EMC TEST REPORT	
TEST REPORT NUMBER	DBN 1604TEL539-D
TEST REPORT DATE	11-Mar-2016
TEST REPORT VERSION	1.0
MANUFACTURER	Cambium Networks
PRODUCT NAME	ePMP2000
PRODUCT MODEL	C050900P031A
CONDITION OF EUT WHEN RECEIVED	GOOD and in proper working condition
ISSUED TO	Cambium Networks, 3800 Golf Road, Suite 360, Rolling Meadows, IL, USA 60008
ISSUED BY	**TARANG Lab** Wipro Technologies, SJP2, Survey#70,77,78/8A, Dodda Kanelli, Sarjapur road, Bangalore. Karnataka. India - 560 035 Tel: +91-80-30292929 Fax: +91-80-30298200 Email: tarang.planet@wipro.com Web: www.wipro.com

AMENDMENT HISTORY

Amendment Number	Amendment Date	Author of Amendment	Previous Report Version	Previous Report Date
Amendment Details				

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 TEST REPORT SUMMARY

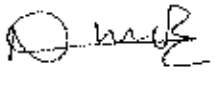
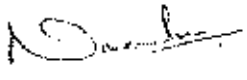
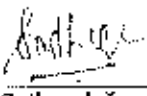
Applicant	Cambium Networks
Manufacturer	Cambium Networks
Product Name	ePMP2000
Product Model	C050900P031A
Product Serial Number	000456D18458
Date of Test	24th Jan 2016 to 15th Feb 2016
Venue of Test	Tarang Lab

Applicable Standard	Description	Results
47 CFR Part 15 Feb 2016	Duty cycle and Transmission Duration	NA
	§15.407 (a) (3)- 6 dB Bandwidth measurement	PASS
	§15.407 (a) (3)- Maximum conducted Output Power	PASS
	§15.407 (a) (3)- Power Spectral Density	PASS
	§15.247 (d)- Operating Band edge measurements	PASS
	§15.247 (d)- Radio frequency power in any 100 kHz bandwidth outside the Intentional band	PASS
	§15.407 b (3) –Transmission Unwanted emission (Conducted)	PASS

ePMP2000 was tested by Tarang Lab as per the standards that are listed in the table above. Based on the observations during the test and interpretations by Tarang lab, results have been indicated. The test results produced in this report shall apply only to the above sample that has been tested under the specific conditions and modes of testing as described in the report. Other similar equipment may not necessarily reproduce same result due to production tolerances and measurement uncertainties. Any measurement uncertainties listed in this report are for information purpose only.

The results shall stand invalid, in case there are any modifications / additions / removals to the hardware or software or end use atmosphere to the product tested. This report shall not be modified or in any way revised unless it is expressly permitted and endorsed by Tarang lab, through a duly authorized representative. Particulars on Manufacturer / Supplier / Product configuration / performance criteria, given in this report, are based on the information given by the customer, along with test request. Tarang does not assume any responsibility for the correctness of such information for the above mentioned equipment under test.

Customer acknowledges that this is a test report and not a certificate to gain market access for the product. To gain market access, Customer needs appropriate clearance from the Government or authorized agency for the target market. For markets that allow self-declaration, customer needs to follow the procedure defined by the target market.

Prepared by	Reviewed by	Approved by
		
Nishanth P C	Narendra Babu M	Satheesh I
EMI/EMC Test Engineer	**Lead EMI/EMC Test Engineer**	**Technical Manager**

2 GENERAL INFORMATION

2.1 ACCREDITATION DETAILS

Following are the accreditation and listing details for Tarang.

Accreditation / Listing body	Registration / Company / Certificate Number
NABL, India	Certificate No: T-1533, T-1534 http://www.nabl-india.org/
FCC (Federal Communications Commission)	Registration Number: 799247 http://www.fcc.gov/
IC (Industry Canada)	Company Number: 9023A-1 http://www.ic.gc.ca

2.2 MEASUREMENT UNCERTAINTY

The following measurement uncertainties are applicable to the relevant tests that are mentioned below:

Name of the test	Measurement Uncertainty
Radiated Emission from 30 MHz to 1 GHz at 3 meter	± 4.6687 dB
Radiated Emission from 1 GHz to 18 GHz at 3 meter	± 3.2297 dB
Radiated Emission from 18 GHz to 26.5 GHz at 3 meter	± 3.7832 dB
Radiated Emission from 26.5 GHz to 40 GHz at 3 meter	± 3.7962 dB
Conducted Emission from 150 kHz to 30 MHz	± 1.6160 dB

3 INSTRUMENTATION AND CALIBRATION

3.1 TEST AND MEASURING EQUIPMENT

The list of following measuring equipment used for this testing conforms to the applicable standards. Performance of all test and measuring equipment including any accessories are checked periodically to ensure accuracy.

3.2 EQUIPMENTS USED

Name of Equipment	Manufacturer	Model No	Serial No	Calibration Due
Spectrum Analyzer	Keysight Technologies	N9020A	MY54420183	31st Mar 2016
X series USB Peak and Average Power sensor	Keysight Technologies	U2021XA	MY55050001	31st Mar 2016
X series USB Peak and Average Power sensor	Keysight Technologies	U2021XA	MY54390014	31st Mar 2016
EMI Test Receiver	R&S	ESIB40	100306	21st Jan 2017

Table 1 List of Equipment used for Conducted RF Test

4 PRODUCT INFORMATION

4.1 DESCRIPTION OF THE PRODUCT

EUT is a point to point & point to multipoint fixed outdoor Transceiver with the following defined channels.

40 MHz channel for 17 dBi and 6 dBi antenna	5 MHz channel for 17 dBi and 6 dBi antenna
Low – 5750 MHz	Low – 5735 MHz
Mid - 5775 MHz	Mid – 5775 MHz
High - 5825 MHz	High – 5840 MHz

Product	ePMP2000
Model Number	C050900P031A
Serial Number	000456D18458
Product Category / Type of Equipment	ITE
EUT Operating Voltage	120 V AC / 230 V AC
EUT Operating frequency range	60 Hz / 50 Hz
Max EUT Operating Current	<1 A

Table 2 EUT details

Cable No.	Cable Name	Cable Length	Power / Interconnection cable	Shielded / Unshielded	Cable photos
Cable - 1	Power cable	0.8 meter	Power	Unshielded	Figure 9 of EMC Test Report_DBN 1604TEL539-C.pdf
Cable - 2	Ethernet Cable	1.5 meter	Interconnection	Unshielded	Figure 10 of EMC Test Report_DBN 1604TEL539-C.pdf
Cable - 3	Ethernet Cable	3.05 meter	Interconnection	Unshielded	Figure 11 of EMC Test Report_DBN 1604TEL539-C.pdf

Table 3: List of cables

4.2 SOFTWARE AND FIRMWARE DETAILS

Atheros Radio Test 2 (ART2-GUI) Version 2.3

5 TEST DETAILS

5.1 PRODUCT AND TEST SETUP

5.1.1 PRODUCT CONFIGURATION

The EUT was powered through AC power supply (120 V AC / 60 Hz). The EUT was connected to Ethernet switch by using RJ45 cable. Figure 1 shows the product configuration during the tests. POE module was used during the test to power ON the EUT.

The 5.8 GHz ePMP Integrated Radio was configured with test software and configured to have the following settings during the course of testing:

- 40 MHz modulation bandwidth for low, mid & high channels
  - Rate - HT40,
  - 54 Mbps OFDM, MCS15 / 270 Mbps
  - Tx Power is 17.5 dBm for 17 dBi antenna configuration-Low channel
  - Tx Power is 18 dBm for 17 dBi antenna configuration-Mid channel
  - Tx Power is 18 dBm for 17 dBi antenna configuration-High channel
  - Tx Power is 24 dBm for 6 dBi antenna configuration-Low channel
  - Tx Power is 29 dBm for 6 dBi antenna configuration-Mid channel
  - Tx Power is 27 dBm for 6 dBi antenna configuration-High channel
- 5 MHz modulation bandwidth for low, mid & high channels
  - Rate – Legacy,
  - 54 Mbps OFDM, MCS15 / 130 Mbps
  - Tx Power is 18 dBm for 17 dBi antenna configuration-Low channel
  - Tx Power is 18 dBm for 17 dBi antenna configuration-Mid channel
  - Tx Power is 17 dBm for 17 dBi antenna configuration-High channel
  - Tx Power is 28 dBm for 6 dBi antenna configuration-Low channel
  - Tx Power is 29 dBm for 6 dBi antenna configuration-Mid channel
  - Tx Power is 28 dBm for 6 dBi antenna configuration-High channel

The unit was continuously monitored for transmission using an auxiliary antenna during the radiated tests.

5.1.2 TEST SETUP DETAILS

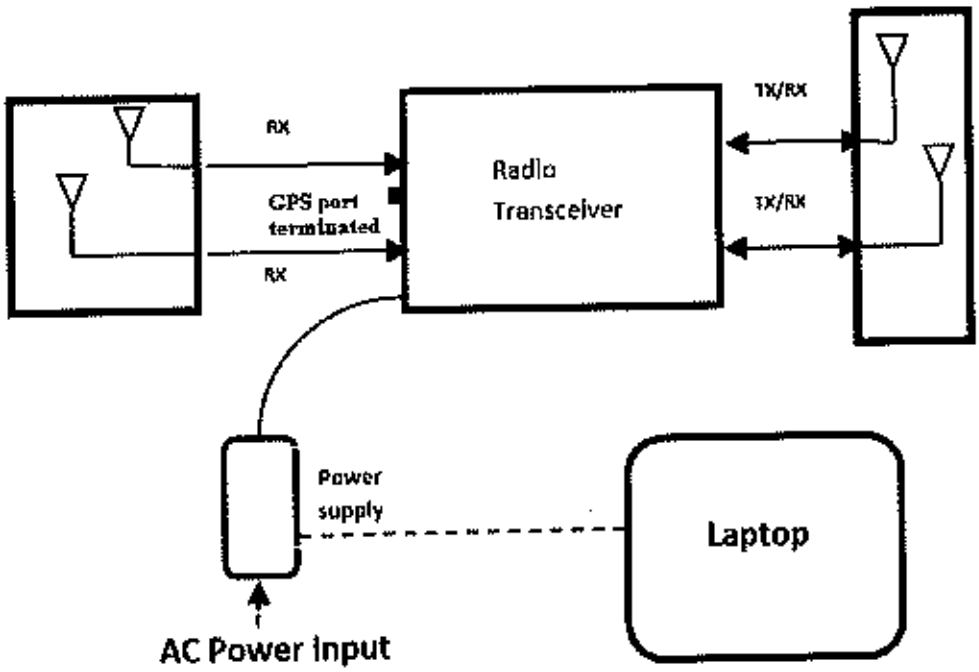


Figure 1 Block diagram of the EUT test setup

5.1.3 ACCESSORIES

Name of the Equipment	Manufacturer	Model Number	Serial Number
17 dBi Antenna Beam steer- Rx	Cambium Networks	C050900D020A	NA
17 dBi Antenna sector- Tx	Cambium Networks	C050900D021A	NA
Power Supply	Cambium Networks	NET P30 56	031-326-6719
6 dBi Antenna	Cambium Networks	C005095D360A	NA
Switching Power Supply Gigabit Compatible	Cambium Networks	NET-P30-56	N000000L034A

5.2 APPLICABLE TESTS

Applicable Standard	Description	Test level / Test Voltage	Applicability
47 CFR Part 15, Feb 2016	Duty Cycle and transmission duration	NA	Antenna port
	6 dB Bandwidth measurement	≥ 500 kHz	Antenna port
	Maximum Conducted Output Power	≤ 1 Watts	Antenna port
	Power Spectral Density	Power spectral density should be ≤ 30 dBm in 500 kHz bandwidth	Antenna port
	Operating Band edge	5725 MHz to 5850 MHz	Antenna port
	Radio frequency power in any 100 kHz bandwidth outside the Intentional band	30 dB below intentional frequency power measured in any 100 kHz bandwidth	Antenna port
	Transmitter Unwanted emission Conducted)	9 kHz to 40 GHz	Antenna port

5.3 TEST RESULT

5.3.1 DUTY CYCLE (X) AND TRANSMISSION DURATION (T)

5.3.1.1 TEST SPECIFICATION

Test Standard	47 CFR, Part 15 Feb 2016
Test Procedure	789033 D2 General U-NII Test Procedures New Rule V01r01
Resolution Bandwidth	8 MHz
Video Bandwidth	50 MHz
Sweep Time	Auto
Attenuation	Auto
Test Mode	Conducted
Detector	RMS
Input Voltage	120 V AC
Input Frequency	60 Hz
Temperature	21.0 °C
Humidity	54.0 %
Tested By	Nishanth
Test Date	24th Jan 2016

5.3.1.2 LIMITS

NA

5.3.1.3 TEST SETUP

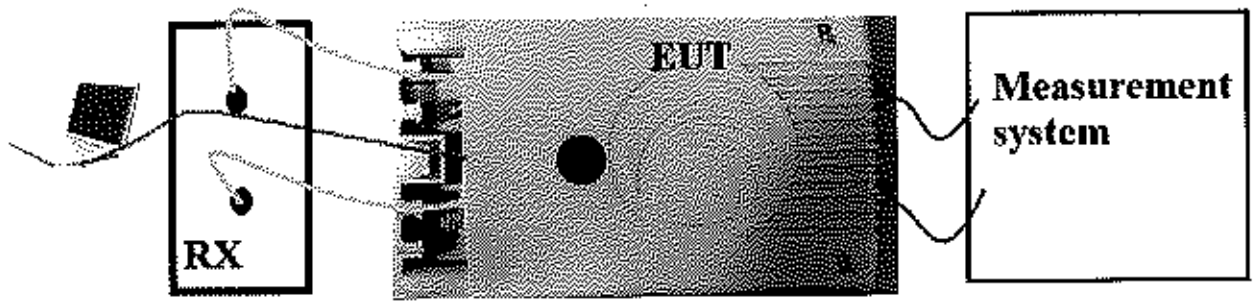


Figure 2 Typical test setup for Conducted RF Test

5.3.1.4 TEST PROCEDURE

The Conducted test was performed using the Spectrum analyzer. Measurements were done as per section II B of **"789033 D2 General U-NII Test Procedures New Rule V01r01".** The RF output of the EUT was connected to the input port of Spectrum analyzer using an attenuator. The graph and data captured from spectrum analyzer and recorded.

5.3.1.5 MEASUREMENT GRAPHS / DATA

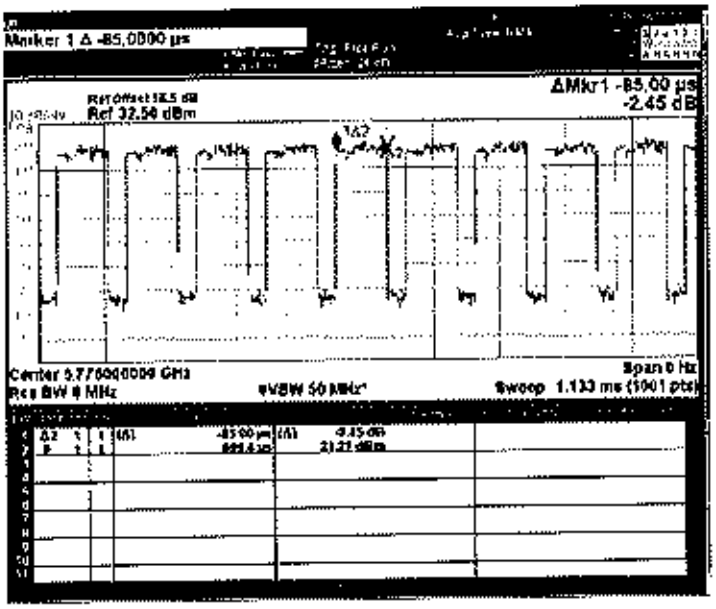


Figure 3 Measured ON time

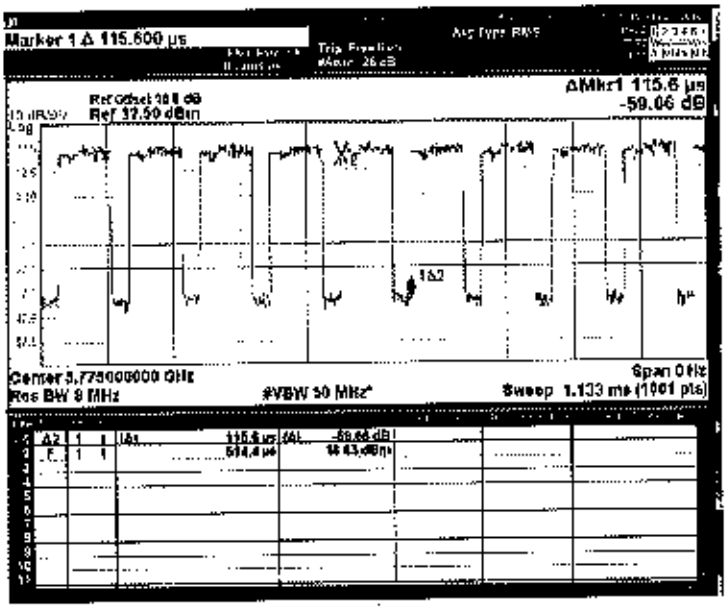


Figure 4 Measured Transmission Period (T)

5.3.1.6 RESULT

The Duty cycle and Transmission duration data were recorded.

Mode	ON time (µsec)	T (µsec)	Duty Cycle X (Linear)	Duty Cycle (%)	50/T Minimum RBW and VBW (kHz)
Tx ON	85	115.6	0.735	73.5%	432.52

*Note: Duty cycle = (ON time / Period)*100*

5.3.2 6 DB BANDWIDTH MEASUREMENT

5.3.2.1 TEST SPECIFICATION

Test Standard	47 CFR Part 15 Subpart E Feb 2016
Test Procedure	789033 D2 General U-NII Test Procedures New Rule V01r01
Resolution Bandwidth	100 kHz
Video Bandwidth	300 kHz
Sweep Time	100ms
Attenuation	Auto
Test Mode	Conducted
Detector	Peak
Input Voltage	120 V AC
Input Frequency	60 Hz
Temperature	21.0 °C
Humidity	54.0 %
Tested By	Nishanth/Suresh GN
Test Date	24th Jan 2016

5.3.2.2 LIMITS

Standard	Reference section	Frequency range	Limit (min. 6 dB Bandwidth)
47 CFR Part 15, Subpart E Feb 2016	§15.407 (a) (3)	5725 MHz to 5850 MHz	≥ 500 kHz

5.3.2.3 TEST SETUP

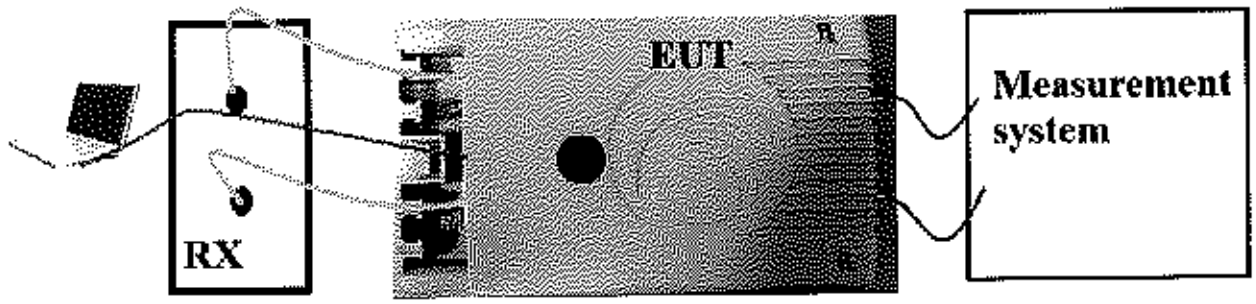


Figure 5 Typical test setup for Conducted RF Test

5.3.2.4 TEST PROCEDURE

The Conducted test was performed using the Spectrum analyzer. Measurements were done as per the "**789033 D2 General U-NII Test Procedures New Rule V01r01**". The RF output of the EUT was connected to the input port of Spectrum analyzer using an attenuator. The graph and data captured from spectrum analyzer and recorded.

5.3.2.5 MEASUREMENT GRAPHS / DATA

5.3.2.5.1 40 MHz MODULATION BANDWIDTH FOR 17 dBi POWER SETTINGS

LOW CHANNEL_5750 MHz

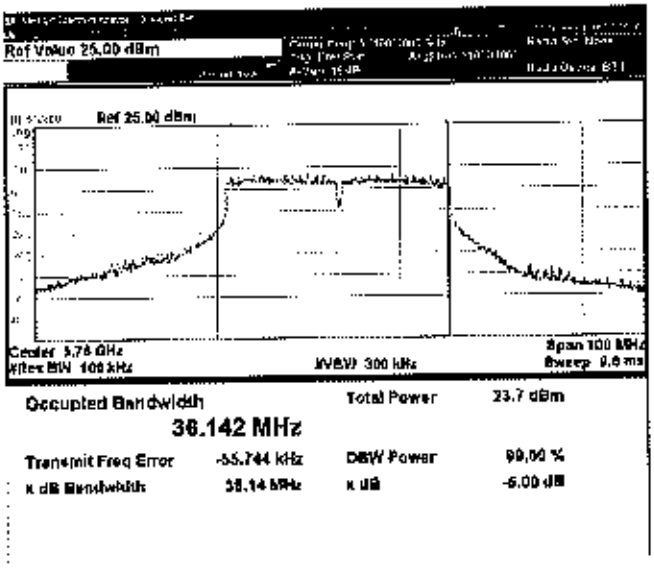


Figure 6 6dB Bandwidth measured at Ch.0

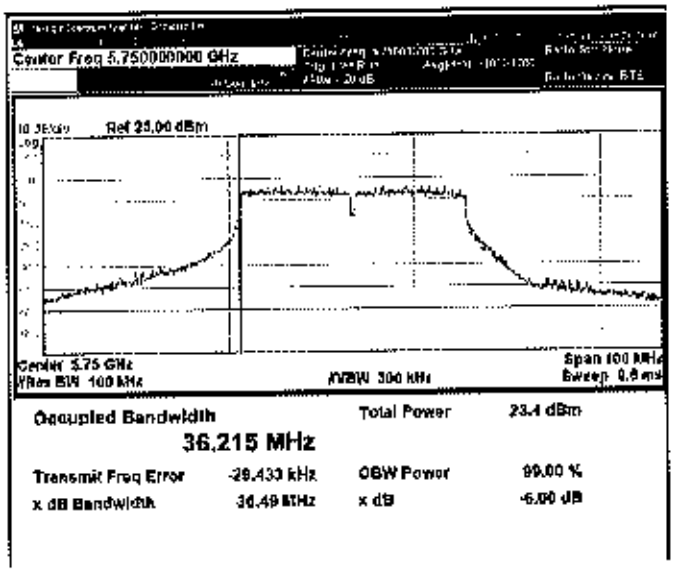


Figure 7 6dB Bandwidth measured at Ch.1

MID CHANNEL 5775 MHZ

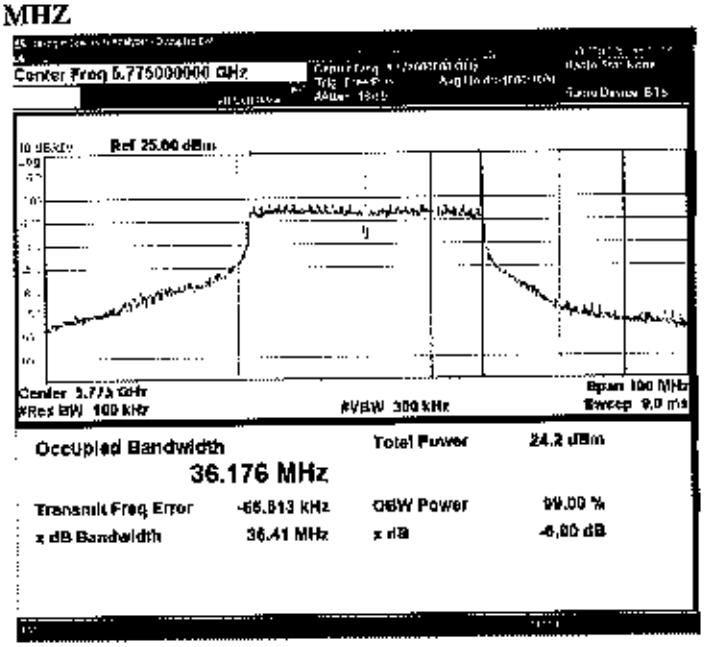


Figure 8 6 dB Bandwidth measured at Ch.0

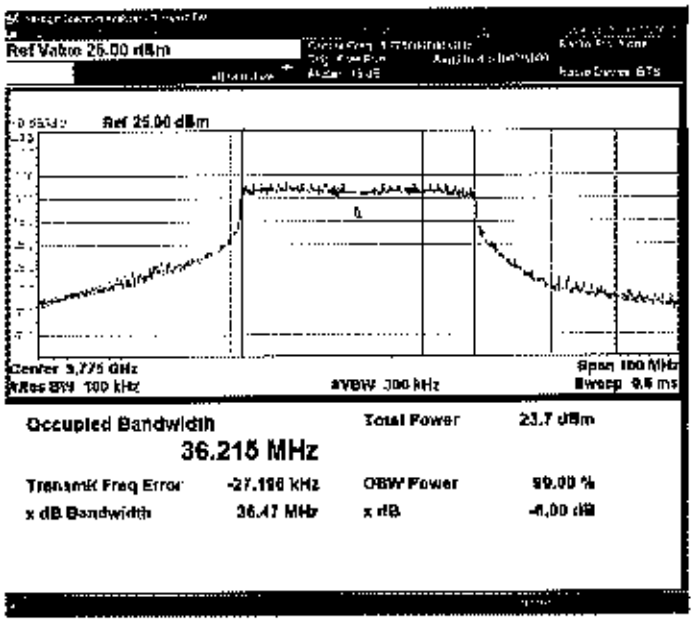


Figure 9 6 dB Bandwidth measured nt Ch.1

HIGH CHANNEL_5825 MHZ

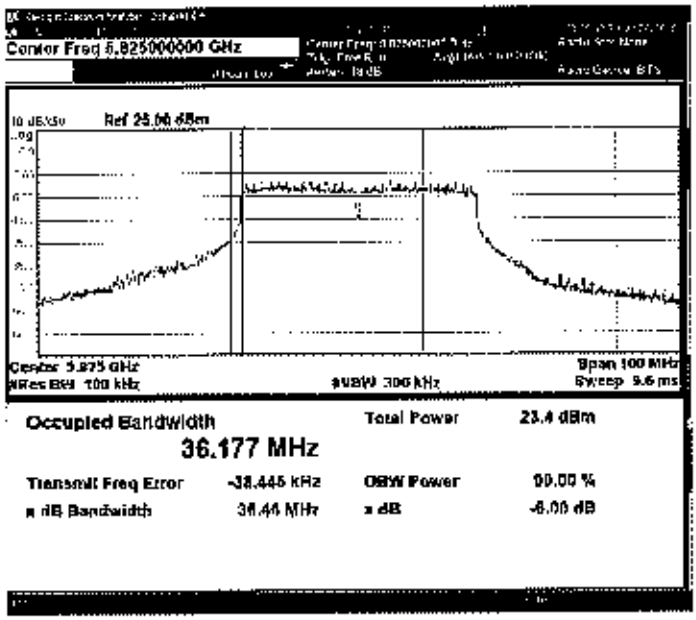


Figure 10 6 dB Bandwidth measured at Ch.0

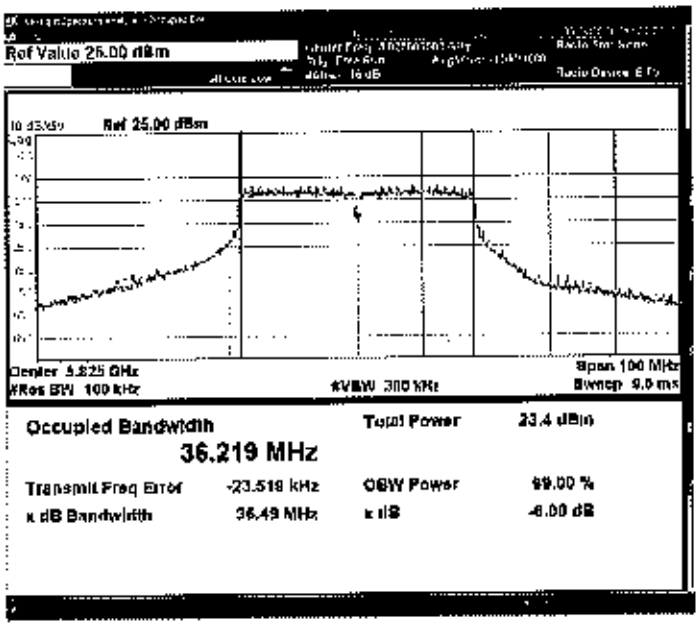


Figure 11 6 dB Bandwidth measured at Ch.1

5.3.2.5.2 40 MHz MODULATION BANDWIDTH FOR 6 dBi POWER SETTINGS LOW CHANNEL_5750 MHz

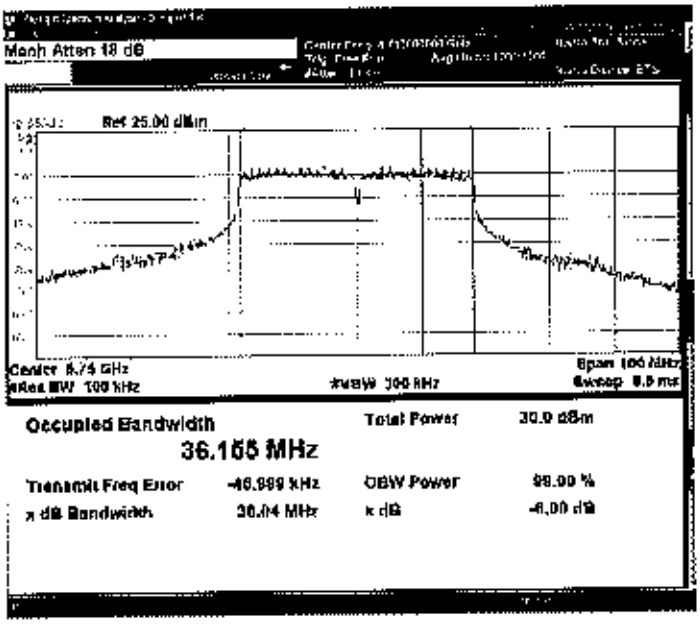


Figure 12 6 dB Bandwidth measured at Ch.0

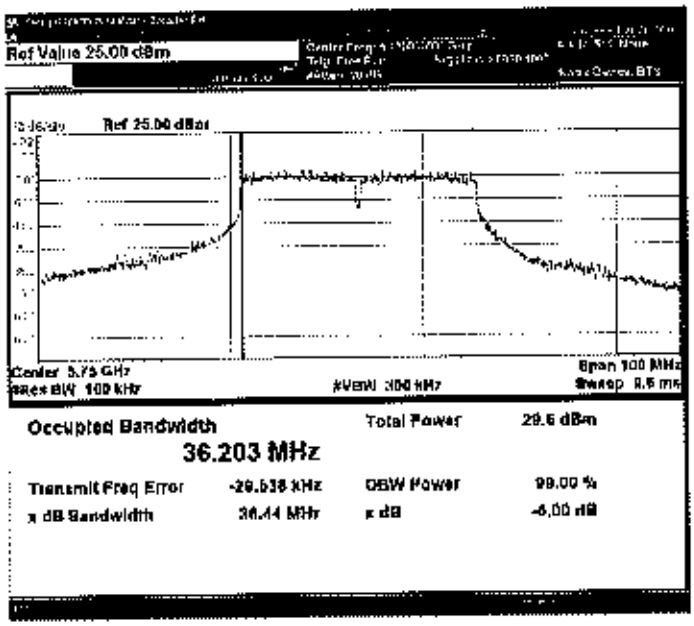


Figure 13 6 dB Bandwidth measured at Ch.1

MID CHANNEL_5775 MHz

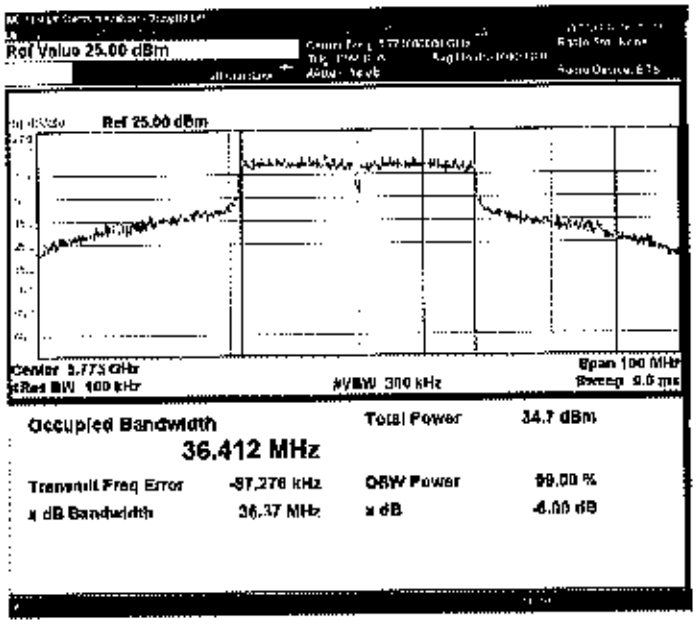


Figure 14 6 dB Bandwidth measured at Ch.0

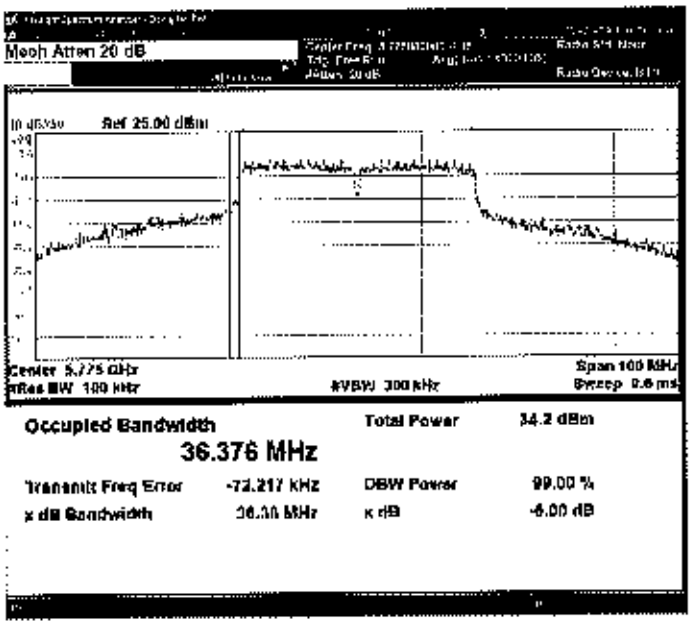


Figure 15 6 dB Bandwidth measured at Ch.1

HIGH CHANNEL_5825 MHz

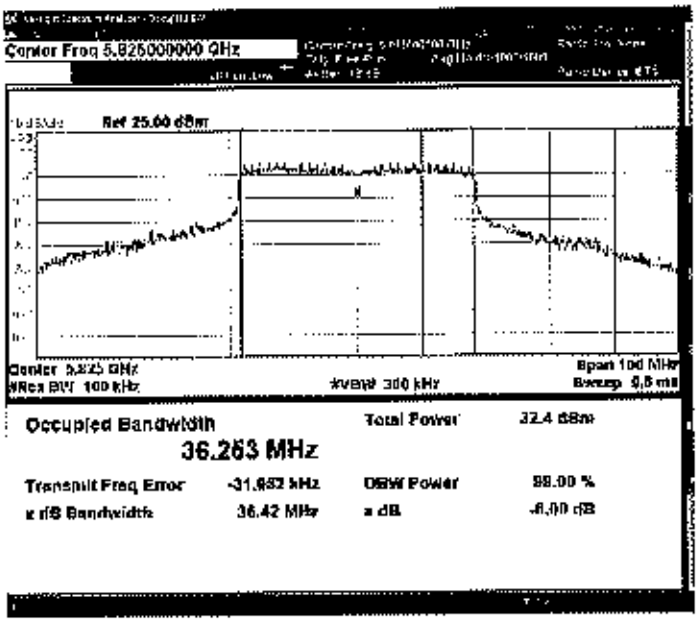


Figure 16 6 dB Bandwidth measured at Ch.0

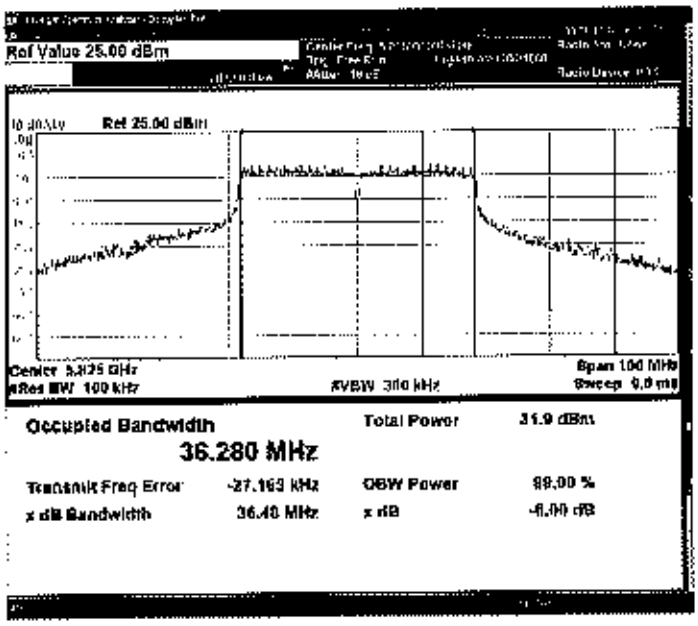


Figure 17 6 dB Bandwidth measured at Ch.1

5.3.2.5.3 5 MHz MODULATION BANDWIDTH FOR 17 dBi POWER SETTINGS LOW CHANNEL_5735 MHz

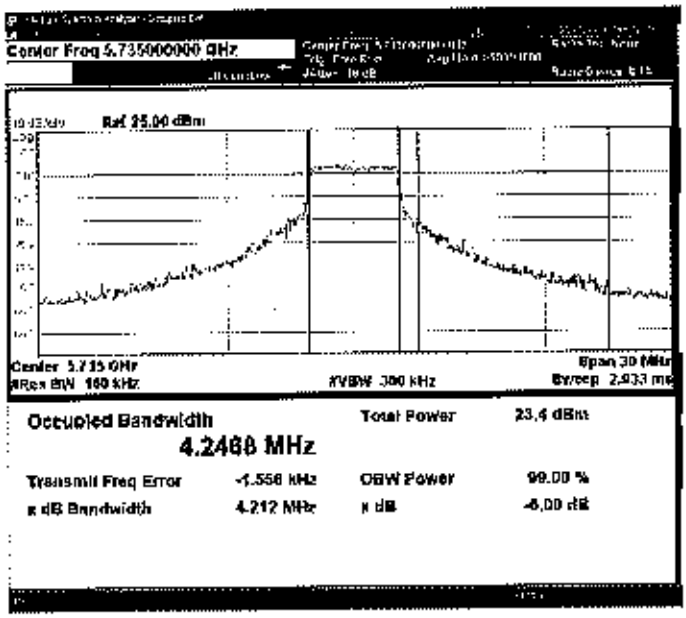


Figure 18 6 dB Bandwidth measured at Ch.0

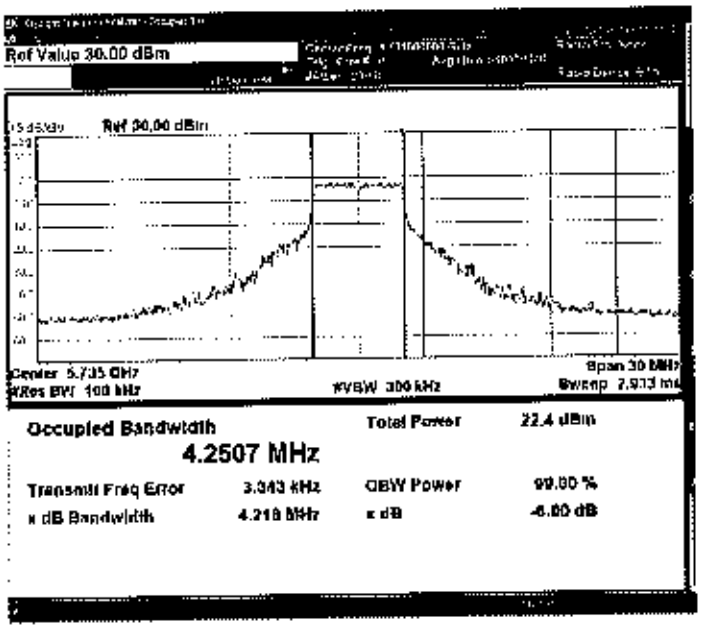


Figure 19 6 dB Bandwidth measured at Ch.1

MID CHANNEL_5775 MHz

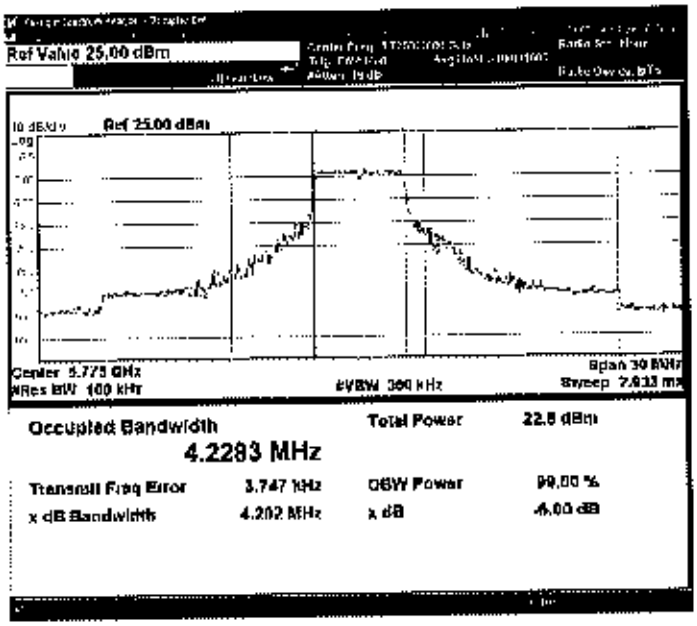


Figure 20 6 dB Bandwidth measured at Ch.0

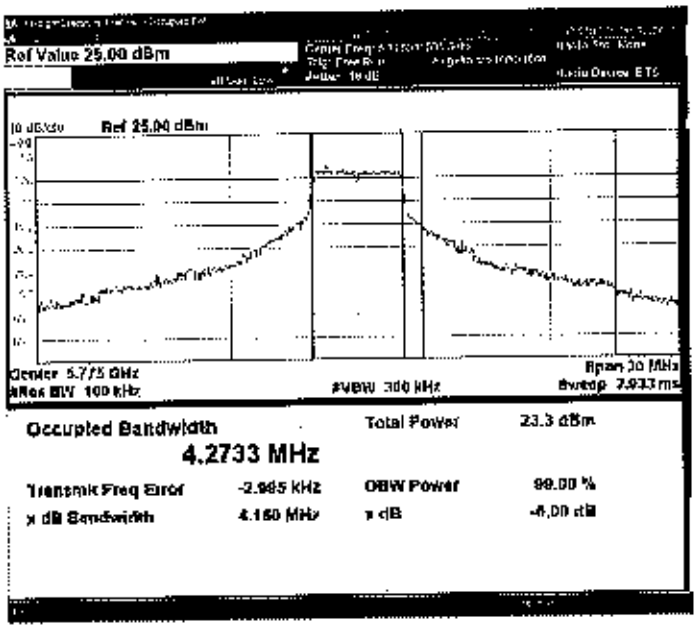


Figure 21 6 dB Bandwidth measured at Ch.1

HIGH CHANNEL_5840 MHz

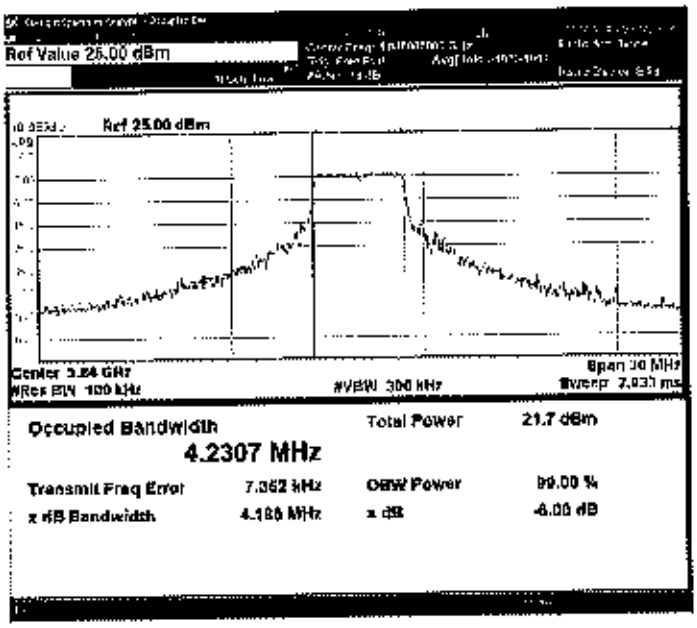


Figure 22 6 dB Bandwidth measured at Ch.0

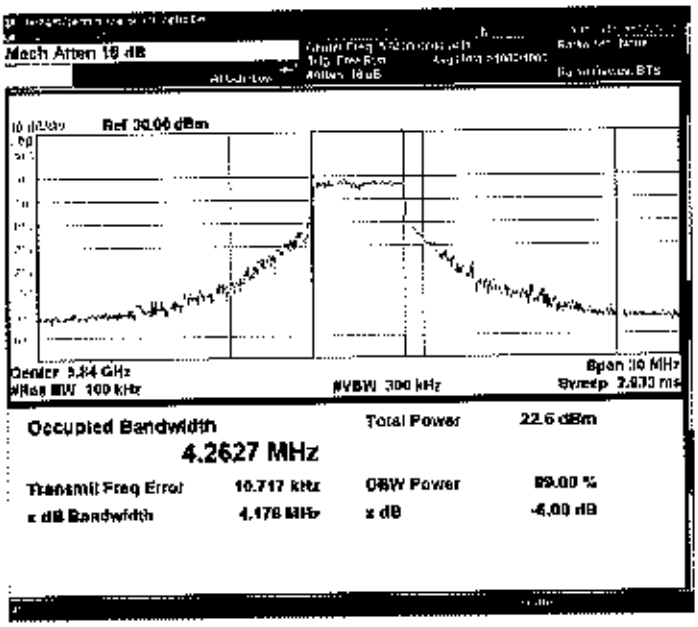


Figure 23 6 dB Bandwidth measured at Ch.1

5.3.2.5.4 5 MHz MODULATION BANDWIDTH FOR 6 dBi POWER SETTINGS LOW CHANNEL_5735 MHz

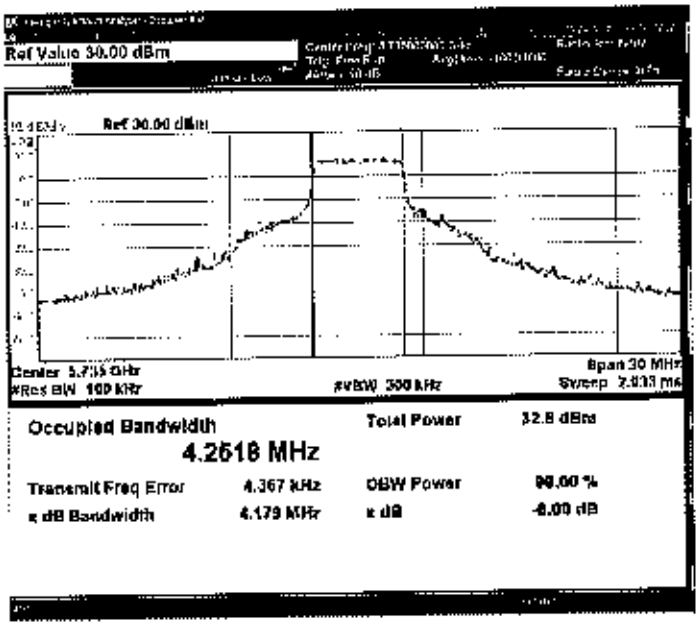


Figure 24 6 dB Bandwidth measured at Ch.0

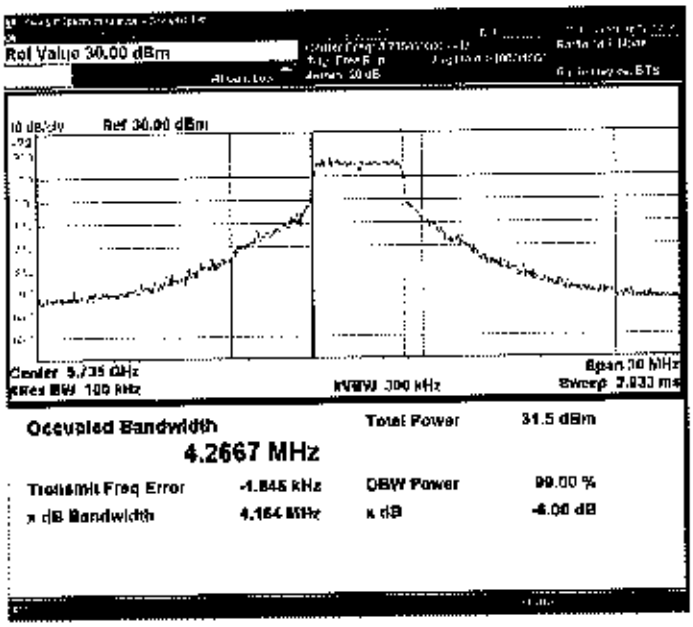


Figure 25 6 dB Bandwidth measured at Ch.1

MID CHANNEL_5775 MHz

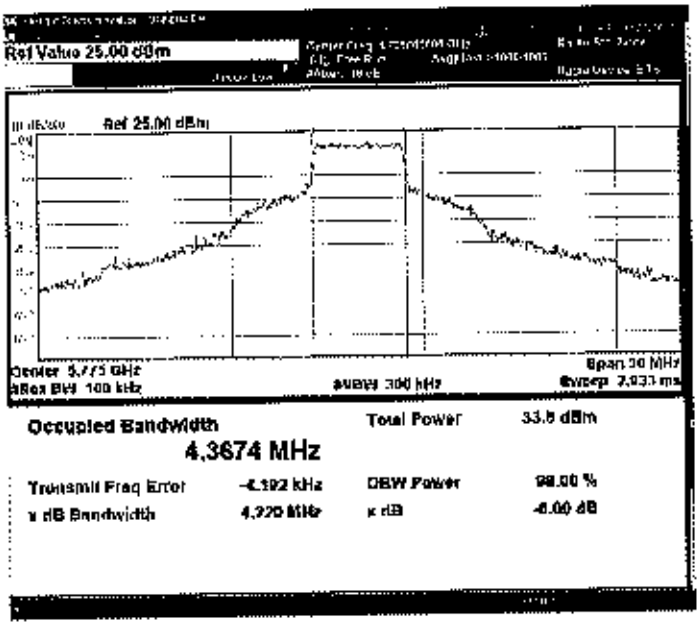


Figure 26 6 dB Bandwidth measured at Ch.0

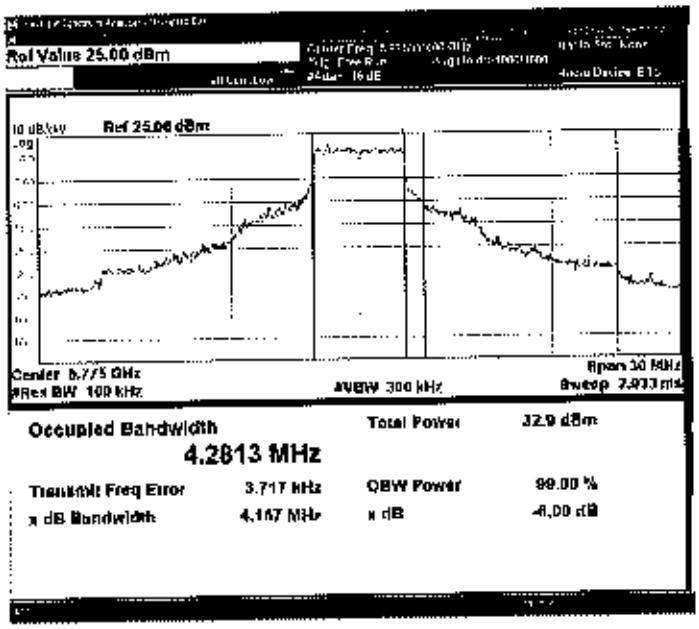


Figure 27 6 dB Bandwidth measured at Ch.1

HIGH CHANNEL_5840 MHz

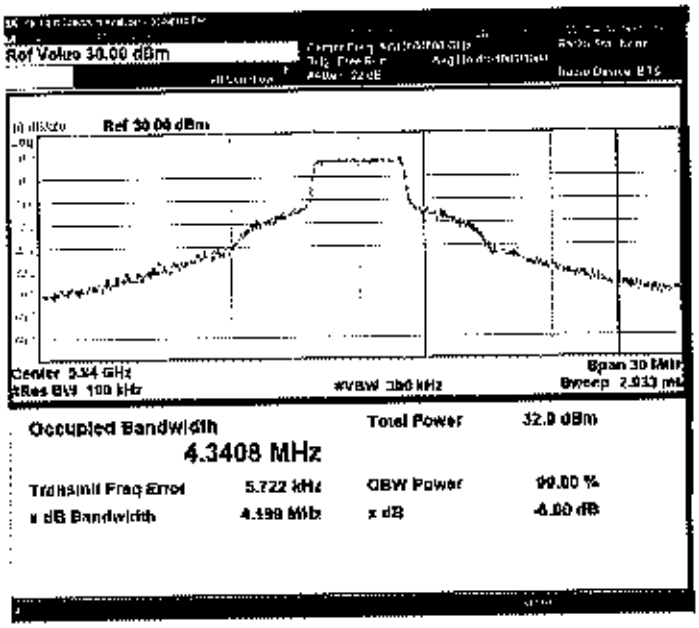


Figure 28 6 dB Bandwidth measured at Ch.0

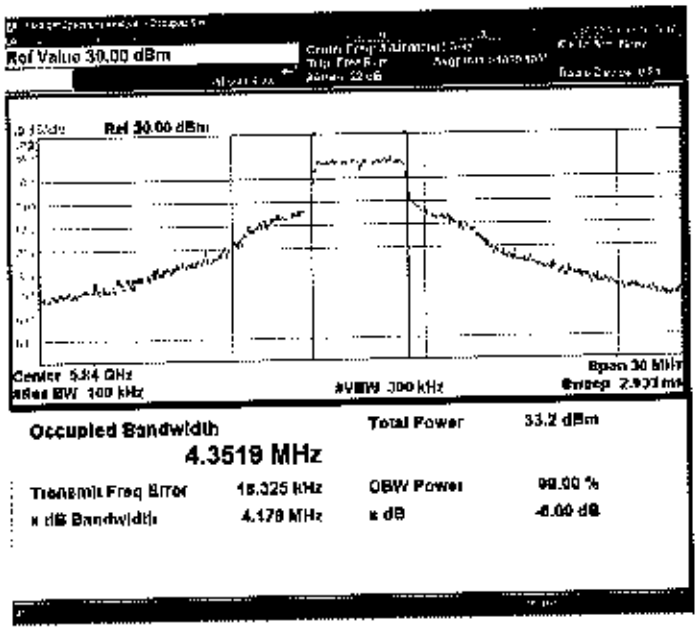


Figure 29 6 dB Bandwidth measured at Ch.1

5.3.2.6 RESULT

The 6 dB bandwidth for all channels in both 40 MHz & 5 MHz modulation bandwidth is more than 500 kHz. Refer below table for consolidated data.

Configuration	Modulation Bandwidth (MHz)	Antenna path	Channel Frequency (MHz)	Recorded value (MHz)	Limit (kHz)	Result
17 dBi	40	Ch. 0	5750	36.14	≥ 500	Pass
	40	Ch. 0	5775	36.41	≥ 500	Pass
	40	Ch. 0	5825	36.46	≥ 500	Pass
	40	Ch. 1	5750	36.49	≥ 500	Pass
	40	Ch. 1	5775	36.47	≥ 500	Pass
	40	Ch. 1	5825	36.49	≥ 500	Pass
	5	Ch. 0	5735	4.212	≥ 500	Pass
	5	Ch. 0	5775	4.202	≥ 500	Pass
	5	Ch. 0	5840	4.186	≥ 500	Pass
	5	Ch. 1	5735	4.210	≥ 500	Pass
	5	Ch. 1	5775	4.160	≥ 500	Pass
	5	Ch. 1	5840	4.178	≥ 500	Pass
6 dBi	40	Ch. 0	5750	36.04	≥ 500	Pass
	40	Ch. 0	5775	36.37	≥ 500	Pass
	40	Ch. 0	5825	36.42	≥ 500	Pass
	40	Ch. 1	5750	36.44	≥ 500	Pass
	40	Ch. 1	5775	36.38	≥ 500	Pass
	40	Ch. 1	5825	36.48	≥ 500	Pass
	5	Ch. 0	5735	4.179	≥ 500	Pass
	5	Ch. 0	5775	4.220	≥ 500	Pass
	5	Ch. 0	5840	4.199	≥ 500	Pass
	5	Ch. 1	5735	4.164	≥ 500	Pass
	5	Ch. 1	5775	4.167	≥ 500	Pass
	5	Ch. 1	5840	4.178	≥ 500	Pass

Table 4 Result for 6 dB Bandwidth in both 40 MHz and 5 MHz modulation bandwidth

5.3.3 MAXIMUM CONDUCTED OUTPUT POWER

5.3.3.1 TEST SPECIFICATION

Test Standard	47 CFR Part 15 Subpart E Feb 2016
Test Procedure	789033 D2 General U-NII Test Procedures New Rule V01r01
Test Mode	Conducted
Detector	Average
Input Voltage	120 V AC
Input Frequency	60 Hz
Temperature	21.0 °C
Humidity	54.0 %
Tested By	Nishanth / Suresh GN
Test Date	24th Jan 2016

5.3.3.2 LIMITS

Standard	Reference section	Frequency range	Limit
47 CFR Part 15 Subpart E Feb 2016	§15.407 (a)3 905462 D0 6802.11 Channel plans New rules v01	5725 MHz to 5850 MHz	Max conducted Tx power ≤ 30 dBm (1W) Max Limit (for 6 dBi antenna configuration) : ≤ 30 dBm Max Limit (for 17 dBi antenna) : ≤ 19 dBm

5.3.3.3 TEST SETUP

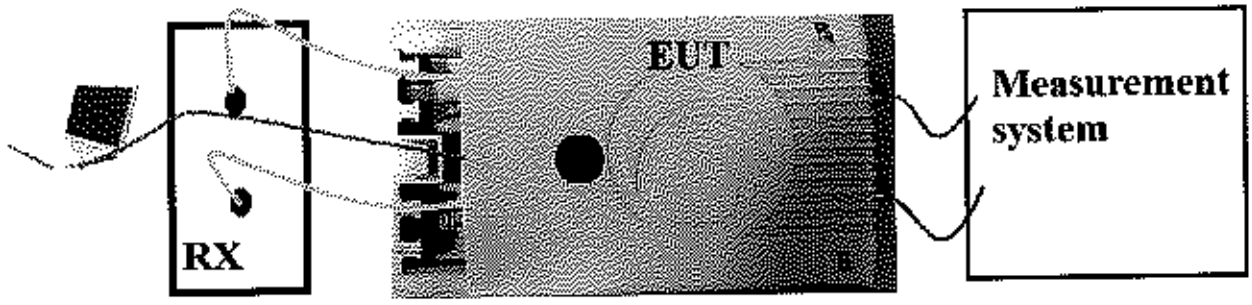


Figure 30 Typical test setup for Conducted RF Test

5.3.3.4 TEST PROCEDURE

The Conducted test was performed using the power meter. Measurements were done as per Section II E 3.b (Method PM-G) of KDB **"789033 D02 General UNII Test Procedures New Rules v01r01".** The RF output of the EUT was connected to the input port of Power meter using an attenuator. The graph and data captured from power meter and compared with the limits specified in the standard.

5.3.3.5 MEASUREMENT GRAPHS / DATA

5.3.3.5.1 40 MHz MODULATION BANDWIDTH FOR 17 dBi POWER SETTINGS

LOW CHANNEL_5750 MHz

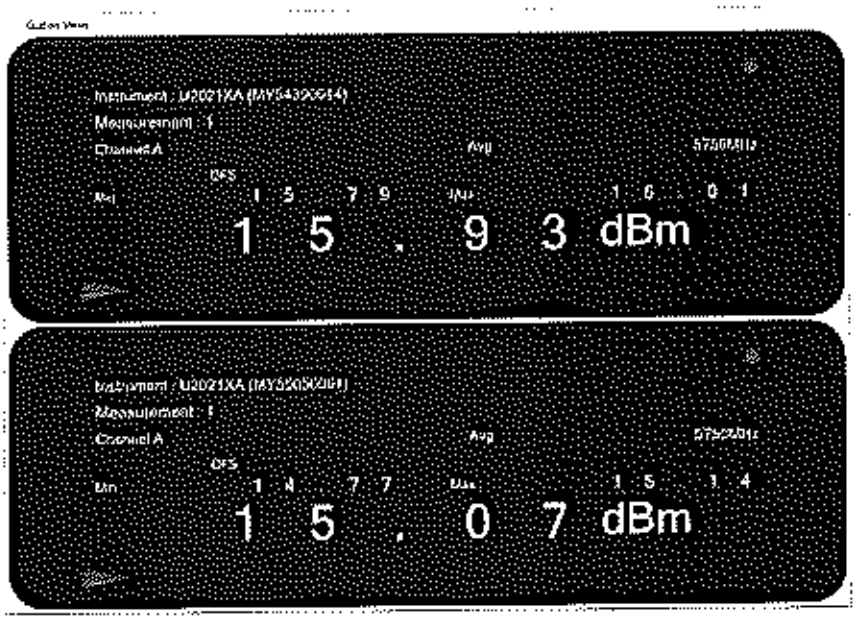


Figure 31 Maximum Conducted Output power measured at Ch.0 & Ch.1

MID CHANNEL_5775 MHz

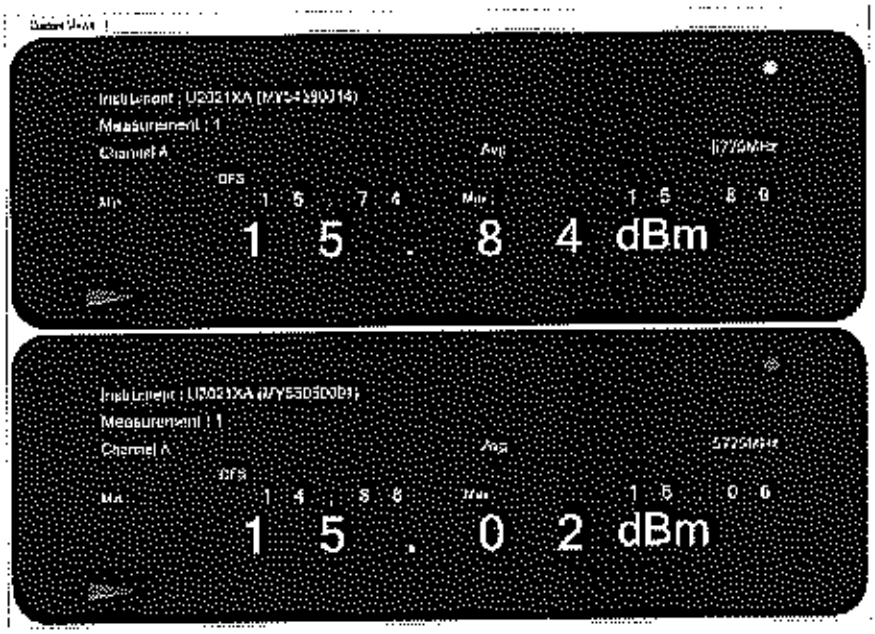


Figure 32 Maximum Conducted Output power measured at Ch.0 & Ch.1

HIGH CHANNEL_5825 MHz

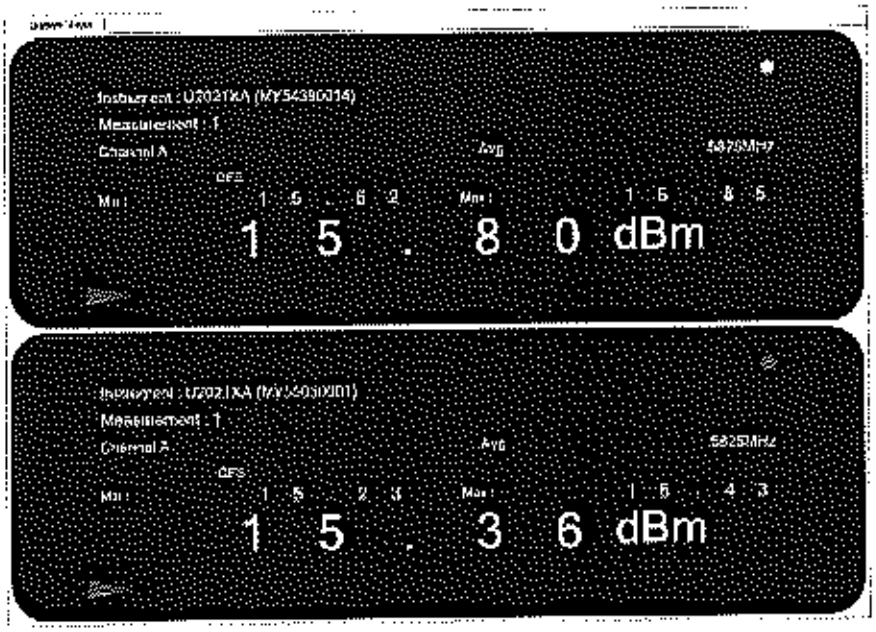


Figure 33 Maximum Conducted Output power mensured at Ch.0 & Ch.1

5.3.3.5.2 40 MHz MODULATION BANDWIDTH FOR 6 dBi ANTENNA CONDITION

LOW CHANNEL_5750 MHz

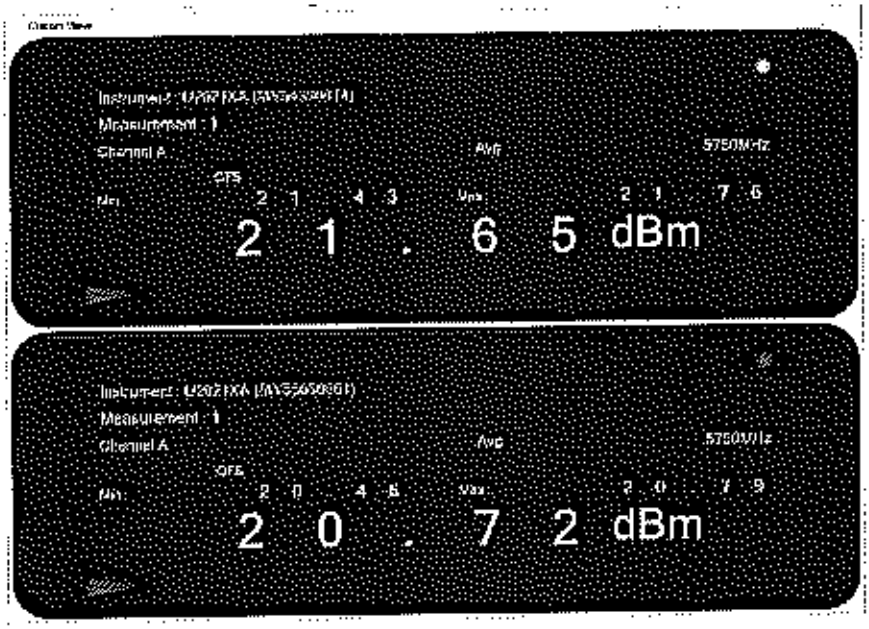


Figure 34 Maximum Conducted Output power measured at Ch.0 & Ch.1

MID CHANNEL_5775 MHz

Figure 35 Maximum Conducted Output power measured at Ch.0 & Ch.1

HIGH CHANNEL_5825 MHz

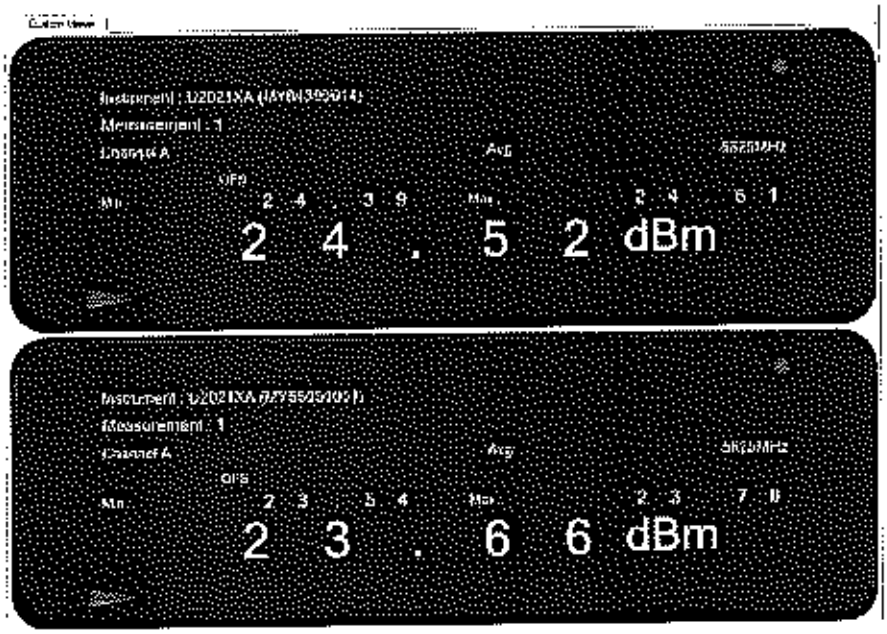


Figure 36 Maximum Conducted Output power measured at Ch.0 & Ch.1

5.3.3.5.3 5 MHz MODULATION BANDWIDTH FOR 17 dBi ANTENNA CONDITION

LOW CHANNEL_5735 MHz

Figure 37 Maximum Conducted Output power measured at Ch.0 & Ch.1

MID CHANNEL_5775 MHz

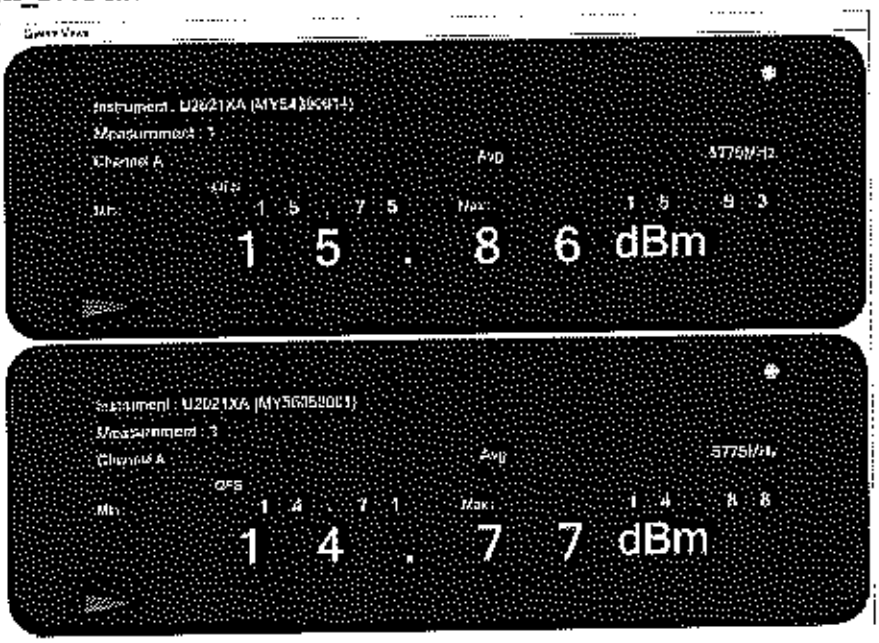


Figure 38 Maximum Conducted Output power measured at Ch.0 & Ch.1

HIGH CHANNEL_5840 MHz

Figure 39 Maximum Conducted Output power measured at Ch.0 & Ch.1

5.3.3.5.4 5 MHZ MODULATION BANDWIDTH FOR 6 DBI ANTENNA CONDITION

LOW CHANNEL_5735 MHz

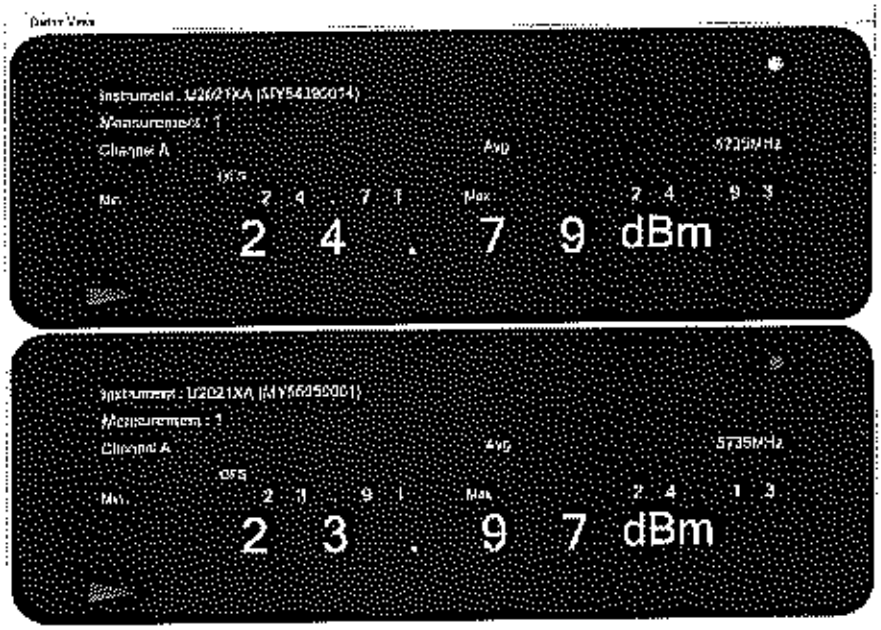


Figure 40 Maximum Conducted Output power measured at Ch.0 & Ch.1

MID CHANNEL_5775 MHz

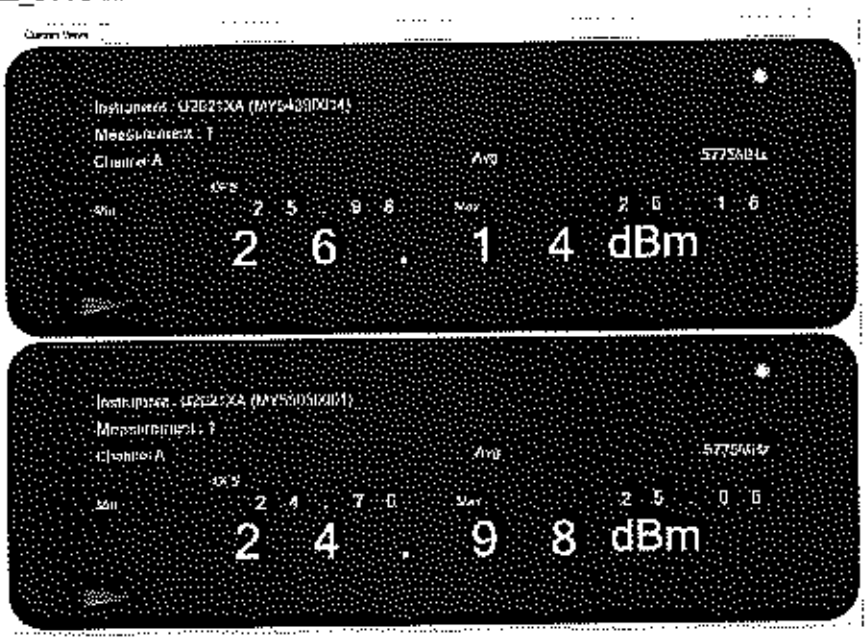


Figure 41 Maximum Conducted Output power measured at Ch.0 & Ch.1

HIGH CHANNEL_5840 MHz

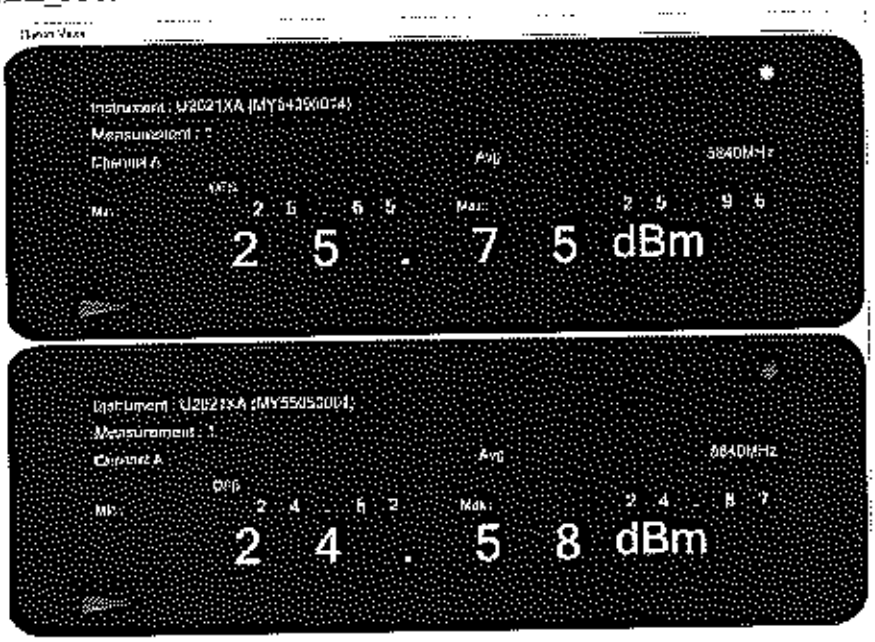


Figure 42 Maximum Conducted Output power measured at Ch.0 & Ch.1

5.3.3.6 RESULT

Maximum Conducted Output Power for all channels in both 40 MHz & 5 MHz modulation bandwidth is within the specified limits. Refer below table for consolidated data.

USING 17 DBI ANTENNA

Modulation Bandwidth (MHz)	Antenna path	Channel Frequency (MHz)	Recorded value (dBm)
40	Ch. 0	5750	15.93
40	Ch. 0	5775	15.84
40	Ch. 0	5825	15.80
40	Ch. 1	5750	15.07
40	Ch. 1	5775	15.02
40	Ch. 1	5825	15.36
5	Ch. 0	5735	15.52
5	Ch. 0	5775	15.86
5	Ch. 0	5840	14.78
5	Ch. 1	5735	14.74
5	Ch. 1	5775	14.77
5	Ch. 1	5840	14.45

Table 5 Max RF out power for 17 dBi configuration

Modulation Bandwidth (MHz)	Antenna path	Channel Frequency (MHz)	Consolidated Power (dBm)	Limit (dBm)	Result
40	Ch. 0 & Ch. 1	5750	18.53	19	PASS
40	Ch. 0 & Ch. 1	5775	18.45	19	PASS
40	Ch. 0 & Ch. 1	5825	18.43	19	PASS
5	Ch. 0 & Ch. 1	5735	18.15	19	PASS
5	Ch. 0 & Ch. 1	5775	18.35	19	PASS
5	Ch. 0 & Ch. 1	5840	17.62	19	PASS

Table 6 Consolidated values across channels and final power for 17 dBi configuration

USING 6 dBi ANTENNA CONDITION

Modulation Bandwidth (MHz)	Antenna path	Channel Frequency (MHz)	Recorded value (dBm)
40	Ch. 0	5750	21.65
40	Ch. 0	5775	25.78
40	Ch. 0	5825	24.52
40	Ch. 1	5750	20.72
40	Ch. 1	5775	24.87
40	Ch. 1	5825	23.66
5	Ch. 0	5735	24.79
5	Ch. 0	5775	26.14
5	Ch. 0	5840	25.75
5	Ch. 1	5735	23.97
5	Ch. 1	5775	24.98
5	Ch. 1	5840	24.58

Table 7 Max RF out power for 6 dBi configuration

Modulation Bandwidth (MHz)	Antenna path	Channel Frequency (MHz)	Consolidated Power (dBm)	Limit (dBm)	Result
40	Ch. 0 & Ch. 1	5750	24.22	30	PASS
40	Ch. 0 & Ch. 1	5775	28.35	30	PASS
40	Ch. 0 & Ch. 1	5825	27.12	30	PASS
5	Ch. 0 & Ch. 1	5735	27.41	30	PASS
5	Ch. 0 & Ch. 1	5775	28.60	30	PASS
5	Ch. 0 & Ch. 1	5840	28.21	30	PASS

Table 8 Consolidated values across channels and final power for 6 dBi configuration

The recorded power in dBm was converted into Watt, and then added and convert the result back to dBm
*dBm to mW =log(mW)*10*
mW to dBm = 10^(dBm/10)

5.3.4 POWER SPECTRAL DENSITY

5.3.4.1 TEST SPECIFICATION

Test Standard	47 CFR, Part 15, Subpart E Feb 2016
Test Procedure	789033 D2 General U-NII Test Procedures New Rule V01r01
Frequency Range	5725 MHz to 5850 MHz
Resolution Bandwidth	1 MHz
Video Bandwidth	3 MHz
Sweep Time	1 ms
Attenuation	Auto
Test Mode	Conducted
Detector	RMS
Input Voltage	120 V AC
Input Frequency	60 Hz
Temperature	21.0 °C
Humidity	54.0 %
Tested By	Nishanth/Suresh GN
Test Date	25th Jan 2016

5.3.4.2 LIMITS

Standard	Reference section	Frequency range	Limit
47 CFR, Part 15, Subpart E Feb 2016	§15.407 a(3)	5725 MHz to 5850 MHz	≤ 30 dBm in any 500 kHz band

5.3.4.3 TEST SETUP

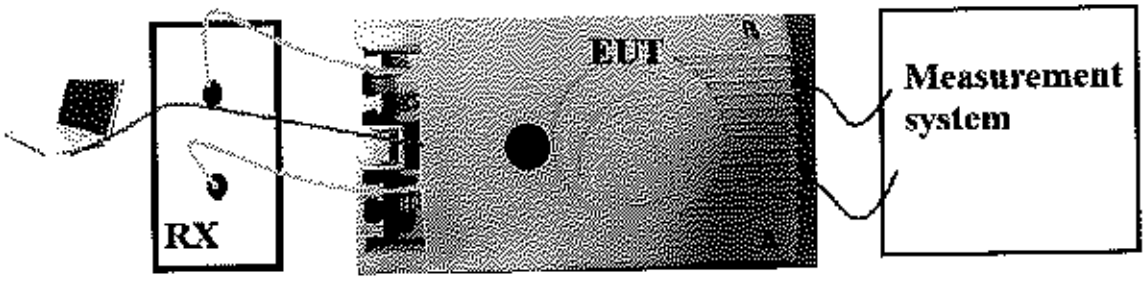


Figure 43 Typical test setup for Conducted Test

5.3.4.4 TEST PROCEDURE

The Conducted test was performed using the Spectrum analyzer. Measurements were done as per Section II F (PSD) of KDB **"789033 D02 General UNII Test Procedures New Rules v01r01".** The RF output of the EUT was connected to the input port of Spectrum analyzer using an attenuator. The graph and data captured from spectrum analyzer and compared with the limits specified in the standard.

5.3.4.5 MEASUREMENT GRAPHS / DATA

5.3.4.5.1 40 MHZ MODULATION BANDWIDTH FOR 17 dBi POWER SETTINGS

LOW CHANNEL_5750 MHz

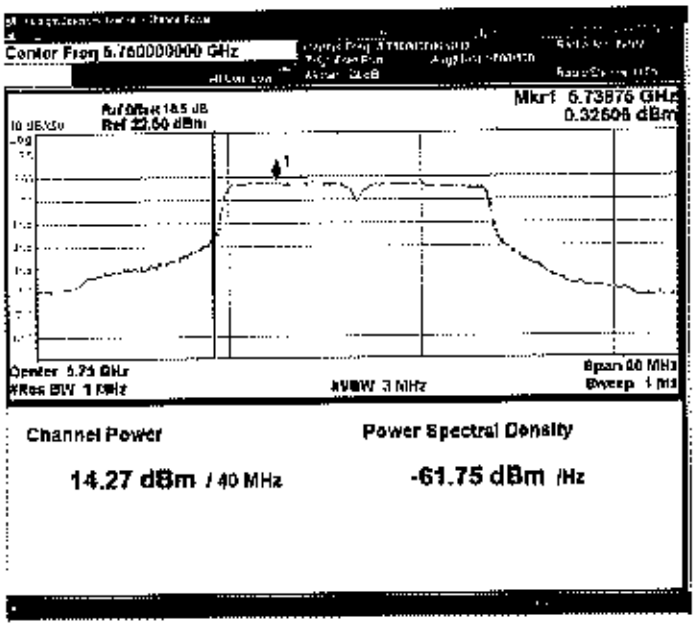


Figure 44 Power Spectral density mensured at Ch. 0

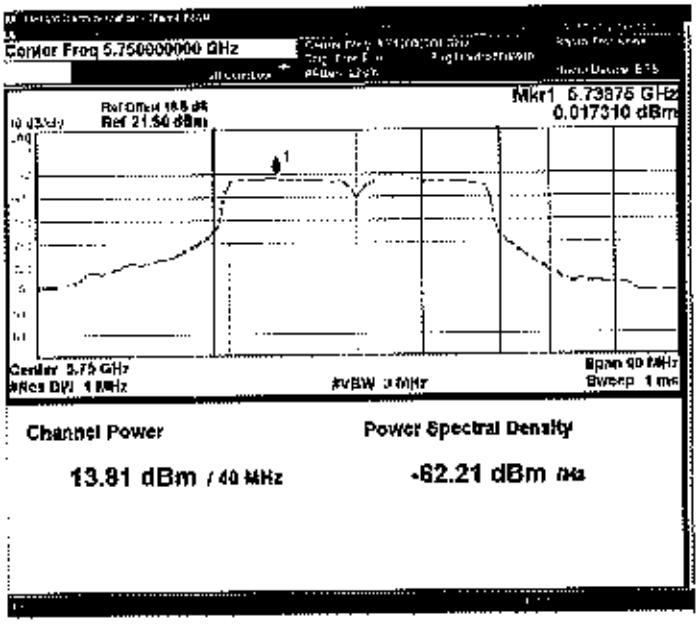


Figure 45 Power Spectral density measured at Ch. 1

MID CHANNEL_5775 MHz

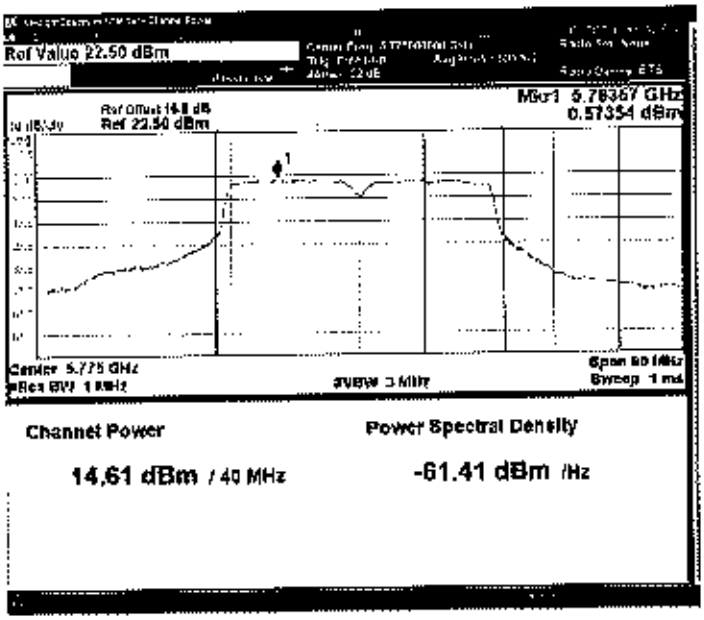


Figure 46 Power Spectral density measured at Ch. 0

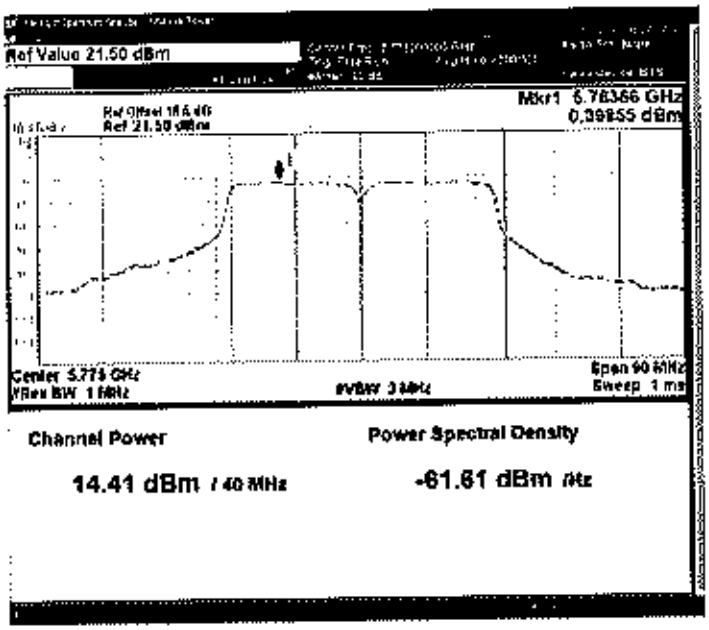


Figure 47 Power Spectral density measured at Ch. 1

HIGH CHANNEL_5825 MHz

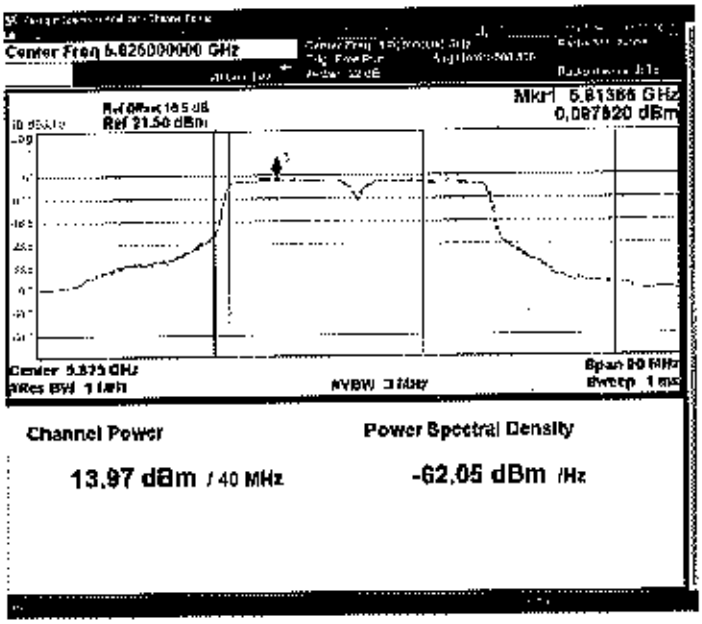


Figure 48 Power Spectral density mensured at Ch. 0

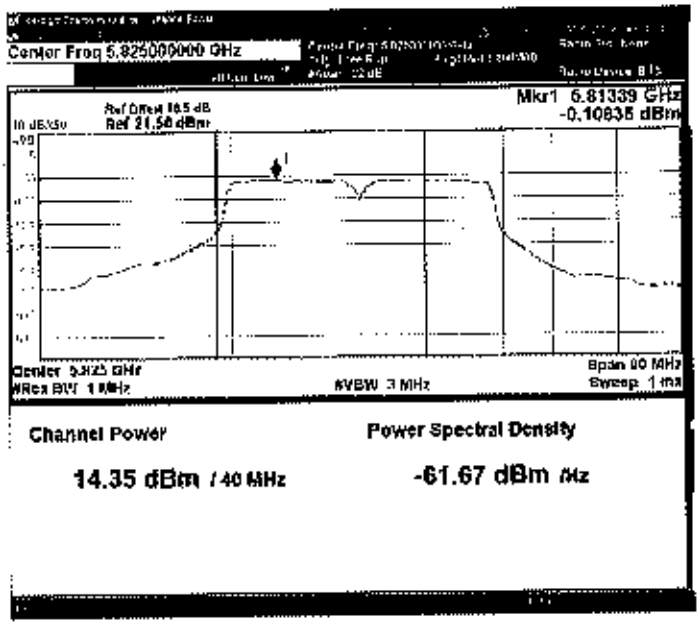


Figure 49 Power Spectral density measured at Ch. 1

5.3.4.5.2 40 MHz MODULATION BANDWIDTH 6 dBi ANTENNA CONDITION

LOW CHANNEL_5750 MHz

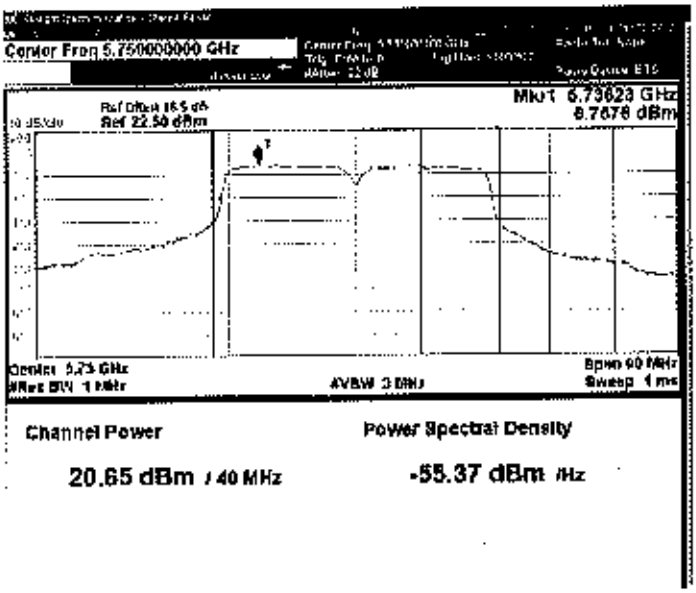


Figure 50 Power Spectral density measured at Ch. 0

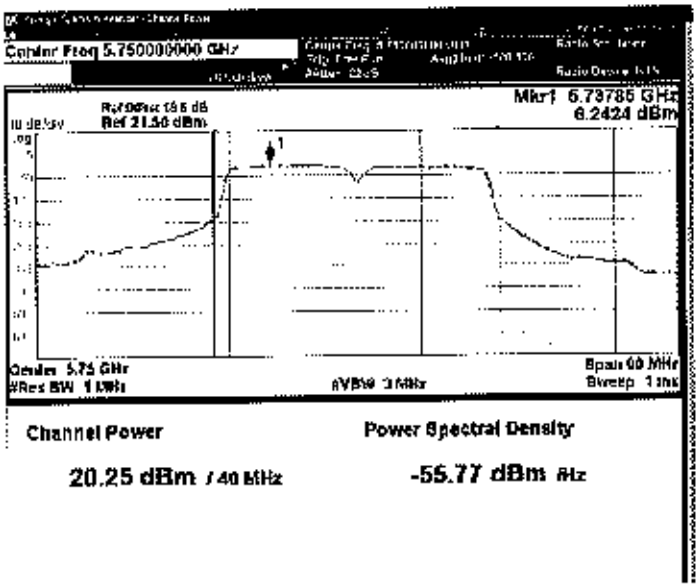


Figure 51 Power Spectral density measured at Ch. 1

MID CHANNEL_5775 MHz

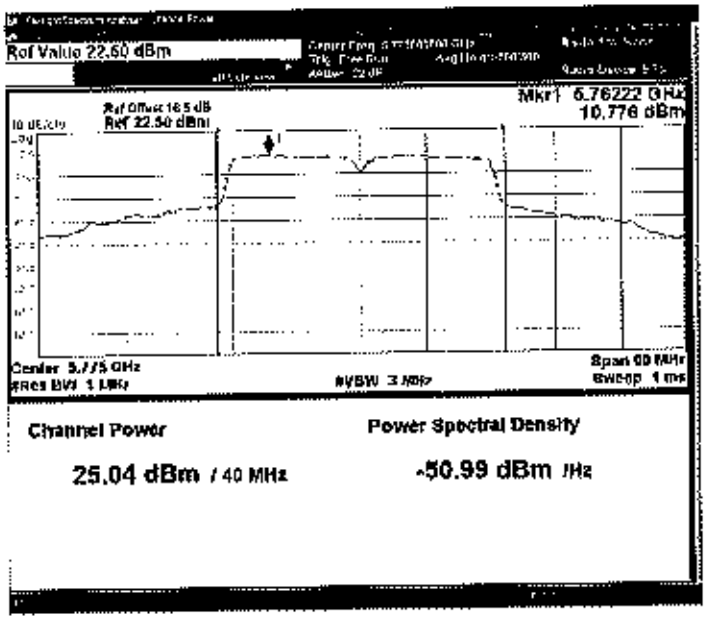


Figure 52 Power Spectral density measured at Ch. 0

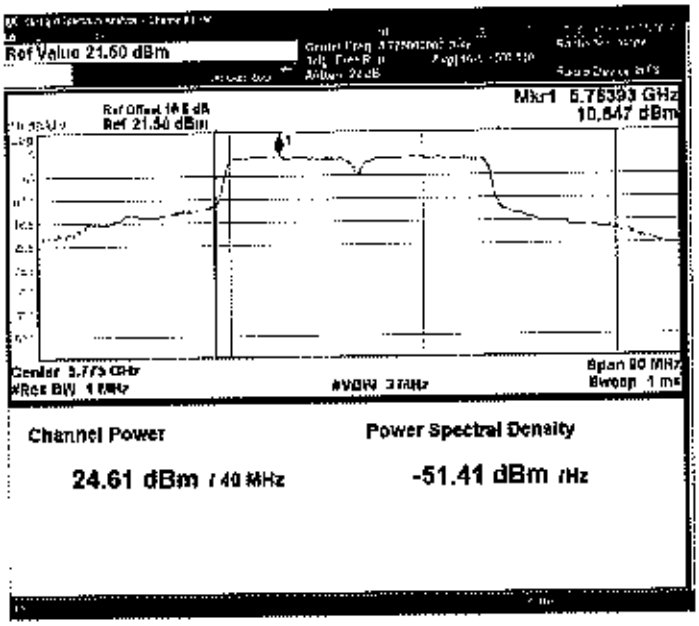


Figure 53 Power Spectral density measured at Ch. 1

HIGH CHANNEL_5825 MHz

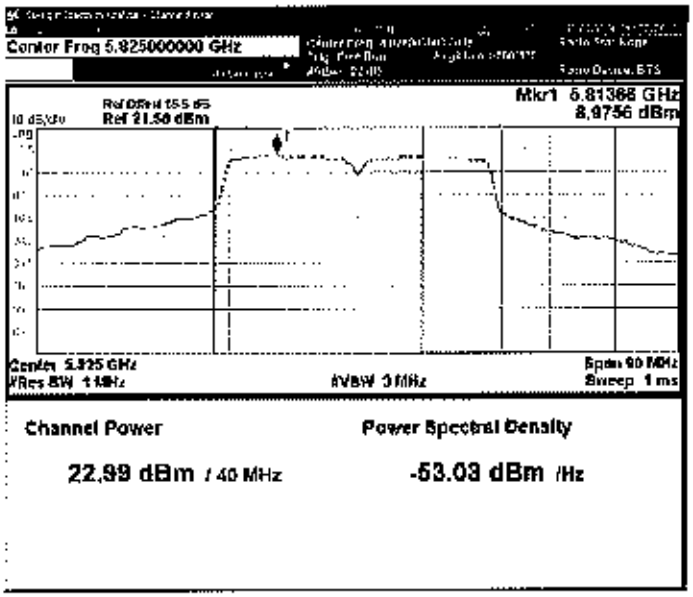


Figure 54 Power Spectral density measured at Ch. 0

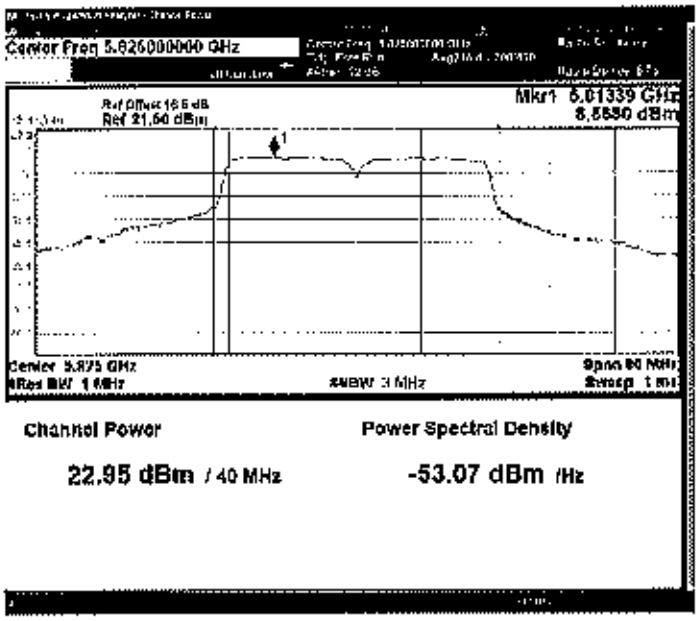


Figure 55 Power Spectral density measured at Ch. 1

5.3.4.5.3 5 MHz MODULATION BANDWIDTH 17 dBi ANTENNA CONDITION LOW CHANNEL_5735 MHz

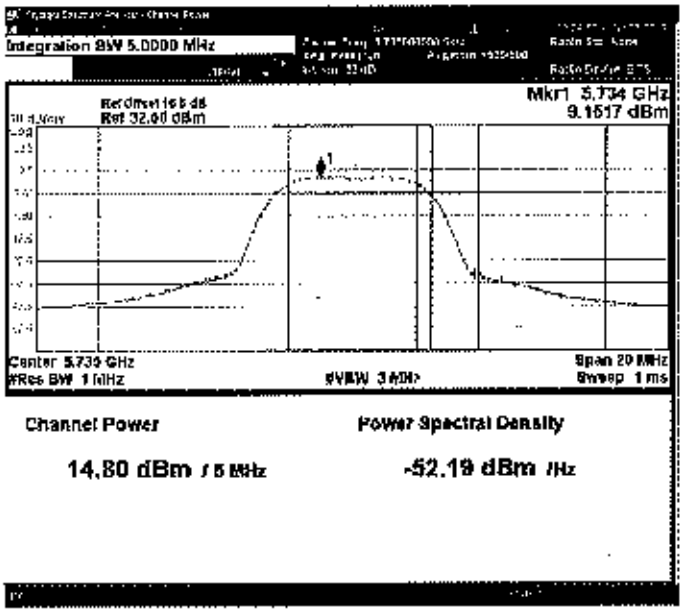


Figure 56 Power Spectral density measured at Ch. 0

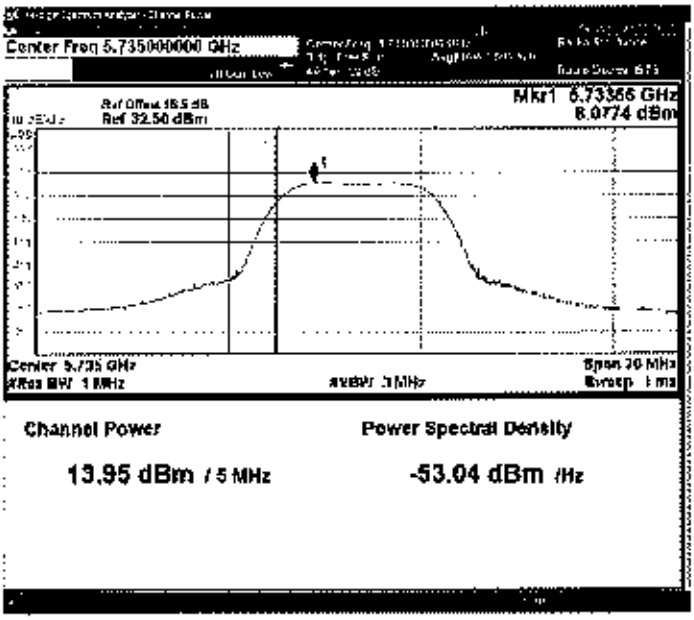


Figure 57 Power Spectral density measured at Ch. 1

MID CHANNEL_5775 MHz

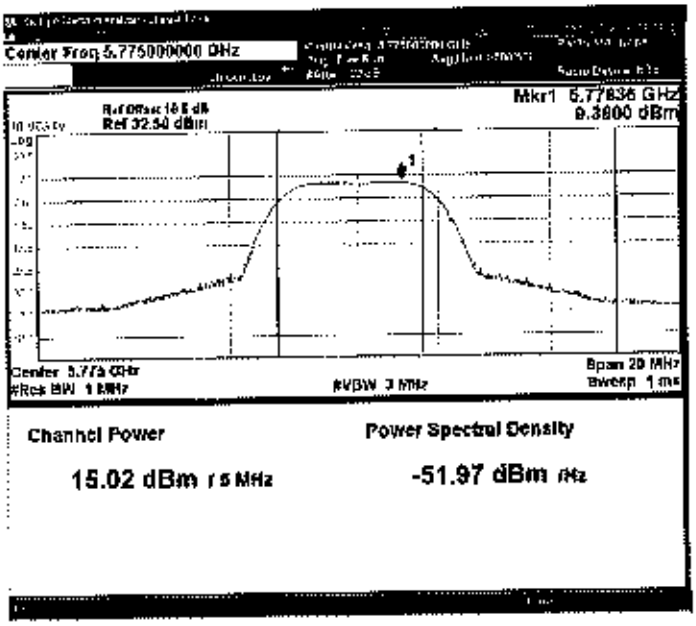


Figure 58 Power Spectral density measured at Ch. 0

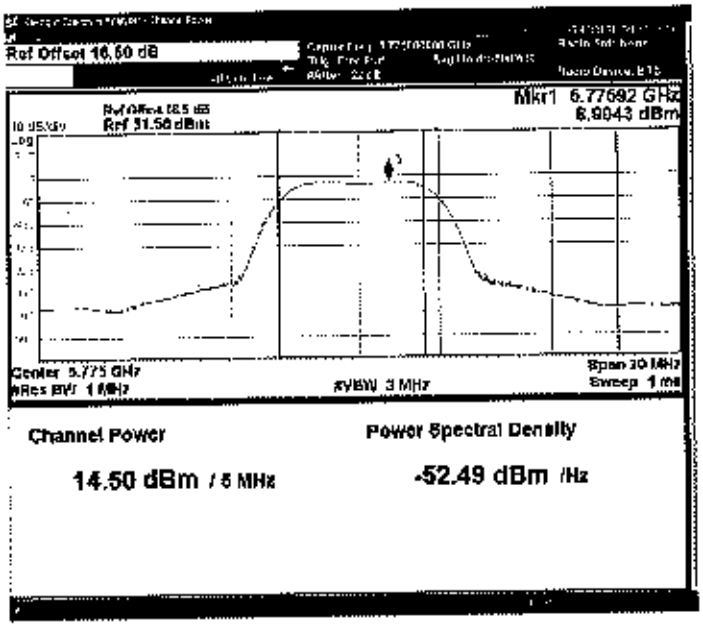


Figure 59 Power Spectral density measured at Ch. 1

HIGH CHANNEL_5840 MHz

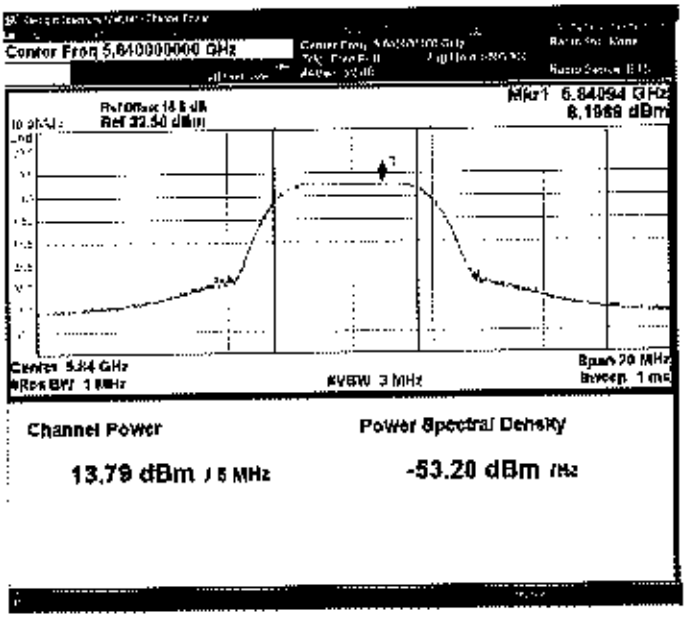


Figure 60 Power Spectral density measured at Ch. 0

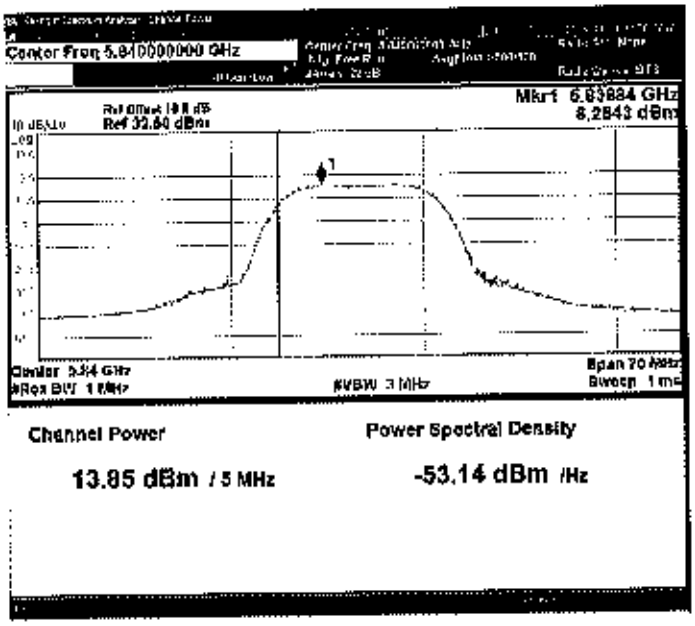


Figure 61 Power Spectral density measured at Ch. 1

5.3.4.5.4 5 MHz MODULATION BANDWIDTH 6 dBi ANTENNA CONDITION

LOW CHANNEL_5735 MHz

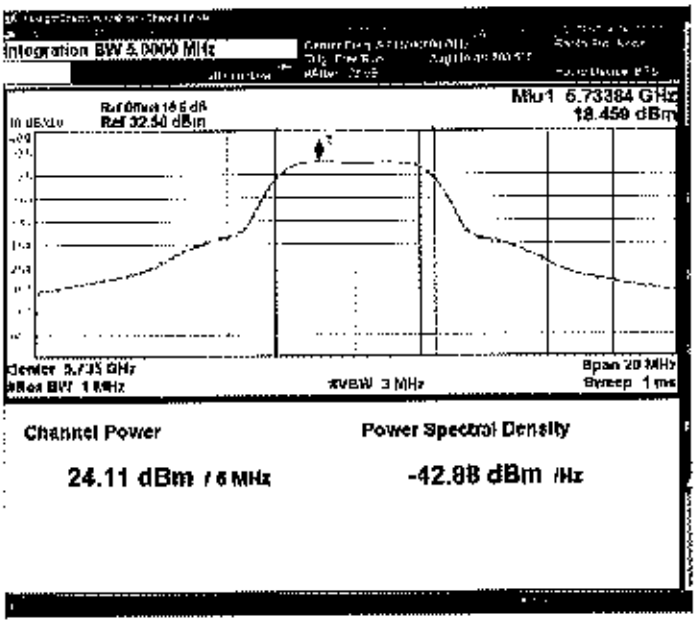


Figure 62 Power Spectral density measured at Ch. 0

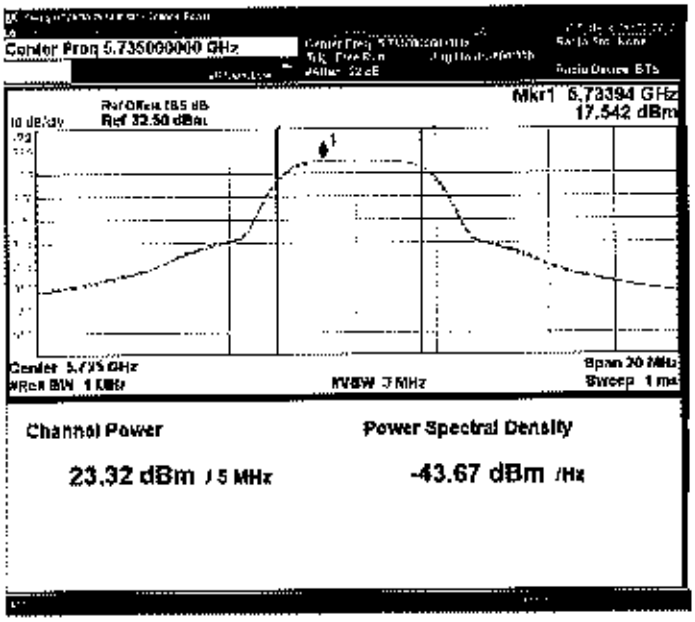


Figure 63 Power Spectral density measured at Ch. 1

MID CHANNEL_5775 MHz

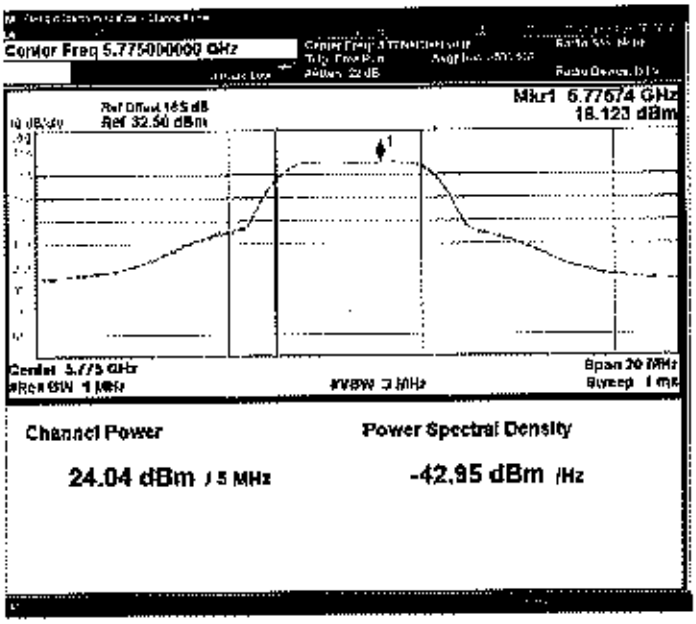


Figure 64 Power Spectral density mensured at Ch. 0

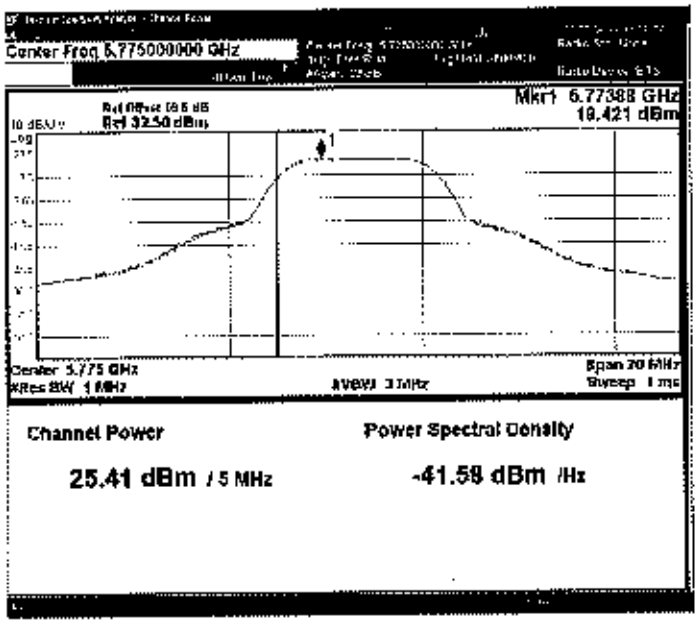


Figure 65 Power Spectral density measured at Ch. 1

HIGH CHANNEL_5840 MHz

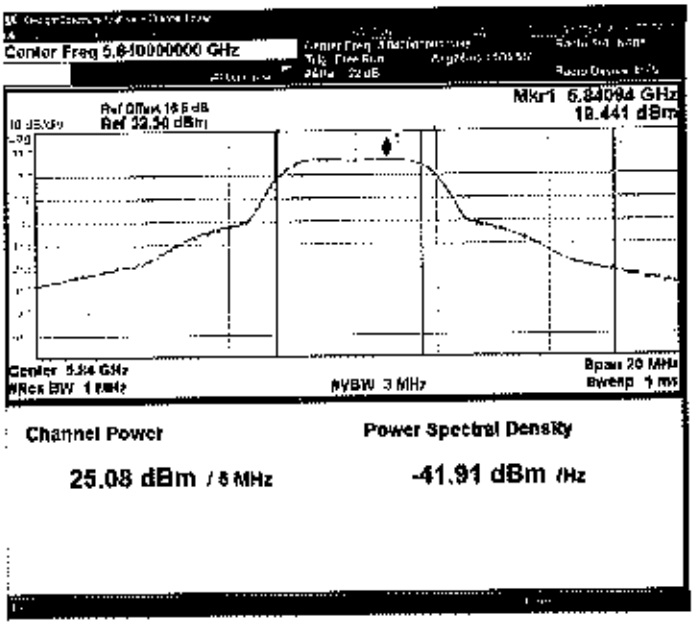


Figure 66 Power Spectral density measured at Ch. 0

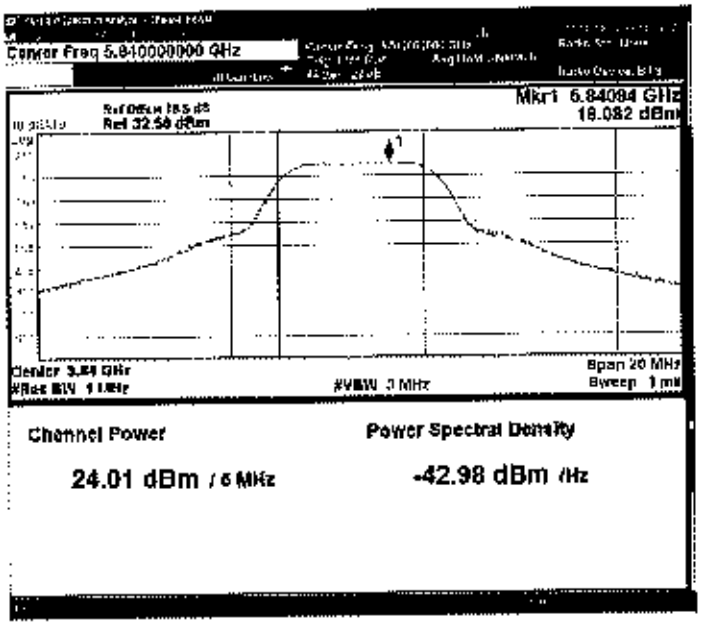


Figure 67 Power Spectral density measured at Ch. 1

5.3.4.6 RESULT

Power Spectral Density for all channels in both 40 MHz & 5 MHz Modulation Bandwidths is within the Specified limit. Refer below table for consolidated result.

17DBI ANTENNA CONDITION

Modulation Bandwidth (MHz)	Antenna path	Channel Frequency (MHz)	Recorded value (dBm/Hz)	Recorded value (dBm/500kHz)	Limit (dBm/500kHz)	Result
40	Ch. 0	5750	-61.75	-4.77	30	Pass
40	Ch. 0	5775	-61.41	-4.43	30	Pass
40	Ch. 0	5825	-62.05	-5.07	30	Pass
40	Ch. 1	5750	-62.21	-5.23	30	Pass
40	Ch. 1	5775	-61.61	-4.63	30	Pass
40	Ch. 1	5825	-61.67	-4.69	30	Pass
5	Ch. 0	5735	-52.19	4.79	30	Pass
5	Ch. 0	5775	-51.97	5.01	30	Pass
5	Ch. 0	5840	-53.20	3.78	30	Pass
5	Ch. 1	5735	-53.04	3.94	30	Pass
5	Ch. 1	5775	-52.49	4.49	30	Pass
5	Ch. 1	5840	-53.14	3.84	30	Pass

Table 9 Result of PSD for 17 dBi configuration for both 40 MHz and 5 MHz modulation bandwidth

6DBI ANTENNA CONDITION

Modulation Bandwidth (MHz)	Antenna path	Channel Frequency (MHz)	Recorded value (dBm/Hz)	Recorded value (dBm/500kHz)	Limit (dBm/500kHz)	Result
40	Ch. 0	5750	-55.37	1.61	30	Pass
40	Ch. 0	5775	-50.99	5.99	30	Pass
40	Ch. 0	5825	-53.03	3.95	30	Pass
40	Ch. 1	5750	-55.77	1.21	30	Pass
40	Ch. 1	5775	-51.41	5.57	30	Pass
40	Ch. 1	5825	-53.07	3.91	30	Pass
5	Ch. 0	5735	-42.88	14.1	30	Pass
5	Ch. 0	5775	-42.95	14.03	30	Pass
5	Ch. 0	5840	-41.91	15.07	30	Pass
5	Ch. 1	5735	-43.67	13.31	30	Pass
5	Ch. 1	5775	-41.58	15.4	30	Pass
5	Ch. 1	5840	-42.98	14	30	Pass

Table 10 Result of PSD for 6dBi configuration for both 40 MHz and 5 MHz modulation bandwidth

dBm/500kHz= dBm/Hz + 10log (500kHz)

5.3.5 OPERATING BAND EDGE MEASUREMENTS

5.3.5.1 TEST SPECIFICATION

Test Standard	47 CFR, Part 15, Subpart C Feb 2016
Test Procedure	ANSI C63.4-2014
Frequency Range	As applicable
Resolution Bandwidth	100 kHz
Video Bandwidth	300 kHz
Sweep Time	Auto
Attenuation	Auto
Test Mode	Conducted
Detector	Peak
Input Voltage	120 V AC
Input Frequency	60 Hz
Temperature	21.0 °C
Humidity	54.0 %
Tested By	Nishanth
Test Date	25th Jan 2016

5.3.5.2 LIMITS

Standard	Reference section	Frequency range	Limit
47 CFR, Part 15, Subpart C Feb 2016	§15.247 (d)	5725 MHz to 5825 MHz	30 dB below the maximum in- band average PSD level

5.3.5.3 TEST SETUP

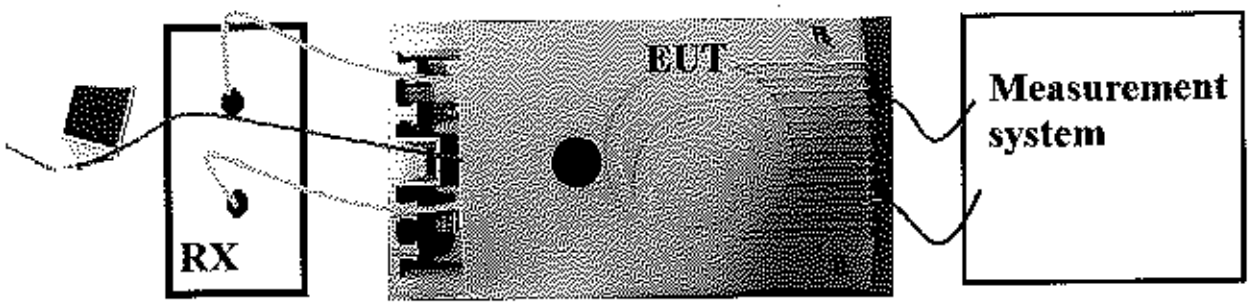


Figure 68: Typical test setup for Conducted Test setup

5.3.5.4 TEST PROCEDURE

The Conducted test was performed using the Spectrum analyzer. Measurements were done as per Section II G3 (d) of KDB ""**789033 D2 General U-NII Test Procedures New Rule V01r01**". The RF output of the EUT was connected to the input port of Spectrum analyzer using an attenuator. Captured the data from spectrum analyzer and compared with the limits specified in the standard.

5.3.5.5 MEASUREMENT GRAPHS / DATA

5.3.5.5.1 40 MHz MODULATION BANDWIDTH FOR 17 dBi POWER SETTINGS

LOW CHANNEL_5750 MHz

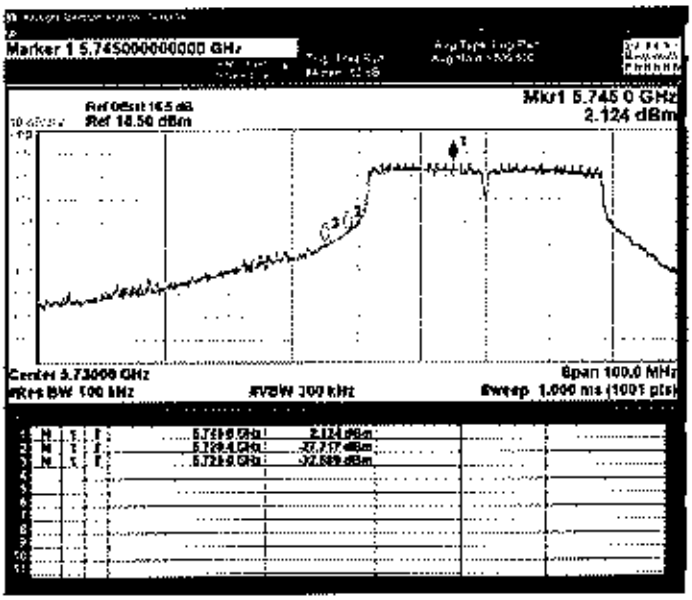


Figure 69: Band edge measured at Ch. 0-Average detector

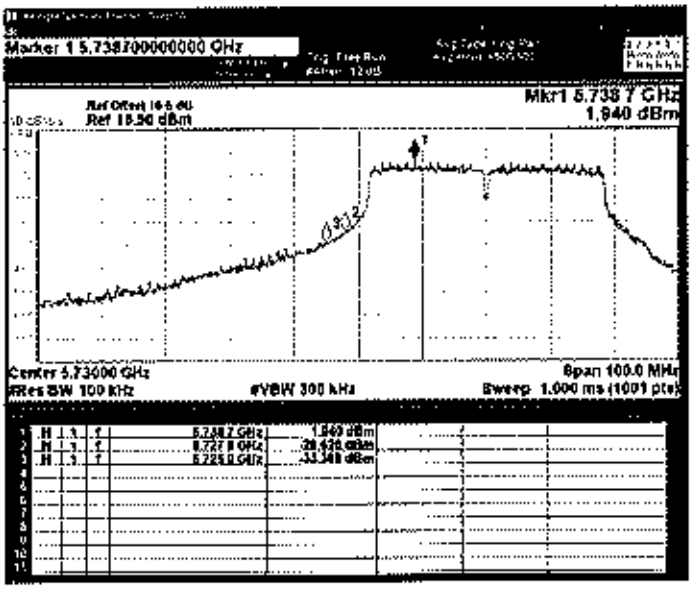


Figure 70: Band edge measured at Ch. 1-Average detector

MID CHANNEL_5775 MHz

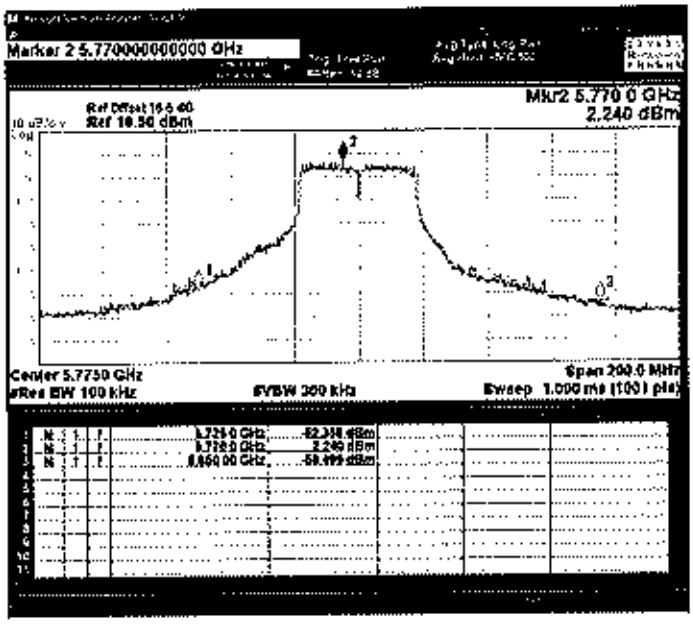


Figure 71: Band edge measured at Ch. 0-Average detector

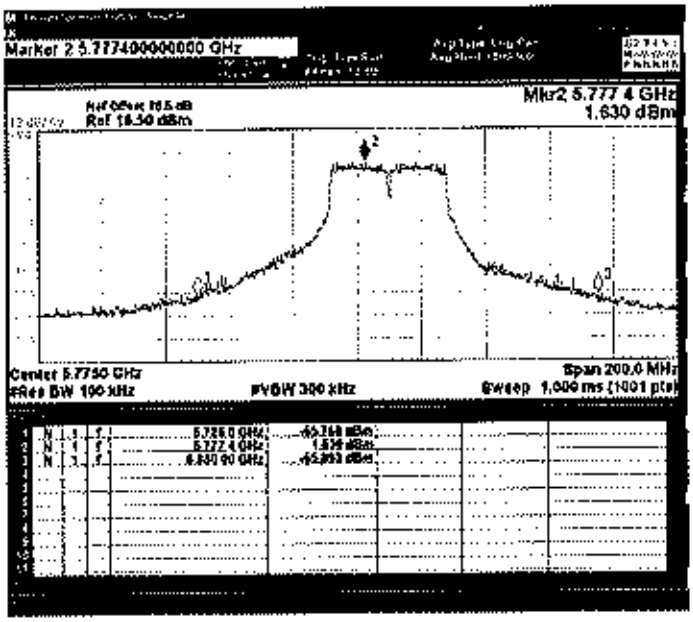


Figure 72: Band edge measured at Ch. 1-Average detector

HIGH CHANNEL_5775 MHz

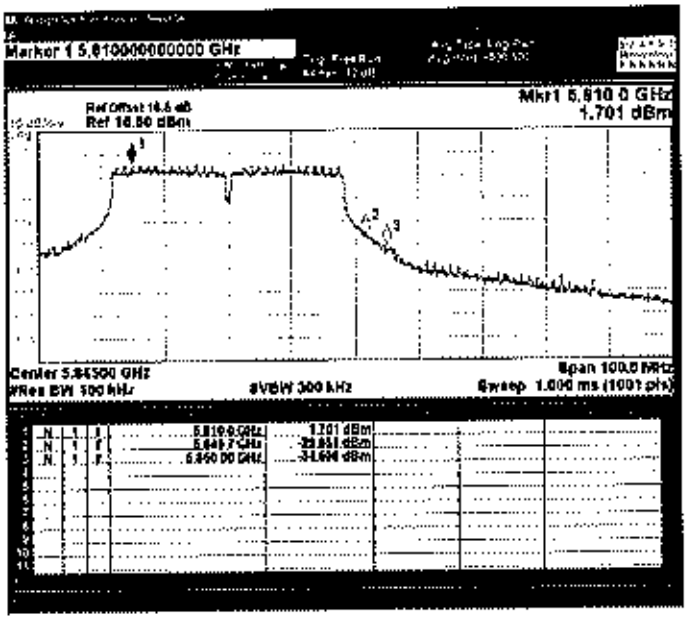


Figure 73: Band edge measured at Ch. 0-Average detector

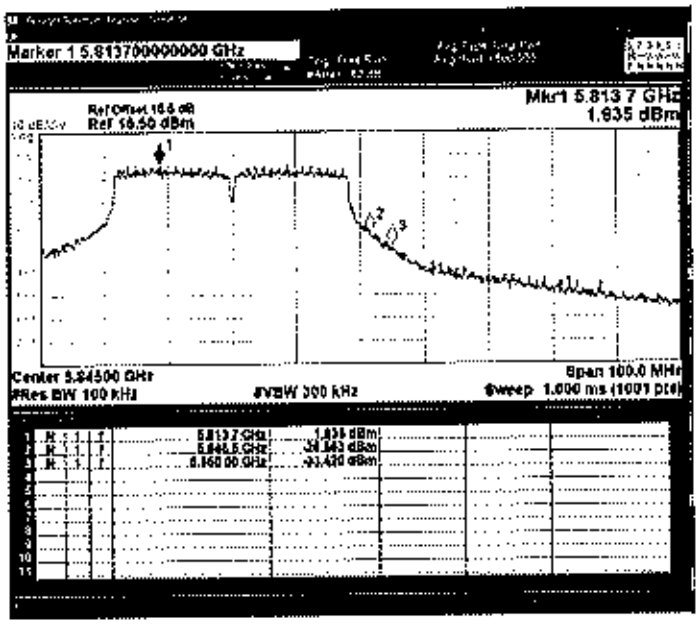


Figure 74: Band edge measured at Ch. 1-Average detector

5.3.5.5.2 40 MHz MODULATION BANDWIDTH 6 dBi ANTENNA CONDITION LOW CHANNEL_5750 MHz

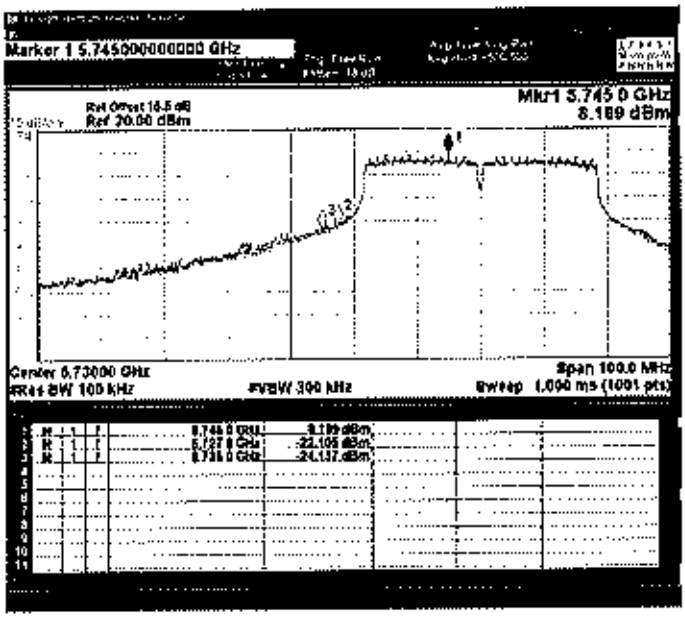


Figure 75: Band edge measured at Ch. 0-Average detector

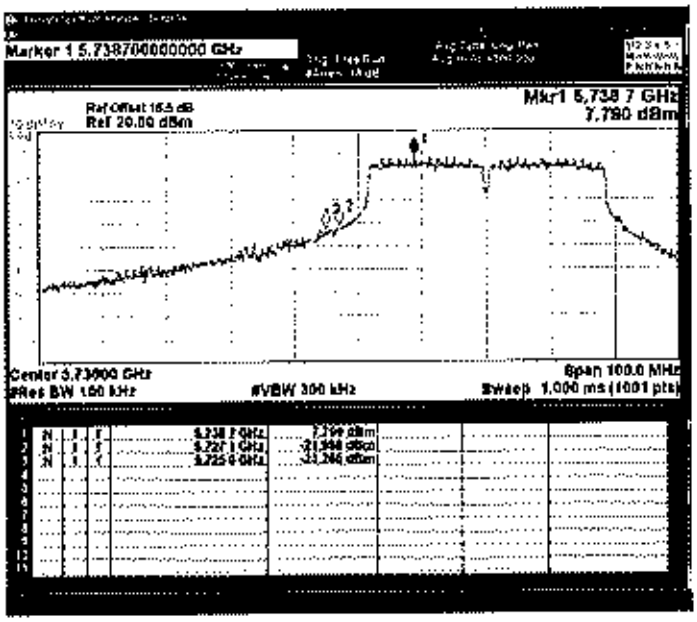


Figure 76: Band edge measured at Ch. 1-Average detector

MID CHANNEL_5775 MHz

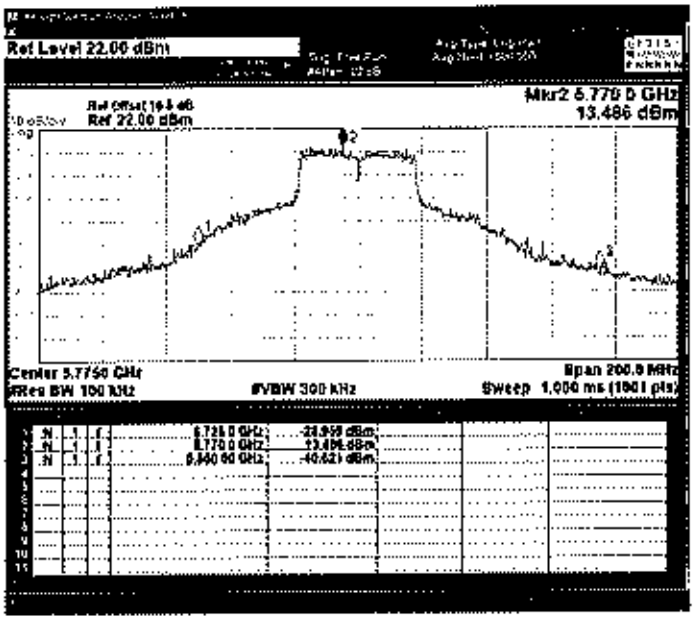


Figure 77: Band edge measured at Ch. 0-Average detector

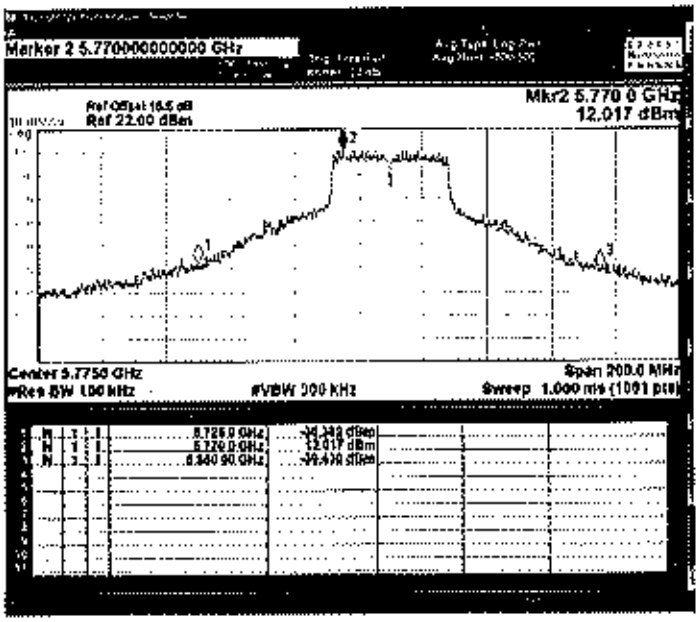


Figure 78: Band edge measured at Ch. 1-Average detector

HIGH CHANNEL_5775 MHz

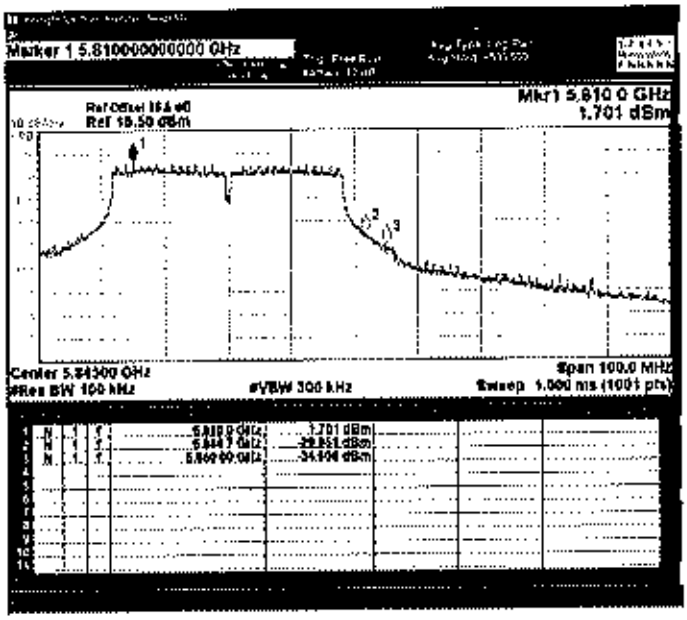


Figure 79: Band edge measured at Ch. 0-Average detector

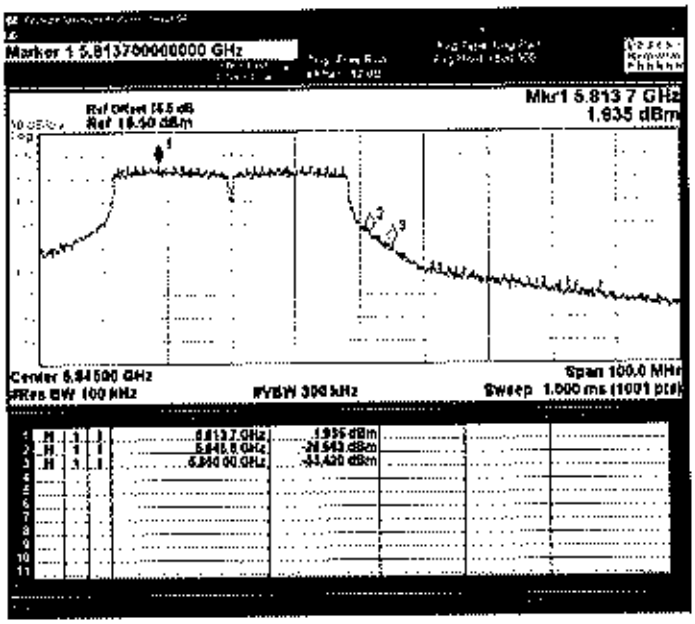


Figure 80: Band edge measured at Ch. 1-Average detector

5.3.5.5.3 5 MHz MODULATION BANDWIDTH 17 dBi ANTENNA CONDITION

LOW CHANNEL_5735 MHz

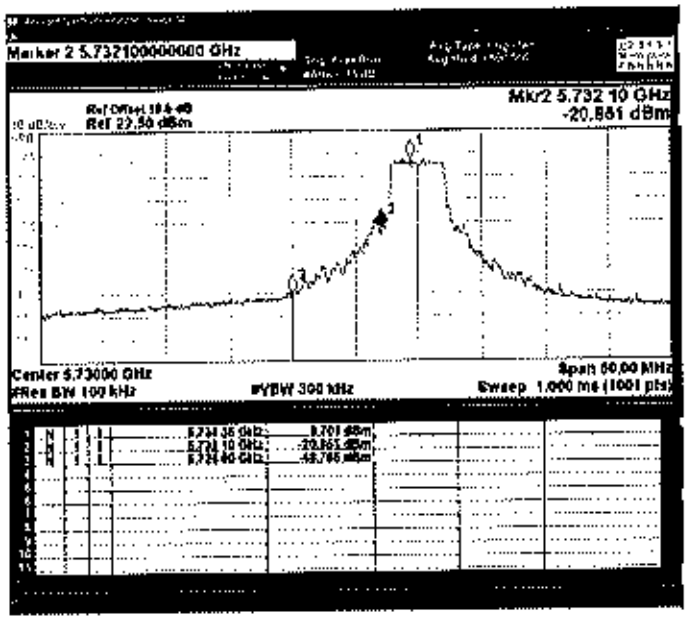


Figure 81: Band edge measured at Ch. 0-Average detector

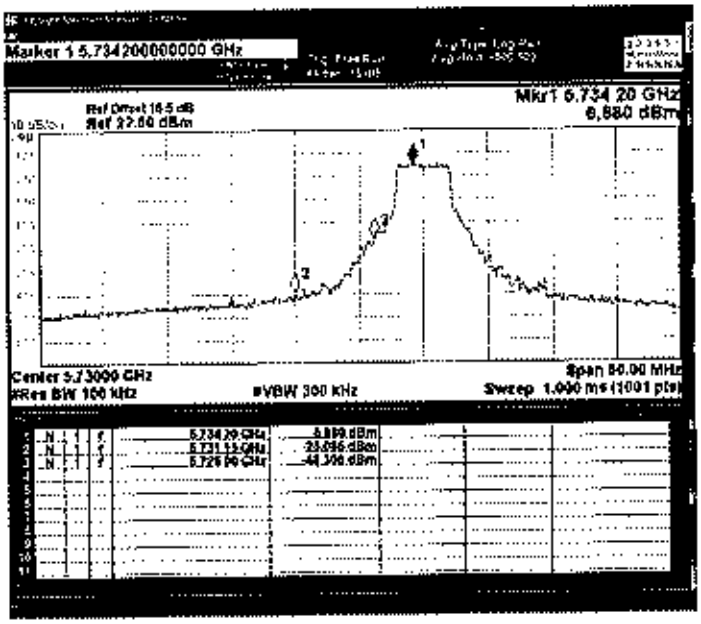


Figure 82: Band edge measured at Ch. 1-Average detector

MID CHANNEL_5775 MHz

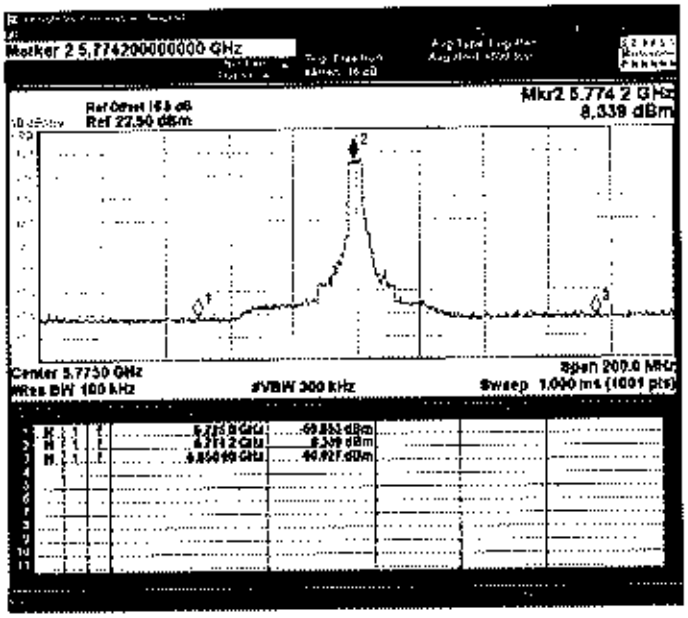


Figure 83: Band edge measured at Ch. 0-Average detector

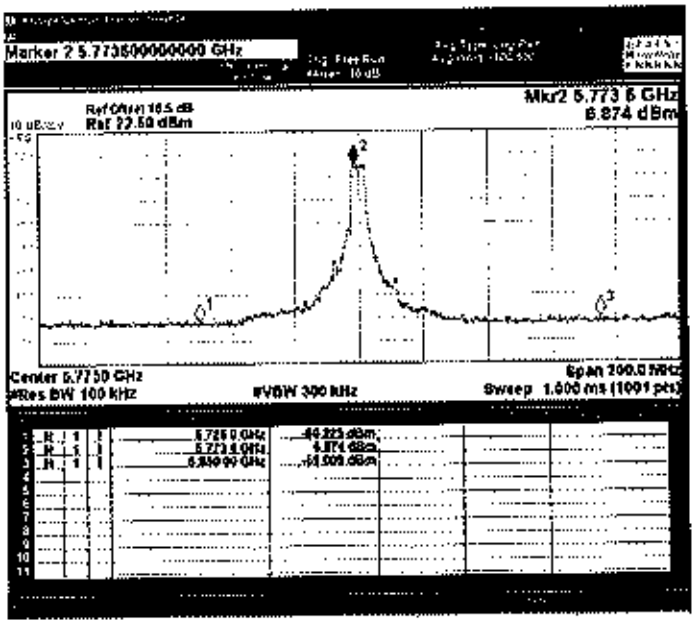


Figure 84: Band edge measured at Ch. 1-Average detector

HIGH CHANNEL_5840 MHz

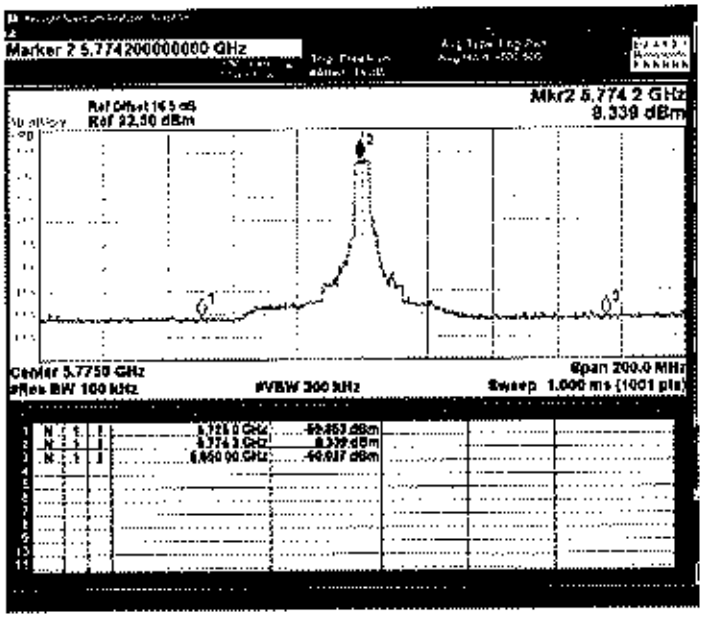


Figure 85: Band edge measured at Ch. 0-Average detector

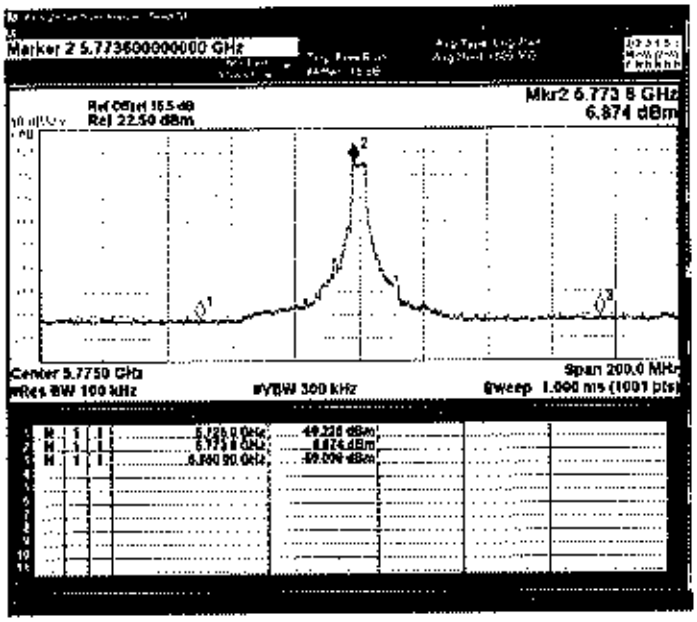


Figure 86: Band edge measured at Ch. 1-Average detector

5.3.5.5.4 5 MHz MODULATION BANDWIDTH 6 dBi ANTENNA CONDITION

LOW CHANNEL_5735 MHz

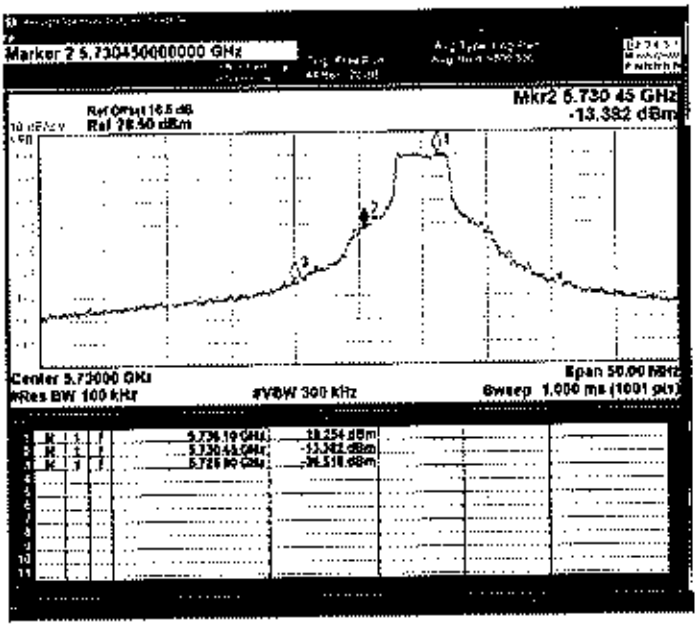


Figure 87: Band edge measured at Ch. 0-Average detector

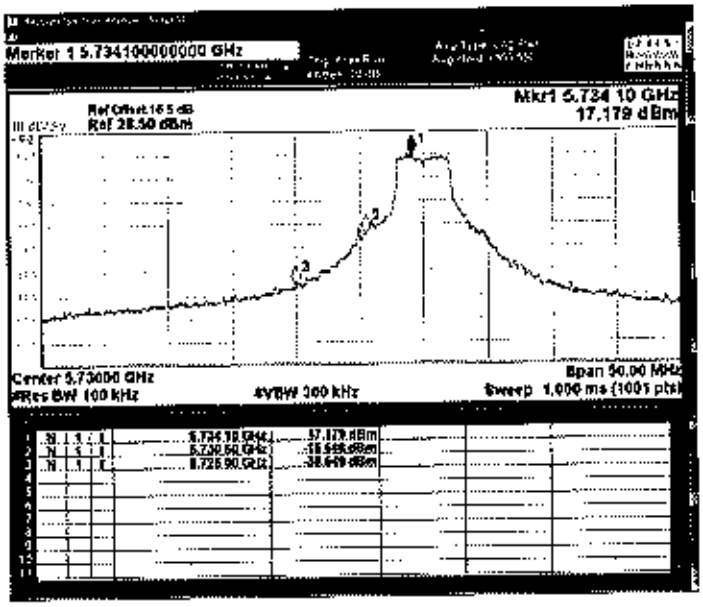


Figure 88: Band edge measured at Ch. 1-Average detector

MID CHANNEL_5775 MHz

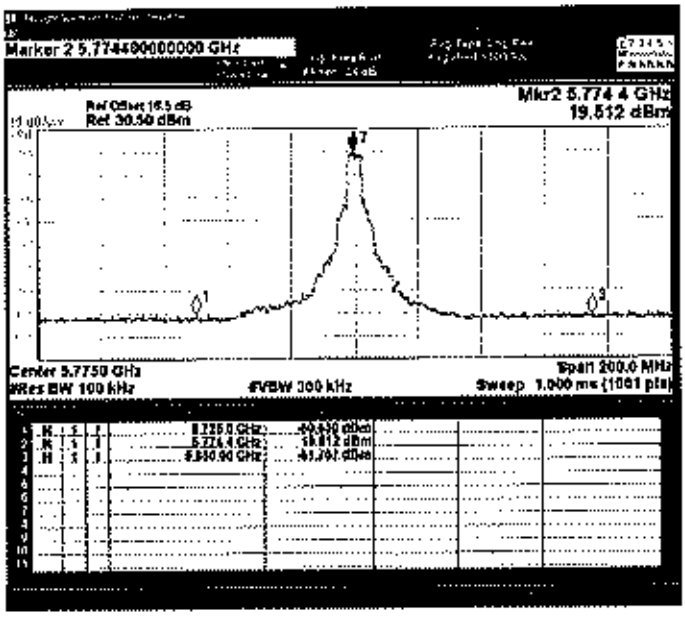


Figure 89: Band edge measured at Ch. 0-Average detector

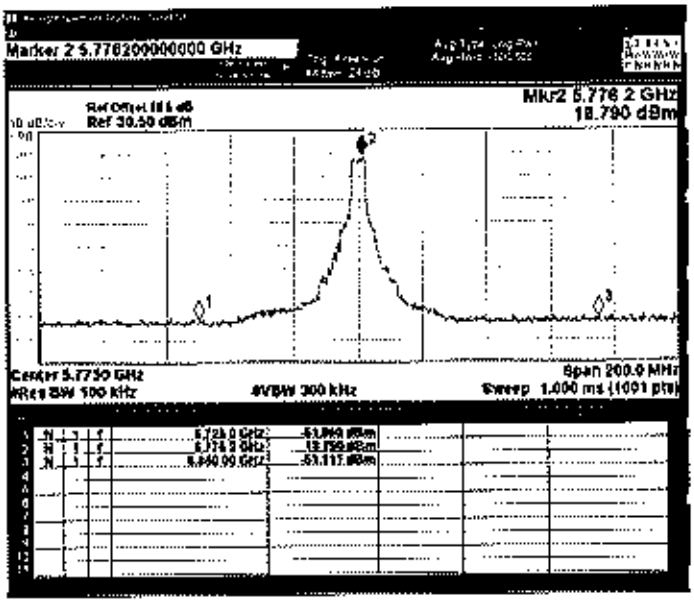


Figure 90: Band edge measured at Ch. 1-Average detector

HIGH CHANNEL_5840 MHz

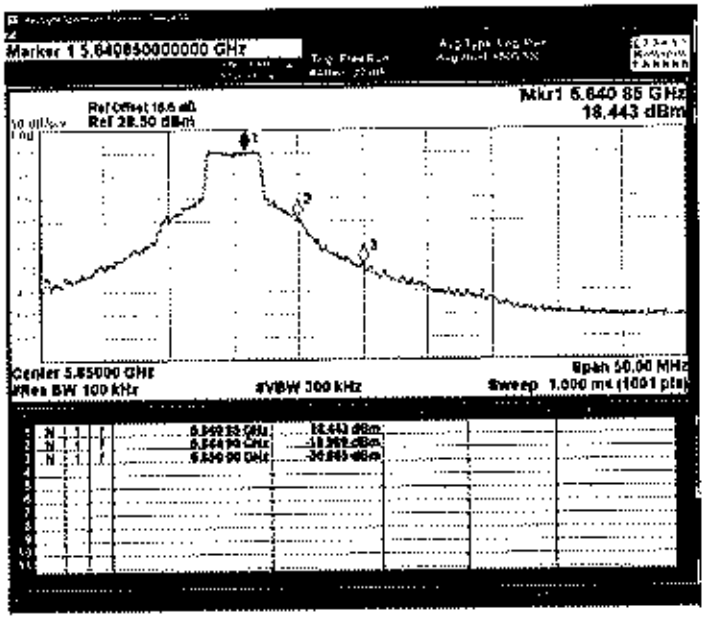


Figure 91: Band edge measured at Ch. 0-Average detector

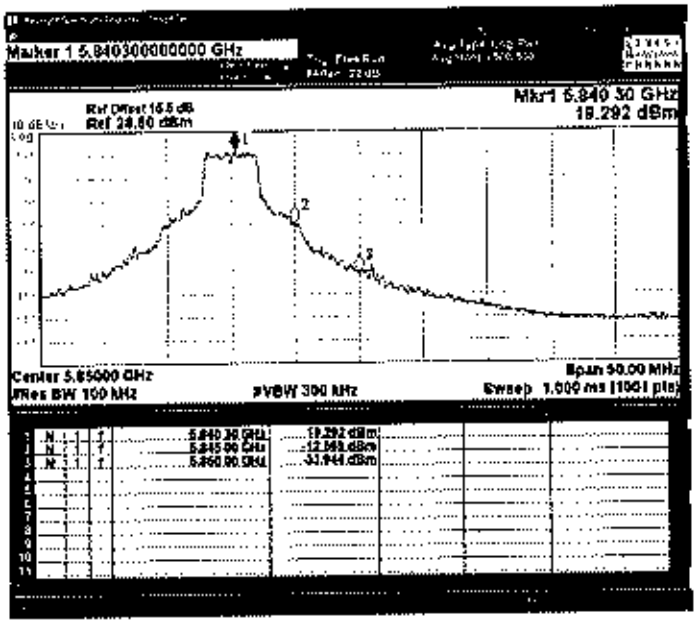


Figure 92: Band edge measured at Ch. 1-Average detector

5.3.5.6 RESULT

Emission is below -30 dBc from the carrier in all channels for both 40 MHz & 5 MHz Modulation Bandwidths.

5.3.6 RADIO FREQUENCY POWER IN ANY 100 KHZ BANDWIDTH OUTSIDE THE INTENTIONAL BAND

5.3.6.1 TEST SPECIFICATION

Test Standard	47 CFR, Part 15, Subpart C Feb 2016
Test Procedure	ANSI C63.4-2014
Frequency Range	150 kHz to 40 GHz
Resolution Bandwidth	100 kHz
Video Bandwidth	300 kHz
Sweep Time	Auto
Attenuation	Auto
Test Mode	Conducted
Detector	Peak
Input Voltage	120 V AC
Input Frequency	60 Hz
Temperature	21.0 °C
Humidity	54.0 %
Tested By	Nishanth
Test Date	25th Jan 2016

5.3.6.2 LIMITS

Standard	Reference section	Frequency range	Limit
47 CFR, Part 15, Subpart C Feb 2016	§15.247 (d)	5725 MHz to 5825 MHz	-30 dBc in any 100 kHz band outside the Intentional band

5.3.6.3 TEST SETUP

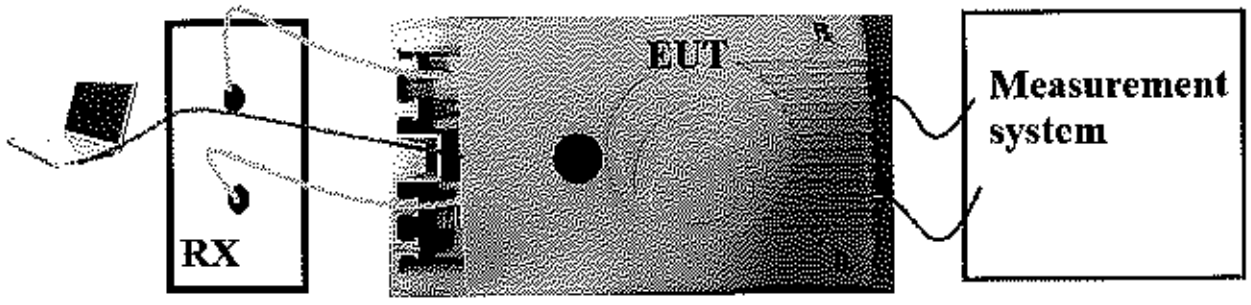


Figure 93: Typical test setup for Conducted Test setup

5.3.6.4 TEST PROCEDURE

The Conducted test was performed using the Spectrum analyzer. Measurements were done as per Section 11.3 of **789033 D02 General UNII Test Procedures New Rules v01r01".** The RF output of the EUT was connected to the input port of Spectrum analyzer using an attenuator. Captured the data from spectrum analyzer and compared with the limits specified in the standard

5.3.6.5 MEASUREMENT GRAPHS / DATA

5.3.6.5.1 40 MHz MODULATION BANDWIDTH FOR 17 dBi POWER SETTINGS

LOW CHANNEL_5750 MHz

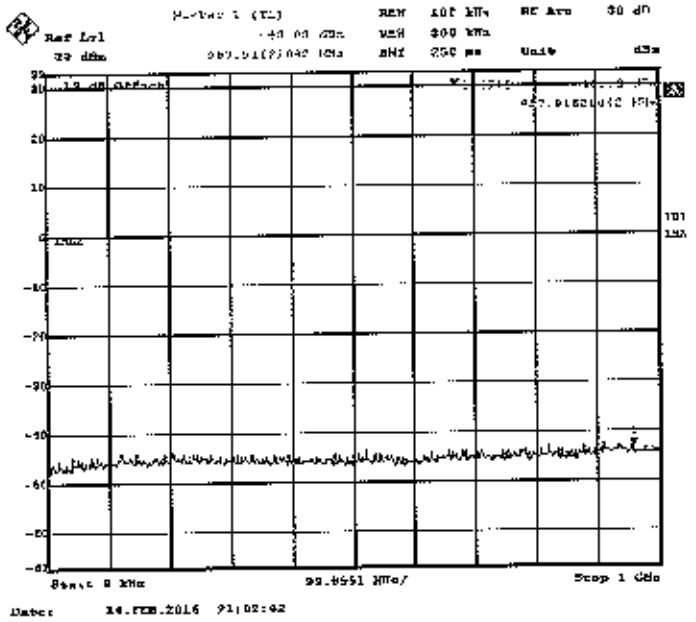


Figure 94: Spurious emission 9 KHz to 1 GHz measured at Ch. 0

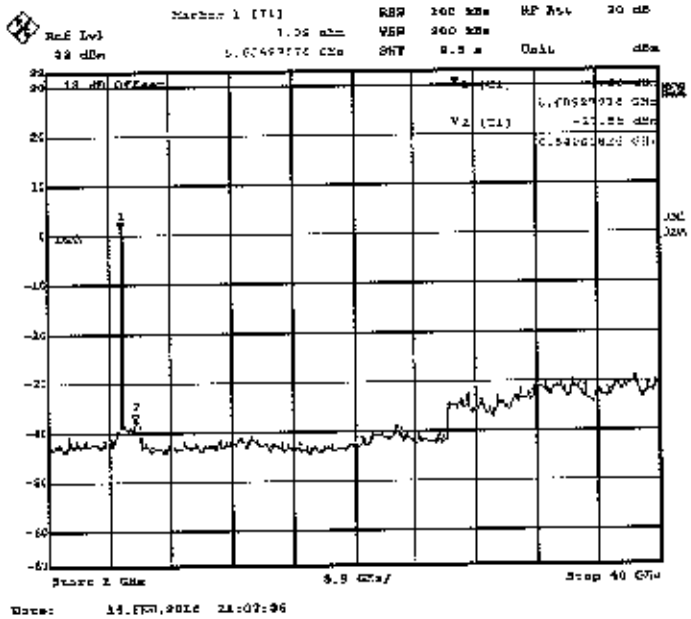


Figure 95: Spurious emission 1 GHz to 40 GHz measured at Ch. 0

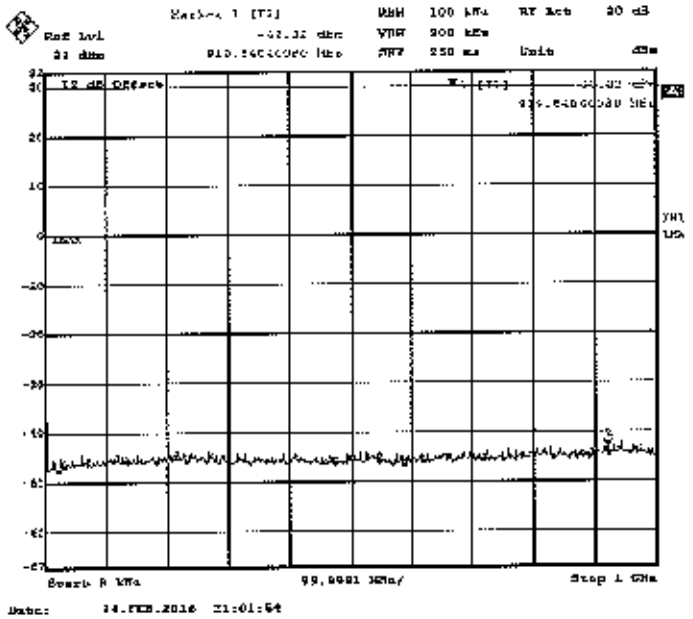


Figure 96: Spurious emission 9 KHz to 1 GHz measured at Ch. 1

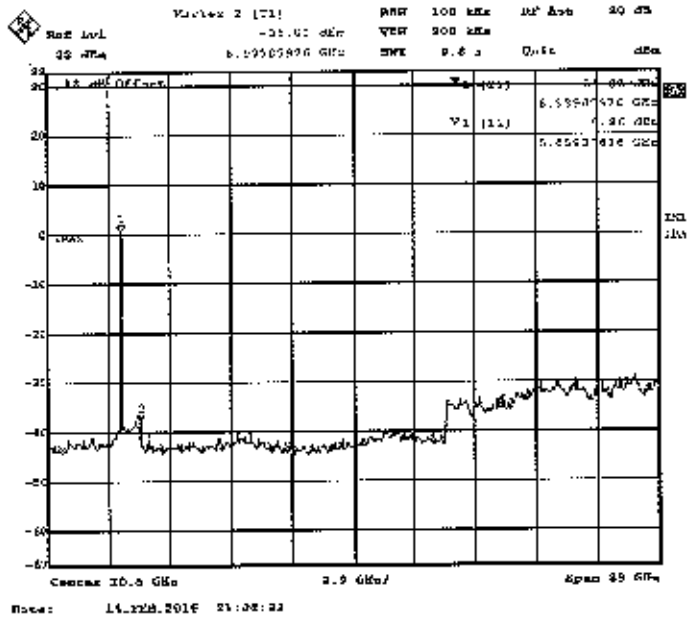


Figure 97 Spurious emission 1 GHz to 40 GHz measured at Ch. 1

MID CHANNEL_5775 MHz

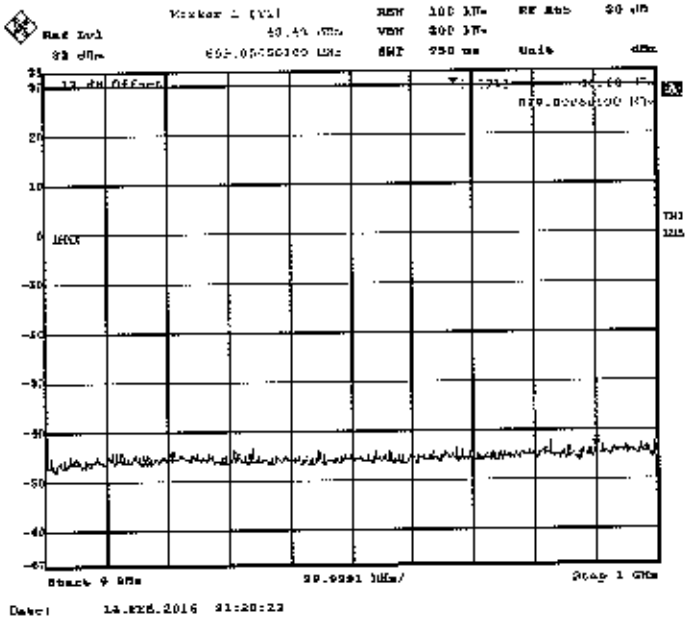


Figure 98: Spurious emission 9 KHz to 1 GHz measured at Ch. 0

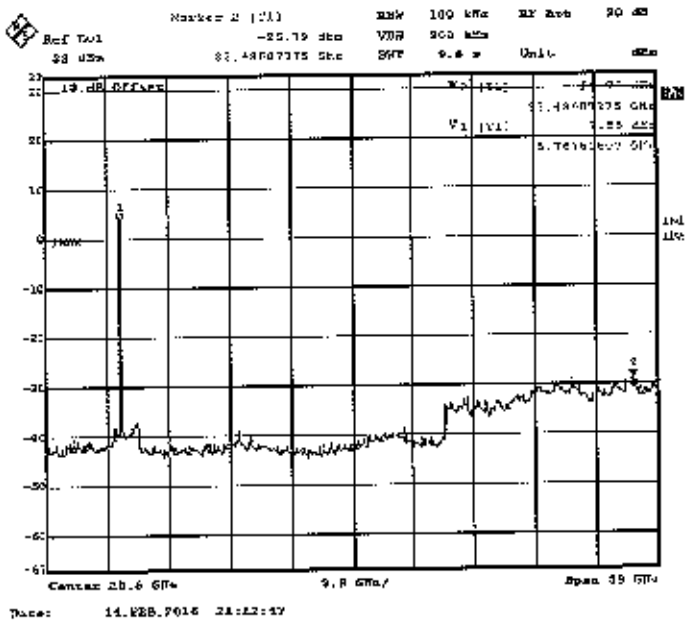


Figure 99: Spurious emission 1 GHz to 40 GHz measured at Ch. 0

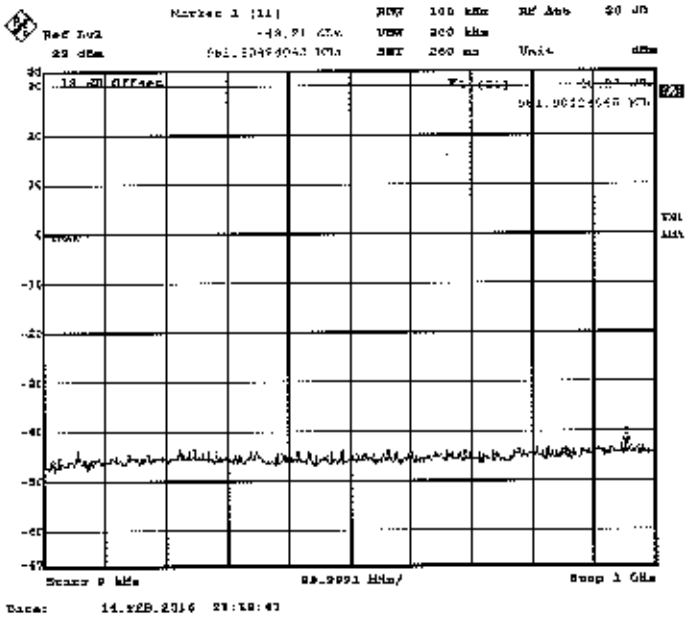


Figure 100 Spurious emission 9 KHz to 1 GHz measured at Ch. 1

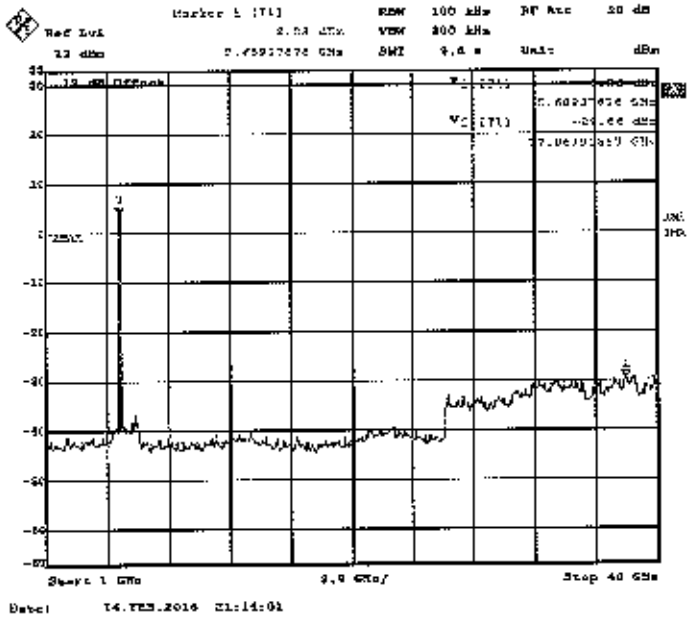


Figure 101: Spurious emission 1 GHz to 40 GHz measured at Ch. 1

IIIGH CHANNEL_5825 MIz

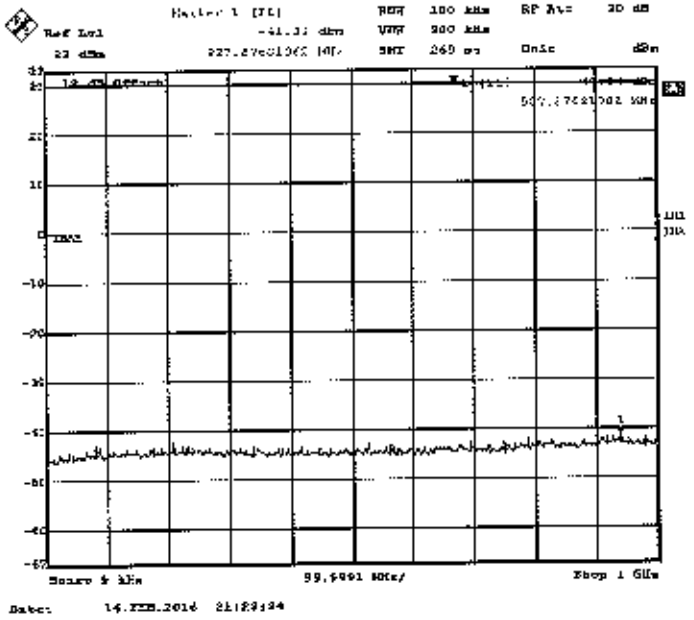


Figure 102: Spurious emission 9 KHz to 1 GHz measured at Ch. 0

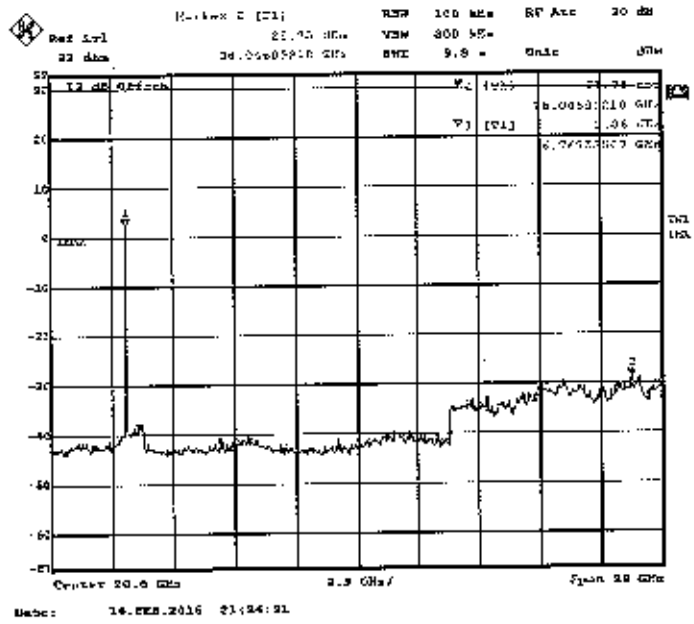


Figure 103:Spurious emission 1 GHz to 40 GHz measured at Ch. 0

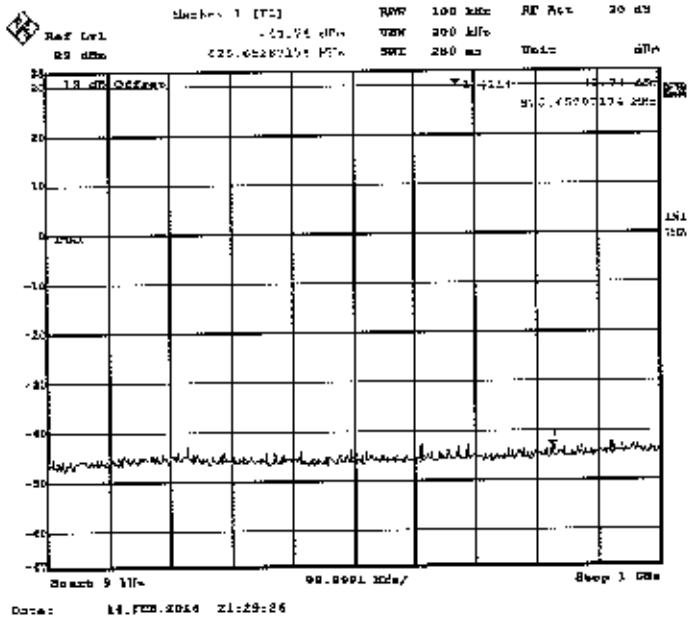


Figure 104: Spurious emission 9 KHz to 1 GHz measured at Ch. 1

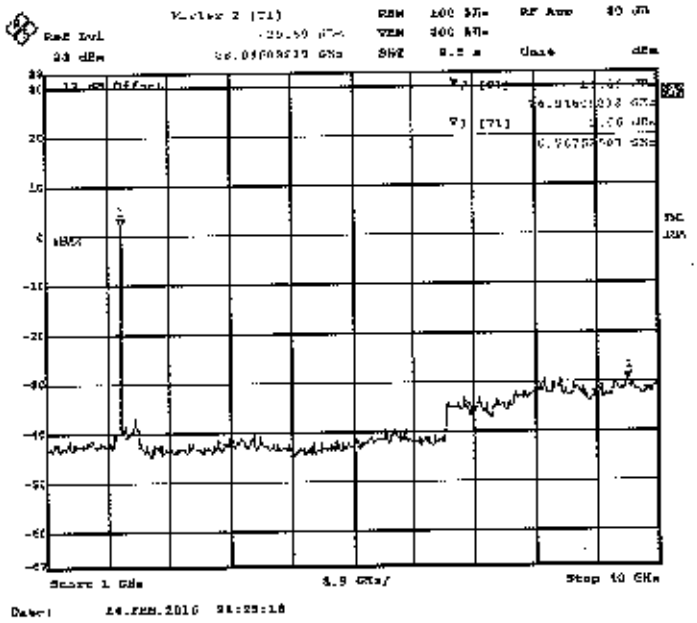


Figure 105: Spurious emission 1 GHz to 40 GHz measured at Ch. 1

5.3.6.5.2 40 MHz MODULATION BANDWIDTH FOR 6 dBi POWER SETTINGS

LOW CHANNEL_5750 MHz

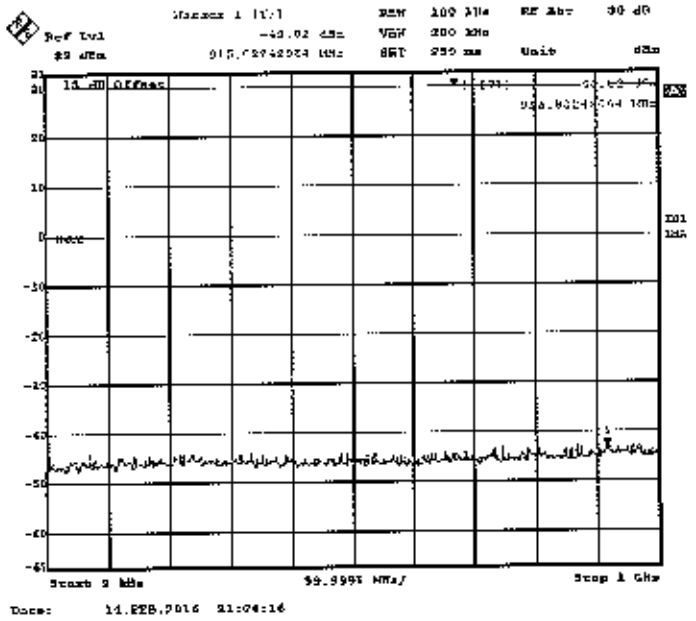


Figure 106: Spurious emission 9 KHz to 1 GHz measured at Ch. 0

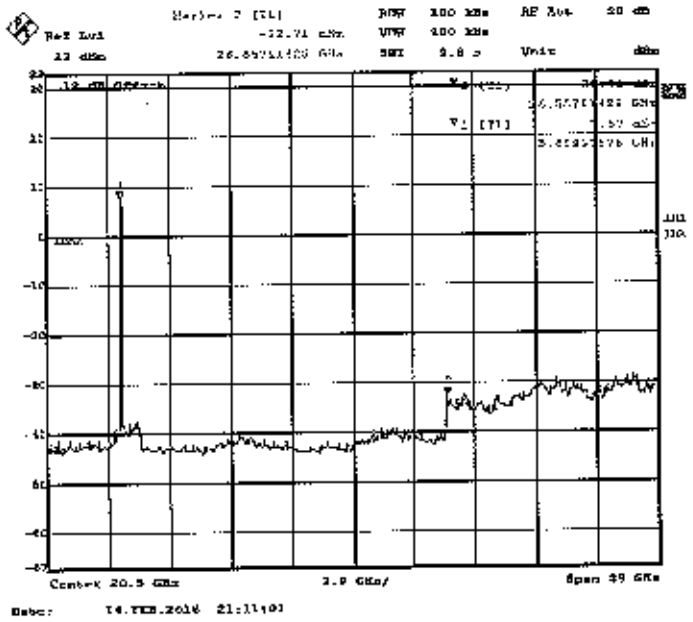


Figure 107: Spurious emission 1 GHz to 40 GHz measured at Ch. 0

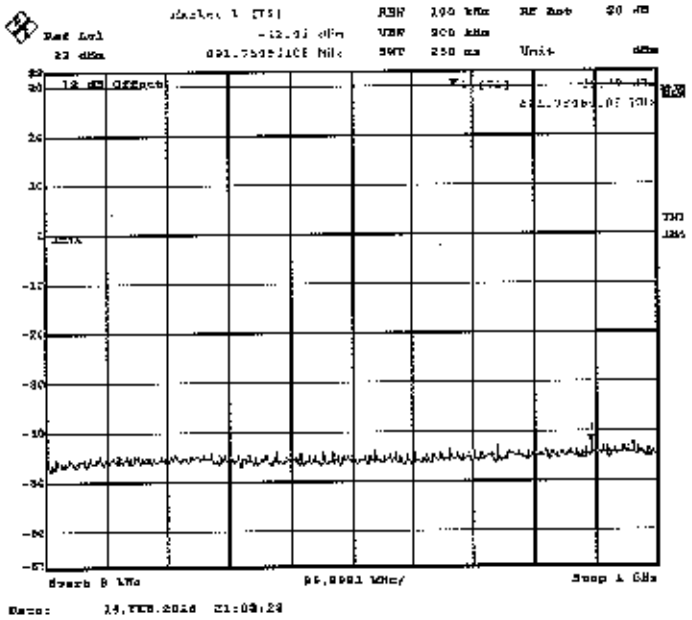


Figure 108 Spurious emission 9 KHz to 1 GHz measured at Ch. 1

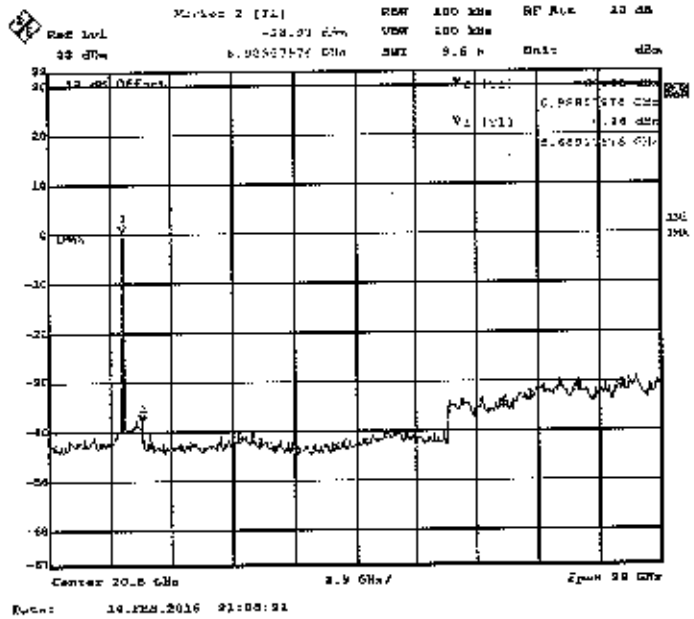


Figure 109 Spurious emission 1 GHz to 40 GHz measured at Ch. 1

MID CHANNEL_5775 MHz

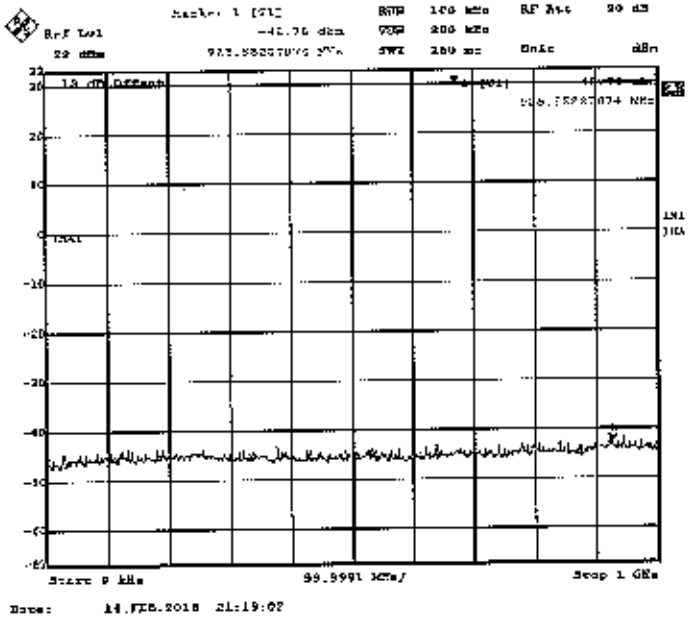


Figure 110: Spurious emission 9 kHz to 1 GHz measured at Ch. 0

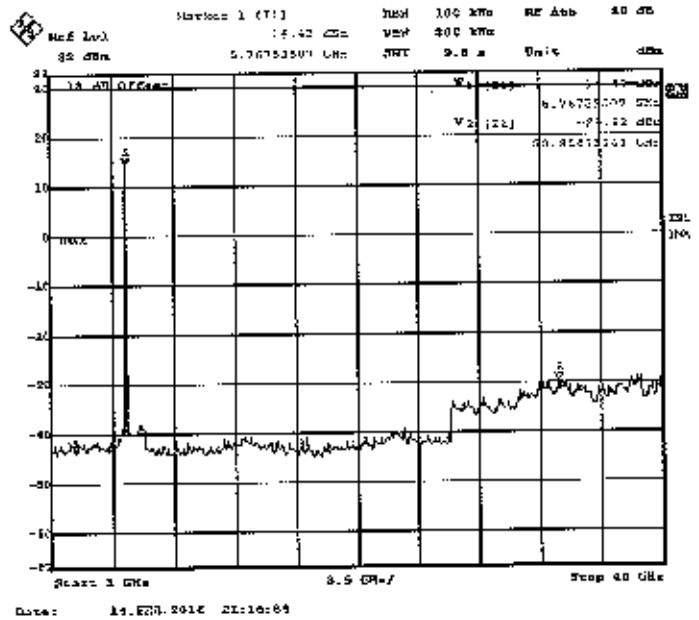


Figure 111: Spurious emission 1 GHz to 40 GHz measured at Ch. 0

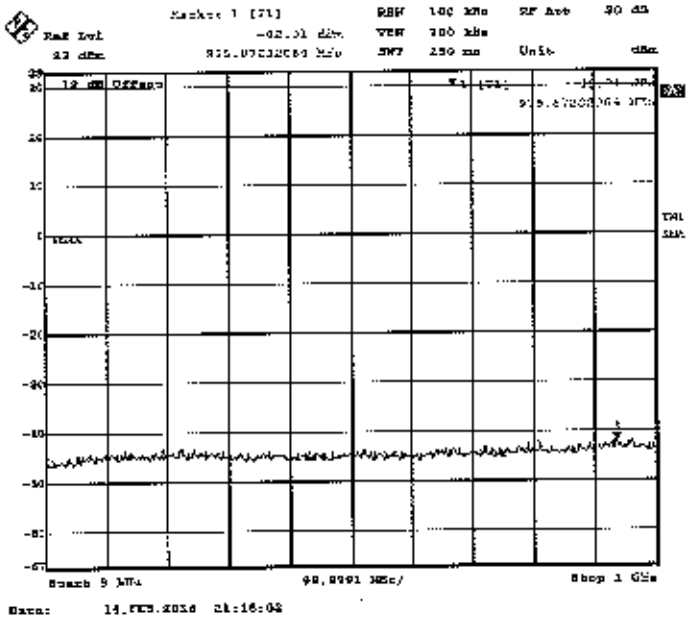


Figure 112 : Spurious emission 9 kHz to 1 GHz measured at Ch. 1

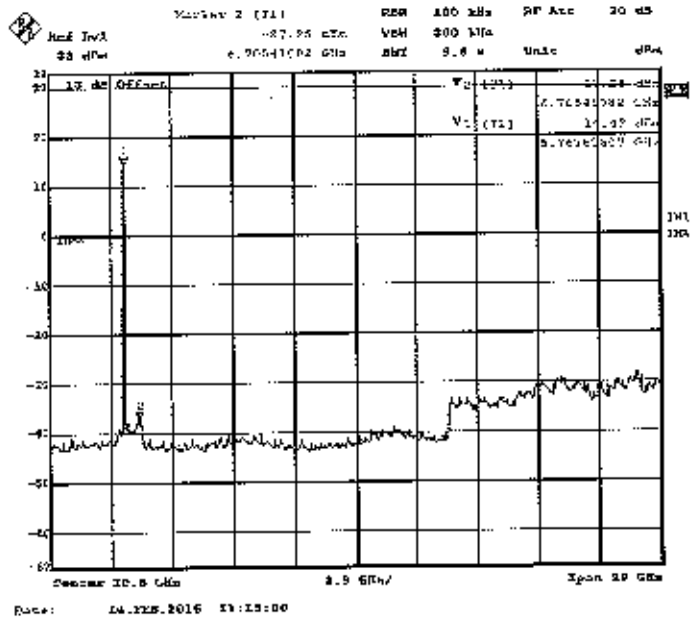


Figure 113: Spurious emission 1 GHz to 40 GHz measured at Ch. 1

HIGH CHANNEL_5825 MHz

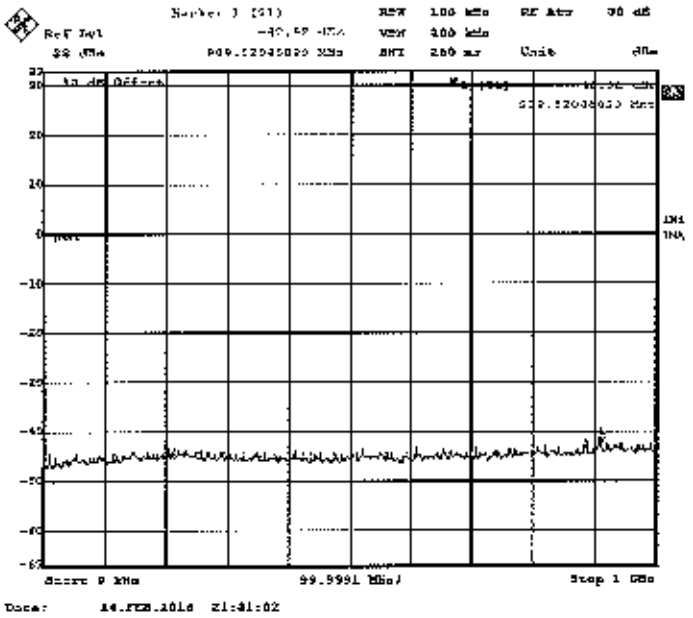


Figure 114 Spurious emission 9 kHz to 1 GHz measured at Ch. 0

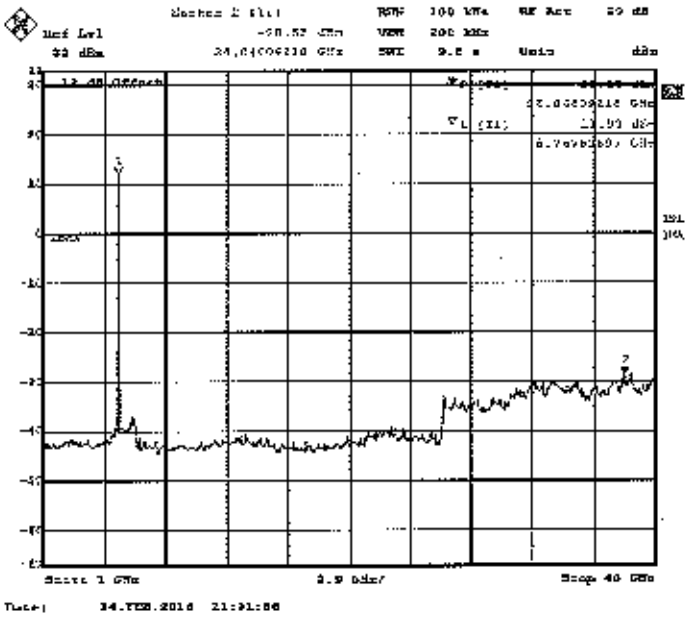


Figure 115: Spurious emission 1 GHz to 40 GHz measured at Ch. 0

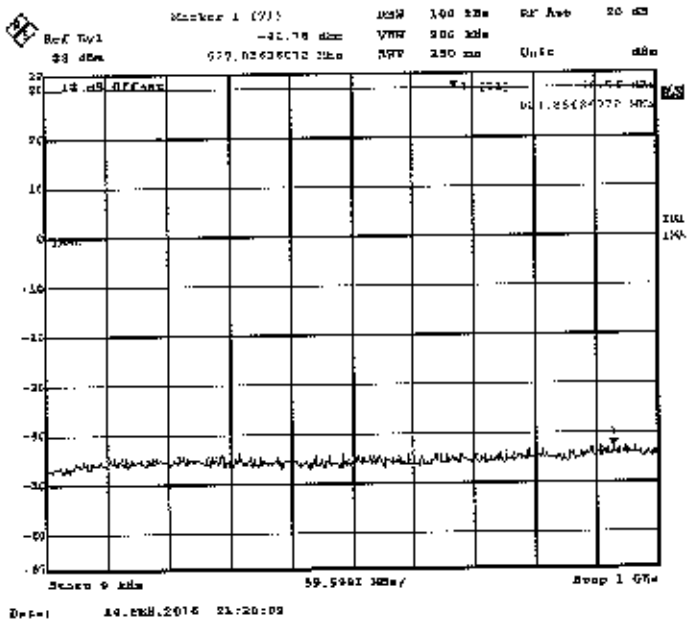


Figure 116 Spurious emission 9 kHz to 1 GHz measured at Ch. 1

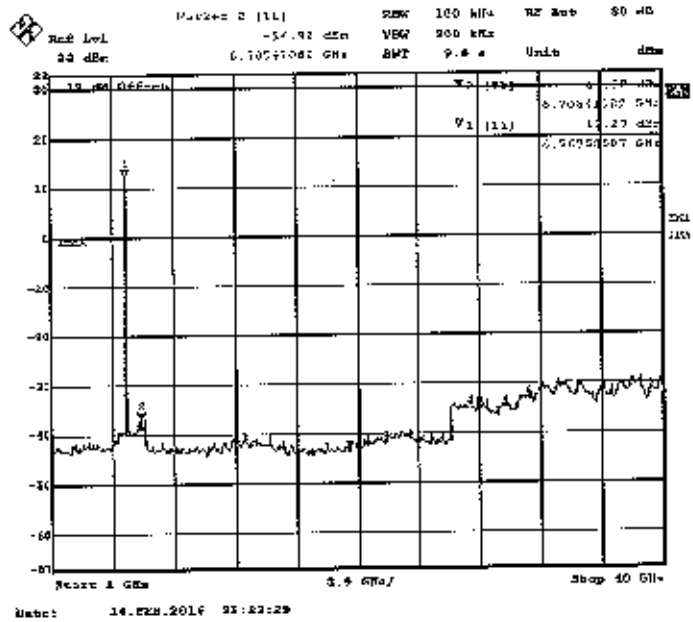


Figure 117: Spurious emission 1 GHz to 40 GHz measured at Ch. 1

5.3.6.5.3 5 MHz MODULATION BANDWIDTH FOR 17 dBi POWER SETTINGS

LOW CHANNEL_5735 MHz

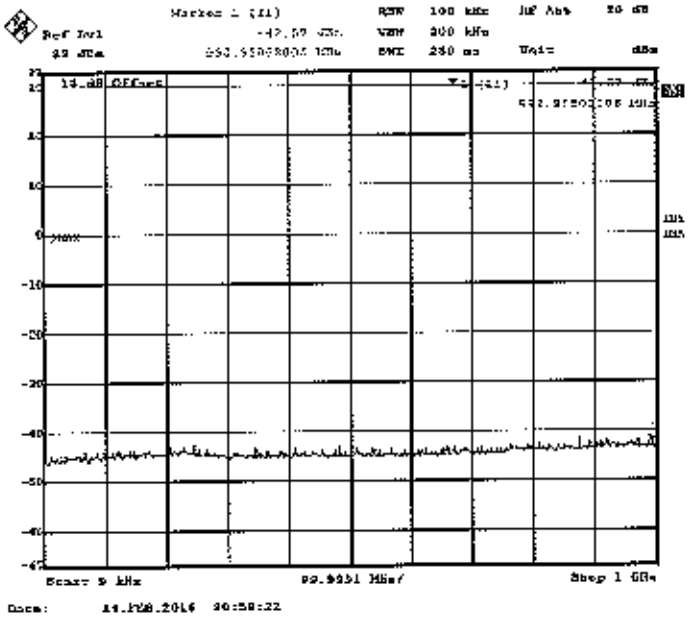


Figure 118 Spurious emission 9 kHz to 1 GHz measured at Ch. 0

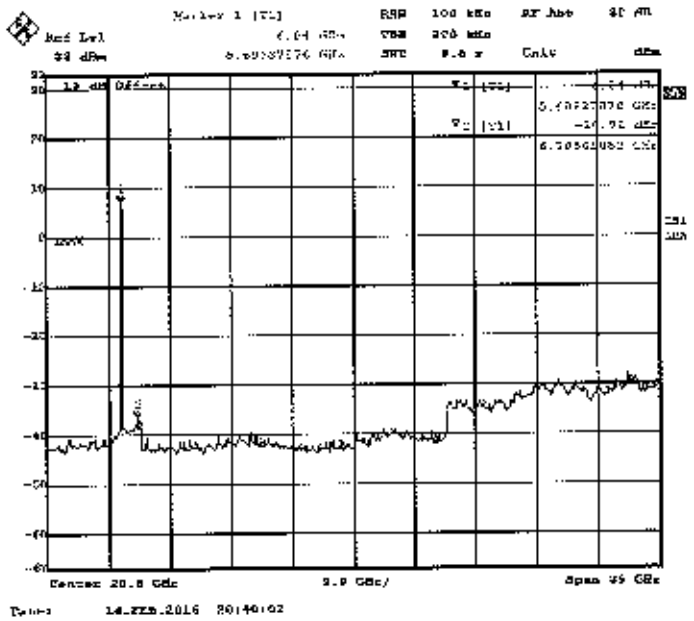


Figure 119: Spurious emission 1 GHz to 40 GHz measured at Ch. 0

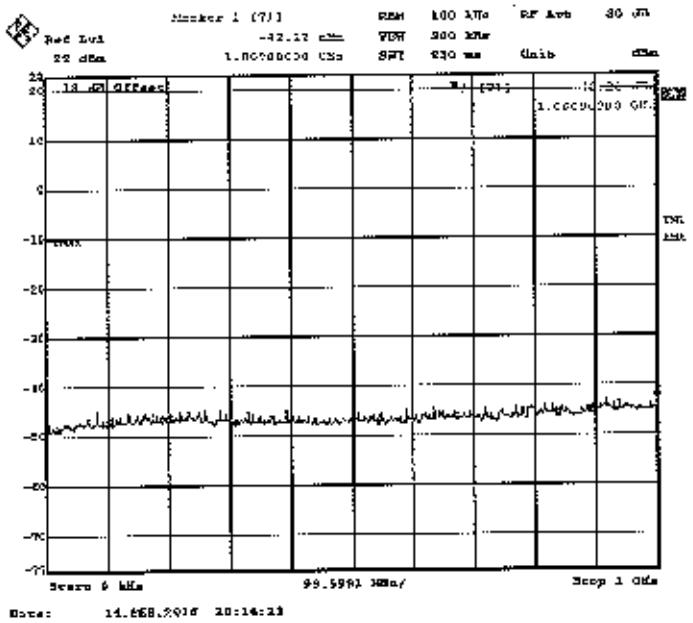


Figure 120: Spurious emission 9 kHz to 1 GHz measured at Ch. 1

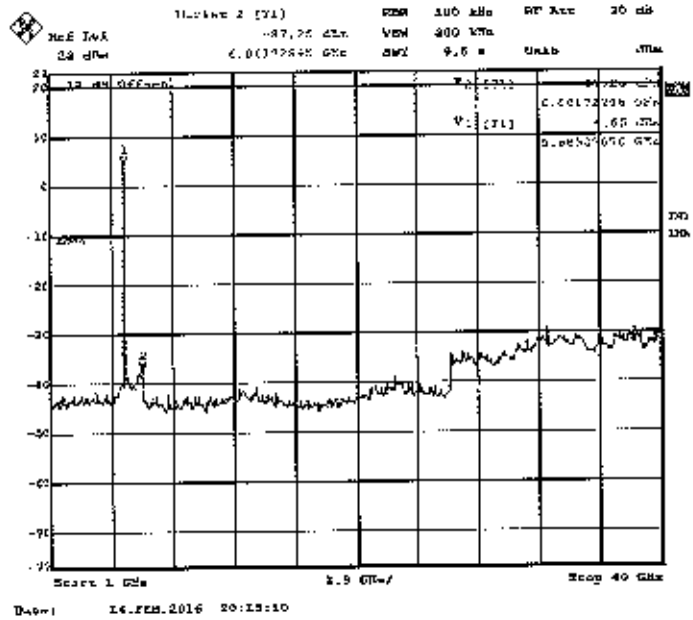


Figure 121: Spurious emission 1 GHz to 40 GHz measured at Ch. 1

MID CHANNEL_5775 MHZ

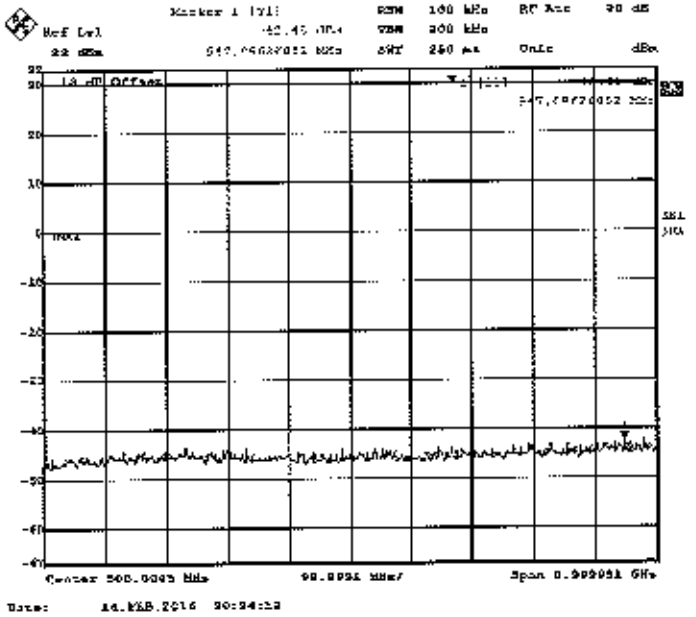


Figure 122 Spurious emission 9 kHz to 1 GHz measured at Ch. 0

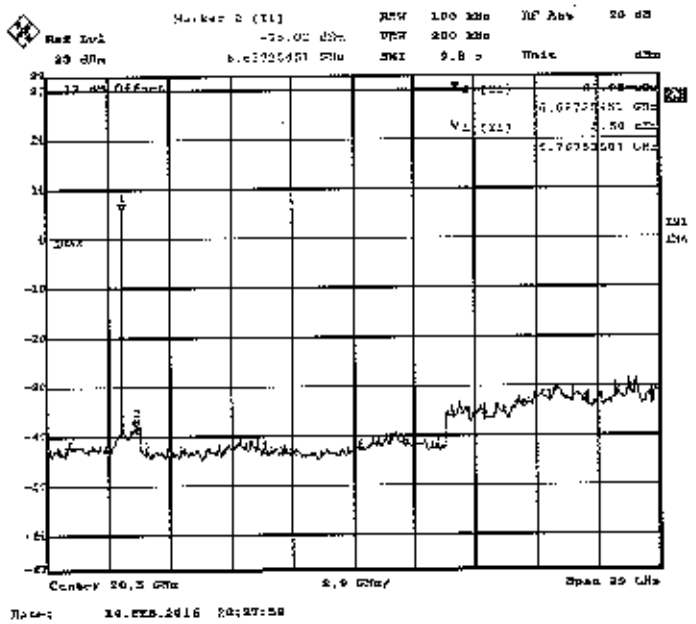


Figure 123: Spurious emission 1 GHz to 40 GHz measured at Ch. 0

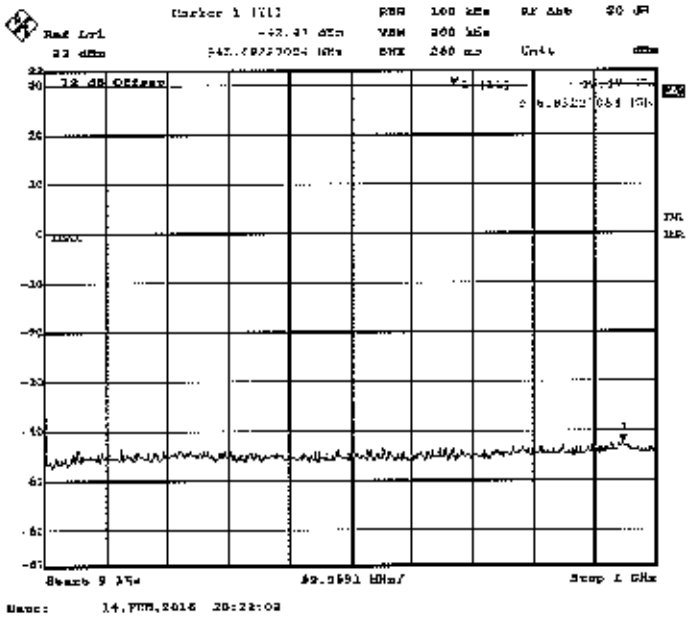


Figure 124 Spurious emission 9 kHz to 1 GHz measured at Ch. 1

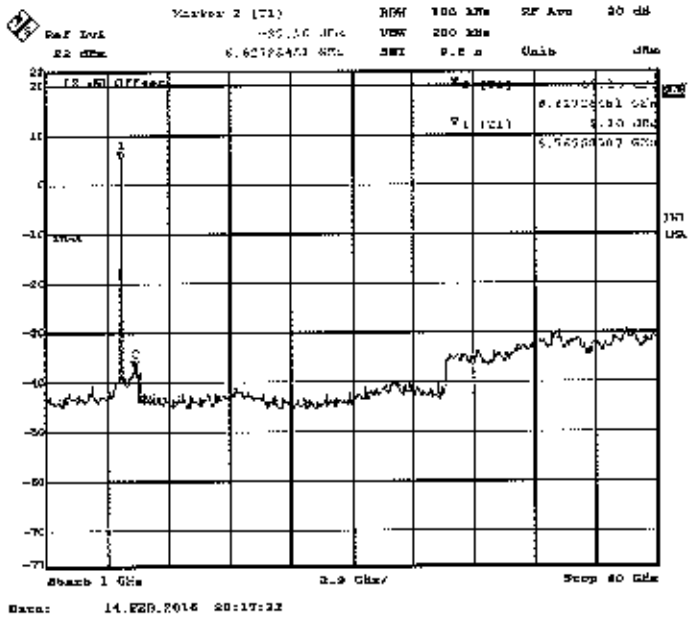


Figure 125: Spurious emission 1 GHz to 40 GHz measured at Ch. 1

HIGH CHANNEL_5840 MHz

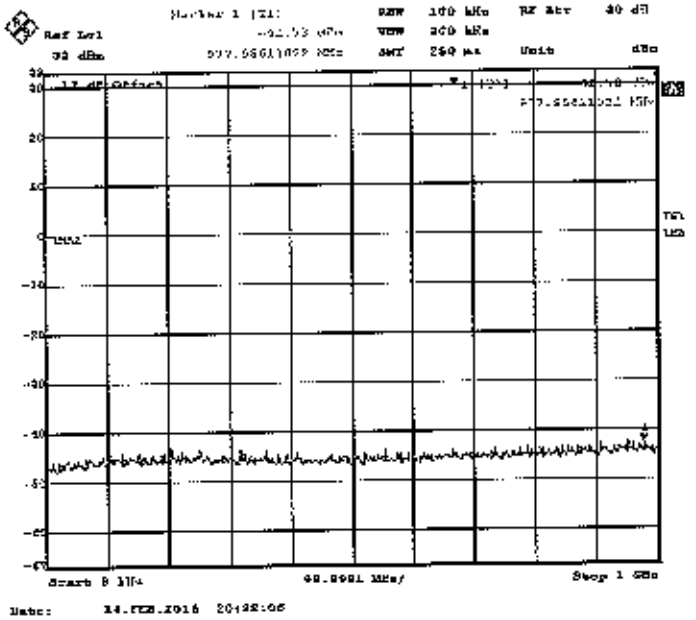


Figure 126 Spurious emission 9 kHz to 1 GHz measured at Ch. 0

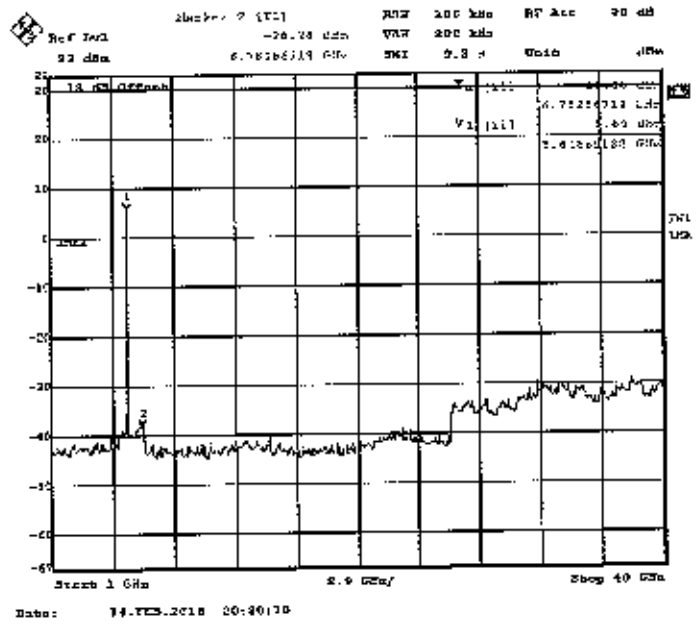


Figure 127: Spurious emission 1 GHz to 40 GHz measured at Ch. 0

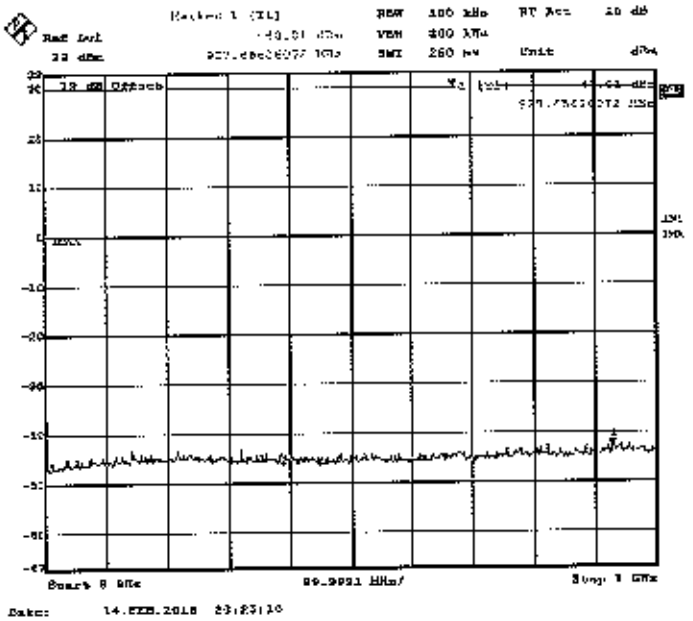


Figure 128 Spurious emission 9 kHz to 1 GHz measured at Ch. 1

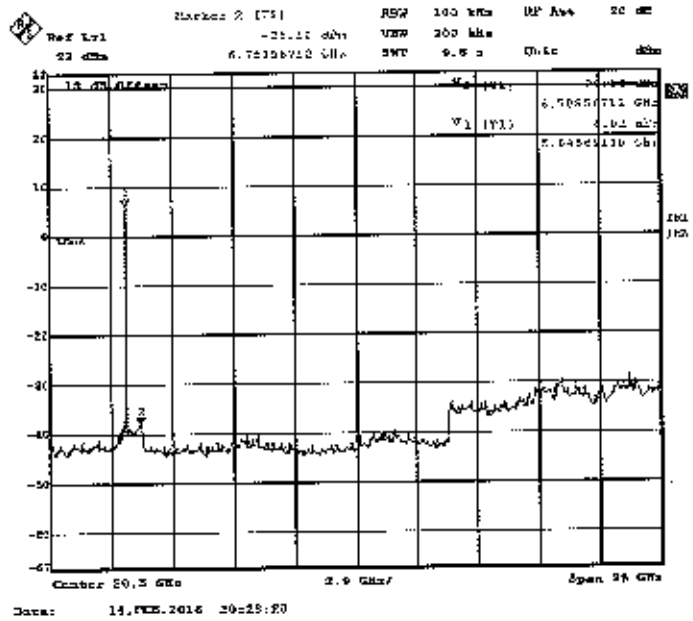


Figure 129: Spurious emission 1 GHz to 40 GHz measured at Ch. 1

5.3.6.5.4 5 MHz MODULATION BANDWIDTH FOR 6 dBi POWER SETTINGS

LOW CHANNEL_5735 MHz

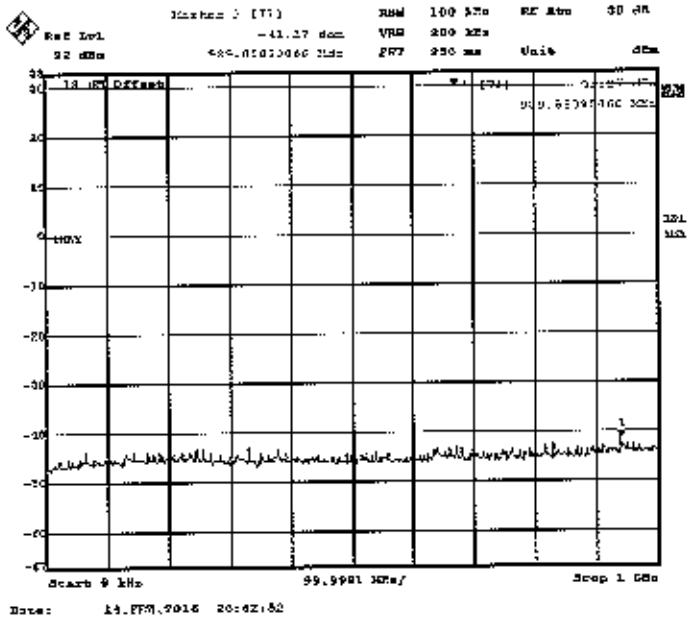


Figure 130 Spurious emission 9 kHz to 1 GHz measured at Ch. 0

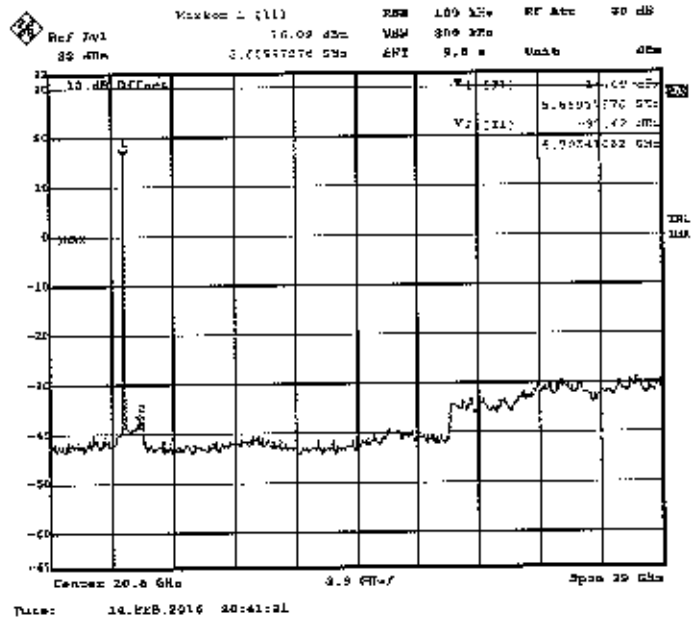


Figure 131: Spurious emission 1 GHz to 40 GHz measured at Ch. 0

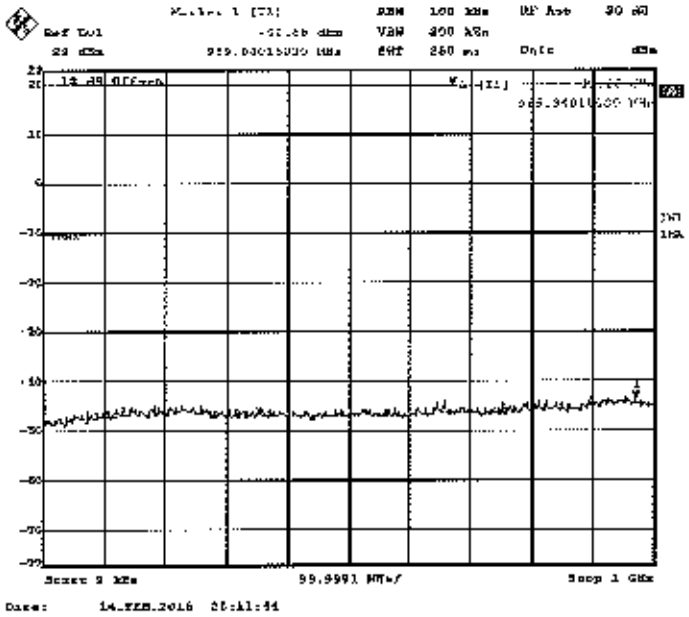


Figure 132 Spurious emission 9 kHz to 1 GHz measured at Ch. 1

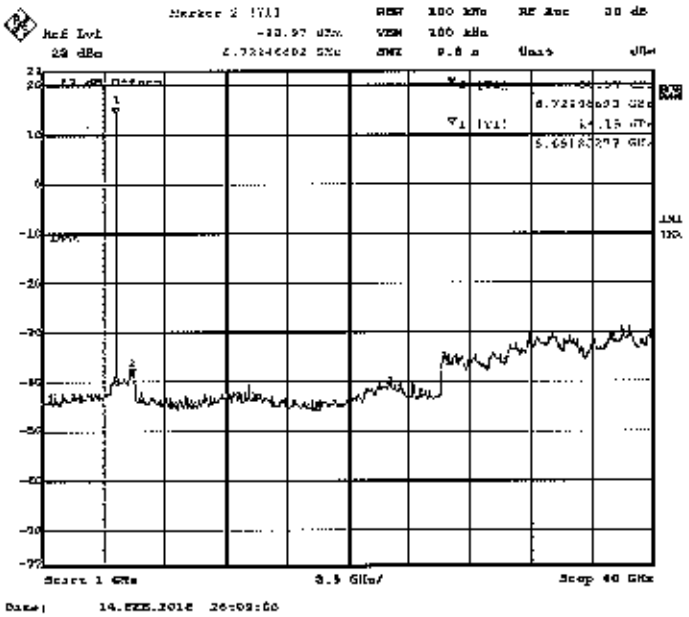


Figure 133: Spurious emission 1 GHz to 40 GHz measured at Ch. 1

MID CHANNEL_5775 MHz

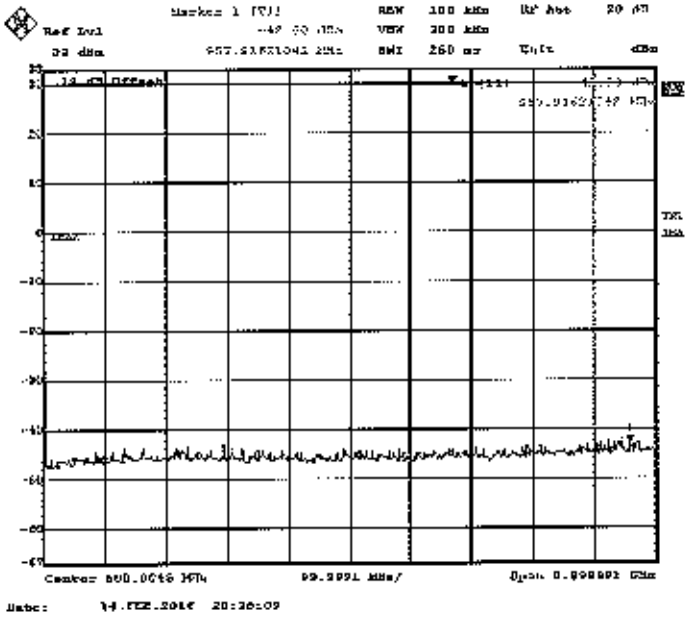


Figure 134 Spurious emission 9 kHz to 1 GHz measured at Ch. 0

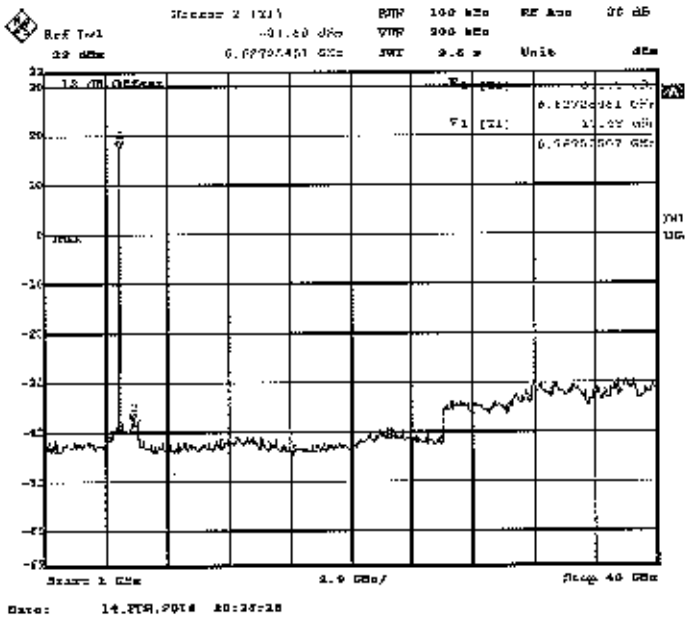


Figure 135: Spurious emission 1 GHz to 40 GHz measured at Ch. 0

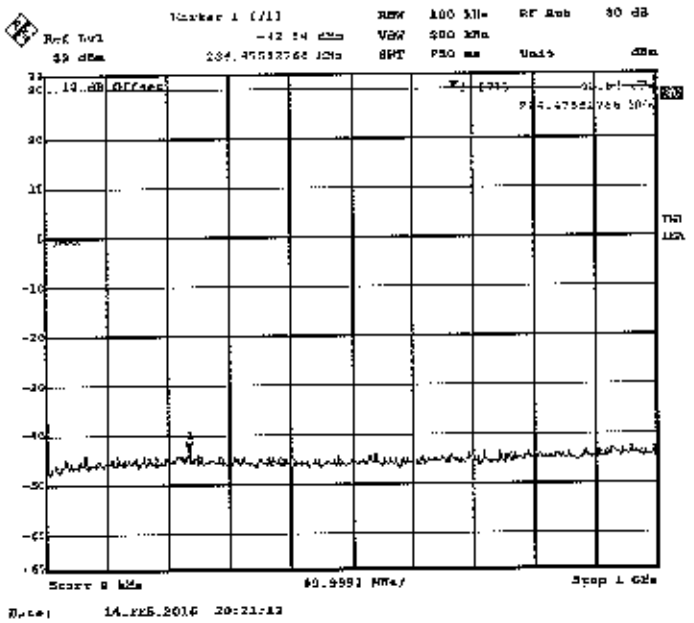


Figure 136 Spurious emission 9 kHz to 1 GHz measured at Ch. 1

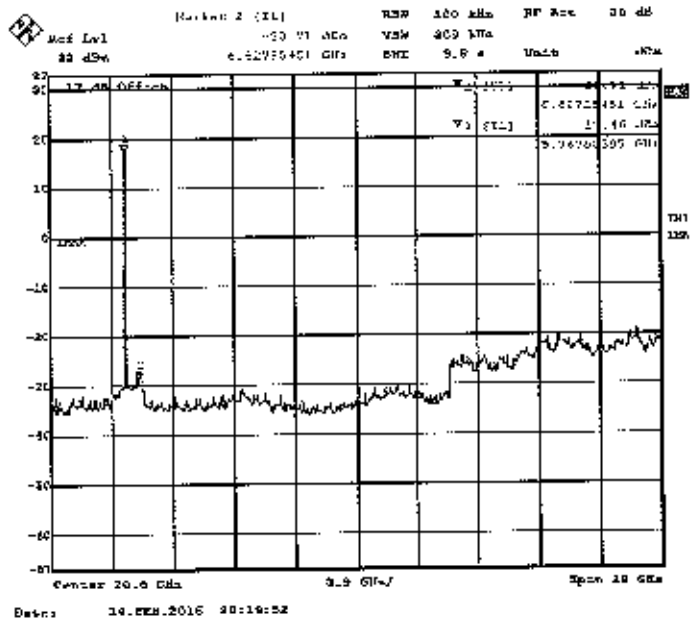


Figure 137: Spurious emission 1 GHz to 40 GHz measured at Ch. 1

HIGH CHANNEL_5840 MHz

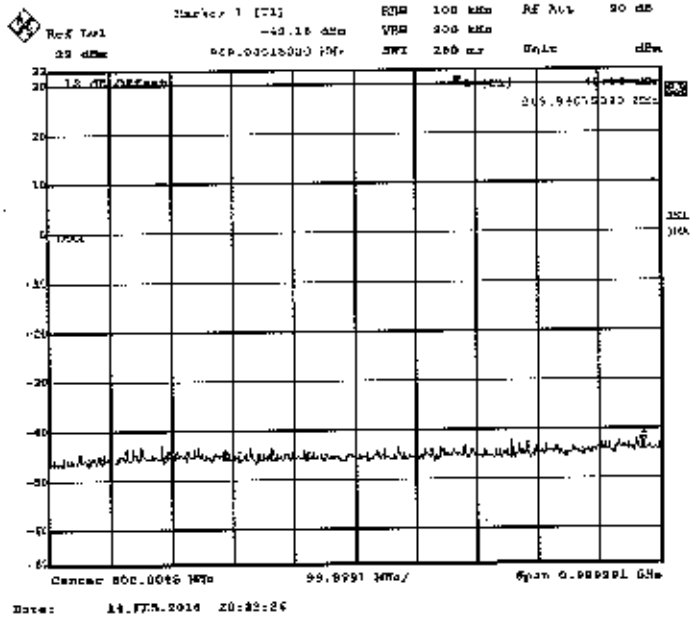


Figure 138 Spurious emission 9 kHz to 1 GHz measured at Ch. 0

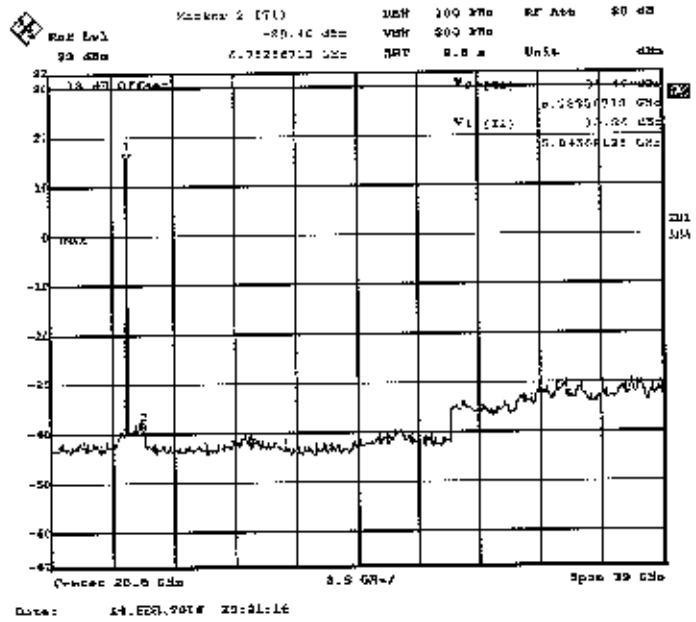


Figure 139: Spurious emission 1 GHz to 40 GHz measured at Ch. 0

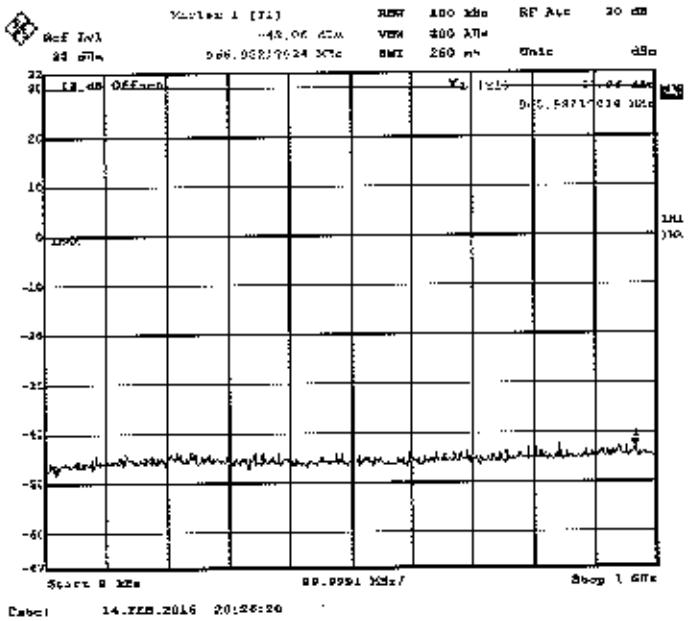


Figure 140 Spurious emission 9 kHz to 1 GHz measured at Ch. 1

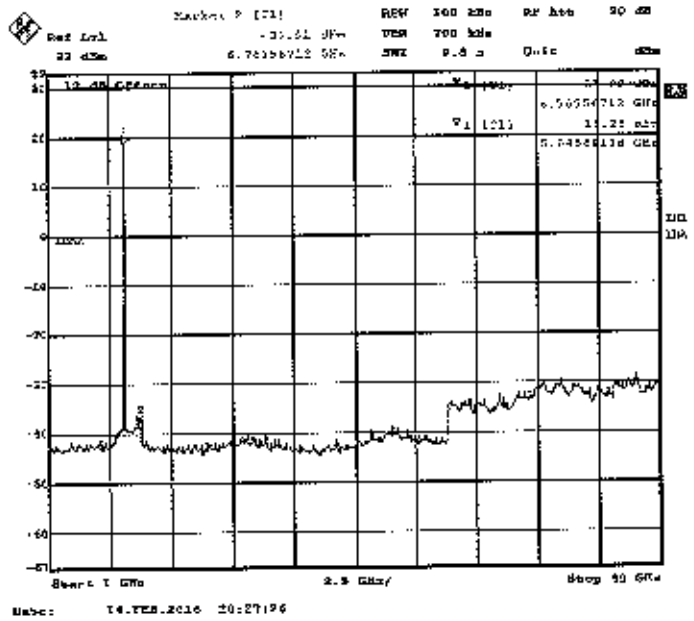


Figure 141: Spurious emission 1 GHz to 40 GHz measured at Ch. 1

5.3.6.6 RESULT

Emission is below -30 dBc from the carrier in all channels for both 40 MHz & 5 MHz Modulation Bandwidths.

5.3.7 TRANSMITTER UNWANTED EMISSIONS (CONDUCTED)

5.3.7.1 TEST SPECIFICATION

Test Standard	47 CFR, Part 15 Feb 2016			
Test Procedure	ANSI C63.10-2013			
Frequency Range	9 kHz - 150 kHz	150 kHz -30 MHz	30 MHz-1 GHz	1 GHz - 40 GHz
Resolution Bandwidth	200 Hz	9 kHz	120 kHz	1 MHz
Video Bandwidth	1 kHz	30 kHz	300 kHz	3 MHz
Sweep Time	Auto	Auto	Auto	Auto
Detector	Peak	Peak	Peak	Peak & Average
Attenuation	Auto			
Test Mode	Conducted			
Input Voltage	120 V AC			
Input Frequency	60 Hz			
Temperature	22.0 °C			
Humidity	56.0 %			
Tested By	Nishanth /Suresh GN			
Test Date	14th Feb 2016			

5.3.7.2 LIMITS

Standard	Reference section	Frequency range	Limit (dBµV/m)
47 CFR, Part 15 Feb 2016	§15.407 b (3) §15.407 b (6)	Within 5715-5725 MHz & 5850-5860 MHz Outside 5715-5860 MHz	89.99 79.99

Table 11: Unwanted emission Limit

Standard	Reference section	Frequency range	Limit (dBµV/m)
47 CFR, Part 15 Feb 2016	§15.209	9 kHz to 490 kHz 490 kHz to 1.705 MHz 1.705 MHz to 30 MHz	128.5194 to 93.8003* 73.8003 to 62.9697* 69.5429

Table 12: General Field strength limit below 30MHz

Note: * *Decreases with the logarithm of the frequency*

Standard	Reference section	Frequency range	Limit (dBµV/m) as per Section 15.209
47 CFR, Part 15 Feb 2016	§15.209	30 MHz to 88 MHz 88 MHz to 216 MHz 216 MHz to 960 MHz 960 MHz to 40 GHz	39.54 43.52 46.02 53.98

Table 13: General Field strength limit above 30MHz

Above table specifies limit with Average detector above 1GHz. 73.98dBµV/m is considered as the limit when Peak detector is employed for the measurements above 1GHz.

5.3.7.3 TEST SETUP

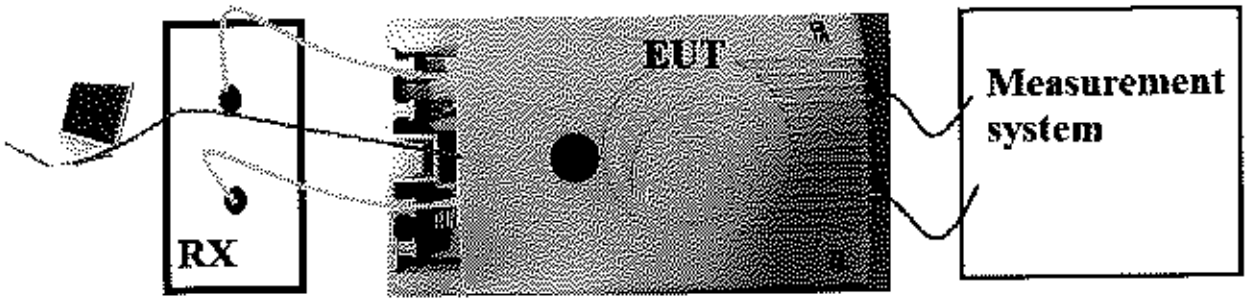


Figure 142 Typical test setup for Conducted Test

5.3.7.4 TEST PROCEDURE

The Conducted test was performed using the Spectrum analyzer/EMI receiver. Measurements were done as per Section II G.0 of KDB **"789033 DO2 General UNII Test Procedure New Rules v01r01"**. The RF output of the EUT was connected to the input port of Spectrum analyzer/EMI receiver using an attenuator. The graph and data captured from spectrum analyzer and performed required calculations to attain the Electric Field value and compared with the limits specified in the standard.

In the frequency range 9 kHz to 1 GHz, the measurement was performed with peak detector. In the frequency range 1 GHz to 40 GHz, measurement was performed employing both peak & average detector as specified in the standard. Detectors were selected based on FCC KDB document.

Peak search option was used to capture the frequency with maximum amplitude in the respective bands and final calculations have been performed on these frequencies to show compliance with the limits specified.

5.3.7.5 MEASUREMENT GRAPHS / DATA

5.3.7.5.1 40 MHz MODULATION BANDWIDTH FOR 17 dBi POWER SETTINGS

LOW CHANNEL_5750 MHz

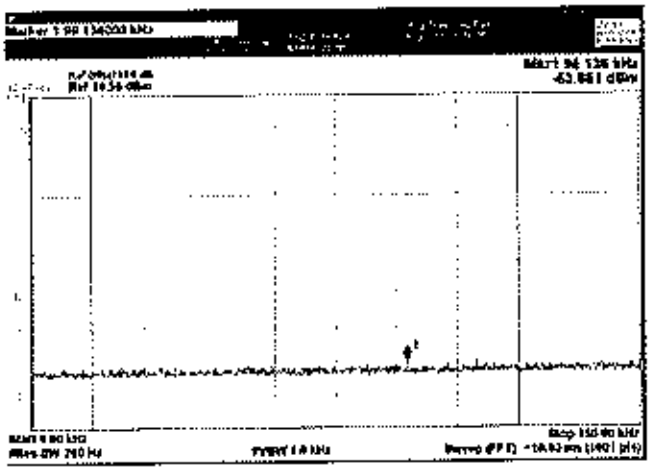


Figure 143 Emission measured with Peak Detector from 9 kHz to 150 kHz at Ch. 0

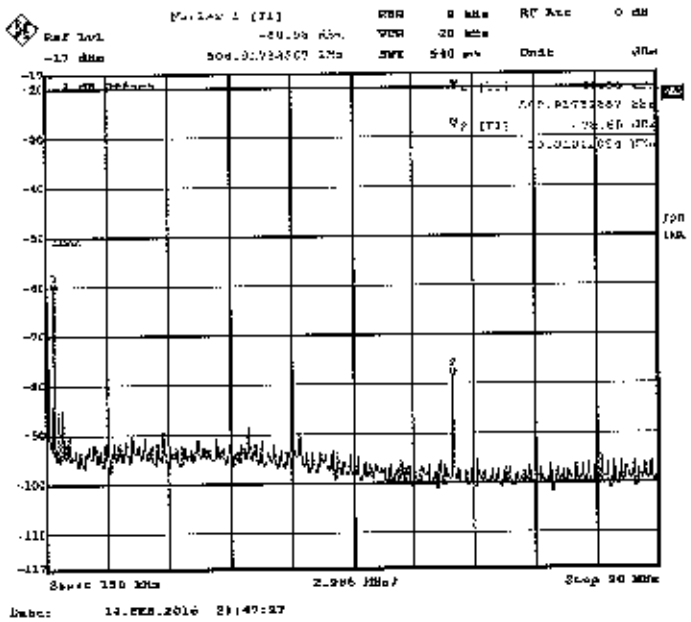


Figure 144 Emission measured with Peak Detector from 150 kHz to 30 MHz at Ch. 0

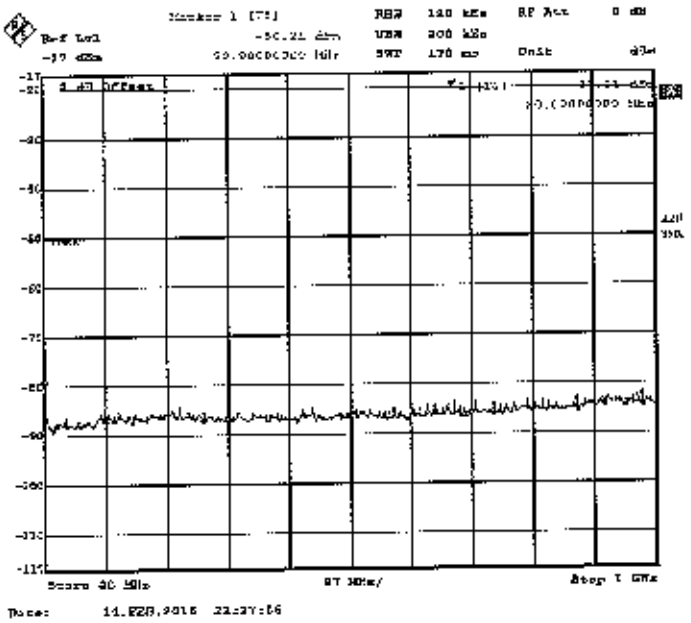


Figure 145 Emission measured with Peak Detector from 30 MHz to 1 GHz at Ch. 0

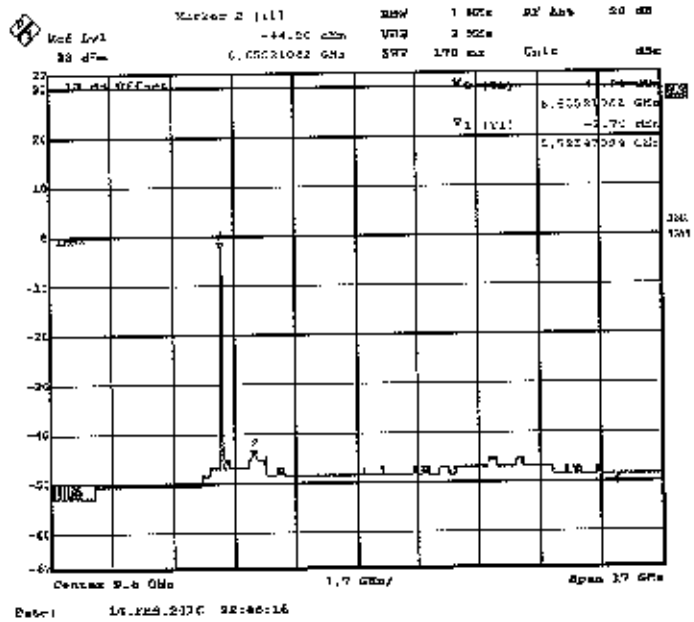


Figure 146 Emission measured with Average Detector from 1 GHz to 18 GHz at Ch. 0

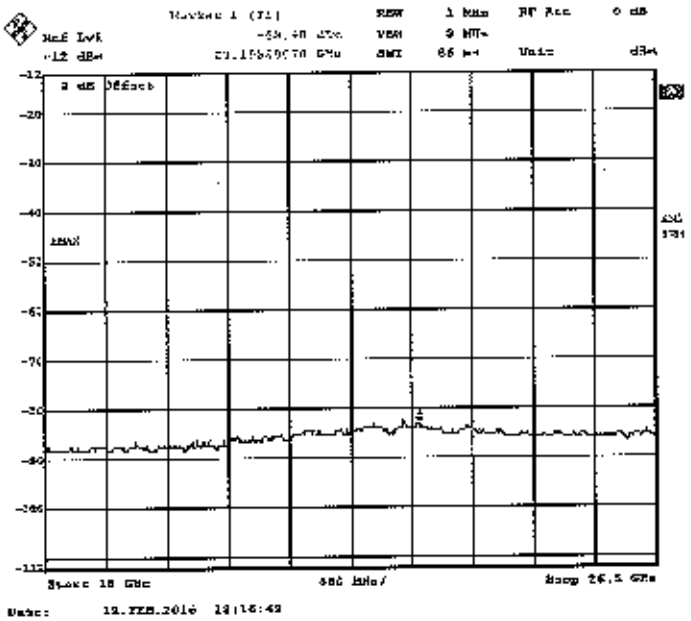


Figure 147 Emission measured with Average Detector from 18 GHz to 26.5 GHz at Ch. 0

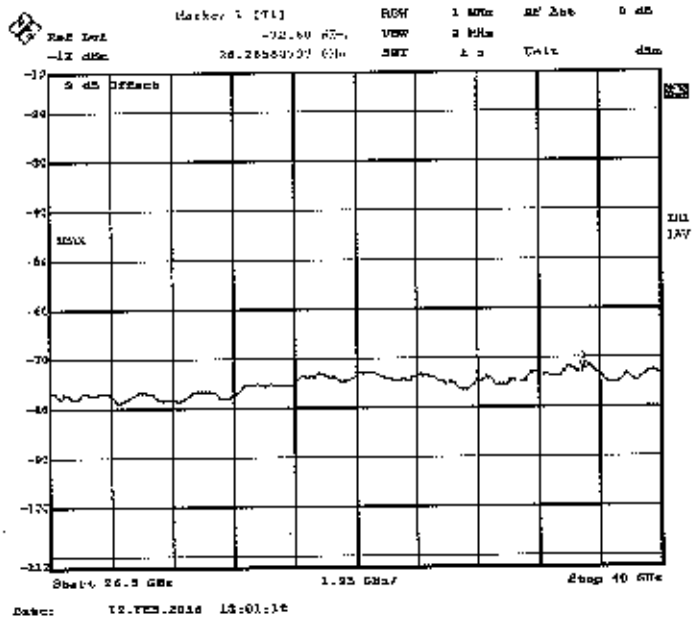


Figure 148 Emission measured with Average Detector from 26.5 GHz to 40 GHz at Ch. 0

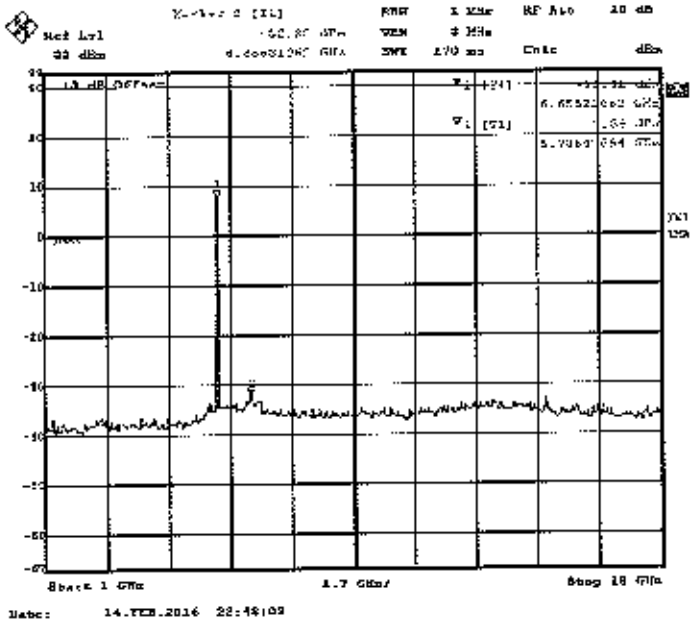


Figure 149 Emission measured with Peak Detector from 1 GHz to 18 GHz at Ch. 0

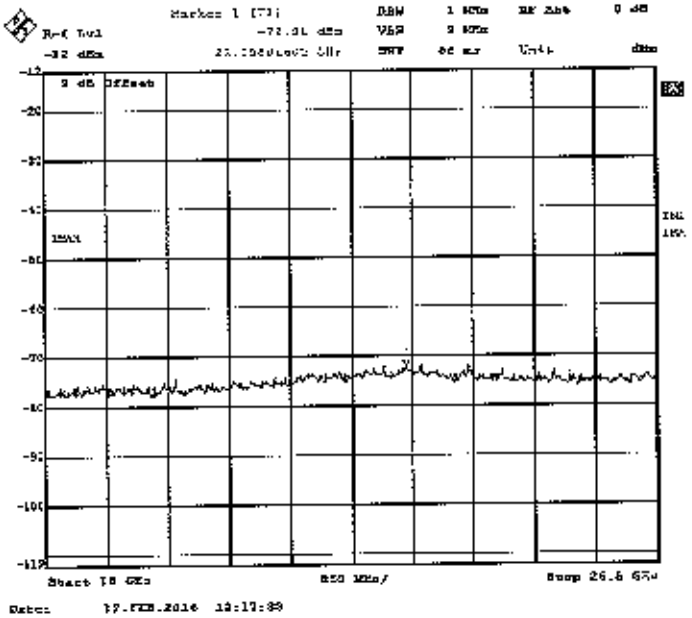


Figure 150 Emission measured with Peak Detector from 18 GHz to 26.5 GHz at Ch. 0

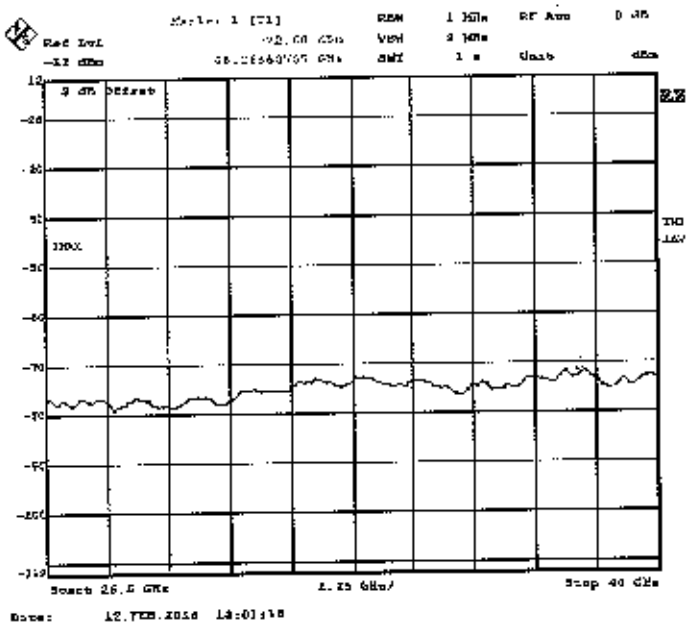


Figure 151 Emission measured with Peak Detector from 26.5 GHz to 40 GHz at Ch. 0

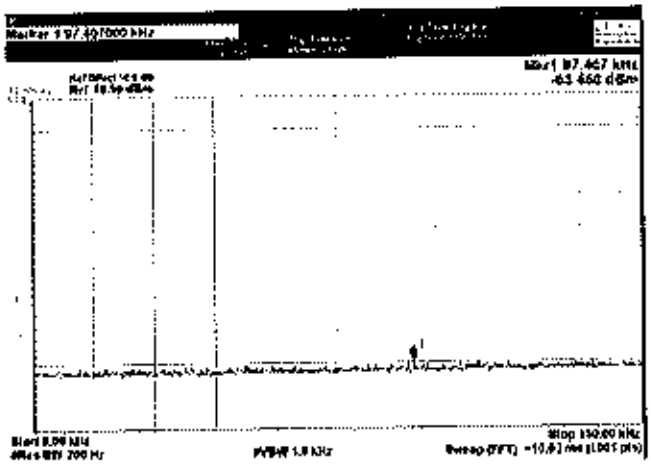


Figure 152 Emission measured with Peak Detector from 9 kHz to 150 kHz at Ch. 1

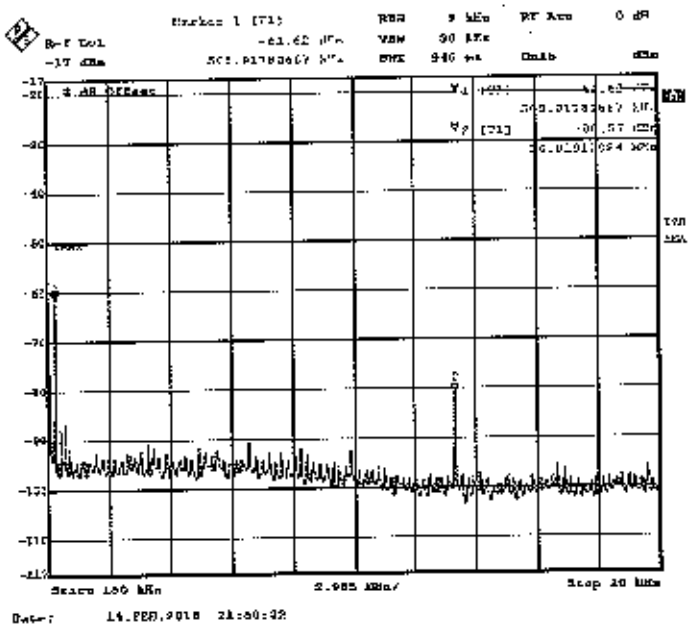


Figure 153 Emission measured with Peak Detector from 150 kHz to 30 MHz at Ch. 1

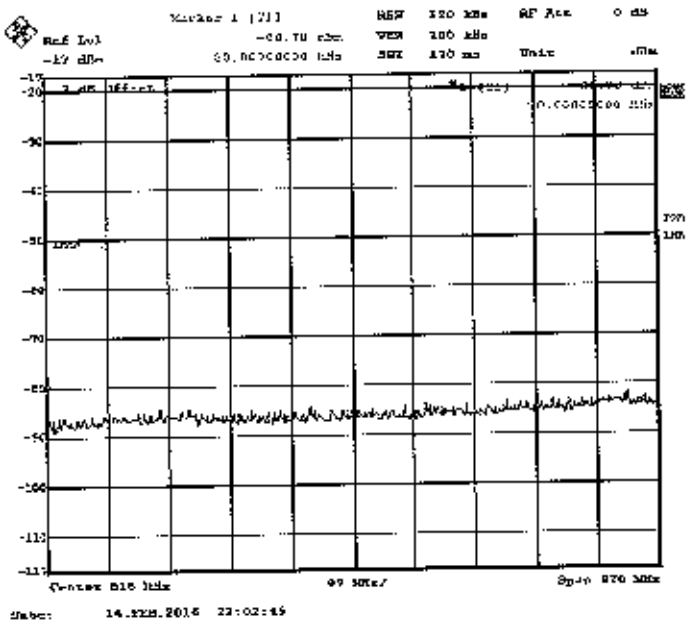


Figure 154 Emission measured with Peak Detector from 30 MHz to 1 GHz at Ch. 1

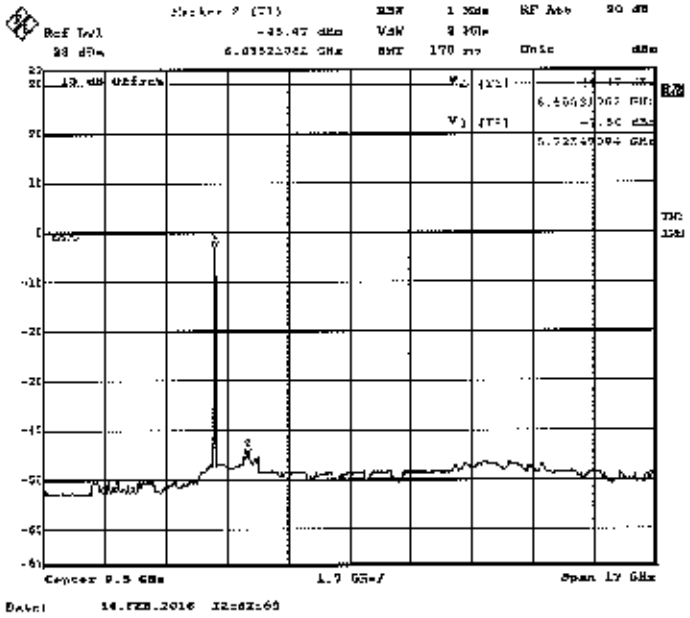


Figure 155 Emission measured with Average Detector from 1 GHz to 18 GHz at Ch. 1

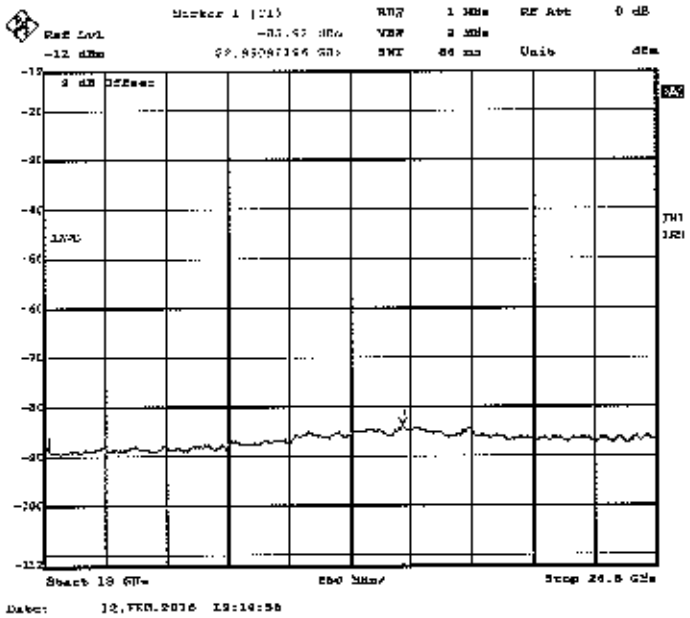


Figure 156 Emission measured with Average Detector from 18 GHz to 26.5 GHz at Ch. 1

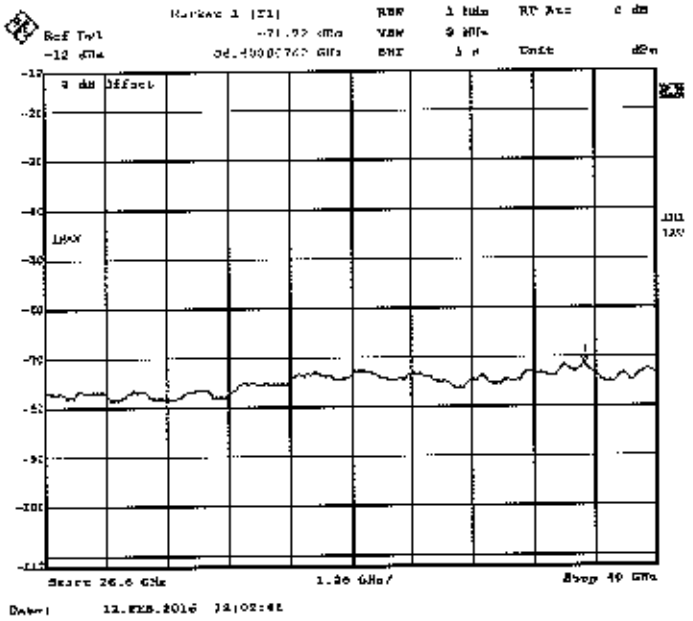


Figure 157 Emission measured with Average Detector from 26.5 GHz to 40 GHz at Ch. 1

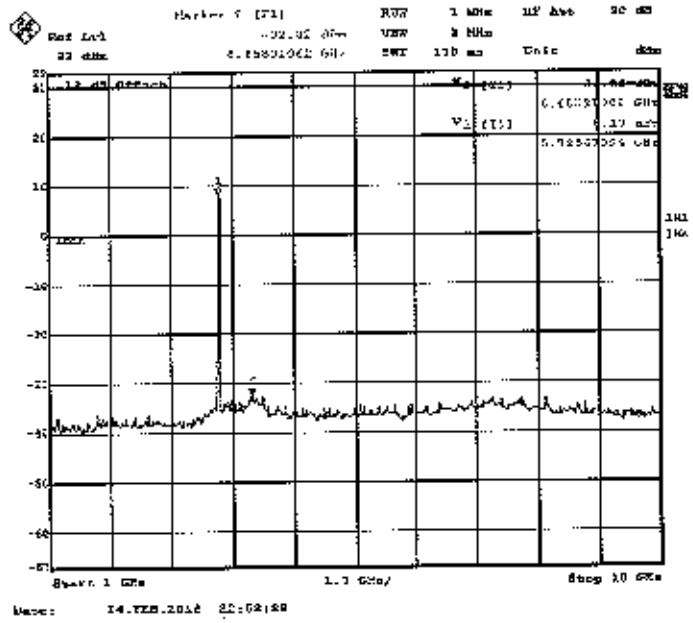


Figure 158 Emission measured with Peak Detector from 1 GHz to 18 GHz at Ch. 1

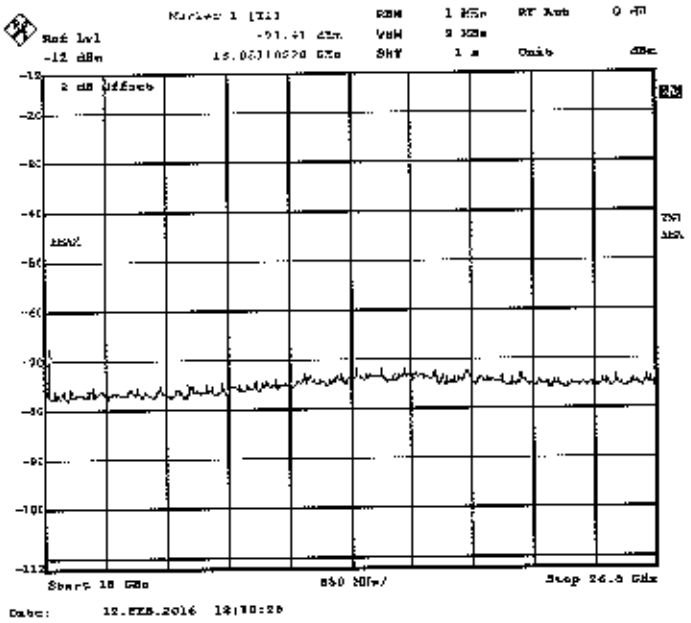


Figure 159 Emission measured with Peak Detector from 18 GHz to 26.5 GHz at Ch. 1

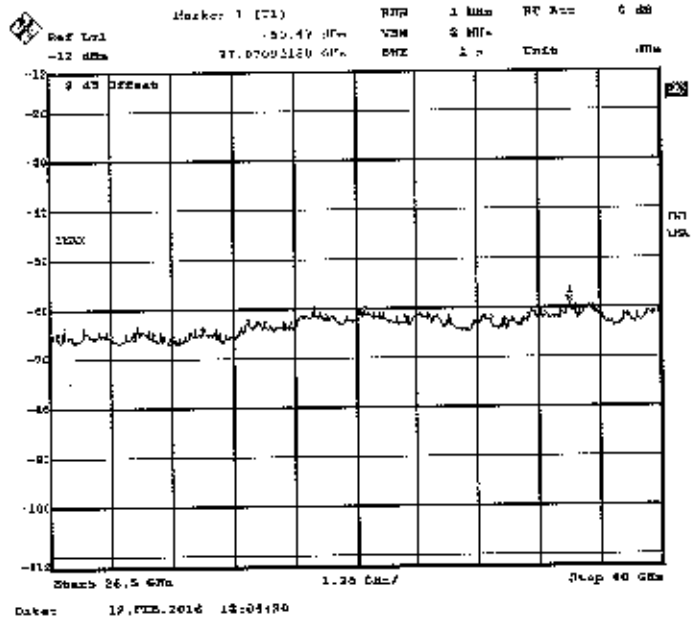


Figure 160 Emission measured with Peak Detector from 26.5 GHz to 40 GHz at Ch. 1