Test of: Tarana Wireless - AbsoluteAir2

To: FCC Part 90 Subpart Z & IC RSS-197

Test Report Serial No.: TARA05-U4 Rev A

TEST REPORT

FROM

Test of: Tarana Wireless - AbsoluteAir2

To: FCC Part 90 Subpart Z & IC RSS-197

Test Report Serial No.: TARA05-U4 Rev A

This report supersedes NONE

Manufacturer: Tarana Wireless
2953 Bunker Hill Lane, Suite #100
Santa Clara, California 95054
USA

Product Function: Point-to-Point and Multiple Point to Point Wireless Backhaul

Copy No: pdf **Issue Date:** 3rd June 2015

This Test Report is Issued Under the Authority of;

MiCOM Labs, Inc.
575 Boulder Court
Pleasanton, CA 94566 USA
Phone: +1 (925) 462-0304
Fax: +1 (925) 462-0306
www.micomlabs.com

ACCREDITED
TESTING CERT #2381.01

MiCOM Labs is an ISO 17025 Accredited Testing Laboratory

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ACCREDITATION, LISTINGS and RECOGNITION

TESTING ACCREDITATION

MiCOM Labs, Inc. is an accredited Electrical testing laboratory per the international standard EN ISO/IEC 17025. The company is accredited by the American Association for Laboratory Accreditation (A2LA) www.a2la.org test laboratory number 2381.01. MiCOM Labs test schedule is available at the following URL; http://www.a2la.org/scopepdf/2381-01.pdf

American Association for Laboratory Accreditation

Accredited Laboratory

A2LA has accredited

MICOM LABS

Pleasanton, CA

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

Presented this 28th day of February 2014.

President & CEO
For the Accreditation Council
Certificate Number 2381.01
Valid to November 30, 2015

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

RECOGNITION

MiCOM Labs, Inc has widely recognized Electrical testing capabilities. Our international recognition includes Conformity Assessment Body designation by APEC MRA** countries. Our test reports are widely accepted for global type approvals.

Country	Recognition Body	Status	Phase	Identification No.
USA	Federal Communications Commission (FCC)	TCB	-	US0159 Listing #: 102167
Canada	Industry Canada (IC)	FCB	APEC MRA 2	US0159 Listing #: 4143A-2
Japan	MIC (Ministry of Internal Affairs and Communication)	CAB	APEC MRA 2	RCB 210
	VCCI	--	--	A-0012
Europe	European Commission	NB	EU MRA	NB 2280
Australia	Australian Communications and Media Authority (ACMA)	CAB	APEC MRA 1	US0159
Hong Kong	Office of the Telecommunication Authority (OFTA)	CAB	APEC MRA 1	
Korea	Ministry of Information and Communication Radio Research Laboratory (RRL)	CAB	APEC MRA 1	
Singapore	Infocomm Development Authority (IDA)	CAB	APEC MRA 1	
Taiwan	National Communications Commission (NCC) Bureau of Standards, Metrology and Inspection (BSMI)	CAB	APEC MRA 1	
Vietnam	Ministry of Communication (MIC)	CAB	APEC MRA 1	

**APEC MRA – Asia Pacific Economic Community Mutual Recognition Agreement.
Is a recognition agreement under which test lab is accredited to regulatory standards of the APEC member countries.
Phase I - recognition for product testing
Phase II – recognition for both product testing and certification
N/A – Not Applicable

**EU MRA – European Union Mutual Recognition Agreement.
Is a recognition agreement under which test lab is accredited to regulatory standards of the EU member countries.

**NB – Notified Body

PRODUCT CERTIFICATION

MiCOM Labs, Inc. is an accredited Product Certification Body per the international standard EN ISO/IEC 17065. The company is accredited by the American Association for Laboratory Accreditation (A2LA) www.a2la.org test laboratory number 2381.02. MiCOM Labs test schedule is available at the following URL; http://www.a2la.org/scopepdf/2381-02.pdf

United States of America – Telecommunication Certification Body (TCB)
TCB Identifier – US0159

Industry Canada – Certification Body
CAB Identifier – US0159

Europe – Notified Body
Notified Body Identifier - 2280

Japan – Recognized Certification Body (RCB)
RCB Identifier - 210

DOCUMENT HISTORY

Document History		
Revision	Date	Comments
Draft		
Rev A	3rd June 2015	Initial Release

1. TEST RESULT CERTIFICATE

Manufacturer:	Tarana Wireless 2953 Bunker Hill Lane, Suite #100 Santa Clara, California 95054 USA	Tested By:	MiCOM Labs, Inc. 575 Boulder Court Pleasanton California 94566 USA
EUT:	Point-to-Point and Multiple Point to Point Wireless Backhaul	Telephone:	+1 925 462 0304
Model:	AbsoluteAir2 family of products	Fax:	+1 925 462 0306
S/N:	Prototype		
Test Date(s):	7th - 25th May 2015	Website:	www.micomlabs.com

STANDARD(S)	TEST RESULTS
FCC Part 90 Subpart Z & IC RSS-197	EQUIPMENT COMPLIES

MiCOM Labs, Inc. tested the equipment mentioned in accordance with the requirements set forth in the above standards. Test results indicate that the equipment tested is capable of demonstrating compliance with the requirements as documented within this report.

Notes:

1. This document reports conditions under which testing was conducted and the results of testing performed.
2. Details of test methods used have been recorded and kept on file by the laboratory.
3. Test results apply only to the item(s) tested.

TESTING CERT #2381.01

Approved & Released for MiCOM Labs, Inc. by:

Graeme Grieve
Quality Manager MiCOM Labs,

Gordon Hurst
President & CEO MiCOM Labs, Inc.

2. REFERENCES AND MEASUREMENT UNCERTAINTY

2.1. Normative References

Ref.	Publication	Year	Title
(i)	FCC 47 CFR Part 90	2004	Code of Federal Regulations
(ii)	IC RSS-197	Feb 2010	Wireless Broadband Access Equipment Operating in the Band 3650–3700 MHz
(iii)	ANSI C63.4	2003	American National Standards for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
(iv)	CISPR 22/ EN 55022	1997 1998	Limits and Methods of Measurements of Radio Disturbance Characteristics of Information Technology Equipment
(v)	M 3003	Edition 1 Dec. 1997	Expression of Uncertainty and Confidence in Measurements
(vi)	LAB34	Edition 1 Aug 2002	The expression of uncertainty in EMC Testing
(Vii)	ETSI TR 100 028	2001	Parts 1 and 2 Electromagnetic compatibility and Radio Spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics
(Viii)	A2LA	14th September 2005	Reference to A2LA Accreditation Status – A2LA Advertising Policy

2.2. Test and Uncertainty Procedures

Conducted and radiated emission measurements were conducted in accordance with American National Standards Institute ANSI C63.4, listed in the Normative References section of this report.

Measurement uncertainty figures are calculated in accordance with ETSI TR 100 028 Parts 1 and 2.

Measurement uncertainties stated are based on a standard uncertainty multiplied by a coverage factor k = 2, providing a level of confidence of approximately 95 % in accordance with UKAS document M 3003 listed in the Normative References section of this report.

3. PRODUCT DETAILS AND TEST CONFIGURATIONS

3.1. Technical Details

Details	Description
Purpose:	Test of the Tarana Wireless - AbsoluteAir2 to FCC Part 90 Subpart Z & IC RSS-197 regulations.
Applicant:	Tarana Wireless 2953 Bunker Hill Lane, Suite #100 Santa Clara, California 95054 USA
Manufacturer:	As Applicant
Laboratory performing the tests:	MiCOM Labs, Inc. 575 Boulder Court Pleasanton, California 94566 USA
Test report reference number:	TARA05-U4 Rev A
Date EUT received:	23rd February 2015
Dates of test (from - to):	7th - 25th May 2015
Standard(s) applied:	FCC Part 90 Subpart Z & IC RSS-197
No of Units Tested:	1
Type of Equipment:	Point-to-Point and Multiple Point to Point Wireless Backhaul
Manufacturers Trade Name:	Tarana Wireless
Model(s):	AbsoluteAir2: CN, EN and RN
Location for use:	Outdoor use only
Contention Based Protocol:	Not implemented
Declared Frequency Range(s):	Transmit: 3,650 – 3,675 MHz Receiver: 3,650 – 3,675 MHz
Type of Modulation:	OFDM
Operational Bandwidths:	10, 20 MHz
Declared Maximum Output Power:	+22 dBm conducted
ITU Emission Designator:	10 MHz: 10M0W7W 20 MHz: 20M0W7W
Transmit/Receive Operation:	Time Division Duplex (TDD)
Rated Input Voltage and Current:	POE: 115Vac 60Hz / +55 Vdc 1.4 A
Operating Temperature Range:	Client declared: -40ºC to +55ºC
Equipment Dimensions:	CN and EN-HP: 280 x 300 x 133 mm (W x H x D) SP: 245 x 300 x 113 mm (W x H x D)
Weight:	CN and EN-HP: 5.4 kgs SP: 4.9 kgs
Primary function of equipment:	Point-to-Point and Multiple Point to Point Wireless Backhaul

CN: Concentrator Node
EN: End Node
RN: Residential Node

3.2. Scope of Test Program

The scope of the test program was to test the Tarana Wireless - AbsoluteAir2 for compliance against;-

FCC 47 CFR Part 90, Subpart Z & IC RSS-197 regulatory requirements.

Per Part 90 Subpart Z, 90.1319 & RSS-197 Section 4.2 the AbsoluteAir2 equipment does not incorporate a contention based protocol therefore this device is limited to using the initial 25 MHz of spectrum of the frequency band (3,650 – 3675 MHz).

The AbsoluteAir2 has two operational bandwidths 10 and 20 MHz modulation OFDM in the frequency range 3650 to 3675 MHz.

AbsoluteAir2 Device Operation
The AbsoluteAir2 has 16 antenna ports which are split into the following cross polarized offering;

8 horizontally polarized
8 vertically polarized

Test Strategy – Reference KDB 662911 D02
The AbsoluteAir2 operates on two continuous data streams and per KDB 662911 section F(2)e(i) permits the reduction of antennas used for power calculations to 4 directional antennas.

Effective Gain = Antenna Gain + 10*log (N_{ant} / N_{ss}) = Antenna Gain + 10 * Log (8/2)
= Antenna Gain + 6 dB

N_{ant}=Number of antennas
N_{ss}=number of independent data streams

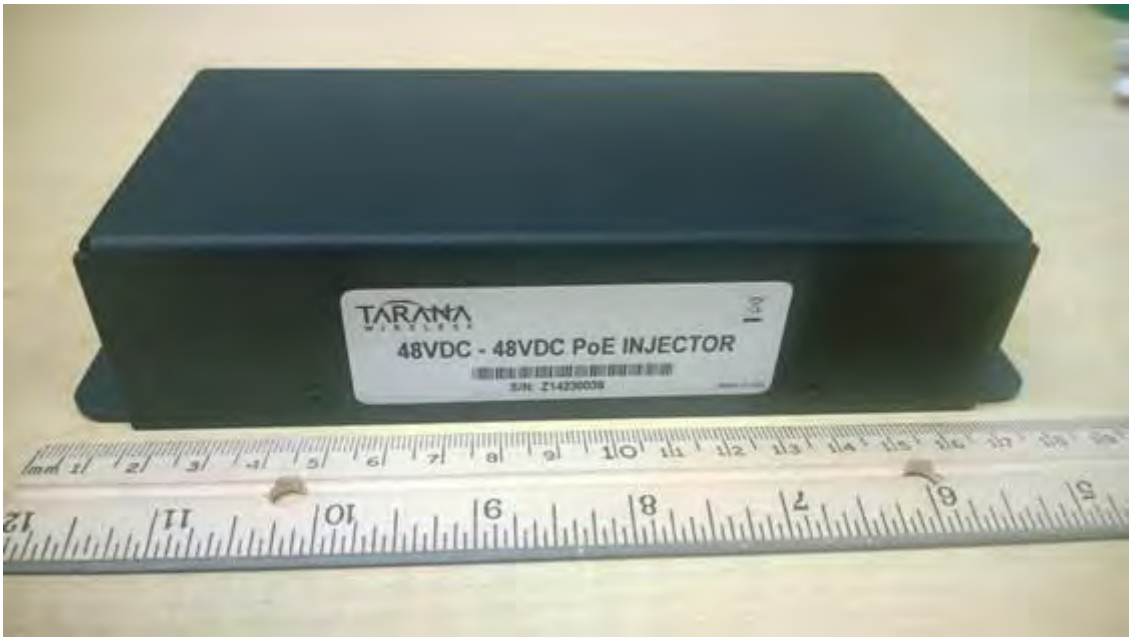
AbsoluteAir2 Model No's:
Concentrator Node (CN): AA2-CNxxyyz
End Node (EN): AA2-ENxxyyz
Residential Node (RN): AA2-RNxxyyz

Testing was performed on the Concentrator Node as this was deemed to be worst case device.

Tarana Wireless - AbsoluteAir2

Tarana Wireless - AbsoluteAir2 POE Injector

Tarana Wireless - AbsoluteAir2 POE Injector



3.3. Equipment Model(s) and Serial Number(s)

EUT/ Support	Manufacturer	Equipment Description (Including Brand Name)	Model No.	Serial No.
EUT	Tarana Wireless	16 Antenna Port Outdoor Radio Device	AbsoluteAir2	Prototype
Support[1]	Meanwell	Power Injector for Power Over Ethernet (POE) 100-240V / 50-60Hz: 48 Vdc, 1.4 A	HLG-150H-54	--
Support[1]	Tarana Wireless	PoE Injector 100-277Vac / 50-60Hz: 54 Vdc, 2.8 A	Prototype	Z14230038
Support*	XP Power	Power Supply 100-277Vac / 50-60Hz: 54 Vdc, 2.8 A	DLG150PS54	--
Support	Laptop	Computer		

[1] These devices were used together

*The XP power supply was only used to power the unit for RF conducted testing, not being marketed with the device

3.4. Antenna Details

Antenna Type	Port Gain (dBi)	Manufacturer	Model No.	Serial No.
Integral Antenna				
Directional Panel	12.0	Tarana Wireless	Not Available	Not Available

3.5. Cabling and I/O Ports

Number and type of I/O ports

1. Port 1 dc input power 48Vdc
2. Port 2 ET1 POE 10/100/1000 Base-T Cat 5E – 100m
3. Eth1 10/100/1000 Base-T Cat 5E – 100m
4. Eth2 10/100/1000 Base-T Cat 5E – 100m
5. Eth3 SFP
6. MGMT USB, factory and installation / maintenance only – 3m

3.6. Test Configurations

Matrix of test configurations

Parameter	Operational Mode	Test Conditions	Bandwidths (MHz)
99% Occupied BW	Modulated	Ambient, 48 Vdc	10, 20
Output power			
Emission Mask			
Peak Power Spectral Density			
Frequency Stability	Modulated	Temperature (-40°C to +55°C) and Voltage Variations (48, 46.0, 60.00 Vdc)	CW Mode
Conducted Spurious Emissions	Modulated	Ambient, 48 Vdc	10
Radiated Spurious Emissions	Modulated	Ambient, 48 Vdc	10
AC Wireline Emissions	Modulated	Ambient, 48 Vdc	10

Test Frequencies

BW (MHz)	Modulation		
	QPSK, 16QAM, 64QAM, 256 QAM		
	Low (MHz)	Mid (MHz)	High (MHz)
10	3655.00	3663.00	3670.00
20	3660.00	3663.00	3665.00

3.7. Equipment Modifications

The following modifications were required to bring the equipment into compliance:

1. NONE

3.8. Deviations from the Test Standard

The following deviations from the test standard were required in order to complete the test program:

1. NONE

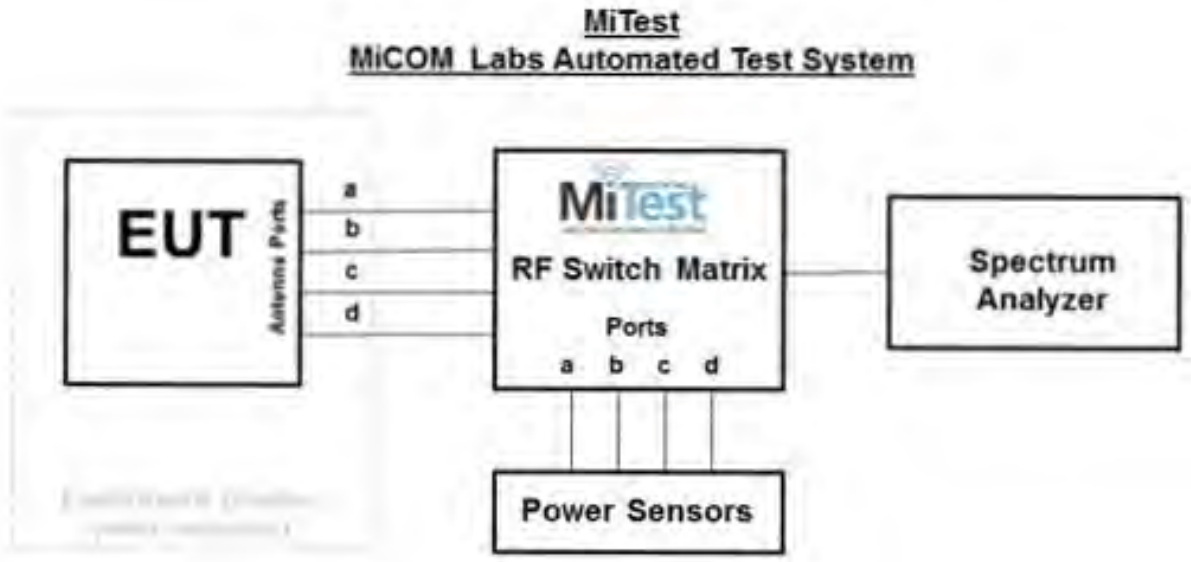
4. TEST EQUIPMENT CONFIGURATIONS

4.1. Conducted Testing

Conducted RF Emission Test Set-up(s) with Environmental Chamber.
The following tests were performed using the conducted test set-up shown in the diagram below.

1. Occupied Bandwidth
2. Peak Output Power
3. Emission Mask
4. Power Spectral Density (spectrum mask)
5. *Frequency Stability
6. Conducted Spurious Emissions

*environmental chamber utilized



Conducted Test Measurement Setup

A full system calibration was performed on the test station and any resulting system losses (or gains) were taken into account in the production of all final measurement data.

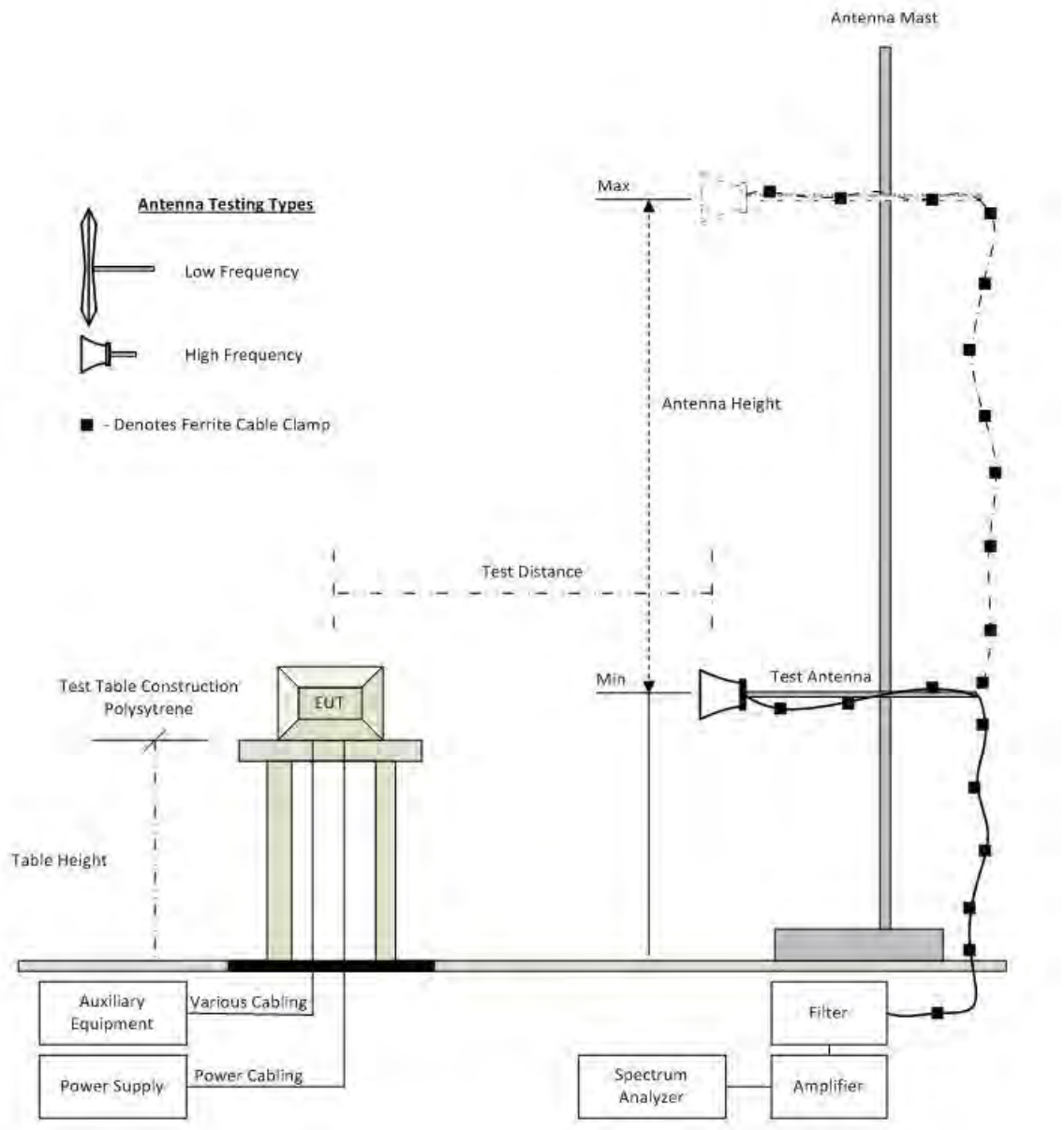
Assets Utilized for Conducted Testing

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
127	Power Supply	HP	6674A	US36370530	Cal when used
158	Barometer/Thermometer	Control Company	4196	E2846	04 Dec 2015
193	Receiver 20 Hz to 7 GHz	Rhode & Schwarz	ESI 7	838496/007	14 Jan 2016
248	Resistance Thermometer	Thermotronics	GR2105-02	9340 #1	30 Oct 2015
287	Rohde & Schwarz 40 GHz Receiver	Rhode & Schwarz	ESIB40	100201	31 Jul 2015
376	USB 10MHz - 18GHz Average Power Sensor	Agilent	U2000A	MY51440005	28 Oct 2015
378	Rohde & Schwarz 40 GHz Receiver with Generator	Rhode & Schwarz	ESIB40	100107/040	17 Jul 2015
381	4x4 RF Switch Box	MiCOM Labs	MiTest RF Switch Box	MIC002	30 Jun 2015
419	Laptop with Labview s/w	Lenova	W520	TS02	Not Required
420	USB to GPIB Interface	National Instruments	GPIB-USB HS	1346738	Not Required
435	USB Wideband Power Sensor	Boonton	55006	8730	31 Jul 2015
436	USB Wideband Power Sensor	Boonton	55006	8731	31 Jul 2015
437	USB Wideband Power Sensor	Boonton	55006	8759	31 Jul 2015
445	PoE Injector	D-Link	DPE-101GL	QTAH1E2000625	Not Required
460	Dell Computer with installation of MiTest executable.	Dell	Optiplex330	BC944G1	Not Required
74	Environmental Chamber Chamber 3	Tenney	TTC	12808-1	30 Sep 2015
RF#2 GPIB#1	GPIB cable to Pwr Supply	HP	GPIB	None	Not Required
RF#2 SMA#1	EUT to Mitest box port 1	Flexco	SMA Cable port1	None	30 Jun 2015
RF#2 SMA#2	EUT to Mitest box port 2	Flexco	SMA Cable port2	None	30 Jun 2015
RF#2 SMA#3	EUT to Mitest box port 3	Flexco	SMA Cable port3	None	30 Jun 2015
RF#2 SMA#4	EUT to Mitest box port 3	Flexco	SMA Cable port4	None	30 Jun 2015
RF#2 SMA#SA	Mitest box to Spec Anal	Flexco	SMA Cable SA	None	30 Jun 2015
RF#2 USB#1	USB Cable to Mitest Box	Dynex	USB Cable	None	Not Required

4.2. Radiated Testing

The following tests were performed using the radiated test set-up shown in the diagram below.

Radiated Emission Measurement Setup



Radiated Emission Test Setup

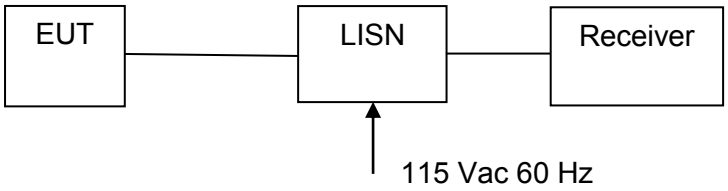
Assets Utilized for Radiated Emission Testing

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
158	Barometer/Thermometer	Control Company	4196	E2846	04 Dec 2015
170	Video System Controller for Semi Anechoic Chamber	Panasonic	WV-CY101	04R08507	Not Required
287	Rohde & Schwarz 40 GHz Receiver	Rhode & Schwarz	ESIB40	100201	31 Jul 2015
301	5470 to 5725 MHz Notch Filter	Microtronics	RBC50704	001	08 Oct 2015
302	5150 to 5350 MHz Notch Filter	Microtronics	BRC50703	002	08 Oct 2015
303	5725 to 5875 MHz Notch filter	Microtronics	BRC50705	003	08 Oct 2015
310	SMA Cable	Micro-Coax	UFA210A-0-0787-3G03G0	209089-001	30 Oct 2015
338	Sunol 30 to 3000 MHz Antenna	Sunol	JB3	A052907	14 Aug 2015
342	2.4 GHz Notch Filter	EWT	EWT-14-0203	H1	08 Oct 2015
343	5.15 GHz Notch Filter	EWT	EWT-14-0200	H1	08 Oct 2015
344	5.35 GHz Notch Filter	EWT	EWT-14-0201	H1	08 Oct 2015
345	5.46 GHz Notch Filter	EWT	EWT-14-0202	H1	08 Oct 2015
377	Band Rejection Filter 5150 to 5880MHz	Microtronics	BRM50716	034	08 Oct 2015
396	2.4 GHz Notch Filter	Microtronics	BRM50701	001	07 Oct 2015
397	Amp 10 - 2500MHz	MiCOM Labs	Amp 10 - 2500 MHz	NA	23 Oct 2015
399	ETS 1-18 GHz Horn Antenna	ETS	3117	00154575	10 Oct 2015
406	Amplifier for Radiated Emissions	MiCOM Labs	40dB 1 to 18GHz Amp	0406	30 May 2015
410	Desktop Computer	Dell	Inspiron 620	WS38	Not Required
411	Mast/Turntable Controller	Sunol Sciences	SC98V	060199-1D	Not Required
412	USB to GPIB Interface	National Instruments	GPIB-USB HS	11B8DC2	Not Required
413	Mast Controller	Sunol Science	TWR95-4	030801-3	Not Required
414	DC Power Supply 0-60V	HP	6274	1029A01285	Cal when used
415	Turntable Controller	Sunol Sciences	Turntable Controller	None	Not Required
416	Gigabit ethernet filter	ETS-Lingren	Gigafoil 260366	None	Not Required
502	Test Software for Radiated Emissions	EMISoft	Vasona	Version 5 Build 59	Not Required
87	Uninterruptible Power Supply	Falcon Electric	ED2000-1/2LC	F3471 02/01	Cal when used

4.3. ac Wireline

The ac Wireline Conducted Emissions test was performed using the conducted test set-up shown in the diagram below.

Test Measurement Set up



Measurement set up for ac Wireline Conducted Emissions Test

Assets Utilized for ac Wireline Emission Testing

Asset#	Description	Manufacturer	Model#	Serial#	Calibration Due Date
158	Barometer/Thermometer	Control Company	4196	E2846	04 Dec 2015
184	Pulse Limiter	Rhode & Schwarz	ESH3Z2	357.8810.52	Cal when used
190	LISN (two-line V-network)	Rhode & Schwarz	ESH3Z5	836679/006	12 Sep 2015
193	Receiver 20 Hz to 7 GHz	Rhode & Schwarz	ESI 7	838496/007	14 Jan 2016
307	BNC-CABLE	Megaphase	1689 1GVT4	15F50B002	Cal when used
316	Dell desktop computer workstation with Vasona	Dell	Desktop	WS04	Not Required

5. MEASUREMENT AND PRESENTATION OF TEST DATA

The conducted 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)

6. TEST SUMMARY

List of Measurements

The following table represents the list of measurements required under the **FCC CFR47 Part 90**, **Subpart Z** & RSS-197.

Section(s)	Test Items	Description	Condition	Result	Test Report Section
2.1049 5.2	99% Occupied Bandwidth	Bandwidth measurement(s)	Conducted	Complies	7.1.1
2.1046; 90.1321 (a) 5.6	EIRP Rated Power	Modulated Output Power	Conducted	Complies	7.1.2
90.210(b)	Emission Mask	Spectrum Mask	Conducted	Complies	7.1.3
2.1046; 90.1321 (a) 5.6	Peak EIRP Power Density	Maximum Spectral Density (spectrum mask)	Conducted	Complies	7.1.4
2.1055(a)(1) 5.3	Frequency Stability	Includes temperature and voltage variations	Conducted	Complies	7.1.5
2.1051; 90.1323 **5.7**	Conducted Spurious Emissions at Antenna Port	Emissions from the antenna port	Conducted	Complies	7.1.6
2.1053; 90.1323 **ANSI/TIA-603** **5.8**	Radiated Spurious Emissions	Spurious emissions	Radiated	Complies	7.1.7
90.1319(c)	Contention Based Protocol		Not Implemented		
15.207 **RSS_Gen 7.2.7**	AC Wireline Conducted	Emissions 150 kHz–30 MHz	Conducted	Complies	7.1.8

Note 1: *Test results reported in this document relate only to the items tested*
Note 2: *The required tests demonstrated compliance as per client declaration of test configuration, monitoring methodology and associated pass/fail criteria*
Note 3: *Section 3.7 'Equipment Modifications' highlight the equipment modifications that were required to bring the product into compliance with the above matrix*

7. TEST RESULTS

7.1. Device Characteristics

7.1.1. Occupied Bandwidth

FCC 47 CFR Part 90, Subpart Z; 2.1049;

Test Procedure
The transmitter terminal of EUT was connected to the input of the spectrum analyzer set to measure the 99% occupied bandwidth. The system highest power setting was selected with modulation ON.

The measurement of channel bandwidth used a resolution bandwidth of at least one percent of the occupied bandwidth of the fundamental emission.

Test Set-up is shown in Section 4.1 Test Equipment Configurations/Conducted Testing

Ambient conditions.
Temperature: 19 to 26 °C Relative humidity: 31 to 57 % Pressure: 999 to 1009 mbar

Equipment Configuration for 26 dB & 99% Occupied Bandwidth			
Variant:	10 MHz	**Duty Cycle (%):**	99.0
Data Rate:	-	**Antenna Gain (dBi):**	12
Modulation:	QPSK	**Beam Forming Gain (Y)(dB):**	
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
3655	9.56	9.56	9.56	9.59	9.59	9.56		
3663	9.59	9.59	9.59	9.59	9.59	9.56		
3670	9.56	9.56	9.56	9.56	9.56	9.56		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
3655	9.17	9.17	9.17	9.17	9.17	9.17		
3663	9.17	9.17	9.17	9.17	9.17	9.17		
3670	9.17	9.17	9.17	9.17	9.17	9.17		

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 26 dB & 99% Occupied Bandwidth			
Variant:	20 MHz	**Duty Cycle (%):**	99.0
Data Rate:	-	**Antenna Gain (dBi):**	12
Modulation:	QPSK	**Beam Forming Gain (Y)(dB):**	
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured 26 dB Bandwidth (MHz) Port(s)				26 dB Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
3660	19.15	19.07	19.07	19.04	19.15	19.04		
3663	19.15	19.15	19.04	19.04	19.15	19.04		
3665	19.07	19.07	19.04	19.04	19.07	19.04		

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				99% Bandwidth (MHz)			
MHz	**a**	**b**	**c**	**d**	**Highest**	**Lowest**		
3660	18.35	18.35	18.35	18.35	18.35	18.35		
3663	18.35	18.35	18.35	18.35	18.35	18.35		
3665	18.35	18.35	18.35	18.35	18.35	18.35		

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).

7.1.2. Peak Output Power

FCC 47 CFR Part 90, Subpart Z; §90.1321(a)
The following power limits apply to the 3650 – 3675 MHz band.

Base and fixed stations are limited to 25W/25 MHz equivalent isotropically radiated power (EIRP). In any event the peak EIRP power density shall not exceed 1 Watt (+30 dBm) in any one Megahertz slice of spectrum.

EIRP Power Limit 10 MHz Channel Spacing = 40.0 dBm
EIRP Power Limit 20 MHz Channel Spacing = 43.0 dBm

Test Procedure
Average power measurements were measured with the use of an average power head. The system highest power setting was selected with modulation ON.

Test Set-up is shown in Section 4.1 Test Equipment Configurations/Conducted Testing

Ambient conditions.
Temperature: 19 to 26 °C Relative humidity: 31 to 57 % Pressure: 999 to 1009 mbar

Equipment Configuration for Peak Transmit Power			
Variant:	10 MHz	**Duty Cycle (%):**	99
Data Rate:	-	**Antenna Gain (dBi):**	12
Modulation:	QPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Total EIRP	Limit EIRP	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	dBm	dBm	dBm	
3655	20.56	20.77	20.59	20.47	26.66	32.66	40.0	-7.3	7
3663	20.62	20.55	20.81	20.89	26.78	32.78	40.0	-7.2	7
3670	20.71	20.72	20.62	20.71	26.75	32.75	40.0	-7.3	7

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

Calculated Total Power Equation

$10*LOG\ (10^{\wedge(\text{chain a }/10)} + 10^{\wedge\ (\text{chain b }/10)} + 10^{\wedge(\text{chain c }/10)} + 10^{\wedge(\text{chain a }/10)})$

Equipment Configuration for Peak Transmit Power			
Variant:	20 MHz	**Duty Cycle (%):**	99
Data Rate:	-	**Antenna Gain (dBi):**	12
Modulation:	QPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Conducted Output Power (dBm) Port(s)				Calculated Total Power	Total EIRP	Limit EIRP	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s) dBm	dBm	dBm	dBm	
3660	22.27	23.49	22.27	24.04	29.13	41.13	43.0	-1.9	5
3663	22.40	23.32	22.11	23.85	29.02	41.02	43.0	-2.0	5
3665	22.02	23.17	21.99	23.75	28.84	40.84	43.0	-2.2	5

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

Calculated Total Power Equation

$10*LOG\ (10^{\wedge(\text{chain a }/10)} + 10^{\wedge(\text{chain b }/10)} + 10^{\wedge(\text{chain c }/10)} + 10^{\wedge(\text{chain a }/10)})$

7.1.3. Spectrum Mask

(b) Emission Mask B. For transmitters that are equipped with an audio low-pass filter, the power of any emission must be attenuated below the unmodulated carrier power (P) as follows:

(1) On any frequency removed from the assigned frequency by more than 50 percent, but not more than 100 percent of the authorized bandwidth: At least 25 dB.

(2) On any frequency removed from the assigned frequency by more than 100 percent, but not more than 250 percent of the authorized bandwidth: At least 35 dB.

(3) On any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth: At least 43 + 10 log (P) dB.

Client declared an Audio low-pass filter was installed in the equipment under test. The equipment was tested on both bandwidths available 10 MHz and 20 MHz.

Equipment Configuration for Spectrum Mask			
Variant:	10 MHz	**Duty Cycle (%):**	99
Data Rate:	-	**Antenna Gain (dBi):**	12.0
Modulation:	QPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results					
Test Frequency	**Measured Spectrum Mask**				**Complies**
MHz	**a**	**b**	**c**	**d**	**Pass/Fail**
3655	PASS	PASS	PASS	PASS	PASS
3663	PASS	PASS	PASS	PASS	PASS
3670	PASS	PASS	PASS	PASS	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 Spectrum Mask			
Variant:	20 MHz	**Duty Cycle (%):**	99
Data Rate:	-	**Antenna Gain (dBi):**	12
Modulation:	QPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results					
Test Frequency	**Measured Spectrum Mask**				**Complies**
MHz	**a**	**b**	**c**	**d**	**Pass/Fail**
3660	PASS	PASS	PASS	PASS	PASS
3663	PASS	PASS	PASS	PASS	PASS
3665	PASS	PASS	PASS	PASS	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).

7.1.4. Power Spectral Density

FCC 47 CFR Part 90, Subpart Z; §90.1321(a)

The following power limits apply to the 3650 – 3675 MHz band.

Base and fixed stations are limited to 25W/25 MHz equivalent isotropically radiated power (EIRP). In any event the peak EIRP power density shall not exceed 1 Watt (+30 dBm) in any one Megahertz slice of spectrum.

EIRP Power Limit is constant for all channel bandwidths = +30.0 dBm/MHz (137 dBuv/MHz)

Test Procedure
The test methodology used for this measurement was determined to provide the highest possible power density readings.

Power spectral density measurements were performed via the spectrum analyzer and plots were recorded. The system highest power setting was selected and modulation was ON.

Test Set-up is shown in Section 4.1 Test Equipment Configurations/Conducted Testing

Ambient conditions.
Temperature: 19 to 26 °C Relative humidity: 31 to 57 % Pressure: 999 to 1009 mbar

Equipment Configuration for Power Spectral Density			
Variant:	10 MHz	**Duty Cycle (%):**	99
Data Rate:	-	**Antenna Gain (dBi):**	12
Modulation:	QPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBuV/MHz)				Total EIRP	Limit	Margin
MHz	a	b	c	d	dBuV /MHz	dBuV /MHz	dB
3655	115.19	115.31	115.50	115.61	121.43	137	-15.57
3663	114.98	115.28	115.36	115.55	121.32	137	-15.68
3670	115.16	115.11	115.36	115.70	121.36	137	-15.64

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 Power Spectral Density			
Variant:	20 MHz	**Duty Cycle (%):**	99
Data Rate:	-	**Antenna Gain (dBi):**	12
Modulation:	QPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density Port(s) (dBuV/MHz)				Total EIRP	Limit	Margin
MHz	a	b	c	d	dBuV /MHz	dBuV /MHz	dB
3660	113.07	114.27	113.13	114.88	119.93	137	-17.07
3663	113.03	113.94	112.92	114.69	119.73	137	-17.27
3665	112.64	113.64	112.72	114.52	119.47	137	-17.53

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).

7.1.5. Frequency Stability; Temperature Variations, and Voltage Variations

FCC 47 CFR Part 90, Subpart Z; 2.1055(a)(1)

Test Procedure
The transmitter output was connected to a spectrum analyzer and the frequency stability was measured in a modulated operational mode as the transmitter could not operate Continuous Wave (CW). Carrier breakthrough was available to provide a measurement point.

Frequency stability was measured through the extremes of temperature on the mid channel and a single operating mode only. Before measurements were taken at each temperature the equipment waited until thermal balance was obtained.

Test Set-up is shown in Section 4.1 Test Equipment Configurations/Conducted Testing

Ambient conditions.
Temperature: 19 to 26 °C Relative humidity: 31 to 57 % Pressure: 999 to 1009 mbar

TABLE OF RESULTS Frequency Stability – Channel Measured 3663.0 MHz

Manufacturers Specification for Frequency Stability

As no apparent frequency stability limits were provided the manufacturer's specification was used ±20 ppm.

Equipment Configuration for Carrier Frequencies			
Variant:	20 MHz	**Duty Cycle (%):**	99
Data Rate:		**Antenna Gain (dBi):**	Not Applicable
Modulation:	--	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test frequency	3663 MHz	Measured Frequency	Frequency Error		Limit	Margin
Temperature	Voltage	Hz	kHz	ppm	ppm	ppm
25 °C	43.2 Vdc	3663000490.0	0.49	0.13	20 to 20	-19.86622987
	52.8 Vdc	3663000490.0	0.49	0.13	20 to 20	-19.86622987
-40 °C	48 Vdc	3663000490.0	0.49	0.13	20 to 20	-19.86622987
-30 °C		3663000490.0	0.49	0.13	20 to 20	-19.86622987
-20 °C		3663000490.0	0.49	0.13	20 to 20	-19.86622987
-10 °C		3663000490.0	0.49	0.13	20 to 20	-19.86622987
0 °C		3663000490.0	0.49	0.13	20 to 20	-19.86622987
10 °C		3663000490.0	0.49	0.13	20 to 20	-19.86622987
20 °C		3663000490.0	0.49	0.13	20 to 20	-19.86622987
30 °C		3663000490.0	0.49	0.13	20 to 20	-19.86622987
40 °C		3663000490.0	0.49	0.13	20 to 20	-19.86622987
50 °C		3663000490.0	0.49	0.13	20 to 20	-19.86622987

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-02 MEASURING FREQUENCY
Measurement Uncertainty:	±0.86 ppm

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

7.1.6. Spurious Emissions at Antenna Terminals

FCC 47 CFR Part 90, Subpart Z; §90.1323, 2.1051

7.1.6.1. Transmitter Conducted Spurious Emissions (0.03 - 40 GHz)

Test Procedure
Transmitter conducted spurious emissions were measured for BPSK modulation state only. Measurement were made while EUT was operating in a modulated transmit mode of operation, at the appropriate center frequency. Conducted spurious emissions were measured to 40 GHz in a peak hold mode.

Test Set-up is shown in Section 4.1 Test Equipment Configurations/Conducted Testing

Limit
For operation in the 3650 – 3700 MHz band the power of any emission outside the frequency band of operation shall be attenuated below the transmitter power (P) within the licensed band of operation, measured in Watts, by at least 43 + 10*Log (P) = -13dBm.

Ambient conditions.
Temperature: 19 to 26 °C Relative humidity: 31 to 57 % Pressure: 999 to 1009 mbar

Equipment Configuration for Transmitter Spurious Emissions			
Variant:	10 MHz	**Duty Cycle (%):**	99
Data Rate:	-	**Antenna Gain (dBi):**	Not Applicable
Modulation:	QPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

CHAIN A

Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	56.00 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3655 MHz	30 - 1000 MHz	-48.20	941.683	-13.0	-35.2
	1000 - 20000 MHz	-38.39	3627.25	-13.0	-25.39
	20000 - 40000 MHz	-21.59	3482.96	-13.0	-8.59

CHAIN B

Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	56.00 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3655 MHz	30 - 1000 MHz	-48.34	924.188	-13.0	-35.34
	1000 - 20000 MHz	-39.27	7320.641	-13.0	-26.27
	20000 - 40000 MHz	-20.85	3482.96	-13.0	-7.85

CHAIN C

Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	56.00 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3655 MHz	30 - 1000 MHz	-48.04	947.515	-13.0	-35.04
	1000 - 20000 MHz	-40.00	3627.25	-13.0	-27
	20000 - 40000 MHz	-20.96	3426.85	-13.0	-7.96

CHAIN D

Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	56.00 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3655 MHz	30 - 1000 MHz	-47.94	817.27	-13.0	-34.94
	1000 - 20000 MHz	-40.80	7329.64	-13.0	-27.8
	20000 - 40000 MHz	-21.22	3474.94	-13.0	-8.22

Equipment Configuration for Transmitter Spurious Emissions

Variant:	10 MHz	**Duty Cycle (%):**	99
Data Rate:	-	**Antenna Gain (dBi):**	Not Applicable
Modulation:	QPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

CHAIN A

Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	56.00 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3663 MHz	30 - 1000 MHz	-47.34	795.891	-13.0	-34.34
	1000 - 20000 MHz	-39.22	3665.33	-13.0	-26.22
	20000 - 40000 MHz	-19.98	3494.98	-13.0	-6.98

CHAIN B

Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	56.00 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3663 MHz	30 - 1000 MHz	-47.14	941.683	-13.0	-34.14
	1000 - 20000 MHz	-38.67	7320.64	-13.0	-25.67
	20000 - 40000 MHz	-21.14	3486.97	-13.0	-8.14

CHAIN C

Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	56.00 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3663 MHz	30 - 1000 MHz	-47.99	793.947	-13.0	-34.99
	1000 - 20000 MHz	-39.89	3665.33	-13.0	-26.89
	20000 - 40000 MHz	-20.79	3462.92	-13.0	-7.79

CHAIN D

Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	56.00 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3663 MHz	30 - 1000 MHz	-47.03	978.617	-13.0	-34.03
	1000 - 20000 MHz	-40.65	7320.64	-13.0	-27.65
	20000 - 40000 MHz	-20.46	3490.09	-13.0	-7.46

Equipment Configuration for Transmitter Spurious Emissions			
Variant:	10 MHz	**Duty Cycle (%):**	99
Data Rate:	-	**Antenna Gain (dBi):**	Not Applicable
Modulation:	QPSK	**Beam Forming Gain (Y)(dB):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

CHAIN A

Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	56.00 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3670 MHz	30 - 1000 MHz	-47.69	955.290	-13.0	-34.69
	1000 - 20000 MHz	-39.54	3665.33	-13.0	-26.54
	20000 - 40000 MHz	-21.04	3482.96	-13.0	-8.04

CHAIN B

Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	56.00 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3670 MHz	30 - 1000 MHz	-47.98	856.152	-13.0	-34.98
	1000 - 20000 MHz	-39.46	7329.64	-13.0	-26.46
	20000 - 40000 MHz	-20.84	3438.87	-13.0	-7.84

CHAIN C

Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	56.00 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3670 MHz	30 - 1000 MHz	-46.83	947.515	-13.0	-33.83
	1000 - 20000 MHz	-39.75	7320.64	-13.0	-26.75
	20000 - 40000 MHz	-20.70	3478.95	-13.0	-7.7

CHAIN D

Temperature	20.0 °C	Maximum Observed Spurious Emission		Limit	Margin
Voltage	56.00 Vdc	Amplitude	Emission Frequency		
Test Frequency	Frequency Range	dBm	MHz	dBm	dB
3670 MHz	30 - 1000 MHz	-47.45	939.739	-13.0	-34.45
	1000 - 20000 MHz	-42.04	7320.64	-13.0	-29.04
	20000 - 40000 MHz	-21.03	3482.96	-13.0	-8.03

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).

7.1.7. Radiated Spurious Emissions

7.1.7.1. Transmitter Radiated Emissions

FCC 47 CFR Part 90, Subpart Z; §90.1323, 2.1053;
ANSI/TIA-603

Test Procedure
Measurements were made while EUT was operating in a modulated transmit mode of operation, at the appropriate center frequency. Substitution was performed on any emissions observed. The antenna port was attenuated with a 50 Ω termination.

The measurement equipment was set to measure in peak hold mode. The emissions were measured in the anechoic chamber at a 3-meter distance on every azimuth in both horizontal and vertical polarities. The emissions are recorded and maximized as a function of azimuth by rotation through 360° with a spectrum analyzer in peak hold mode.

The highest emissions relative to the limit are listed for each frequency band measured.

Limit
For operation in the 3650 – 3700 band the power of any emission outside the frequency band of operation shall be attenuated below the transmitter power (P) within the licensed band of operation, measured in Watts, by at least 43 + 10*Log (P) = -13dBm.

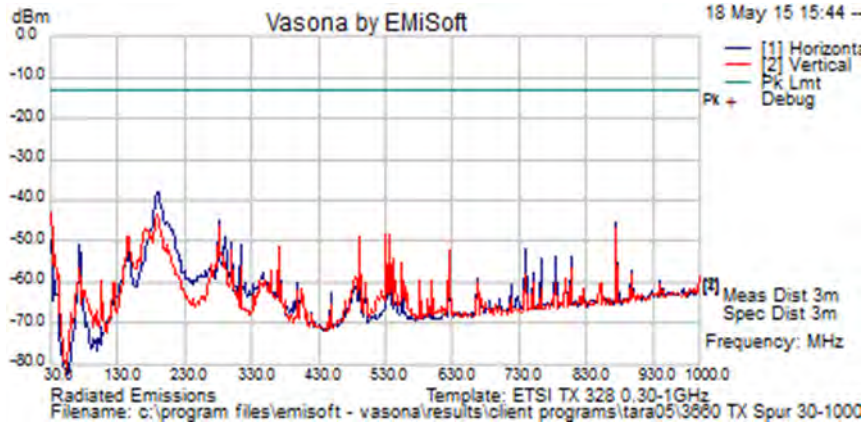
Laboratory Measurement Uncertainty for Radiated Emissions

Measurement uncertainty	+5.6/ -4.5 dB

Traceability

Method
Measurements were made per work instruction WI-03 'Measurement of Radiated Emissions'

Test Freq.	3655 (10 MHz)	**Engineer**	JMH
Variant	TX Spur	**Temp (ºC)**	19.5
Freq. Range	30 MHz - 1000 MHz	**Rel. Hum.(%)**	45
Power Setting	70 (Lowest)	**Press. (mBars)**	1005
Antenna	term with 50 Ohm		
Test Notes 1	EUT Serial #T1510149, powered by Xp Power supply		
Test Notes 2			

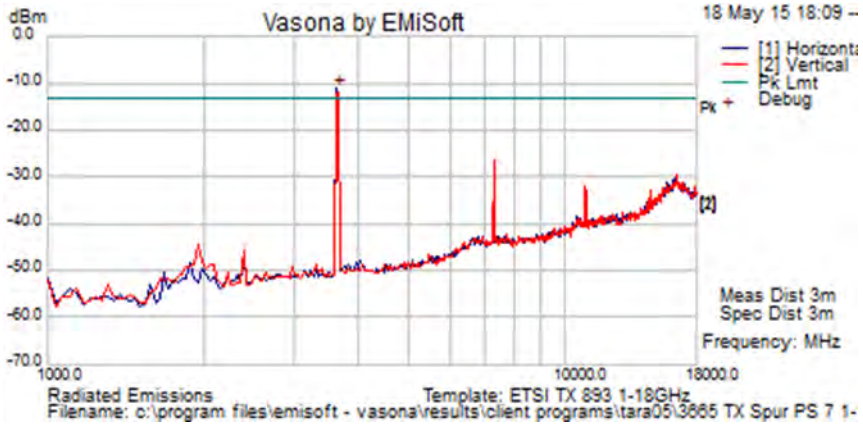


Formally measured emission peaks

Frequency MHz	Raw dBm	Cable Loss	AF dB	Level dBm	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBm	Margin dB	Pass /Fail	Comments
No Signals found within 6 dB of the limit												

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental Frequency
	100 kHz RBW, 300 kHz VBW, Peak Detector

Test Freq.	3655 (10 MHz)	**Engineer**	JMH
Variant	TX Spur	**Temp (ºC)**	19.5
Freq. Range	1-18 GHz	**Rel. Hum.(%)**	45
Power Setting	7 (Highest)	**Press. (mBars)**	1005
Antenna	term with 50 Ohm		
Test Notes 1	EUT Serial #T1510149, powered by Xp Power supply		
Test Notes 2			



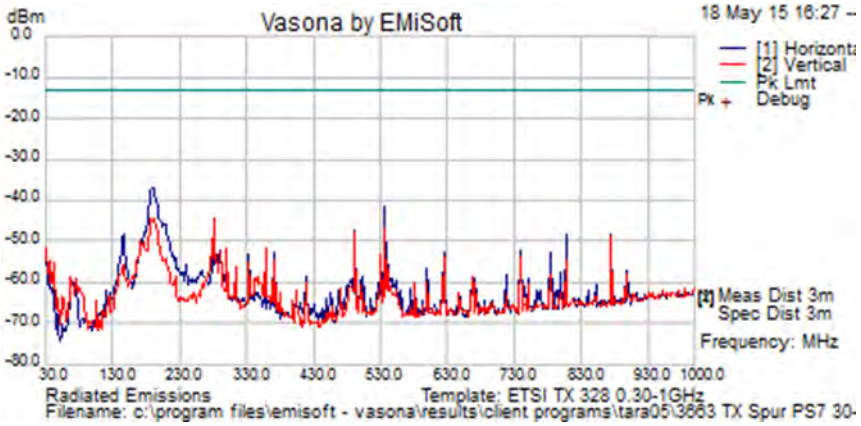
Formally measured emission peaks

Frequency MHz	Raw dBm	Cable Loss	AF dB	Level dBm	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBm	Margin dB	Pass /Fail	Comments
3623.246	-17.7	4.9	1.9	-11.0	Peak [Scan]	H						FUND

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental Frequency
	1 MHz RBW, 3 MHz VBW, Peak Detector

The emission breaking the limit line is the fundamental frequency

Test Freq.	3663 (10 MHz)	**Engineer**	JMH
Variant	Tx Spur	**Temp (ºC)**	19.5
Freq. Range	30 MHz - 1000 MHz	**Rel. Hum.(%)**	45
Power Setting	7 (Highest)	**Press. (mBars)**	1005
Antenna	term with 50 Ohm		
Test Notes 1	EUT Serial #T1510149, powered by Xp Power supply		
Test Notes 2			

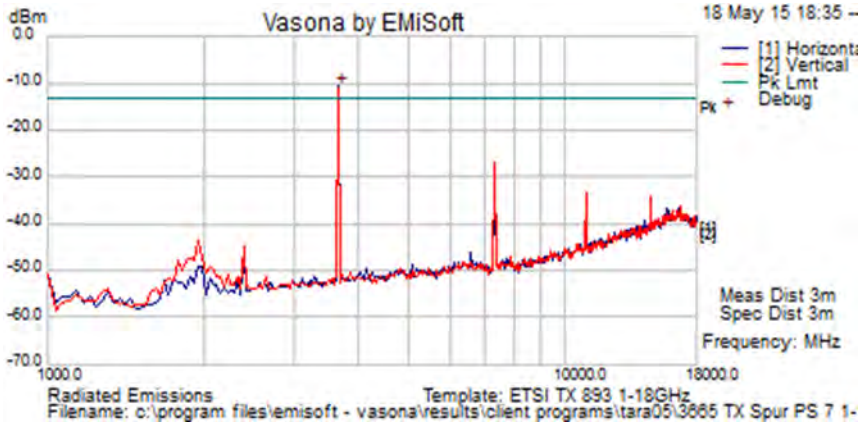


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
No Signals found within 6 dB of the limit												

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental Frequency
	100 kHz RBW, 300 kHz VBW, Peak Detector

Test Freq.	3663 (10 MHz)	**Engineer**	JMH
Variant	Tx Spur	**Temp (ºC)**	19.5
Freq. Range	1-18 GHz	**Rel. Hum.(%)**	45
Power Setting	7 (Highest)	**Press. (mBars)**	1005
Antenna	term with 50 Ohm		
Test Notes 1	EUT Serial #T1510149, powered by Xp Power supply		
Test Notes 2			



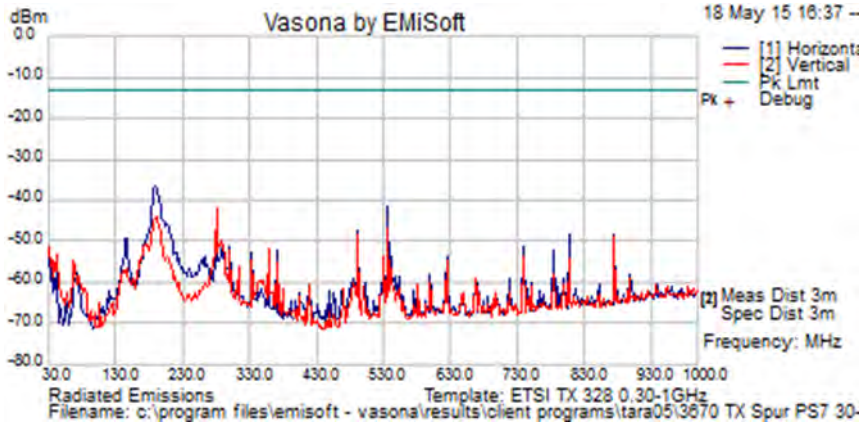
Formally measured emission peaks

Frequency MHz	Raw dBm	Cable Loss	AF dB	Level dBm	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBm	Margin dB	Pass /Fail	Comments
3657.31463	-17.5	4.9	2.0	-10.7	Peak [Scan]	H						FUND

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental Frequency
	1 MHz RBW, 3 MHz VBW, Peak Detector

The emission breaking the limit line is the fundamental frequency

Test Freq.	3670 (10 MHz)	**Engineer**	JMH
Variant	Tx Spur	**Temp (ºC)**	19.5
Freq. Range	30 MHz - 1000 MHz	**Rel. Hum.(%)**	45
Power Setting	7 (Highest)	**Press. (mBars)**	1005
Antenna	term with 50 Ohm		
Test Notes 1	EUT Serial #T1510149, powered by Xp Power supply		
Test Notes 2			

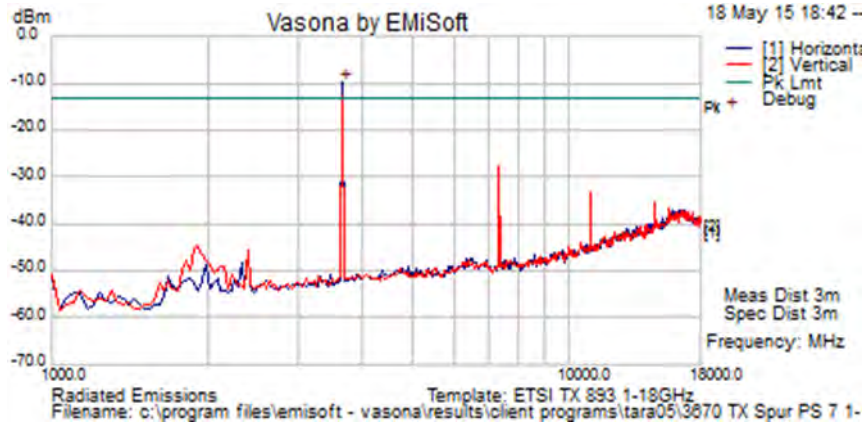


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
No Signals found within 6 db of Limit												

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental Frequency
	100 kHz RBW, 300 kHz VBW, Peak Detector

Test Freq.	3670 (10 MHz)	**Engineer**	JMH
Variant	Tx Spur	**Temp (ºC)**	19.5
Freq. Range	1-18 GHz	**Rel. Hum.(%)**	45
Power Setting	7 (Highest)	**Press. (mBars)**	1005
Antenna	term with 50 Ohm		
Test Notes 1	EUT Serial #T1510149, powered by Xp Power supply		
Test Notes 2			



Formally measured emission peaks

Frequency MHz	Raw dBm	Cable Loss	AF dB	Level dBm	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBm	Margin dB	Pass /Fail	Comments
3657.31463	-16.7	4.9	2.0	-9.8	Peak [Scan]	H						FUND

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental Frequency
	1 MHz RBW, 3 MHz VBW, Peak Detector

The emission breaking the limit line is the fundamental frequency

7.1.7.2. Digital Emissions (30M-1 GHz)

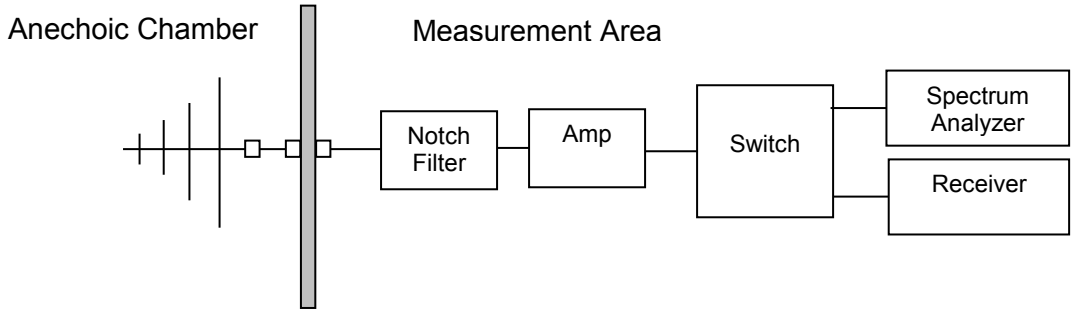
FCC, Part 15 Subpart C §15.205/ §15.209

Test Procedure

Preliminary radiated emissions were measured in the anechoic chamber at a 10-meter distance on every azimuth in both horizontal and vertical polarity. The emissions are recorded with a spectrum analyzer in peak hold mode. Emissions closest to the limits are measured in the quasi-peak mode with the tuned receiver using a bandwidth of 120 kHz. Only the highest emissions relative to the limit are listed. The anechoic chamber test set-up is identified in Section 6 Test Set-Up Photographs.

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting



Amplifier Gain from the measured reading. In this test facility, the Antenna Factor, Cable Loss, and Amplifier Gains are loaded into the Rohde & Schwarz Receiver and the corrected field strength can be read directly on the receiver.

$$FS = R + AF + CORR$$

where:

FS = Field Strength
R = Measured Receiver Input Amplitude
AF = Antenna Factor
CORR = Correction Factor = CL – AG + NFL
CL = Cable Loss
AG = Amplifier Gain

For example:
Given a Receiver input reading of 51.5dBμV; Antenna Factor of 8.5dB; Cable Loss of 1.3dB; Falloff Factor of 0dB, an Amplifier Gain of 26dB and Notch Filter Loss of 1dB. The Field Strength of the measured emission is:

FS = 51.5 + 8.5 + 1.3 - 26.0 +1 = 36.3dBμV/m

Conversion between dBμV/m (or dBμV) and μV/m (or μV) are done as:

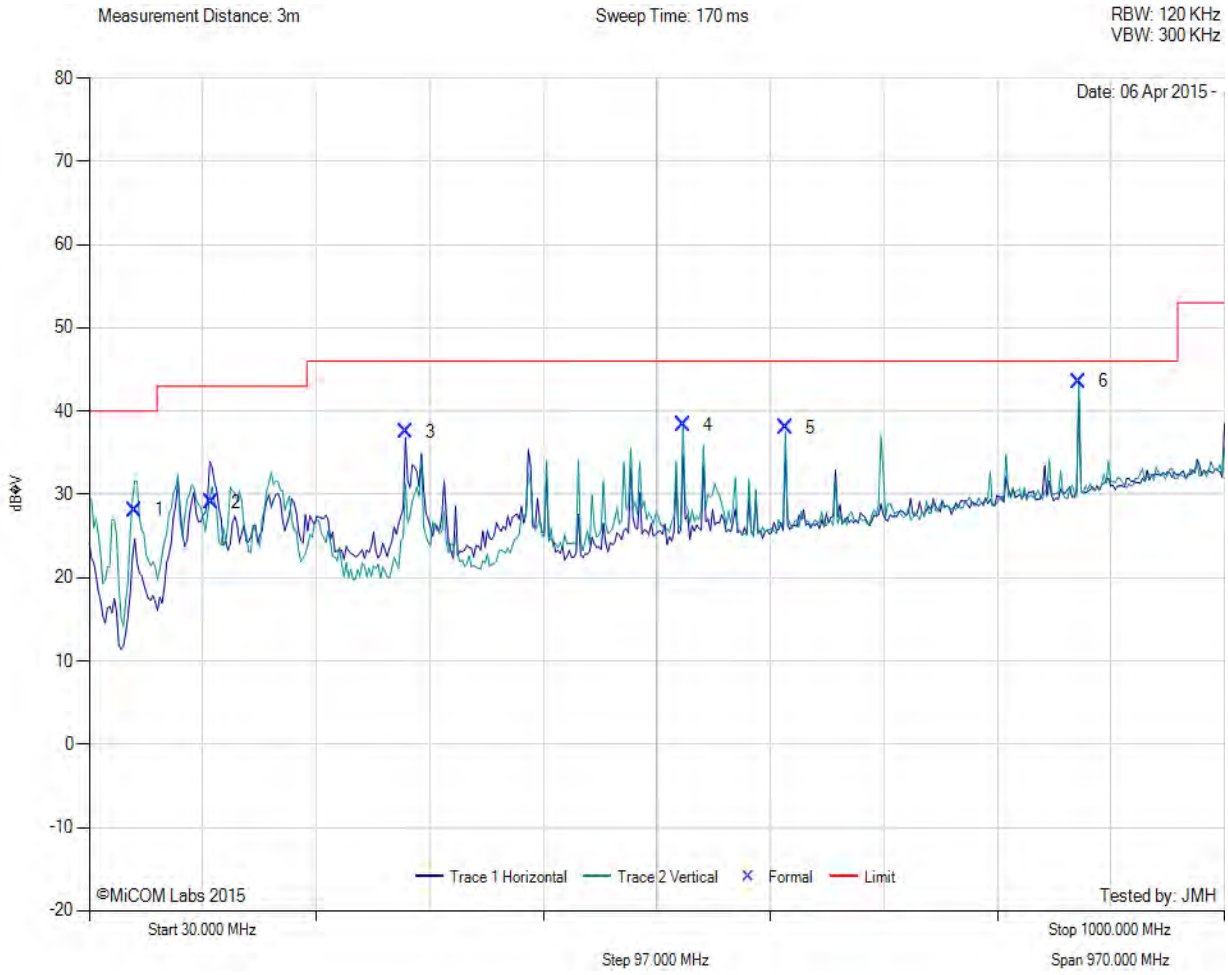
Level (dBμV/m) = 20 * Log (level (μV/m))

40 dBμV/m = 100μV/m
48 dBμV/m = 250μV/m

Measurement Results for Spurious Emissions (30 MHz – 1 GHz)

Ambient conditions.
Temperature: 19 to 26 °C Relative humidity: 31 to 57 % Pressure: 999 to 1009 mbar

Variant: AbsoluteAir2, Test Frequencies 30-1000 MHz, Antenna: DEF, Power Setting: DEF



Num	Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
1	68.98	47.62	3.70	-23.19	28.13	MaxQP	Vertical	103	218	40.0	-11.9	Pass
2	134.43	42.67	4.05	-17.65	29.07	MaxQP	Horizontal	262	87	43.0	-13.9	Pass
3	300.02	50.01	4.70	-17.20	37.51	MaxQP	Horizontal	100	0	46.0	-8.5	Pass
4	537.62	45.00	5.42	-12.14	38.28	MaxQP	Vertical	100	228	46.0	-7.7	Pass
5	624.99	43.28	5.67	-10.99	37.96	MaxQP	Vertical	100	53	46.0	-8.0	Pass
6	874.97	45.36	6.27	-8.09	43.54	MaxQP	Vertical	101	56	46.0	-2.5	Pass

Test Notes: AbsoluteAir2, 3.6 GHz fundamental, SFP Copper, MeanWell PS, powered using power connector

Specification

Limits

§15.205 (a) Except as shown in paragraph (d) of 15.205 (a), only spurious emissions are permitted in any of the frequency bands listed.

§15.205 (a) Except as shown in paragraphs (d) and (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

§15.209 (a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table.

§15.209 (a) Limit Matrix

Frequency(MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)	Measurement Distance (meters)
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Laboratory Measurement Uncertainty for Radiated Emissions

Measurement uncertainty	+5.6/ -4.5 dB

Traceability

Method
Measurements were made per work instruction WI-03 'Measurement of Radiated Emissions'

7.1.8. AC Wireline Conducted Emissions (150 kHz – 30 MHz)

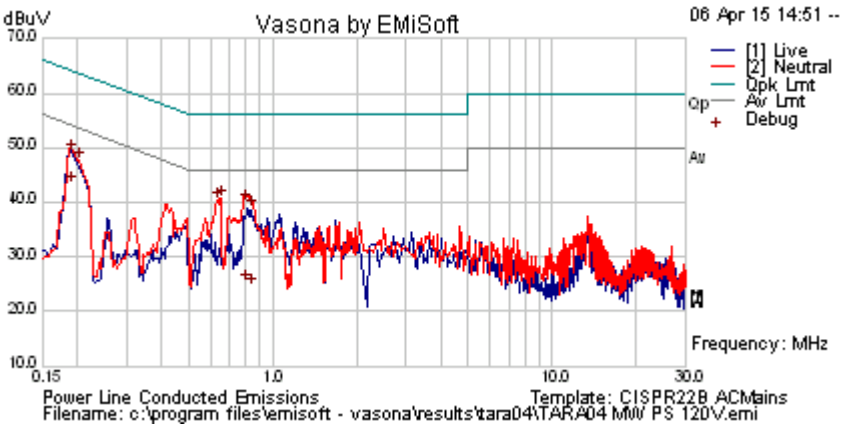
FCC, Part 15 Subpart C §15.207
Industry Canada RSS-Gen §7.2.2

Test Procedure
The EUT is configured in accordance with ANSI C63.4. The conducted emissions are measured in a shielded room with a spectrum analyzer in peak hold in the first instance. Emissions closest to the limit are measured in the quasi-peak mode (QP) with the tuned receiver using a bandwidth of 9 kHz. The emissions are maximized further by cable manipulation. The highest emissions relative to the limit are listed.

Test Set-up is shown in Section 4.1 Test Equipment Configurations/Radiated Testing

Ambient conditions.
Temperature: 19 to 26 °C Relative humidity: 31 to 57 % Pressure: 999 to 1009 mbar

Model Number	Absolute Air 2, 2.6 G, CN Master	**Engineer**	JMH
Variant	AC Wireline 120Vac 60 Hz	**Temp (ºC)**	18
Freq. Range	0.150 MHz - 30 MHz	**Rel. Hum.(%)**	37
Power Setting	N/A	**Press. (mBars)**	1002
Antenna	NA		
Test Notes 1	Original Chassis Meanwell PS Model HLG-150H-54, AC Powered		
Test Notes 2	Class B Limits		



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	Factors dB	Level dBuV	Measurement Type	Line	Limit dBuV	Margin dB	Pass /Fail	Comments
0.189	33.3	9.9	0.080	43.230	Average	Neutral	54.08	-10.9	Pass	
0.189	38.9	9.9	0.080	48.900	Quasi Peak	Neutral	64.08	-15.2	Pass	
0.798	15.3	10.0	0.090	25.300	Average	Neutral	46.00	-20.7	Pass	
0.798	29.8	10.0	0.090	39.790	Quasi Peak	Neutral	56.00	-16.2	Pass	
0.834	14.4	9.9	0.1	24.4	Average	Neutral	46.00	-21.6	Pass	
0.834	28.6	9.9	0.1	38.6	Quasi Peak	Neutral	56.00	-17.4	Pass	
0.654	30.7	10.0	0.1	40.7	Peak [Scan]	Neutral	46.00	-5.3	Pass	
0.202	37.7	9.9	0.1	47.7	Peak [Scan]	Neutral	53.53	-5.9	Pass	
0.634	30.1	10.0	0.1	40.1	Peak [Scan]	Neutral	46.00	-5.9	Pass	

Legend:	DIG = Digital Device Emission; TX = Transmitter Emission; FUND = Fundamental Frequency
	NRB = Non-Restricted Band, Limit is 20 dB below Fundamental; RB = Restricted Band

Specification

Limit

§15.207 (a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μΩ line impedance stabilization network (LISN), see §15.207 (a) matrix below. Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal.

§15.207 (a) Limit Matrix

The lower limit applies at the boundary between frequency ranges

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency

Laboratory Measurement Uncertainty for Conducted Emissions

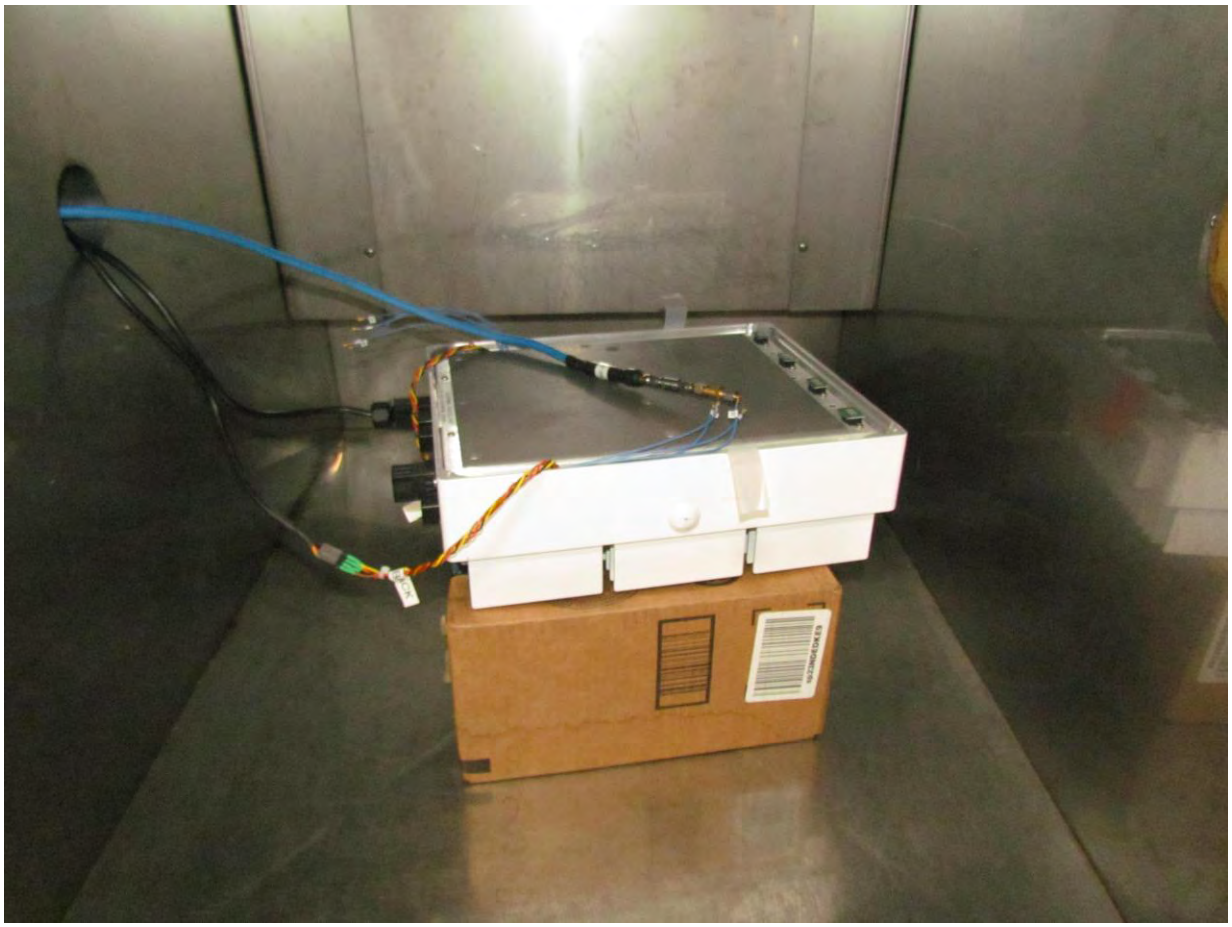
Measurement uncertainty	±2.64 dB

Traceability

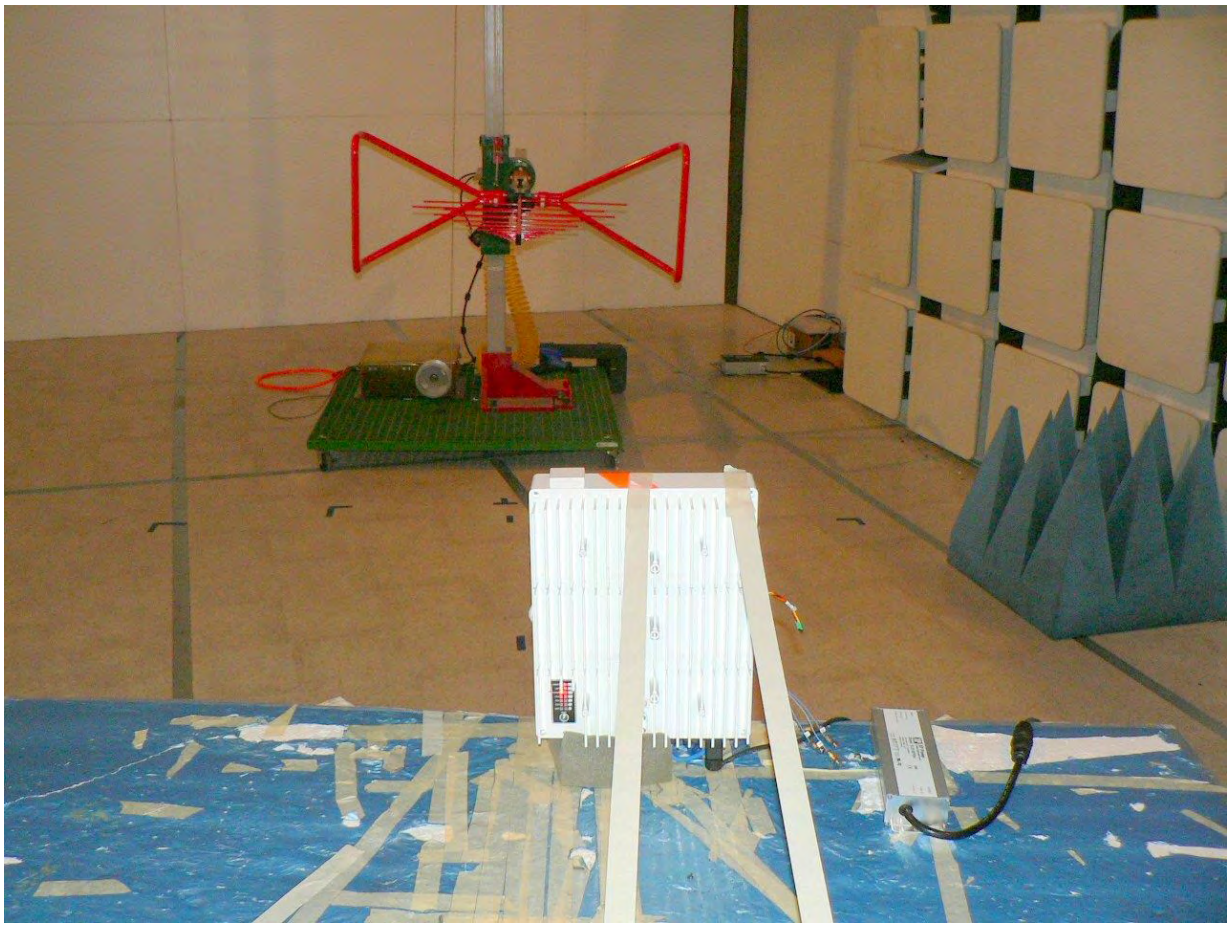
Method
Measurements were made per work instruction WI-EMC-01 'Measurement of Conducted Emissions'

8. TEST SET-UP PHOTOGRAPHS

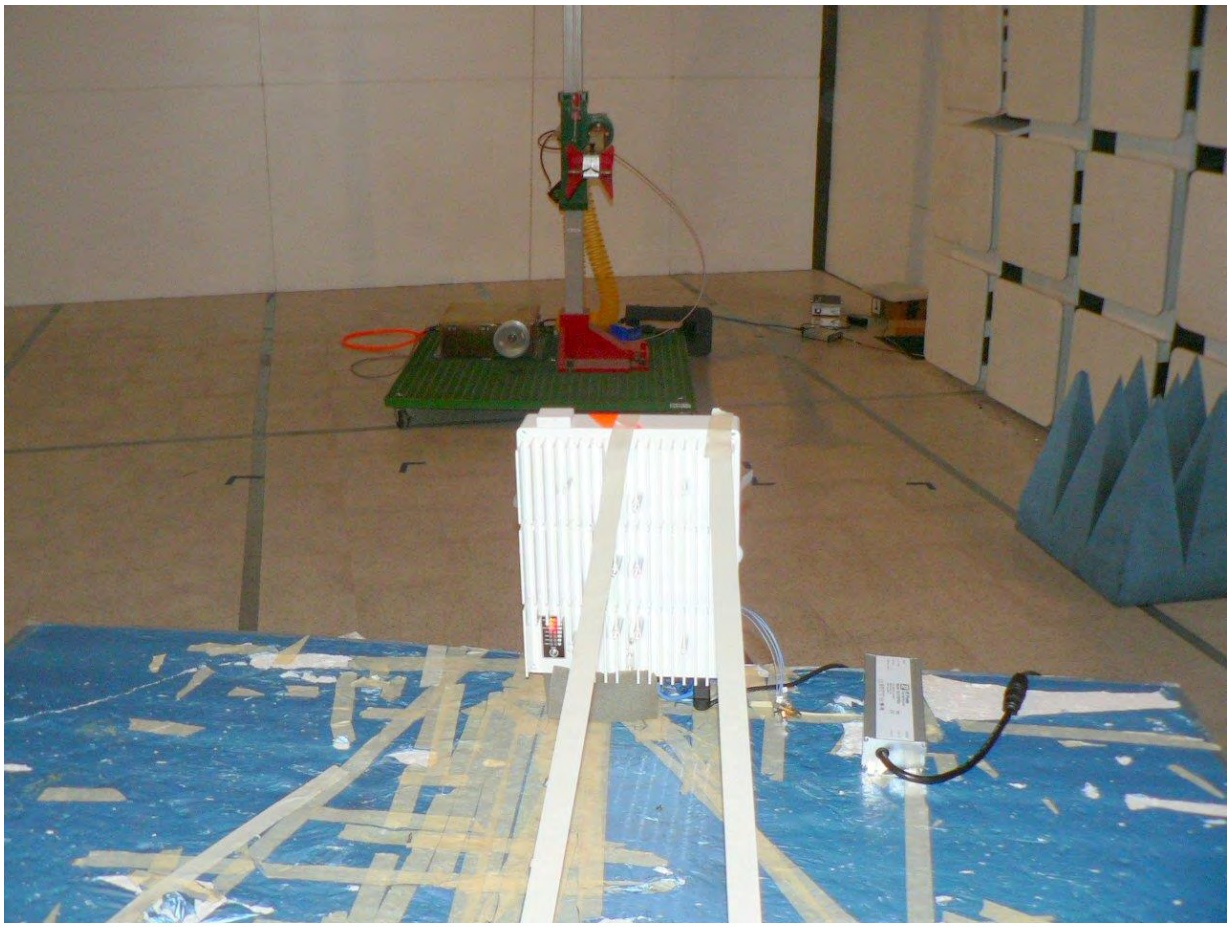
8.1. Conducted Measurement Test Set-Up



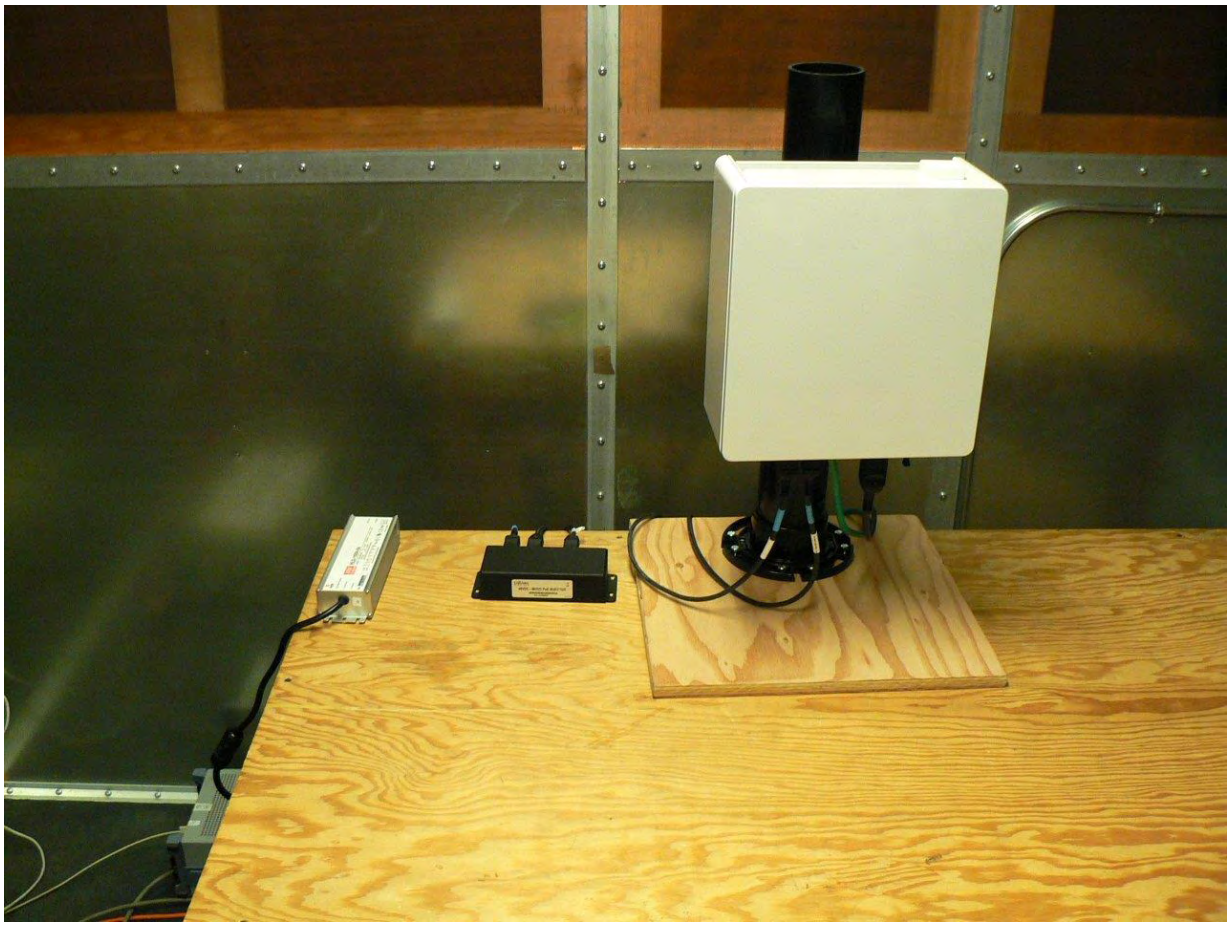
8.2. Digital Emissions (0.03 – 1 GHz)



8.3. Radiated Spurious Emissions above 1GHz



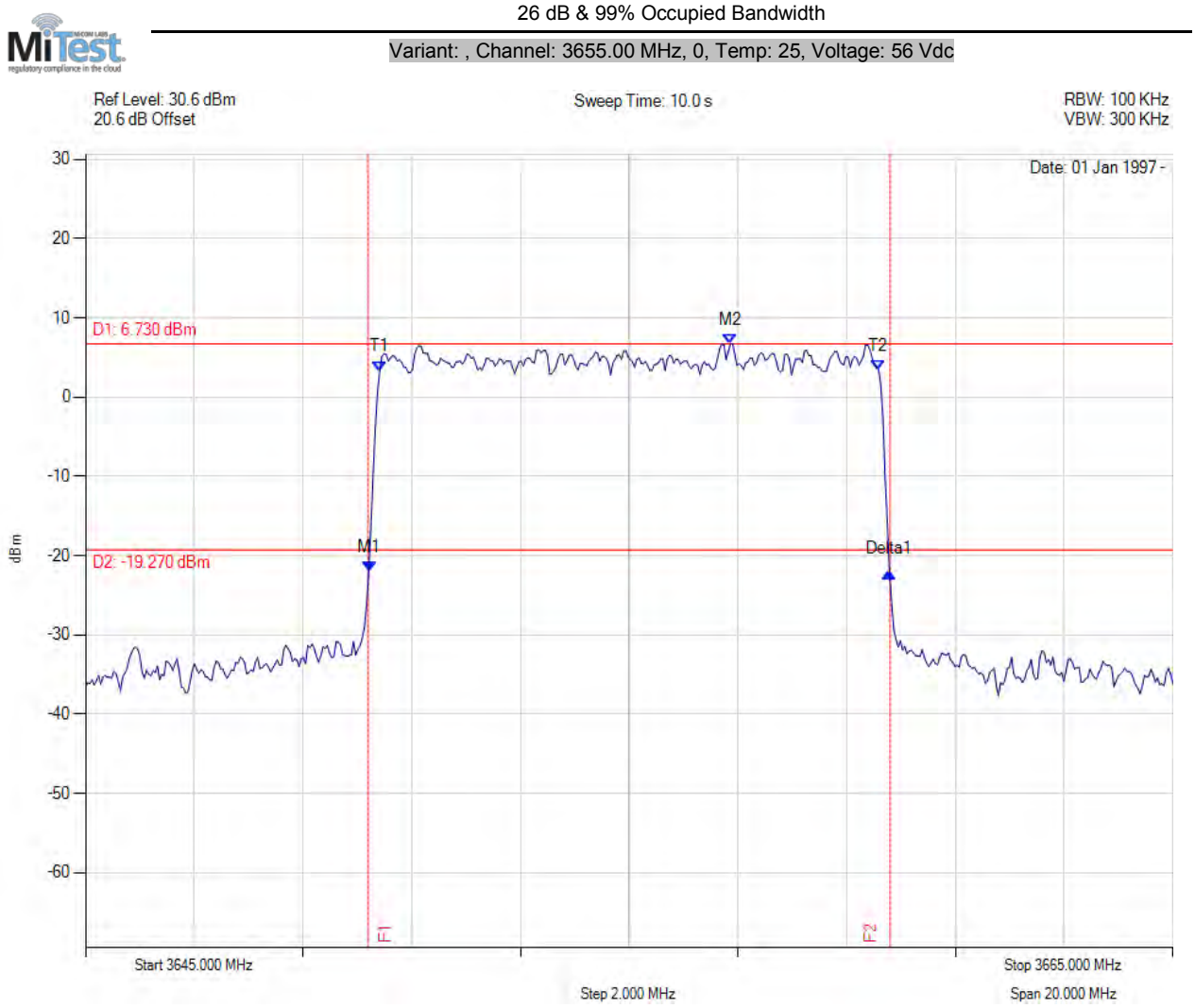
8.4. ac Wireline Emissions (150 kHz - 30 MHz)



APPENDIX A GRAPHICAL IMAGES

A.1. CONDUCTED TEST PLOTS

A.1.1. Occupied Bandwidth

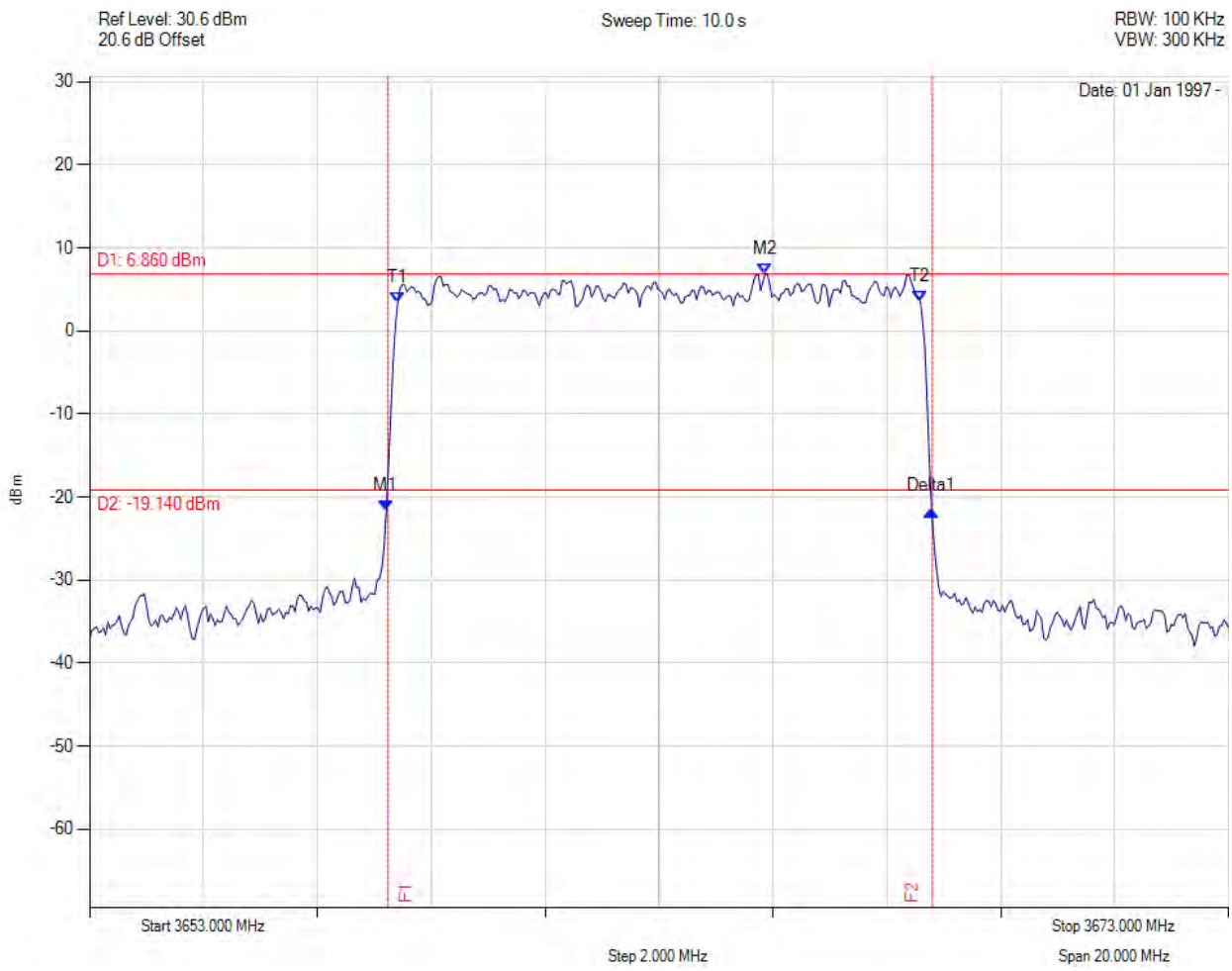


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.220 MHz : -21.987 dBm M2 : 3656.864 MHz : 6.726 dBm Delta1 : 9.569 MHz : -0.110 dB T1 : 3650.411 MHz : 3.310 dBm T2 : 3659.589 MHz : 3.470 dBm OBW : 9.17 MHz	Channel Frequency: 3655.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3663.00 MHz, 0, Temp: 25, Voltage: 56 Vdc

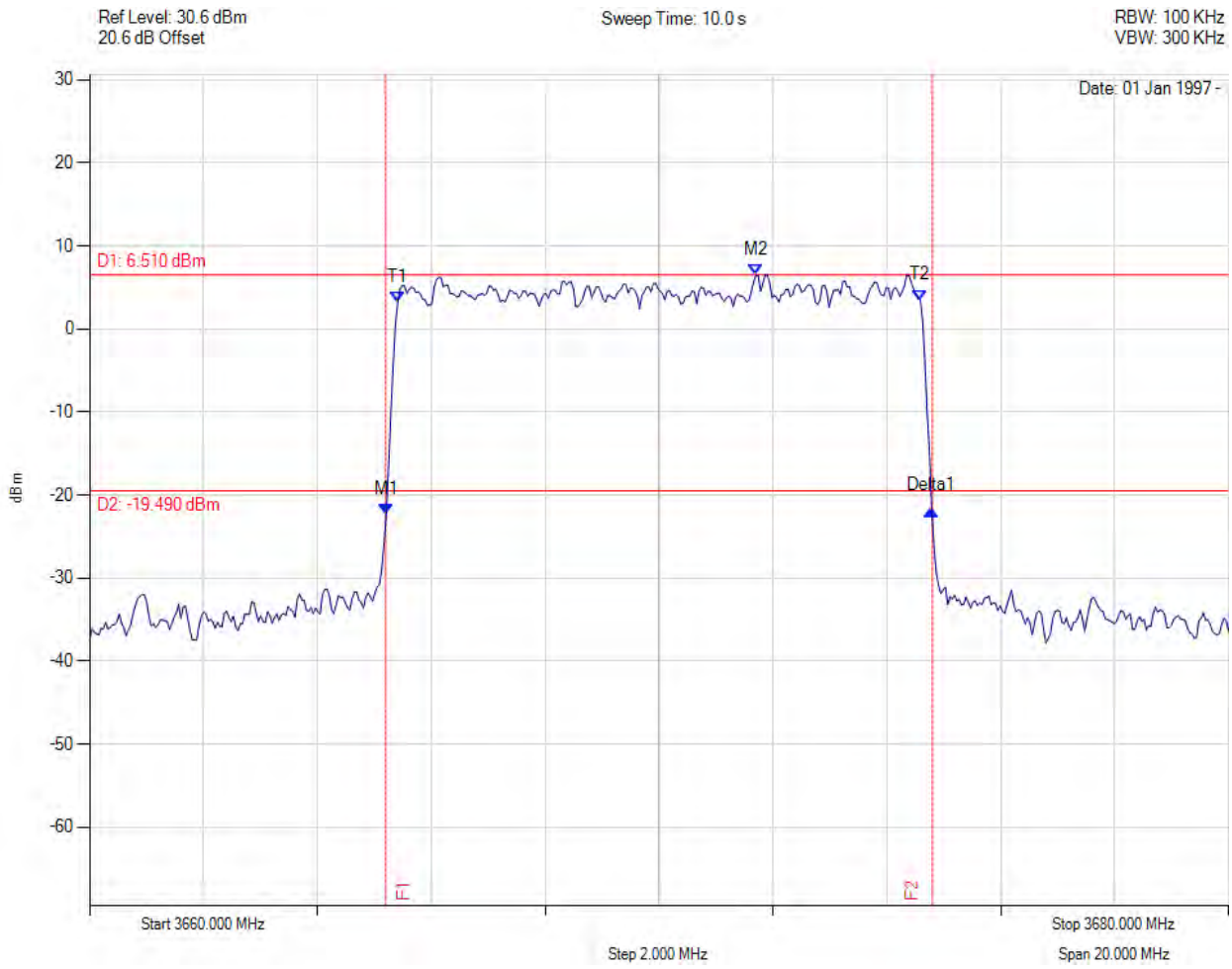


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3658.196 MHz : -21.616 dBm M2 : 3664.864 MHz : 6.862 dBm Delta1 : 9.593 MHz : -0.094 dB T1 : 3658.411 MHz : 3.460 dBm T2 : 3667.589 MHz : 3.610 dBm OBW : 9.17 MHz	Channel Frequency: 3663.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3670.00 MHz, 0, Temp: 25, Voltage: 56 Vdc

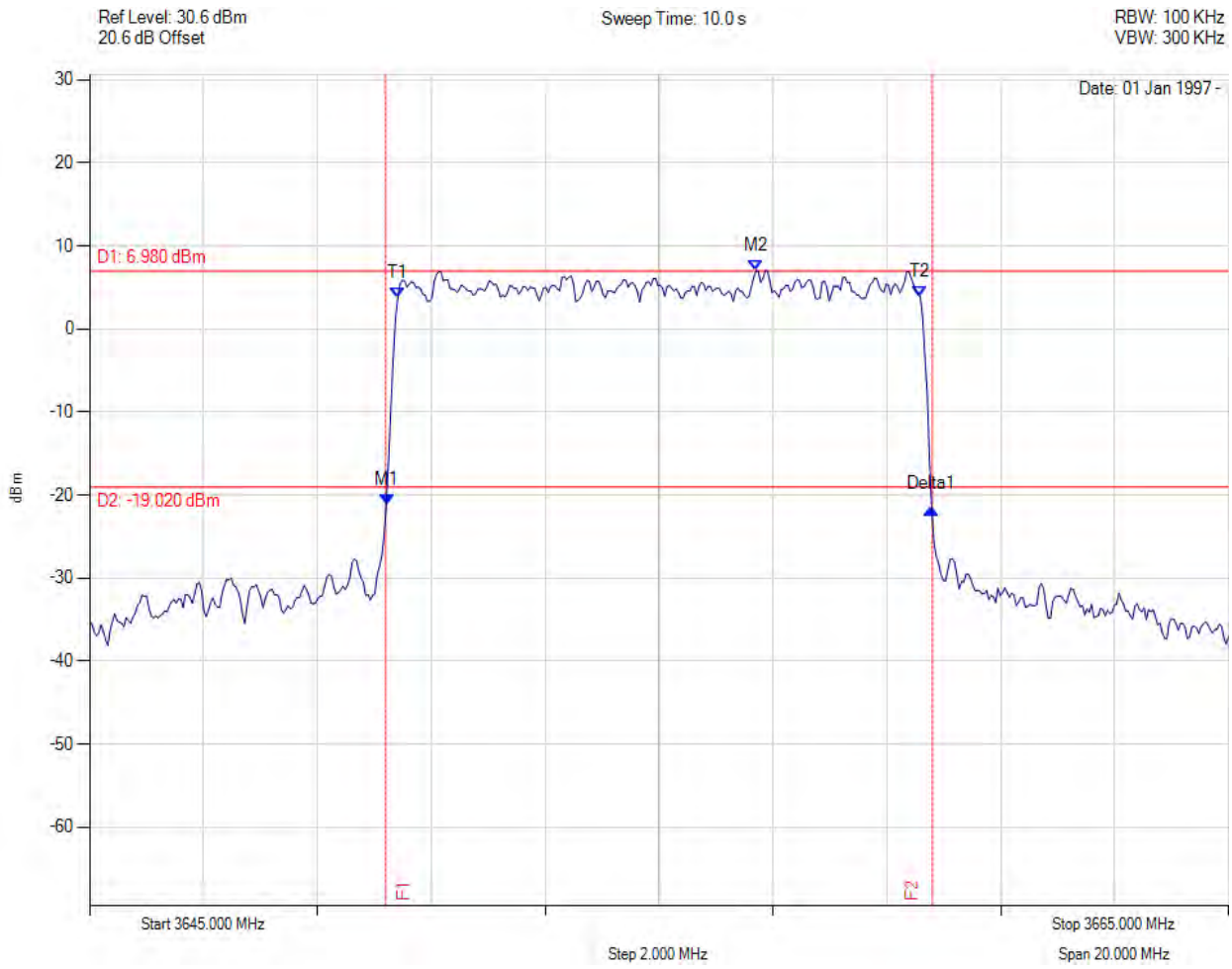


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3665.210 MHz : -22.245 dBm M2 : 3671.703 MHz : 6.510 dBm Delta1 : 9.569 MHz : 0.413 dB T1 : 3665.411 MHz : 3.260 dBm T2 : 3674.589 MHz : 3.480 dBm OBW : 9.17 MHz	Channel Frequency: 3670.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3655.00 MHz, 1, Temp: 25, Voltage: 56 Vdc

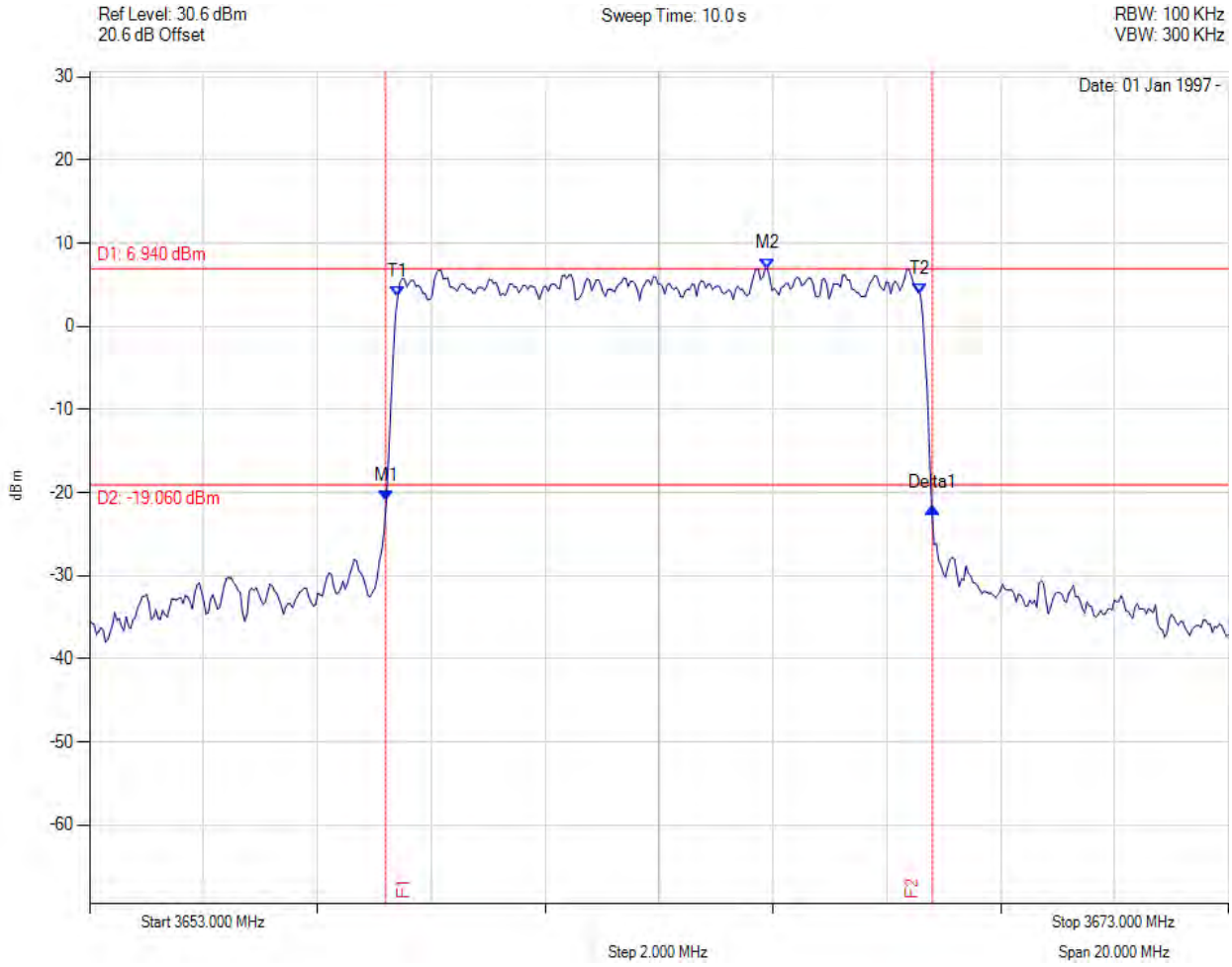


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.220 MHz : -21.122 dBm M2 : 3656.703 MHz : 6.984 dBm Delta1 : 9.569 MHz : -0.513 dB T1 : 3650.411 MHz : 3.710 dBm T2 : 3659.589 MHz : 3.870 dBm OBW : 9.17 MHz	Channel Frequency: 3655.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3663.00 MHz, 1, Temp: 25, Voltage: 56 Vdc

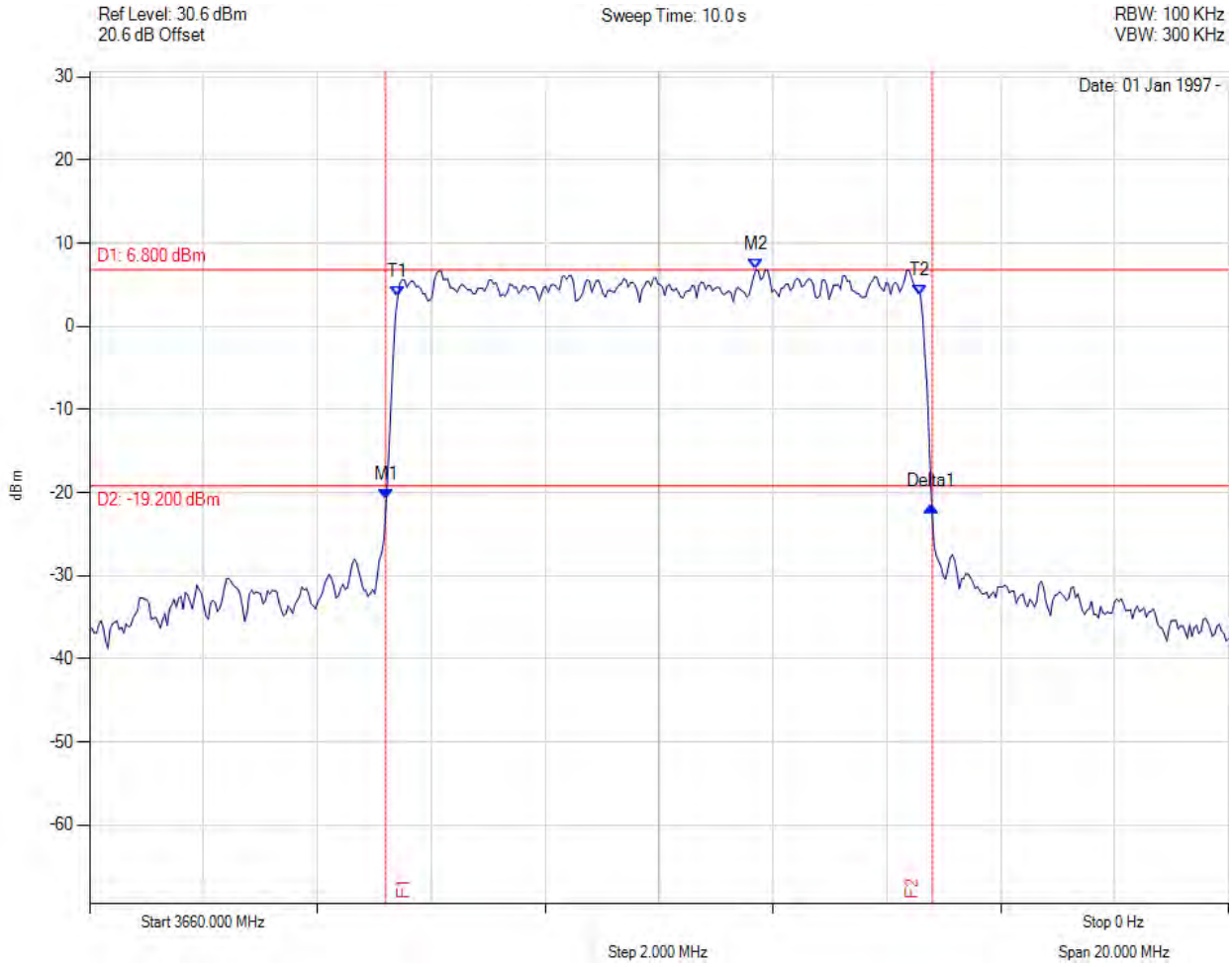


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3658.210 MHz : -21.057 dBm M2 : 3664.904 MHz : 6.943 dBm Delta1 : 9.595 MHz : -0.750 dB T1 : 3658.411 MHz : 3.540 dBm T2 : 3667.589 MHz : 3.850 dBm OBW : 9.17 MHz	Channel Frequency: 3663.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3670.00 MHz, 1, Temp: 25, Voltage: 56 Vdc

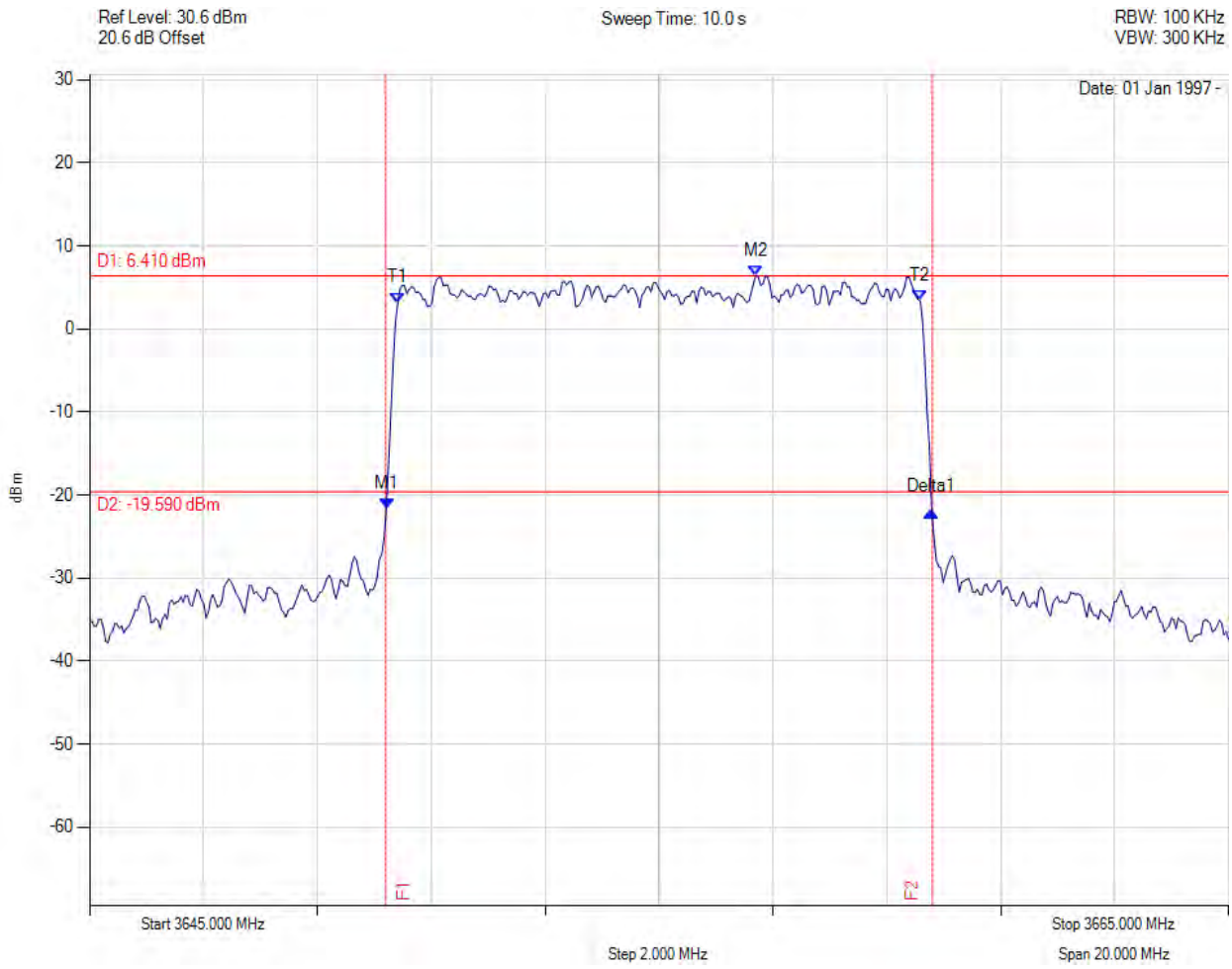


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3665.210 MHz : -20.894 dBm M2 : 3671.703 MHz : 6.797 dBm Delta1 : 9.569 MHz : -0.771 dB T1 : 3665.411 MHz : 3.510 dBm T2 : 3674.589 MHz : 3.800 dBm OBW : 9.17 MHz	Channel Frequency: 3670.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3655.00 MHz, 2, Temp: 25, Voltage: 56 Vdc

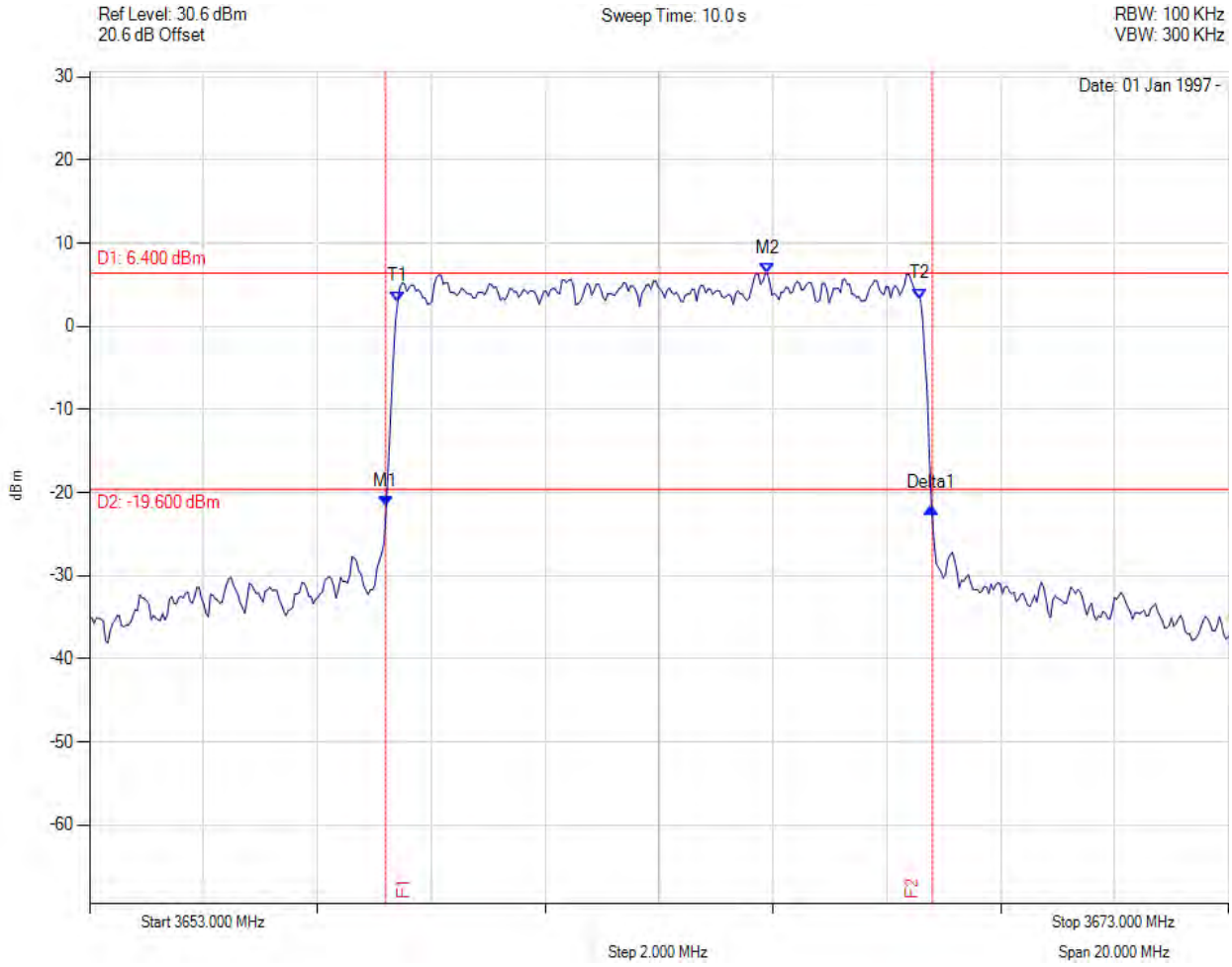


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.220 MHz : -21.679 dBm M2 : 3656.703 MHz : 6.407 dBm Delta1 : 9.569 MHz : -0.350 dB T1 : 3650.411 MHz : 3.150 dBm T2 : 3659.589 MHz : 3.350 dBm OBW : 9.17 MHz	Channel Frequency: 3655.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3663.00 MHz, 2, Temp: 25, Voltage: 56 Vdc

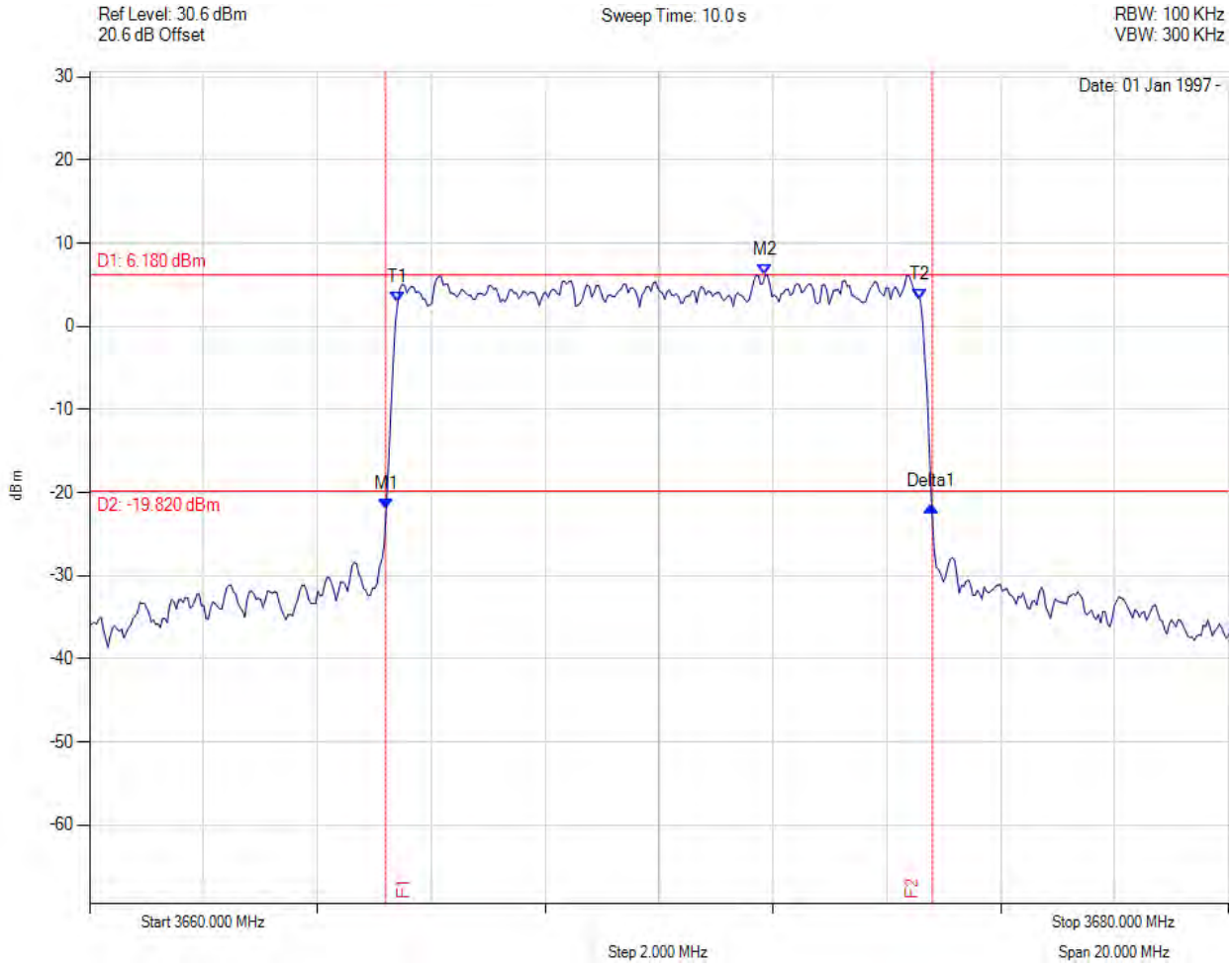


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3658.196 MHz : -21.643 dBm M2 : 3664.904 MHz : 6.396 dBm Delta1 : 9.593 MHz : -0.226 dB T1 : 3658.411 MHz : 2.990 dBm T2 : 3667.589 MHz : 3.320 dBm OBW : 9.17 MHz	Channel Frequency: 3663.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3670.00 MHz, 2, Temp: 25, Voltage: 56 Vdc

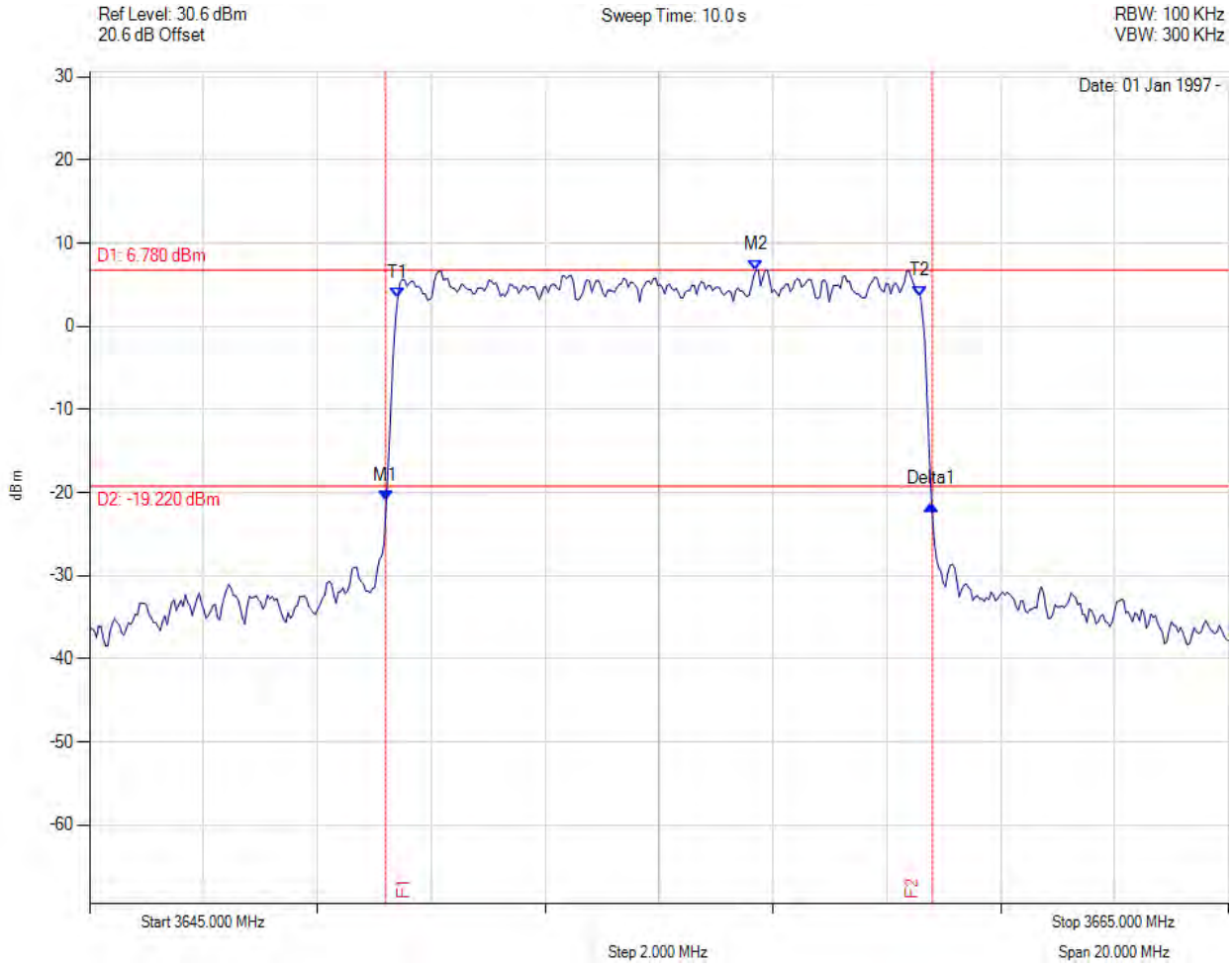


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3665.210 MHz : -21.919 dBm M2 : 3671.864 MHz : 6.179 dBm Delta1 : 9.569 MHz : 0.220 dB T1 : 3665.411 MHz : 2.850 dBm T2 : 3674.589 MHz : 3.170 dBm OBW : 9.17 MHz	Channel Frequency: 3670.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3655.00 MHz, 3, Temp: 25, Voltage: 56 Vdc

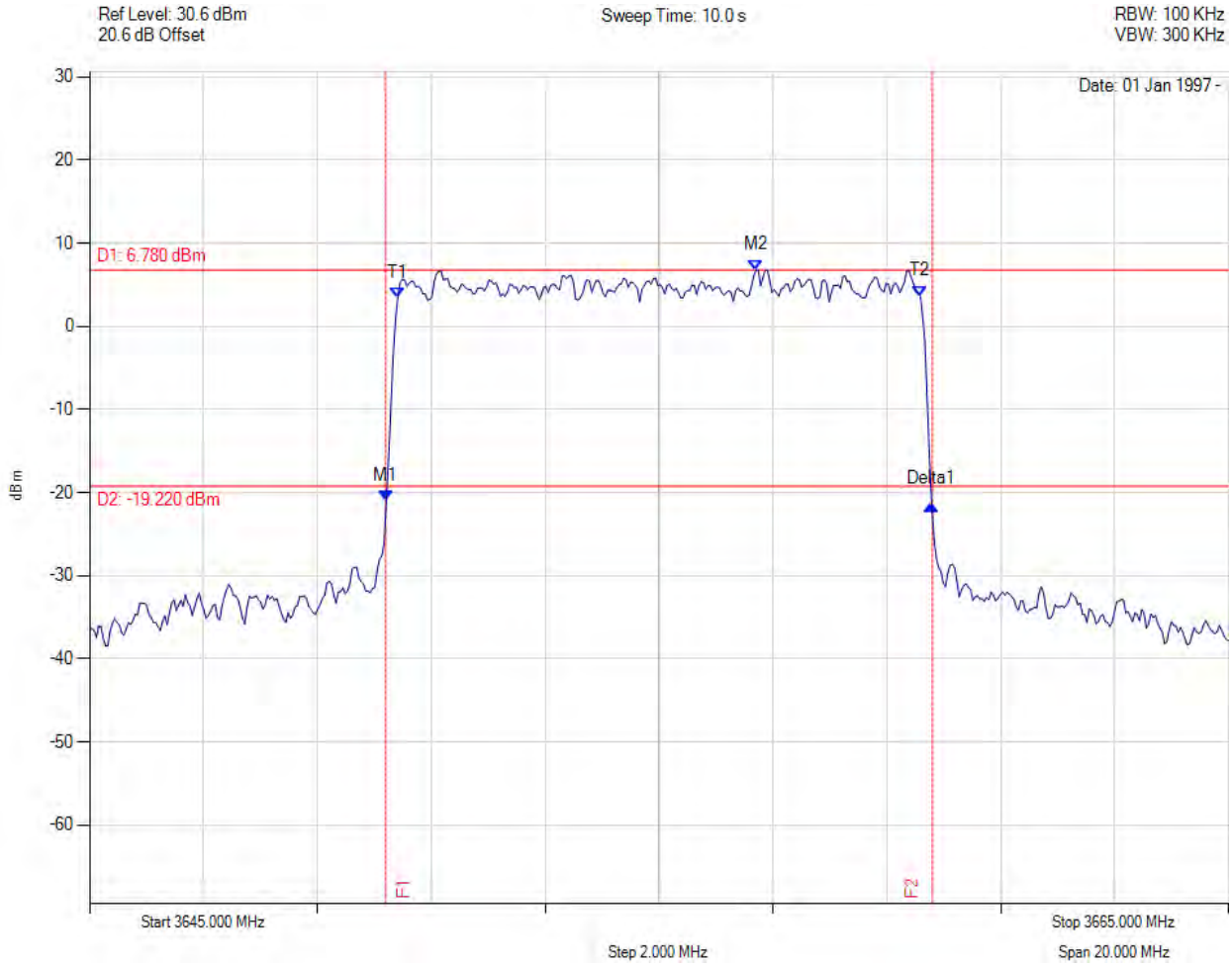


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.194 MHz : -21.037 dBm M2 : 3656.703 MHz : 6.781 dBm Delta1 : 9.595 MHz : -0.368 dB T1 : 3650.411 MHz : 3.460 dBm T2 : 3659.589 MHz : 3.650 dBm OBW : 9.17 MHz	Channel Frequency: 3655.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3655.00 MHz, 3, Temp: 25, Voltage: 56 Vdc

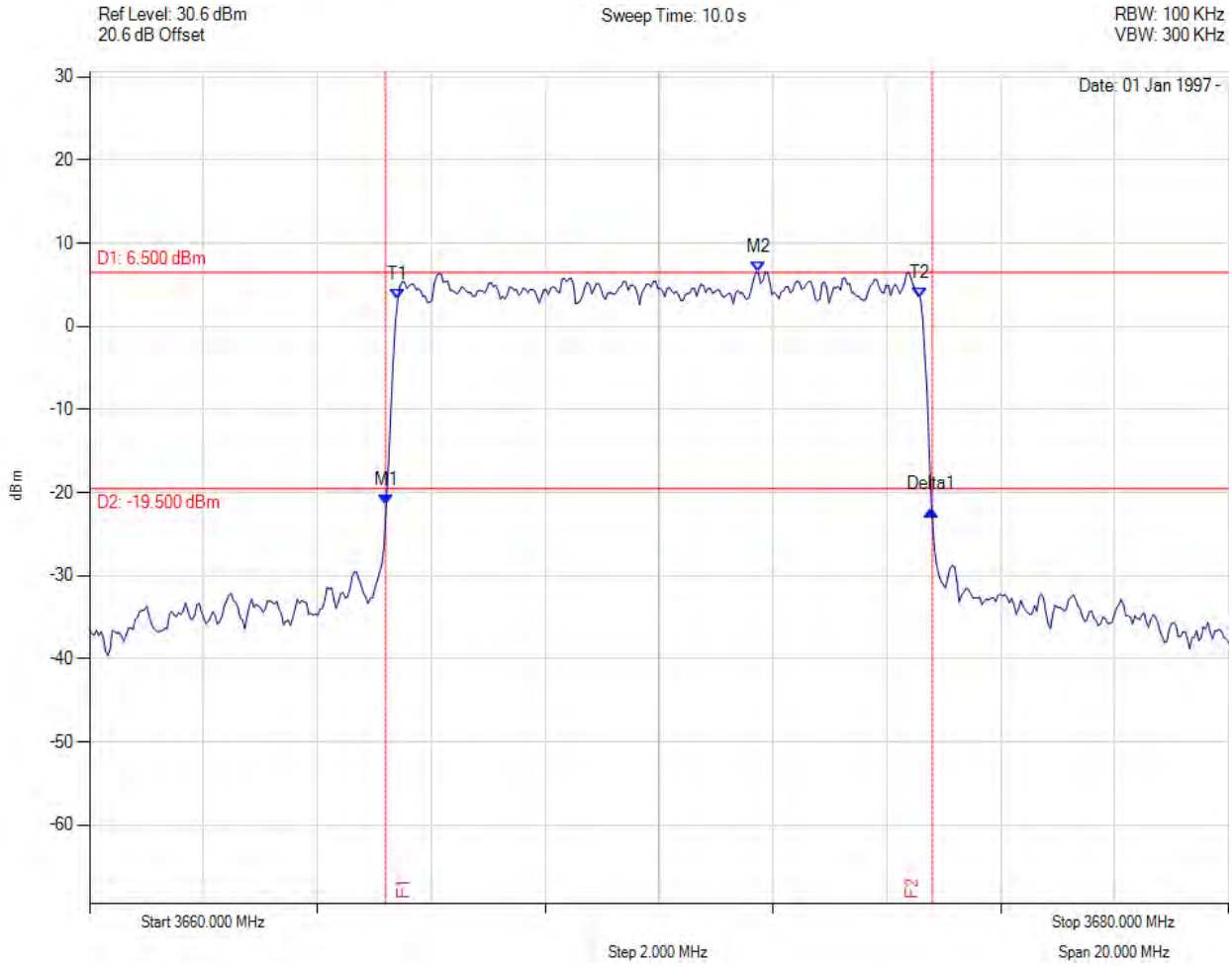


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.194 MHz : -21.037 dBm M2 : 3656.703 MHz : 6.781 dBm Delta1 : 9.595 MHz : -0.368 dB T1 : 3650.411 MHz : 3.460 dBm T2 : 3659.589 MHz : 3.650 dBm OBW : 9.17 MHz	Channel Frequency: 3655.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3670.00 MHz, 3, Temp: 25, Voltage: 56 Vdc

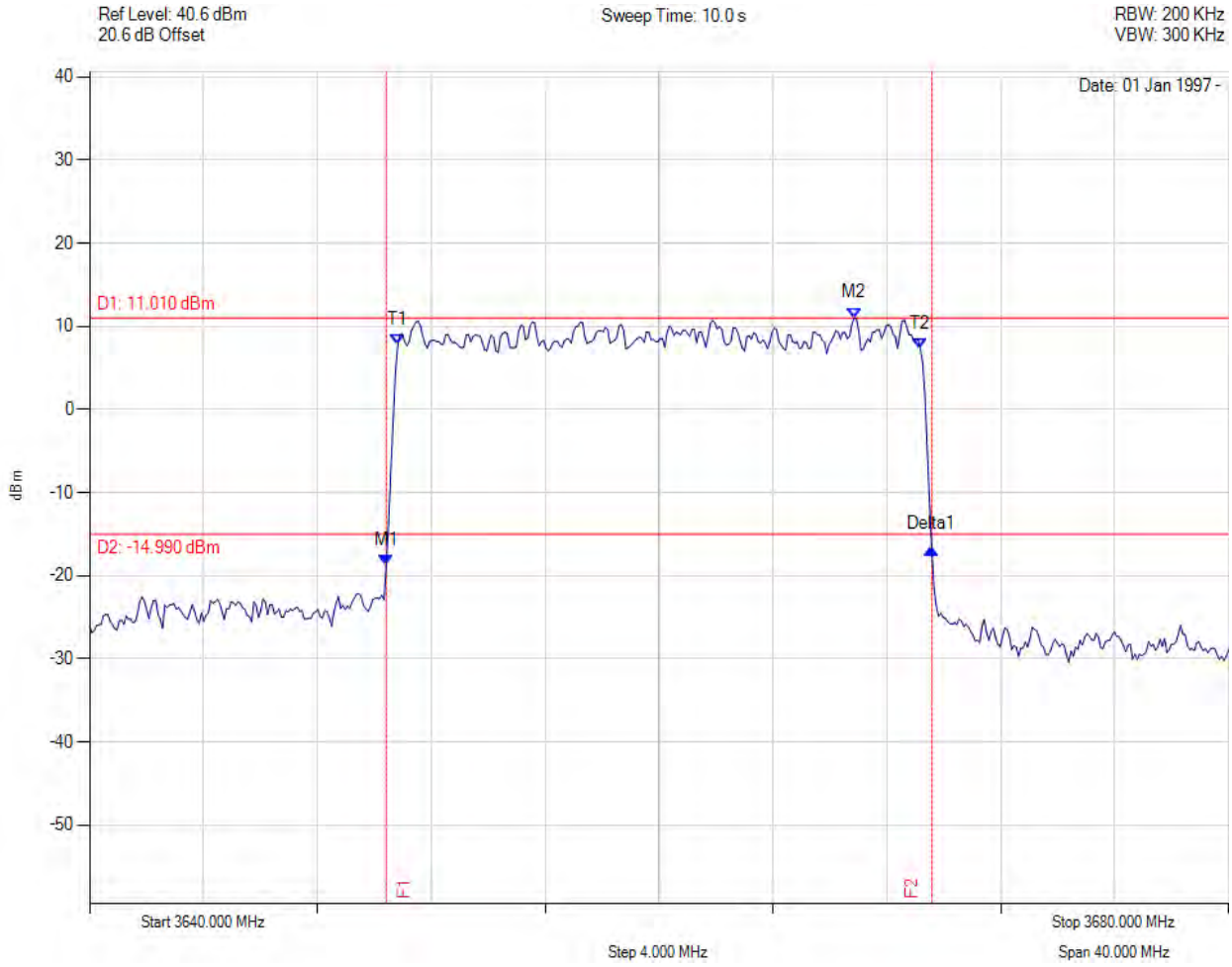


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3665.210 MHz : -21.511 dBm M2 : 3671.743 MHz : 6.500 dBm Delta1 : 9.569 MHz : -0.553 dB T1 : 3665.411 MHz : 3.170 dBm T2 : 3674.589 MHz : 3.460 dBm OBW : 9.17 MHz	Channel Frequency: 3670.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3660.00 MHz, 0, Temp: 25C, Voltage: 54 Vdc

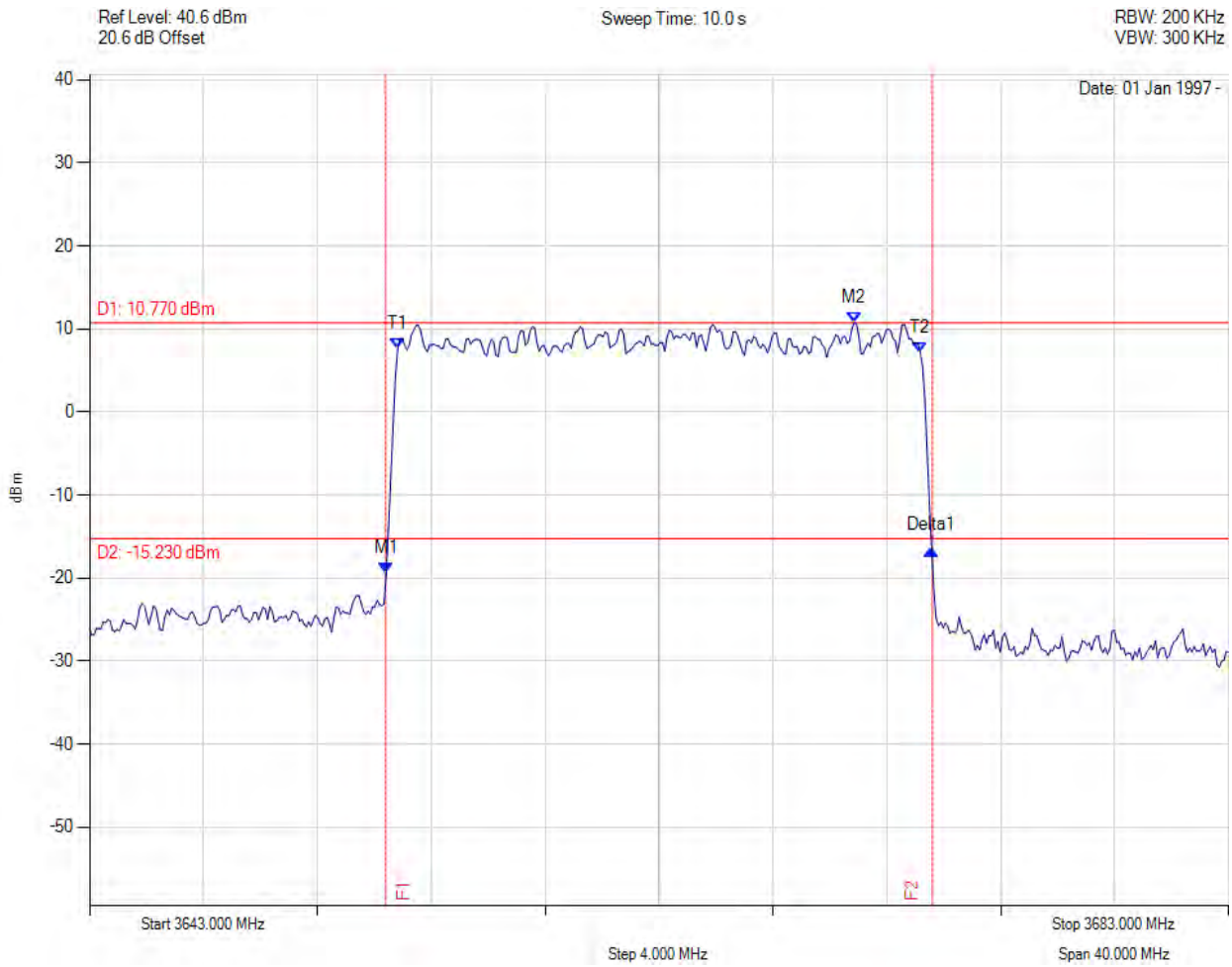


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3650.421 MHz : -18.743 dBm M2 : 3666.854 MHz : 11.009 dBm Delta1 : 19.158 MHz : 2.026 dB T1 : 3650.822 MHz : 7.757 dBm T2 : 3669.178 MHz : 7.308 dBm OBW : 18.357 MHz	Channel Frequency: 3660.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3663.00 MHz, 0, Temp: 25C, Voltage: 54 Vdc

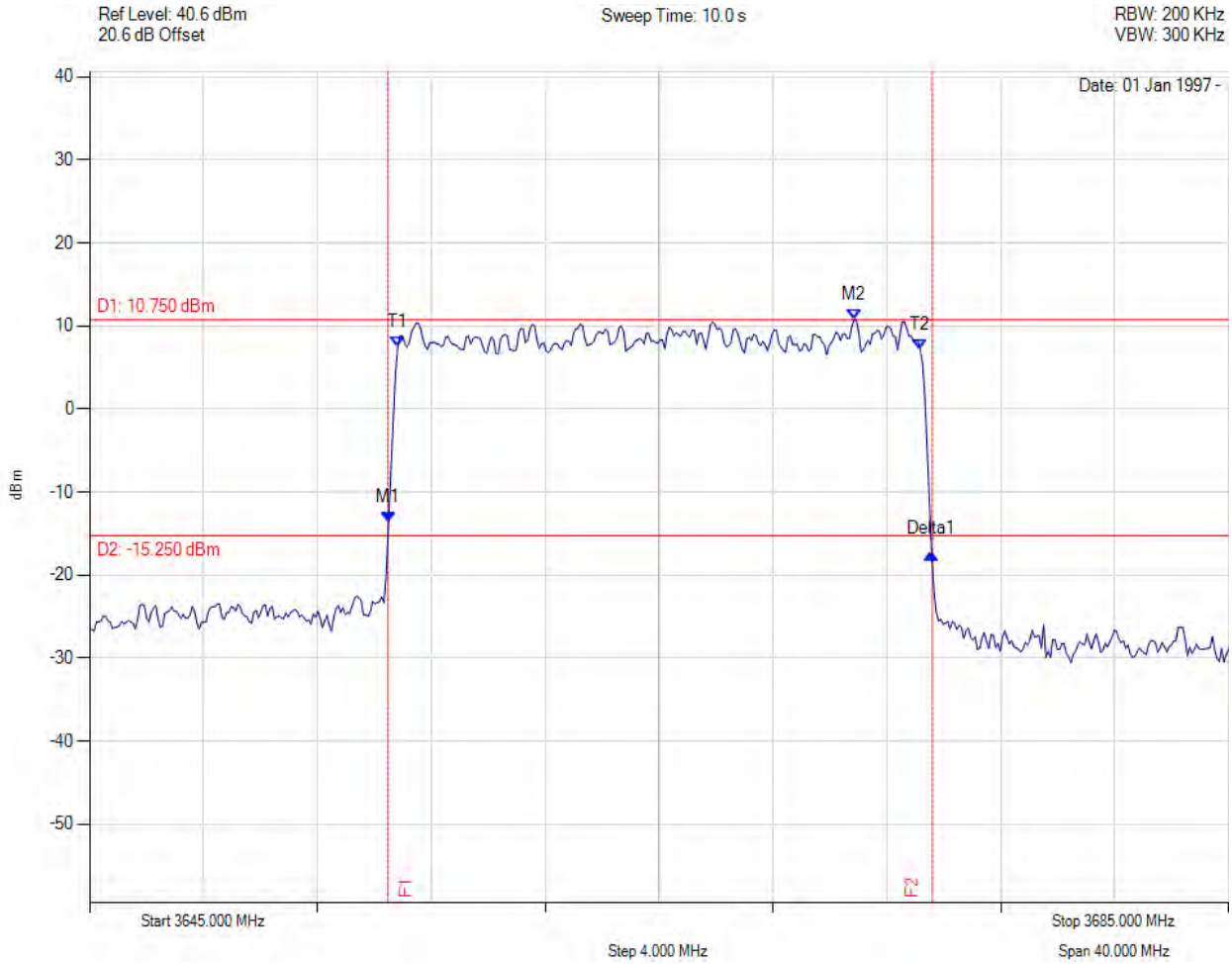


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3653.421 MHz : -19.351 dBm M2 : 3669.854 MHz : 10.773 dBm Delta1 : 19.158 MHz : 2.809 dB T1 : 3653.822 MHz : 7.607 dBm T2 : 3672.178 MHz : 7.149 dBm OBW : 18.357 MHz	Channel Frequency: 3663.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3665.00 MHz, 0, Temp: 25C, Voltage: 54 Vdc

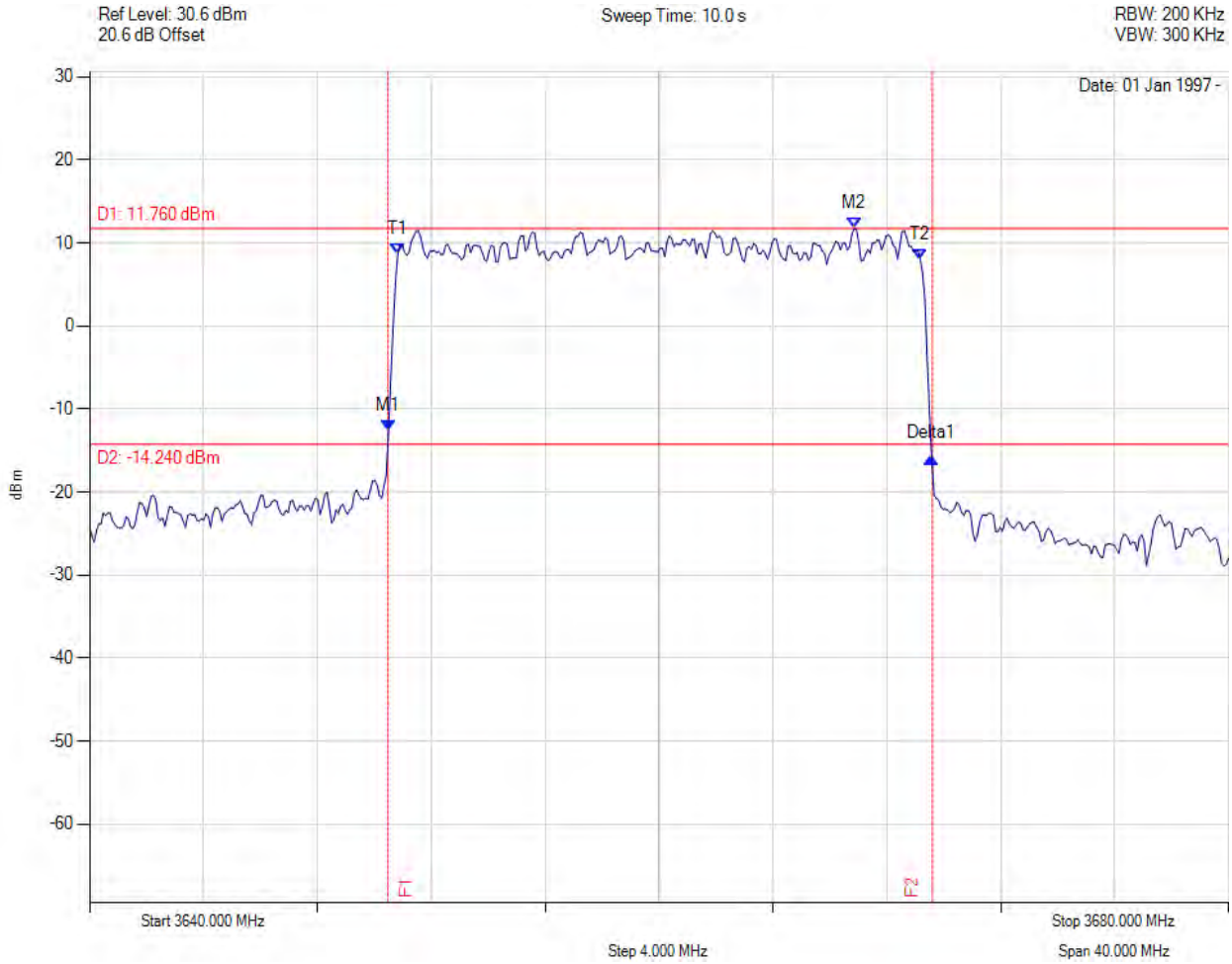


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3655.501 MHz : -13.573 dBm M2 : 3671.854 MHz : 10.747 dBm Delta1 : 19.078 MHz : -3.852 dB T1 : 3655.822 MHz : 7.525 dBm T2 : 3674.178 MHz : 7.118 dBm OBW : 18.357 MHz	Channel Frequency: 3665.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3660.00 MHz, 1, Temp: 25C, Voltage: 54 Vdc

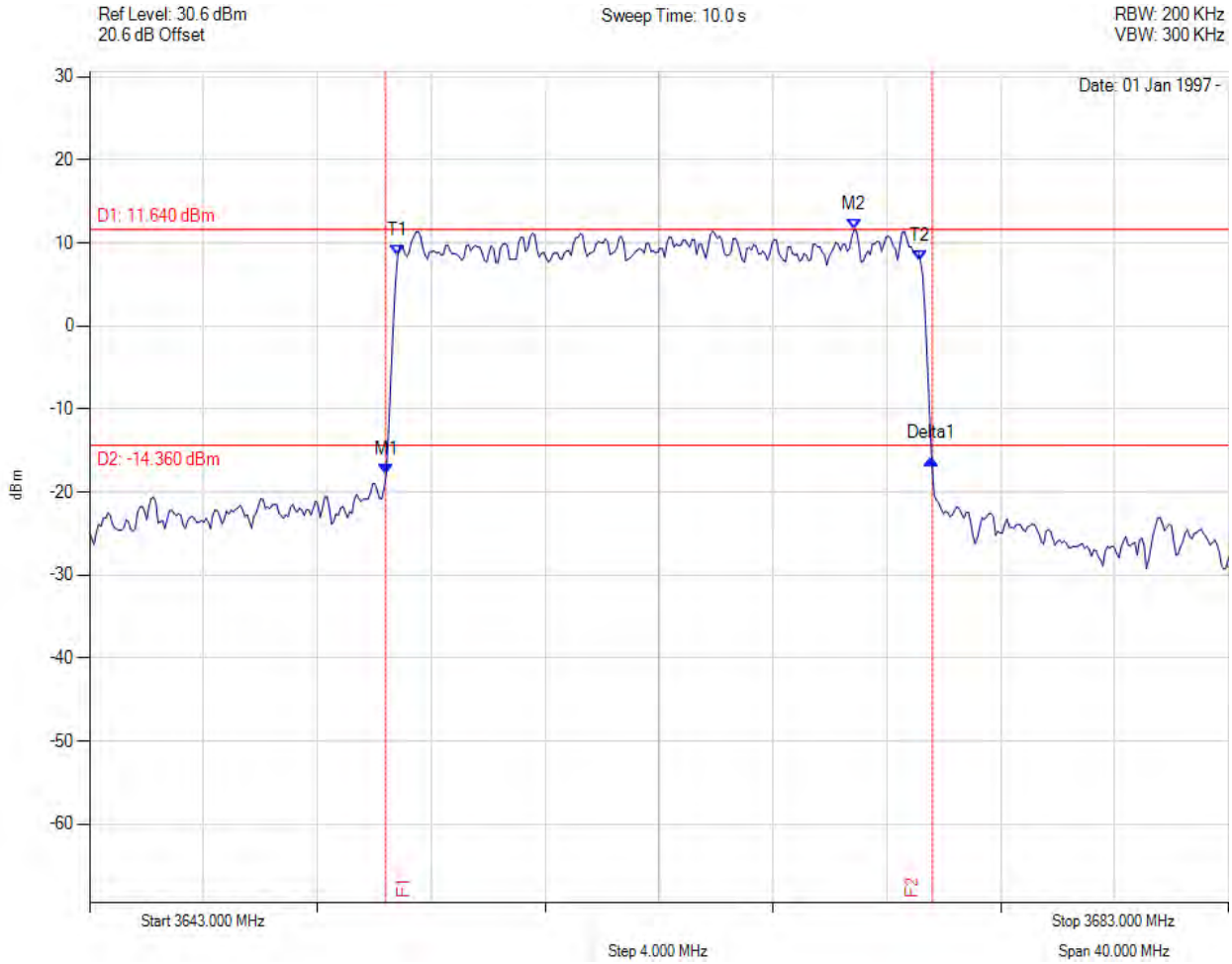


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.501 MHz : -12.511 dBm M2 : 3666.854 MHz : 11.761 dBm Delta1 : 19.078 MHz : -3.321 dB T1 : 3650.822 MHz : 8.636 dBm T2 : 3669.178 MHz : 7.968 dBm OBW : 18.357 MHz	Channel Frequency: 3660.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3663.00 MHz, 1, Temp: 25C, Voltage: 54 Vdc

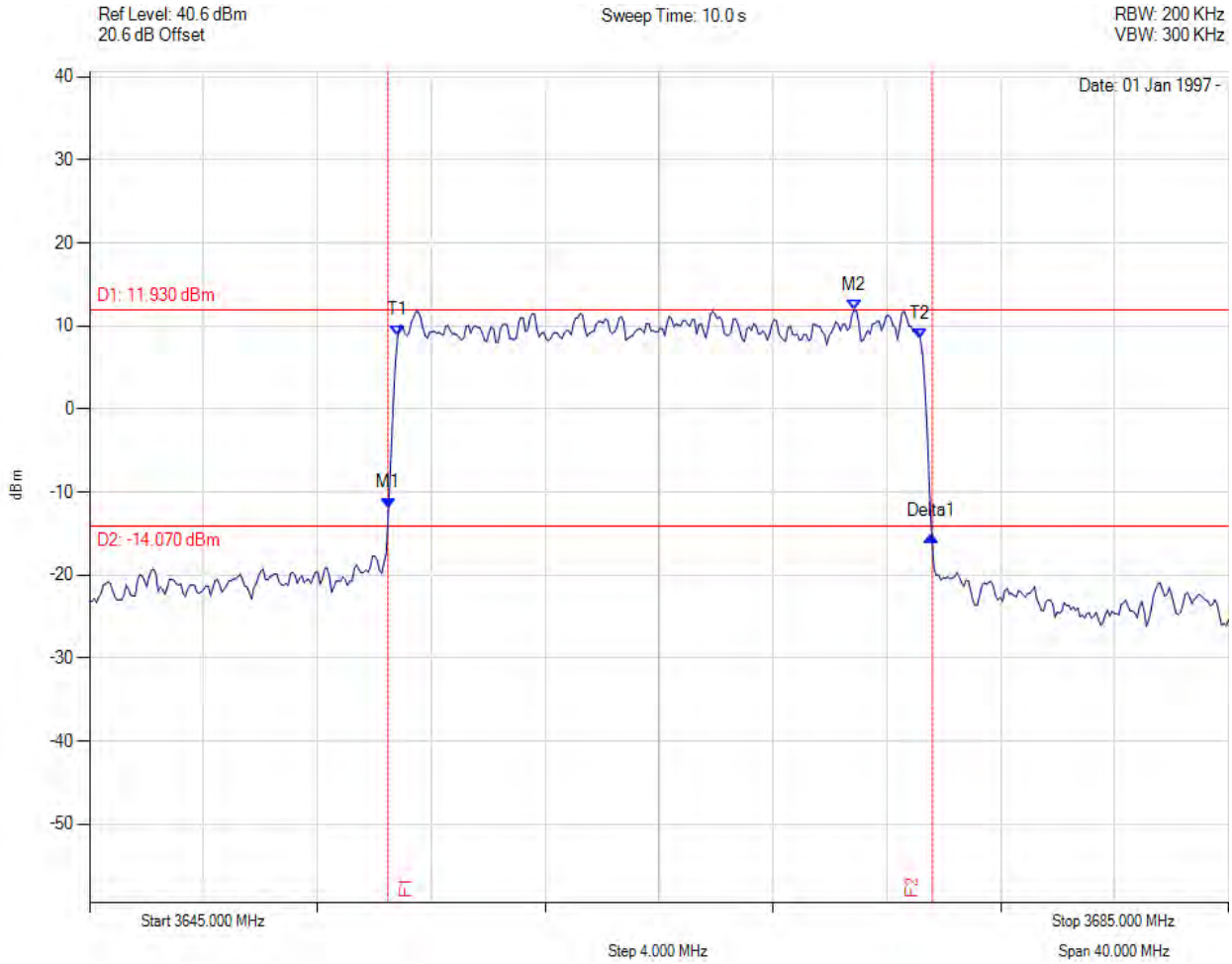


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3653.421 MHz : -17.874 dBm M2 : 3669.854 MHz : 11.635 dBm Delta1 : 19.158 MHz : 1.920 dB T1 : 3653.822 MHz : 8.509 dBm T2 : 3672.178 MHz : 7.881 dBm OBW : 18.357 MHz	Channel Frequency: 3663.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3665.00 MHz, 1, Temp: 25C, Voltage: 54 Vdc

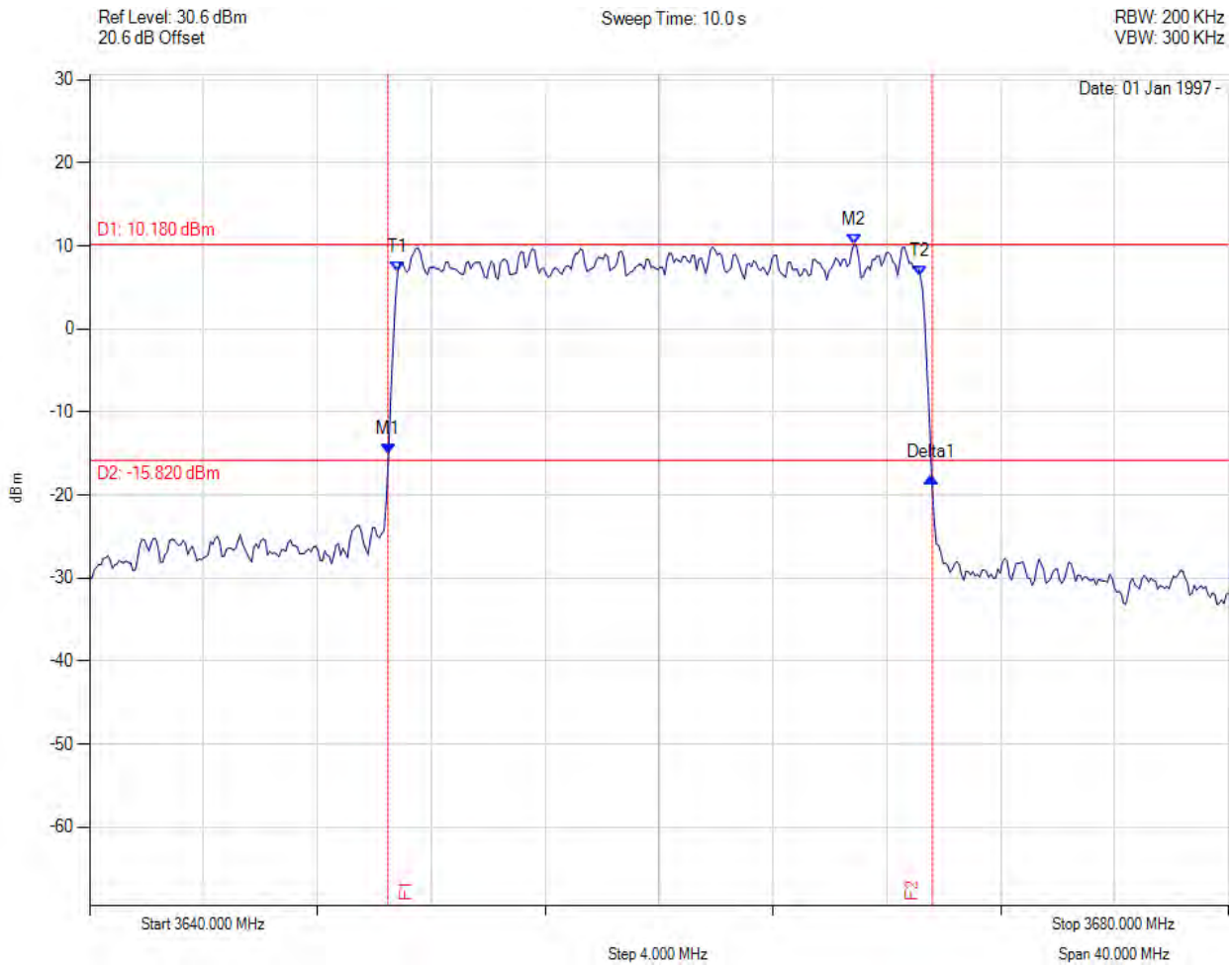


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3655.501 MHz : -11.897 dBm M2 : 3671.854 MHz : 11.928 dBm Delta1 : 19.078 MHz : -3.352 dB T1 : 3655.822 MHz : 8.876 dBm T2 : 3674.178 MHz : 8.394 dBm OBW : 18.357 MHz	Channel Frequency: 3665.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3660.00 MHz, 2, Temp: 25C, Voltage: 54 Vdc

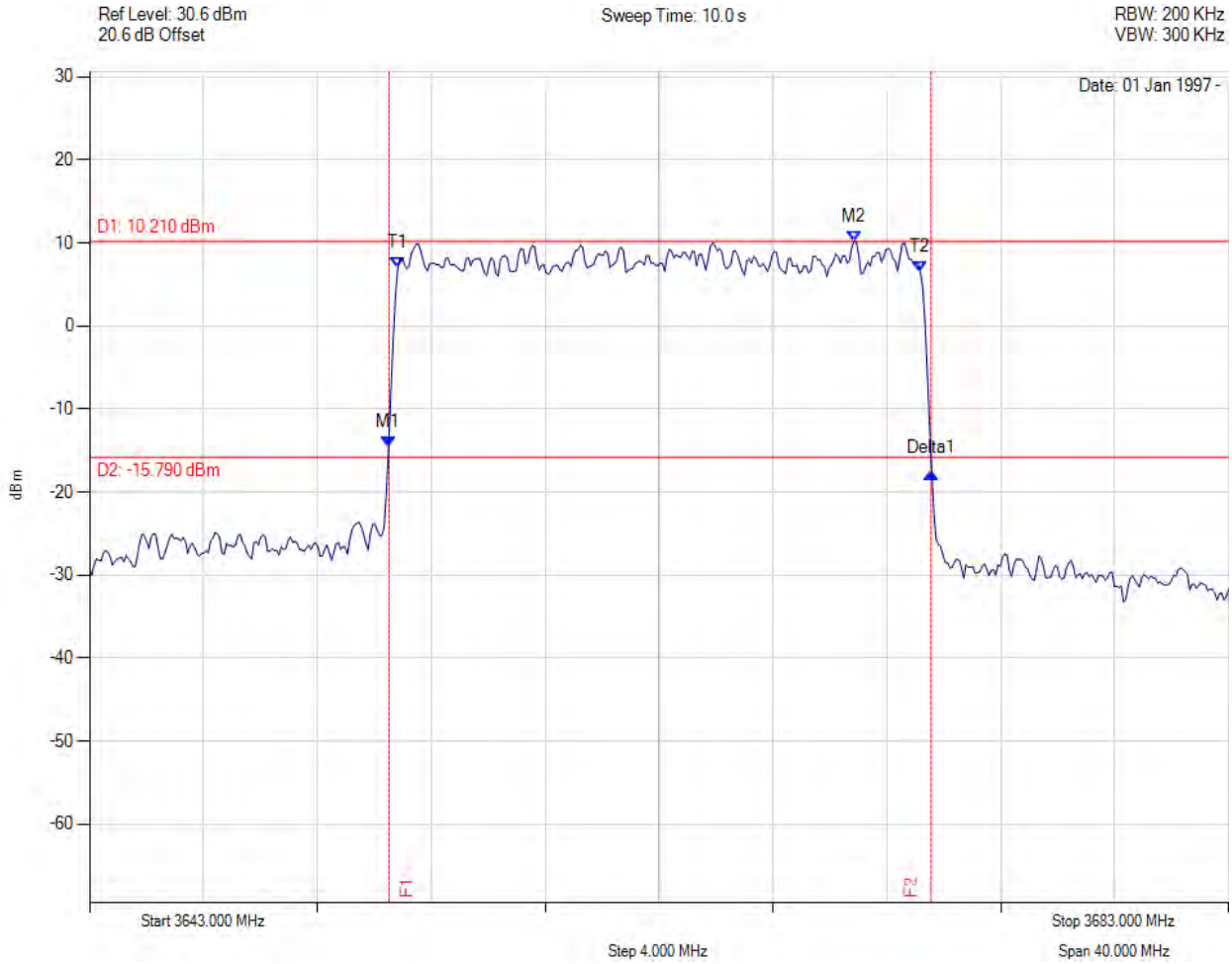


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.501 MHz : -14.999 dBm M2 : 3666.854 MHz : 10.177 dBm Delta1 : 19.078 MHz : -2.896 dB T1 : 3650.822 MHz : 6.891 dBm T2 : 3669.178 MHz : 6.319 dBm OBW : 18.357 MHz	Channel Frequency: 3660.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3663.00 MHz, 2, Temp: 25C, Voltage: 54 Vdc

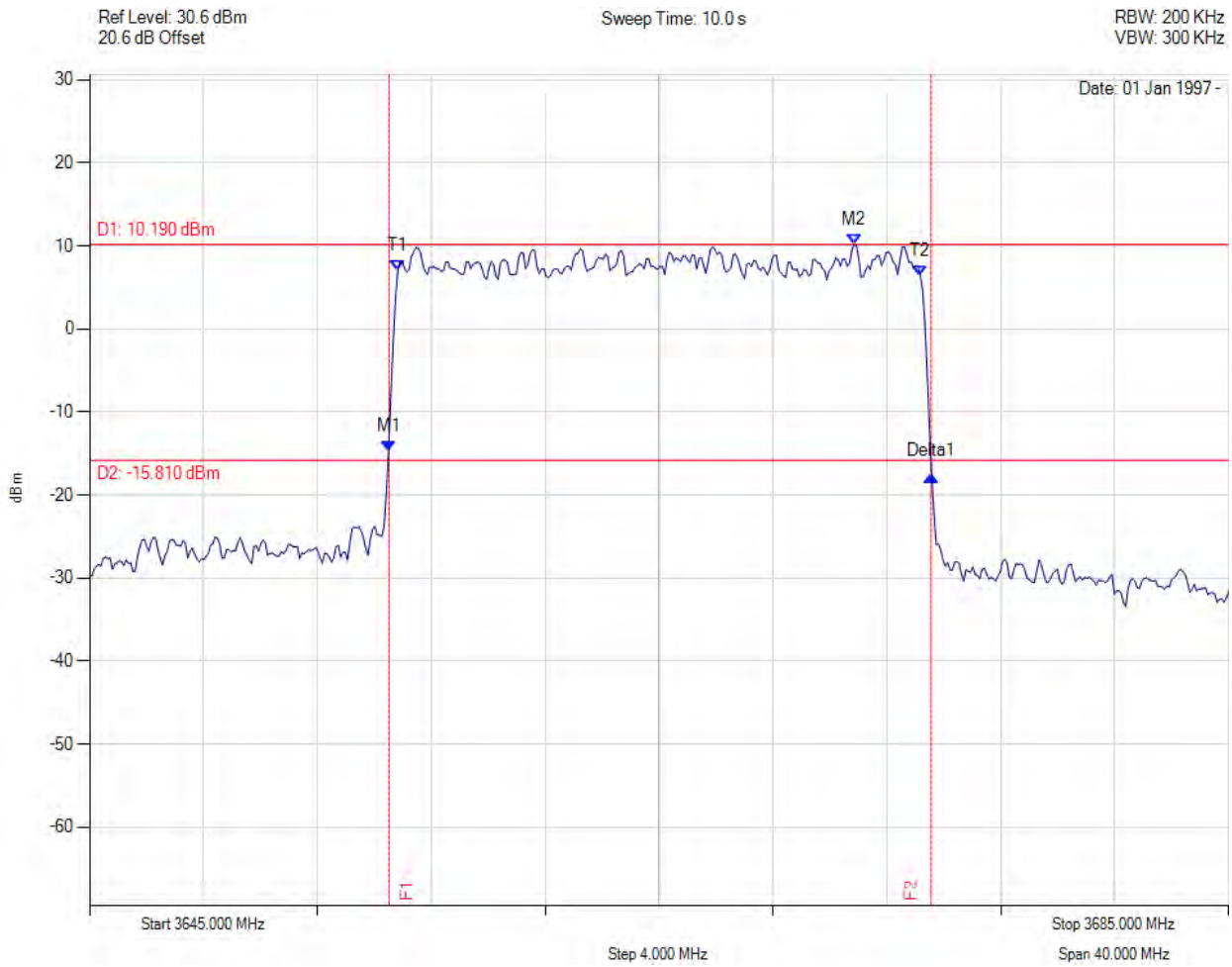


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3653.501 MHz : -14.618 dBm M2 : 3669.854 MHz : 10.210 dBm Delta1 : 19.044 MHz : -3.006 dB T1 : 3653.822 MHz : 7.015 dBm T2 : 3672.178 MHz : 6.466 dBm OBW : 18.357 MHz	Channel Frequency: 3663.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3665.00 MHz, 2, Temp: 25C, Voltage: 54 Vdc

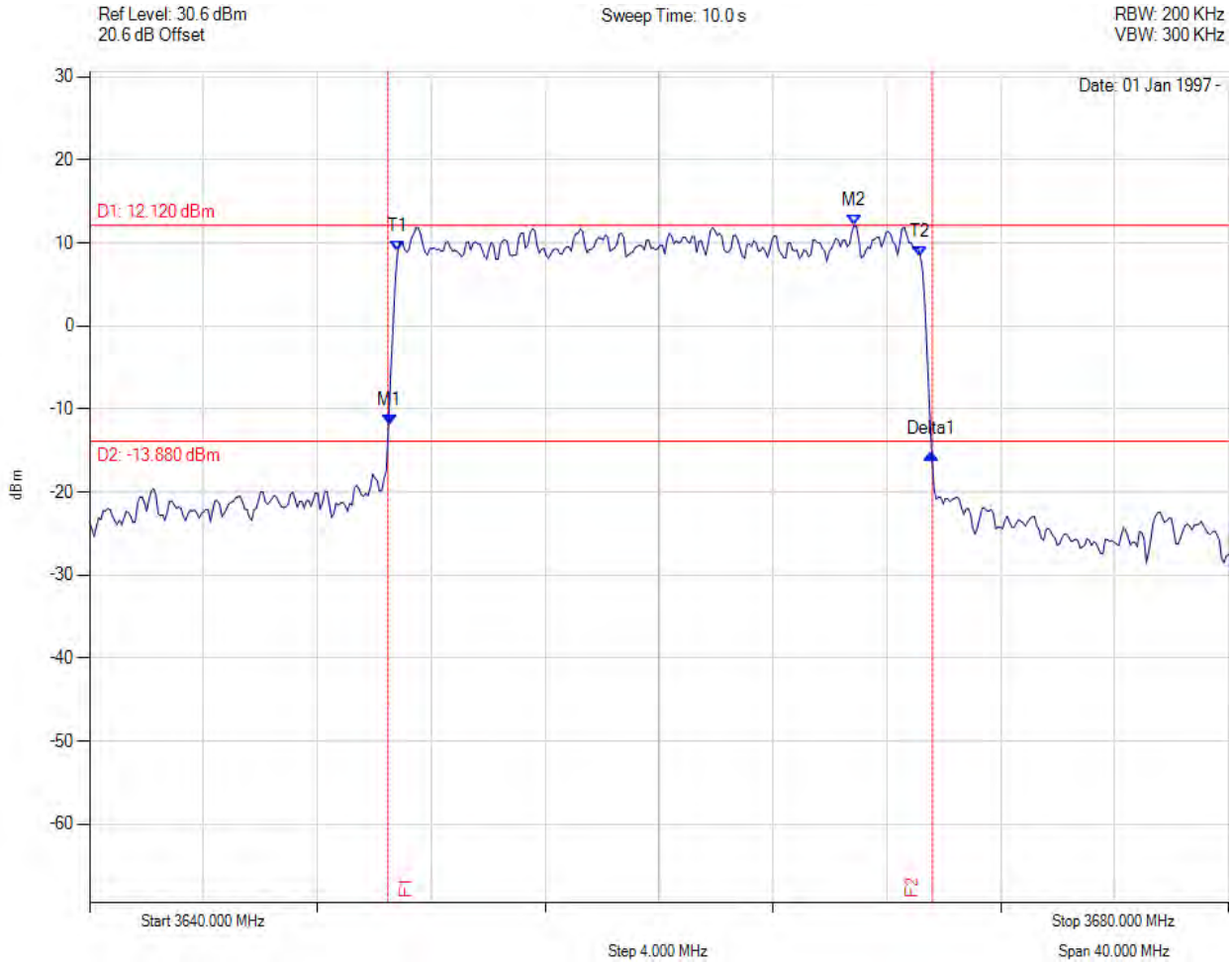


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3655.505 MHz : -14.681 dBm M2 : 3671.854 MHz : 10.185 dBm Delta1 : 19.044 MHz : -3.063 dB T1 : 3655.822 MHz : 6.968 dBm T2 : 3674.178 MHz : 6.421 dBm OBW : 18.357 MHz	Channel Frequency: 3665.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3660.00 MHz, 3, Temp: 25C, Voltage: 54 Vdc

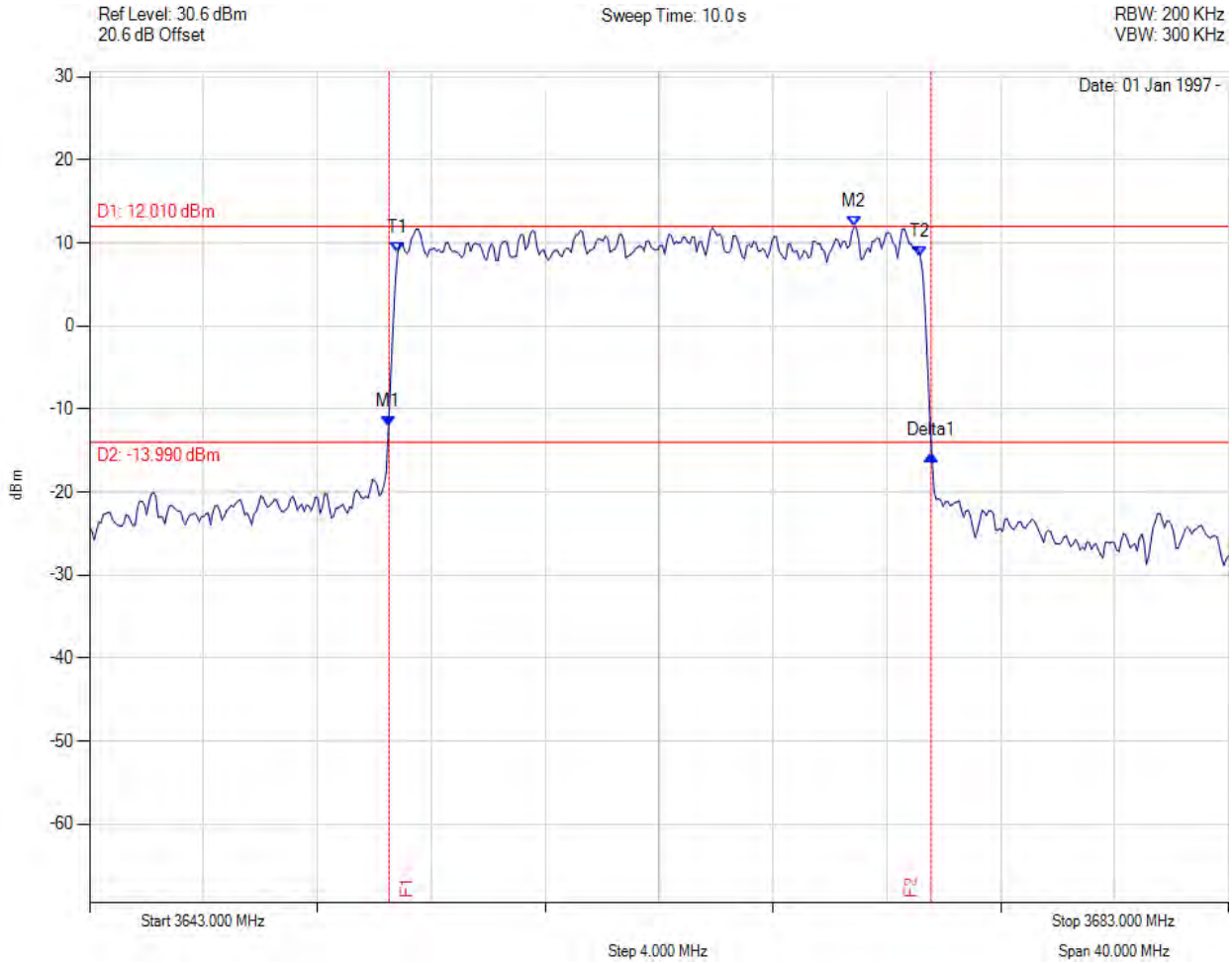


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.535 MHz : -11.901 dBm M2 : 3666.854 MHz : 12.123 dBm Delta1 : 19.044 MHz : -3.500 dB T1 : 3650.822 MHz : 9.020 dBm T2 : 3669.178 MHz : 8.373 dBm OBW : 18.357 MHz	Channel Frequency: 3660.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

Variant: , Channel: 3663.00 MHz, 3, Temp: 25C, Voltage: 54 Vdc

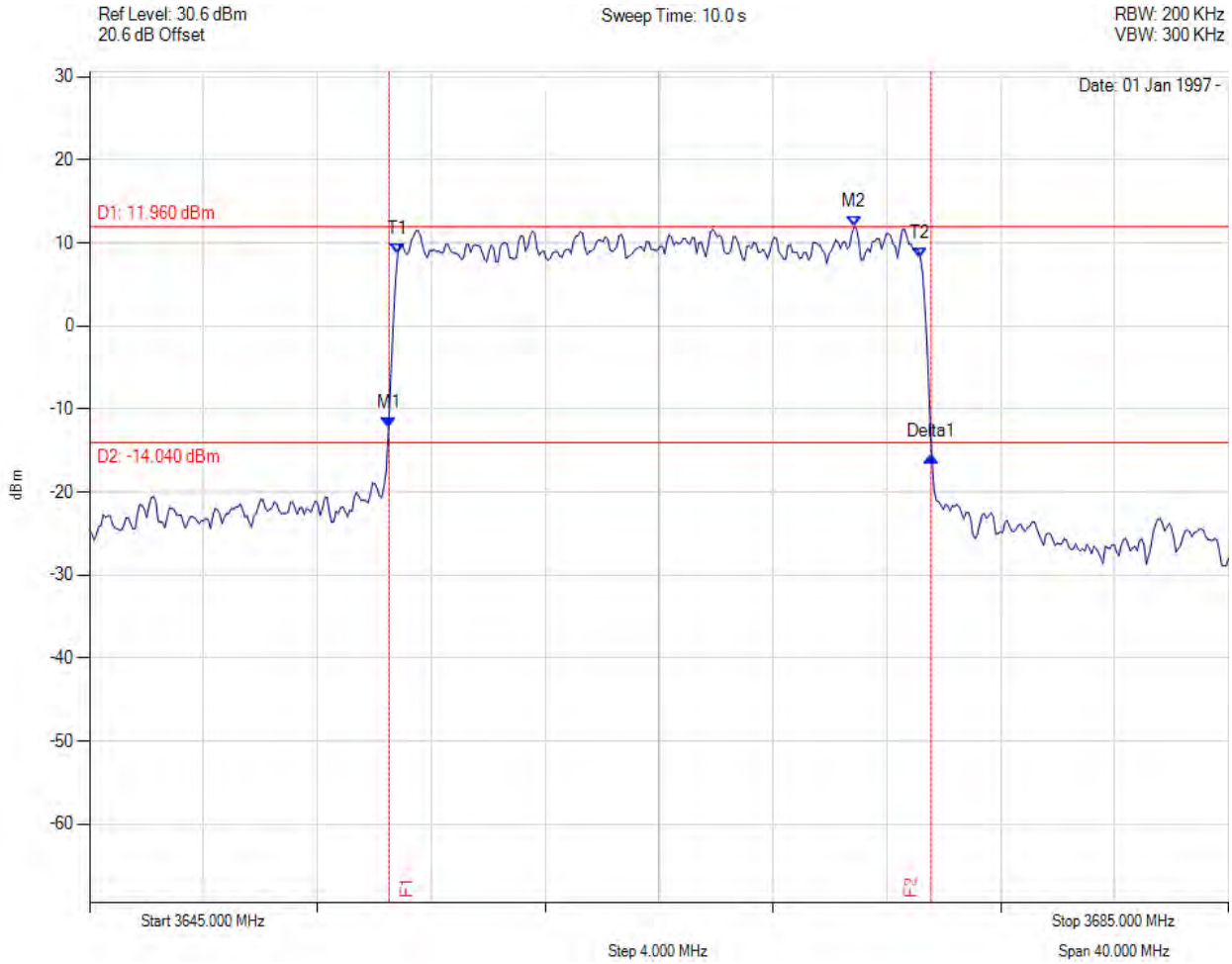


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3653.501 MHz : -12.109 dBm M2 : 3669.854 MHz : 12.005 dBm Delta1 : 19.044 MHz : -3.427 dB T1 : 3653.822 MHz : 8.847 dBm T2 : 3672.178 MHz : 8.300 dBm OBW : 18.357 MHz	Channel Frequency: 3663.00 MHz

Back to Matrix

26 dB & 99% Occupied Bandwidth

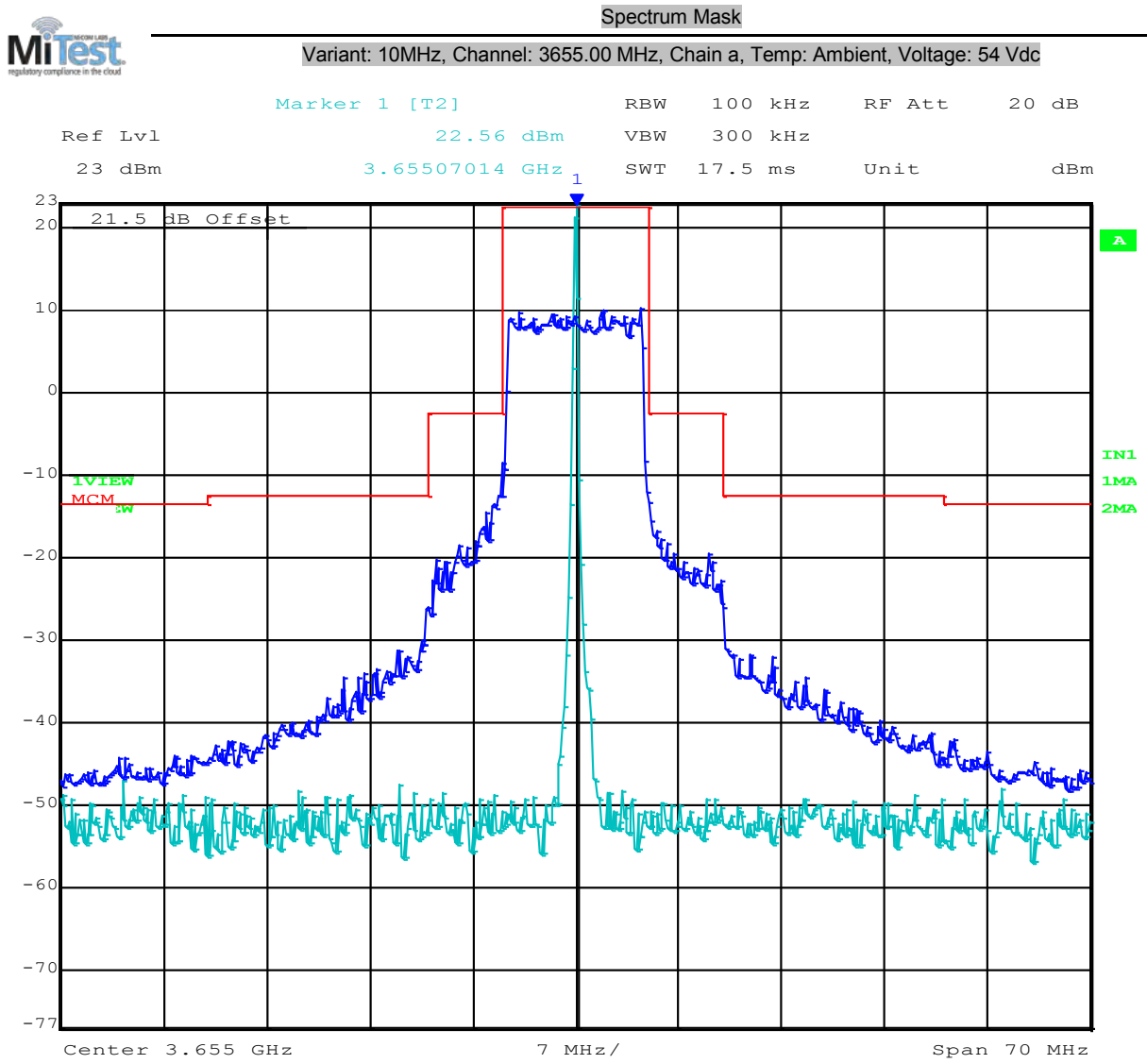
Variant: , Channel: 3665.00 MHz, 3, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3655.505 MHz : -12.206 dBm M2 : 3671.854 MHz : 11.957 dBm Delta1 : 19.044 MHz : -3.561 dB T1 : 3655.822 MHz : 8.705 dBm T2 : 3674.178 MHz : 8.239 dBm OBW : 18.357 MHz	Channel Frequency: 3665.00 MHz

Back to Matrix

A.1.2. Spectrum Mask

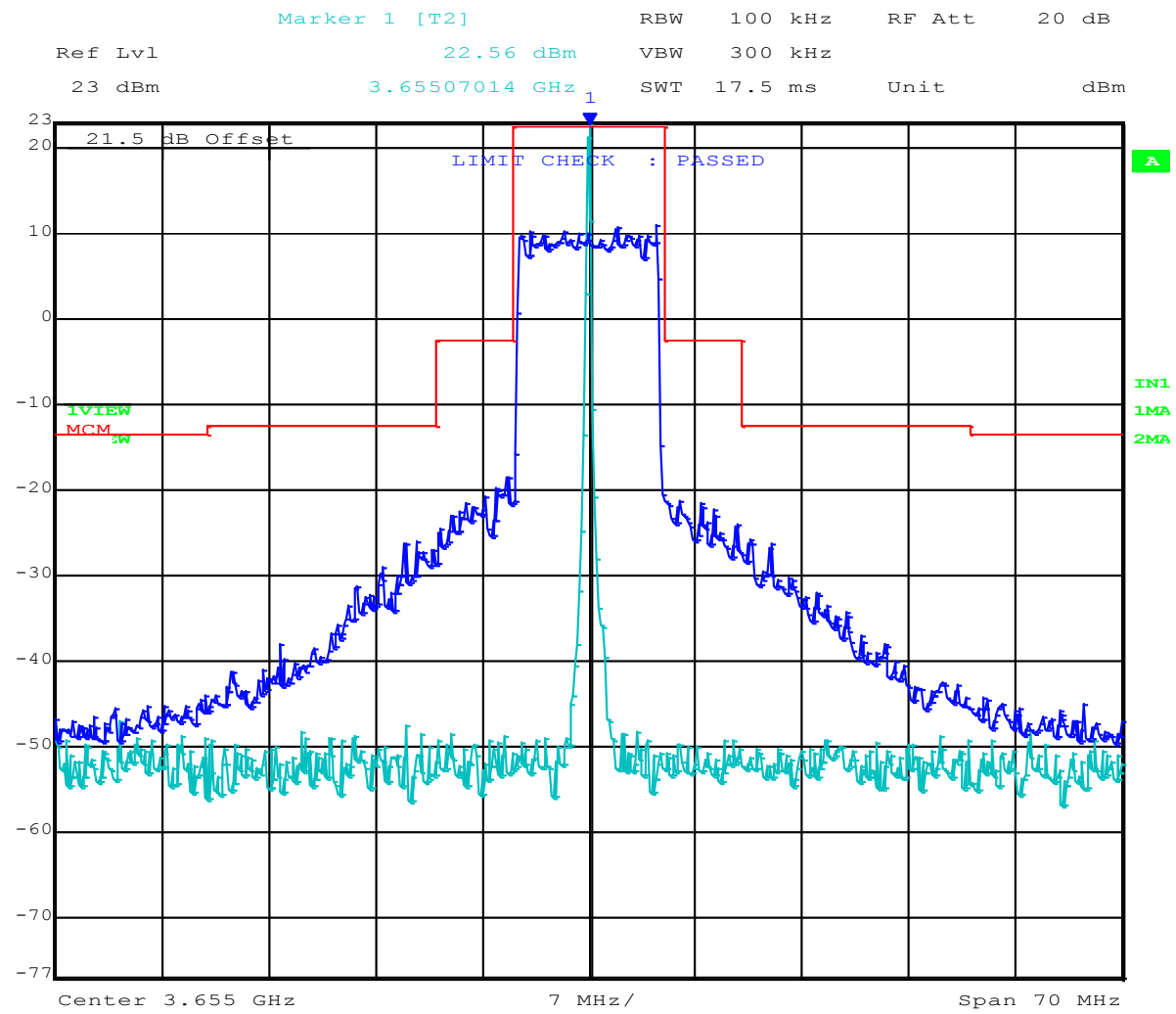


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3655.070 MHz : 22.565 dBm	Channel Frequency: 3655.00 MHz

back to matrix

Spectrum Mask

Variant: 10MHz, Channel: 3655.00 MHz, Chain b, Temp: Ambient, Voltage: 54 Vdc



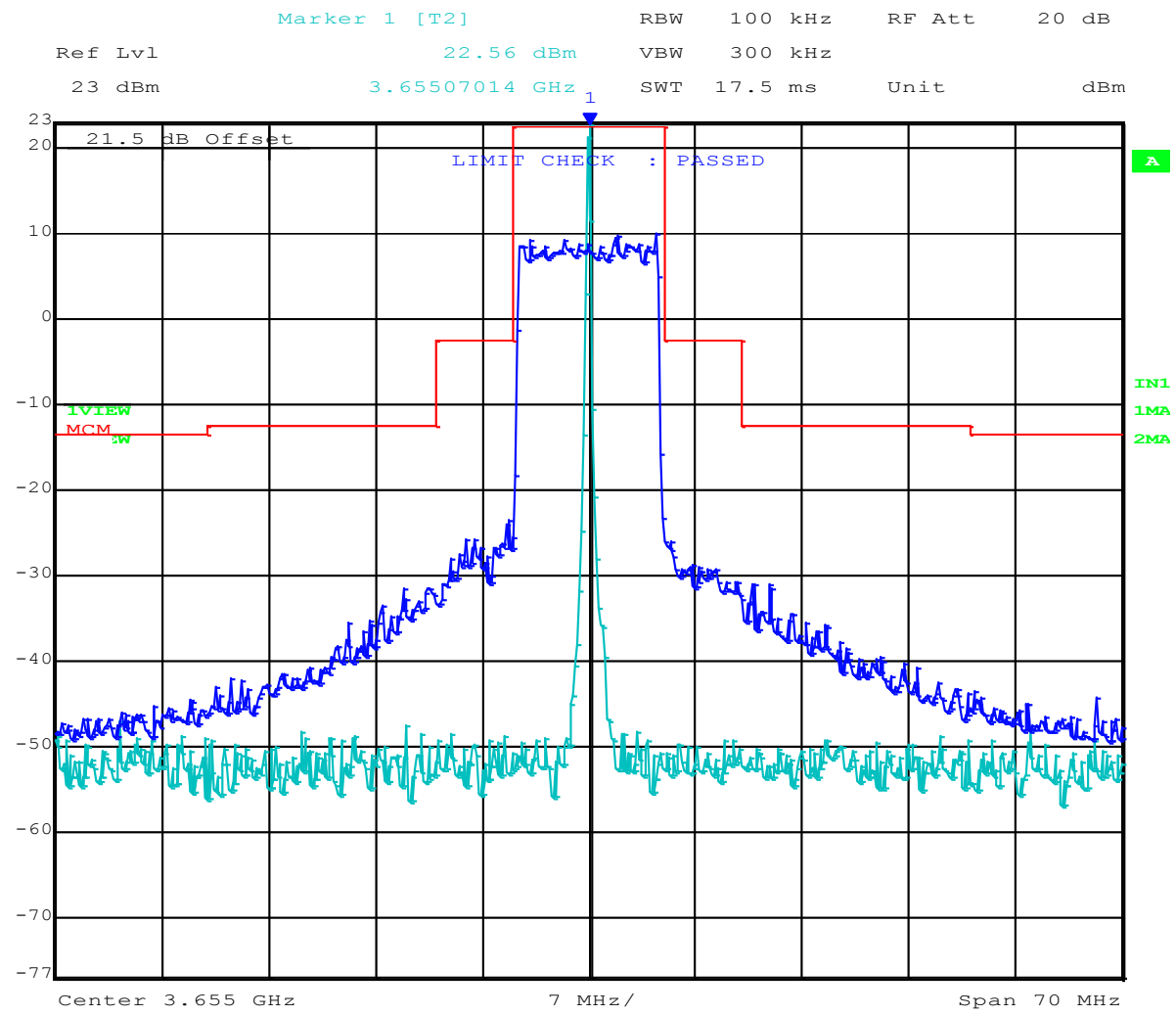
Date: 27.MAY.2015 15:05:54

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3655.070 MHz : 22.565 dBm	Channel Frequency: 3655.00 MHz

back to matrix

Spectrum Mask

Variant: 10MHz, Channel: 3655.00 MHz, Chain c, Temp: Ambient, Voltage: 54 Vdc



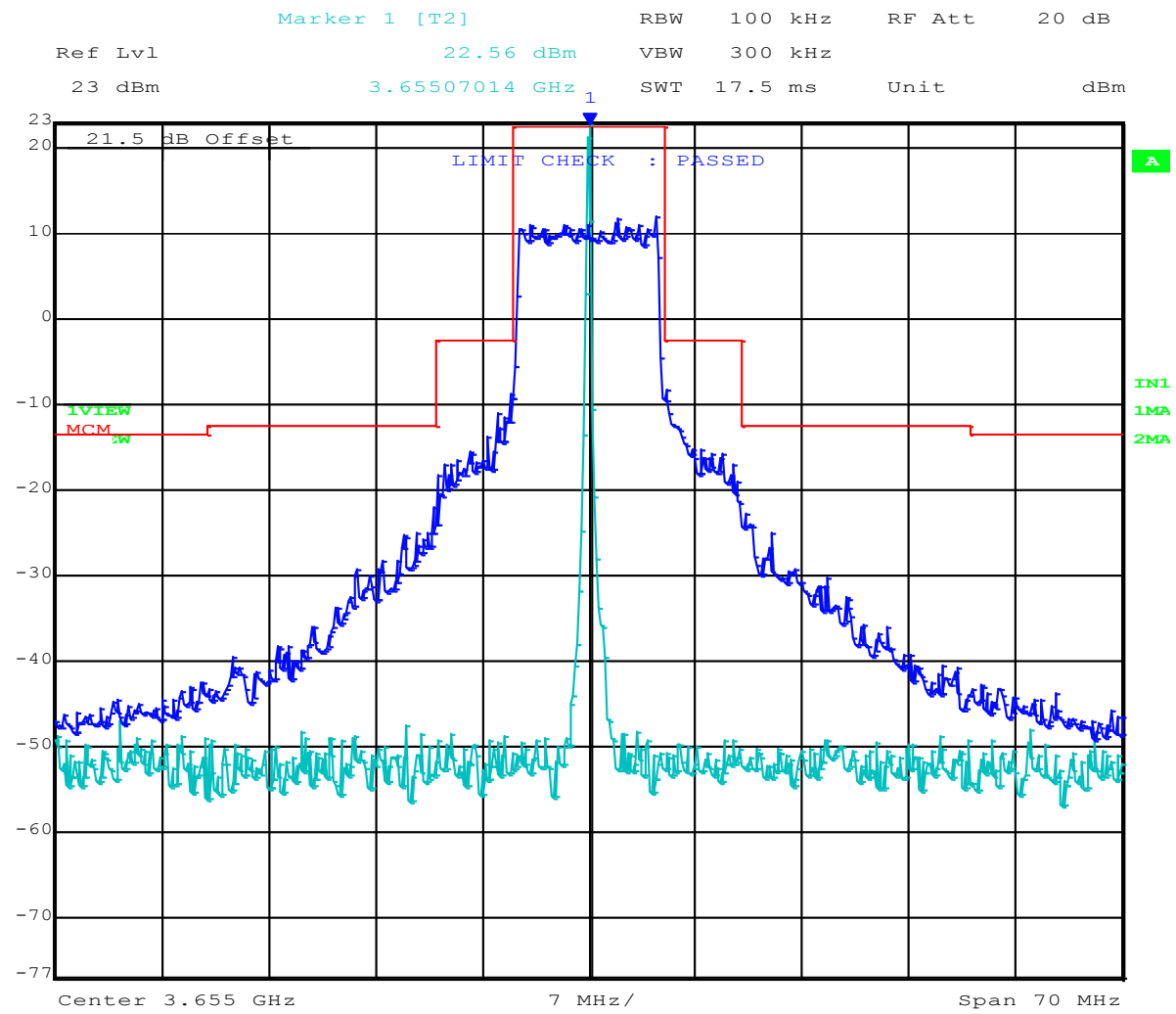
Date: 27.MAY.2015 15:06:36

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3655.070 MHz : 22.565 dBm	Channel Frequency: 3655.00 MHz

back to matrix

Spectrum Mask

Variant: 10MHz, Channel: 3655.00 MHz, Chain d, Temp: Ambient, Voltage: 54 Vdc



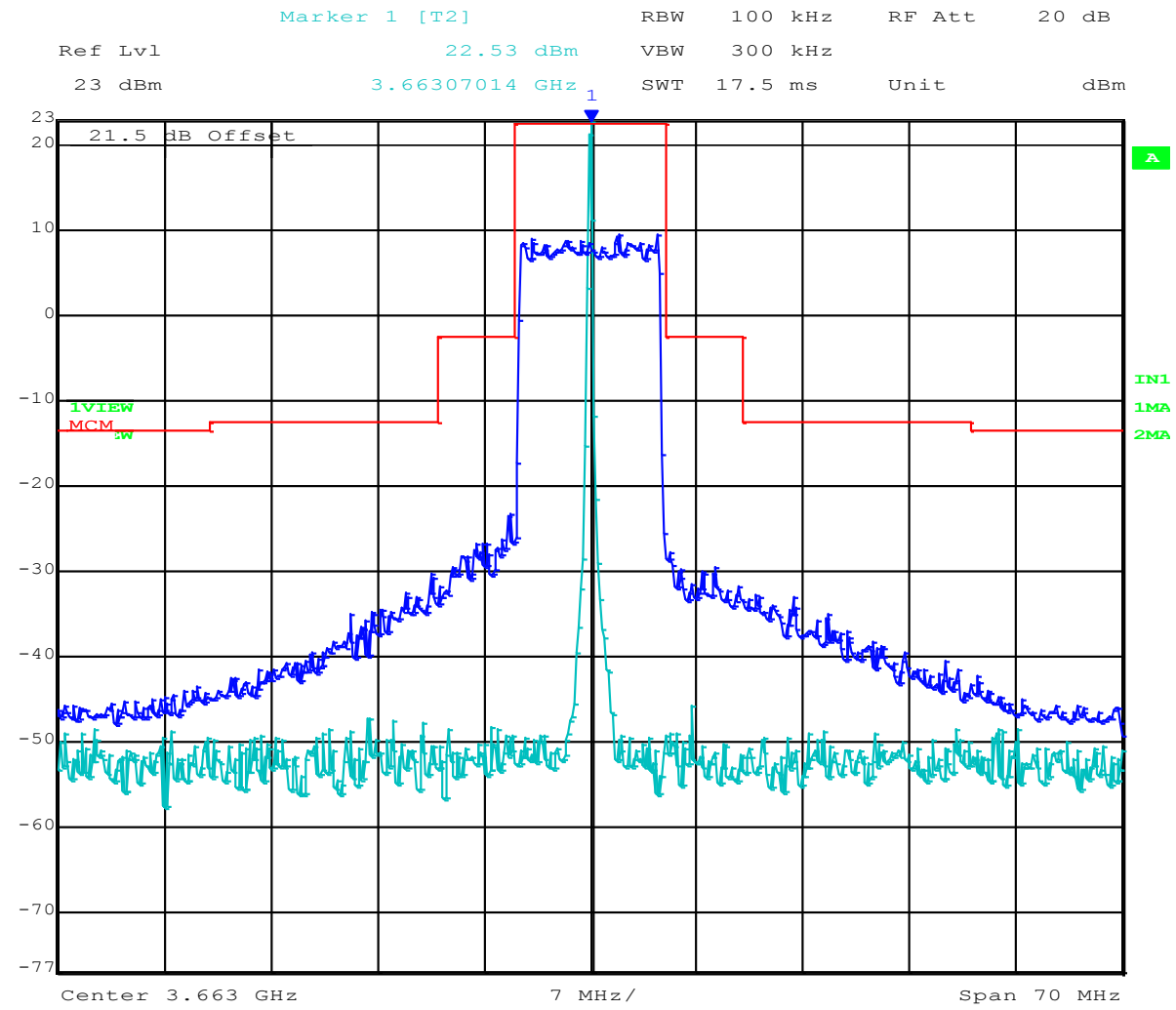
Date: 27.MAY.2015 15:07:32

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3655.070 MHz : 22.565 dBm	Channel Frequency: 3655.00 MHz

back to matrix

Spectrum Mask

Variant: 10MHz, Channel: 3663.00 MHz, Chain a, Temp: Ambient, Voltage: 54 Vdc



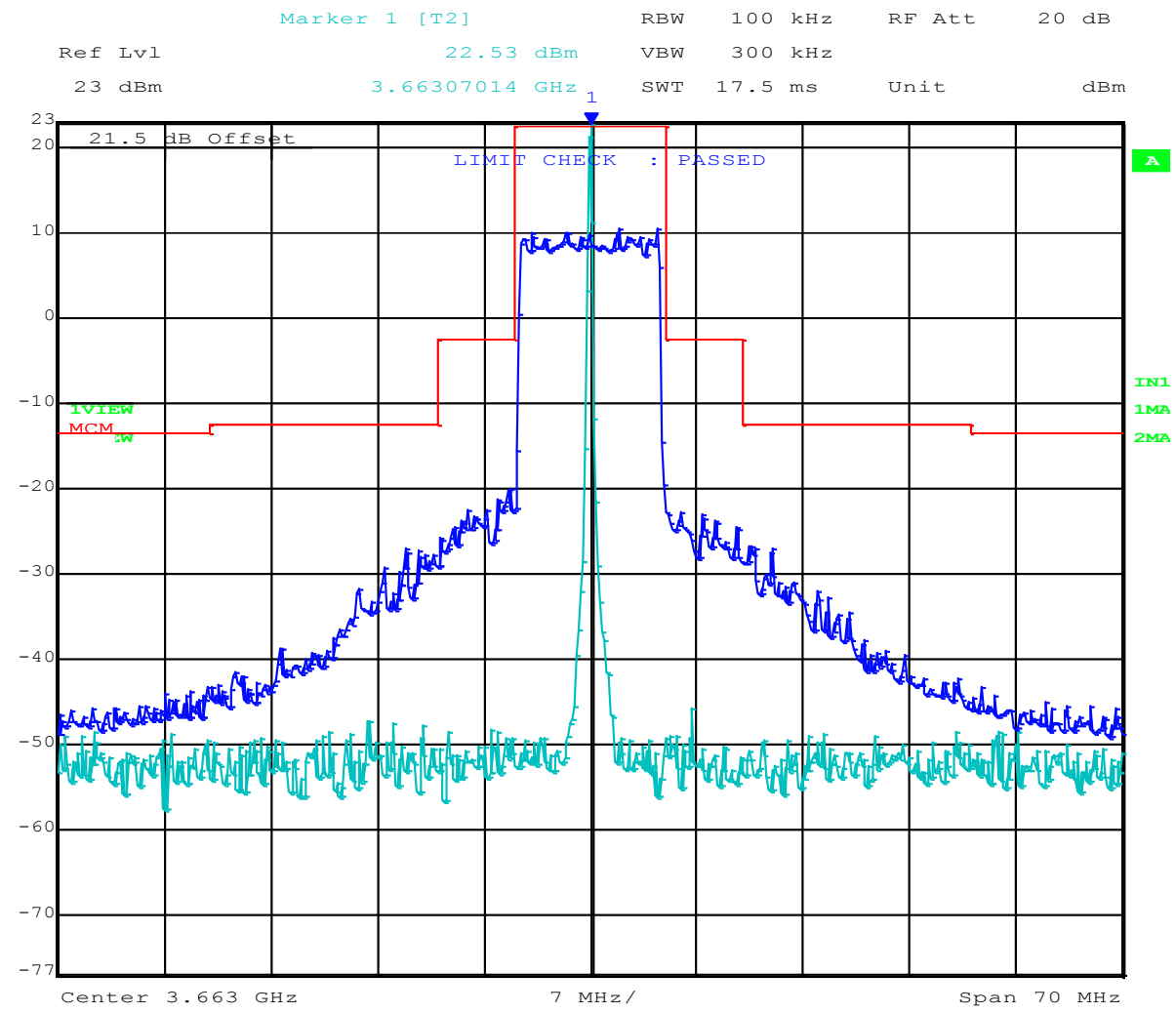
Date: 27.MAY.2015 15:10:53

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3663.070 MHz : 22.526 dBm	Channel Frequency: 3663.00 MHz

back to matrix

Spectrum Mask

Variant: 10MHz, Channel: 3663.00 MHz, Chain b, Temp: Ambient, Voltage: 54 Vdc



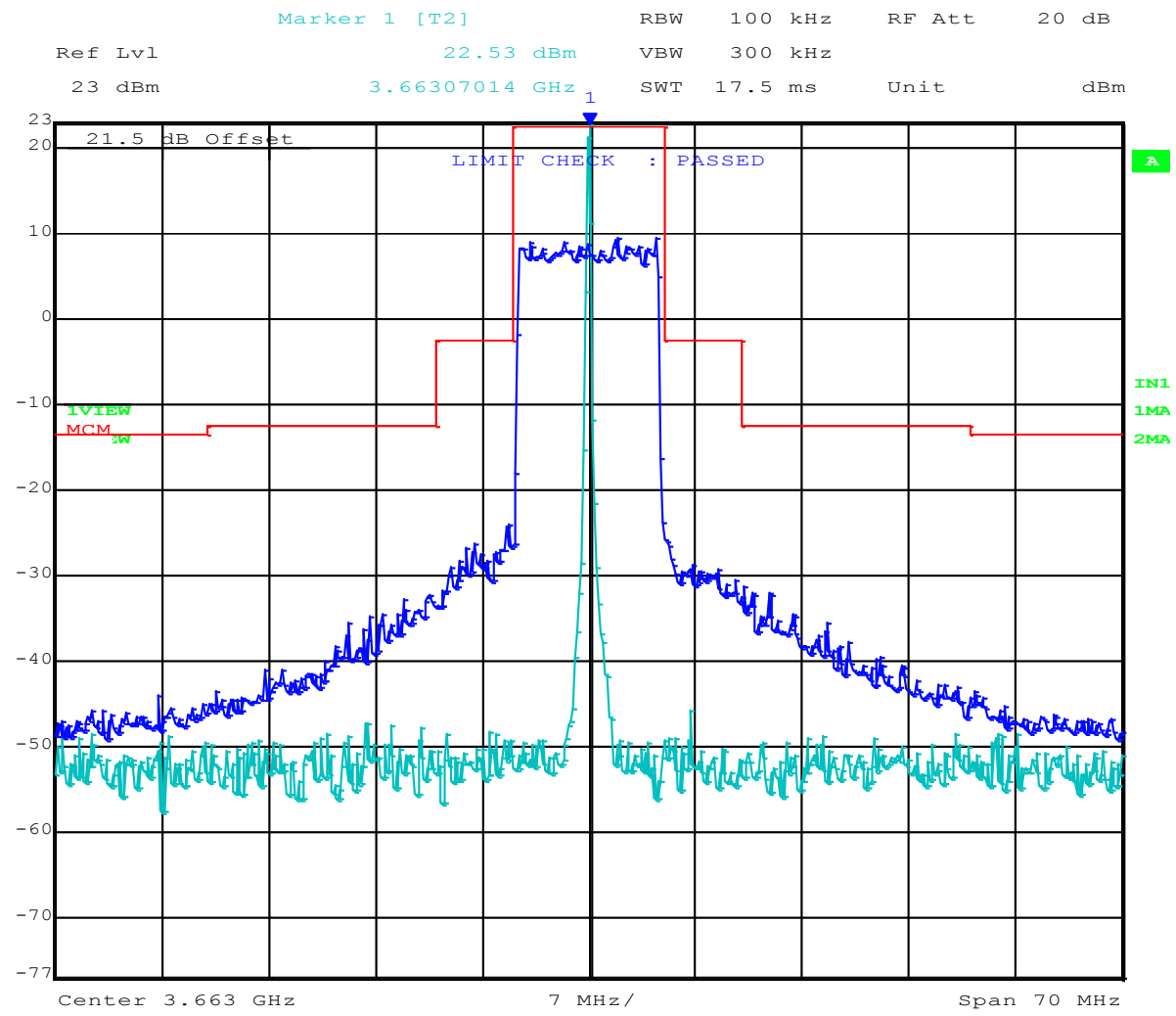
Date: 27.MAY.2015 15:11:22

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3663.070 MHz : 22.526 dBm	Channel Frequency: 3663.00 MHz

back to matrix

Spectrum Mask

Variant: 10MHz, Channel: 3663.00 MHz, Chain c, Temp: Ambient, Voltage: 54 Vdc



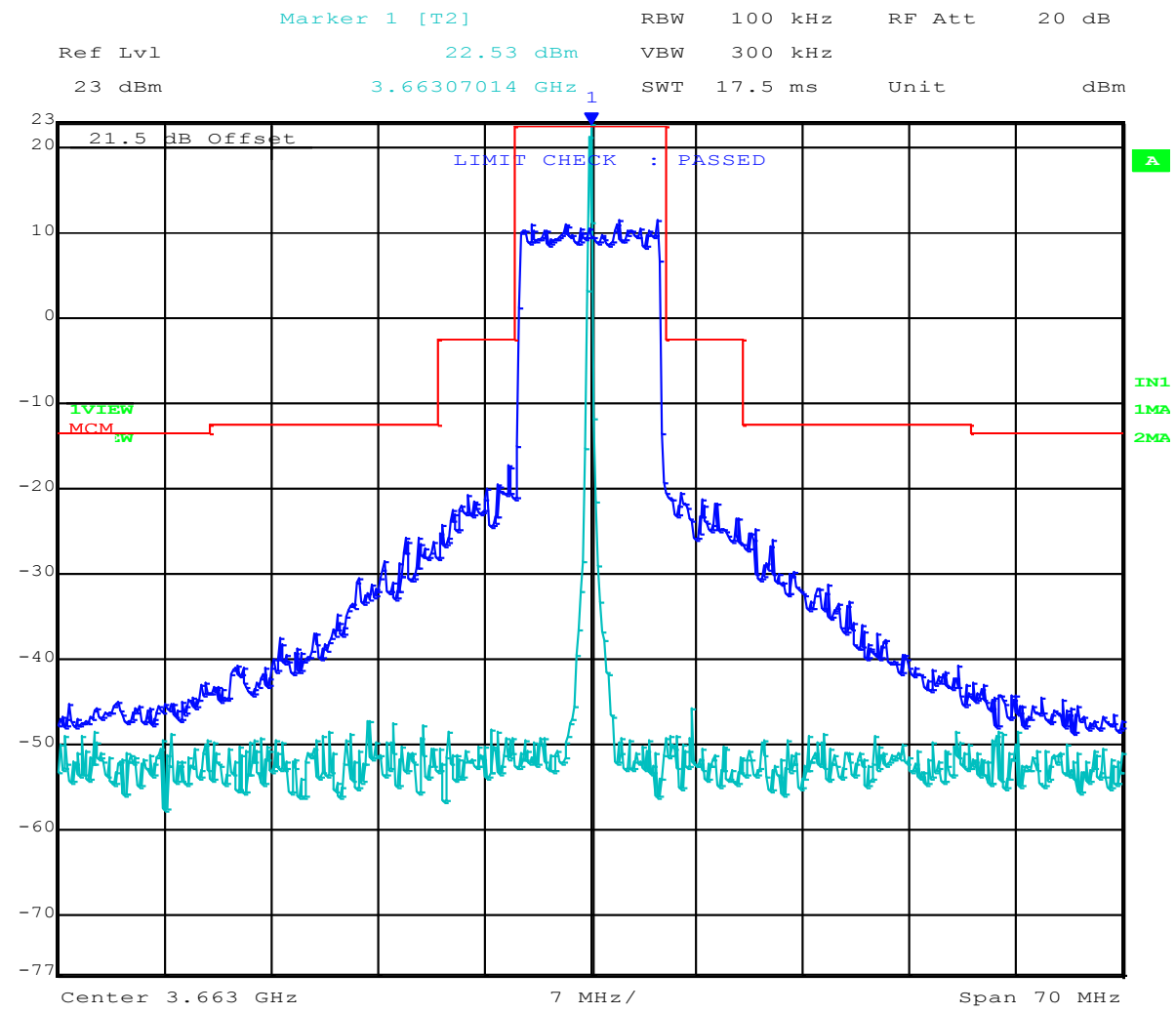
Date: 27.MAY.2015 15:11:48

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3663.070 MHz : 22.526 dBm	Channel Frequency: 3663.00 MHz

back to matrix

Spectrum Mask

Variant: 10MHz, Channel: 3663.00 MHz, Chain d, Temp: Ambient, Voltage: 54 Vdc

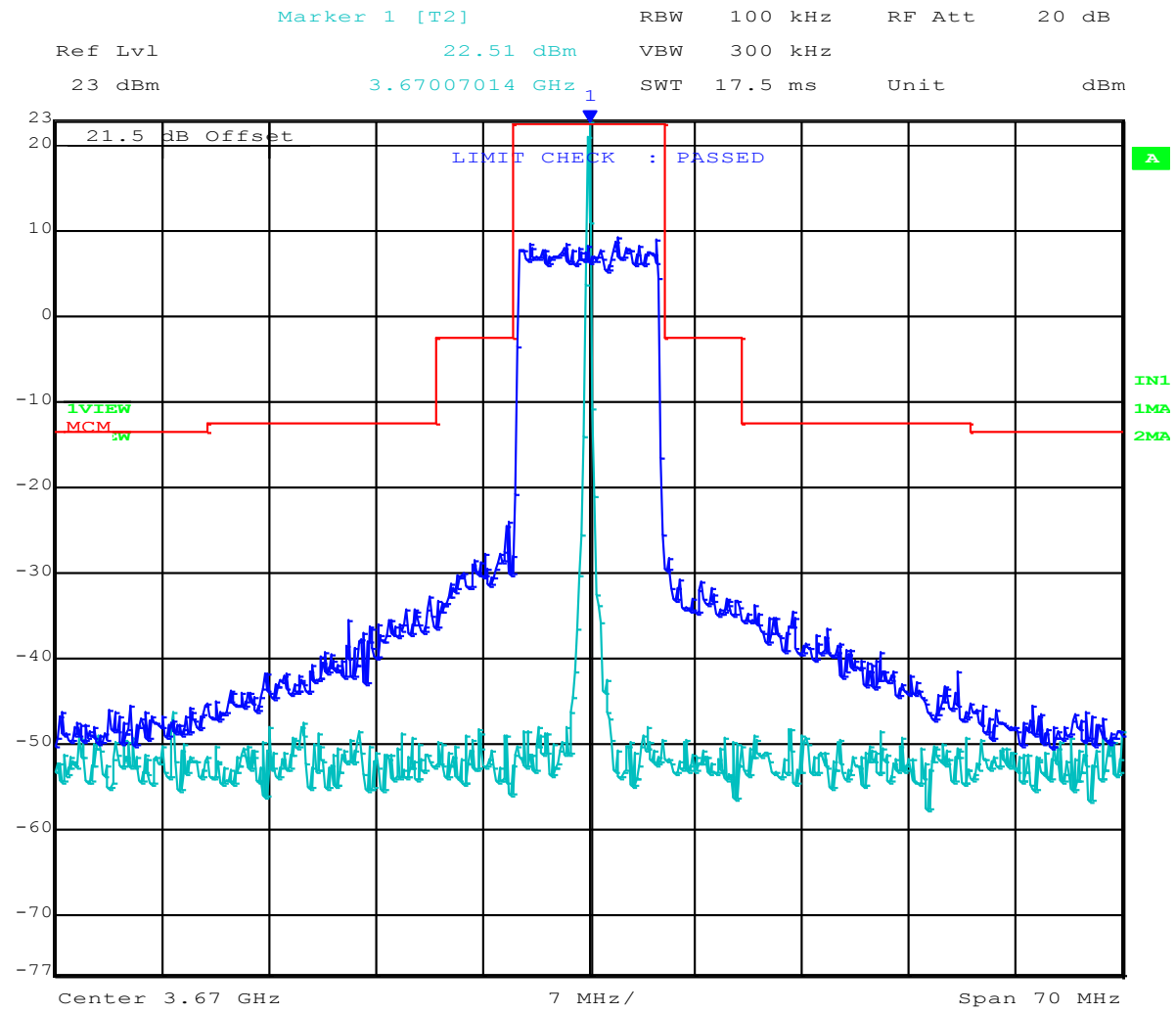


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3663.070 MHz : 22.526 dBm	Channel Frequency: 3663.00 MHz

back to matrix

Spectrum Mask

Variant: 10MHz, Channel: 3670.00 MHz, Chain a, Temp: Ambient, Voltage: 54 Vdc



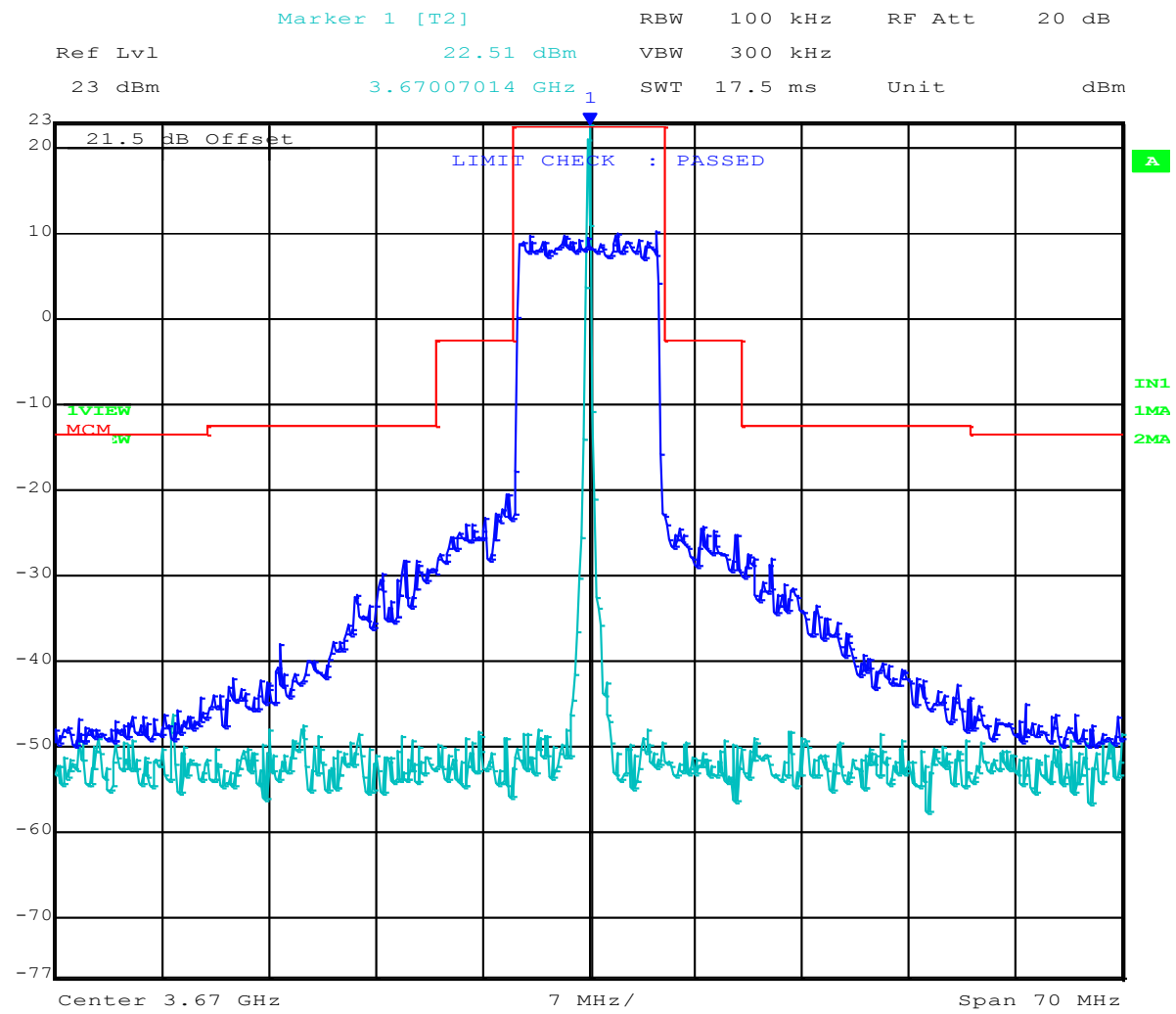
Date: 27.MAY.2015 15:17:06

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3670.070 MHz : 22.512 dBm	Channel Frequency: 3670.00 MHz

back to matrix

Spectrum Mask

Variant: 10MHz, Channel: 3670.00 MHz, Chain b, Temp: Ambient, Voltage: 54 Vdc



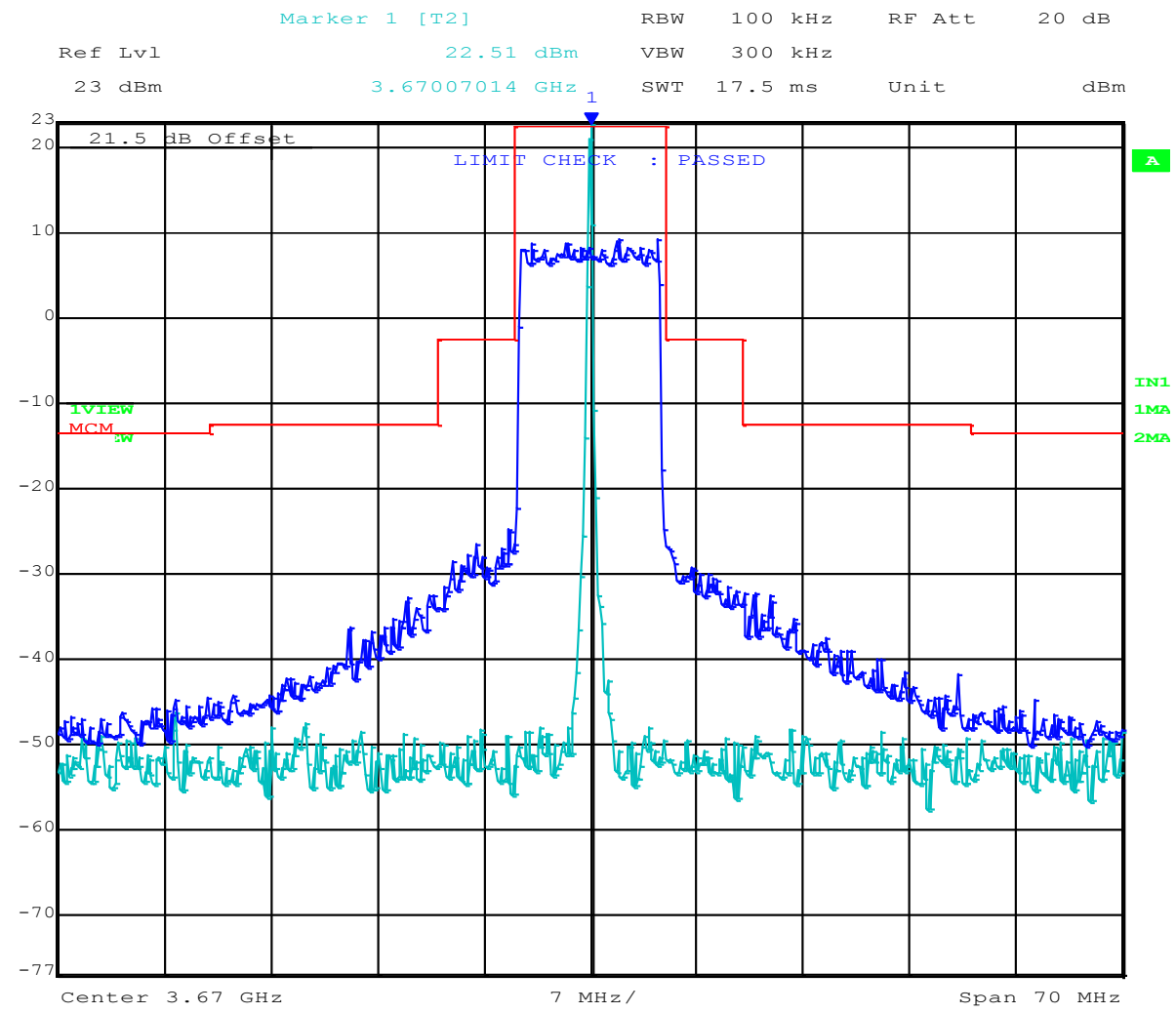
Date: 27.MAY.2015 15:17:37

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3670.070 MHz : 22.512 dBm	Channel Frequency: 3670.00 MHz

back to matrix

Spectrum Mask

Variant: 10MHz, Channel: 3670.00 MHz, Chain c, Temp: Ambient, Voltage: 54 Vdc



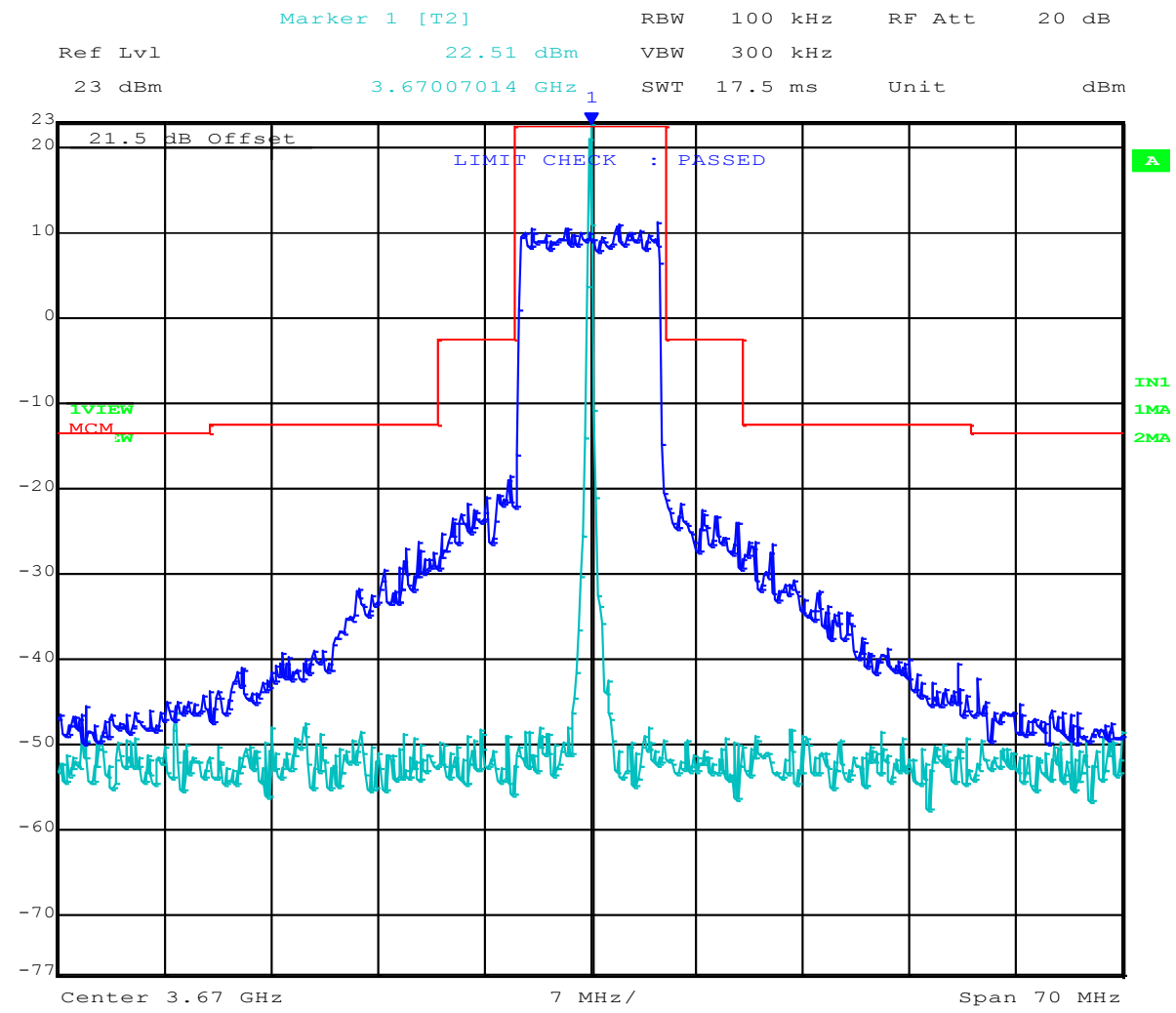
Date: 27.MAY.2015 15:18:12

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3670.070 MHz : 22.512 dBm	Channel Frequency: 3670.00 MHz

back to matrix

Spectrum Mask

Variant: 10MHz, Channel: 3670.00 MHz, Chain d, Temp: Ambient, Voltage: 54 Vdc



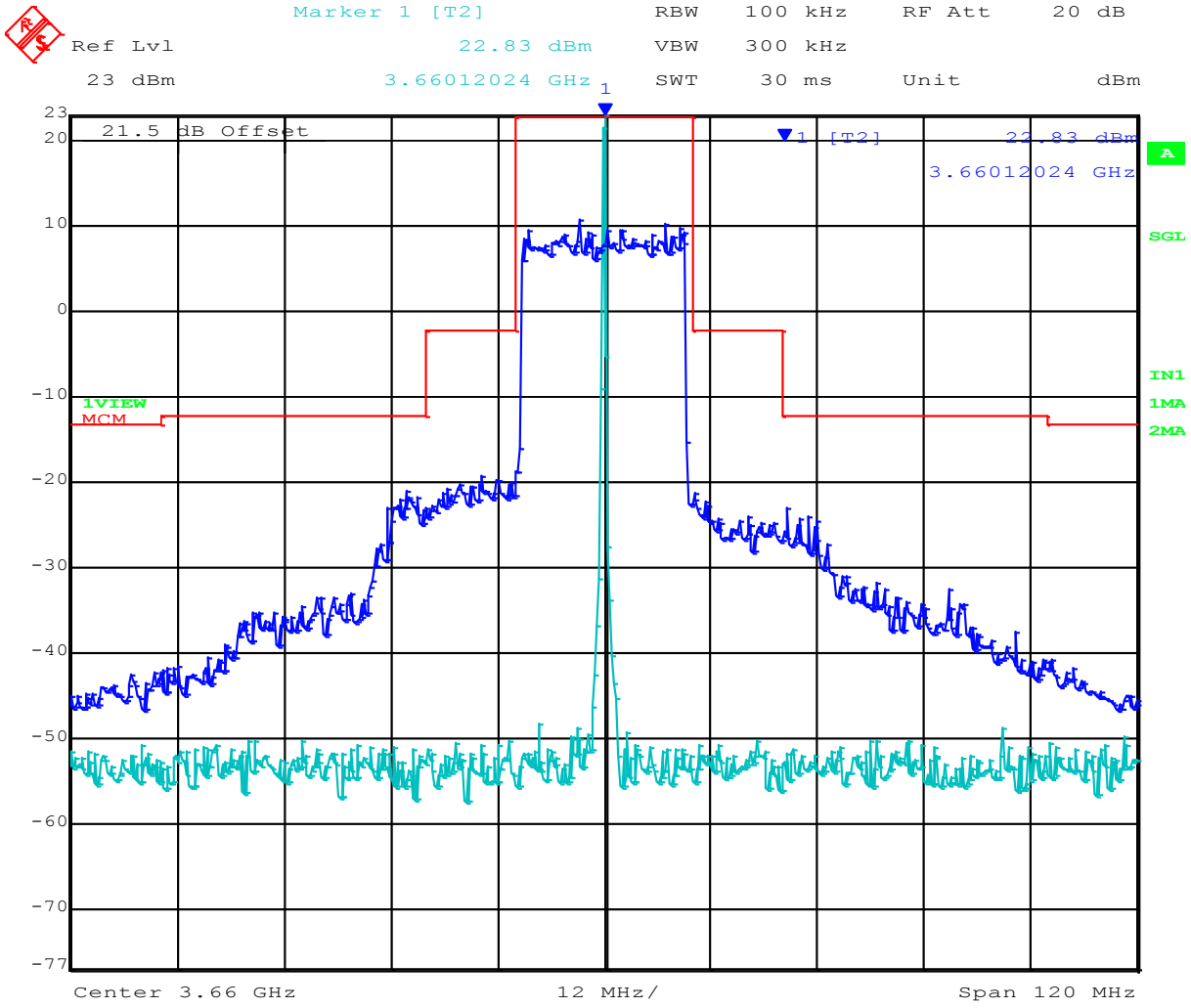
Date: 27.MAY.2015 15:18:37

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3670.070 MHz : 22.512 dBm	Channel Frequency: 3670.00 MHz

back to matrix

Spectrum mask

Variant: 20MHz, Channel: 3660.00 MHz, Chain a, Temp: Ambient, Voltage: 54 Vdc



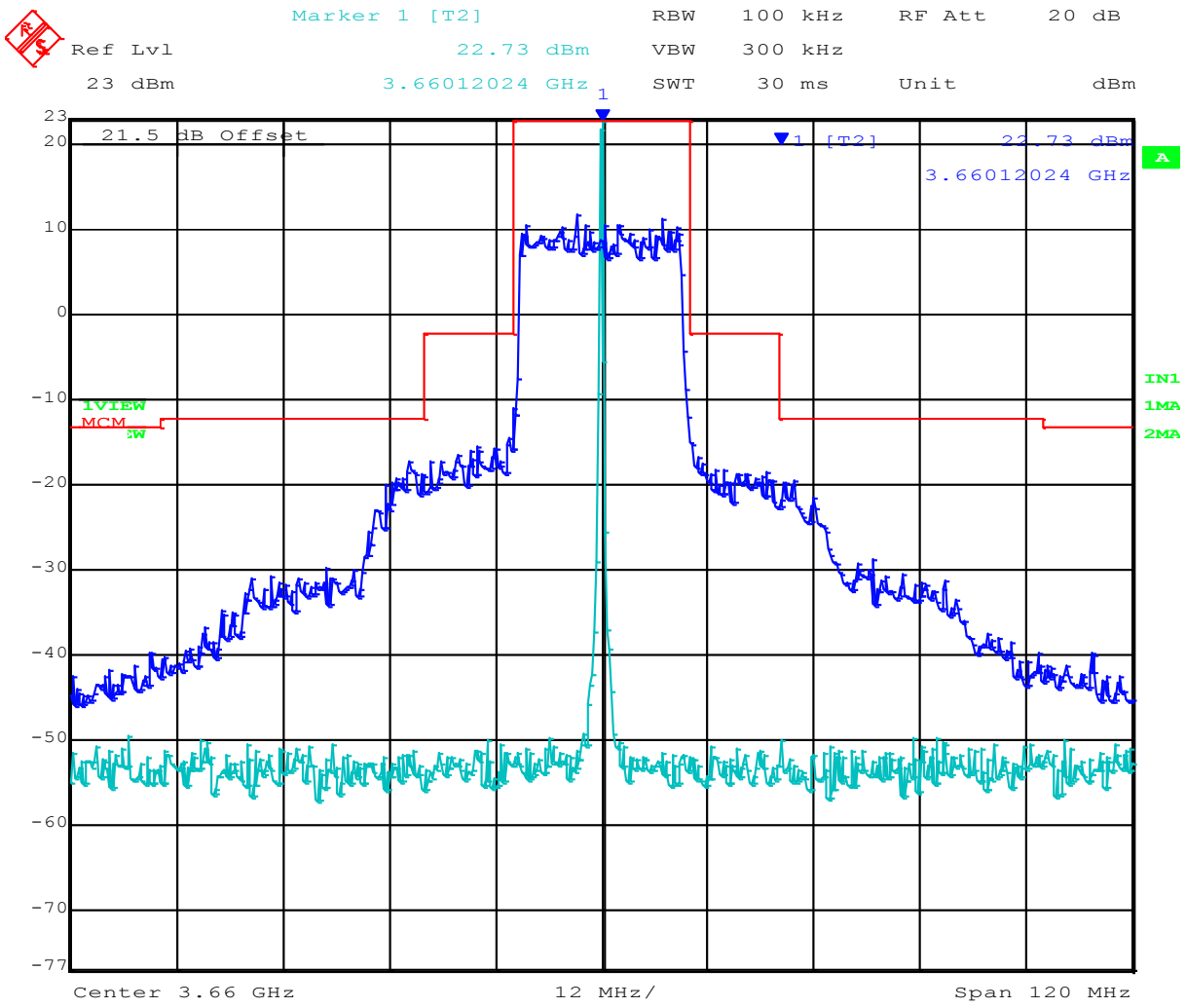
Date: 27.MAY.2015 08:34:33

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = CLR/WRITE	M1 : 3660.120 MHz : 22.831 dBm	Channel Frequency: 3660.00 MHz

back to matrix

Spectrum mask

Variant: 20MHz, Channel: 3660.00 MHz, Chain b, Temp: Ambient, Voltage: 54 Vdc



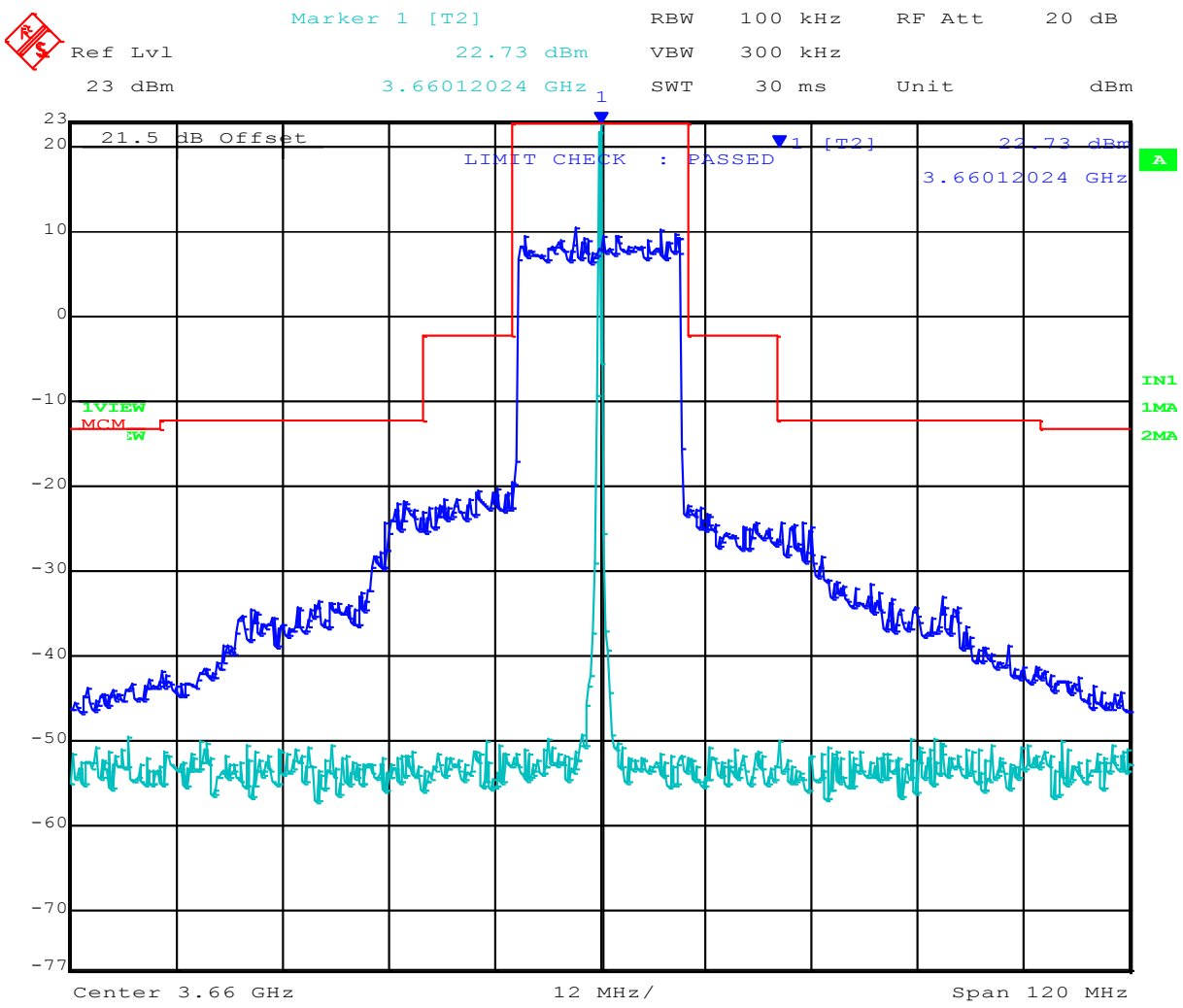
Date: 27.MAY.2015 08:38:01

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3660.120 MHz : 22.730 dBm	Channel Frequency: 3660.00 MHz

back to matrix

Spectrum mask

Variant: 20MHz, Channel: 3660.00 MHz, Chain c, Temp: Ambient, Voltage: 54 Vdc



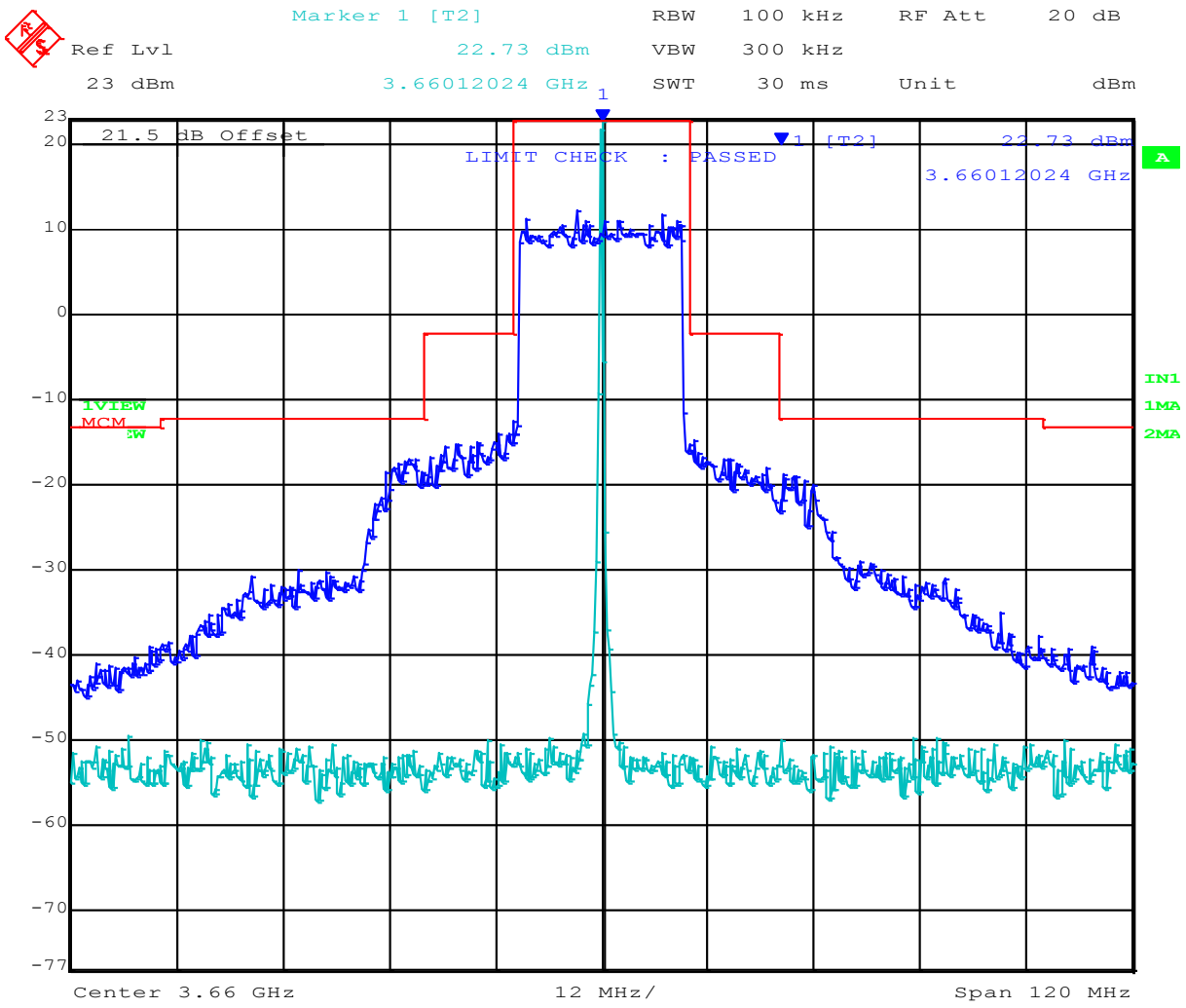
Date: 27.MAY.2015 08:38:54

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3660.120 MHz : 22.730 dBm	Channel Frequency: 3660.00 MHz

back to matrix

Spectrum mask

Variant: 20MHz, Channel: 3660.00 MHz, Chain d, Temp: Ambient, Voltage: 54 Vdc



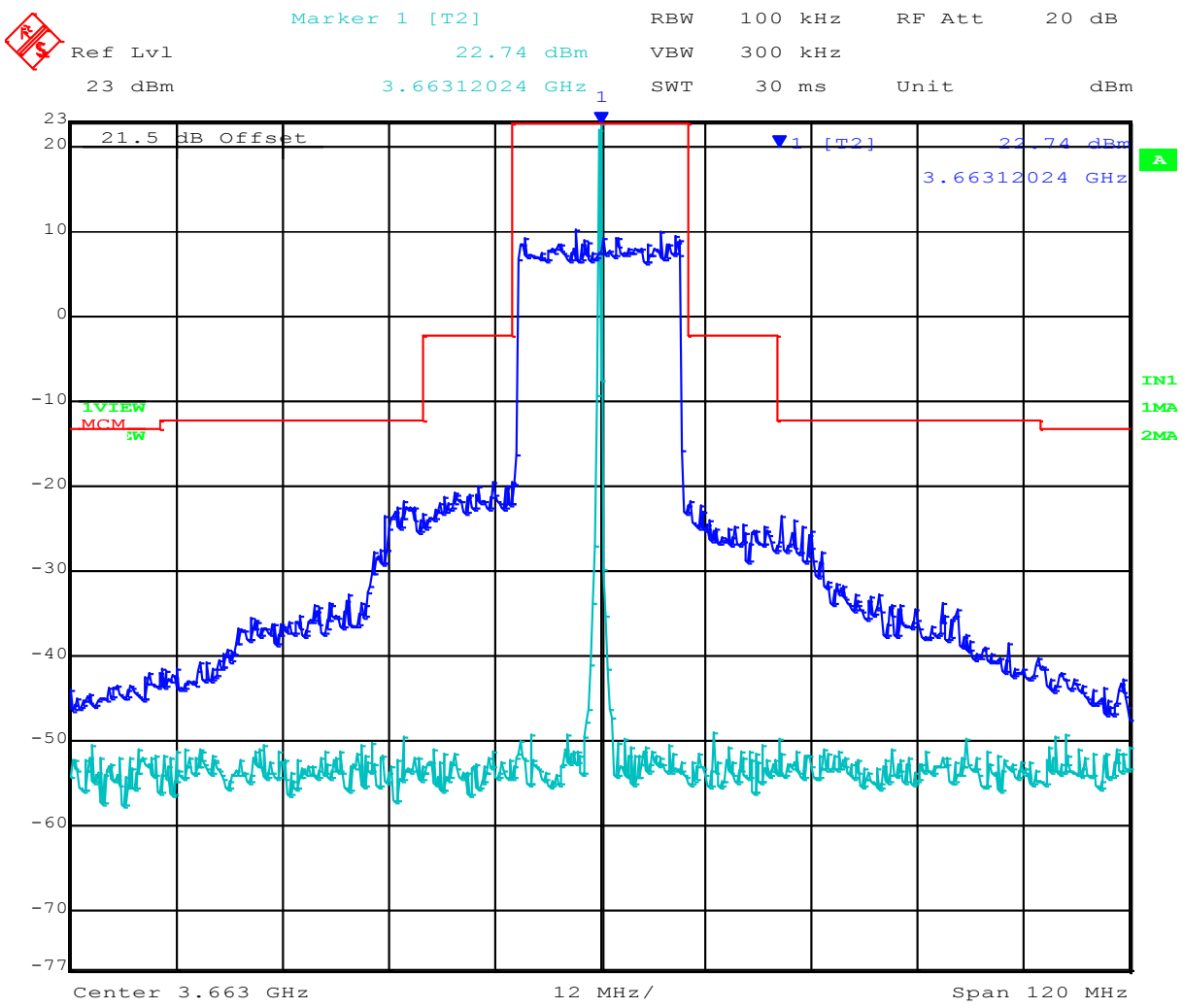
Date: 27.MAY.2015 08:41:01

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3660.120 MHz : 22.730 dBm	Channel Frequency: 3660.00 MHz

back to matrix

Spectrum mask

Variant: 20MHz, Channel: 3663.00 MHz, Chain a, Temp: Ambient, Voltage: 54 Vdc

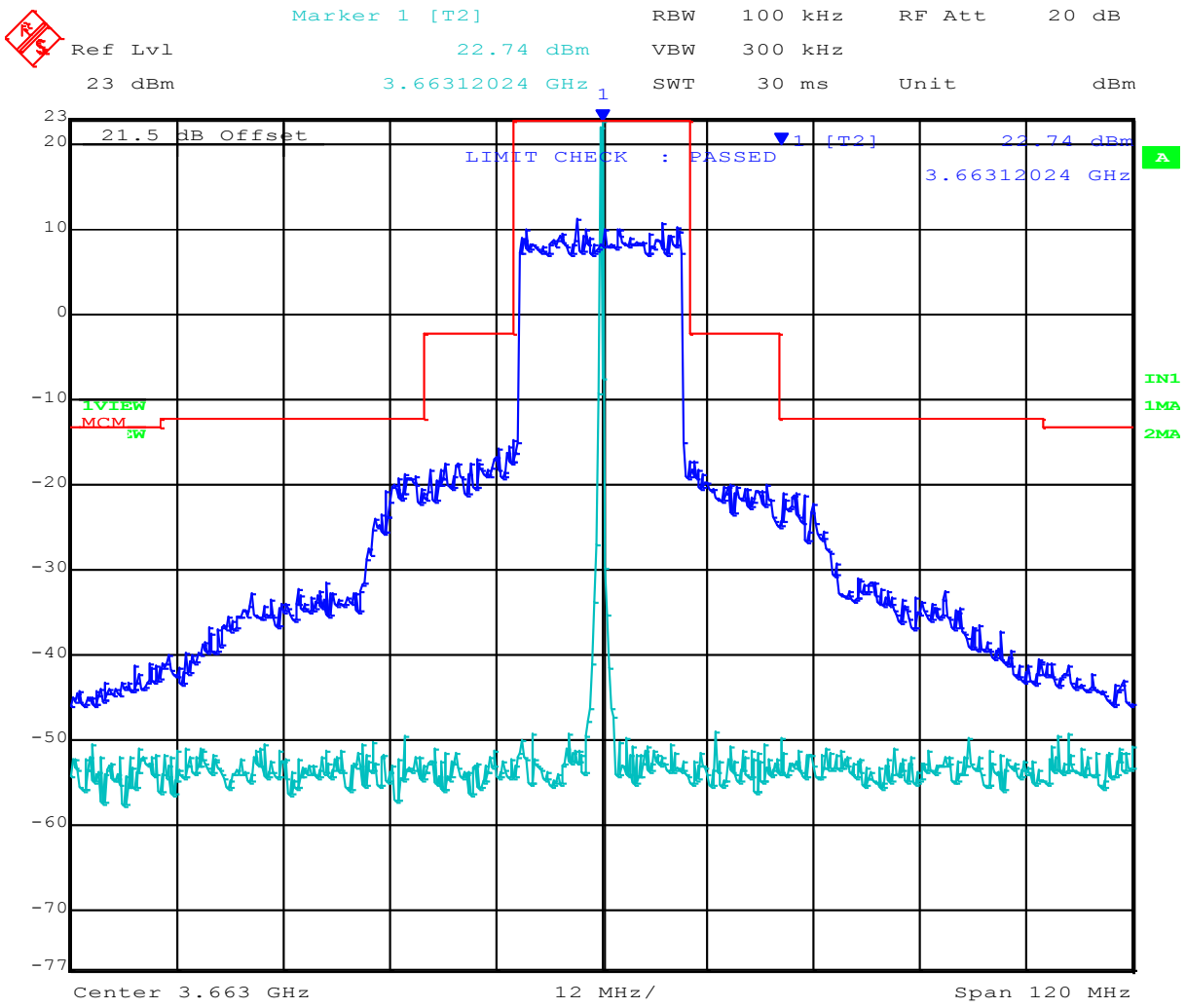


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3663.120 MHz : 22.742 dBm	Channel Frequency: 3663.00 MHz

back to matrix

Spectrum mask

Variant: 20MHz, Channel: 3663.00 MHz, Chain b, Temp: Ambient, Voltage: 54 Vdc

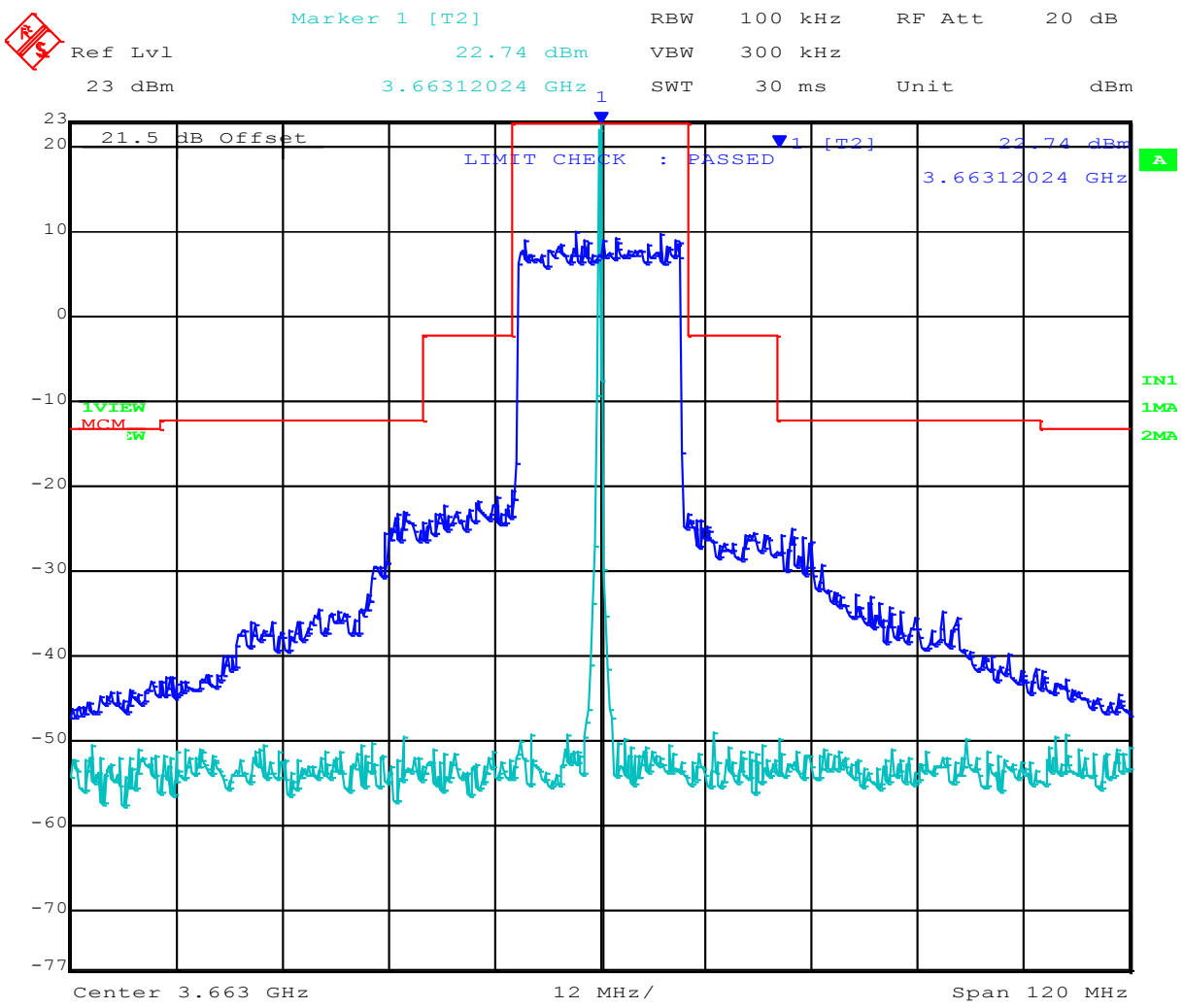


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3663.120 MHz : 22.742 dBm	Channel Frequency: 3663.00 MHz

back to matrix

Spectrum mask

Variant: 20MHz, Channel: 3663.00 MHz, Chain c, Temp: Ambient, Voltage: 54 Vdc



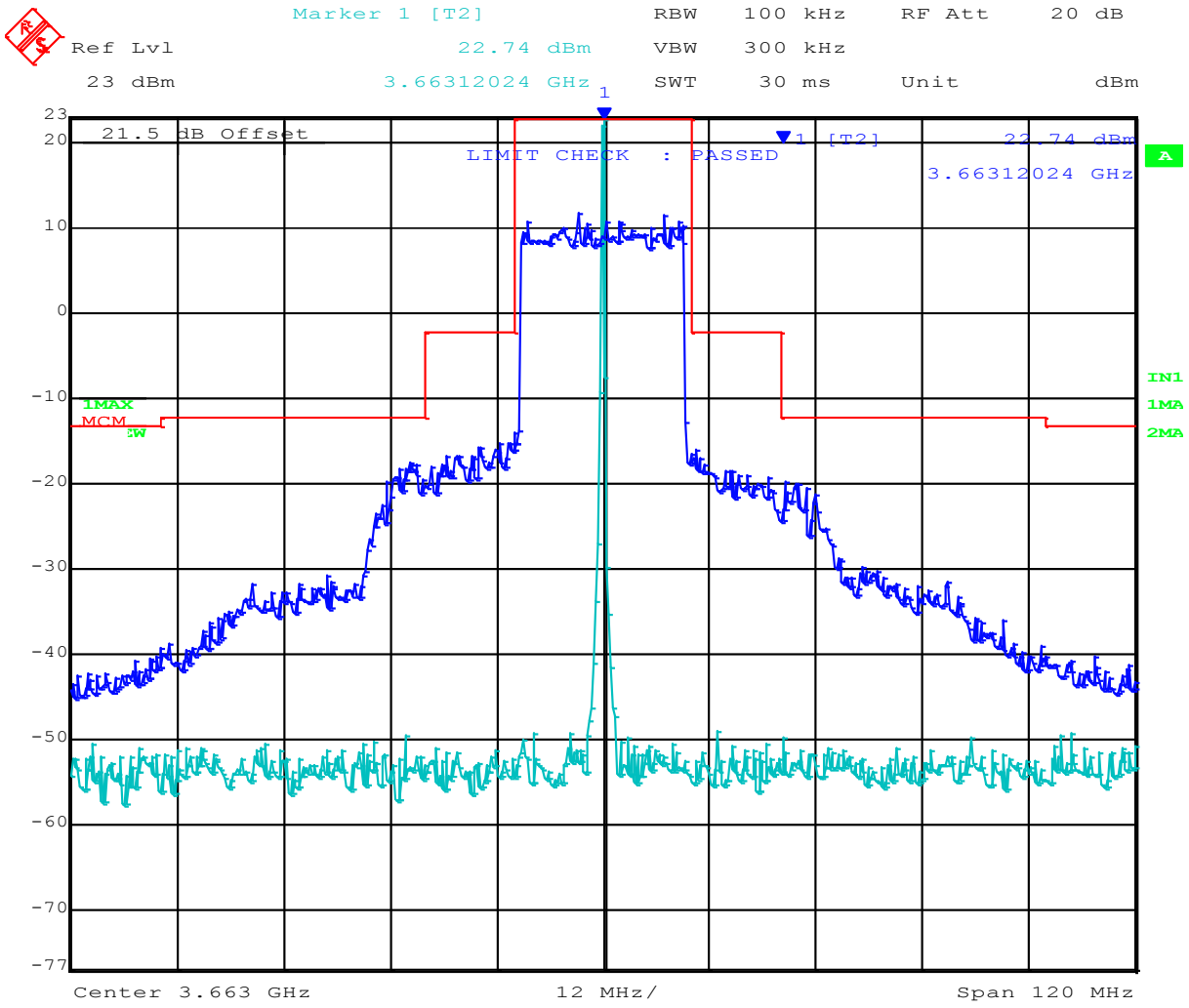
Date: 27.MAY.2015 09:05:06

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3663.120 MHz : 22.742 dBm	Channel Frequency: 3663.00 MHz

back to matrix

Spectrum mask

Variant: 20MHz, Channel: 3663.00 MHz, Chain d, Temp: Ambient, Voltage: 54 Vdc



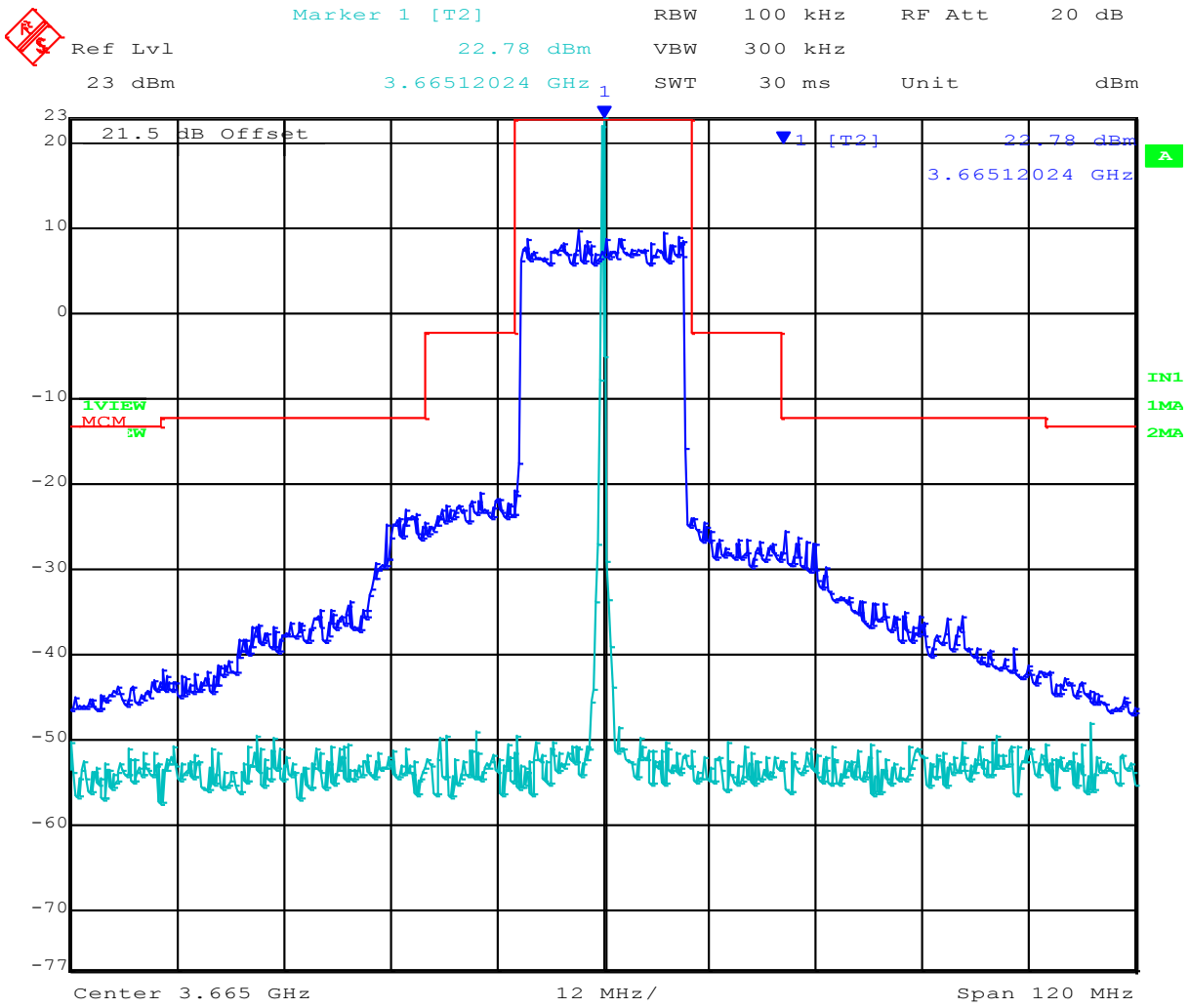
Date: 27.MAY.2015 09:05:46

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = MAX HOLD TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3663.120 MHz : 22.742 dBm	Channel Frequency: 3663.00 MHz

back to matrix

Spectrum mask

Variant: 20MHz, Channel: 3665.00 MHz, Chain a, Temp: Ambient, Voltage: 54 Vdc



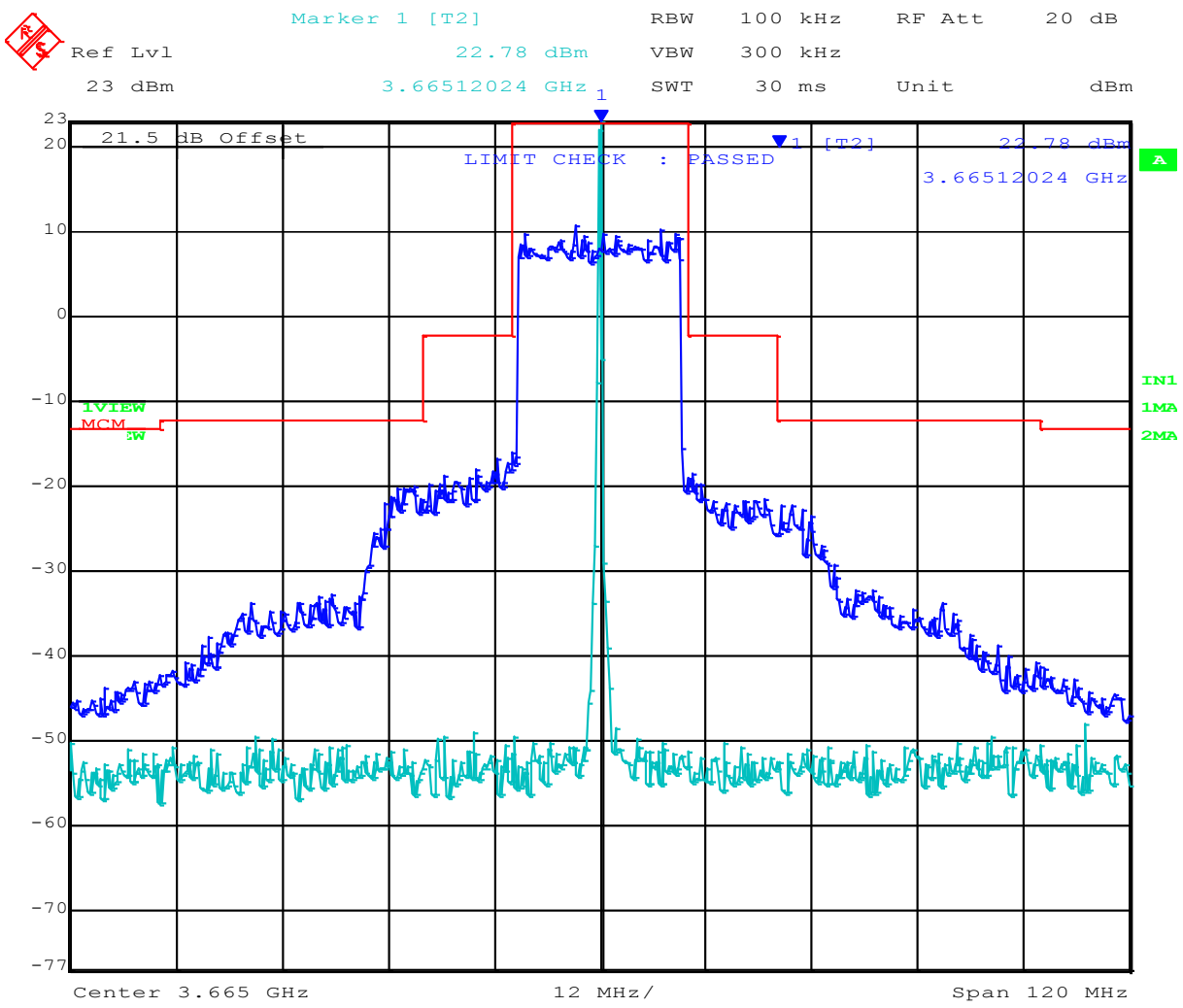
Date: 27.MAY.2015 09:14:25

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3665.120 MHz : 22.784 dBm	Channel Frequency: 3665.00 MHz

back to matrix

Spectrum mask

Variant: 20MHz, Channel: 3665.00 MHz, Chain b, Temp: Ambient, Voltage: 54 Vdc



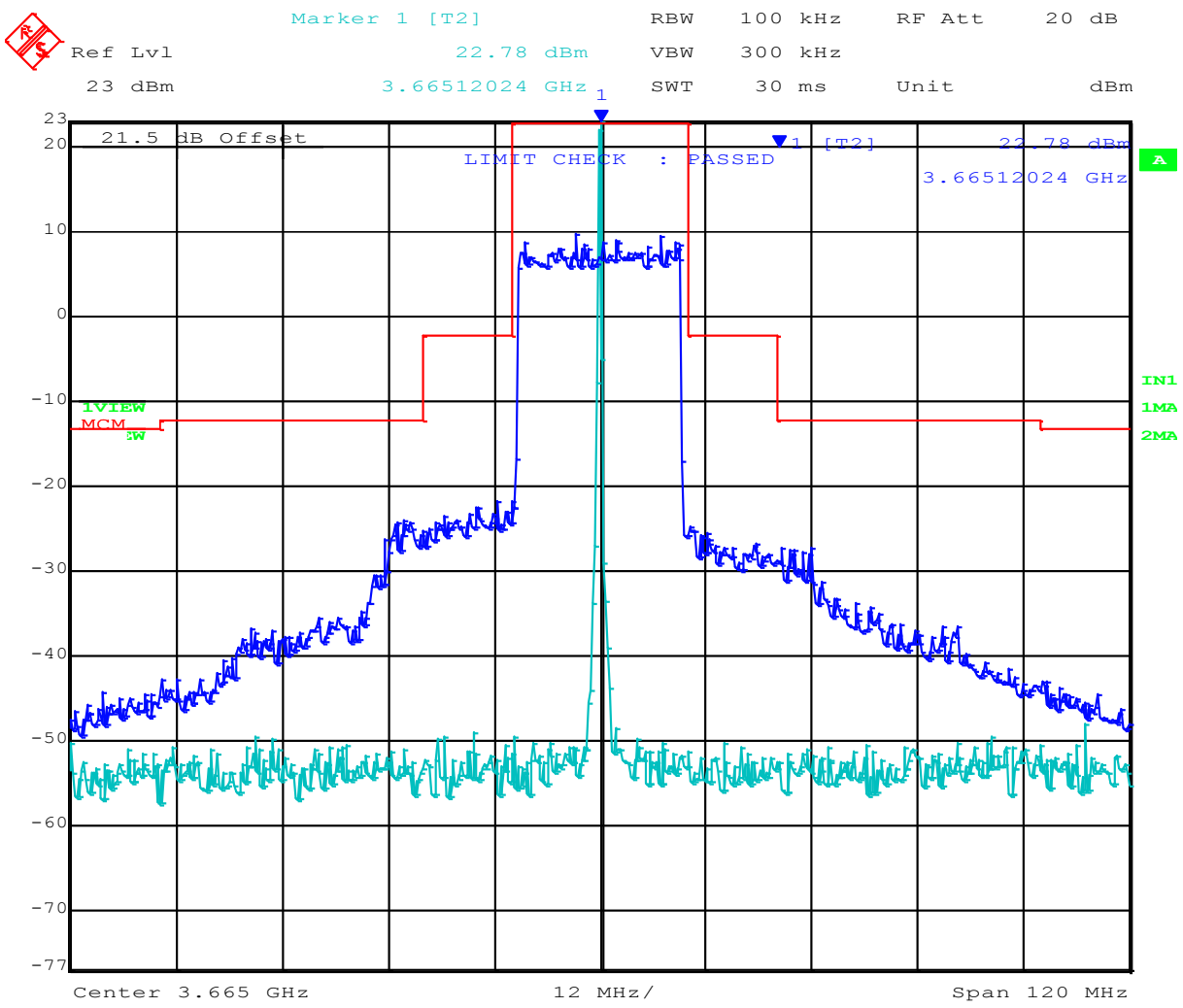
Date: 27.MAY.2015 09:16:17

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3665.120 MHz : 22.784 dBm	Channel Frequency: 3665.00 MHz

back to matrix

Spectrum mask

Variant: 20MHz, Channel: 3665.00 MHz, Chain c, Temp: Ambient, Voltage: 54 Vdc



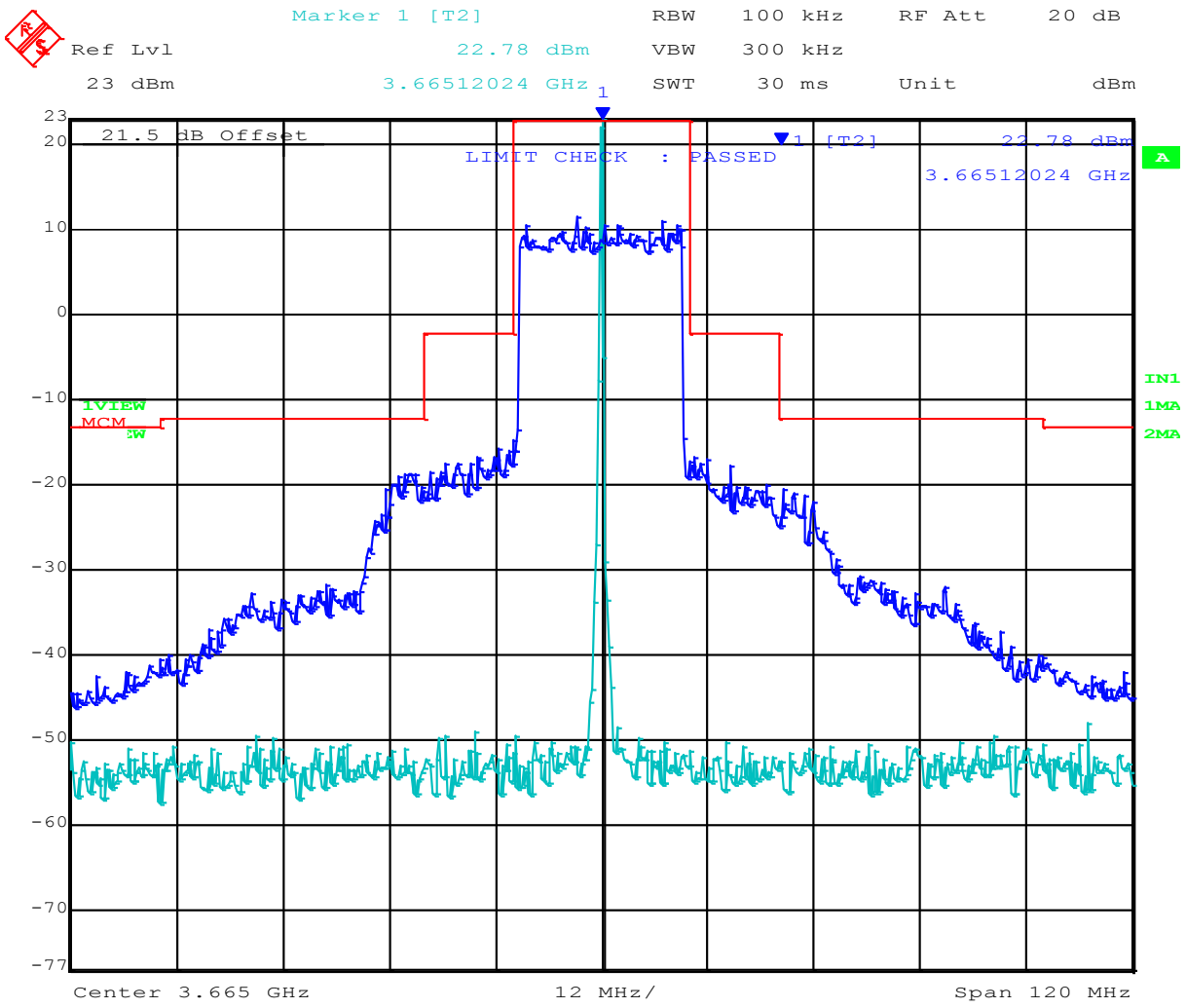
Date: 27.MAY.2015 09:16:55

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3665.120 MHz : 22.784 dBm	Channel Frequency: 3665.00 MHz

back to matrix

Spectrum mask

Variant: 20MHz, Channel: 3665.00 MHz, Chain d, Temp: Ambient, Voltage: 54 Vdc

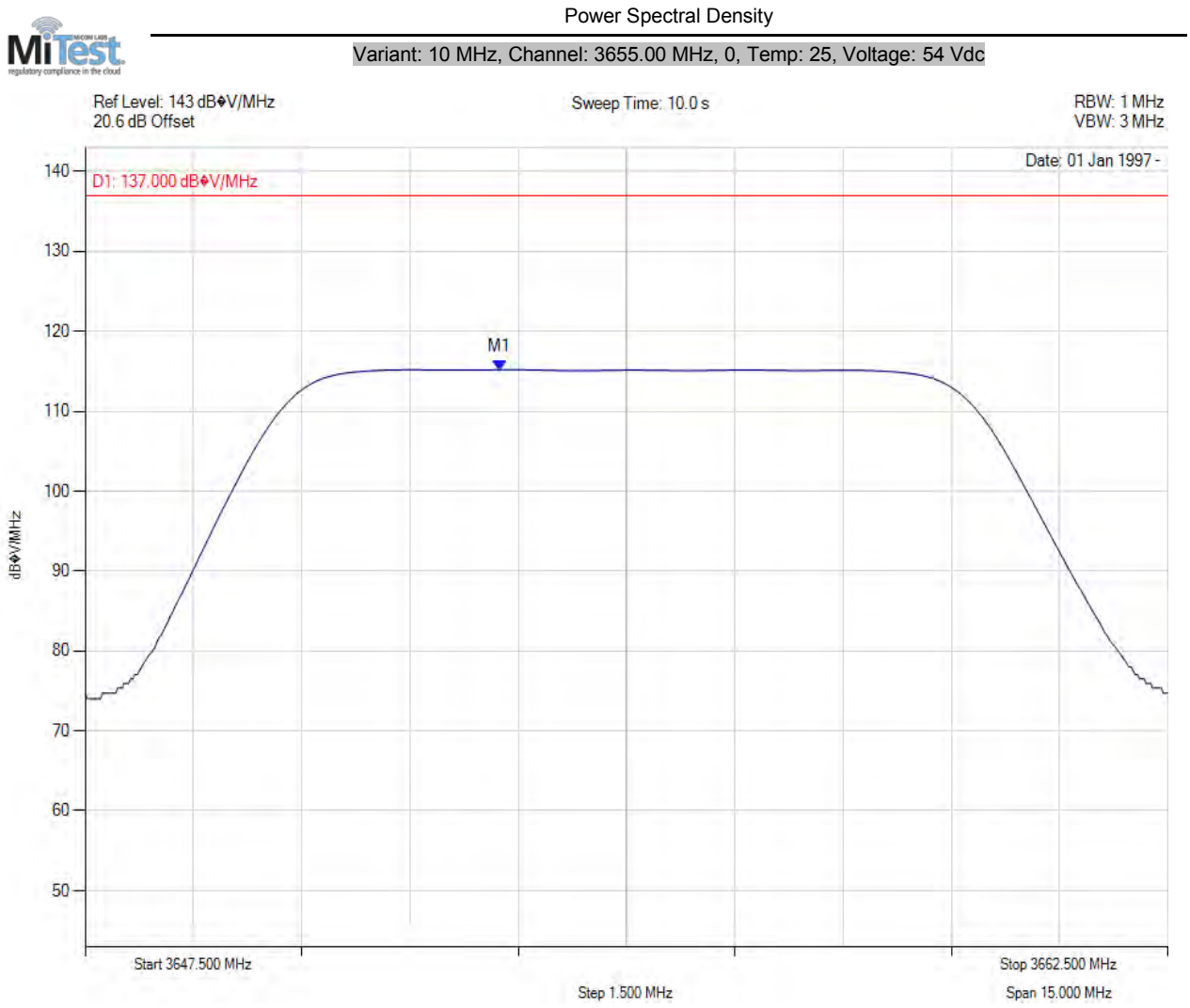


Date: 27.MAY.2015 09:19:55

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Sweep Count = 0 RF Atten (dB) = 20 TRACE 1: Detector = MAX PEAK Trace Mode = VIEW TRACE 2: Detector = MAX PEAK Trace Mode = VIEW	M1 : 3665.120 MHz : 22.784 dBm	Channel Frequency: 3665.00 MHz

back to matrix

A.1.3. Power Spectral Density

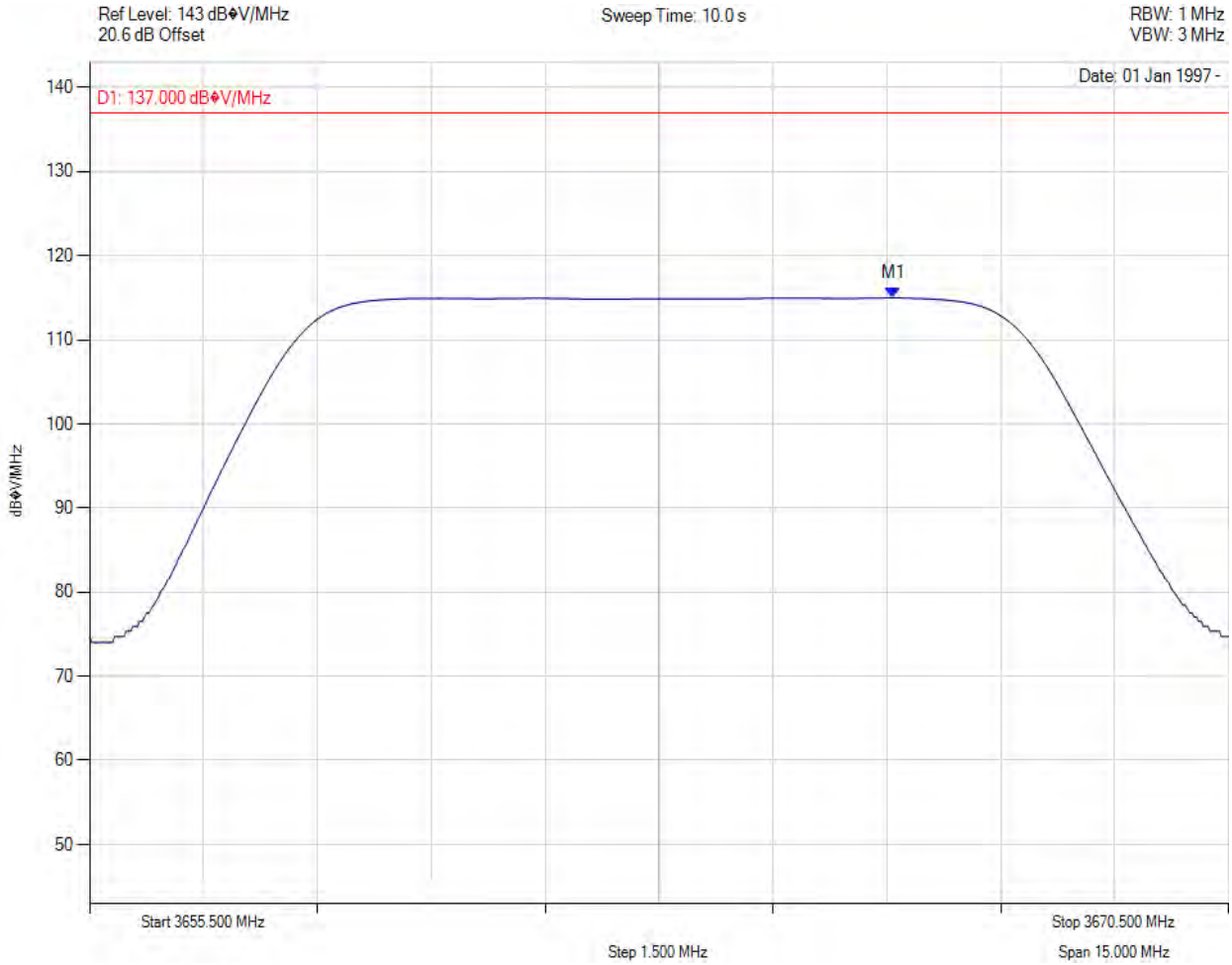


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3653.241 MHz : 115.194 dB♦V/MHz	Channel Frequency: 3655.00 MHz

Back to Matrix

Power Spectral Density

Variant: 10 MHz, Channel: 3663.00 MHz, 0, Temp: 25, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3666.081 MHz : 114.983 dB♦V/MHz	Channel Frequency: 3663.00 MHz

Back to Matrix

Power Spectral Density

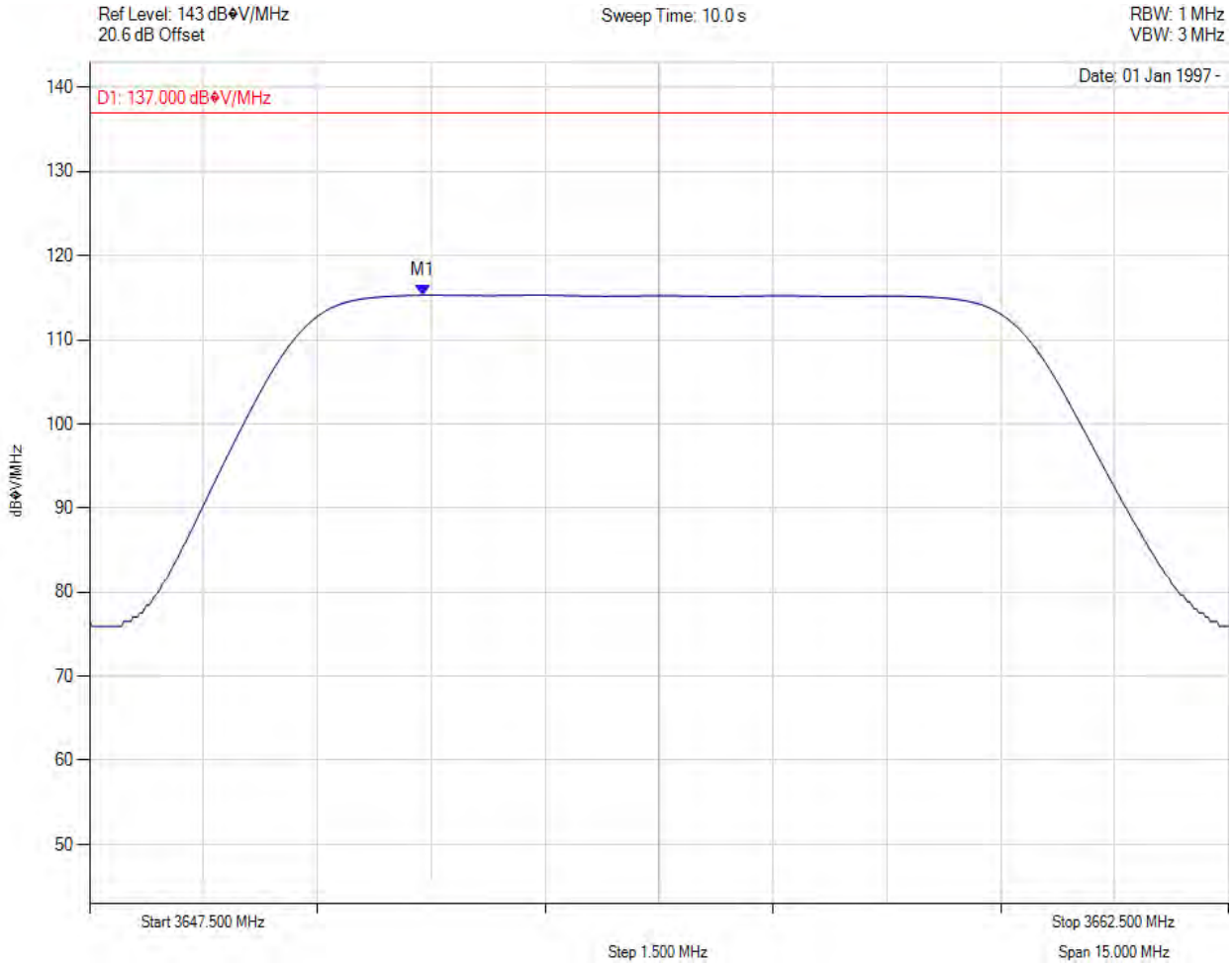
Variant: 10 MHz, Channel: 3670.00 MHz, 0, Temp: 25, Voltage: 54 Vdc

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3666.949 MHz : 115.163 dB♦V/MHz	Channel Frequency: 3670.00 MHz

Back to Matrix

Power Spectral Density

Variant: 10 MHz, Channel: 3655.00 MHz, 1, Temp: 25, Voltage: 54 Vdc

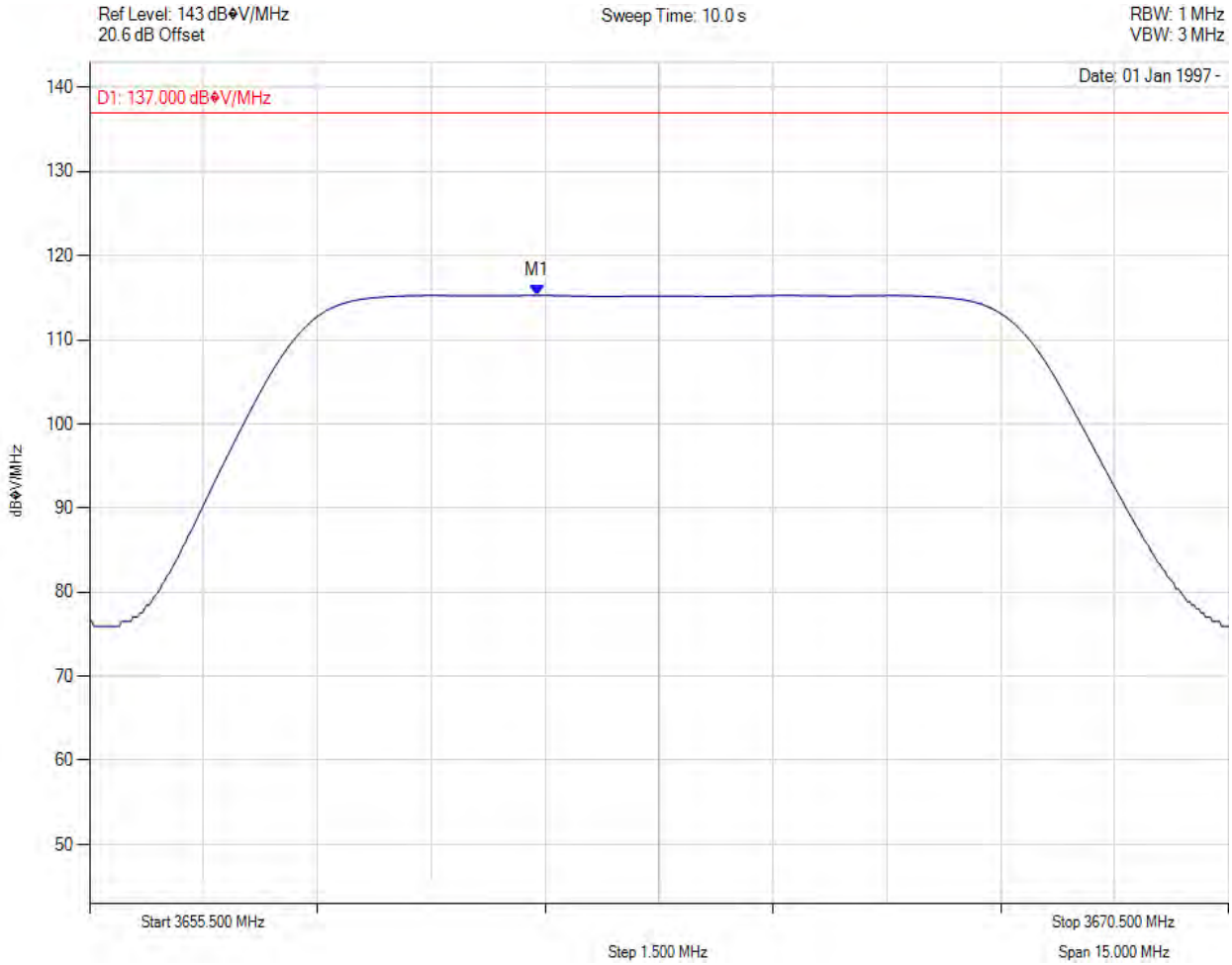


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3651.889 MHz : 115.307 dB♦V/MHz	Channel Frequency: 3655.00 MHz

Back to Matrix

Power Spectral Density

Variant: 10 MHz, Channel: 3663.00 MHz, 1, Temp: 25, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3661.392 MHz : 115.276 dB♦V/MHz	Channel Frequency: 3663.00 MHz

Back to Matrix

Power Spectral Density

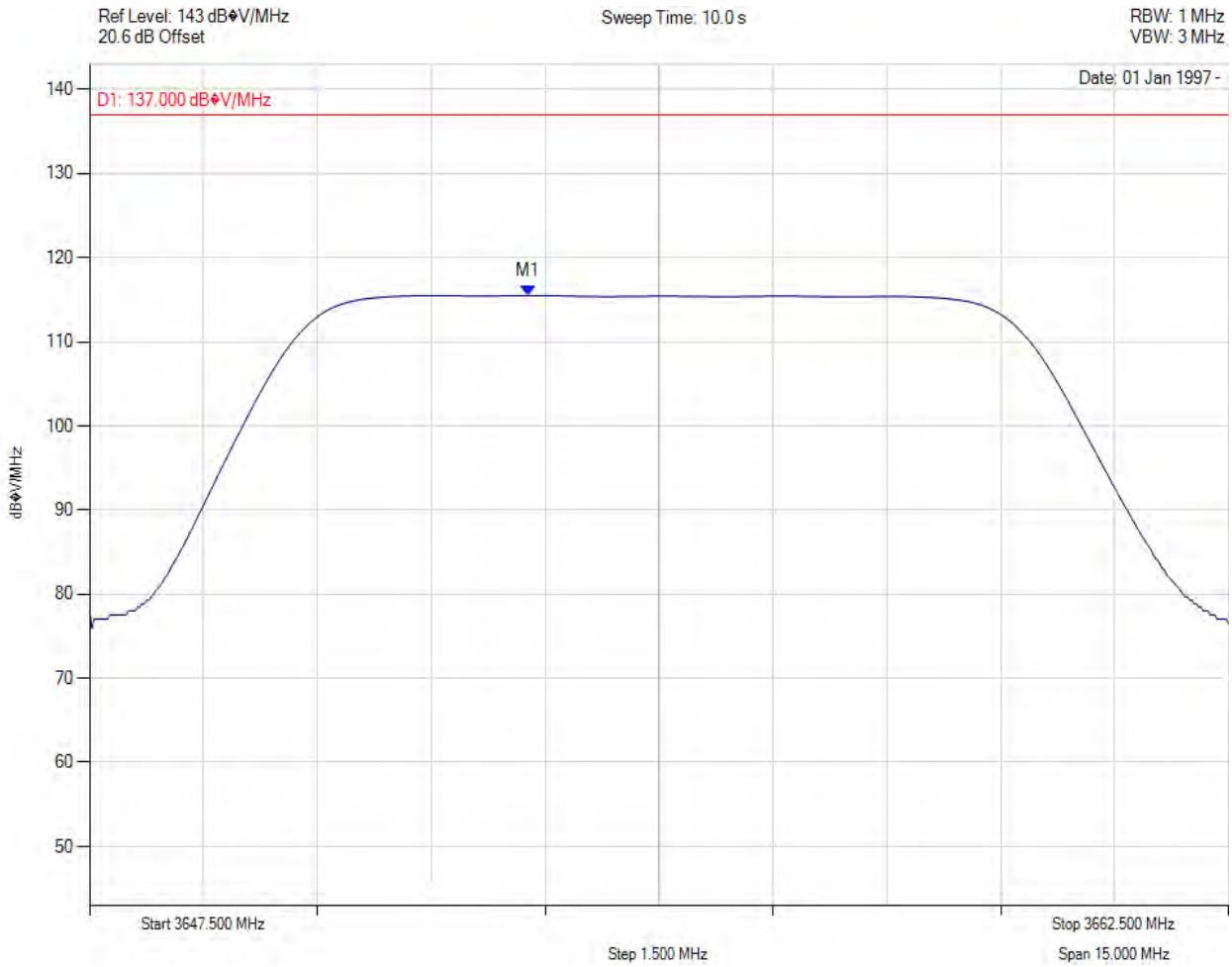
Variant: 10 MHz, Channel: 3670.00 MHz, 1, Temp: 25, Voltage: 54 Vdc

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3667.009 MHz : 115.105 dB♦V/MHz	Channel Frequency: 3670.00 MHz

Back to Matrix

Power Spectral Density

Variant: 10 MHz, Channel: 3655.00 MHz, 2, Temp: 25, Voltage: 54 Vdc

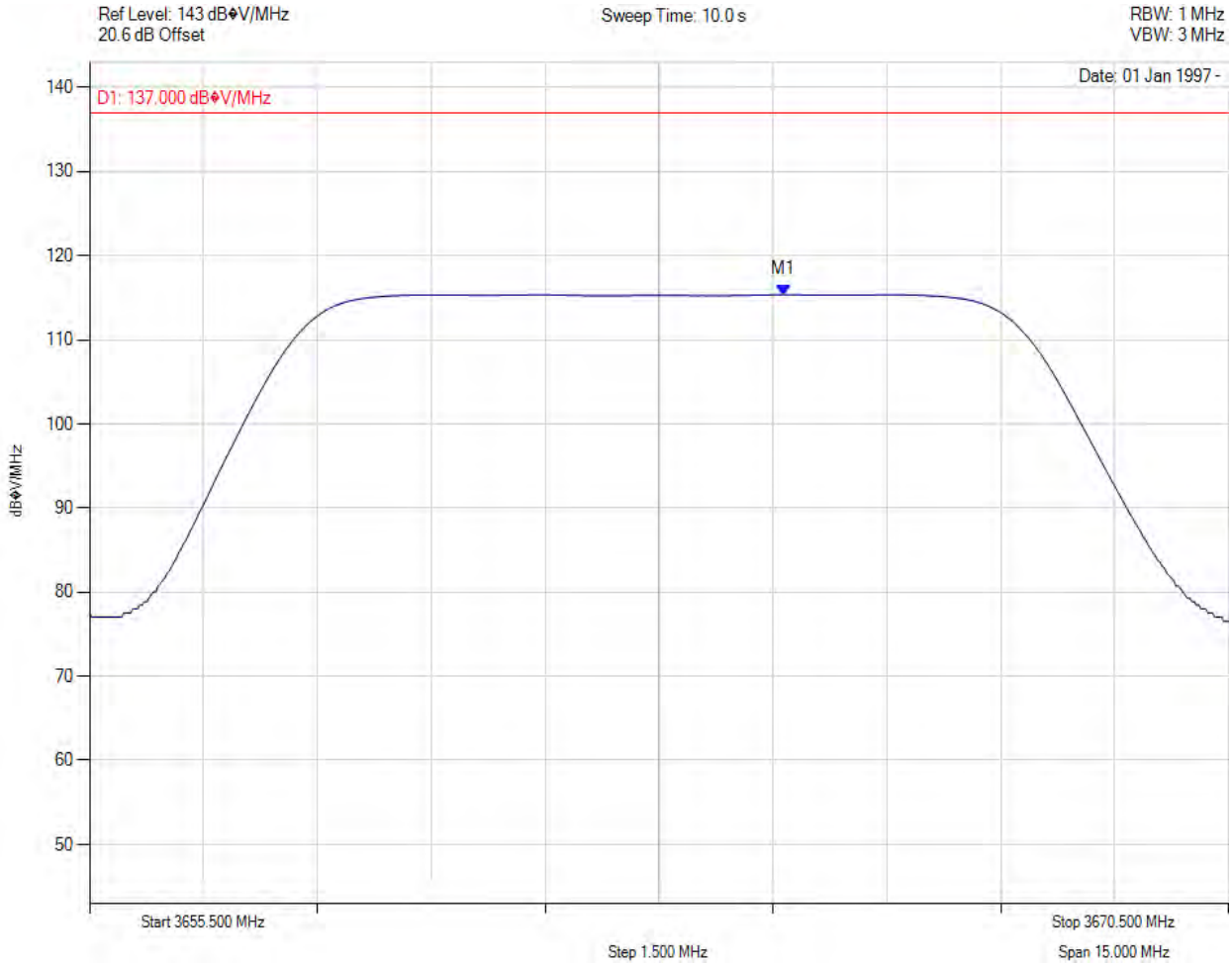


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3653.272 MHz : 115.499 dB♦V/MHz	Channel Frequency: 3655.00 MHz

Back to Matrix

Power Spectral Density

Variant: 10 MHz, Channel: 3663.00 MHz, 2, Temp: 25, Voltage: 54 Vdc

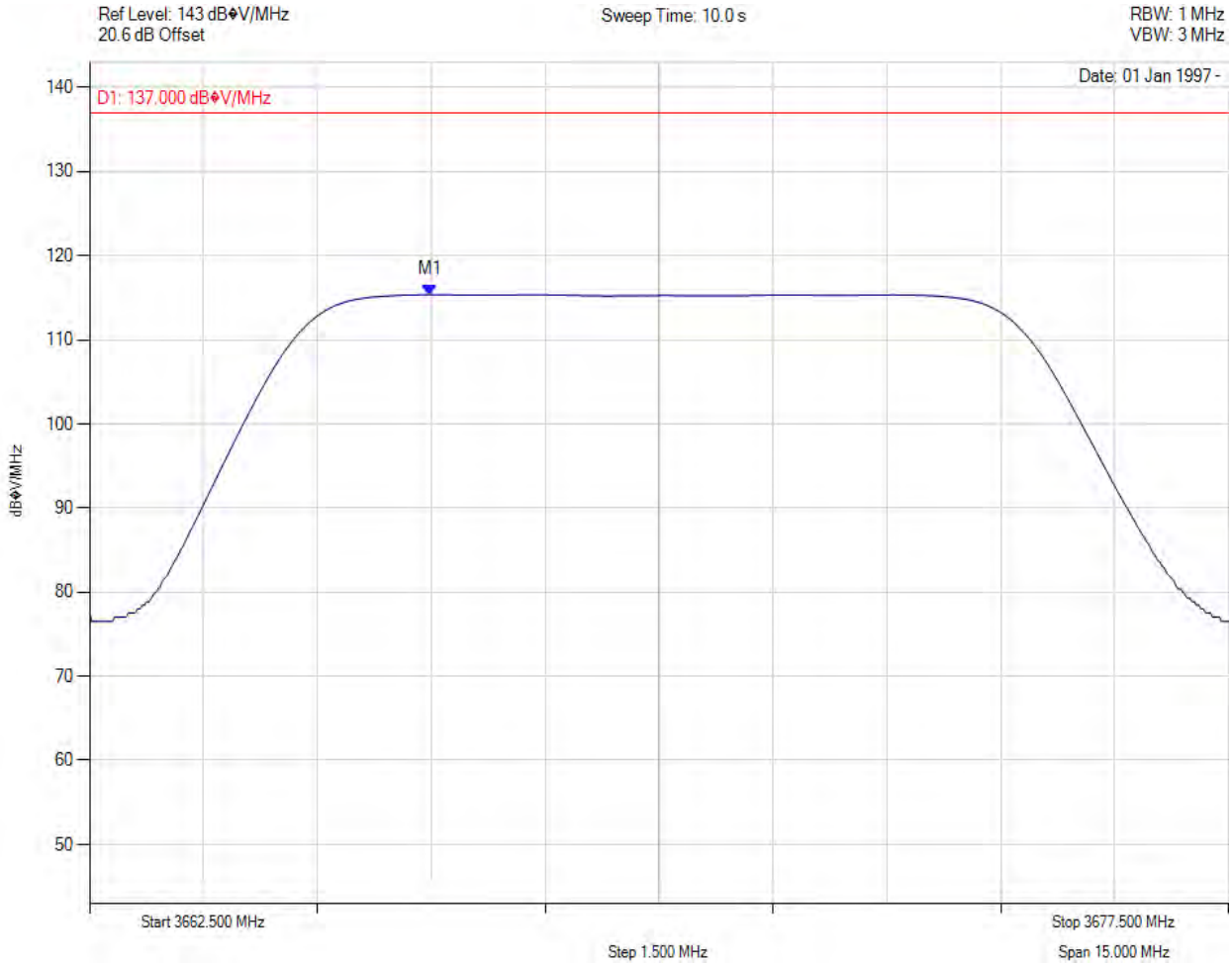


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3664.638 MHz : 115.363 dB♦V/MHz	Channel Frequency: 3663.00 MHz

Back to Matrix

Power Spectral Density

Variant: 10 MHz, Channel: 3670.00 MHz, 2, Temp: 25, Voltage: 54 Vdc

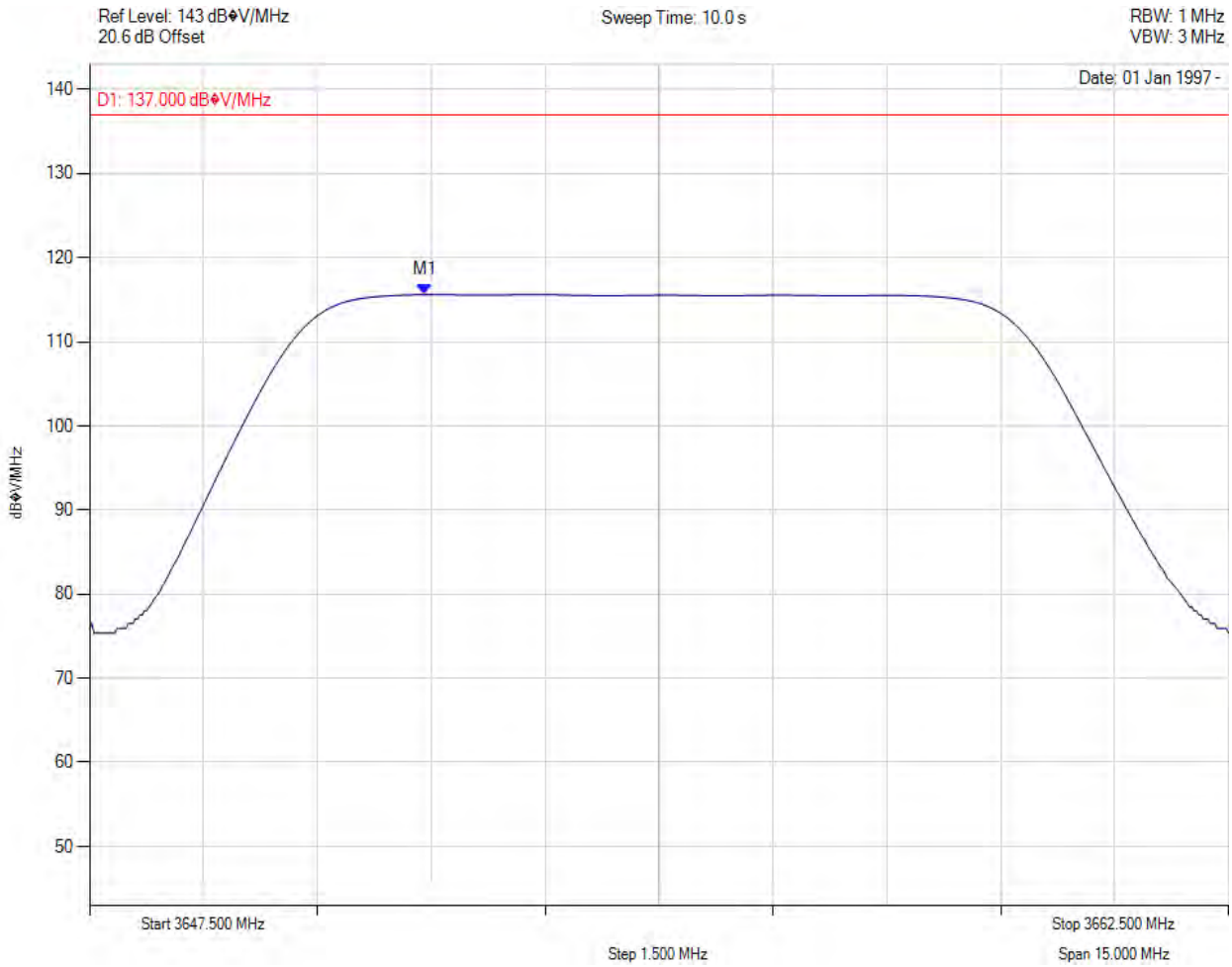


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3666.979 MHz : 115.363 dB♦V/MHz	Channel Frequency: 3670.00 MHz

Back to Matrix

Power Spectral Density

Variant: 10 MHz, Channel: 3655.00 MHz, 3, Temp: 25, Voltage: 54 Vdc

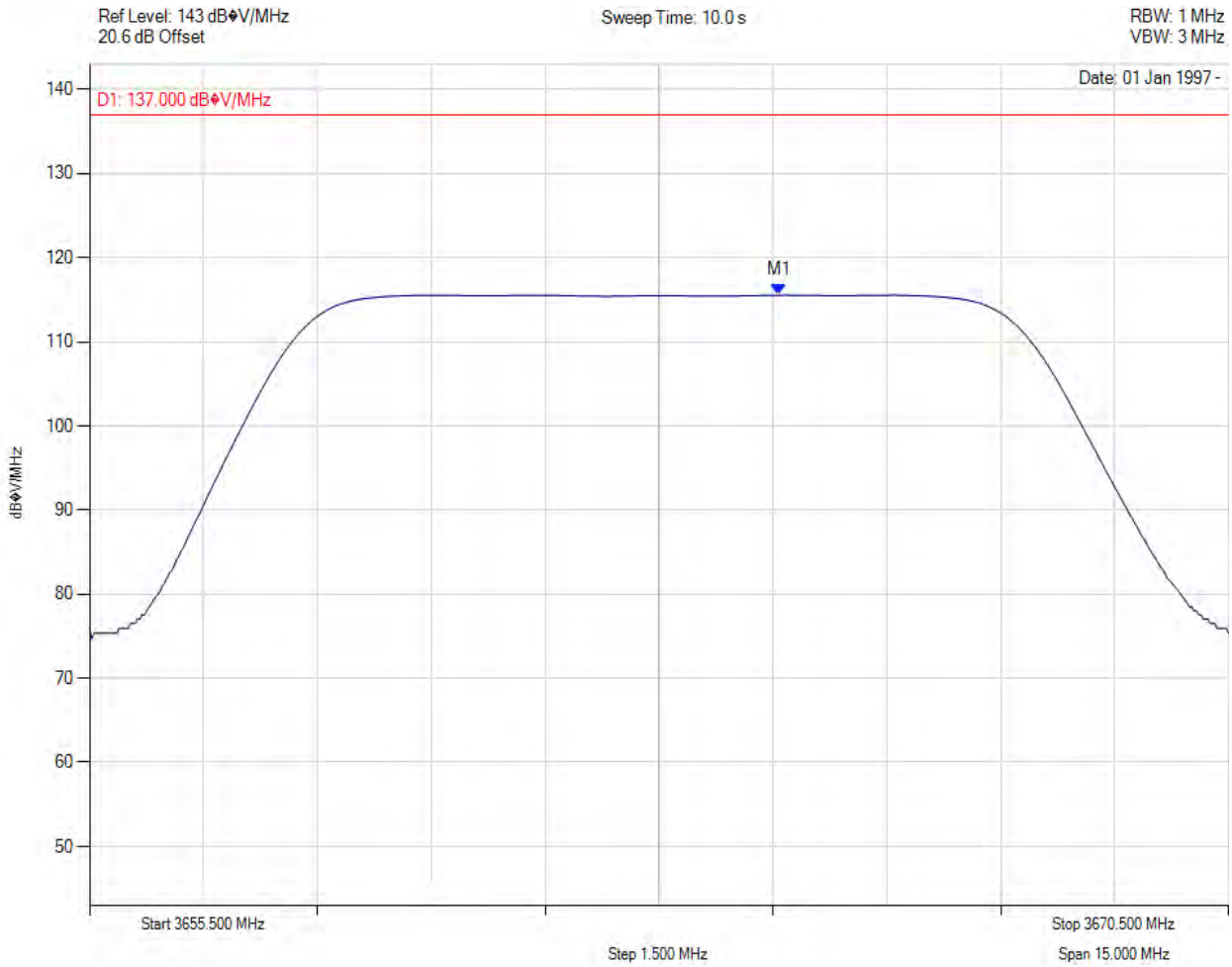


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3651.919 MHz : 115.614 dB♦V/MHz	Channel Frequency: 3655.00 MHz

Back to Matrix

Power Spectral Density

Variant: 10 MHz, Channel: 3663.00 MHz, 3, Temp: 25, Voltage: 54 Vdc

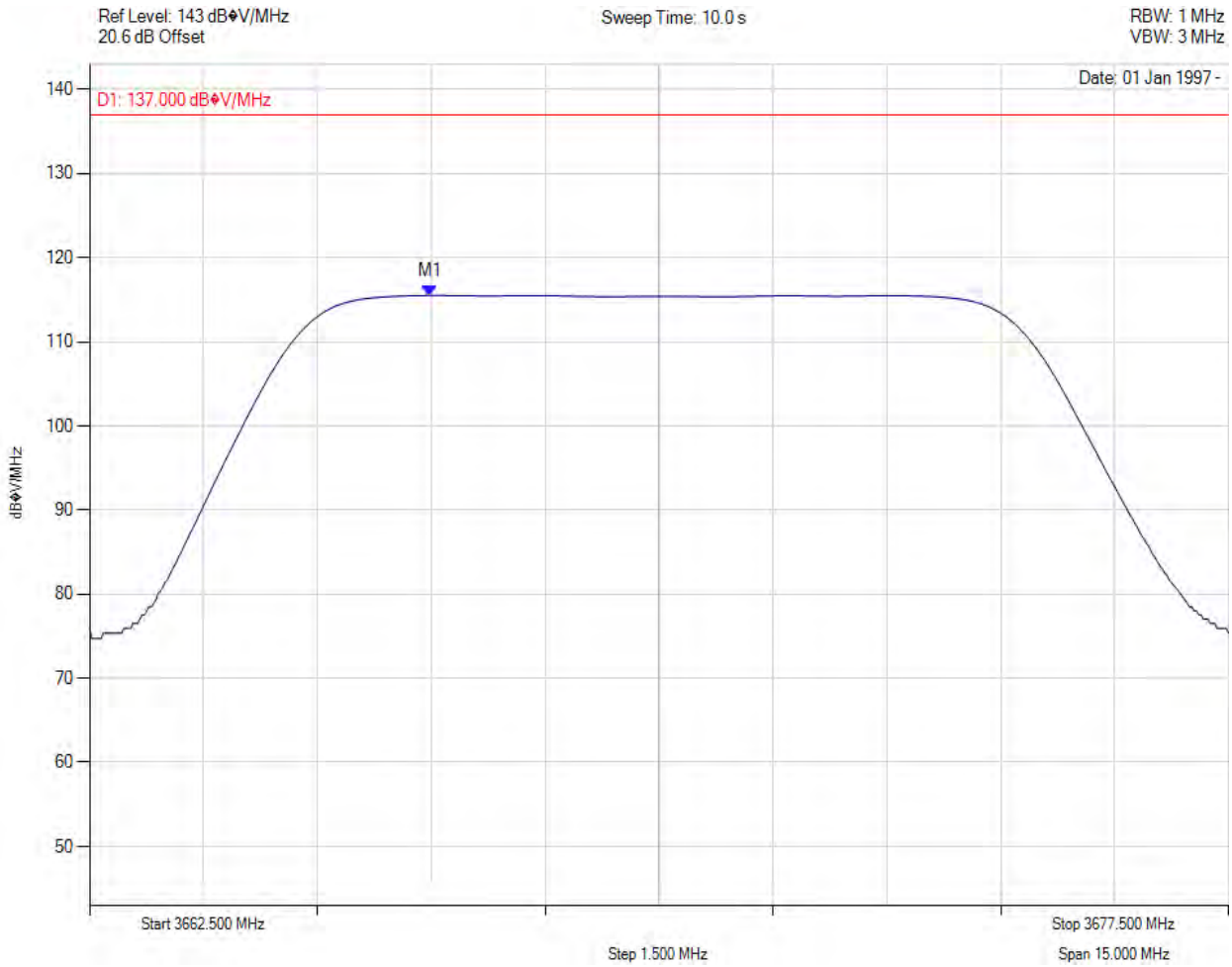


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3664.578 MHz : 115.547 dB♦V/MHz	Channel Frequency: 3663.00 MHz

Back to Matrix

Power Spectral Density

Variant: 10 MHz, Channel: 3670.00 MHz, 3, Temp: 25, Voltage: 54 Vdc

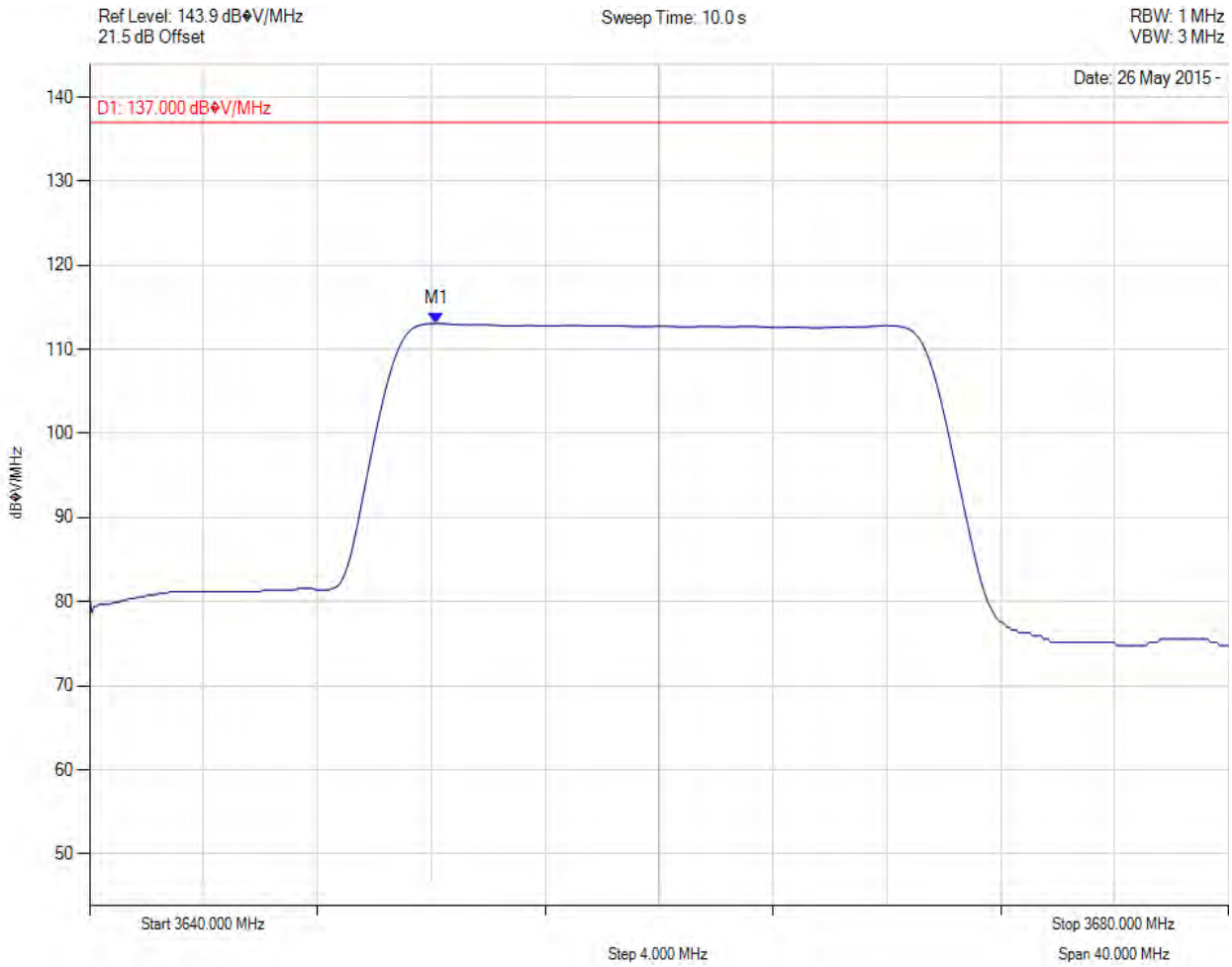


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = CLR/WRITE	M1 : 3666.979 MHz : 115.511 dB♦V/MHz	Channel Frequency: 3670.00 MHz

Back to Matrix

Power Spectral Density

Variant: 20MHz, Channel: 3660.00 MHz, Chain a, Temp: Ambient, Voltage: 54 Vdc

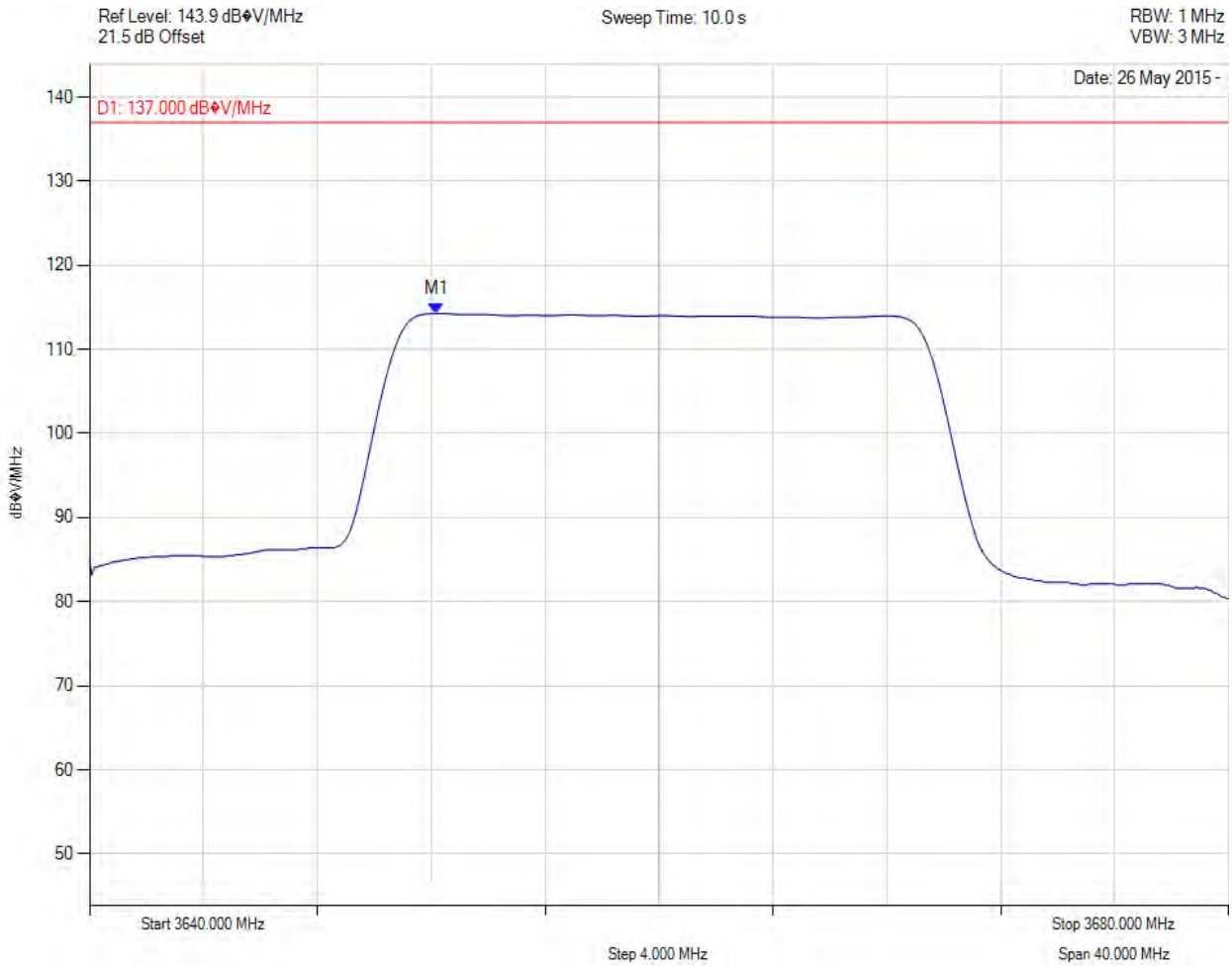


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 3652.184 MHz : 113.070 dB♦V/MHz	Channel Frequency: 3660.00 MHz

back to matrix

Power Spectral Density

Variant: 20MHz, Channel: 3660.00 MHz, Chain b, Temp: Ambient, Voltage: 54 Vdc

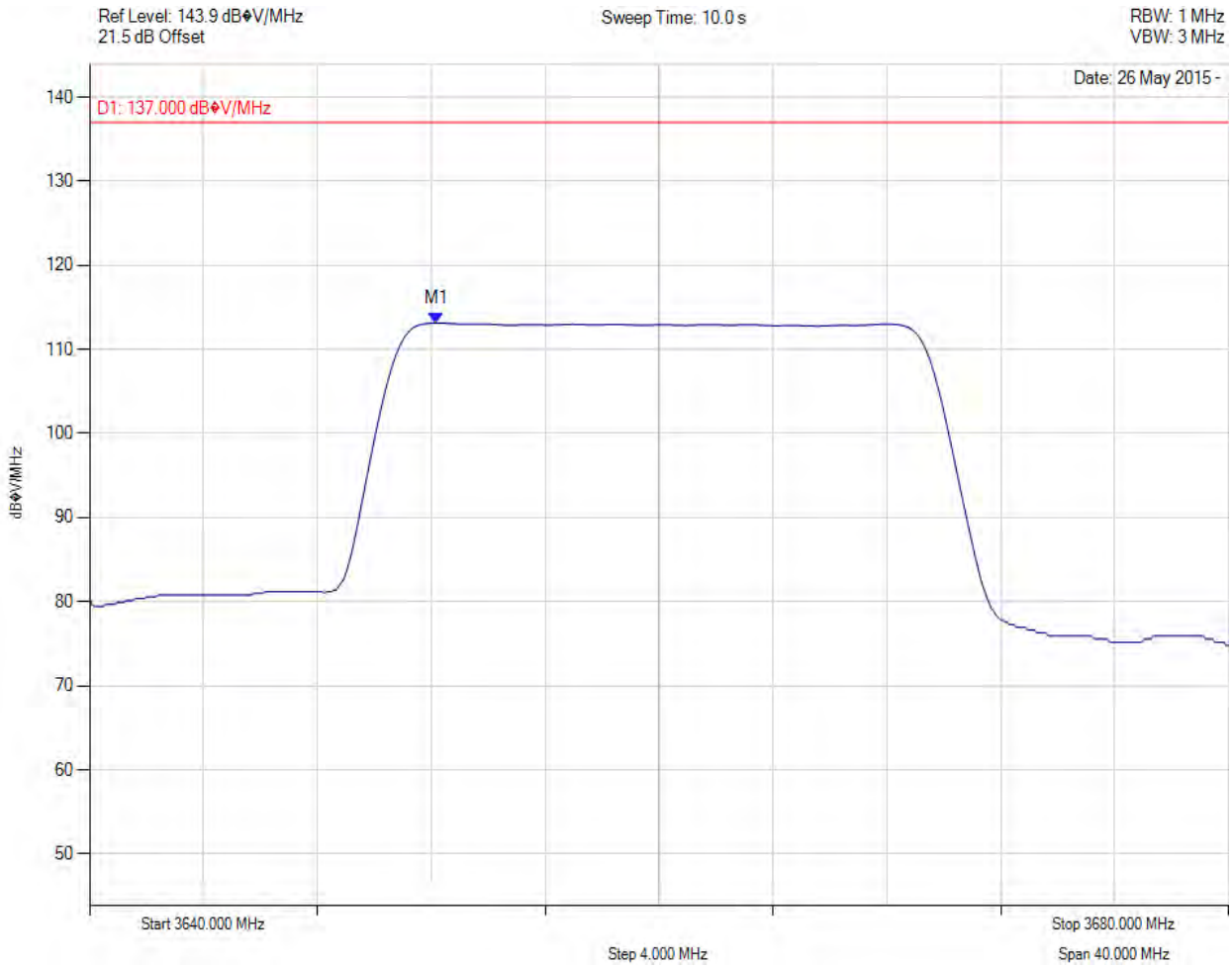


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 3652.184 MHz : 114.268 dB◆V/MHz	Channel Frequency: 3660.00 MHz

back to matrix

Power Spectral Density

Variant: 20MHz, Channel: 3660.00 MHz, Chain c, Temp: Ambient, Voltage: 54 Vdc

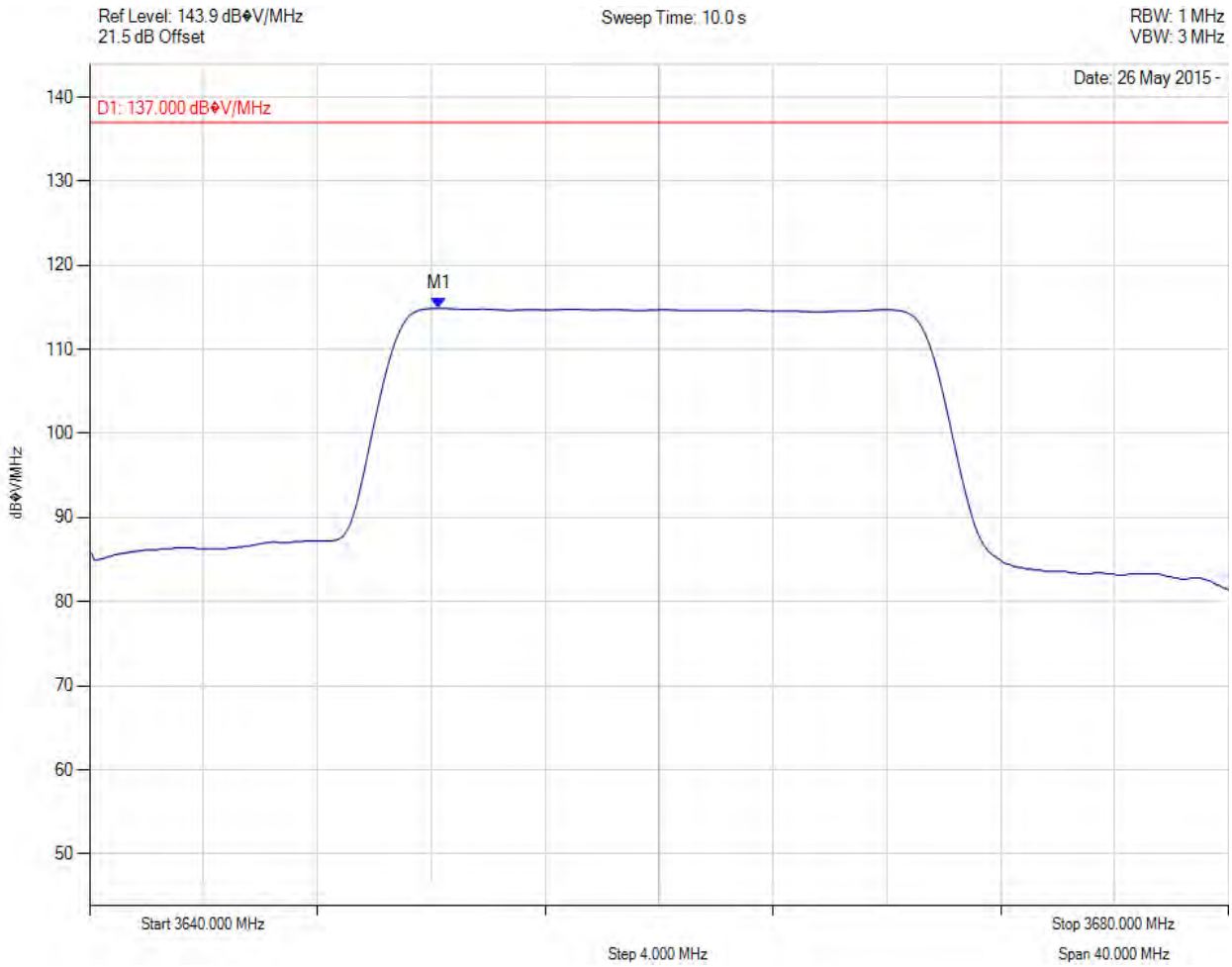


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 3652.184 MHz : 113.131 dB♦V/MHz	Channel Frequency: 3660.00 MHz

back to matrix

Power Spectral Density

Variant: 20MHz, Channel: 3660.00 MHz, Chain d, Temp: Ambient, Voltage: 54 Vdc

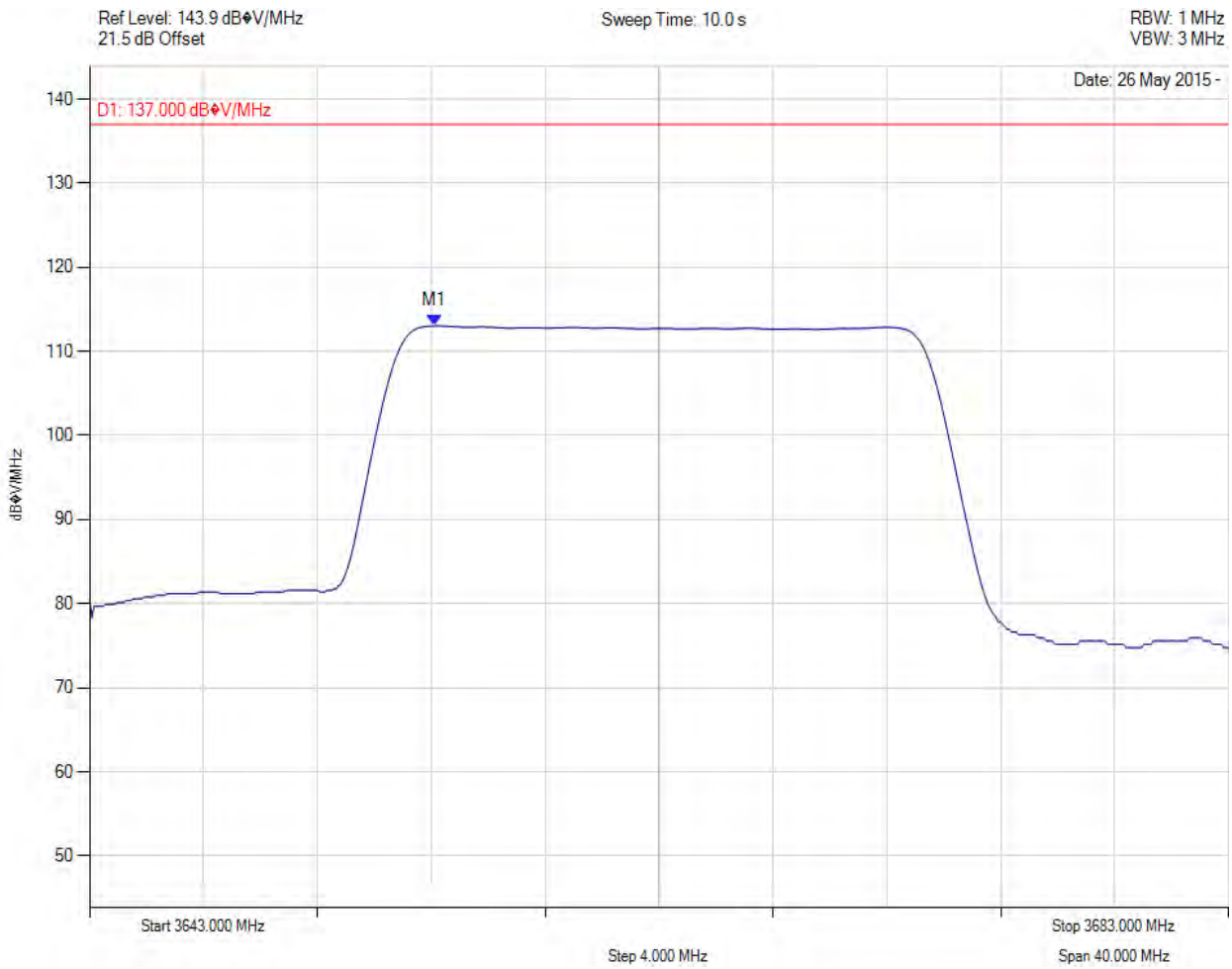


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 3652.265 MHz : 114.878 dB♦V/MHz	Channel Frequency: 3660.00 MHz

back to matrix

Power Spectral Density

Variant: 20MHz, Channel: 3663.00 MHz, Chain a, Temp: Ambient, Voltage: 54 Vdc

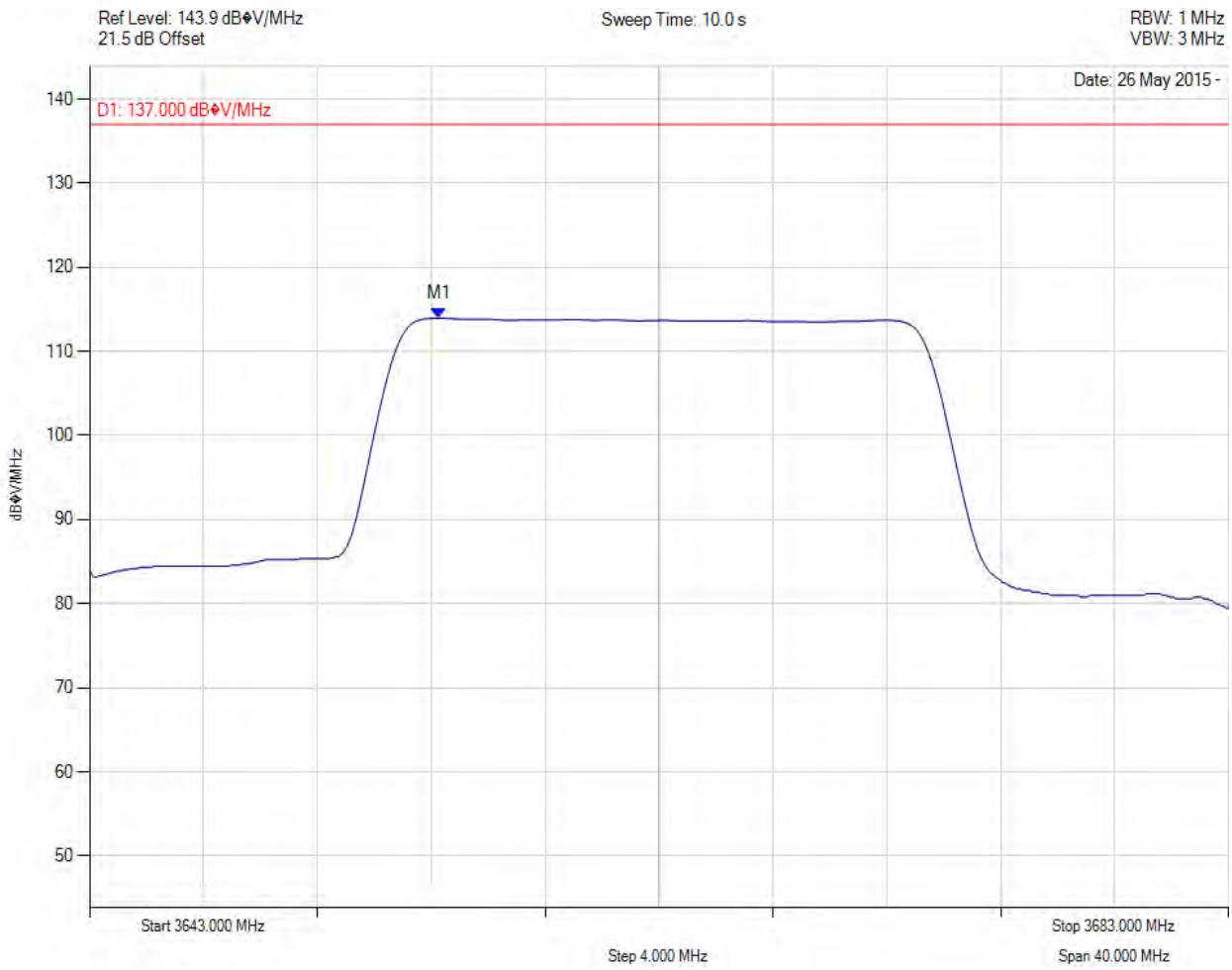


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 3655.104 MHz : 113.030 dB♦V/MHz	Channel Frequency: 3663.00 MHz

back to matrix

Power Spectral Density

Variant: 20MHz, Channel: 3663.00 MHz, Chain b, Temp: Ambient, Voltage: 54 Vdc

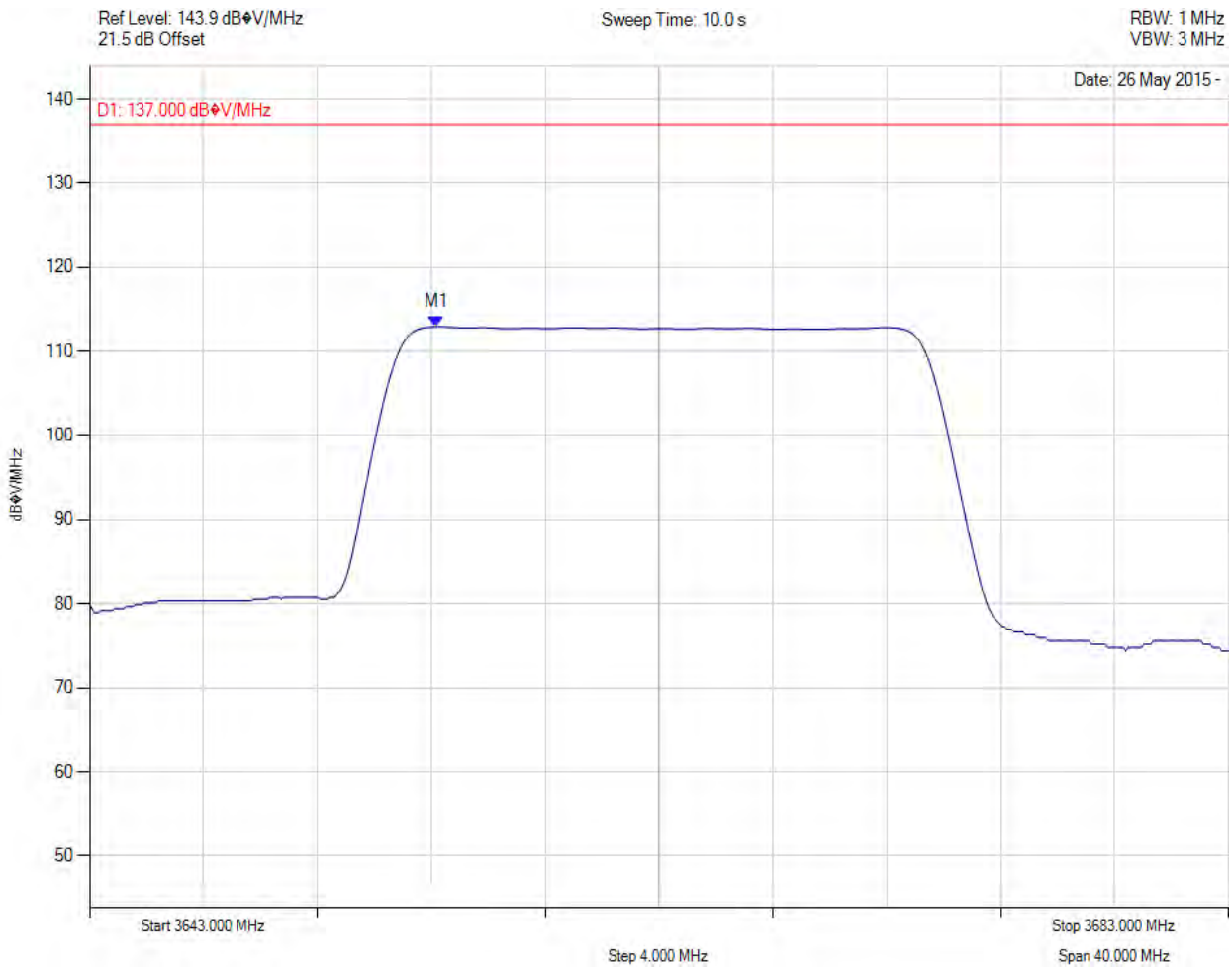


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 3655.265 MHz : 113.942 dB♦V/MHz	Channel Frequency: 3663.00 MHz

back to matrix

Power Spectral Density

Variant: 20MHz, Channel: 3663.00 MHz, Chain c, Temp: Ambient, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 3655.184 MHz : 112.923 dB♦V/MHz	Channel Frequency: 3663.00 MHz

back to matrix

Power Spectral Density

Variant: 20MHz, Channel: 3663.00 MHz, Chain d, Temp: Ambient, Voltage: 54 Vdc

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 3655.184 MHz : 114.688 dB♦V/MHz	Channel Frequency: 3663.00 MHz

back to matrix

Power Spectral Density

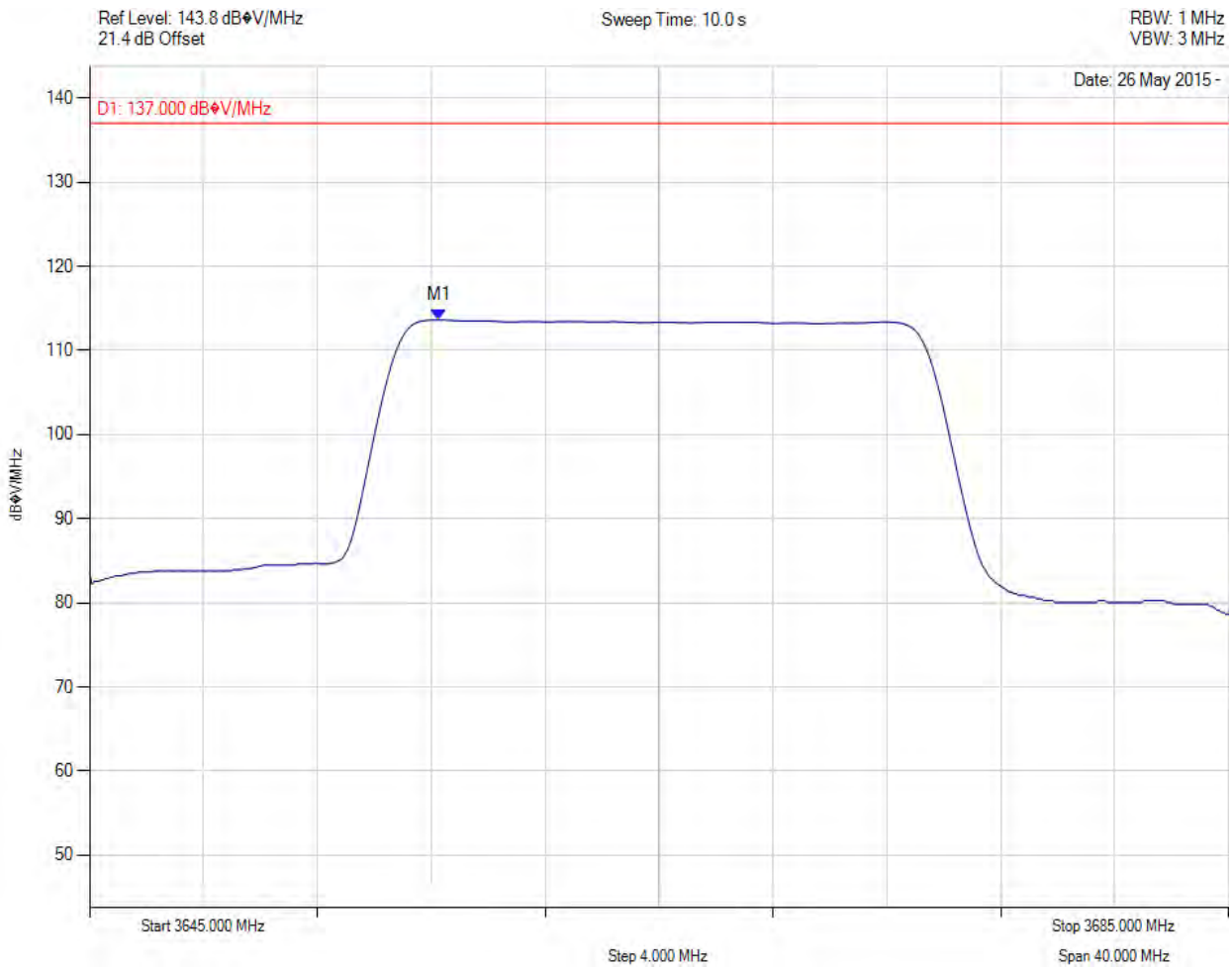
Variant: 20MHz, Channel: 3665.00 MHz, Chain a, Temp: Ambient, Voltage: 54 Vdc

Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 3657.184 MHz : 112.637 dB$\diamondsuit$V/MHz	Channel Frequency: 3665.00 MHz

back to matrix

Power Spectral Density

Variant: 20MHz, Channel: 3665.00 MHz, Chain b, Temp: Ambient, Voltage: 54 Vdc

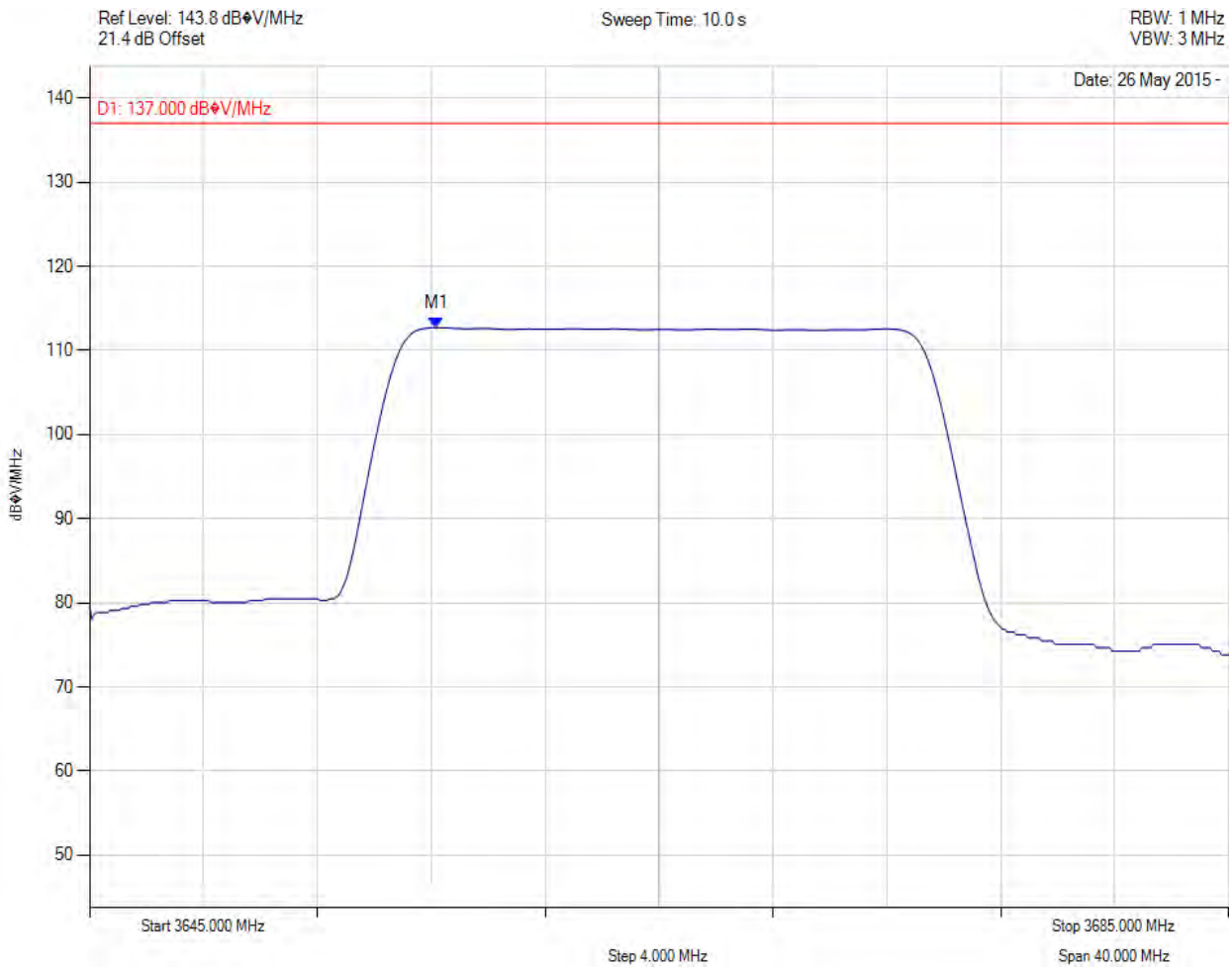


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 3657.265 MHz : 113.644 dB♦V/MHz	Channel Frequency: 3665.00 MHz

back to matrix

Power Spectral Density

Variant: 20MHz, Channel: 3665.00 MHz, Chain c, Temp: Ambient, Voltage: 54 Vdc

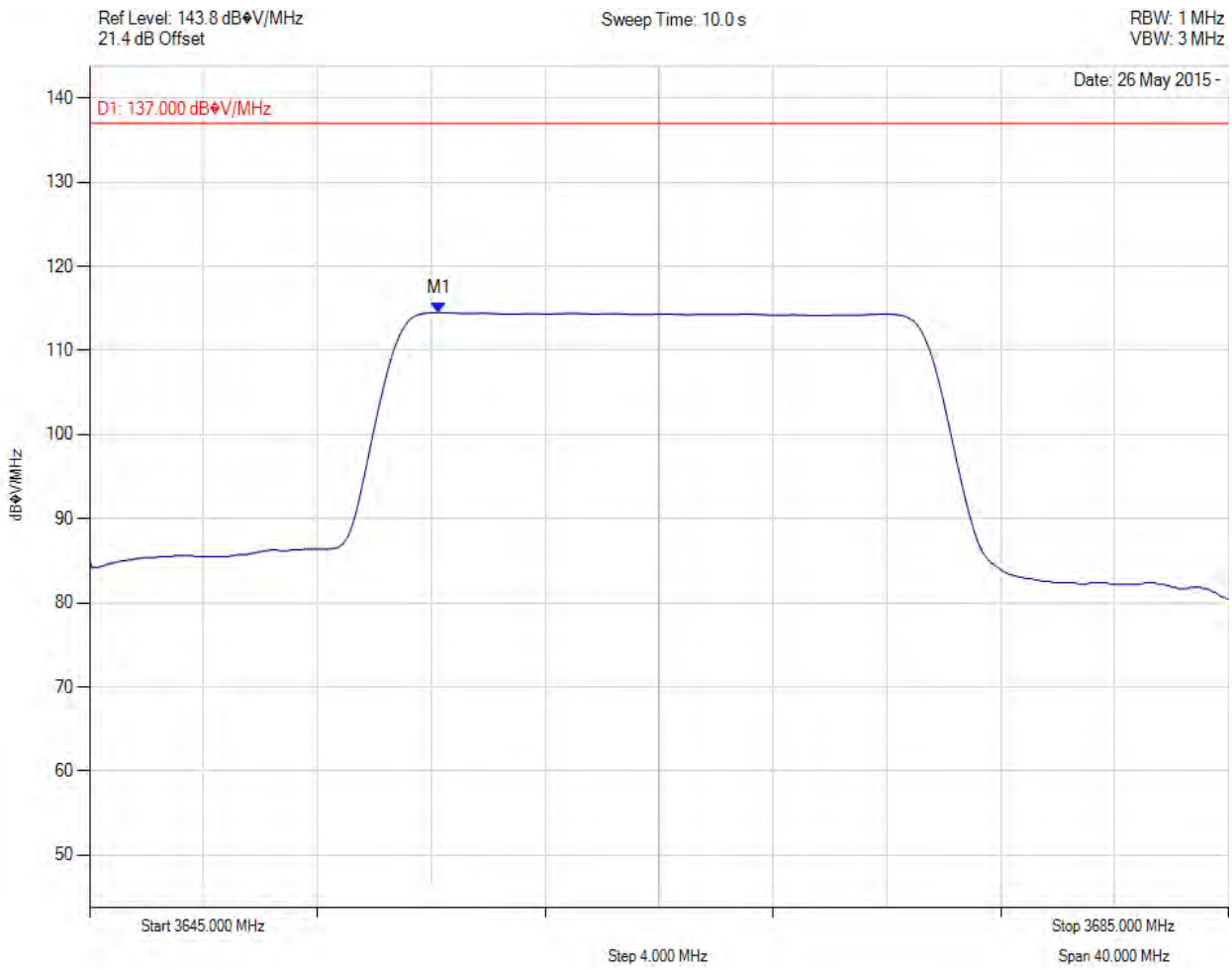


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 3657.184 MHz : 112.720 dB♦V/MHz	Channel Frequency: 3665.00 MHz

back to matrix

Power Spectral Density

Variant: 20MHz, Channel: 3665.00 MHz, Chain d, Temp: Ambient, Voltage: 54 Vdc



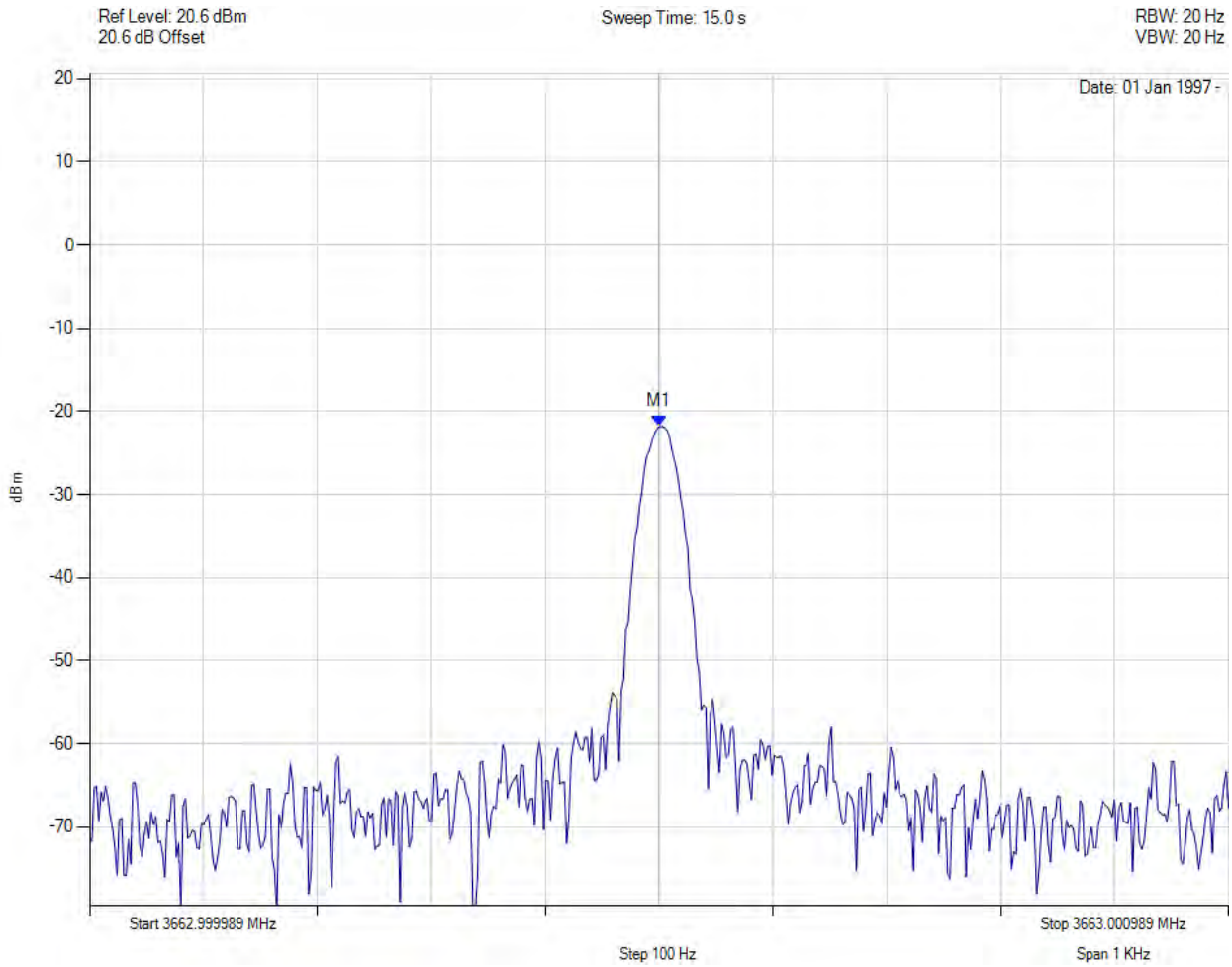
Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = RMS Sweep Count = 0 RF Atten (dB) = 30 Trace Mode = VIEW	M1 : 3657.265 MHz : 114.516 dB♦V/MHz	Channel Frequency: 3665.00 MHz

back to matrix

A.1.4. Frequency Stability

Carrier Frequencies 25 °C

Variant: , Channel: 3663.00 MHz, , Temp: nom, Voltage: 43.2 Vdc

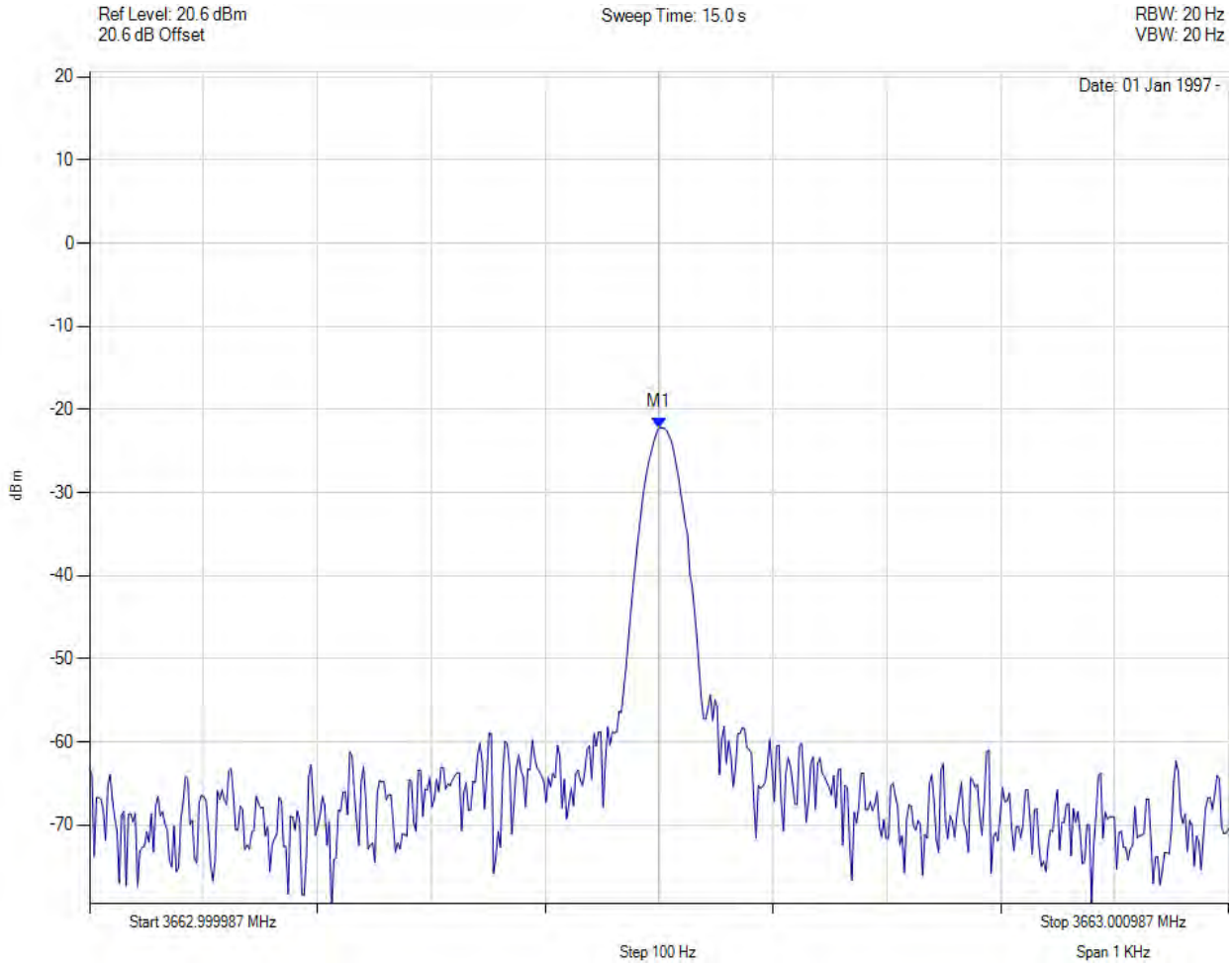


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3663.000 MHz : -21.791 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Carrier Frequencies 25 °C

Variant: , Channel: 3663.00 MHz, , Temp: Ambient, Voltage: 52.8 Vdc

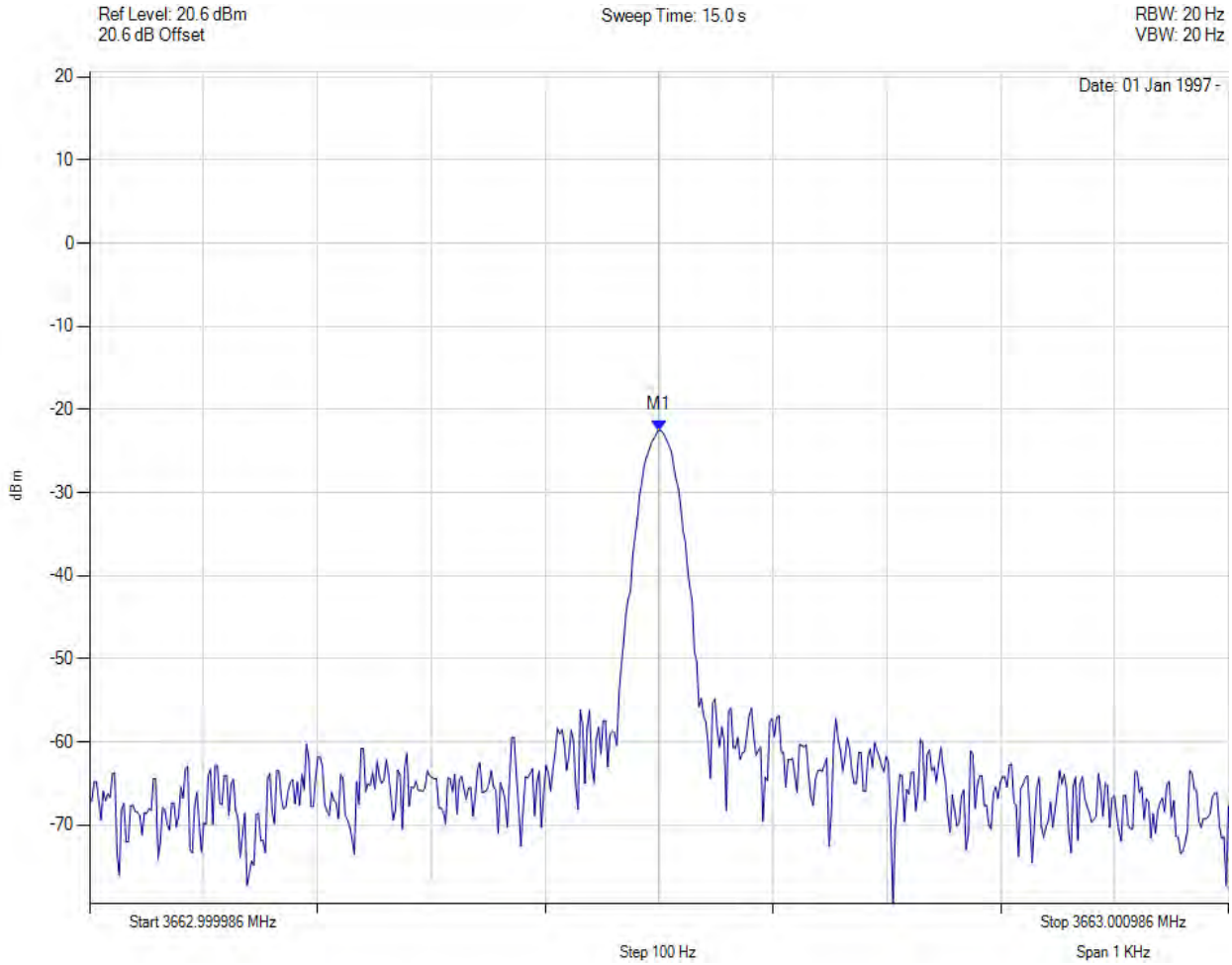


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3663.000 MHz : -22.175 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Carrier Frequencies -40 °C

Variant: , Channel: 3663.00 MHz, , Temp: , Voltage: nom Vdc

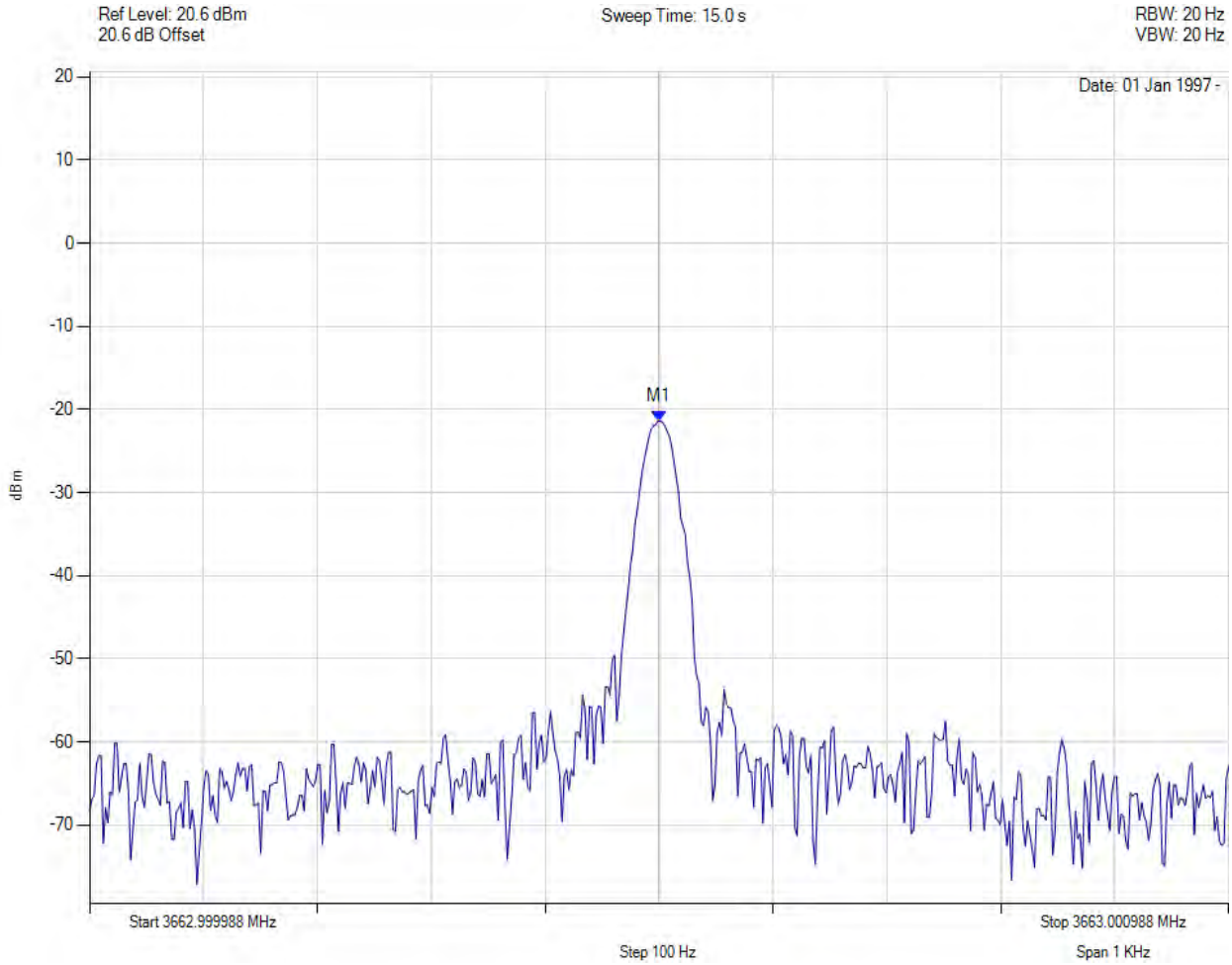


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3663.000 MHz : -22.495 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Carrier Frequencies -30 °C

Variant: , Channel: 3663.00 MHz, , Temp: , Voltage: nom Vdc

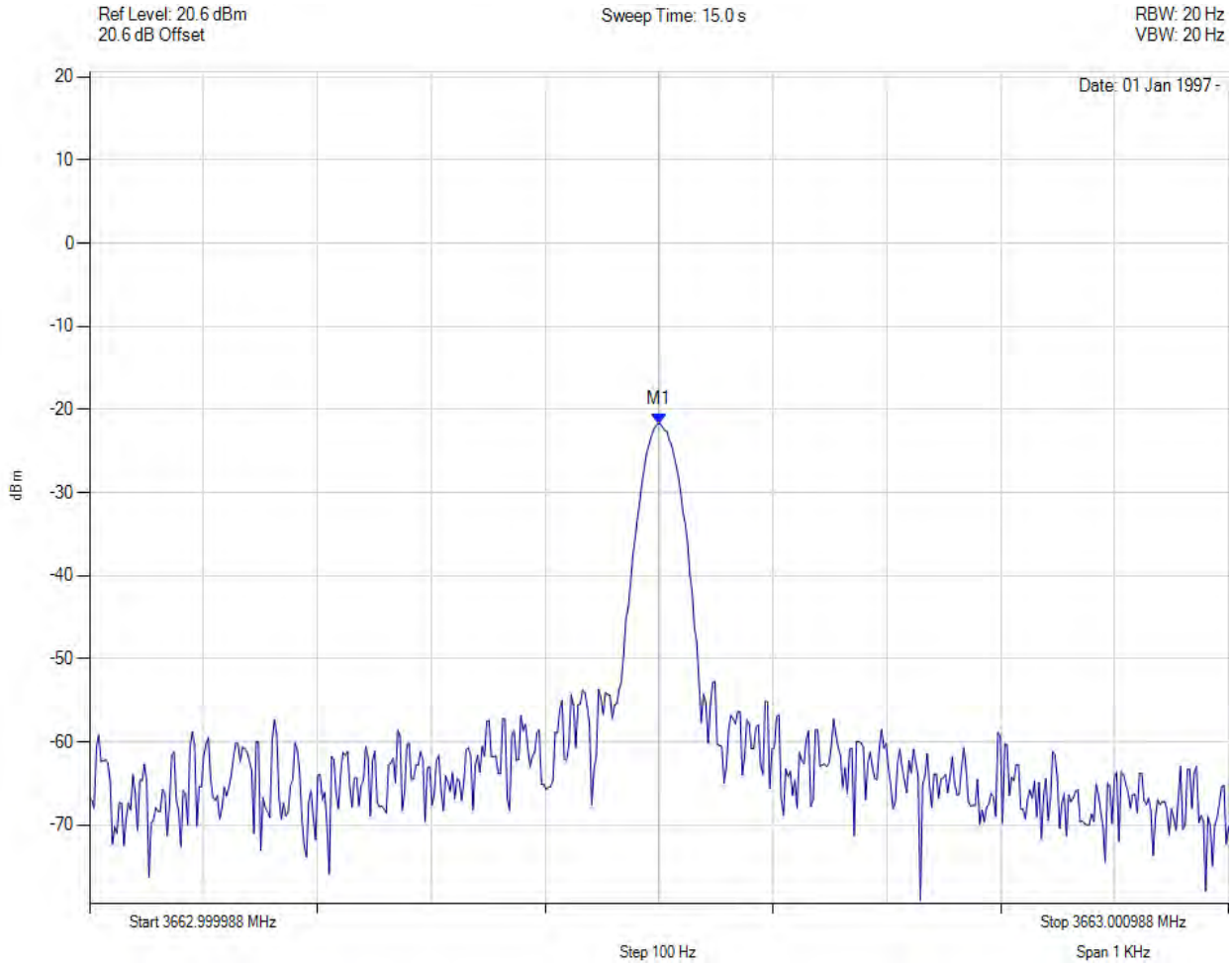


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3663.000 MHz : -21.378 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Carrier Frequencies -20 °C

Variant: , Channel: 3663.00 MHz, , Temp: , Voltage: nom Vdc

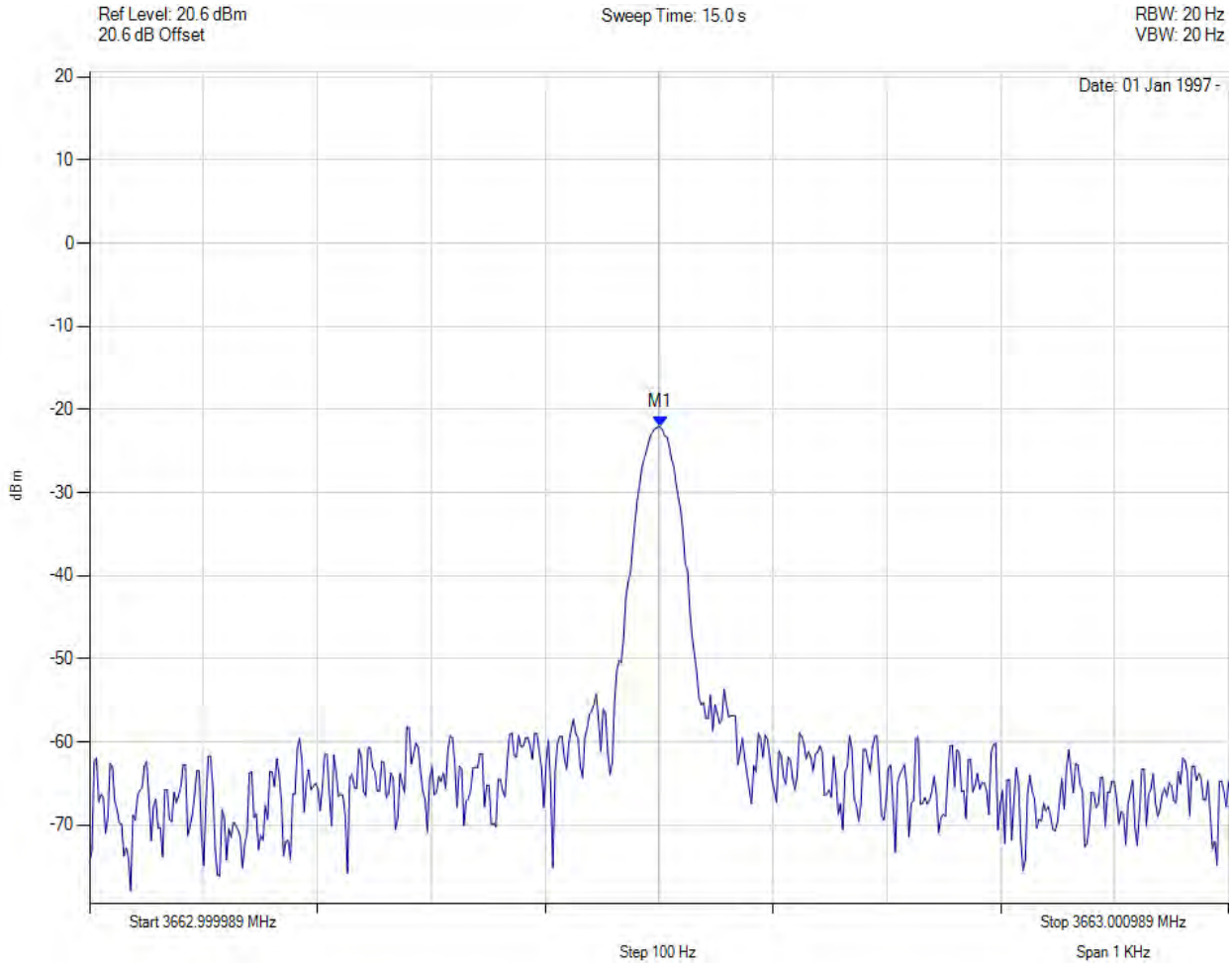


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3663.000 MHz : -21.708 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Carrier Frequencies -10 °C

Variant: , Channel: 3660.00 MHz, , Temp: , Voltage: nom Vdc

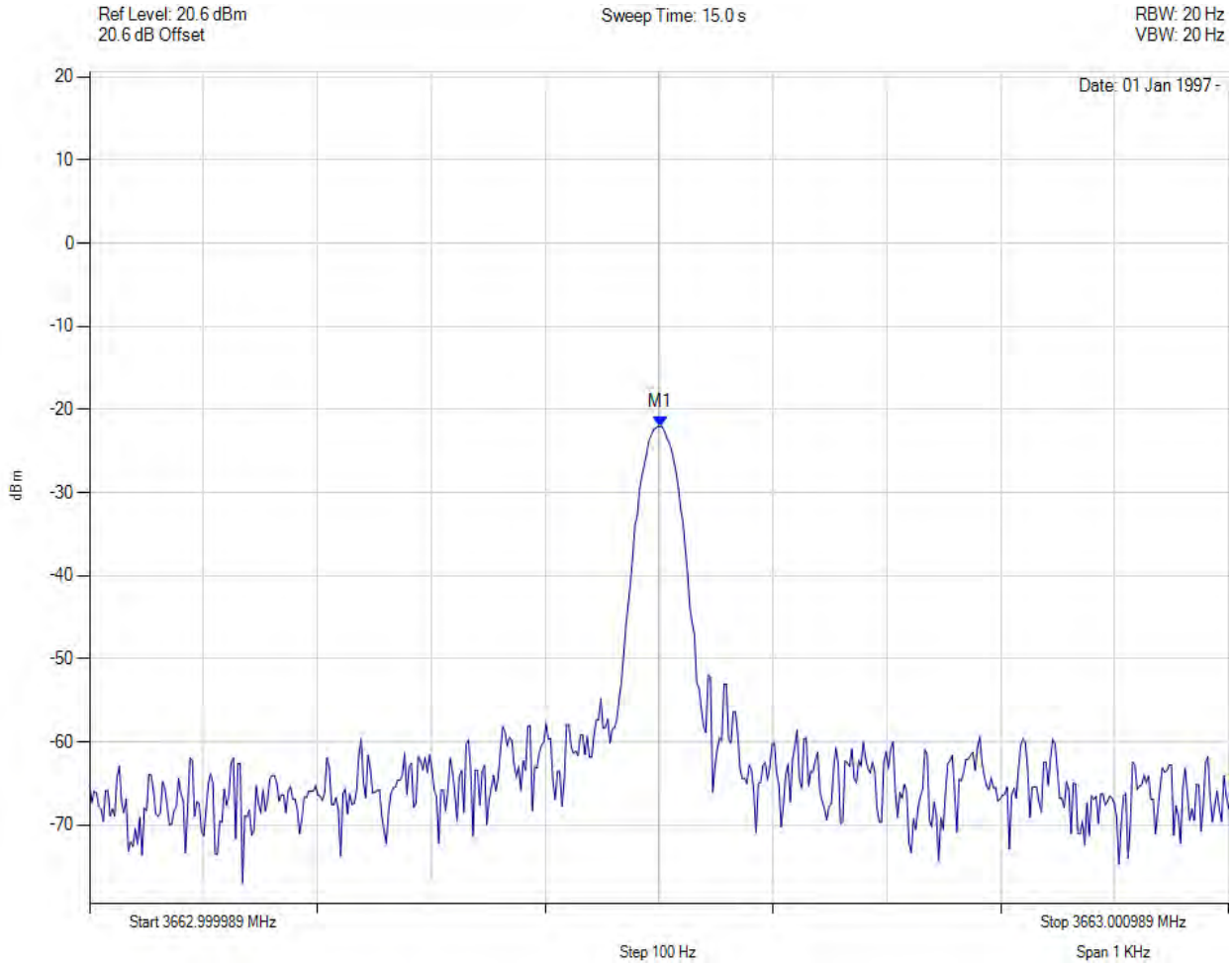


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3663.000 MHz : -22.096 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Carrier Frequencies 0 °C

Variant: , Channel: 3663.00 MHz, , Temp: , Voltage: nom Vdc

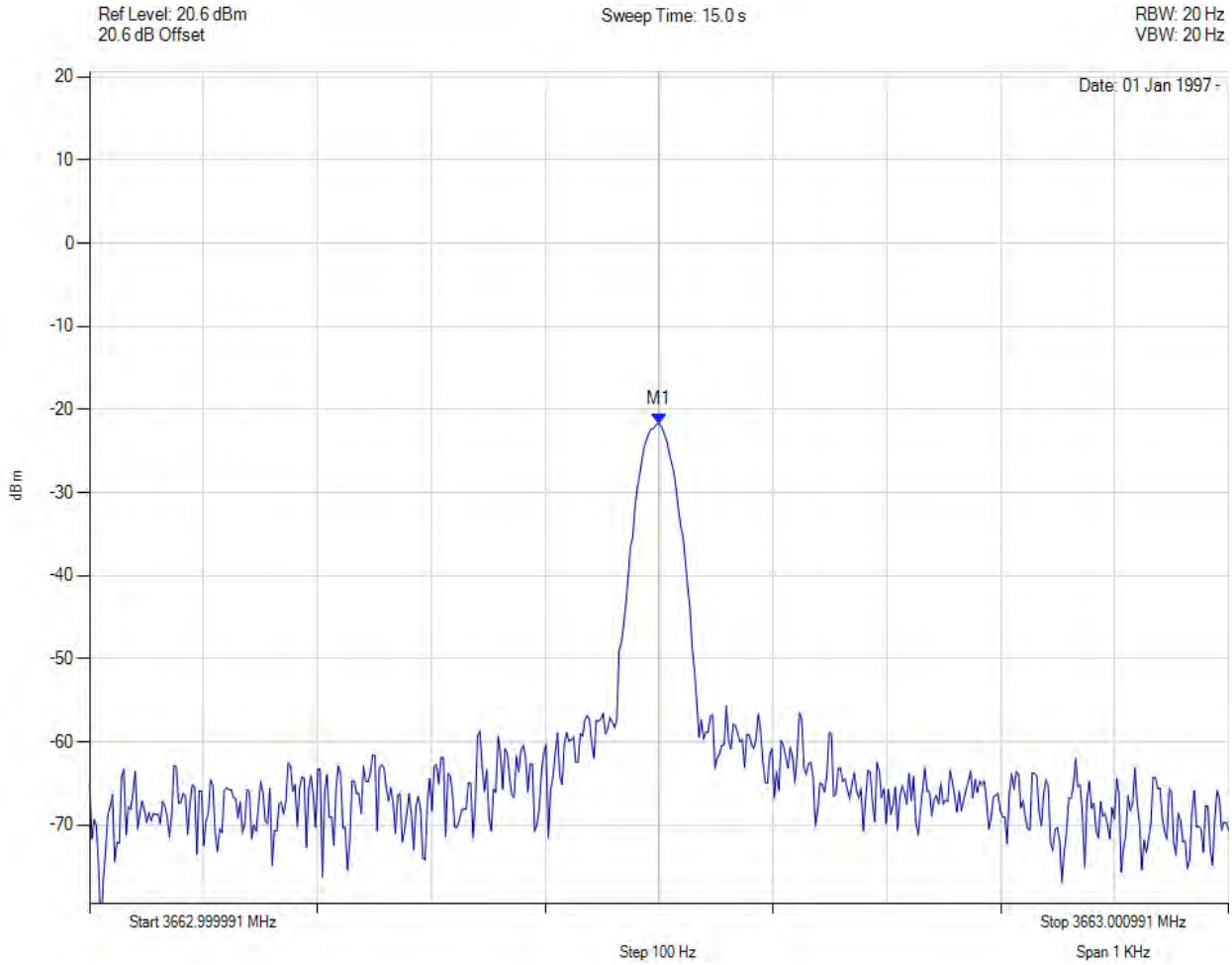


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3663.000 MHz : -22.037 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Carrier Frequencies 10 °C

Variant: , Channel: 3663.00 MHz, , Temp: , Voltage: nom Vdc

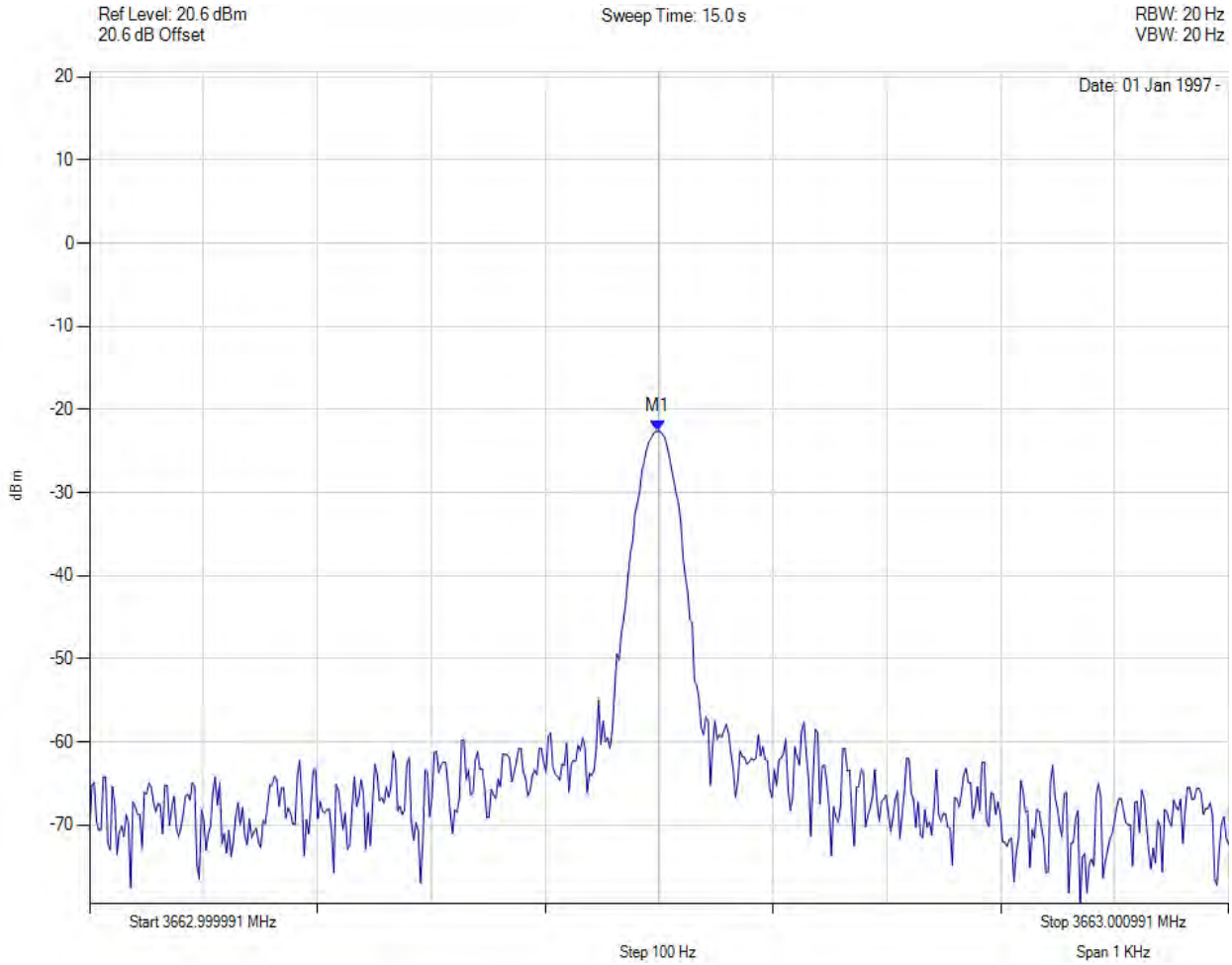


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3663.000 MHz : -21.797 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Carrier Frequencies 20 **°C**

Variant: , Channel: 3663.00 MHz, , Temp: , Voltage: nom Vdc

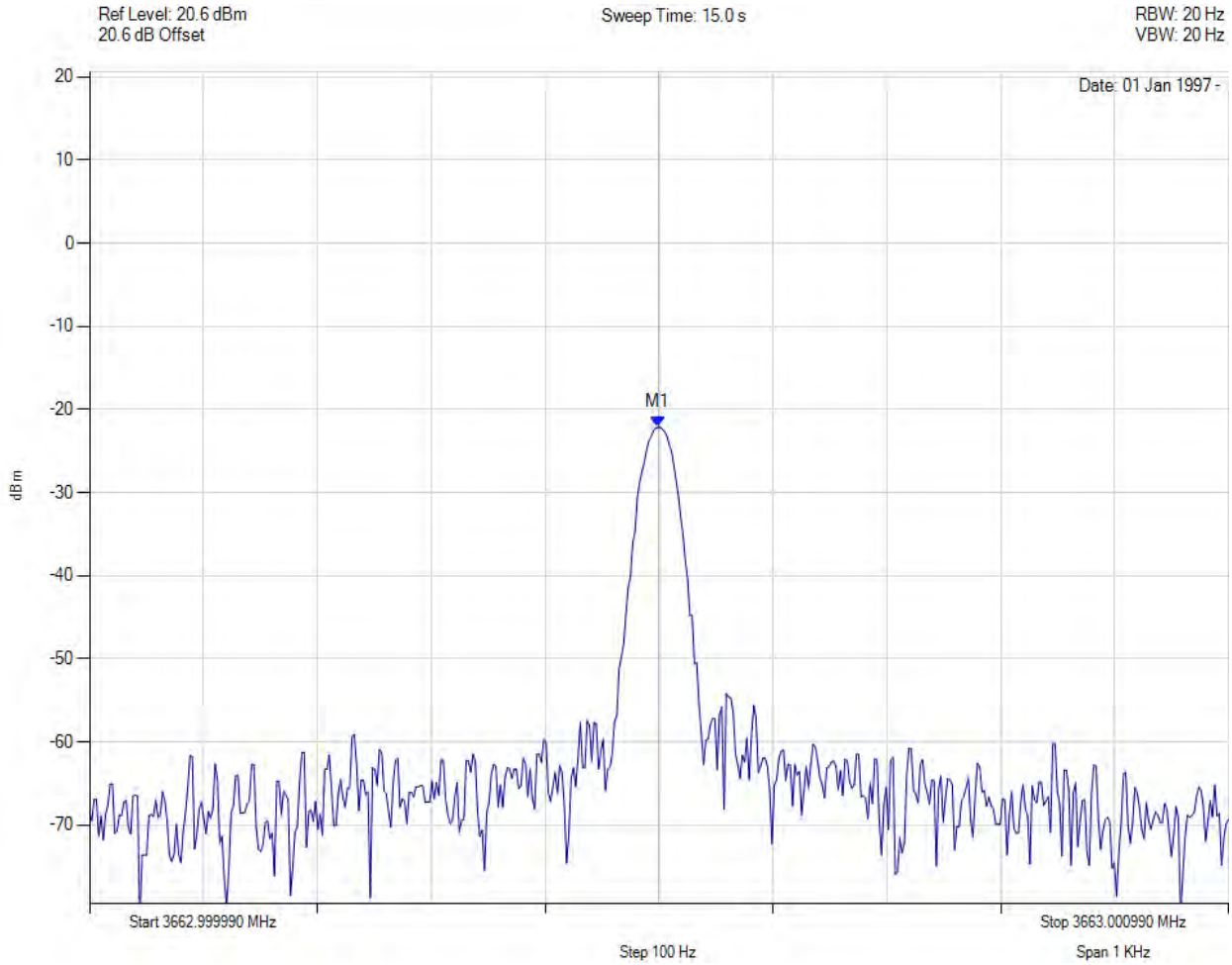


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3663.000 MHz : -22.619 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Carrier Frequencies 30 °C

Variant: , Channel: 3663.00 MHz, , Temp: , Voltage: nom Vdc

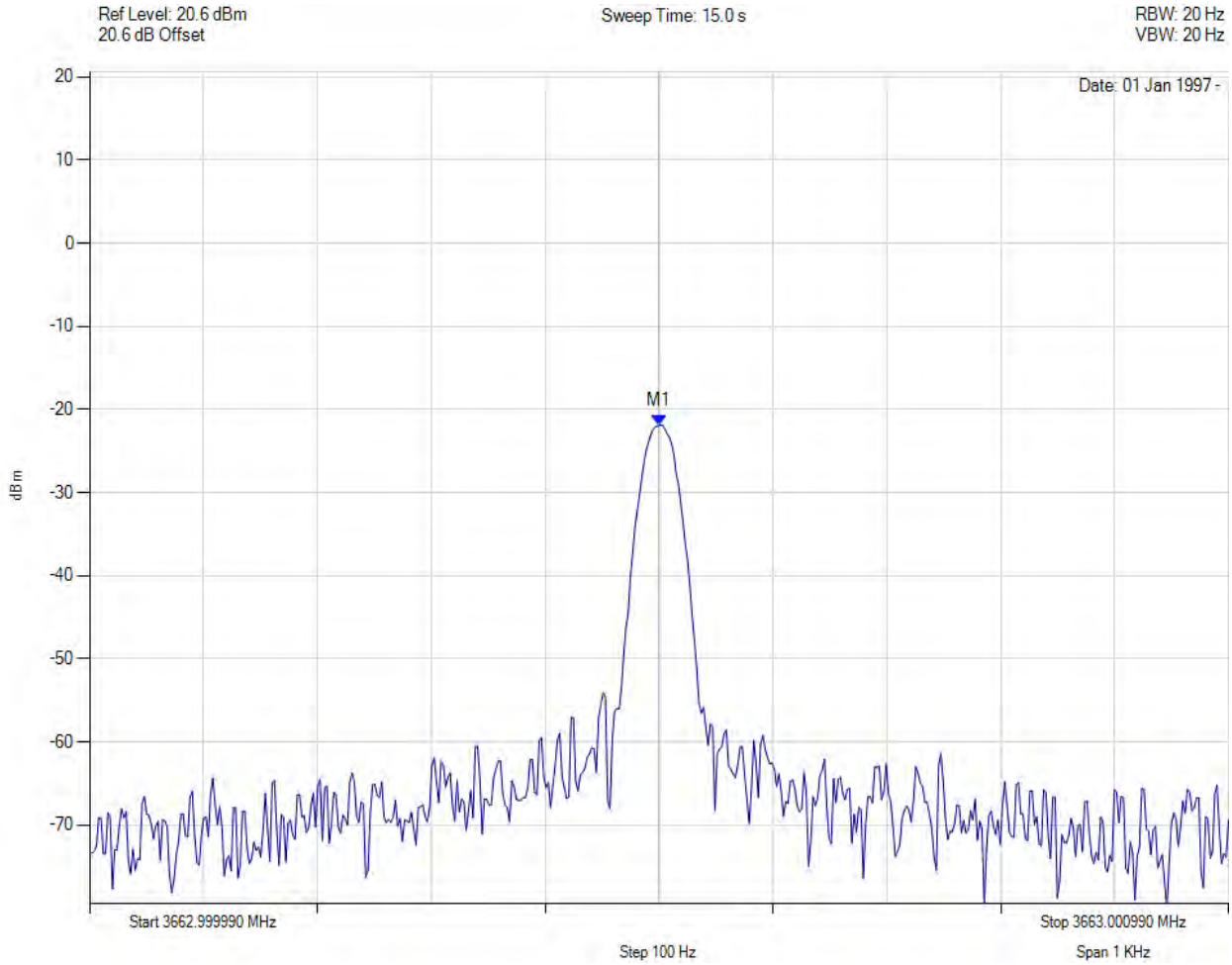


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3663.000 MHz : -22.123 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Carrier Frequencies 40 °C

Variant: , Channel: 3663.00 MHz, , Temp: , Voltage: nom Vdc

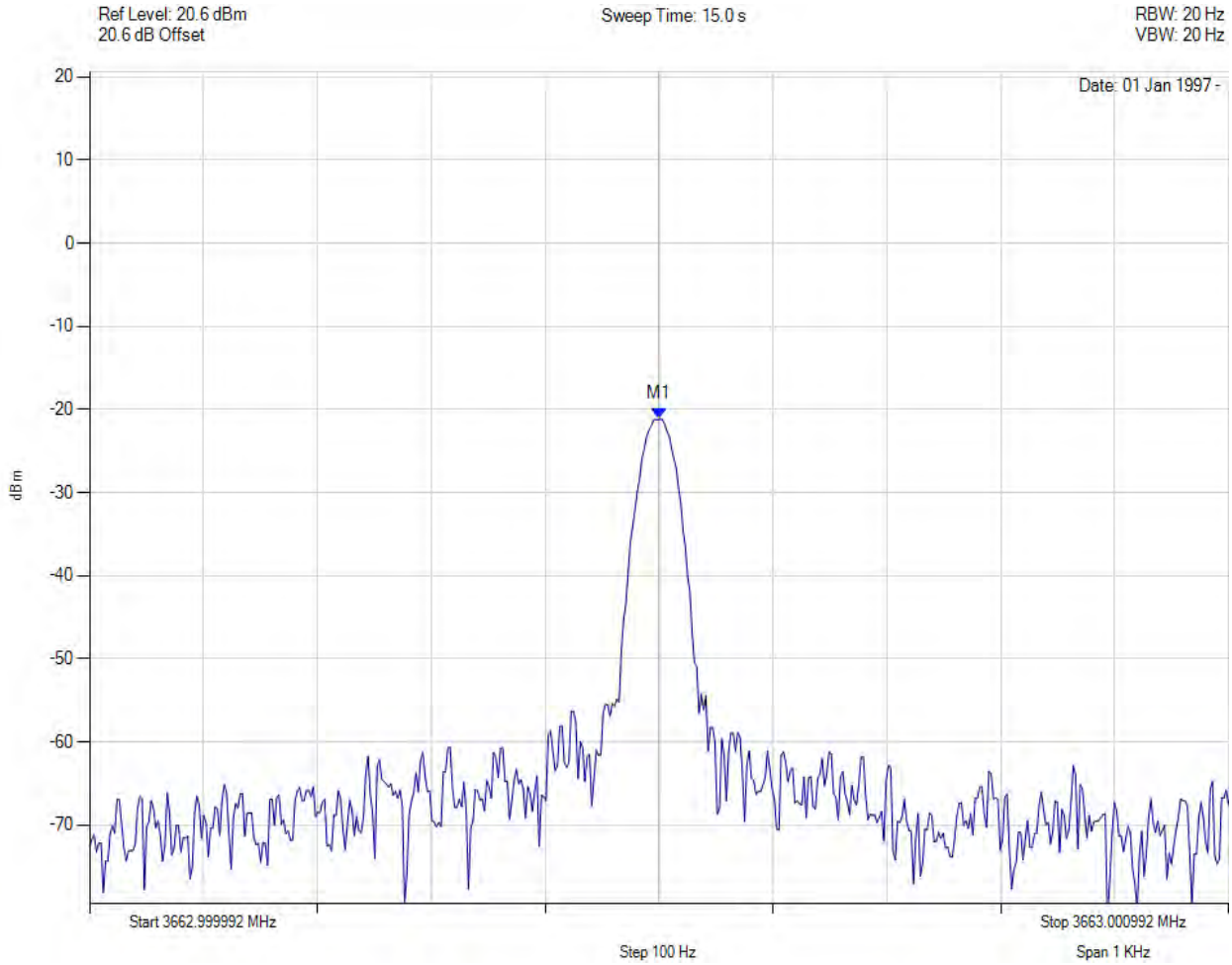


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3663.000 MHz : -21.862 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Carrier Frequencies 50 **°C**

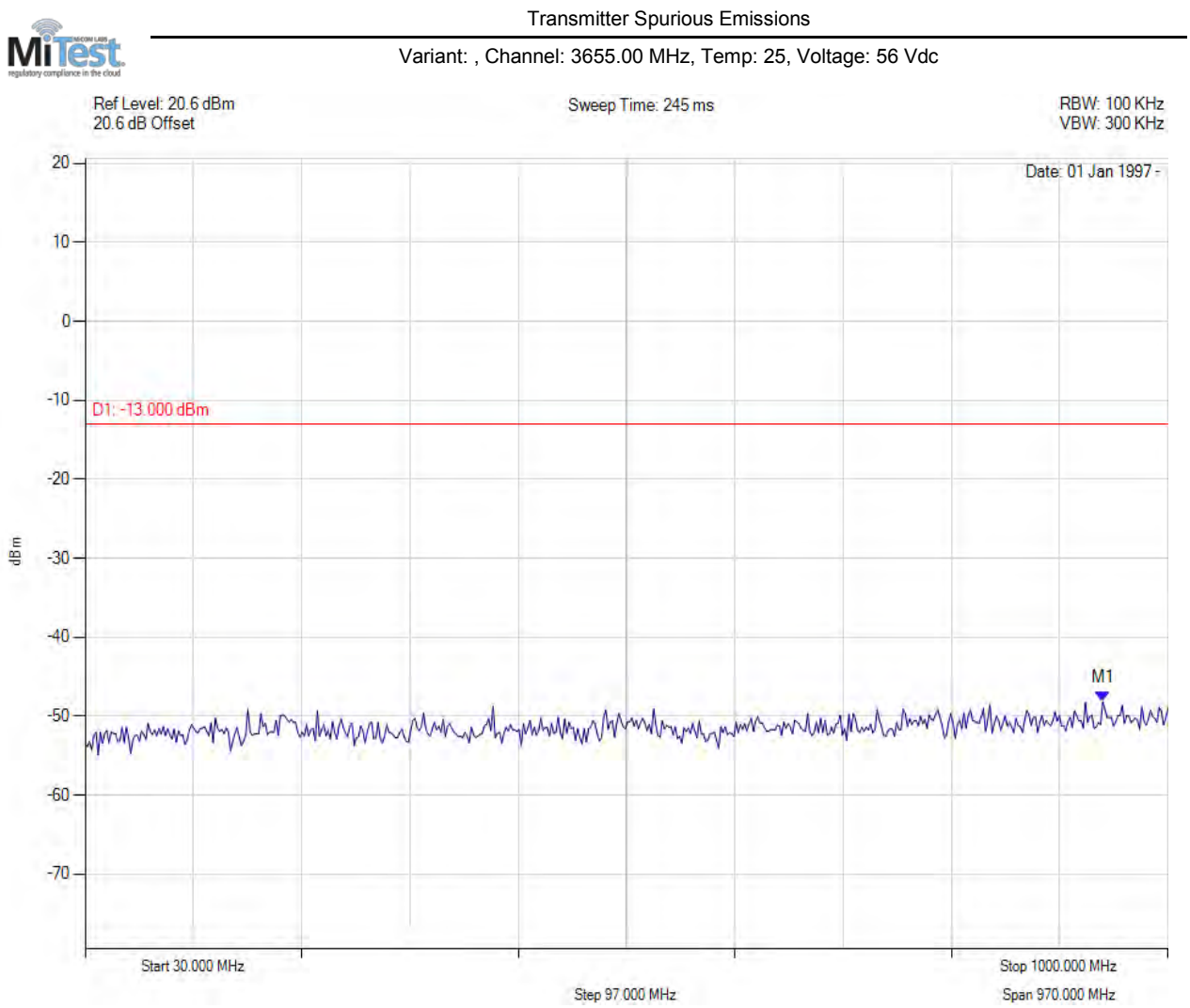
Variant: , Channel: 3663.00 MHz, , Temp: , Voltage: nom Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3663.000 MHz : -21.148 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

A.1.5. Conducted Spurious Emissions

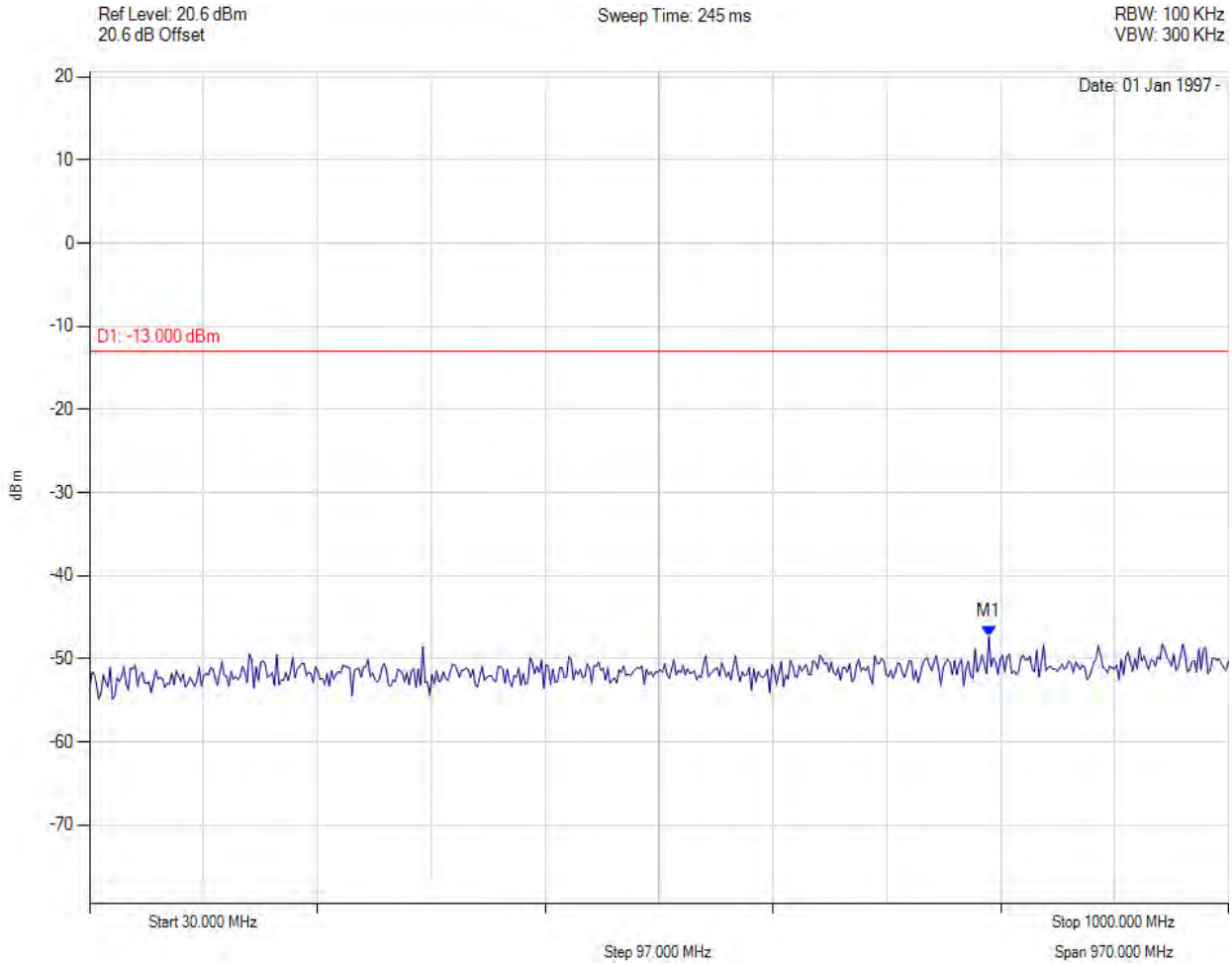


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 941.683 MHz : -48.196 dBm	Channel Frequency: 3655.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc

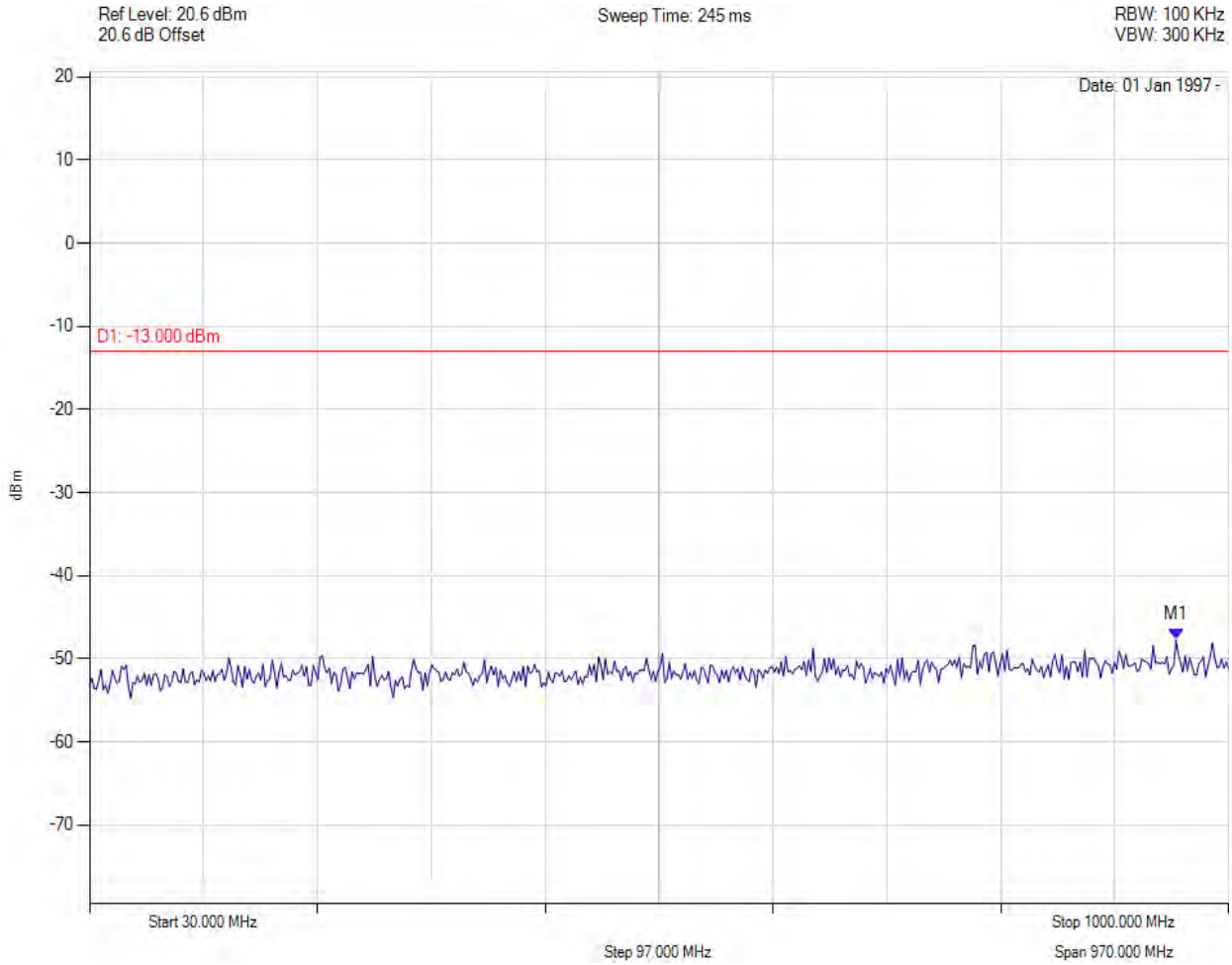


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 795.892 MHz : -47.336 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc

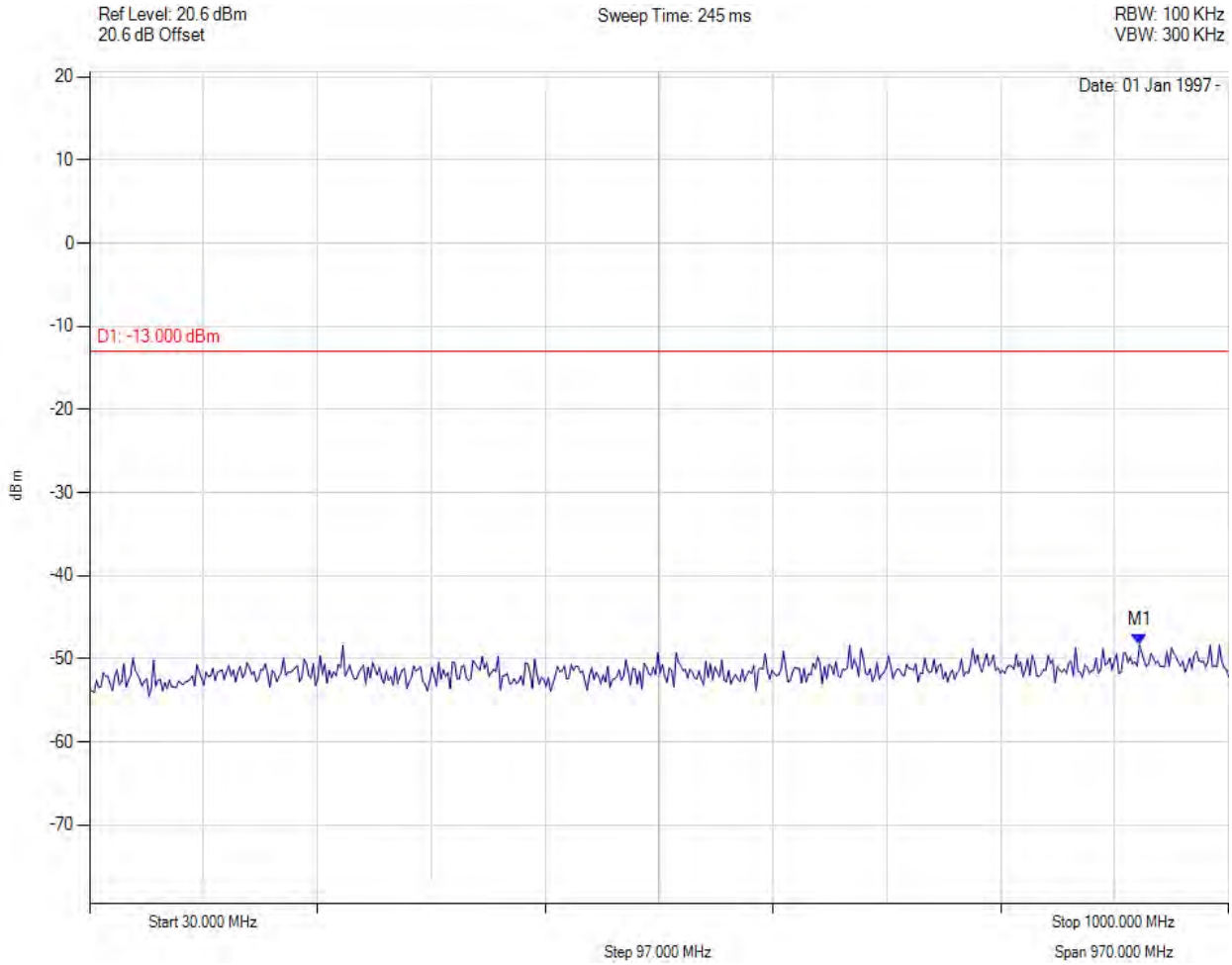


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 955.291 MHz : -47.688 dBm	Channel Frequency: 3670.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3655.00 MHz, Temp: 25, Voltage: 56 Vdc

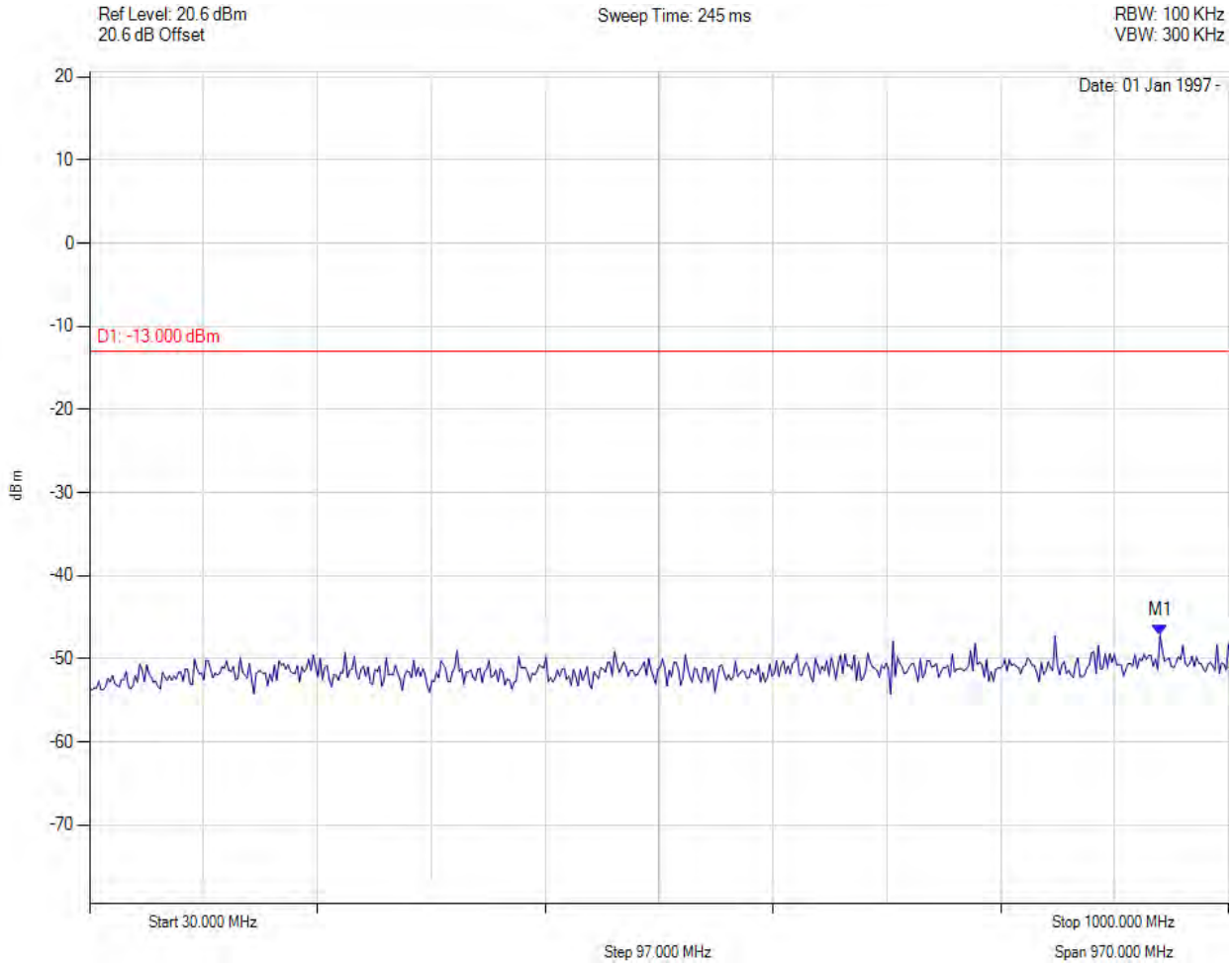


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 924.188 MHz : -48.343 dBm	Channel Frequency: 3655.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc

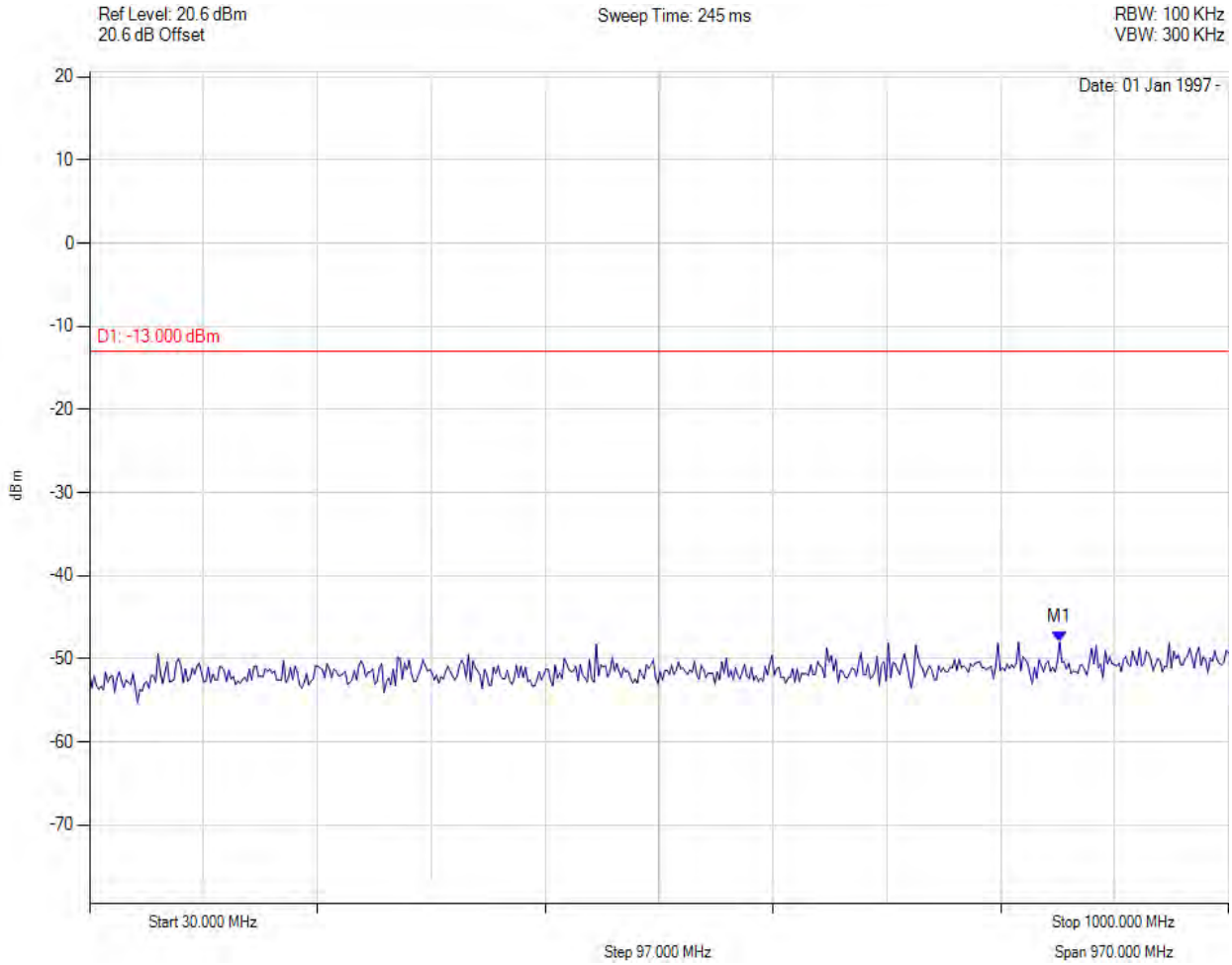


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 941.683 MHz : -47.143 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc

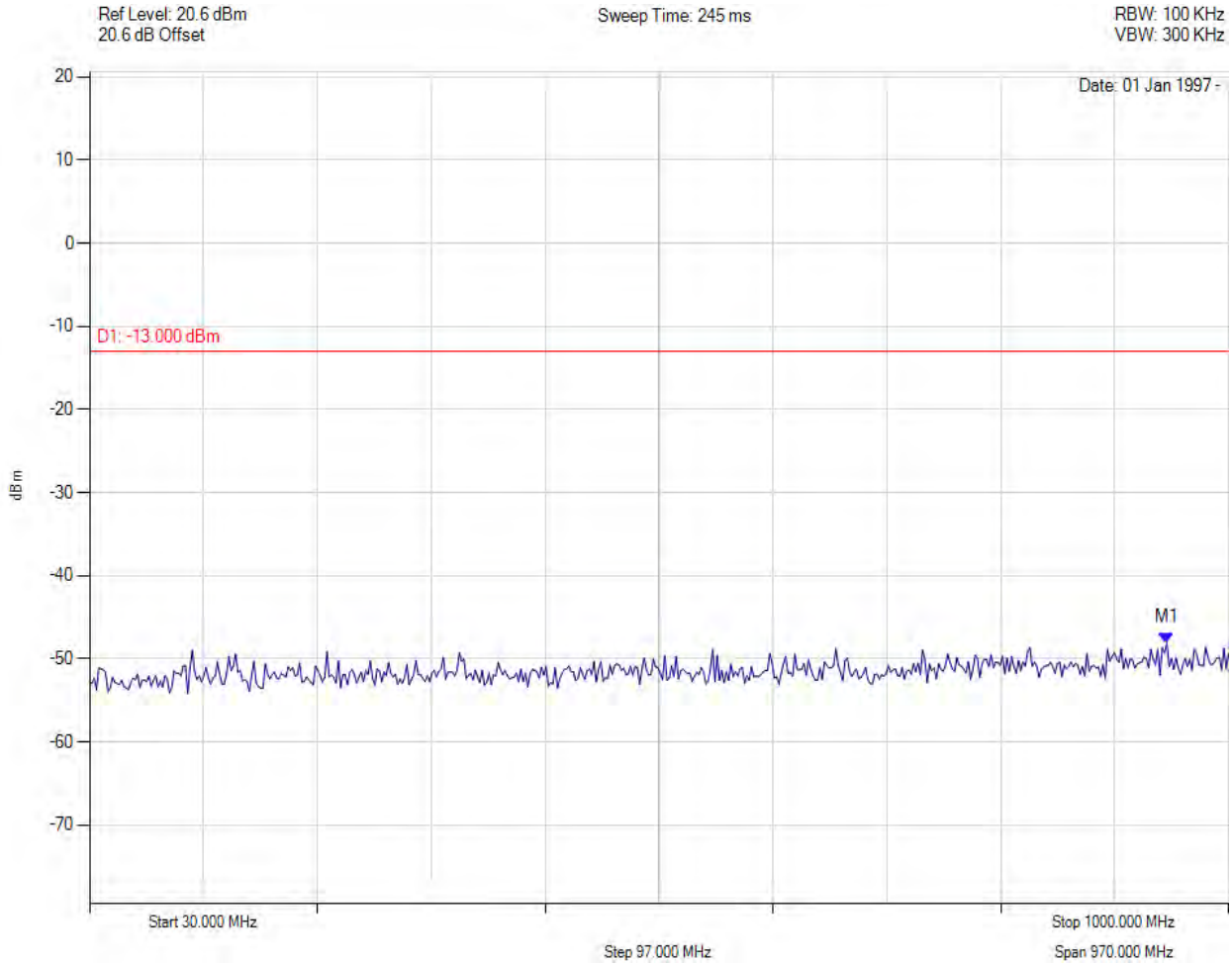


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 856.152 MHz : -47.977 dBm	Channel Frequency: 3670.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3655.00 MHz, Temp: 25, Voltage: 56 Vdc

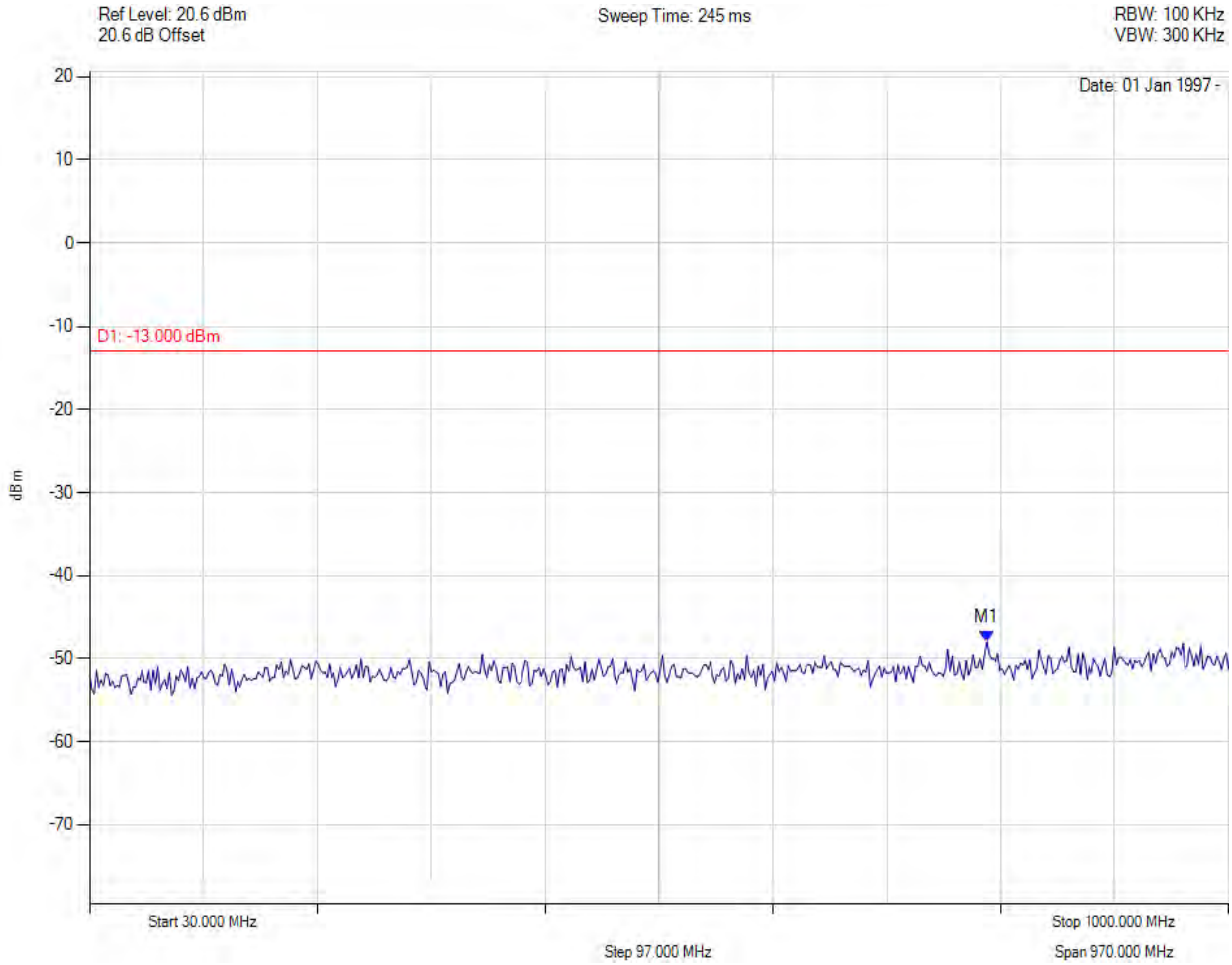


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 947.515 MHz : -48.040 dBm	Channel Frequency: 3655.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 793.948 MHz : -47.995 dBm	Channel Frequency: 3663.00 MHz

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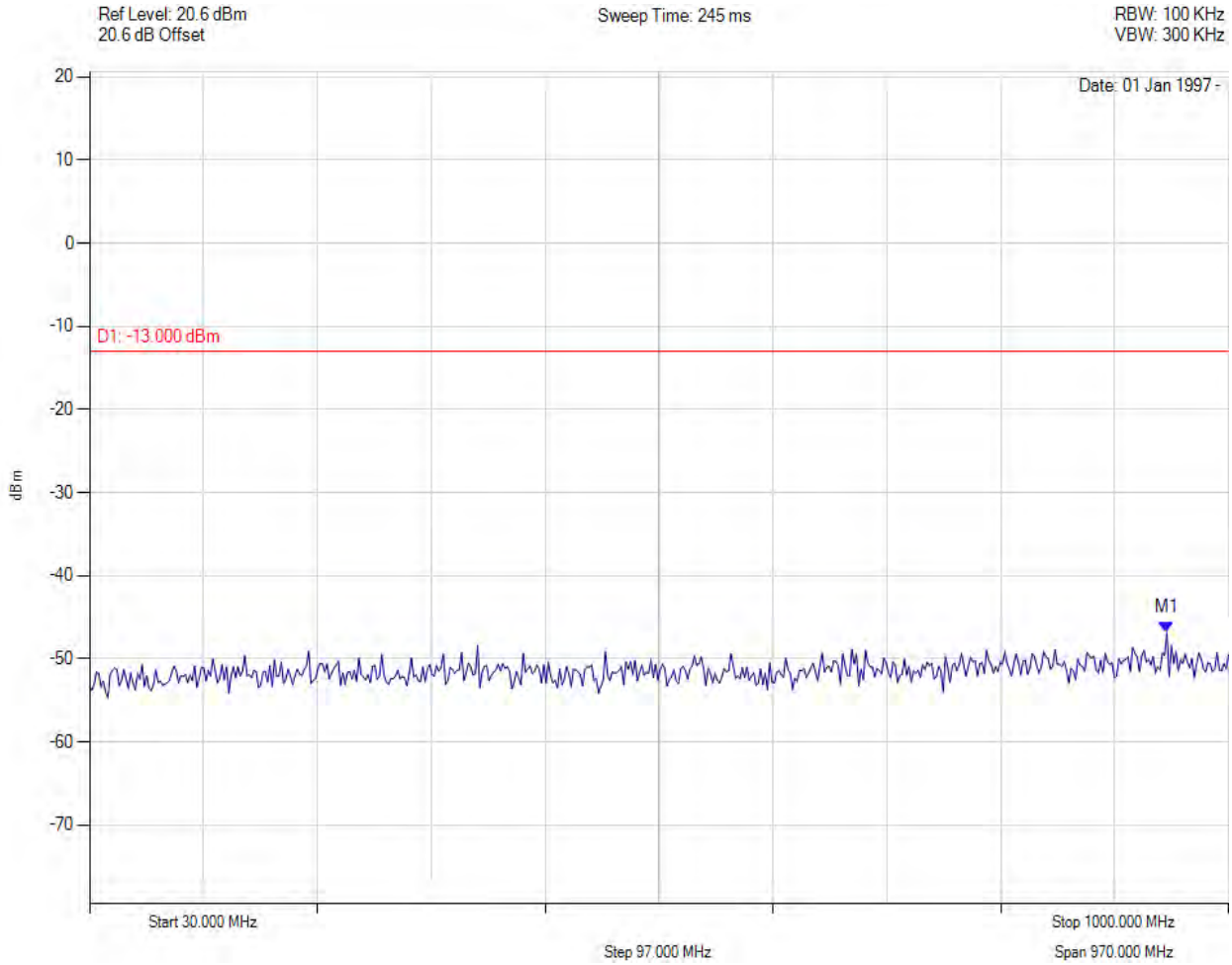
Transmitter Spurious Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc

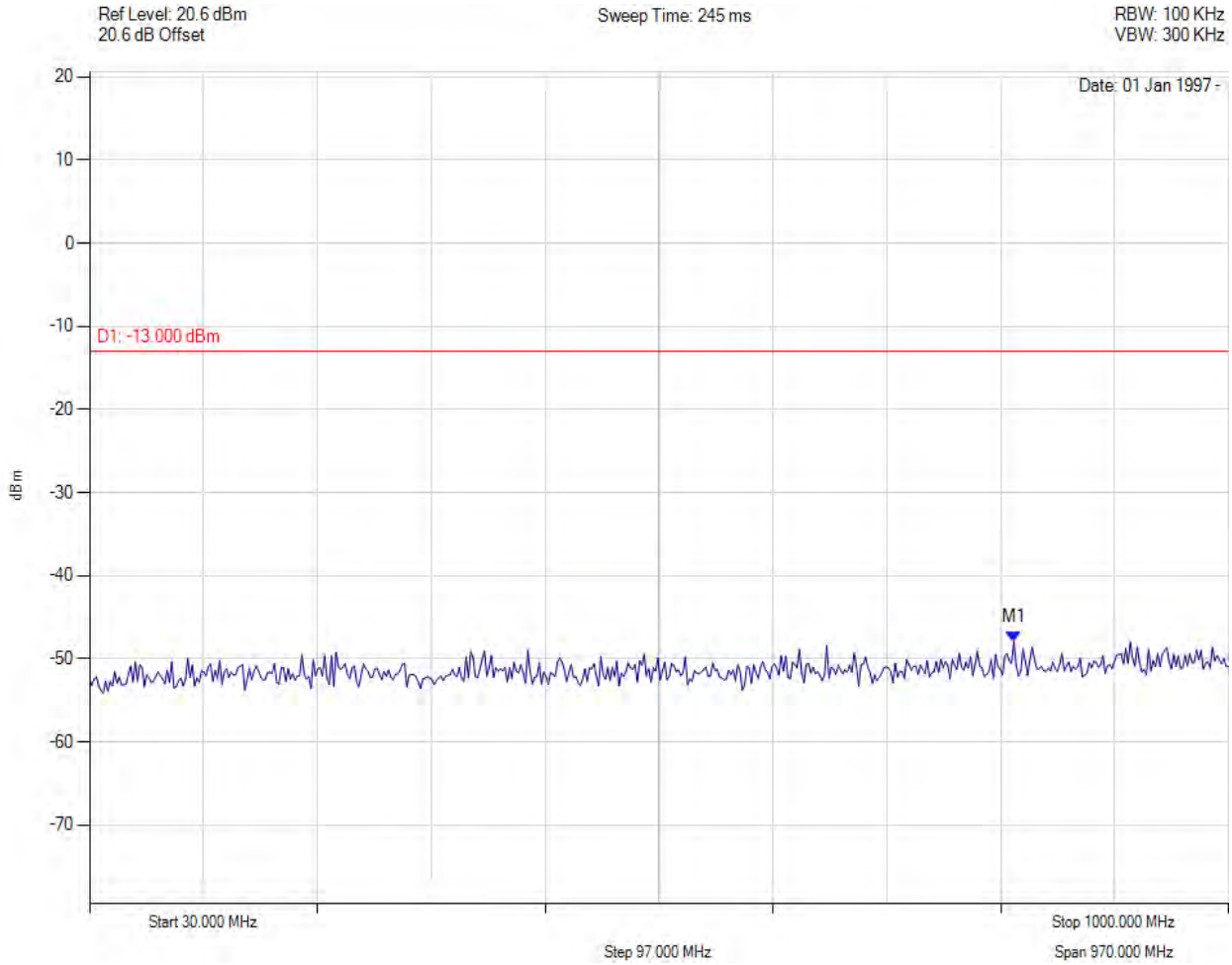


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 947.515 MHz : -46.825 dBm	Channel Frequency: 3670.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3655.00 MHz, Temp: 25, Voltage: 56 Vdc

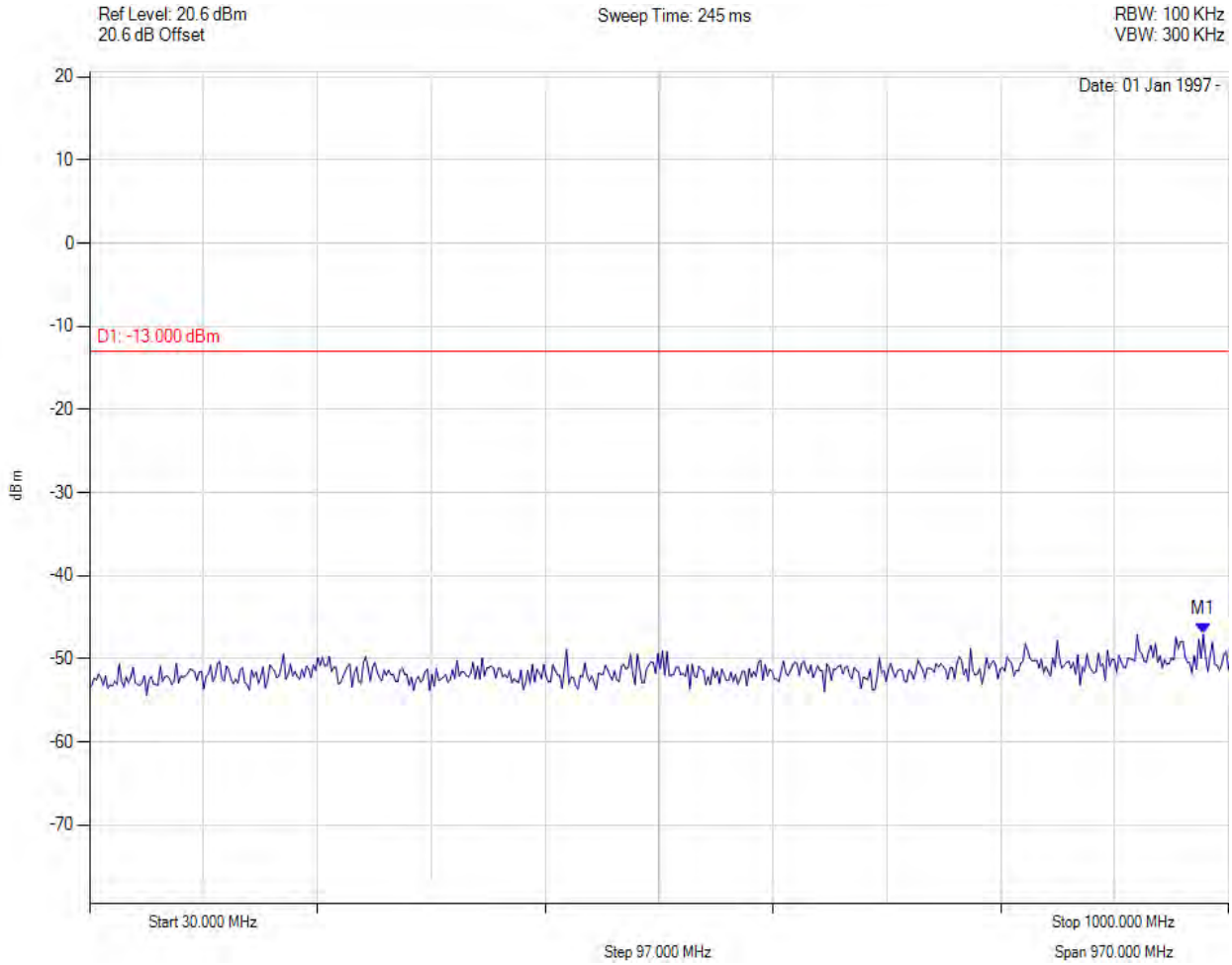


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 817.275 MHz : -47.938 dBm	Channel Frequency: 3655.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc

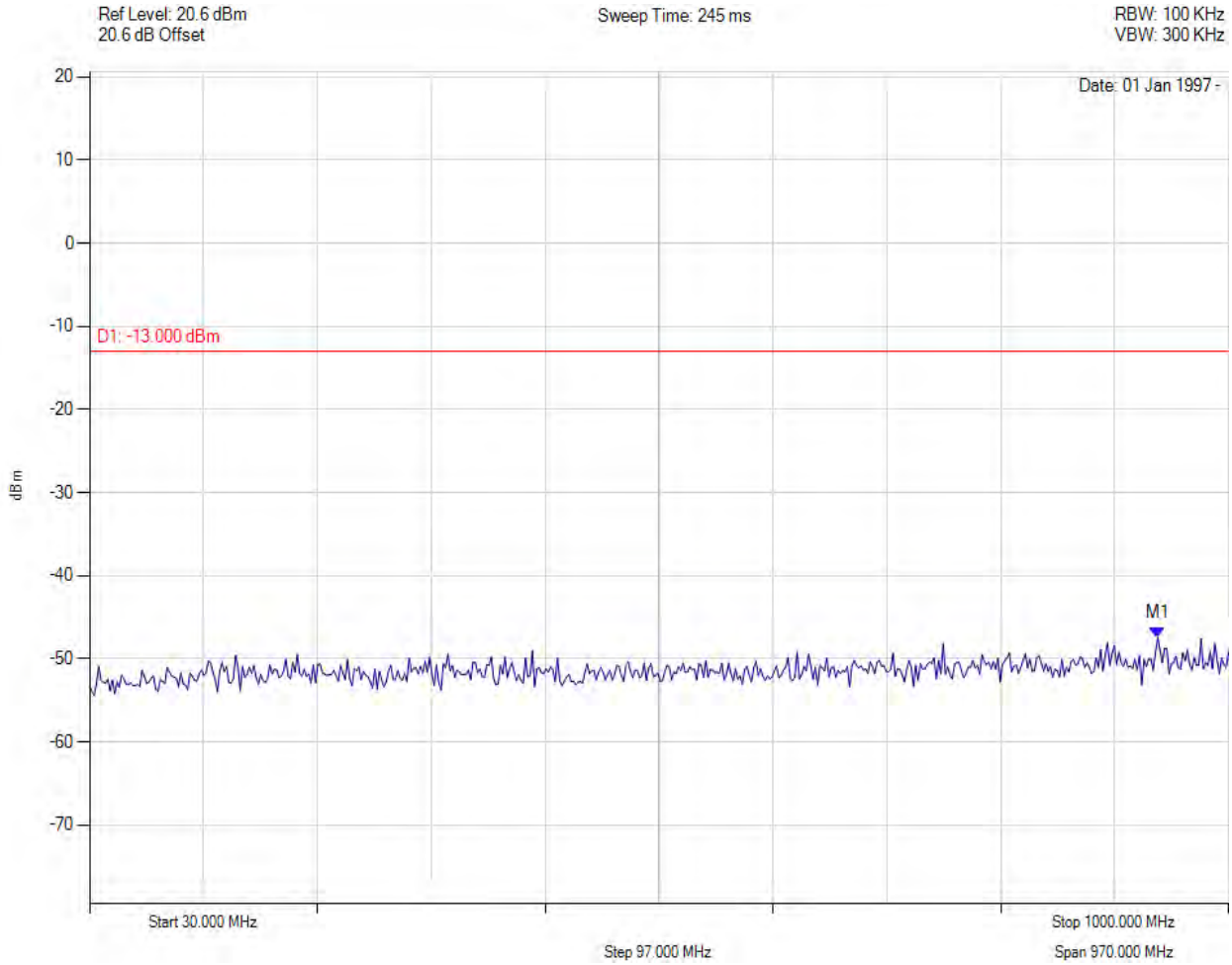


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 978.617 MHz : -47.033 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc

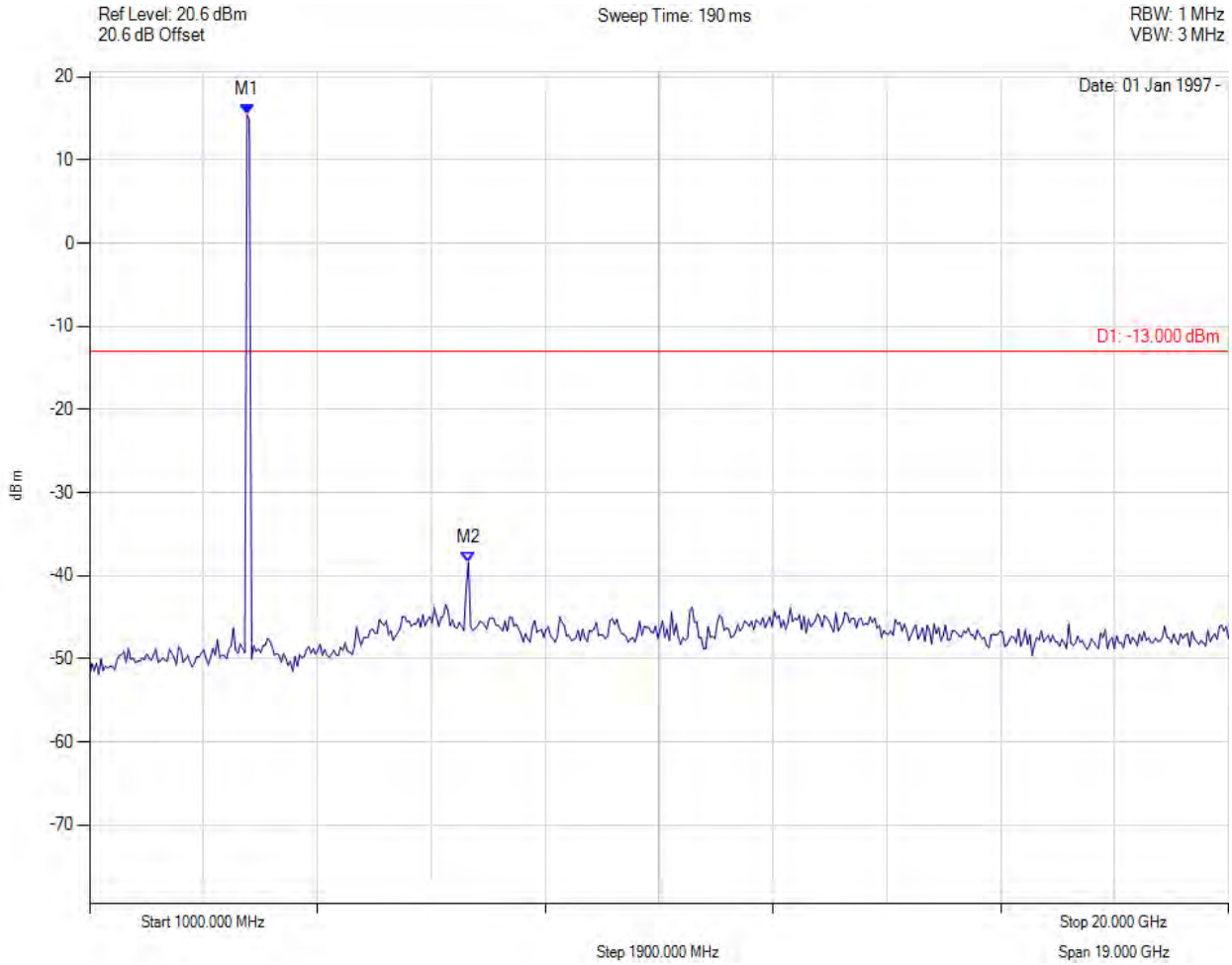


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 939.739 MHz : -47.448 dBm	Channel Frequency: 3670.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3655.00 MHz, Temp: 25, Voltage: 56 Vdc



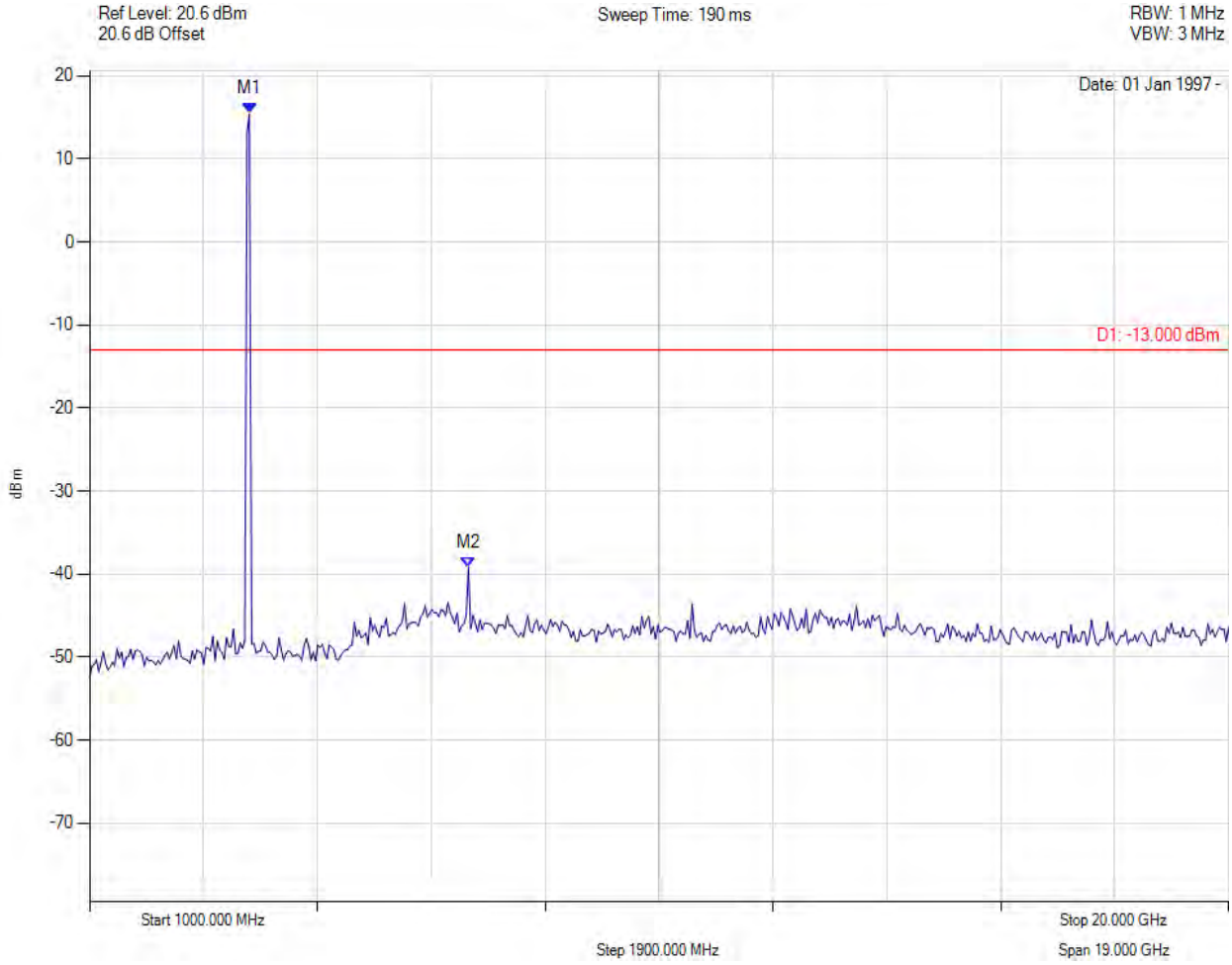
Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = CLR/WRITE	M1 : 3627.255 MHz : 15.463 dBm M2 : 7320.641 MHz : -38.390 dBm	Channel Frequency: 3655.00 MHz

Back to Matrix

The emissions breaking the limit line is the fundamental frequency

Transmitter Spurious Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc



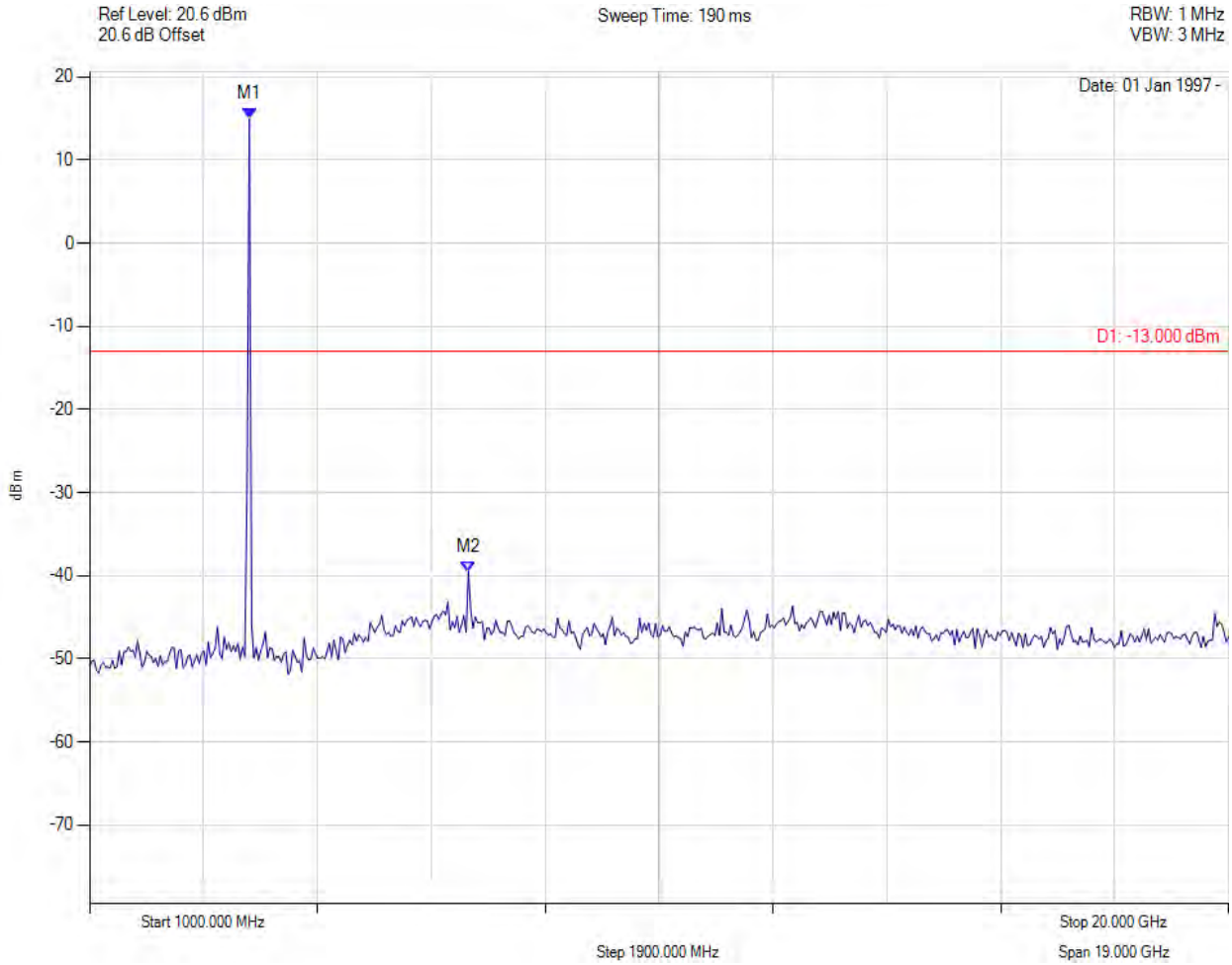
Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = CLR/WRITE	M1 : 3665.331 MHz : 15.441 dBm M2 : 7320.641 MHz : -39.220 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

The emissions breaking the limit line is the fundamental frequency

Transmitter Spurious Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc



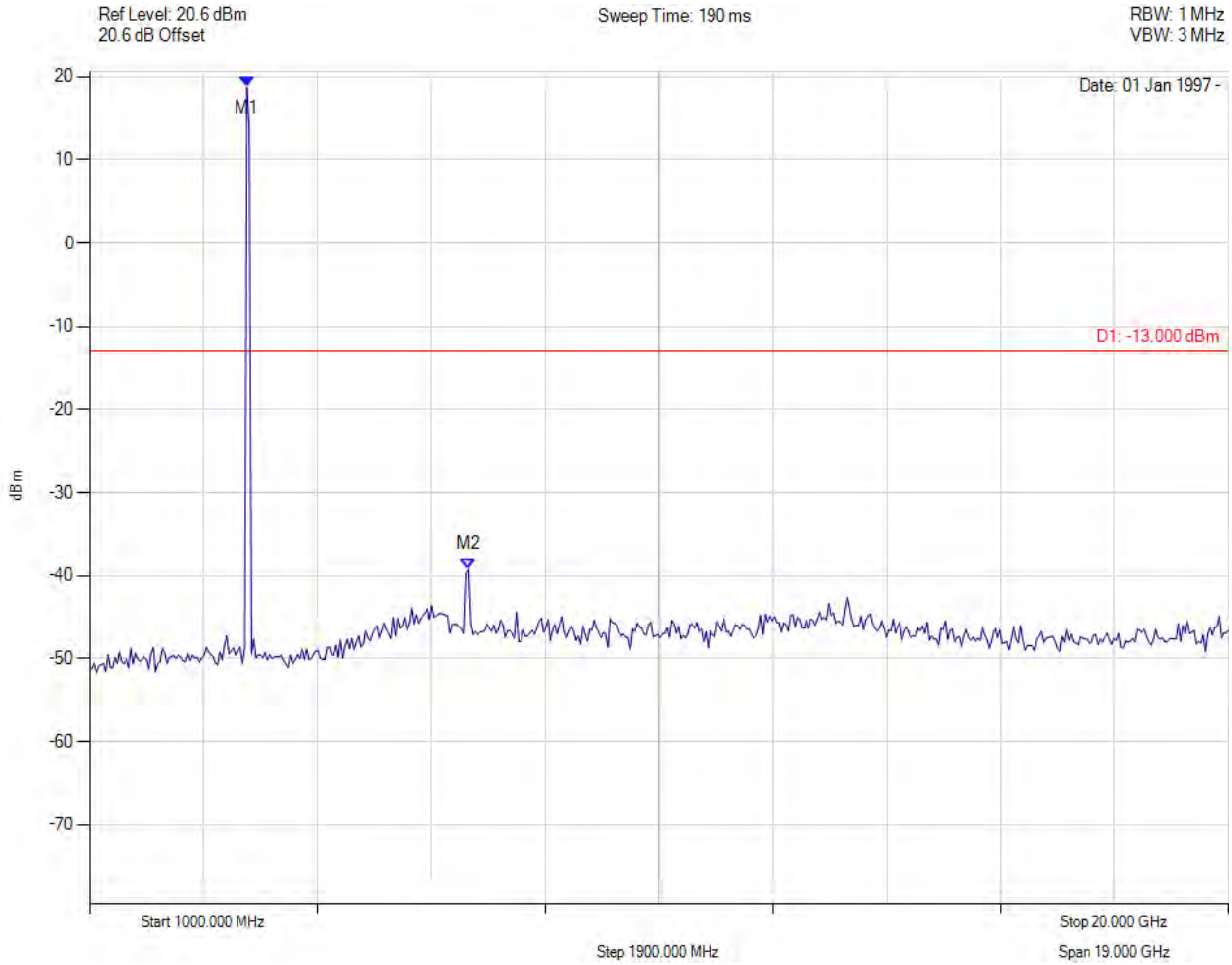
Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = CLR/WRITE	M1 : 3665.331 MHz : 14.963 dBm M2 : 7320.641 MHz : -39.544 dBm	Channel Frequency: 3670.00 MHz

Back to Matrix

The emissions breaking the limit line is the fundamental frequency

Transmitter Spurious Emissions

Variant: , Channel: 3655.00 MHz, Temp: 25, Voltage: 56 Vdc



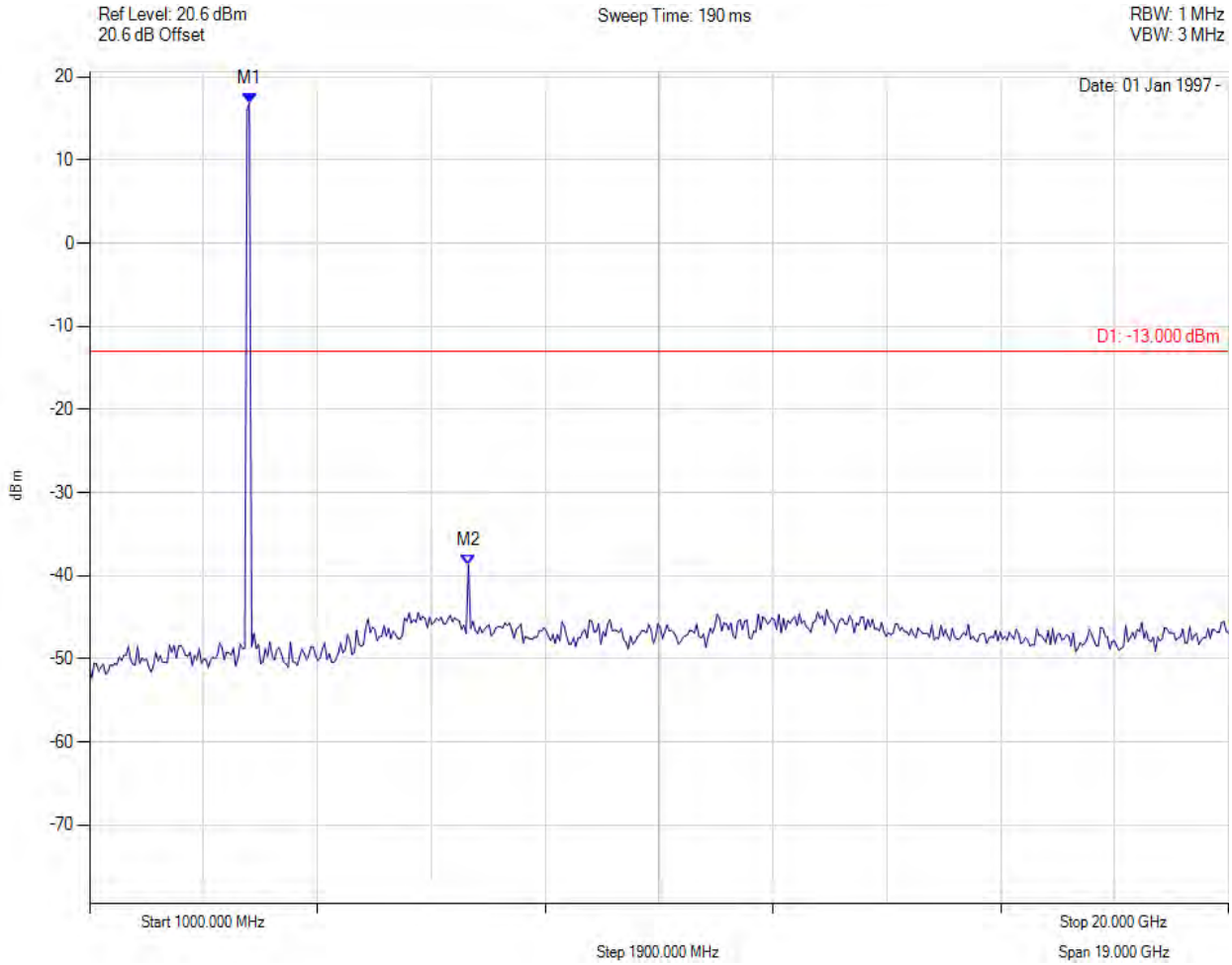
Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = CLR/WRITE	M1 : 3627.255 MHz : 18.737 dBm M2 : 7320.641 MHz : -39.267 dBm	Channel Frequency: 3655.00 MHz

Back to Matrix

The emissions breaking the limit line is the fundamental frequency

Transmitter Spurious Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = CLR/WRITE	M1 : 3665.331 MHz : 16.852 dBm M2 : 7320.641 MHz : -38.665 dBm	Channel Frequency: 3663.00 MHz

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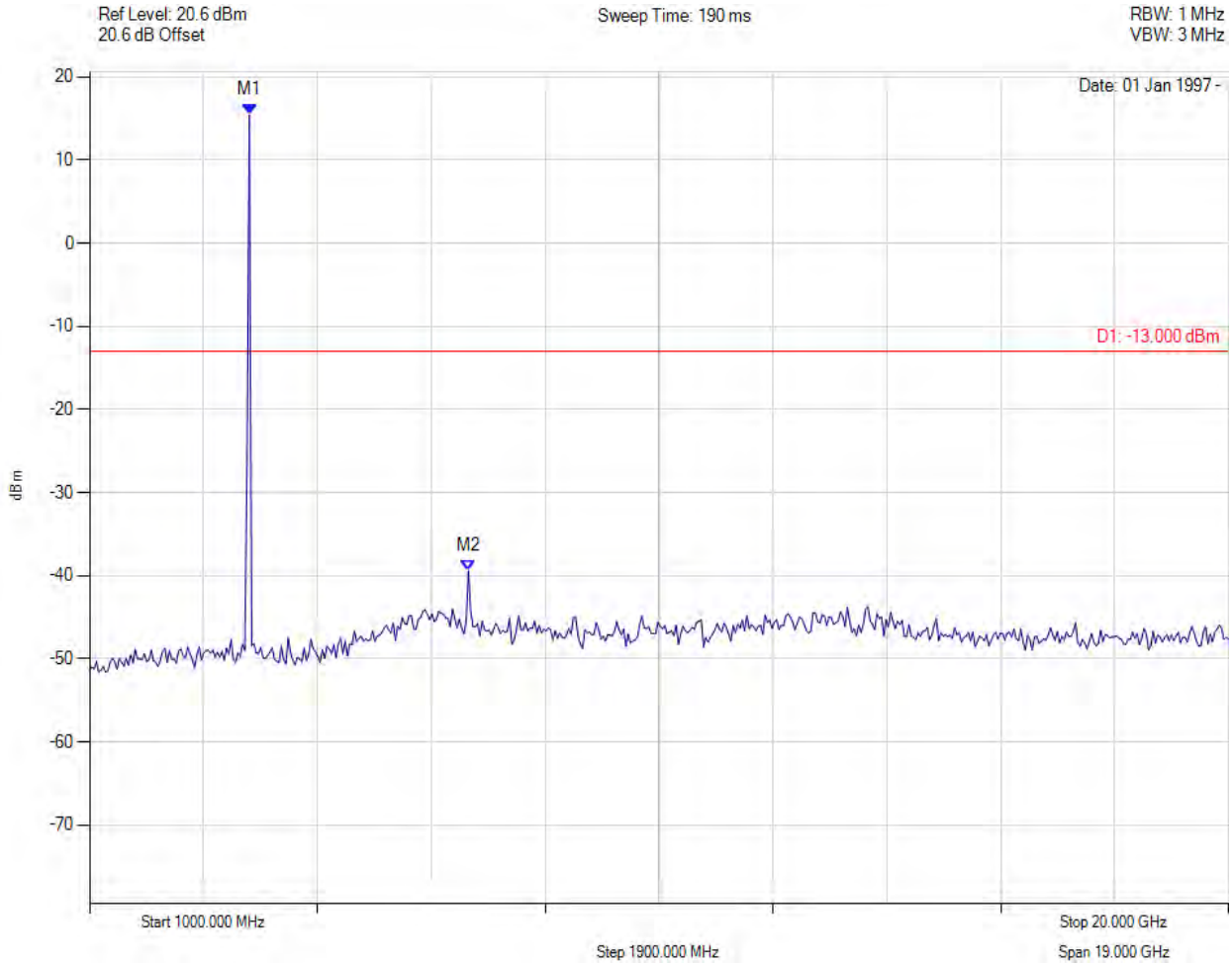
The emissions breaking the limit line is the fundamental frequency

Transmitter Spurious Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = CLR/WRITE	M1 : 3665.331 MHz : 15.433 dBm M2 : 7320.641 MHz : -39.462 dBm	Channel Frequency: 3670.00 MHz

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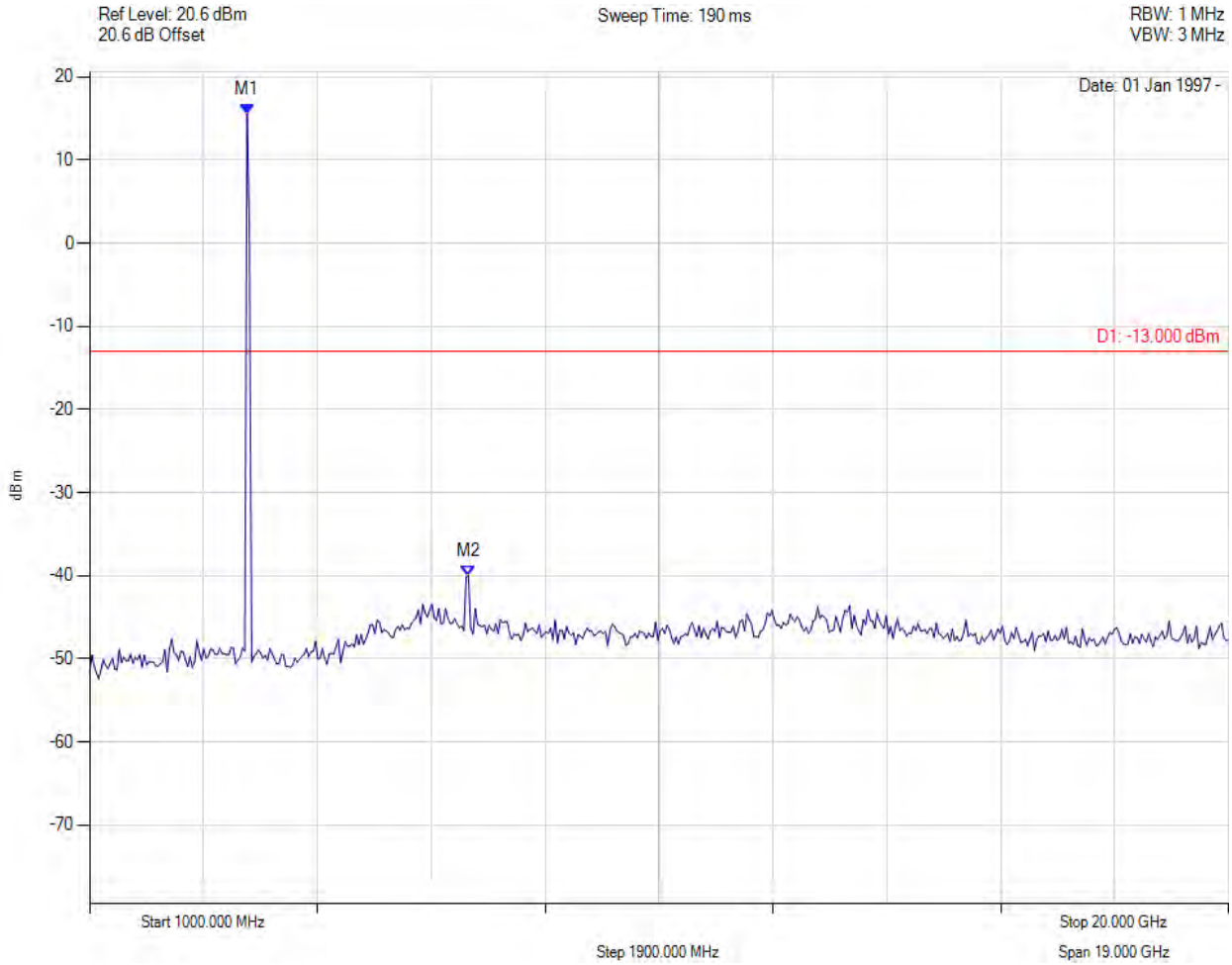
The emissions breaking the limit line is the fundamental frequency

Transmitter Spurious Emissions

Variant: , Channel: 3655.00 MHz, Temp: 25, Voltage: 56 Vdc



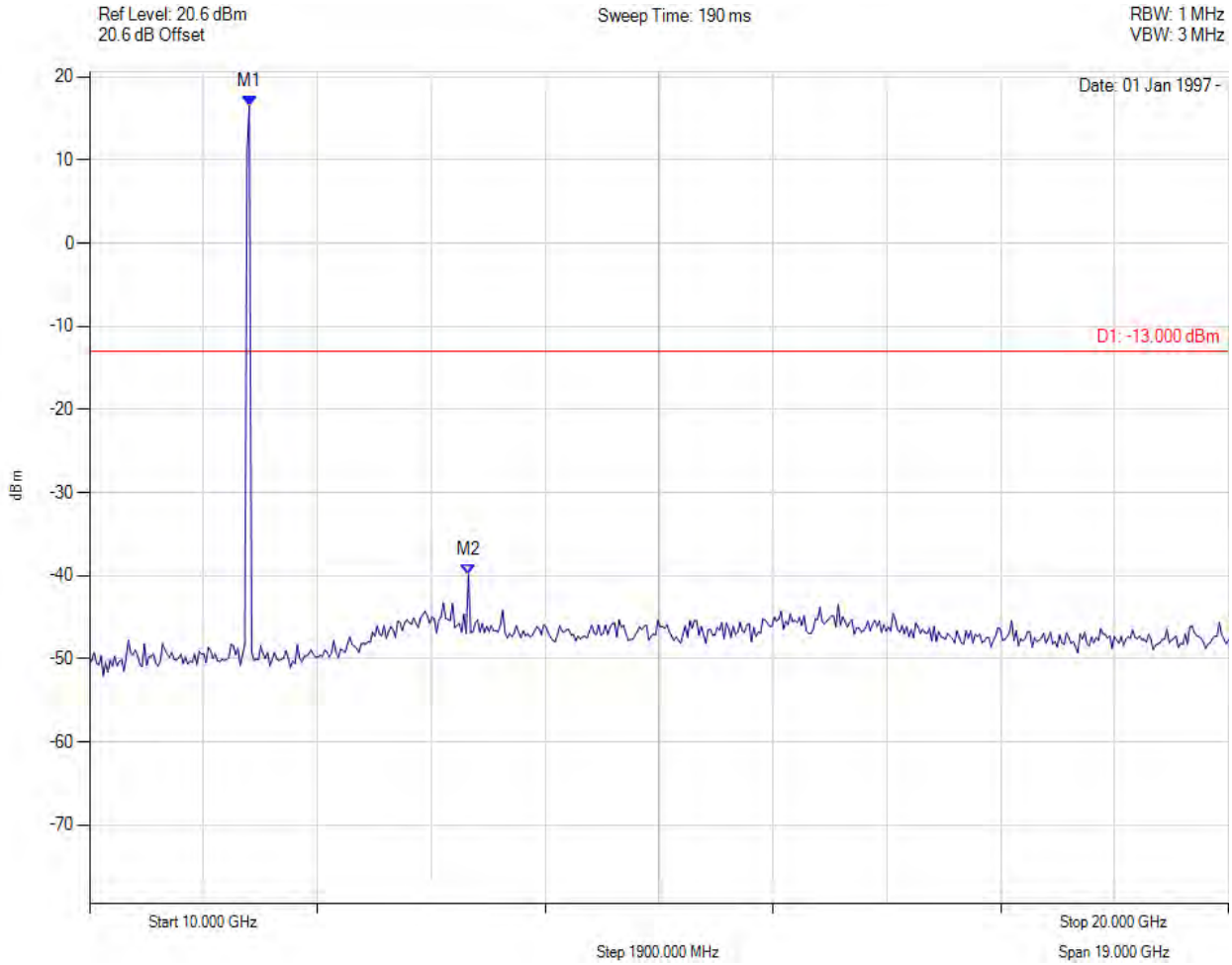
Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = CLR/WRITE	M1 : 3627.255 MHz : 15.536 dBm M2 : 7320.641 MHz : -39.995 dBm	Channel Frequency: 3655.00 MHz

Back to Matrix

The emissions breaking the limit line is the fundamental frequency

Transmitter Spurious Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc



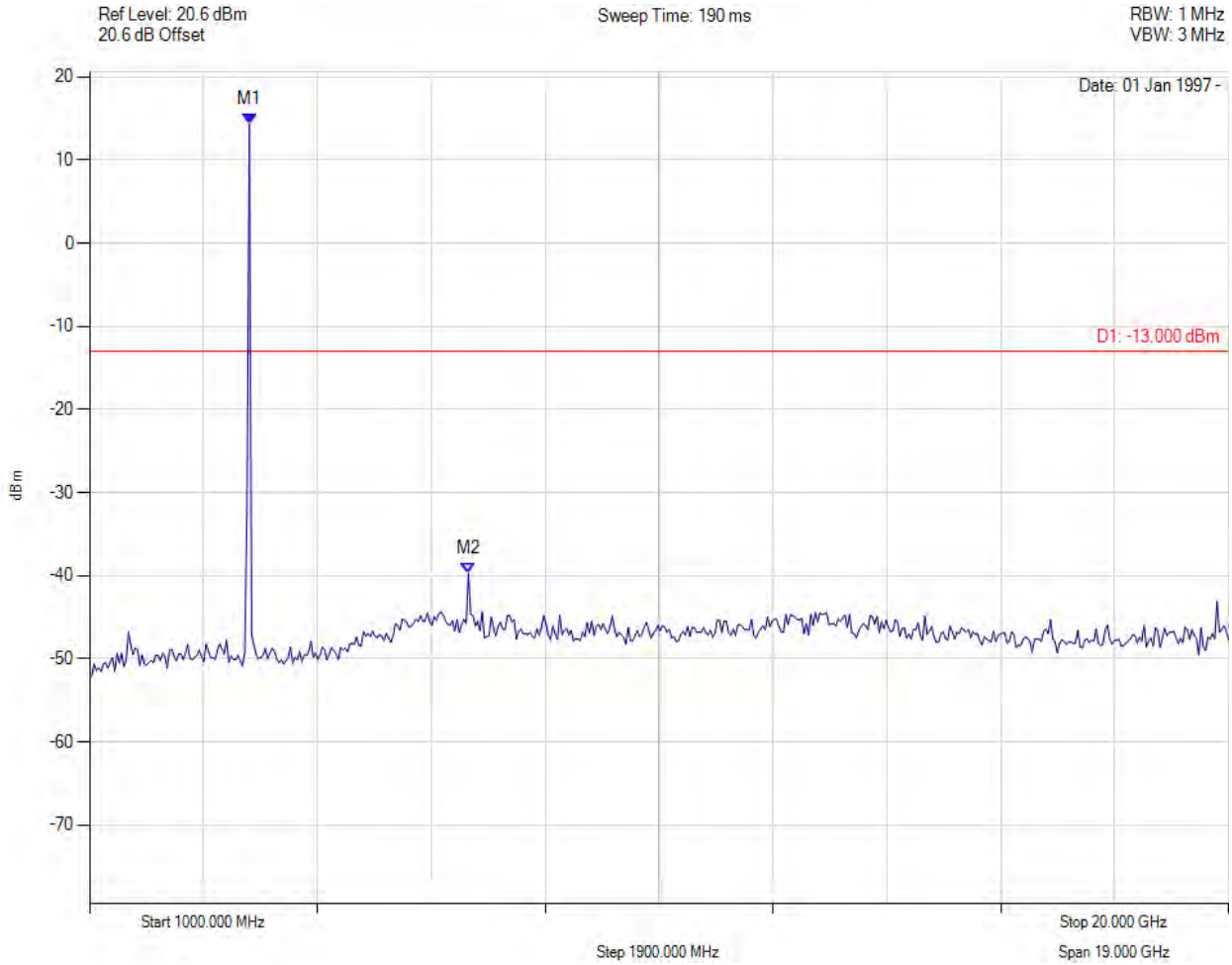
Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = CLR/WRITE	M1 : 3665.331 MHz : 16.531 dBm M2 : 7320.641 MHz : -39.893 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

The emissions breaking the limit line is the fundamental frequency

Transmitter Spurious Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc



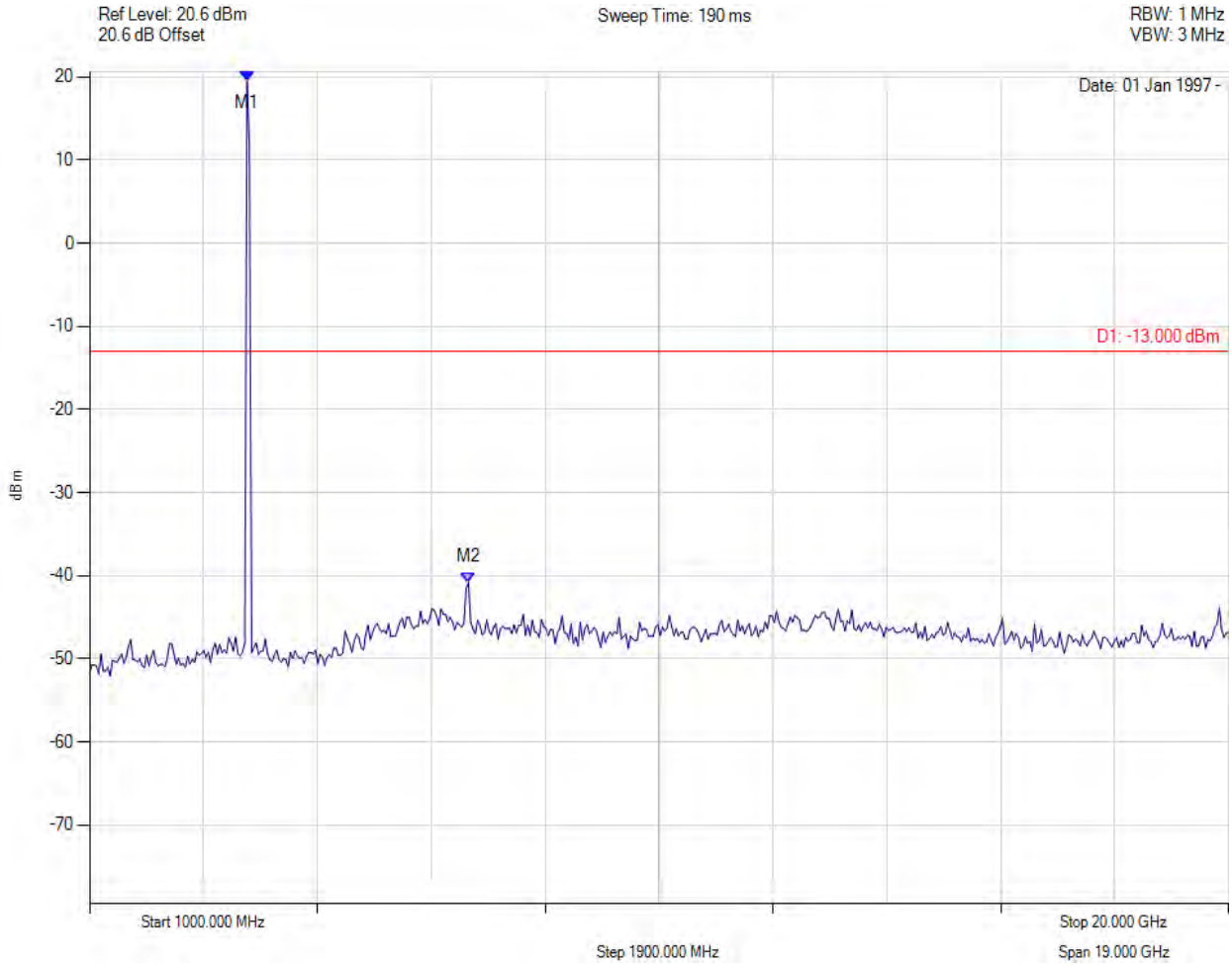
Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = CLR/WRITE	M1 : 3665.331 MHz : 14.349 dBm M2 : 7320.641 MHz : -39.747 dBm	Channel Frequency: 3670.00 MHz

Back to Matrix

The emissions breaking the limit line is the fundamental frequency

Transmitter Spurious Emissions

Variant: , Channel: 3655.00 MHz, Temp: 25, Voltage: 56 Vdc



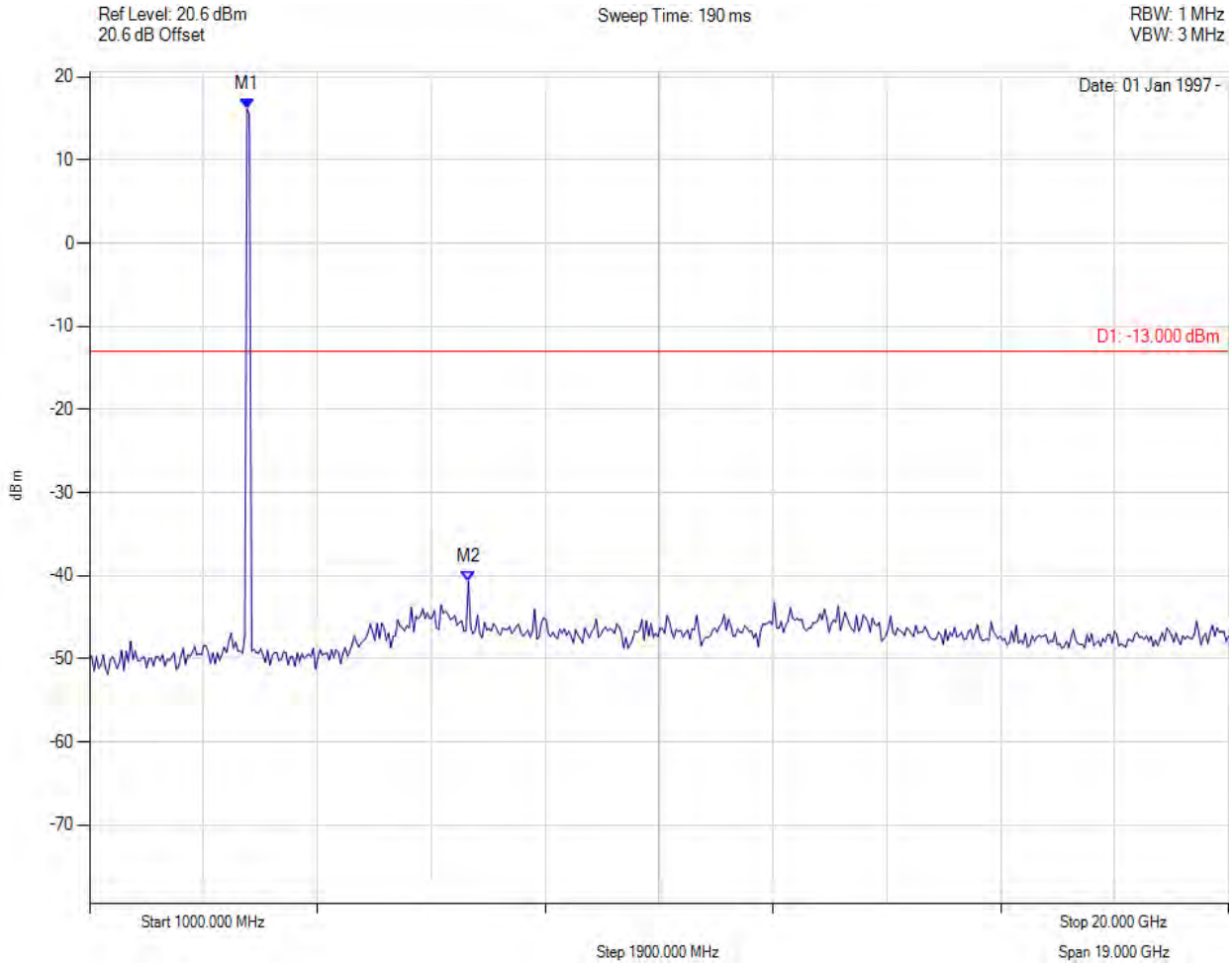
Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = CLR/WRITE	M1 : 3627.255 MHz : 19.451 dBm M2 : 7320.641 MHz : -40.796 dBm	Channel Frequency: 3655.00 MHz

Back to Matrix

The emissions breaking the limit line is the fundamental frequency

Transmitter Spurious Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc



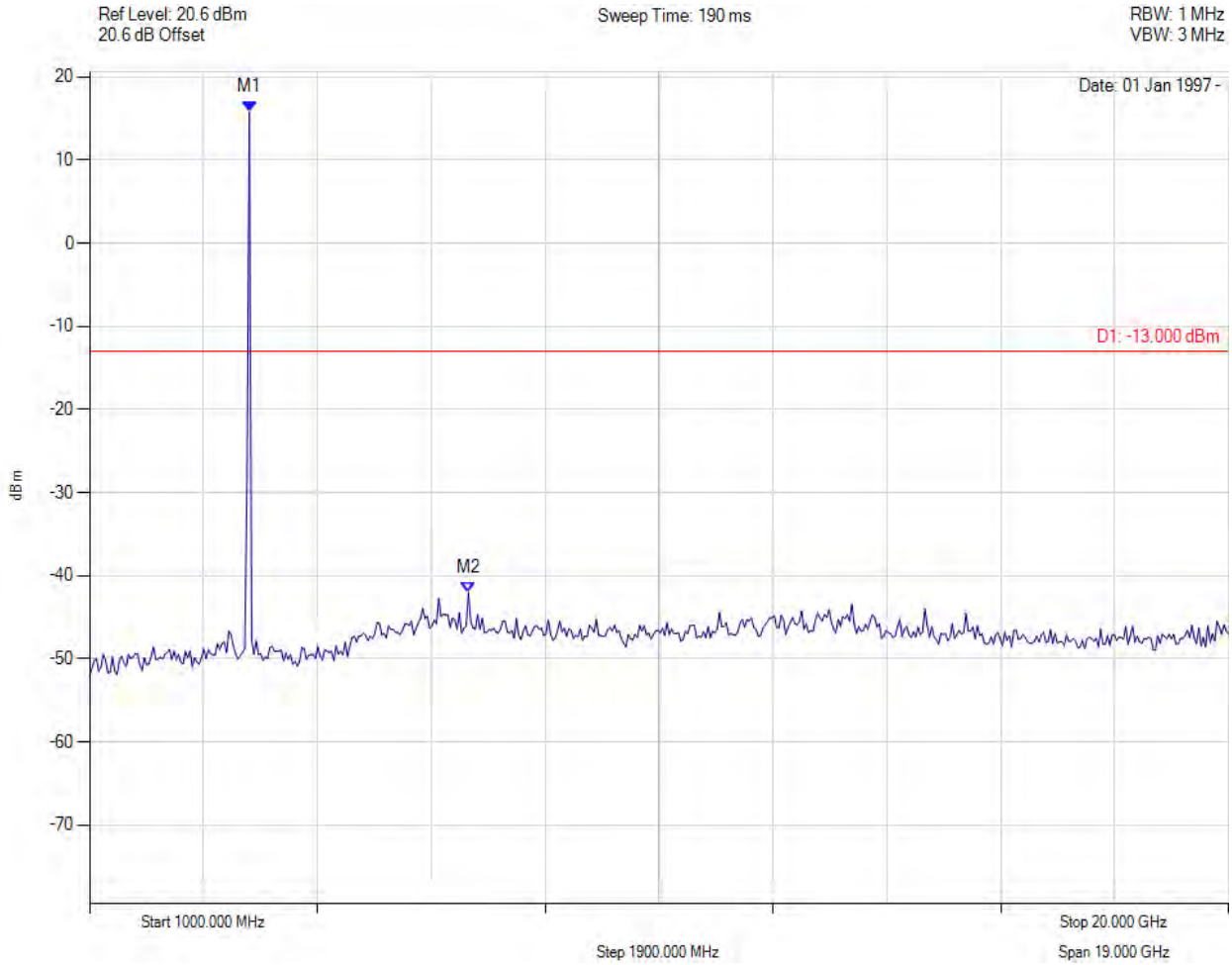
Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = CLR/WRITE	M1 : 3627.255 MHz : 16.151 dBm M2 : 7320.641 MHz : -40.654 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

The emissions breaking the limit line is the fundamental frequency

Transmitter Spurious Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc



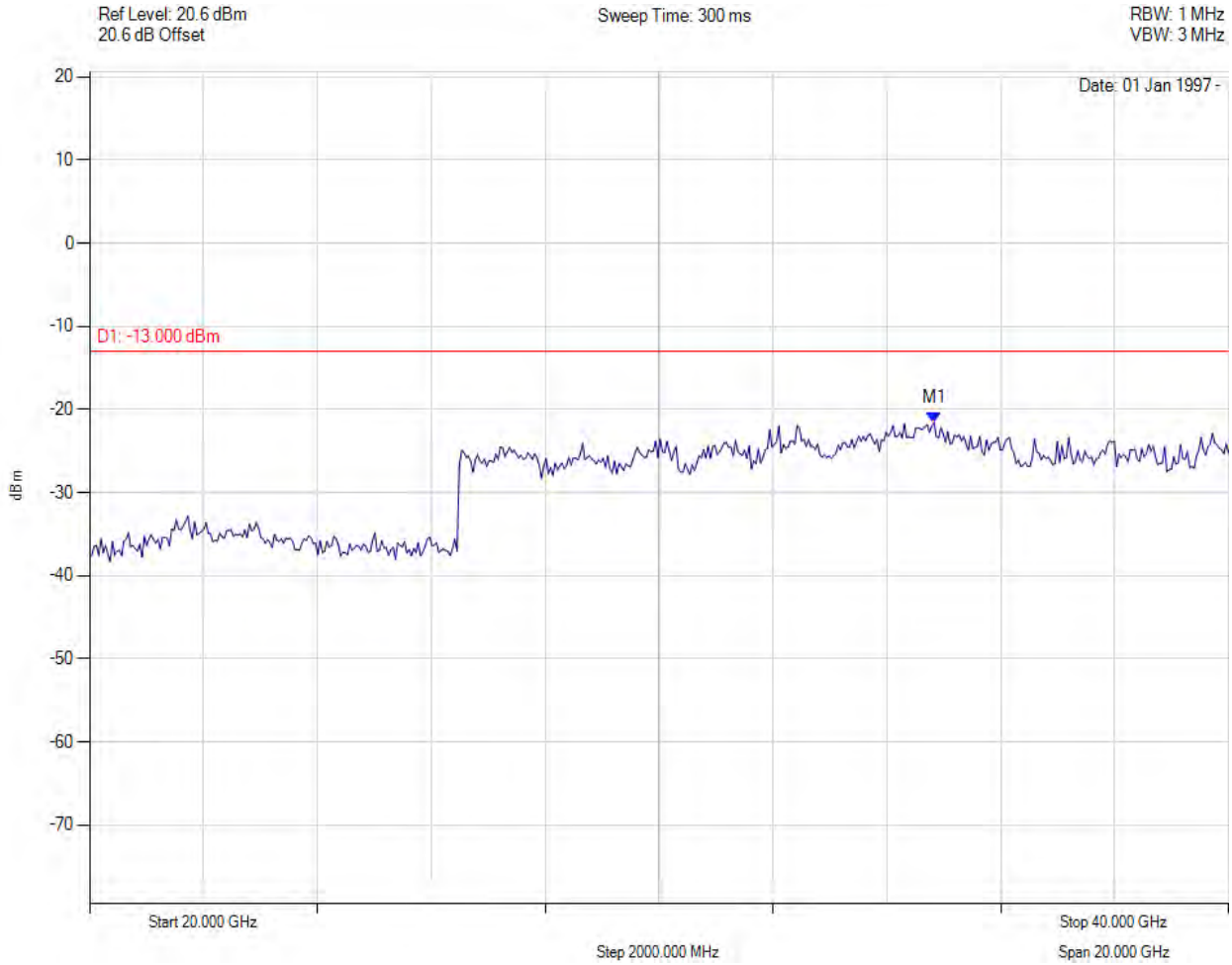
Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = CLR/WRITE	M1 : 3665.331 MHz : 15.782 dBm M2 : 7320.641 MHz : -42.043 dBm	Channel Frequency: 3670.00 MHz

Back to Matrix

The emissions breaking the limit line is the fundamental frequency

Transmitter Spurious Emissions

Variant: , Channel: 3655.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 34.830 GHz : -21.590 dBm	Channel Frequency: 3655.00 MHz

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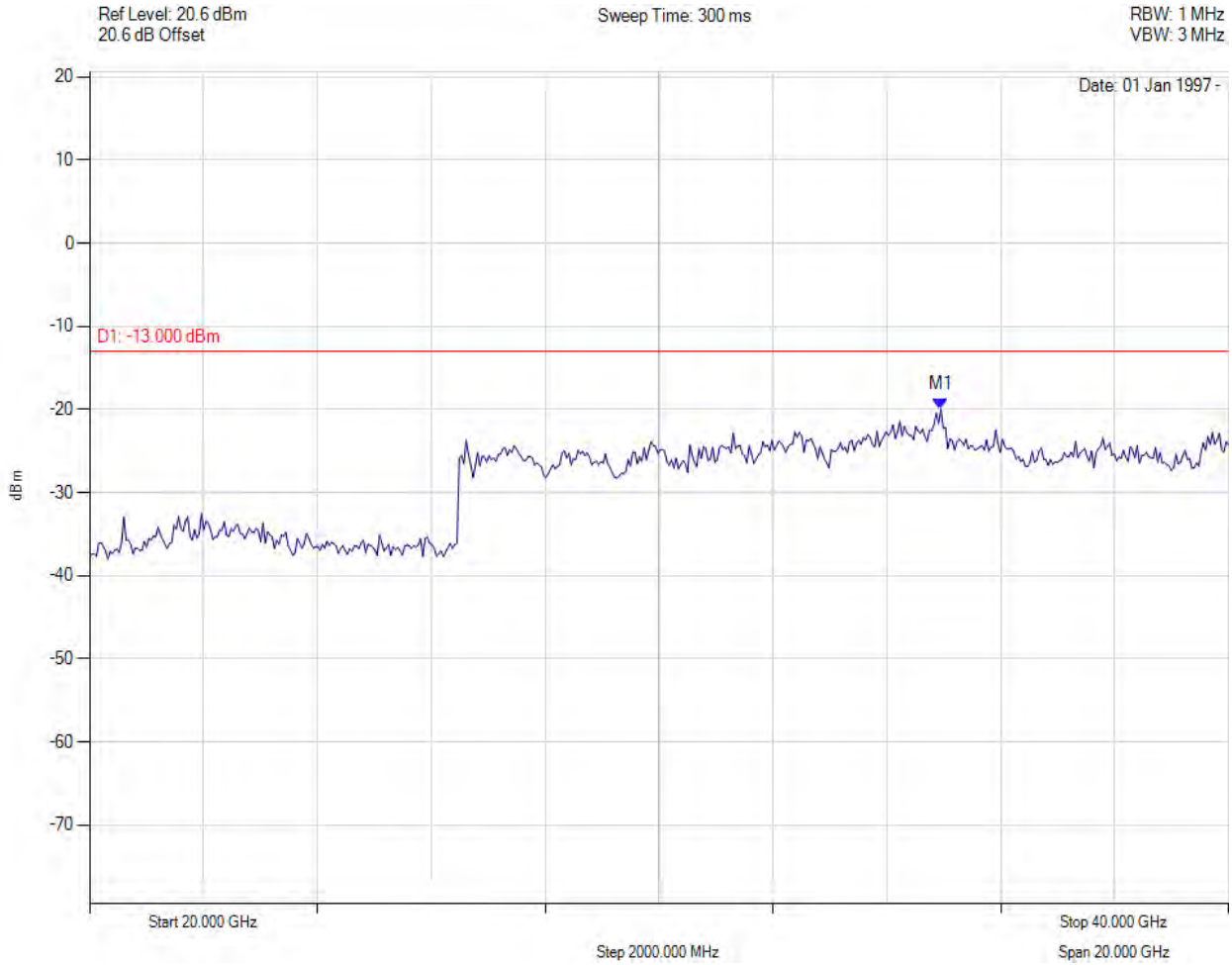
Transmitter Spurious Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 34.950 GHz : -19.979 dBm	Channel Frequency: 3663.00 MHz

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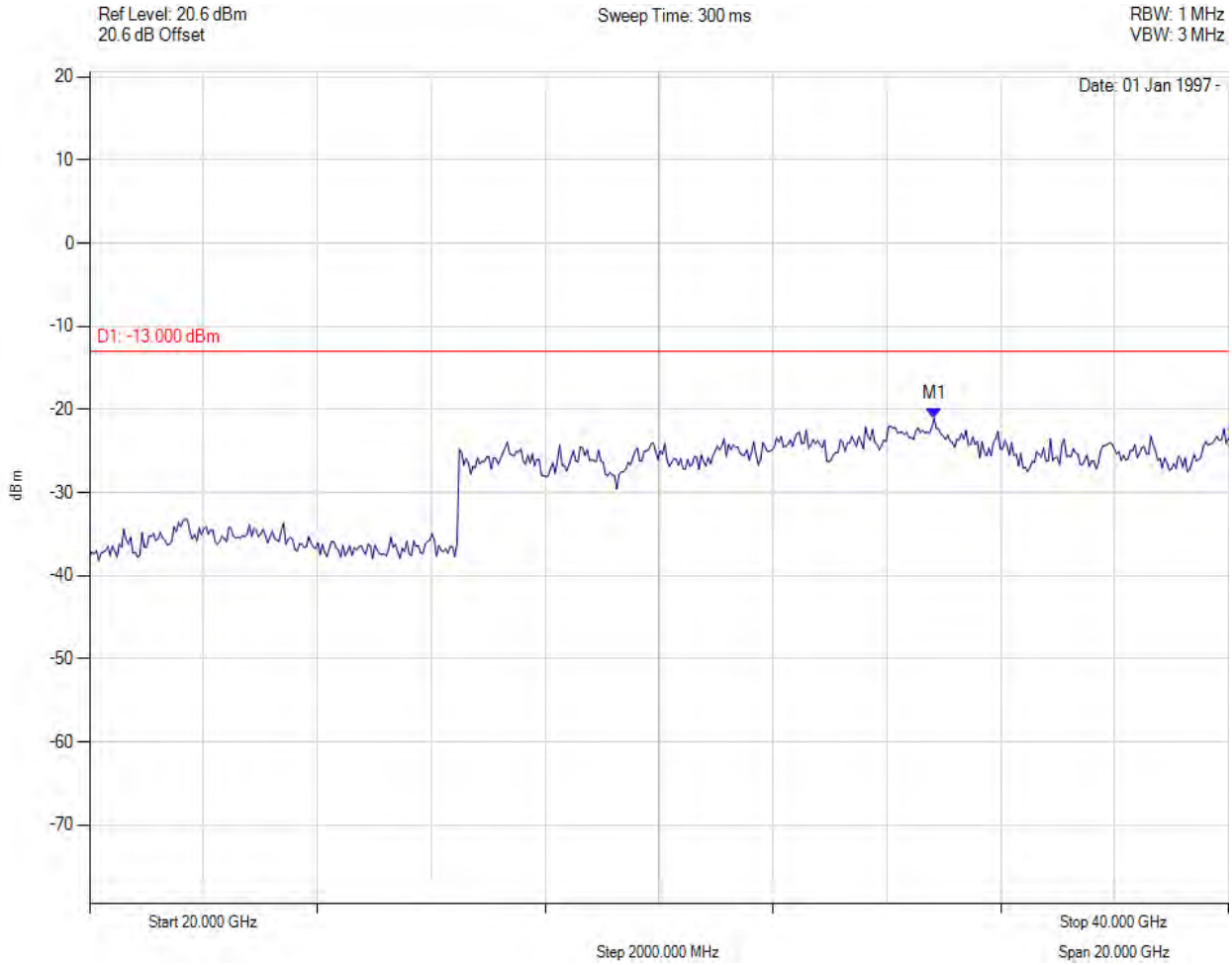
Transmitter Spurious Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 34.830 GHz : -21.043 dBm	Channel Frequency: 3670.00 MHz

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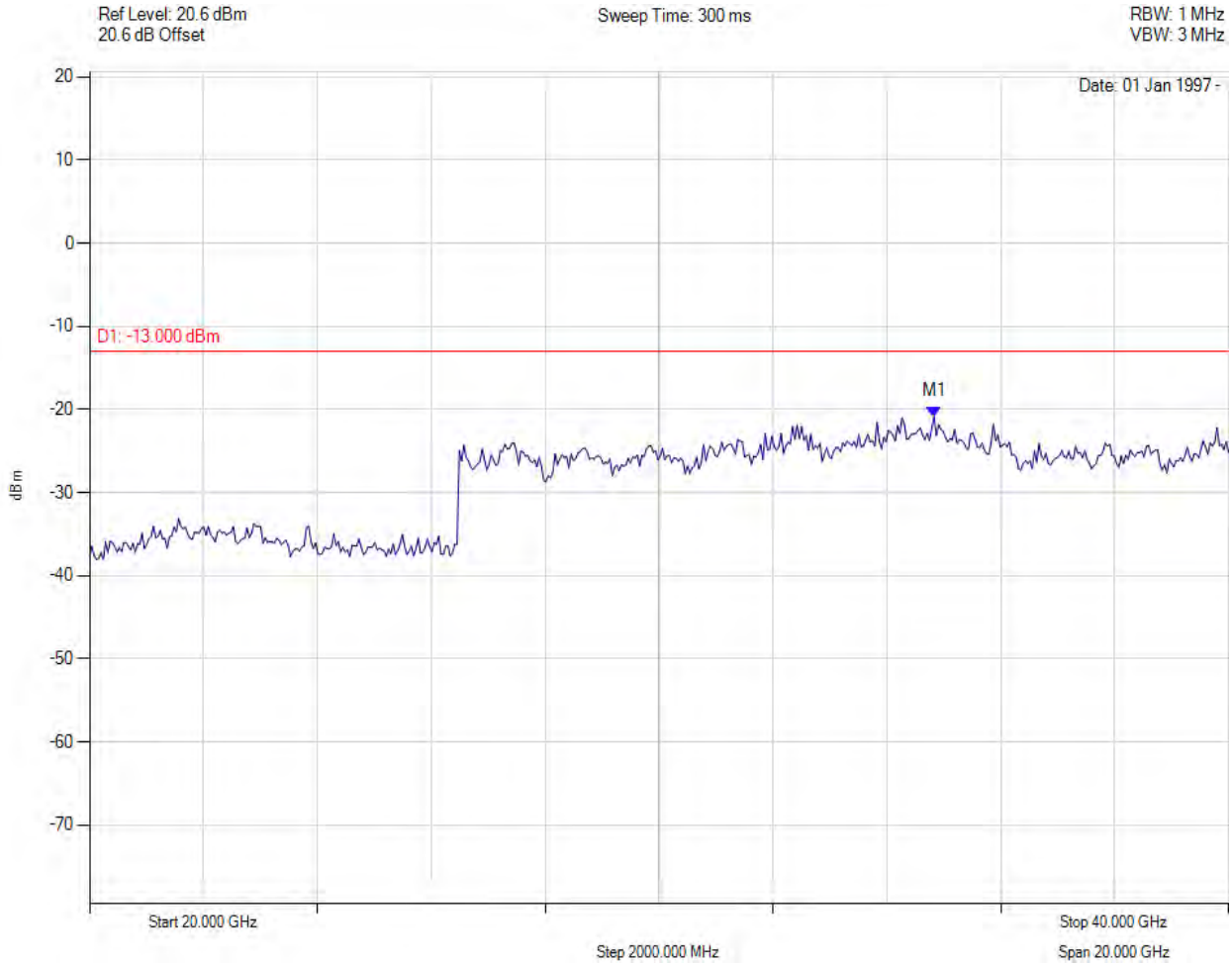
Transmitter Spurious Emissions

Variant: , Channel: 3655.00 MHz, Temp: 25, Voltage: 56 Vdc

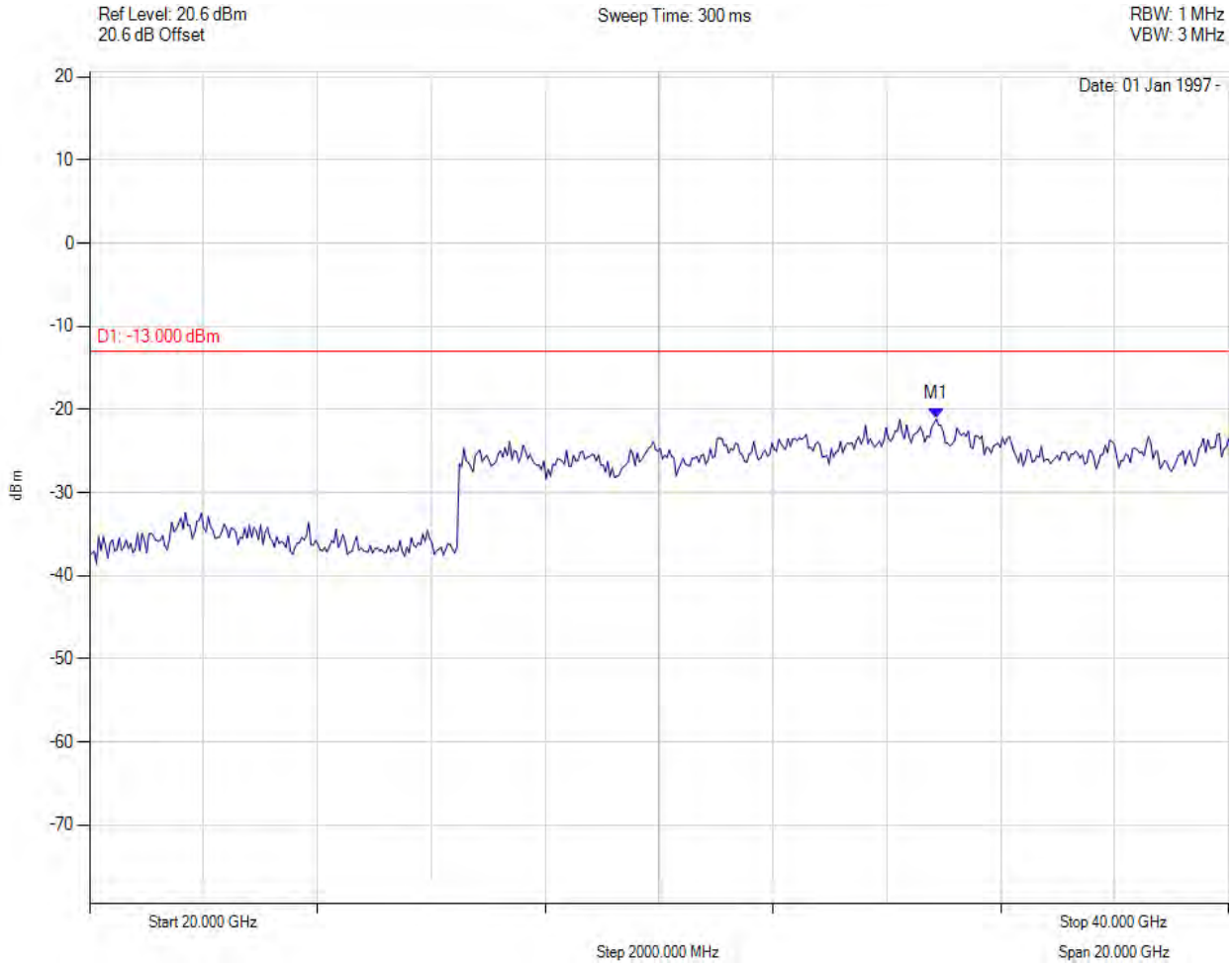


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 34.830 GHz : -20.853 dBm	Channel Frequency: 3655.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc

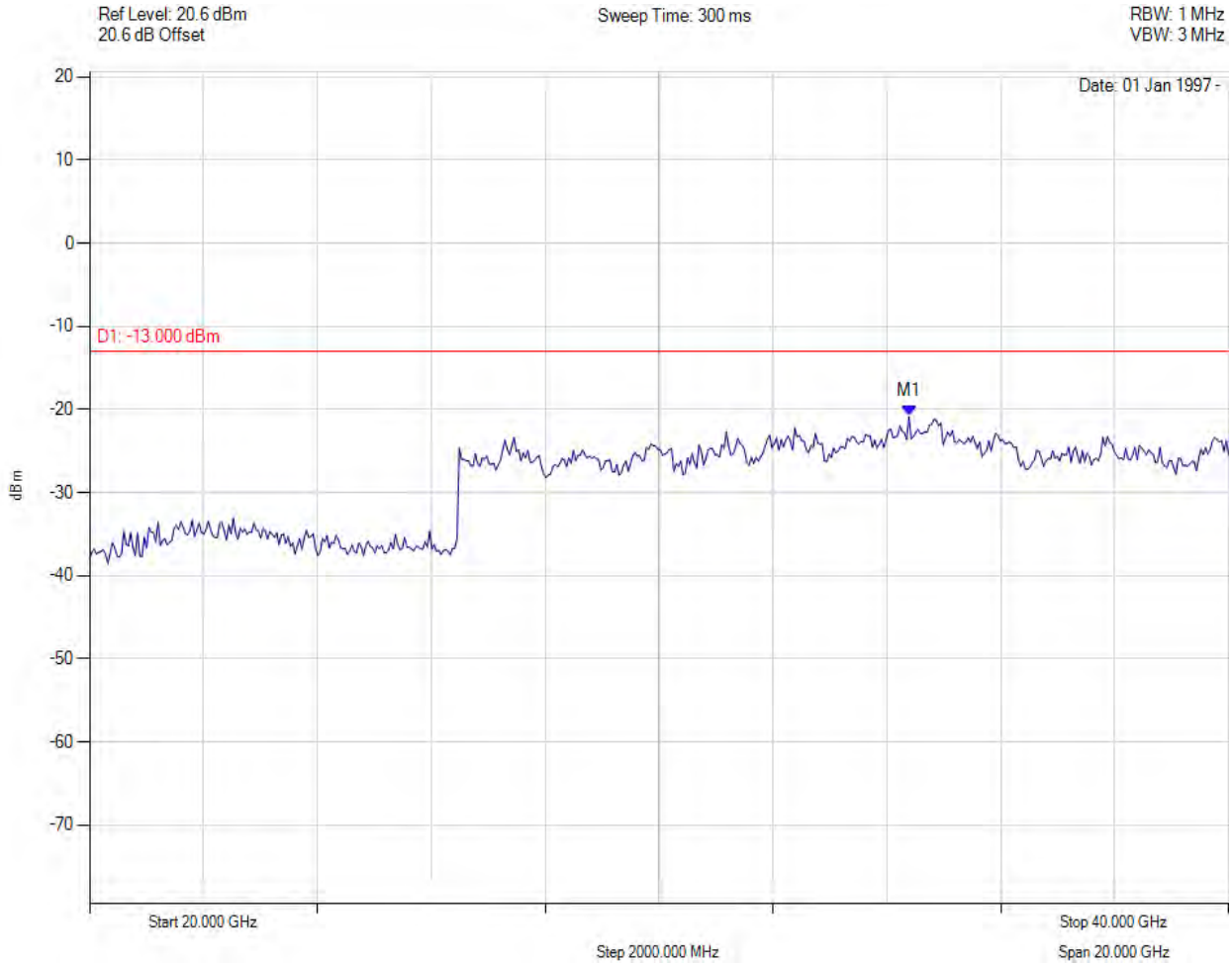


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 34.870 GHz : -21.138 dBm	Channel Frequency: 3663.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc

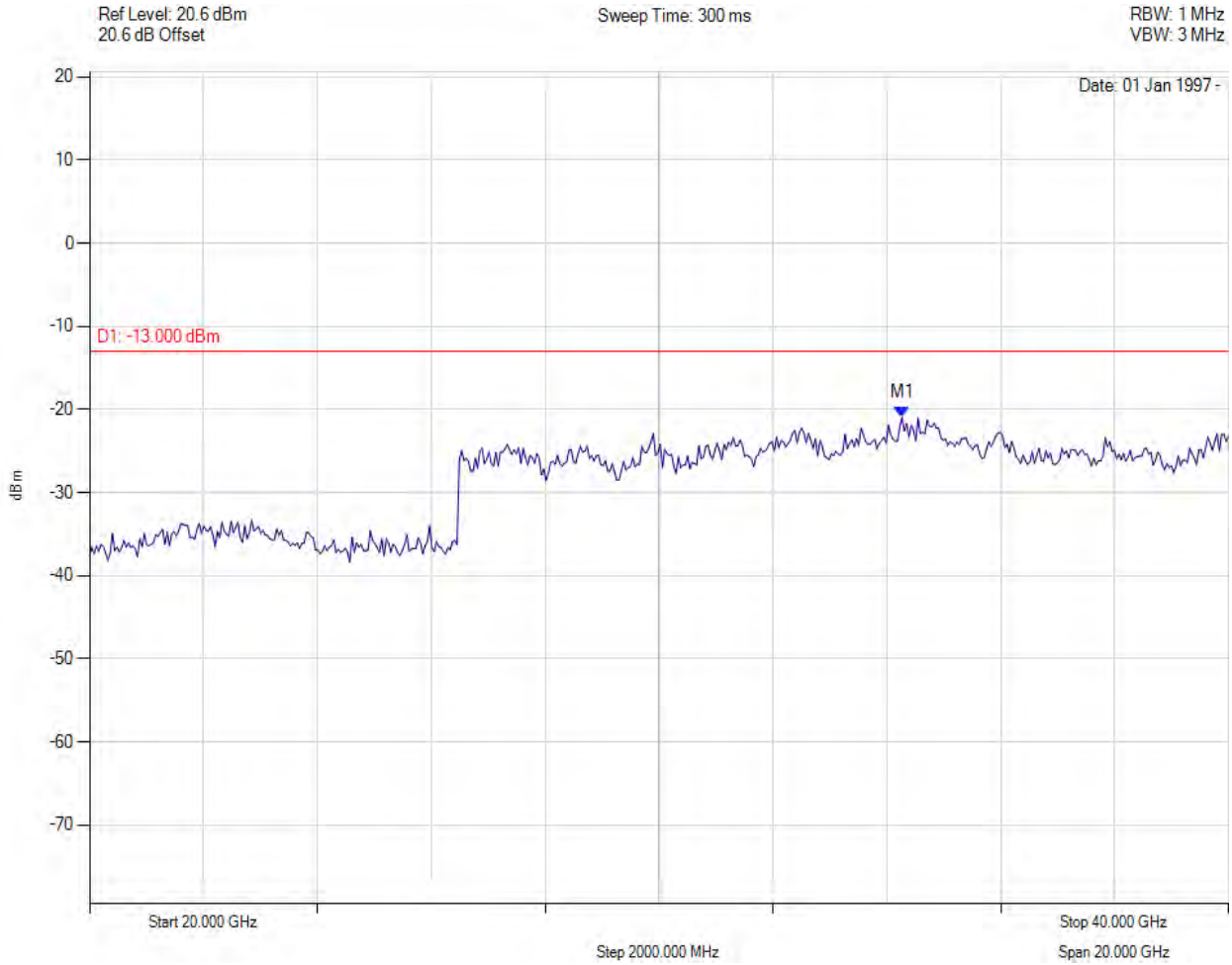


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 34.389 GHz : -20.839 dBm	Channel Frequency: 3670.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3655.00 MHz,Temp: 25, Voltage: 56 Vdc

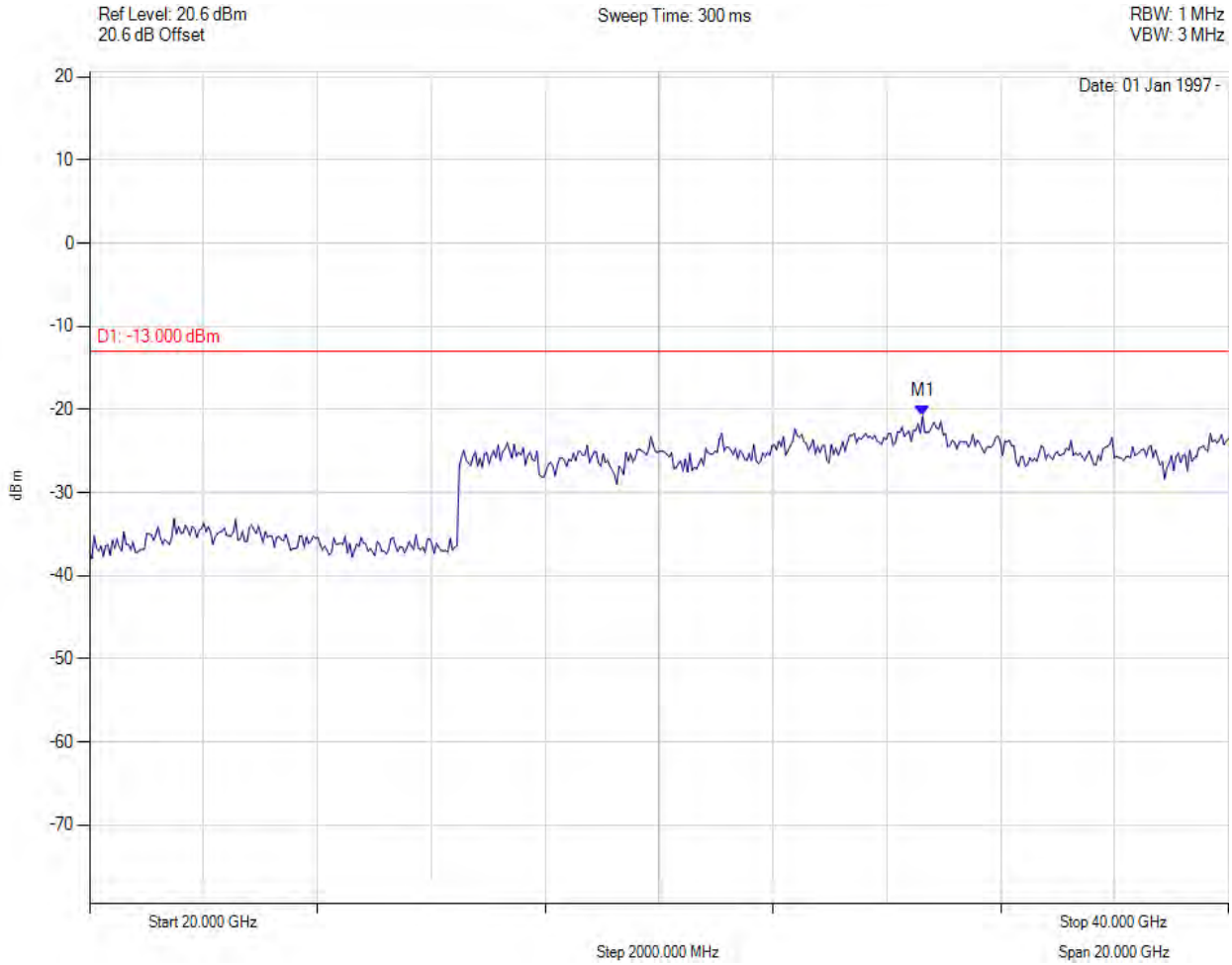


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 34.269 GHz : -20.955 dBm	Channel Frequency: 3655.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 34.629 GHz : -20.795 dBm	Channel Frequency: 3663.00 MHz

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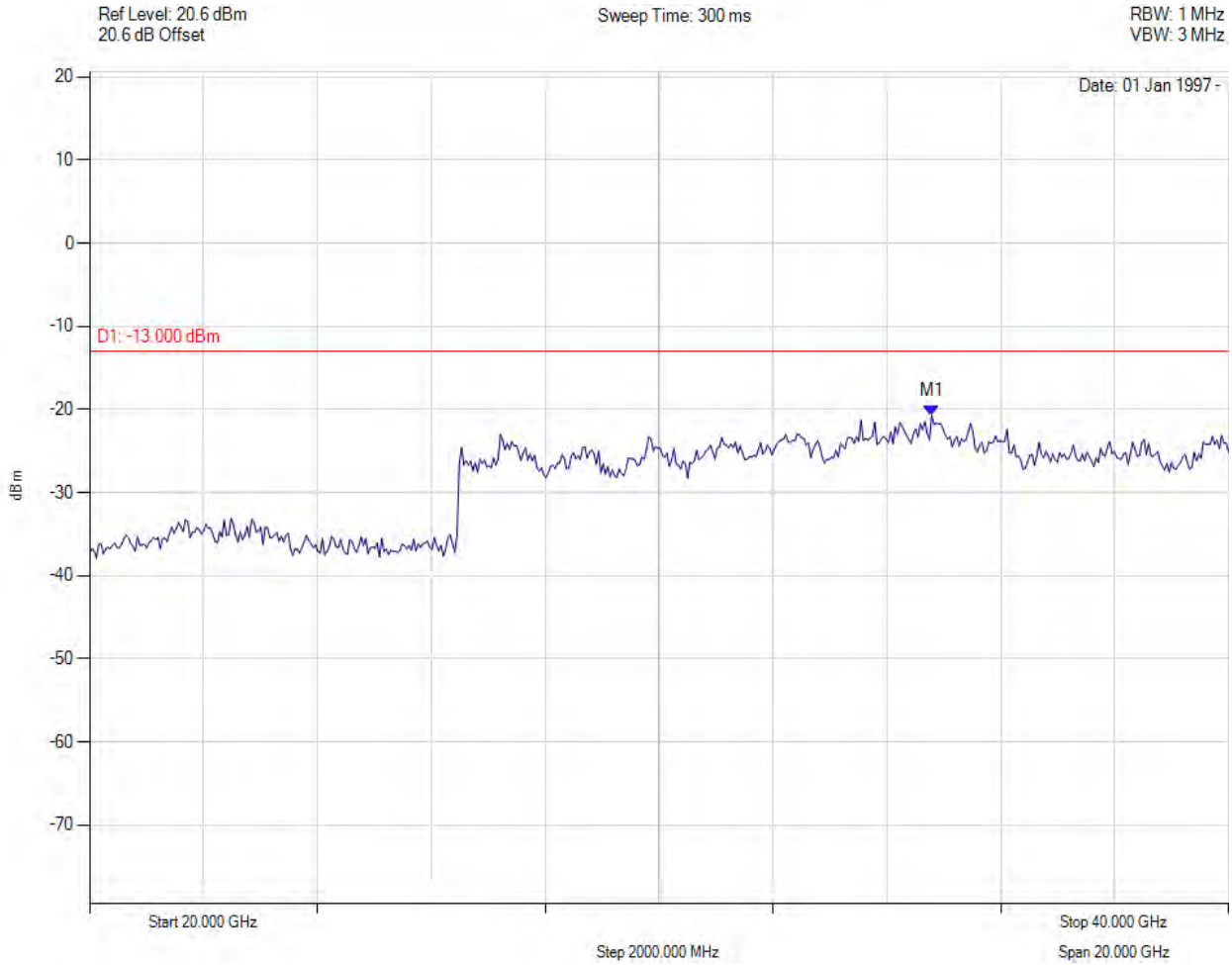
Transmitter Spurious Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc

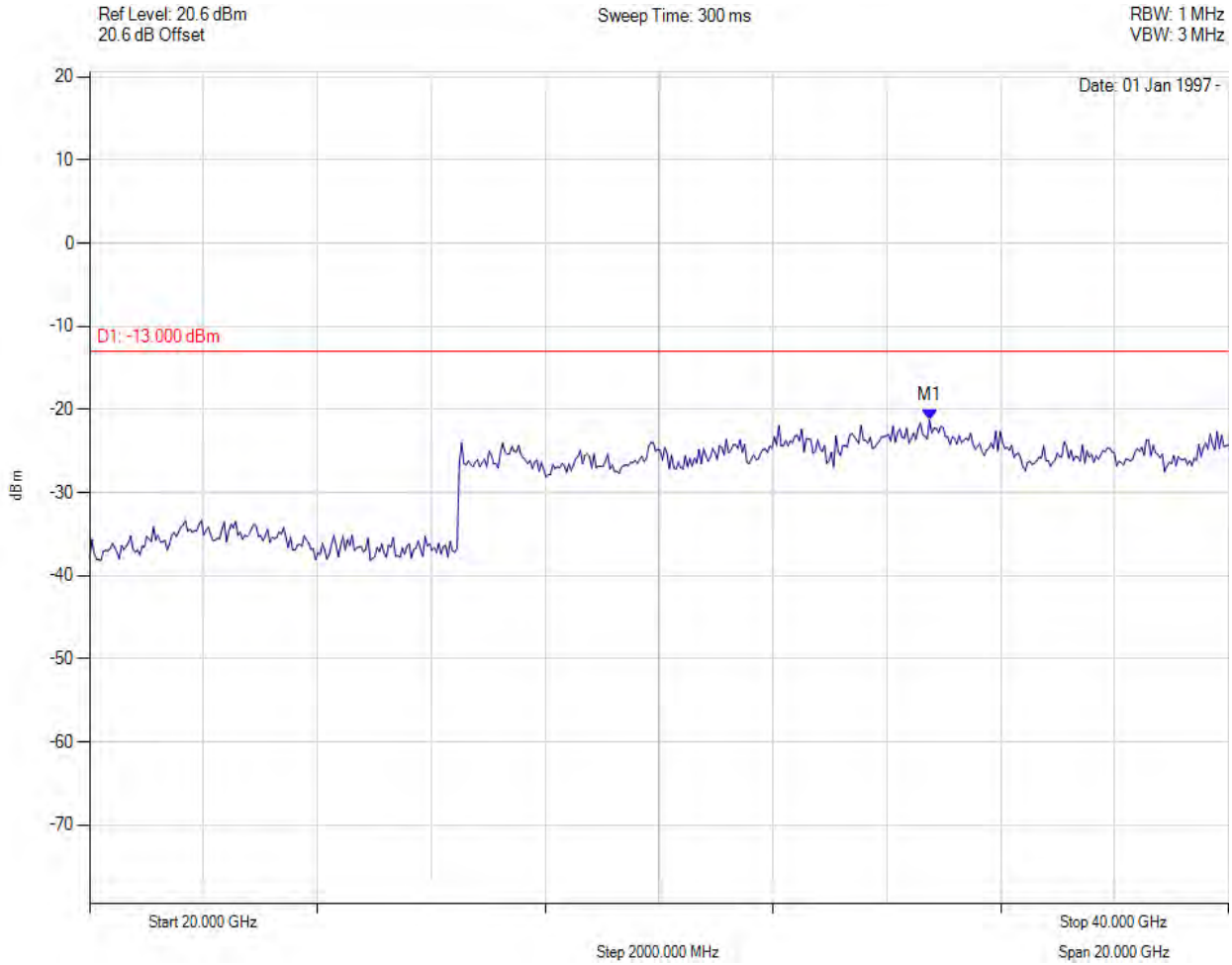


Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 34.790 GHz : -20.699 dBm	Channel Frequency: 3670.00 MHz

Back to Matrix

Transmitter Spurious Emissions

Variant: , Channel: 3655.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 34.749 GHz : -21.218 dBm	Channel Frequency: 3655.00 MHz

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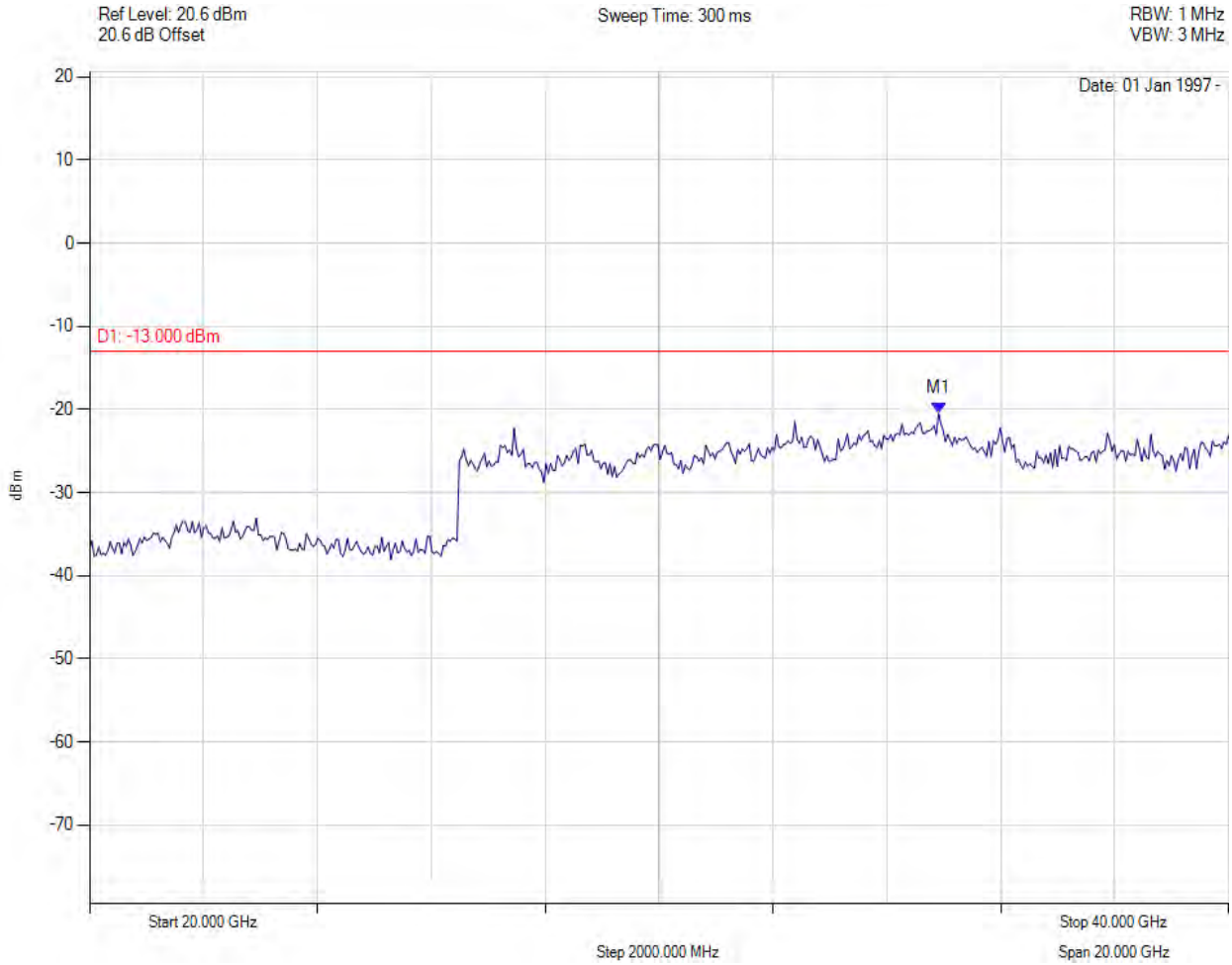
Transmitter Spurious Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 34.910 GHz : -20.461 dBm	Channel Frequency: 3663.00 MHz

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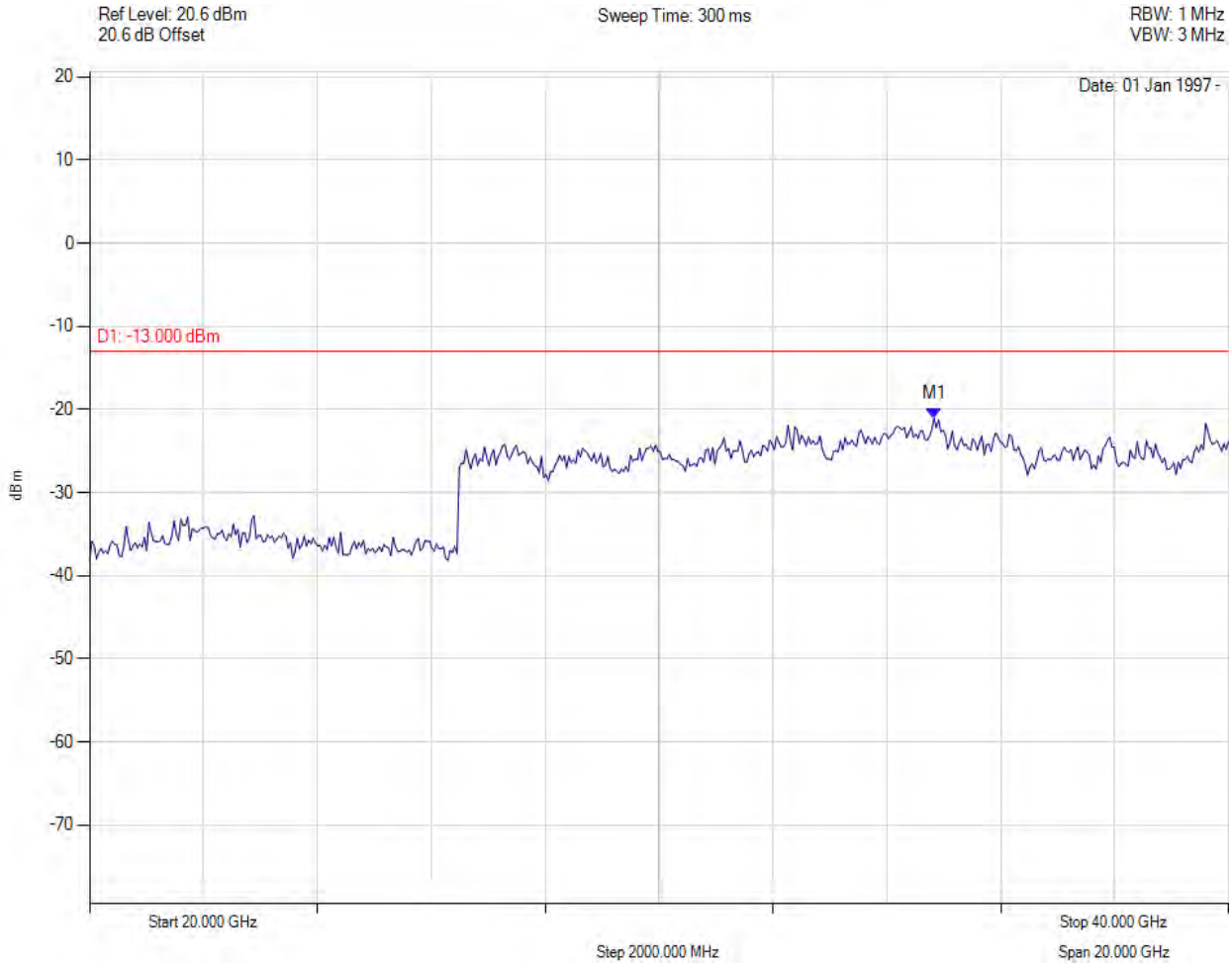
Transmitter Spurious Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 34.830 GHz : -21.032 dBm	Channel Frequency: 3670.00 MHz

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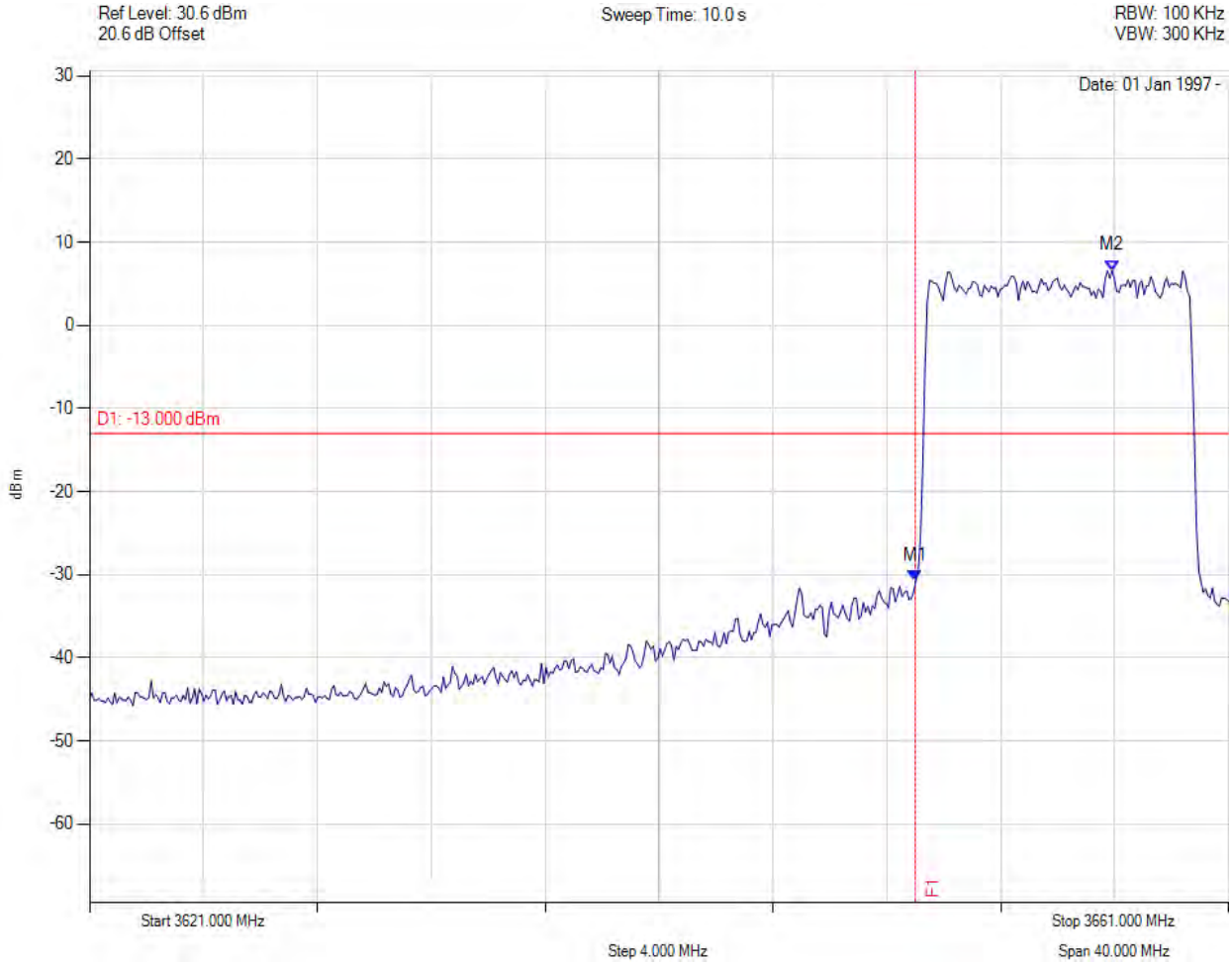
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3655.00 MHz, Chain a, Temp: Ambient, Voltage: 55 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -30.726 dBm M2 : 3656.912 MHz : 6.612 dBm	Channel Frequency: 3655.00 MHz

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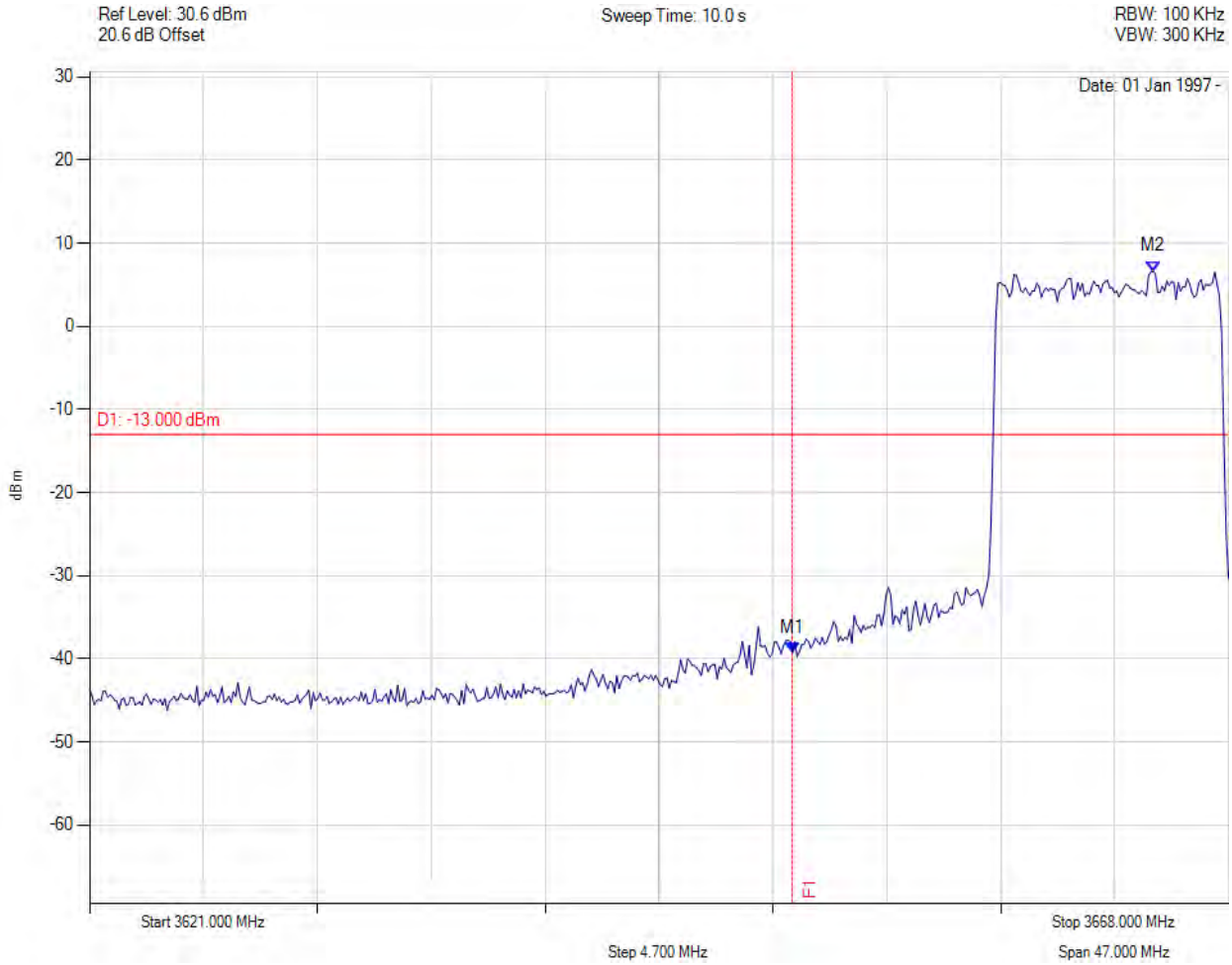
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -39.225 dBm M2 : 3664.892 MHz : 6.612 dBm	Channel Frequency: 3663.00 MHz

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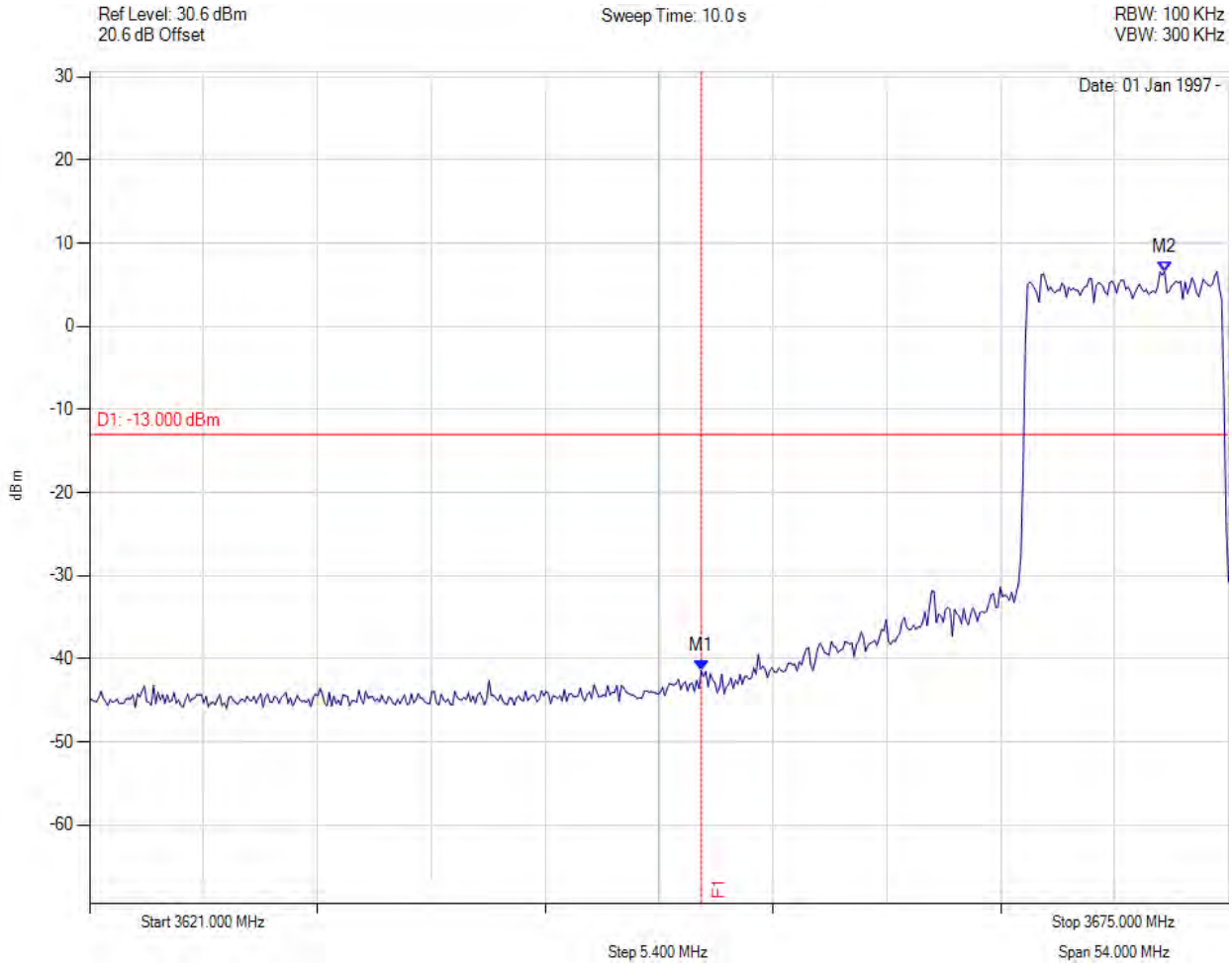
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3670.00 MHz,, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -41.391 dBm M2 : 3671.970 MHz : 6.565 dBm	Channel Frequency: 3670.00 MHz

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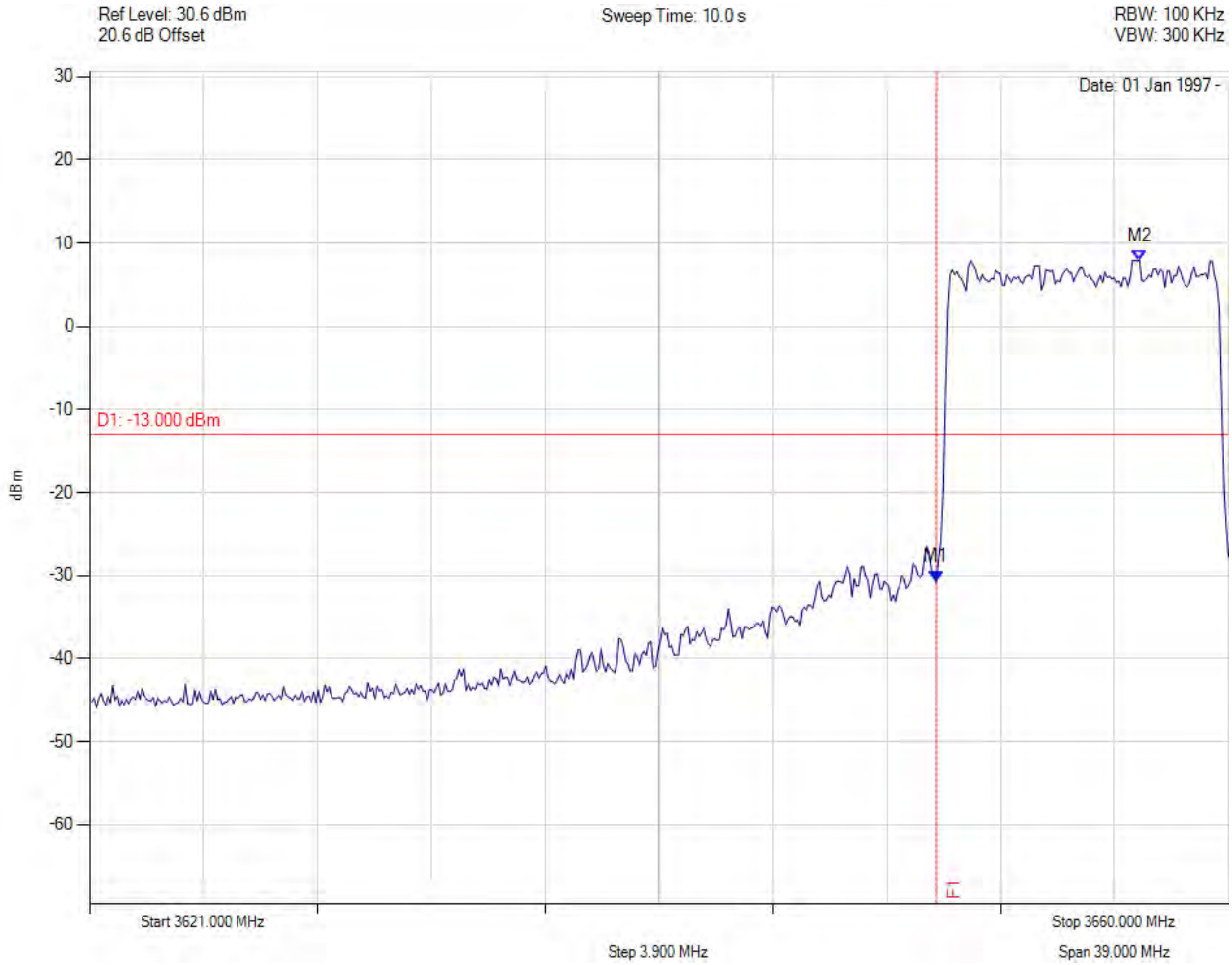
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3663.00 MHz,, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -30.726 dBm M2 : 3656.952 MHz : 7.893 dBm	Channel Frequency: 3660.00 MHz

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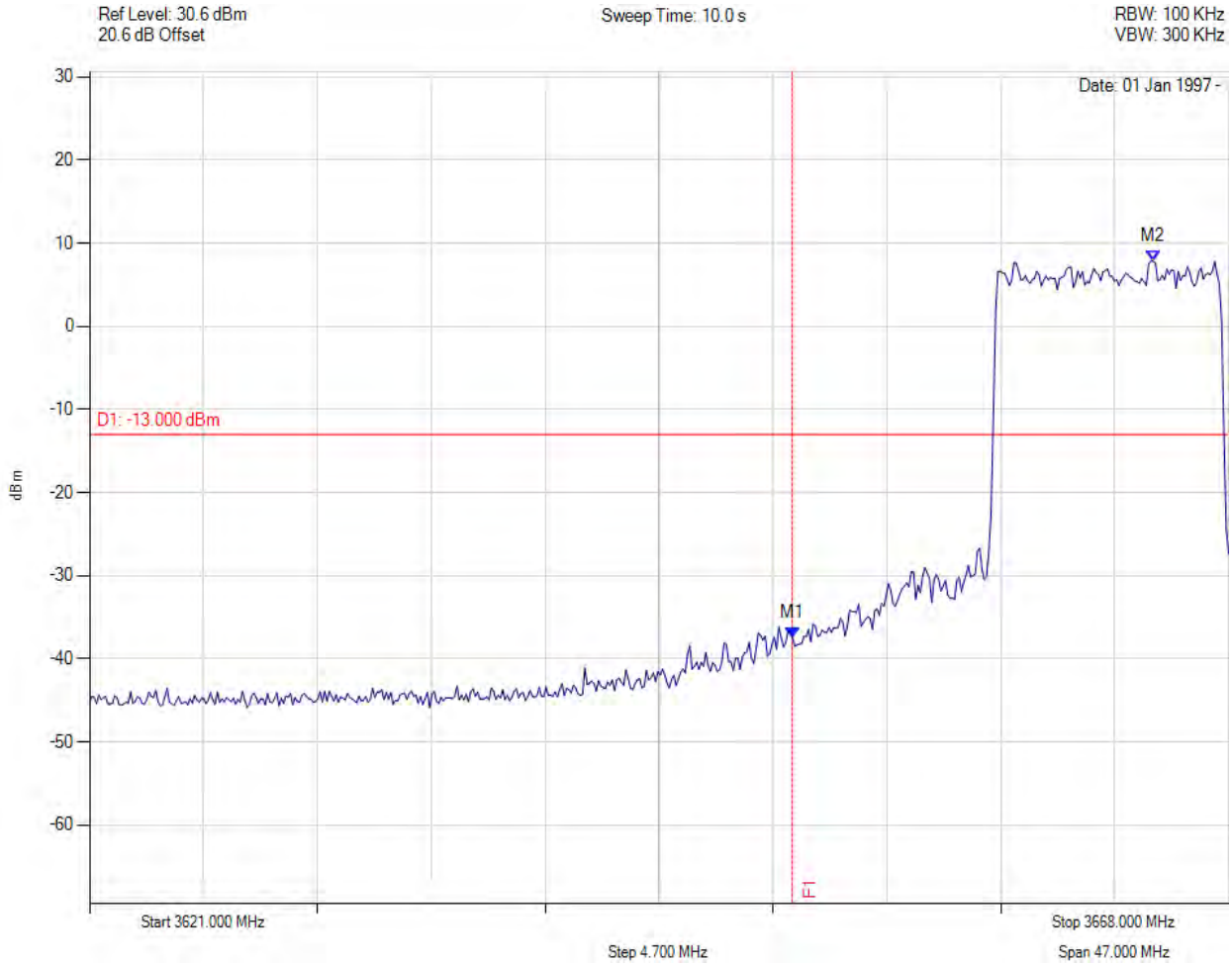
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -37.482 dBm M2 : 3664.892 MHz : 7.857 dBm	Channel Frequency: 3663.00 MHz

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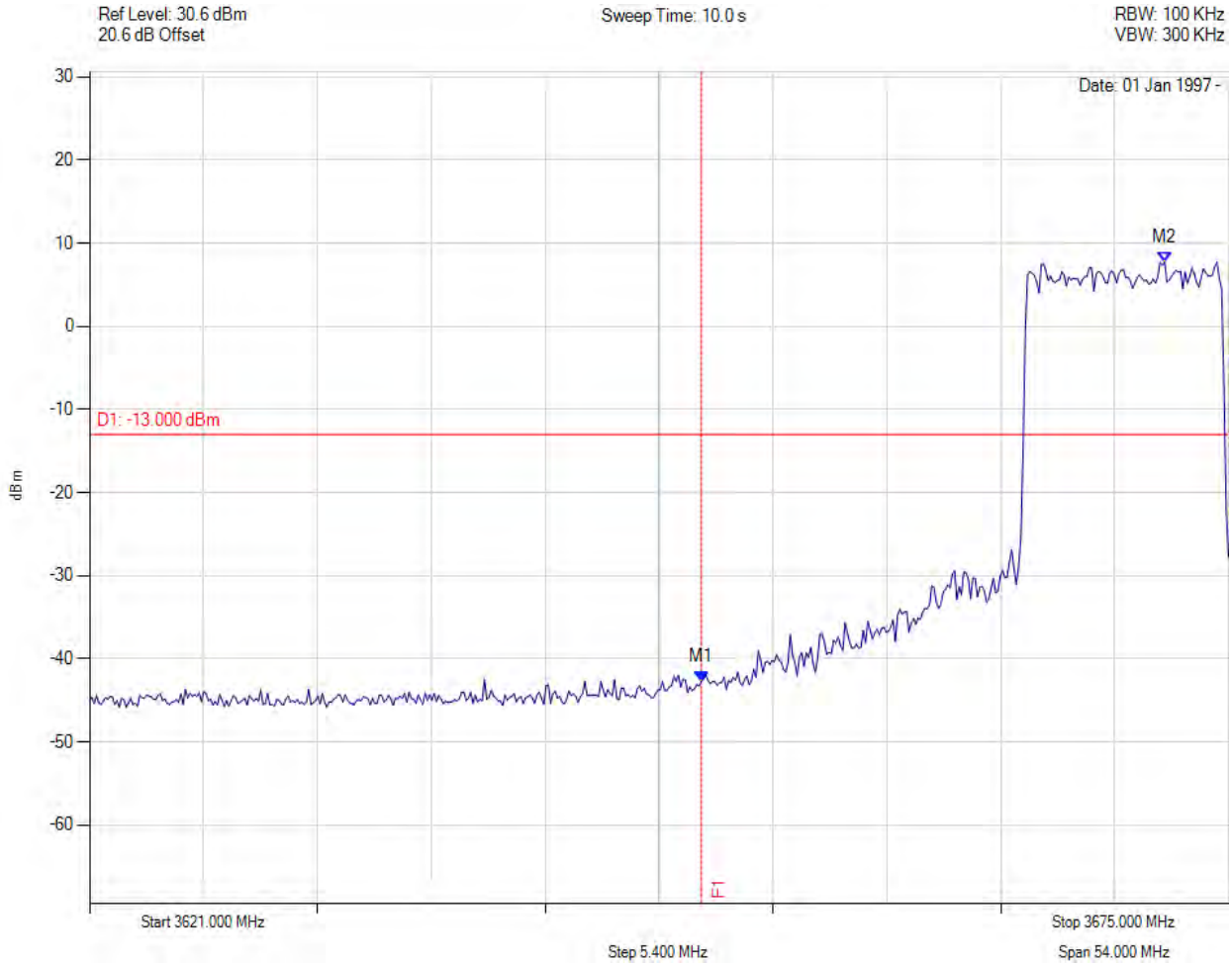
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -42.727 dBm M2 : 3671.970 MHz : 7.714 dBm	Channel Frequency: 3670.00 MHz

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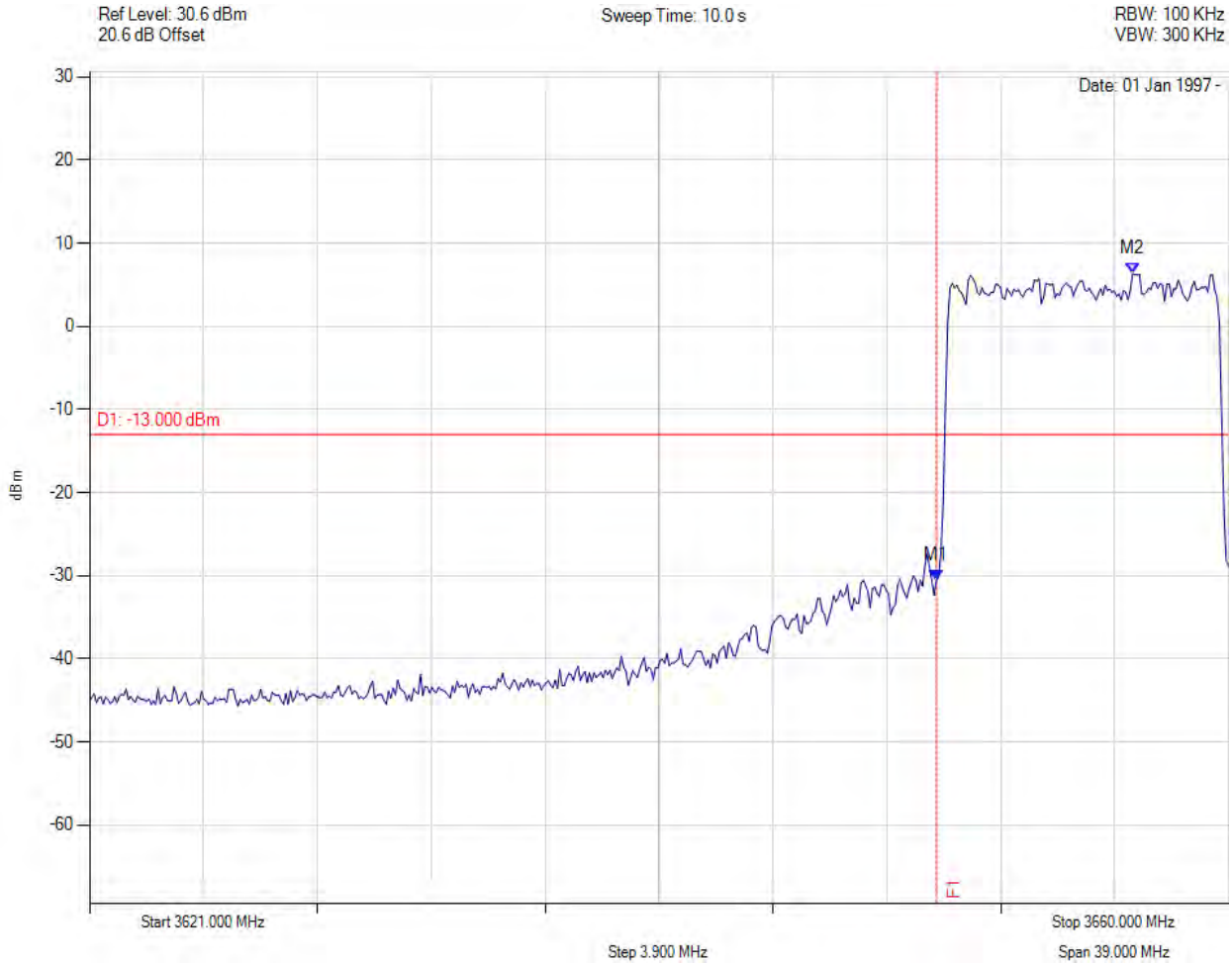
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3655.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -30.579 dBm M2 : 3656.717 MHz : 6.325 dBm	Channel Frequency: 3655.00 MHz

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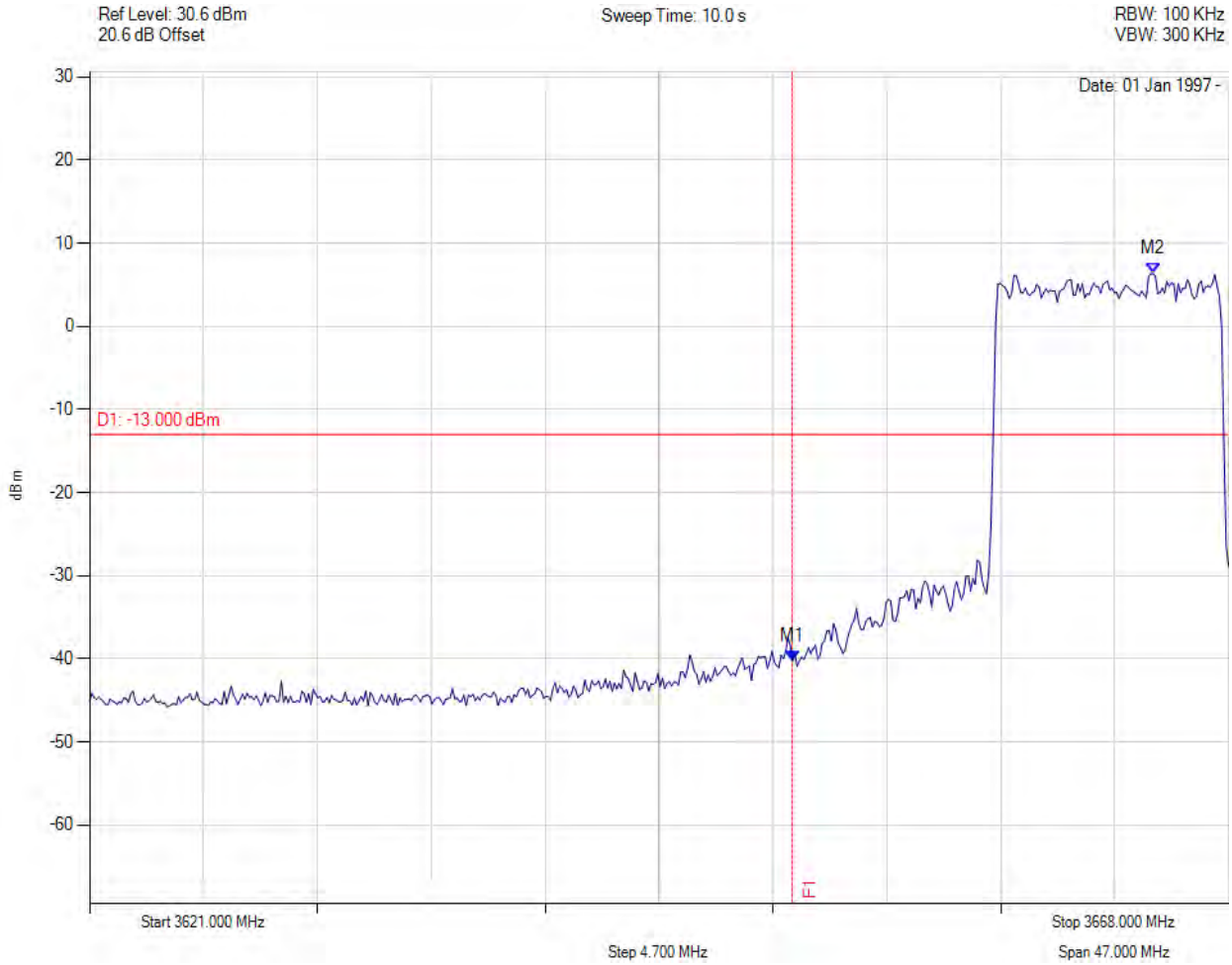
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -40.282 dBm M2 : 3664.892 MHz : 6.341 dBm	Channel Frequency: 3663.00 MHz

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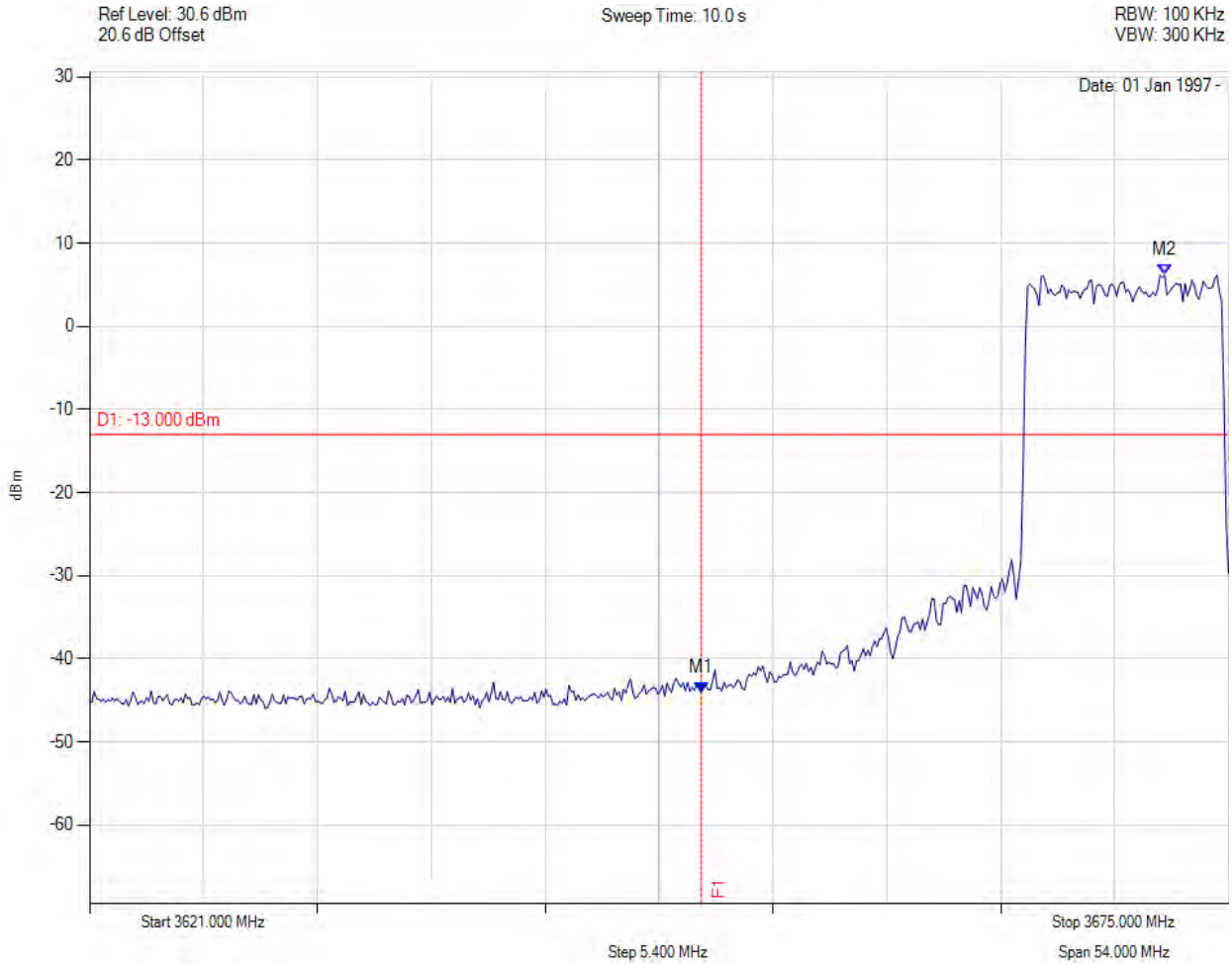
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3675.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -44.008 dBm M2 : 3671.970 MHz : 6.173 dBm	Channel Frequency: 3675.00 MHz

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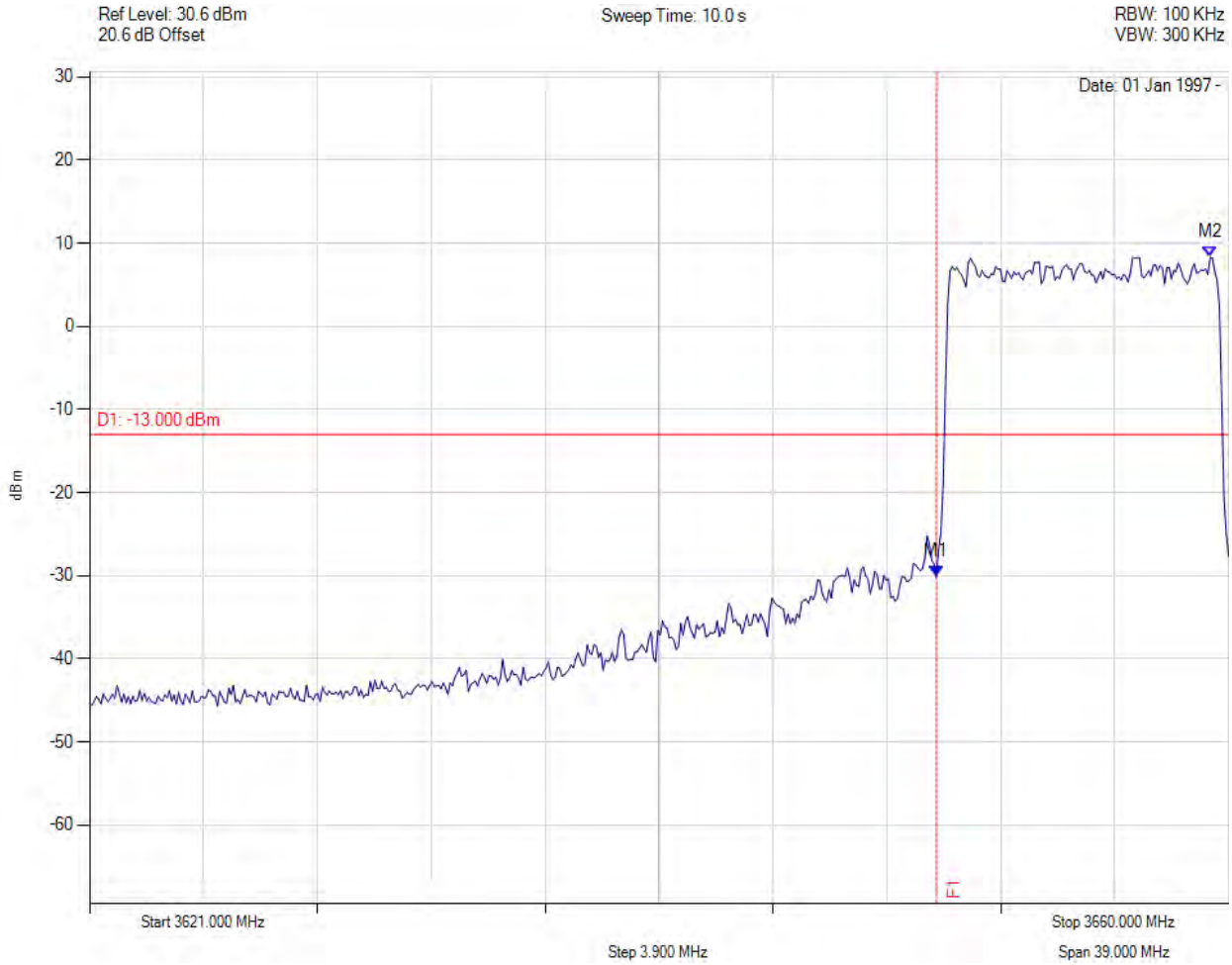
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3660.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -30.052 dBm M2 : 3659.375 MHz : 8.298 dBm	Channel Frequency: 3660.00 MHz

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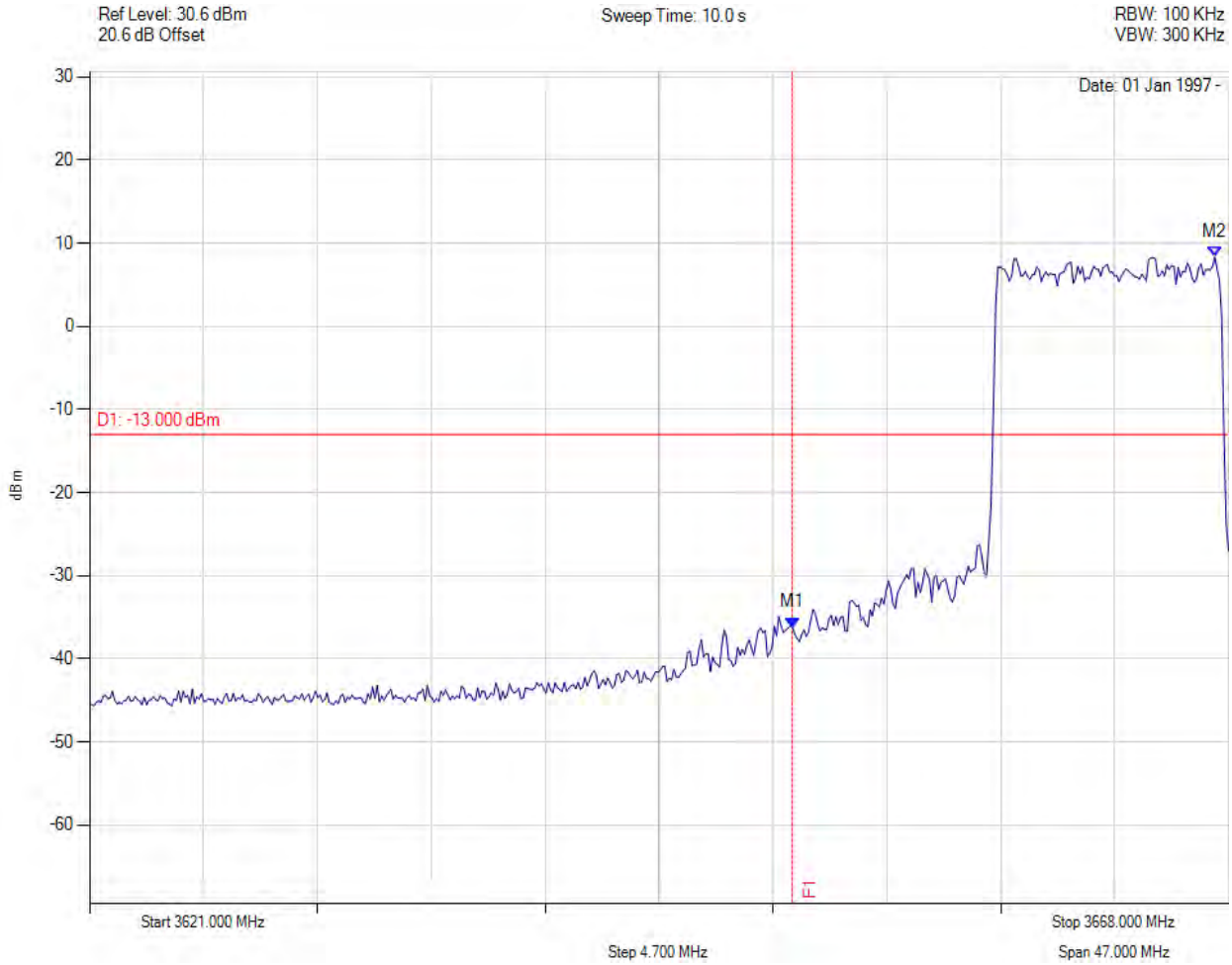
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -36.229 dBm M2 : 3667.435 MHz : 8.320 dBm	Channel Frequency: 3663.00 MHz

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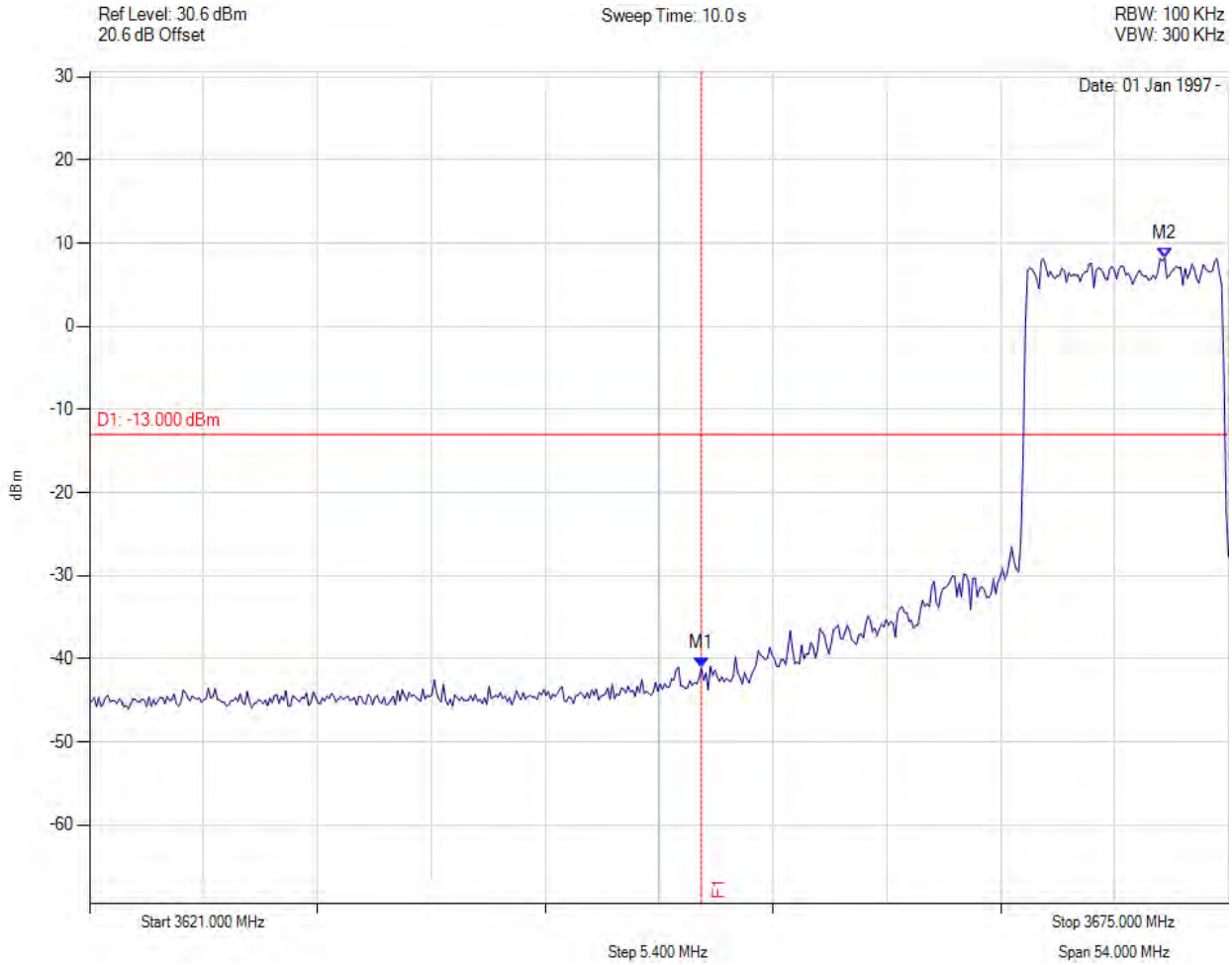
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3670.00 MHz, Temp: 25, Voltage: 56 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -41.094 dBm M2 : 3671.970 MHz : 8.196 dBm	Channel Frequency: 3670.00 MHz

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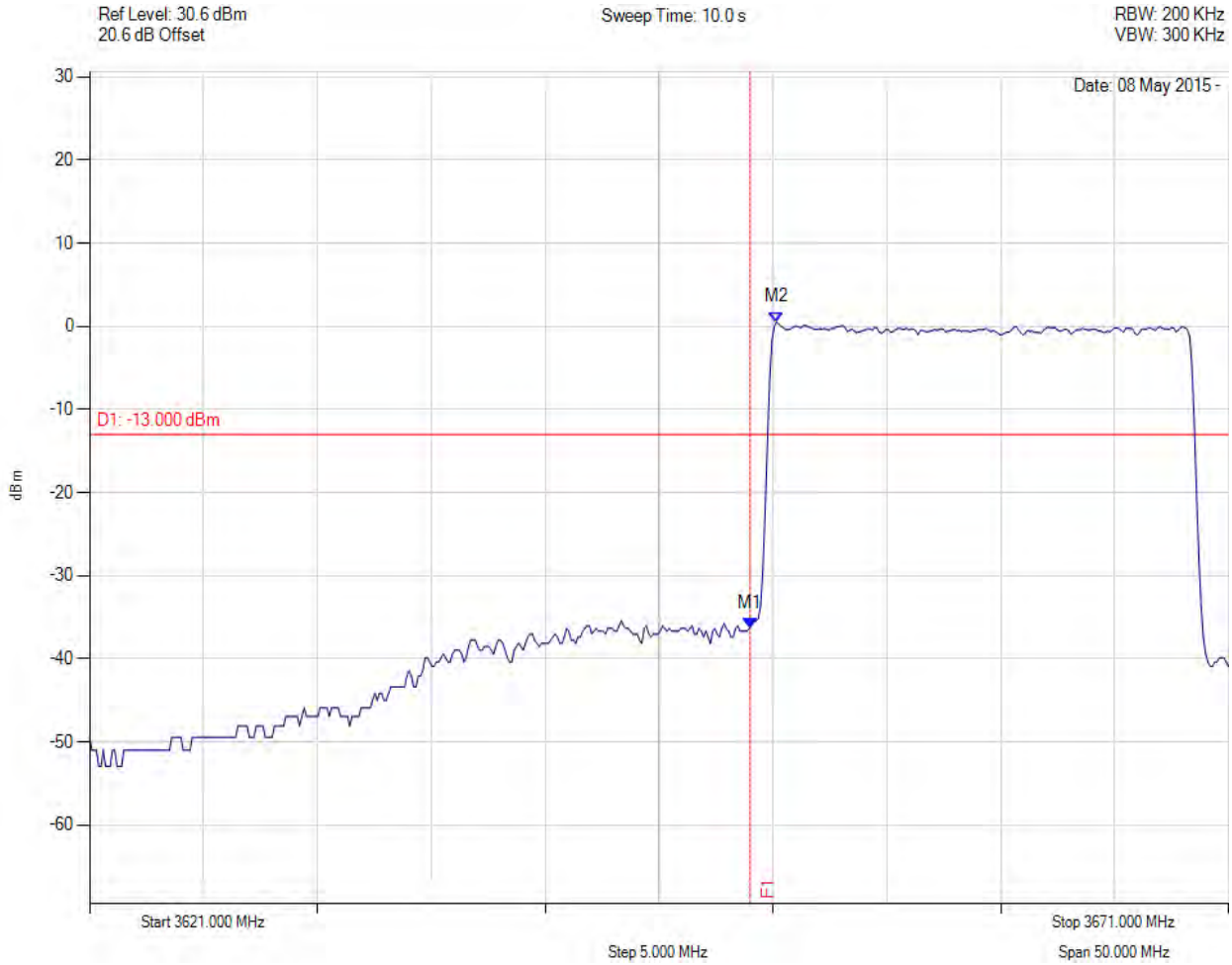
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3660.00 MHz, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -36.338 dBm M2 : 3651.160 MHz : 0.518 dBm	Channel Frequency: 3660.00 MHz

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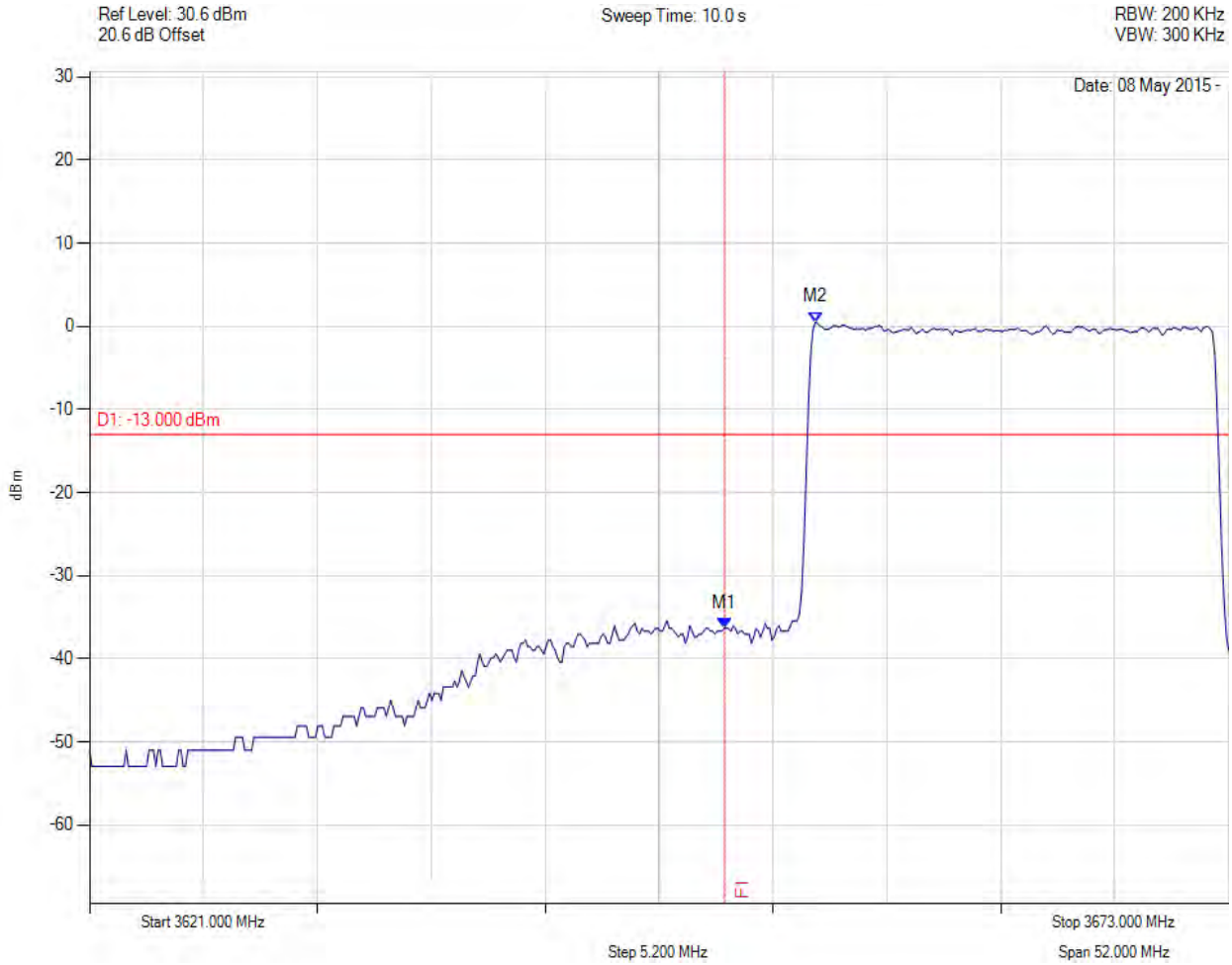
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -36.338 dBm M2 : 3654.138 MHz : 0.509 dBm	Channel Frequency: 3663.00 MHz

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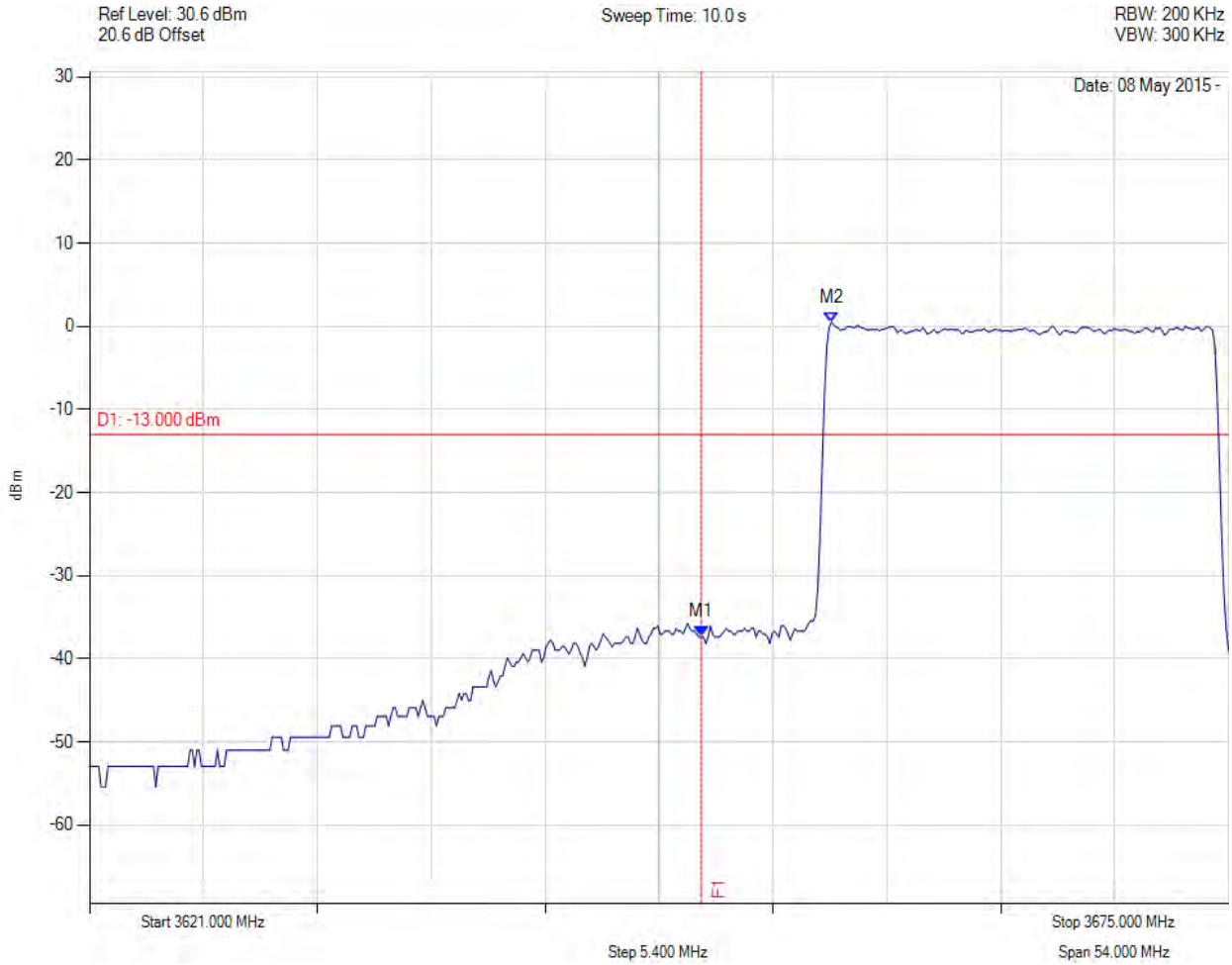
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3665.00 MHz, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -37.361 dBm M2 : 3656.170 MHz : 0.495 dBm	Channel Frequency: 3665.00 MHz

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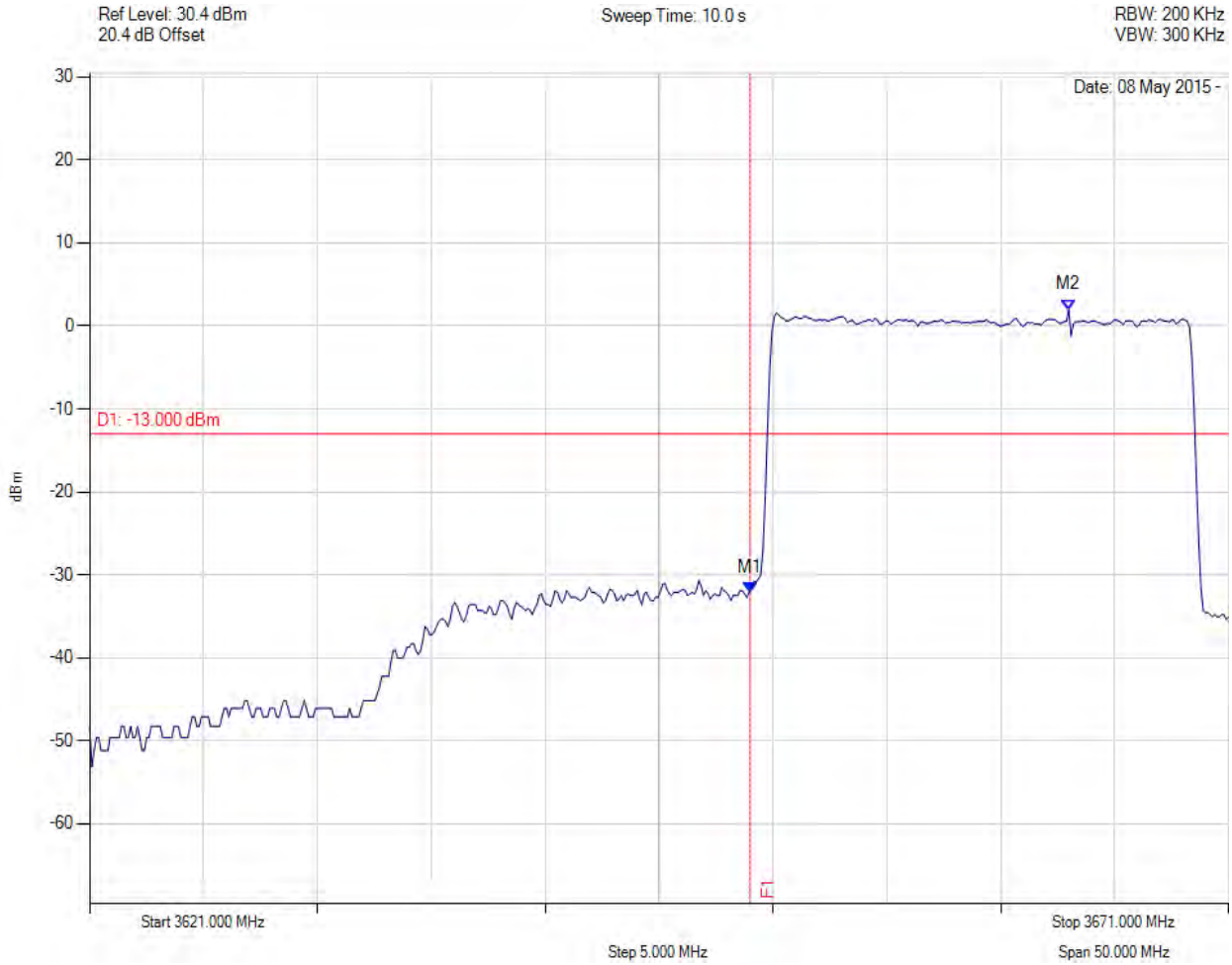
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3660.00 MHz, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -32.101 dBm M2 : 3663.986 MHz : 1.955 dBm	Channel Frequency: 3660.00 MHz

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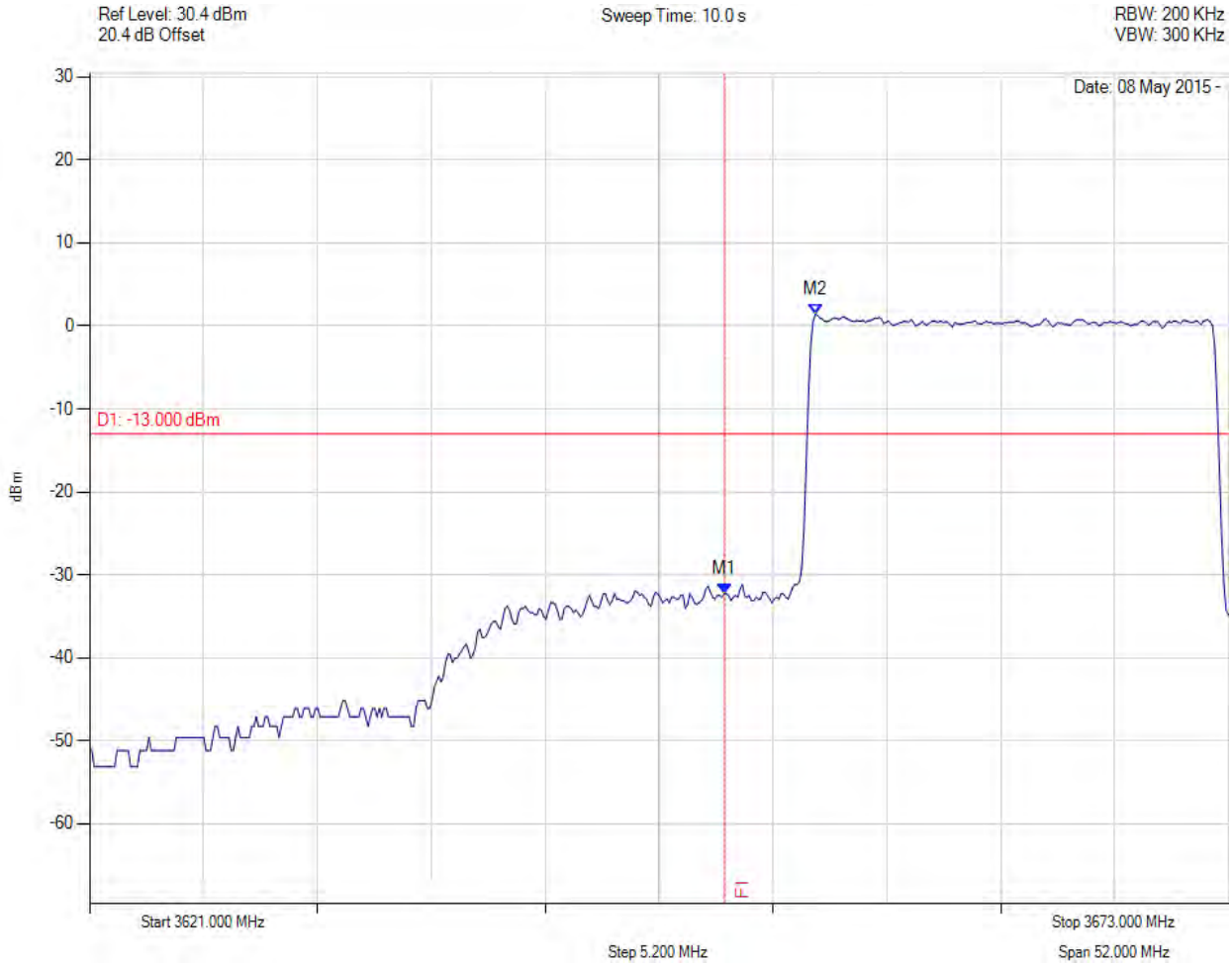
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -32.296 dBm M2 : 3654.138 MHz : 1.435 dBm	Channel Frequency: 3663.00 MHz

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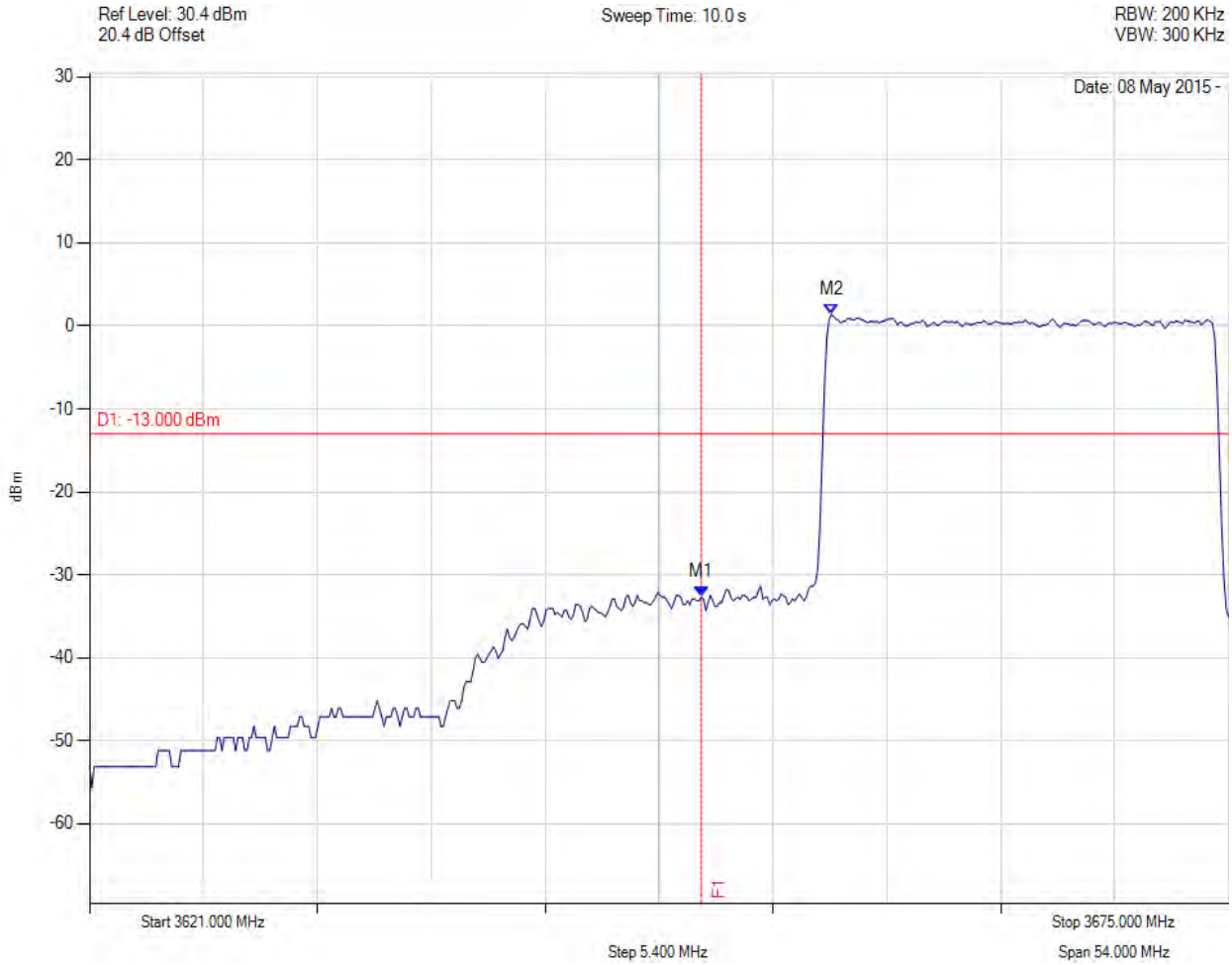
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3665.00 MHz, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -32.700 dBm M2 : 3656.170 MHz : 1.394 dBm	Channel Frequency: 3665.00 MHz

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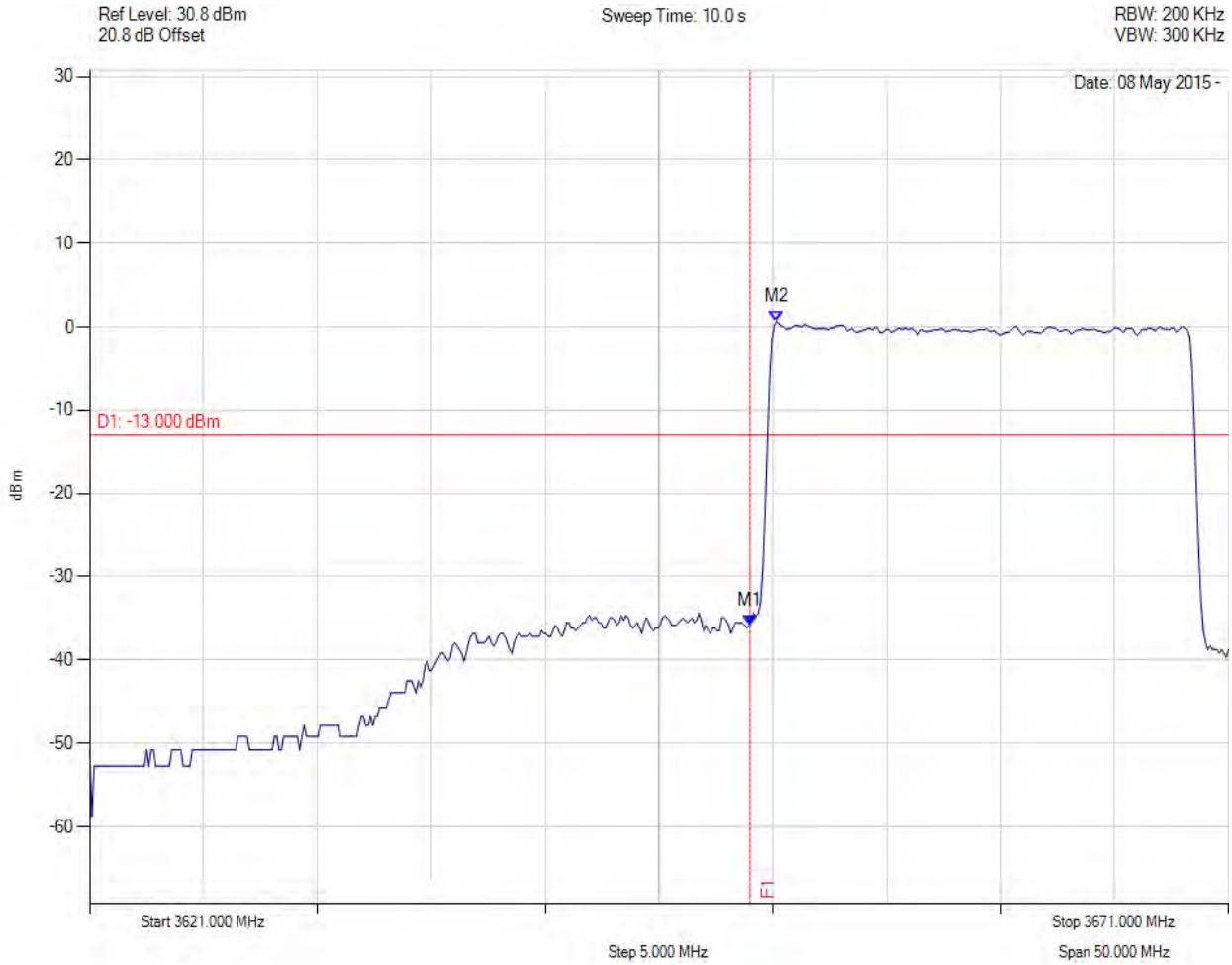
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3660.00 MHz, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -35.822 dBm M2 : 3651.160 MHz : 0.662 dBm	Channel Frequency: 3660.00 MHz

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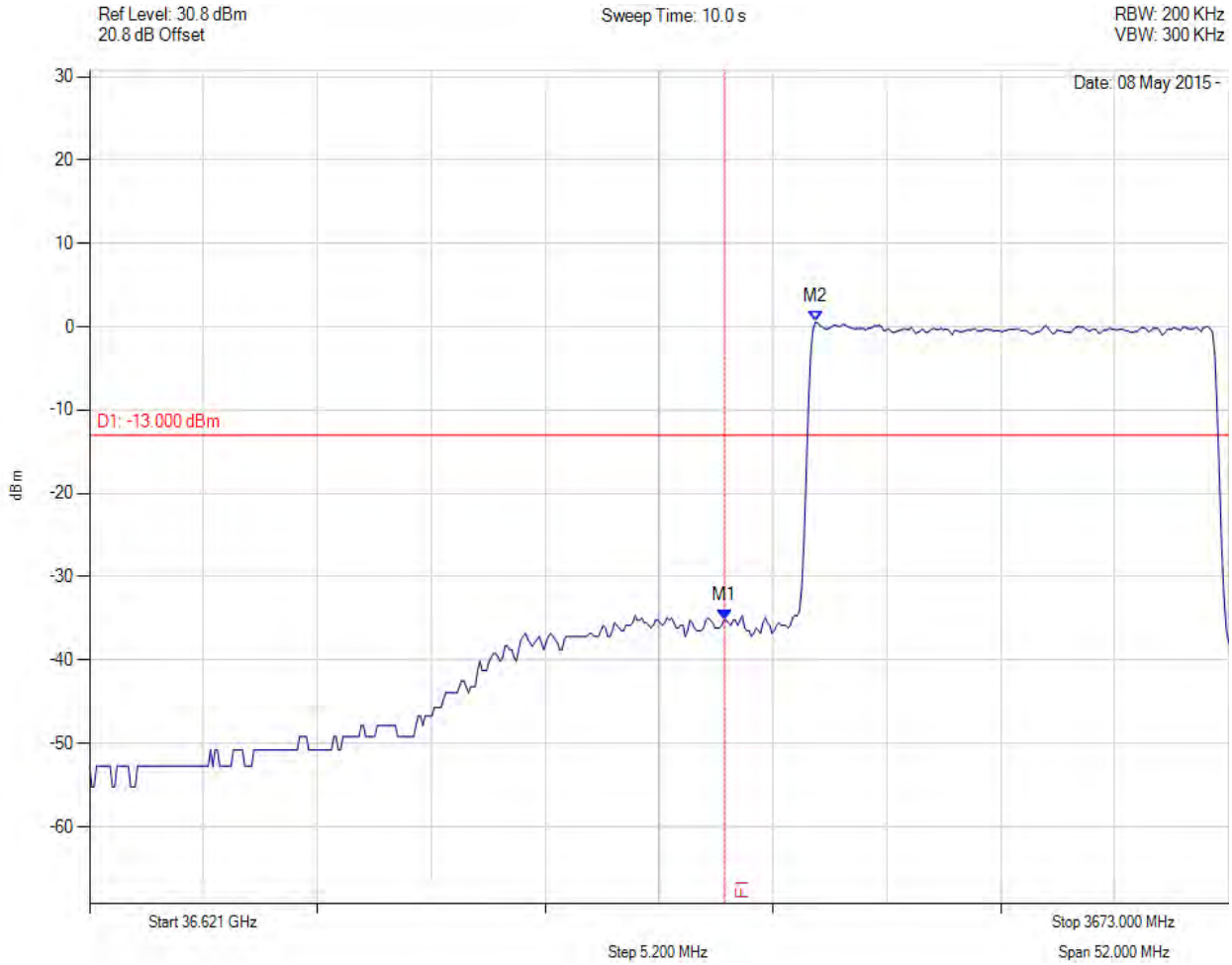
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -35.223 dBm M2 : 3654.138 MHz : 0.583 dBm	Channel Frequency: 3663.00 MHz

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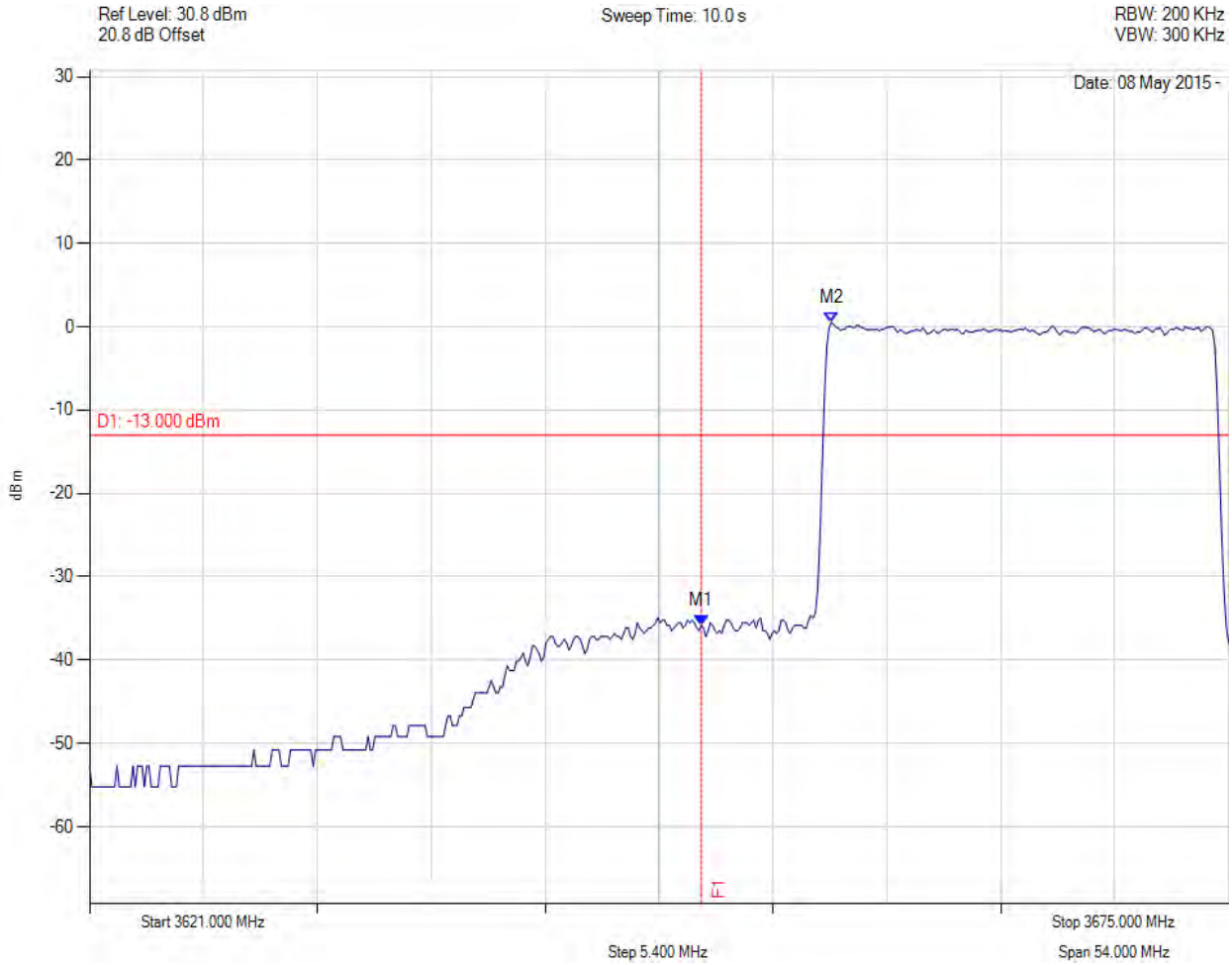
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3665.00 MHz, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -35.822 dBm M2 : 3656.170 MHz : 0.531 dBm	Channel Frequency: 3665.00 MHz

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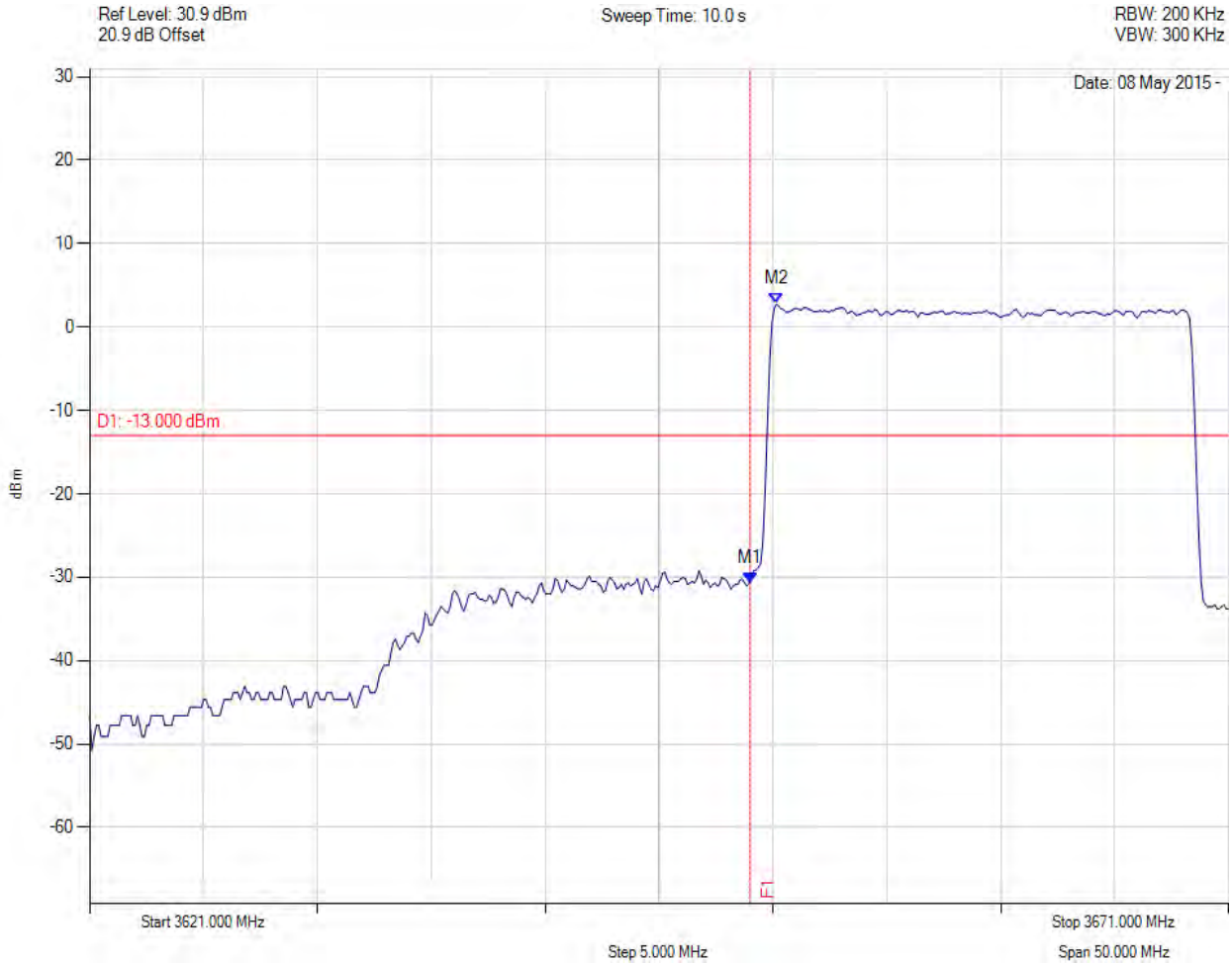
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3660.00 MHz, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -30.686 dBm M2 : 3651.160 MHz : 2.738 dBm	Channel Frequency: 3660.00 MHz

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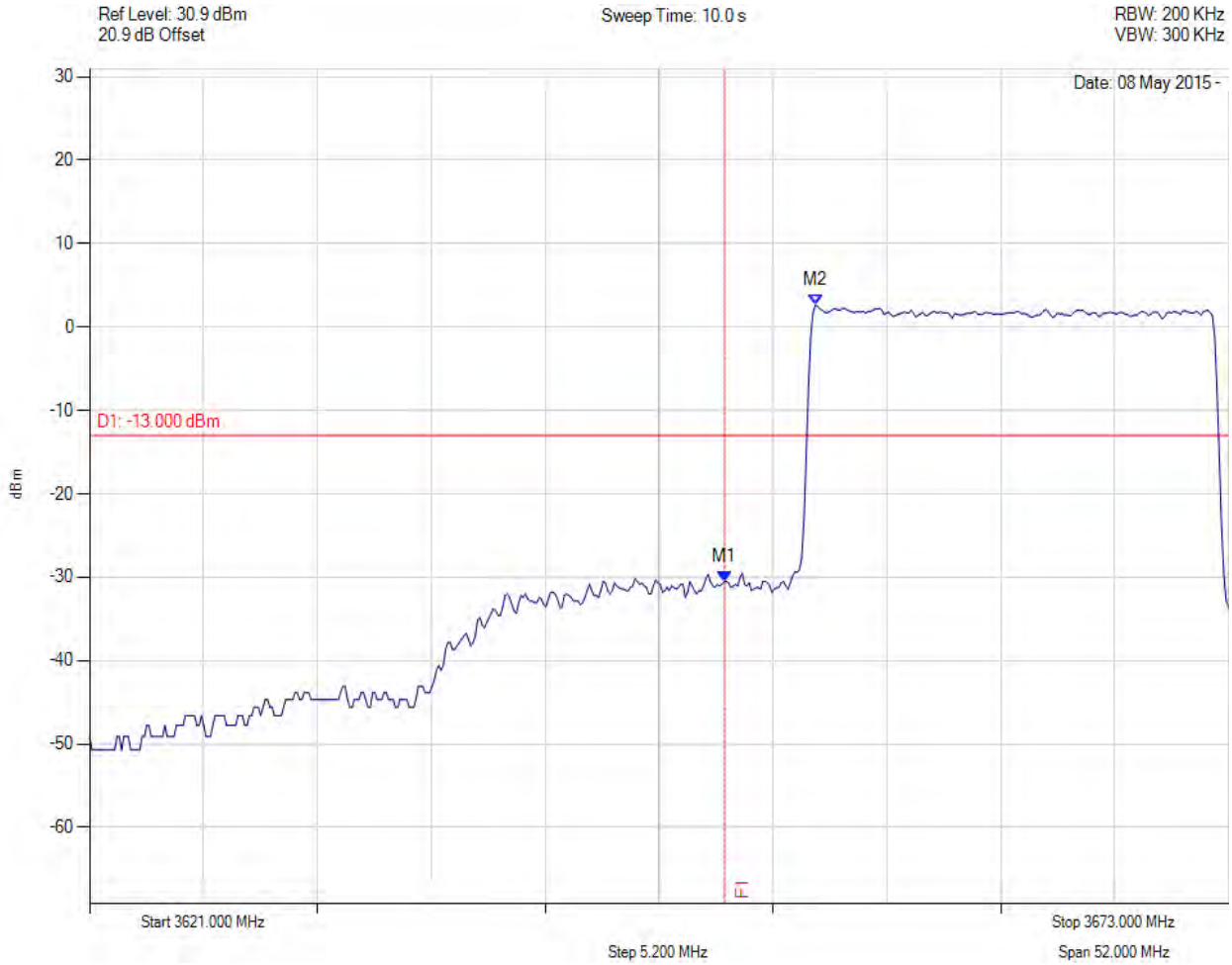
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3663.00 MHz, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -30.514 dBm M2 : 3654.138 MHz : 2.626 dBm	Channel Frequency: 3663.00 MHz

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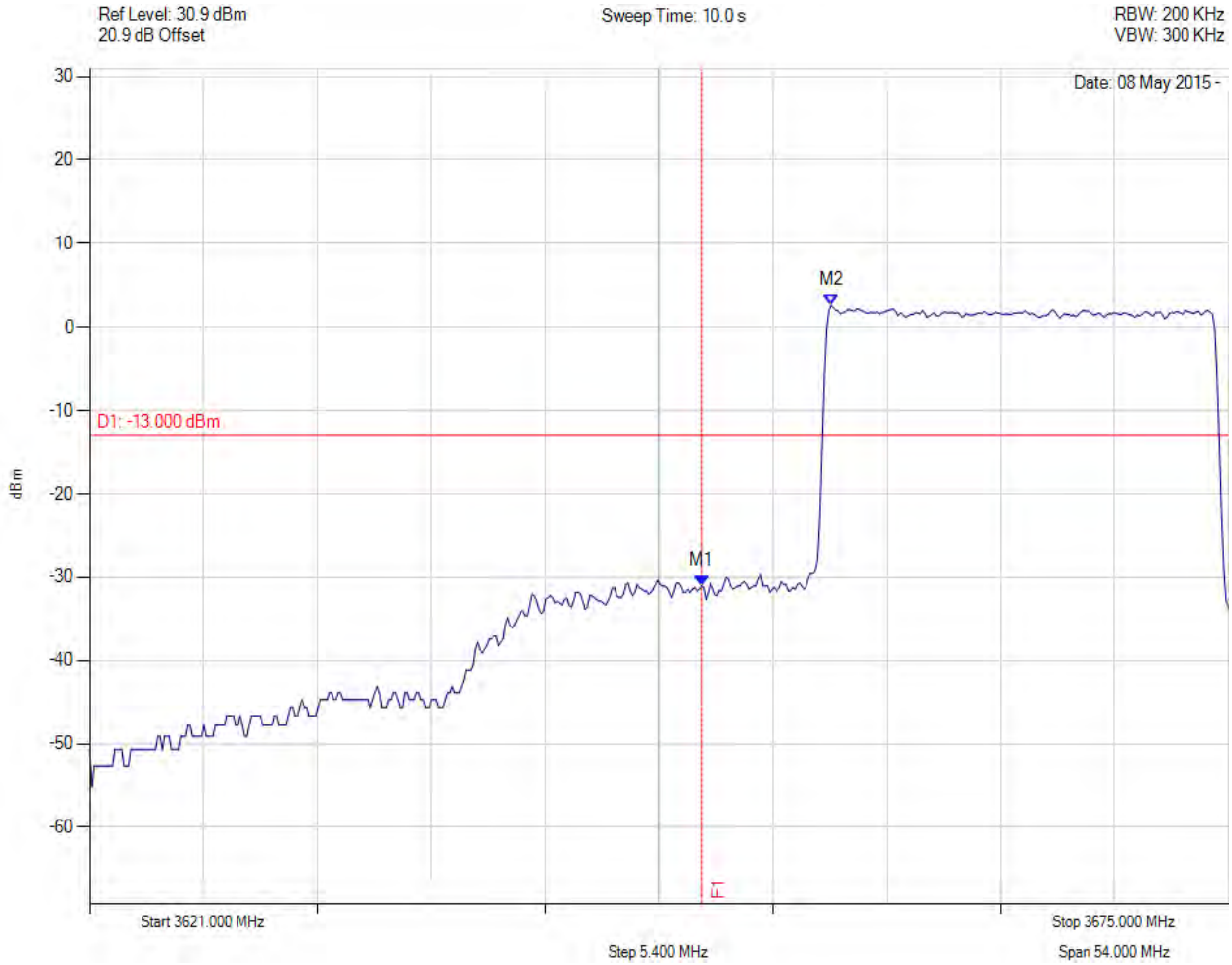
Transmitter Conducted Spurious and Band-Edge Emissions

Variant: , Channel: 3665.00 MHz, Temp: 25C, Voltage: 54 Vdc



Analyser Setup	Marker:Frequency:Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = CLR/WRITE	M1 : 3650.000 MHz : -31.041 dBm M2 : 3656.170 MHz : 2.618 dBm	Channel Frequency: 3665.00 MHz

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