
REPORT ON

Limited FCC CFR 47: Parts 2, 15 and 87
of a Thales Avionics Ltd Satellite Data Unit

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FCC ID: KV6-TFS-SDU-82155A

Report No RO615497/01 Issue 3

March 2007



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REPORT ON

Limited FCC CFR 47: Parts 2, 15 and 87 Thales Avionics Ltd Satellite
Data Unit

Report No RO615497/01 Issue 3

March 2007

FCC ID: KV6-TFS-SDU-82155A

PREPARED FOR

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DATED

14th March 2007

This report has been re-issued as Issue 3 to correct typographical errors.

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47: Parts 2, 15 and 87.

Test Engineer;

R Henley
M Hardy



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CONTENTS

Section		Page No
1	REPORT SUMMARY	
1.1	Status	4
1.2	Introduction.....	5
1.3	Brief Summary of Results	6
1.4	Product Information.....	7
1.5	Test Conditions	8
1.6	Deviations from the Standard	8
1.7	Modification Record	8
2	TEST DETAILS	
2.1	RF Power Output	10
2.2	Occupied Bandwidth	11
2.3	Conducted Spurious Emissions.....	24
2.4	Frequency Stability Test	61
3	TEST EQUIPMENT	
3.1	Test Equipment	64
4	ACCREDITATION, DISCLAIMERS AND COPYRIGHT	
4.1	Accreditation, Disclaimers and Copyright.....	68



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SECTION 1

REPORT SUMMARY

Limited FCC CFR 47: Parts 2, 15 and 87
of a Thales Avionics Ltd Satellite Data Unit



Product Service

1.1 STATUS

Equipment Under Test	Satellite Data Unit
Objective	To undertake measurements to determine the Equipment Under Test's (EUT's) compliance with the specification.
Name and Address of Client	Thales Avionics Ltd 88 Bushey Road London SW20 0JW
Type Number	Satellite Data Unit
Serial Number	10007
Hardware Version	Product ID 82155 version A10D
Software Version	APM/CPM version 100R, CCM version R4.3.7
Test Specification/Issue/Date	FCC CFR 47: Part 2, August 2002 FCC CFR 47: Part 15, Subparts B and C, August 2002 FCC CFR 47: Part 87, August 2002
Test Plan	A111/SAT001/SYSTP-001 Chapter 4.5
Issue	Issue A5
Date	October 2006
Number of Items Tested	One
Security Classification of EUT	Unclassified
Disposal	Held pending disposal
Order Number	PO SP000118
Date	31 st August 2006
Start of Test	2 nd January 2007
Finish of Test	28 th February 2007
Related Documents	ANSI C63.4: 2001 FCC DA 00-705: 2000



Product Service

1.2 INTRODUCTION

The information contained within this report is intended to show limited verification of compliance of the Thales Avionics Ltd Satellite Data Unit to the requirements of FCC Specification Parts 2, 15 and 87.



Product Service

1.3 BRIEF SUMMARY OF RESULTS

A brief summary of the tests carried out is shown below.

Section	Test Plan Clause	Spec Clause	Test Description	Result	Comments
2.1	4.5.3.3.1	2.1046 and 87.131	RF Power Output	Pass	
2.2	4.5.3.3.2	2.1049 and 87.135	Occupied Bandwidth	Pass	
2.3	4.5.3.3.3	2.1051 and 87.139	Conducted Spurious Emissions	Fail	
2.4	4.5.3.3.4	2.1055 and 87.133	Frequency Stability Test	Pass	
2.5	4.5.3.3.5	2.1053 and 15.209	Radiated Emissions	N/T	

N/T Not Tested



Product Service

1.4 PRODUCT INFORMATION

1.4.1 Technical Description

The EUT is a Satellite Data Unit operating in the frequency band 1626.6 – 1660.4MHz. The EUT uses QPSK modulation and is capable of operating on a variety of different data rates.

1.4.2 Modes of Operation

Modes of operation of the EUT during testing were as follows:

The EUT was tested in the following modes. Each test describes which mode of operation the EUT was configured for. The EUT was provided with test software which enabled the user to select the following modes of operation and select the operating frequency.

	ITU Designation	Data Rate (kps)	Modulation Type	Symbol Rate (KS/S)
Mode 1	21K0G1D	33.6	QPSK	16.8
Mode 2	42K0G1D	67.2	QPSK	33.6
Mode 3	84K0G1D	134.4	QPSK	37.2
Mode 4	200KG1D	302.4	QPSK	151.2



Product Service

1.5 TEST CONDITIONS

The EUT was set-up simulating a typical user installation on the Alternative Open Field Test Site under Registration Number: 90987, or test laboratory as appropriate and tested in accordance with the applicable specification.

For all tests, the Thales Avionics Ltd Satellite Data Unit was powered by 115V AC power supply.

1.6 DEVIATIONS FROM THE STANDARD

Not Applicable

1.7 MODIFICATION RECORD

Not Applicable



Product Service

SECTION 2

TEST DETAILS

Limited FCC CFR 47: Parts 2, 15 and 87
of a Thales Avionics Ltd Satellite Data Unit



Product Service

2.1 RF POWER OUTPUT

2.1.1 Specification Reference

FCC CFR 47: Parts 2.1046 and 87.131

2.1.2 Equipment Under Test

Satellite Data Unit

2.1.3 Date of Test

2nd January 2007

2.1.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.1.5 Test Procedure

The EUT was connected to a Spectrum Analyser using a Signal Generator and a Power Meter, the path loss between the EUT and the Spectrum Analyser was measured. This was entered as a reference level offset into the Spectrum Analyser. The unmodulated power of the EUT was measured on bottom, middle and top channels. The results are shown in the table below.

2.1.6 Test Results

EUT complies with FCC CFR 47: Parts 2.1046 and 87.131 as shown in the table below.

Frequency (MHz)	Power (dBm)	Power (W)
1626.6	27.78	3.748
1643.5	34.60	2.884
1660.4	34.97	3.141

Limit	47.78 (dBm) or 60 (W)
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Product Service

2.2 OCCUPIED BANDWIDTH

2.2.1 Specification Reference

FCC CFR 47: Parts 2.1049 and 87.135

2.2.2 Equipment Under Test

Satellite Data Unit

2.2.3 Date of Test

2nd January 2007

2.2.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.2.5 Test Procedure

Initially, the EUT was connected via a 30dB attenuator to a modulation analyser, which was set to measure modulation depth. The EUT was set to transmit and the audio input frequency to the EUT was varied between 300Hz and 5kHz. The modulation depth was monitored and the frequency, which yielded the highest level of deviation, was 680Hz. Thus, the audio analyser was set to supply the EUT with an audio tone of 2500Hz at amplitude which produced a modulation depth of 50%. The level was then increased on the audio analyser by 16dB.

The modulation analyser was then replaced with a spectrum analyser and the 99% bandwidth was measured. The measurements were performed on the bottom, middle and top channels.

The plots below show the resultant display from the Spectrum Analyser.

2.2.6 Test Results

EUT to complies with FCC CFR 47: Parts 2.1049 and 87.135 as shown in the table below.

Frequency (MHz)	21KOG1D	42KOG1D	84KOG1D	200KG1D
1626.5	18.910256410	37.660256410	74.358974359	166.666666667
1643.5	19.070512820	37.339743590	74.358974359	166.666666667
1660.5	18.910256410	37.339743590	74.038461539	168.269230769

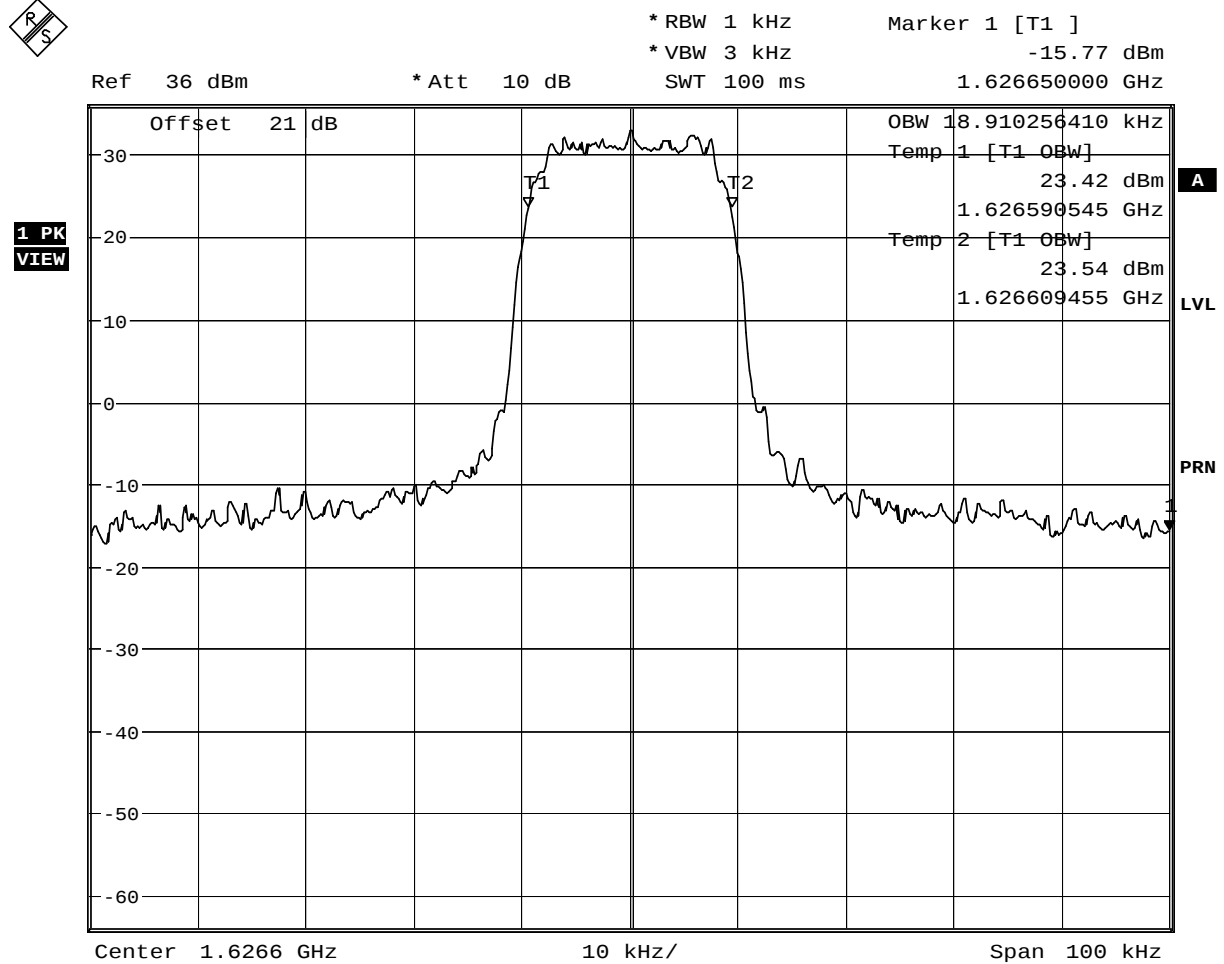
Limits	21 kHz	42 kHz	84 kHz	200 kHz
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Product Service

2.2 OCCUPIED BANDWIDTH

2.2.6 Test Results – Continued



Date: 2.JAN.2007 16:27:55

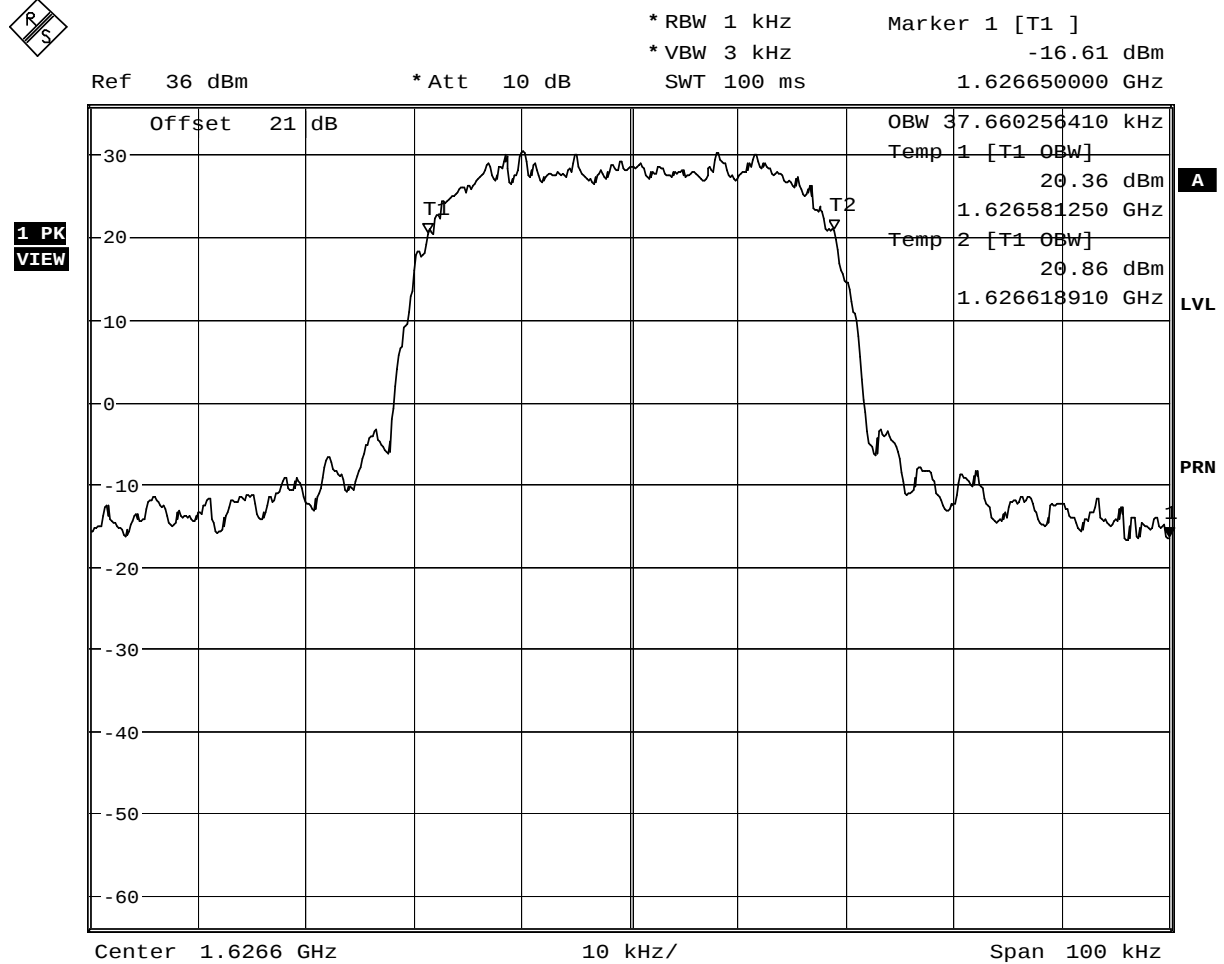
1626.6MHz, R20T0.5Q Test Mode



Product Service

2.2 OCCUPIED BANDWIDTH

2.2.6 Test Results – Continued



Date: 2.JAN.2007 16:29:57

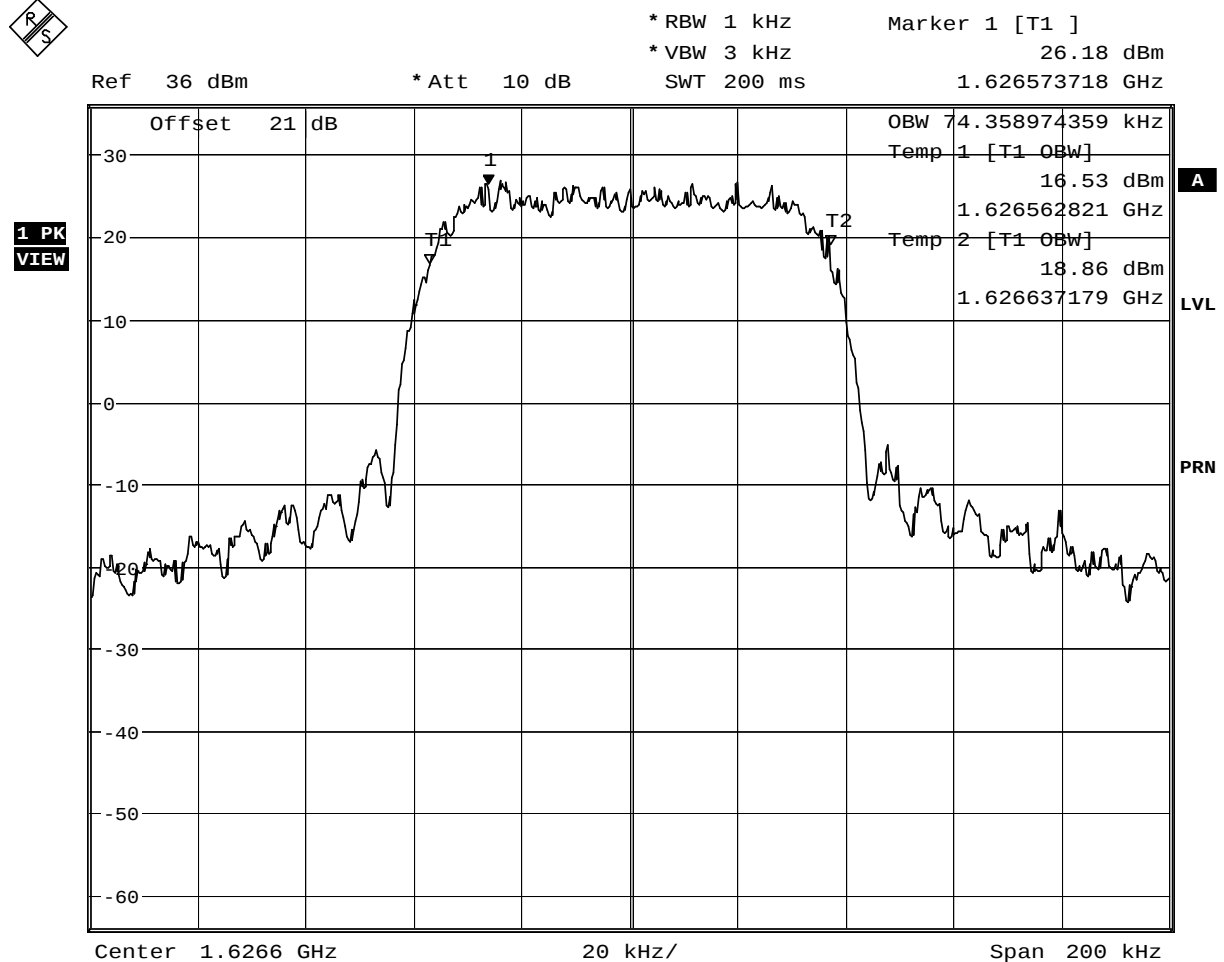
1626.6MHz, R20T1Q Test Mode



Product Service

2.2 OCCUPIED BANDWIDTH

2.2.6 Test Results – Continued



Date: 2.JAN.2007 16:33:10

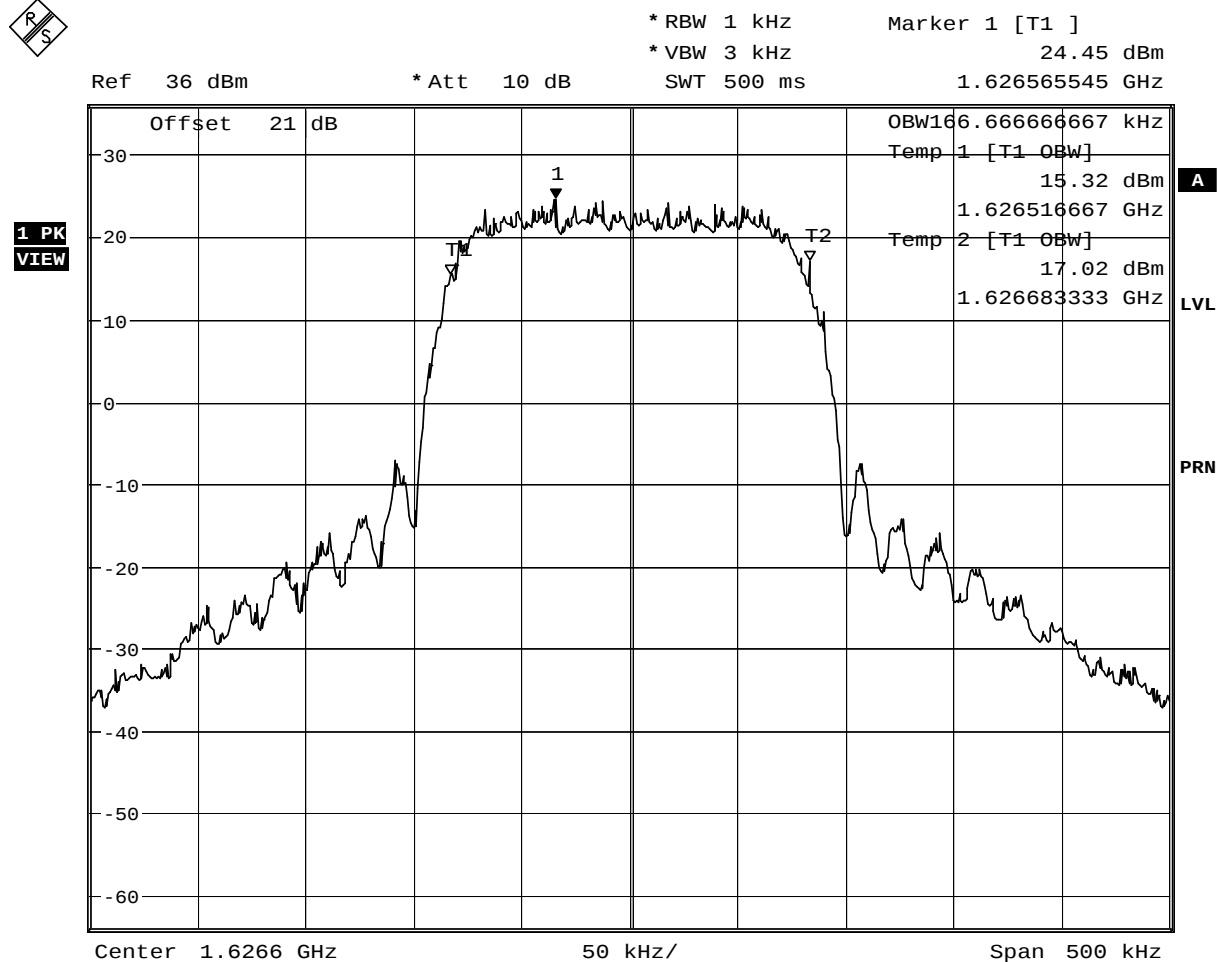
1626.6MHz, R20T2Q Test Mode



Product Service

2.2 OCCUPIED BANDWIDTH

2.2.6 Test Results – Continued



Date: 2.JAN.2007 16:36:01

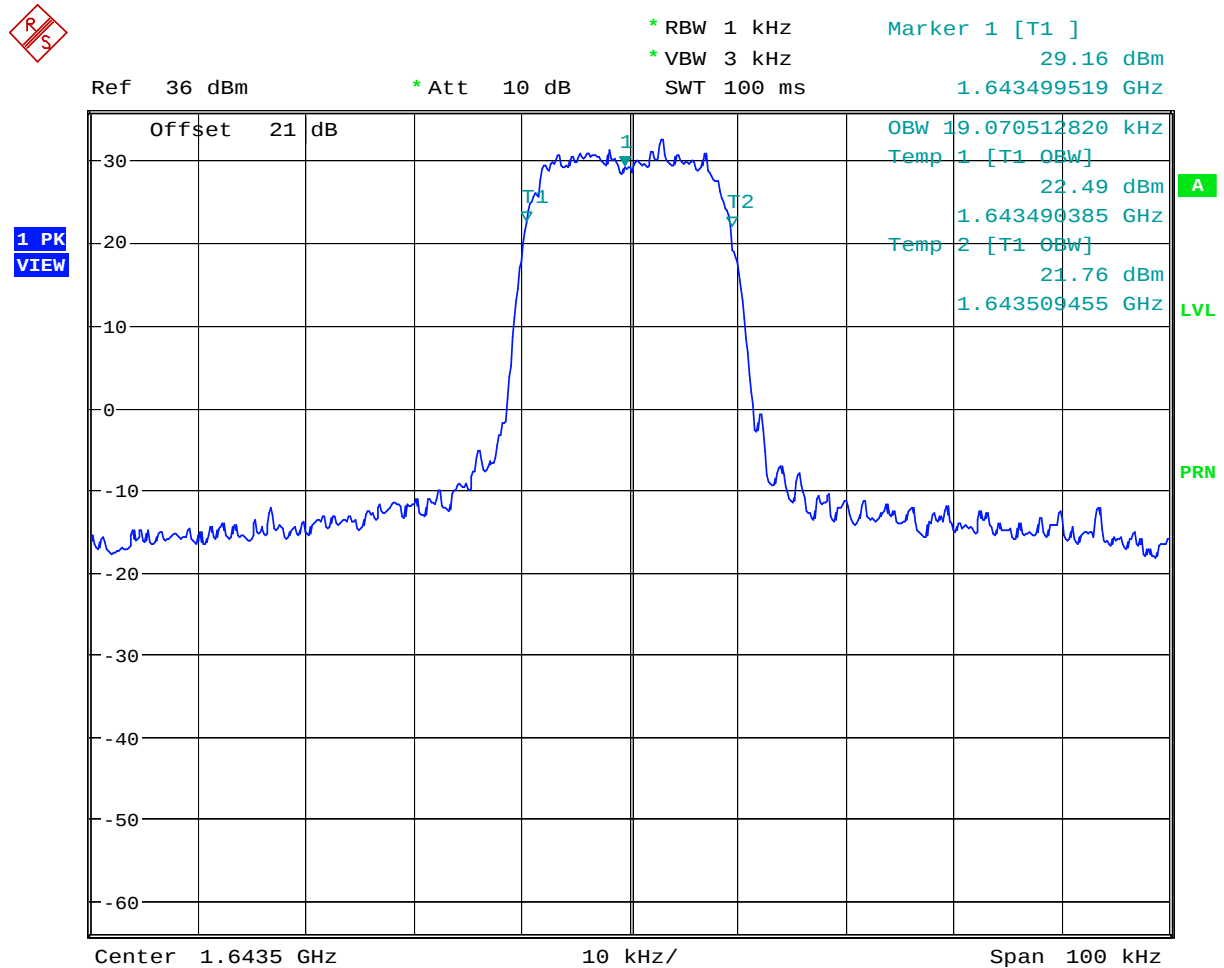
1626.6MHz, R20T45Q Test Mode



Product Service

2.2 OCCUPIED BANDWIDTH

2.2.6 Test Results – Continued



Date: 2.JAN.2007 16:13:52

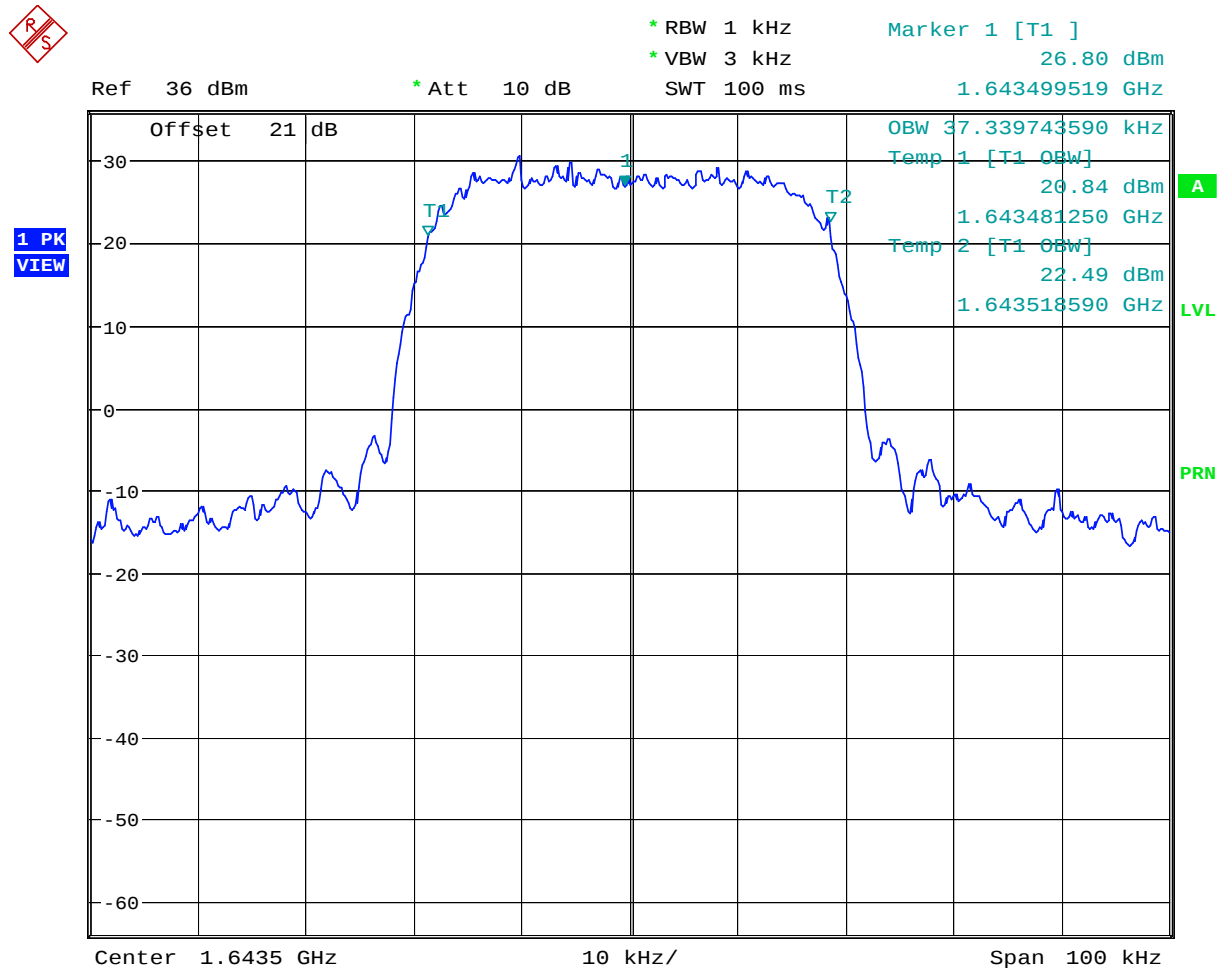
1643.5MHz, R20T0.5Q Test Mode



Product Service

2.2 OCCUPIED BANDWIDTH

2.2.6 Test Results – Continued



Date: 2.JAN.2007 16:17:20

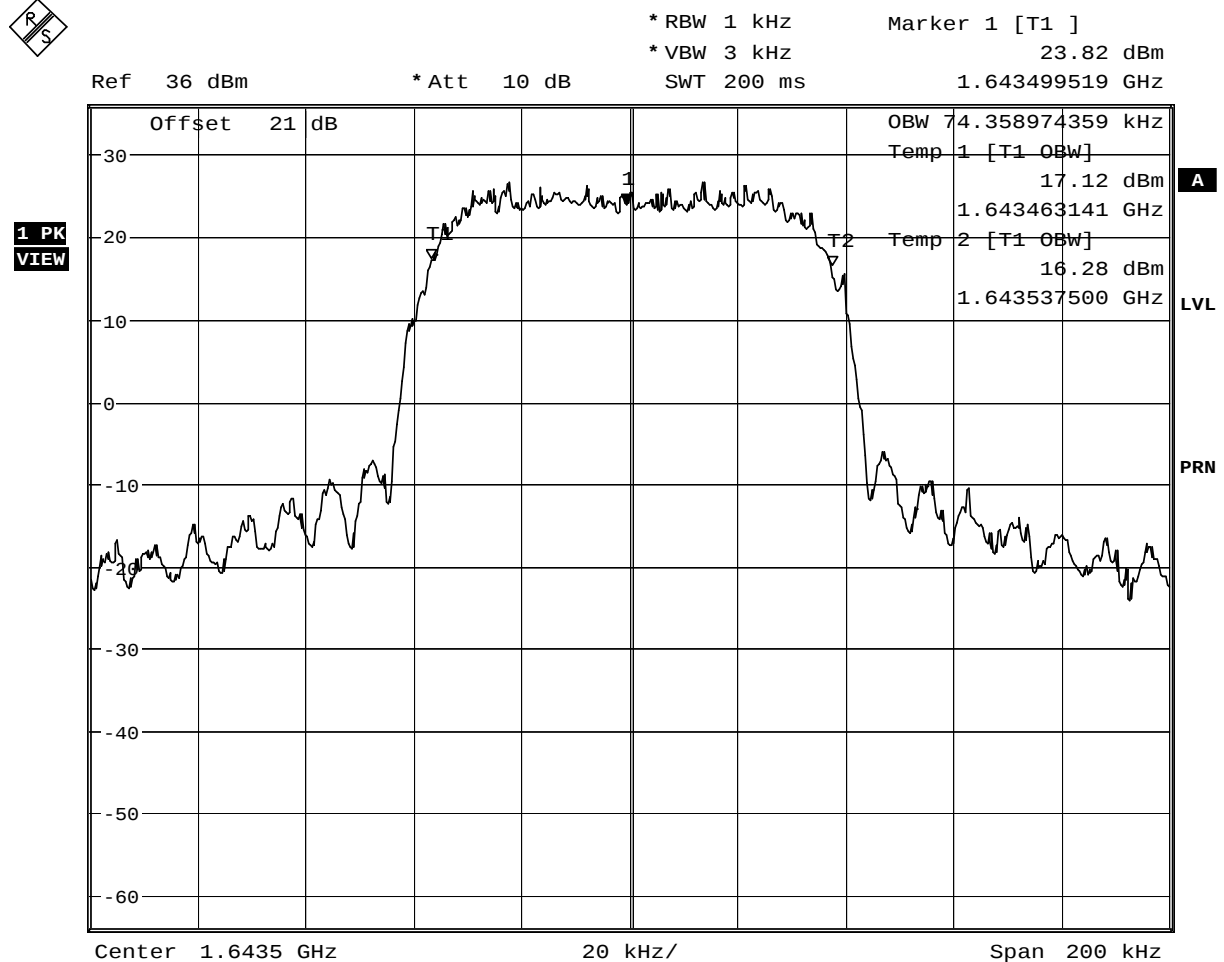
1643.5MHz, R20T1Q Test Mode



Product Service

2.2 OCCUPIED BANDWIDTH

2.2.6 Test Results – Continued



Date: 2.JAN.2007 16:21:21

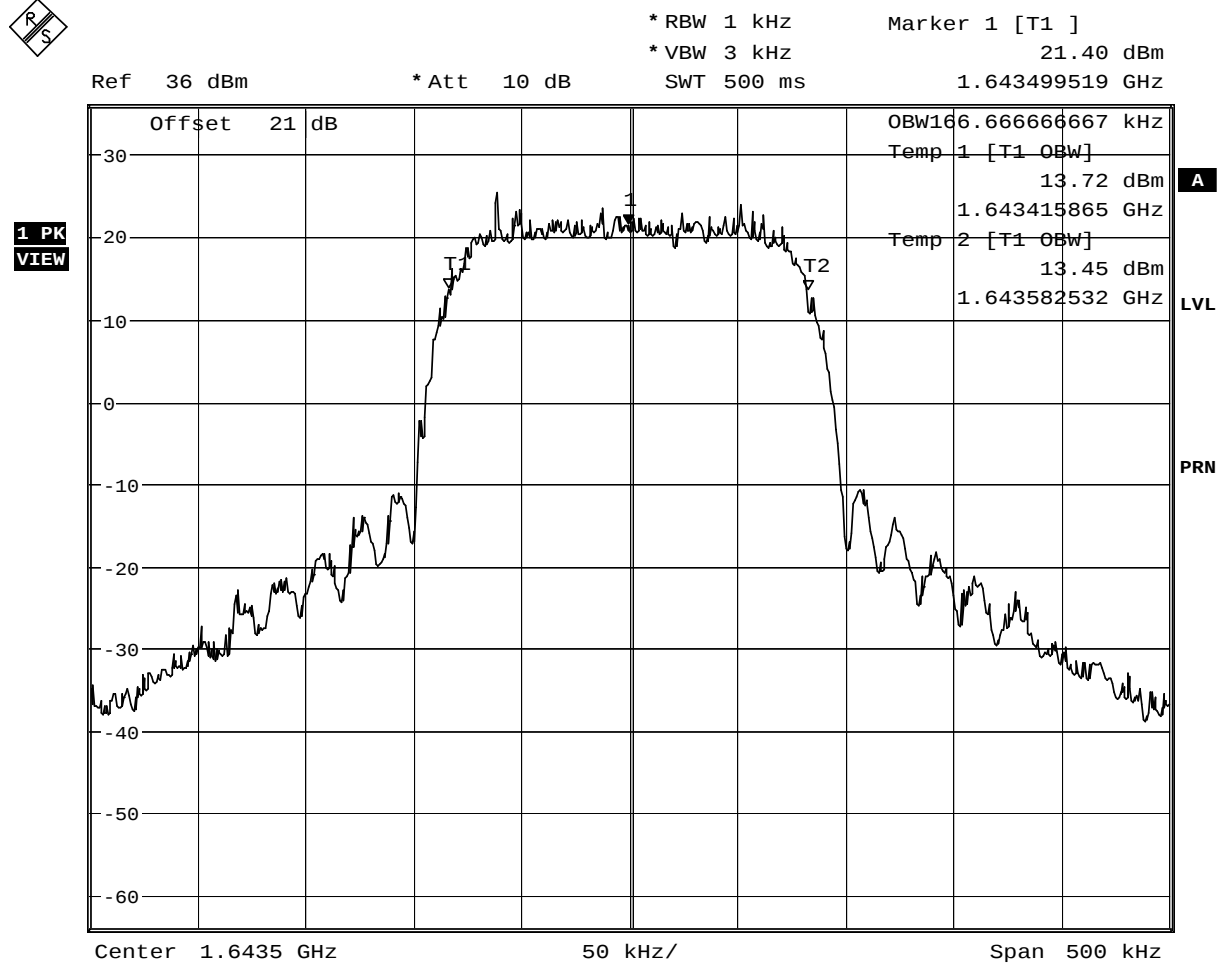
1643.5MHz, R20T2Q Test Mode



Product Service

2.2 OCCUPIED BANDWIDTH

2.2.6 Test Results – Continued



Date: 2.JAN.2007 16:24:55

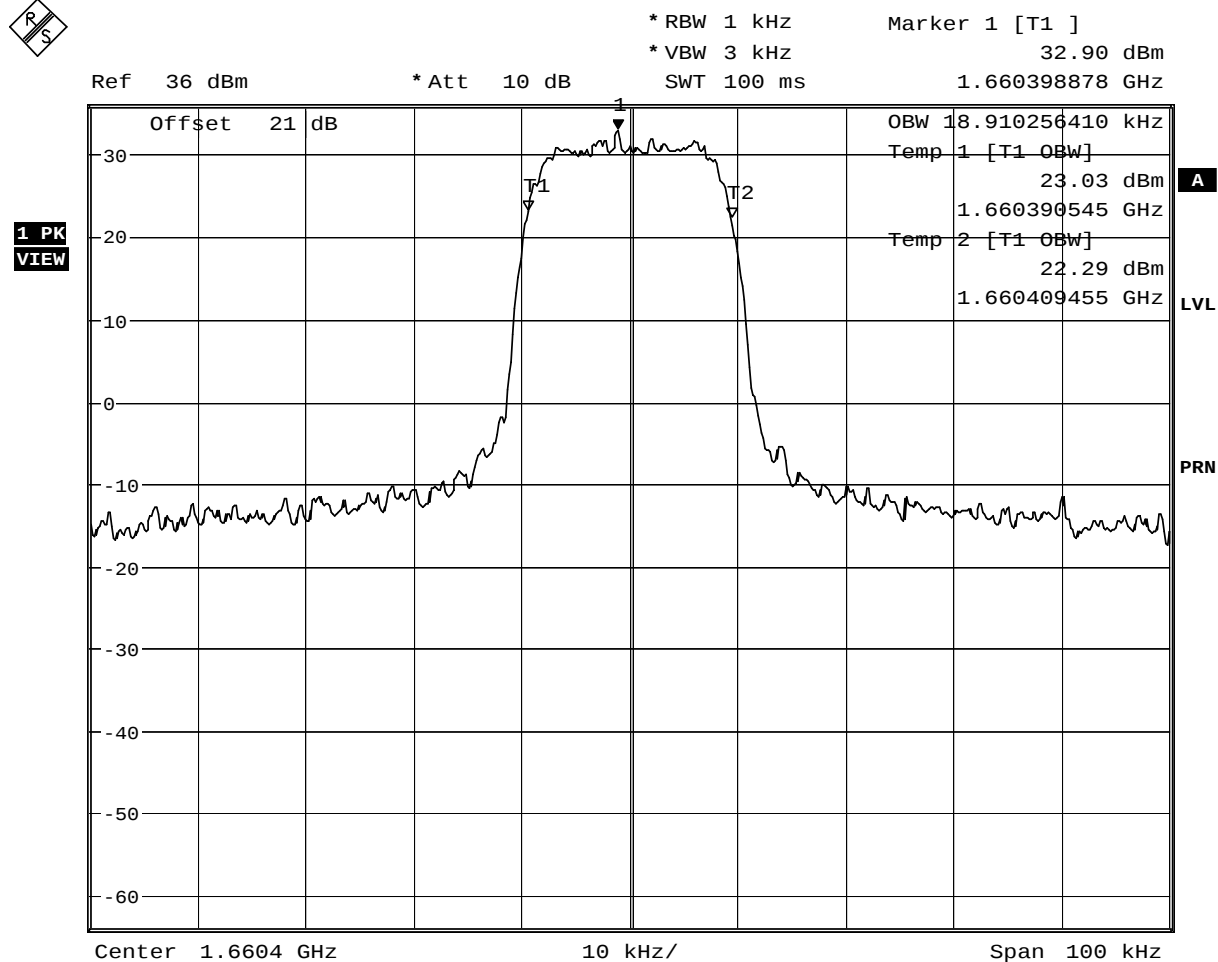
1643.5MHz, R20T45Q Test Mode



Product Service

2.2 OCCUPIED BANDWIDTH

2.2.6 Test Results – Continued



Date: 2.JAN.2007 16:42:46

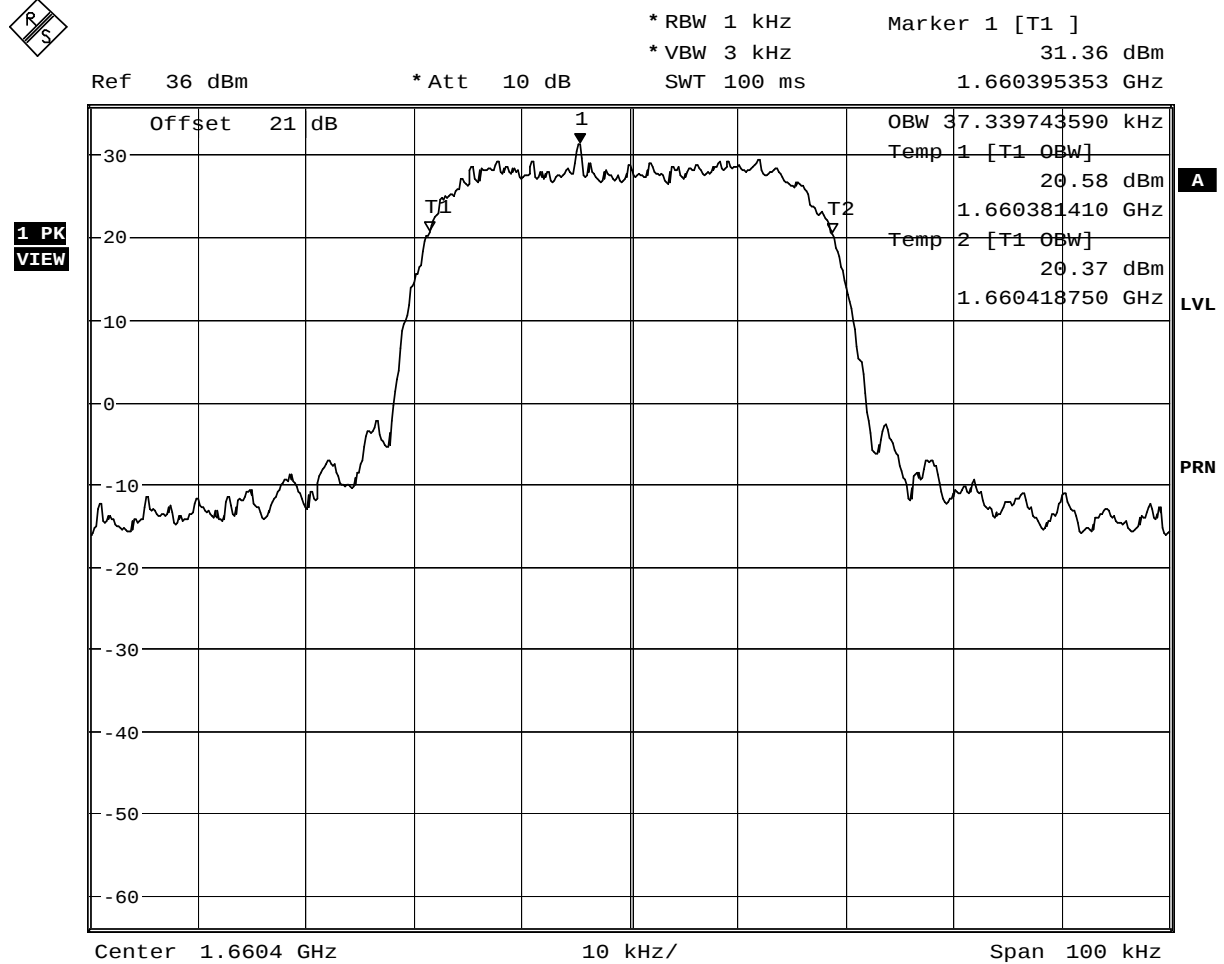
1660.4MHz, R20T0.5Q Test Mode



Product Service

2.2 OCCUPIED BANDWIDTH

2.2.6 Test Results – Continued



Date: 2.JAN.2007 16:45:41

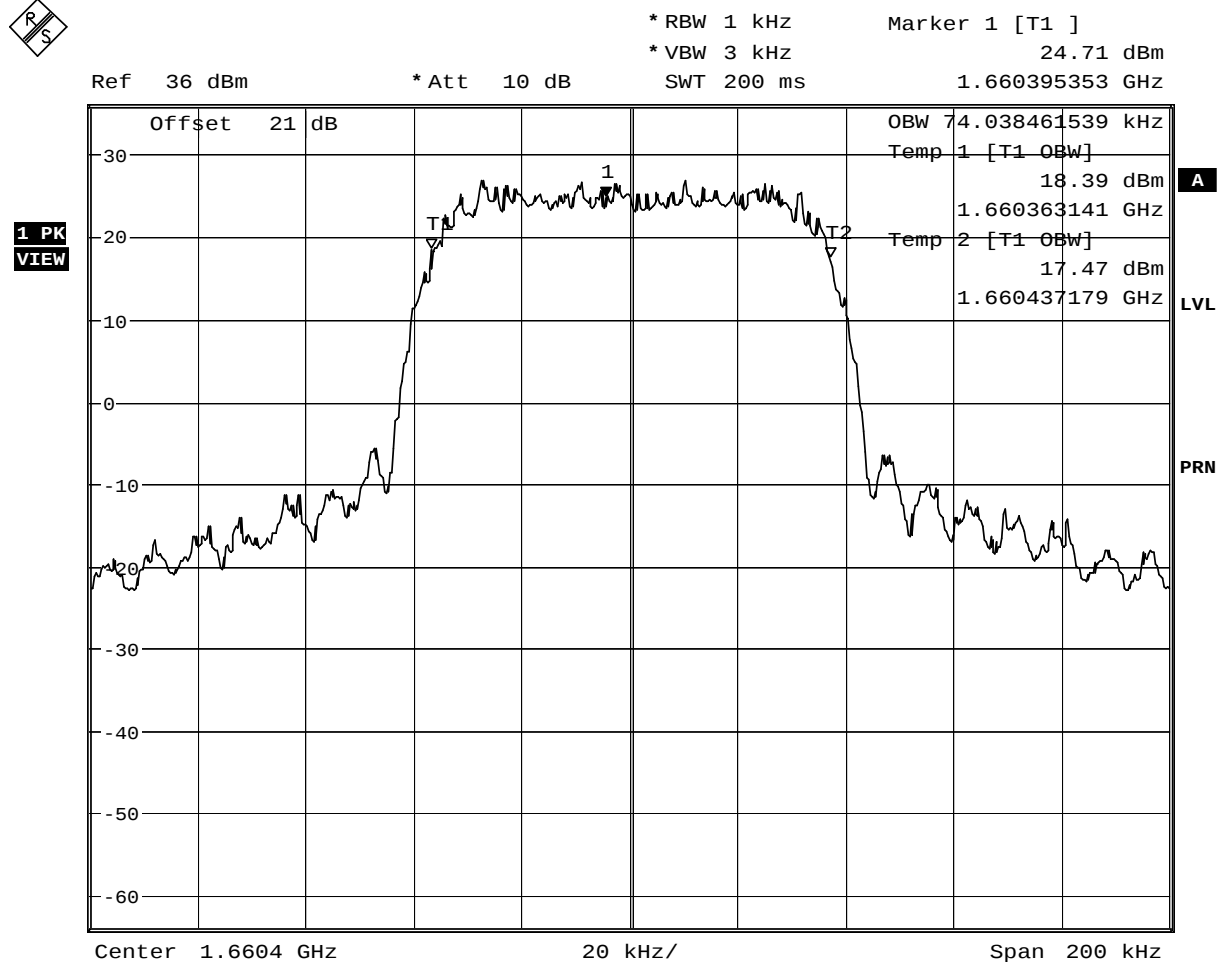
1660.4MHz, R20T1Q Test Mode



Product Service

2.2 OCCUPIED BANDWIDTH

2.2.6 Test Results – Continued



Date: 2.JAN.2007 16:47:45

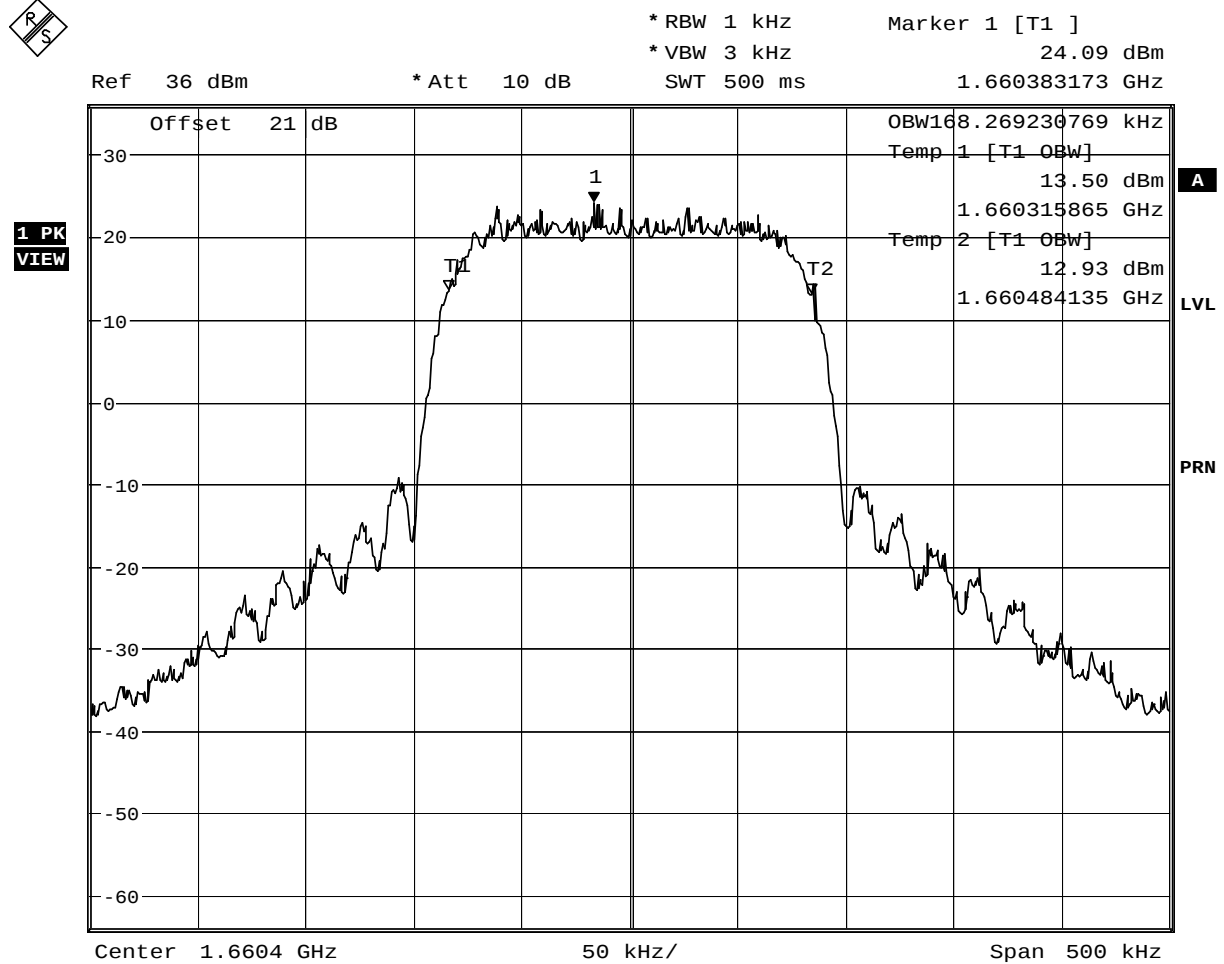
1660.4MHz, R20T2Q Test Mode



Product Service

2.2 OCCUPIED BANDWIDTH

2.2.6 Test Results – Continued



Date: 2.JAN.2007 16:50:28

1660.4MHz, R20T45Q Test Mode



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.1 Specification Reference

FCC CFR 47: Parts 2.1051 and 87.139

2.3.2 Equipment Under Test

Satellite Data Unit

2.3.3 Date of Test

3rd January 2007

2.3.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.3.5 Test Procedure

In accordance with Part 2.1051, the spurious emissions from the antenna terminal were measured. The transmitter output power was attenuated using a combination of filters and attenuators and the frequency spectrum investigated from 9kHz to 17 GHz. The EUT was set to transmit on full power and tested in all four modes of operation as described in Section 1.4.2. The resolution and video bandwidths were set to 1MHz in accordance with Part 24.238. The spectrum analyser detector was set to Max Hold.

For measuring the range 9kHz to 4GHz, on maximum power, a 30dB attenuator was used. From 4 to 17GHz, a 20dB attenuator and a high pass filter were used.

The maximum path loss across the measurement band was used as the reference level offset to ensure worst case.

2.3.6 Test Results

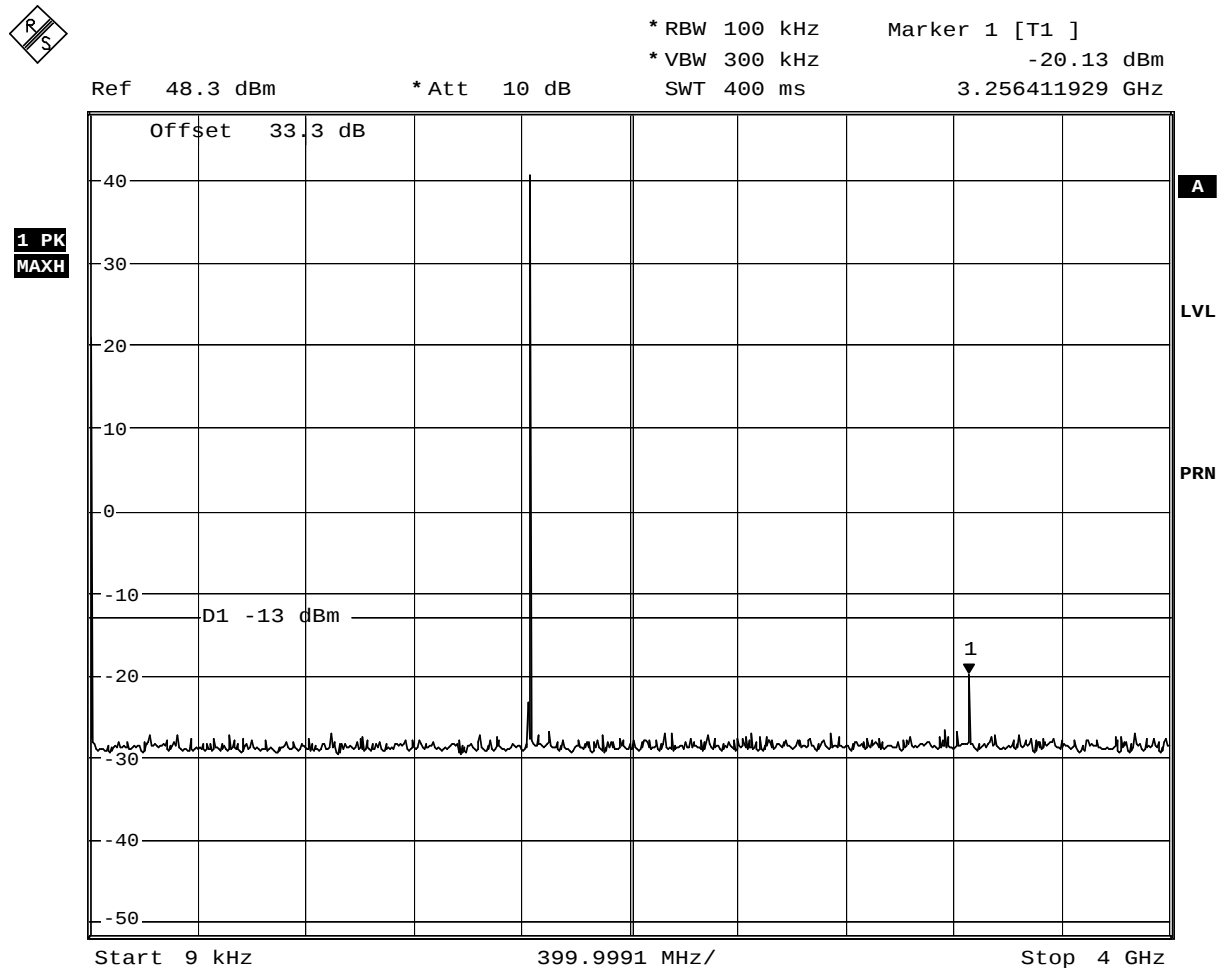
EUT fails to comply with FCC CFR 47: Parts 2.1051 and 87.139. The plots on the following pages show the frequency spectrum from 9kHz to 17GHz of the EUT.



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 2.JAN.2007 18:06:23

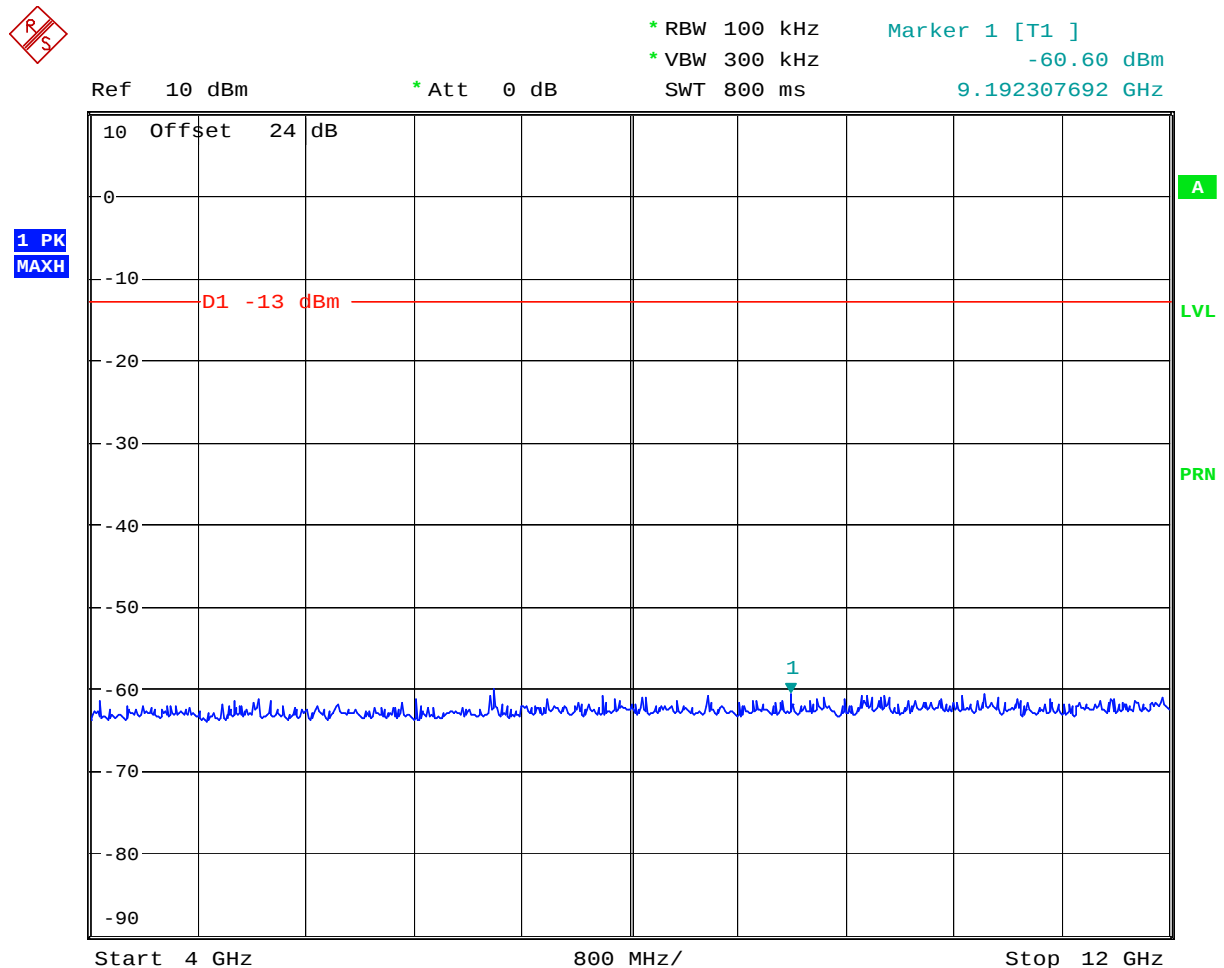
1626.6MHz, R20T0.5Q Test Mode, 9kHz to 4GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 10:52:11

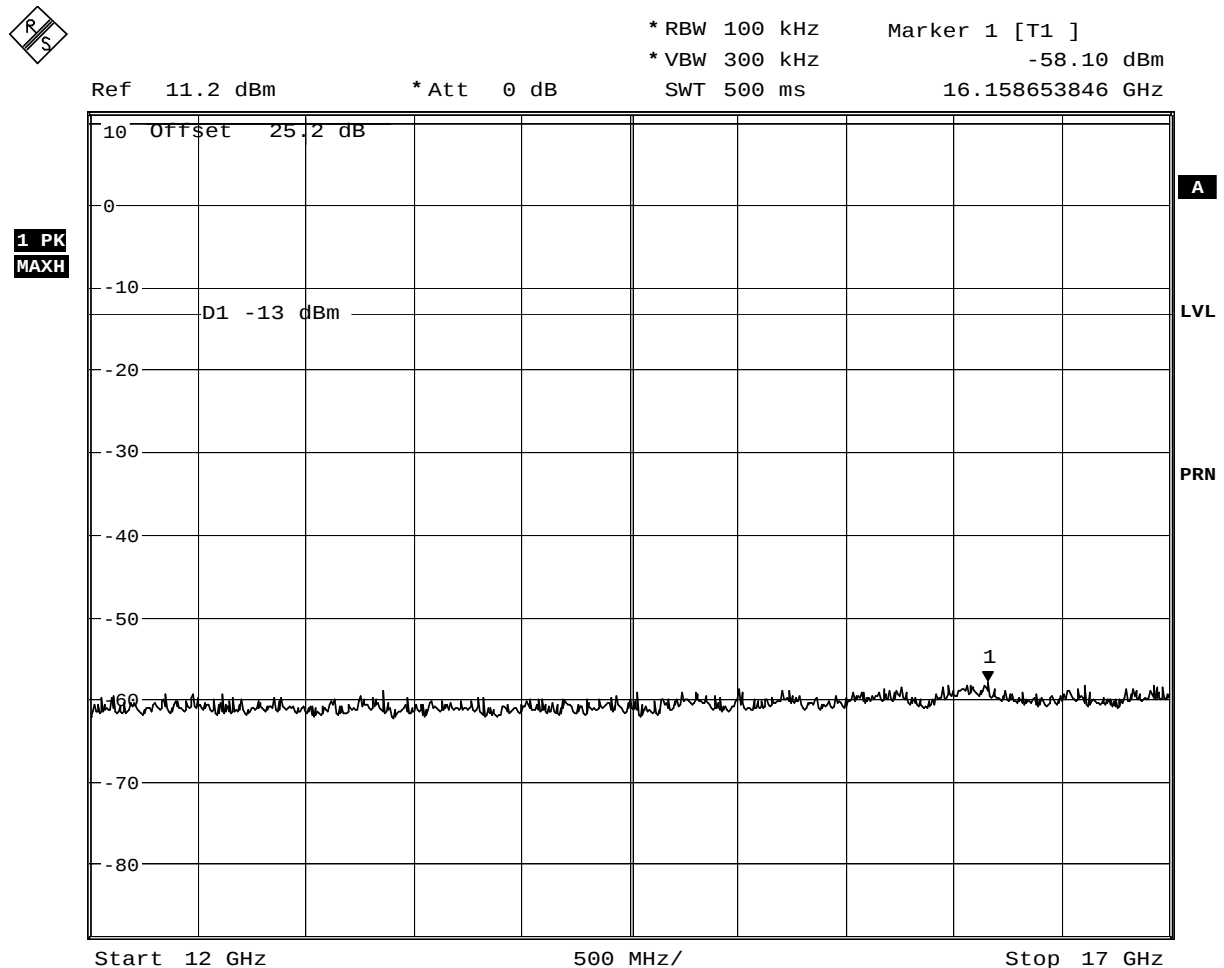
1626.6MHz, R20T0.5Q Test Mode, 4GHz to 12GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:14:06

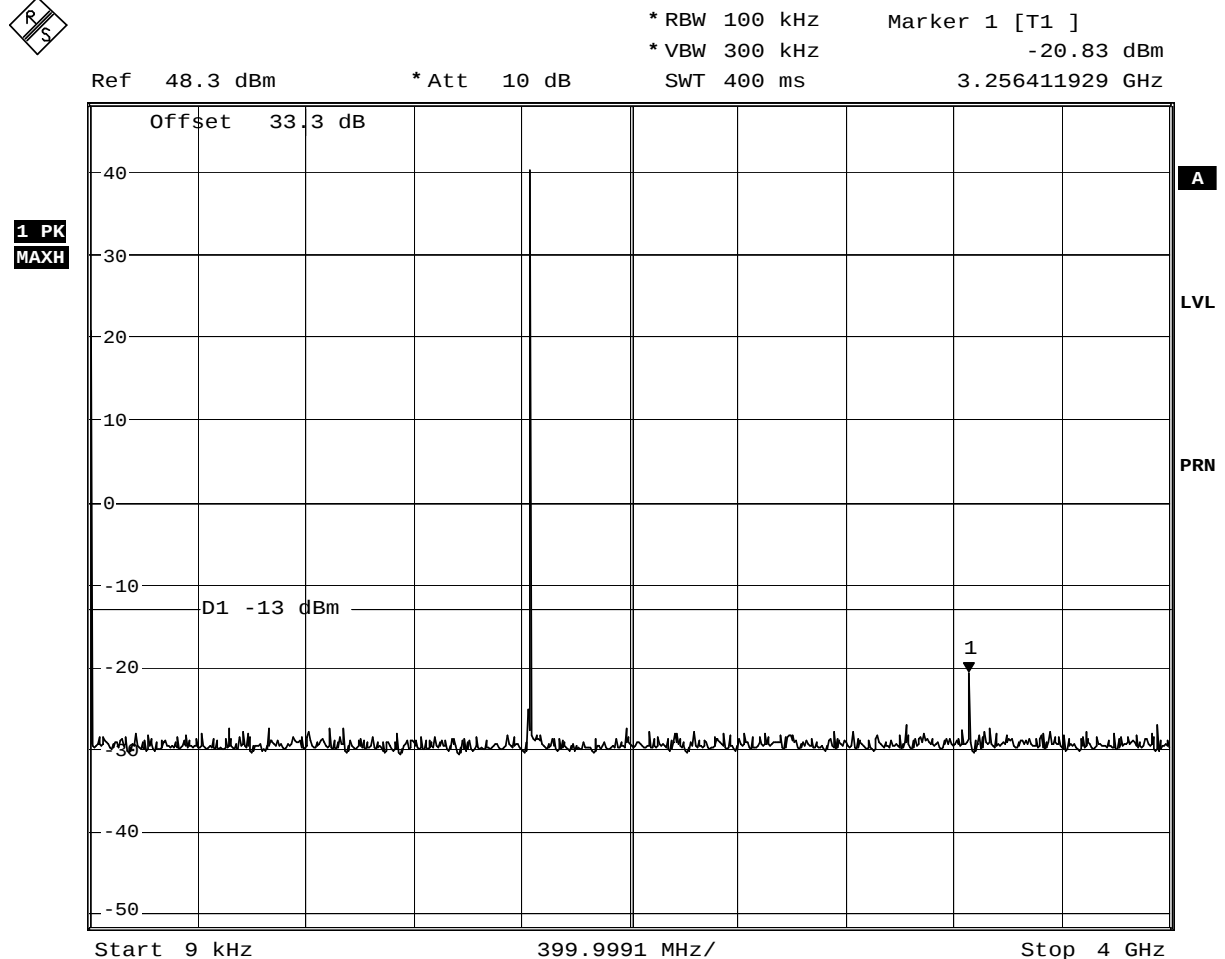
1626.6MHz, R20T0.5Q Test Mode,12GHz to 17GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 2. JAN. 2007 18:07:55

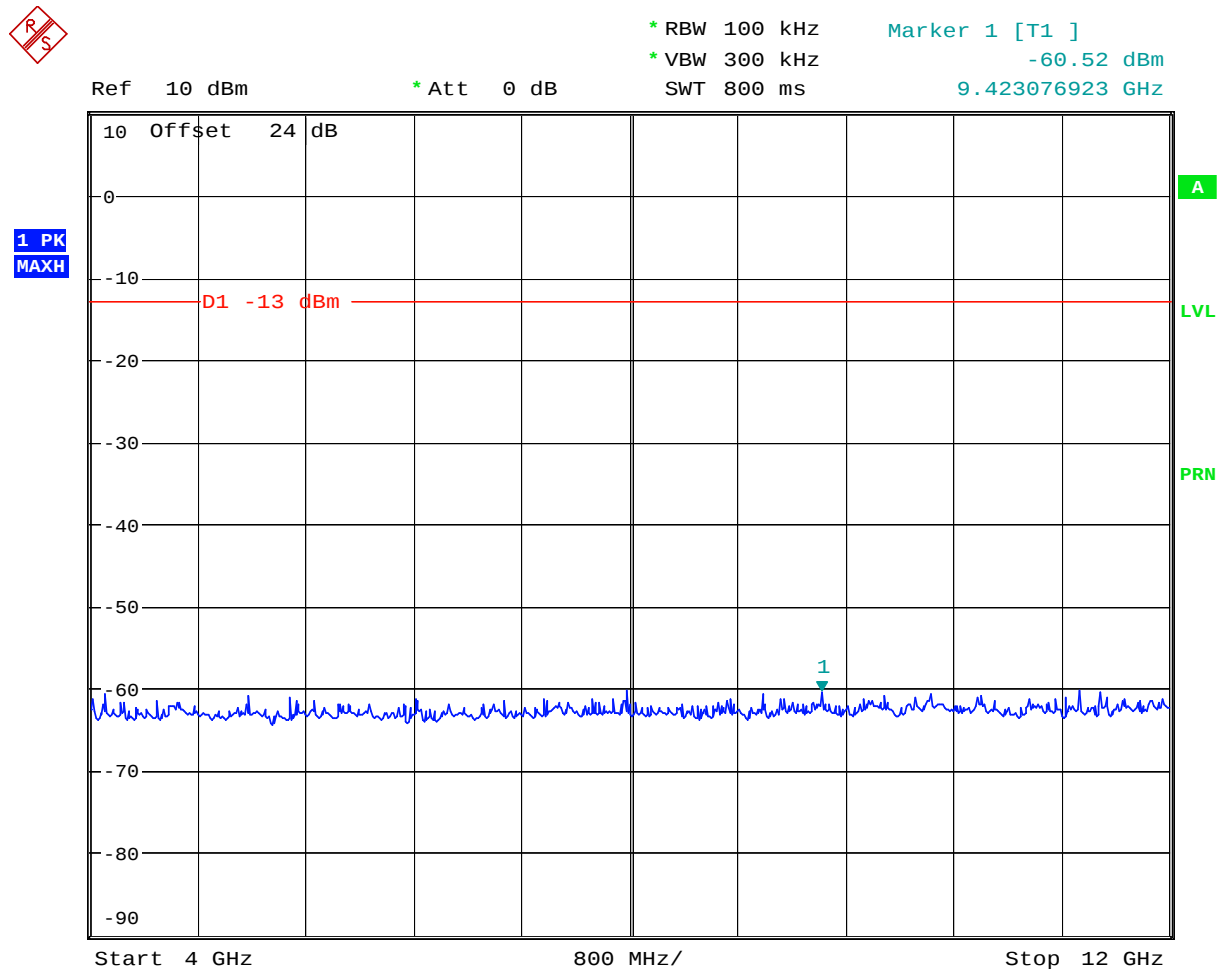
1626.6MHz, R20T1 Test Mode, 9kHz to 4GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 10:54:01

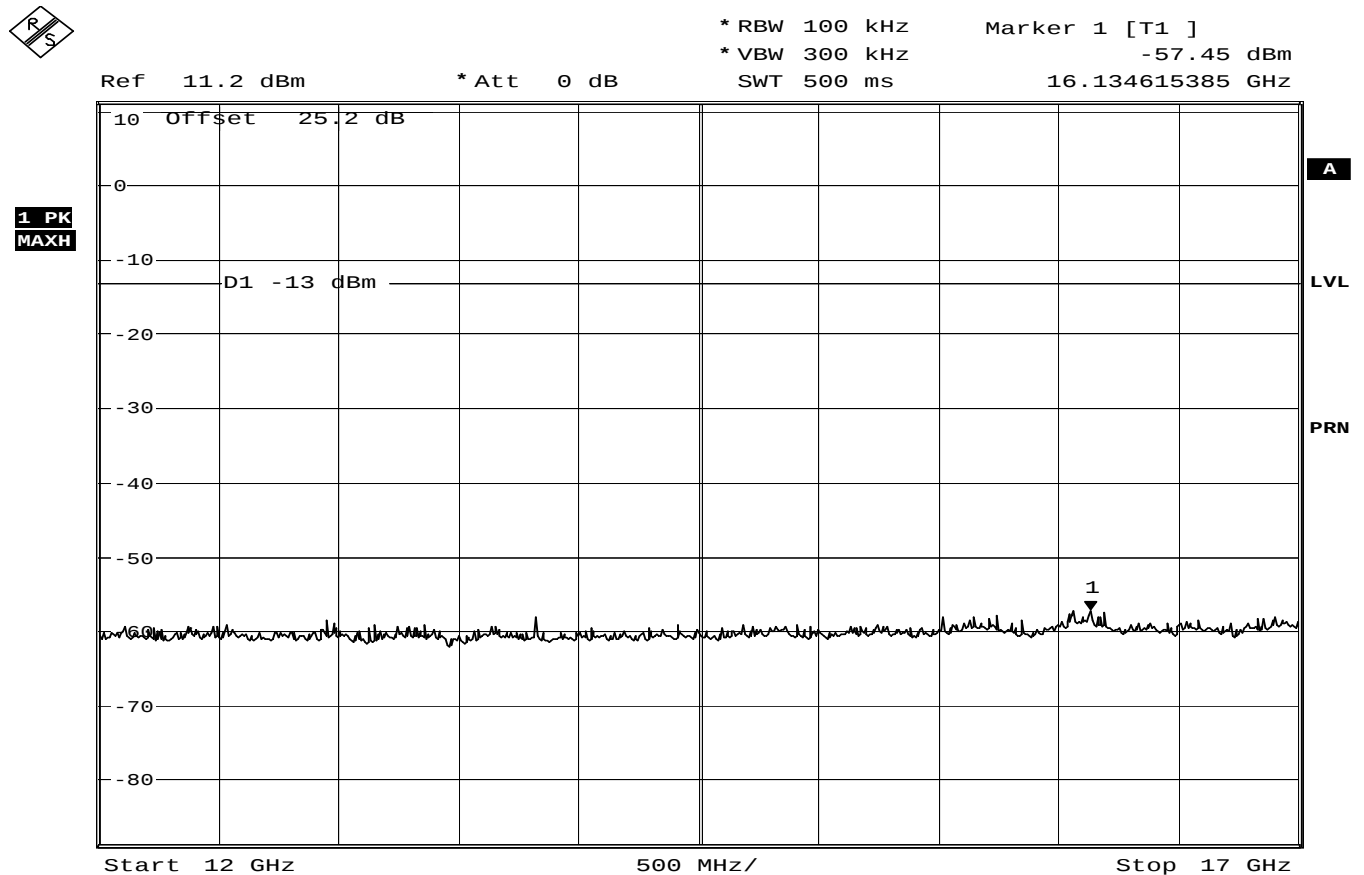
1626.6MHz, R20T1 Test Mode,4GHz to 12GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:16:01

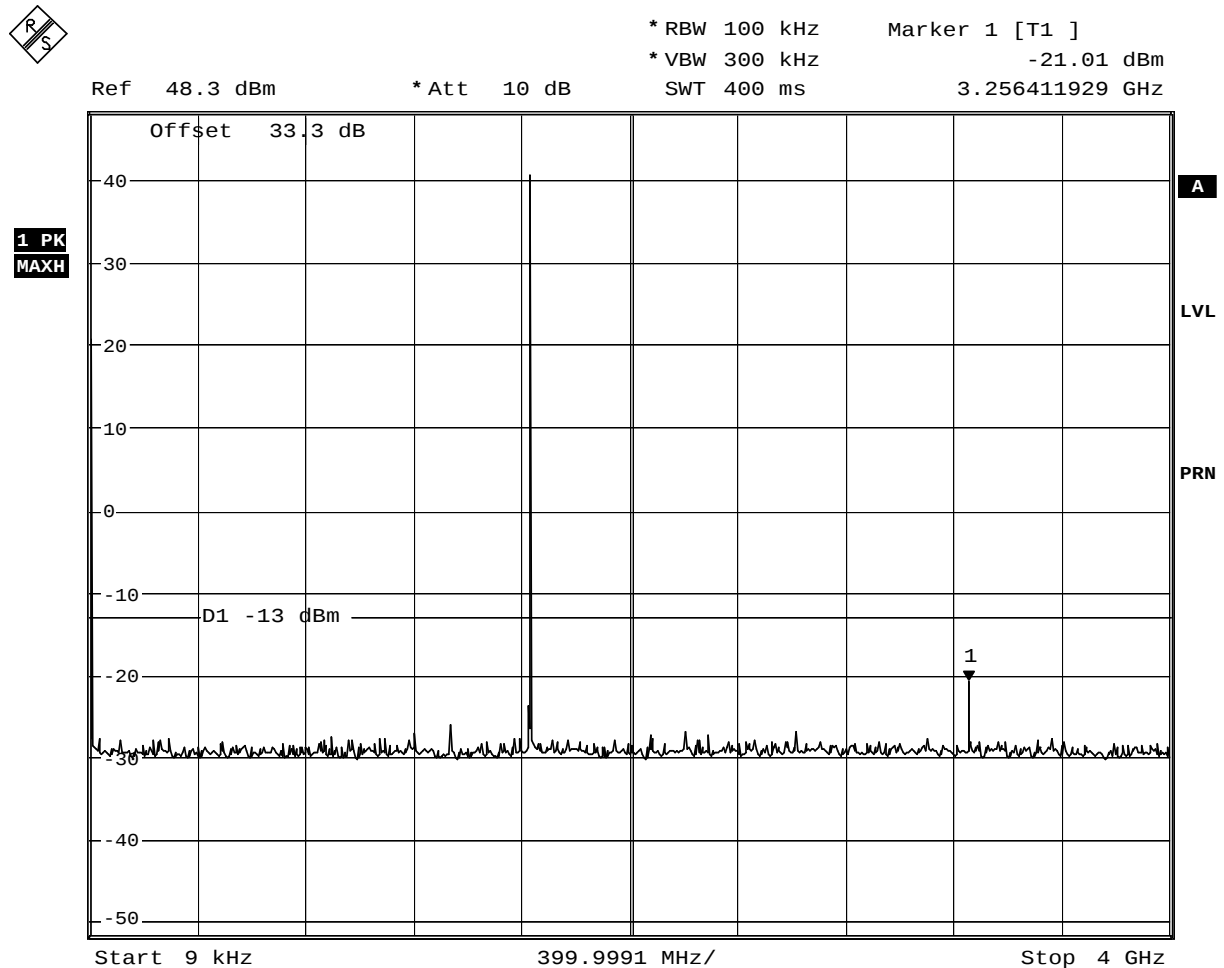
1626.6MHz, R20T1 Test Mode,12GHz to 17GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 2.JAN.2007 18:09:47

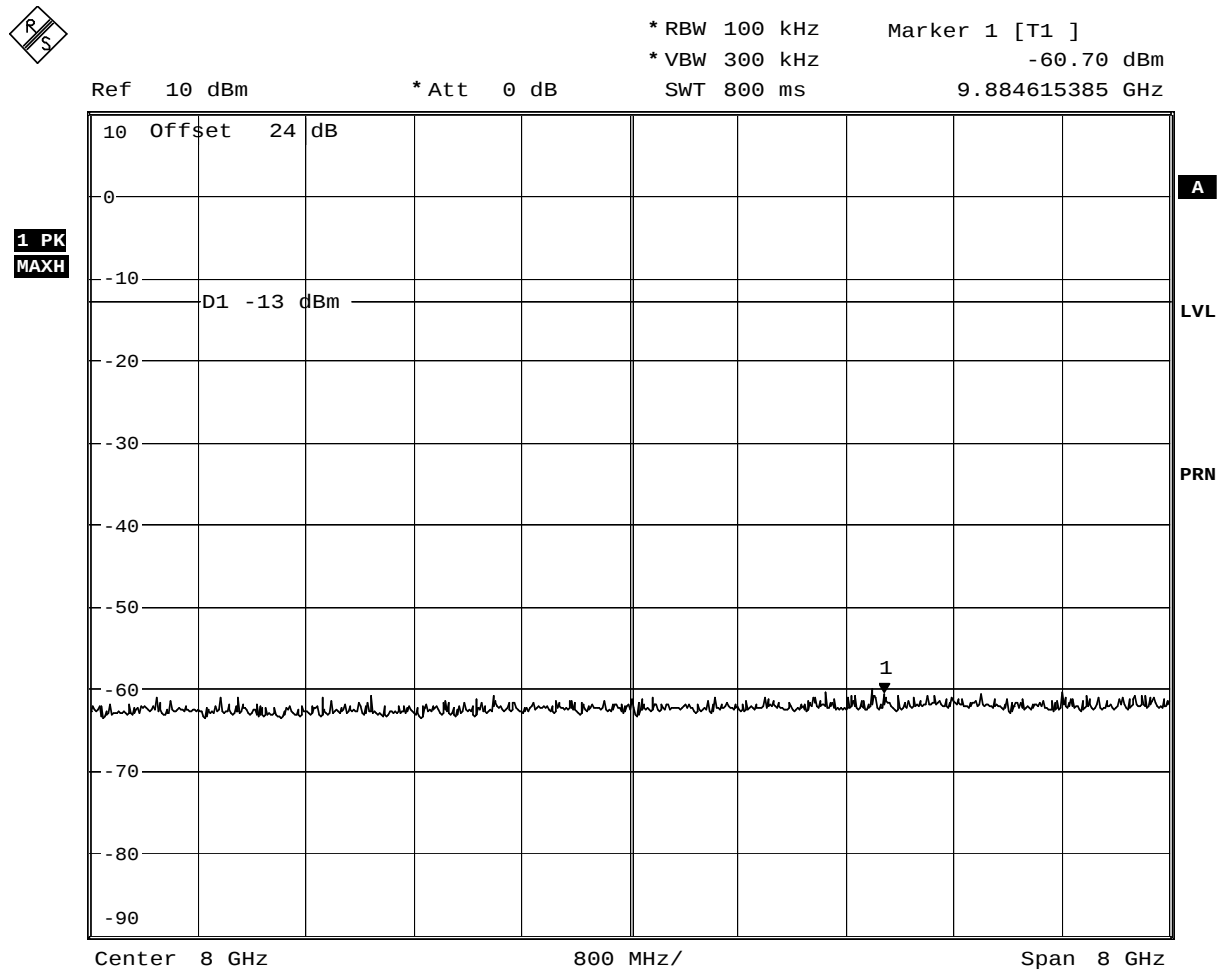
1626.6MHz, R20T2Q Test Mode, 9kHz to 4GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 10:56:54

1626.6MHz, R20T2Q Test Mode, 4GHz to 12GHz



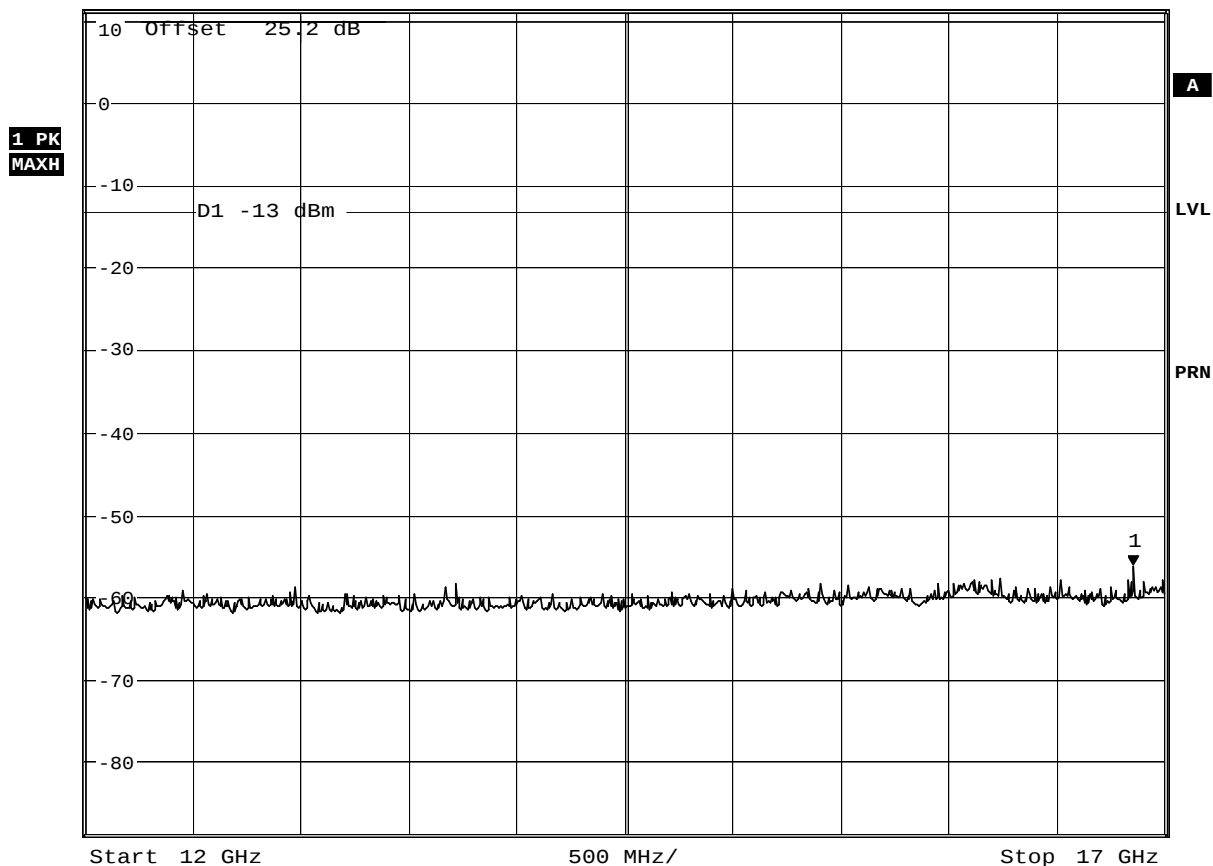
Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Ref 11.2 dBm * Att 0 dB * RBW 100 kHz Marker 1 [T1]
* VBW 300 kHz -56.30 dBm
SWT 500 ms 16.855769231 GHz



Date: 3.JAN.2007 11:17:17

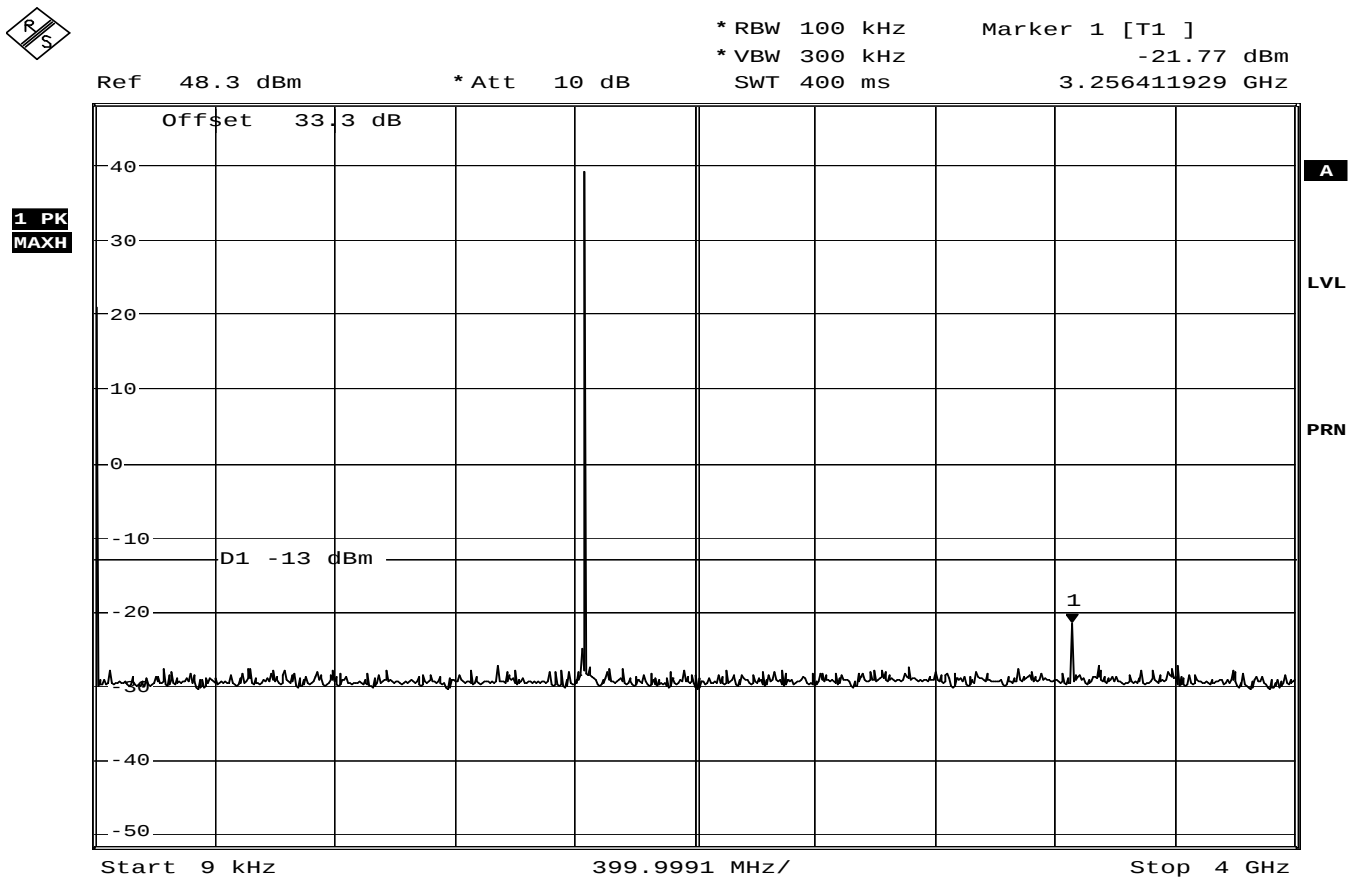
1626.6MHz, R20T2Q Test Mode, 12GHz to 17GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 2 . JAN . 2007 18:12:12

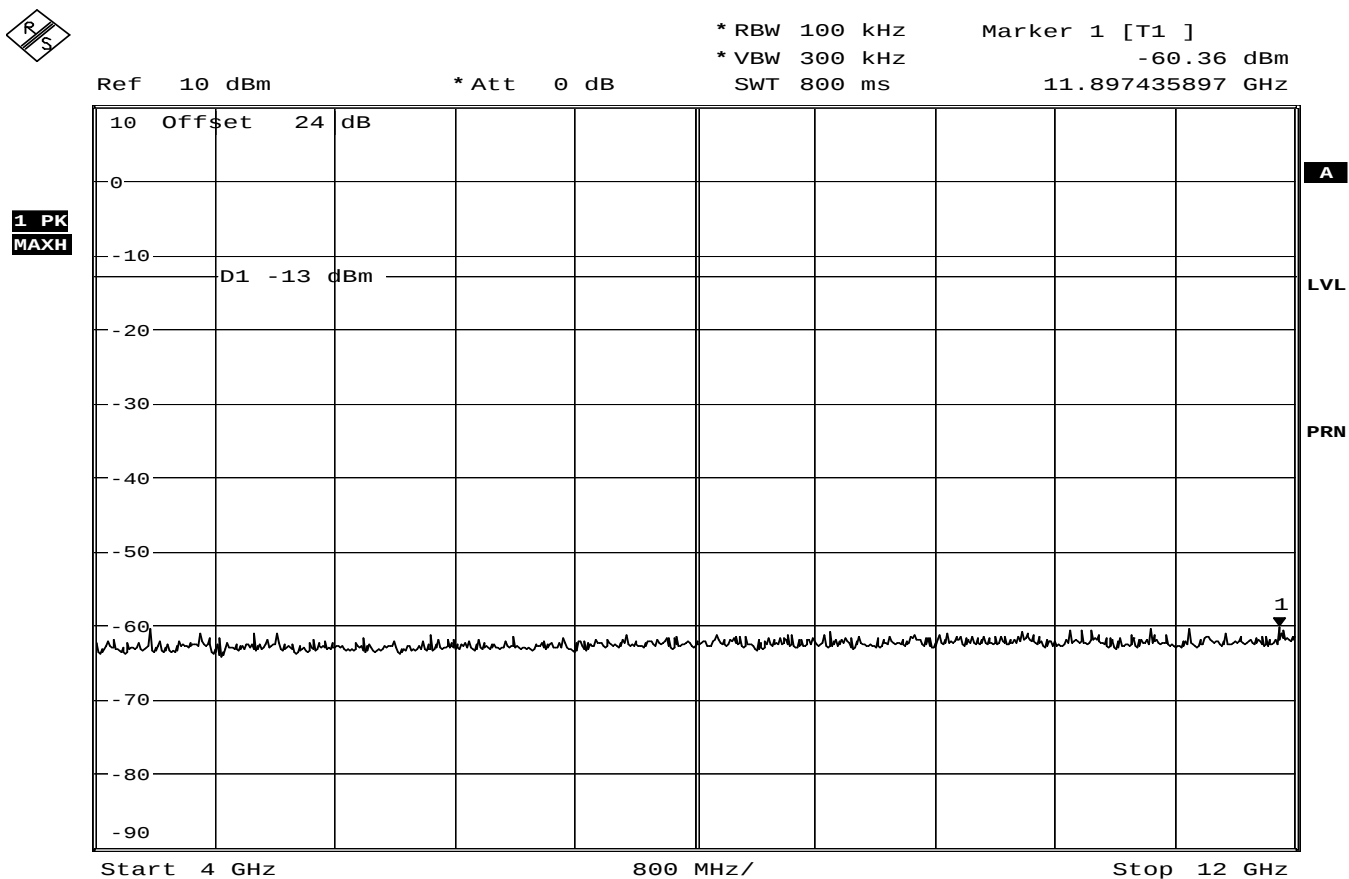
1626.6MHz, R20T45Q Test Mode, 9kHz to 4GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 10:58:20

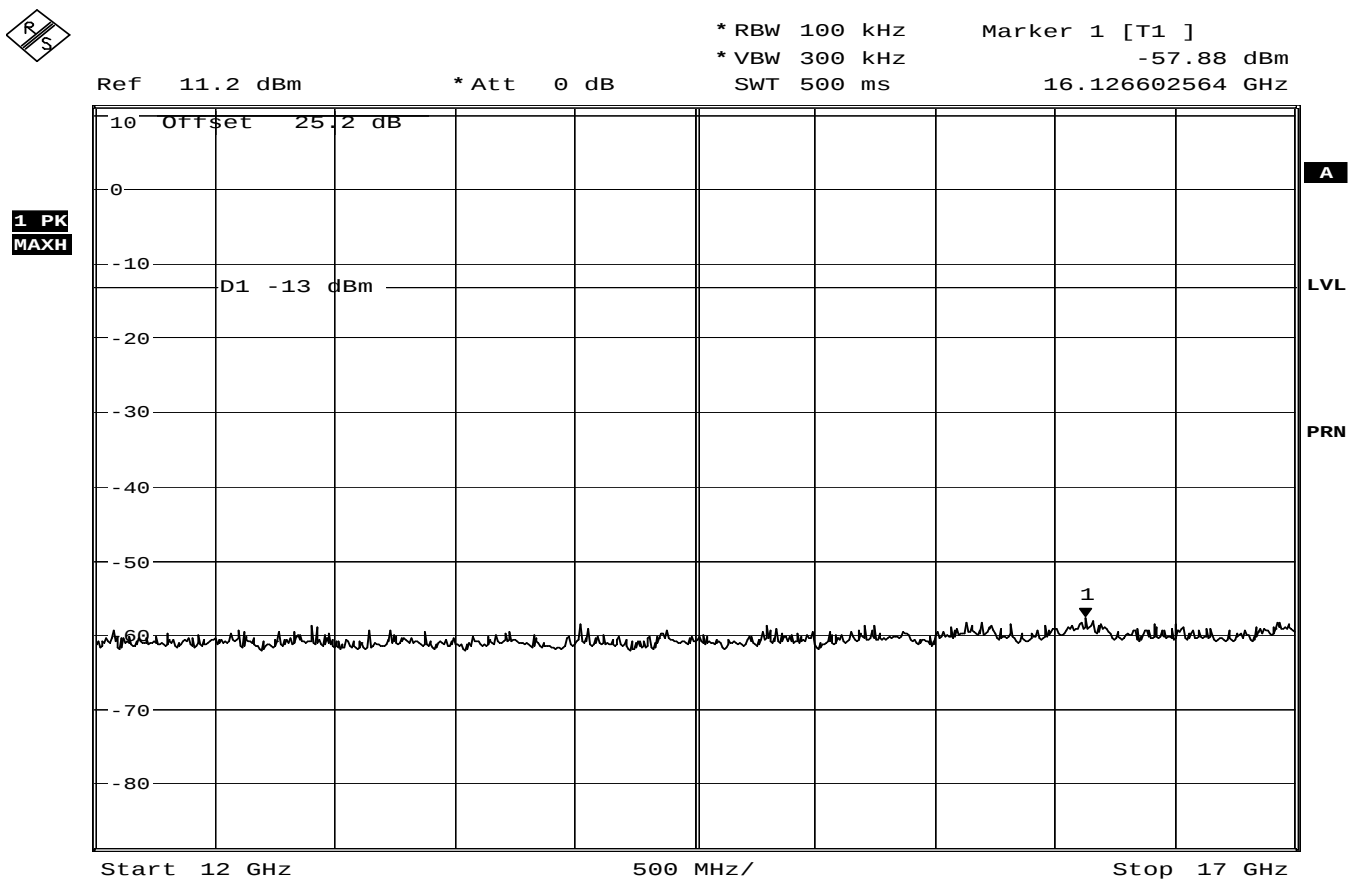
1626.6MHz, R20T45Q Test Mode, 4GHz to 12GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:18:44

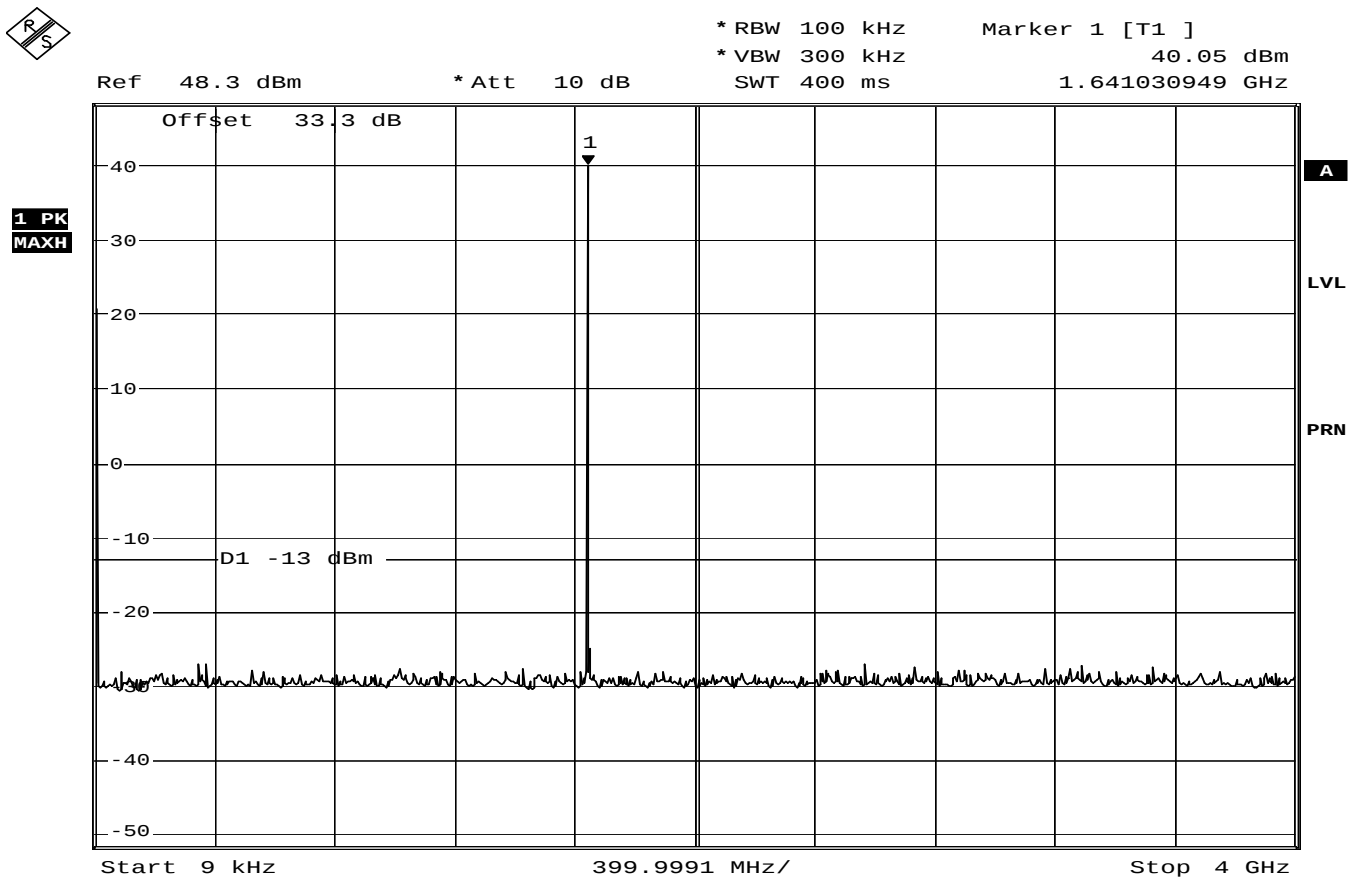
1626.6MHz, R20T45Q Test Mode, 12GHz to 17GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 2 . JAN . 2007 18:14:22

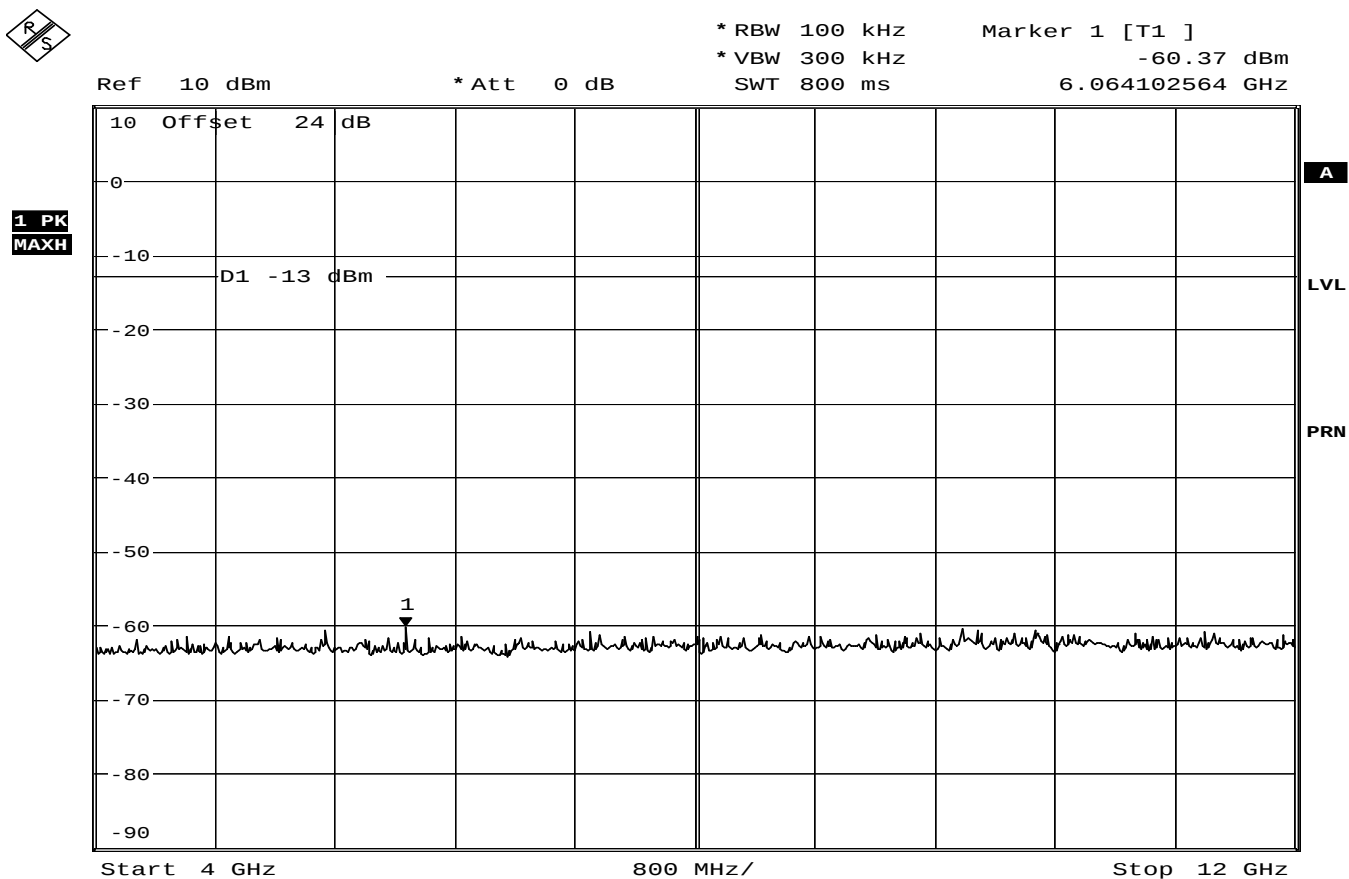
1643.5MHz, R20T0.5Q Test Mode, 9kHz to 4GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:00:09

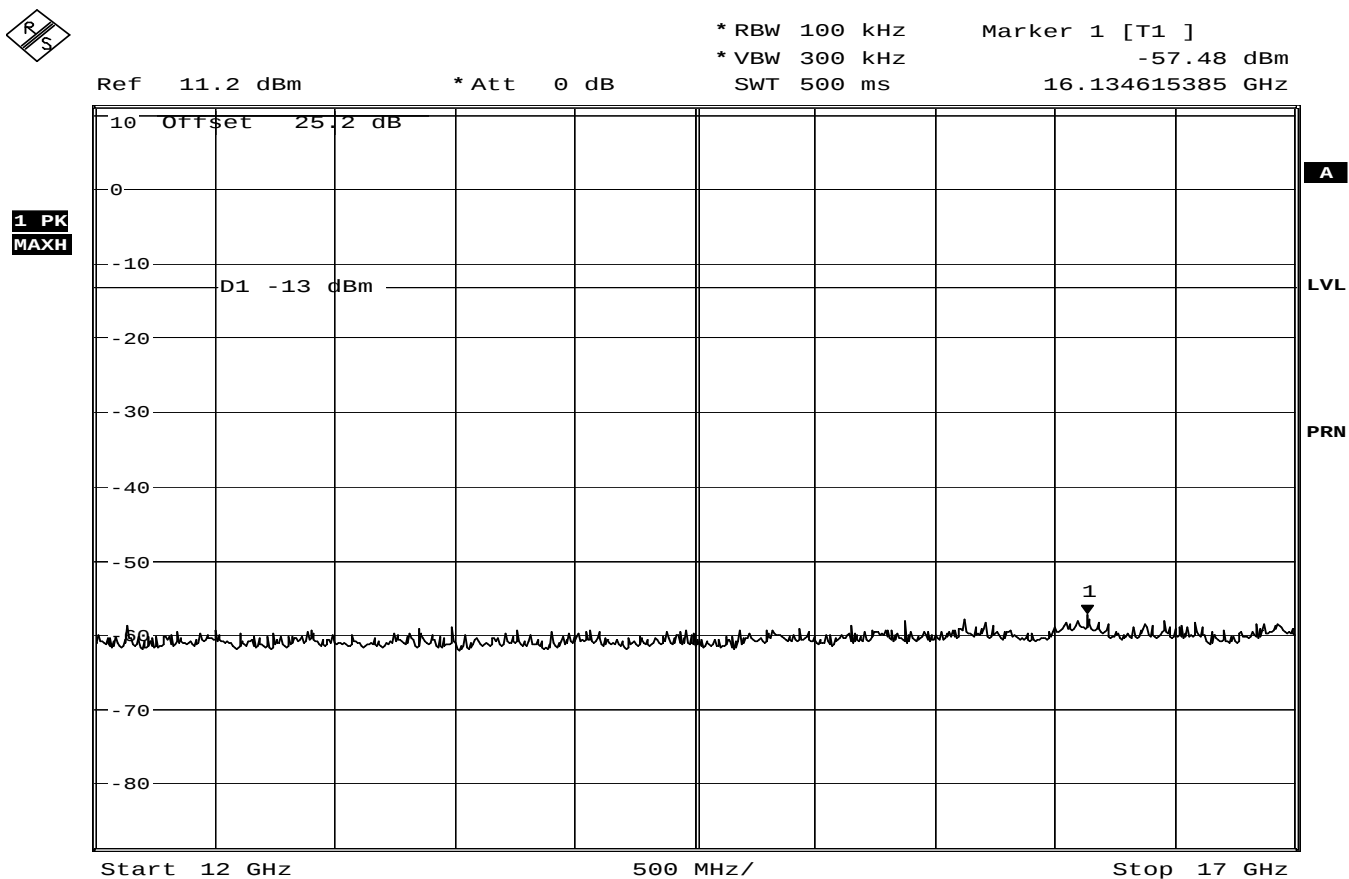
1643.5MHz, R20T0.5Q Test Mode, 4GHz to 12GHz



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2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:20:08

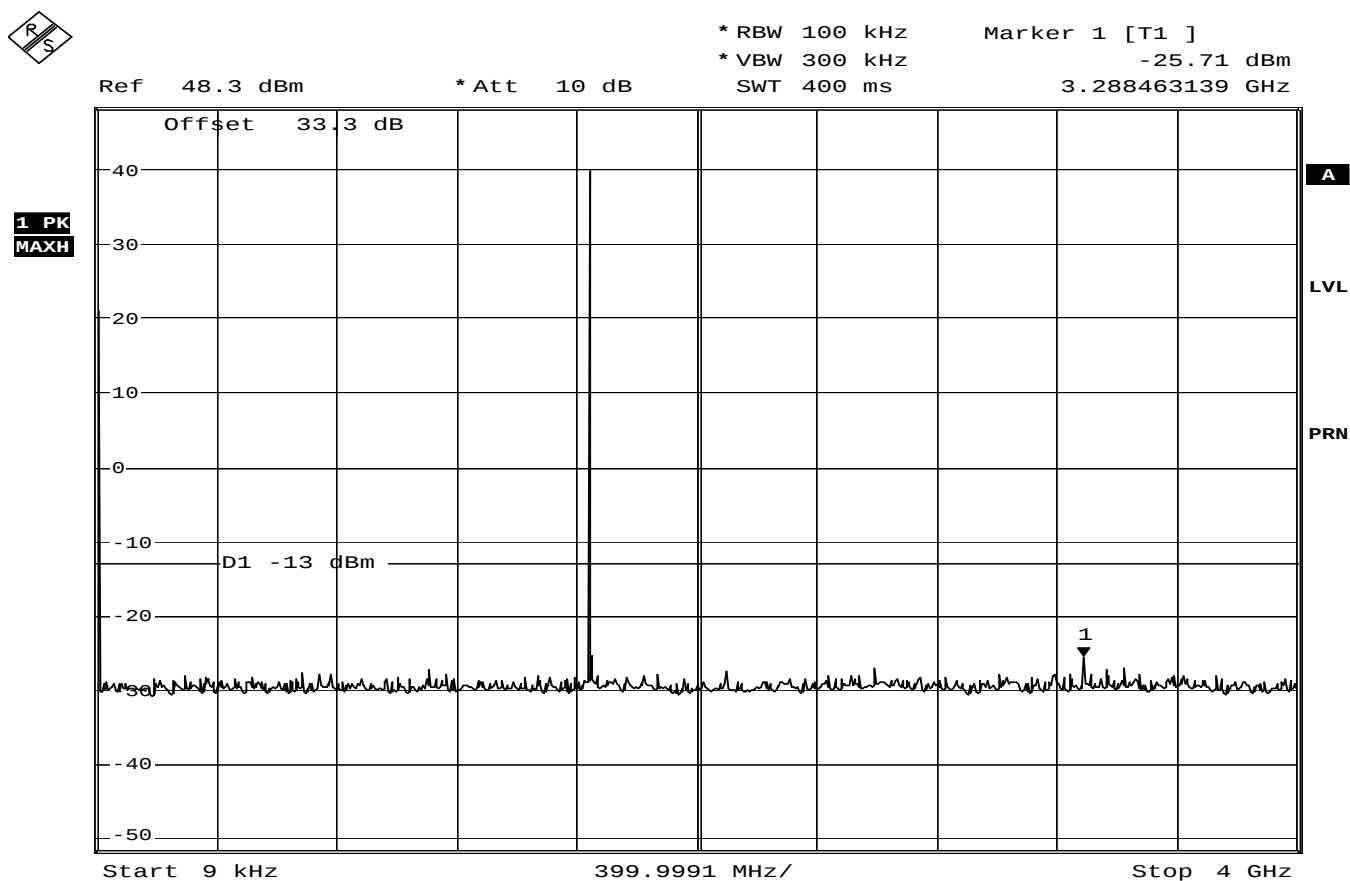
1643.5MHz, R20T0.5Q Test Mode, 12GHz to 17GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 2.JAN.2007 18:16:29

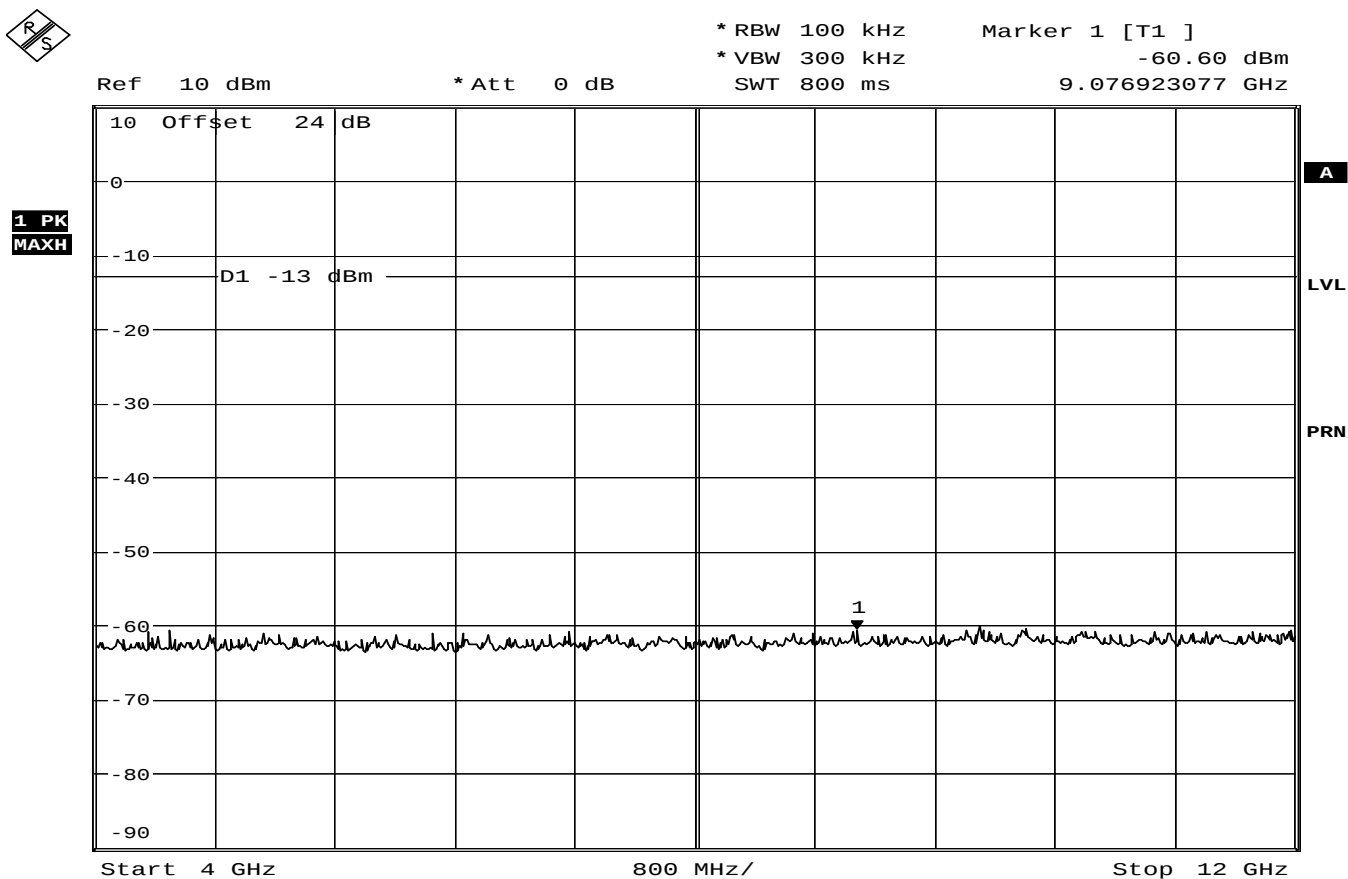
1643.5MHz, R20T1Q Test Mode, 9kHz to 4GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:02:41

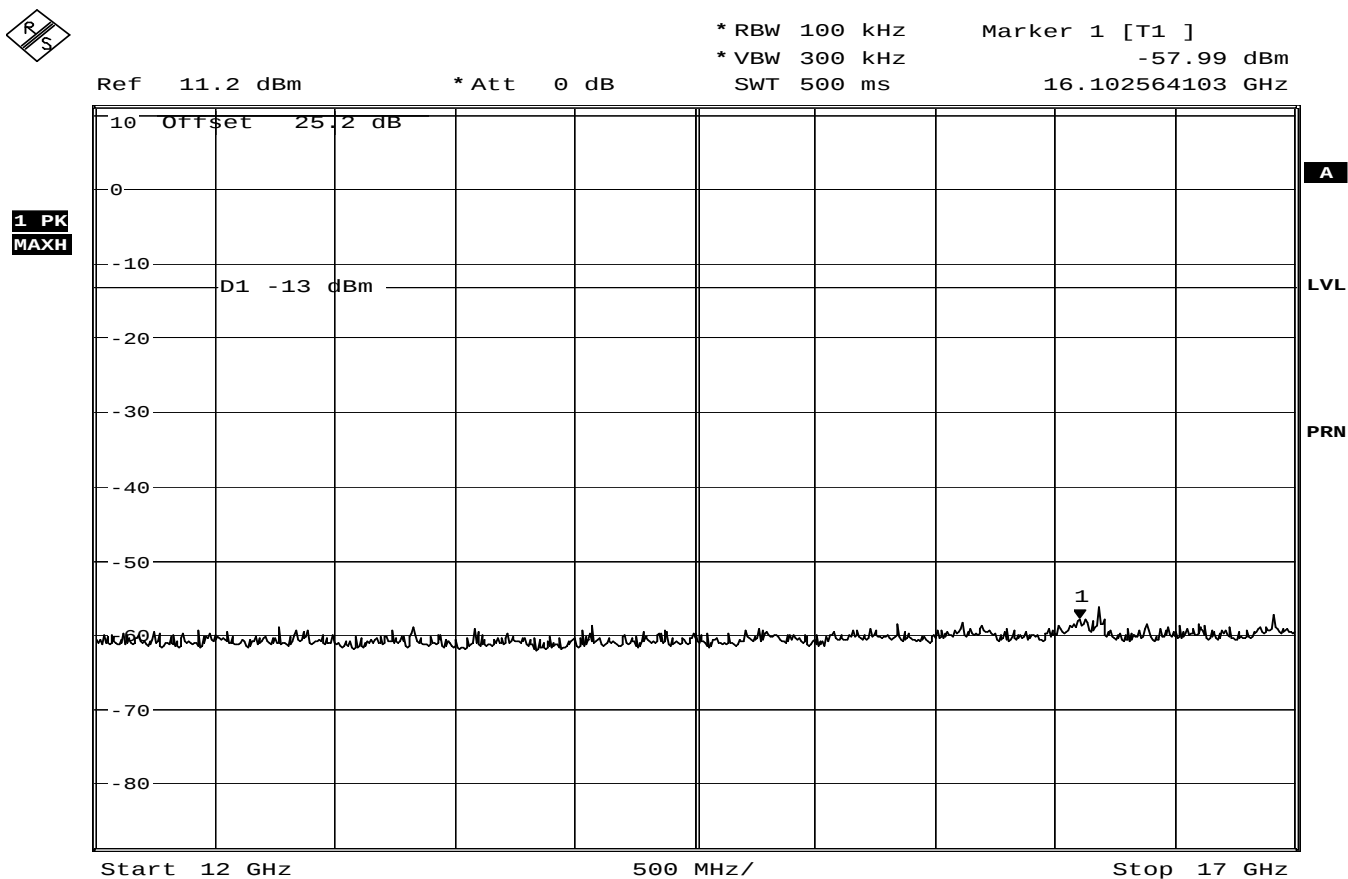
1643.5MHz, R20T1Q Test Mode, 4GHz to 12GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:21:37

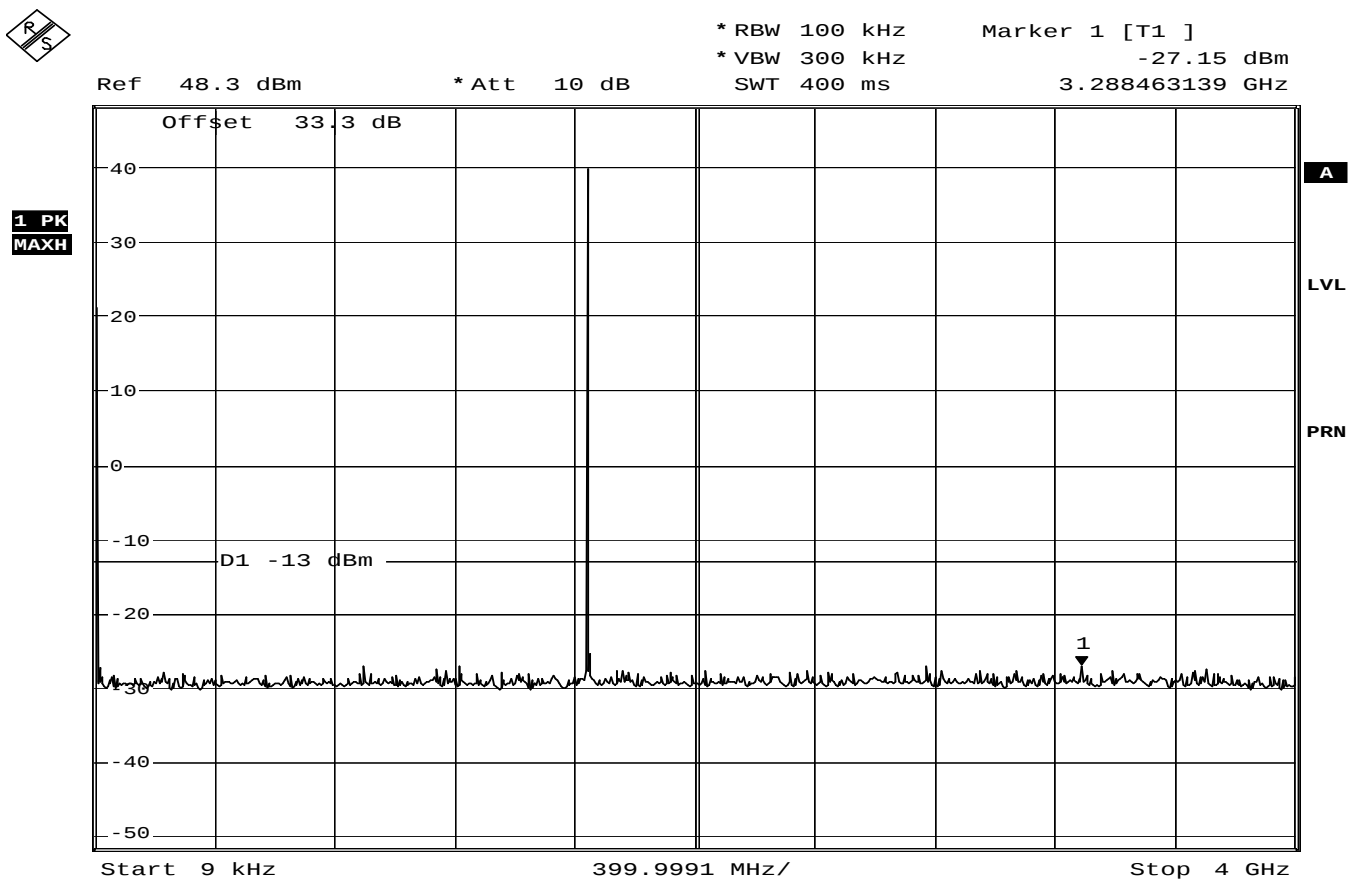
1643.5MHz, R20T1Q Test Mode, 12GHz to 17GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 2.JAN.2007 18:18:06

1643.5MHz, R20T2Q Test Mode, 9kHz to 4GHz



2.3.6 Test Results

Date: 3.JAN.2007 11:04:32

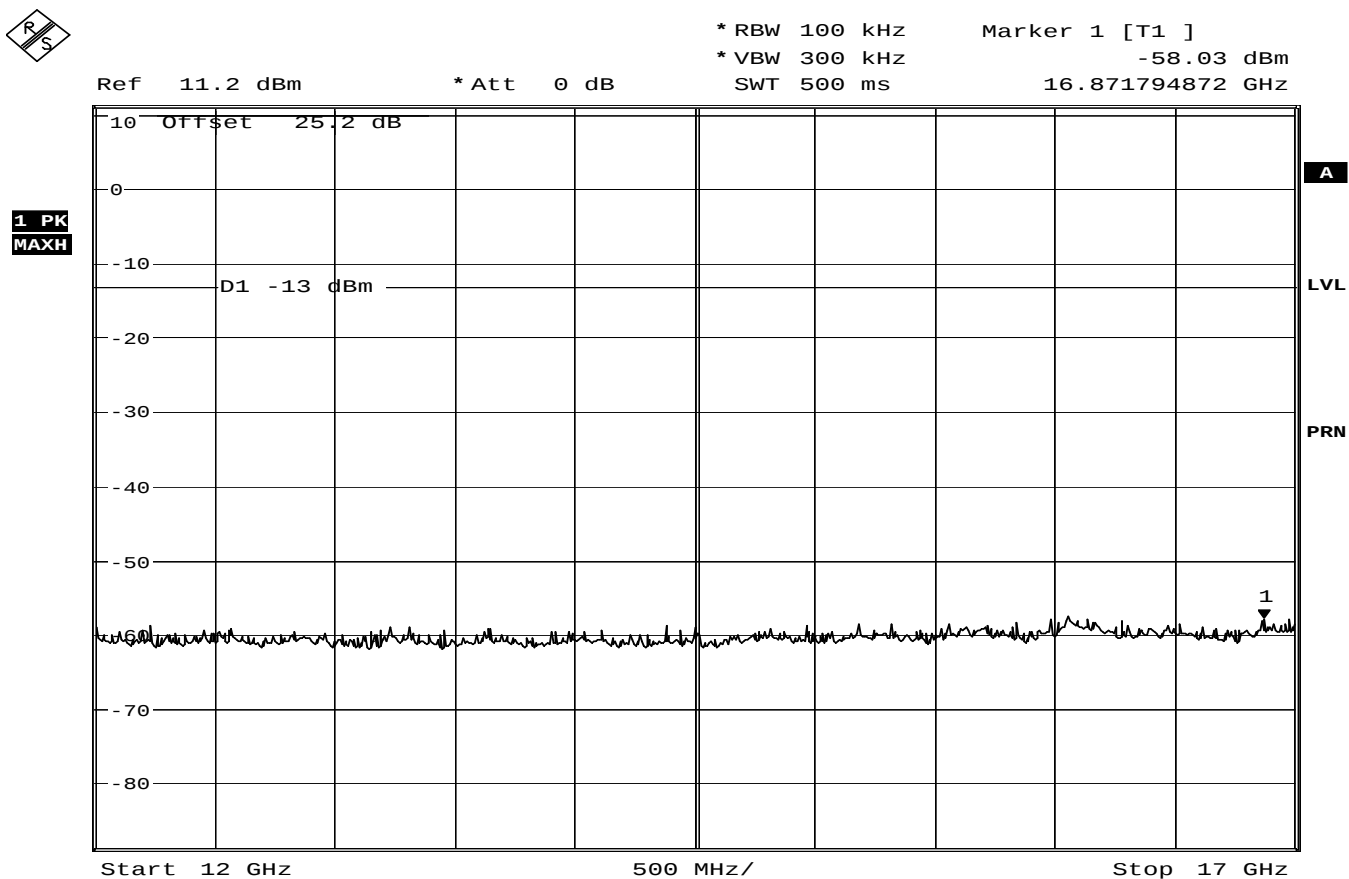
1643.5MHz, R20T2Q Test Mode, 4GHz to 12GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:23:07

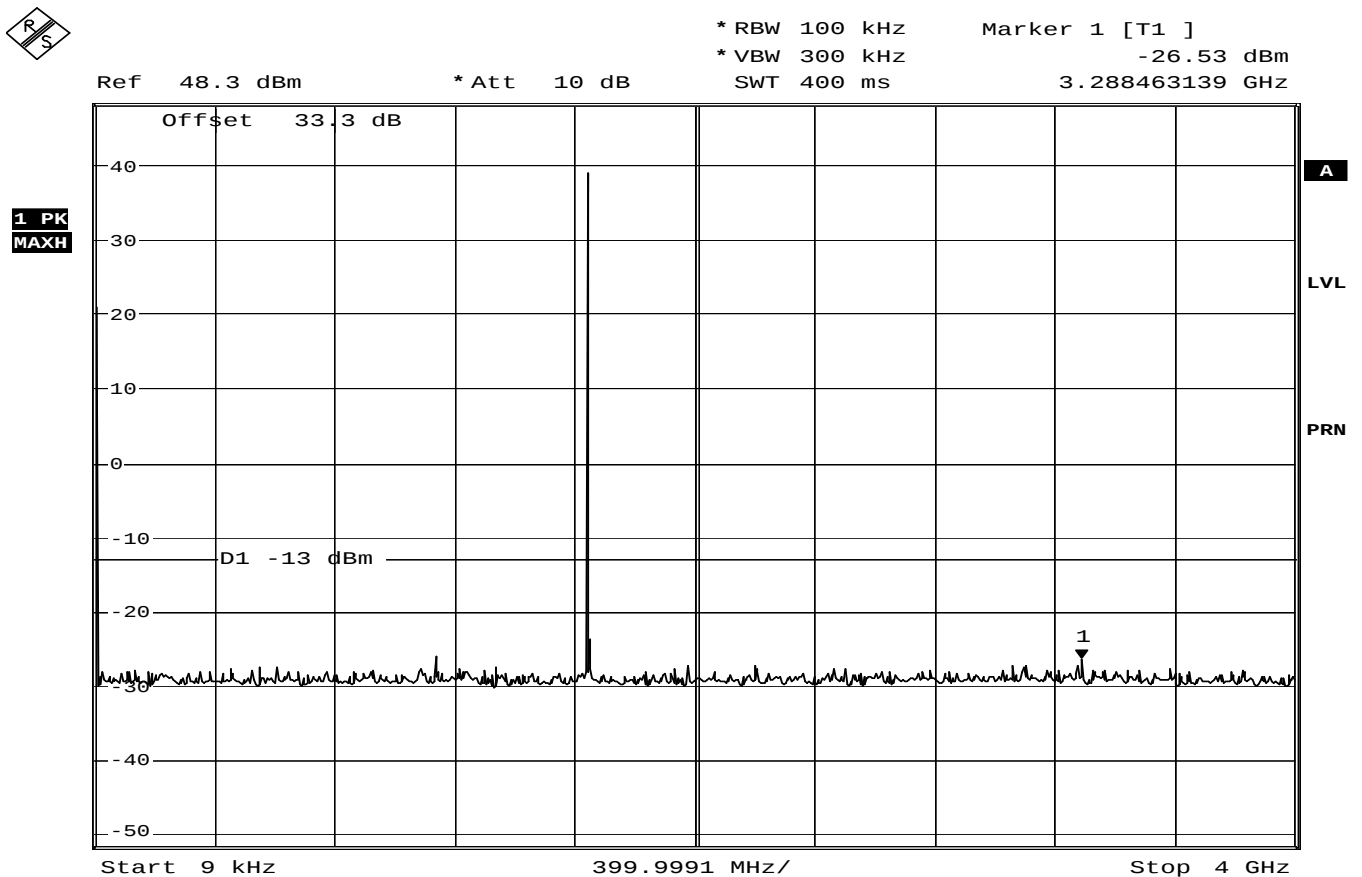
1643.5MHz, R20T2Q Test Mode, 12GHz to 17GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 2 . JAN . 2007 18:19:49

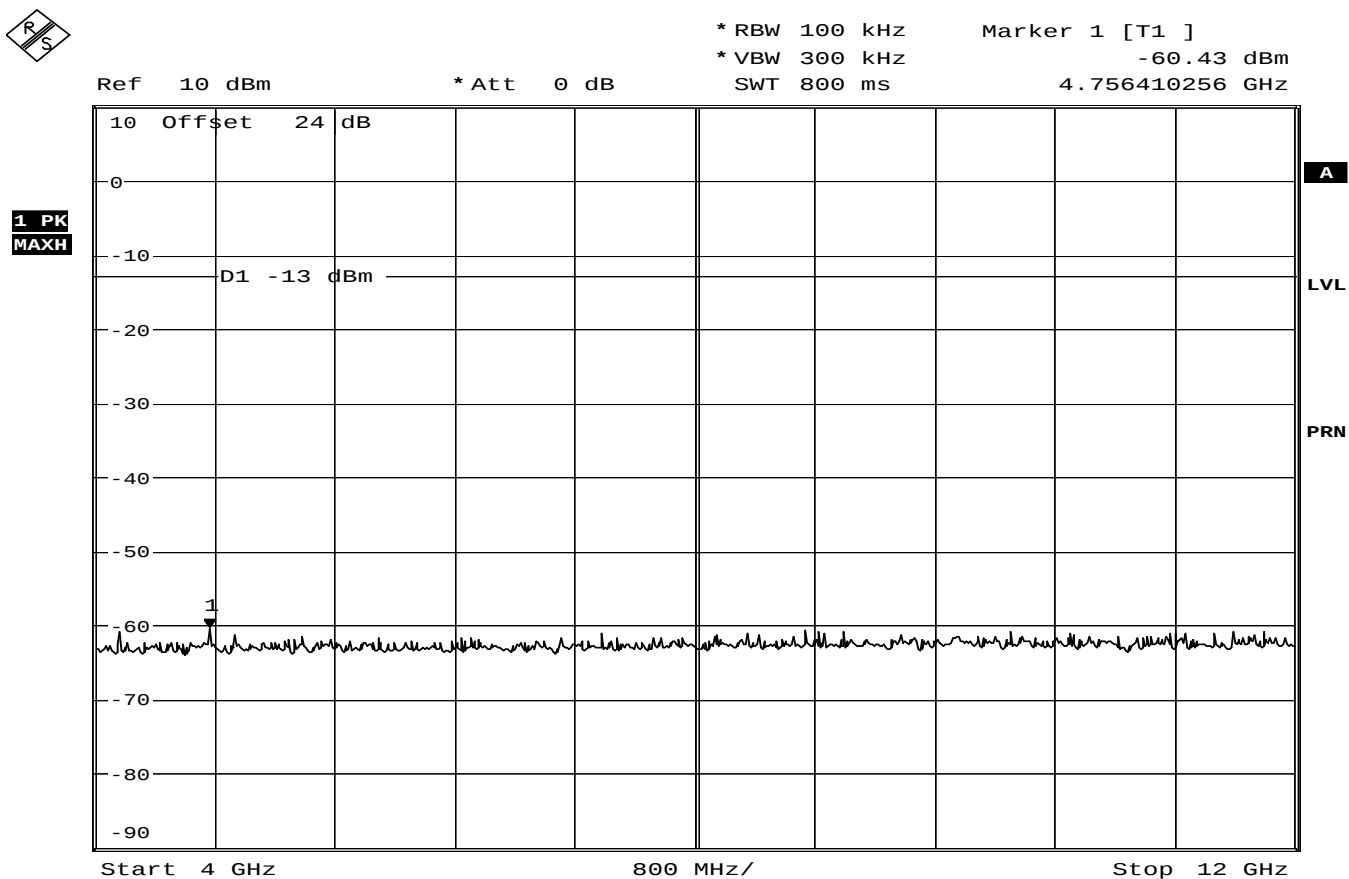
1643.5MHz, R20T45Q Test Mode, 9kHz to 4GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:05:56

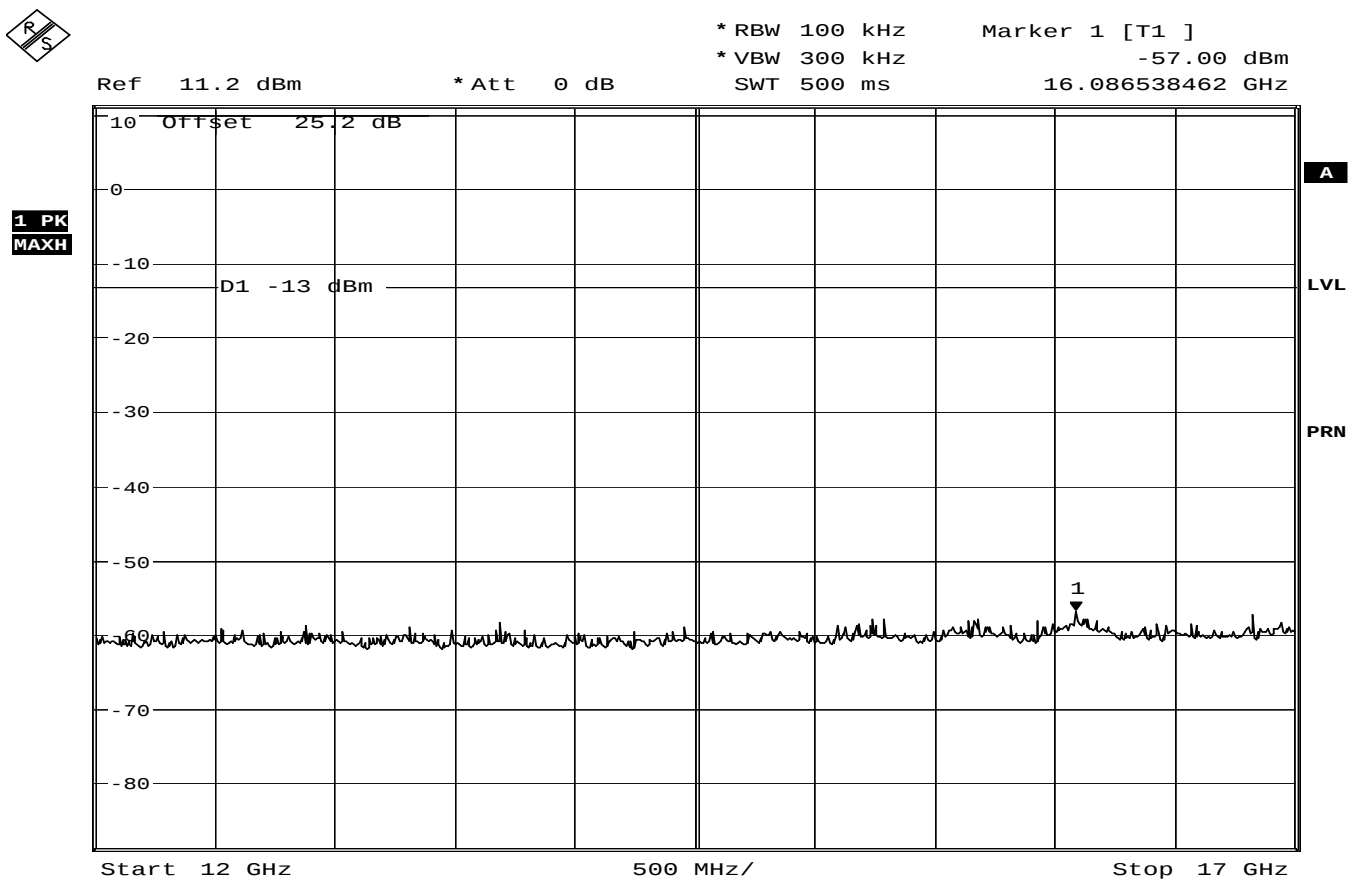
1643.5MHz, R20T45Q Test Mode, 4GHz to 12GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:24:37

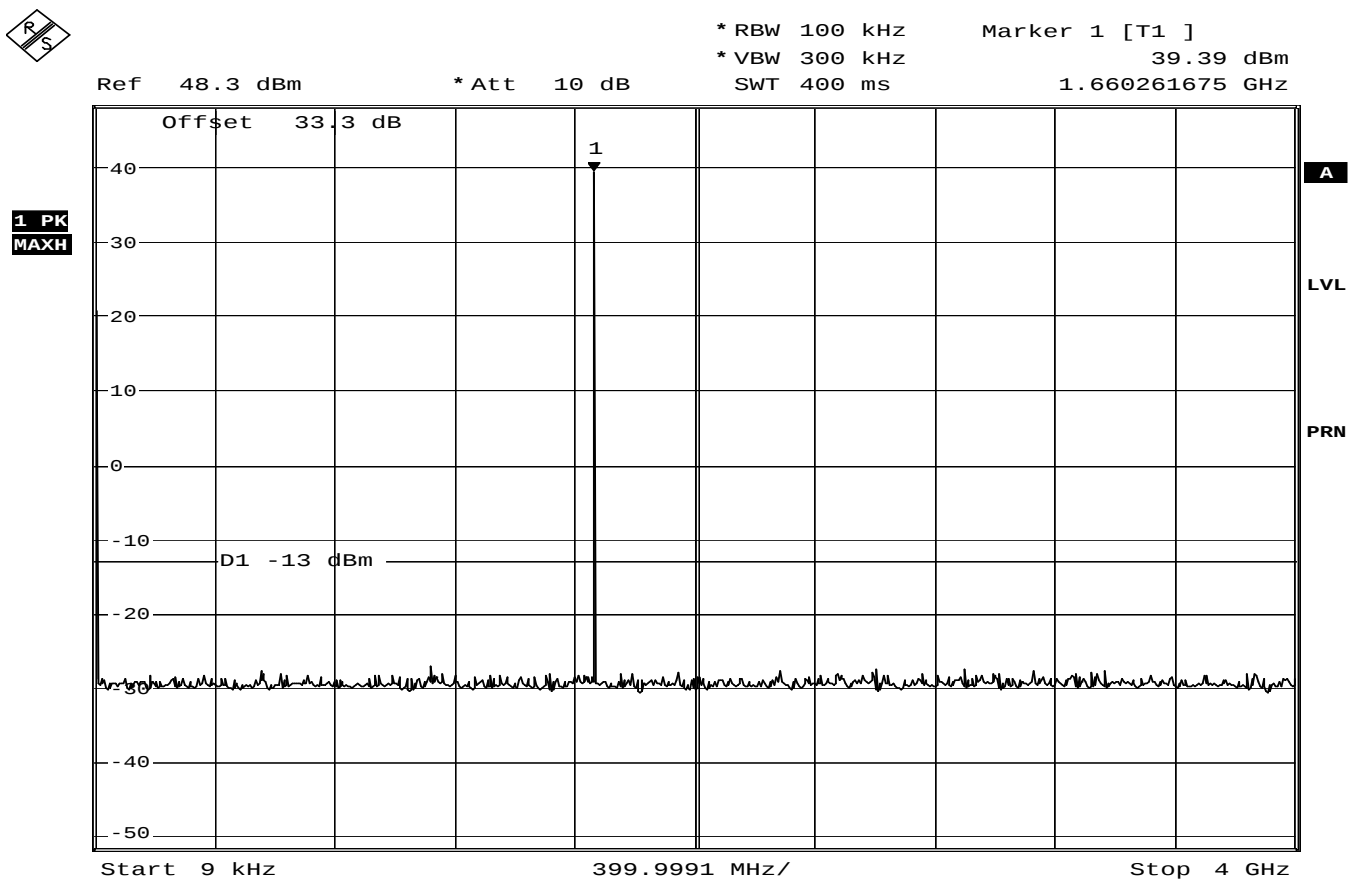
1643.5MHz, R20T45Q Test Mode, 12GHz to 17GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 2.JAN.2007 18:21:17

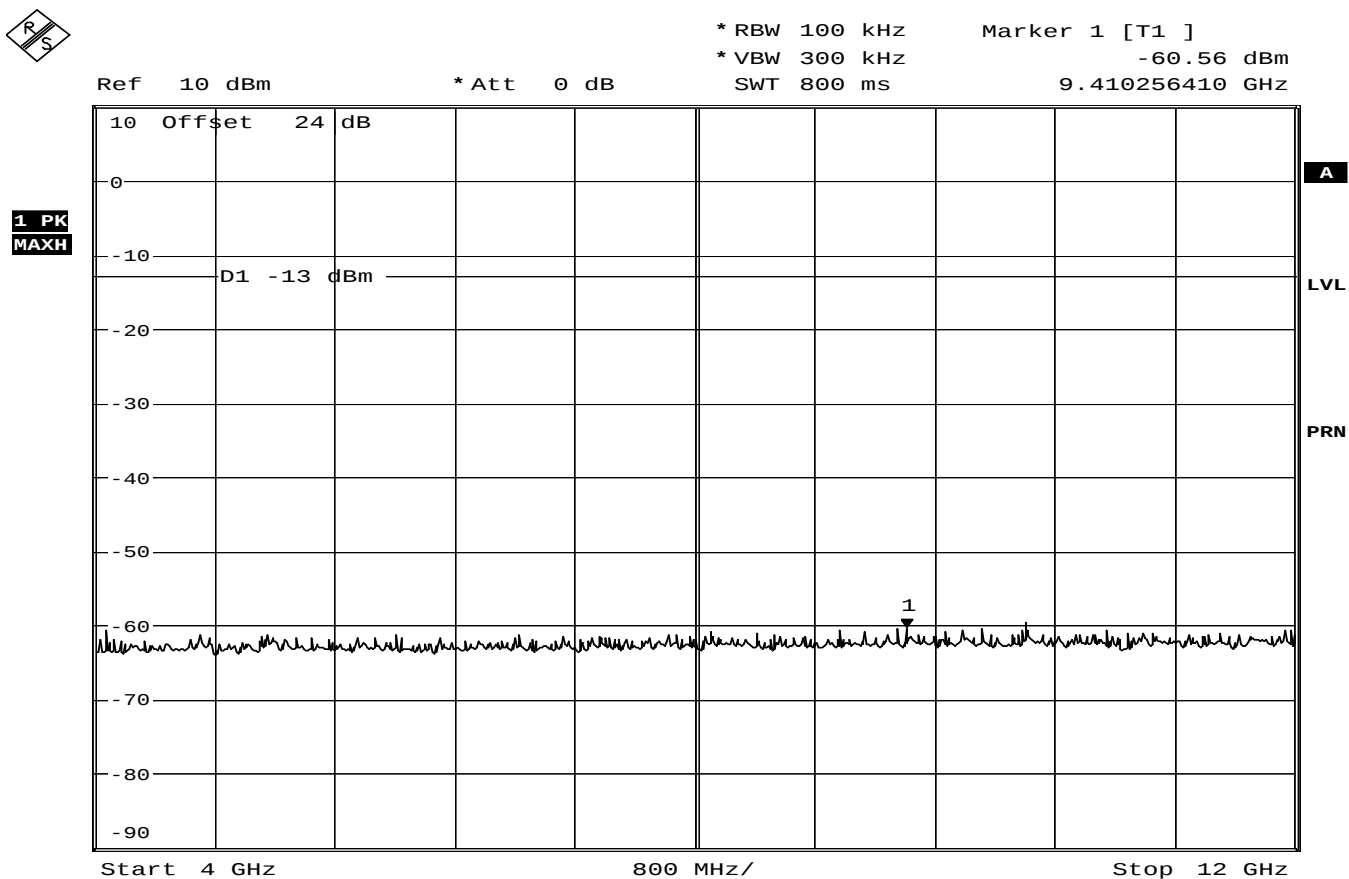
1660.4MHz, R20T0.5Q Test Mode, 9kHz to 4GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:07:47

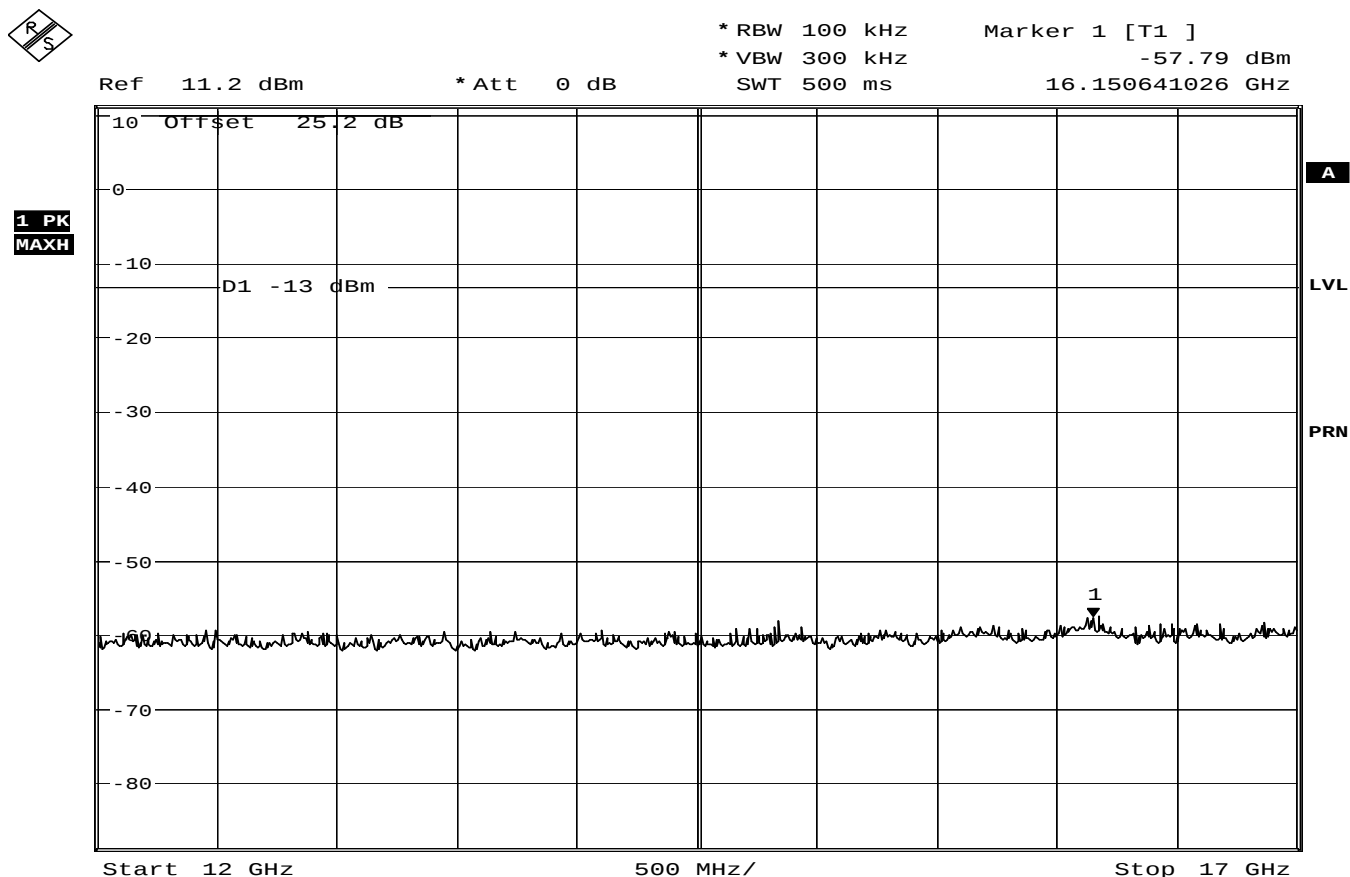
1660.4MHz, R20T0.5Q Test Mode, 4GHz to 12GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:31:51

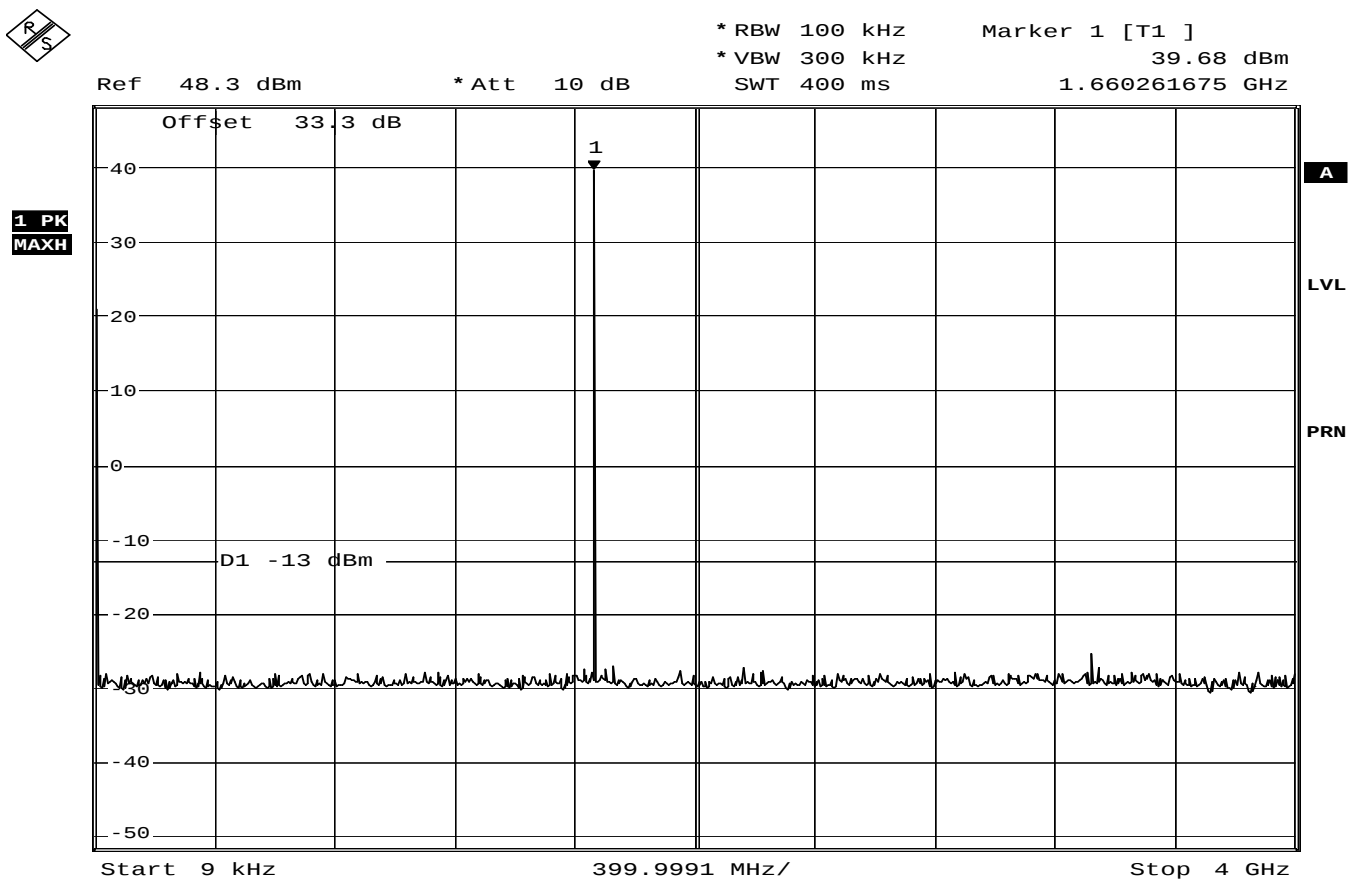
1660.4MHz, R20T0.5Q Test Mode, 12GHz to 17GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 2.JAN.2007 18:22:53

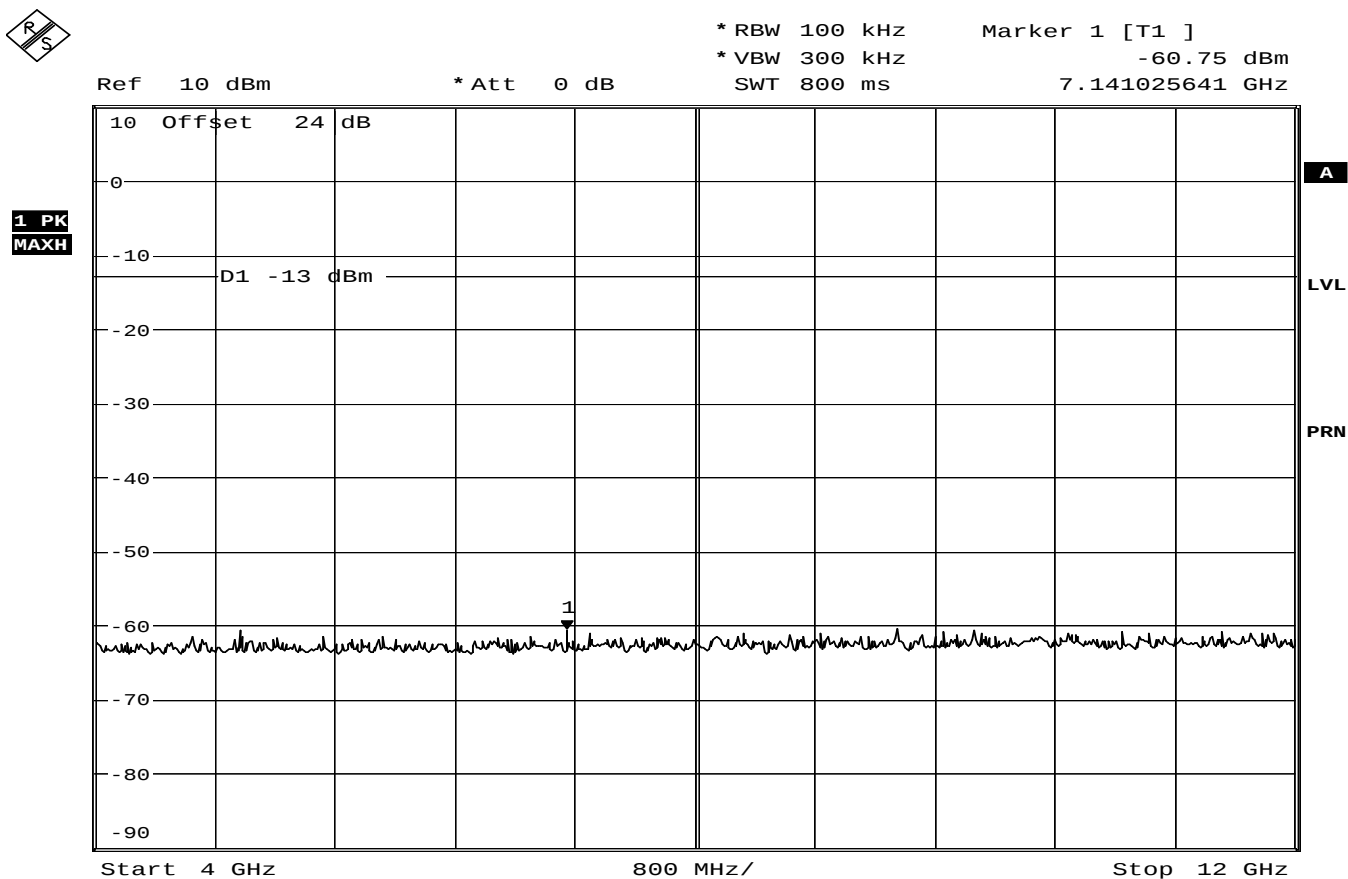
1660.4MHz, R20T1Q Test Mode, 9kHz to 4GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:09:06

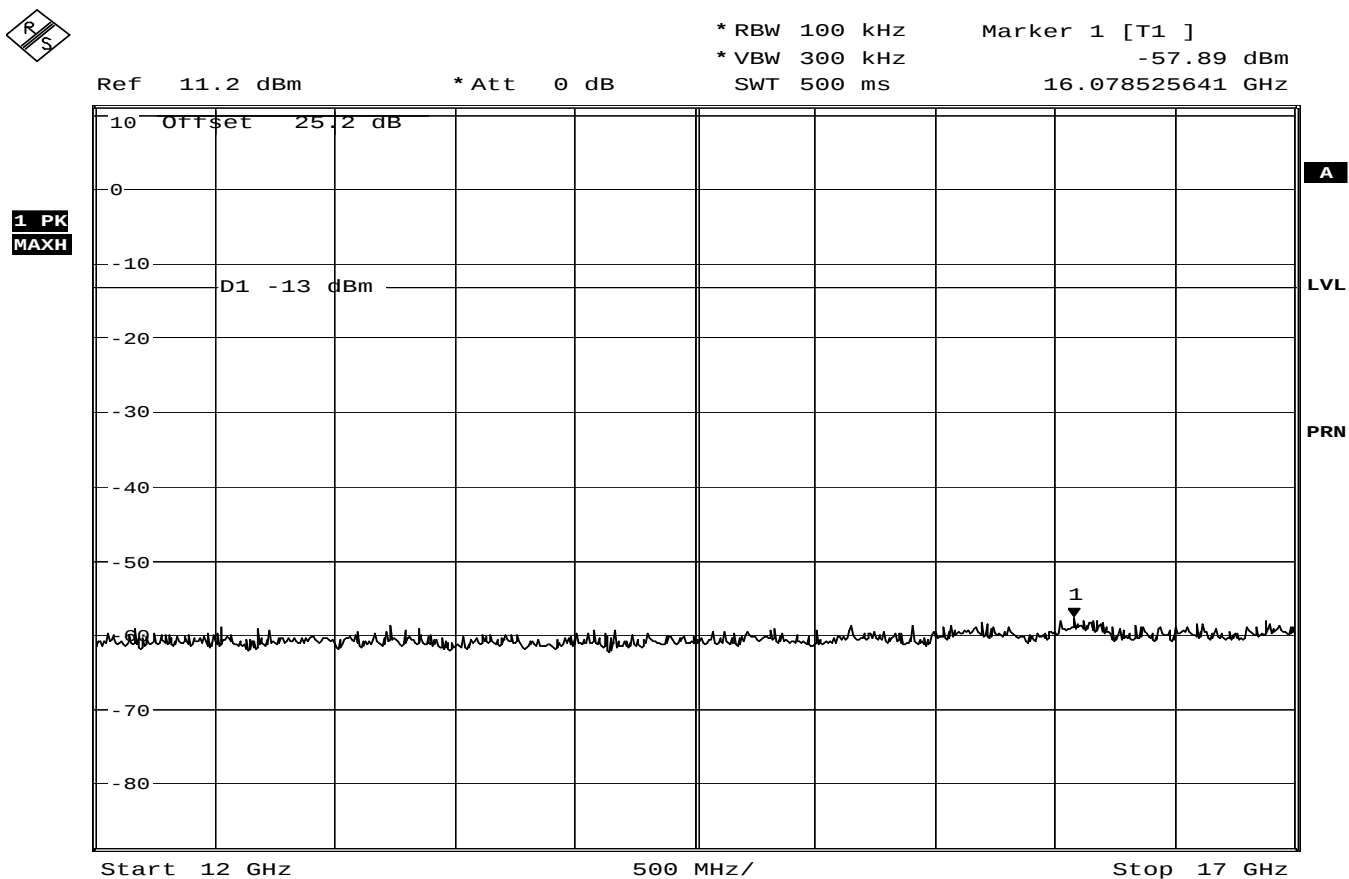
1660.4MHz, R20T1Q Test Mode, 4GHz to 12GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:33:12

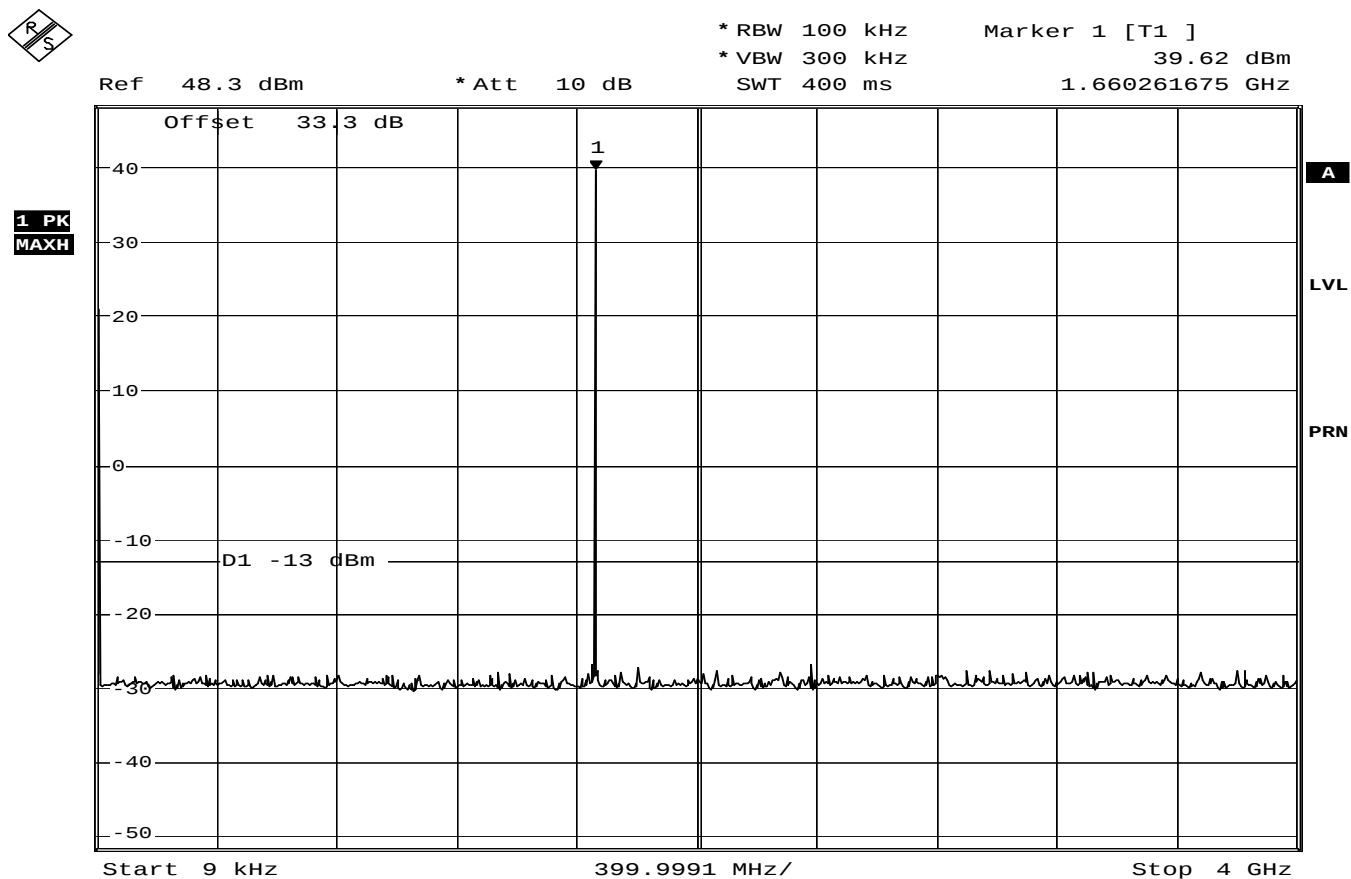
1660.4MHz, R20T1Q Test Mode, 12GHz to 17GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



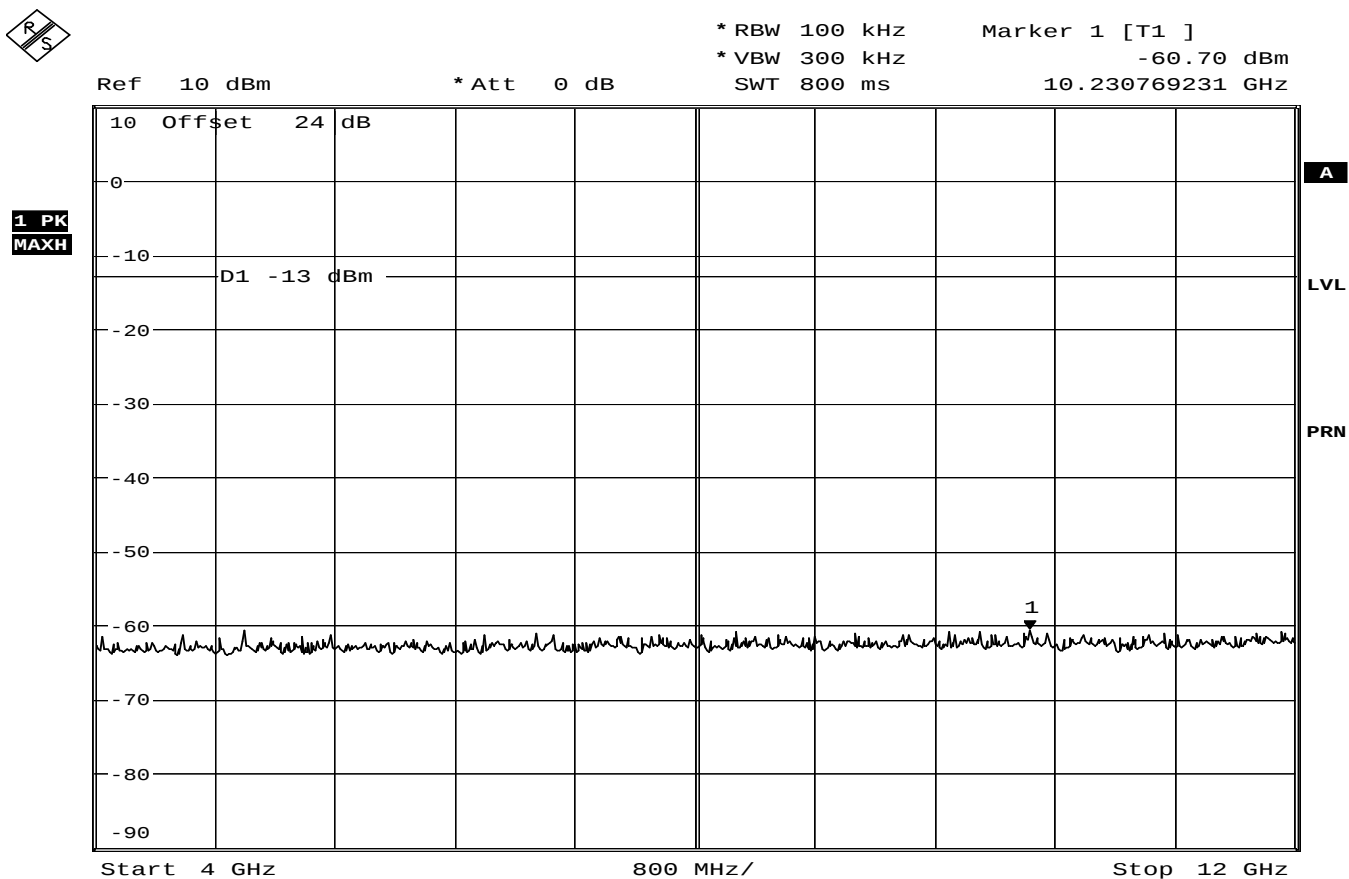
1660.4MHz, R20T2Q Test Mode, 9kHz to 4GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:10:21

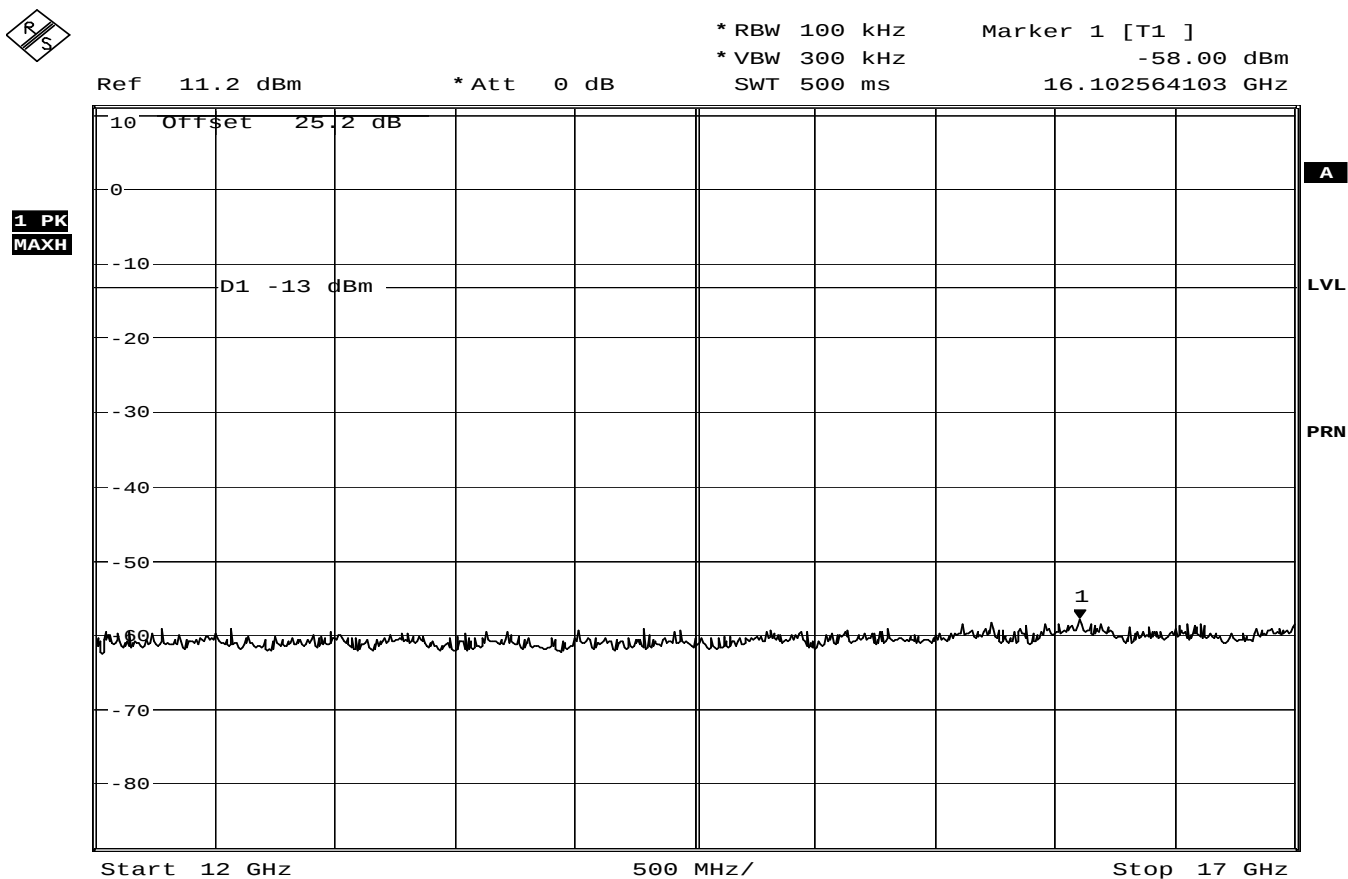
1660.4MHz, R20T2Q Test Mode, 4GHz to 12GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:34:20

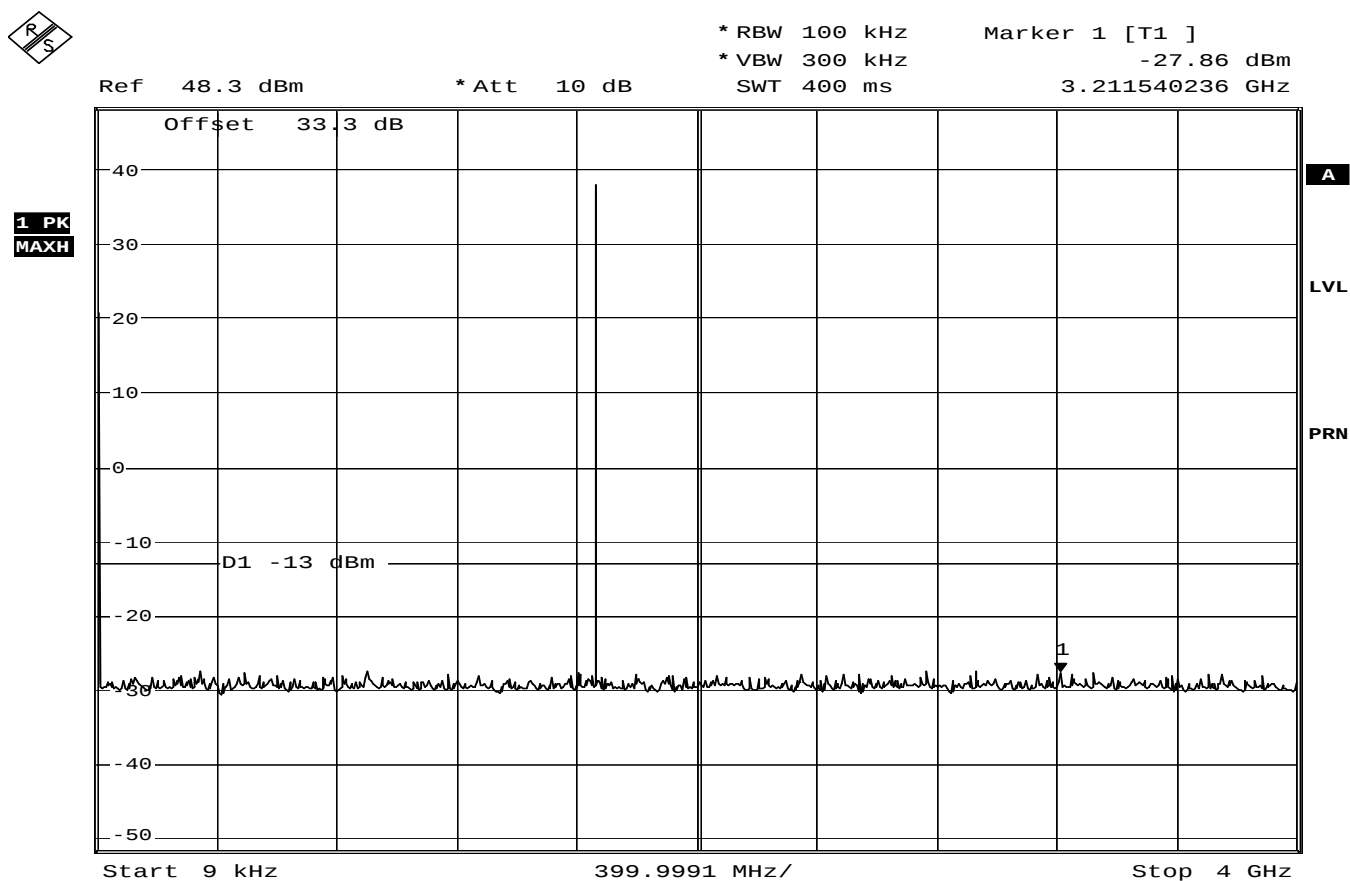
1660.4MHz, R20T2Q Test Mode, 12GHz to 17GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 2.JAN.2007 18:26:27

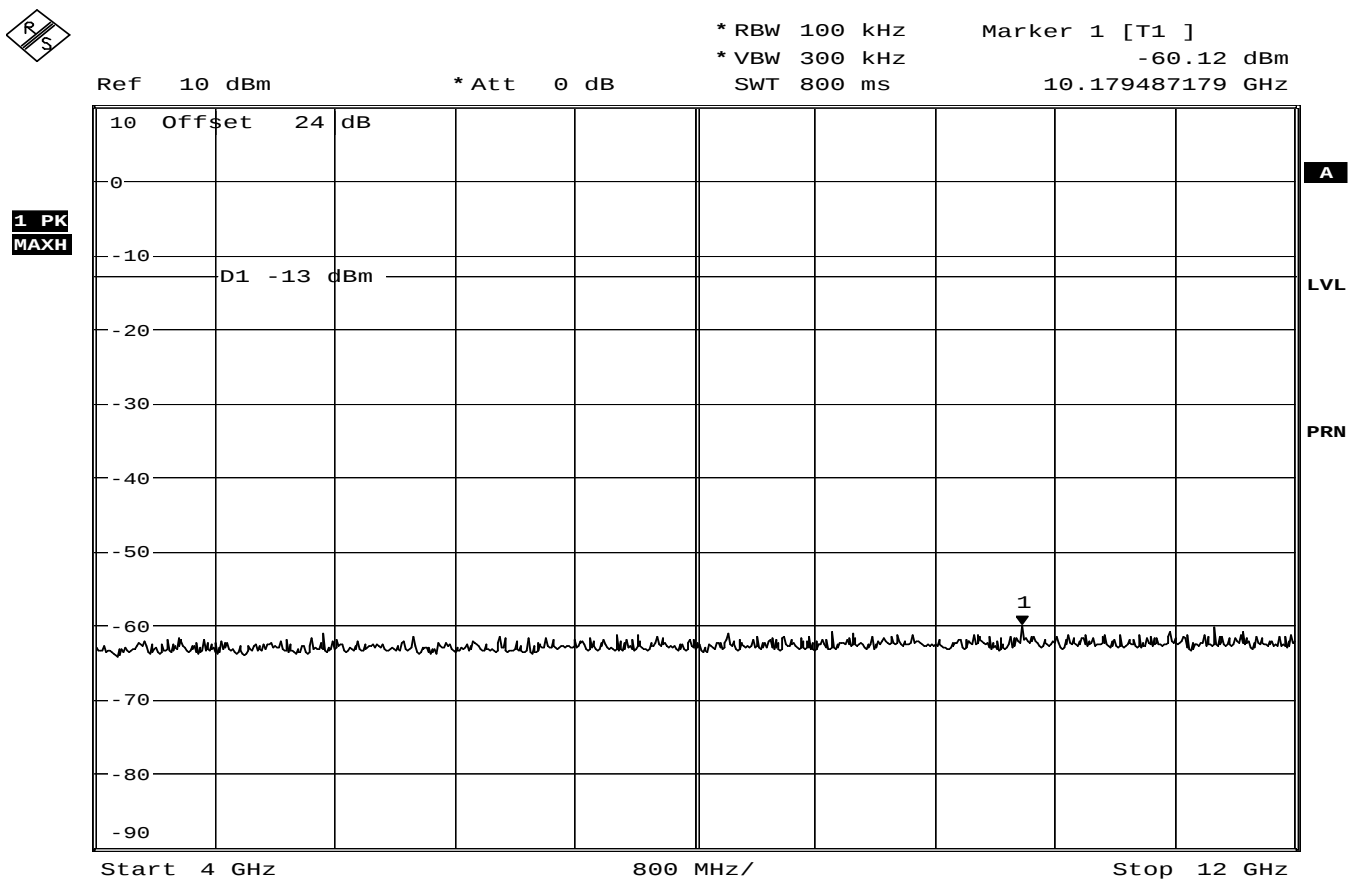
1660.4MHz, R20T0.5Q Test Mode, 9kHz to 4GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:11:42

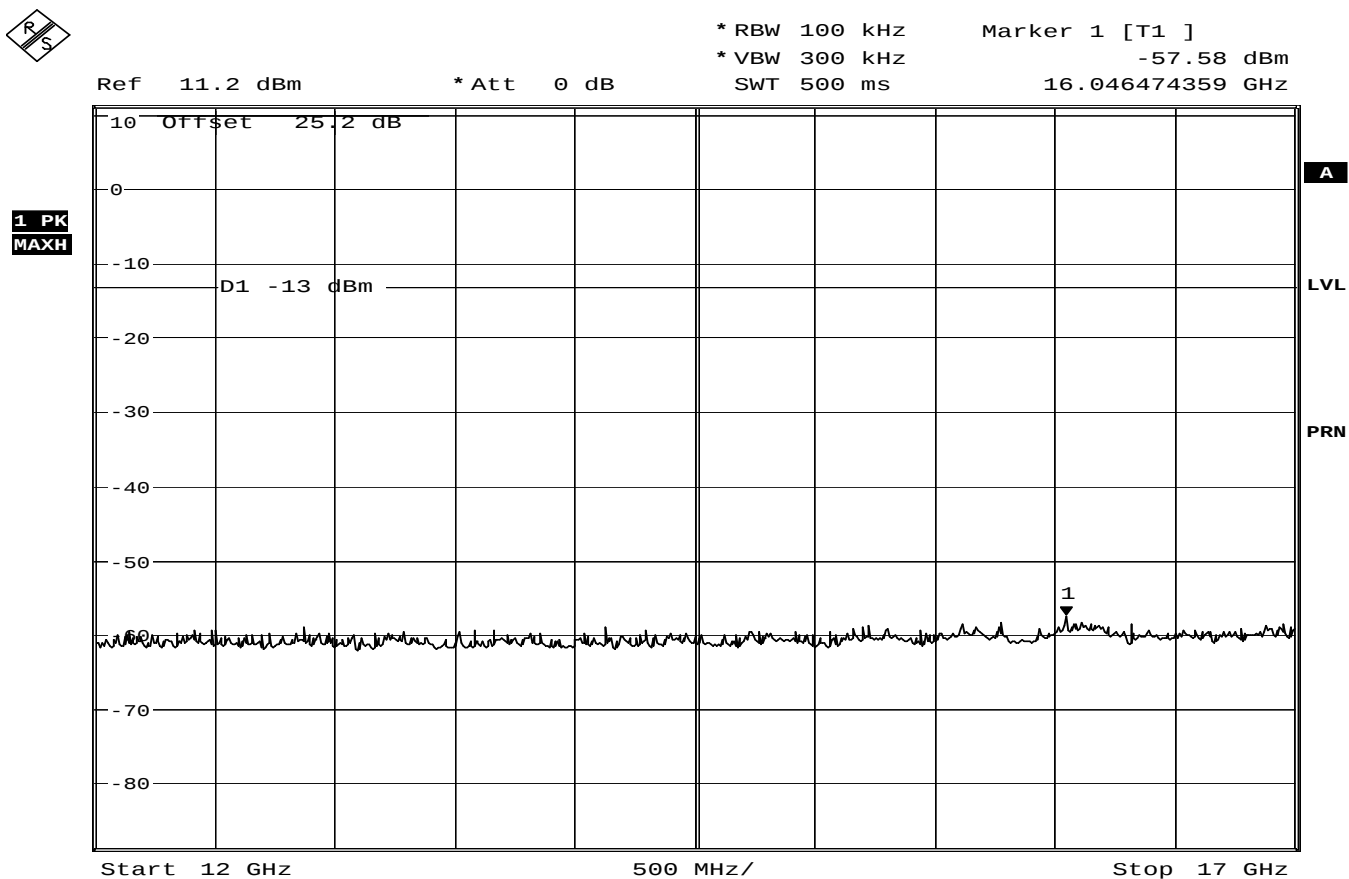
1660.4MHz, R20T45Q Test Mode, 4GHz to 12GHz



Product Service

2.3 CONDUCTED SPURIOUS EMISSIONS

2.3.6 Test Results



Date: 3.JAN.2007 11:35:34

1660.4MHz, R20T45Q Test Mode, 12GHz to 17GHz



Product Service

2.4 FREQUENCY STABILITY TEST

2.4.1 Specification Reference

FCC CFR 47: Parts 2.1055 and 87.133

2.4.2 Equipment Under Test

Satellite Data Unit

2.4.3 Date of Test

28th February 2007

2.4.4 Test Equipment Used

The major items of test equipment used for the above tests are identified in Section 3.1.

2.4.5 Test Procedure

The EUT was set to transmit without modulation and the frequency error was measured using a modulation analyser. The measurement was repeated at minimum and maximum voltage extremes and at minimum and maximum temperature extremes.

The frequency stability was measured with variation of ambient temperature from -20 to +50°C. The frequency measurements were made at the extremes and at intervals of not more than 10 °C through the range. The frequency was measured with variations of primary supply voltage from 85 to 115 % of the nominal value. The supply voltage was measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided. The carrier frequency must remain within the tolerance of ± 160 Hz.

2.4.6 Test Results

EUT complies with FCC CFR 47: Parts 2.1055 and 87.133 as shown in the table below.

Test Conditions		Frequency Drift (Hz)		
Temperature Interval(°C)	Supply Voltage	1626.6	1643.5	1660.4
- 20	V _{nom} (115 V AC)	-20	-42	-18
- 10	V _{nom} (115 V AC)	-28	-42	-18
0	V _{nom} (115 V AC)	-29	-42	-18
+ 10	V _{nom} (115 V AC)	-30	-44	-20
T _{nom} (+ 20)	V _{nom} (115 V AC)	-32	-46	-22
	V _{nom} (97.75 V AC)	-45	-45	-22
	V _{nom} (132.25 V AC)	-32	-46	-21
+ 30	V _{nom} (115 V AC)	-34	-47	-23
+ 40	V _{nom} (115 V AC)	-35	-49	-25
+ 50	V _{nom} (115 V AC)	-35	-50	-26



Product Service

2.4 FREQUENCY STABILITY TEST

2.4.7 Test Results

Limit	± 160 Hz
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Product Service

SECTION 3

TEST EQUIPMENT



Product Service

3.1 TEST EQUIPMENT

List of absolute measuring and other principal items of test equipment.

Instrument	Manufacturer	Type No	TE Number	Calibration Due
Section 2.3 Radio (Tx) - Conducted Spurious Emissions				
Attenuator 10dB/250W	Weinschel	45-10-43	383	29/08/2007
Tuneable Notch Filter	K&L 5wave	5TNF-1500/3000-N/N	435	TU
Filter (High Pass, 3GHz)	RLC Electronics	F100-3000-5-R	565	19/05/2007
Power Passport: 50, 60 or 400Hz Power Supply	Behlman Hauppauge	P1350-CE	1434	TU
Hygrometer	Rotronic	A1	1945	07/06/2007
1m N(m) -N(m) Cable	Reynolds	269-0088-1000	2396	02/08/2007
3m N(m) - N(m) RF Cable	Reynolds	269-008803000	2413	27/07/2007
Spectrum Analyser	Rohde & Schwarz	FSU26	2747	03/02/2007
Mains Voltage Monitor	TUV	MVM1	2772	24/07/2007
20dB/10W Attenuator	Aeroflex / Weinschel	23-20-34	3160	01/06/2007



3.1 TEST EQUIPMENT

List of absolute measuring and other principal items of test equipment.

Instrument	Manufacturer	Type No	TE Number	Calibration Due
Section 2.3 Radio (Tx) - Conducted Spurious Emissions				
Attenuator 10dB/250W	Weinschel	45-10-43	383	29/08/2007
Tuneable Notch Filter	K&L 5wave	5TNF-1500/3000-N/N	435	TU
Filter (High Pass, 3GHz)	RLC Electronics	F100-3000-5-R	565	19/05/2007
Power Passport: 50, 60 or 400Hz Power Supply	Behlman Hauppauge	P1350-CE	1434	TU
Hygromer	Rotronic	A1	1945	07/06/2007
1m N(m) -N(m) Cable	Reynolds	269-0088-1000	2396	02/08/2007
3m N(m) - N(m) RF Cable	Reynolds	269-008803000	2413	27/07/2007
Spectrum Analyser	Rohde & Schwarz	FSU26	2747	03/02/2007
Mains Voltage Monitor	TUV	MVM1	2772	24/07/2007
20dB/10W Attenuator	Aeroflex / Weinschel	23-20-34	3160	01/06/2007
Section 2.4 Radio (Tx) - Frequency Characteristics				
Counter	Hewlett Packard	53181A	159	17/08/2007
Power Passport: 50, 60 or 400Hz Power Supply	Behlman Hauppauge	P1350-CE	1434	TU
Chamber	Heraeus	HC 4033	2174	TU
3m N(m) - N(m) RF Cable	Reynolds	269-008803000	2413	27/07/2007
Mains Voltage Monitor	TUV	MVM1	2772	24/07/2007
20dB/10W Attenuator	Aeroflex / Weinschel	23-20-34	3160	01/06/2007
Thermocouple Thermometer	Fluke	51	3173	22/06/2007



Product Service

3.1 TEST EQUIPMENT

Instrument	Manufacturer	Type No	TE Number	Calibration Due
Section 2.2 Radio (Tx) - Occupied Bandwidth				
Power Passport: 50, 60 or 400Hz Power Supply	Behlman Hauppauge	P1350-CE	1434	TU
HYGROMER	Rotronic	A1	1945	07/06/2007
3m N(m) - N(m) RF Cable	Reynolds	269-008803000	2413	27/07/2007
Spectrum Analyser	Rohde & Schwarz	FSU26	2747	03/02/2007
Mains Voltage Monitor	TUV	MVM1	2772	24/07/2007
20dB/10W Attenuator	Aeroflex / Weinschel	23-20-34	3160	01/06/2007
Section 2.1 Radio (Tx) - Power Characteristics				
Power Meter	Hewlett Packard	436A	47	21/06/2007
Power Passport: 50, 60 or 400Hz Power Supply	Behlman Hauppauge	P1350-CE	1434	TU
Hygromer	Rotronic	A1	1945	07/06/2007
3m N(m) - N(m) RF Cable	Reynolds	269-008803000	2413	27/07/2007
Spectrum Analyser	Rohde & Schwarz	FSU26	2747	03/02/2007
Mains Voltage Monitor	TUV	MVM1	2772	24/07/2007
20dB/10W Attenuator	Aeroflex / Weinschel	23-20-34	3160	01/06/2007
Power Sensor	Agilent	8482A	3289	15/11/2007

TU Traceability Unscheduled



Product Service

SECTION 4

ACCREDITATION, DISCLAIMERS AND COPYRIGHT



Product Service

4.1 ACCREDITATION, DISCLAIMERS AND COPYRIGHT



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Results of tests not covered by our UKAS Accreditation Schedule are marked NUA
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