	0.330		

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 20 dB 99% Bandwidth			
Variant:	50 kbps 2FSK	**Duty Cycle (%):**	99
Data Rate:	50.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	2FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.2	0.085	--	--	--	0.085	0.085	0.5	-0.41
915.0	0.083	--	--	--	0.083	0.083	0.5	-0.42
927.8	0.084	--	--	--	0.084	0.084	0.5	-0.42

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.2	0.087	--	--	--	0.087		
915.0	0.084	--	--	--	0.084		
927.8	0.085	--	--	--	0.085		

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 20 dB 99% Bandwidth			
Variant:	6.25 kbps OQPSK	**Duty Cycle (%):**	99
Data Rate:	6.25 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OQPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.2	0.126	--	--	--	0.126	0.126	0.5	-0.37
915.0	0.126	--	--	--	0.126	0.126	0.5	-0.37
927.8	0.126	--	--	--	0.126	0.126	0.5	-0.37

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.2	0.115	--	--	--	0.115		
915.0	0.115	--	--	--	0.115		
927.8	0.115	--	--	--	0.115		

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 20 dB 99% Bandwidth			
Variant:	600 kbps OFDM	**Duty Cycle (%):**	99
Data Rate:	600.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured 20 dB Bandwidth (MHz) Port(s)				20 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	MHz	MHz
902.4	0.356	--	--	--	0.356	0.356	0.5	-0.14
915.2	0.362	--	--	--	0.362	0.362	0.5	-0.14
927.6	0.359	--	--	--	0.359	0.359	0.5	-0.14

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
902.4	0.300	--	--	--	0.300		
915.2	0.300	--	--	--	0.300		
927.6	0.301	--	--	--	0.301		

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

Note: click the links in the above matrix to view the graphical image (plot).

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2.2. Frequency Hopping Tests

Conducted Test Conditions for Frequency Hopping Measurements			
Standard:	FCC CFR 47:15.247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Frequency Hopping Tests	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (a)(1)(i)/(ii)	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References, FCC Public Notice DA 00-705		

Test Procedure for Frequency Hopping Measurements

These tests cover the following measurements:

i) channel separation
ii) channel occupancy
iii) dwell time
iv) number of hopping frequencies

Frequency hopping testing was measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency or hopping mode.

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 specified in this document.

Limits for Frequency Hopping Measurements

(a) Operation under the provisions of this Section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions:

(1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

(i) For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

(ii) Frequency hopping systems operating in the 5725-5850 MHz band shall use at least 75 hopping frequencies. The maximum 20 dB bandwidth of the hopping channel is 1 MHz. The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 30 second period.

(iii) Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

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2.2.1. Number of Hopping Channels

Equipment Configuration for Number of Hopping Channels			
Variant:	100 kbps FSK	**Antenna:**	Not Applicable
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	26	--	--
910.0-920.0	34	--	--
920.0-928.0	23	--	--
Total number of Hops	**83**	**50**	**Pass**

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

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Number of Hopping Channels			
Variant:	150 kbps FSK	**Antenna:**	Not Applicable
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	20	--	--
910.0-920.0	25	--	--
920.0-928.0	19	--	--
Total number of Hops	**64**	**50**	**Pass**

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

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Number of Hopping Channels			
Variant:	150 kbps GFSK	**Antenna:**	Not Applicable
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	26	--	--
910.0-920.0	34	--	--
920.0-928.0	23	--	--
Total number of Hops	**83**	**50**	**Pass**

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

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Number of Hopping Channels			
Variant:	200 kbps GFSK	**Antenna:**	Not Applicable
Data Rate:	200.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	26	--	--
910.0-920.0	34	--	--
920.0-928.0	23	--	--
Total number of Hops	**83**	**50**	**Pass**

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

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Number of Hopping Channels			
Variant:	300 kbps GFSK	**Antenna:**	Not Applicable
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	20	--	--
910.0-920.0	25	--	--
920.0-928.0	19	--	--
Total number of Hops	**64**	**50**	**Pass**

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

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Number of Hopping Channels			
Variant:	50 kbps 2FSK	**Antenna:**	Not Applicable
Data Rate:	50.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	2FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	40	--	--
910.0-920.0	50	--	--
920.0-928.0	39	--	--
Total number of Hops	**129**	**50**	**Pass**

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

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Number of Hopping Channels			
Variant:	6.25 kbps OQPSK	**Antenna:**	Not Applicable
Data Rate:	6.25 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OQPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	40	--	--
910.0-920.0	50	--	--
920.0-928.0	39	--	--
Total number of Hops	**129**	**50**	**Pass**

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

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Number of Hopping Channels			
Variant:	600 kbps OFDM	**Antenna:**	Not Applicable
Data Rate:	600.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Frequency Range (MHz)	Number of Hopping Channels	Limit	Pass / Fail
902.0-910.0	20	--	--
910.0-920.0	25	--	--
920.0-928.0	19	--	--
Total number of Hops	**64**	**50**	**Pass**

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

Note: click the links in the above matrix to view the graphical image (plot).

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2.2.2. Channel Separation

Equipment Configuration for Channel Separation			
Variant:	100 kbps FSK	**Antenna:**	Not Applicable
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Center Frequency (MHz)	Chan Separation (MHz)	Limit (MHz)	Pass / Fail
915.2	0.304	0.121	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Channel Separation			
Variant:	150 kbps FSK	**Antenna:**	Not Applicable
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Center Frequency (MHz)	Chan Separation (MHz)	Limit (MHz)	Pass / Fail
915.2	0.406	0.183	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Channel Separation			
Variant:	150 kbps GFSK	**Antenna:**	Not Applicable
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Center Frequency (MHz)	Chan Separation (MHz)	Limit (MHz)	Pass / Fail
915.2	0.308	0.189	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Channel Separation			
Variant:	200 kbps GFSK	**Antenna:**	Not Applicable
Data Rate:	200.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Center Frequency (MHz)	Chan Separation (MHz)	Limit (MHz)	Pass / Fail
915.2	0.305	0.246	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Channel Separation			
Variant:	300 kbps GFSK	**Antenna:**	Not Applicable
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Center Frequency (MHz)	Chan Separation (MHz)	Limit (MHz)	Pass / Fail
915.2	0.404	0.367	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Channel Separation			
Variant:	50 kbps 2FSK	**Antenna:**	Not Applicable
Data Rate:	50.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	2FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Center Frequency (MHz)	Chan Separation (MHz)	Limit (MHz)	Pass / Fail
915.0	0.202	0.085	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Channel Separation			
Variant:	6.25 kbps OQPSK	**Antenna:**	Not Applicable
Data Rate:	6.25 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OQPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Center Frequency (MHz)	Chan Separation (MHz)	Limit (MHz)	Pass / Fail
915.0	0.203	0.126	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Channel Separation			
Variant:	600 kbps OFDM	**Antenna:**	Not Applicable
Data Rate:	600.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Center Frequency (MHz)	Chan Separation (MHz)	Limit (MHz)	Pass / Fail
915.2	0.414	0.362	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

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2.2.3. Dwell Time

Equipment Configuration for Channel Occupancy

Variant:	100 kbps FSK	**Antenna:**	Not Applicable
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency(MHz)	Dwell Time (Single Burst) (S)	Channel Occupancy (mS)	Observation Period (S)	Channel Occupancy Limit (mS)	Pass / Fail
915.20	0.021	62.530	20.00	400.000	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Channel Occupancy

Variant:	150 kbps FSK	**Antenna:**	Not Applicable
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency(MHz)	Dwell Time (Single Burst) (S)	Channel Occupancy (mS)	Observation Period (S)	Channel Occupancy Limit (mS)	Pass / Fail
915.20	0.020	79.360	20.00	400.000	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Channel Occupancy			
Variant:	150 kbps GFSK	**Antenna:**	Not Applicable
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency(MHz)	Dwell Time (Single Burst) (S)	Channel Occupancy (mS)	Observation Period (S)	Channel Occupancy Limit (mS)	Pass / Fail
915.20	0.019	57.110	20.00	400.000	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Channel Occupancy			
Variant:	200 kbps GFSK	**Antenna:**	Not Applicable
Data Rate:	200.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency(MHz)	Dwell Time (Single Burst) (S)	Channel Occupancy (mS)	Observation Period (S)	Channel Occupancy Limit (mS)	Pass / Fail
915.20	0.019	57.720	20.00	400.000	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Channel Occupancy			
Variant:	300 kbps GFSK	**Antenna:**	Not Applicable
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency(MHz)	Dwell Time (Single Burst) (S)	Channel Occupancy (mS)	Observation Period (S)	Channel Occupancy Limit (mS)	Pass / Fail
915.20	0.019	38.480	10.00	400.000	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Channel Occupancy			
Variant:	50 kbps 2FSK	**Antenna:**	Not Applicable
Data Rate:	50.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	2FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency(MHz)	Dwell Time (Single Burst) (S)	Channel Occupancy (mS)	Observation Period (S)	Channel Occupancy Limit (mS)	Pass / Fail
915.00	0.022	67.330	20.00	400.000	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Channel Occupancy			
Variant:	6.25 kbps OQPSK	**Antenna:**	Not Applicable
Data Rate:	6.25 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OQPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency(MHz)	Dwell Time (Single Burst) (S)	Channel Occupancy (mS)	Observation Period (S)	Channel Occupancy Limit (mS)	Pass / Fail
915.00	0.051	153.910	20.00	400.000	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Channel Occupancy			
Variant:	600 kbps OFDM	**Antenna:**	Not Applicable
Data Rate:	600.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
Duty Cycle (%):	99.0	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency(MHz)	Dwell Time (Single Burst) (S)	Channel Occupancy (mS)	Observation Period (S)	Channel Occupancy Limit (mS)	Pass / Fail
915.20	0.022	43.290	10.00	400.000	Pass

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

Note: click the links in the above matrix to view the graphical image (plot).

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2.3. Output Power

Conducted Test Conditions for Fundamental Emission Output Power			
Standard:	FCC CFR 47:15.247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Output Power	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (a)(1), (b)(1)/(2)/(3)	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Fundamental Emission Output Power Measurement

In the case of average power measurements an average power sensor was utilized.

For peak power measurements the spectrum analyzer built-in power function was used to integrate peak power over the 20 dB bandwidth.

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

Test configuration and setup used for the measurement was per the Conducted Test Set-up 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 for Fundamental Emission Output Power

(a) Operation under the provisions of this Section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions:

(1) Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudo randomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

(b) The maximum peak conducted output power of the intentional radiator shall not exceed the following for frequency hopping systems:

(1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

(2) For frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels; and, 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels, as permitted under paragraph (a)(1)(i) of this section.

(3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum

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conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

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Equipment Configuration for Output Power Peak			
Variant:	100 kbps FSK	**Duty Cycle (%):**	99.0
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	0.00
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.3	29.51	--	--	--	29.51	30.00	-0.49	31.00
915.2	29.03	--	--	--	29.03	30.00	-0.97	31.00
926.9	28.73	--	--	--	28.73	30.00	-1.27	31.00

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

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Output Power Peak			
Variant:	150 kbps FSK	**Duty Cycle (%):**	99.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	0.00
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.4	29.42	--	--	--	29.42	30.00	-0.58	31.00
915.2	29.03	--	--	--	29.03	30.00	-0.97	31.00
927.6	28.76	--	--	--	28.76	30.00	-1.24	31.00

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

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

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Equipment Configuration for Output Power Peak			
Variant:	150 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	0.00
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.3	29.26	--	--	--	29.26	30.00	-0.74	31.00
915.2	29.03	--	--	--	29.03	30.00	-0.97	31.00
926.9	28.80	--	--	--	28.80	30.00	-1.20	31.00

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

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Output Power Peak			
Variant:	200 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	200.00 KBit/s	**Antenna Gain (dBi):**	0.00
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.3	28.88	--	--	--	28.88	30.00	-1.12	31.00
915.2	28.87	--	--	--	28.87	30.00	-1.13	31.00
926.9	28.62	--	--	--	28.62	30.00	-1.38	31.00

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

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

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Equipment Configuration for Output Power Peak			
Variant:	300 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	0.00
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.4	29.33	--	--	--	29.33	30.00	-0.67	31.00
915.2	28.88	--	--	--	28.88	30.00	-1.12	31.00
927.6	28.62	--	--	--	28.62	30.00	-1.38	31.00

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

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Output Power Peak			
Variant:	50 kbps 2FSK	**Duty Cycle (%):**	99.0
Data Rate:	50.00 KBit/s	**Antenna Gain (dBi):**	0.00
Modulation:	2FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.2	29.23	--	--	--	29.23	30.00	-0.77	31.00
915.0	29.24	--	--	--	29.24	30.00	-0.76	31.00
927.8	28.77	--	--	--	28.77	30.00	-1.23	31.00

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

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

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Equipment Configuration for Output Power Peak			
Variant:	6.25 kbps OQPSK	**Duty Cycle (%):**	99.0
Data Rate:	6.25 KBit/s	**Antenna Gain (dBi):**	0.00
Modulation:	OQPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.2	29.26	--	--	--	29.26	30.00	-0.74	29.00
915.0	29.21	--	--	--	29.21	30.00	-0.79	29.00
927.8	29.26	--	--	--	29.26	30.00	-0.74	29.00

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

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

Equipment Configuration for Output Power Peak			
Variant:	600 kbps OFDM	**Duty Cycle (%):**	99.0
Data Rate:	600.00 KBit/s	**Antenna Gain (dBi):**	0.00
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dB	
902.4	28.68	--	--	--	28.68	30.00	-1.32	18.00
915.2	28.57	--	--	--	28.57	30.00	-1.43	18.00
927.6	28.34	--	--	--	28.34	30.00	-1.66	18.00

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

The above measurements are true pulse readings and therefore a Duty Cycling correction factor is not required.

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2.4. Emissions

2.4.1. Conducted Emissions

Conducted Test Conditions for Transmitter Conducted Spurious and Band-Edge Emissions			
Standard:	FCC CFR 47:15.247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Transmitter Conducted Spurious and Band-Edge Emissions	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (d)	**Pressure (mBars):**	999 - 1001
Reference Document(s):	See Normative References		

Test Procedure for Transmitter Conducted Spurious and Band-Edge Emissions Measurement

Transmitter Conducted Spurious and Band-Edge emissions were measured at a limit of 30 dBc (average detector) or 20 dBc (peak detector) below the highest in-band spectral density measured with a spectrum analyzer connected to the antenna terminal. Measurements were made while EUT was operating in transmit mode of operation at the appropriate centre frequency closest to the band-edge. Emissions were maximized during the measurement and limits derived from the peak spectral power and drawn on each plot.

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

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

Limits Transmitter Conducted Spurious and Band-Edge Emissions

(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

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2.4.1.1. Conducted Unwanted Spurious Emissions

Equipment Configuration for Unwanted Emissions Peak			
Variant:	100 kbps FSK	**Duty Cycle (%):**	99
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.3	30.0 - 10000.0	-33.092	9.00	--	--	--	--	--	--
915.2	30.0 - 10000.0	-32.777	9.00	--	--	--	--	--	--
926.9	30.0 - 10000.0	-32.526	8.00	--	--	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Unwanted Emissions Peak			
Variant:	150 kbps FSK	**Duty Cycle (%):**	99
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.4	30.0 - 10000.0	-32.699	8.00	--	--	--	--	--	--
915.2	30.0 - 10000.0	-33.222	9.00	--	--	--	--	--	--
927.6	30.0 - 10000.0	-7.101	8.00	--	--	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Unwanted Emissions Peak			
Variant:	150 kbps GFSK	**Duty Cycle (%):**	99
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.3	30.0 - 10000.0	-33.397	8.00	--	--	--	--	--	--
915.2	30.0 - 10000.0	-33.824	9.00	--	--	--	--	--	--
926.9	30.0 - 10000.0	-33.472	8.00	--	--	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Unwanted Emissions Peak			
Variant:	200 kbps GFSK	**Duty Cycle (%):**	99
Data Rate:	200.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.3	30.0 - 10000.0	-33.421	8.00	--	--	--	--	--	--
915.2	30.0 - 10000.0	-32.486	8.00	--	--	--	--	--	--
926.9	30.0 - 10000.0	-33.169	8.00	--	--	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Unwanted Emissions Peak			
Variant:	300 kbps GFSK	**Duty Cycle (%):**	99
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.4	30.0 - 10000.0	-33.718	3.00	--	--	--	--	--	--
915.2	30.0 - 10000.0	-32.675	8.00	--	--	--	--	--	--
927.6	30.0 - 10000.0	3.294	8.90	--	--	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Unwanted Emissions Peak			
Variant:	50 kbps 2FSK	**Duty Cycle (%):**	99
Data Rate:	50.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	2FSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.2	30.0 - 10000.0	-33.065	9.00	--	--	--	--	--	--
915.0	30.0 - 10000.0	-32.878	9.00	--	--	--	--	--	--
927.8	30.0 - 10000.0	-22.791	8.00	--	--	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Unwanted Emissions Peak			
Variant:	6.25 kbps OQPSK	**Duty Cycle (%):**	99
Data Rate:	6.25 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OQPSK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.2	30.0 - 10000.0	-33.025	9.00	--	--	--	--	--	--
915.0	30.0 - 10000.0	-32.888	9.00	--	--	--	--	--	--
927.8	30.0 - 10000.0	-23.210	8.00	--	--	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Unwanted Emissions Peak			
Variant:	600 kbps OFDM	**Duty Cycle (%):**	99
Data Rate:	600.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Test Frequency	Frequency Range	Unwanted Emissions Peak (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
902.4	30.0 - 10000.0	-33.619	5.00	--	--	--	--	--	--
915.2	30.0 - 10000.0	-33.267	3.00	--	--	--	--	--	--
927.6	30.0 - 10000.0	-7.621	3.00	--	--	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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2.4.1.2. Conducted Band-Edge Emissions

Conducted Low Band-Edge Emissions

Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	100 kbps FSK	**Duty Cycle (%):**	99.0
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.3 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-6.46	9.00	902.10	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	150 kbps FSK	**Duty Cycle (%):**	99.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-14.70	9.00	902.20	--	--	-0.200

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	150 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.3 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-6.81	9.00	902.10	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	200 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	200.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.3 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-3.00	9.00	902.10	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	300 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-7.78	9.00	902.10	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	50 kbps 2FSK	**Duty Cycle (%):**	99.0
Data Rate:	50.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	2FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.2 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-2.31	9.00	902.10	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	6.25 kbps OQPSK	**Duty Cycle (%):**	99.0
Data Rate:	6.25 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OQPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.2 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	5.37	9.00	902.00	--	--	0.000

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Hopping) Peak			
Variant:	600 kbps OFDM	**Duty Cycle (%):**	99.0
Data Rate:	600.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-12.74	5.00	902.20	--	--	-0.200

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	100 kbps FSK	**Duty Cycle (%):**	99.0
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.3 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-8.12	9.00	902.10	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	150 kbps FSK	**Duty Cycle (%):**	99.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-16.42	9.00	902.20	--	--	-0.200

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	150 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.3 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-5.13	9.00	902.10	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	200 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	200.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.3 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-1.53	8.00	902.00	--	--	0.000

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	300 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-6.93	9.00	902.10	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	50 kbps 2FSK	**Duty Cycle (%):**	99.0
Data Rate:	50.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	2FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.2 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	5.09	9.00	902.00	--	--	0.000

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	6.25 kbps OQPSK	**Duty Cycle (%):**	99.0
Data Rate:	6.25 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OQPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.2 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	7.32	9.00	902.00	--	--	0.000

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Low Band-Edge Emissions (Static) Peak			
Variant:	600 kbps OFDM	**Duty Cycle (%):**	99.0
Data Rate:	600.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	902.4 MHz					
Band-Edge Frequency:	902.0 MHz					
Test Frequency Range:	875.0 - 905.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M1 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-6.59	5.00	902.10	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Conducted High Band-Edge Emissions

Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	100 kbps FSK	**Duty Cycle (%):**	99.0
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	926.9 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-32.31	9.00	927.10	--	--	-0.900

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	150 kbps FSK	**Duty Cycle (%):**	99.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-18.23	9.00	927.80	--	--	-0.200

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	150 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	926.9 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-33.08	9.00	927.10	--	--	-0.900

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	200 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	200.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	926.9 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-33.65	9.00	927.10	--	--	-0.900

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	300 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-6.06	9.00	927.90	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	50 kbps 2FSK	**Duty Cycle (%):**	99.0
Data Rate:	50.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	2FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	927.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	7.27	9.00	928.00	--	--	0.000

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	6.25 kbps OQPSK	**Duty Cycle (%):**	99.0
Data Rate:	6.25 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OQPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	927.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	6.02	10.19	928.00	--	--	0.000

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Hopping) Peak			
Variant:	600 kbps OFDM	**Duty Cycle (%):**	99.0
Data Rate:	600.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-10.91	4.00	927.90	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	100 kbps FSK	**Duty Cycle (%):**	99.0
Data Rate:	100.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	926.9 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-28.83	9.00	927.10	--	--	-0.900

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	150 kbps FSK	**Duty Cycle (%):**	99.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-14.69	9.00	927.80	--	--	-0.200

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	150 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	150.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	926.9 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-29.47	9.00	927.10	--	--	-0.900

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	200 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	200.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	926.9 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-30.87	8.00	927.10	--	--	-0.900

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	300 kbps GFSK	**Duty Cycle (%):**	99.0
Data Rate:	300.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	GFSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-6.15	9.00	927.90	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	50 kbps 2FSK	**Duty Cycle (%):**	99.0
Data Rate:	50.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	2FSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	927.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	8.59	9.00	928.00	--	--	0.000

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	6.25 kbps OQPSK	**Duty Cycle (%):**	99.0
Data Rate:	6.25 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OQPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	927.8 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	4.24	9.02	928.00	--	--	0.000

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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Equipment Configuration for Conducted Upper Band-Edge Emissions (Static) Peak			
Variant:	600 kbps OFDM	**Duty Cycle (%):**	99.0
Data Rate:	600.00 KBit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	CC
Engineering Test Notes:	None		

Test Measurement Results

Channel Frequency:	927.6 MHz					
Band-Edge Frequency:	928.0 MHz					
Test Frequency Range:	925.0 - 950.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Revised Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-3.71	5.00	927.90	--	--	-0.100

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	"<=40 GHz ±2.37 dB, > 40 GHz ±4.6 dB"

Note: click the links in the above matrix to view the graphical image (plot).

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A. APPENDIX - GRAPHICAL IMAGES

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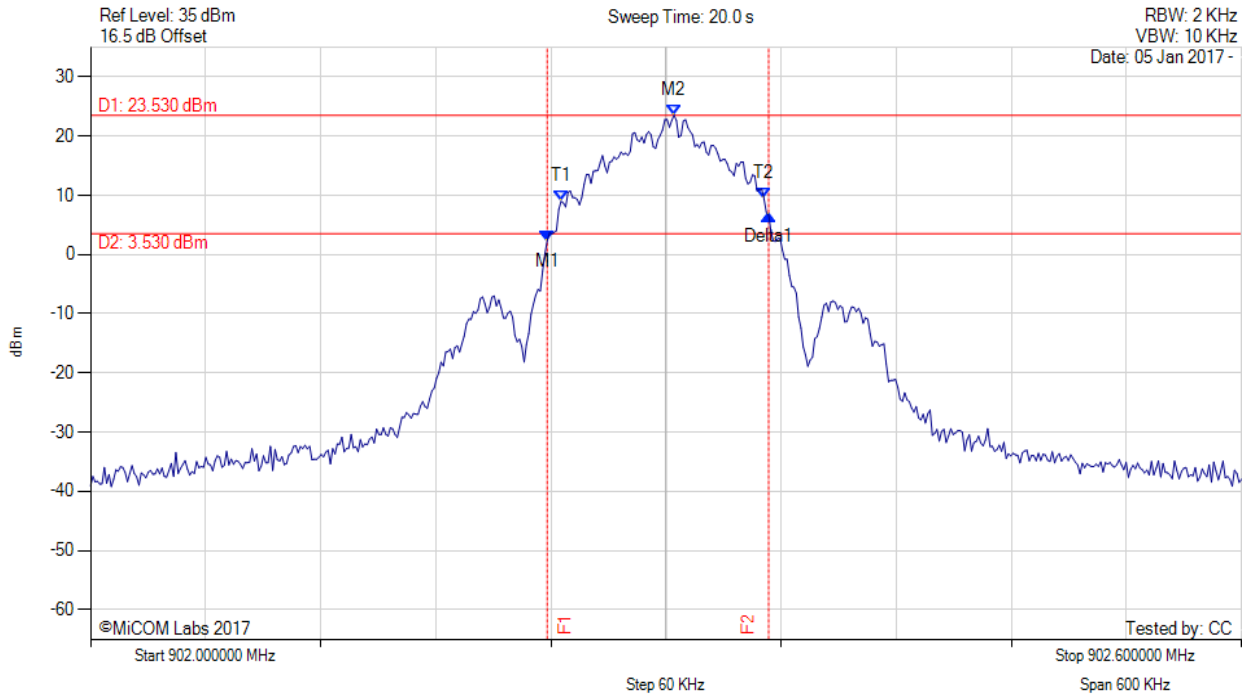
A.1. 20 dB & 99% Bandwidth

20 dB 99% BANDWIDTH

Variant: 100 kbps FSK, Channel: 902.30 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.238 MHz : 2.291 dBm M2 : 902.304 MHz : 23.530 dBm Delta1 : 115 KHz : 4.411 dB T1 : 902.245 MHz : 8.992 dBm T2 : 902.351 MHz : 9.397 dBm OBW : 106 KHz	Measured 20 dB Bandwidth: 0.115 MHz Limit: 0.5 kHz Margin: 0.39 MHz

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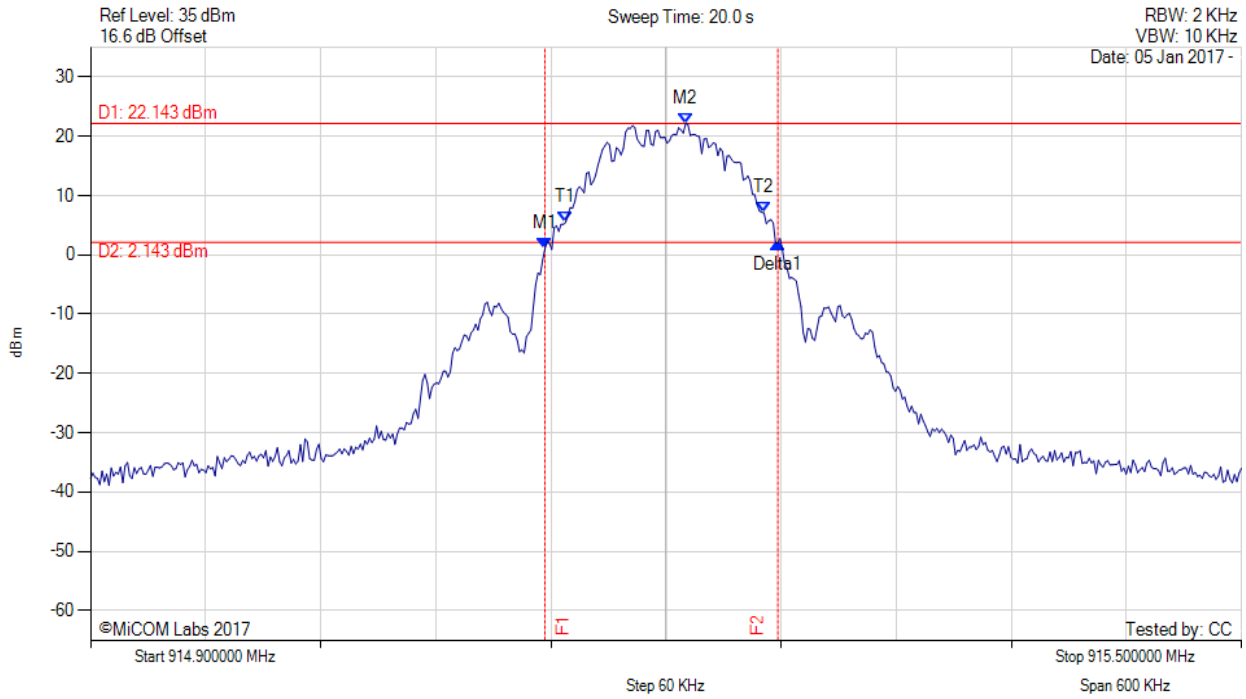
20 dB 99% BANDWIDTH

Variant: 100 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 915.137 MHz : 1.034 dBm M2 : 915.210 MHz : 22.143 dBm Delta1 : 121 KHz : 0.988 dB T1 : 915.148 MHz : 5.494 dBm T2 : 915.251 MHz : 7.091 dBm OBW : 103 KHz	Measured 20 dB Bandwidth: 0.121 MHz Limit: 0.5 kHz Margin: 0.38 MHz

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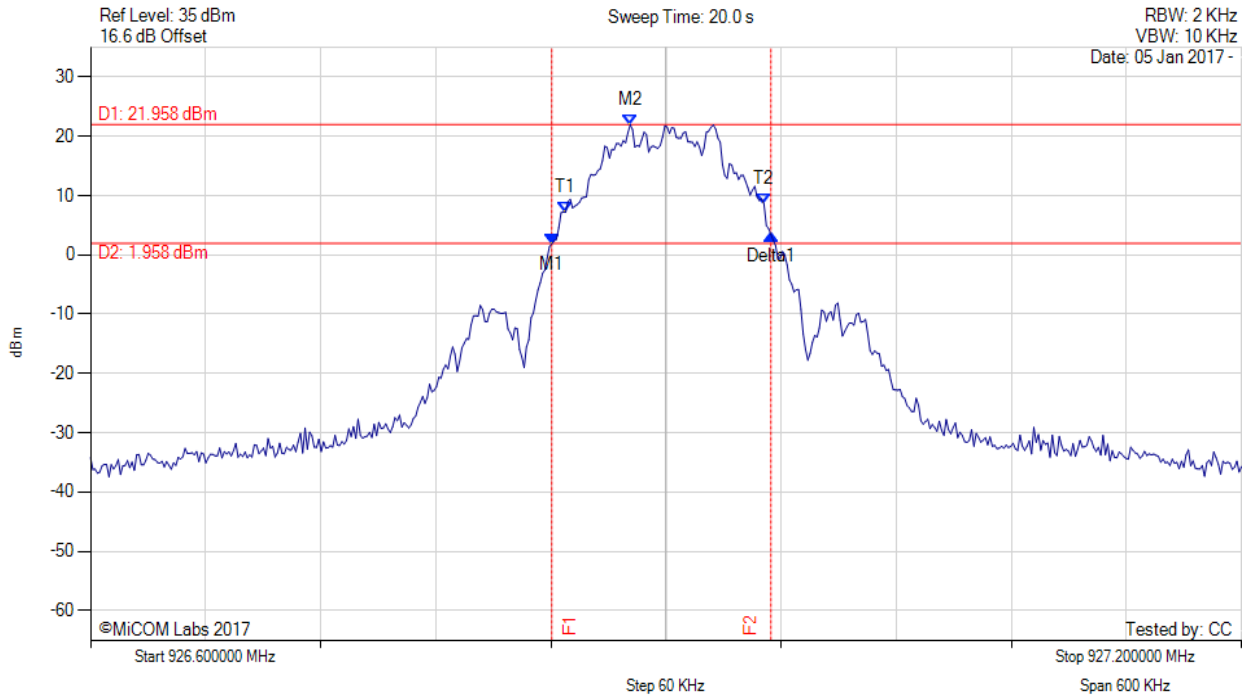
20 dB 99% BANDWIDTH

Variant: 100 kbps FSK, Channel: 926.90 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 926.840 MHz : 1.897 dBm M2 : 926.881 MHz : 21.958 dBm Delta1 : 114 KHz : 1.525 dB T1 : 926.848 MHz : 7.189 dBm T2 : 926.951 MHz : 8.543 dBm OBW : 103 KHz	Measured 20 dB Bandwidth: 0.114 MHz Limit: 0.5 kHz Margin: 0.39 MHz

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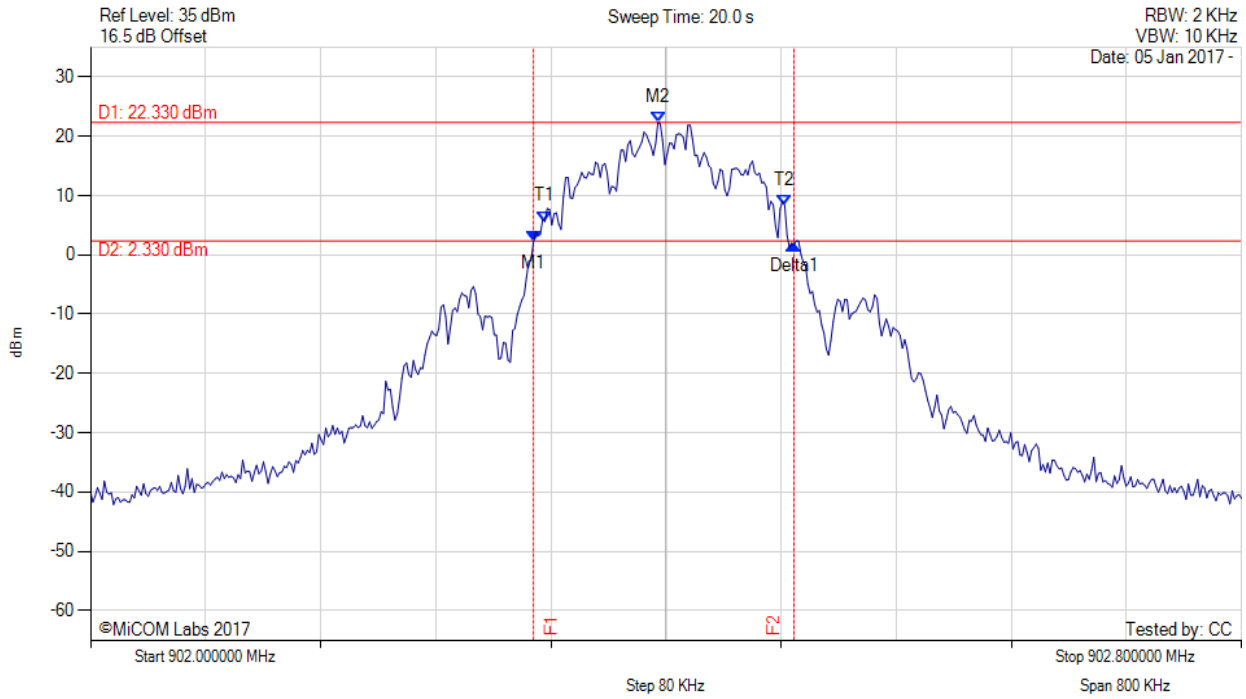
20 dB 99% BANDWIDTH

Variant: 150 kbps FSK, Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.308 MHz : 2.204 dBm M2 : 902.394 MHz : 22.330 dBm Delta1 : 181 KHz : -0.492 dB T1 : 902.316 MHz : 5.629 dBm T2 : 902.483 MHz : 8.301 dBm OBW : 167 KHz	Measured 20 dB Bandwidth: 0.181 MHz Limit: 0.5 kHz Margin: 0.32 MHz

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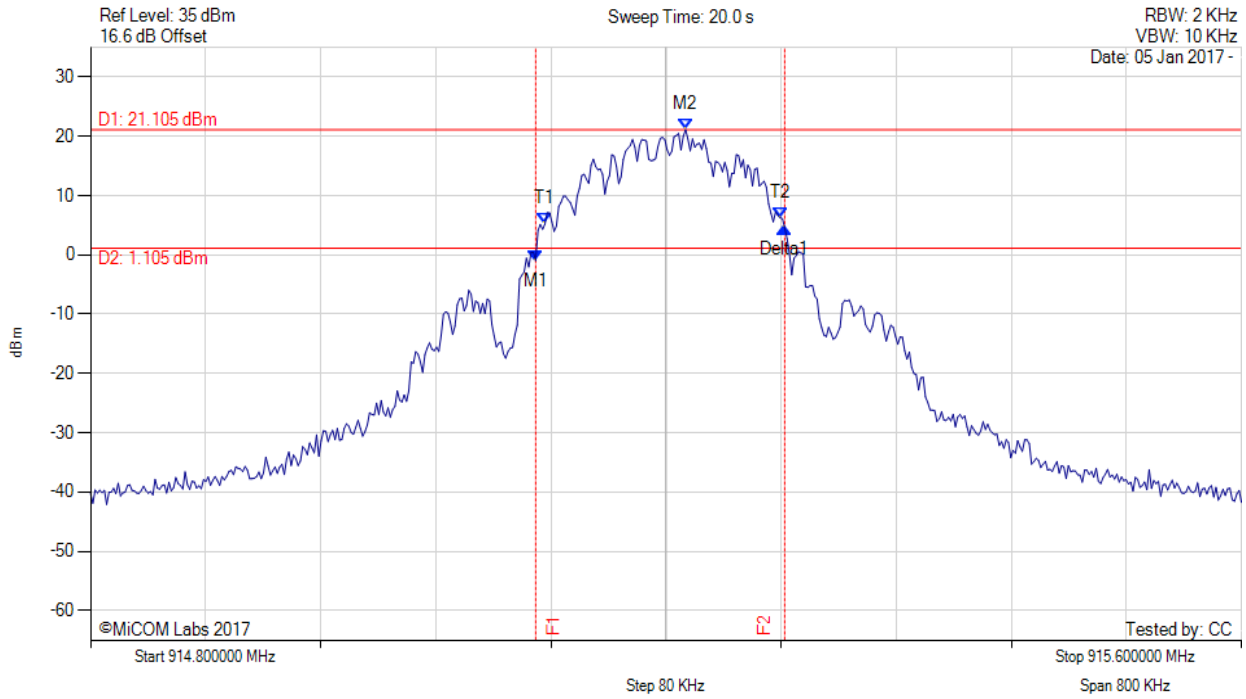
20 dB 99% BANDWIDTH

Variant: 150 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 915.109 MHz : -0.934 dBm M2 : 915.214 MHz : 21.105 dBm Delta1 : 173 KHz : 5.471 dB T1 : 915.116 MHz : 5.200 dBm T2 : 915.279 MHz : 6.298 dBm OBW : 164 KHz	Measured 20 dB Bandwidth: 0.173 MHz Limit: 0.5 kHz Margin: 0.33 MHz

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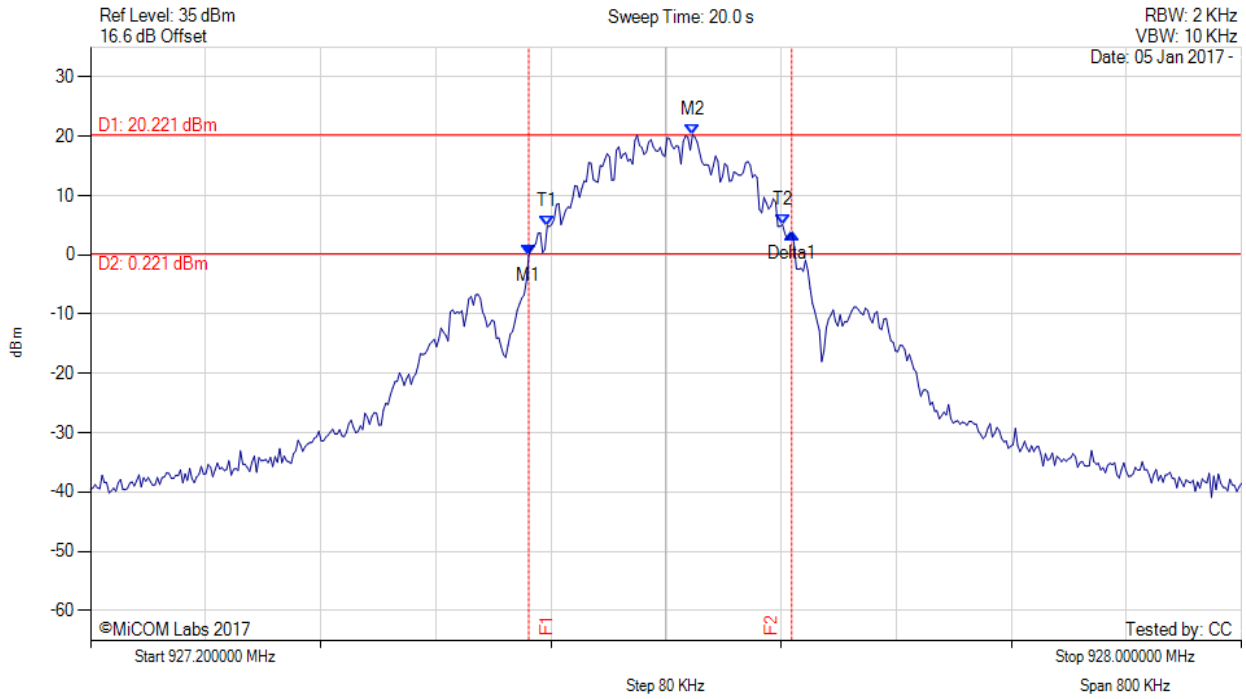
20 dB 99% BANDWIDTH

Variant: 150 kbps FSK, Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 927.505 MHz : 0.032 dBm M2 : 927.618 MHz : 20.221 dBm Delta1 : 183 KHz : 3.665 dB T1 : 927.517 MHz : 4.815 dBm T2 : 927.681 MHz : 5.120 dBm OBW : 164 KHz	Measured 20 dB Bandwidth: 0.183 MHz Limit: 0.5 kHz Margin: 0.32 MHz

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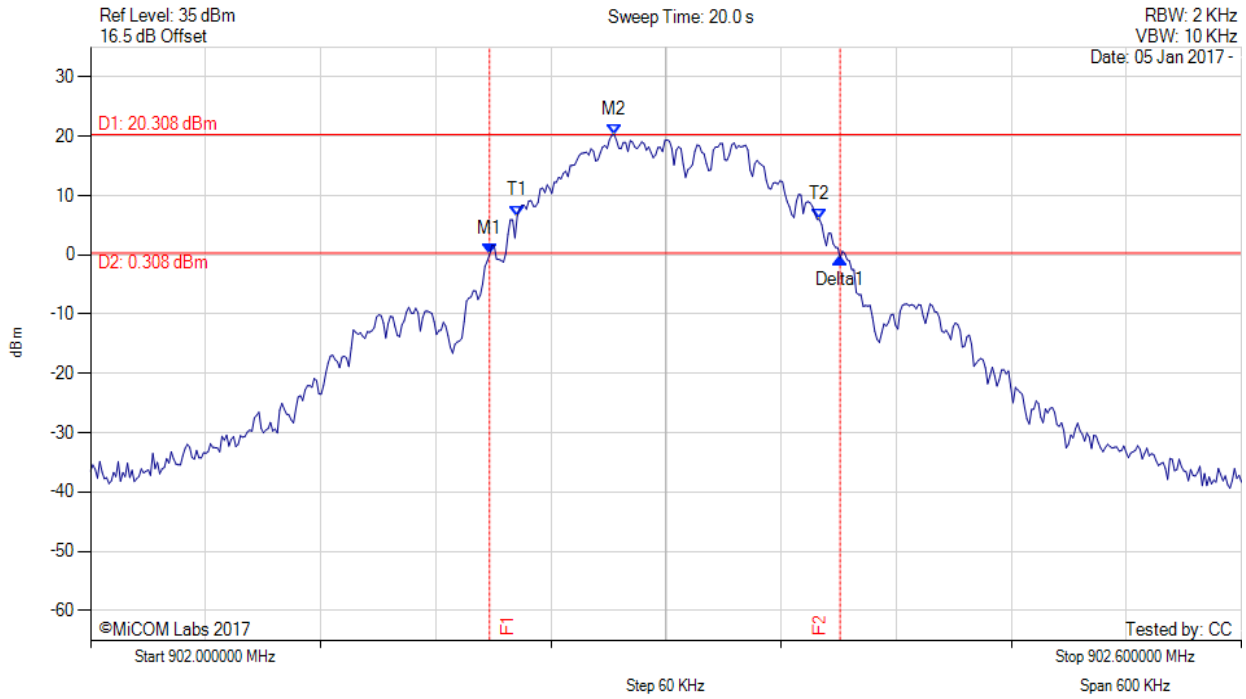
20 dB 99% BANDWIDTH

Variant: 150 kbps GFSK, Channel: 902.30 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.208 MHz : 0.074 dBm M2 : 902.273 MHz : 20.308 dBm Delta1 : 183 KHz : -0.624 dB T1 : 902.222 MHz : 6.578 dBm T2 : 902.380 MHz : 5.999 dBm OBW : 158 KHz	Measured 20 dB Bandwidth: 0.183 MHz Limit: 0.5 kHz Margin: 0.32 MHz

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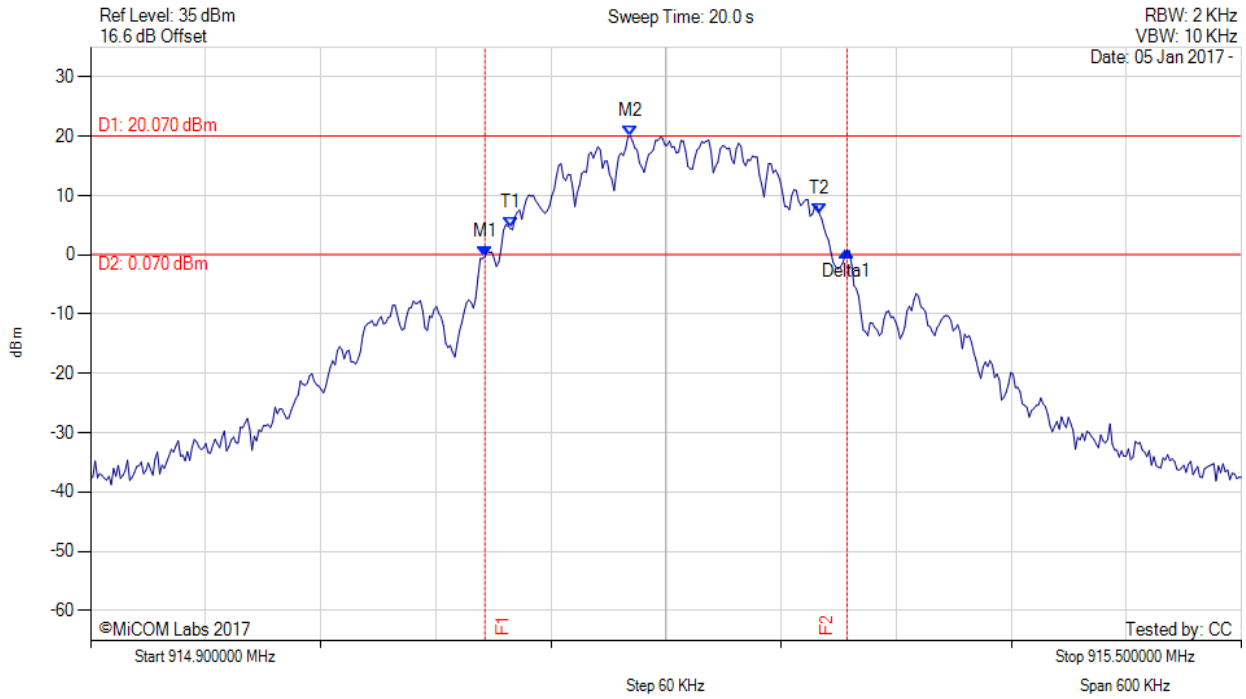
20 dB 99% BANDWIDTH

Variant: 150 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 915.106 MHz : -0.296 dBm M2 : 915.181 MHz : 20.070 dBm Delta1 : 189 KHz : 1.013 dB T1 : 915.119 MHz : 4.494 dBm T2 : 915.280 MHz : 6.940 dBm OBW : 161 KHz	Measured 20 dB Bandwidth: 0.189 MHz Limit: 0.5 kHz Margin: 0.31 MHz

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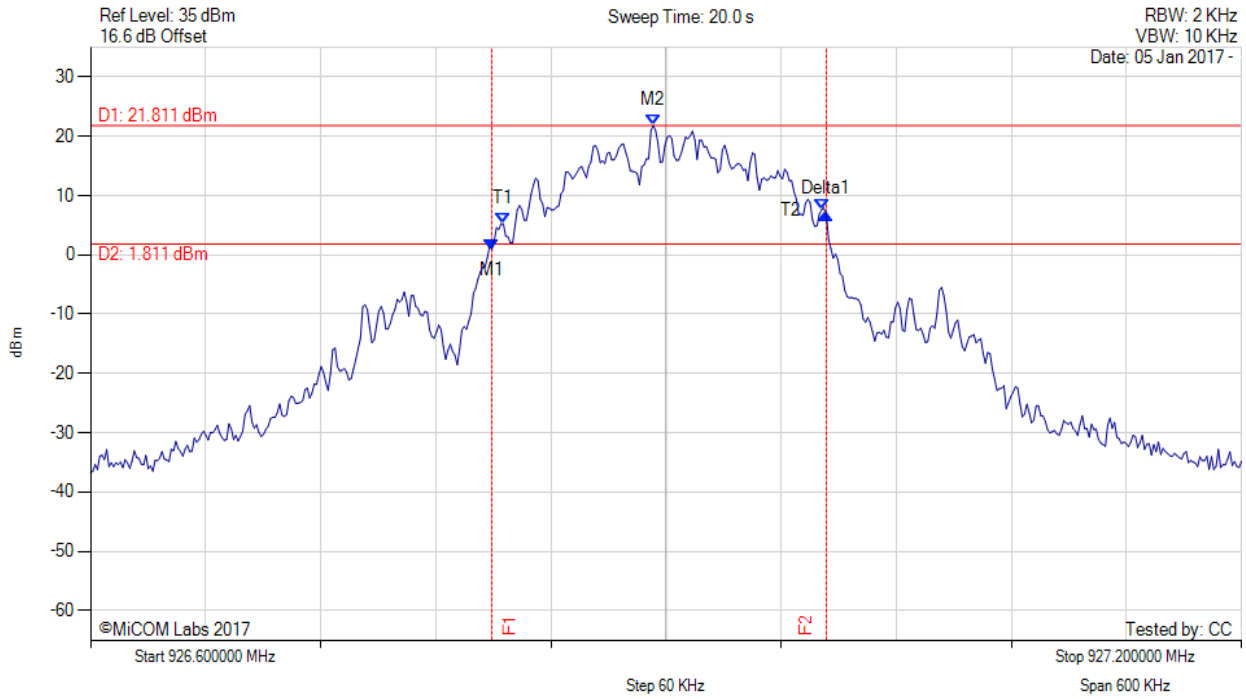
20 dB 99% BANDWIDTH

Variant: 150 kbps GFSK, Channel: 926.90 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 926.809 MHz : 0.921 dBm M2 : 926.893 MHz : 21.811 dBm Delta1 : 174 KHz : 5.934 dB T1 : 926.815 MHz : 5.210 dBm T2 : 926.981 MHz : 7.630 dBm OBW : 166 KHz	Measured 20 dB Bandwidth: 0.174 MHz Limit: 0.5 kHz Margin: 0.33 MHz

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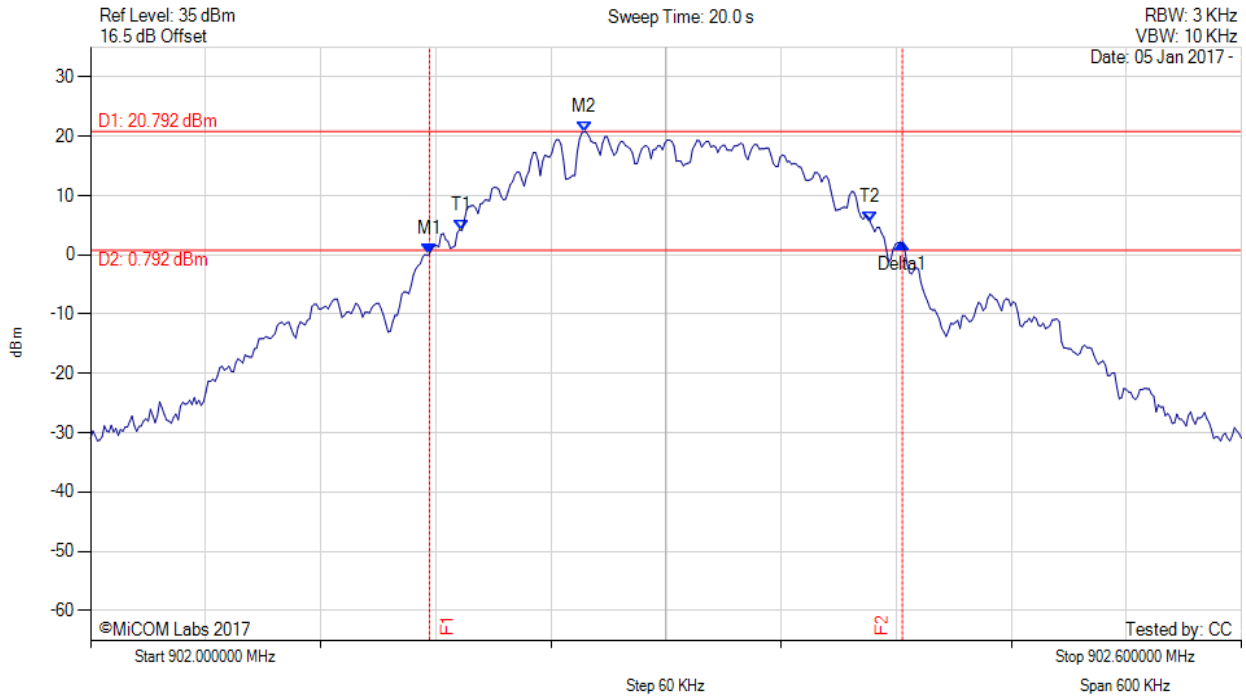
20 dB 99% BANDWIDTH

Variant: 200 kbps GFSK, Channel: 902.30 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.177 MHz : 0.203 dBm M2 : 902.257 MHz : 20.792 dBm Delta1 : 246 KHz : 1.780 dB T1 : 902.194 MHz : 4.079 dBm T2 : 902.406 MHz : 5.616 dBm OBW : 213 KHz	Measured 20 dB Bandwidth: 0.246 MHz Limit: 0.5 kHz Margin: 0.25 MHz

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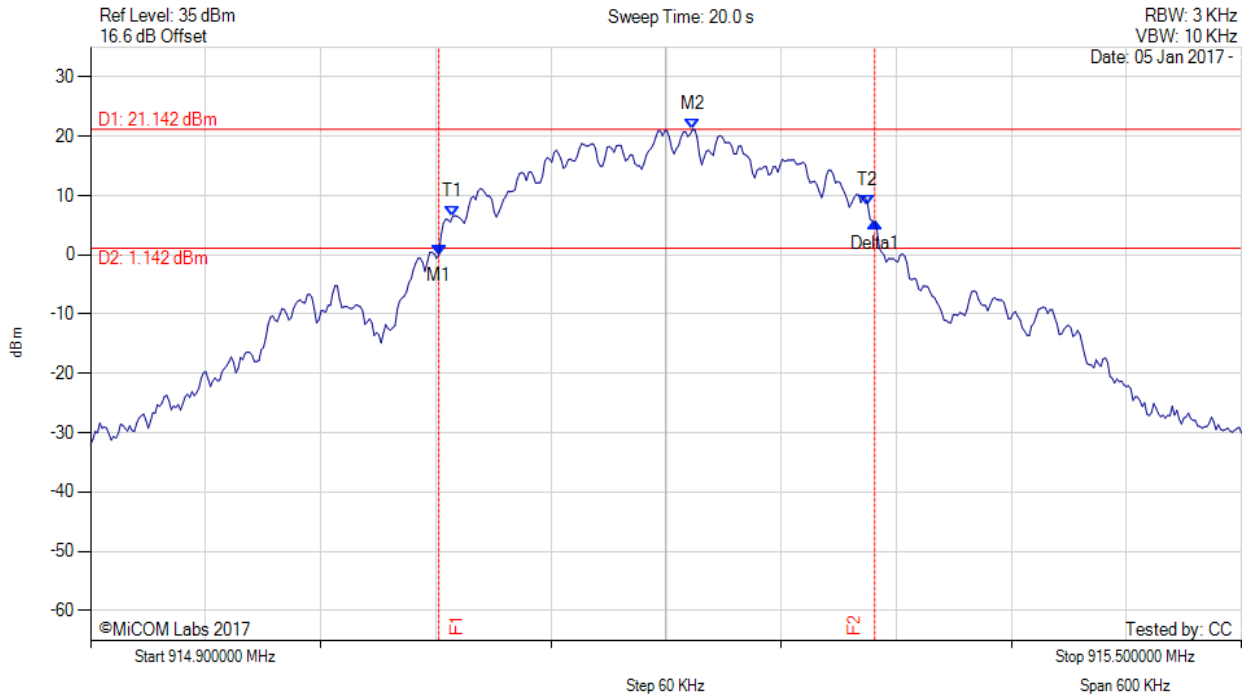
20 dB 99% BANDWIDTH

Variant: 200 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 915.082 MHz : -0.017 dBm M2 : 915.214 MHz : 21.142 dBm Delta1 : 227 KHz : 5.570 dB T1 : 915.089 MHz : 6.477 dBm T2 : 915.305 MHz : 8.336 dBm OBW : 216 KHz	Measured 20 dB Bandwidth: 0.227 MHz Limit: 0.5 kHz Margin: 0.27 MHz

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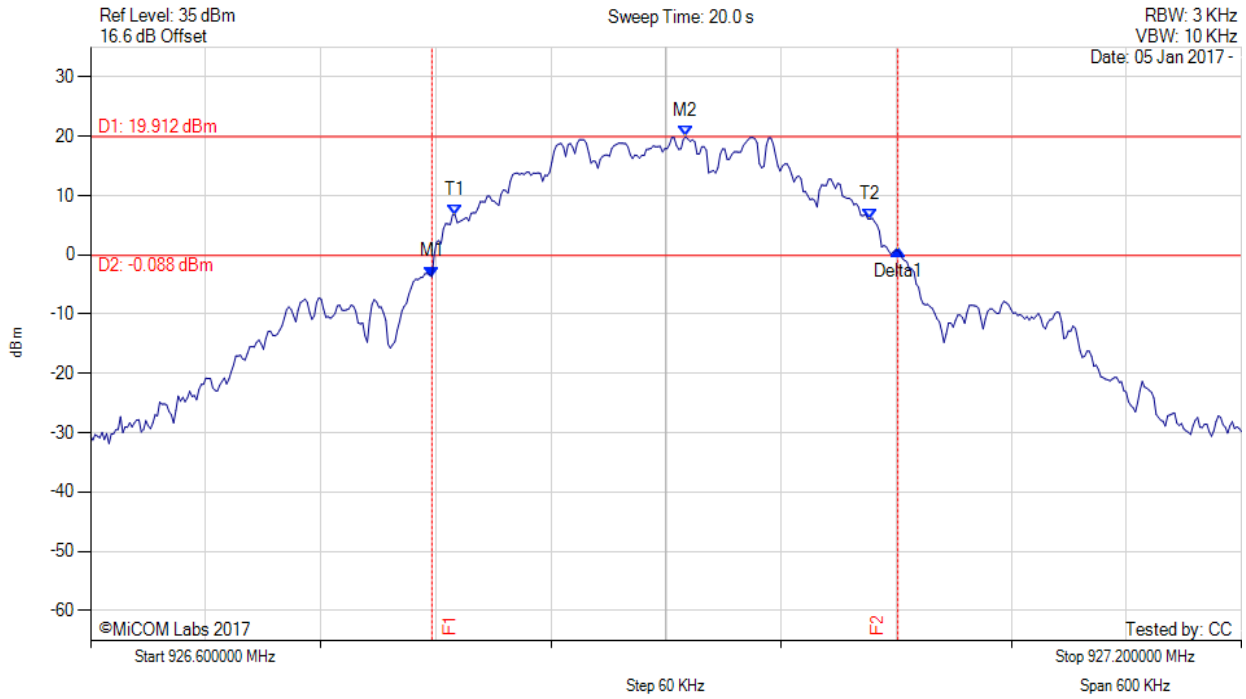
20 dB 99% BANDWIDTH

Variant: 200 kbps GFSK, Channel: 926.90 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 926.778 MHz : -3.720 dBm M2 : 926.910 MHz : 19.912 dBm Delta1 : 243 KHz : 4.497 dB T1 : 926.790 MHz : 6.784 dBm T2 : 927.006 MHz : 6.060 dBm OBW : 216 KHz	Measured 20 dB Bandwidth: 0.243 MHz Limit: 0.5 kHz Margin: 0.26 MHz

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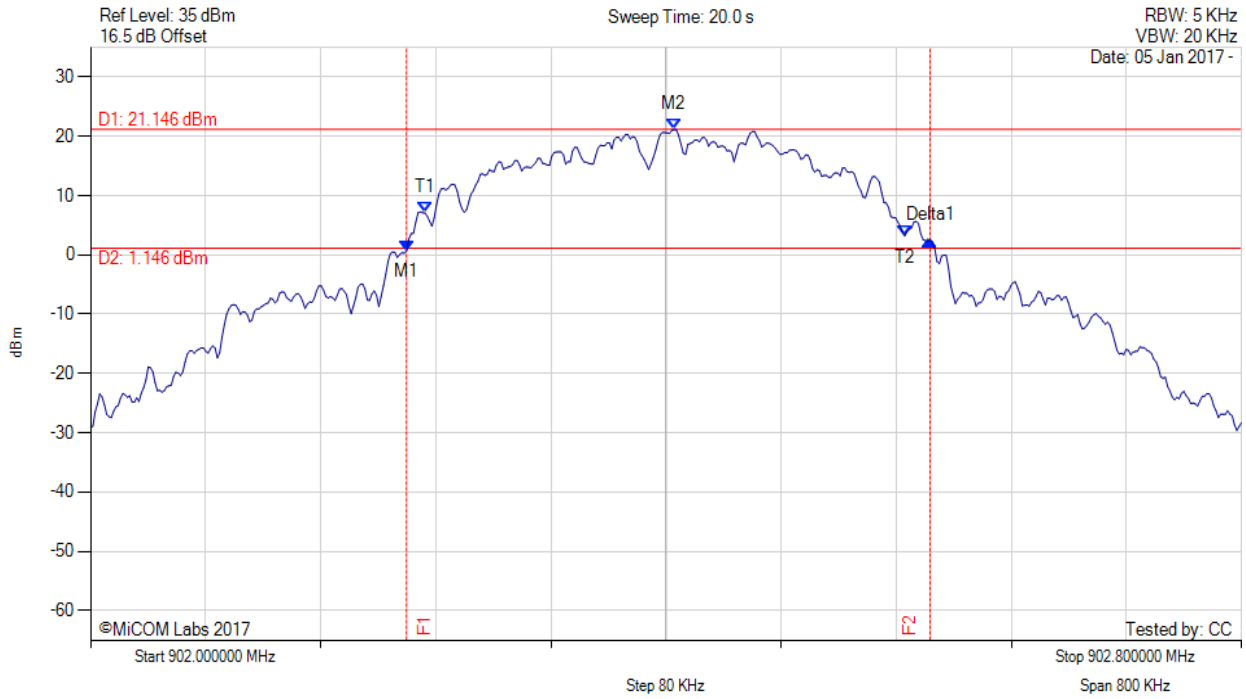
20 dB 99% BANDWIDTH

Variant: 300 kbps GFSK, Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.220 MHz : 0.707 dBm M2 : 902.406 MHz : 21.146 dBm Delta1 : 364 KHz : 1.704 dB T1 : 902.232 MHz : 7.097 dBm T2 : 902.566 MHz : 3.198 dBm OBW : 333 KHz	Measured 20 dB Bandwidth: 0.364 MHz Limit: 0.5 kHz Margin: 0.14 MHz

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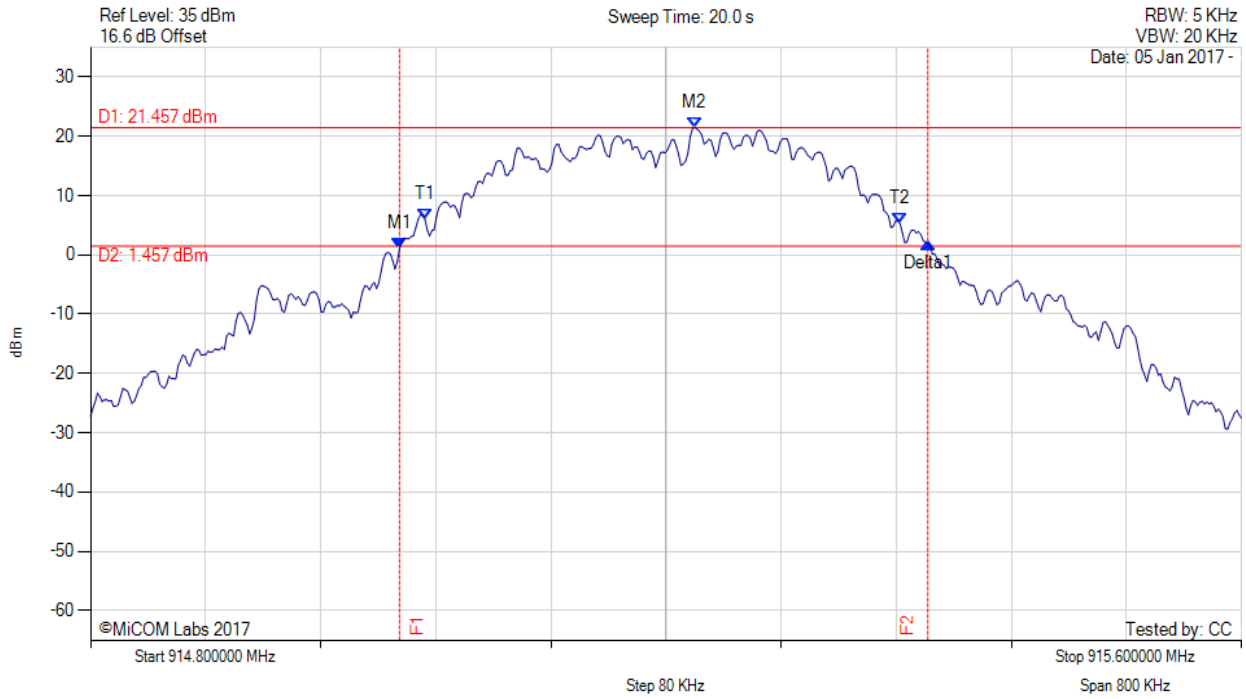
20 dB 99% BANDWIDTH

Variant: 300 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 915.015 MHz : 1.053 dBm M2 : 915.220 MHz : 21.457 dBm Delta1 : 367 KHz : 1.094 dB T1 : 915.032 MHz : 6.013 dBm T2 : 915.363 MHz : 5.259 dBm OBW : 330 KHz	Measured 20 dB Bandwidth: 0.367 MHz Limit: 0.5 kHz Margin: 0.13 MHz

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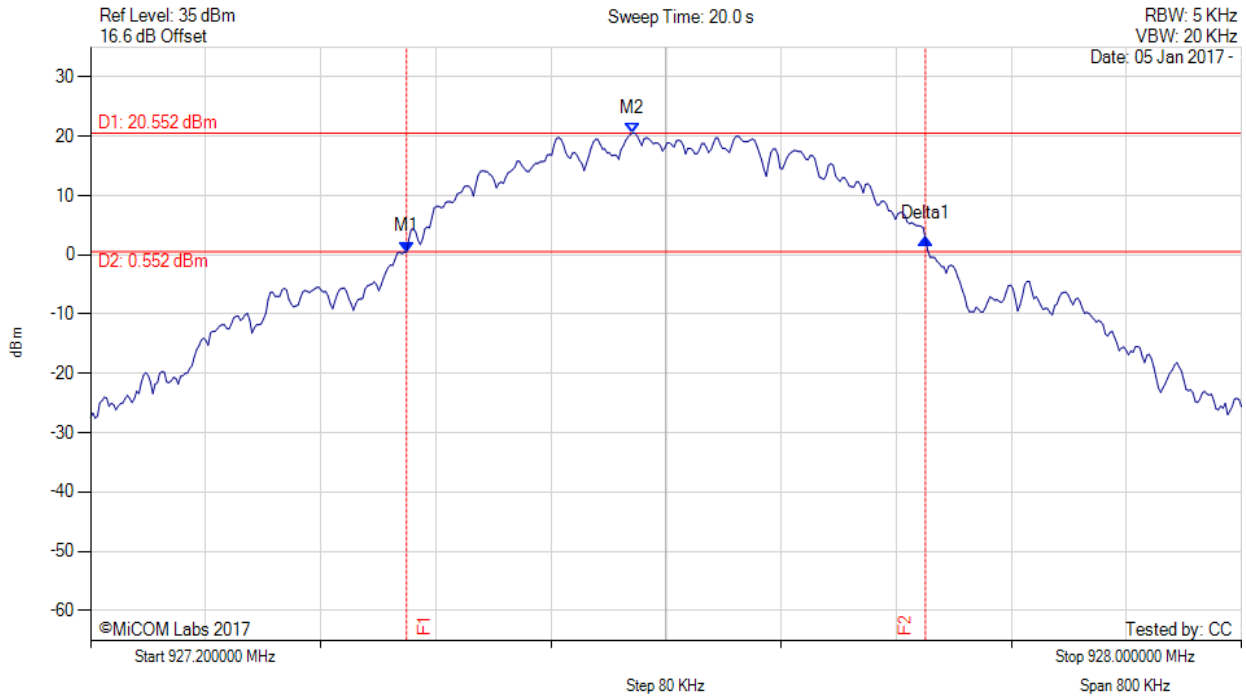
20 dB 99% BANDWIDTH

Variant: 300 kbps GFSK, Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 927.420 MHz : 0.493 dBm M2 : 927.577 MHz : 20.552 dBm Delta1 : 361 KHz : 2.188 dB T1 : 0 Hz : 500.000 dBm T2 : 0 Hz : 500.000 dBm OBW : 330 KHz	Measured 20 dB Bandwidth: 0.361 MHz Limit: 0.5 kHz Margin: 0.14 MHz

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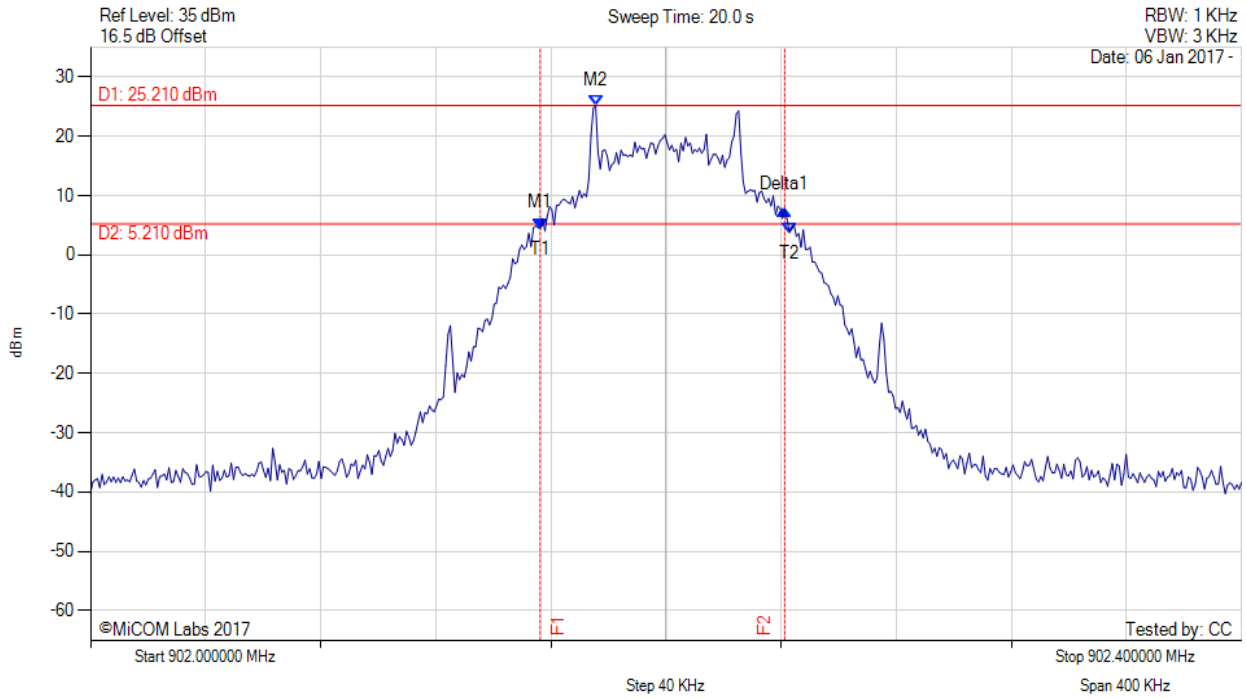
20 dB 99% BANDWIDTH

Variant: 50 kbps 2FSK, Channel: 902.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.156 MHz : 4.469 dBm M2 : 902.176 MHz : 25.210 dBm Delta1 : 85 KHz : 3.183 dB T1 : 902.156 MHz : 4.469 dBm T2 : 902.243 MHz : 3.762 dBm OBW : 87 KHz	Measured 20 dB Bandwidth: 0.085 MHz Limit: 0.5 kHz Margin: 0.41 MHz

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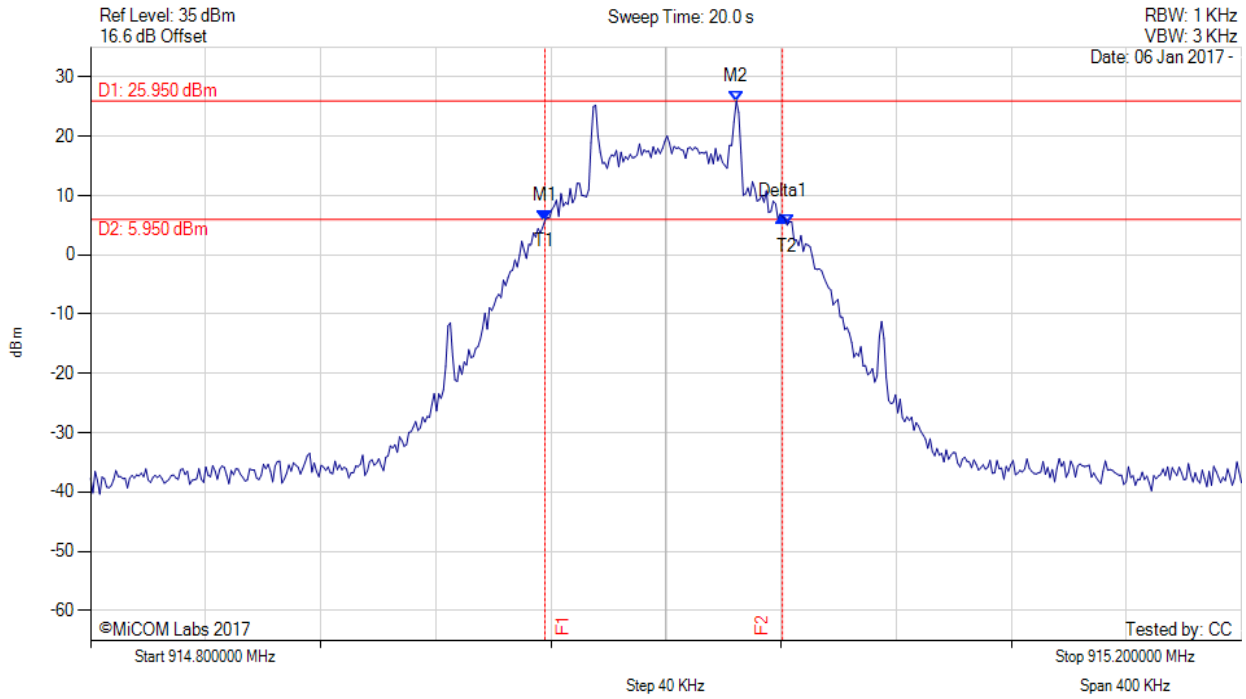
20 dB 99% BANDWIDTH

Variant: 50 kbps 2FSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 914.958 MHz : 5.812 dBm M2 : 915.024 MHz : 25.950 dBm Delta1 : 83 KHz : 0.608 dB T1 : 914.958 MHz : 5.812 dBm T2 : 915.042 MHz : 5.019 dBm OBW : 84 KHz	Measured 20 dB Bandwidth: 0.083 MHz Limit: 0.5 kHz Margin: 0.42 MHz

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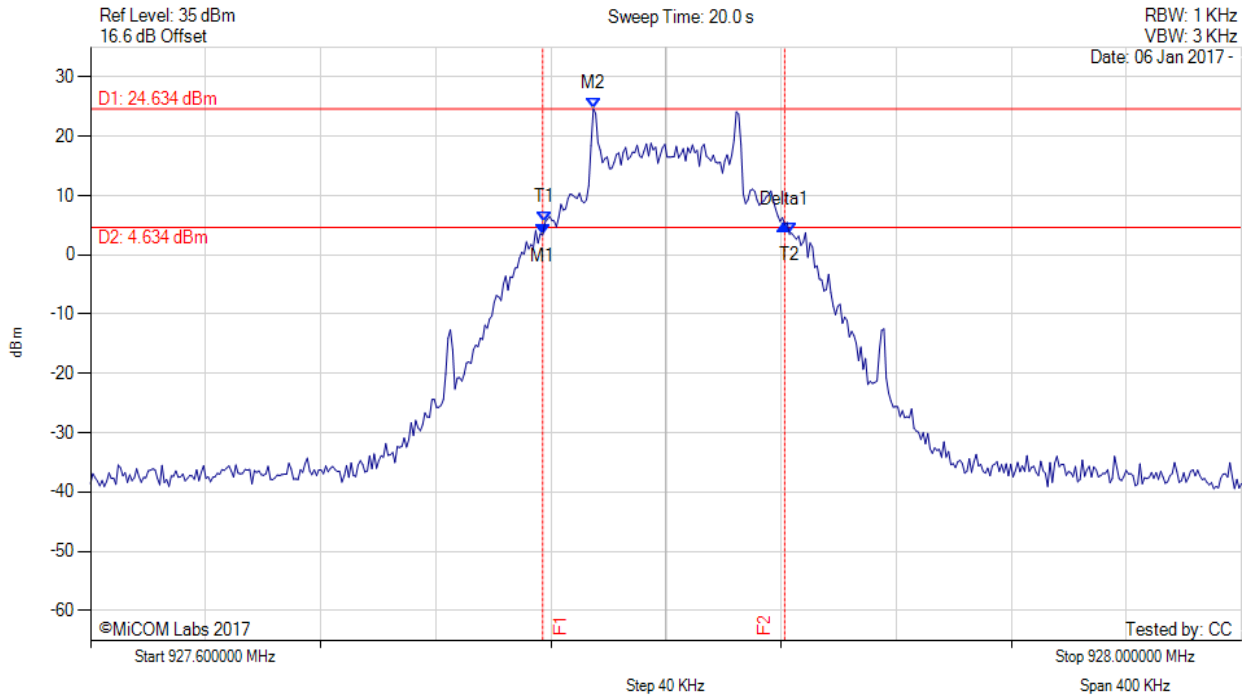
20 dB 99% BANDWIDTH

Variant: 50 kbps 2FSK, Channel: 927.80 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 927.757 MHz : 3.359 dBm M2 : 927.775 MHz : 24.634 dBm Delta1 : 84 KHz : 1.753 dB T1 : 927.758 MHz : 5.452 dBm T2 : 927.843 MHz : 3.560 dBm OBW : 85 KHz	Measured 20 dB Bandwidth: 0.084 MHz Limit: 0.5 kHz Margin: 0.42 MHz

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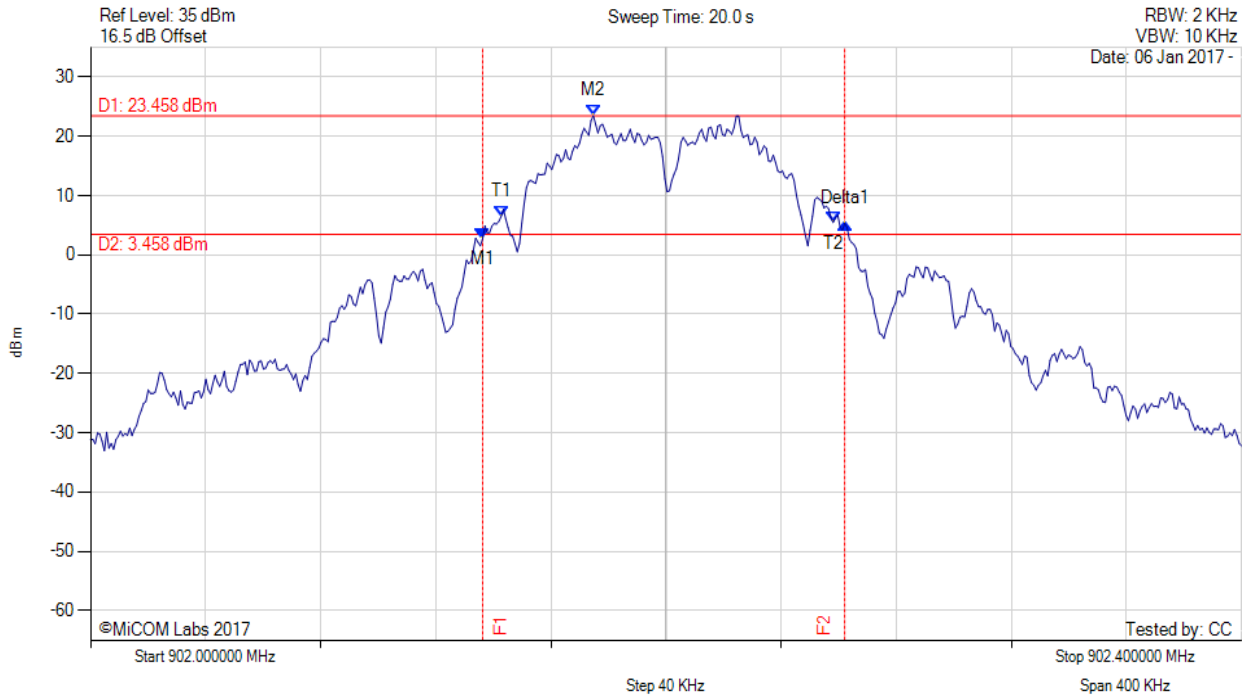
20 dB 99% BANDWIDTH

Variant: 6.25 kbps OQPSK, Channel: 902.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.136 MHz : 2.763 dBm M2 : 902.175 MHz : 23.458 dBm Delta1 : 126 KHz : 2.558 dB T1 : 902.143 MHz : 6.442 dBm T2 : 902.258 MHz : 5.486 dBm OBW : 115 KHz	Measured 20 dB Bandwidth: 0.126 MHz Limit: 0.5 kHz Margin: 0.37 MHz

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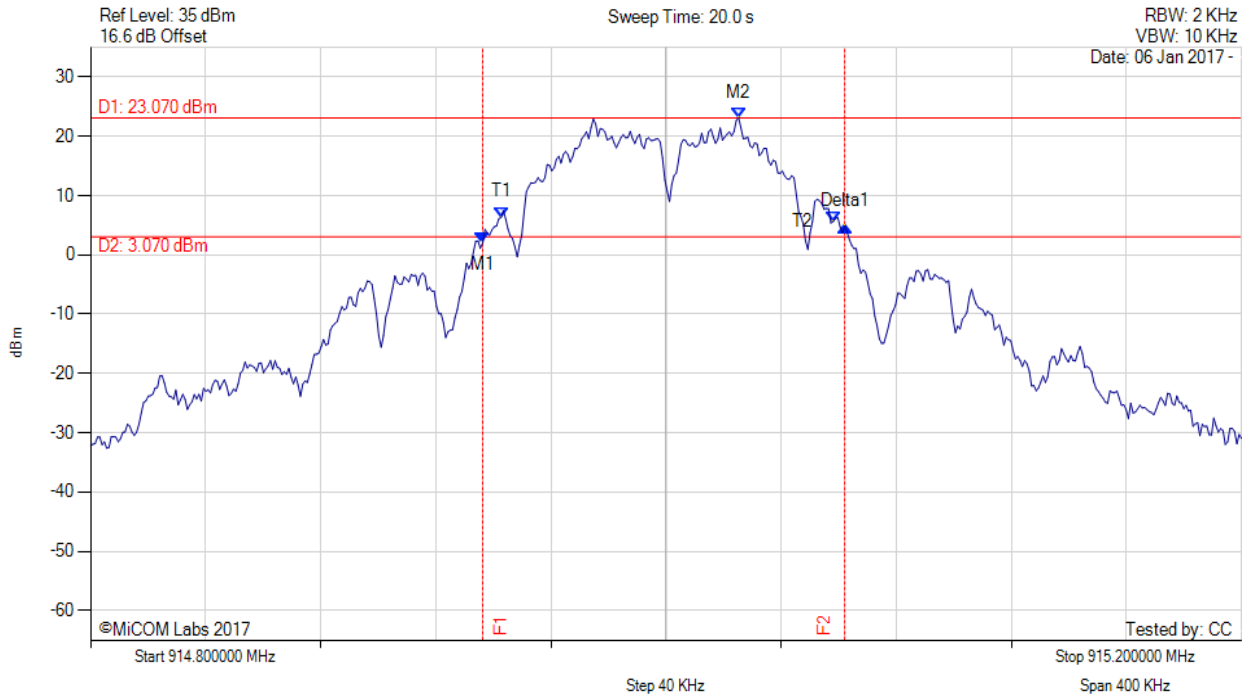
20 dB 99% BANDWIDTH

Variant: 6.25 kbps OQPSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 914.936 MHz : 1.950 dBm M2 : 915.025 MHz : 23.070 dBm Delta1 : 126 KHz : 2.890 dB T1 : 914.943 MHz : 6.342 dBm T2 : 915.058 MHz : 5.629 dBm OBW : 115 KHz	Measured 20 dB Bandwidth: 0.126 MHz Limit: 0.5 kHz Margin: 0.37 MHz

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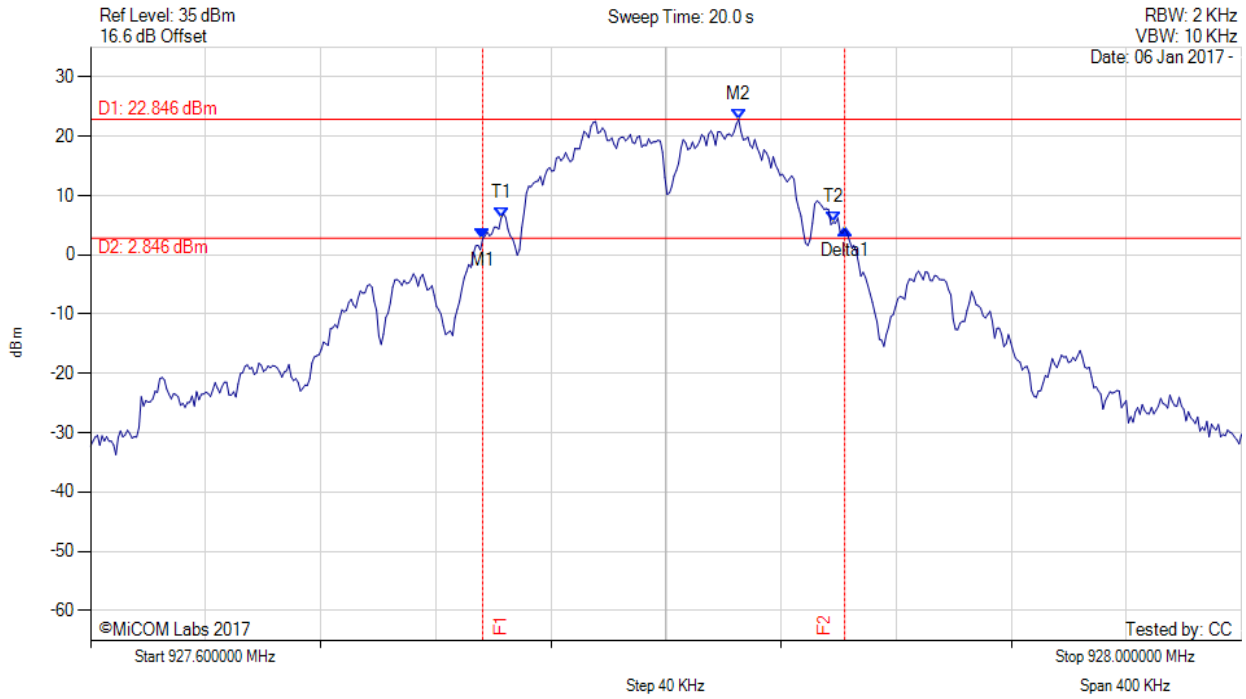
20 dB 99% BANDWIDTH

Variant: 6.25 kbps OQPSK, Channel: 927.80 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 927.736 MHz : 2.661 dBm M2 : 927.825 MHz : 22.846 dBm Delta1 : 126 KHz : 1.672 dB T1 : 927.743 MHz : 6.161 dBm T2 : 927.858 MHz : 5.498 dBm OBW : 115 KHz	Measured 20 dB Bandwidth: 0.126 MHz Limit: 0.5 kHz Margin: 0.37 MHz

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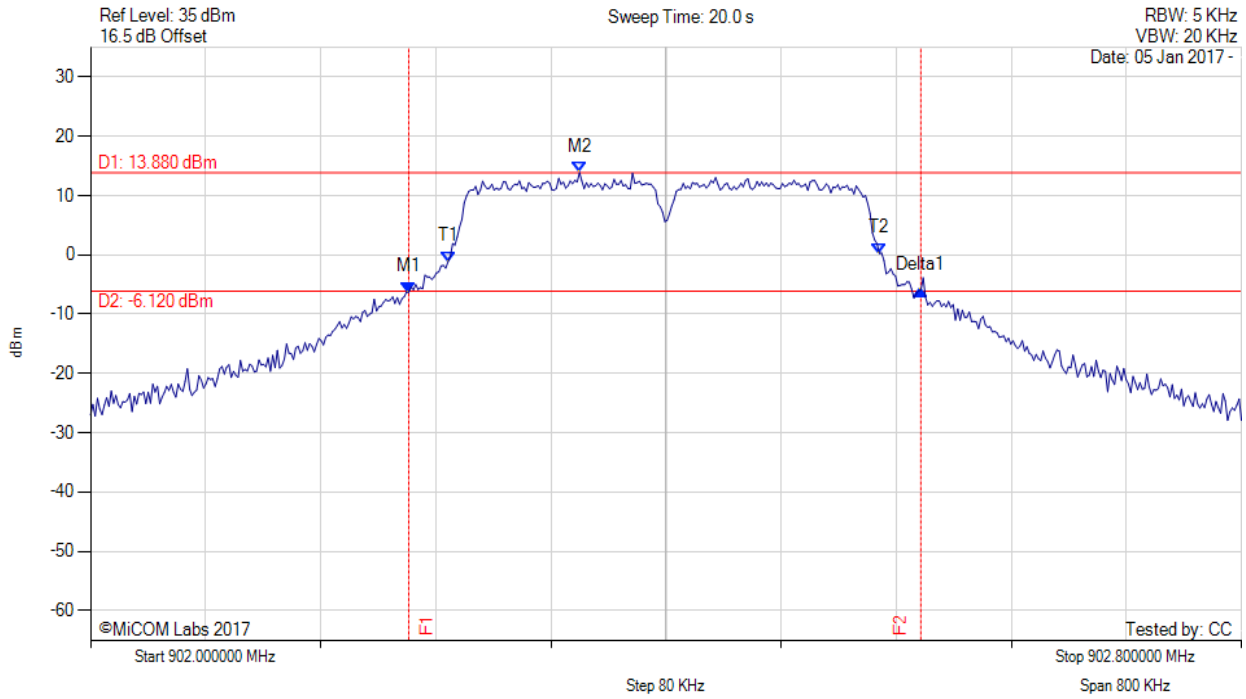
20 dB 99% BANDWIDTH

Variant: 600 kbps OFDM, Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 902.221 MHz : -6.279 dBm M2 : 902.340 MHz : 13.880 dBm Delta1 : 356 KHz : 0.342 dB T1 : 902.248 MHz : -1.140 dBm T2 : 902.548 MHz : 0.278 dBm OBW : 300 KHz	Measured 20 dB Bandwidth: 0.356 MHz Limit: 0.5 kHz Margin: 0.14 MHz

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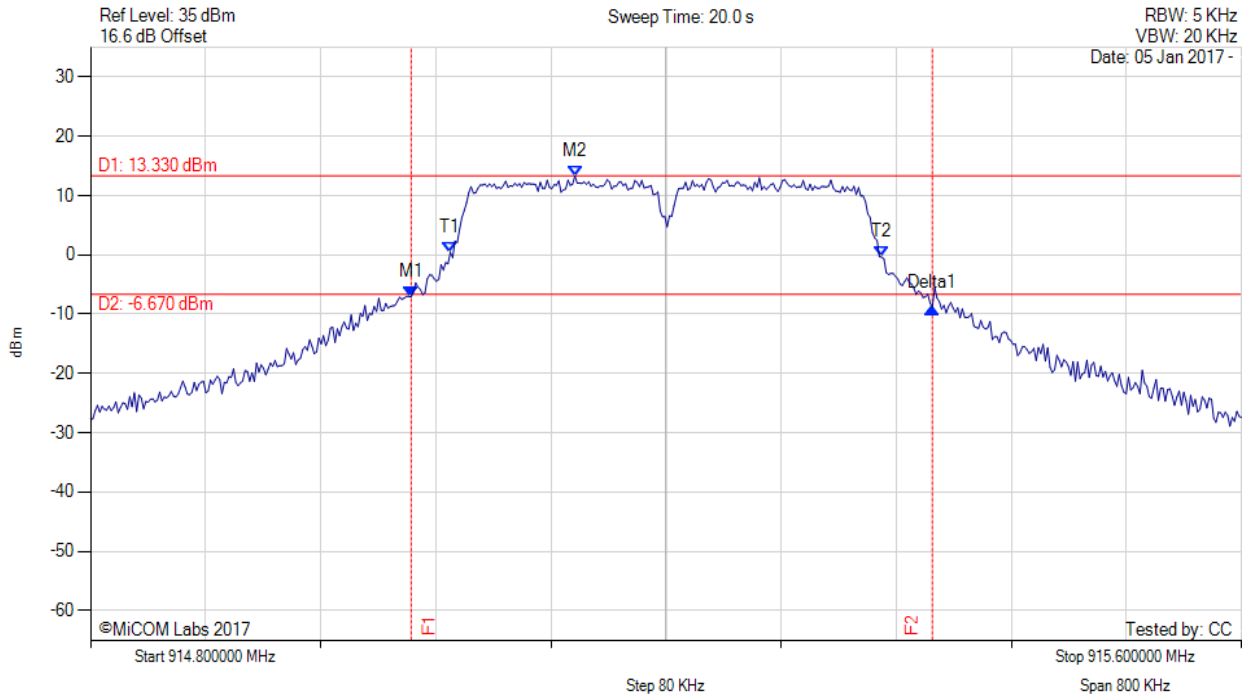
20 dB 99% BANDWIDTH

Variant: 600 kbps OFDM, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 915.023 MHz : -7.058 dBm M2 : 915.137 MHz : 13.330 dBm Delta1 : 362 KHz : -1.806 dB T1 : 915.050 MHz : 0.451 dBm T2 : 915.350 MHz : -0.367 dBm OBW : 300 KHz	Measured 20 dB Bandwidth: 0.362 MHz Limit: 0.5 kHz Margin: 0.14 MHz

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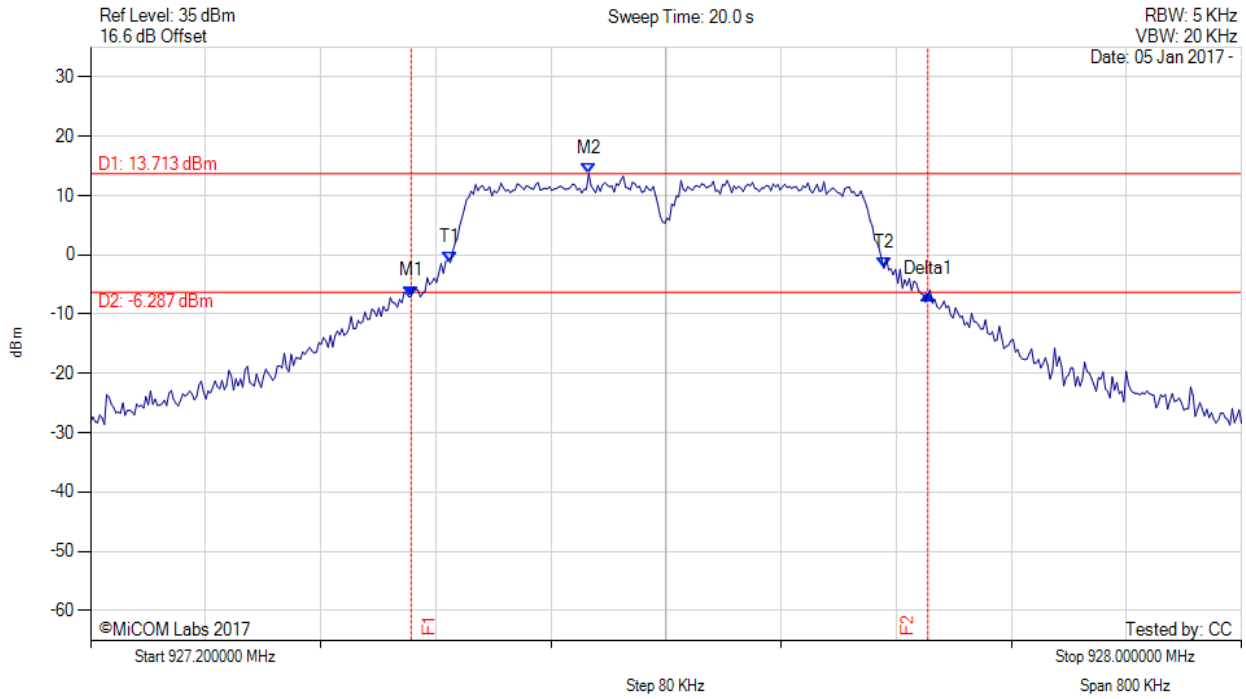
20 dB 99% BANDWIDTH

Variant: 600 kbps OFDM, Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = MAX HOLD	M1 : 927.423 MHz : -6.974 dBm M2 : 927.546 MHz : 13.713 dBm Delta1 : 359 KHz : 0.380 dB T1 : 927.450 MHz : -1.298 dBm T2 : 927.752 MHz : -2.258 dBm OBW : 301 KHz	Measured 20 dB Bandwidth: 0.359 MHz Limit: 0.5 kHz Margin: 0.14 MHz

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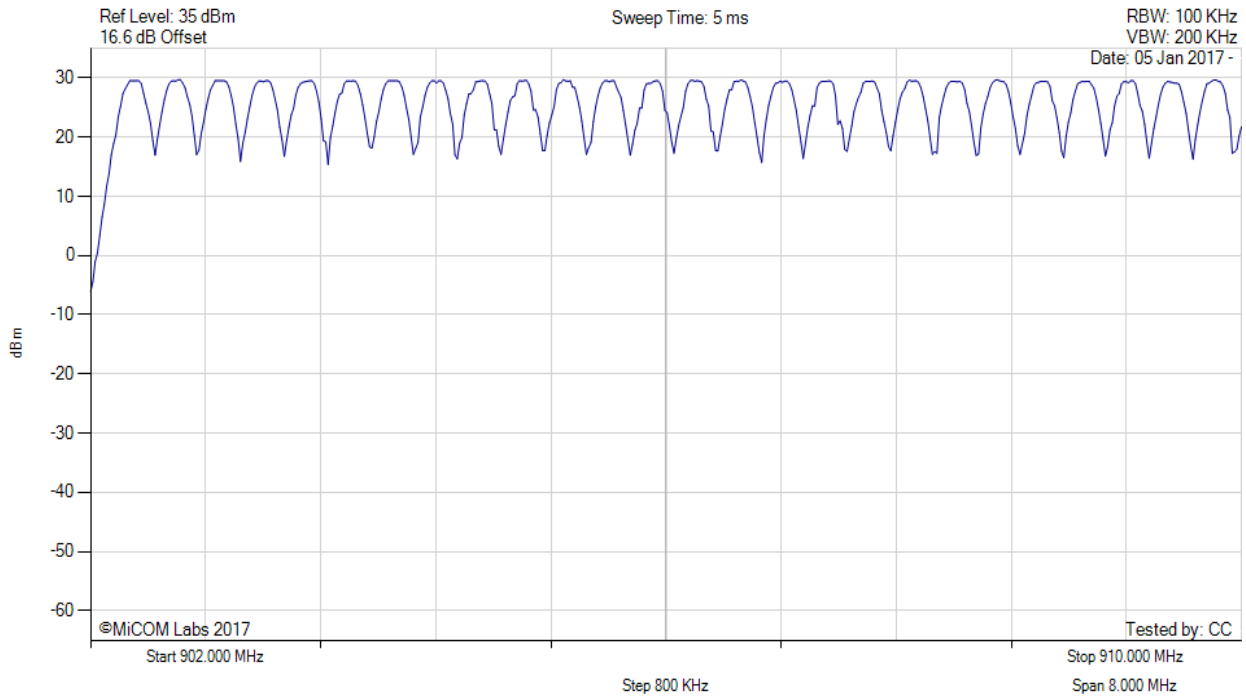
A.2. Frequency Hopping Tests

A.2.1. Number of Hopping Channels

NUMBER OF HOPPING CHANNELS

Variant: 100 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



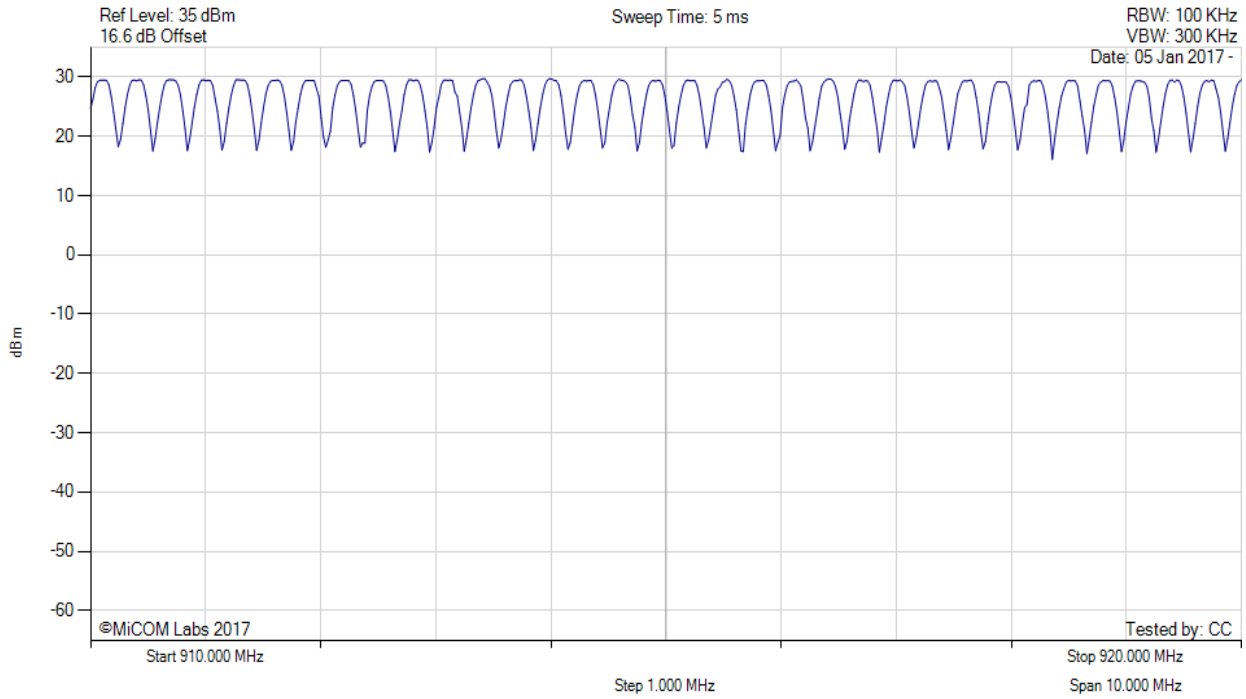
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 100 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



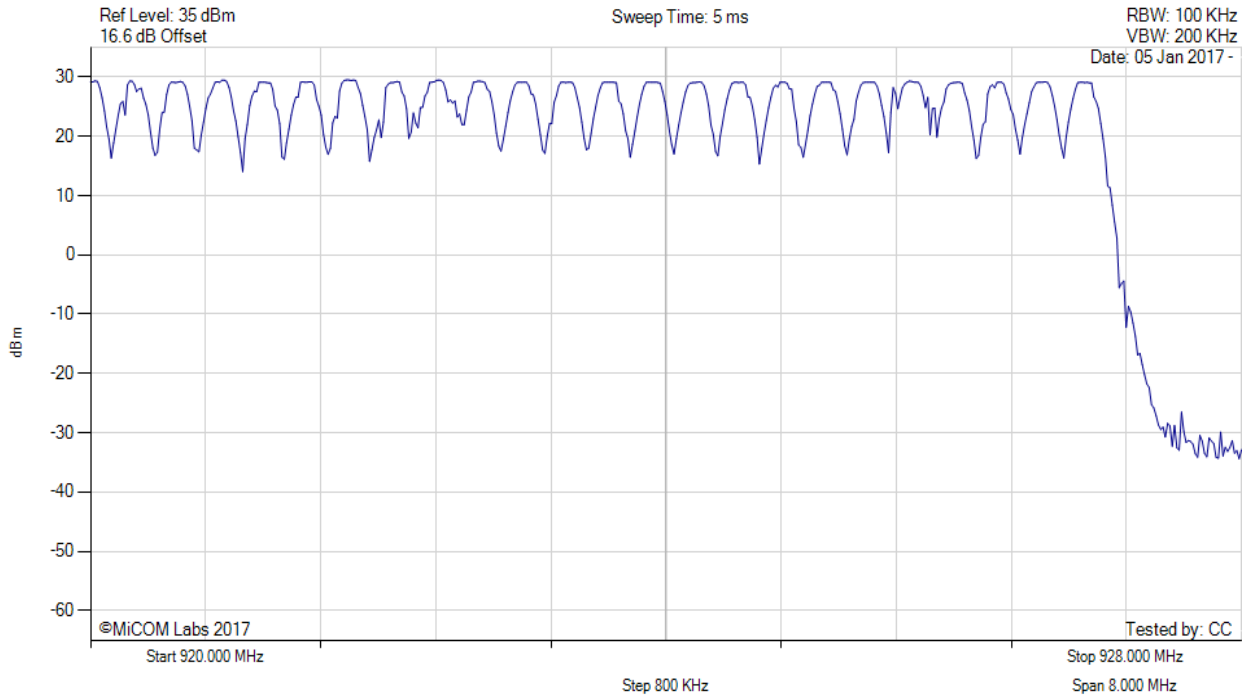
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 100 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



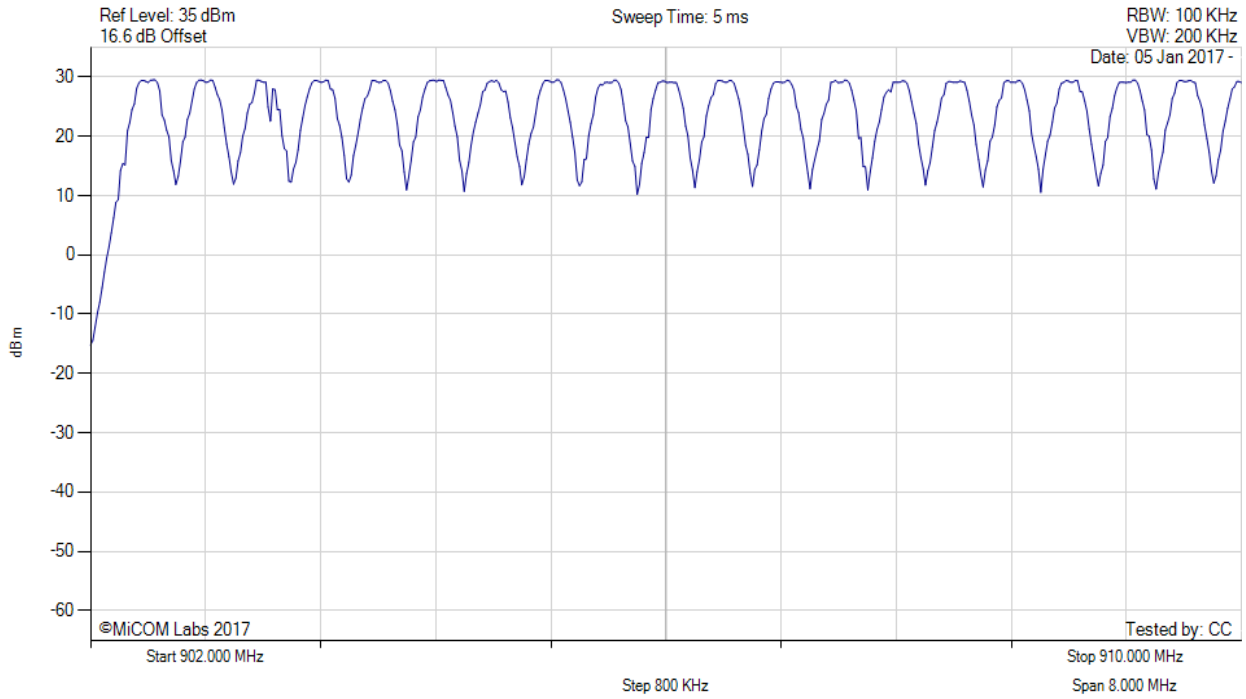
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 150 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

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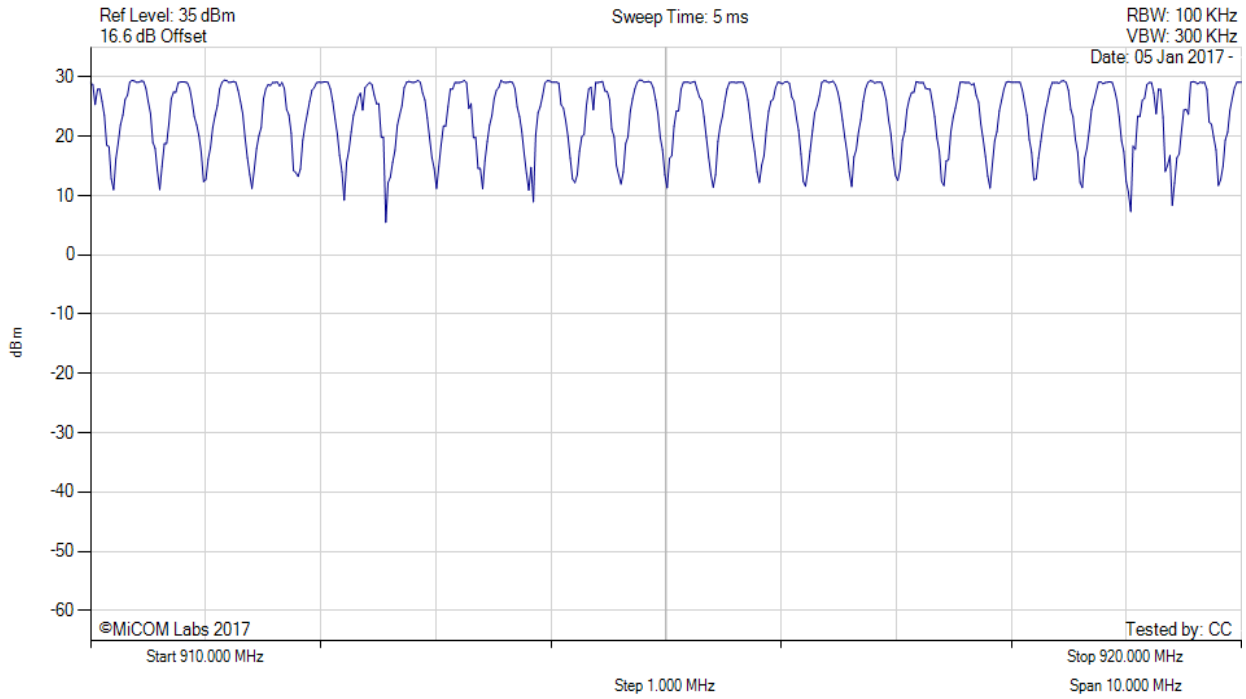
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 150 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

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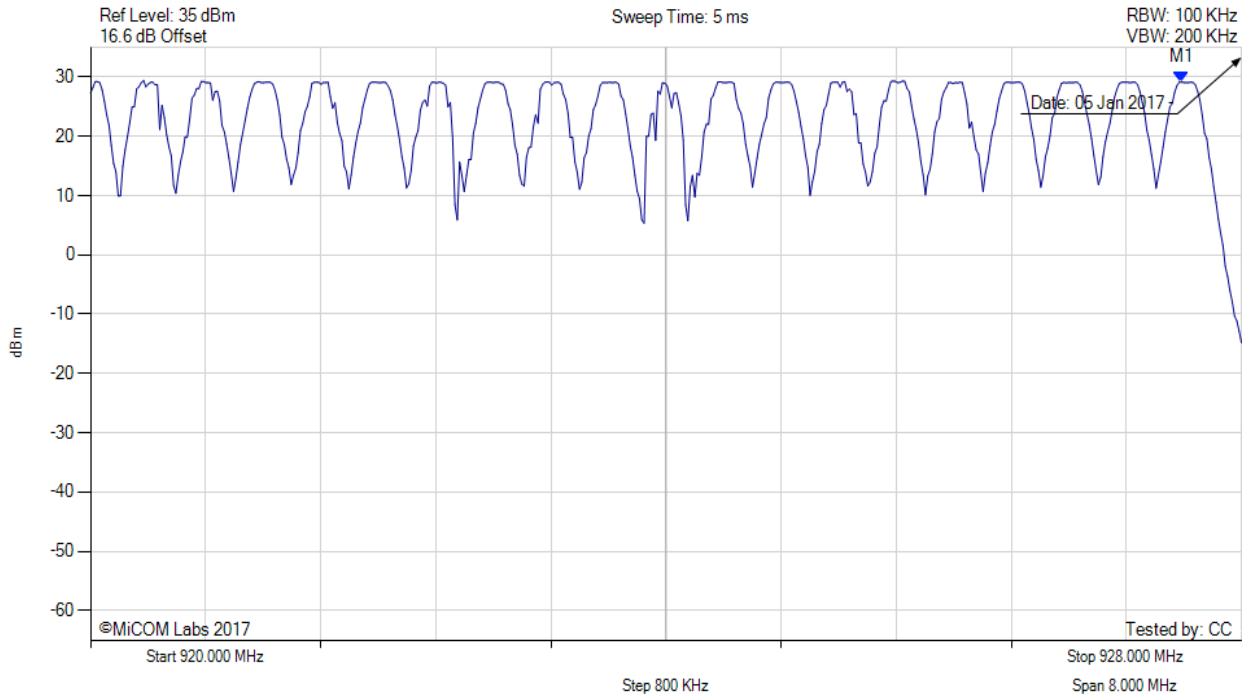
NUMBER OF HOPPING CHANNELS

Variant: 150 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.583 MHz : 29.155 dBm	Channel Frequency: 915.20 MHz

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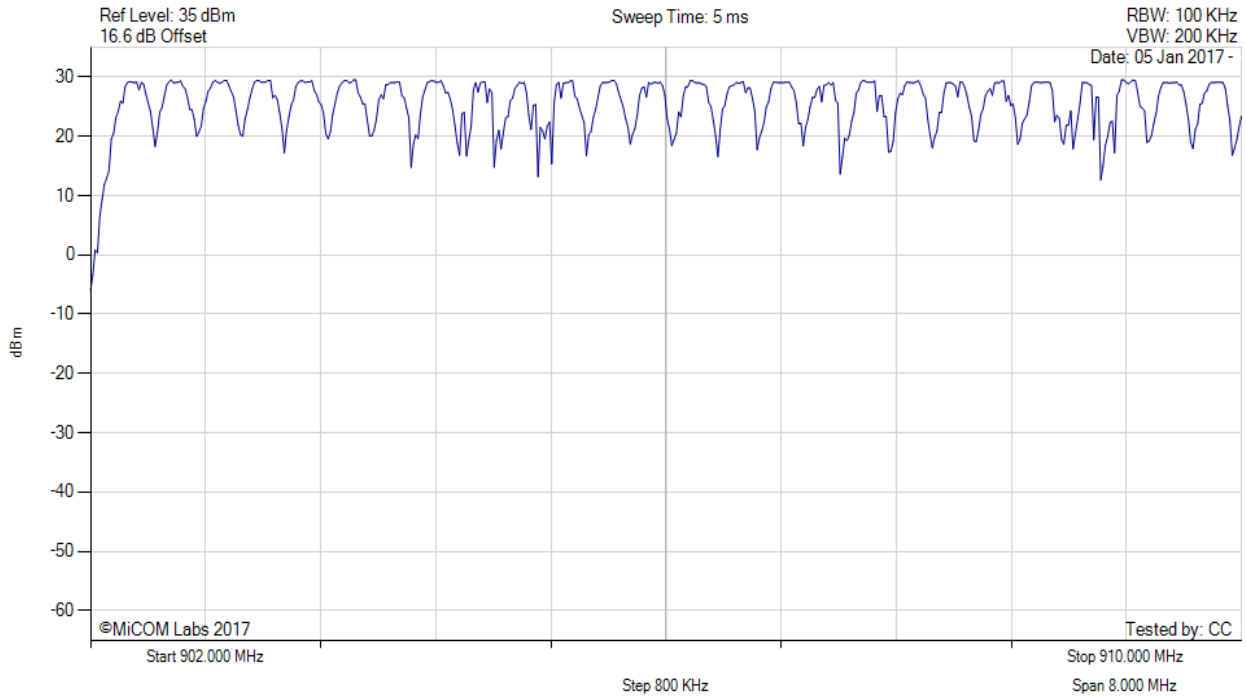
NUMBER OF HOPPING CHANNELS

Variant: 150 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

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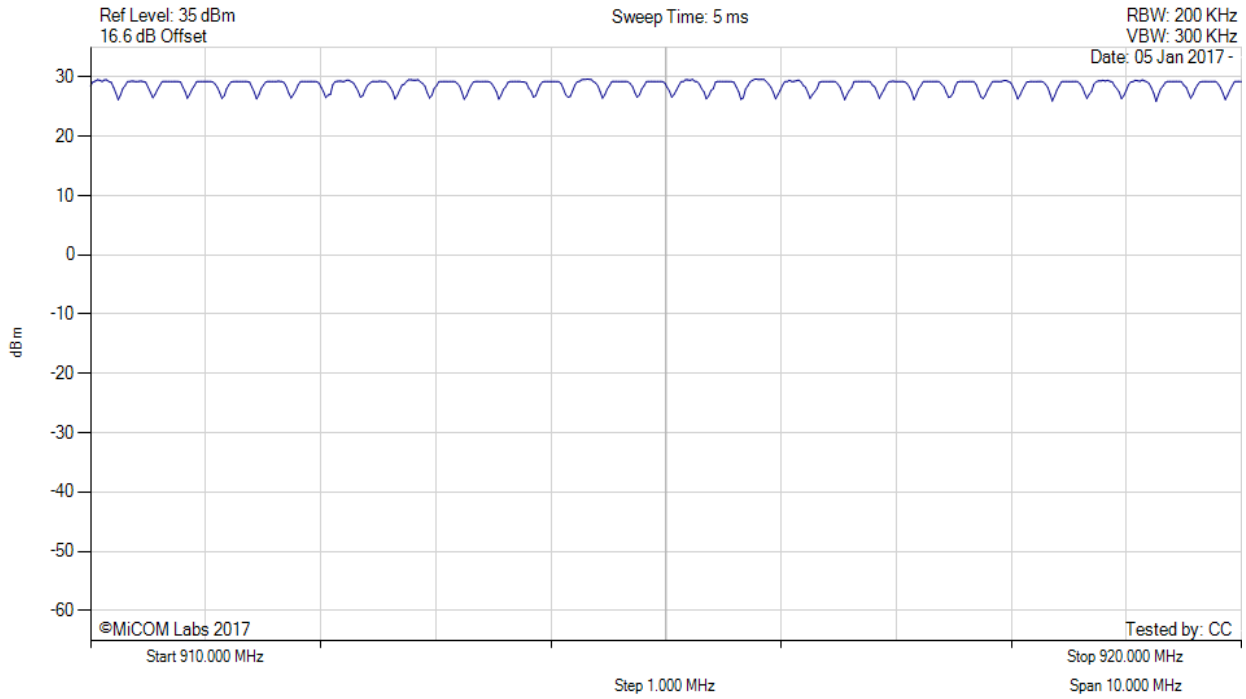
NUMBER OF HOPPING CHANNELS

Variant: 150 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



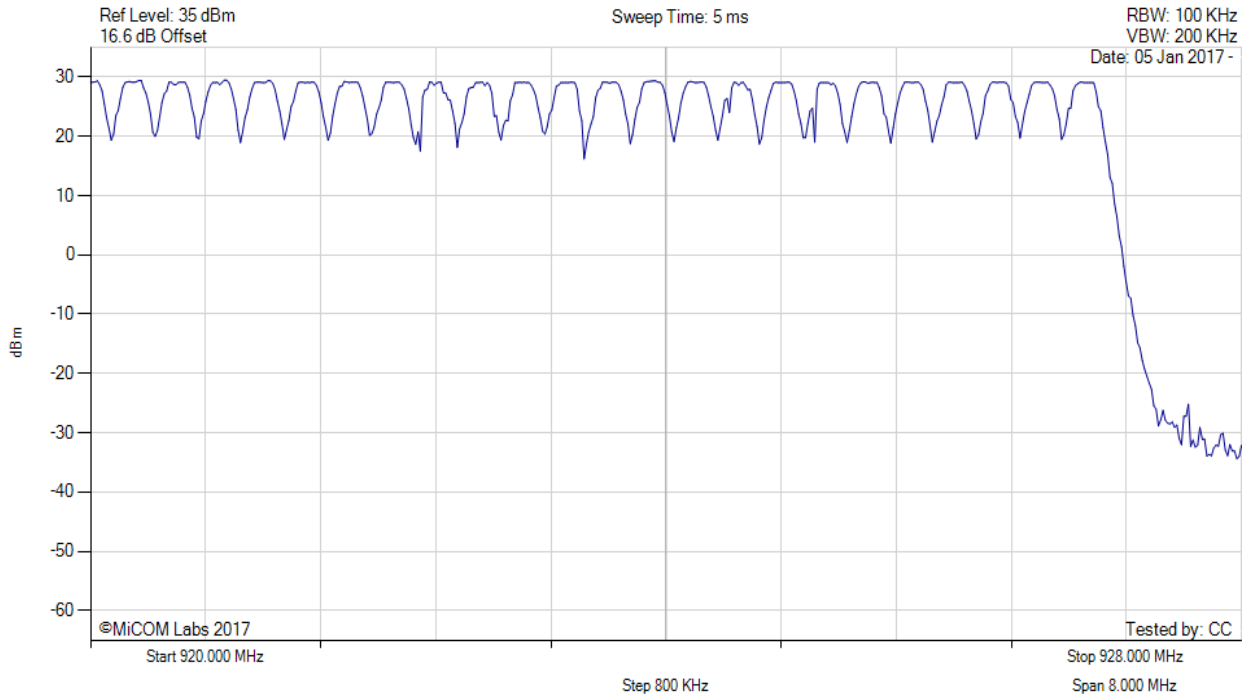
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 150 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



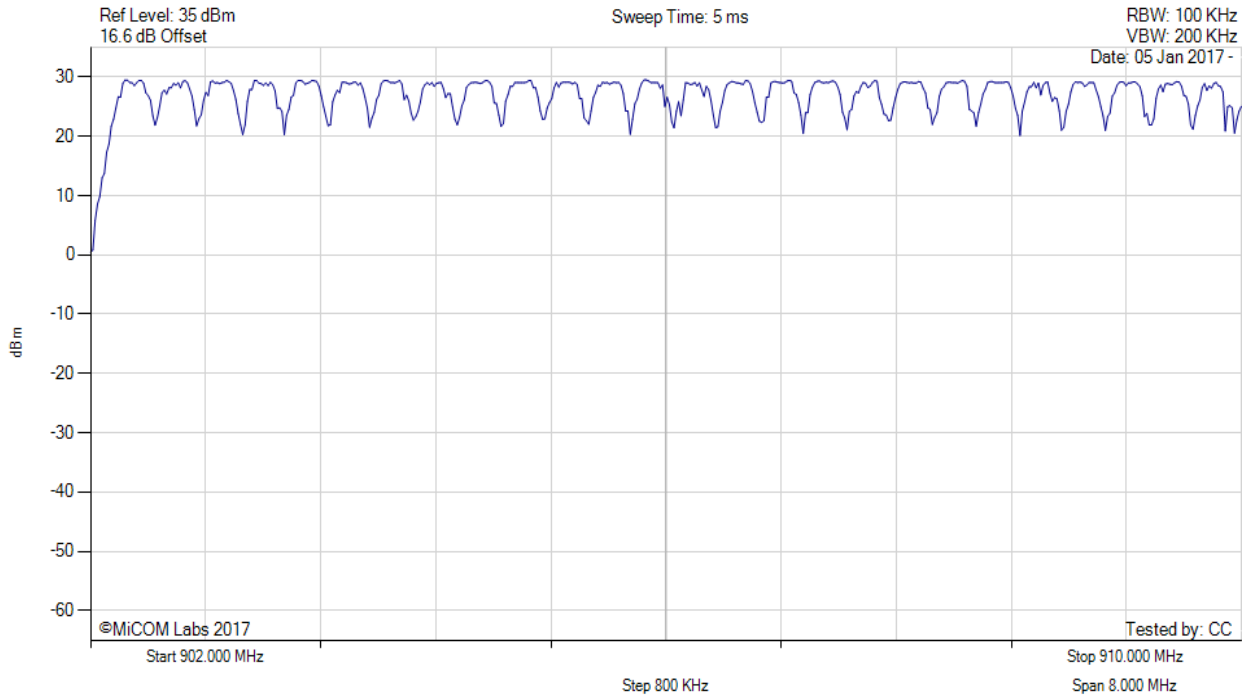
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 200 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

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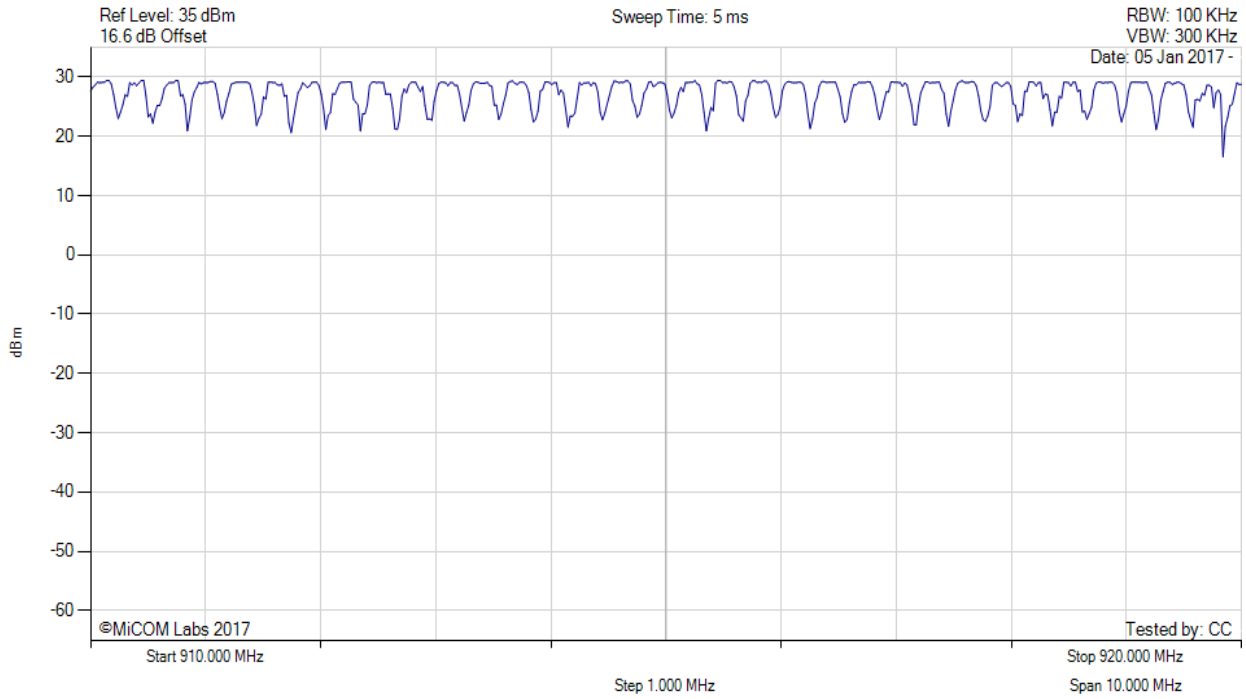
NUMBER OF HOPPING CHANNELS

Variant: 200 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

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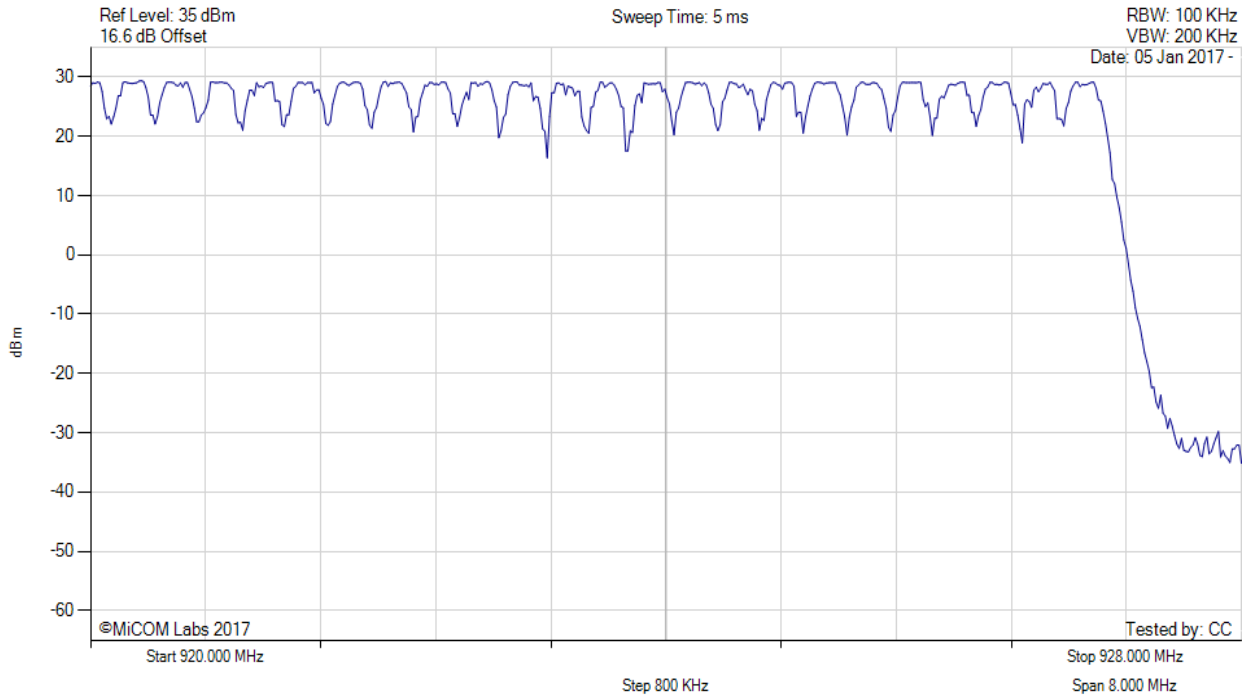
NUMBER OF HOPPING CHANNELS

Variant: 200 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

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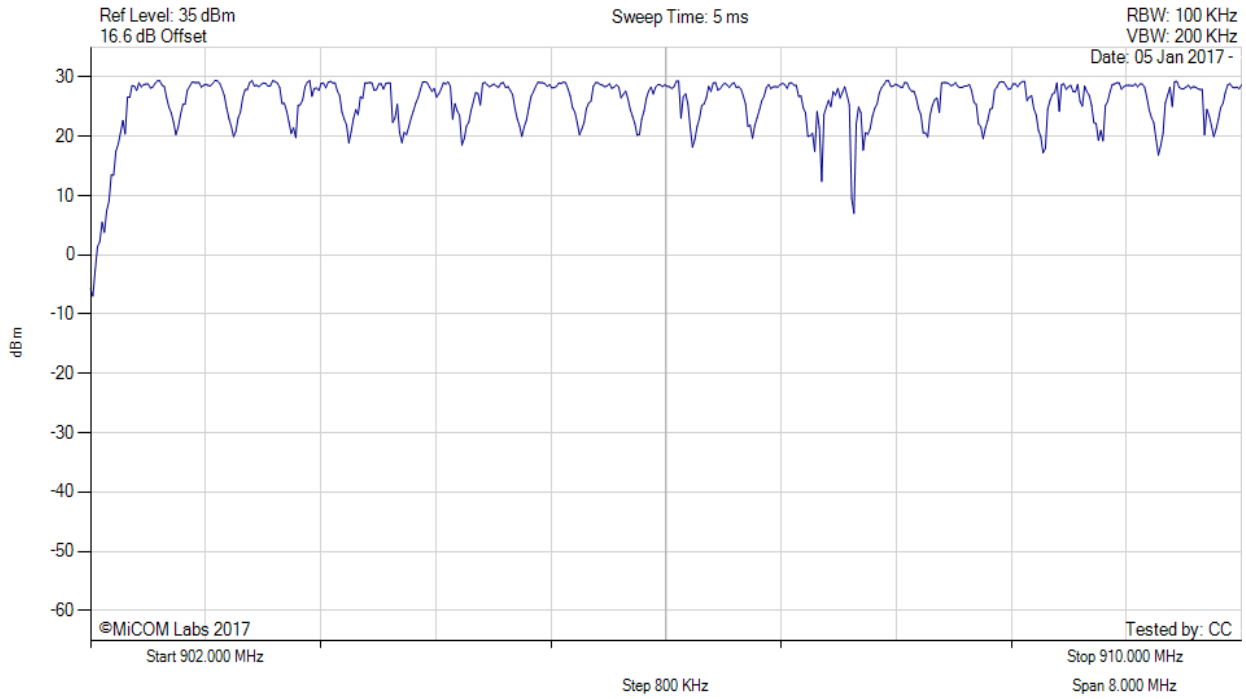
NUMBER OF HOPPING CHANNELS

Variant: 300 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

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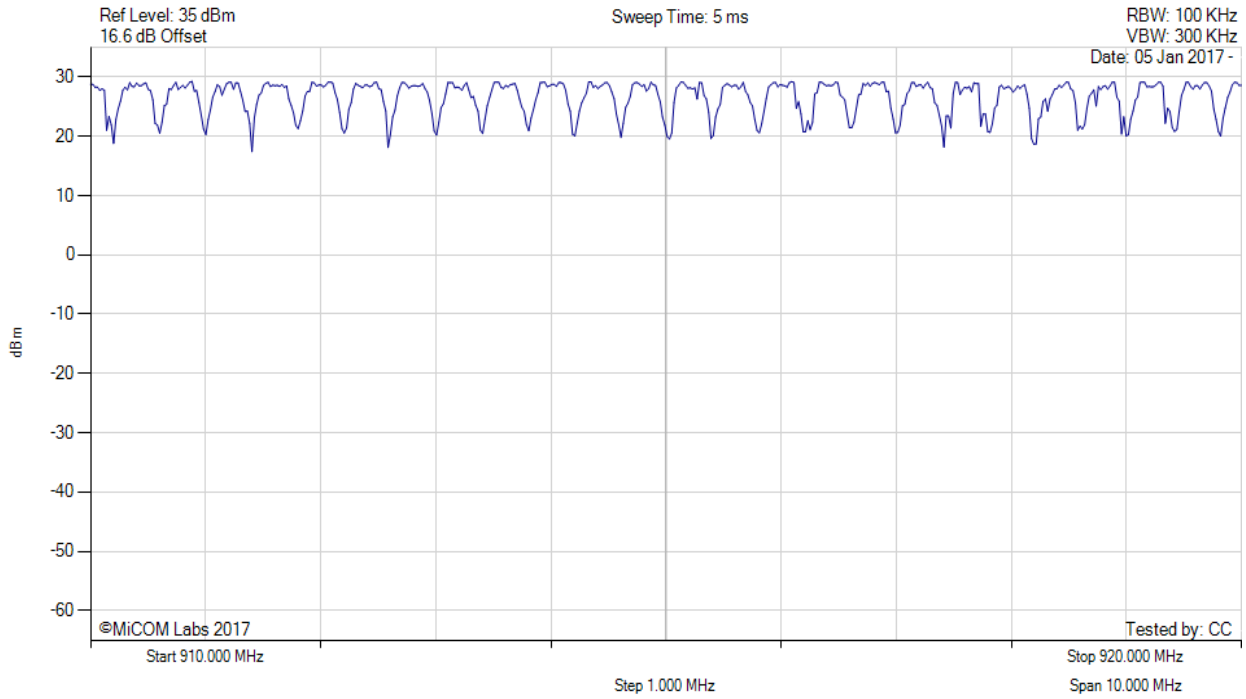
NUMBER OF HOPPING CHANNELS

Variant: 300 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



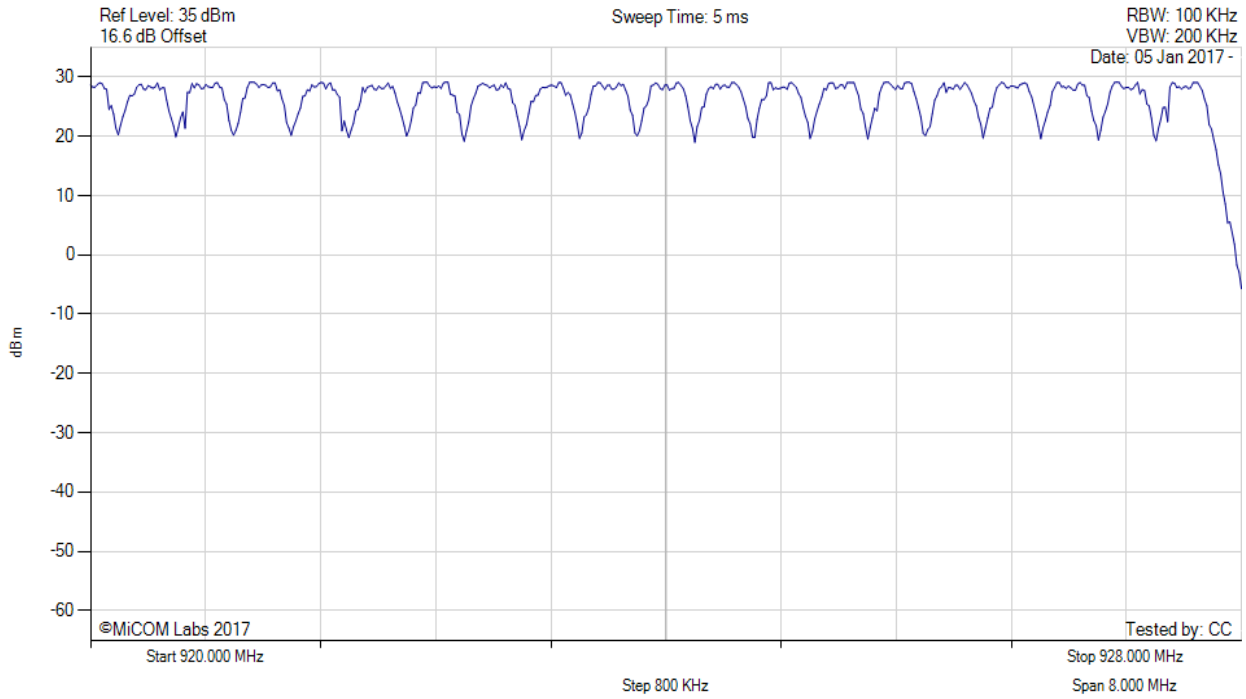
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 300 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



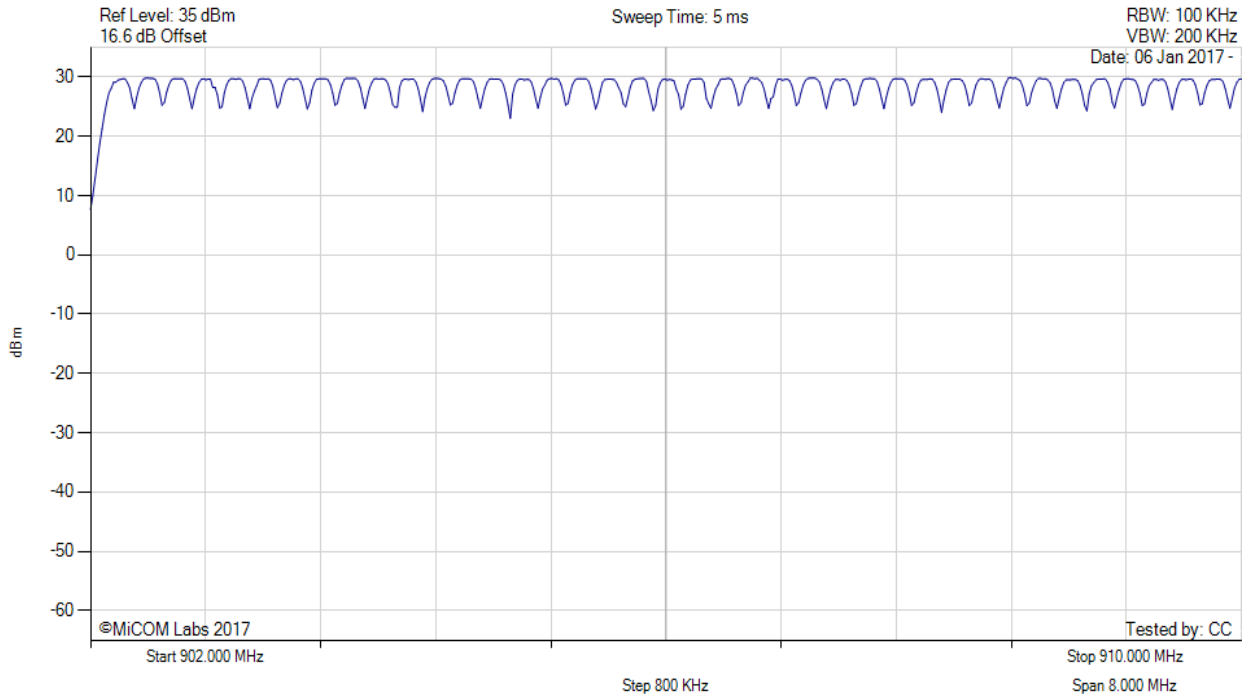
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 50 kbps 2FSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

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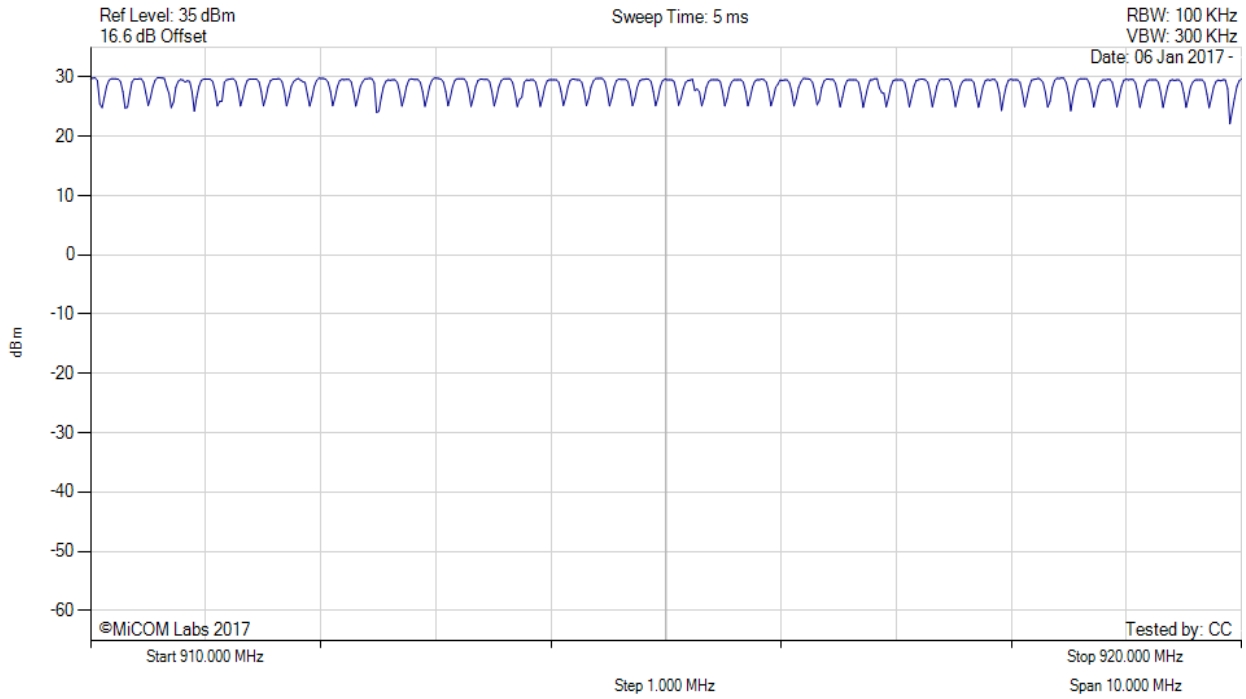
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 50 kbps 2FSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

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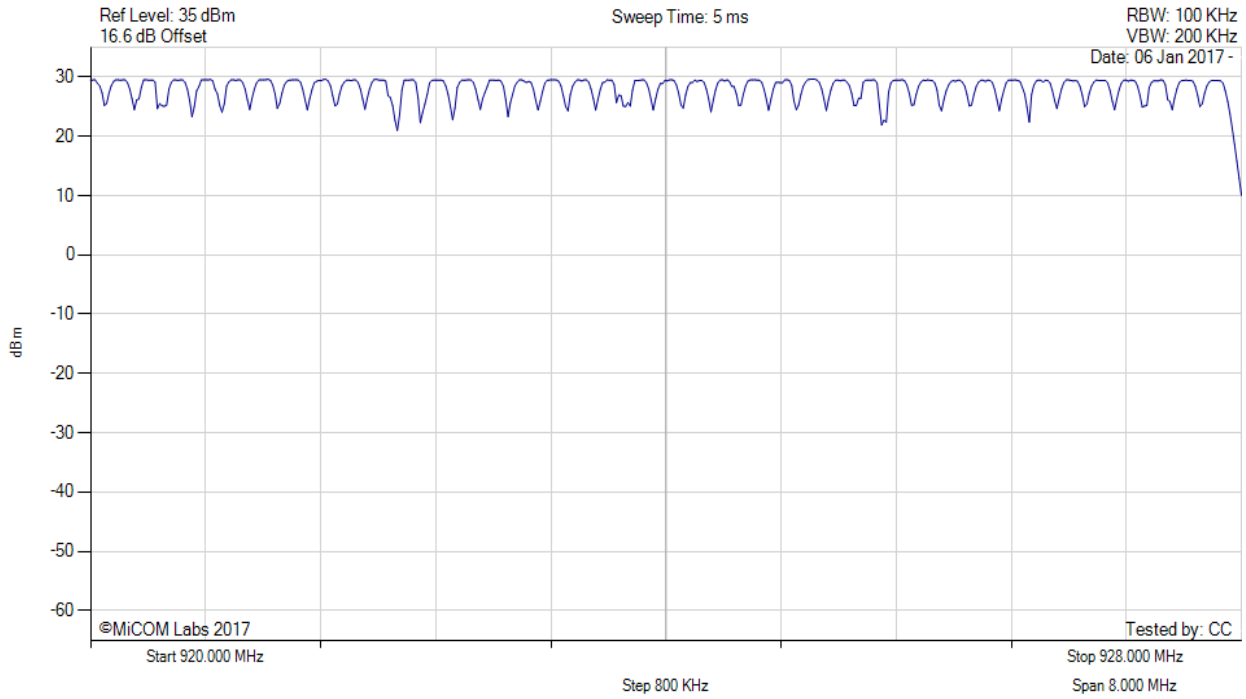
NUMBER OF HOPPING CHANNELS

Variant: 50 kbps 2FSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

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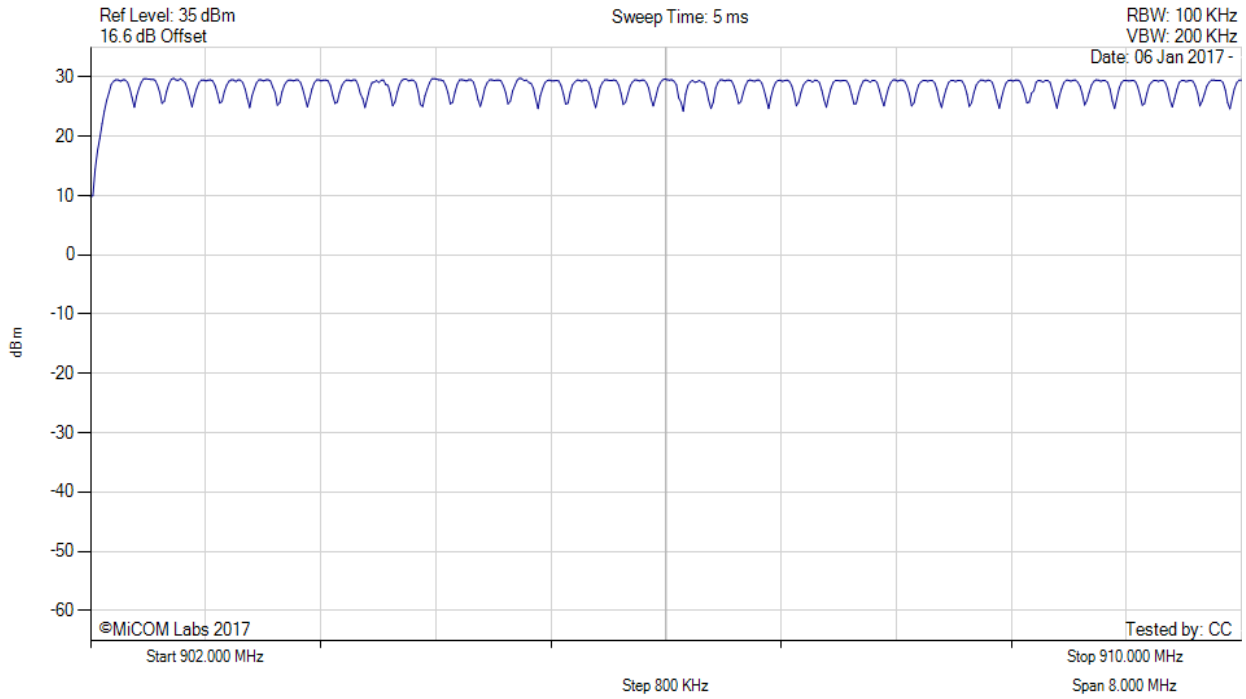
NUMBER OF HOPPING CHANNELS

Variant: 6.25 kbps OQPSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

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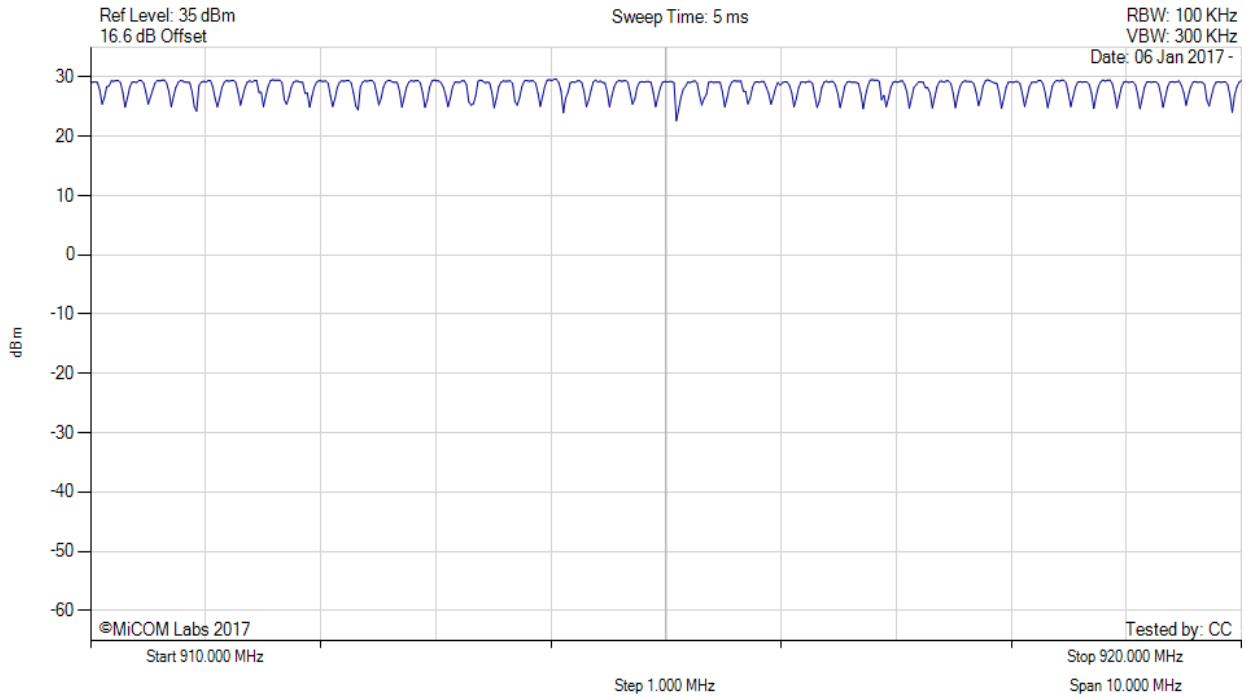
NUMBER OF HOPPING CHANNELS

Variant: 6.25 kbps OQPSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

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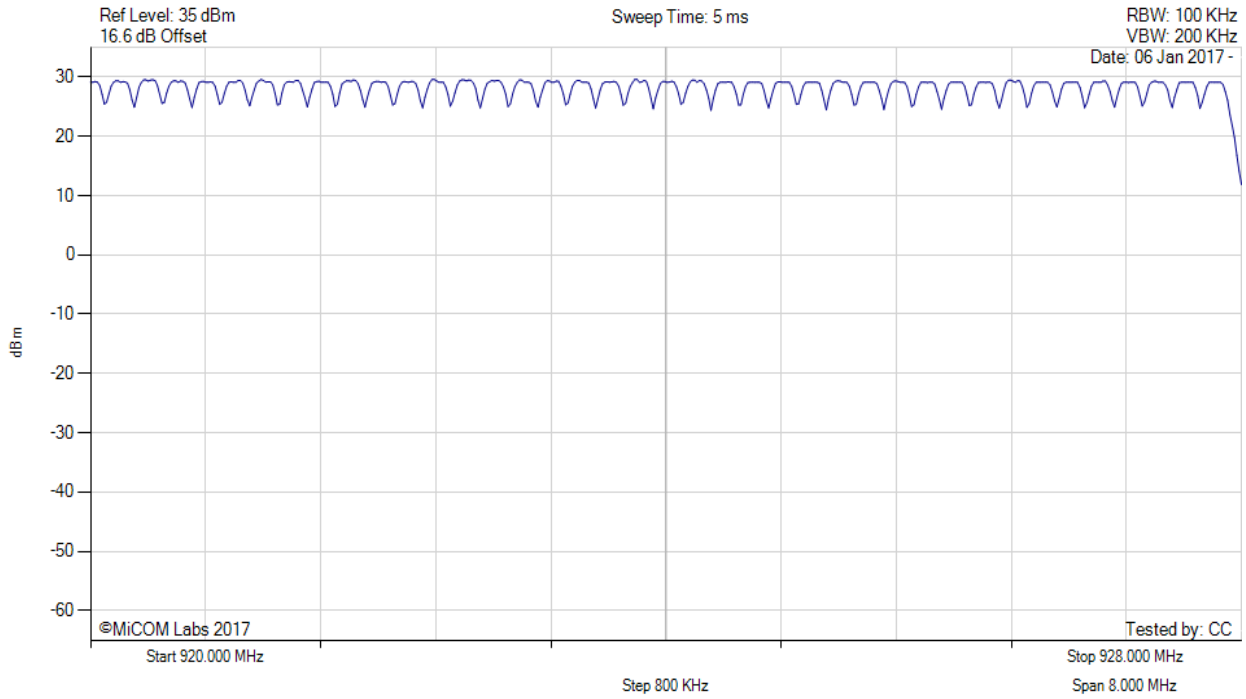
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 6.25 kbps OQPSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



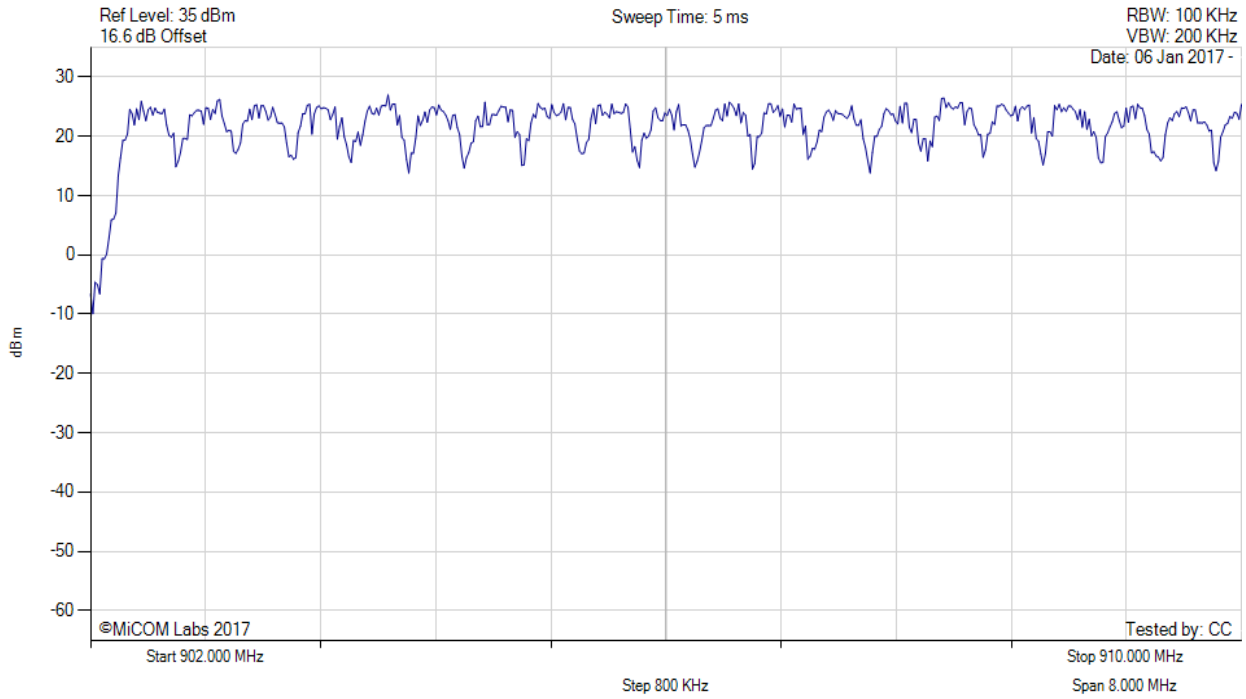
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.00 MHz

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 600 kbps OFDM, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



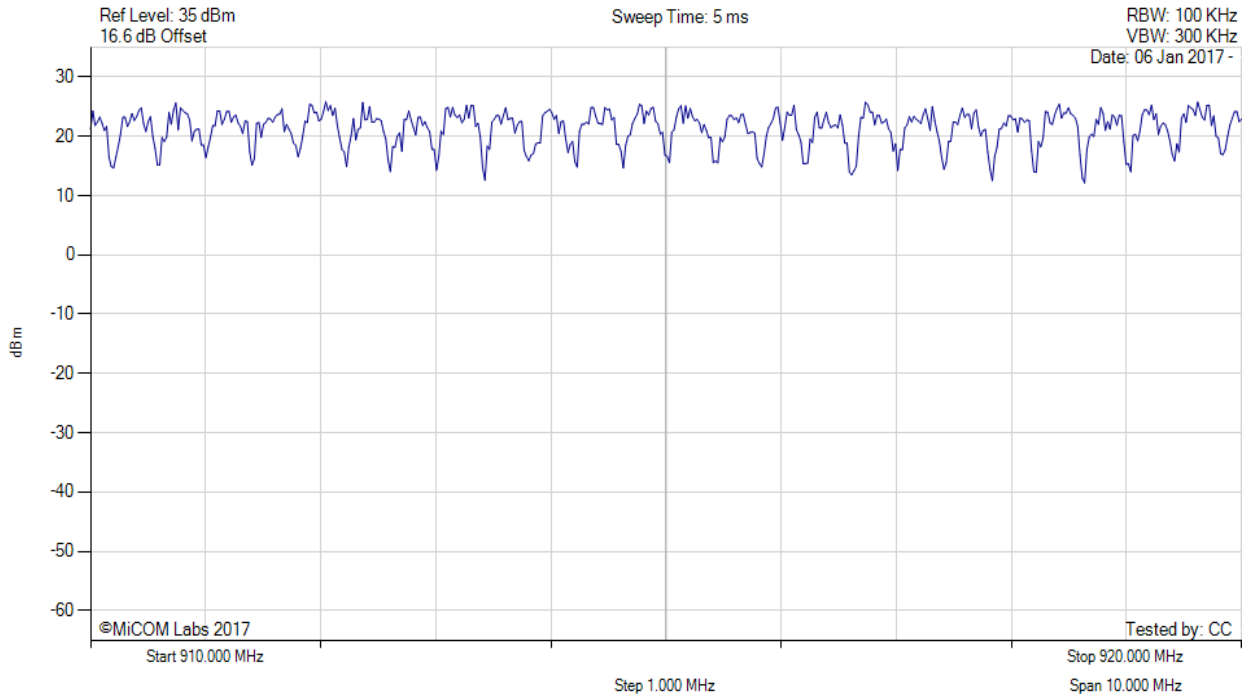
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 600 kbps OFDM, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

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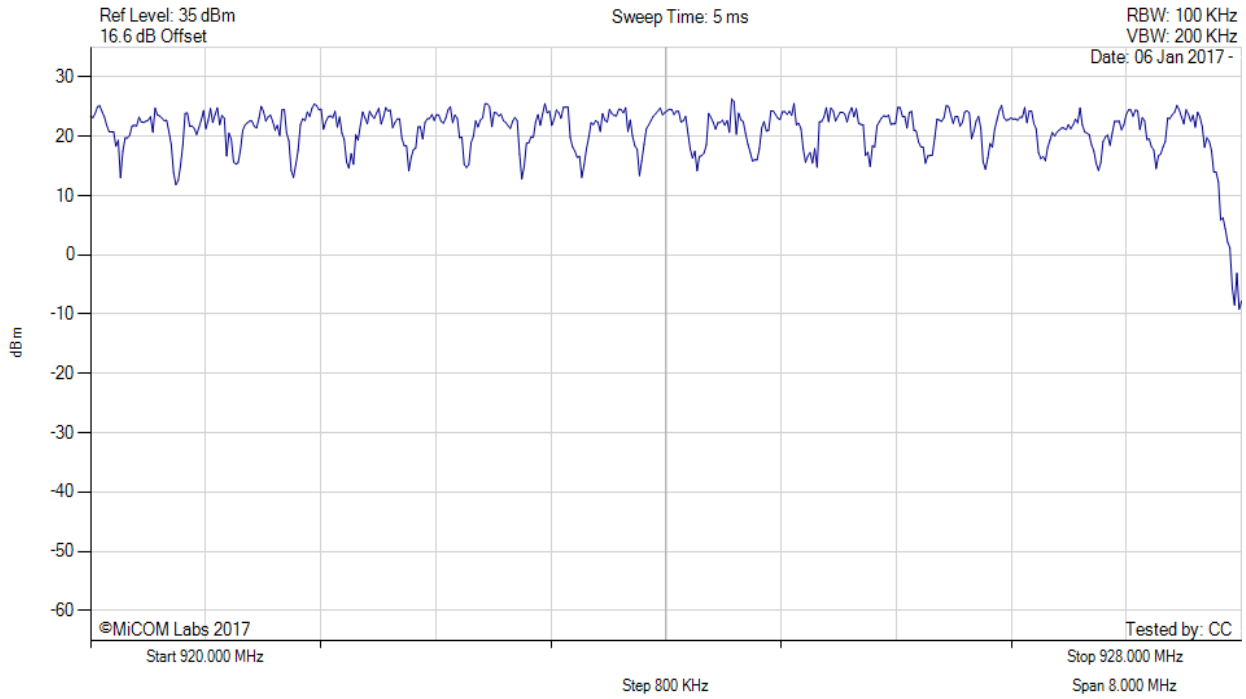
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

NUMBER OF HOPPING CHANNELS

Variant: 600 kbps OFDM, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW		Channel Frequency: 915.20 MHz

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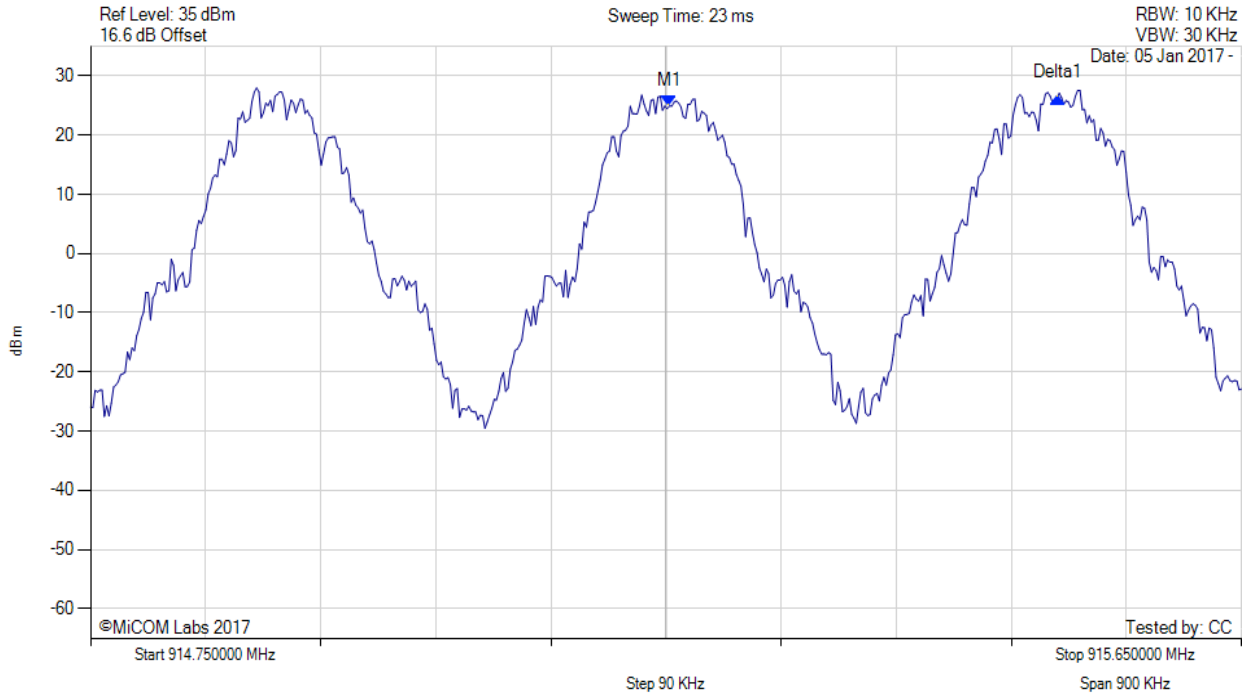
A.2.2. Channel Separation

CHANNEL SEPARATION

Variant: 100 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



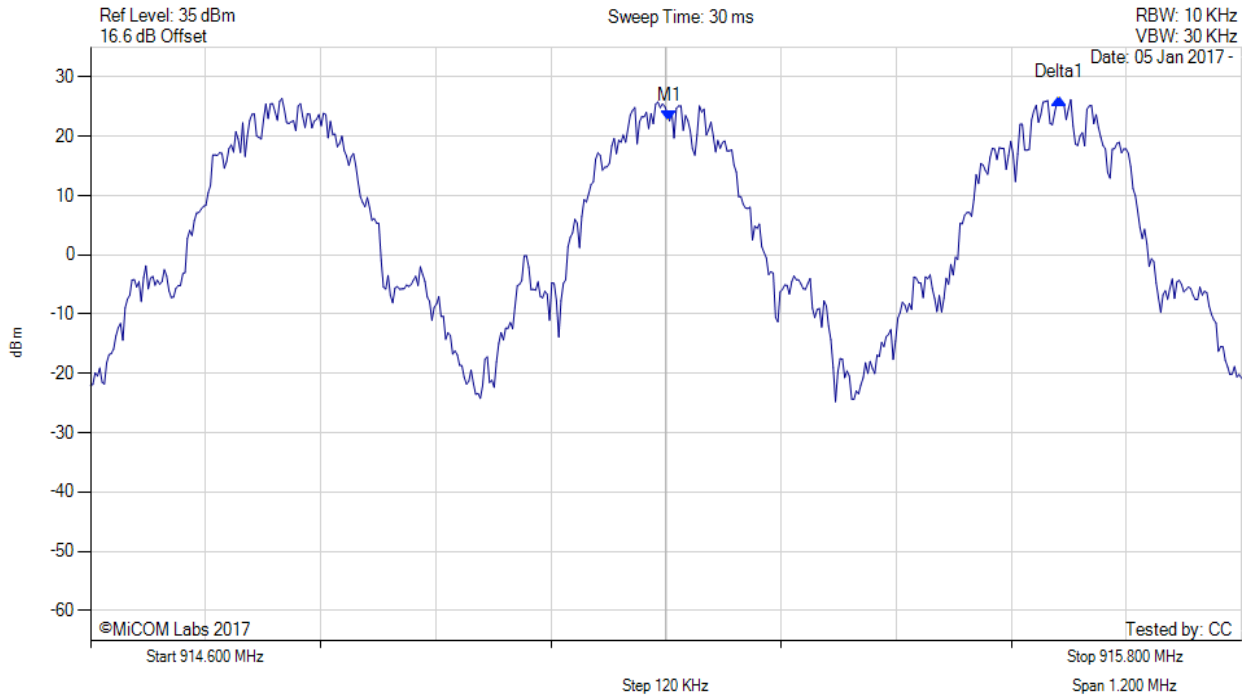
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.203 MHz : 24.878 dBm Delta1 : 304 KHz : 1.542 dB	Channel Frequency: 915.20 MHz

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL SEPARATION

Variant: 150 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.204 MHz : 22.592 dBm Delta1 : 406 KHz : 3.846 dB	Channel Frequency: 915.20 MHz

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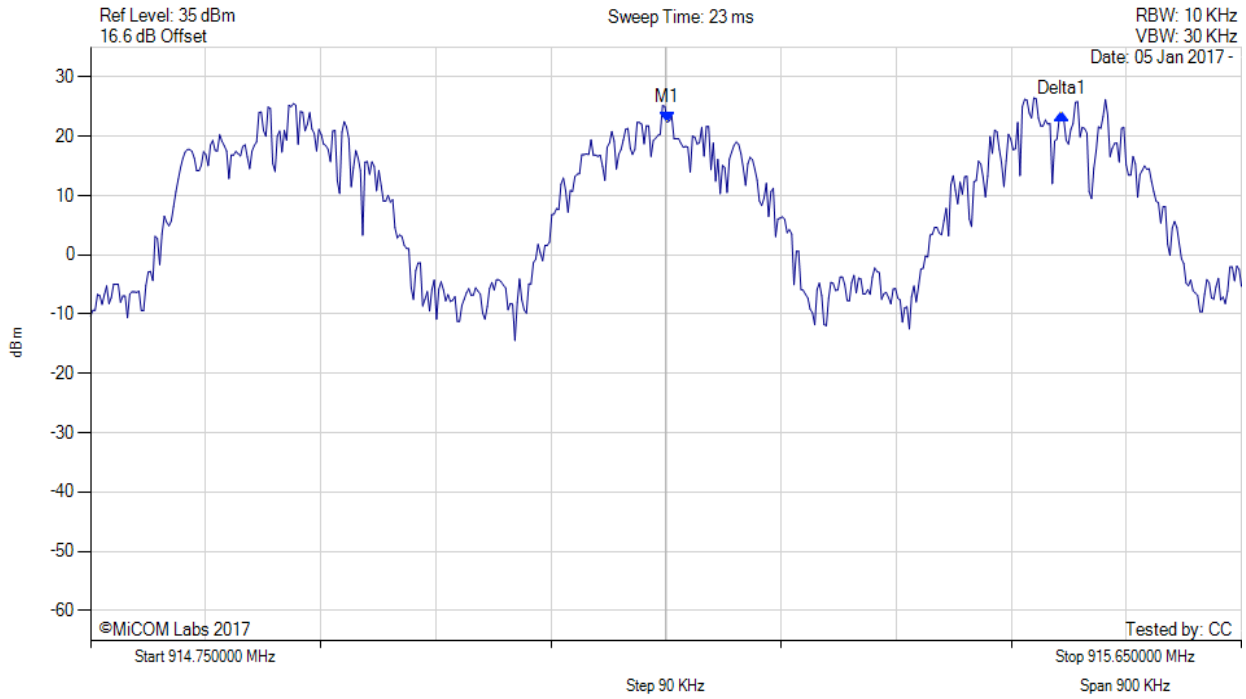
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL SEPARATION

Variant: 150 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.201 MHz : 22.423 dBm Delta1 : 308 KHz : 1.432 dB	Channel Frequency: 915.20 MHz

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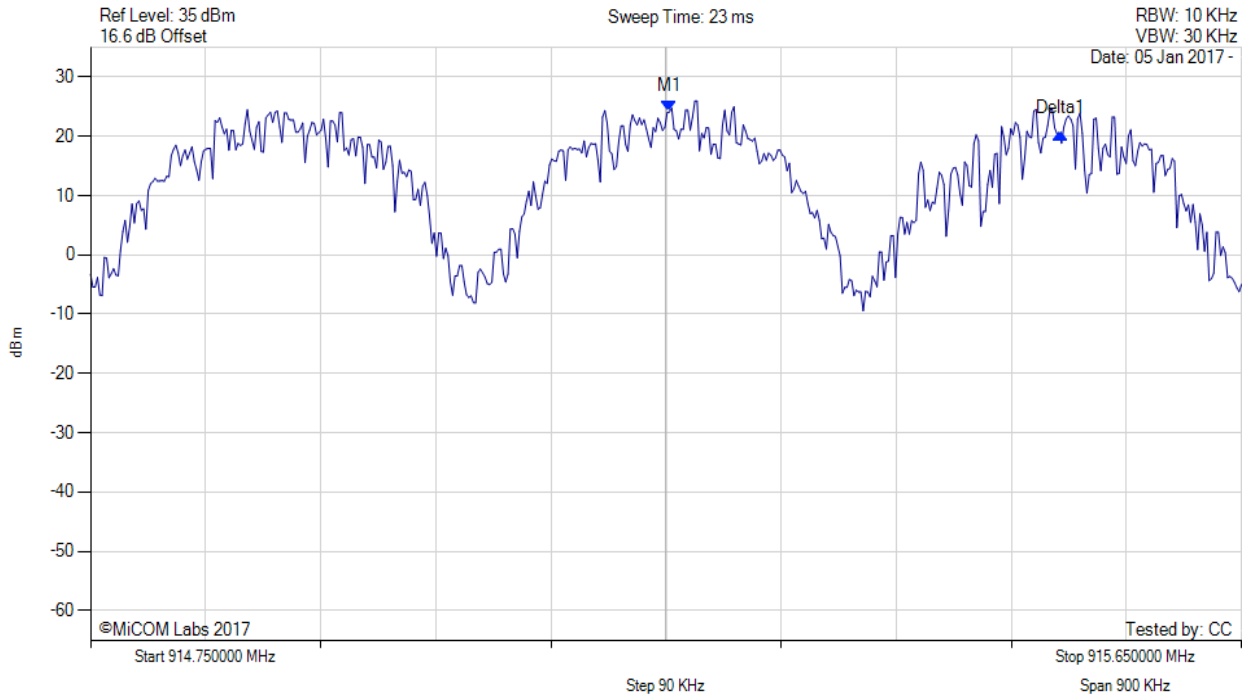
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL SEPARATION

Variant: 200 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.203 MHz : 24.132 dBm Delta1 : 305 KHz : -3.730 dB	Channel Frequency: 915.20 MHz

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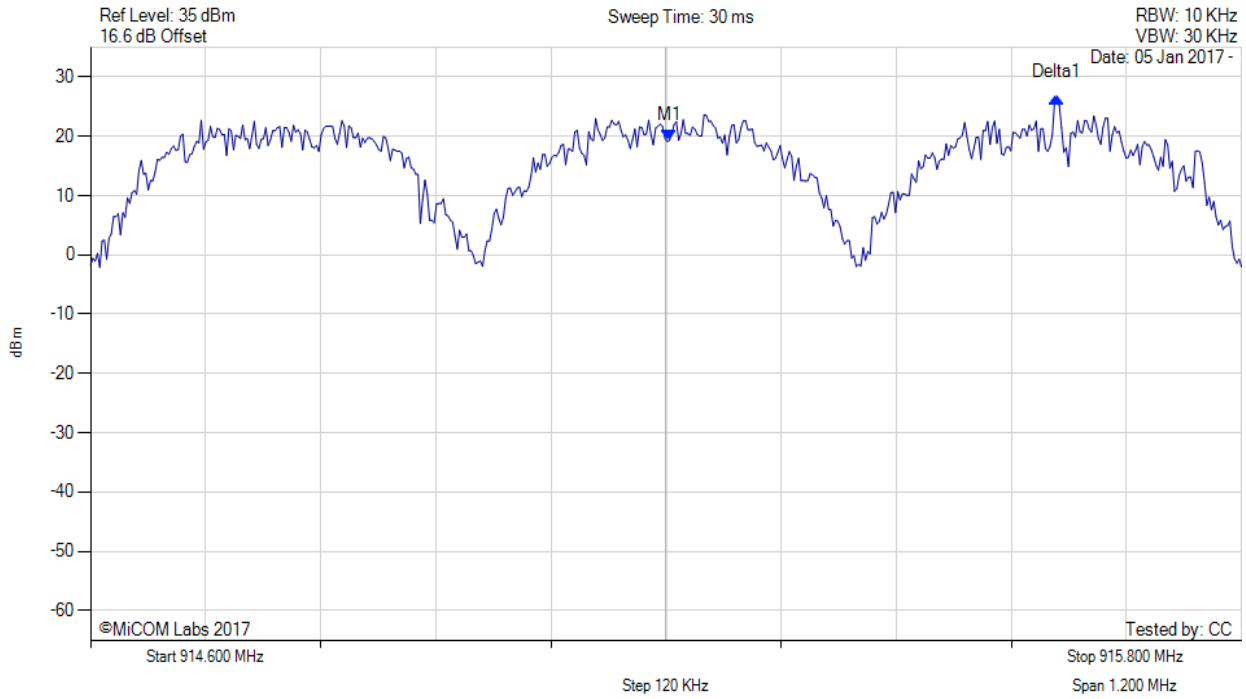
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL SEPARATION

Variant: 300 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



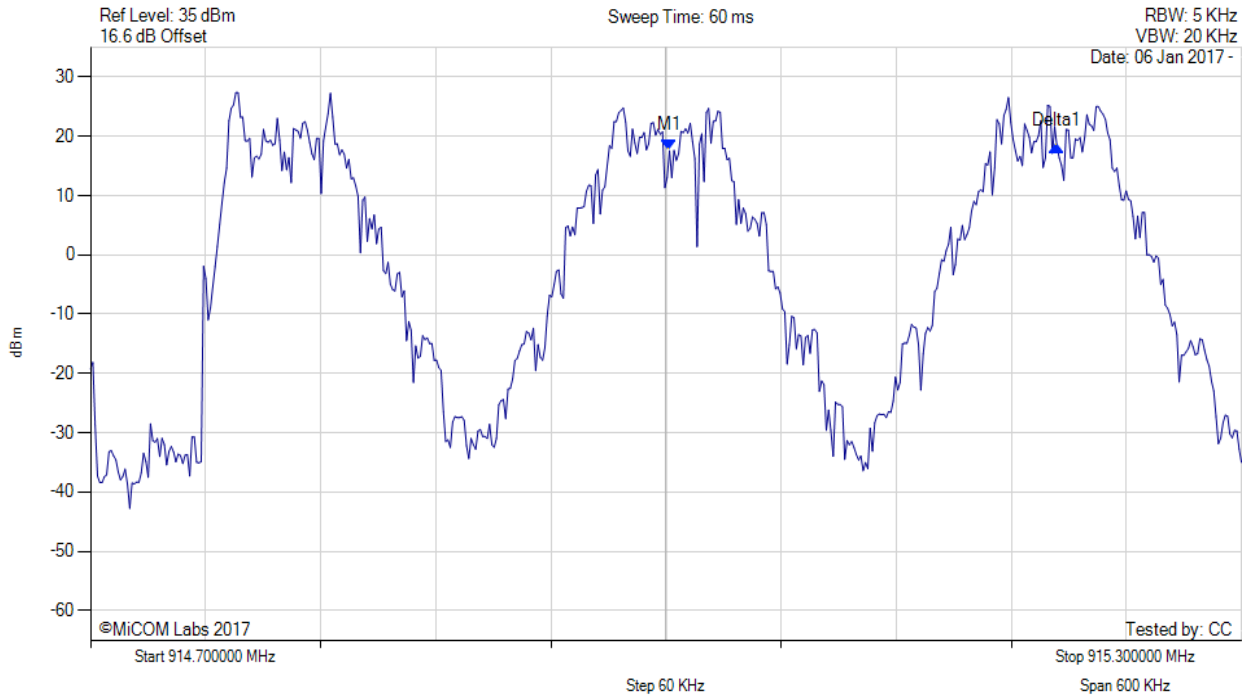
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.204 MHz : 19.312 dBm Delta1 : 404 KHz : 7.185 dB	Channel Frequency: 915.20 MHz

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL SEPARATION

Variant: 50 kbps 2FSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



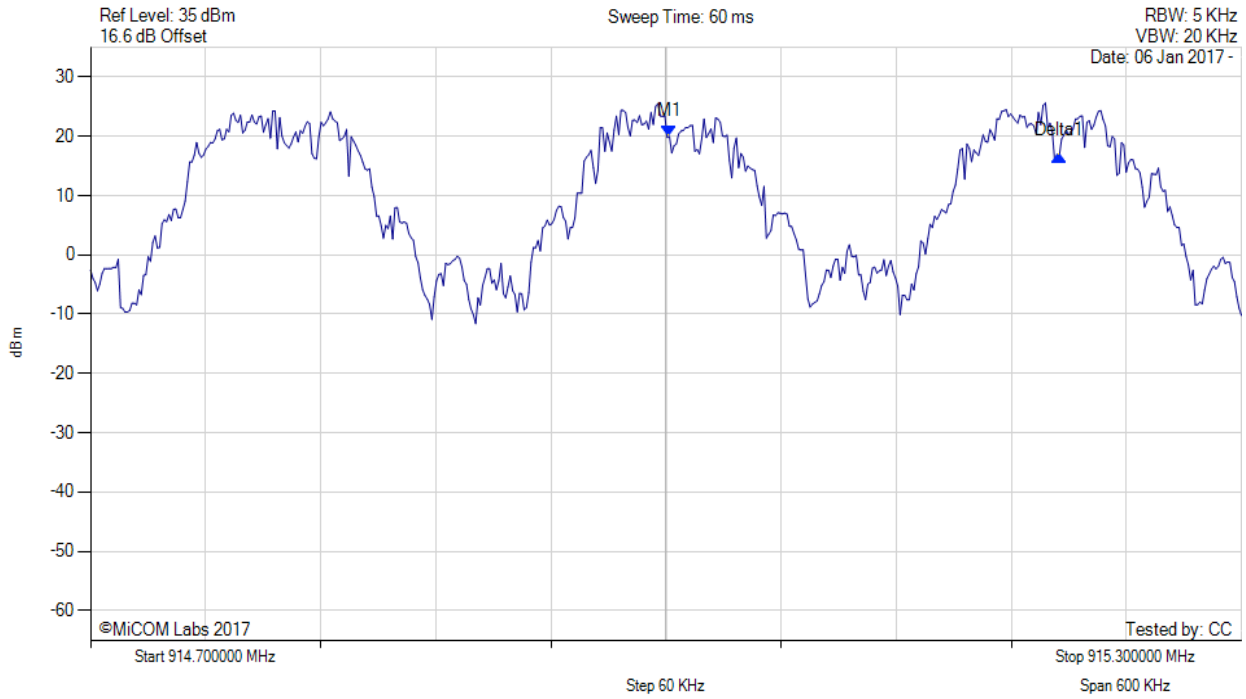
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.002 MHz : 17.583 dBm Delta1 : 202 KHz : 0.793 dB	Channel Frequency: 915.00 MHz

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL SEPARATION

Variant: 6.25 kbps OQPSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.002 MHz : 19.944 dBm Delta1 : 203 KHz : -3.252 dB	Channel Frequency: 915.00 MHz

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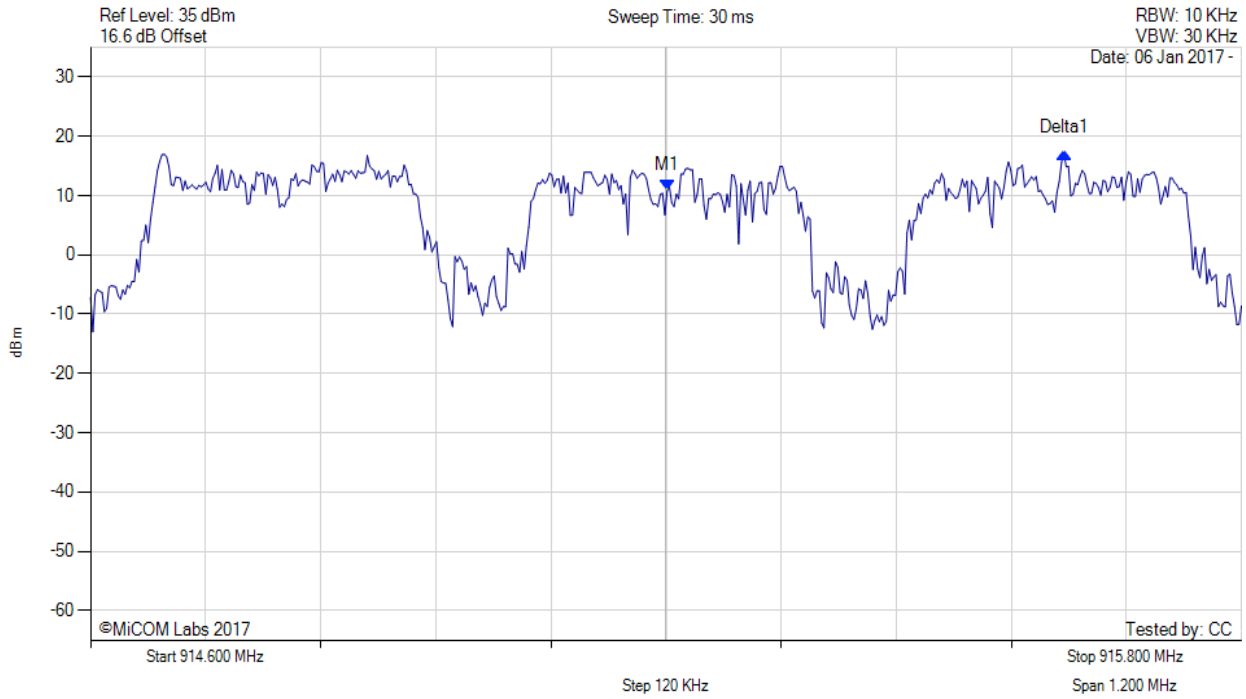
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL SEPARATION

Variant: 600 kbps OFDM, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 915.201 MHz : 10.811 dBm Delta1 : 414 KHz : 6.496 dB	Channel Frequency: 915.20 MHz

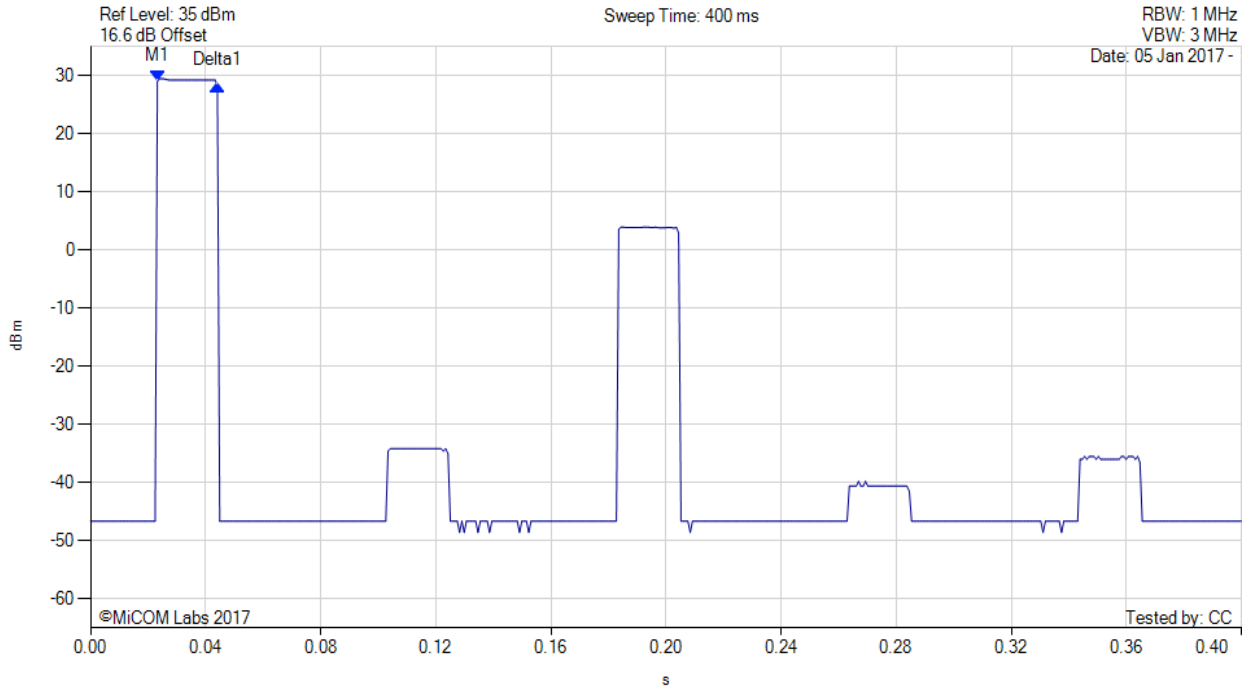
back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

A.2.3. Dwell Time

DWELL TIME

Variant: 100 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.20 MHz) : 0.023 s : 28.973 dBm Delta1(915.20 MHz) : 0.021 s : -0.686 dB	Channel Frequency: 915.20 MHz

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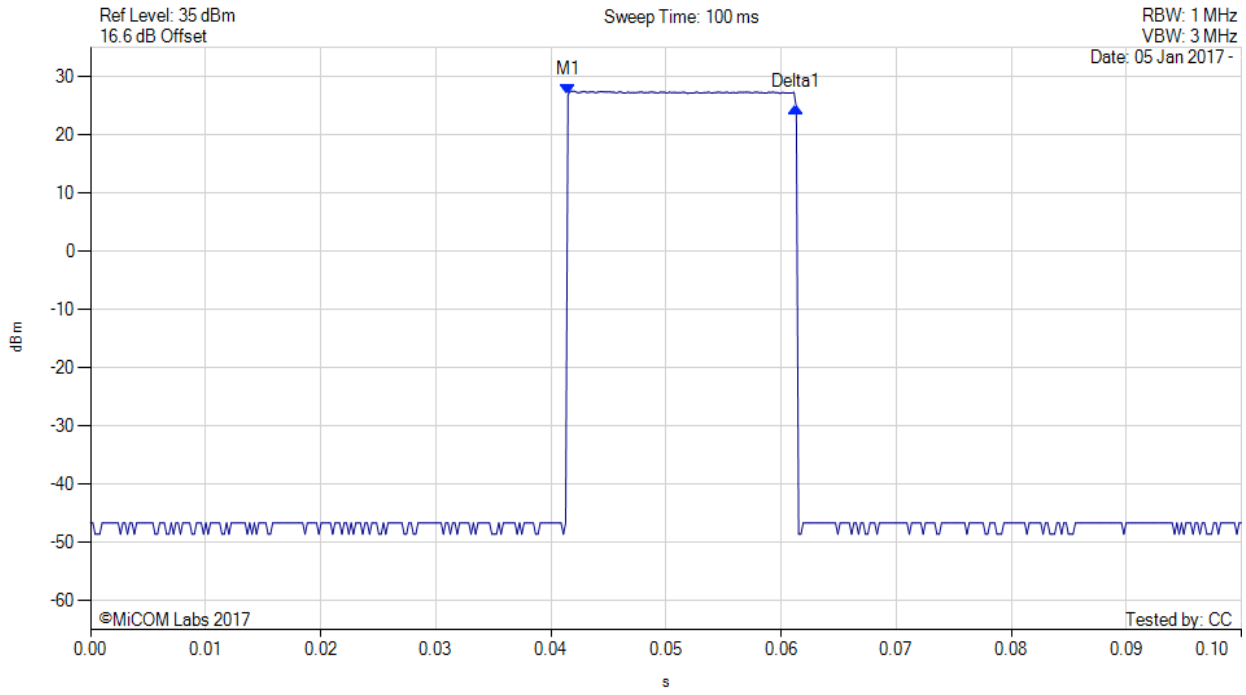
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

DWELL TIME

Variant: 150 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.20 MHz) : 0.041 s : 26.821 dBm Delta1(915.20 MHz) : 0.020 s : -2.171 dB	Channel Frequency: 915.20 MHz

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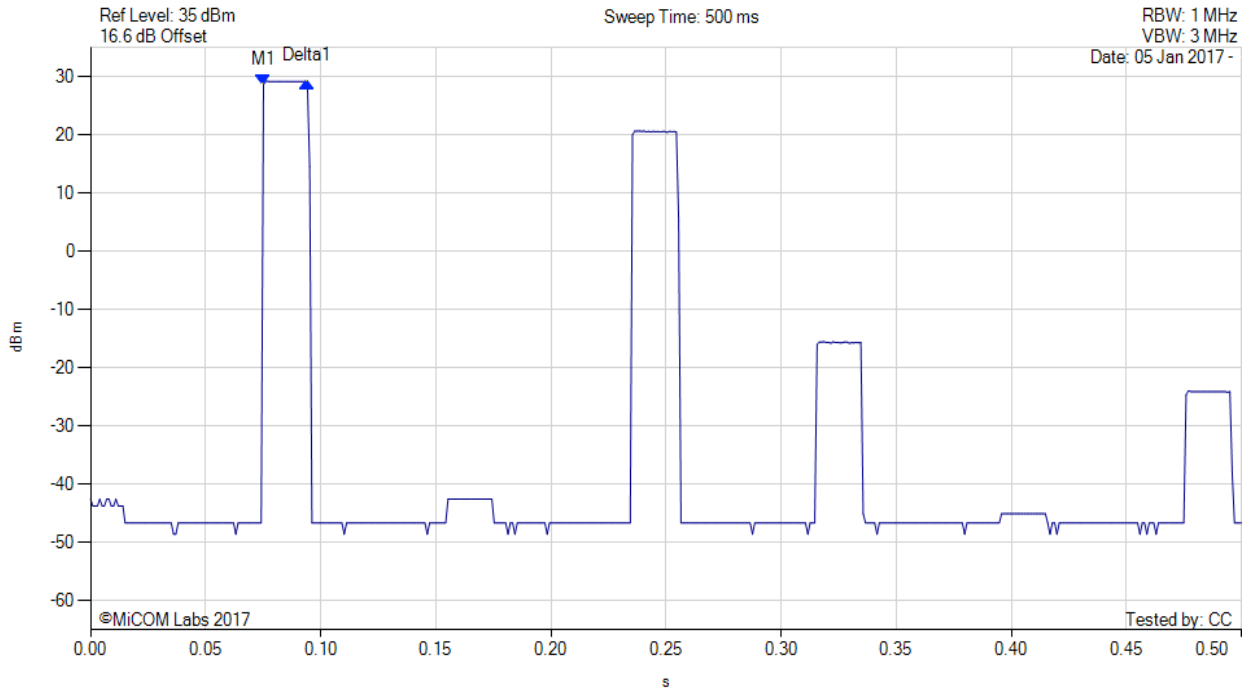
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

DWELL TIME

Variant: 150 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.20 MHz) : 0.075 s : 28.594 dBm Delta1(915.20 MHz) : 0.019 s : 0.547 dB	Channel Frequency: 915.20 MHz

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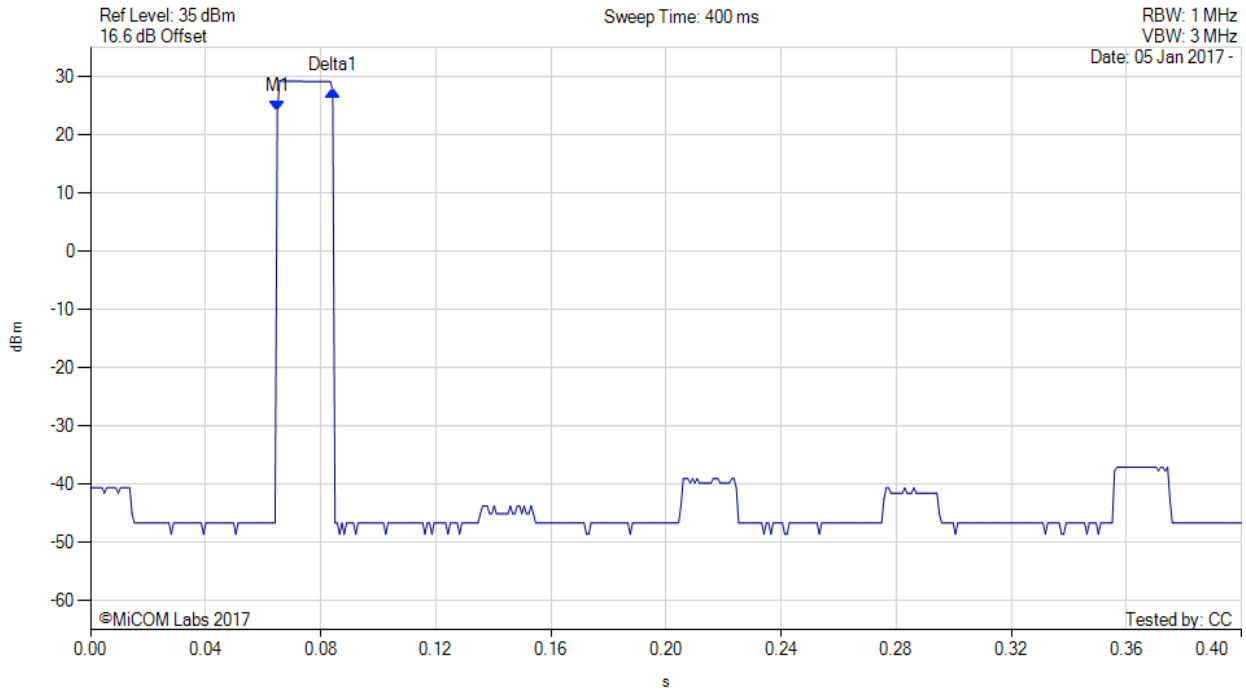
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

DWELL TIME

Variant: 200 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.20 MHz) : 0.065 s : 24.022 dBm Delta1(915.20 MHz) : 0.019 s : 3.562 dB	Channel Frequency: 915.20 MHz

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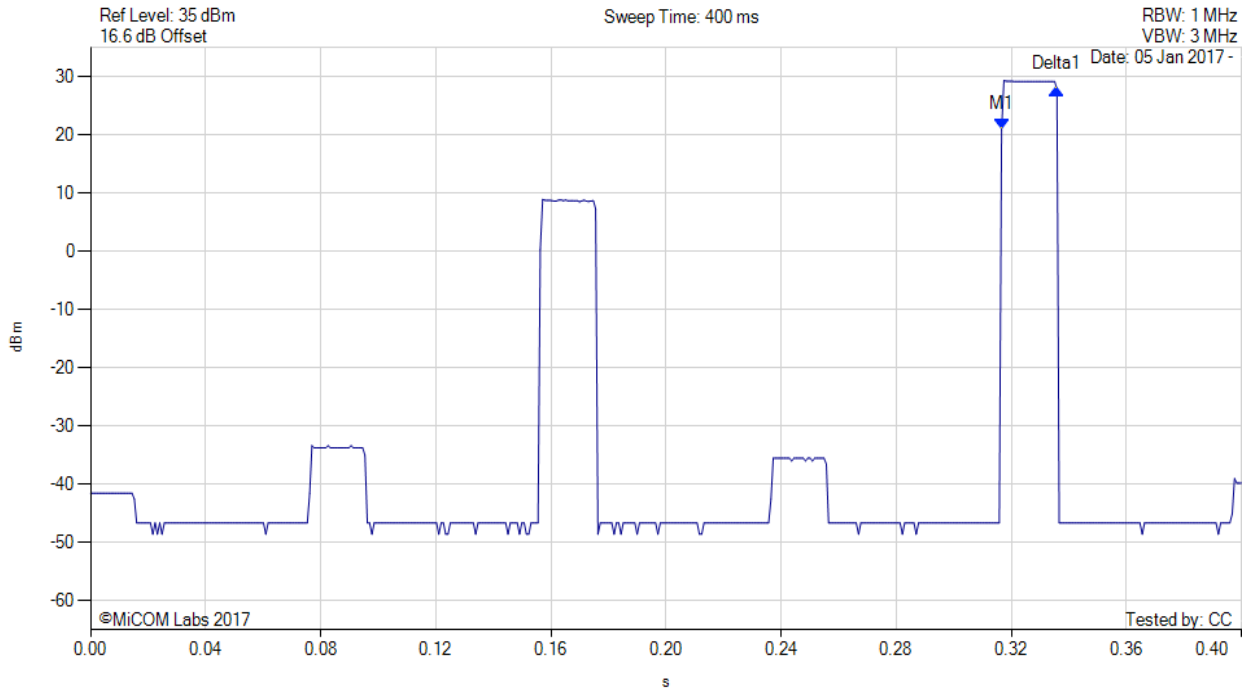
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

DWELL TIME

Variant: 300 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.20 MHz) : 0.317 s : 20.846 dBm Delta1(915.20 MHz) : 0.019 s : 6.996 dB	Channel Frequency: 915.20 MHz

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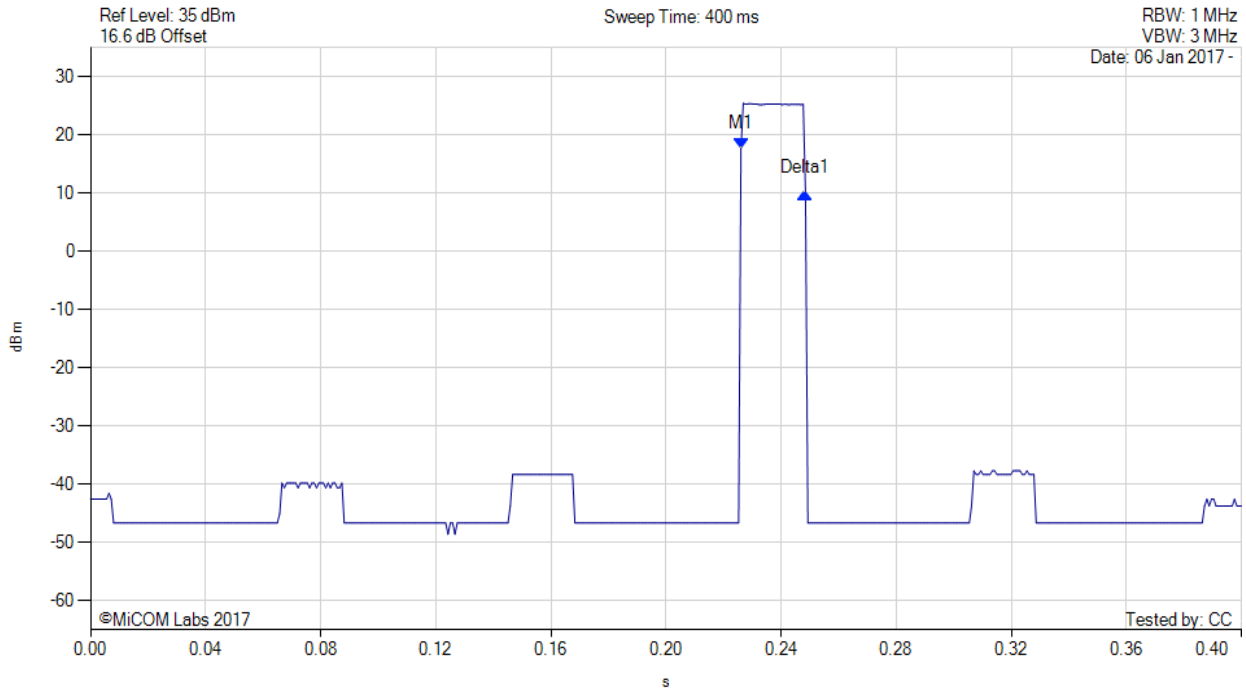
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

DWELL TIME

Variant: 50 kbps 2FSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.00 MHz) : 0.226 s : 17.697 dBm Delta1(915.00 MHz) : 0.022 s : -7.712 dB	Channel Frequency: 915.00 MHz

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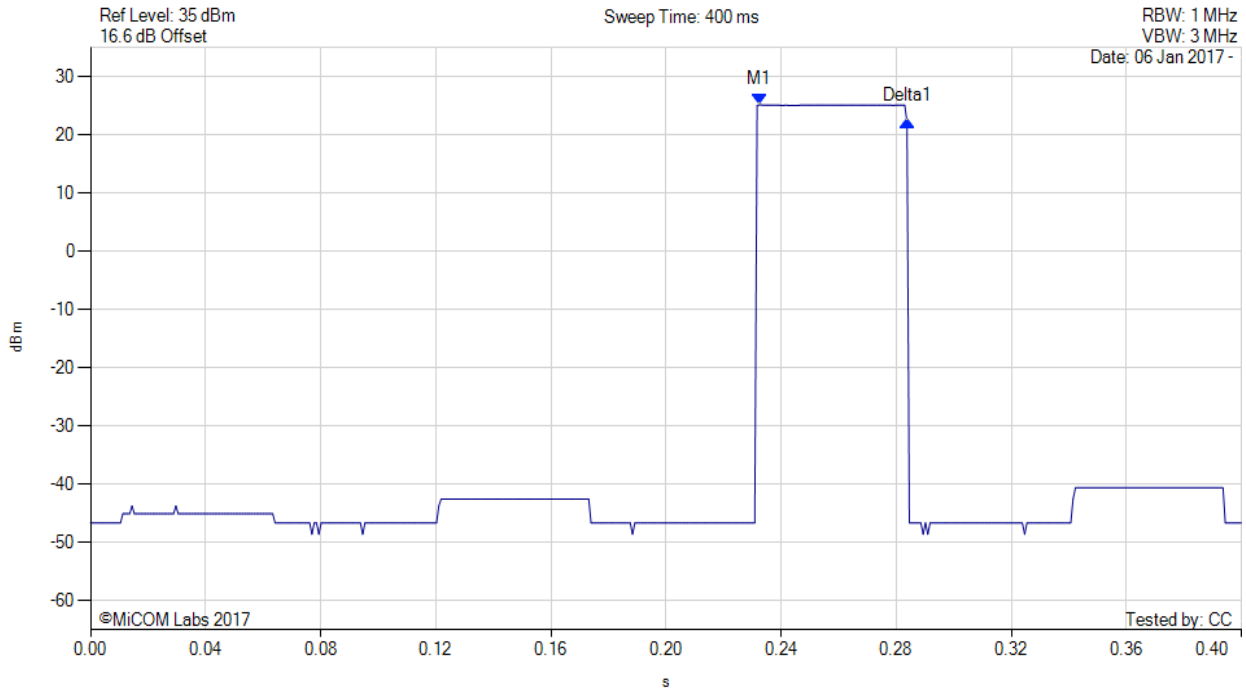
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

DWELL TIME

Variant: 6.25 kbps OQPSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.00 MHz) : 0.232 s : 25.154 dBm Delta1(915.00 MHz) : 0.051 s : -2.875 dB	Channel Frequency: 915.00 MHz

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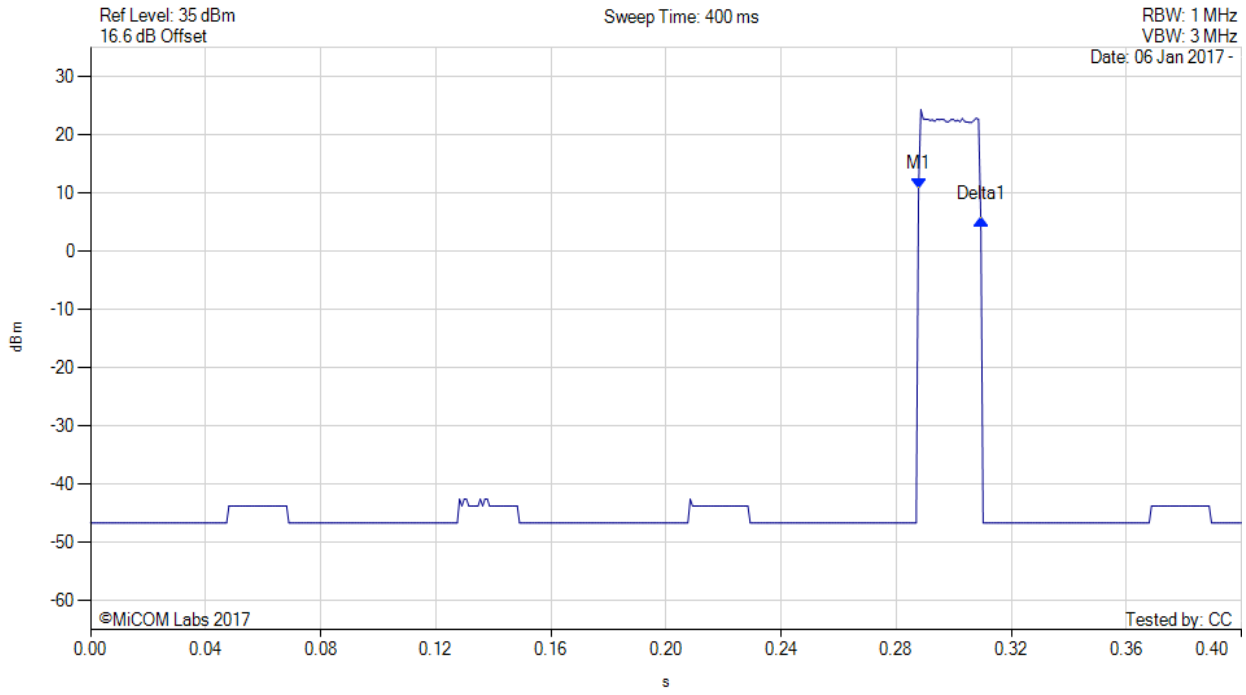
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

DWELL TIME

Variant: 600 kbps OFDM, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.20 MHz) : 0.288 s : 10.770 dBm Delta1(915.20 MHz) : 0.022 s : -5.350 dB	Channel Frequency: 915.20 MHz

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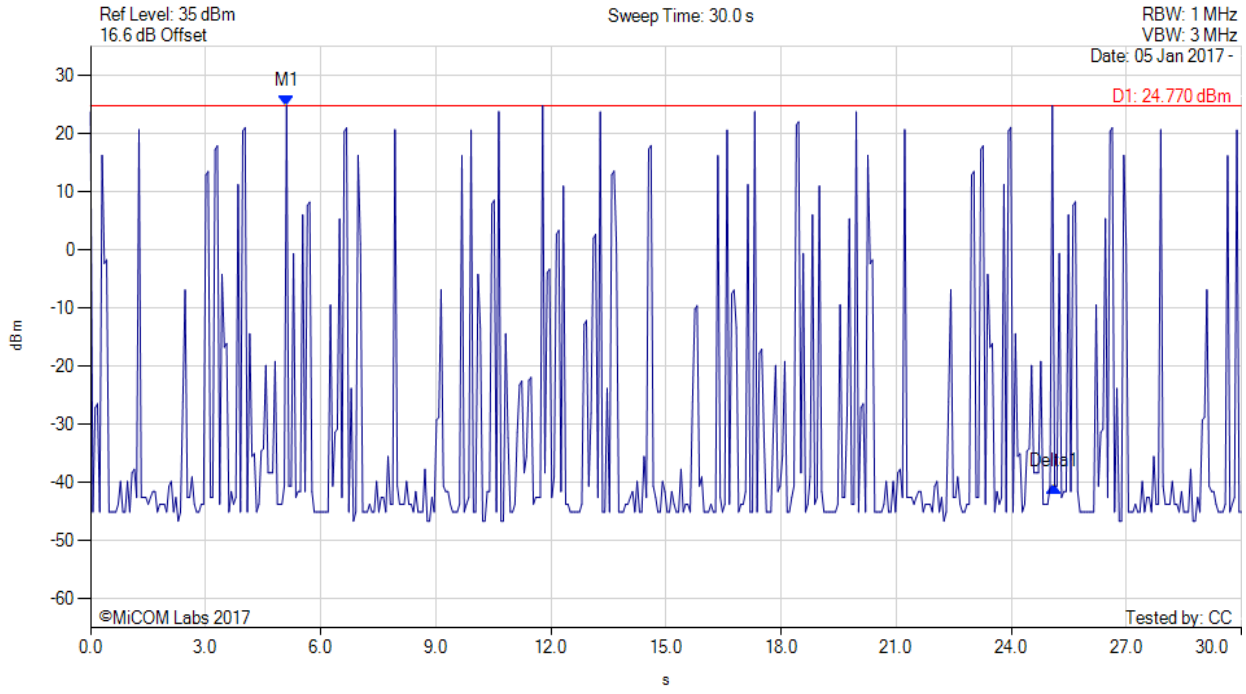
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

A.2.4. Channel Occupancy

CHANNEL OCCUPANCY

Variant: 100 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.20 MHz) : 5.110 s : 24.769 dBm Delta1(915.20 MHz) : 20.000 s : -65.334 dB	Channel Frequency: 915.20 MHz

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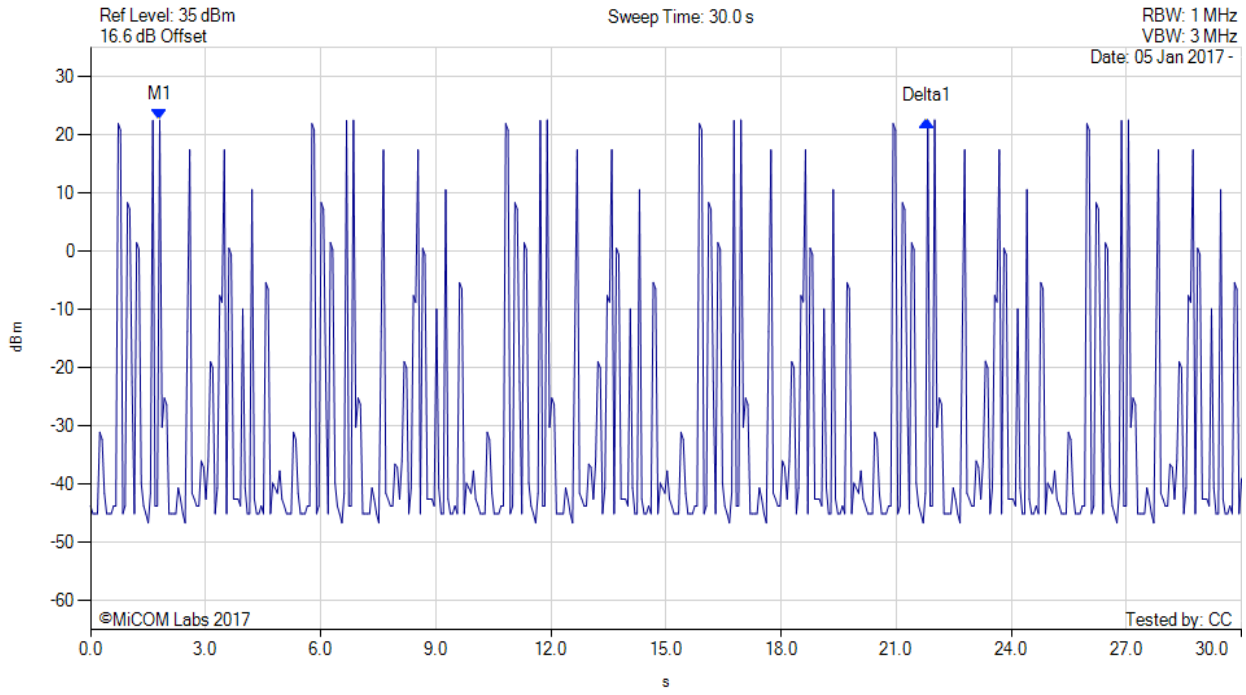
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL OCCUPANCY

Variant: 150 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.20 MHz) : 1.804 s : 22.530 dBm Delta1(915.20 MHz) : 20.000 s : -0.075 dB	Channel Frequency: 915.20 MHz

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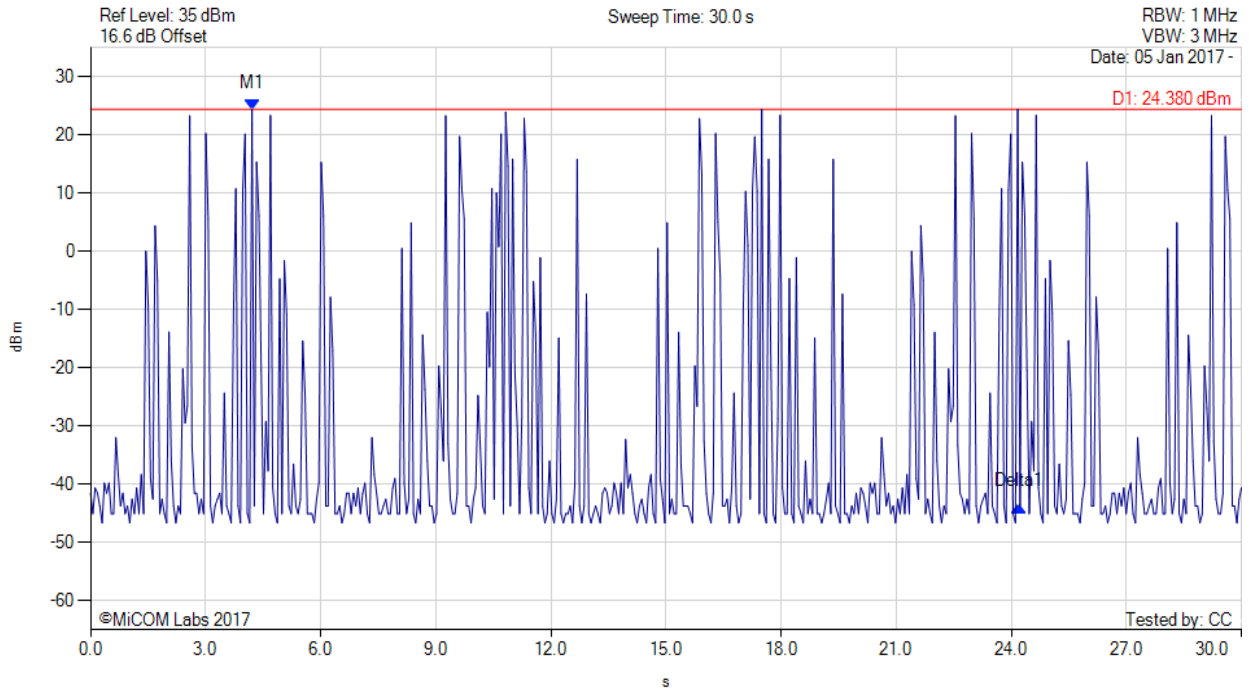
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL OCCUPANCY

Variant: 150 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.20 MHz) : 4.208 s : 24.377 dBm Delta1(915.20 MHz) : 20.000 s : -68.041 dB	Channel Frequency: 915.20 MHz

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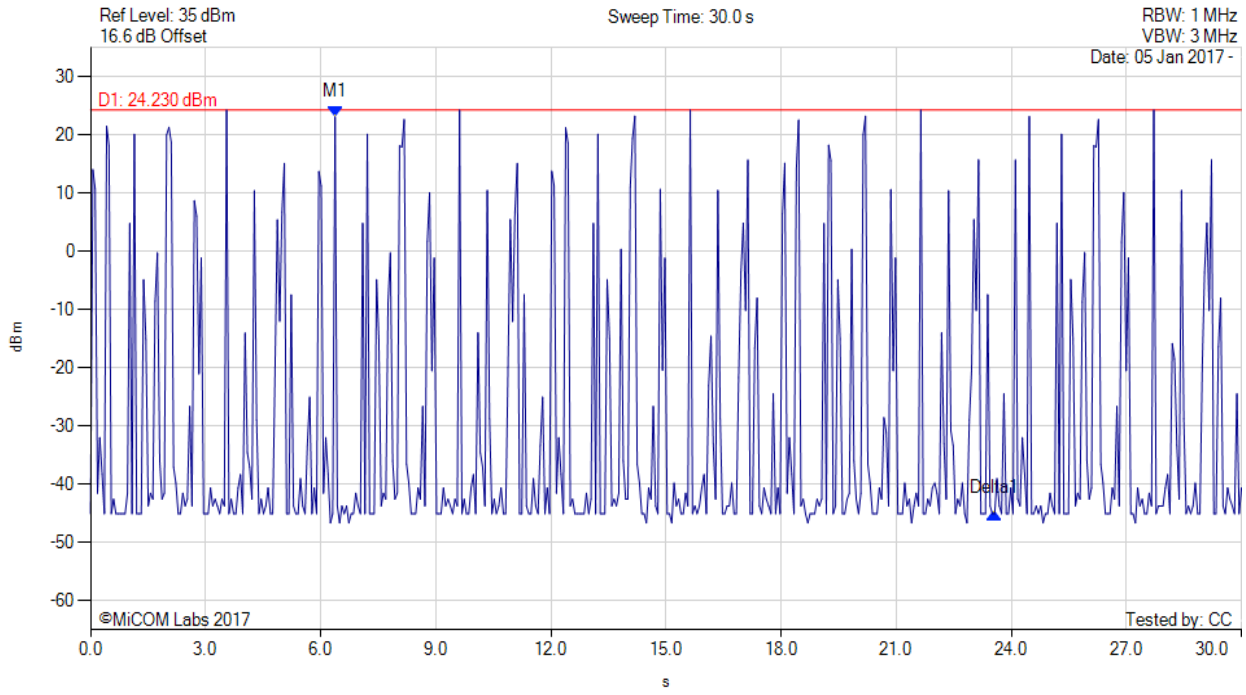
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL OCCUPANCY

Variant: 200 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.20 MHz) : 6.373 s : 23.092 dBm Delta1(915.20 MHz) : 17.174 s : -68.094 dB	Channel Frequency: 915.20 MHz

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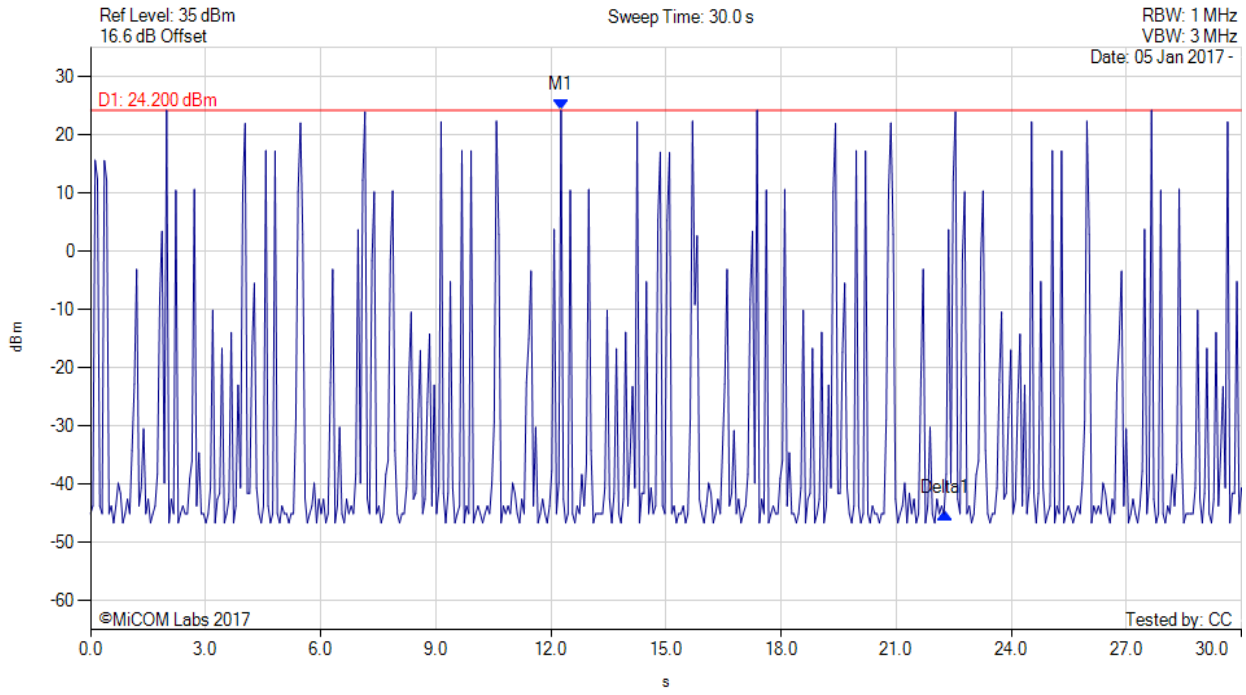
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL OCCUPANCY

Variant: 300 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.20 MHz) : 12.265 s : 24.199 dBm Delta1(915.20 MHz) : 10.000 s : -69.201 dB	Channel Frequency: 915.20 MHz

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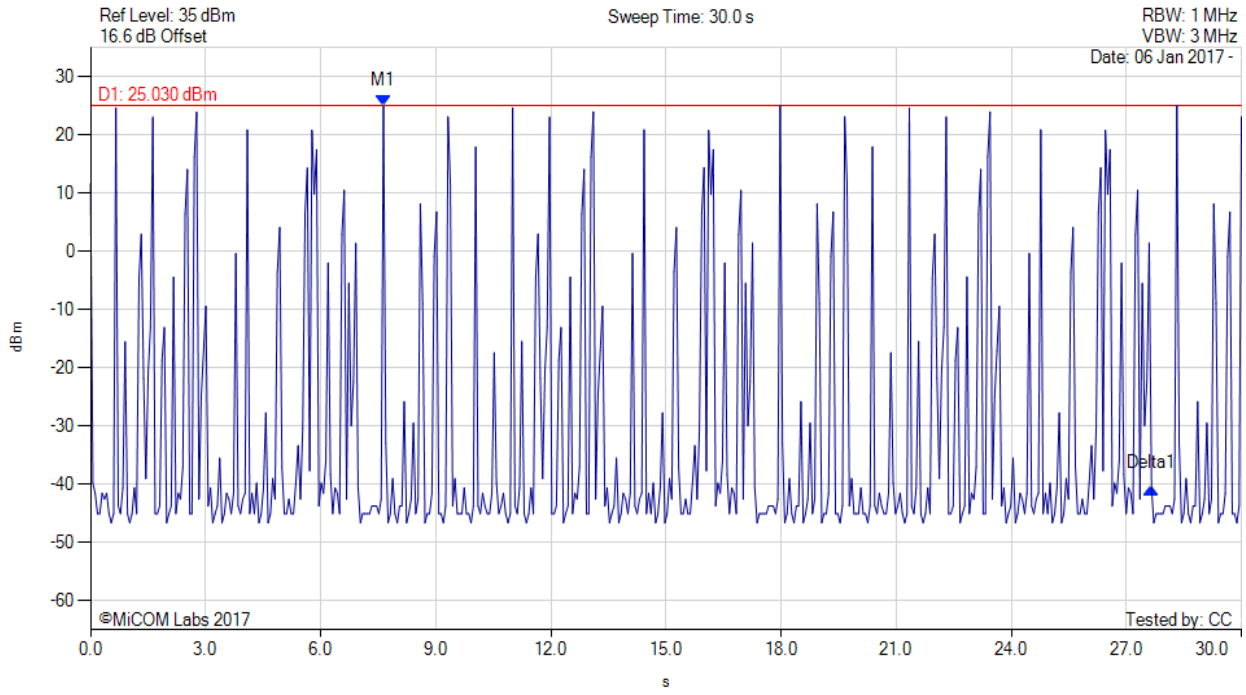
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL OCCUPANCY

Variant: 50 kbps 2FSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.00 MHz) : 7.635 s : 25.031 dBm Delta1(915.00 MHz) : 20.000 s : -65.597 dB	Channel Frequency: 915.00 MHz

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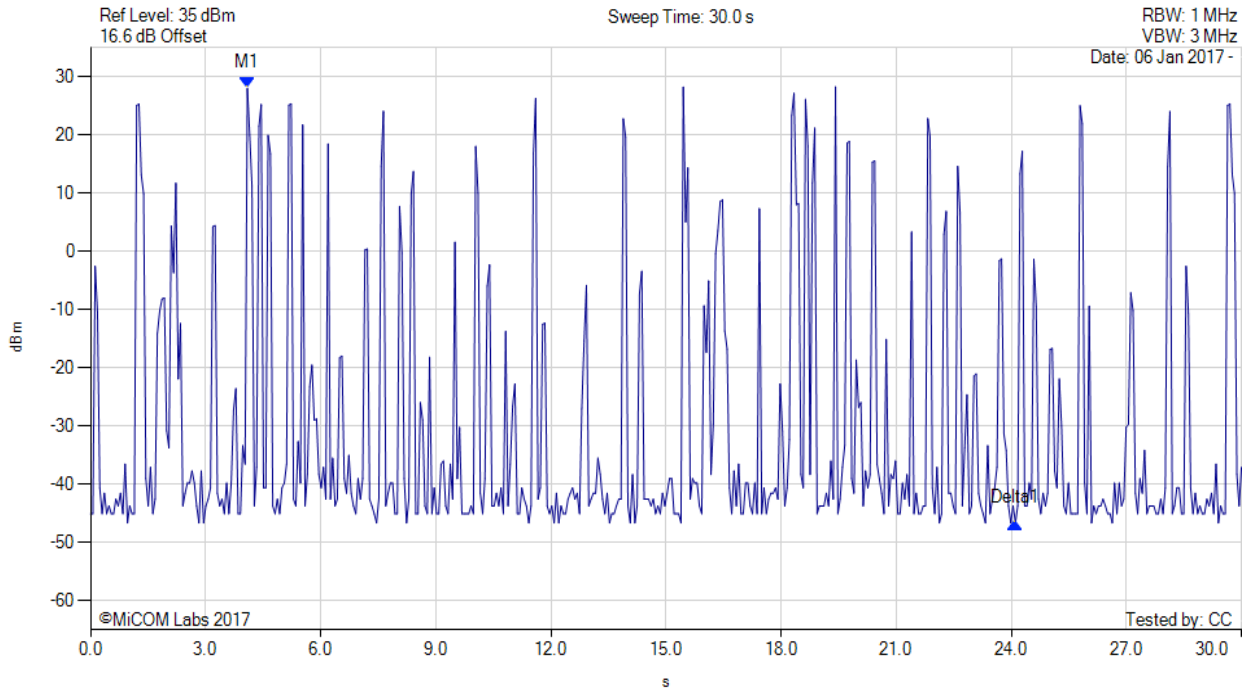
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL OCCUPANCY

Variant: 6.25 kbps OQPSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.00 MHz) : 4.088 s : 27.994 dBm Delta1(915.00 MHz) : 20.000 s : -74.580 dB	Channel Frequency: 915.00 MHz

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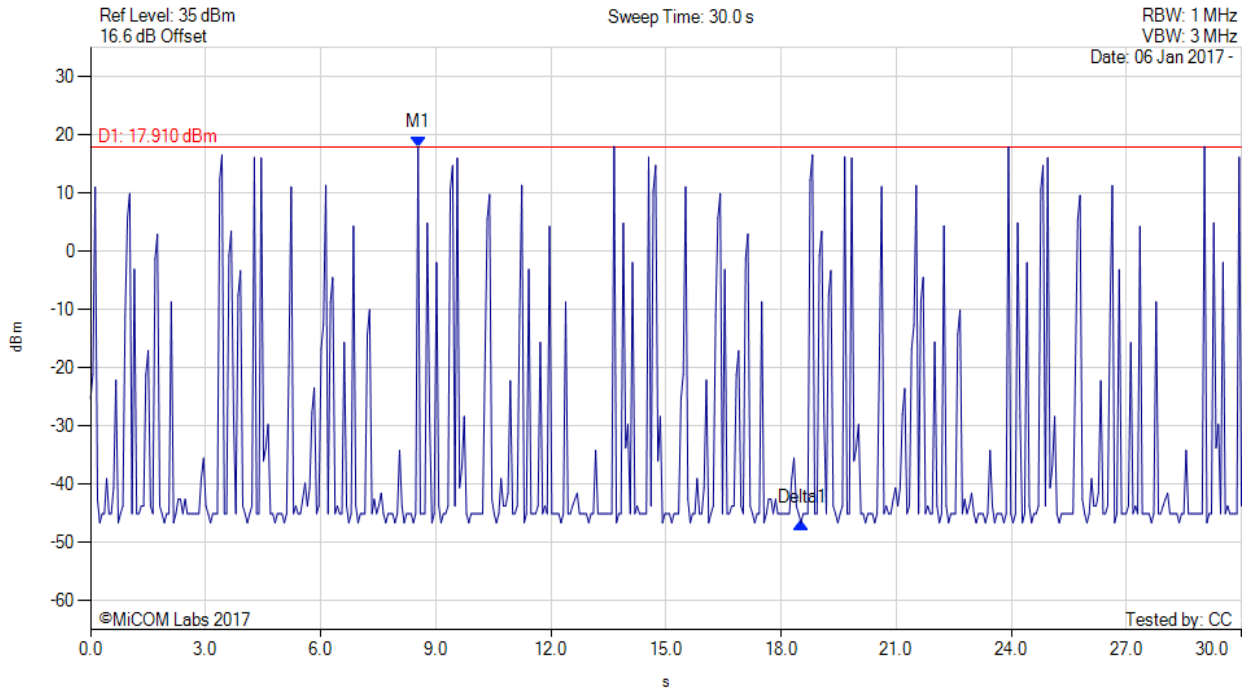
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CHANNEL OCCUPANCY

Variant: 600 kbps OFDM, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Time:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1(915.20 MHz) : 8.537 s : 17.911 dBm Delta1(915.20 MHz) : 10.000 s : -64.497 dB	Channel Frequency: 915.20 MHz

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This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

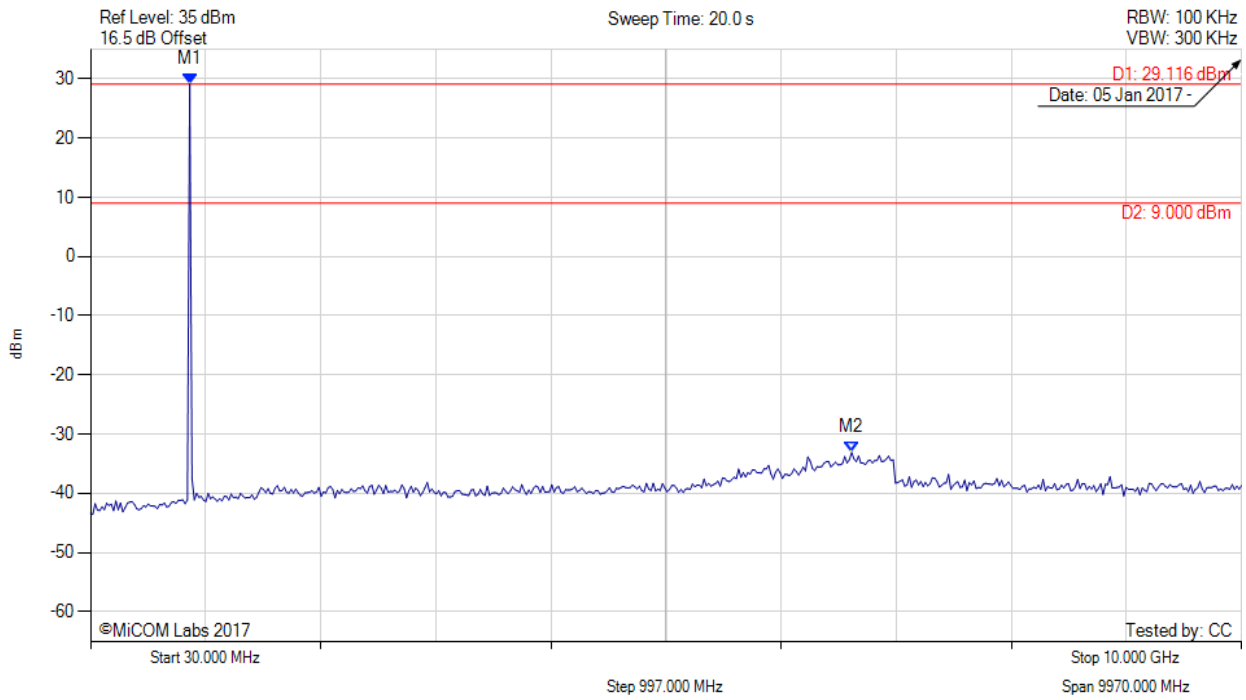
A.3. Emissions

A.3.1. Conducted Emissions

A.3.1.1. Conducted Unwanted Spurious Emissions

UNWANTED EMISSIONS PEAK

Variant: 100 kbps FSK, Channel: 902.30 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 29.116 dBm M2 : 6623.387 MHz : -33.092 dBm	Limit: 9.00 dBm Margin: -42.09 dB

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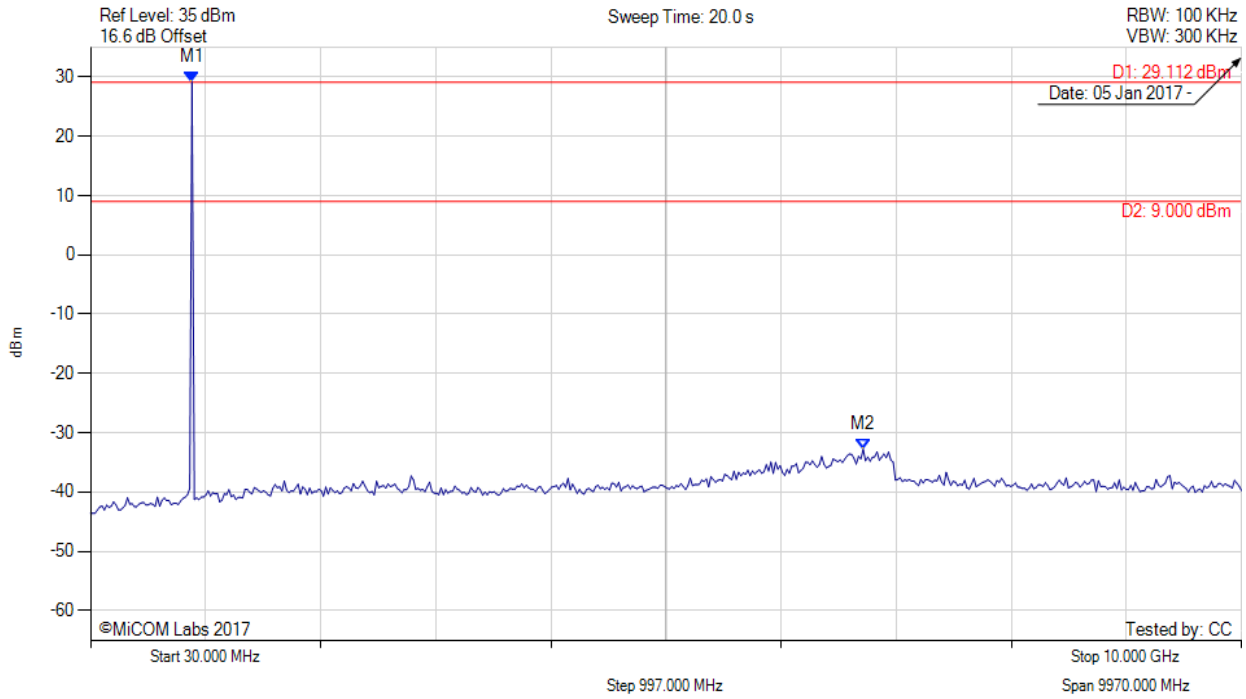
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 100 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 29.112 dBm M2 : 6723.287 MHz : -32.777 dBm	Limit: 9.00 dBm Margin: -41.78 dB

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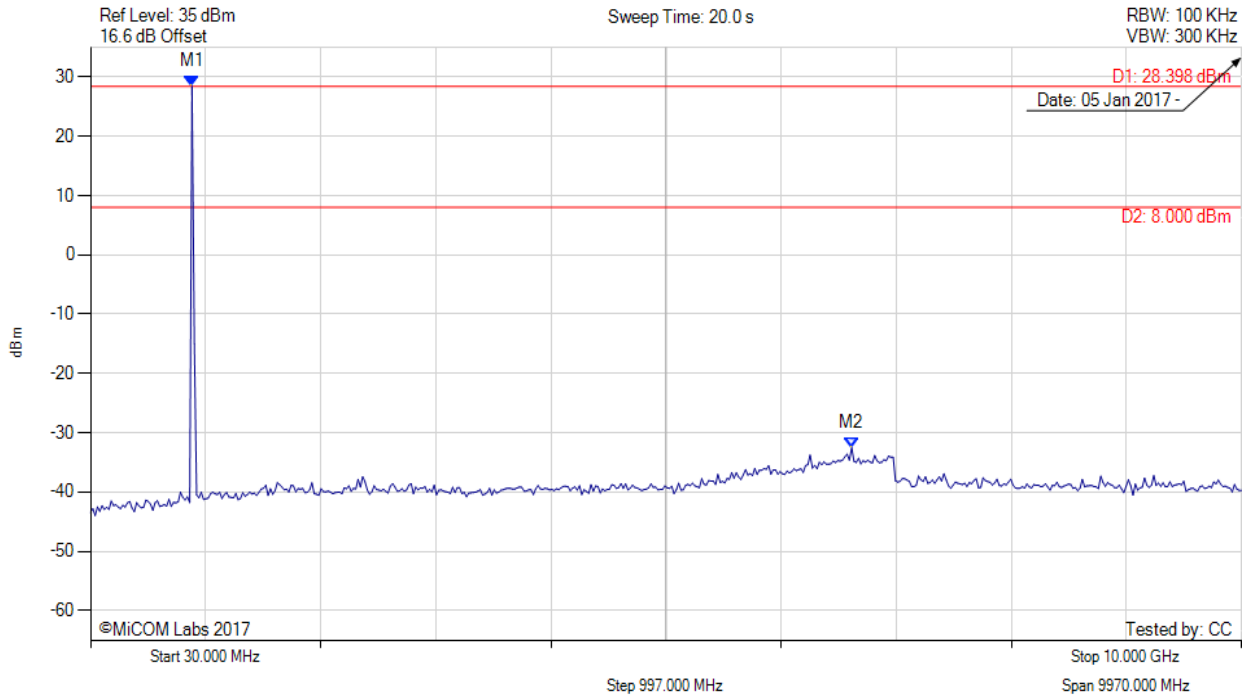
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 100 kbps FSK, Channel: 926.90 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



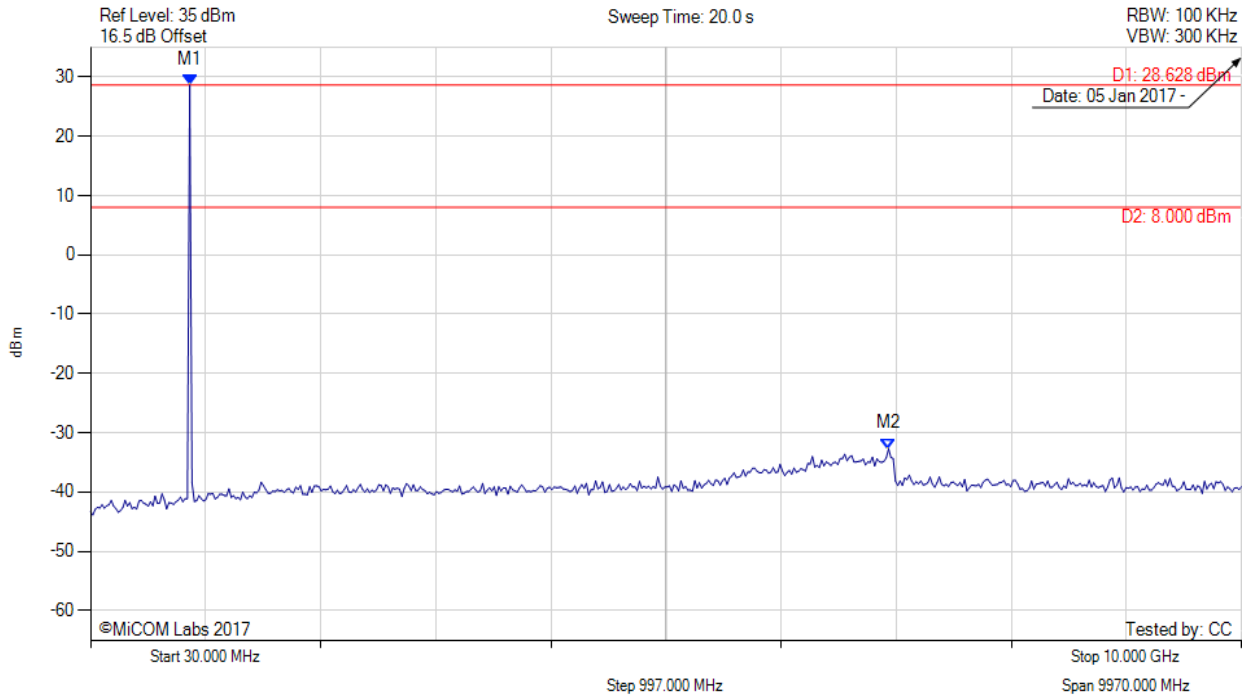
Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 28.398 dBm M2 : 6623.387 MHz : -32.526 dBm	Limit: 8.00 dBm Margin: -40.53 dB

back to matrix

This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 150 kbps FSK, Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 28.628 dBm M2 : 6943.066 MHz : -32.699 dBm	Limit: 8.00 dBm Margin: -40.70 dB

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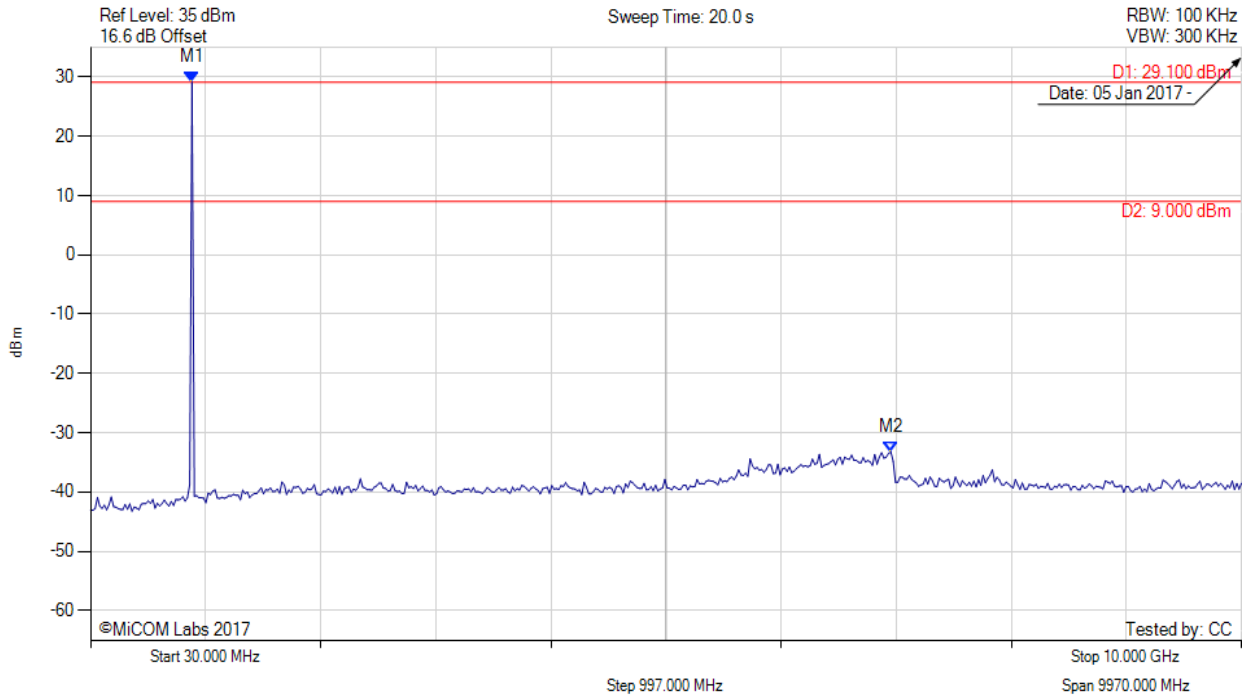
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 150 kbps FSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 29.100 dBm M2 : 6963.046 MHz : -33.222 dBm	Limit: 9.00 dBm Margin: -42.22 dB

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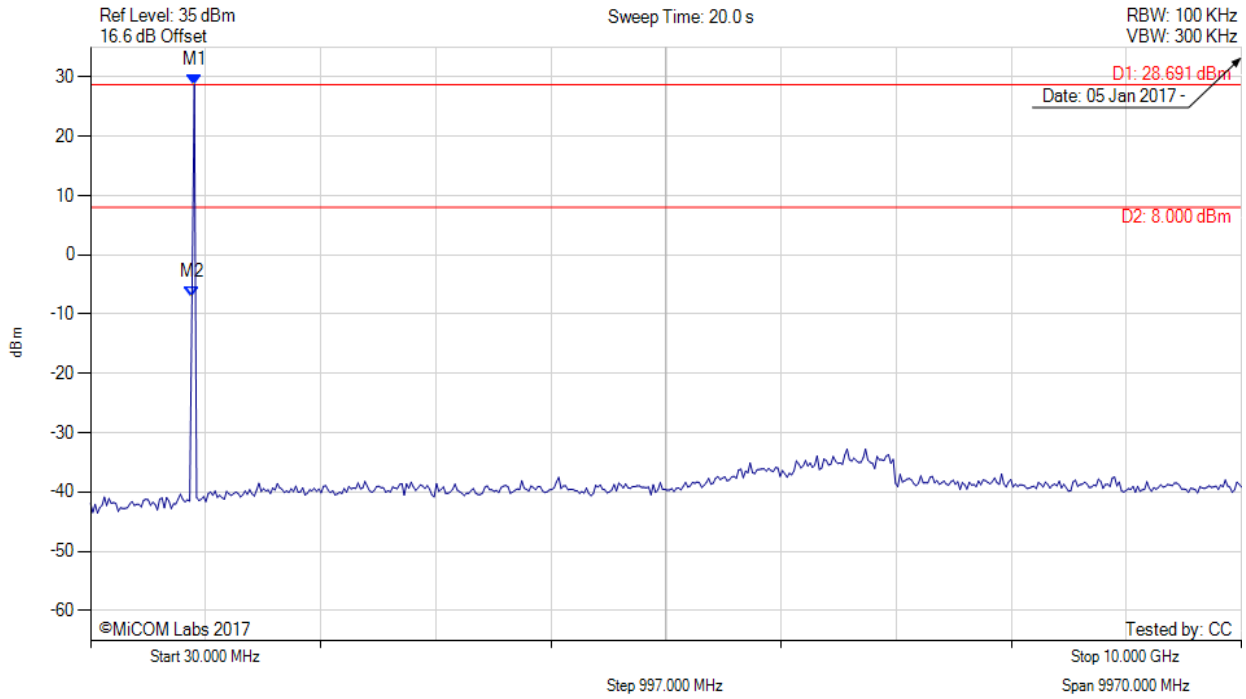
UNWANTED EMISSIONS PEAK

Variant: 150 kbps FSK, Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 929.098 MHz : 28.691 dBm M2 : 909.118 MHz : -7.101 dBm	Limit: 8.00 dBm Margin: -15.10 dB

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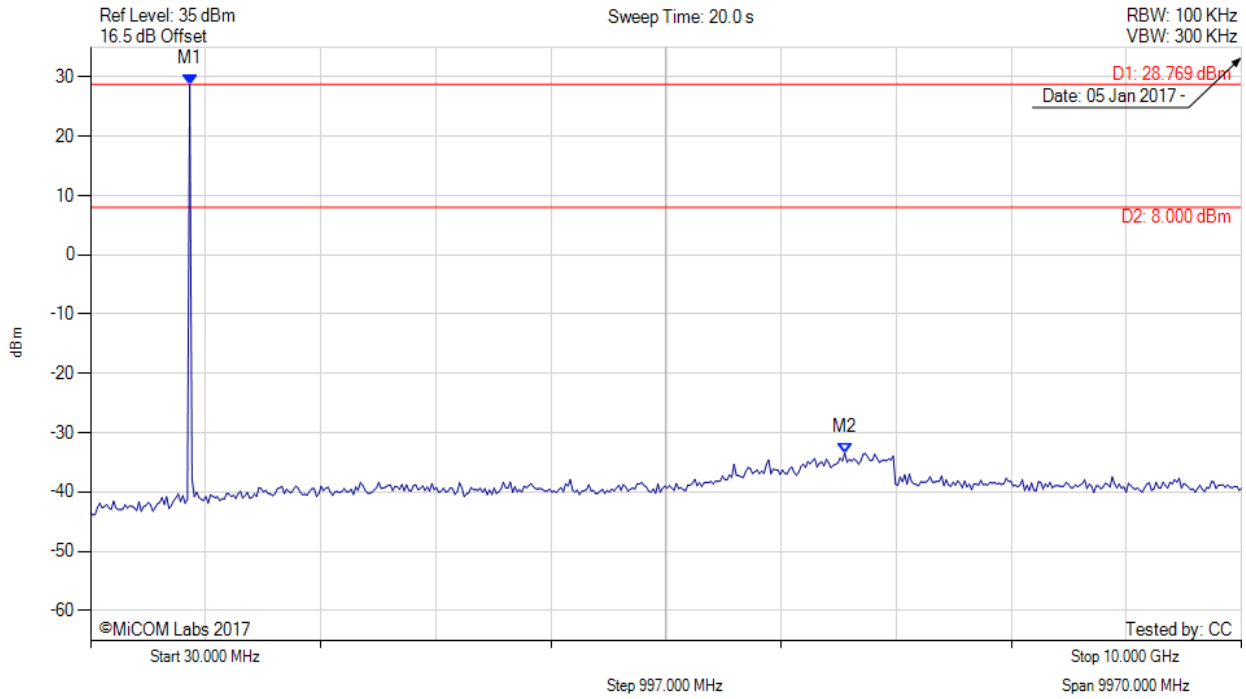
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 150 kbps GFSK, Channel: 902.30 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 28.769 dBm M2 : 6563.447 MHz : -33.397 dBm	Limit: 8.00 dBm Margin: -41.40 dB

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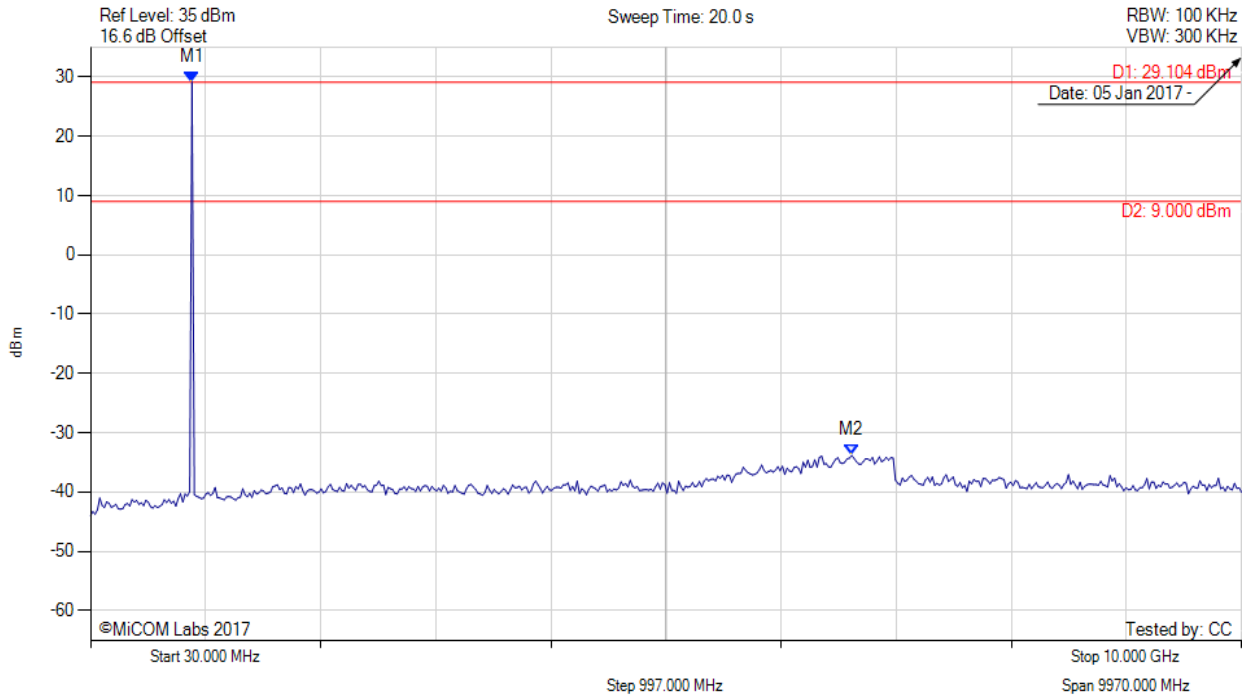
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 150 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 29.104 dBm M2 : 6623.387 MHz : -33.824 dBm	Limit: 9.00 dBm Margin: -42.82 dB

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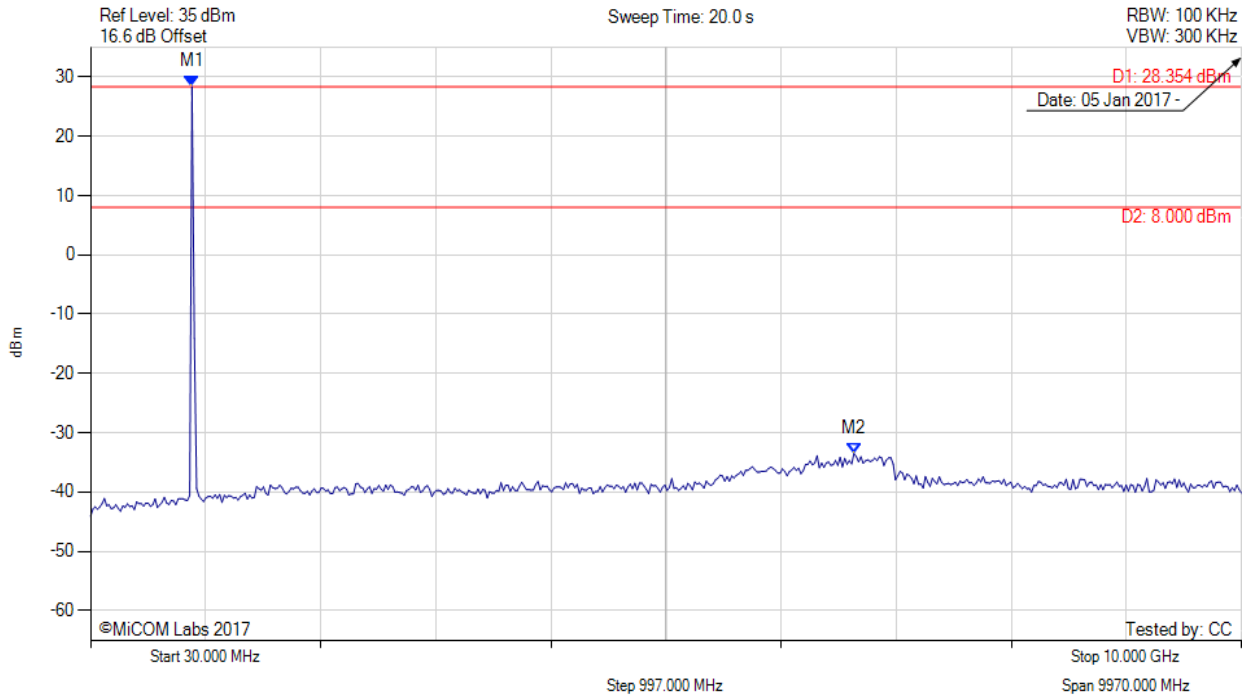
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 150 kbps GFSK, Channel: 926.90 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 28.354 dBm M2 : 6643.367 MHz : -33.472 dBm	Limit: 8.00 dBm Margin: -41.47 dB

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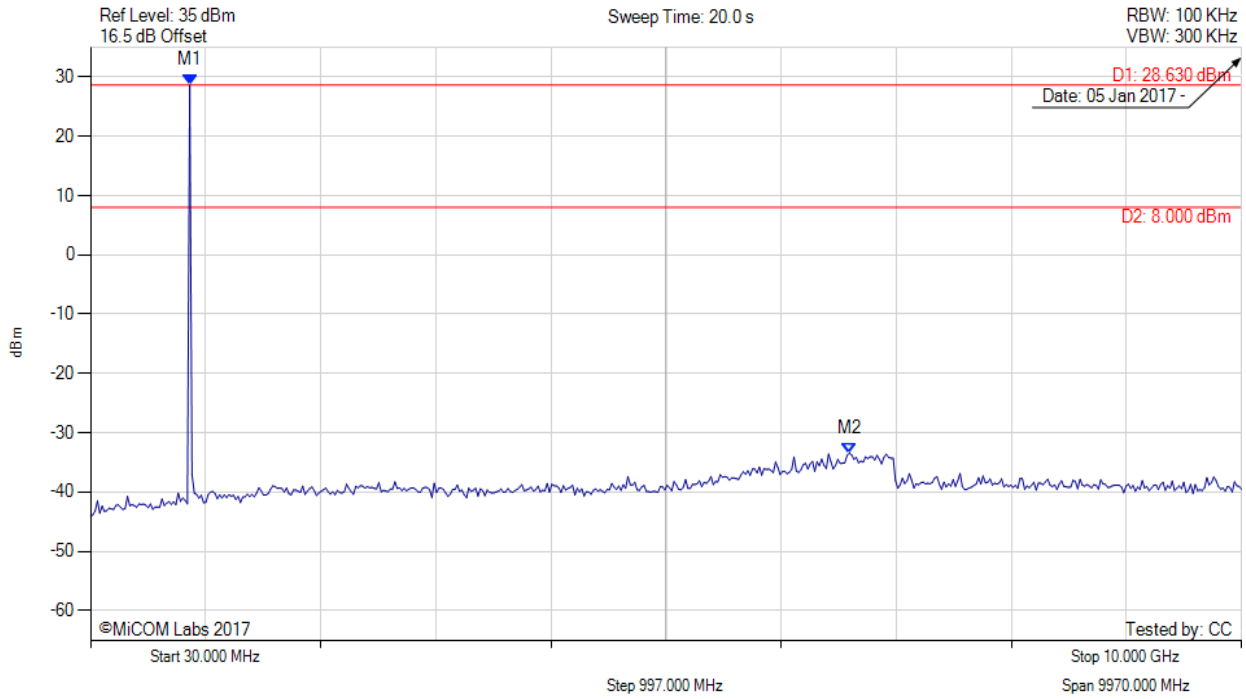
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 200 kbps GFSK, Channel: 902.30 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 28.630 dBm M2 : 6603.407 MHz : -33.421 dBm	Limit: 8.00 dBm Margin: -41.42 dB

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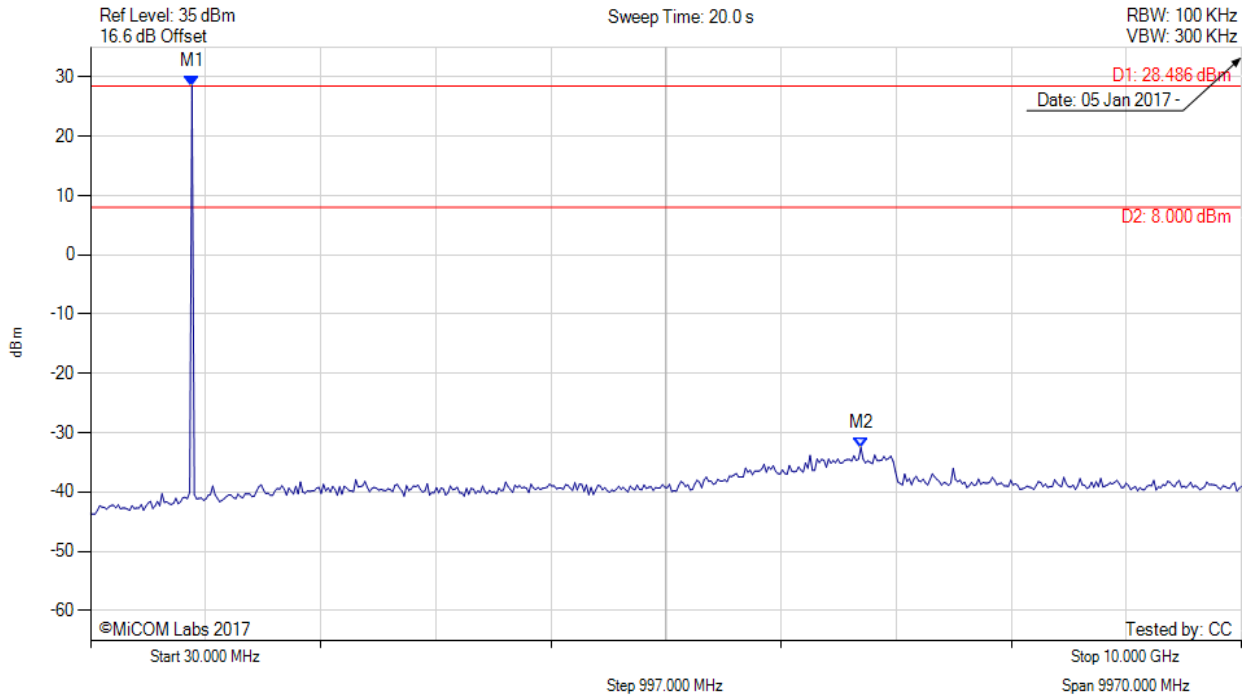
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 200 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 28.486 dBm M2 : 6703.307 MHz : -32.486 dBm	Limit: 8.00 dBm Margin: -40.49 dB

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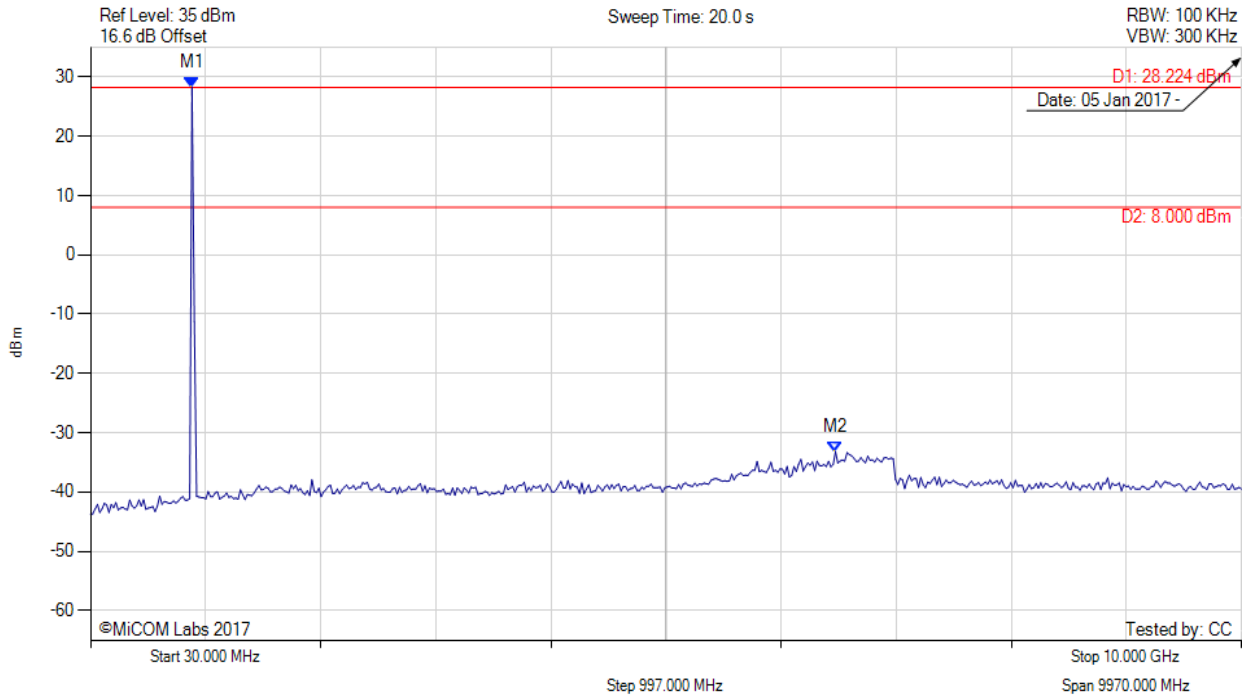
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 200 kbps GFSK, Channel: 926.90 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 28.224 dBm M2 : 6483.527 MHz : -33.169 dBm	Limit: 8.00 dBm Margin: -41.17 dB

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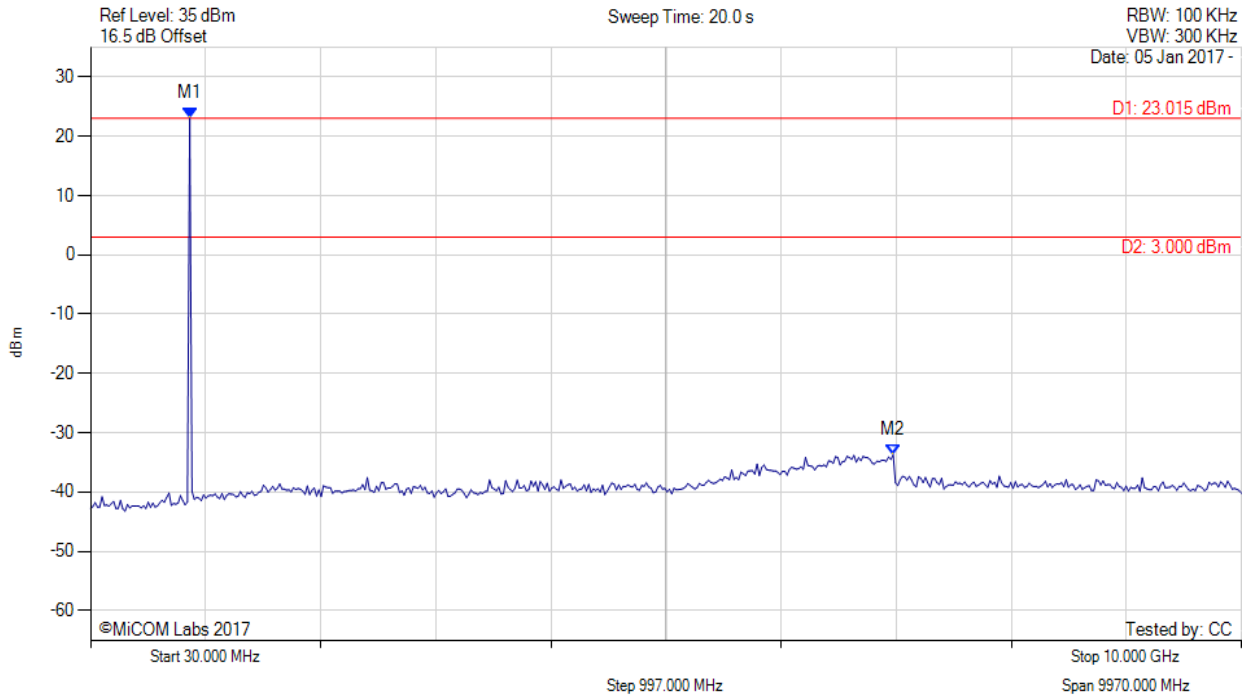
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 300 kbps GFSK, Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 23.015 dBm M2 : 6983.026 MHz : -33.718 dBm	Limit: 3.00 dBm Margin: -36.72 dB

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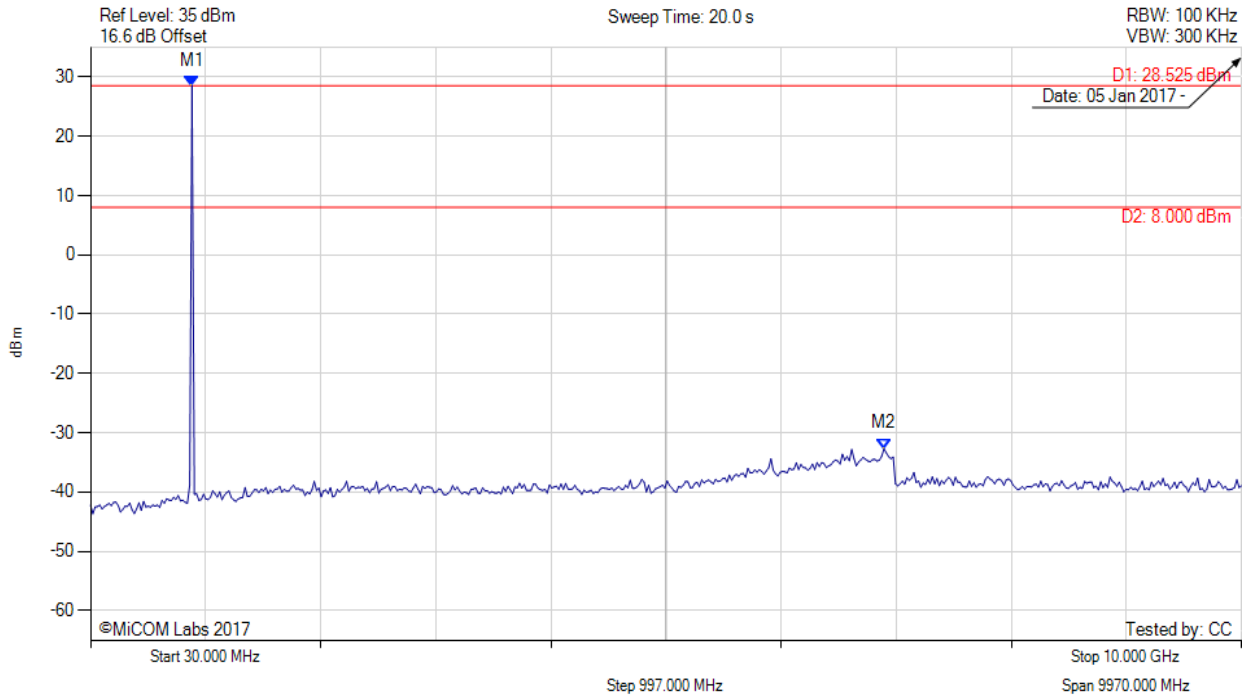
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 300 kbps GFSK, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 28.525 dBm M2 : 6903.106 MHz : -32.675 dBm	Limit: 8.00 dBm Margin: -40.67 dB

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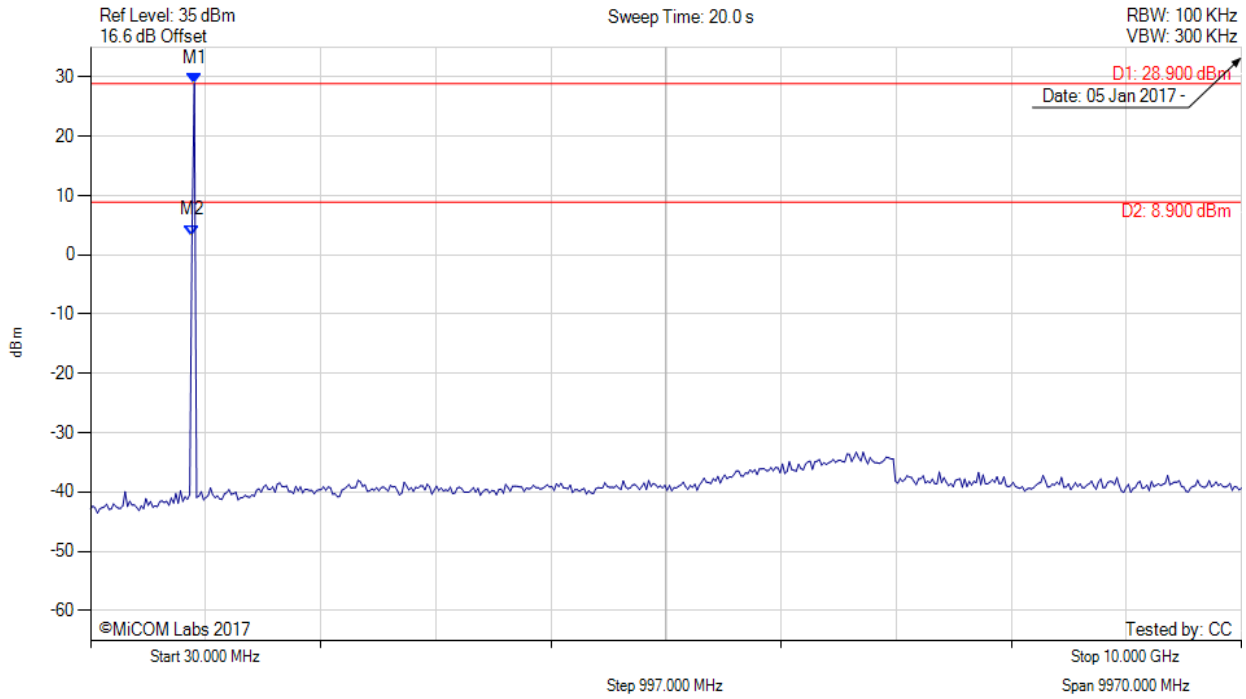
UNWANTED EMISSIONS PEAK

Variant: 300 kbps GFSK, Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 929.098 MHz : 28.901 dBm M2 : 909.118 MHz : 3.294 dBm	Limit: 8.90 dBm Margin: -5.61 dB

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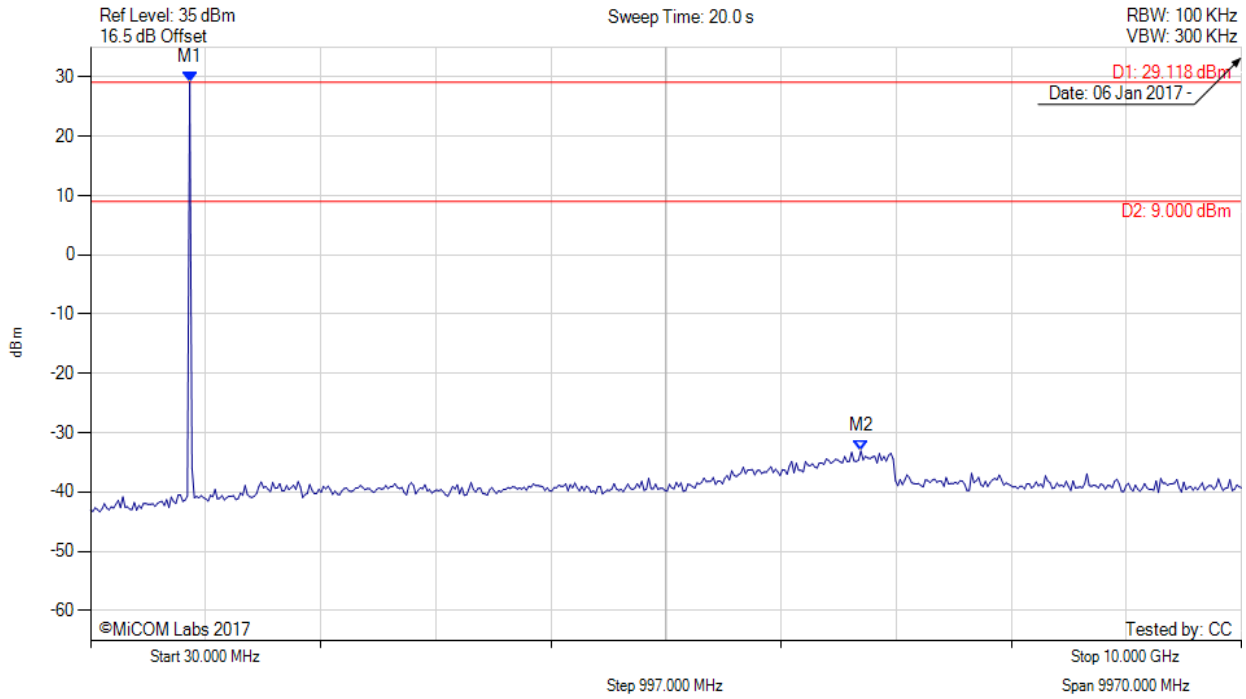
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 50 kbps 2FSK, Channel: 902.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 29.118 dBm M2 : 6703.307 MHz : -33.065 dBm	Limit: 9.00 dBm Margin: -42.06 dB

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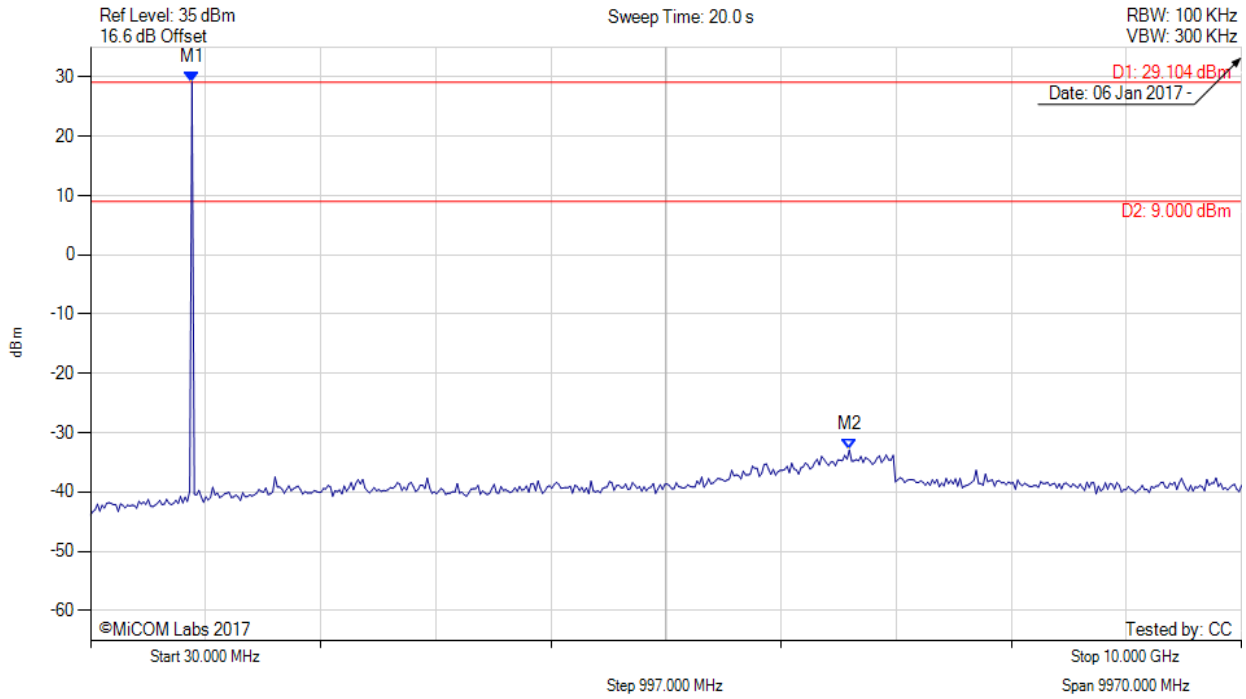
UNWANTED EMISSIONS PEAK

Variant: 50 kbps 2FSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 29.104 dBm M2 : 6603.407 MHz : -32.878 dBm	Limit: 9.00 dBm Margin: -41.88 dB

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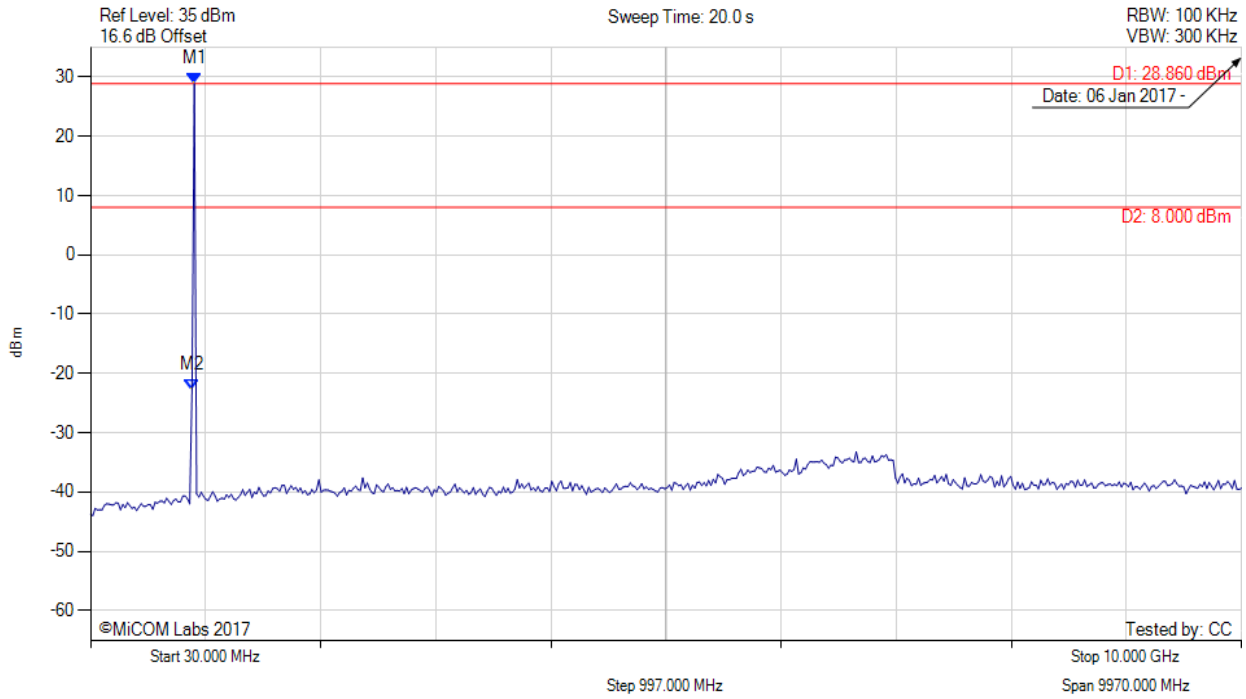
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 50 kbps 2FSK, Channel: 927.80 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 929.098 MHz : 28.860 dBm M2 : 909.118 MHz : -22.791 dBm	Limit: 8.00 dBm Margin: -30.79 dB

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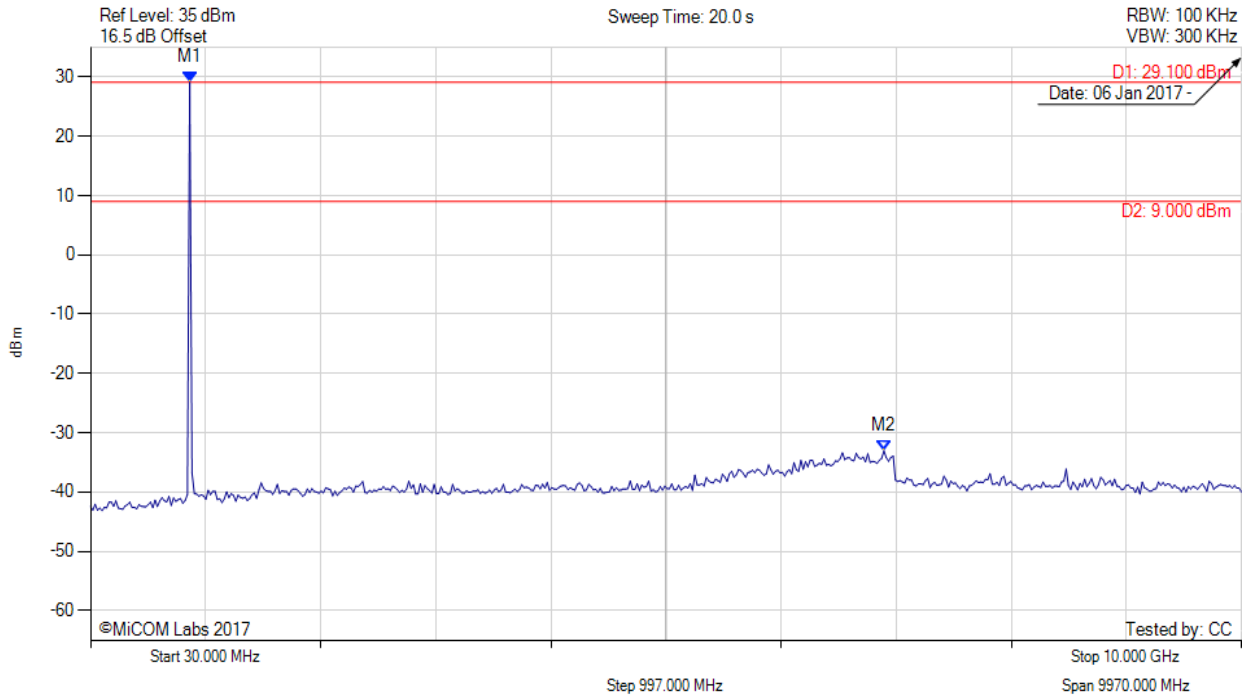
UNWANTED EMISSIONS PEAK

Variant: 6.25 kbps OQPSK, Channel: 902.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 29.100 dBm M2 : 6903.106 MHz : -33.025 dBm	Limit: 9.00 dBm Margin: -42.02 dB

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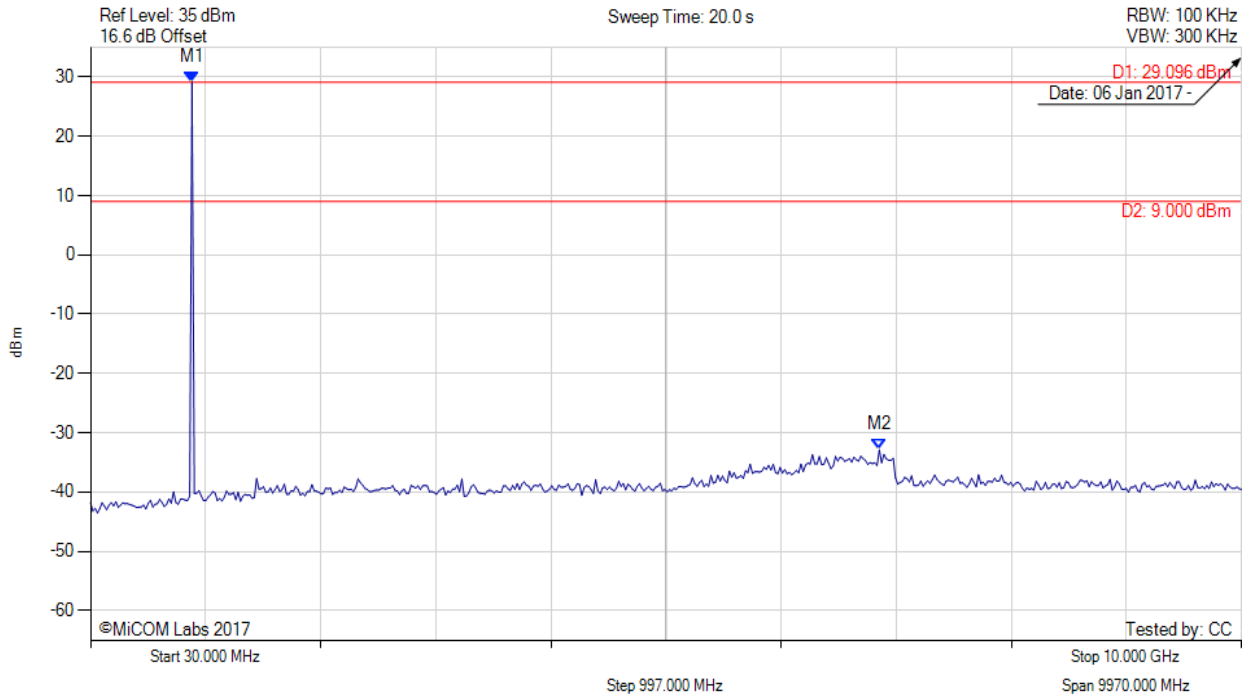
UNWANTED EMISSIONS PEAK

Variant: 6.25 kbps OQPSK, Channel: 915.00 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 29.096 dBm M2 : 6863.146 MHz : -32.888 dBm	Limit: 9.00 dBm Margin: -41.89 dB

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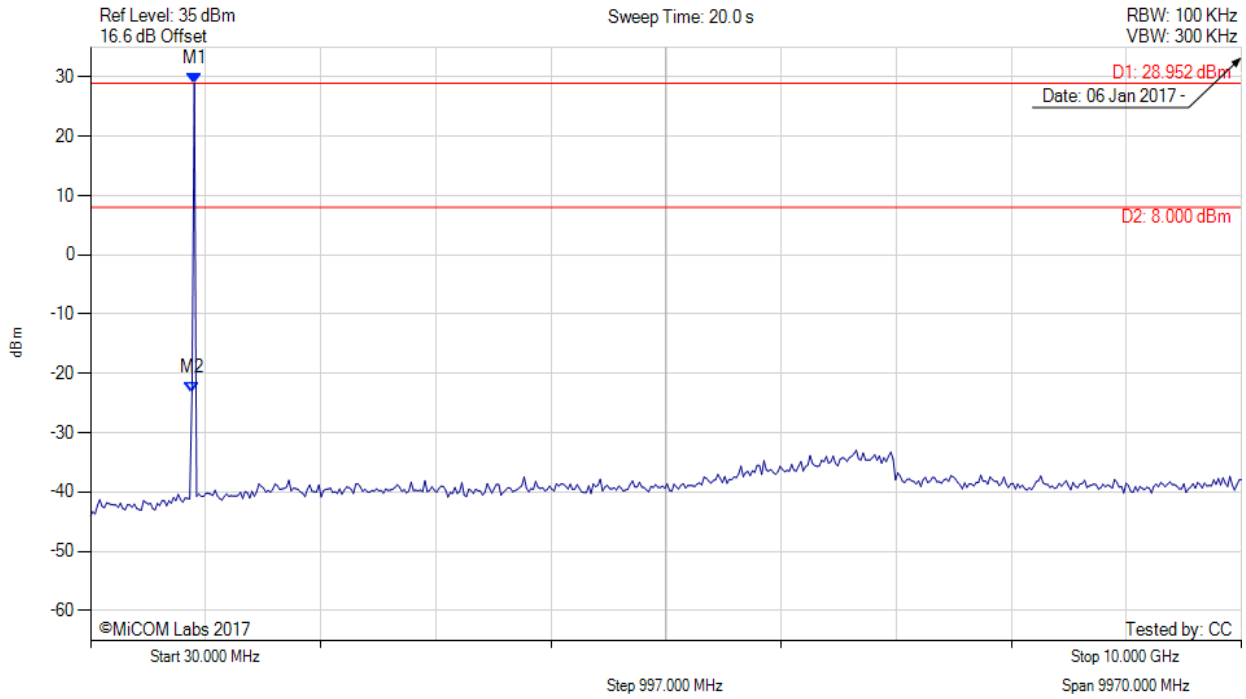
UNWANTED EMISSIONS PEAK

Variant: 6.25 kbps OQPSK, Channel: 927.80 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 929.098 MHz : 28.952 dBm M2 : 909.118 MHz : -23.210 dBm	Limit: 8.00 dBm Margin: -31.21 dB

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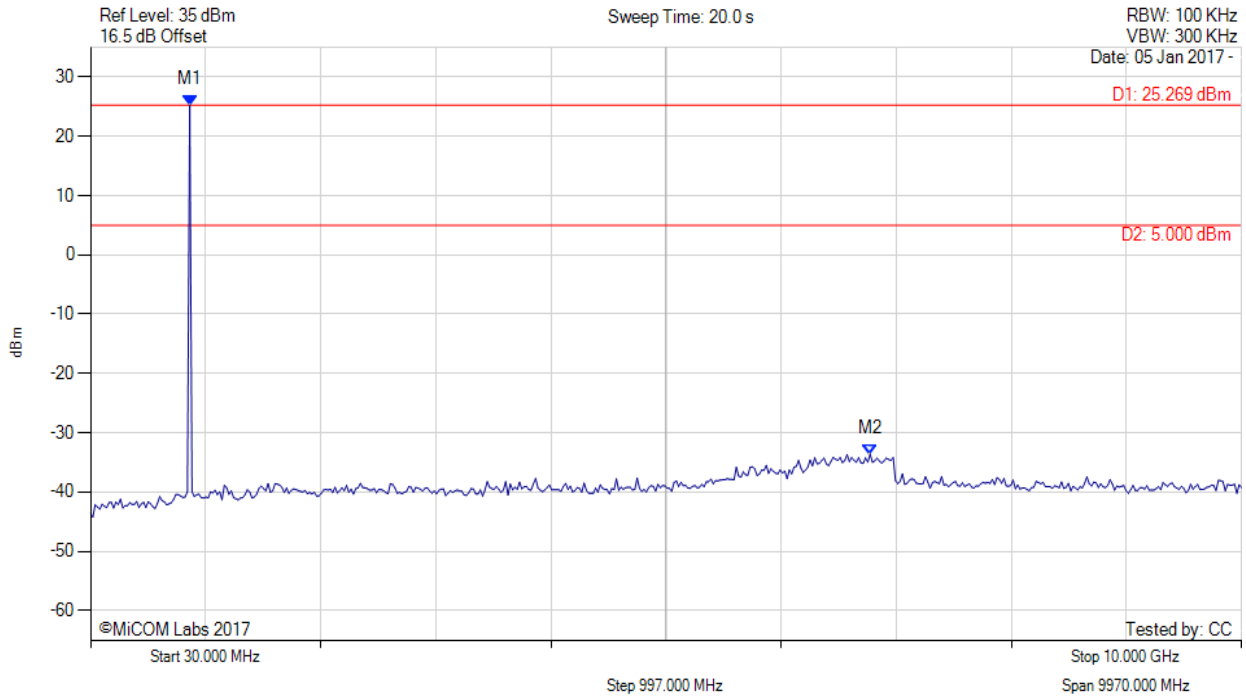
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 600 kbps OFDM, Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 889.138 MHz : 25.269 dBm M2 : 6783.226 MHz : -33.619 dBm	Limit: 5.00 dBm Margin: -38.62 dB

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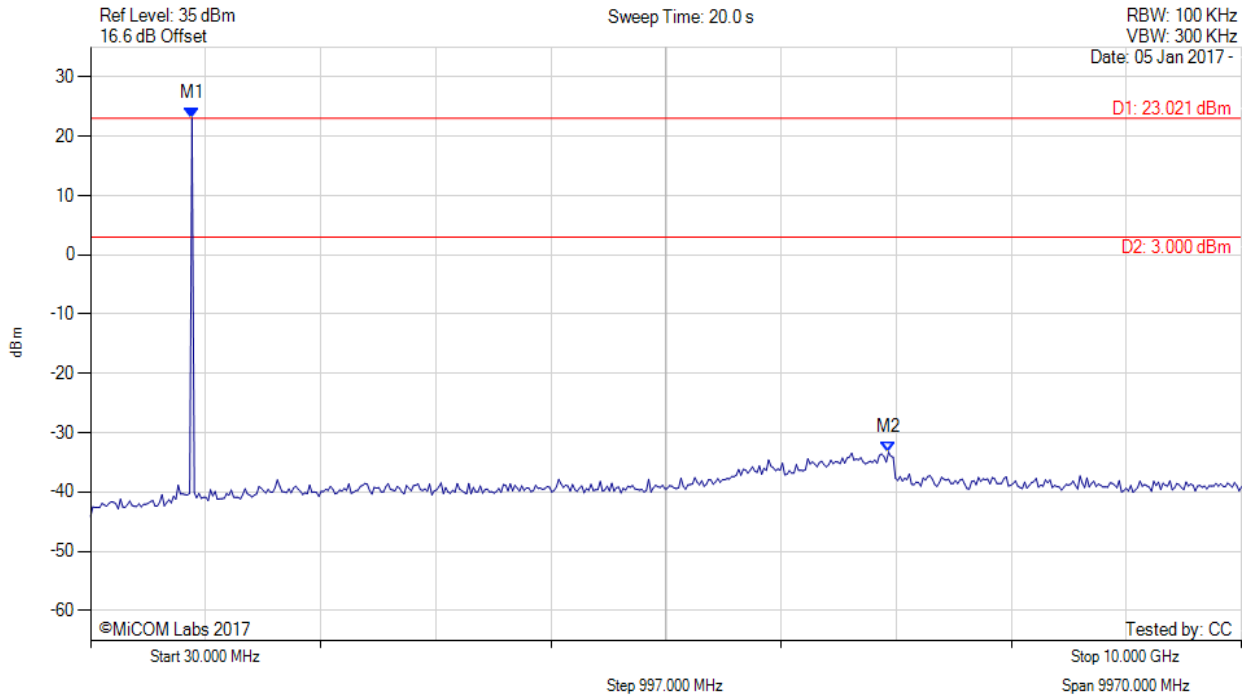
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 600 kbps OFDM, Channel: 915.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 909.118 MHz : 23.021 dBm M2 : 6943.066 MHz : -33.267 dBm	Limit: 3.00 dBm Margin: -36.27 dB

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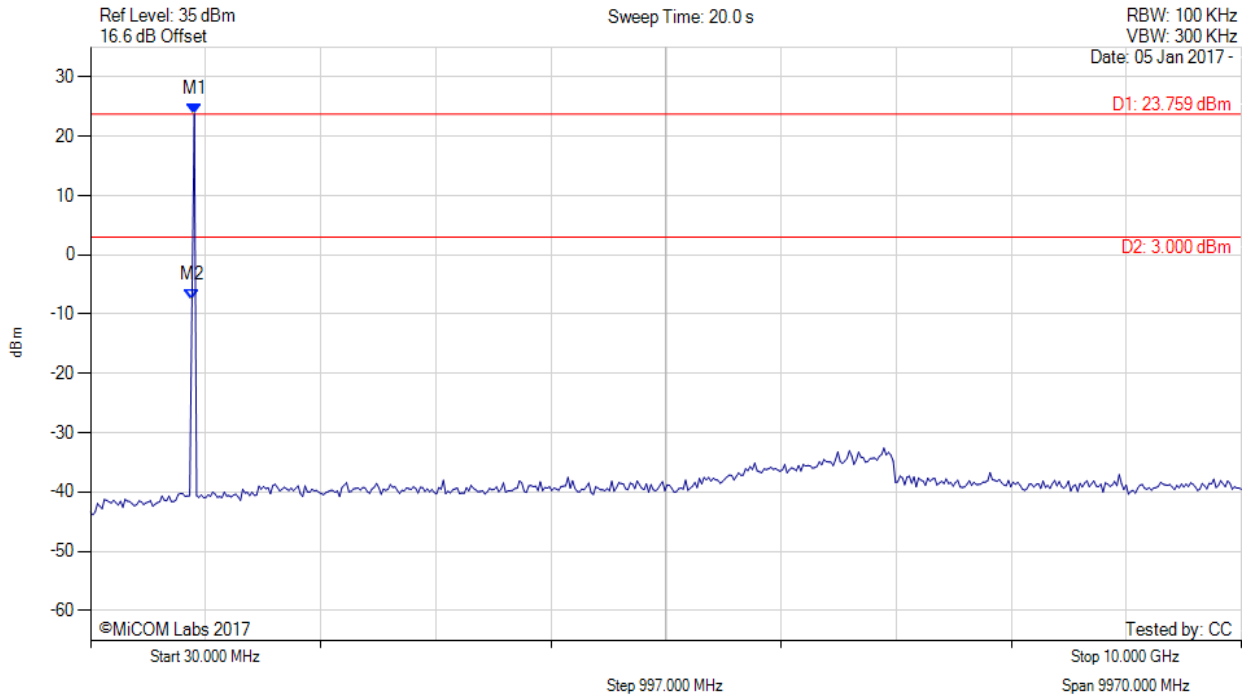
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

UNWANTED EMISSIONS PEAK

Variant: 600 kbps OFDM, Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 929.098 MHz : 23.759 dBm M2 : 909.118 MHz : -7.621 dBm	Limit: 3.00 dBm Margin: -10.62 dB

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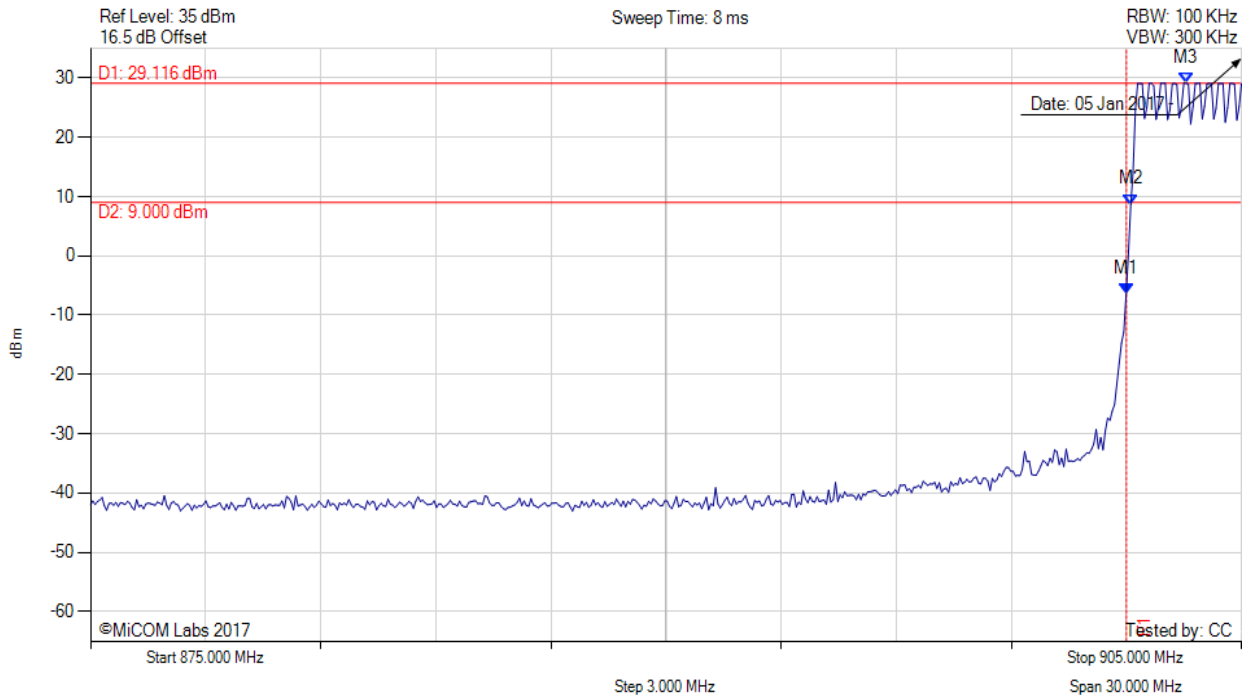
A.3.1.2. Conducted Band-Edge Emissions

Conducted Low Band-Edge Emissions

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 100 kbps FSK, Channel: 902.30 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -6.460 dBm M2 : 902.114 MHz : 8.683 dBm M3 : 903.557 MHz : 29.116 dBm	Channel Frequency: 902.30 MHz

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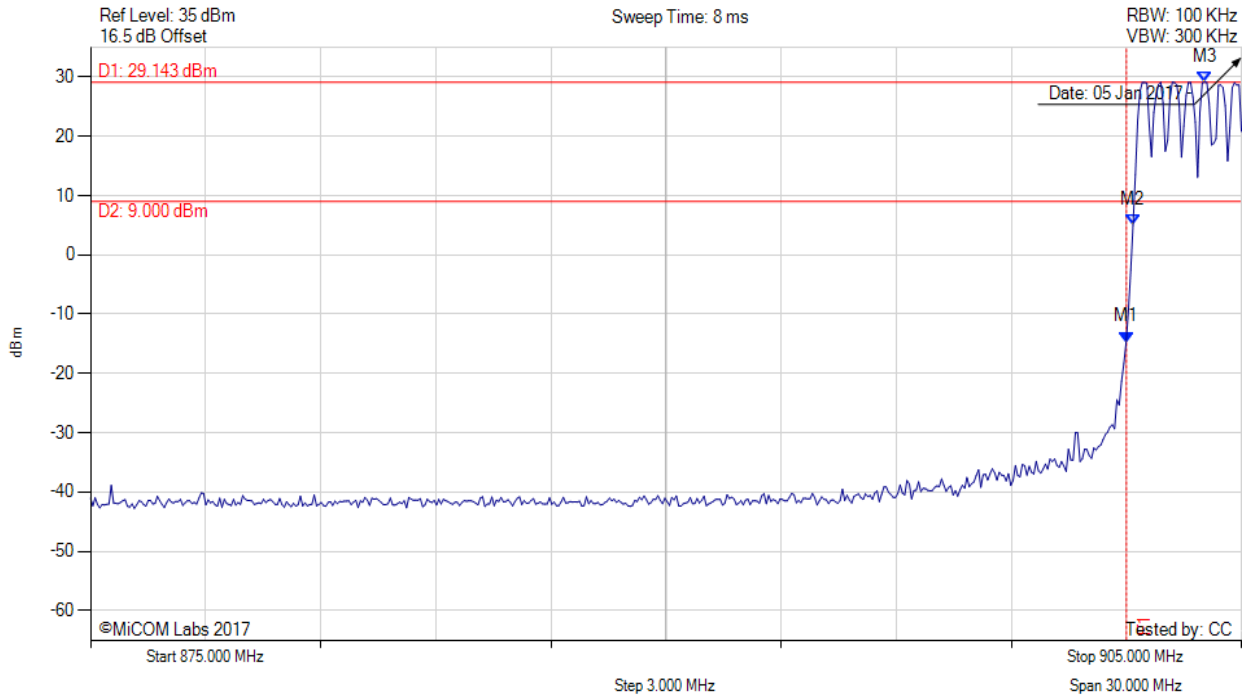
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 150 kbps FSK, Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -14.695 dBm M2 : 902.174 MHz : 5.002 dBm M3 : 904.038 MHz : 29.143 dBm	Channel Frequency: 902.40 MHz

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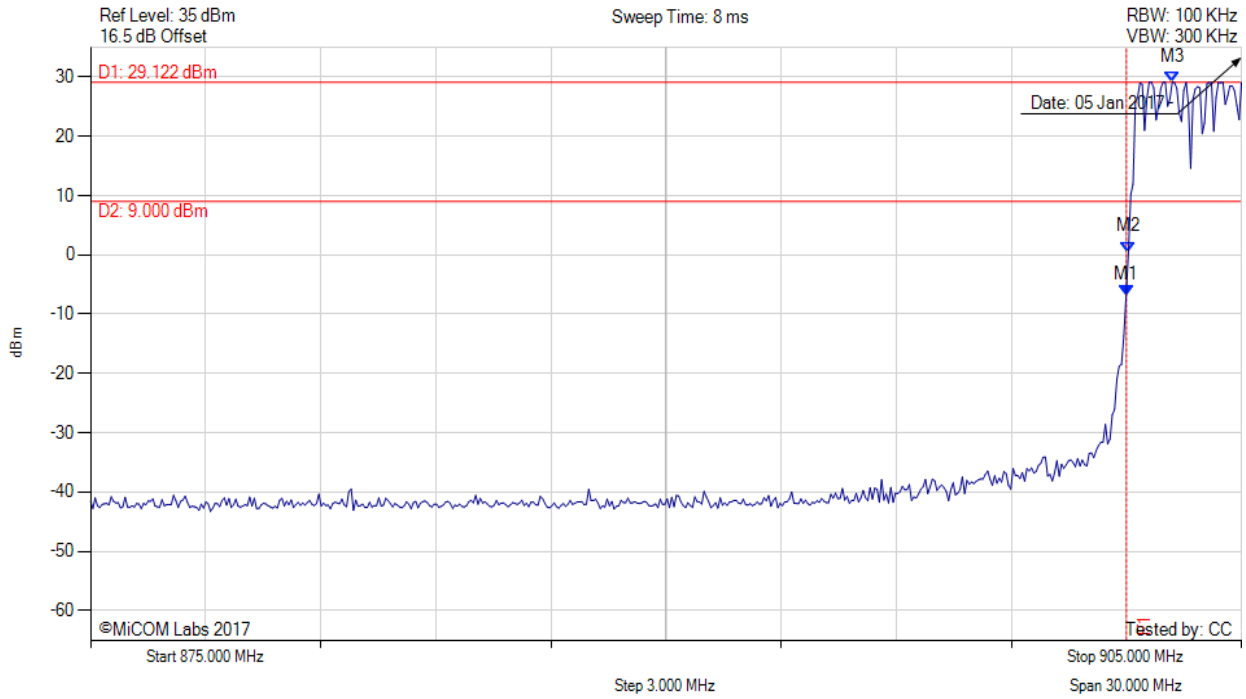
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 150 kbps GFSK, Channel: 902.30 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -6.812 dBm M2 : 902.054 MHz : 0.485 dBm M3 : 903.196 MHz : 29.122 dBm	Channel Frequency: 902.30 MHz

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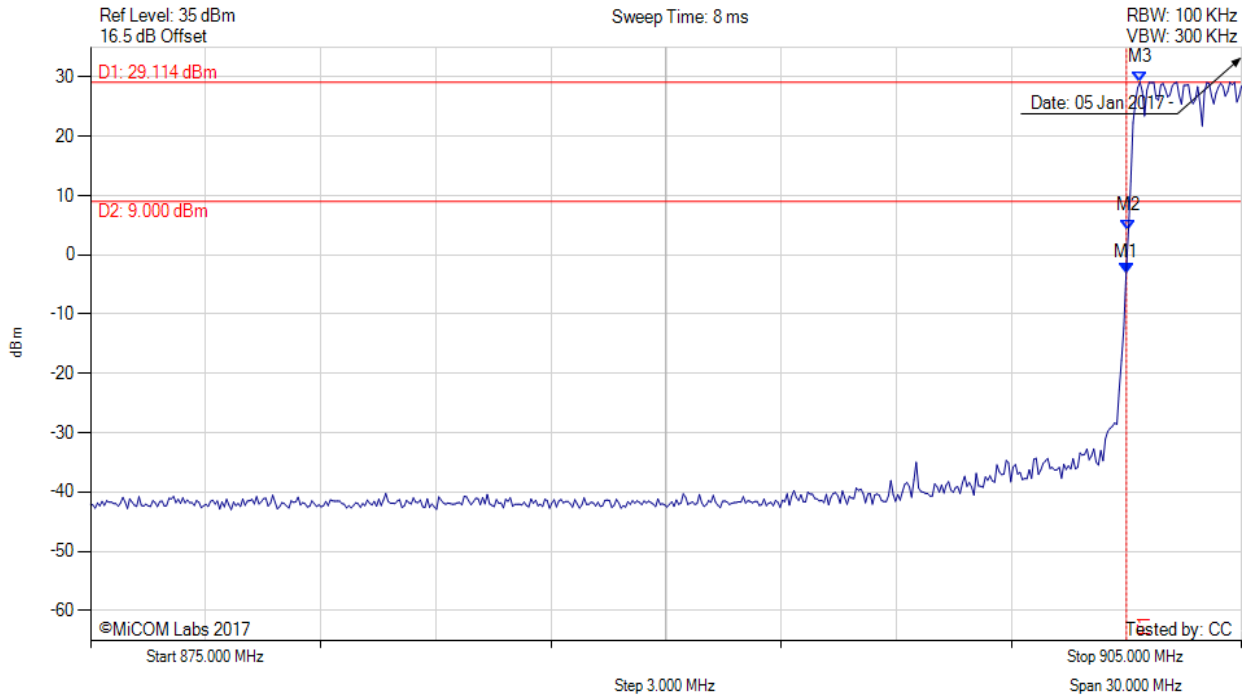
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 200 kbps GFSK, Channel: 902.30 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -2.996 dBm M2 : 902.054 MHz : 4.065 dBm M3 : 902.355 MHz : 29.114 dBm	Channel Frequency: 902.30 MHz

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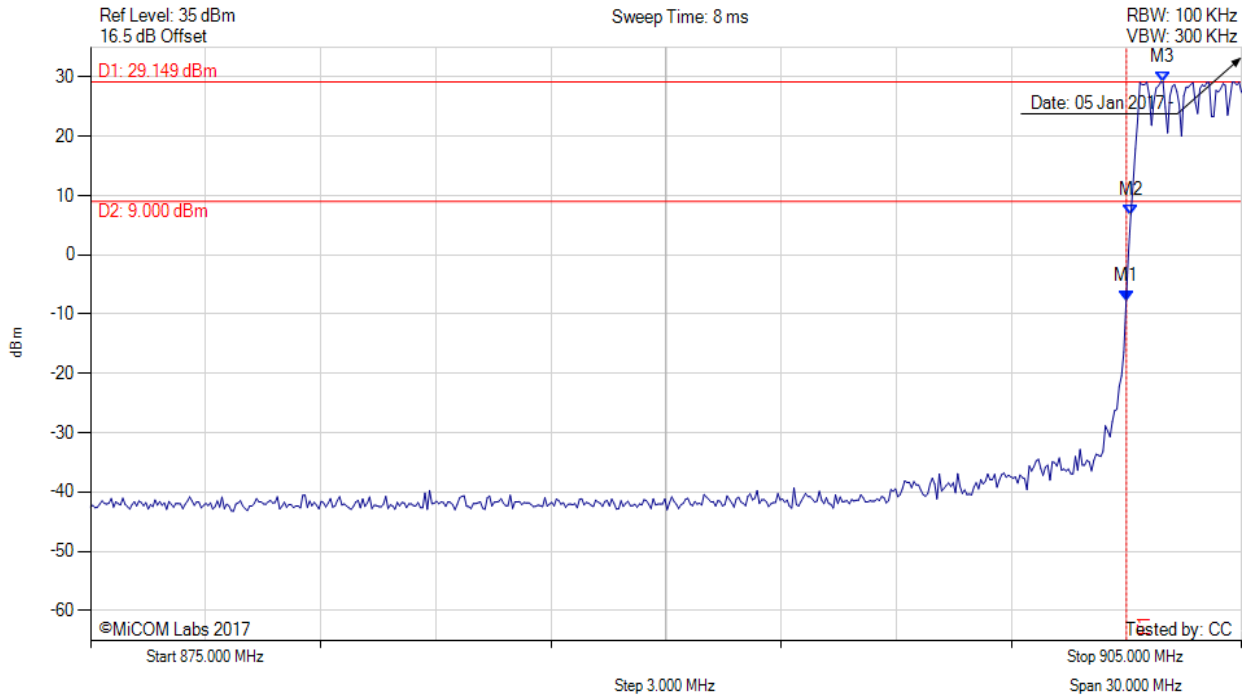
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 300 kbps GFSK, Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -7.784 dBm M2 : 902.114 MHz : 6.704 dBm M3 : 902.956 MHz : 29.149 dBm	Channel Frequency: 902.40 MHz

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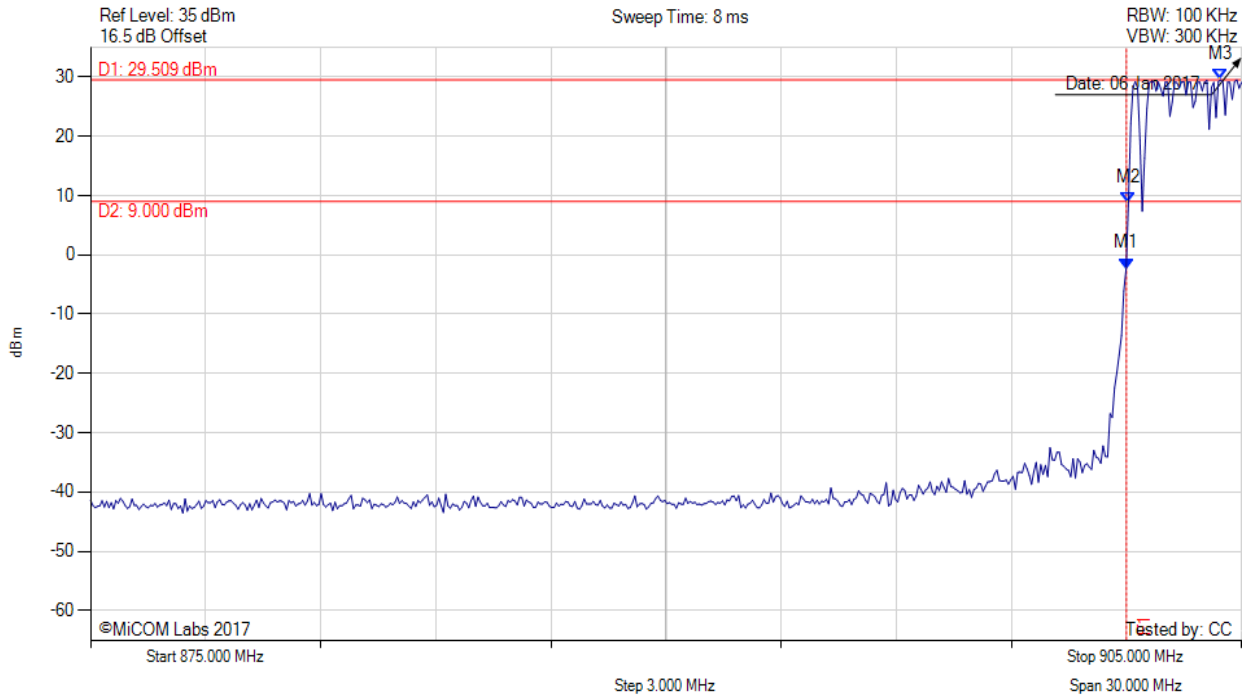
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 50 kbps 2FSK, Channel: 902.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -2.305 dBm M2 : 902.054 MHz : 8.889 dBm M3 : 904.459 MHz : 29.509 dBm	Channel Frequency: 902.20 MHz

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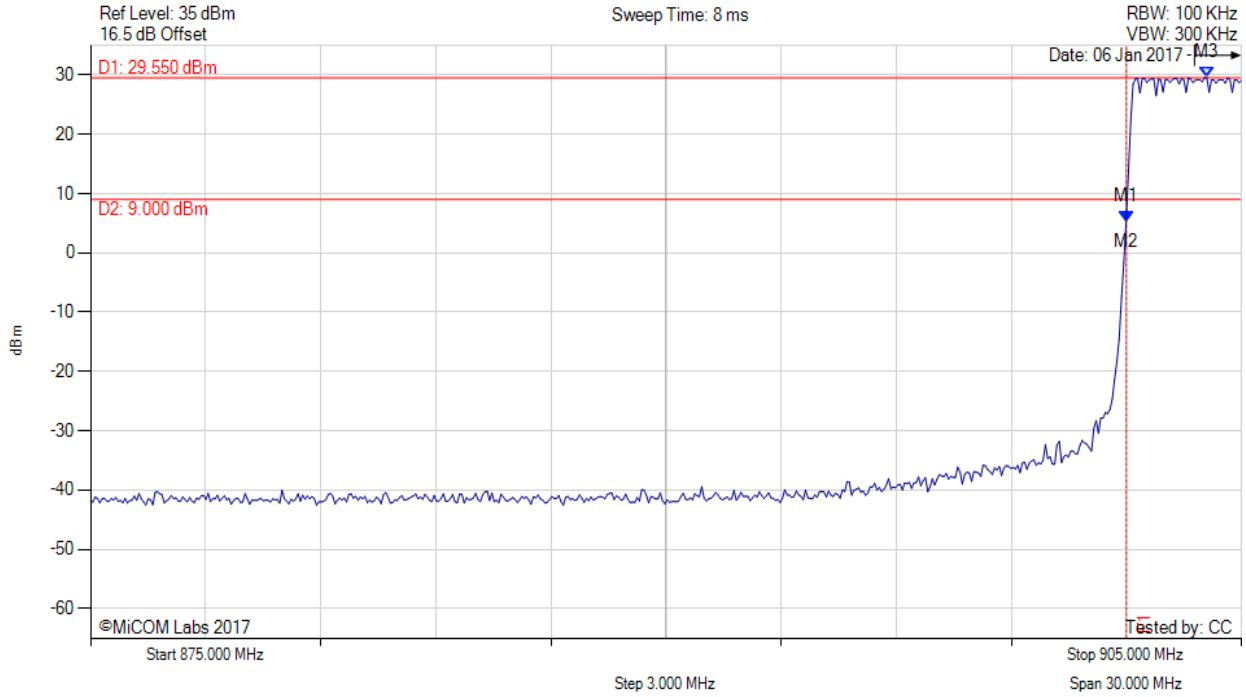
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 6.25 kbps OQPSK, Channel: 902.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : 5.366 dBm M2 : 901.994 MHz : 5.366 dBm M3 : 904.098 MHz : 29.550 dBm	Channel Frequency: 902.20 MHz

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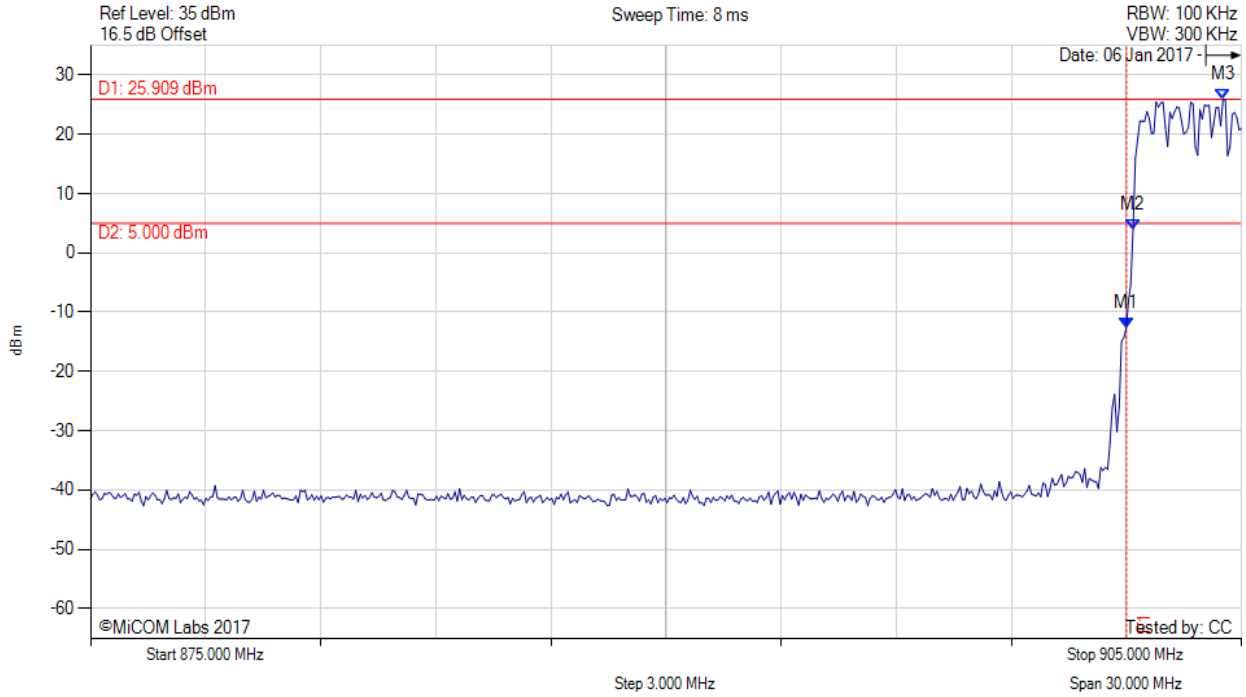
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 600 kbps OFDM, Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -12.738 dBm M2 : 902.174 MHz : 3.859 dBm M3 : 904.519 MHz : 25.909 dBm	Channel Frequency: 902.40 MHz

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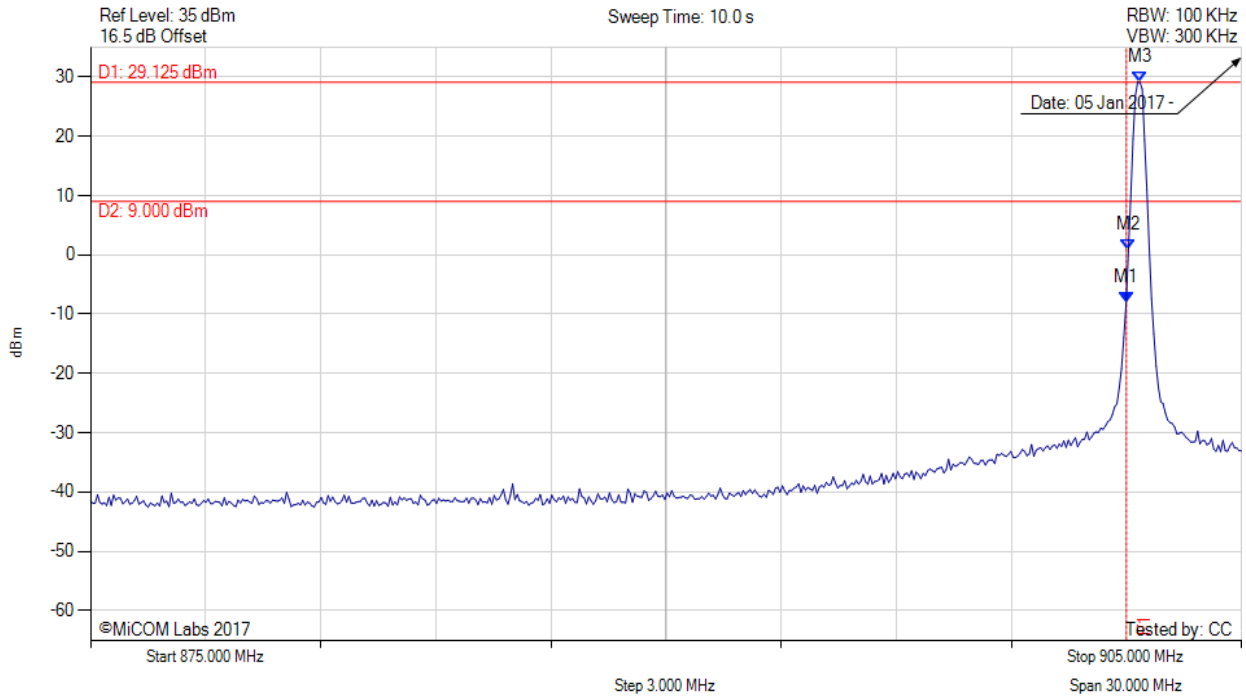
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 100 kbps FSK, Channel: 902.30 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -8.115 dBm M2 : 902.054 MHz : 0.904 dBm M3 : 902.355 MHz : 29.125 dBm	Channel Frequency: 902.30 MHz

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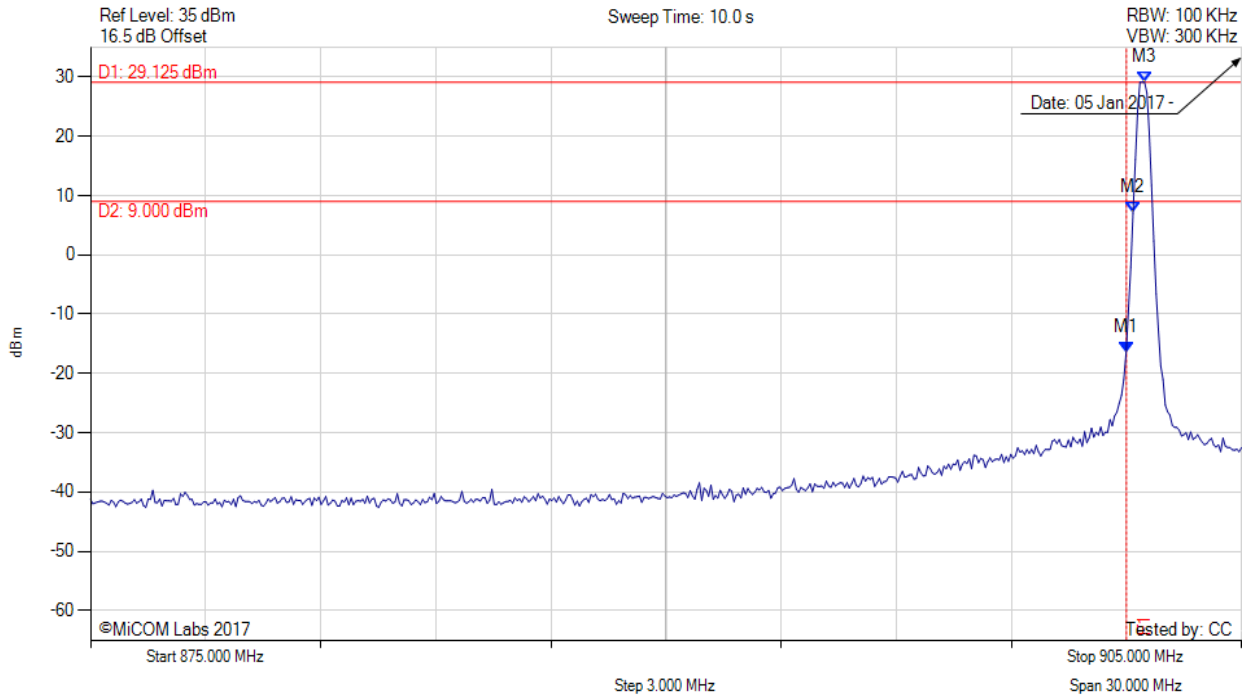
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 150 kbps FSK, Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -16.415 dBm M2 : 902.174 MHz : 7.079 dBm M3 : 902.475 MHz : 29.125 dBm	Channel Frequency: 902.40 MHz

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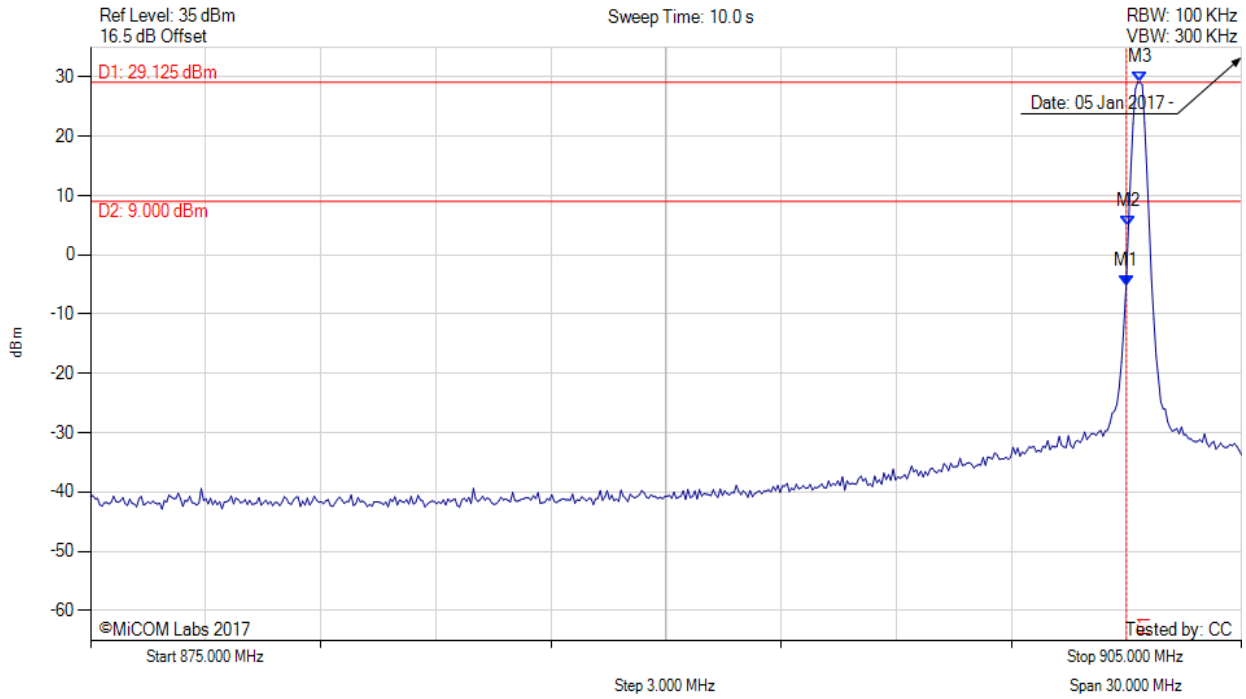
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 150 kbps GFSK, Channel: 902.30 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -5.134 dBm M2 : 902.054 MHz : 4.768 dBm M3 : 902.355 MHz : 29.125 dBm	Channel Frequency: 902.30 MHz

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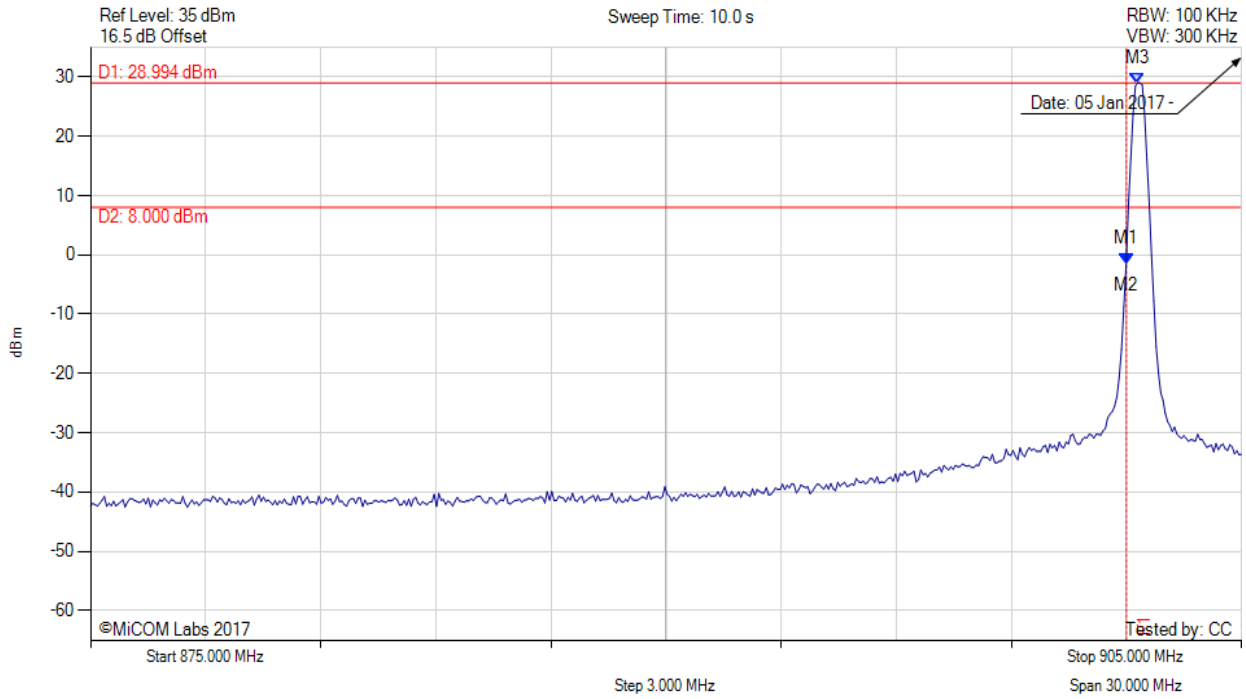
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 200 kbps GFSK, Channel: 902.30 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -1.534 dBm M2 : 901.994 MHz : -1.534 dBm M3 : 902.295 MHz : 28.994 dBm	Channel Frequency: 902.30 MHz

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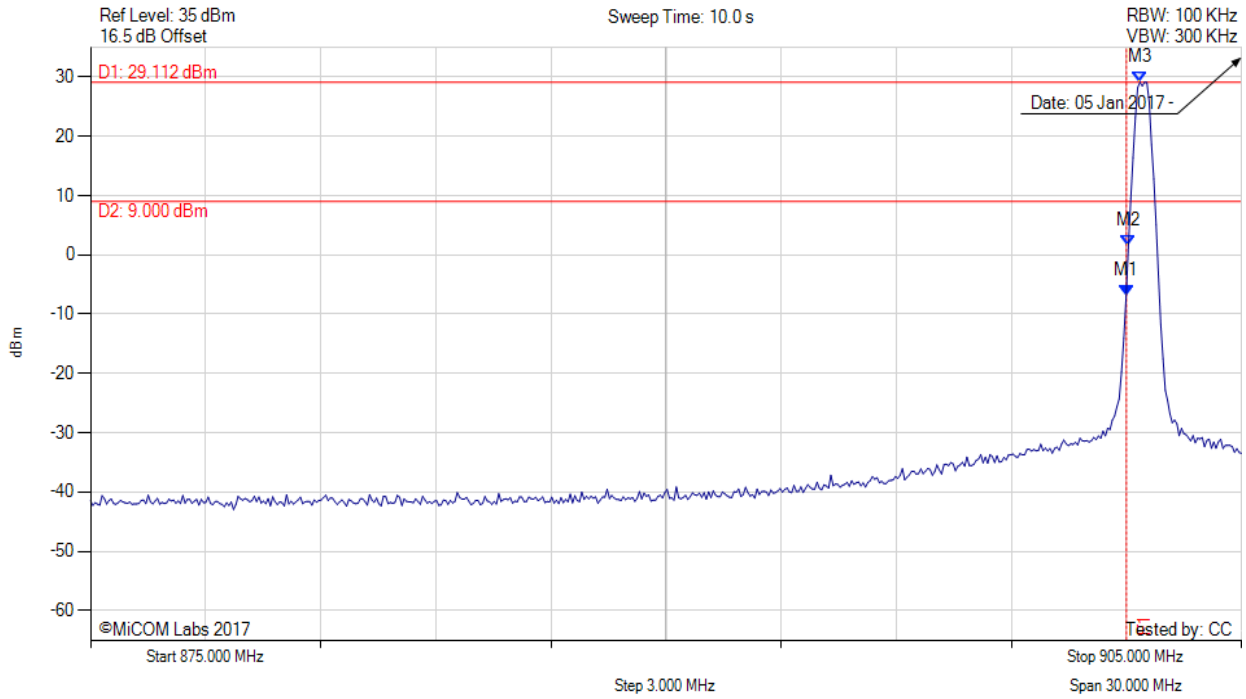
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 300 kbps GFSK, Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -6.934 dBm M2 : 902.054 MHz : 1.622 dBm M3 : 902.355 MHz : 29.112 dBm	Channel Frequency: 902.40 MHz

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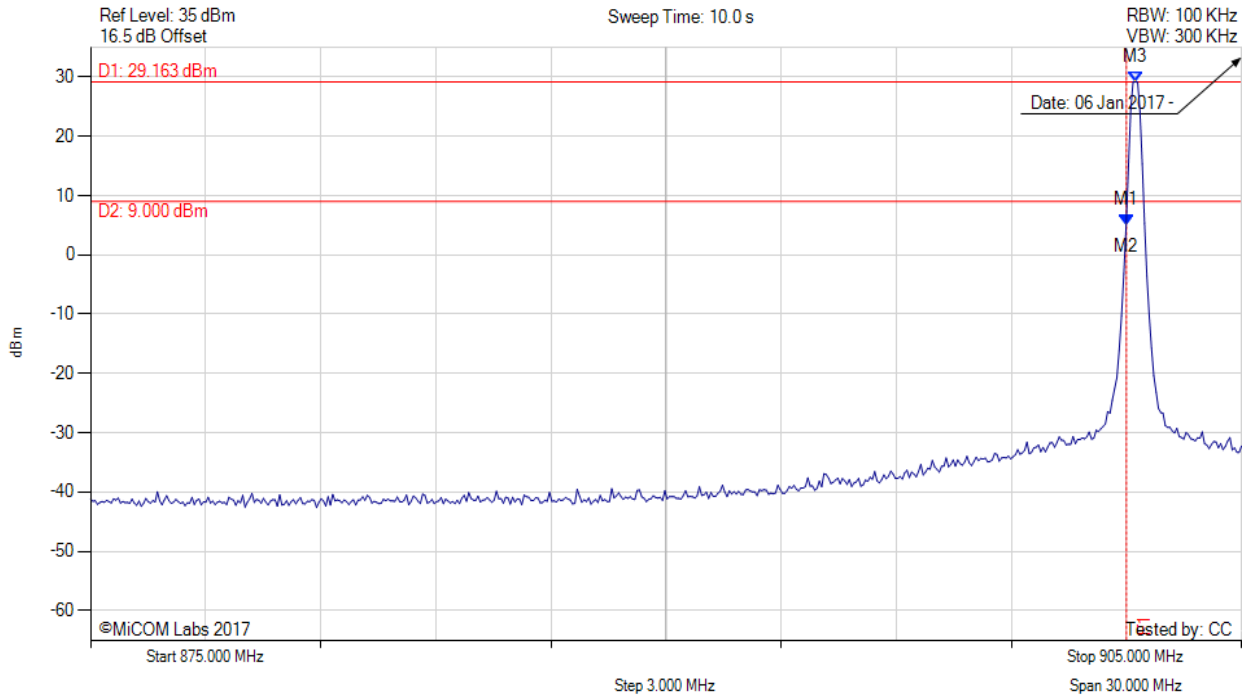
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 50 kbps 2FSK, Channel: 902.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : 5.088 dBm M2 : 901.994 MHz : 5.088 dBm M3 : 902.234 MHz : 29.163 dBm	Channel Frequency: 902.20 MHz

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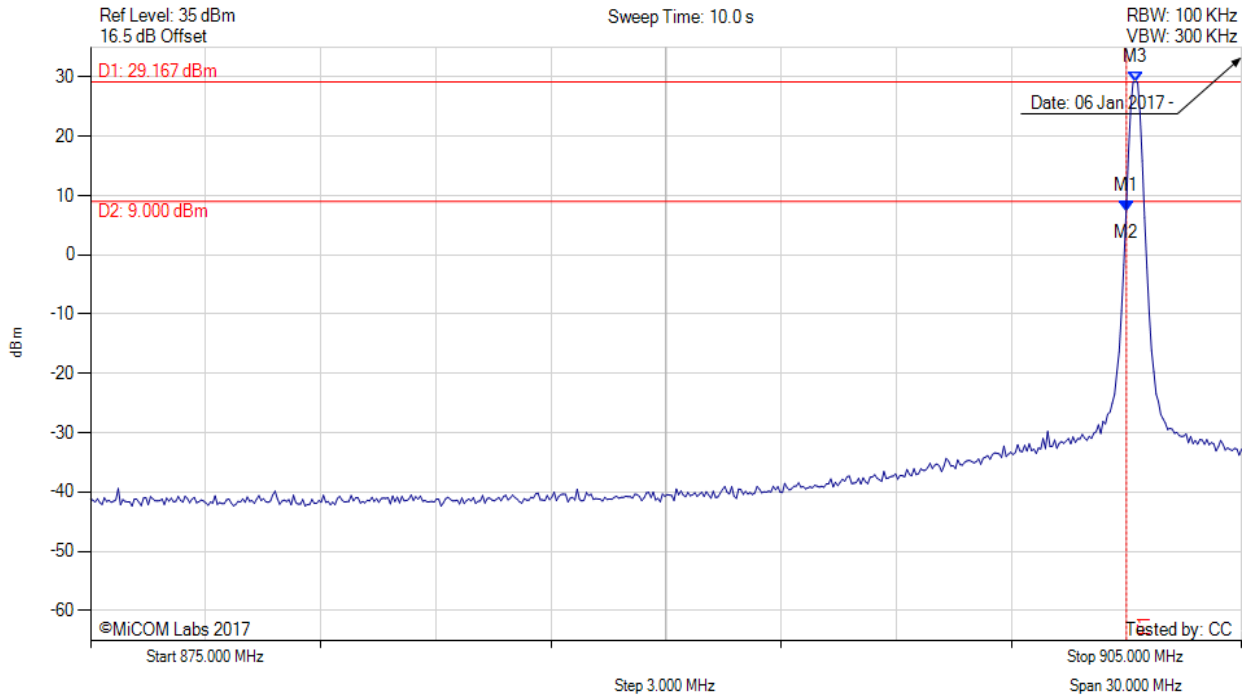
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 6.25 kbps OQPSK, Channel: 902.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : 7.317 dBm M2 : 901.994 MHz : 7.317 dBm M3 : 902.234 MHz : 29.167 dBm	Channel Frequency: 902.20 MHz

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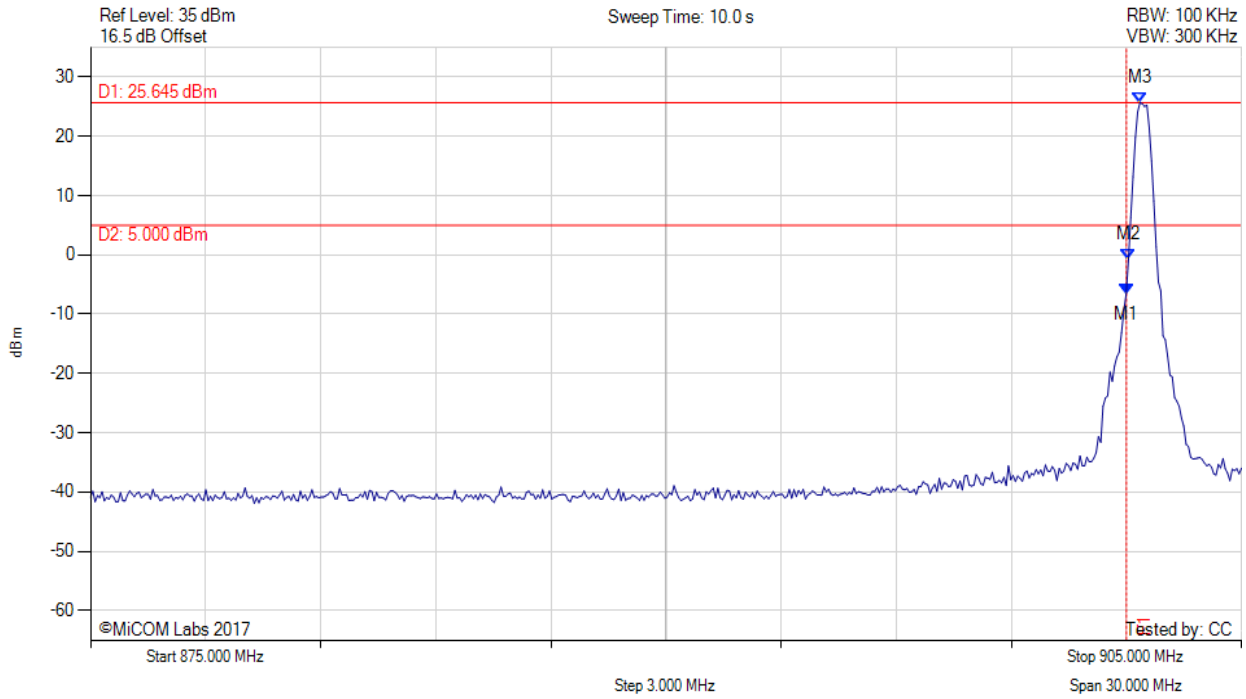
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED LOW BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 600 kbps OFDM, Channel: 902.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 902.000 MHz : -6.590 dBm M2 : 902.054 MHz : -0.871 dBm M3 : 902.355 MHz : 25.645 dBm	Channel Frequency: 902.40 MHz

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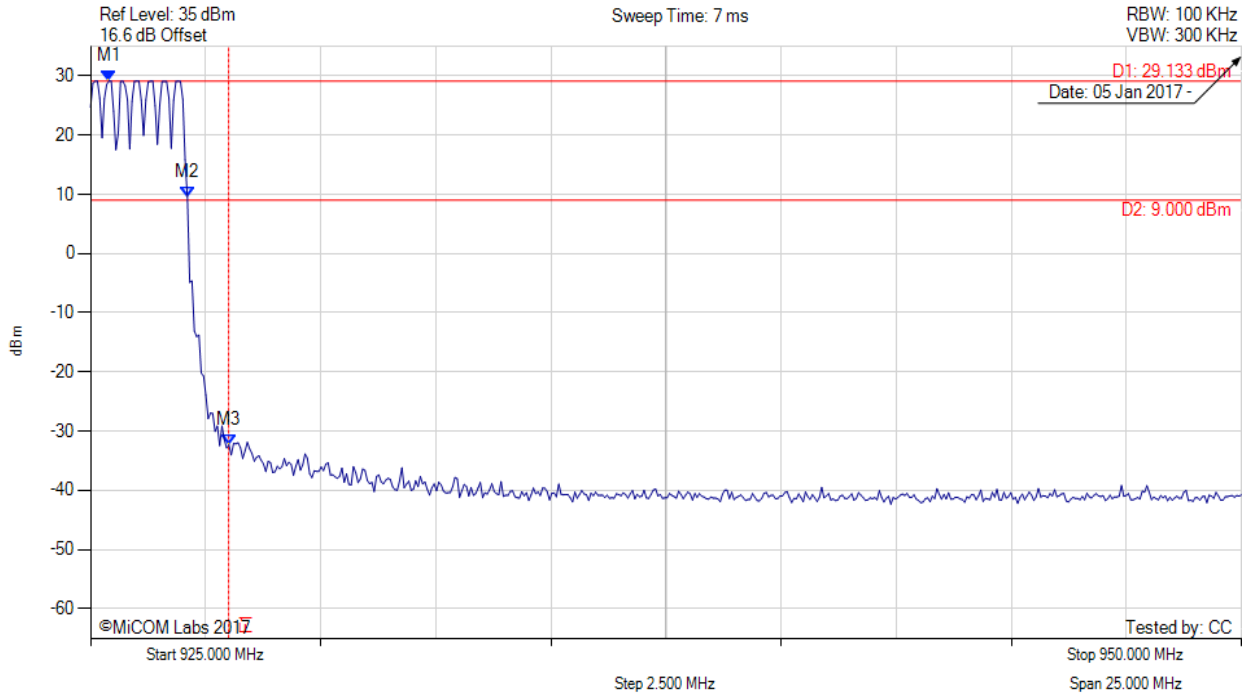
Conducted High Band-Edge Emissions

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 100 kbps FSK, Channel: 926.90 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.401 MHz : 29.133 dBm M2 : 927.104 MHz : 9.550 dBm M3 : 928.000 MHz : -32.307 dBm	Channel Frequency: 926.90 MHz

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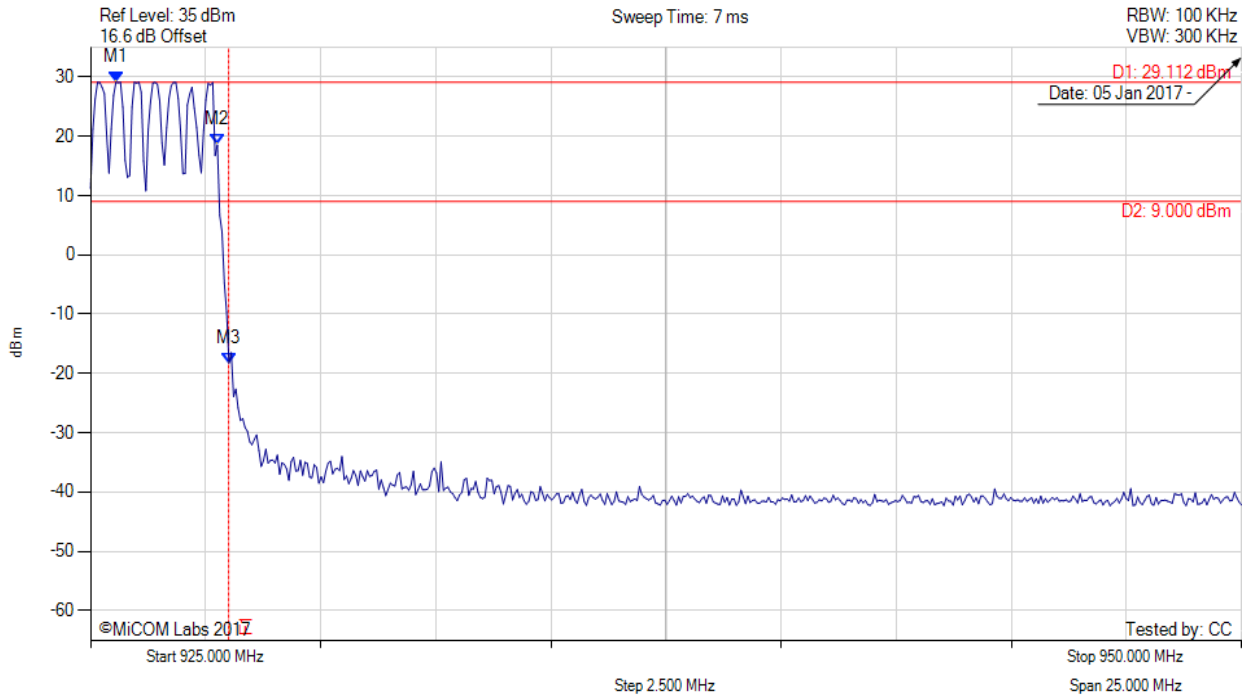
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 150 kbps FSK, Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.551 MHz : 29.112 dBm M2 : 927.756 MHz : 18.551 dBm M3 : 928.000 MHz : -18.229 dBm	Channel Frequency: 927.60 MHz

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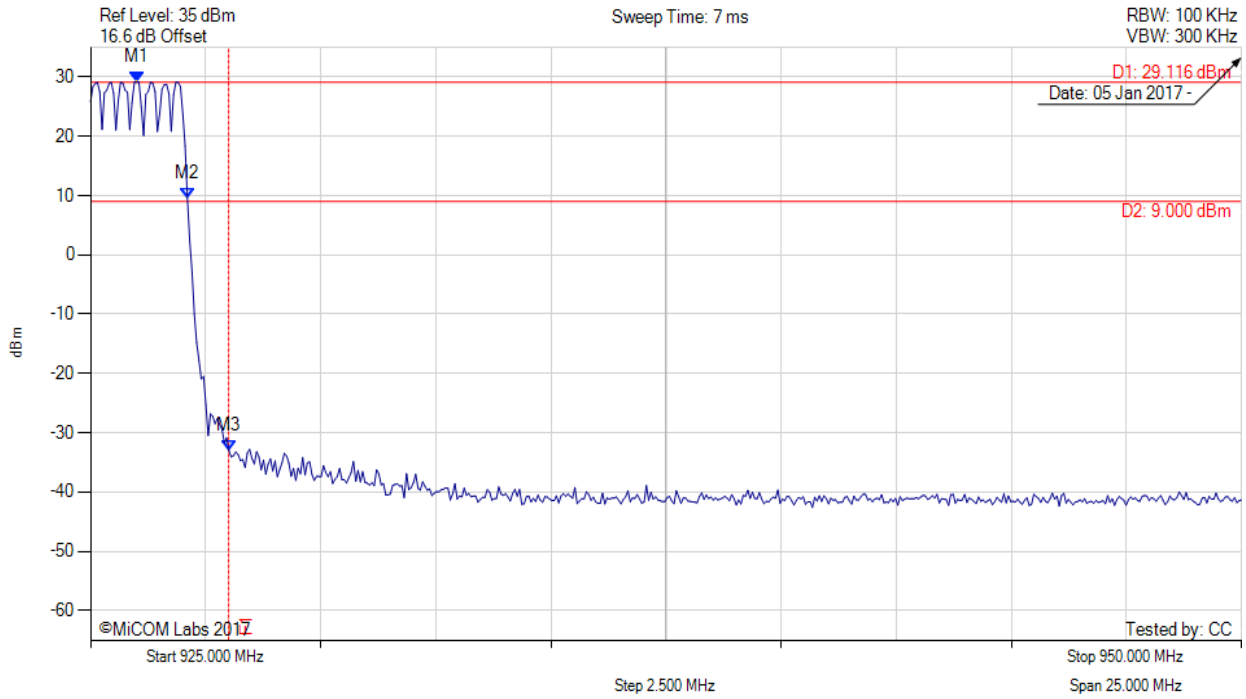
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 150 kbps GFSK, Channel: 926.90 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 926.002 MHz : 29.116 dBm M2 : 927.104 MHz : 9.544 dBm M3 : 928.000 MHz : -33.078 dBm	Channel Frequency: 926.90 MHz

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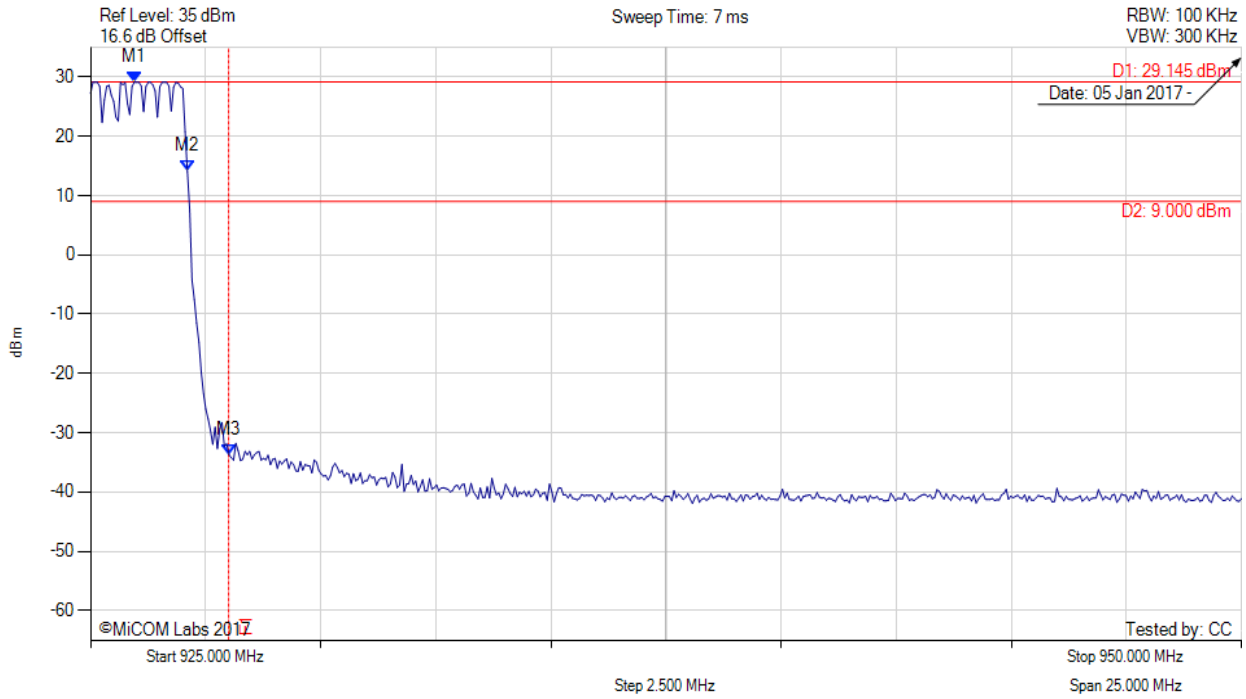
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 200 kbps GFSK, Channel: 926.90 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.952 MHz : 29.145 dBm M2 : 927.104 MHz : 14.079 dBm M3 : 928.000 MHz : -33.651 dBm	Channel Frequency: 926.90 MHz

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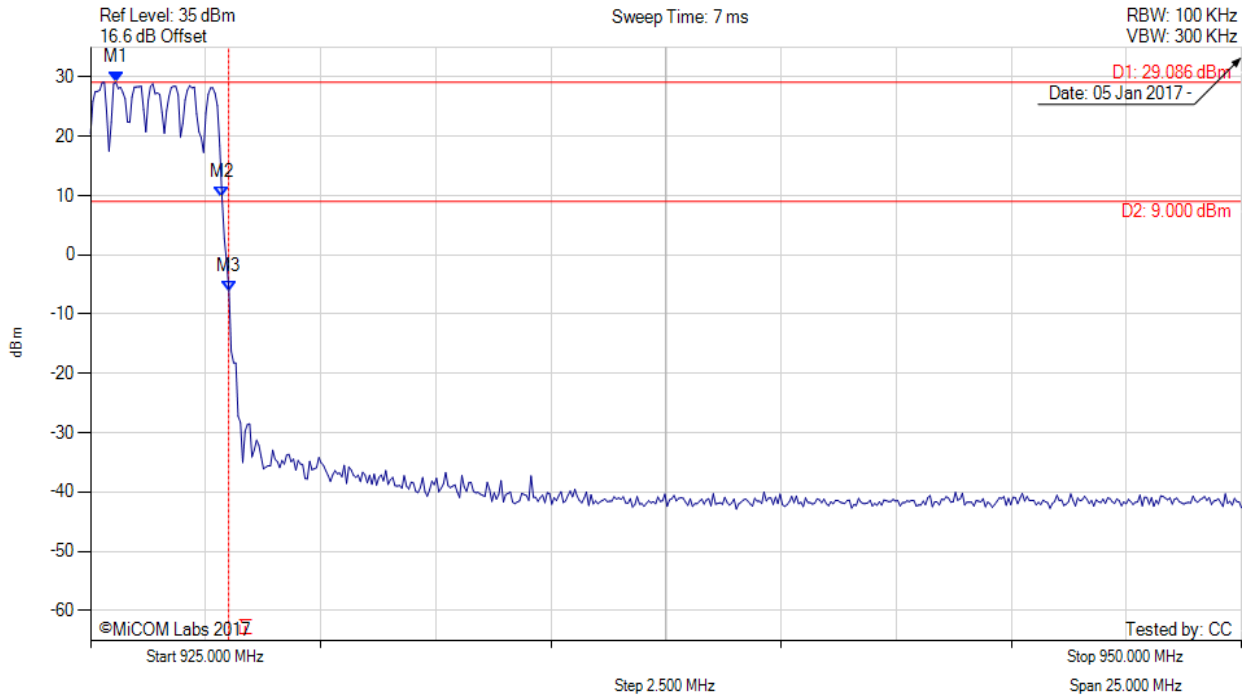
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 300 kbps GFSK, Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 925.551 MHz : 29.086 dBm M2 : 927.856 MHz : 9.714 dBm M3 : 928.000 MHz : -6.061 dBm	Channel Frequency: 927.60 MHz

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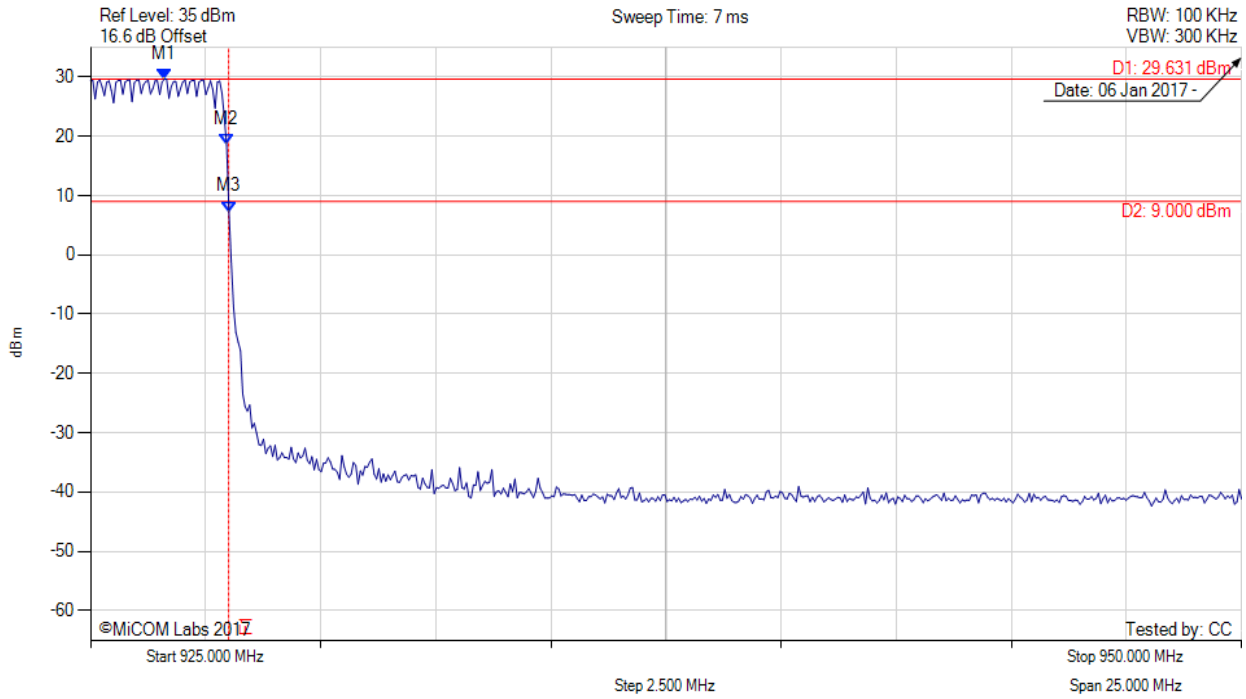
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 50 kbps 2FSK, Channel: 927.80 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 926.603 MHz : 29.631 dBm M2 : 927.956 MHz : 18.549 dBm M3 : 928.000 MHz : 7.274 dBm	Channel Frequency: 927.80 MHz

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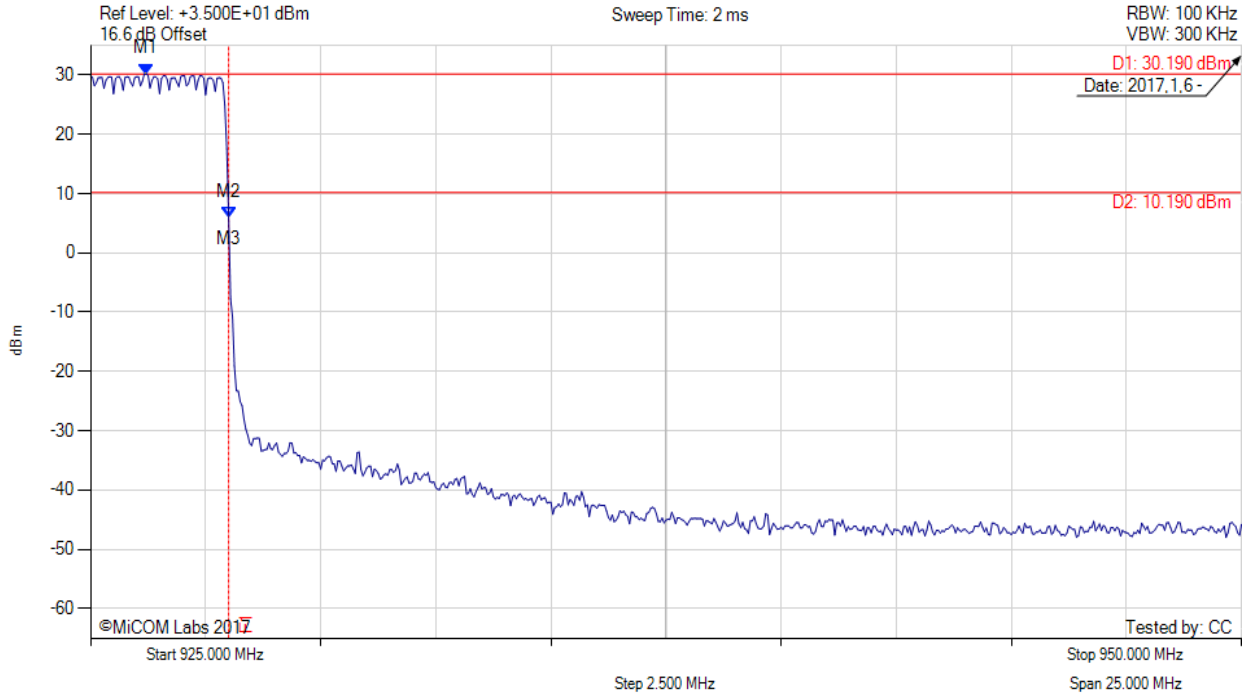
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 6.25 kbps OQPSK, Channel: 927.80 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 926.210 MHz : 30.190 dBm M2 : 928.000 MHz : 6.016 dBm M3 : 928.000 MHz : 6.016 dBm	Channel Frequency: 927.80 MHz

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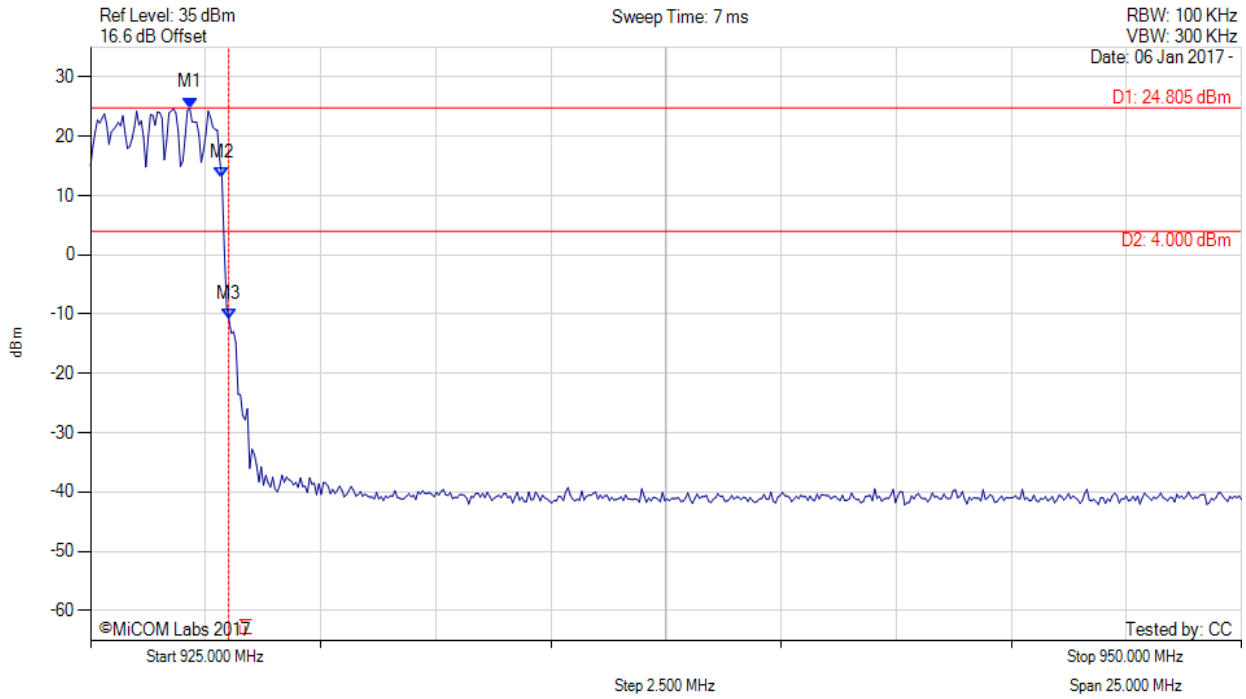
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 600 kbps OFDM, Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.154 MHz : 24.805 dBm M2 : 927.856 MHz : 12.907 dBm M3 : 928.000 MHz : -10.912 dBm	Channel Frequency: 927.60 MHz

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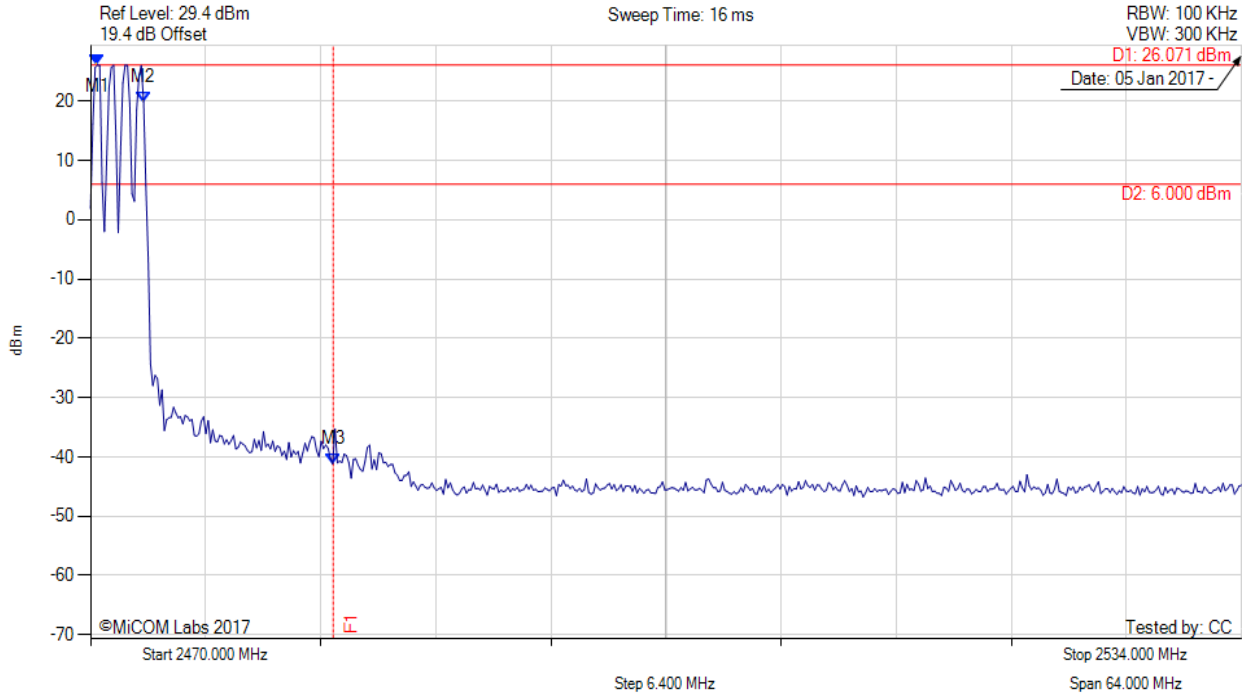
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 300 kbps GFSK, Channel: 2472.80 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2470.385 MHz : 26.071 dBm M2 : 2472.950 MHz : 19.876 dBm M3 : 2483.500 MHz : -41.204 dBm	Channel Frequency: 2472.80 MHz

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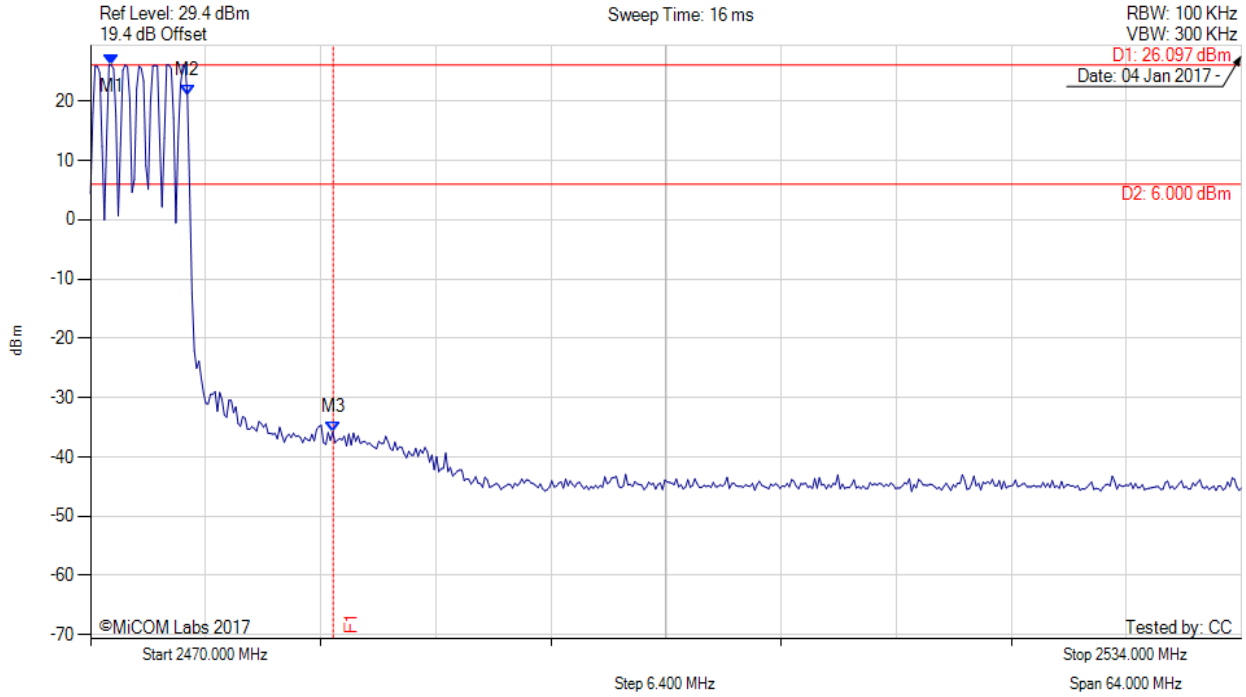
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 300 kbps GFSK, Channel: 2475.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2471.154 MHz : 26.097 dBm M2 : 2475.387 MHz : 20.891 dBm M3 : 2483.500 MHz : -35.798 dBm	Channel Frequency: 2475.20 MHz

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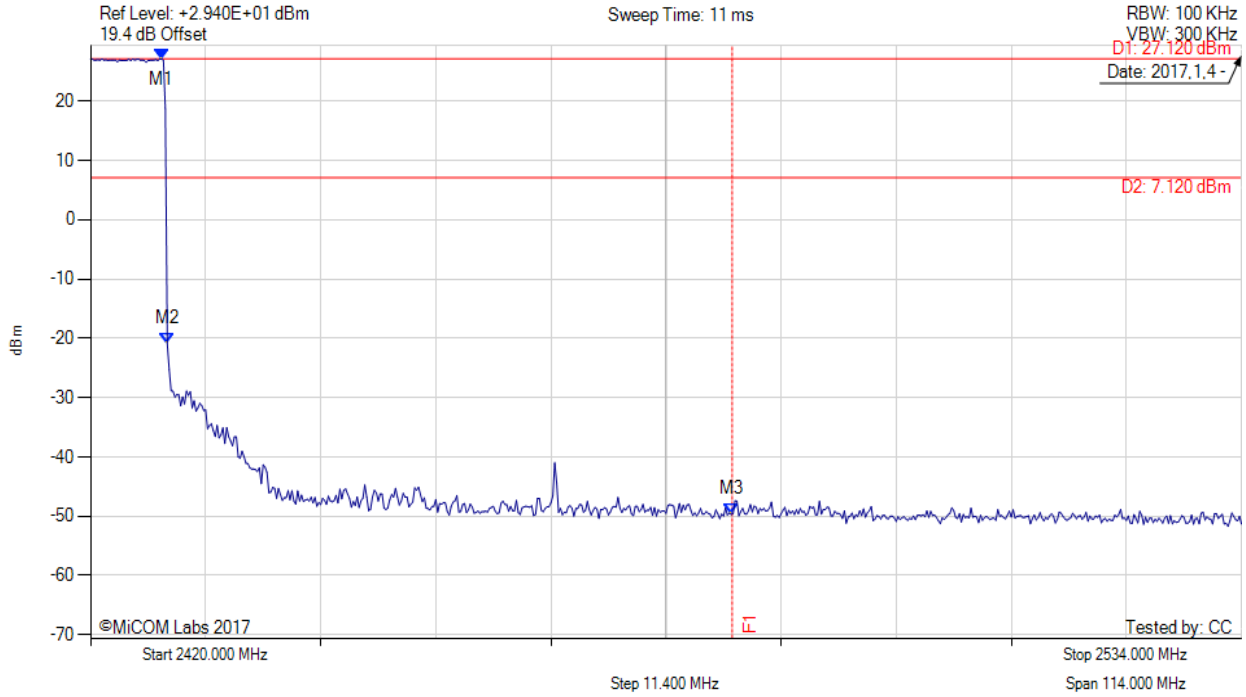
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 50 kbps 2FSK, Channel: 2427.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2427.030 MHz : 27.120 dBm M2 : 2427.600 MHz : -20.910 dBm M3 : 2483.460 MHz : -49.705 dBm	Channel Frequency: 2427.20 MHz

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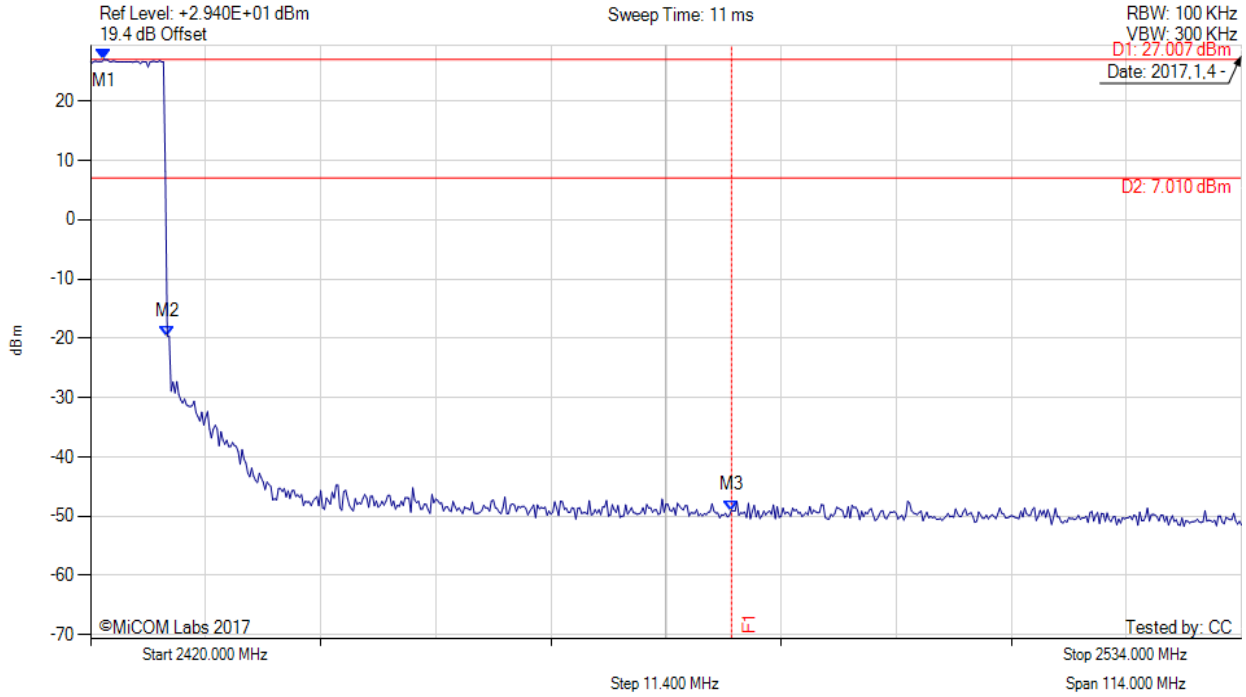
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 6.25 kbps OQPSK, Channel: 2427.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2421.330 MHz : 27.007 dBm M2 : 2427.600 MHz : -19.621 dBm M3 : 2483.460 MHz : -49.028 dBm	Channel Frequency: 2427.20 MHz

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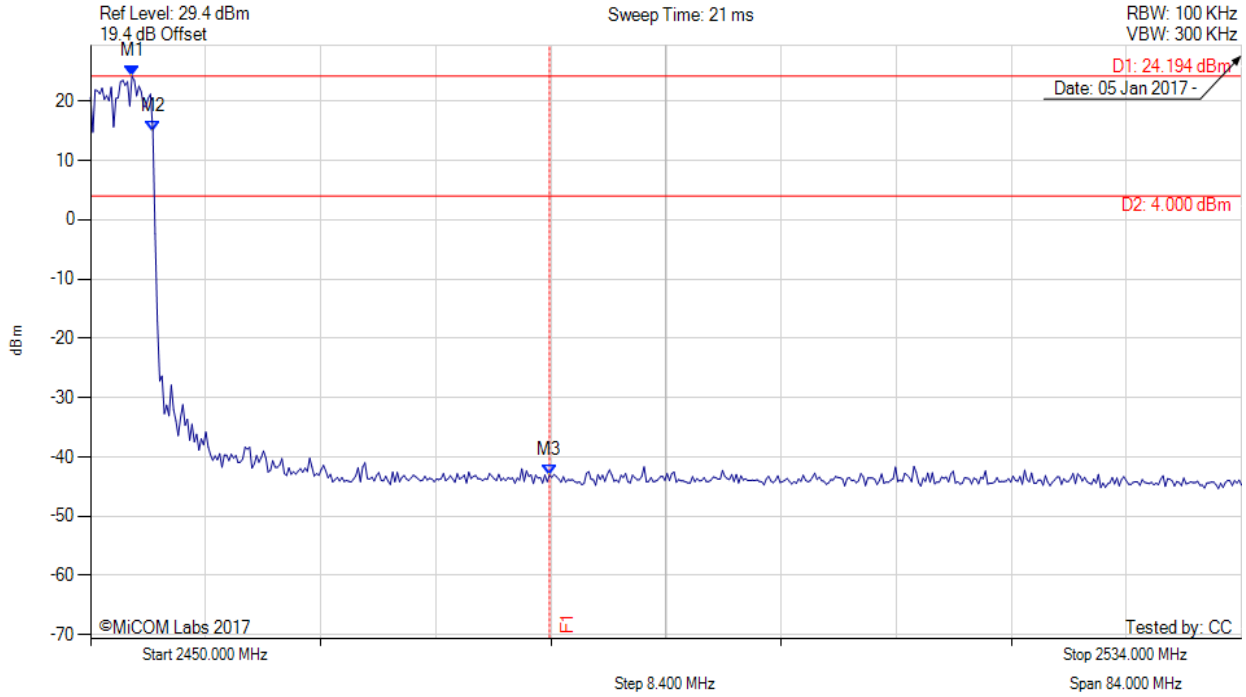
CONDUCTED UPPER BAND-EDGE EMISSIONS (HOPPING) PEAK

Variant: 600 kbps OFDM, Channel: 2454.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2453.030 MHz : 24.194 dBm M2 : 2454.545 MHz : 14.928 dBm M3 : 2483.500 MHz : -43.117 dBm	Channel Frequency: 2454.40 MHz

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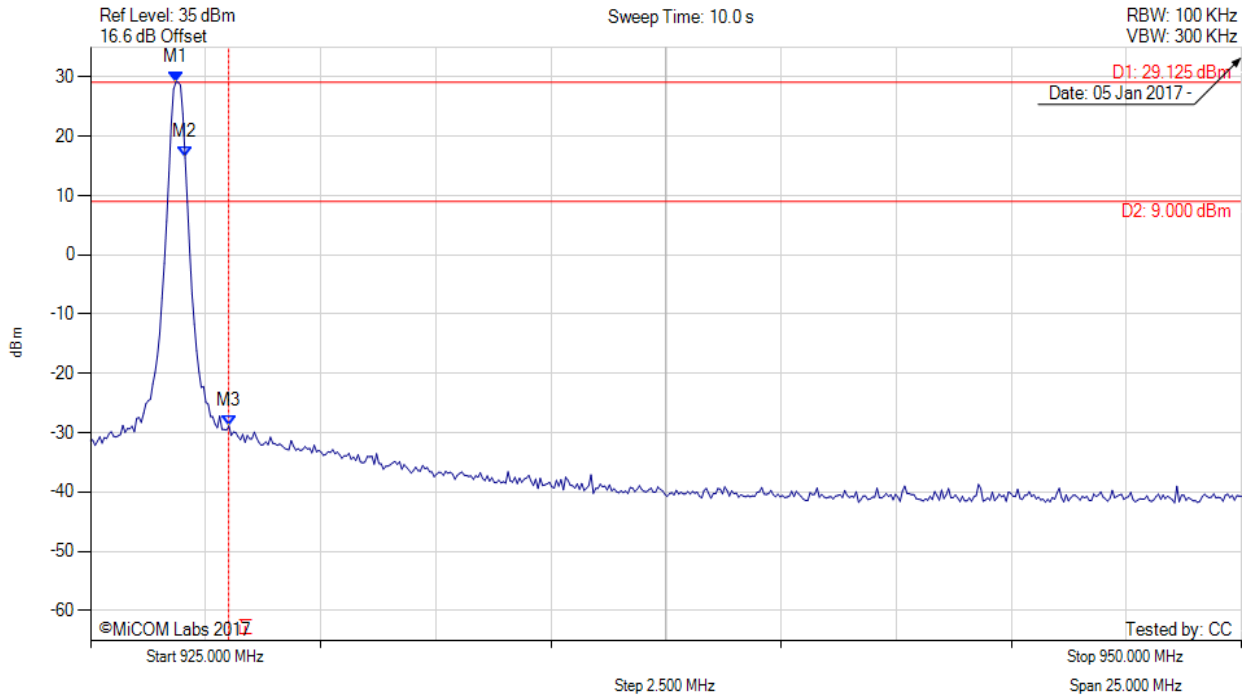
CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 100 kbps FSK, Channel: 926.90 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 926.854 MHz : 29.125 dBm M2 : 927.054 MHz : 16.412 dBm M3 : 928.000 MHz : -28.833 dBm	Channel Frequency: 926.90 MHz

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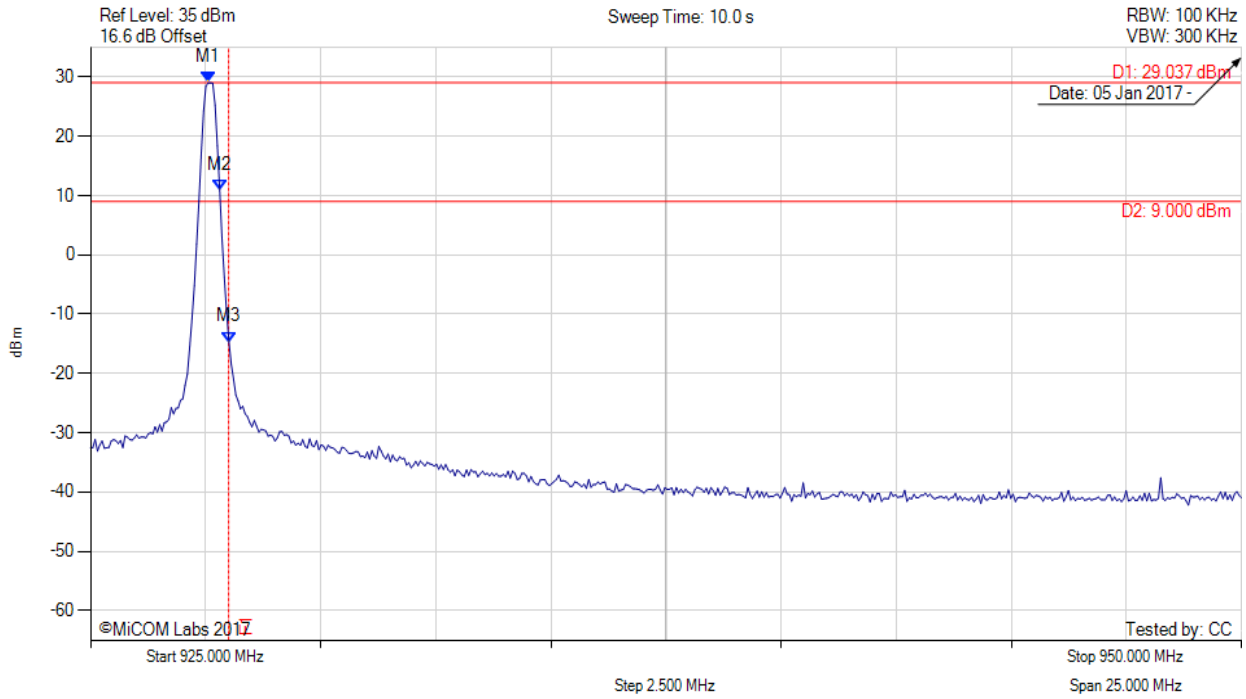
CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 150 kbps FSK, Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.555 MHz : 29.037 dBm M2 : 927.806 MHz : 10.874 dBm M3 : 928.000 MHz : -14.691 dBm	Channel Frequency: 927.60 MHz

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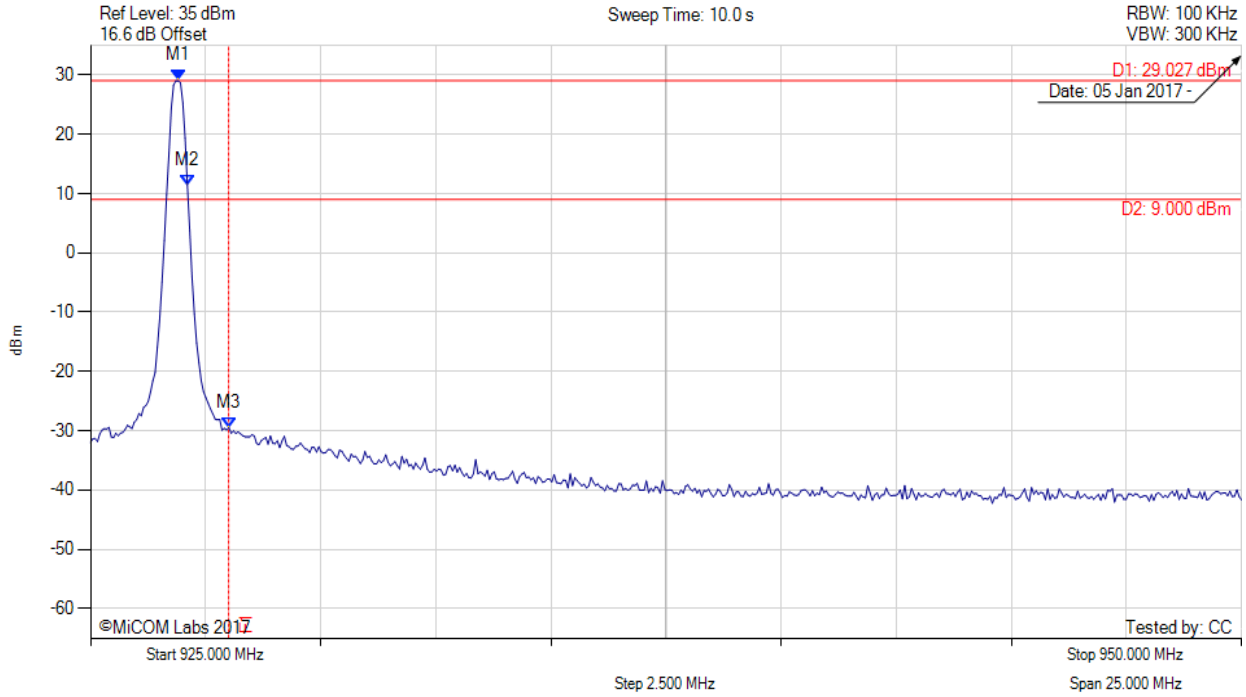
CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 150 kbps GFSK, Channel: 926.90 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 926.904 MHz : 29.027 dBm M2 : 927.104 MHz : 11.364 dBm M3 : 928.000 MHz : -29.468 dBm	Channel Frequency: 926.90 MHz

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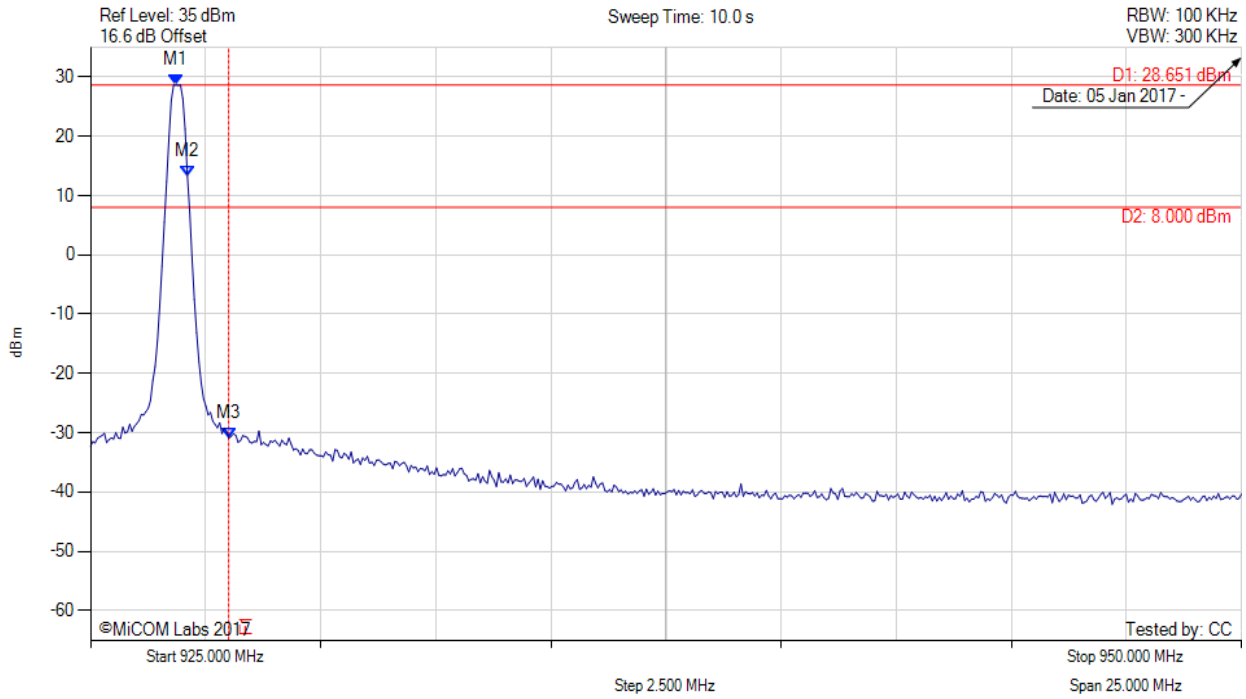
CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 200 kbps GFSK, Channel: 926.90 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 926.854 MHz : 28.651 dBm M2 : 927.104 MHz : 13.328 dBm M3 : 928.000 MHz : -30.871 dBm	Channel Frequency: 926.90 MHz

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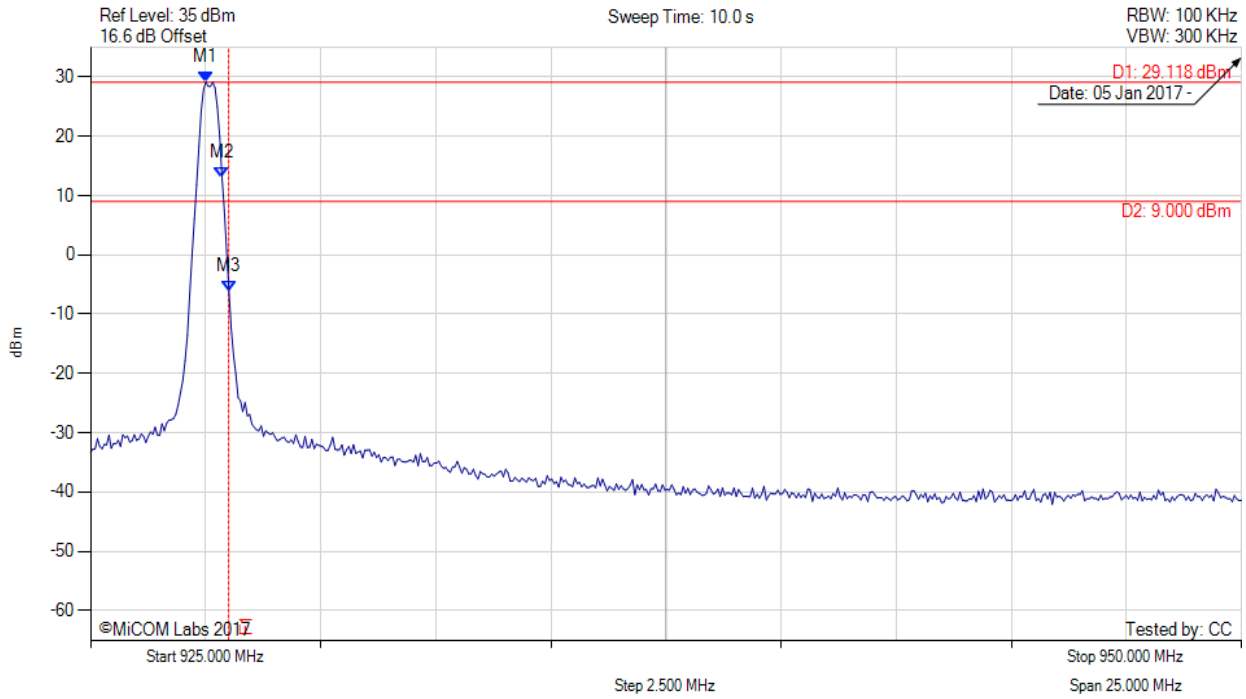
CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 300 kbps GFSK, Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.505 MHz : 29.118 dBm M2 : 927.856 MHz : 13.070 dBm M3 : 928.000 MHz : -6.153 dBm	Channel Frequency: 927.60 MHz

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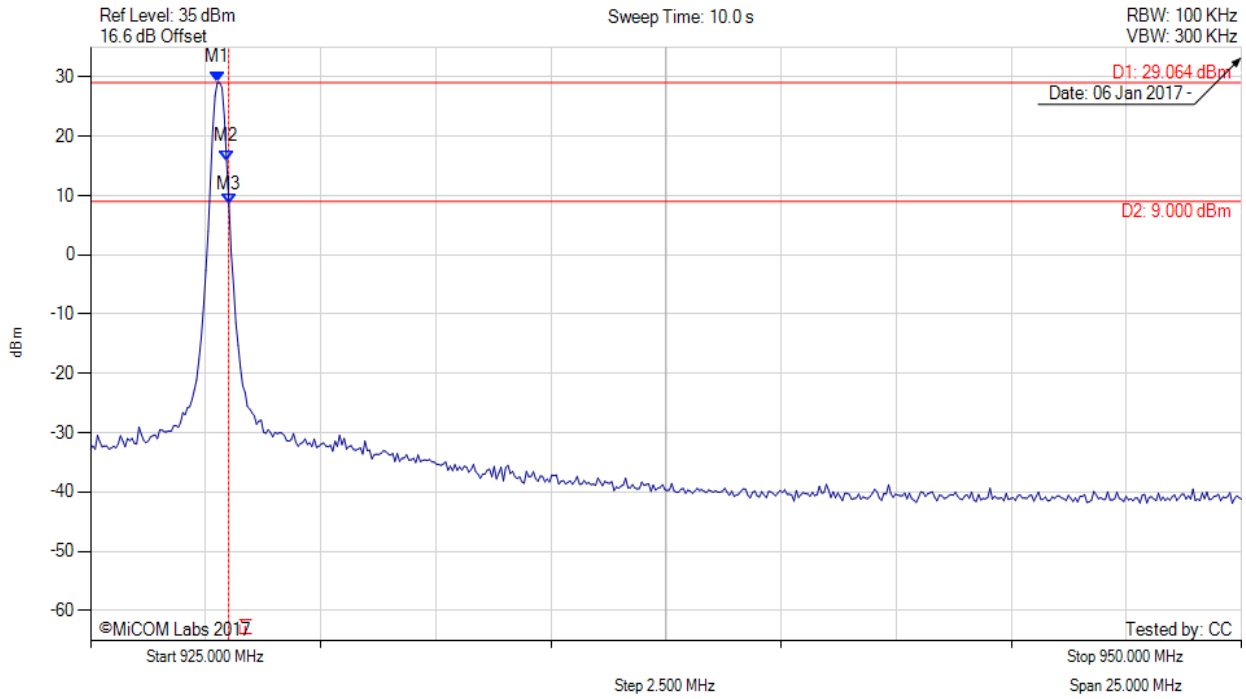
CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 50 kbps 2FSK, Channel: 927.80 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.756 MHz : 29.064 dBm M2 : 927.956 MHz : 15.736 dBm M3 : 928.000 MHz : 8.594 dBm	Channel Frequency: 927.80 MHz

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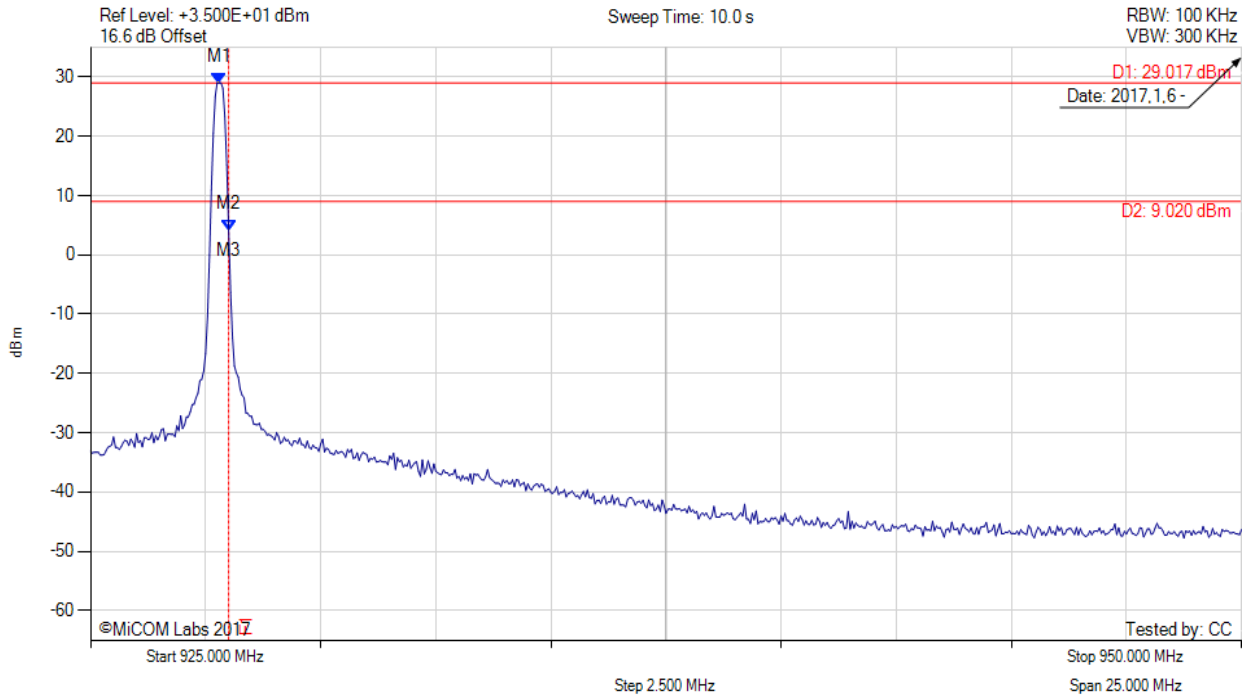
CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 6.25 kbps OQPSK, Channel: 927.80 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.790 MHz : 29.017 dBm M2 : 928.000 MHz : 4.235 dBm M3 : 928.000 MHz : 4.235 dBm	Channel Frequency: 927.80 MHz

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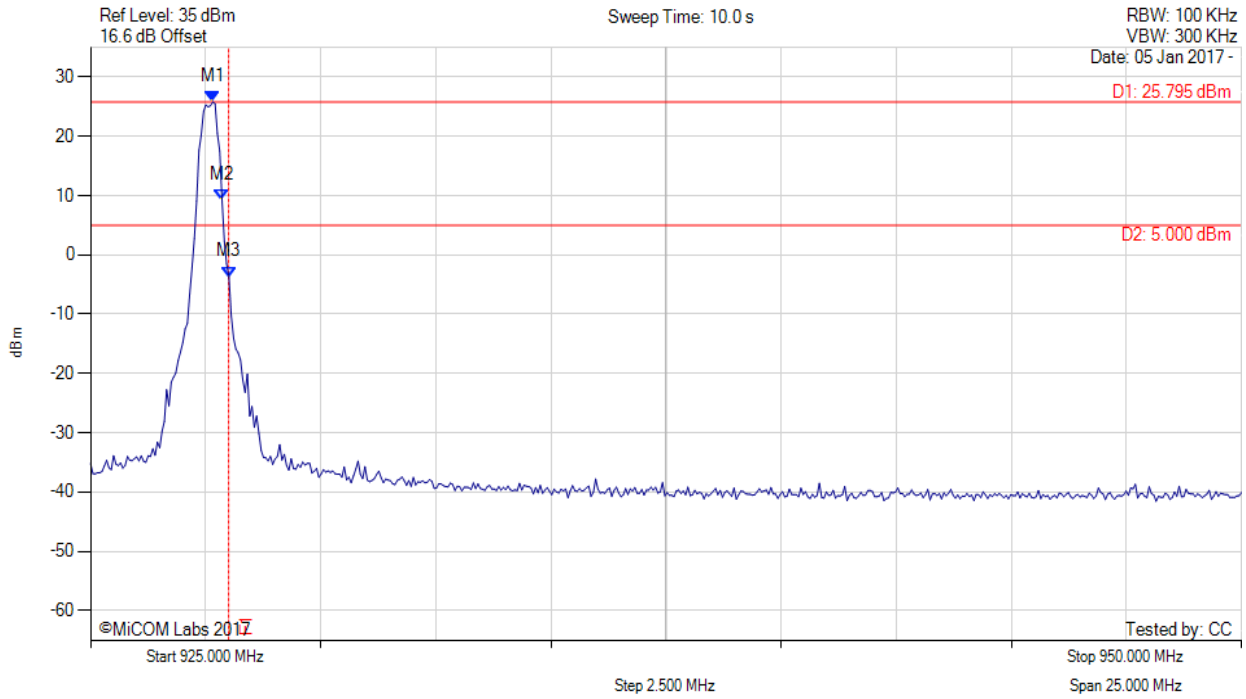
This test report may be reproduced in full only. The document may only be updated by MiCOM Labs personnel. All changes will be noted in the Document History section of the report.

CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 600 kbps OFDM, Channel: 927.60 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 927.655 MHz : 25.795 dBm M2 : 927.856 MHz : 9.363 dBm M3 : 928.000 MHz : -3.710 dBm	Channel Frequency: 927.60 MHz

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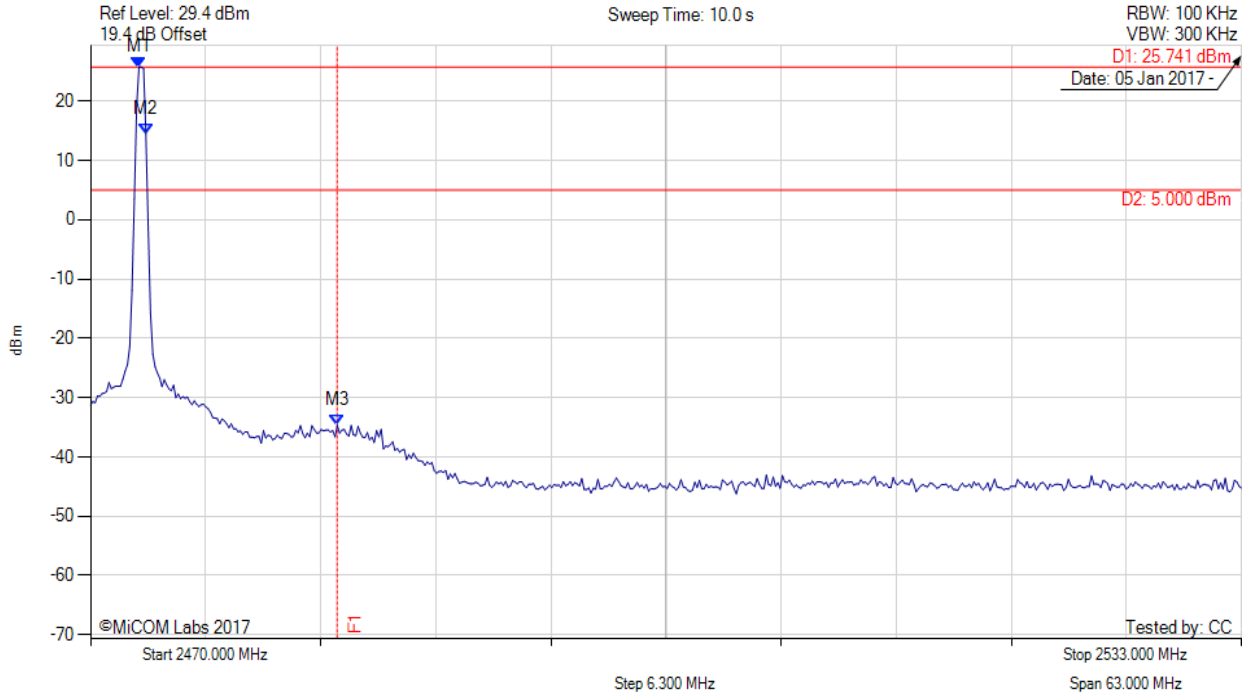
CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 300 kbps GFSK, Channel: 2472.80 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2472.651 MHz : 25.741 dBm M2 : 2473.030 MHz : 14.397 dBm M3 : 2483.500 MHz : -34.704 dBm	Channel Frequency: 2472.80 MHz

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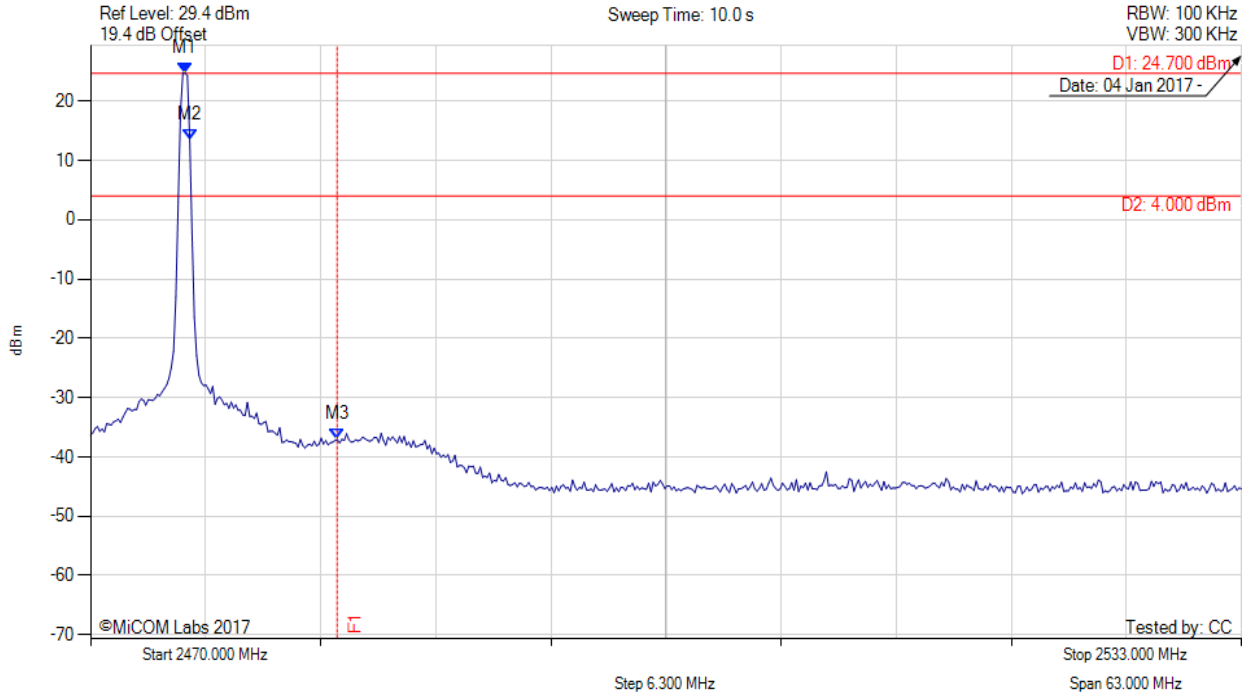
CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 300 kbps GFSK, Channel: 2475.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2475.176 MHz : 24.700 dBm M2 : 2475.429 MHz : 13.577 dBm M3 : 2483.500 MHz : -37.067 dBm	Channel Frequency: 2475.20 MHz

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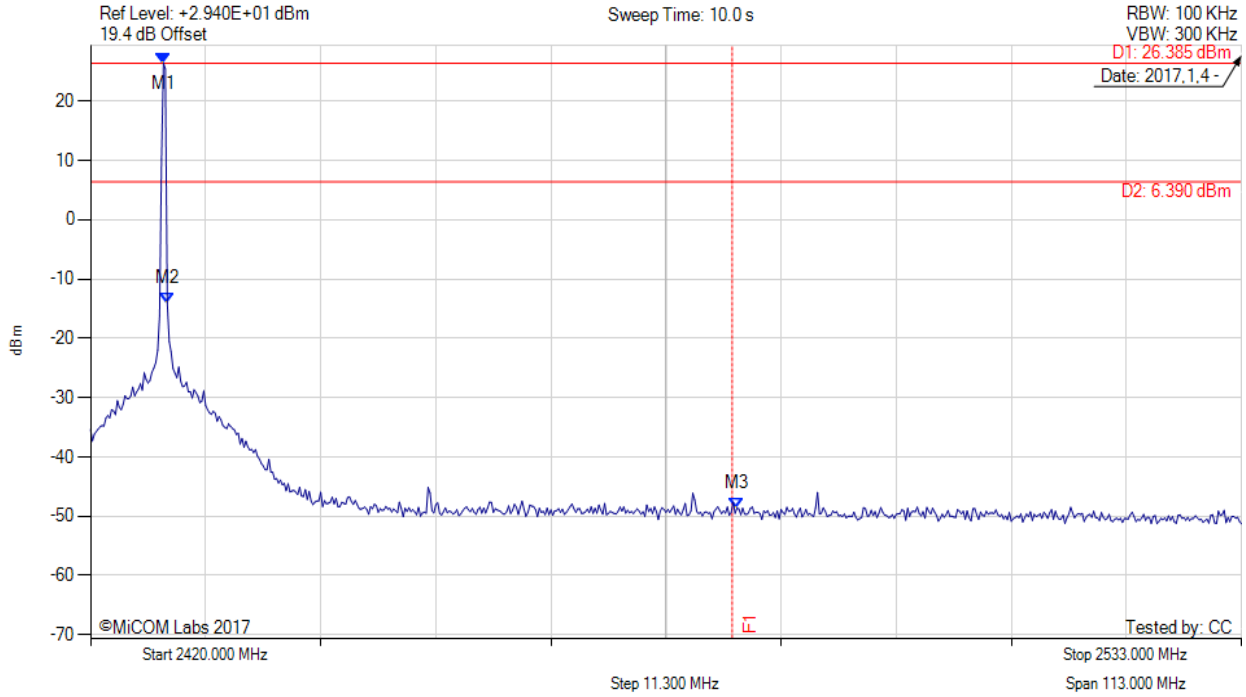
CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 50 kbps 2FSK, Channel: 2427.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2427.160 MHz : 26.385 dBm M2 : 2427.533 MHz : -14.014 dBm M3 : 2483.468 MHz : -48.669 dBm	Channel Frequency: 2427.20 MHz

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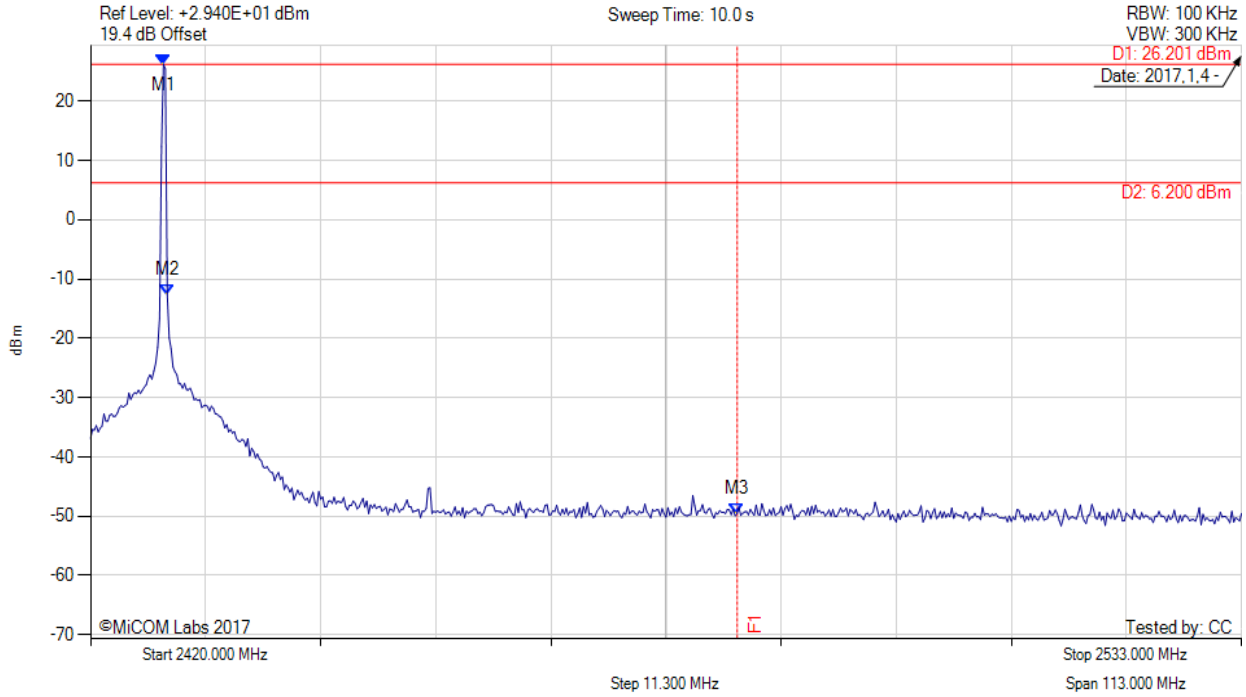
CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 6.25 kbps OQPSK, Channel: 2427.20 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = POS Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2427.160 MHz : 26.201 dBm M2 : 2427.533 MHz : -12.702 dBm M3 : 2483.468 MHz : -49.585 dBm	Channel Frequency: 2427.20 MHz

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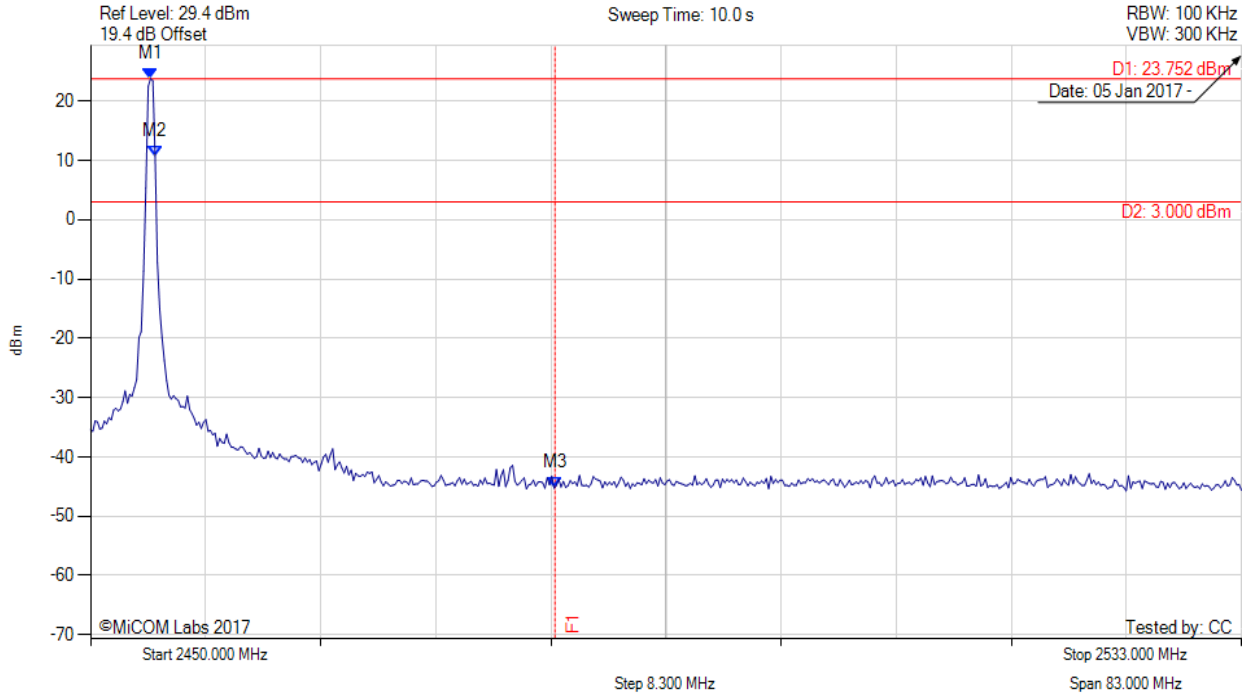
CONDUCTED UPPER BAND-EDGE EMISSIONS (STATIC) PEAK

Variant: 600 kbps OFDM, Channel: 2454.40 MHz, Chain a, Temp: 20, Voltage: 4 Vdc



Analyzer Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2454.325 MHz : 23.752 dBm M2 : 2454.657 MHz : 10.653 dBm M3 : 2483.500 MHz : -45.257 dBm	Channel Frequency: 2454.40 MHz

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