

Nemko Test Report: 2L0527RUS1

Applicant: Navini Networks
2240 Campbell Creek Blvd. Suite 110
Richardson, TX 75082

Equipment Under Test: 2.3 GHz CPE
(E.U.T.)

In Accordance With: FCC PART 27, Subpart C
Wireless Communications Systems

Tested By: Nemko Dallas Inc.
802 N. Kealy
Lewisville, Texas 75057-3136

Authorized By:



David Light, Resource Group Manager

Date: 9/24/03

Total Number of Pages: 183

EQUIPMENT: 2.3 GHz CPE

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EQUIPMENT: 2.3 GHz CPE

Section 1. Summary of Test Results

Manufacturer: Navini Networks
Model No.: CPE 2.3 GHz CPE
Serial No.: None
General: All measurements are traceable to national standards.

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 21, Subpart K.

- | | |
|---|---|
| <input checked="" type="checkbox"/> New Submission | <input type="checkbox"/> Production Unit |
| <input type="checkbox"/> Class II Permissive Change | <input checked="" type="checkbox"/> Pre-Production Unit |

This test report relates only to the item(s) tested.

The following deviations from, additions to, or exclusions from the test specifications have been made. none
See " Summary of Test Data".

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This report applies only to the items tested.

Nemko Dallas

FCC PART 27, SUBPART C
MULTIPOINT DISTRIBUTION SERVICE
PROJECT NO.:2L0527RUS1

EQUIPMENT: 2.3 GHz CPE

Summary Of Test Data

NAME OF TEST	PARA. NO.	PART 27 PARA. NO.	RESULT
RF Power Output	2.1046	27.50	Complies
Occupied Bandwidth	2.1049	27.53(a)	Complies
Spurious Emissions @ Antenna Terminals	2.1051	27.53(a)	Complies
Field Strength of Spurious Radiation	2.1053	27.53(a)	Complies
Frequency Stability	2.1055	27.54	Complies

EQUIPMENT: 2.3 GHz CPE

Section 2. General Equipment Specification

Supply Power: 120 Vac

Frequency Range: See Fig. 1 below

Type(s) of Modulation: DQPSK

Emission Designator: 500KF9W

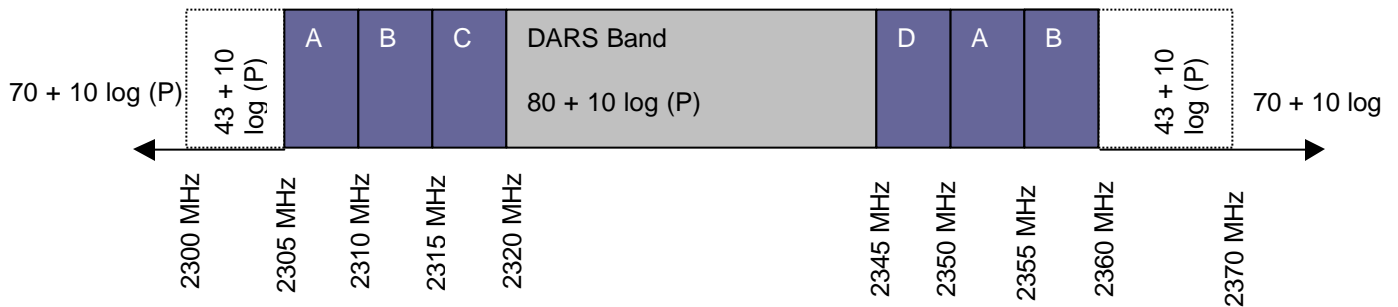
Output Impedance: 50 ohms

RF Power Output Rated: See Section 3

Duty Cycle: Software controlled 25% to 50% TDD

Operator Selection Of Operating Frequency: Software controlled

Power Output Adjustment Capability: Software controlled



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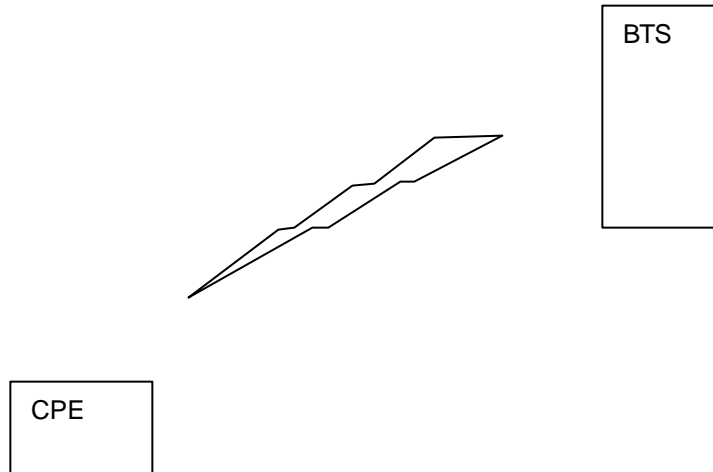
FCC PART 27, SUBPART C
MULTIPOINT DISTRIBUTION SERVICE
PROJECT NO.:2L0527RUS1

EQUIPMENT: 2.3 GHz CPE

Description Of EUT

The equipment tested is a Customer Premise Equipment (CPE) transceiver that functions as a wireless broadband data modem in a high speed internet system..

System Diagram



EQUIPMENT: 2.3 GHz CPE

Section 3. RF Power Output

NAME OF TEST: RF Power Output	PARA. NO.: 2.1046
TESTED BY: Tom Tidwell	DATE: 11/11/2002

Test Results: Complies

Measurement Data:

Antenna is detachable. The rf power output is measured at the rf output from the transmitter. The measured power is RMS.

Peak to Average ratio: 6 dB

Antenna gain: 5 dBi

Maximum peak eirp: +28.7 dBm + 6 dB + 5 dBi = +39.7 dBm

Band	No. of BTS Carriers	No. of CPE Carriers	Active CPE Carriers	Power (dBm)	ACP Figure
A	10	2	C0_C1	25.4	37
A	10	4	C0_C3	24.3	35
A	10	1	C0	25.2	39
A	10	2	C2_C3	28.5	38
A	10	4	C2_C5	28.4	36
A	10	1	C2	27.8	40
A	10	4	C4_C7	28.3	36
A	10	2	C6_C7	28.6	38
A	10	4	C6_C9	24.4	35
A	10	1	C7	28.4	40
A	10	2	C8_C9	25.6	37
A	10	1	C9	25.6	39
A	8	2	C0_C1	27.2	32
A	8	4	C0_C3	25.5	30
A	8	1	C0	28.4	34
A	8	2	C2_C3	28.1	33
A	8	4	C2_C5	28.3	31
A	8	2	C4_C5	28.7	33
A	8	4	C4_C7	25.5	30
A	8	2	C6_C7	27.5	32
A	8	1	C7	28.0	34
Band	BTS Carriers	No. of CPE Carriers	Active Carriers	Power (dBm)	ACP Figure
B	10	2	C0_C1	25.7	37
B	10	4	C0_C3	24.5	35
B	10	1	C0	25.4	39
B	10	2	C2_C3	28.6	38
B	10	4	C2_C5	28.4	36
B	10	1	C2	28.5	40
B	10	4	C4_C7	28.5	36

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FCC PART 27, SUBPART C
 MULTIPOINT DISTRIBUTION SERVICE
 PROJECT NO.:2L0527RUS1

EQUIPMENT: 2.3 GHz CPE

Band	BTS Carriers	No. of CPE Carriers	Active Carriers	Power (dBm)	ACP Figure
B	10	2	C6_C7	28.4	38
B	10	1	C7	28.1	40
B	10	2	C8_C9	25.5	37
B	10	1	C9	25.4	39
B	10	4	C6_C9	24.4	35
B	8	2	C0_C1	27.7	32
B	8	4	C0_C3	25.4	30
B	8	1	C0	28.2	34
B	8	2	C2_C3	28.6	33
B	8	4	C2_C5	28.3	31
B	8	2	C4_C5	28.3	33
B	8	4	C4_C7	25.4	30
B	8	2	C6_C7	27.4	32
B	8	1	C7	28.3	34

Band	BTS Carriers	No. of CPE Carriers	Active Carriers	Power (dBm)	ACP Figure
C	6	4	C2_C5	22.7	24
C	6	4	C0_C3	25.7	23
C	6	1	C0	28.1	28
C	6	2	C0_C1	26.6	25
C	6	2	C2_C3	27.7	26
C	6	1	C4	28.2	28
C	6	2	C4_C5	25.7	27
C	6	1	C5	27.6	29

Band	BTS Carriers	No. of CPE Carriers	Active Carriers	Power (dBm)	ACP Figure
D	6	4	C0_C3	25.5	23
D	6	1	C0	28.6	28
D	6	2	C0_C1	26.8	25
D	6	2	C2_C3	27.4	26
D	6	1	C4	28.1	28
D	6	2	C4_C5	25.5	27
D	6	4	C5_C2	22.6	24
D	6	1	C5	27.3	29

Test Equipment Used: Agilent Model E4416A s/n GB41290732
 Agilent Model E9327A s/n US40440319

Measurement Uncertainty: +/- 0.69 dB

EQUIPMENT: 2.3 GHz CPE

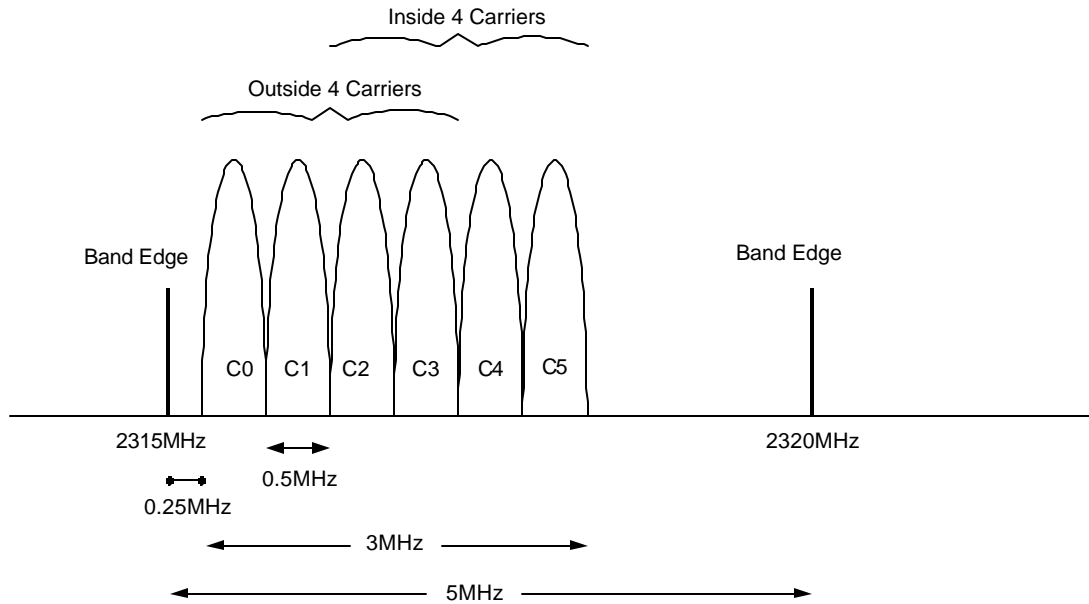


Figure 1. 6-Carrier BTS Signal Operating in WCS C Band

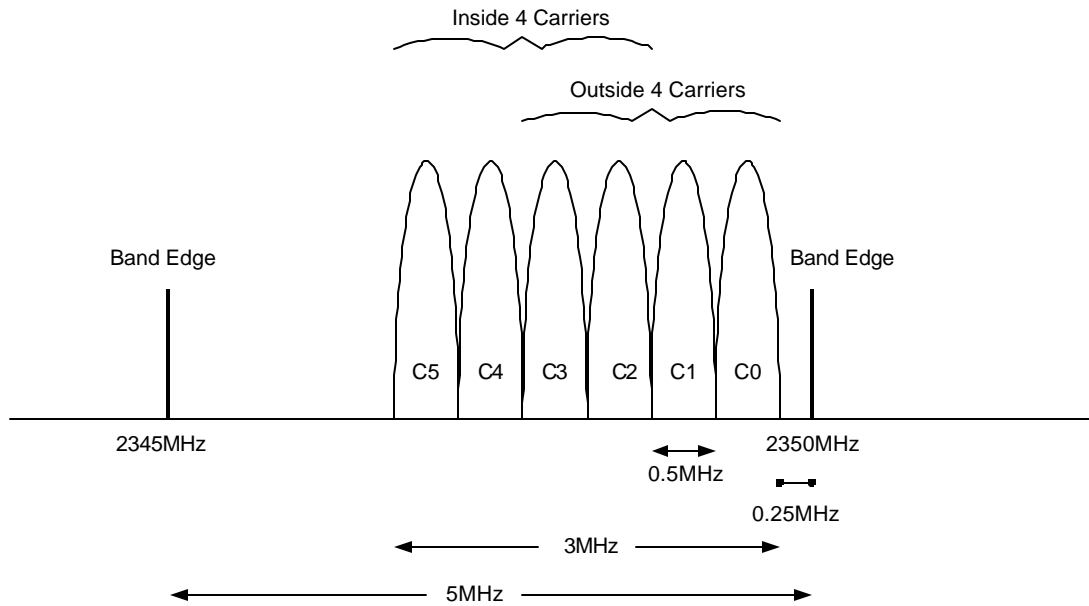


Figure 2. 6-Carrier BTS Signal Operating in WCS D Band

EQUIPMENT: 2.3 GHz CPE

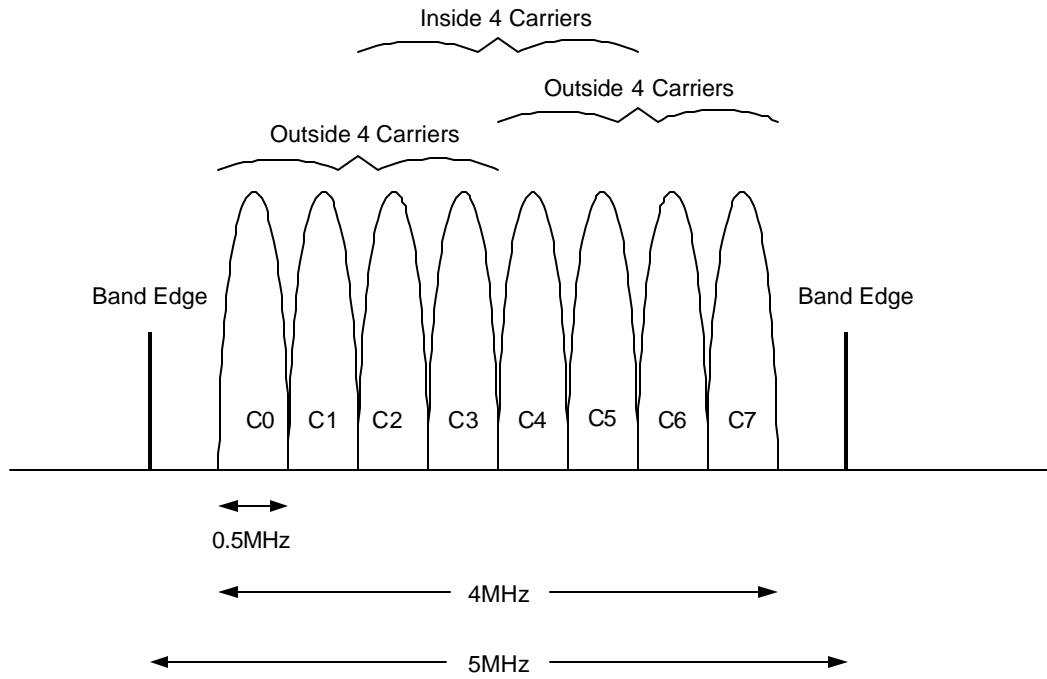


Figure 3. 8-Carrier BTS Signal Operating in WCS A or B Bands

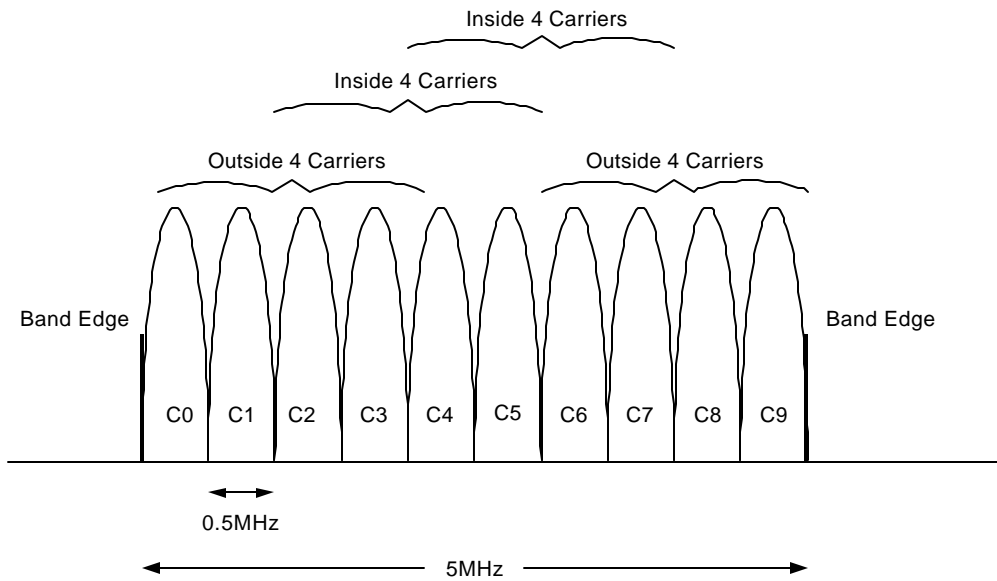


Figure 4. 10-Carrier BTS Signal Operating in WCS A or B Bands

EQUIPMENT: 2.3 GHz CPE

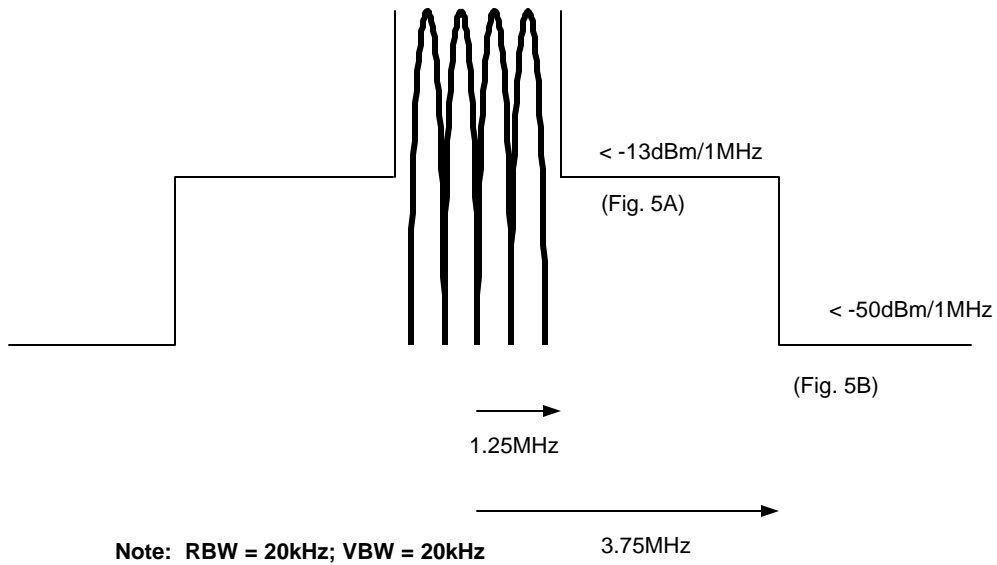


Figure 23. ACPR Mask for Outside 4-Carrier Signal in the WCS C or D Band

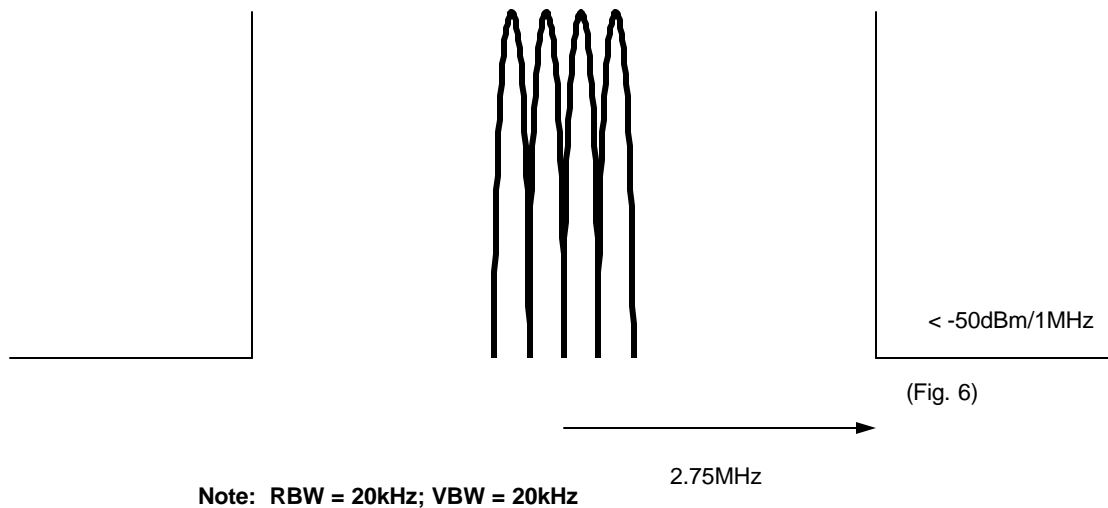


Figure 24. ACPR Mask for Inside 4-Carrier Signal in the WCS C or D Band

EQUIPMENT: 2.3 GHz CPE

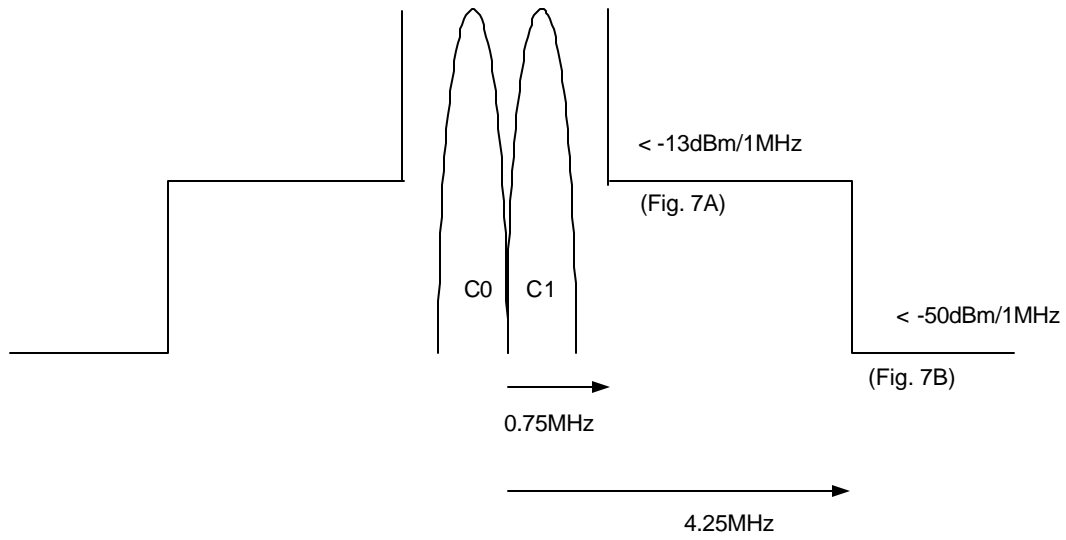


Figure 25. ACPR Mask for Carriers C0 & C1 in WCS C or D Band with 6-Carrier BTS Signal

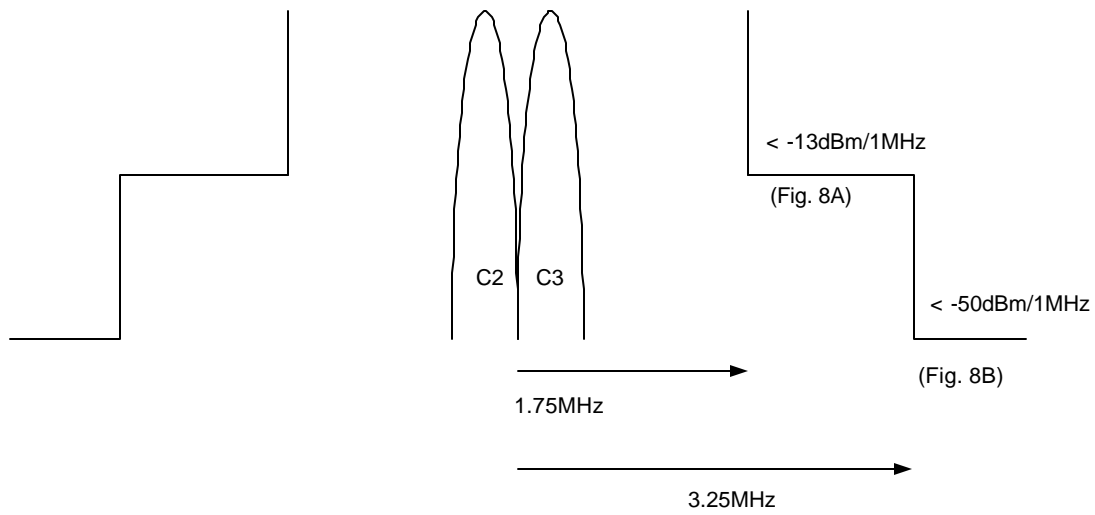


Figure 26. ACPR Mask for Carriers C2 & C3 in WCS C or D Band with 6-Carrier BTS Signal

EQUIPMENT: 2.3 GHz CPE

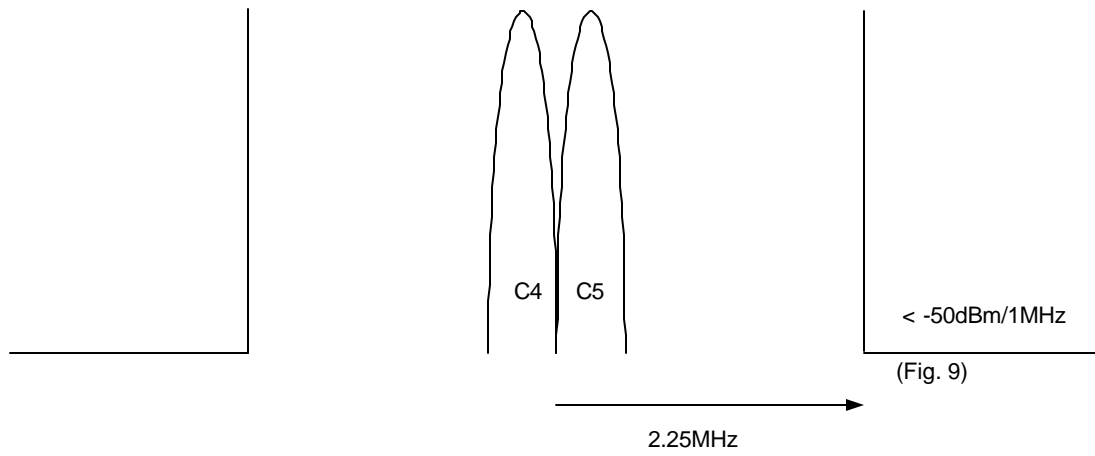


Figure 27. ACPR Mask for Carriers C4 & C5 in WCS C or D Band with 6-Carrier BTS Signal

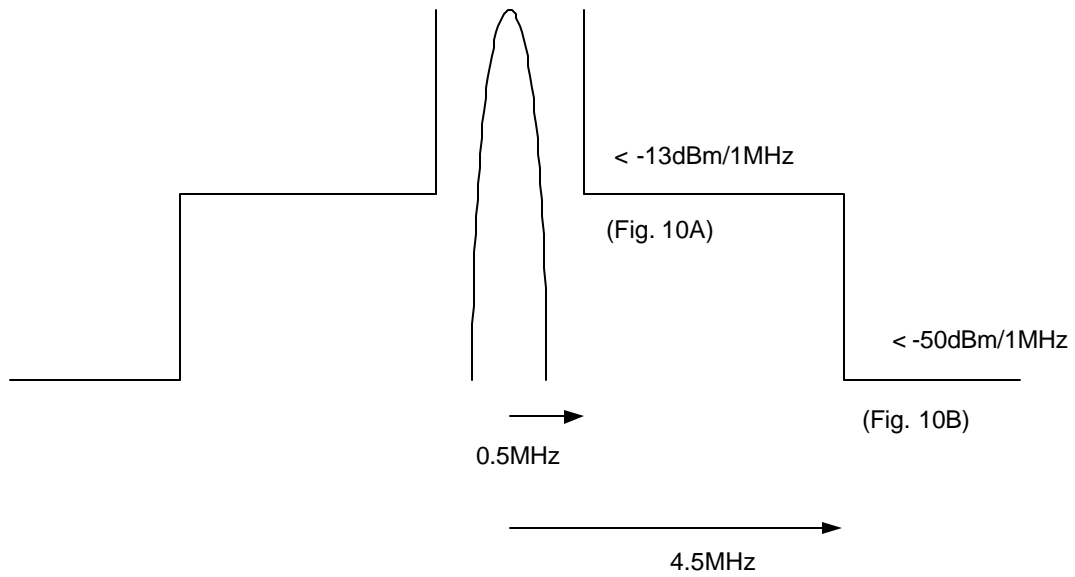


Figure 28. ACPR Mask for Carrier C0, C1, C2, C3, or C4 in WCS C or D Band with 6-Carrier BTS Signal

EQUIPMENT: 2.3 GHz CPE

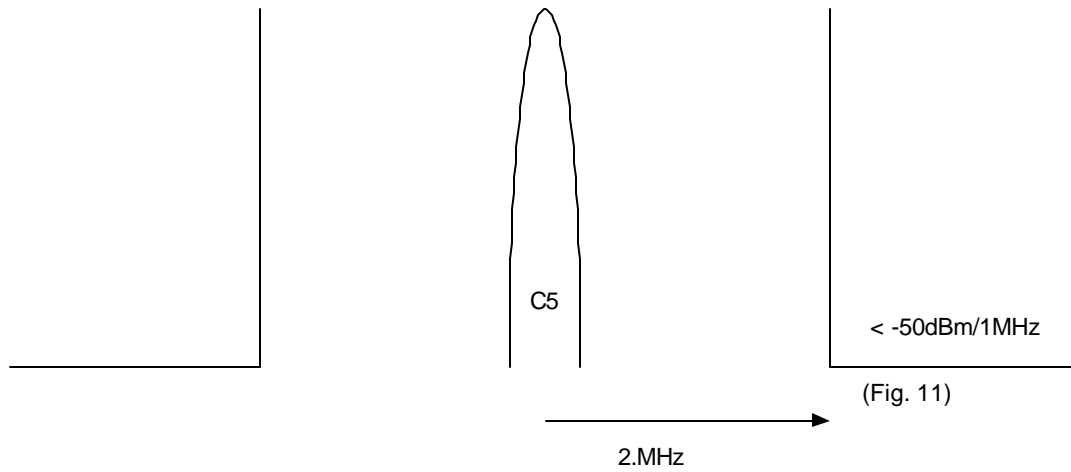


Figure 29. ACPR Mask for Carrier C5 in WCS C or D Band with 6-Carrier BTS Signal

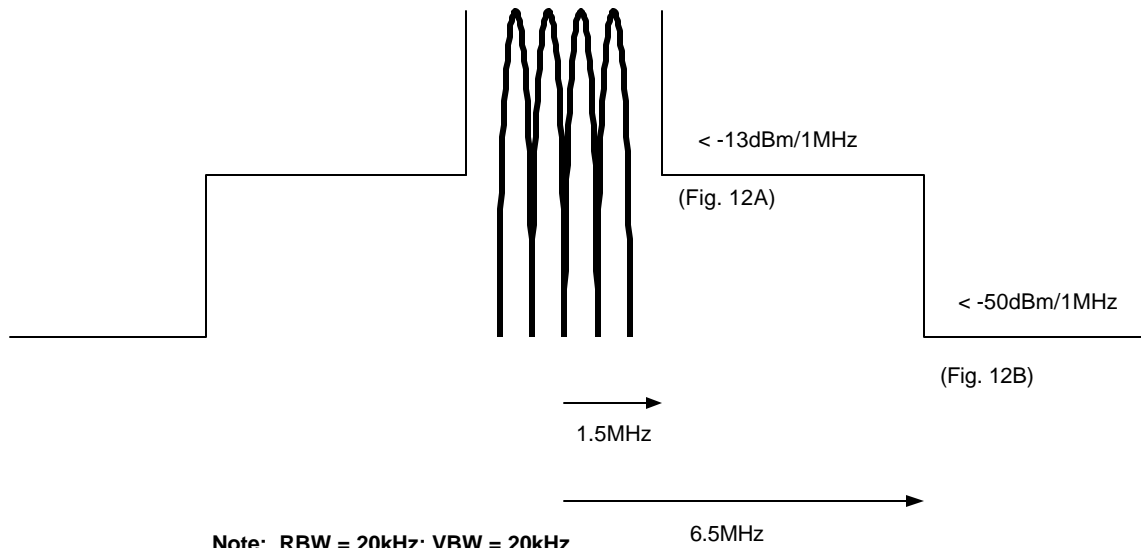


Figure 30. ACPR Mask for Outside 4-Carrier Signal in the WCS A or B Bands with 8-Carrier BTS Signal

EQUIPMENT: 2.3 GHz CPE

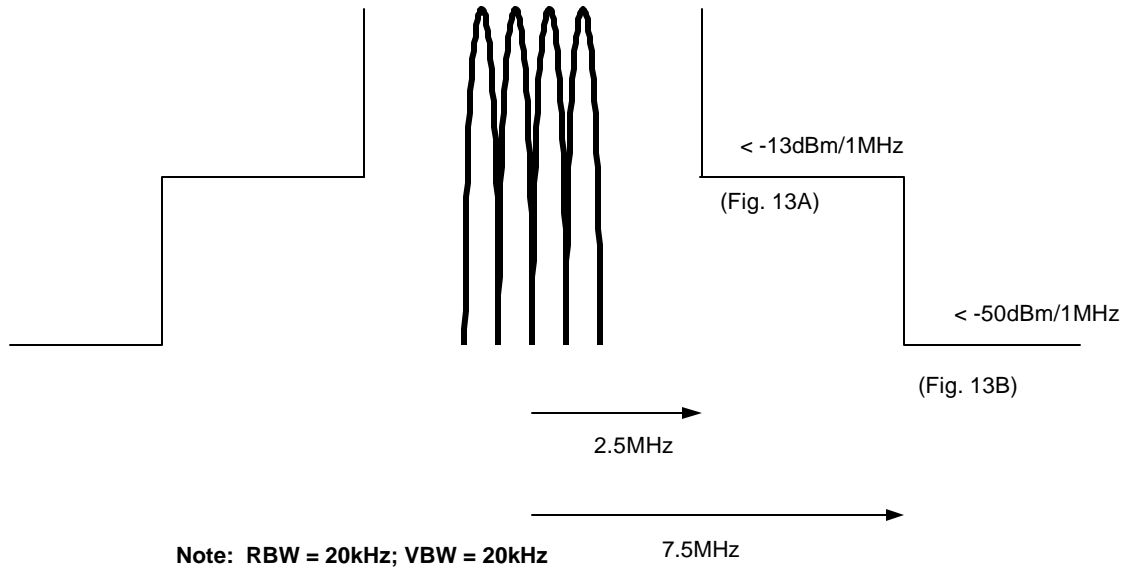


Figure 31. ACPR Mask for Inside 4-Carrier Signal in the WCS A or B Bands with 8-Carrier BTS Signal

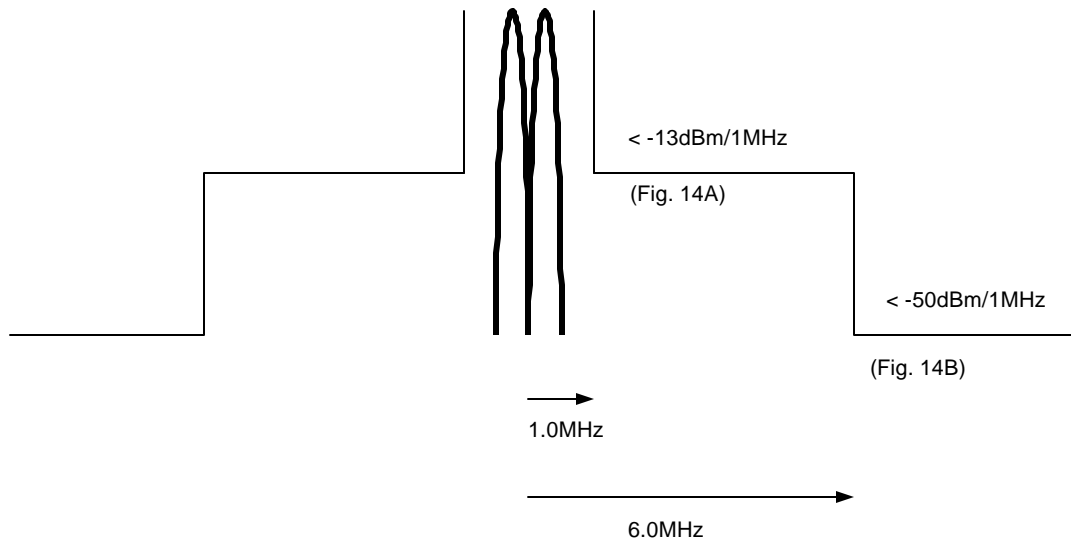
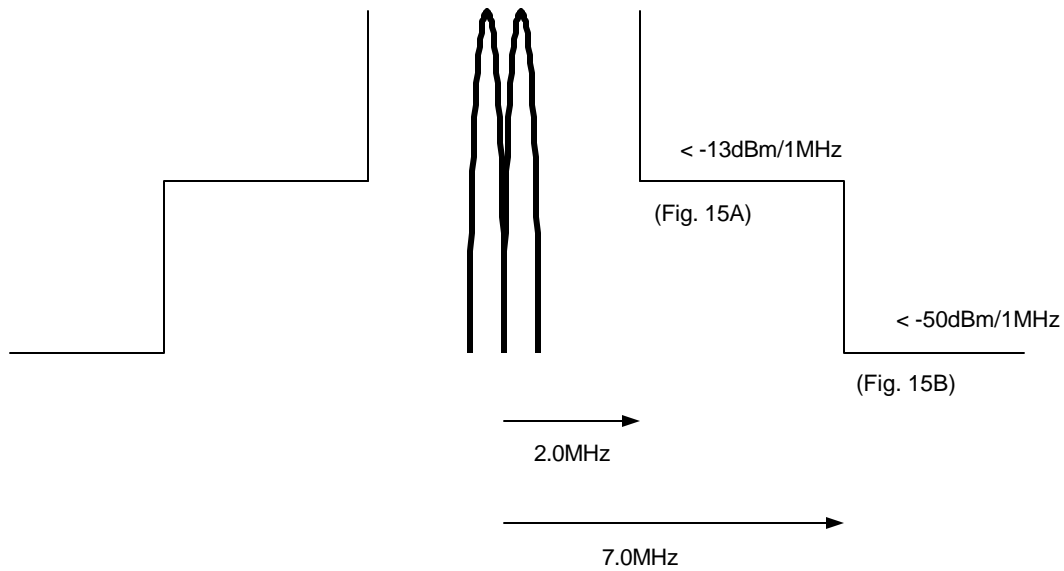


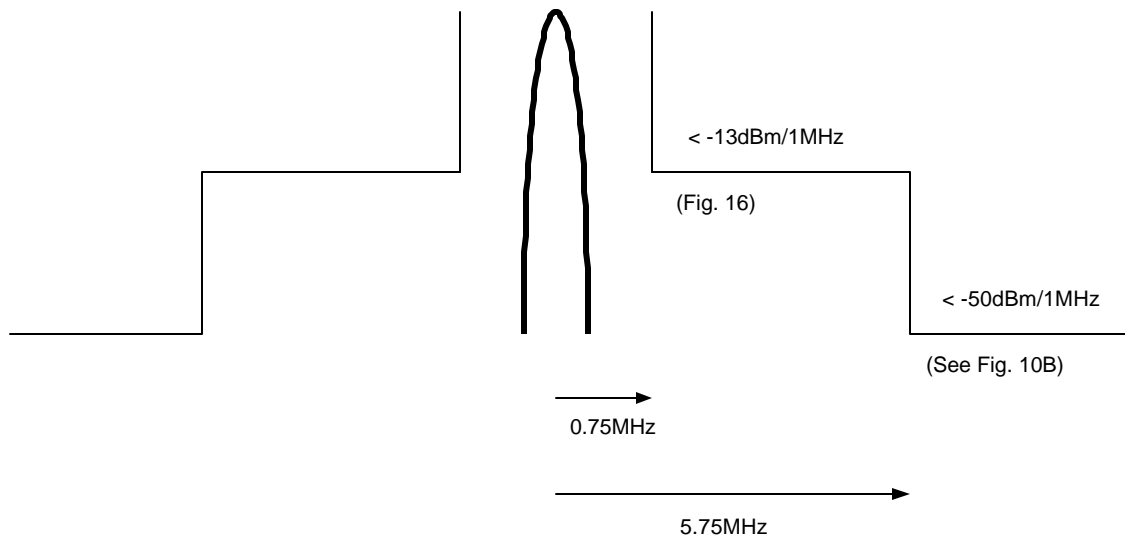
Figure 32. ACPR Mask for Outside 2-Carrier Signal in WCS A or B Bands with 8-Carrier BTS Signal

EQUIPMENT: 2.3 GHz CPE



Note: RBW = 10kHz; VBW = 20kHz

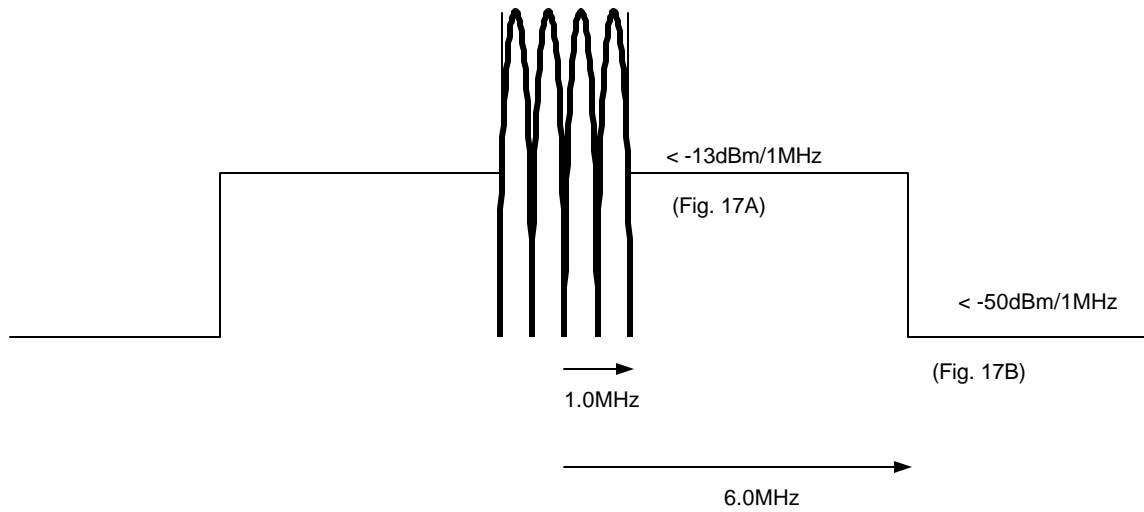
Figure 33. ACPR Mask for Inside 2-Carrier Signal in WCS A or B Bands with 8-Carrier BTS Signal



Note: RBW = 5kHz; VBW = 20kHz

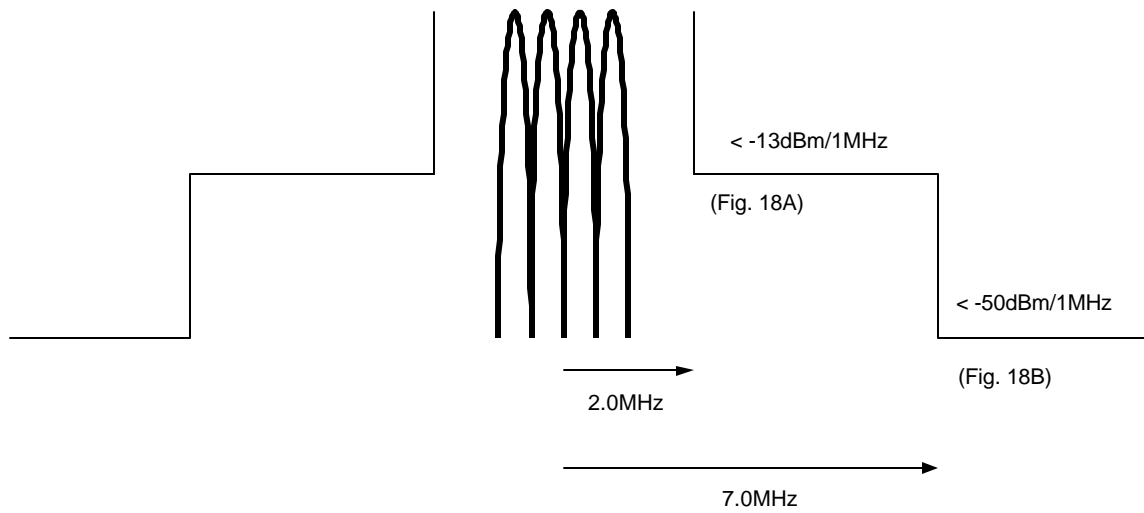
Figure 34. ACPR Mask for Outside 1-Carrier Signal in WCS A or B Bands with 8-Carrier BTS Signal

EQUIPMENT: 2.3 GHz CPE



Note: RBW=20kHz; VBW=20kHz

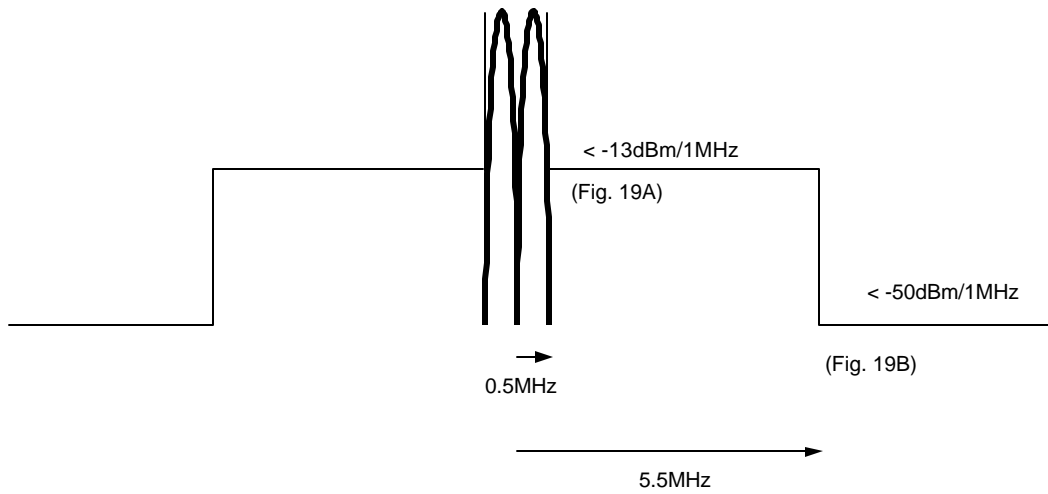
Figure 35. ACPR Mask for Outside 4-Carrier Signal in WCS A or B Bands With 10-Carrier BTS Signal



Note: RBW=20kHz; VBW=20kHz

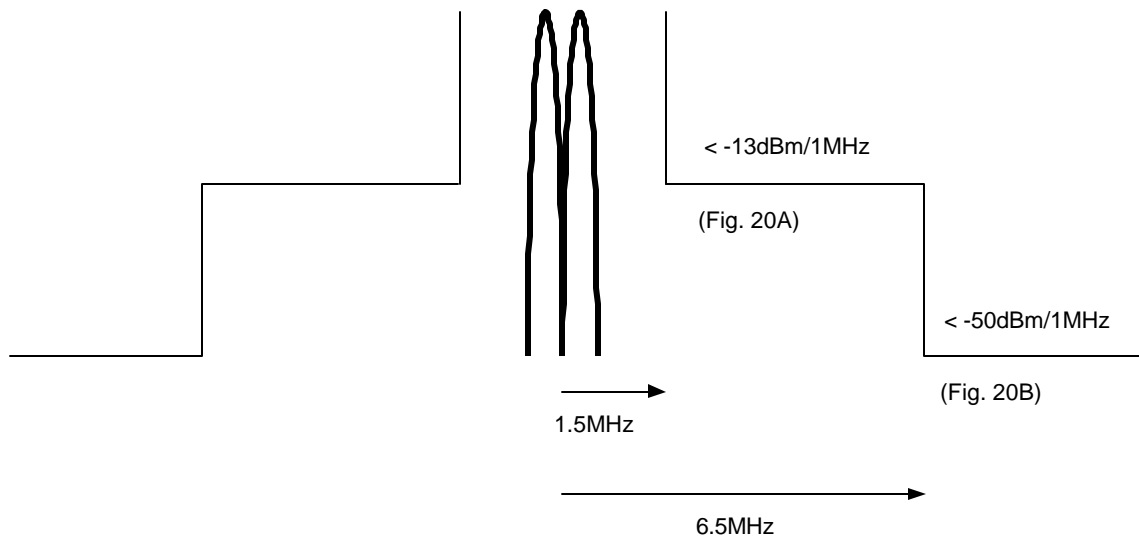
Figure 36. ACPR Mask for Inside 4-Carrier Signal in WCS A or B Bands With 10-Carrier BTS Signal

EQUIPMENT: 2.3 GHz CPE



Note: RBW=5kHz; VBW=20kHz

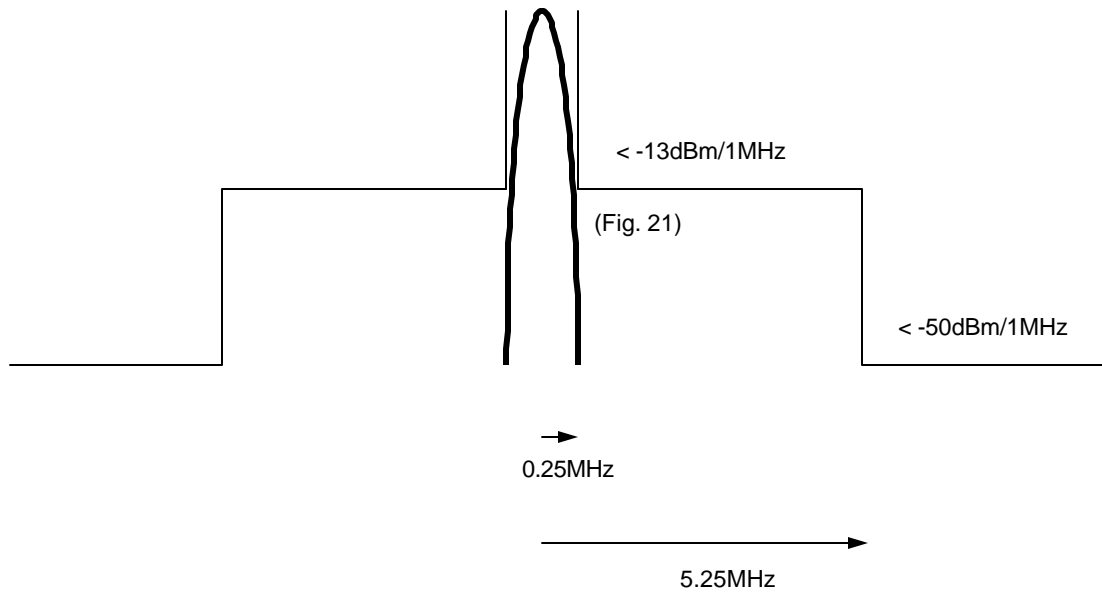
Figure 37. ACPR Mask for Outside 2-Carrier Signal in WCS A or B Bands With 10-Carrier BTS Signal



Note: RBW=10kHz; VBW=20kHz

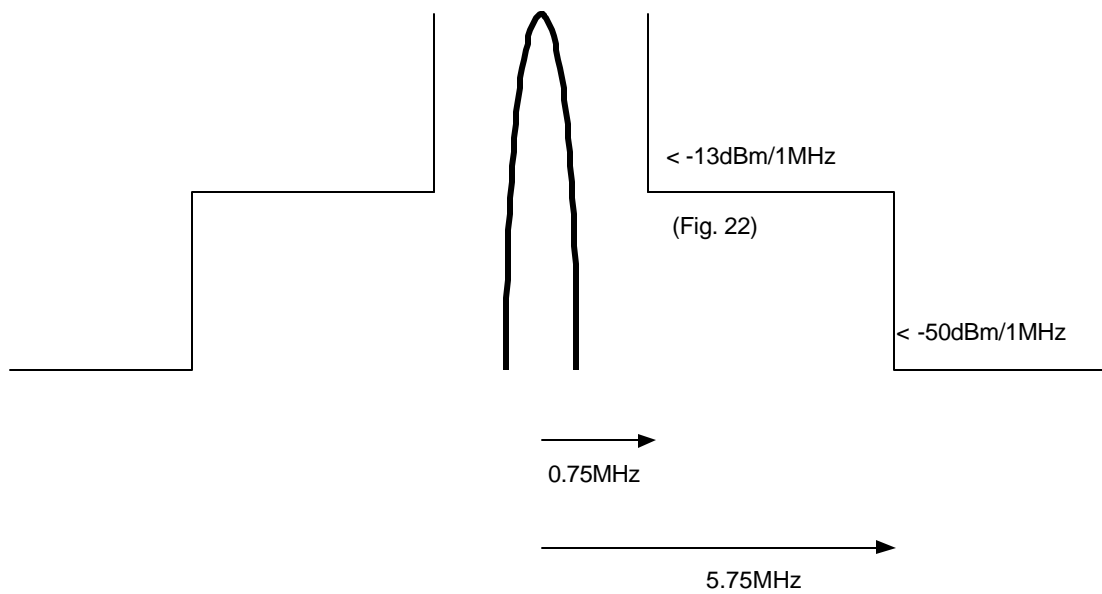
Figure 38. ACPR Mask for Inside 2-Carrier Signal in WCS A or B Bands with 10-Carrier BTS Signal

EQUIPMENT: 2.3 GHz CPE



Note: RBW = 5kHz; VBW = 20kHz

Figure 39. ACPR Mask for Outside 1-Carrier Signal in WCS A or B Bands with 10-Carrier BTS Signal



Note: RBW = 5kHz; VBW = 20kHz

Figure 40. ACPR Mask for Inside 1-Carrier Signal in WCS A or B Bands with 10-Carrier BTS Signal

EQUIPMENT: 2.3 GHz CPE

Section 4. Occupied Bandwidth

NAME OF TEST: Occupied Bandwidth	PARA. NO.: 2.1049
TESTED BY: Tom Tidwell	DATE: 11/11/2002

Test Results: Complies

Measurement Data: See attached data sheets.

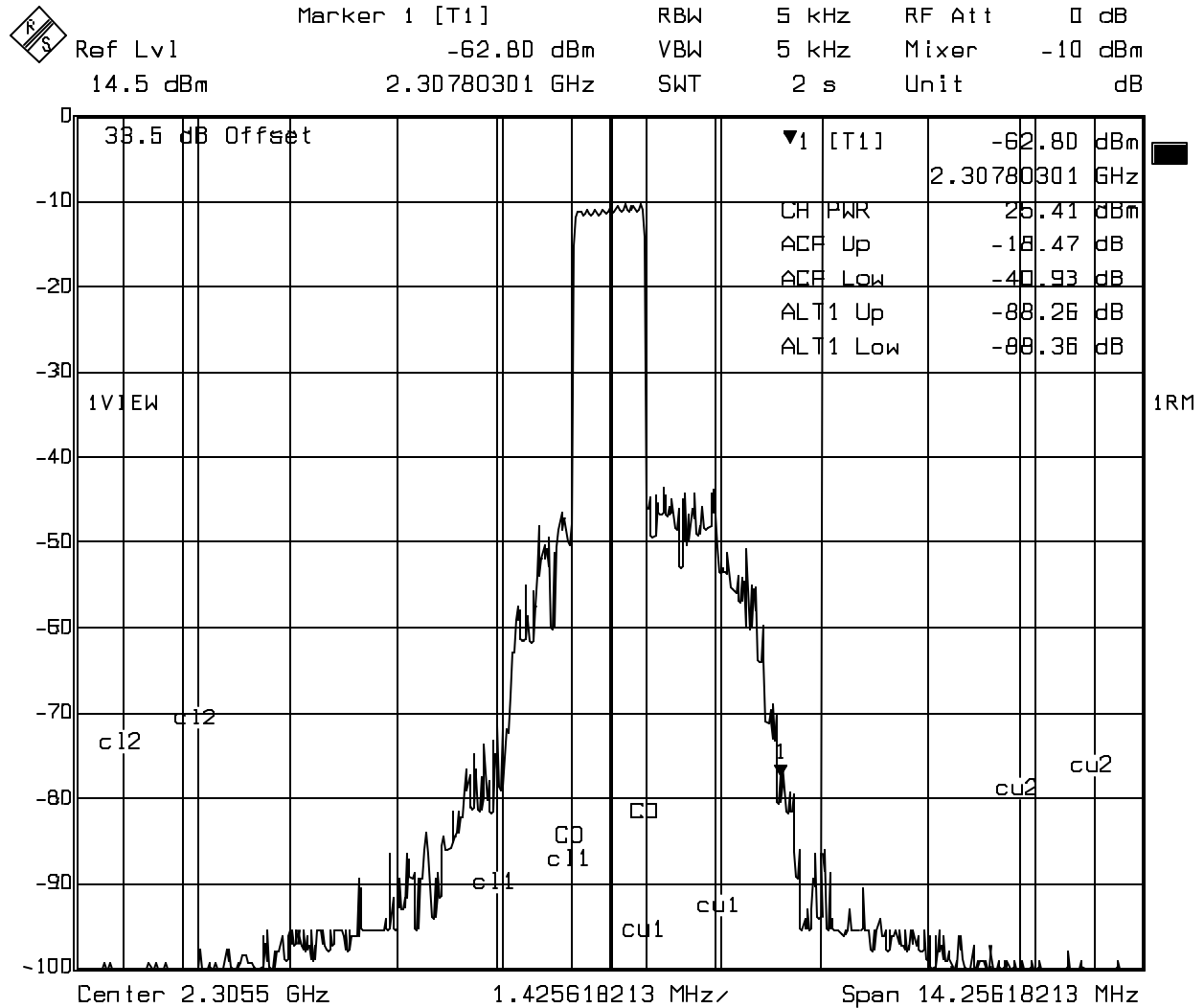
Equipment Used: 1036, 1474, 1484

Measurement Uncertainty: +/- 1.7 dB

Note: A resolution bandwidth of 5 kHz was used since each transmitted carrier has a bandwidth of 500 kHz.


EQUIPMENT: 2.3 GHz CPE

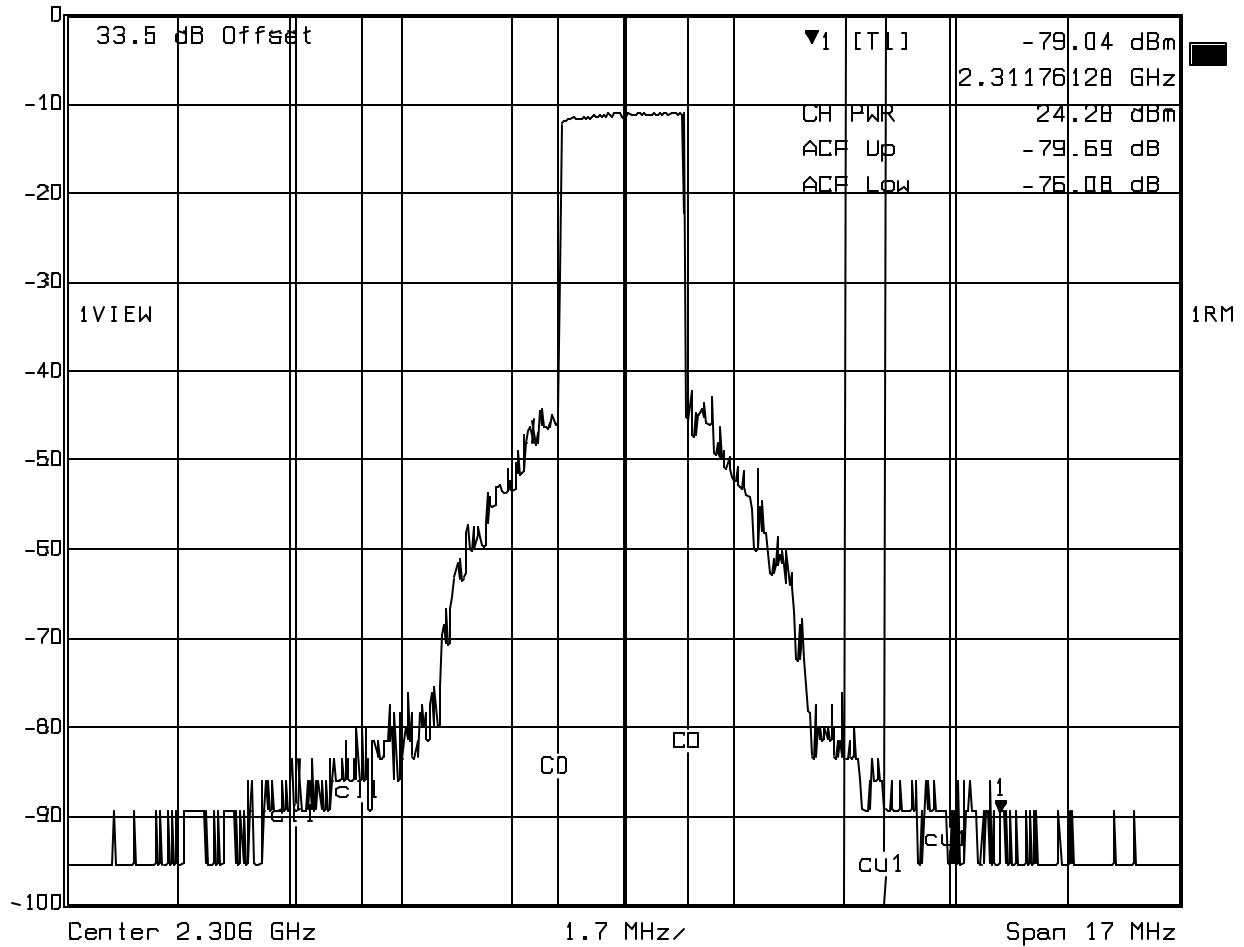
Test data – Block A (2305 – 2310 MHz)



Title: 2DC
 Date: 11.NOV.2002 13:48:59


EQUIPMENT: 2.3 GHz CPE

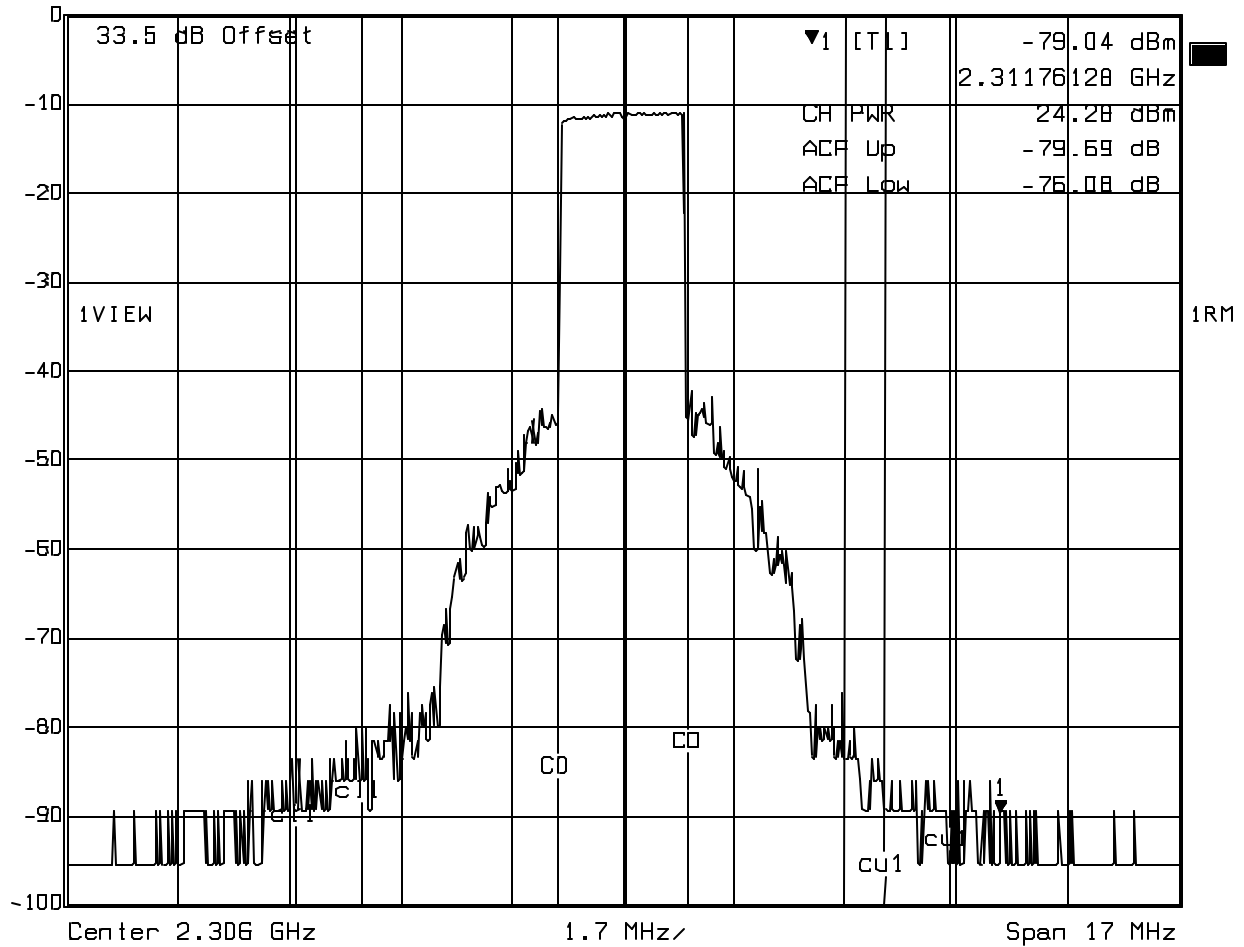
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-79.04 dBm	VBW	5 kHz	Mixer	-10 dB
	10.5 dBm	2.31176128 GHz	SWT	1.7 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:22:41


EQUIPMENT: 2.3 GHz CPE

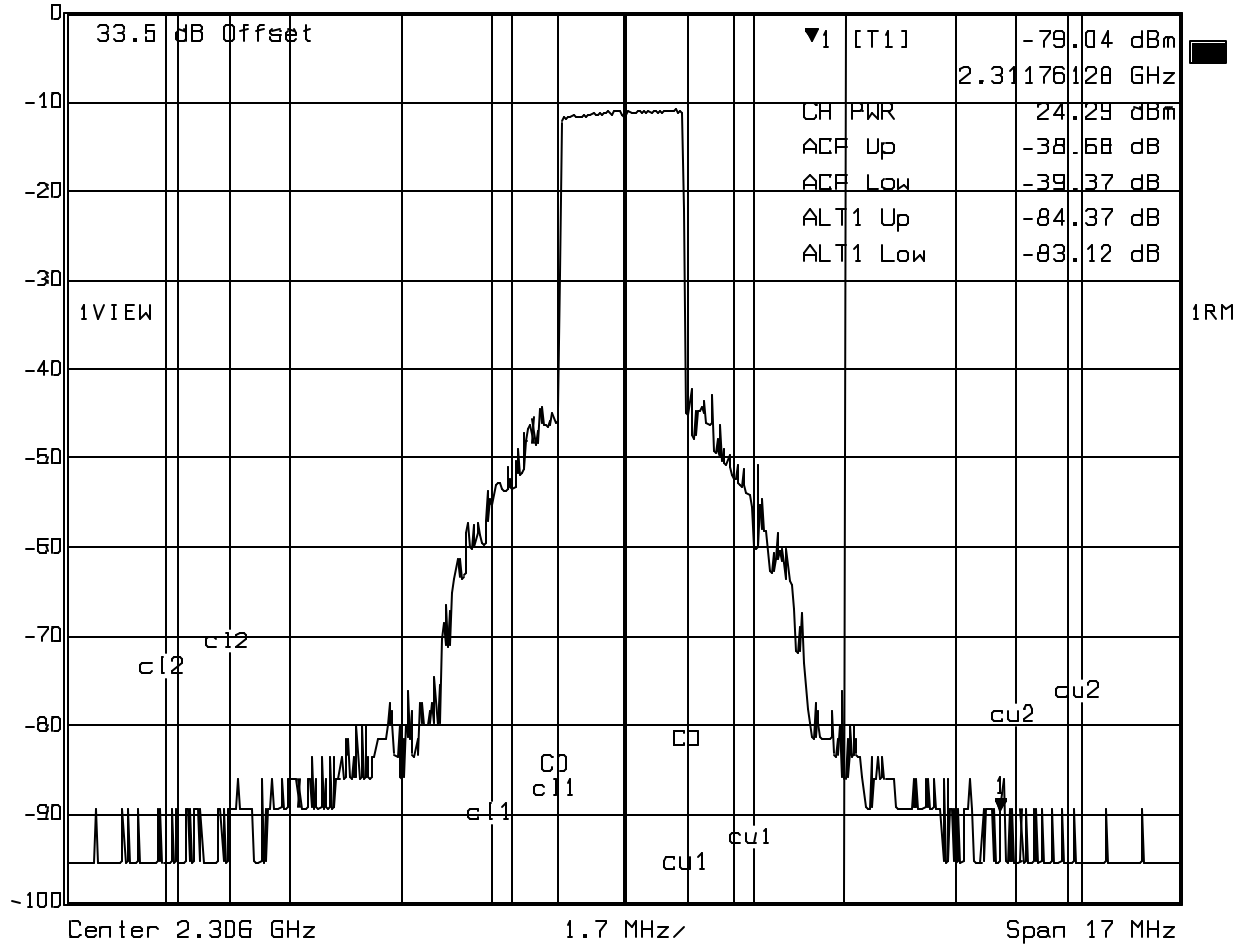
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-79.04 dBm	VBW	5 kHz	Mixer	-10 dB
	10.5 dBm	2.31176128 GHz	SWT	1.7 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:22:41


EQUIPMENT: 2.3 GHz CPE

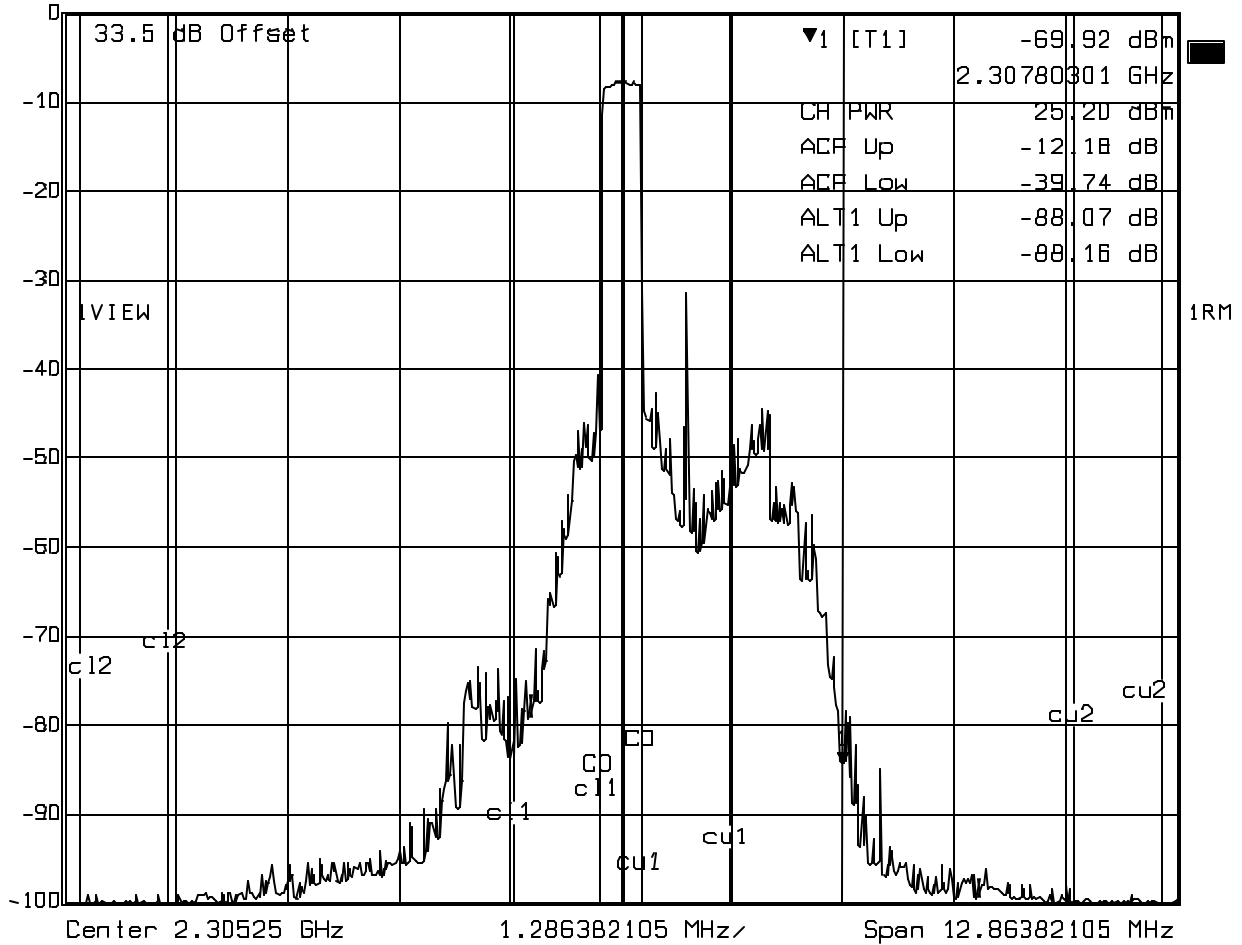
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-79.04 dBm	VBW	5 kHz	Mixer	-10 dB
	10.5 dBm	2.31176128 GHz	SWT	1.7 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:20:41


EQUIPMENT: 2.3 GHz CPE

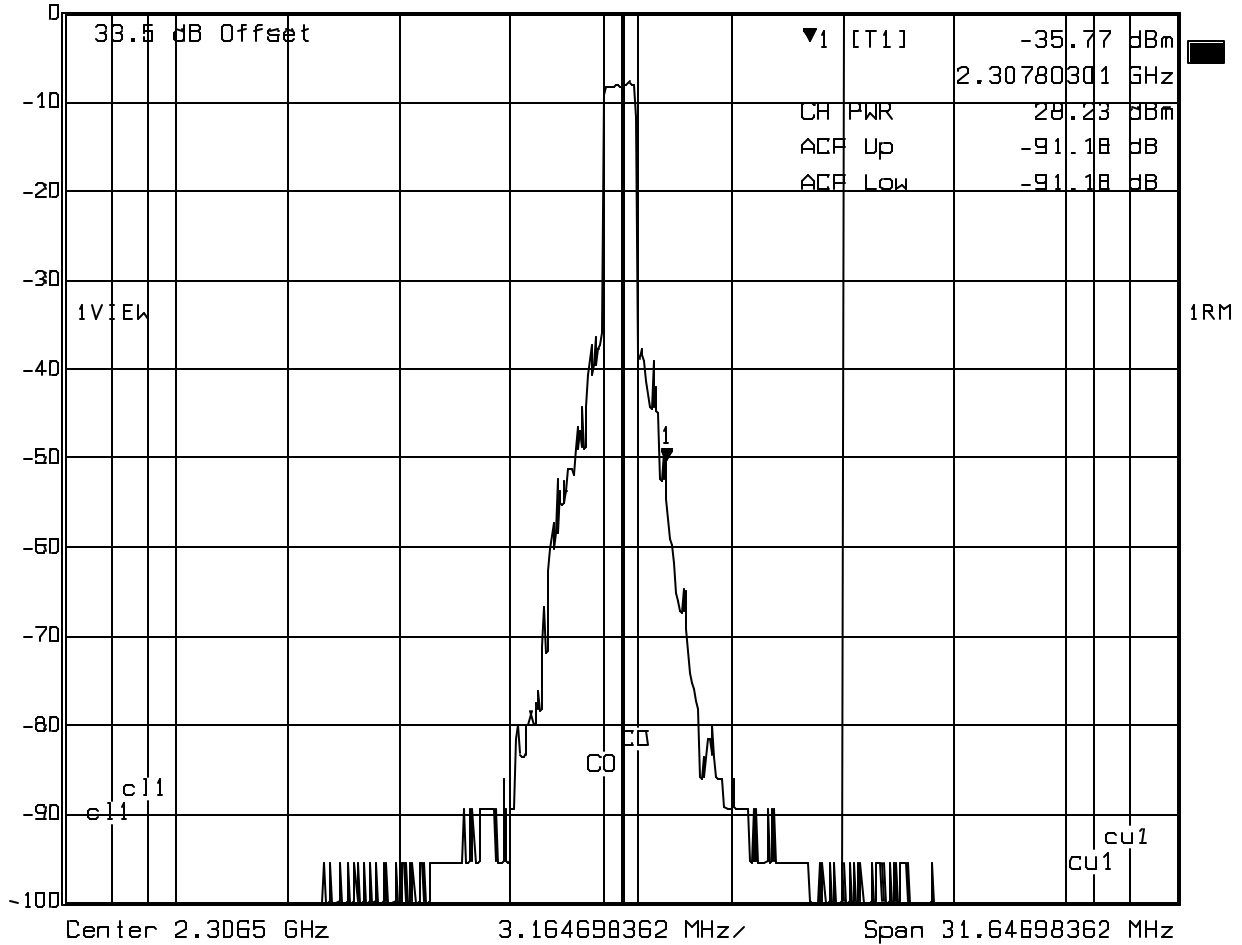
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-69.92 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.30780301 GHz	SWT	1.3 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:12:26


EQUIPMENT: 2.3 GHz CPE

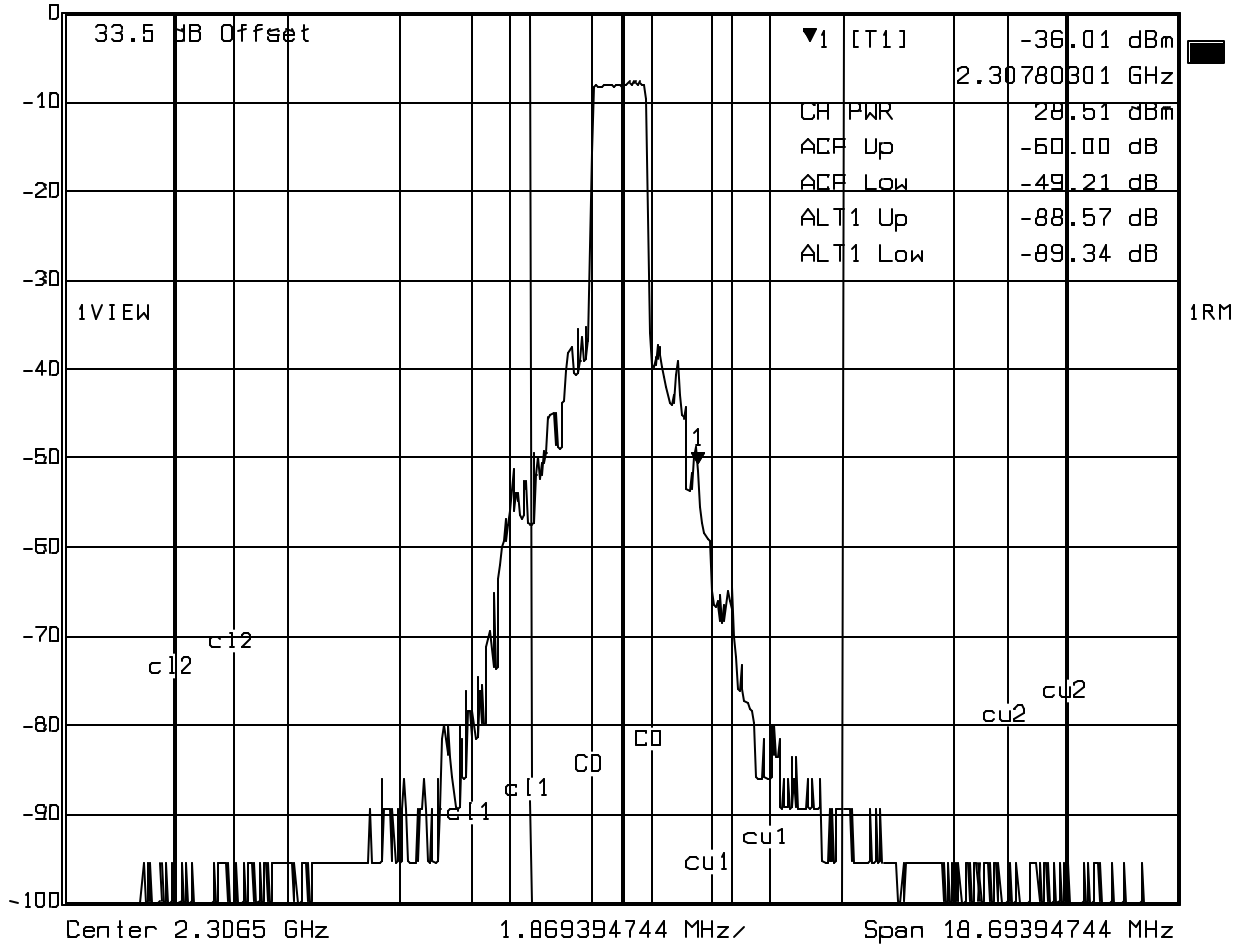
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-35.77 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.30780301 GHz	SWT	3.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:03:59


EQUIPMENT: 2.3 GHz CPE

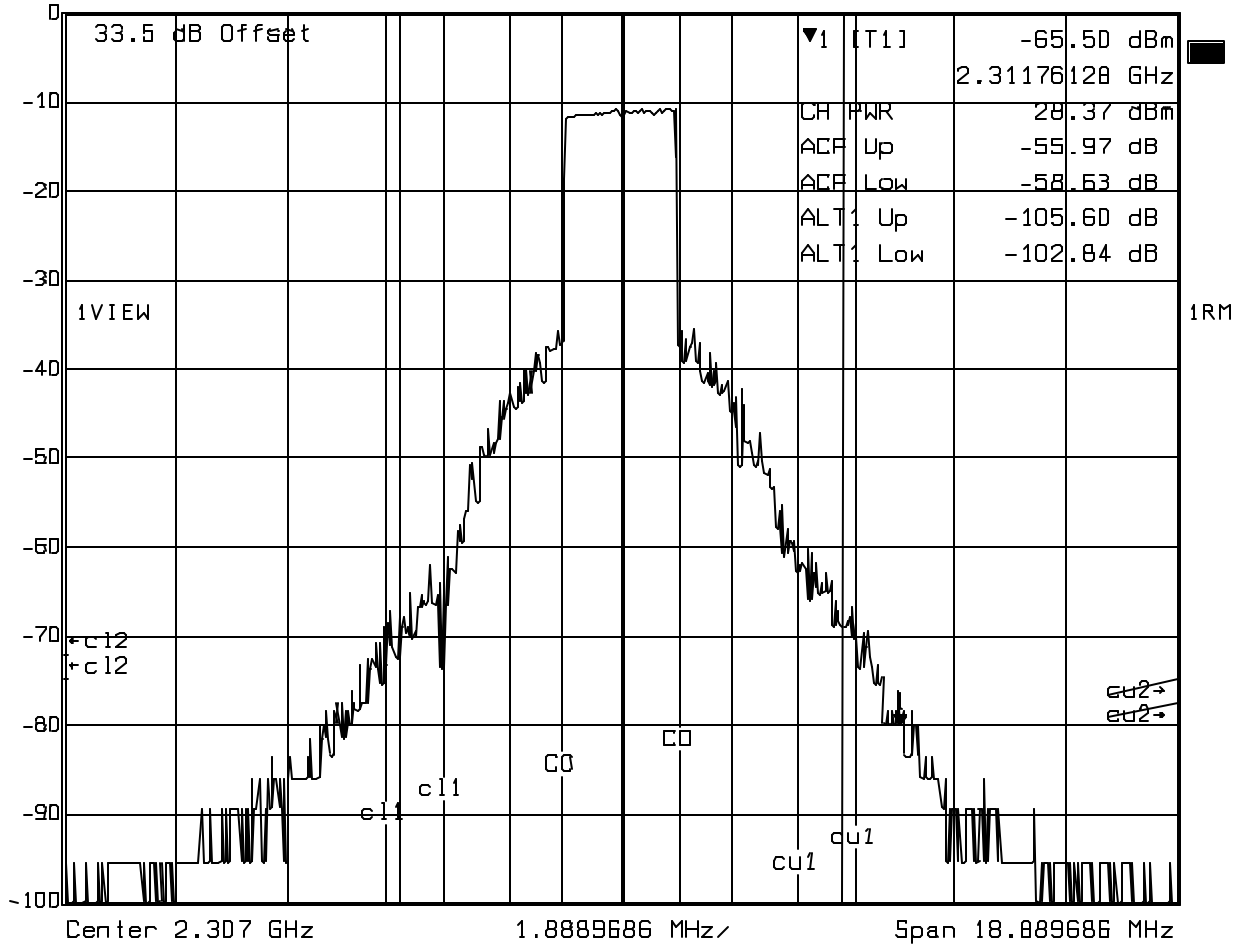
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-36.01 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.30780301 GHz	SWT	1.9 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:01:50


EQUIPMENT: 2.3 GHz CPE

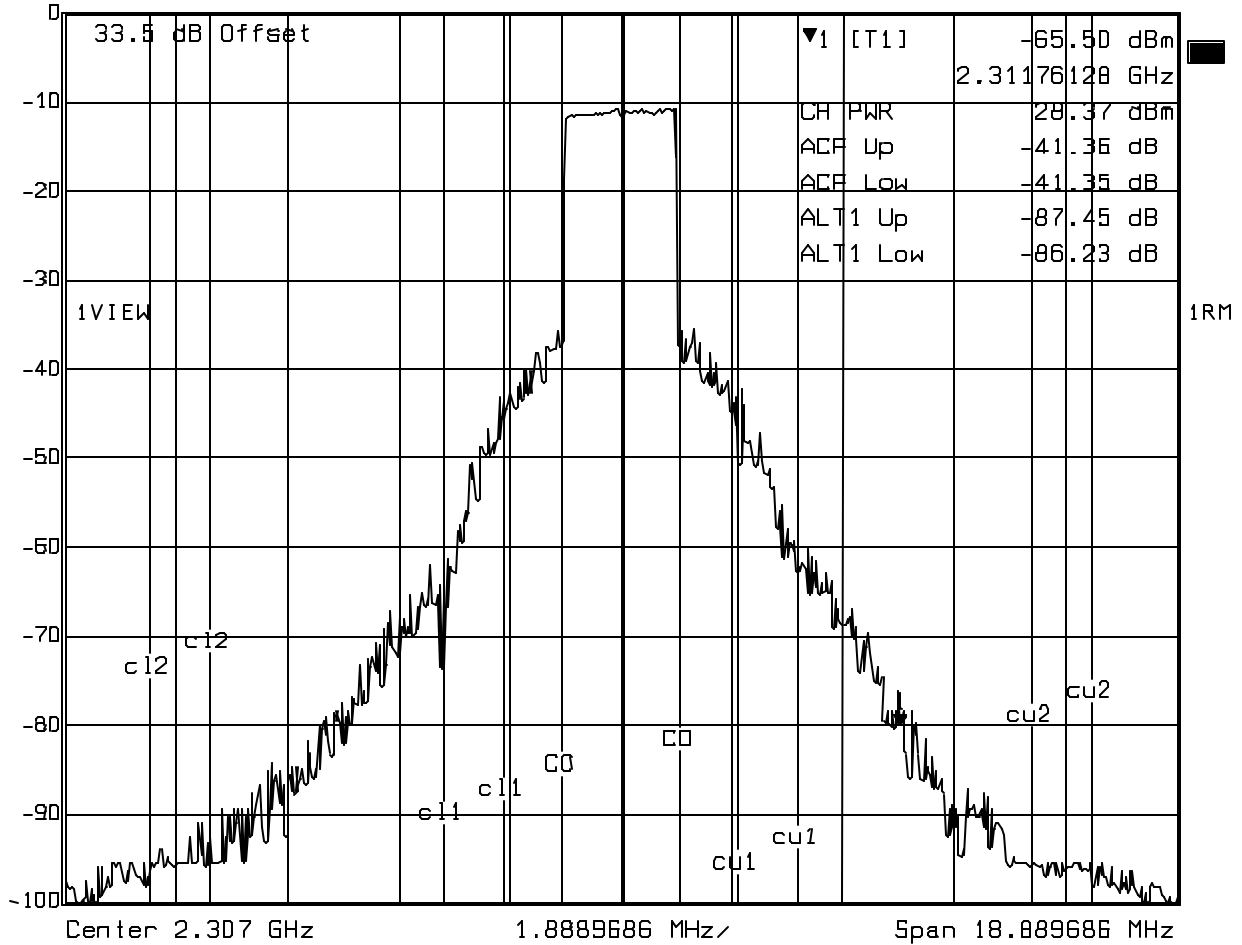
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-65.50 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.31176128 GHz	SWT	1.9 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:33:19


EQUIPMENT: 2.3 GHz CPE

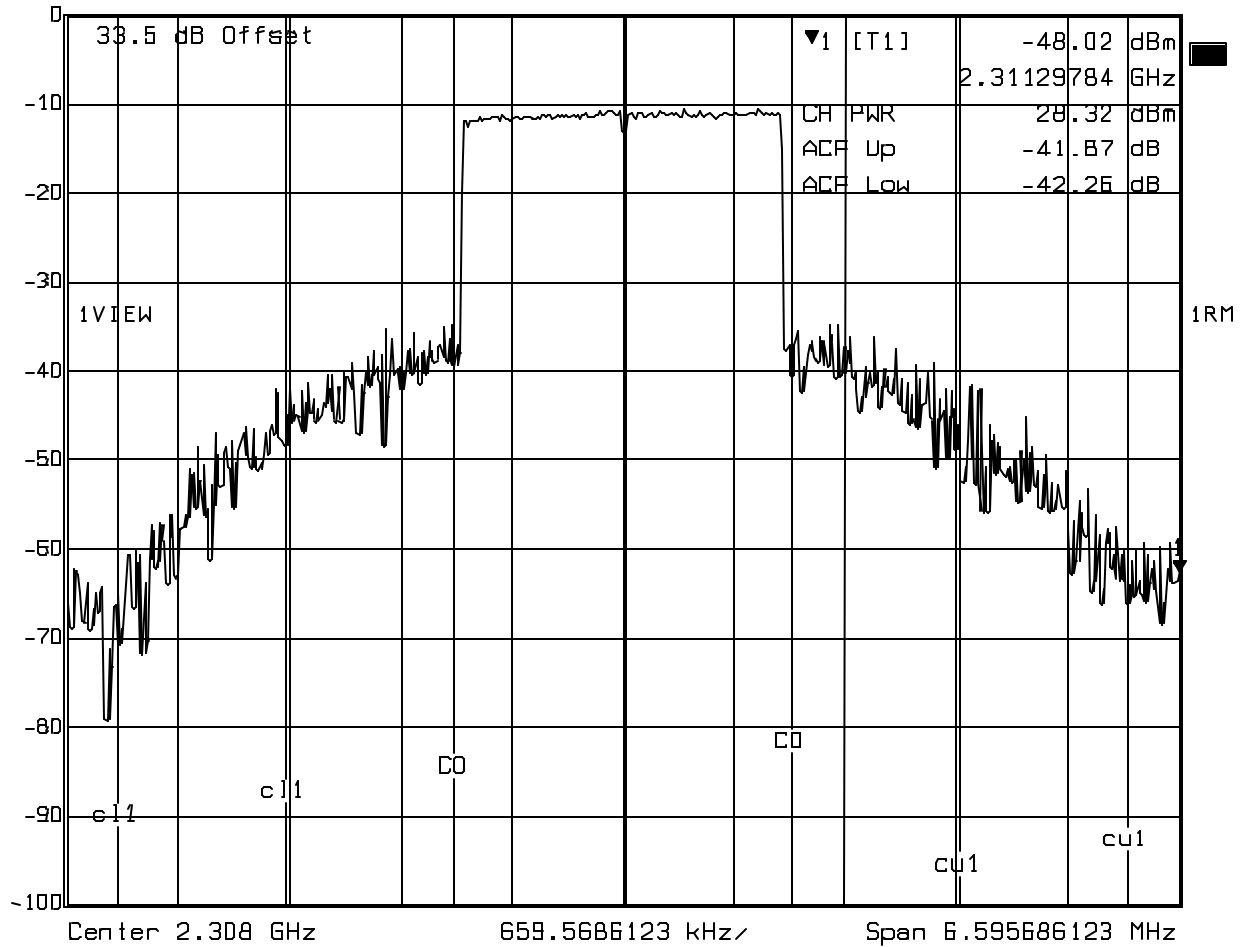
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-65.50 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.31176128 GHz	SWT	1.9 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:31:42


EQUIPMENT: 2.3 GHz CPE

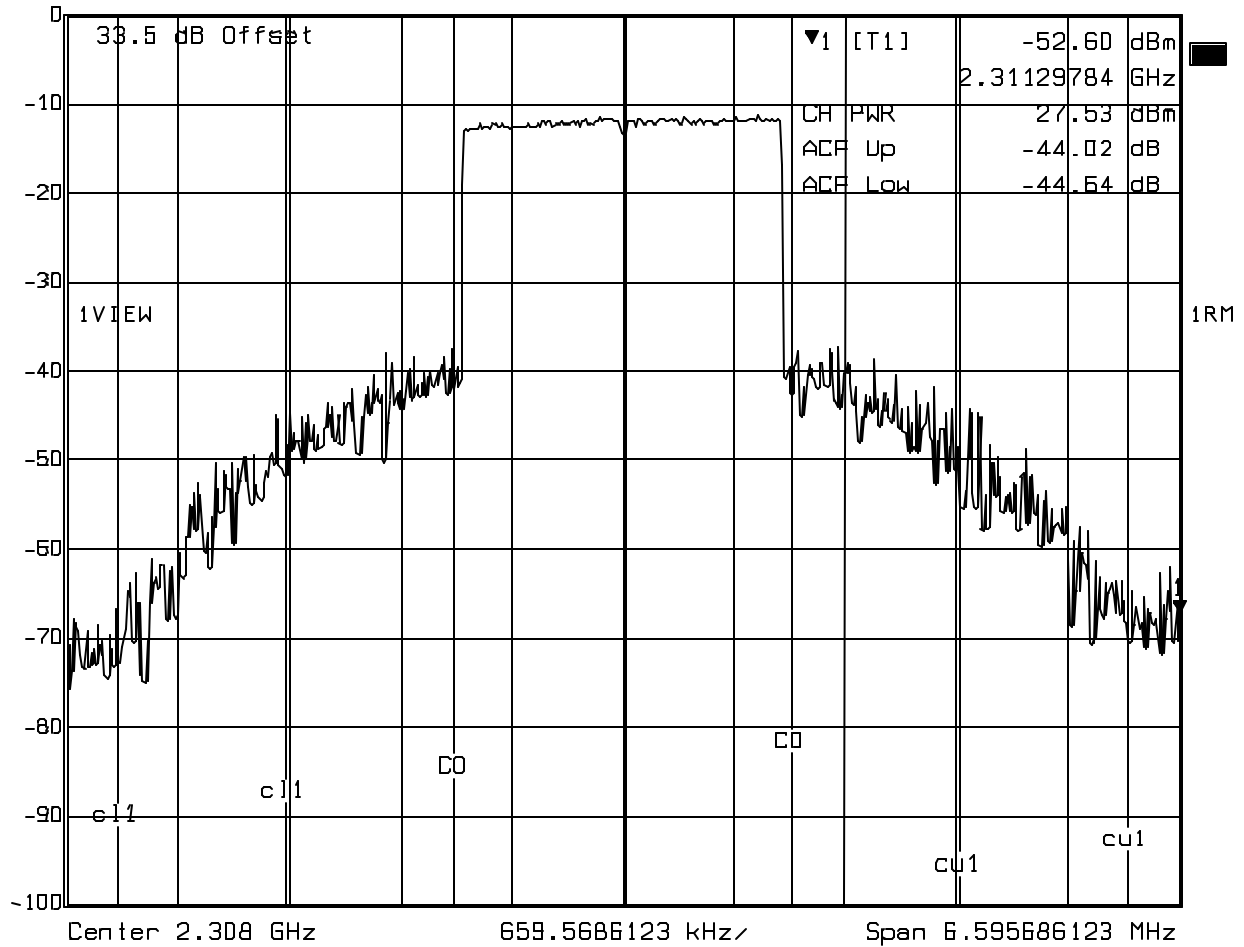
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-48.02 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.31129784 GHz	SWT	660 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:40:33


EQUIPMENT: 2.3 GHz CPE

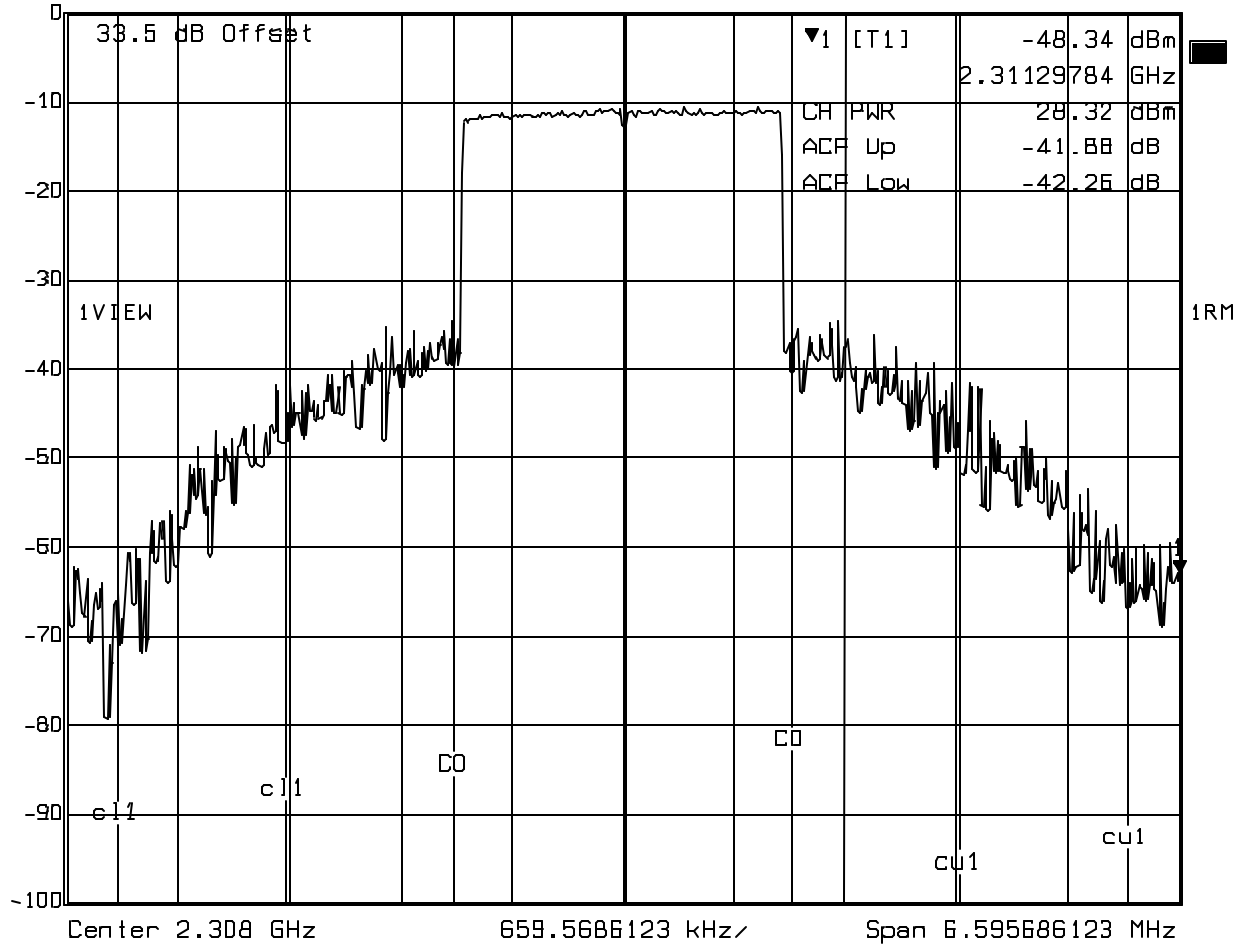
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-52.60 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.31129784 GHz	SWT	2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:43:12


EQUIPMENT: 2.3 GHz CPE

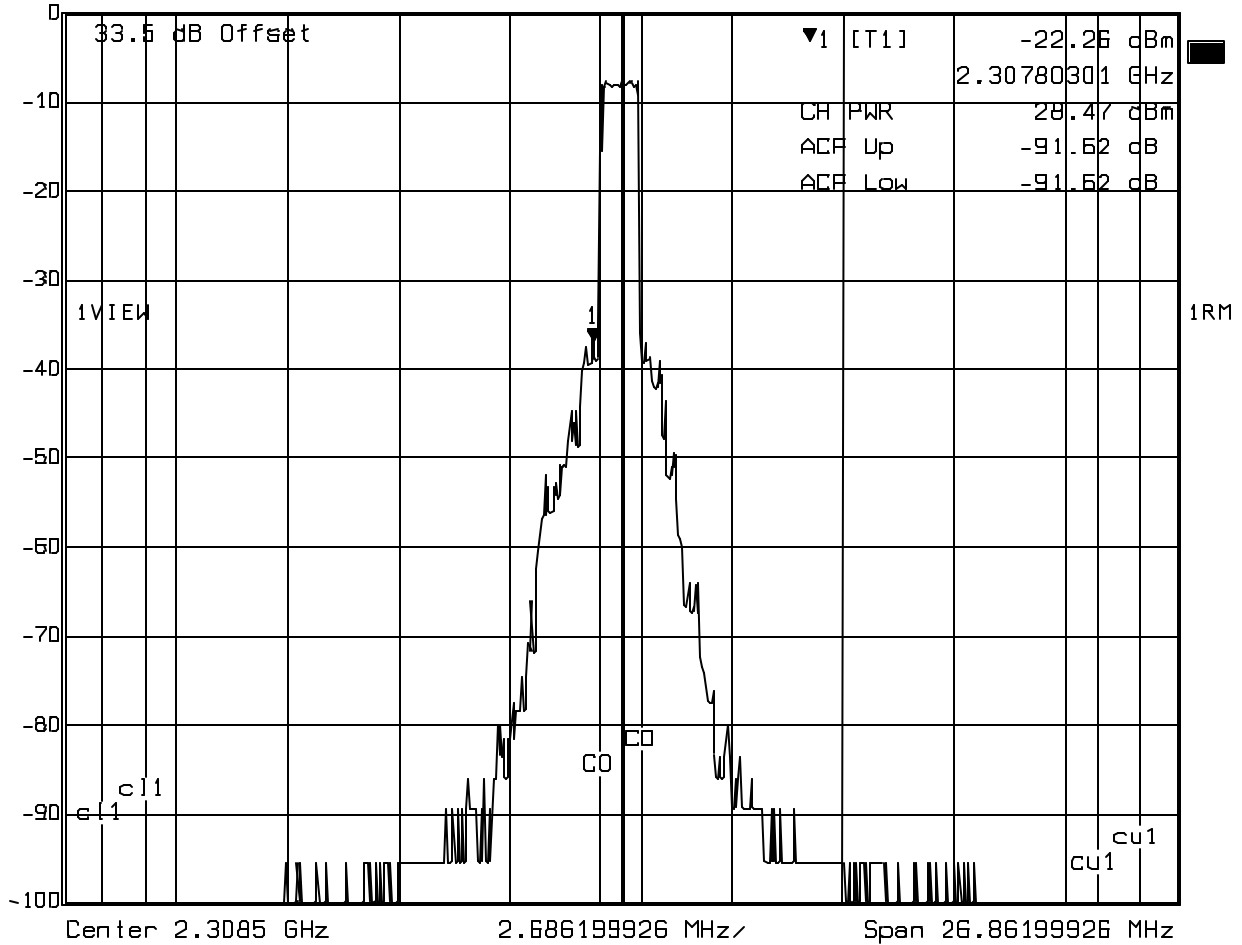
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-48.34 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.31129784 GHz	SWT	2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:41:48


EQUIPMENT: 2.3 GHz CPE

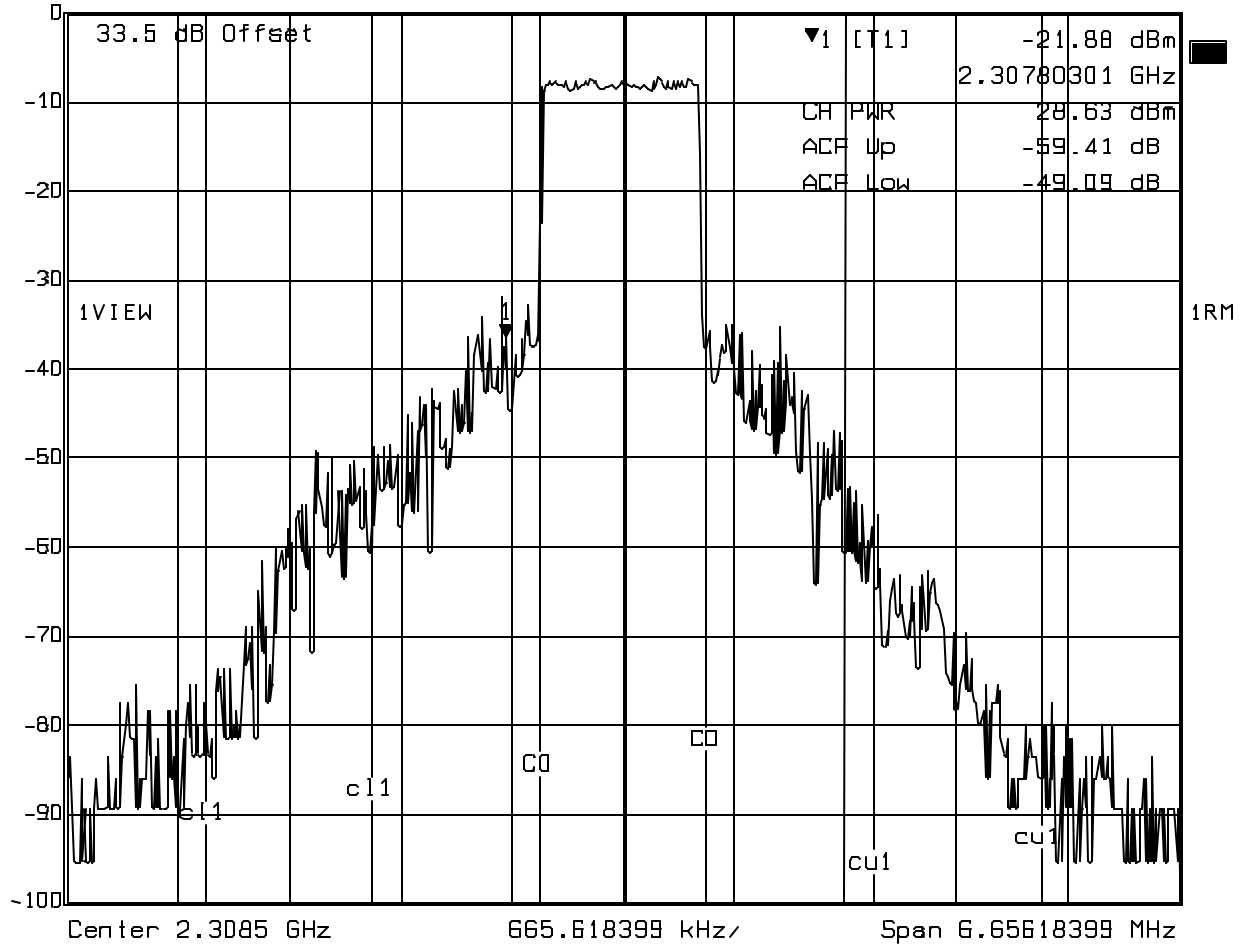
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-22.26 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.30780301 GHz	SWT	2.7 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:07:23


EQUIPMENT: 2.3 GHz CPE

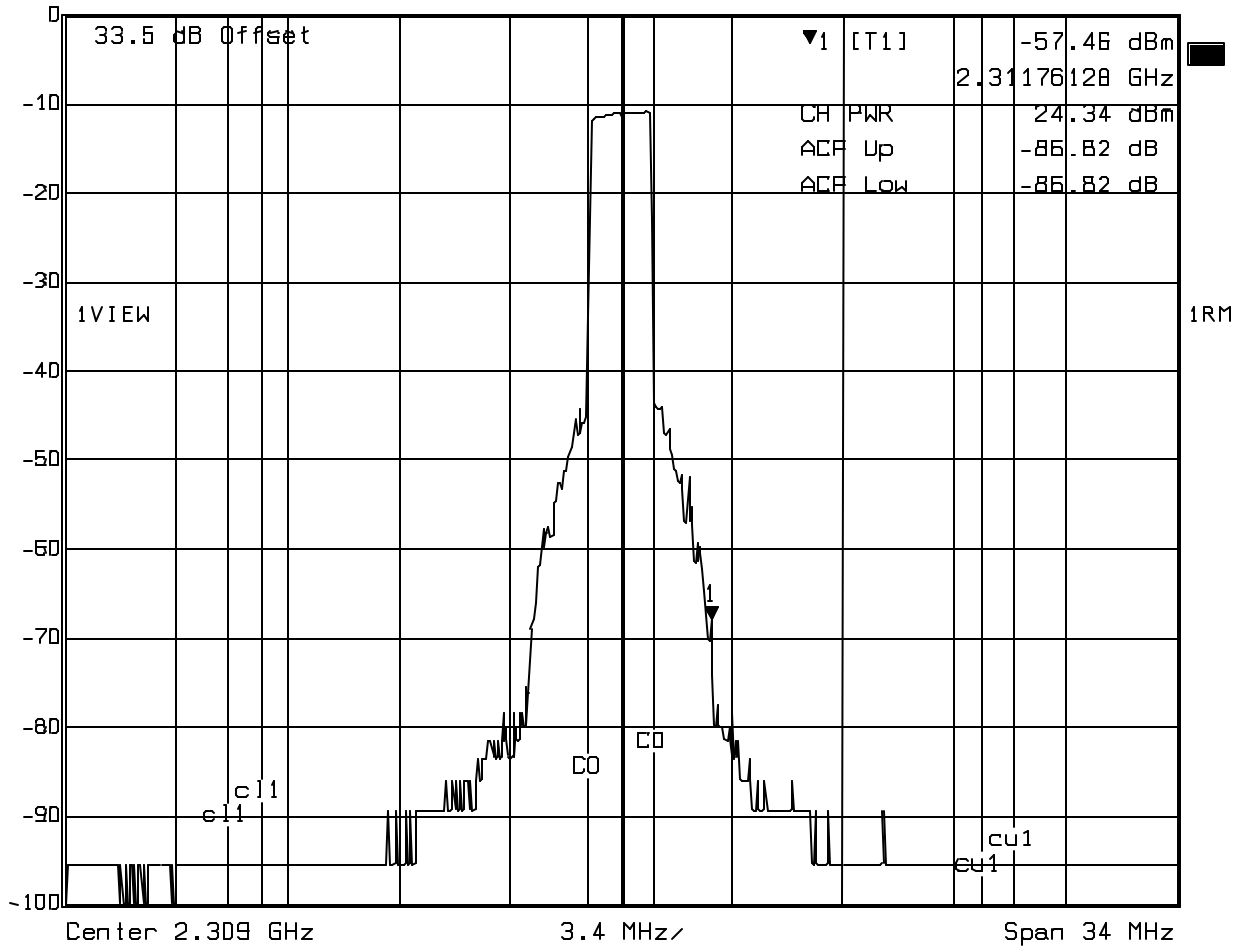
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-21.88 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.30780301 GHz	SWT	680 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:08:23


EQUIPMENT: 2.3 GHz CPE

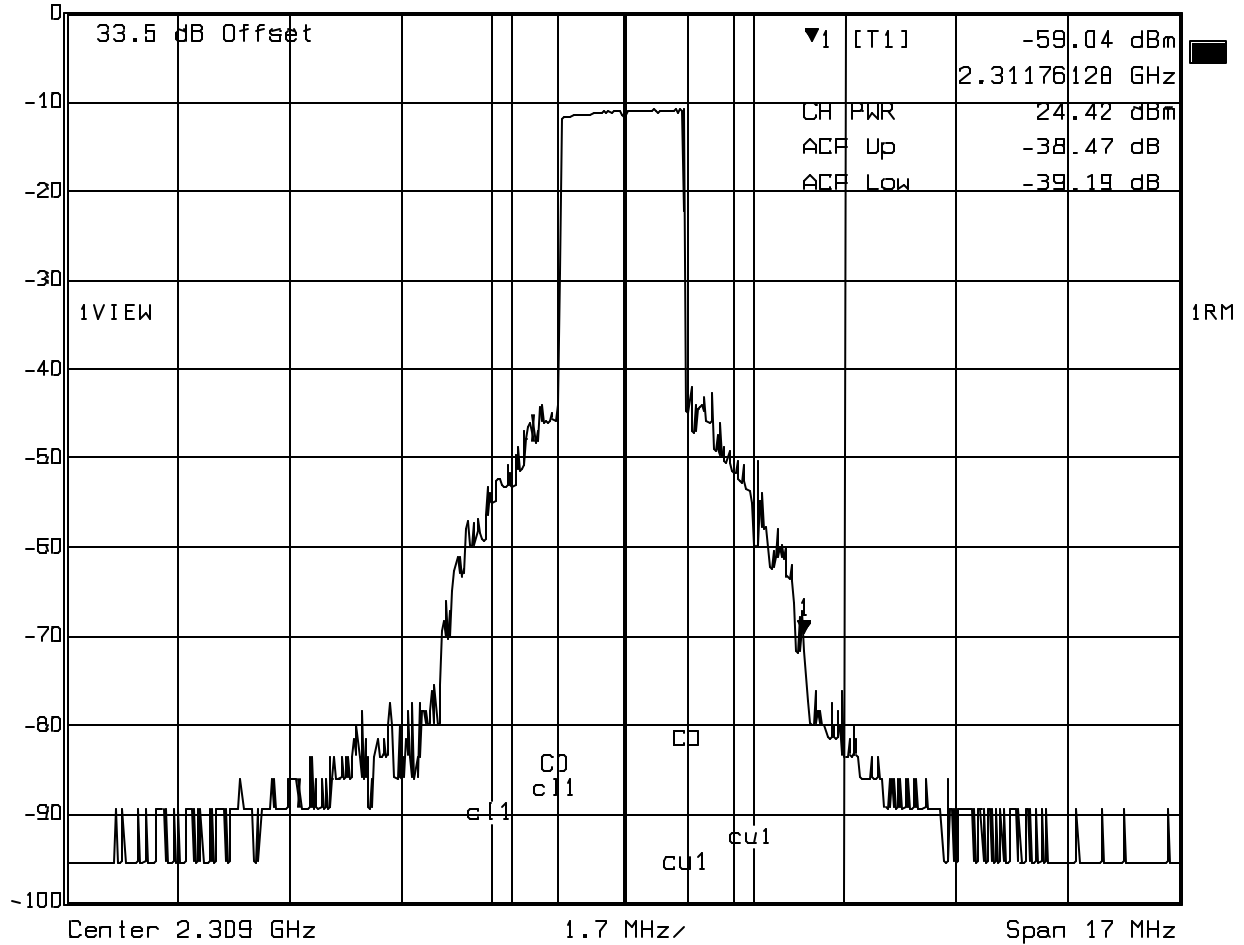
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-57.46 dBm	VBW	5 kHz	Mixer	-10 dB
	10.5 dBm	2.31176128 GHz	SWT	3.4 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:26:32


EQUIPMENT: 2.3 GHz CPE

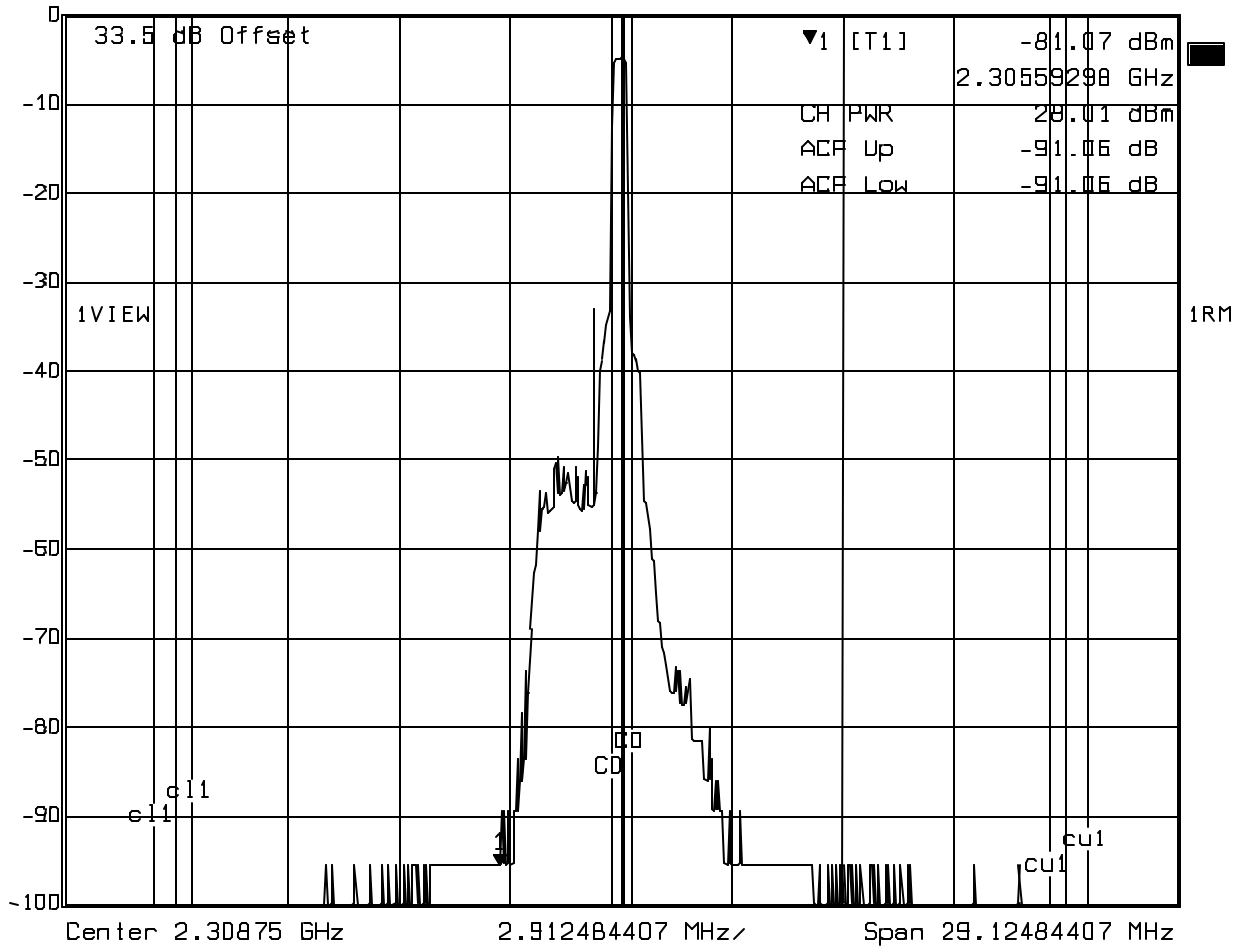
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-59.04 dBm	VBW	5 kHz	Mixer	-10 dB
	10.5 dBm	2.31176128 GHz	SWT	1.7 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:24:25


EQUIPMENT: 2.3 GHz CPE

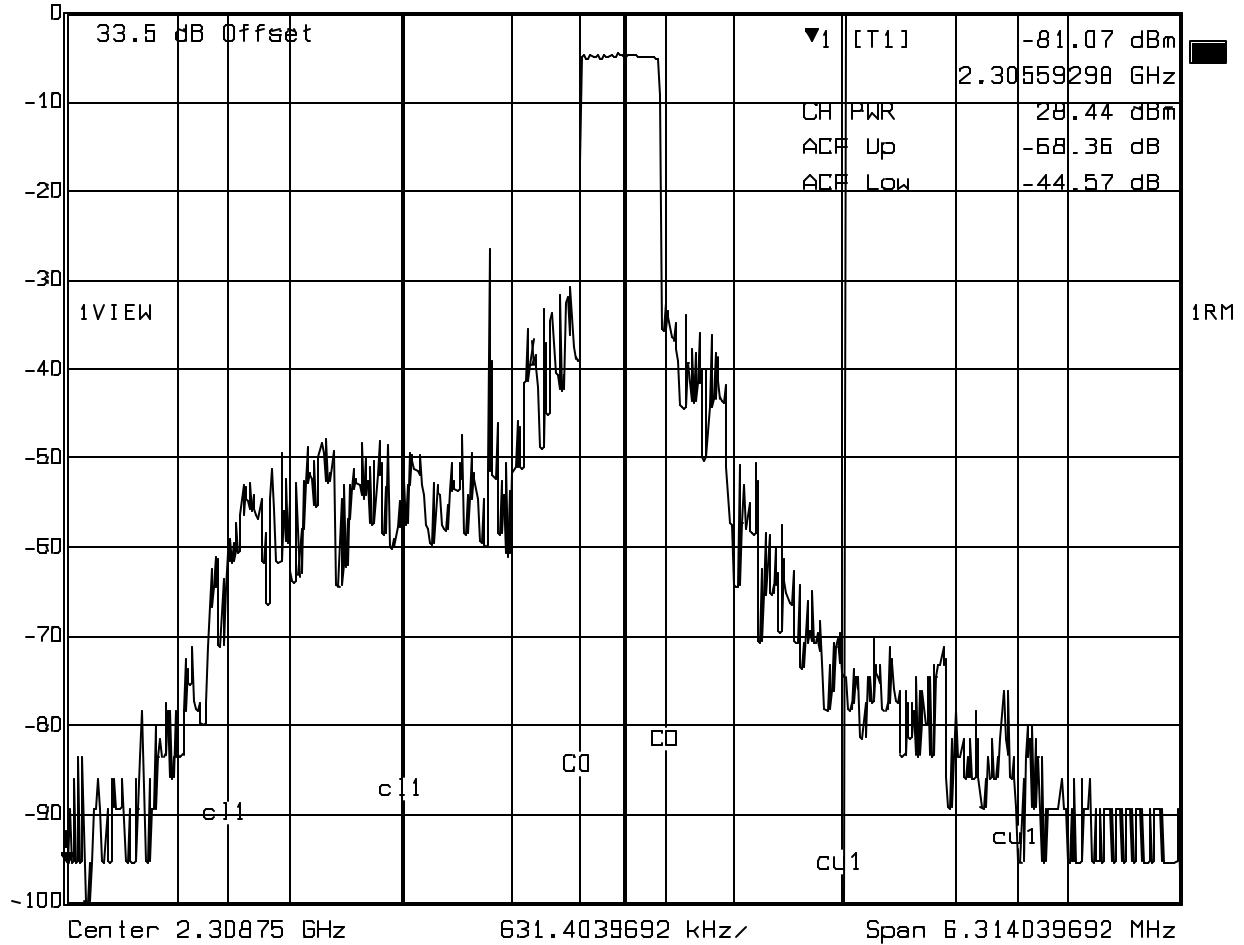
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-81.07 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.30559298 GHz	SWT	3 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:22:29


EQUIPMENT: 2.3 GHz CPE

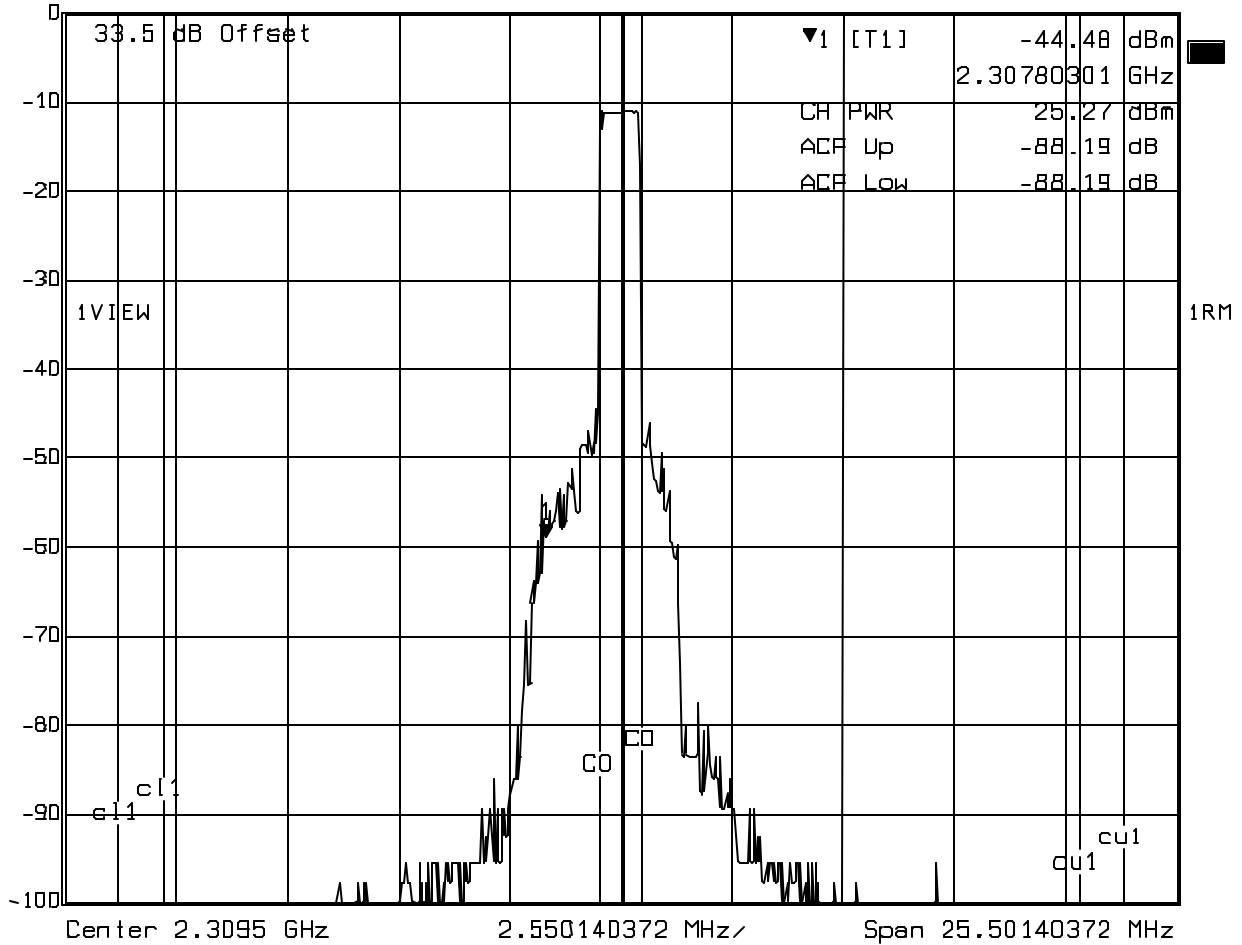
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-81.07 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.30559298 GHz	SWT	640 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:21:36


EQUIPMENT: 2.3 GHz CPE

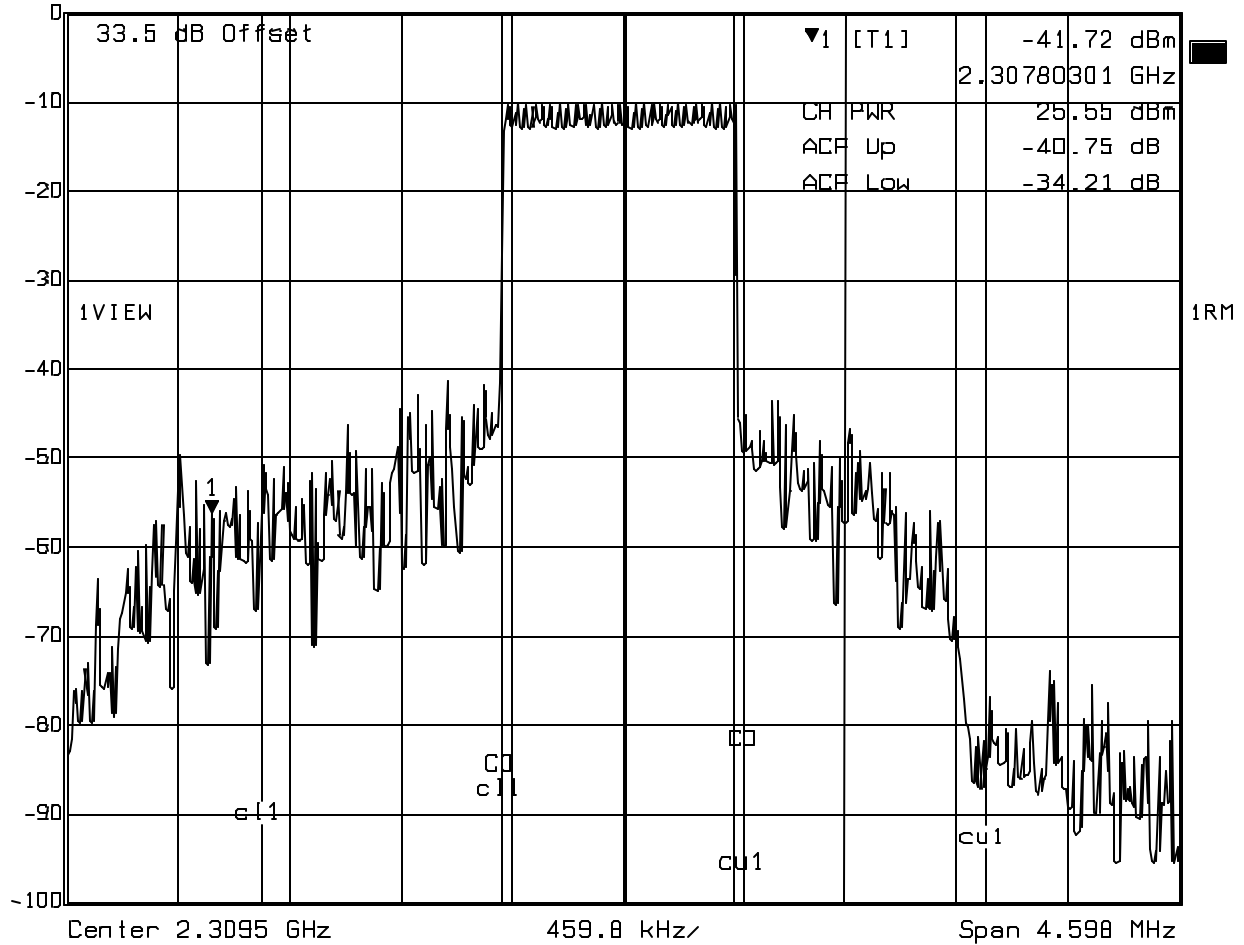
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-44.48 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.30780301 GHz	SWT	2.6 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:56:50


EQUIPMENT: 2.3 GHz CPE

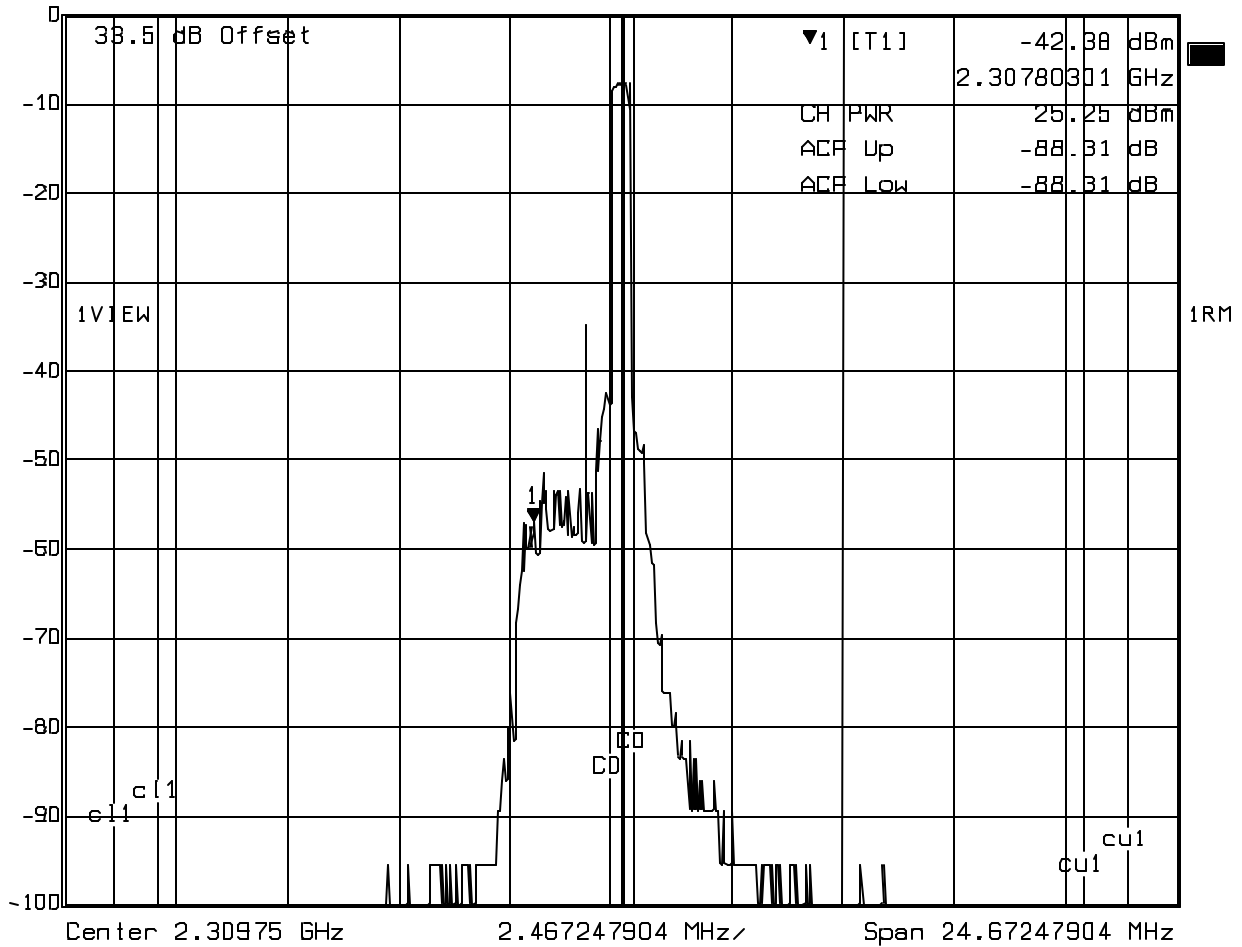
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-41.72 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.30780301 GHz	SWT	2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:53:13


EQUIPMENT: 2.3 GHz CPE

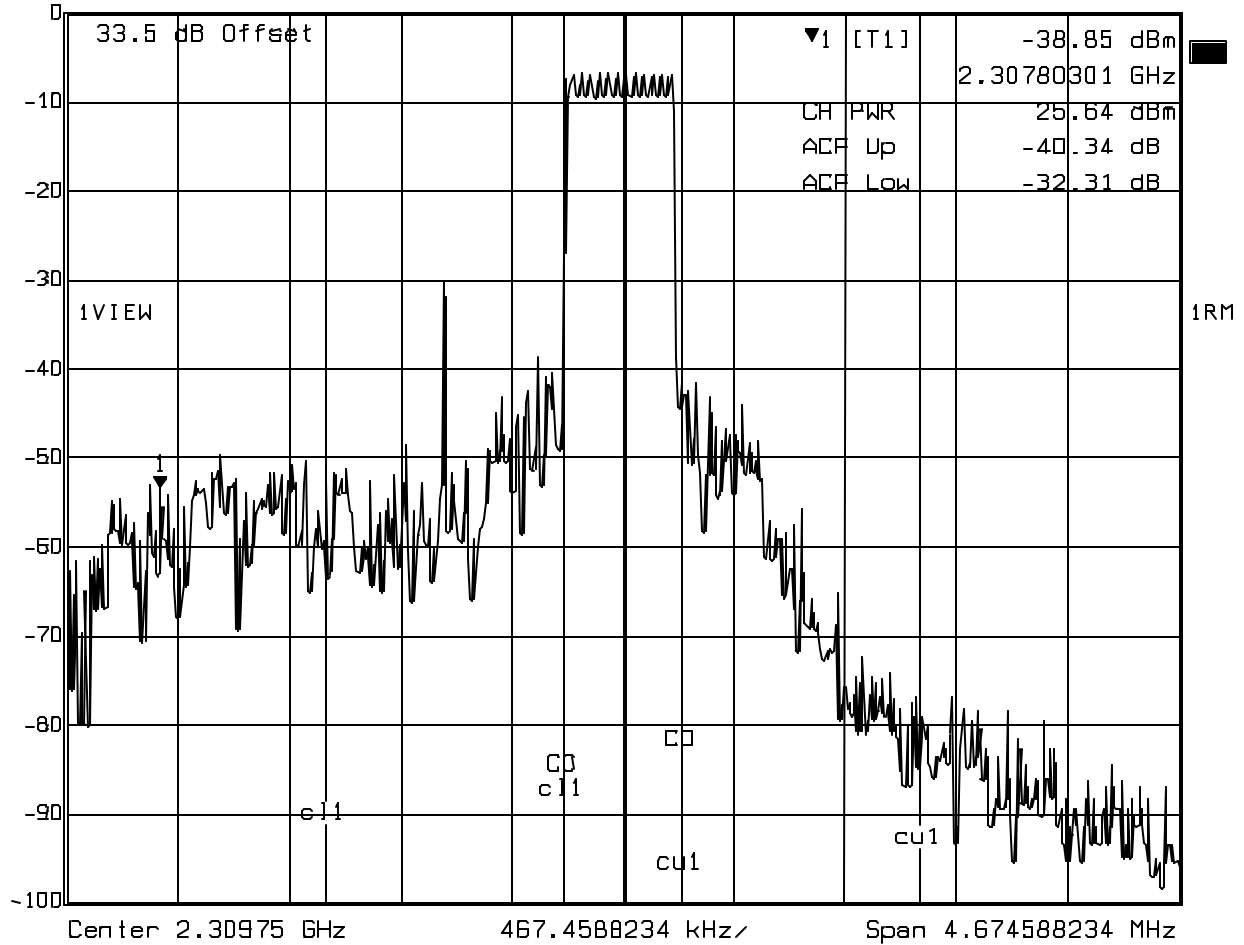
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-42.38 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.30780301 GHz	SWT	2.5 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:16:23

EQUIPMENT: 2.3 GHz CPE


	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-38.85 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.30780301 GHz	SWT	470 ms	Unit	dB

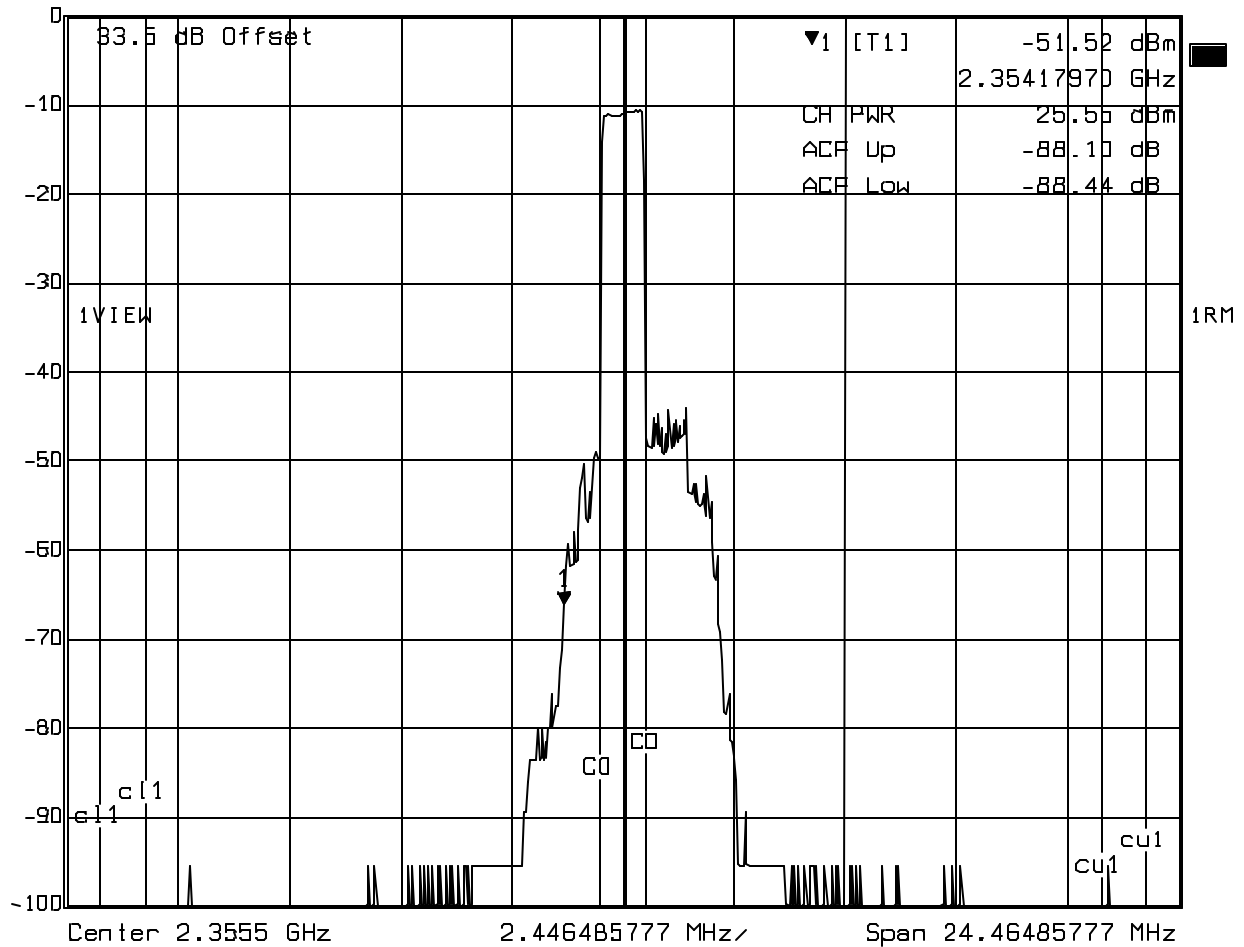


Title: 2DC
 Date: 11.NOV.2002 14:15:03

EQUIPMENT: 2.3 GHz CPE


Test Data – Block B (2355 – 2360 MHz)

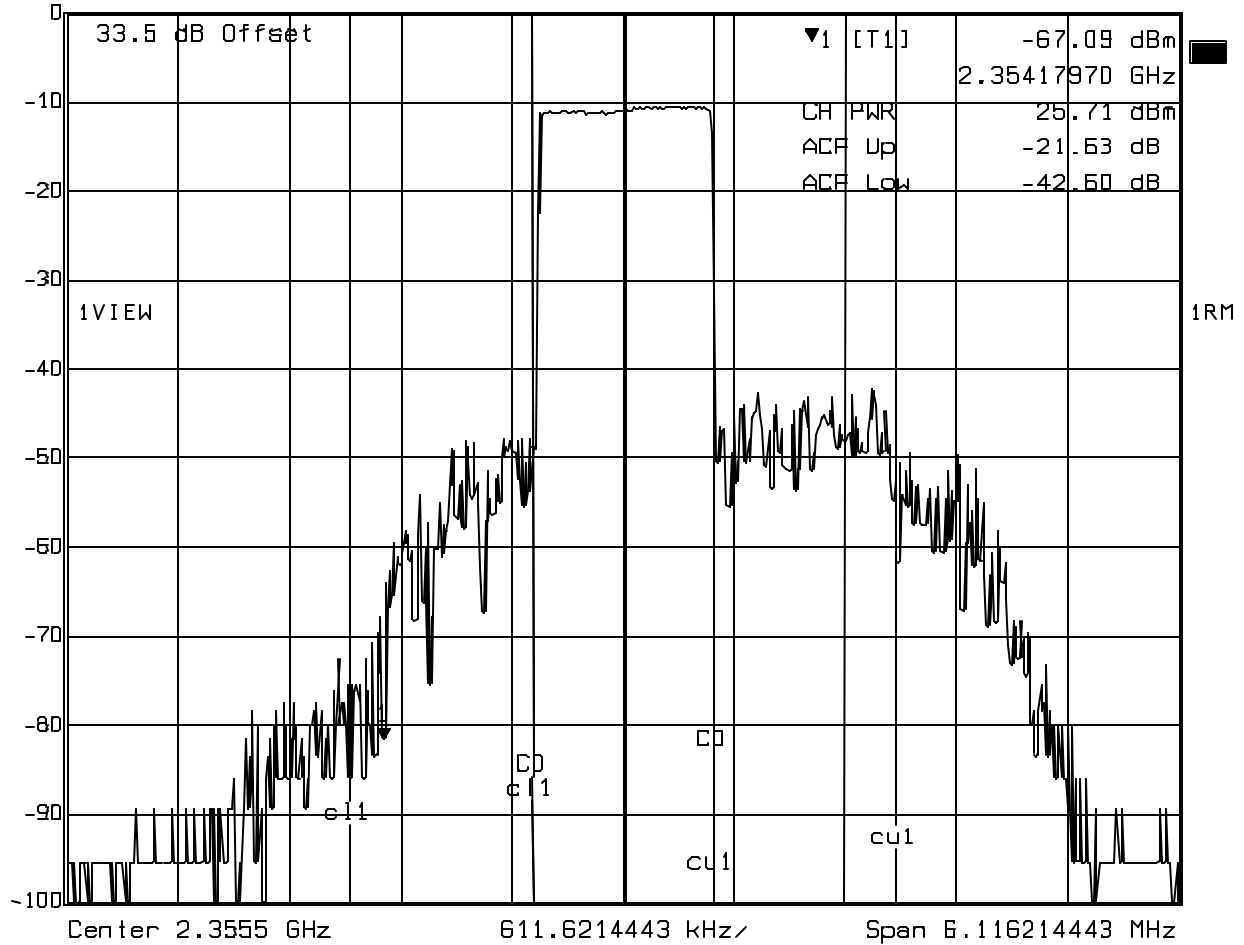
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-51.52 dBm	VBW	5 kHz	Mixer	-10 dBm
	14.5 dBm	2.35417970 GHz	SWT	2.45 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:43:56


EQUIPMENT: 2.3 GHz CPE

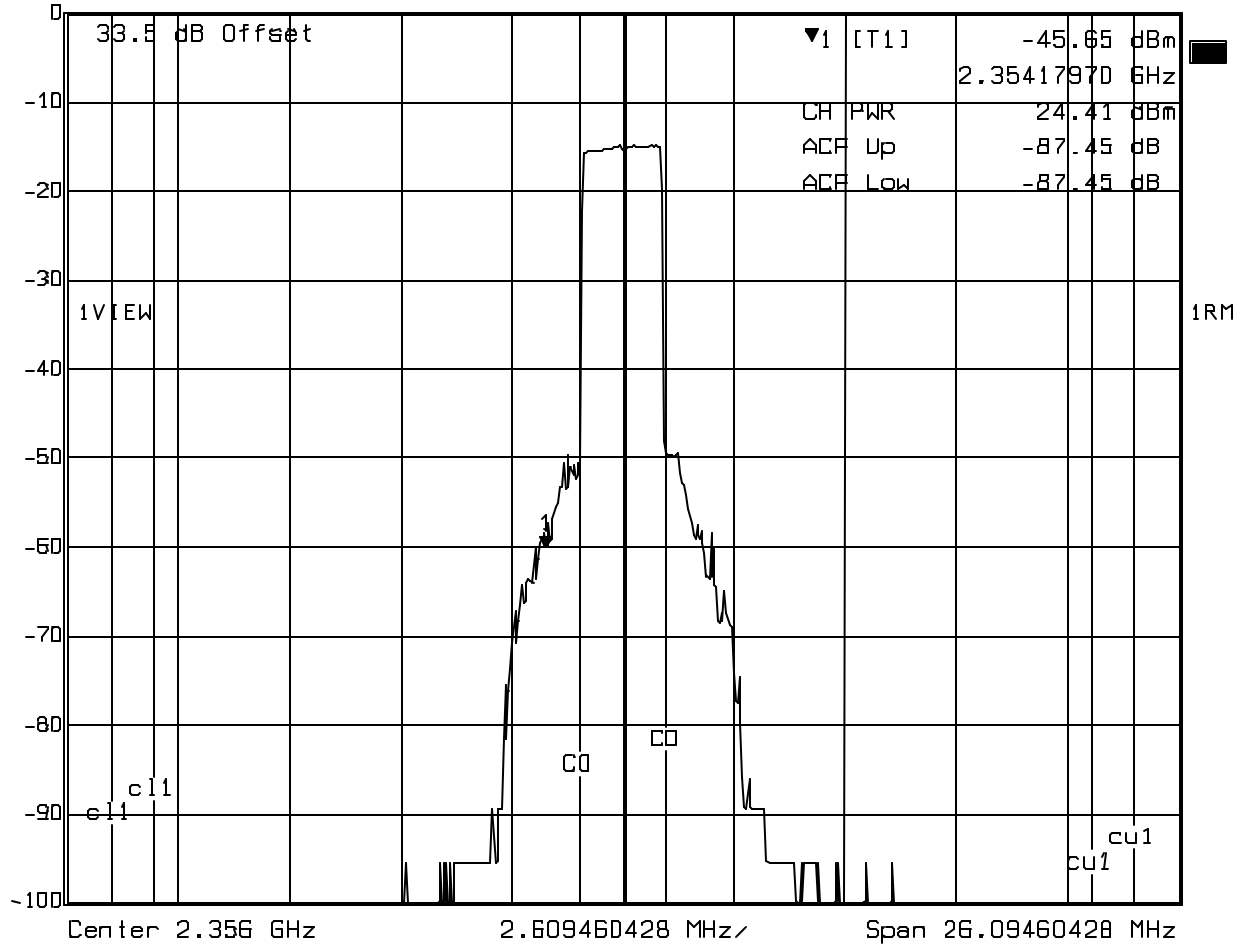
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-67.09 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35417970 GHz	SWT	620 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:42:52


EQUIPMENT: 2.3 GHz CPE

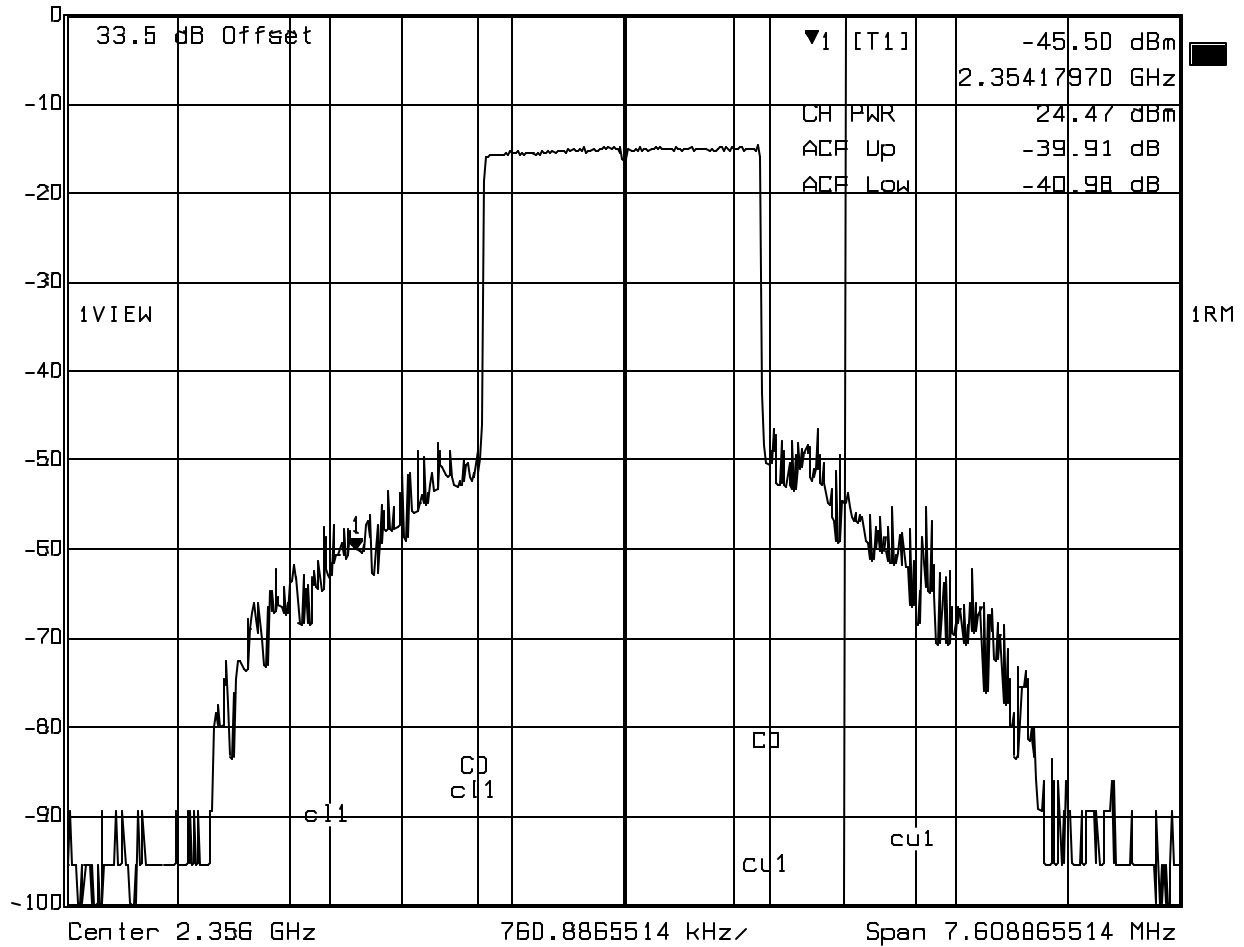
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-45.65 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35417970 GHz	SWT	2.7 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:29:07


EQUIPMENT: 2.3 GHz CPE

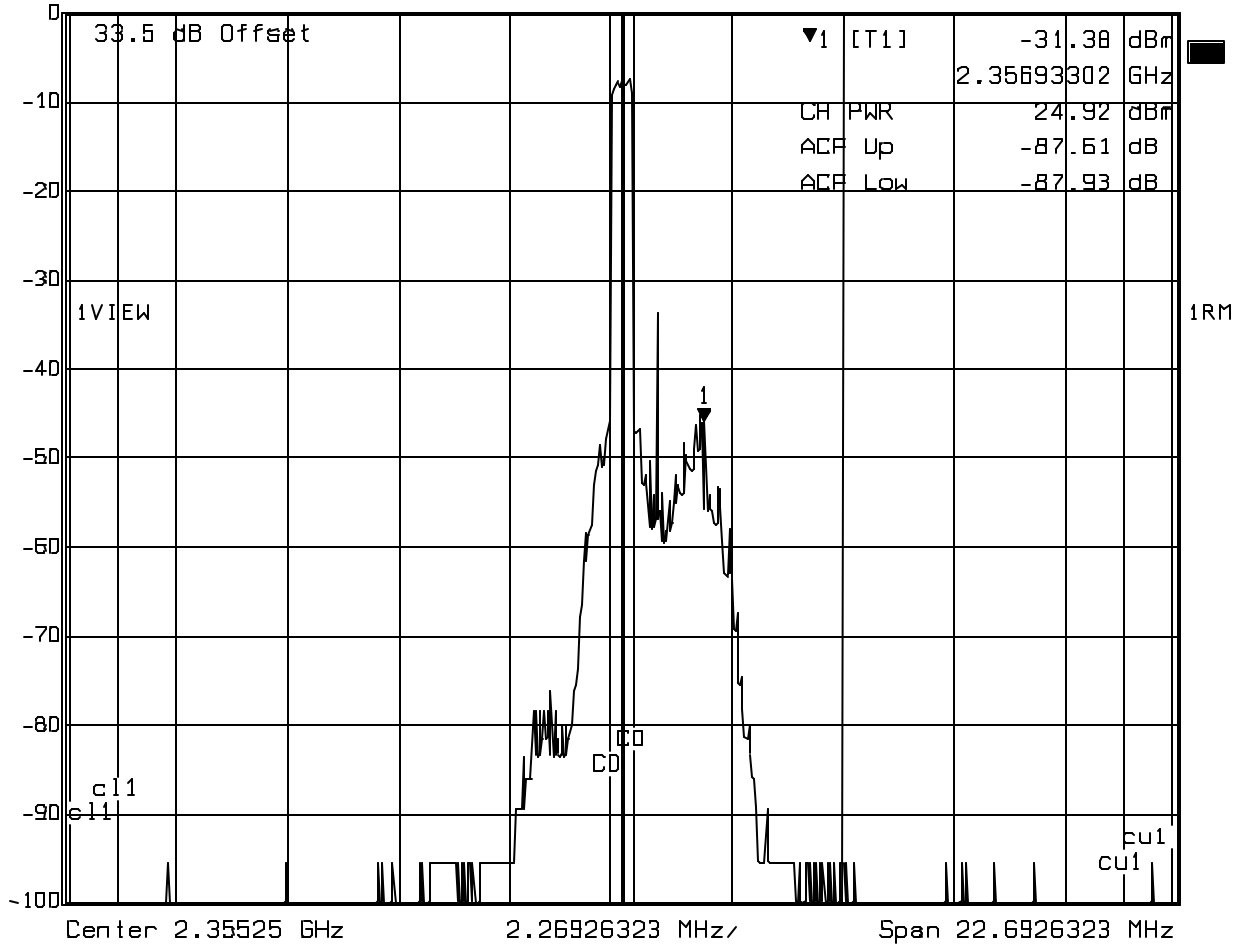
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-45.50 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35417970 GHz	SWT	780 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:26:54


EQUIPMENT: 2.3 GHz CPE

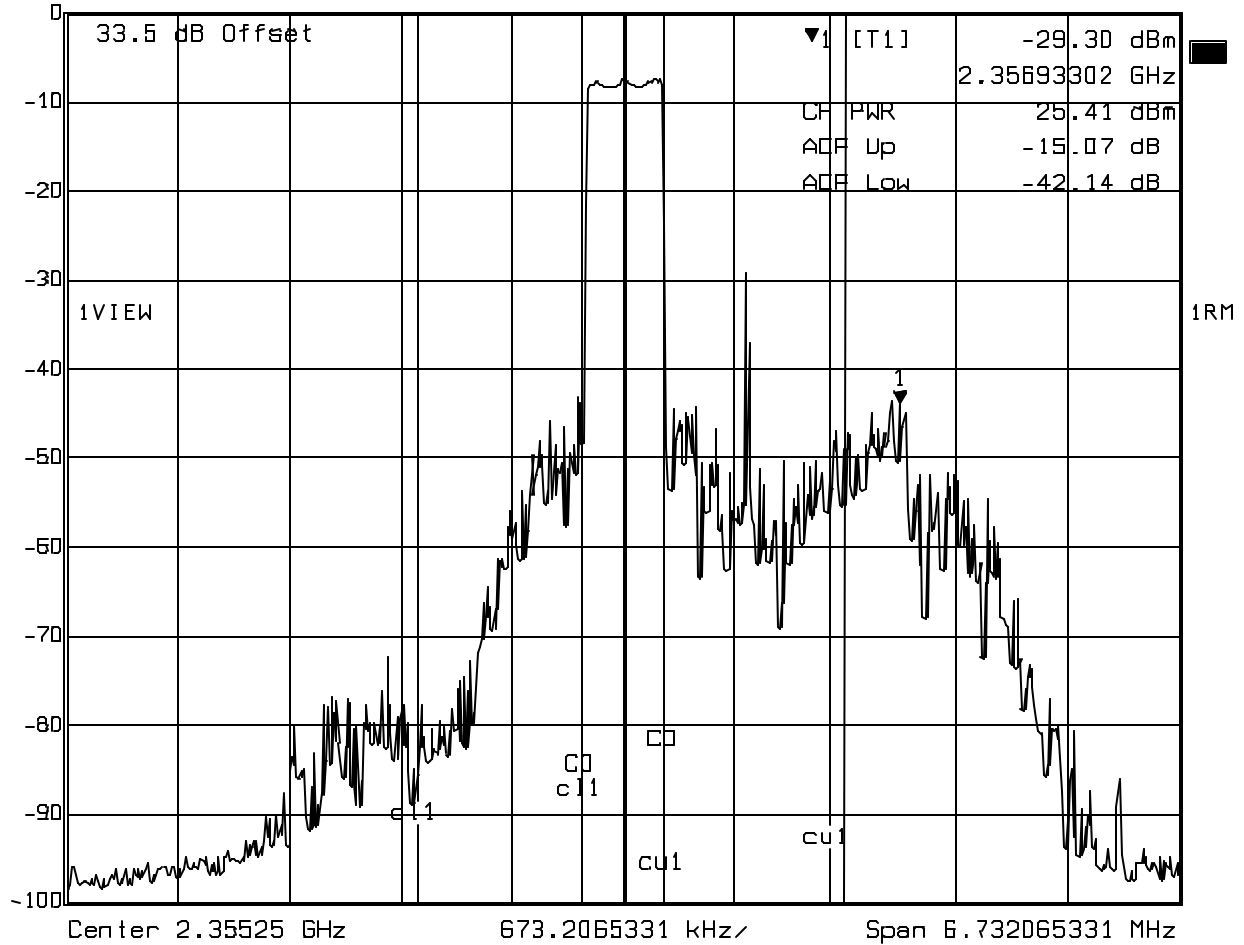
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-31.38 dBm	VBW	5 kHz	Mixer	-10 dBm
	14.5 dBm	2.35693302 GHz	SWT	2.3 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:55:59


EQUIPMENT: 2.3 GHz CPE

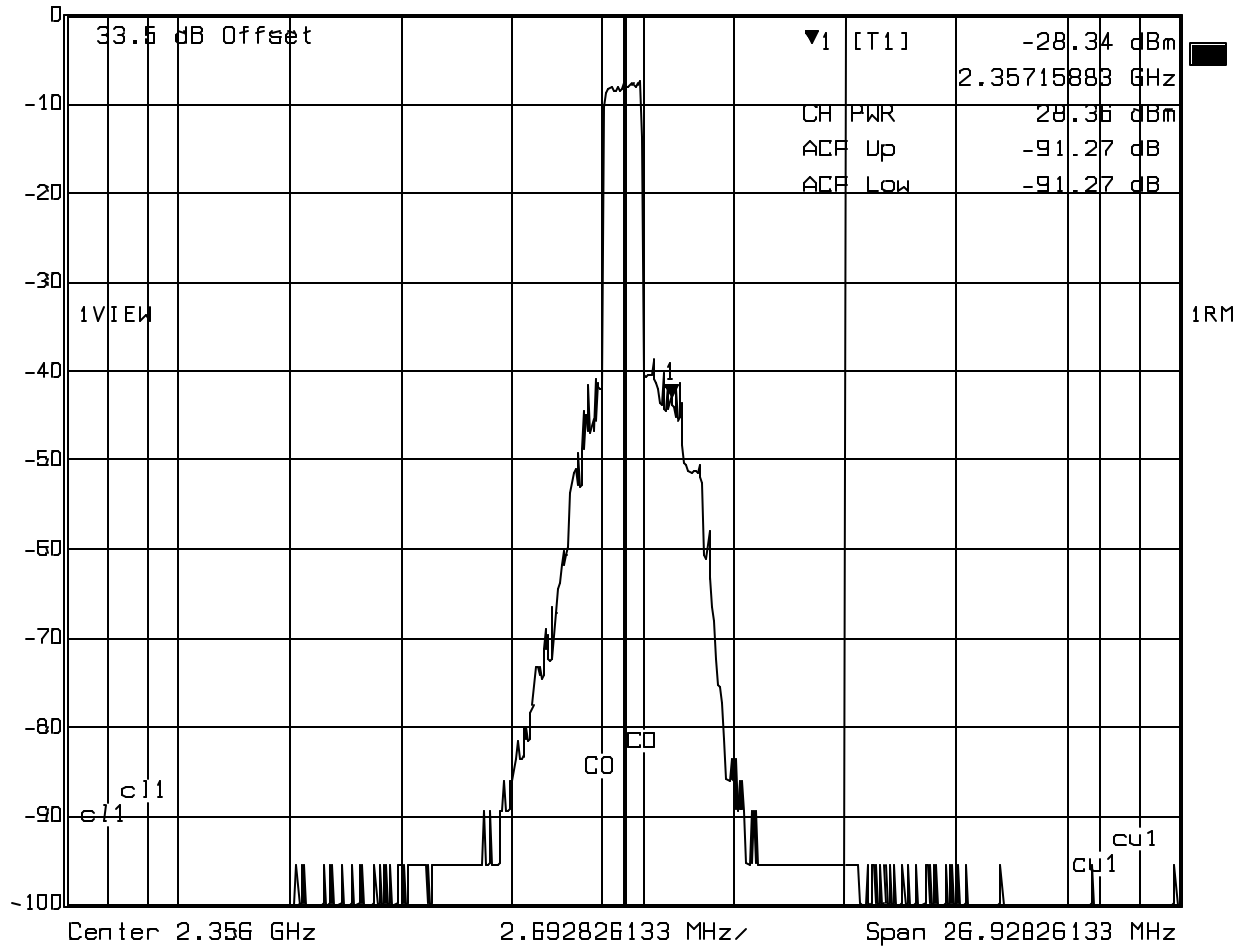
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-29.30 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	680 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:54:51


EQUIPMENT: 2.3 GHz CPE

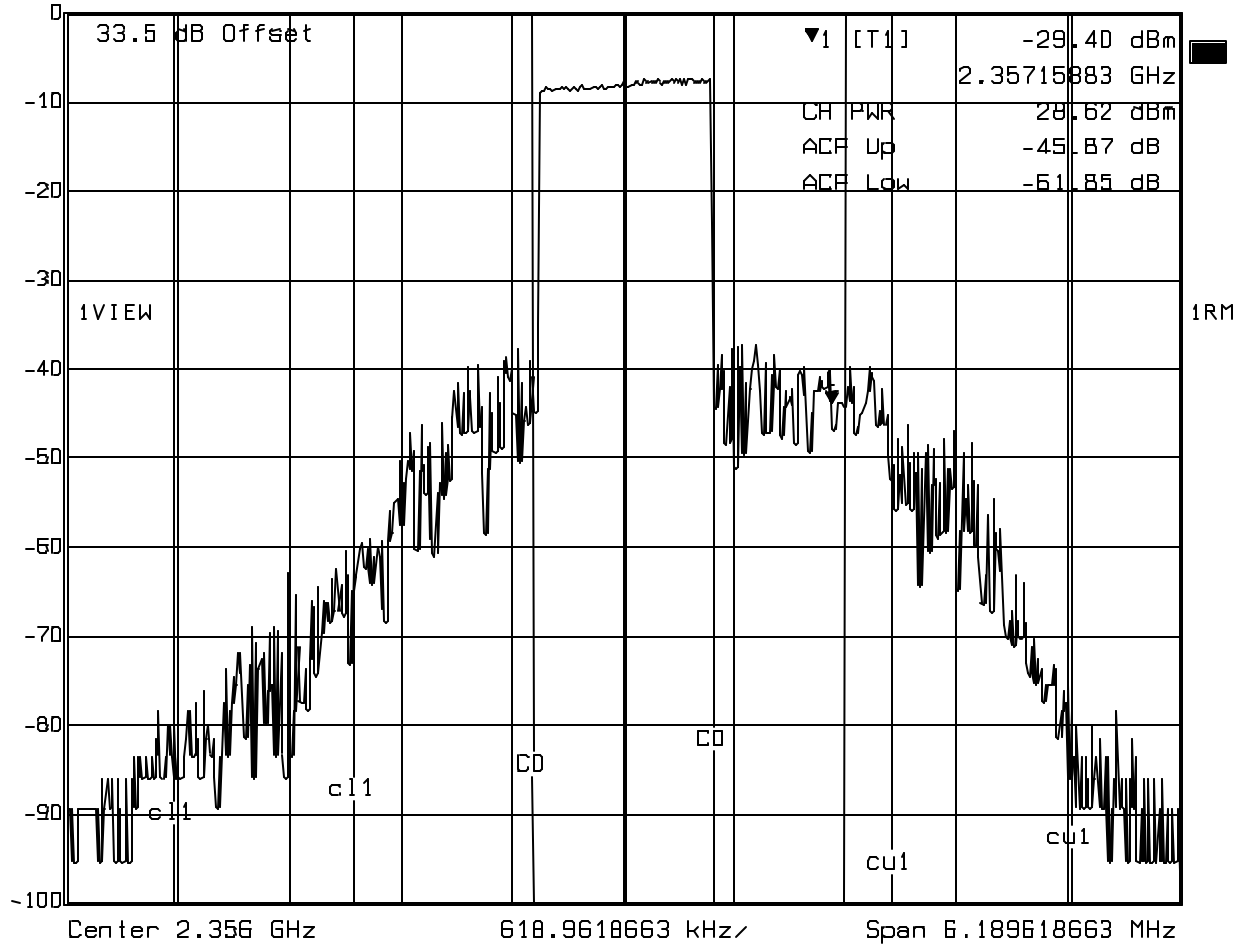
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-28.34 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35715883 GHz	SWT	2.7 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:50:20


EQUIPMENT: 2.3 GHz CPE

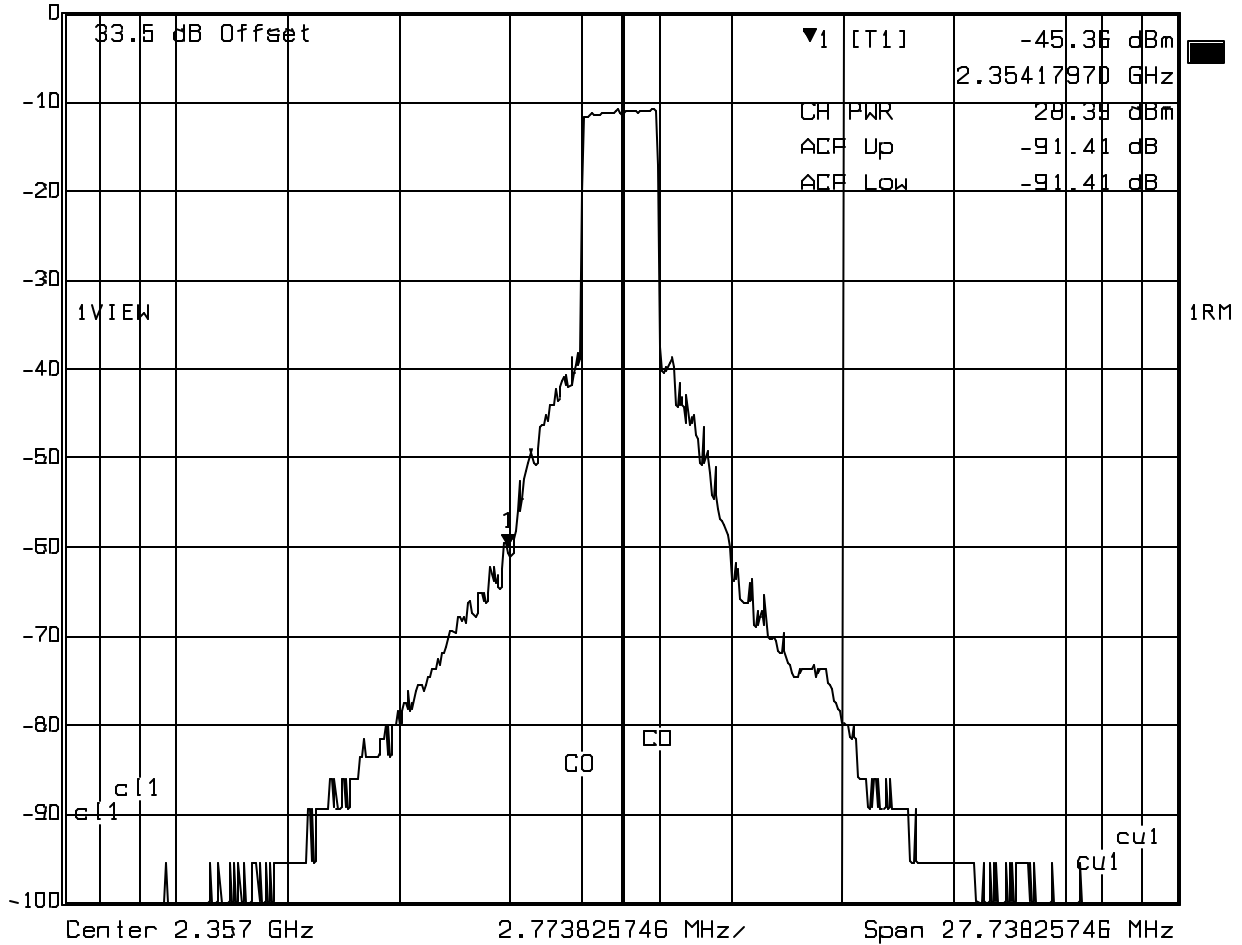
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-29.40 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35715883 GHz	SWT	620 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:49:20


EQUIPMENT: 2.3 GHz CPE

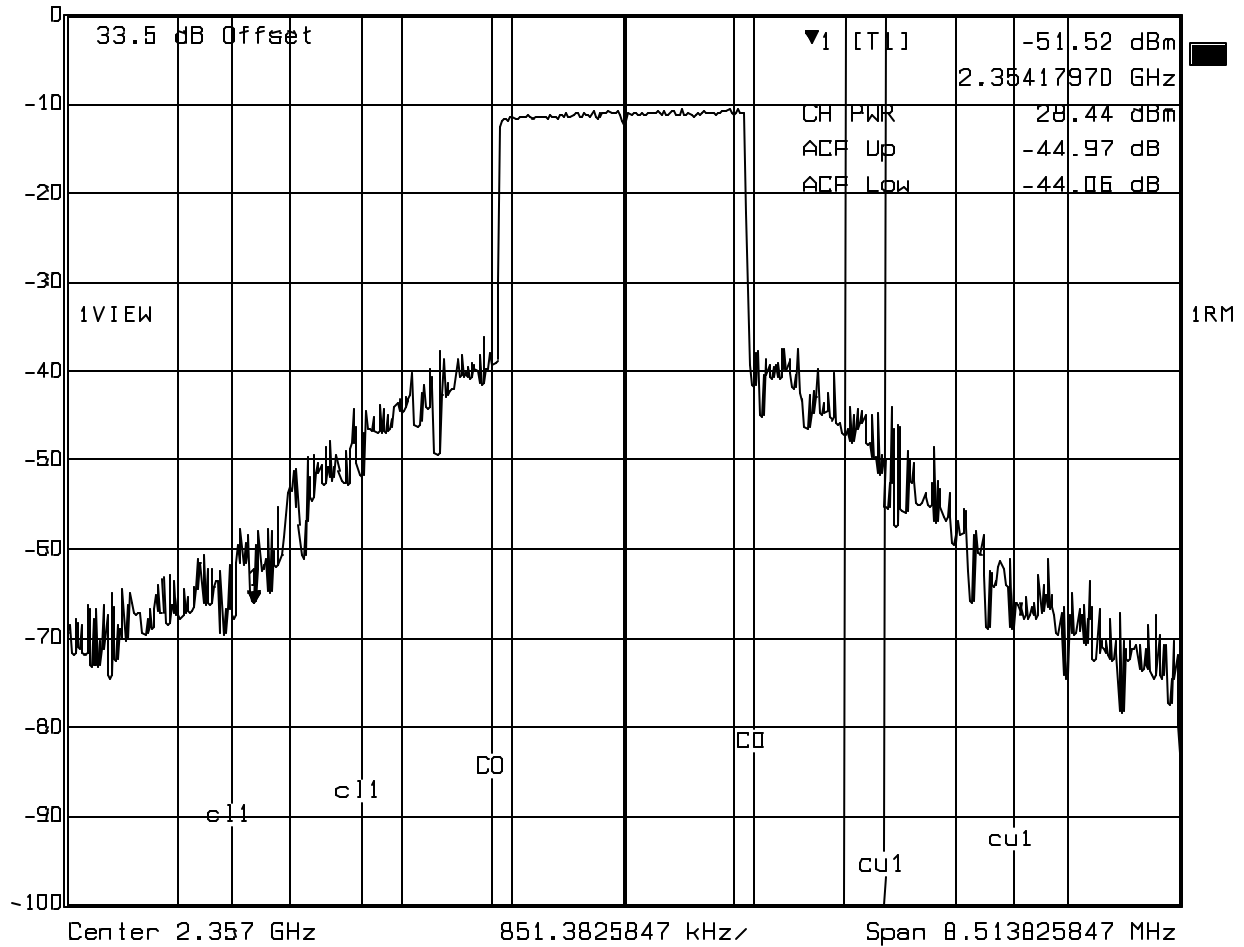
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-45.36 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35417970 GHz	SWT	2.8 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:34:47


EQUIPMENT: 2.3 GHz CPE

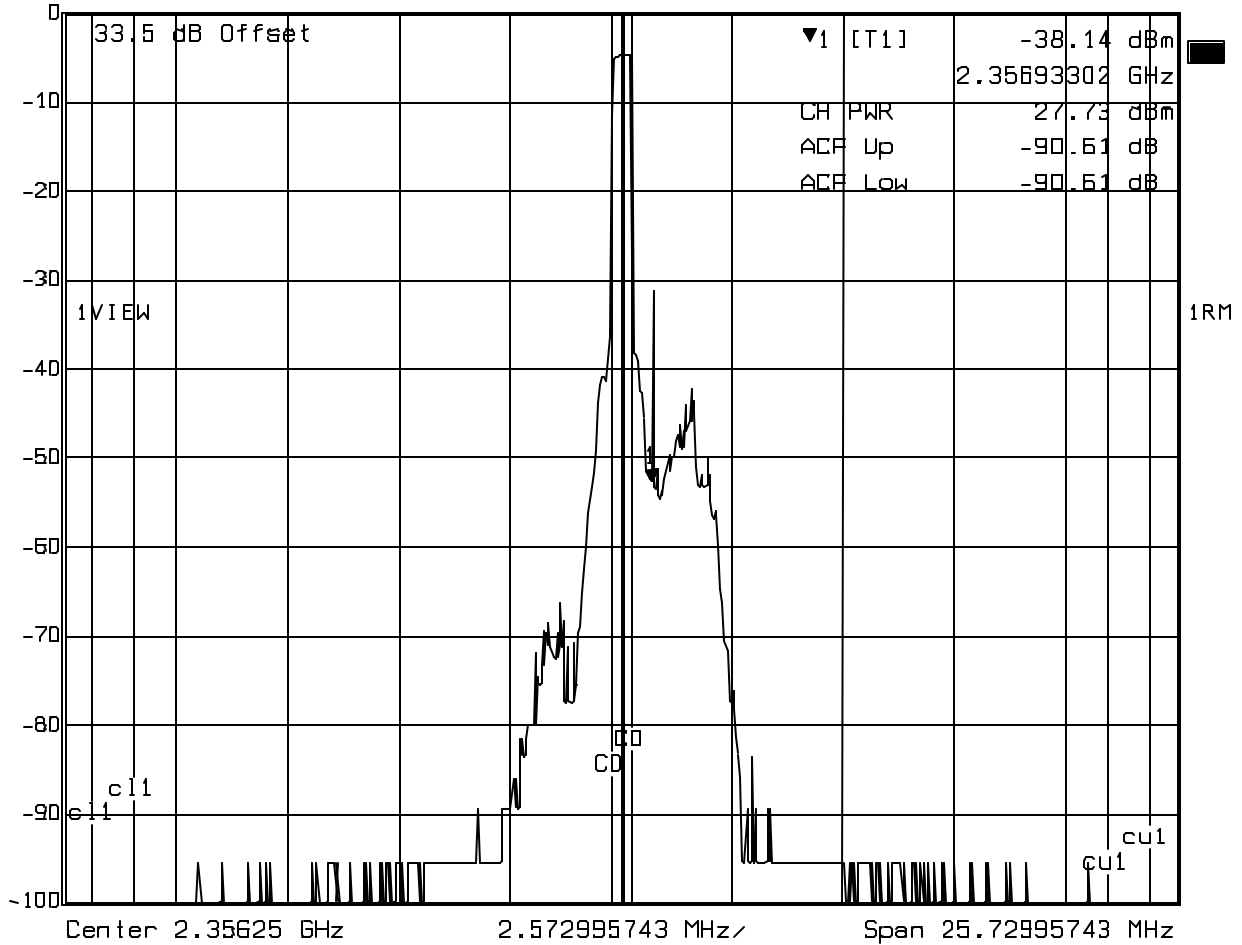
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-51.52 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35417970 GHz	SWT	860 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:33:35


EQUIPMENT: 2.3 GHz CPE

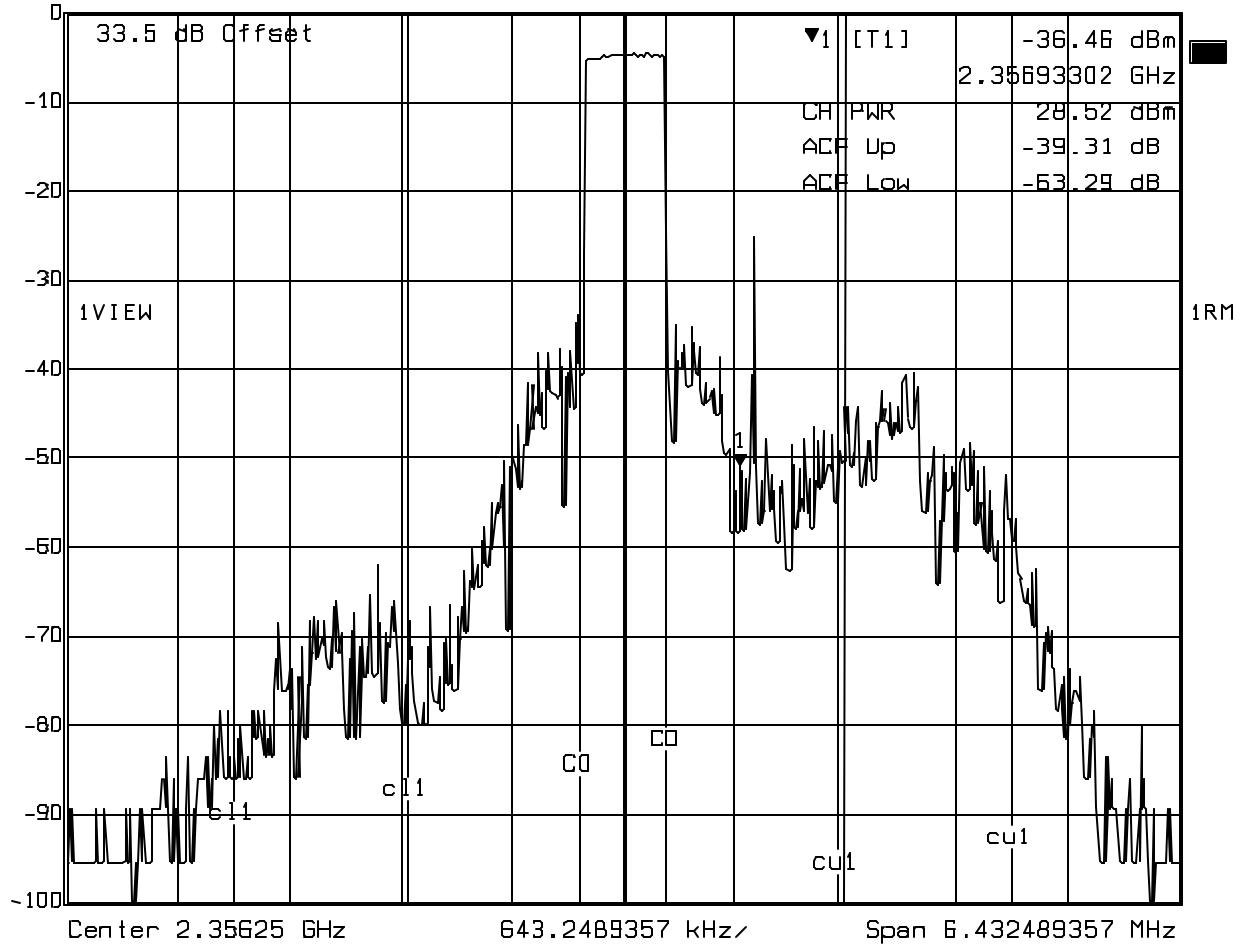
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-38.14 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	2.6 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:08:41

EQUIPMENT: 2.3 GHz CPE

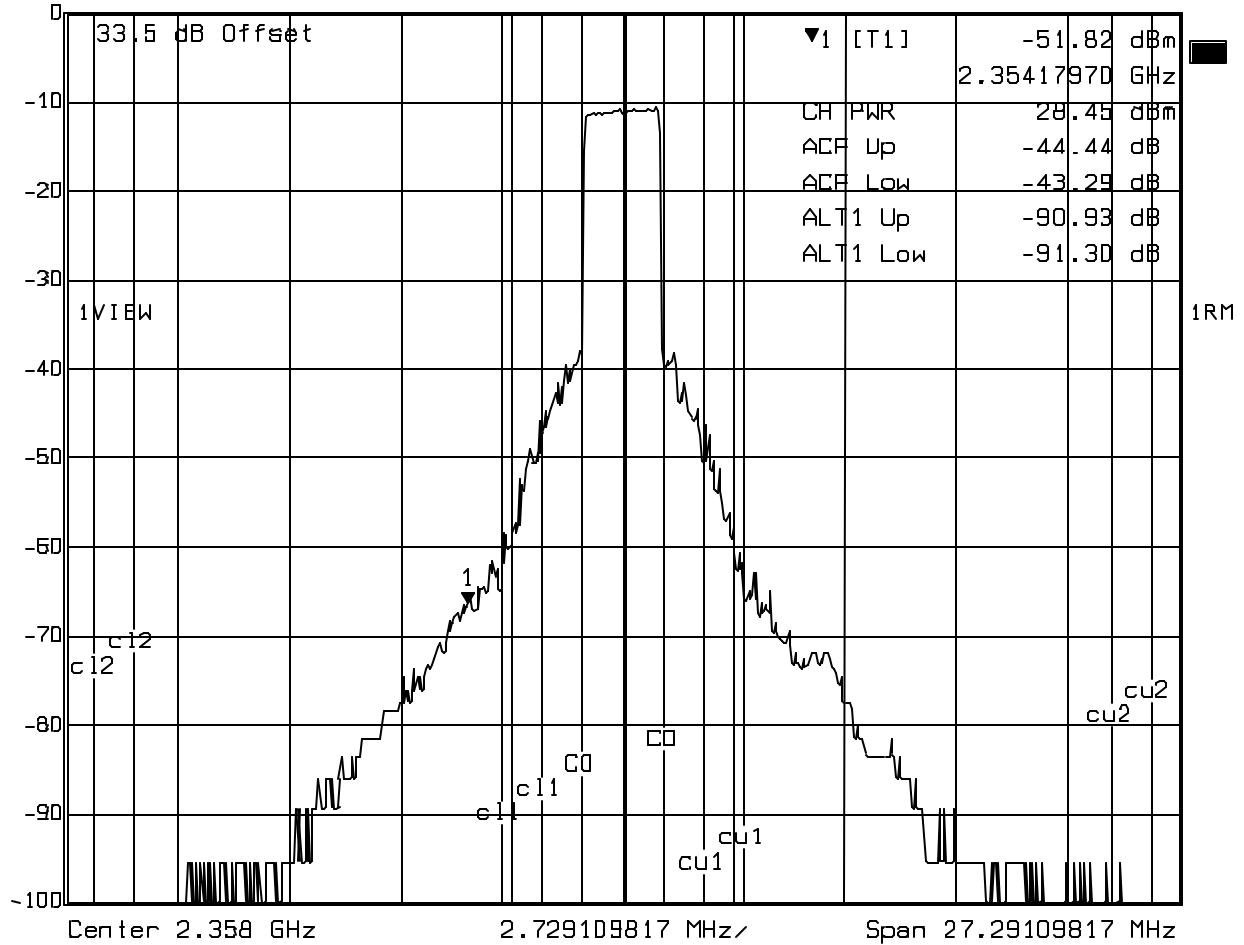
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-36.46 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	660 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:07:37


EQUIPMENT: 2.3 GHz CPE

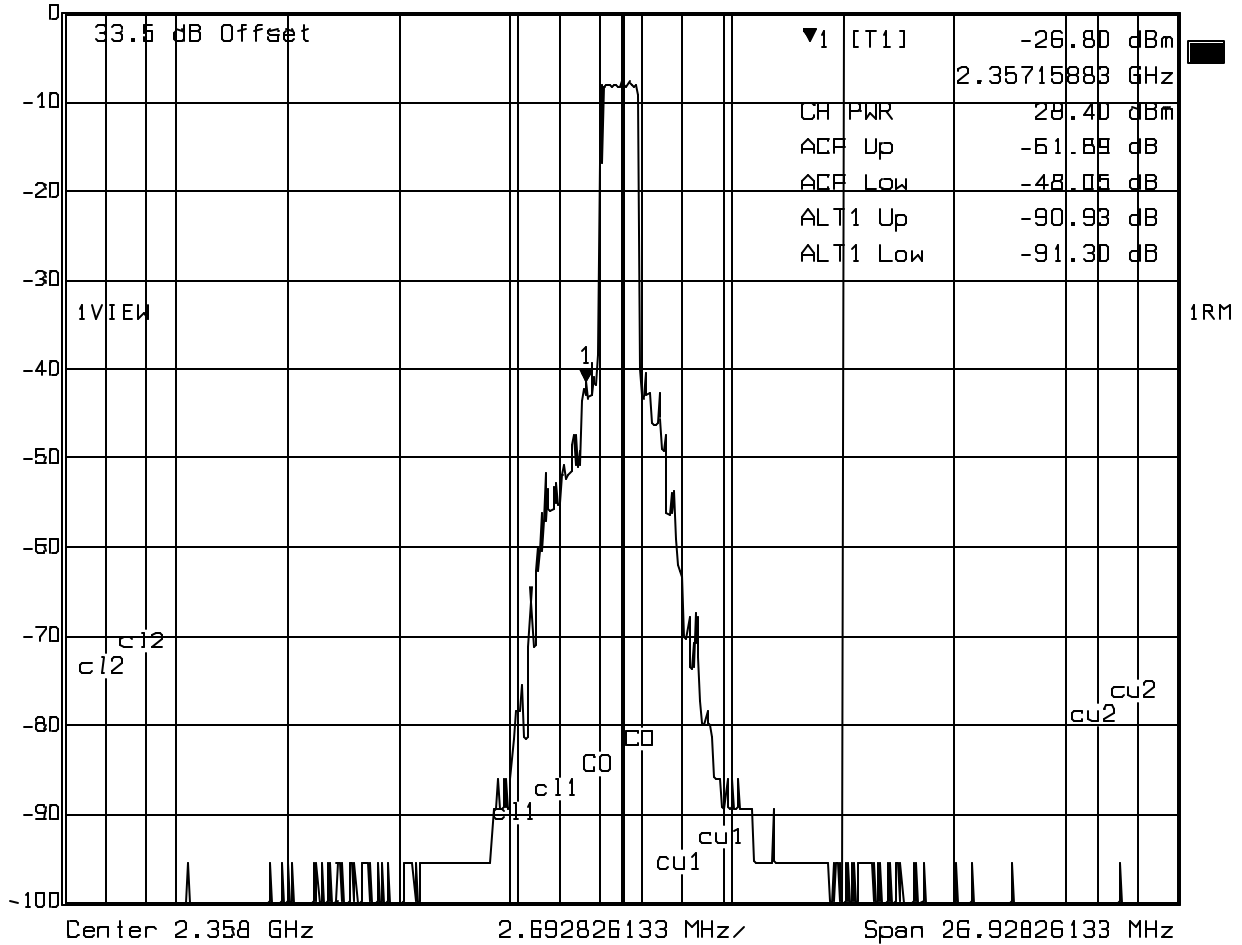
RS	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-51.82 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35417970 GHz	SWT	2.8 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:38:23


EQUIPMENT: 2.3 GHz CPE

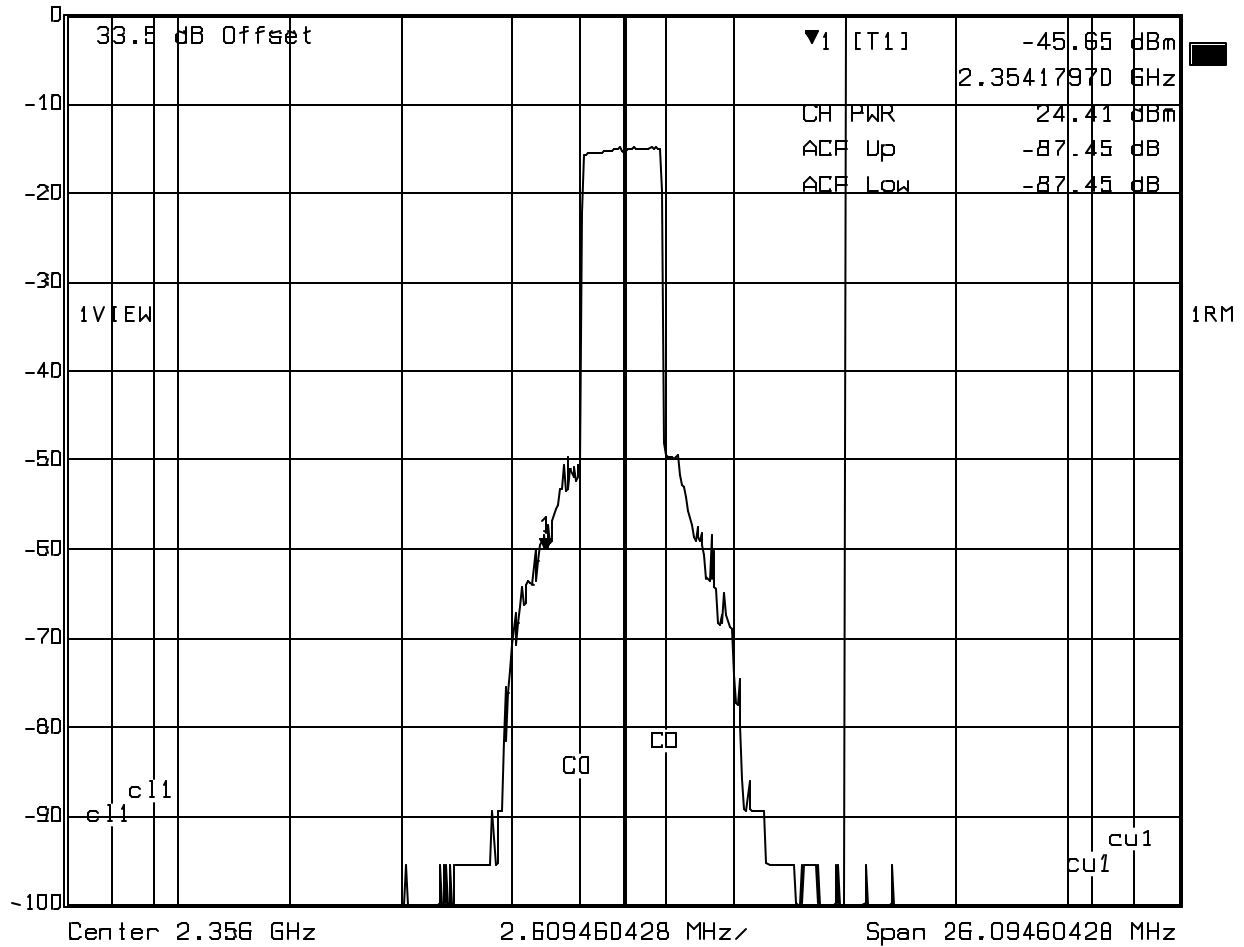
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-26.80 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35715883 GHz	SWT	2.7 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:52:19


EQUIPMENT: 2.3 GHz CPE

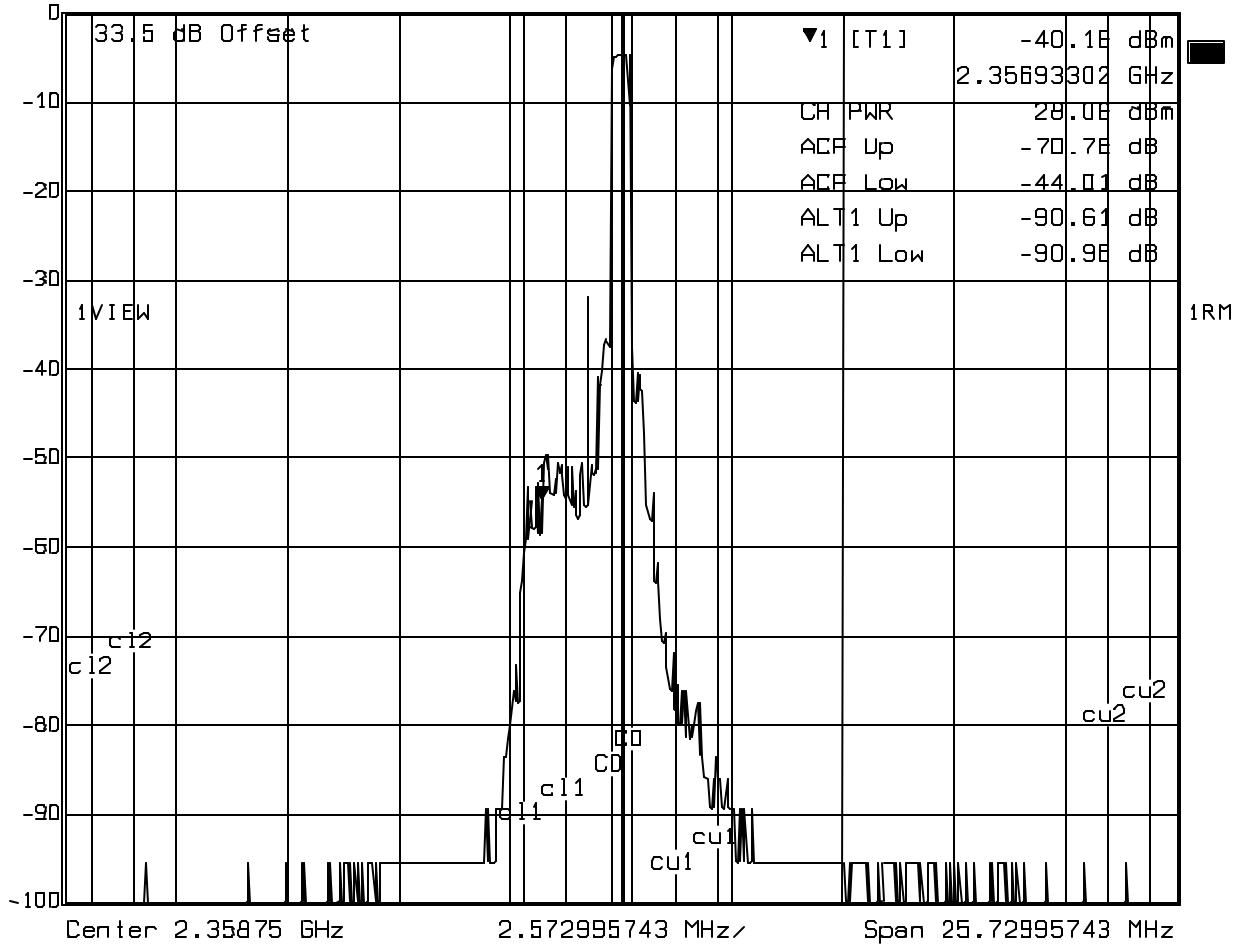
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-45.65 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35417970 GHz	SWT	2.7 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:29:07


EQUIPMENT: 2.3 GHz CPE

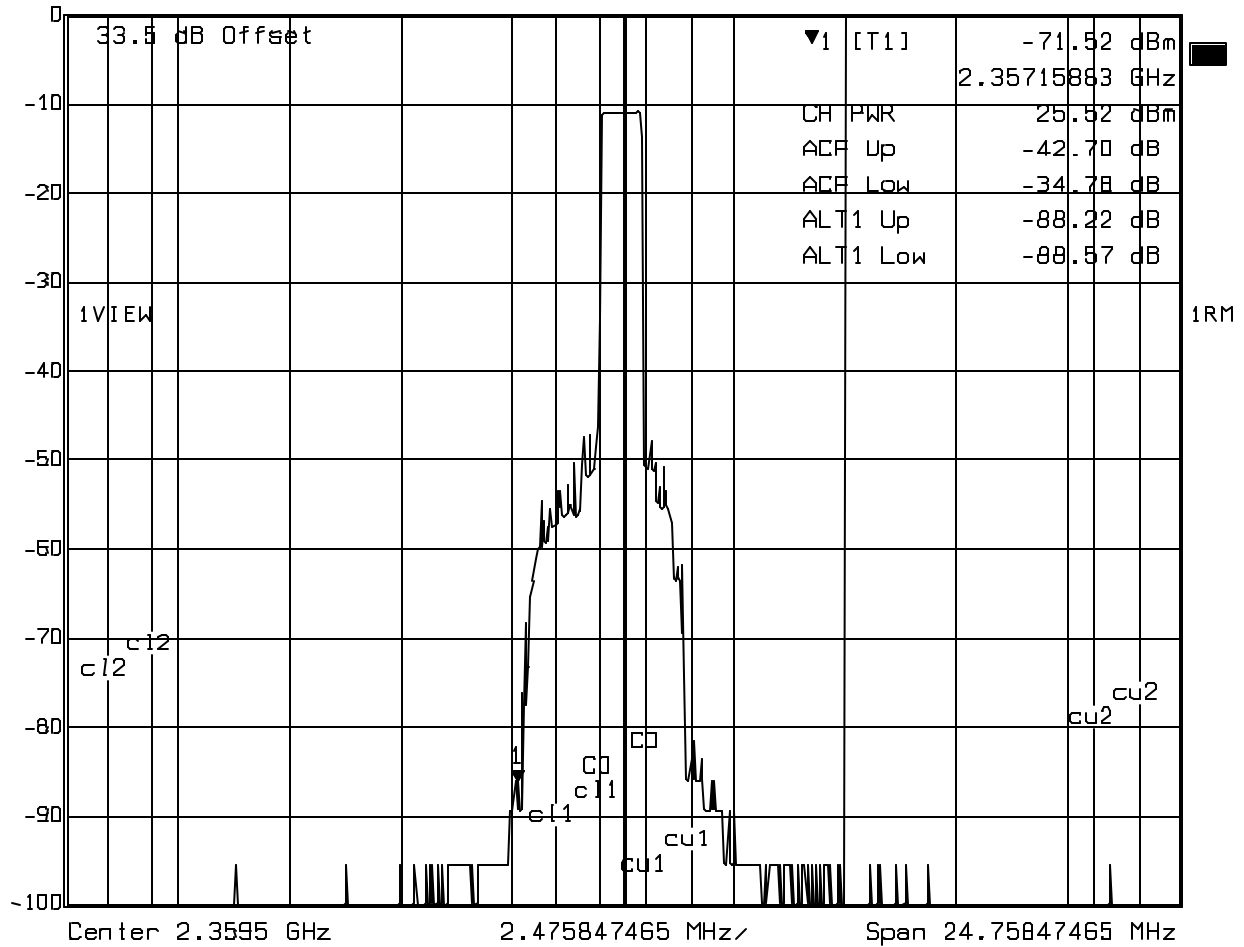
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-40.16 dBm	VBW	5 kHz	Mixer	-10 dBm
	14.5 dBm	2.35693302 GHz	SWT	2.6 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:05:26


EQUIPMENT: 2.3 GHz CPE

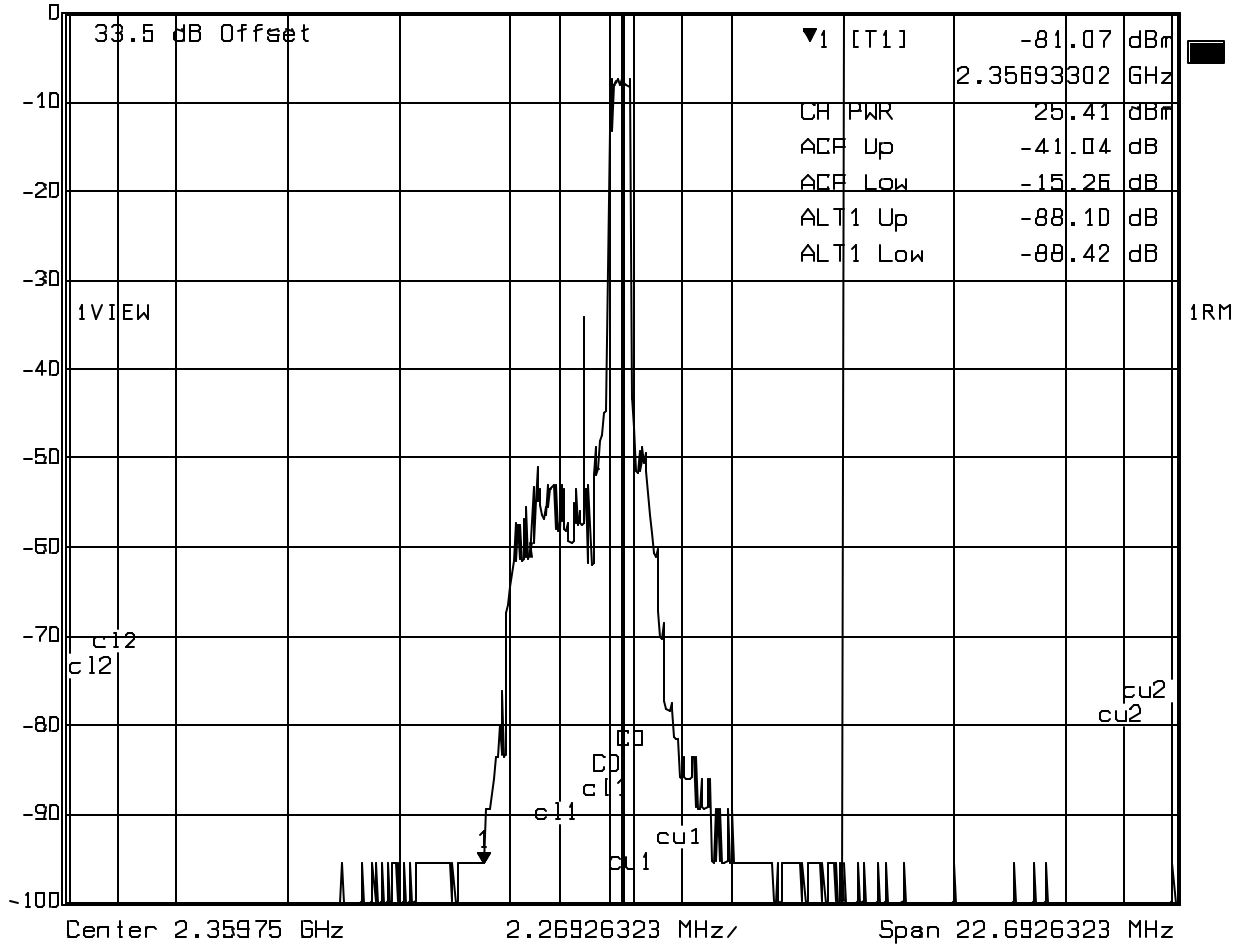
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-71.52 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35715883 GHz	SWT	2.5 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:47:22


EQUIPMENT: 2.3 GHz CPE

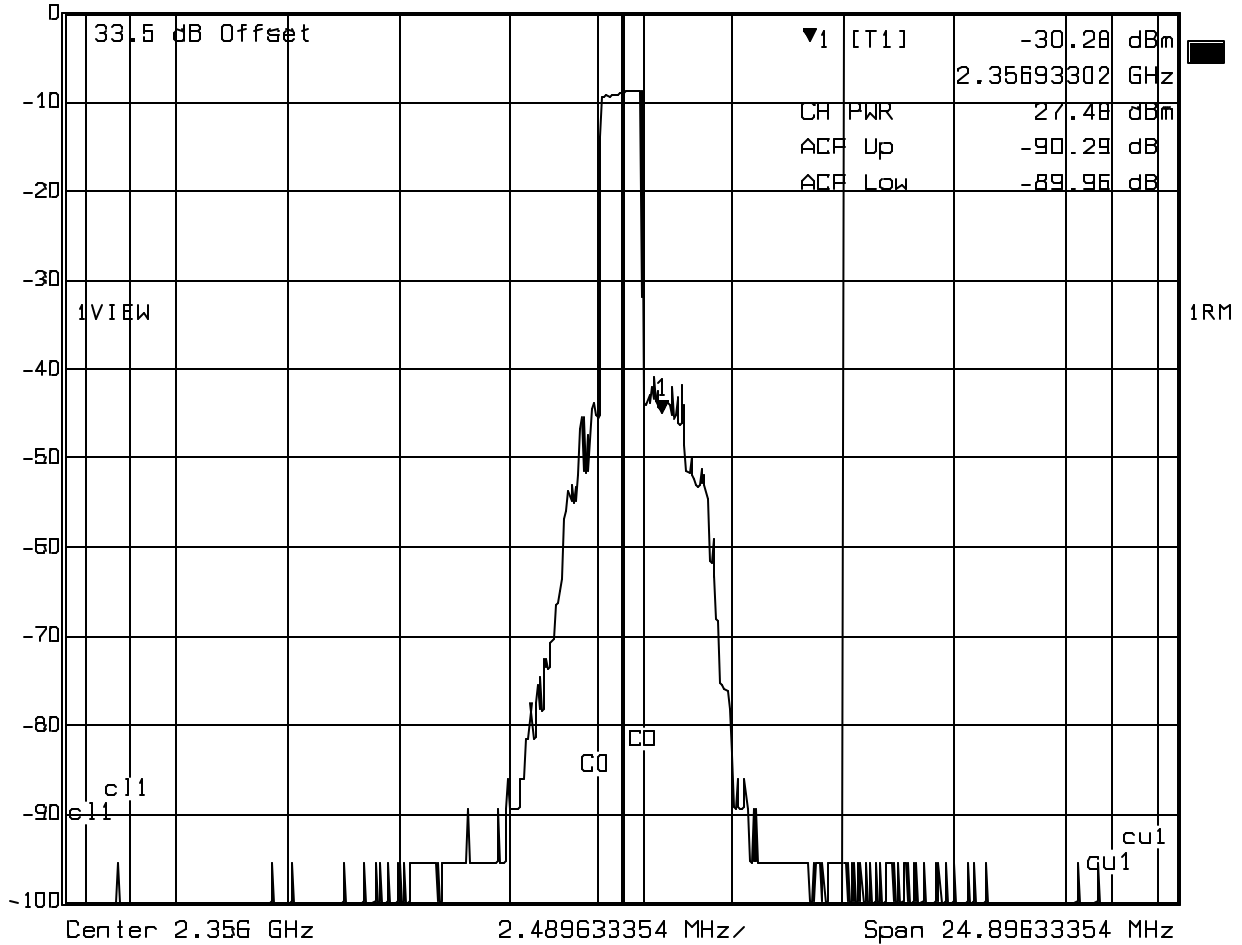
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-81.07 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	2.3 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 14:58:32


EQUIPMENT: 2.3 GHz CPE

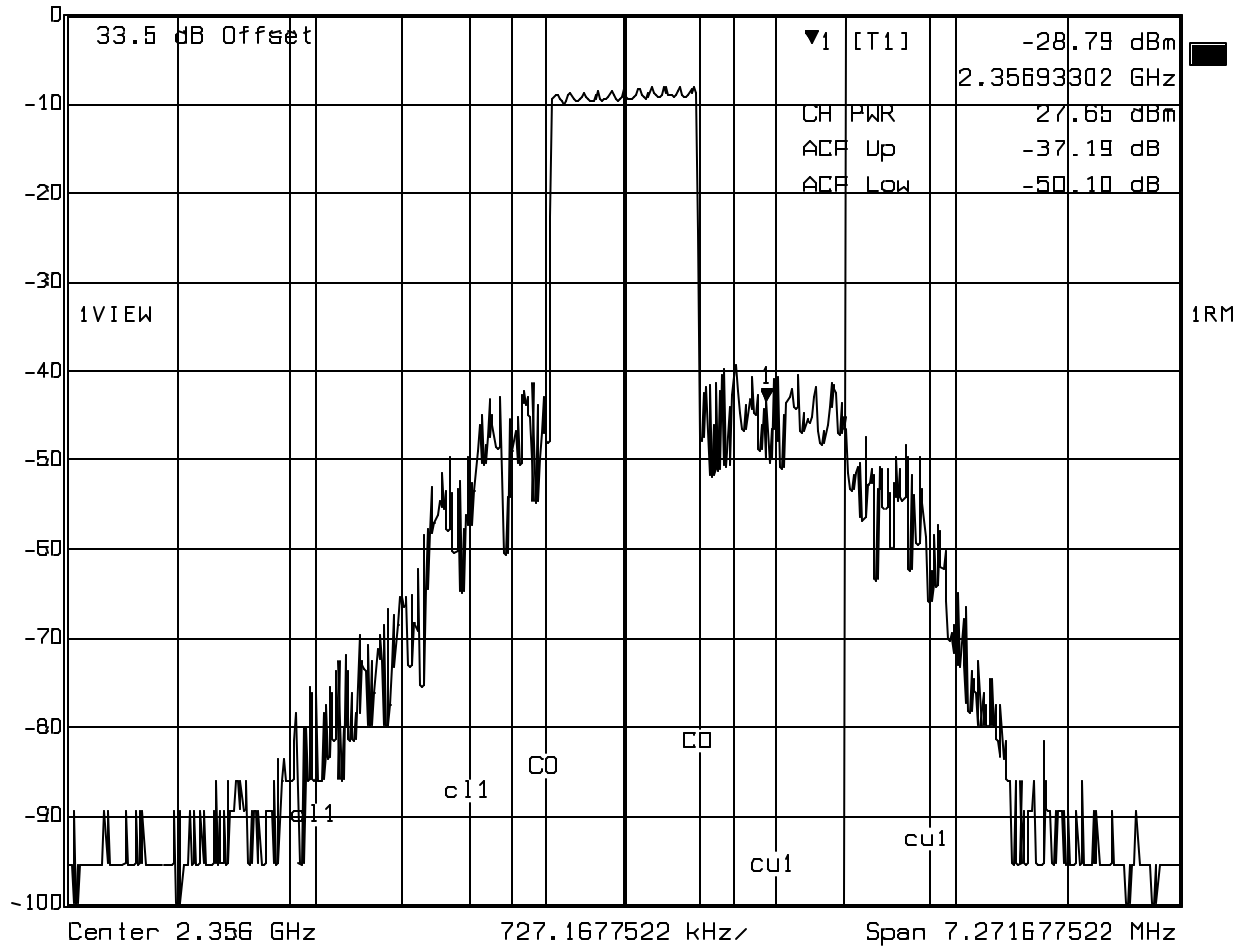
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-30.28 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	2.5 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:28:15


EQUIPMENT: 2.3 GHz CPE

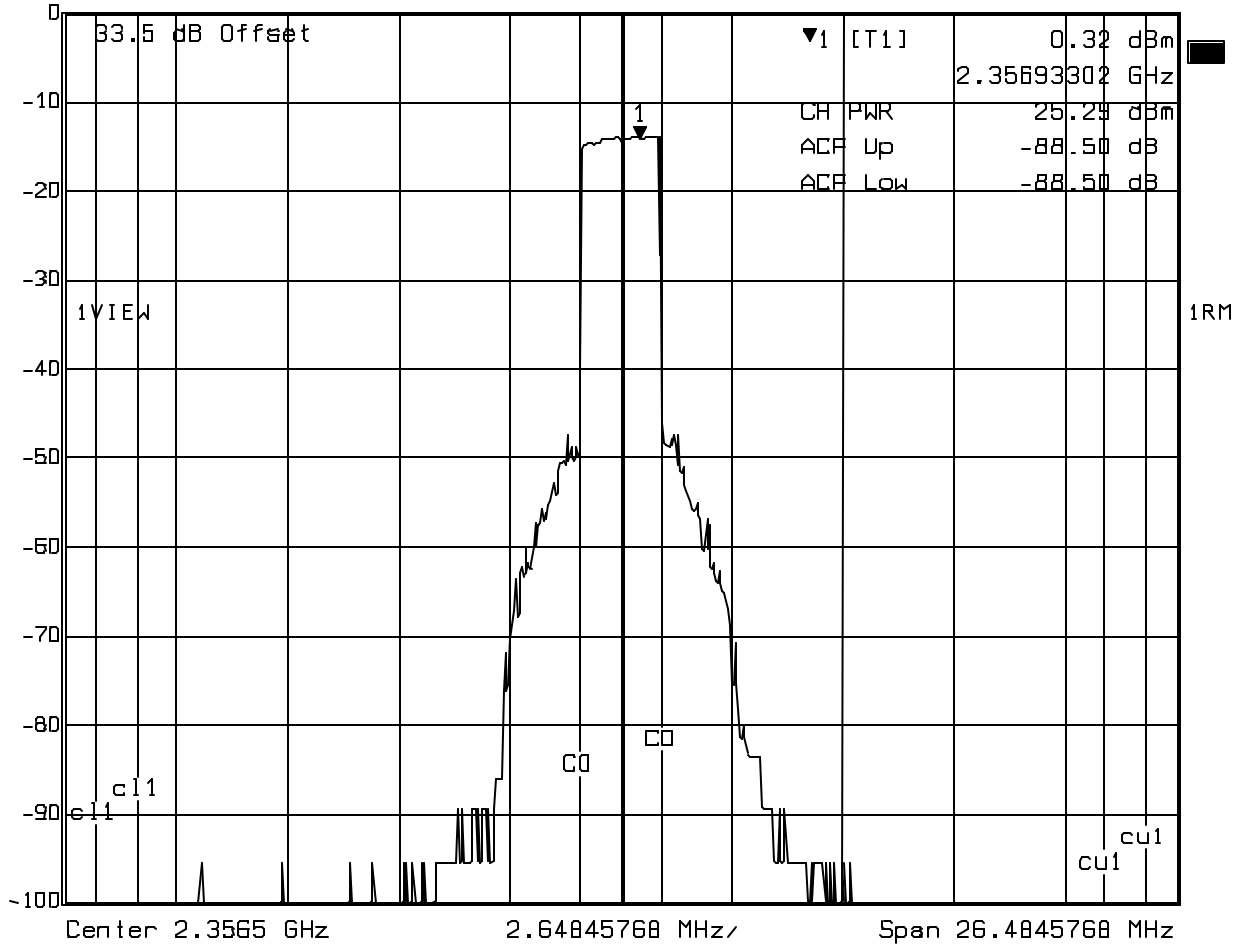
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-28.79 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	740 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:27:04


EQUIPMENT: 2.3 GHz CPE

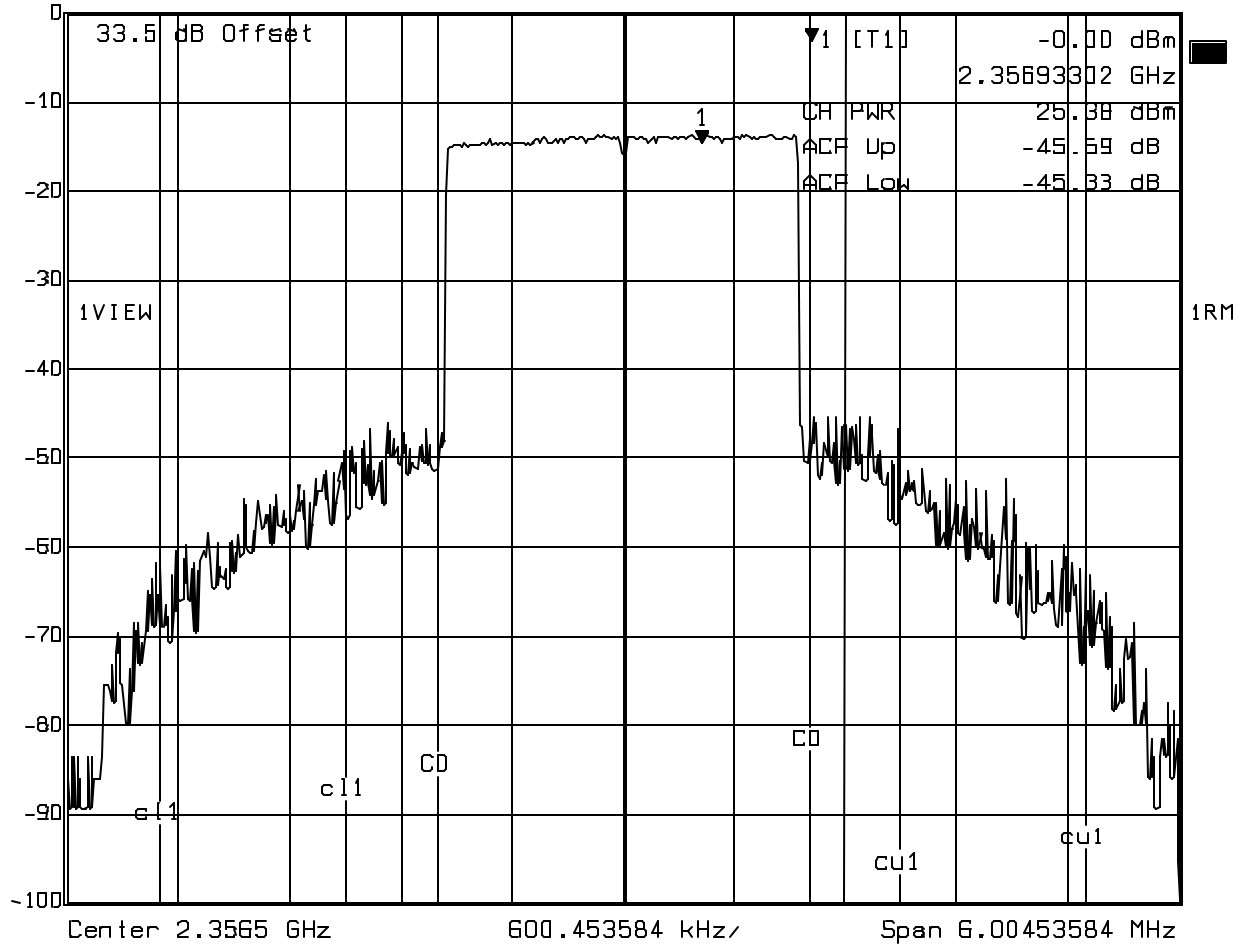
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	0.32 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	2.7 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:18:16


EQUIPMENT: 2.3 GHz CPE

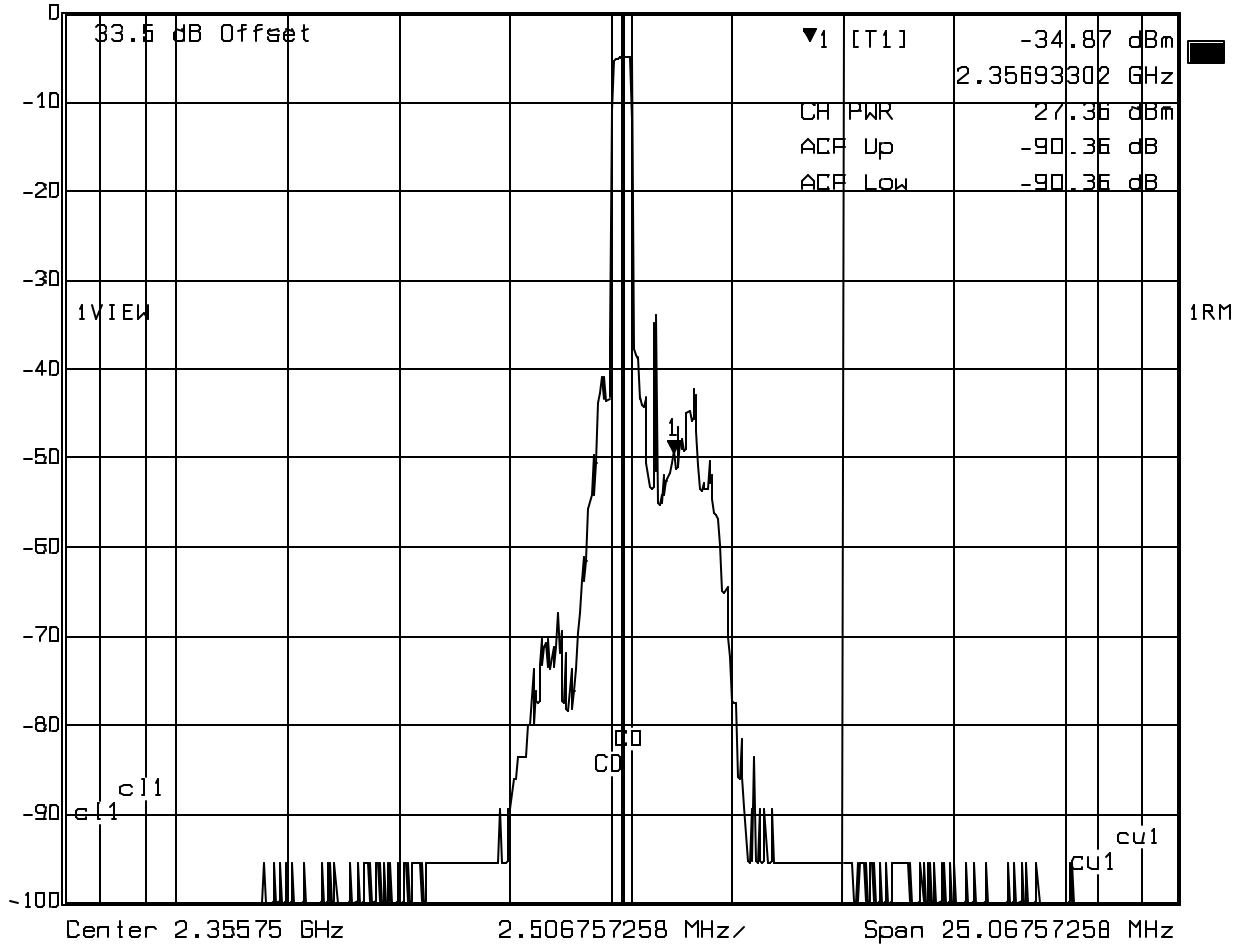
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-0.00 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	620 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:16:29


EQUIPMENT: 2.3 GHz CPE

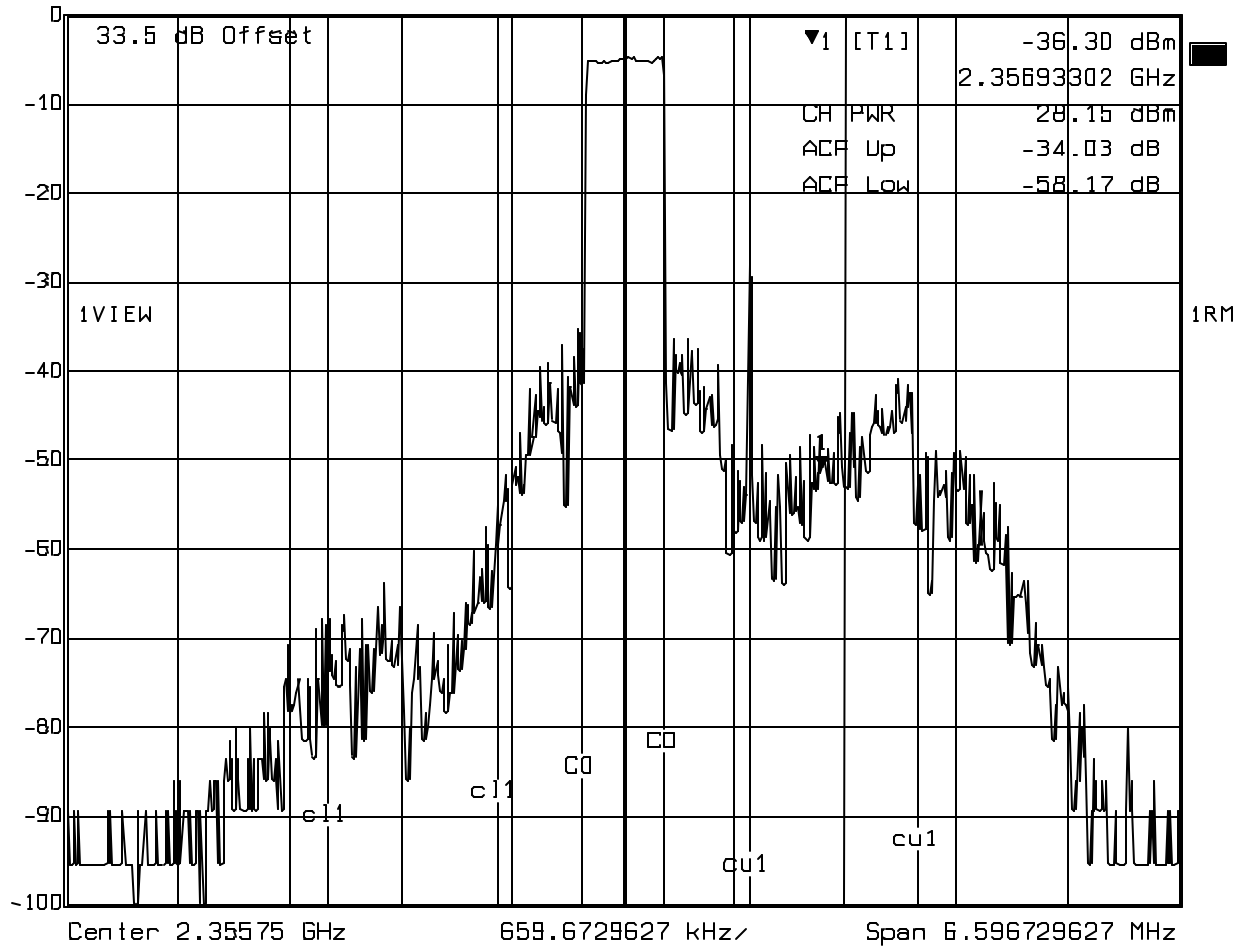
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-34.87 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	2.6 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:52:44


EQUIPMENT: 2.3 GHz CPE

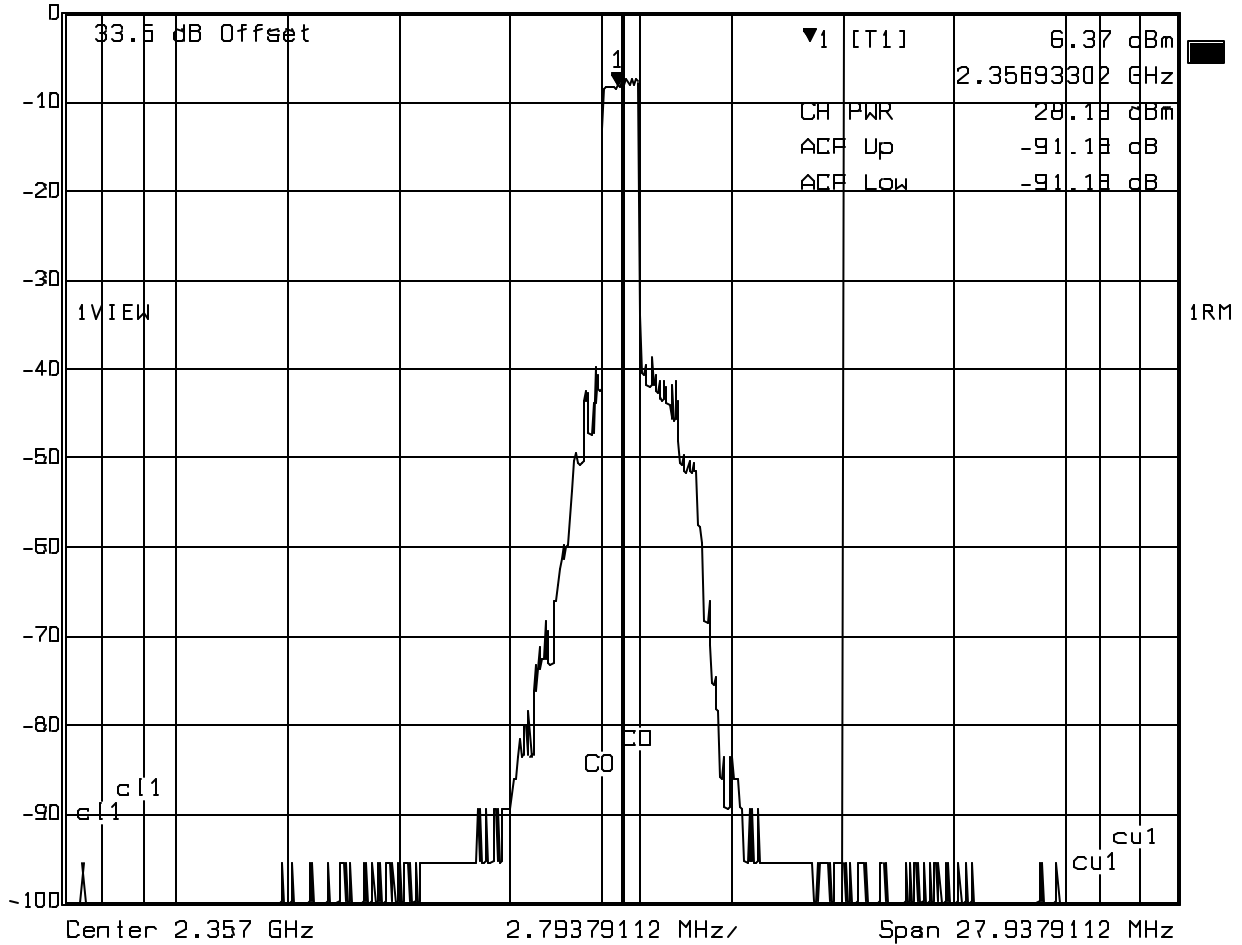
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-36.30 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	660 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:50:59


EQUIPMENT: 2.3 GHz CPE

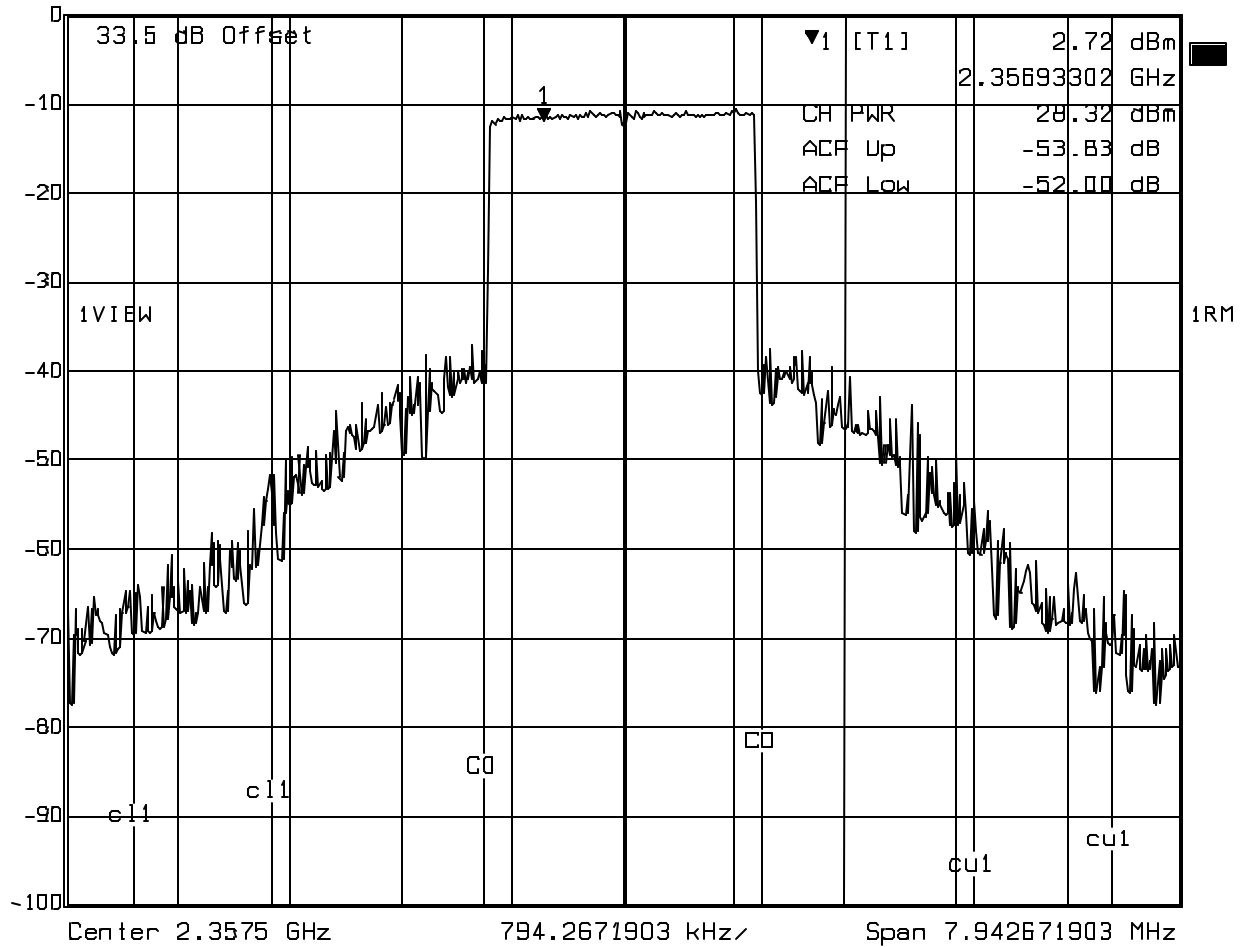
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	6.37 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	2.8 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:44:42


EQUIPMENT: 2.3 GHz CPE

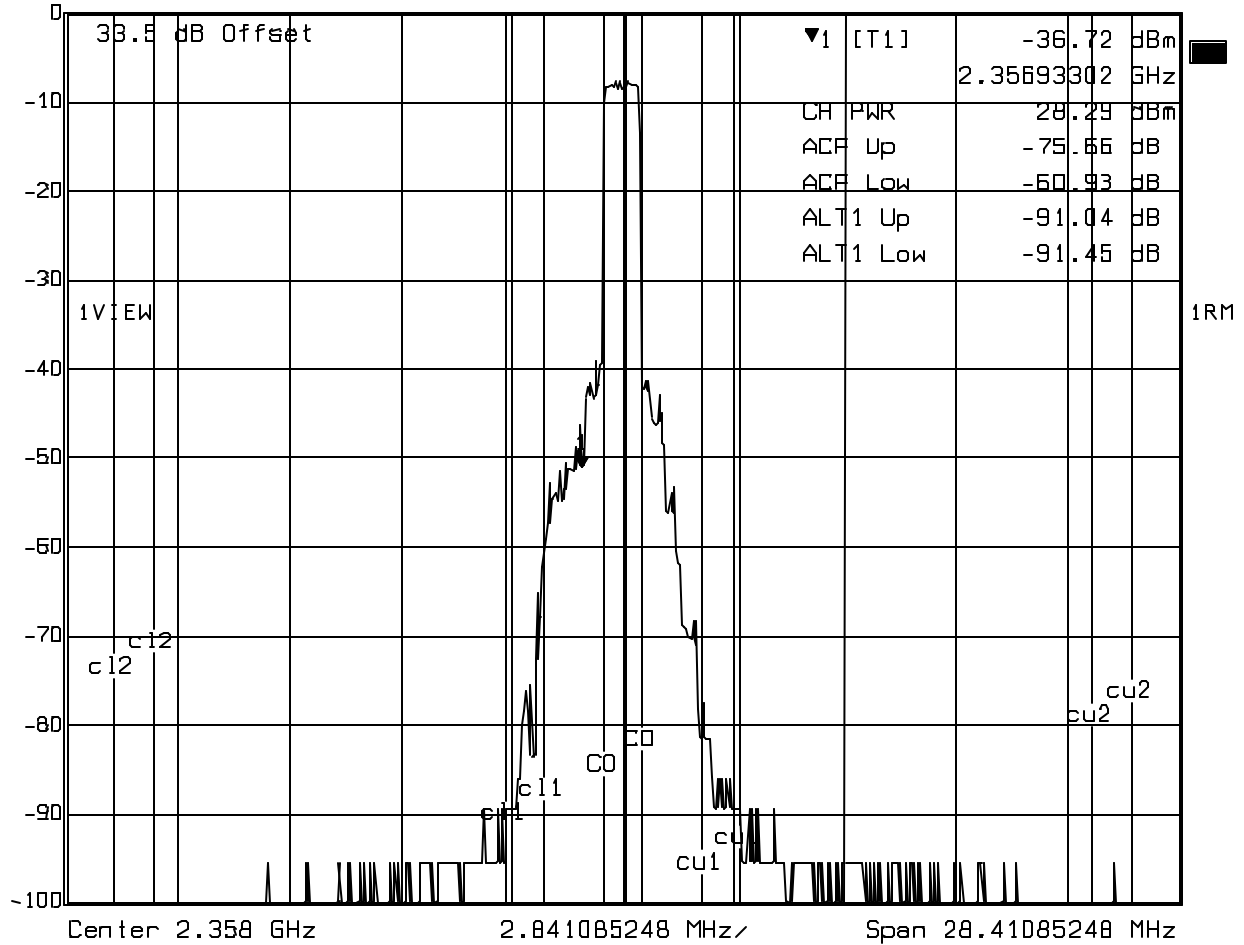
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	2.72 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	800 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:23:57


EQUIPMENT: 2.3 GHz CPE

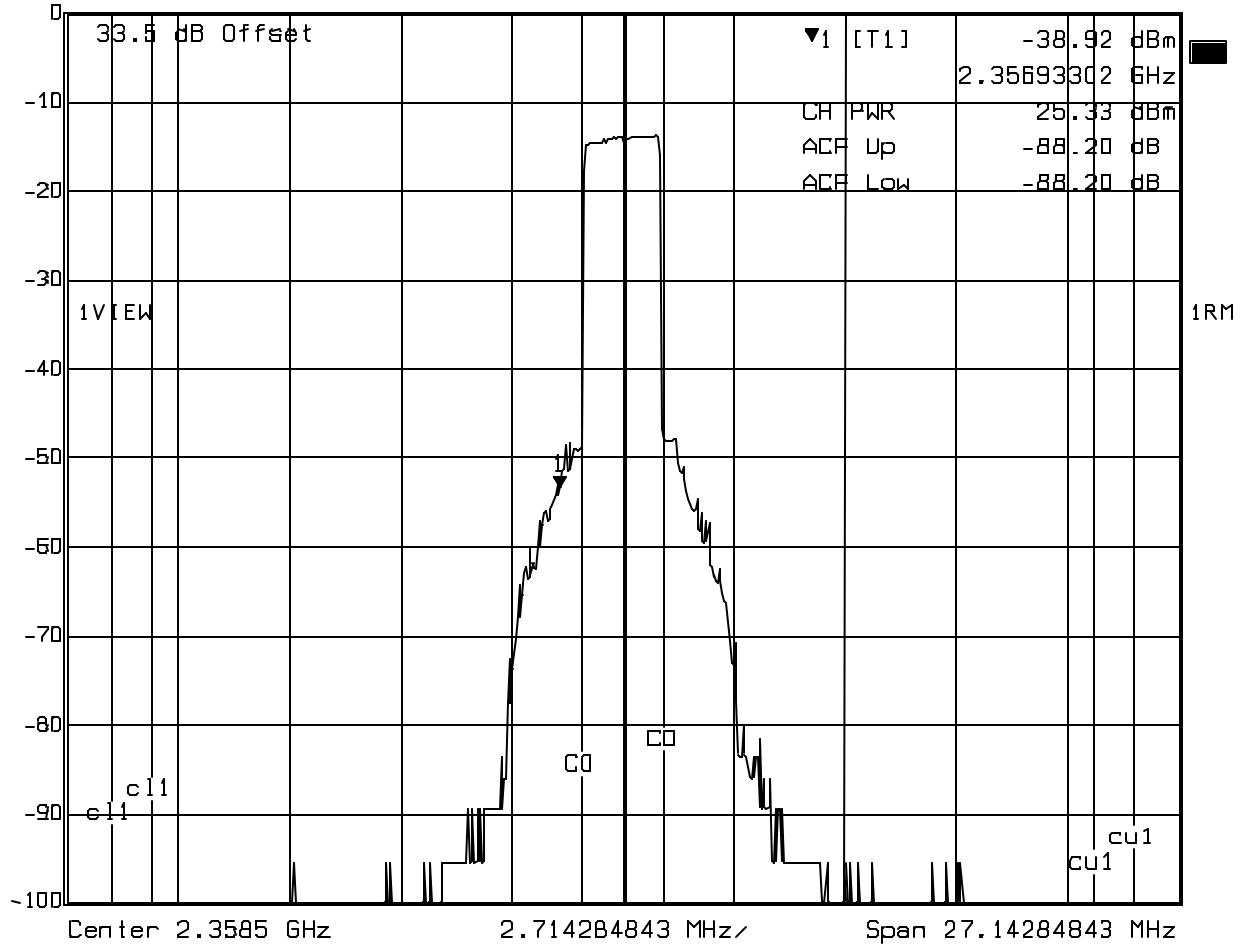
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-36.72 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	2.9 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:41:43


EQUIPMENT: 2.3 GHz CPE

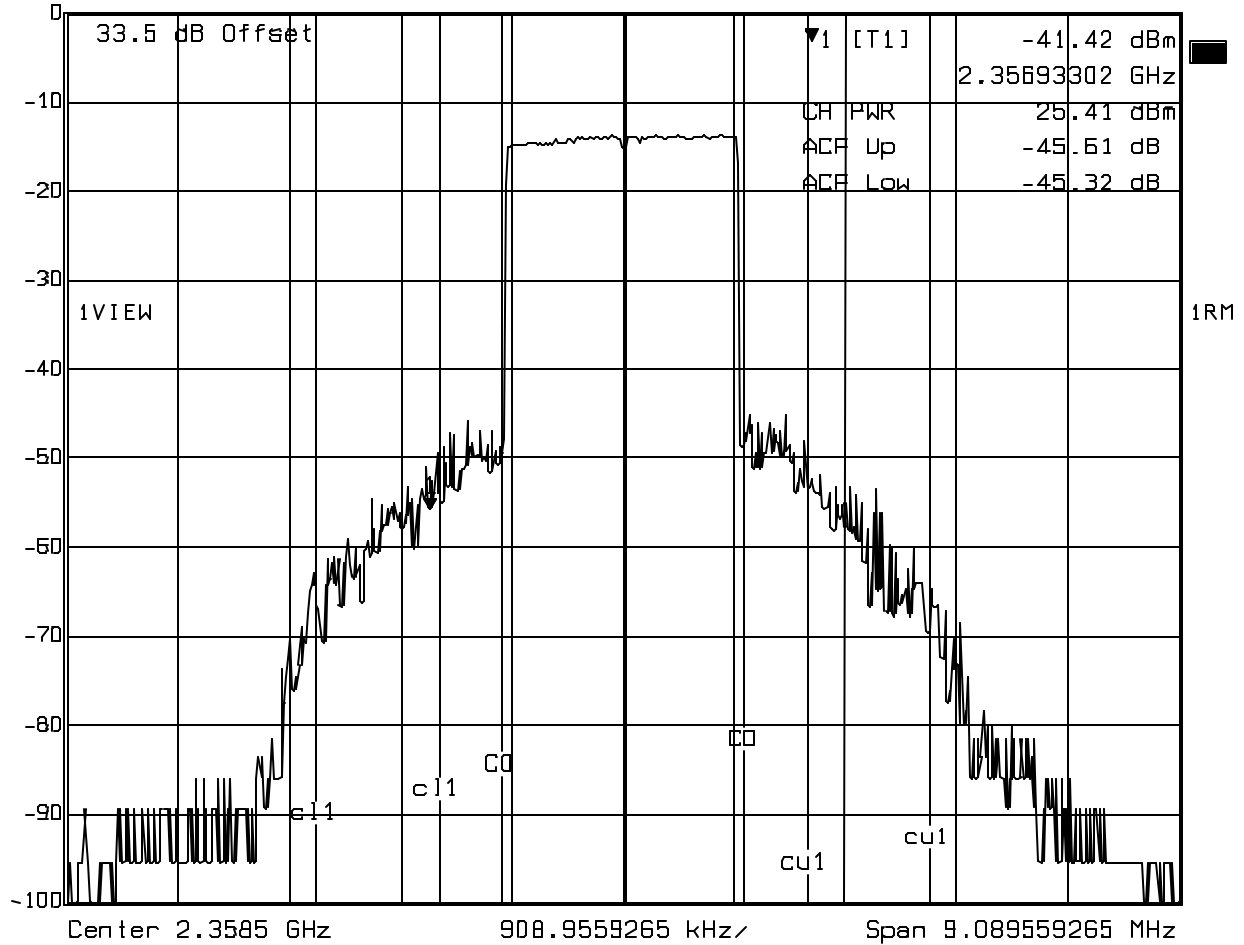
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-38.92 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	2.8 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:21:59


EQUIPMENT: 2.3 GHz CPE

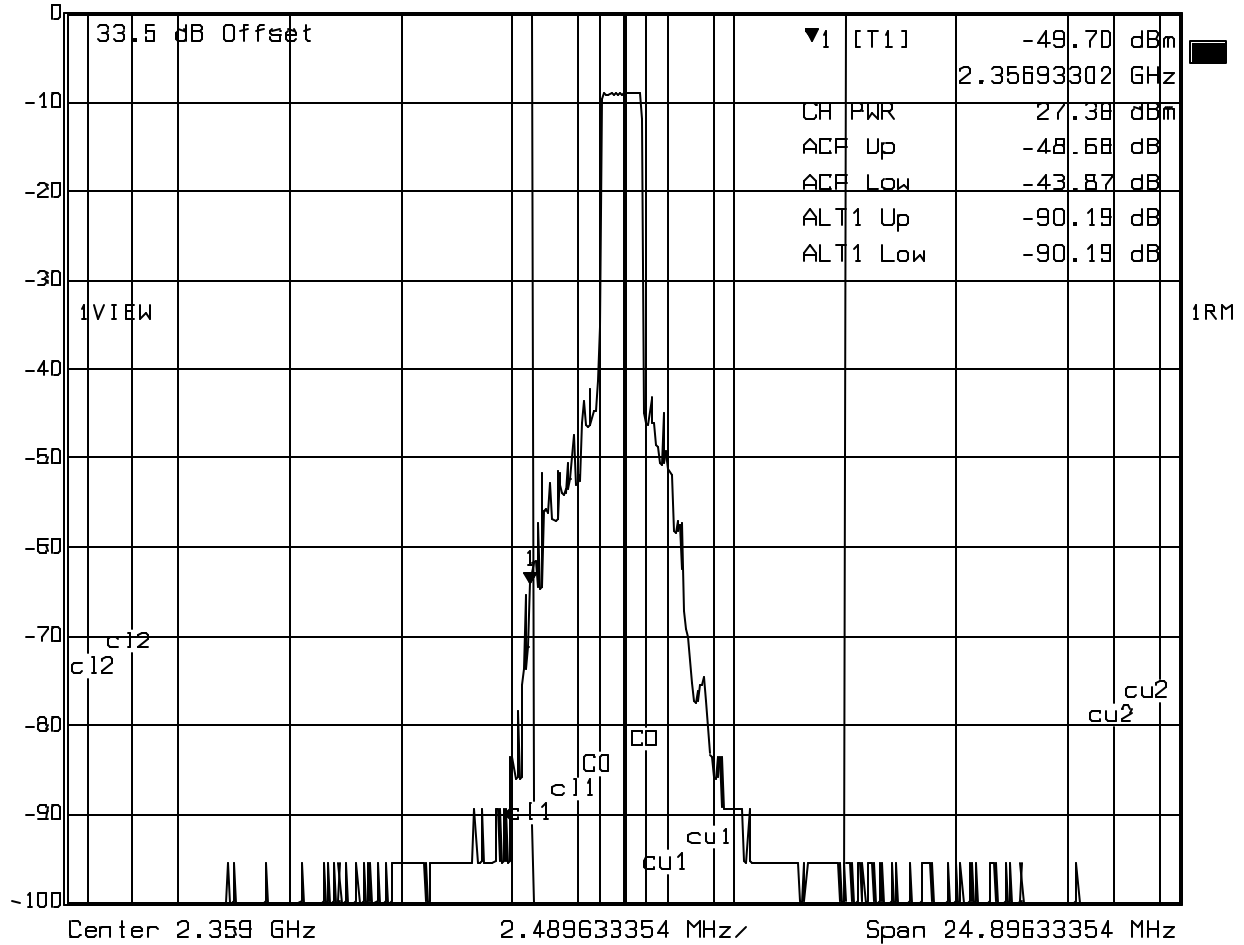
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-41.42 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	920 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:20:49


EQUIPMENT: 2.3 GHz CPE

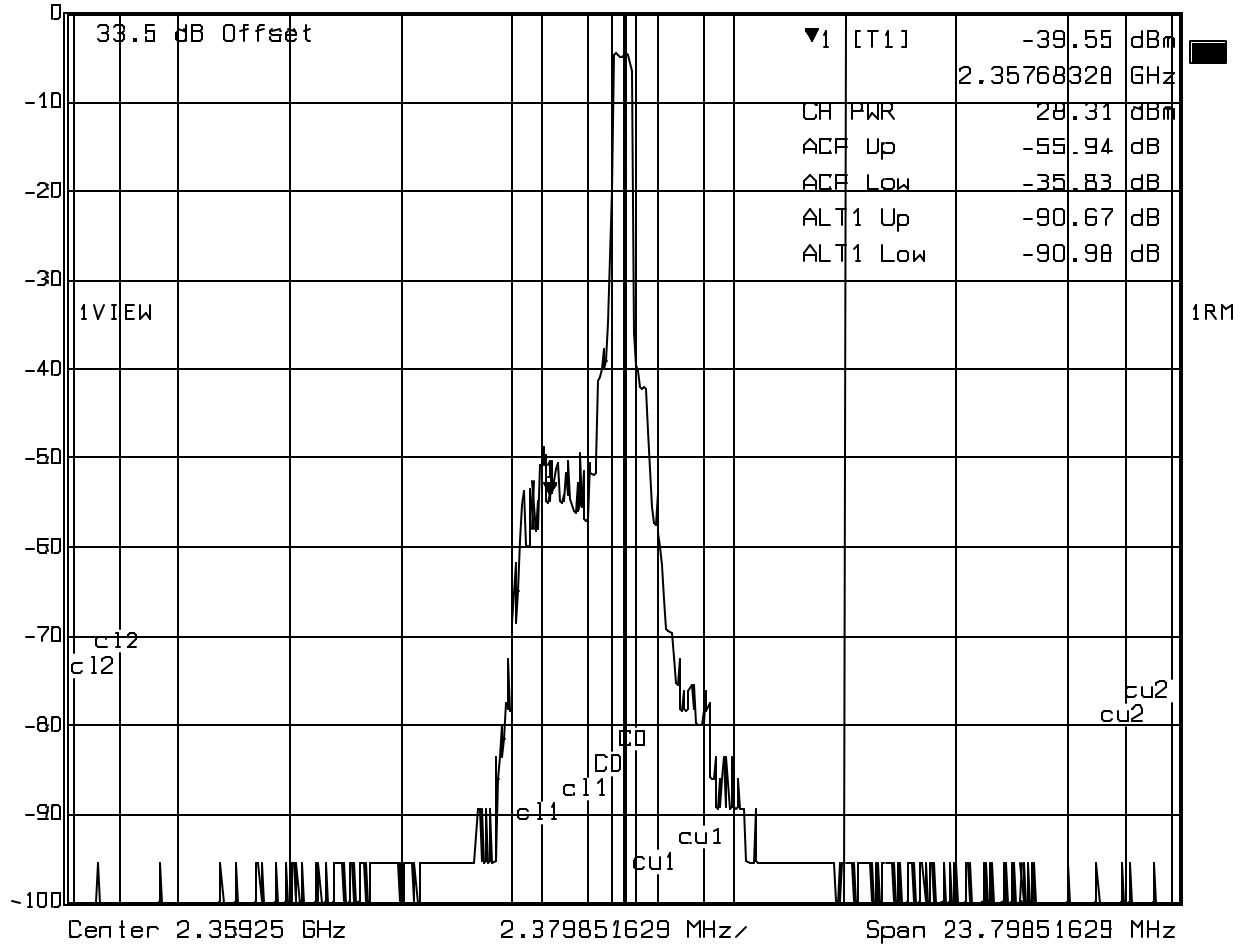
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-49.70 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35693302 GHz	SWT	2.5 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 15:40:02

EQUIPMENT: 2.3 GHz CPE


	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-39.55 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.35768328 GHz	SWT	2.4 s	Unit	dB

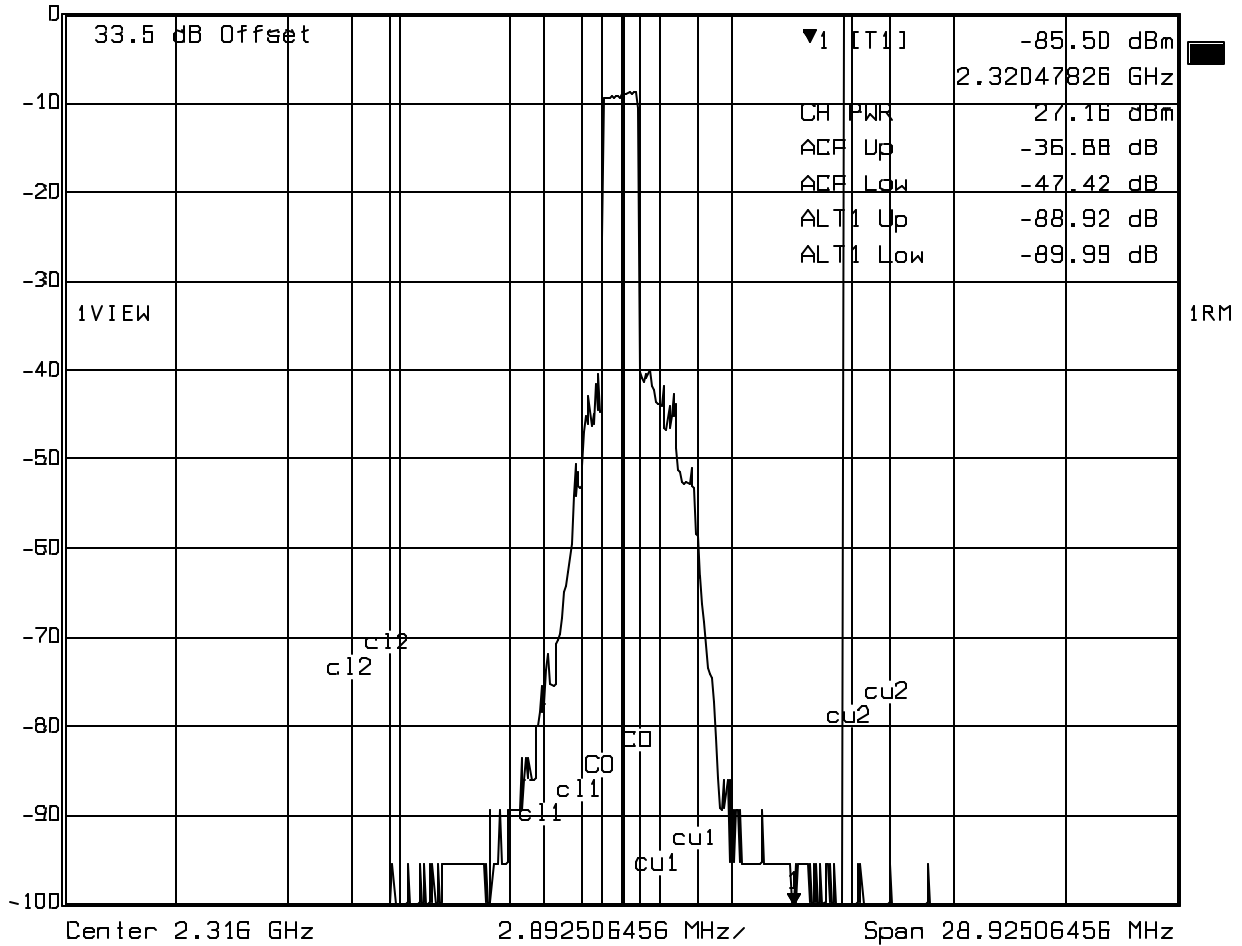


Title: 2DC
 Date: 11.NOV.2002 15:54:51

EQUIPMENT: 2.3 GHz CPE


Measurement Data – Block C (2315 – 2320 MHz)

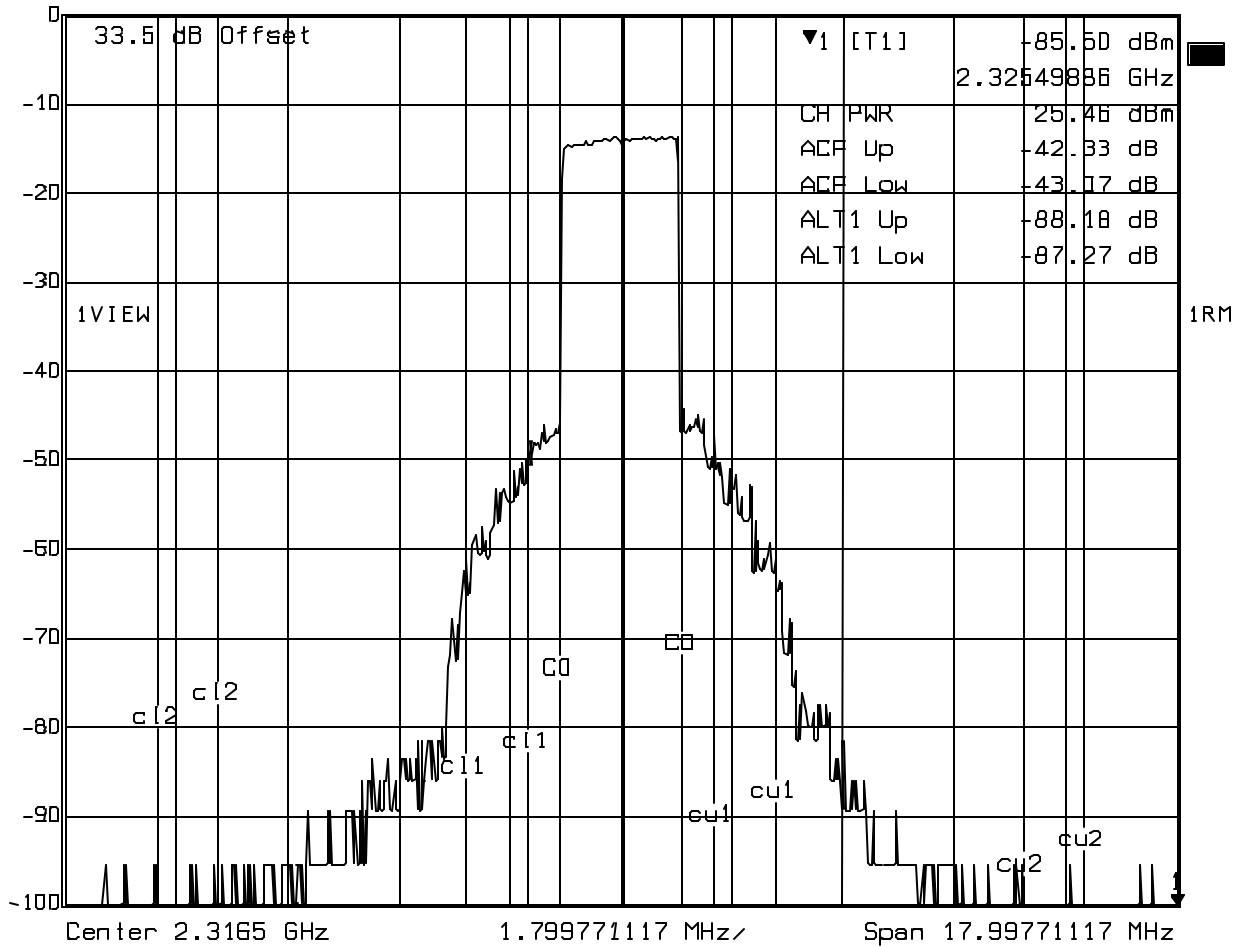
	Ref Lvl	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB
	14.5 dBm	-85.50 dBm	VBW	5 kHz	Mixer	-10 dBm
		2.32047826 GHz	SWT	2.9 s	Unit	dB



Title: 20C
 Date: 11.NOV.2002 16:18:32


EQUIPMENT: 2.3 GHz CPE

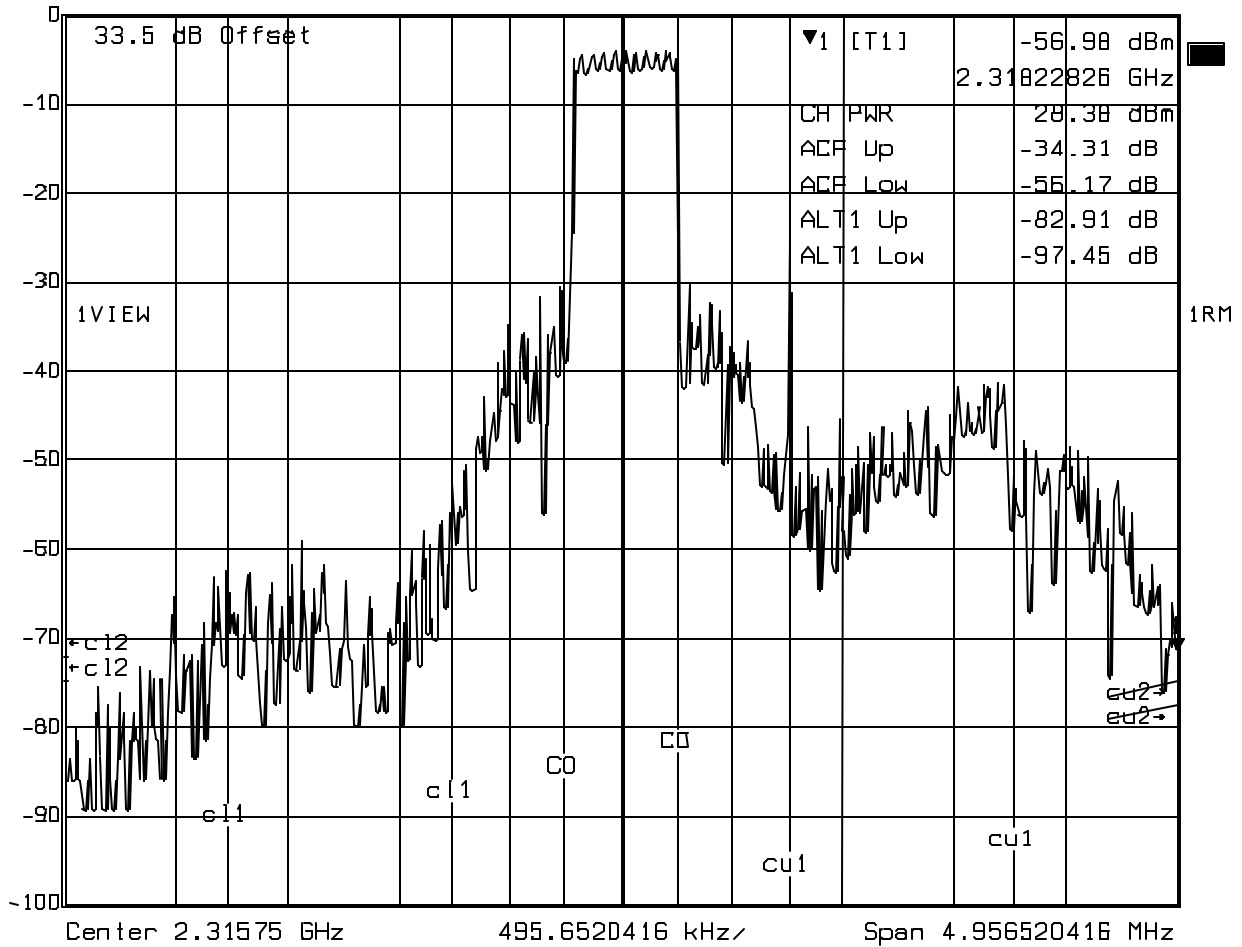
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-85.50 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.32549886 GHz	SWT	1.8 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 16:24:50


EQUIPMENT: 2.3 GHz CPE

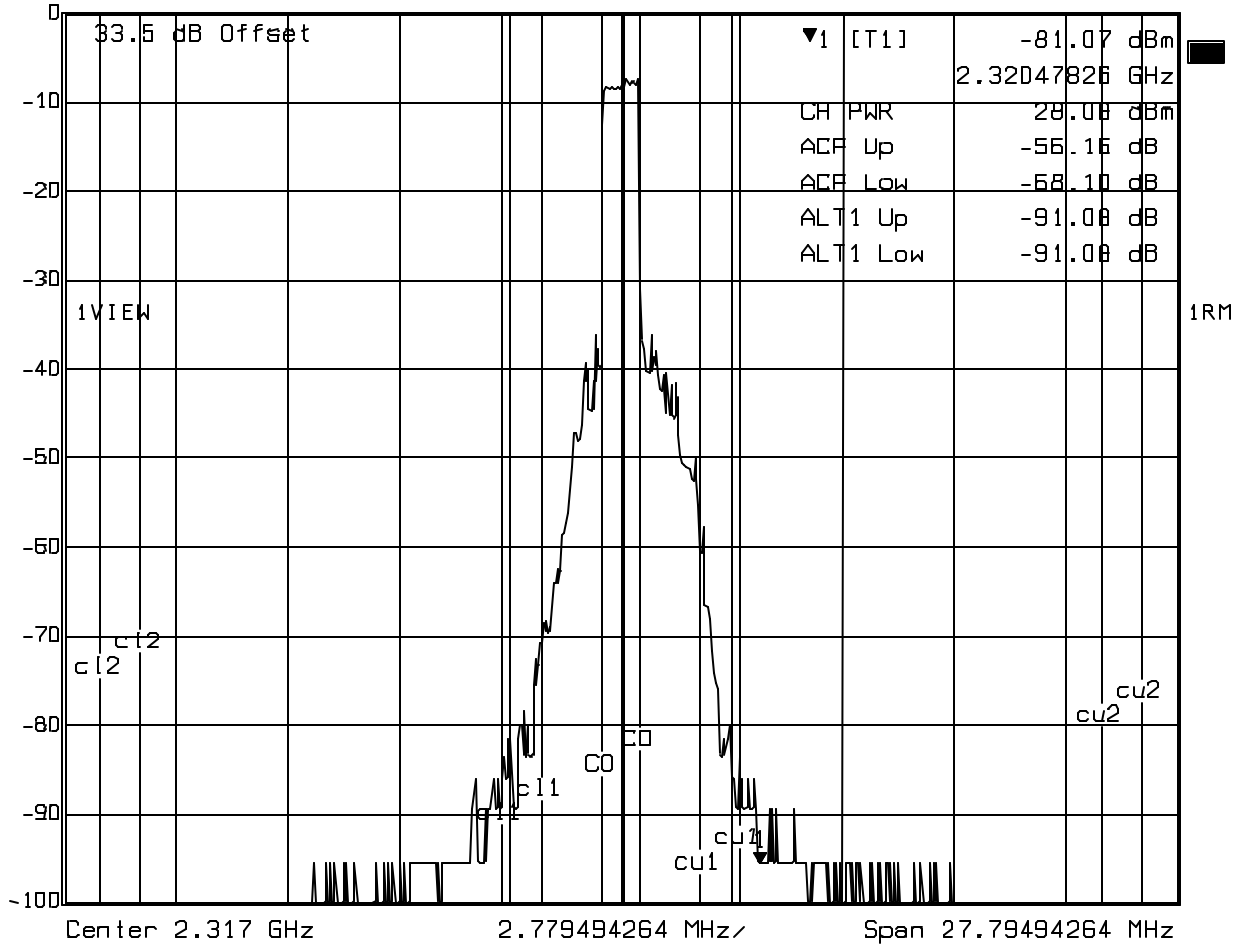
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-56.98 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.31822826 GHz	SWT	500 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 16:04:54


EQUIPMENT: 2.3 GHz CPE

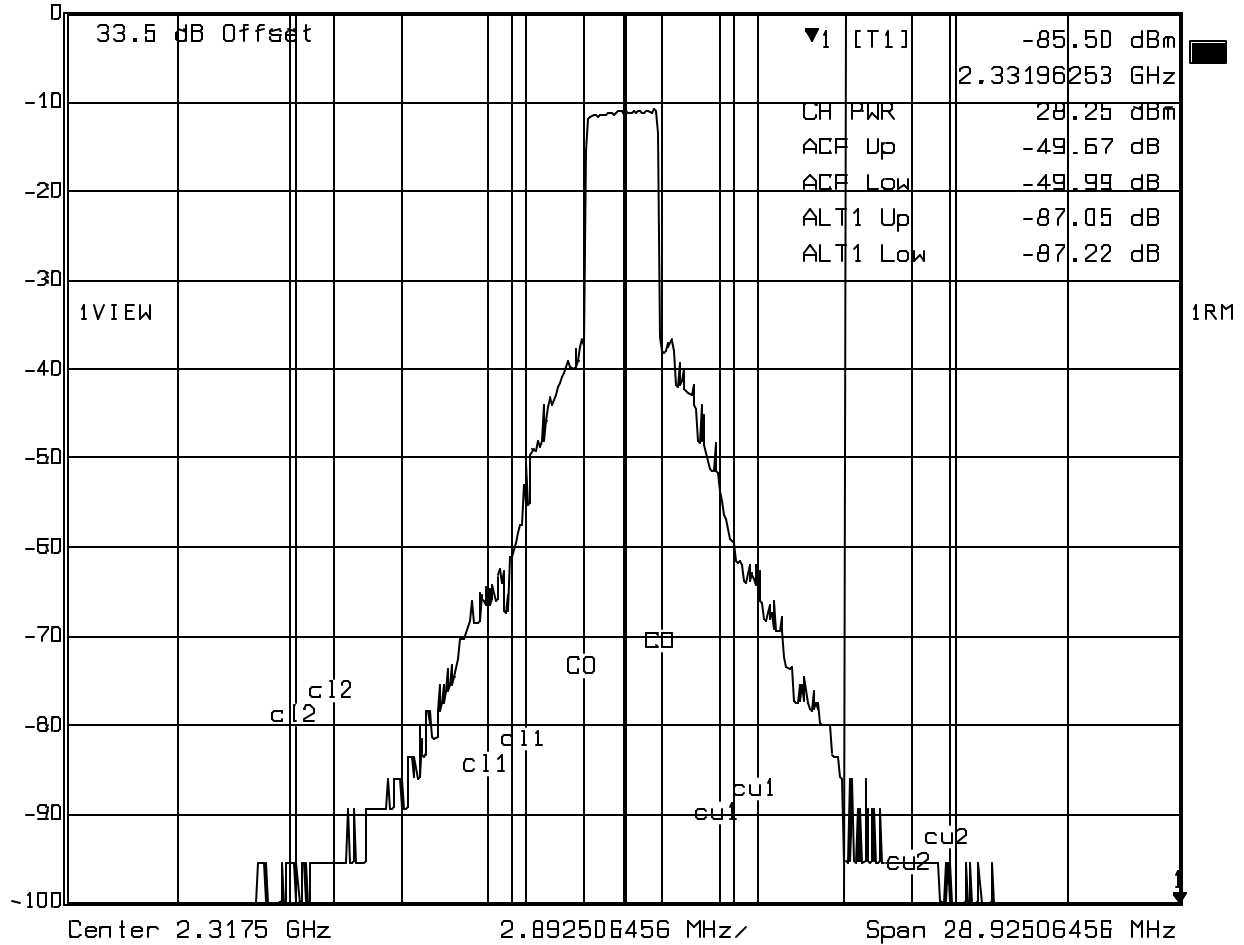
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-81.07 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.32047826 GHz	SWT	2.8 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 16:11:06


EQUIPMENT: 2.3 GHz CPE

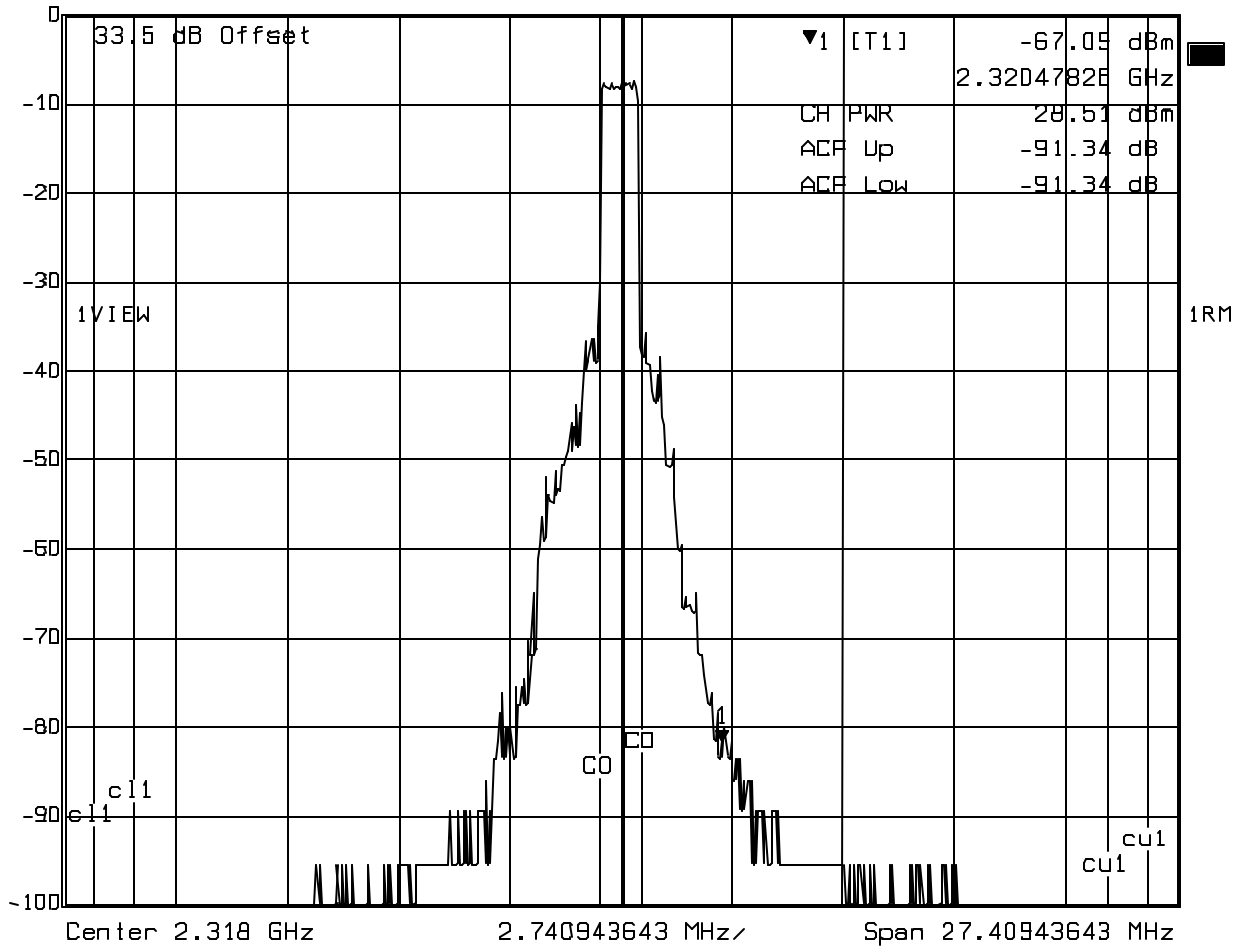
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-85.50 dBm	VBW	5 kHz	Mixer	-10 dBm
	14.5 dBm	2.33196253 GHz	SWT	2.9 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 16:20:29


EQUIPMENT: 2.3 GHz CPE

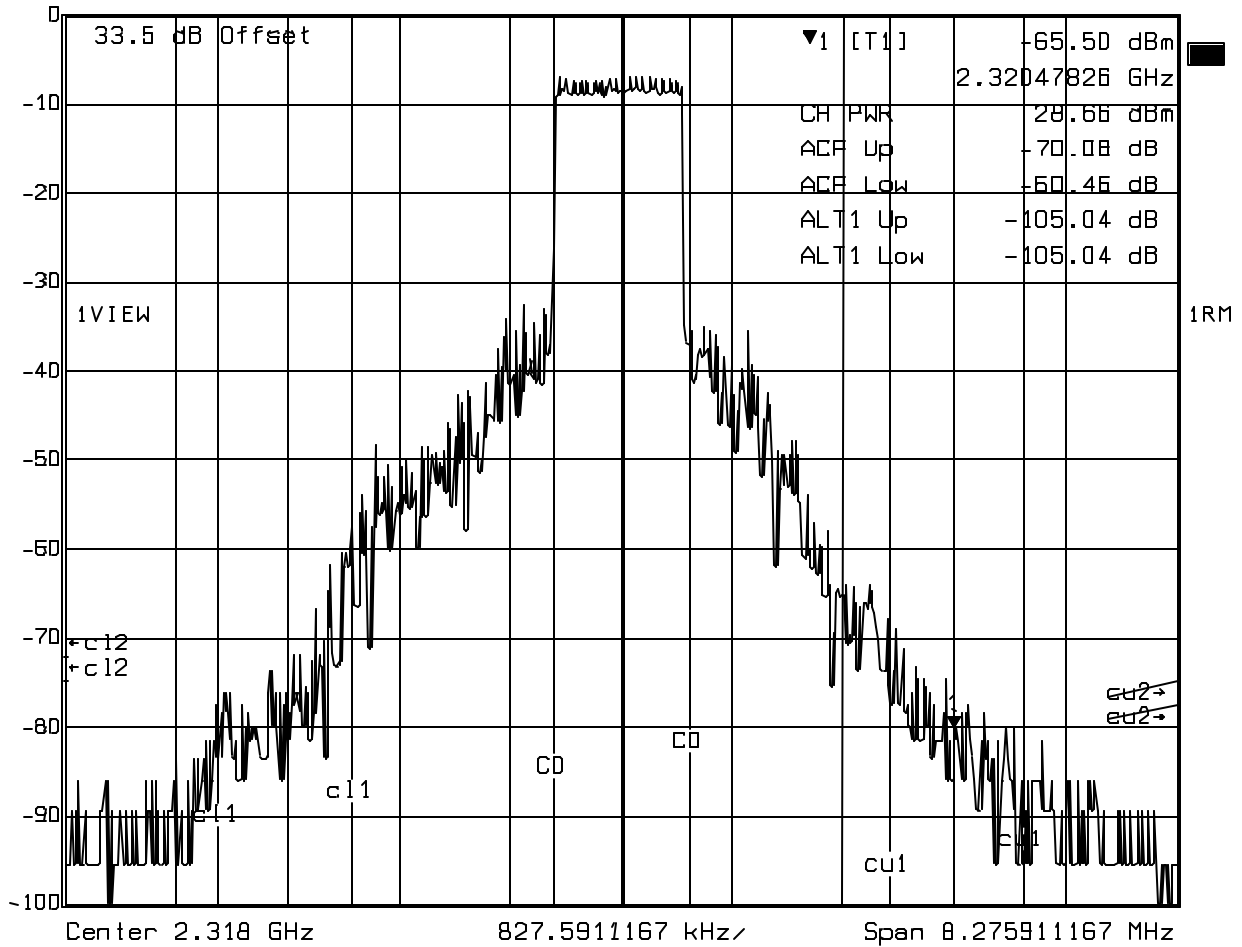
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-67.09 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.32047826 GHz	SWT	2.8 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 16:13:53


EQUIPMENT: 2.3 GHz CPE

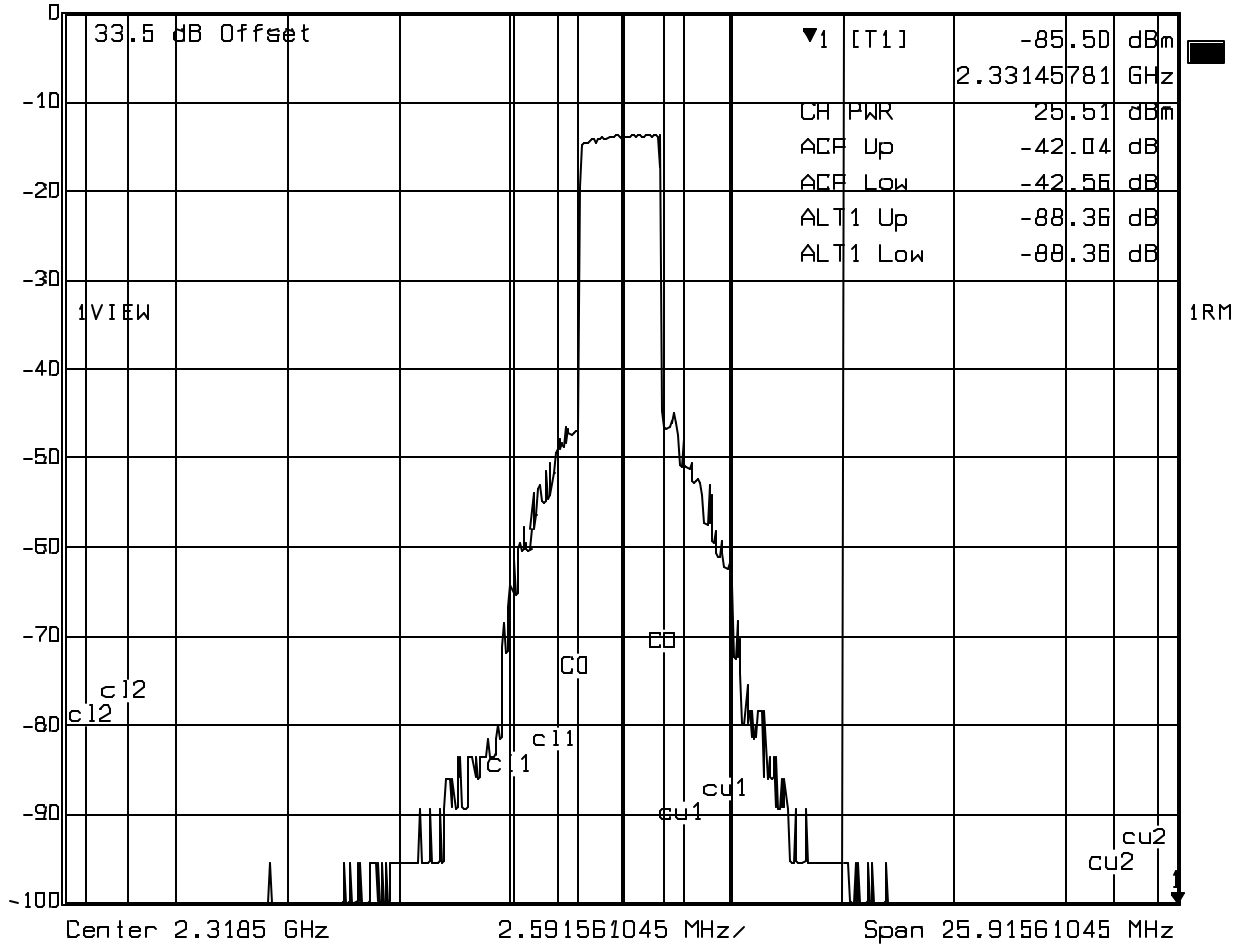
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-65.50 dBm	VBW	5 kHz	Mixer	-10 dBm
	14.5 dBm	2.32047826 GHz	SWT	840 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 16:12:57


EQUIPMENT: 2.3 GHz CPE

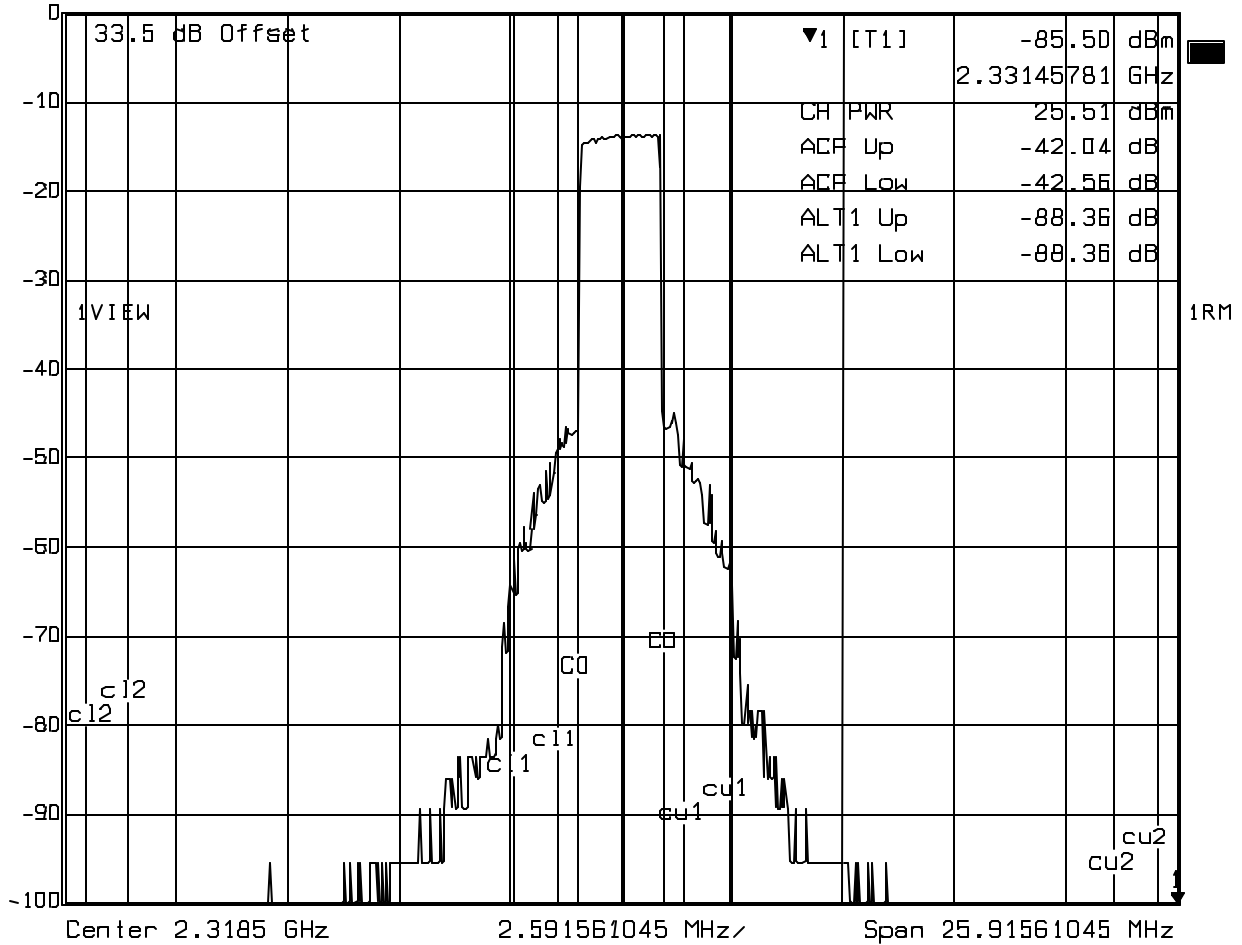
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-85.50 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.33145781 GHz	SWT	2.6 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 16:22:21


EQUIPMENT: 2.3 GHz CPE

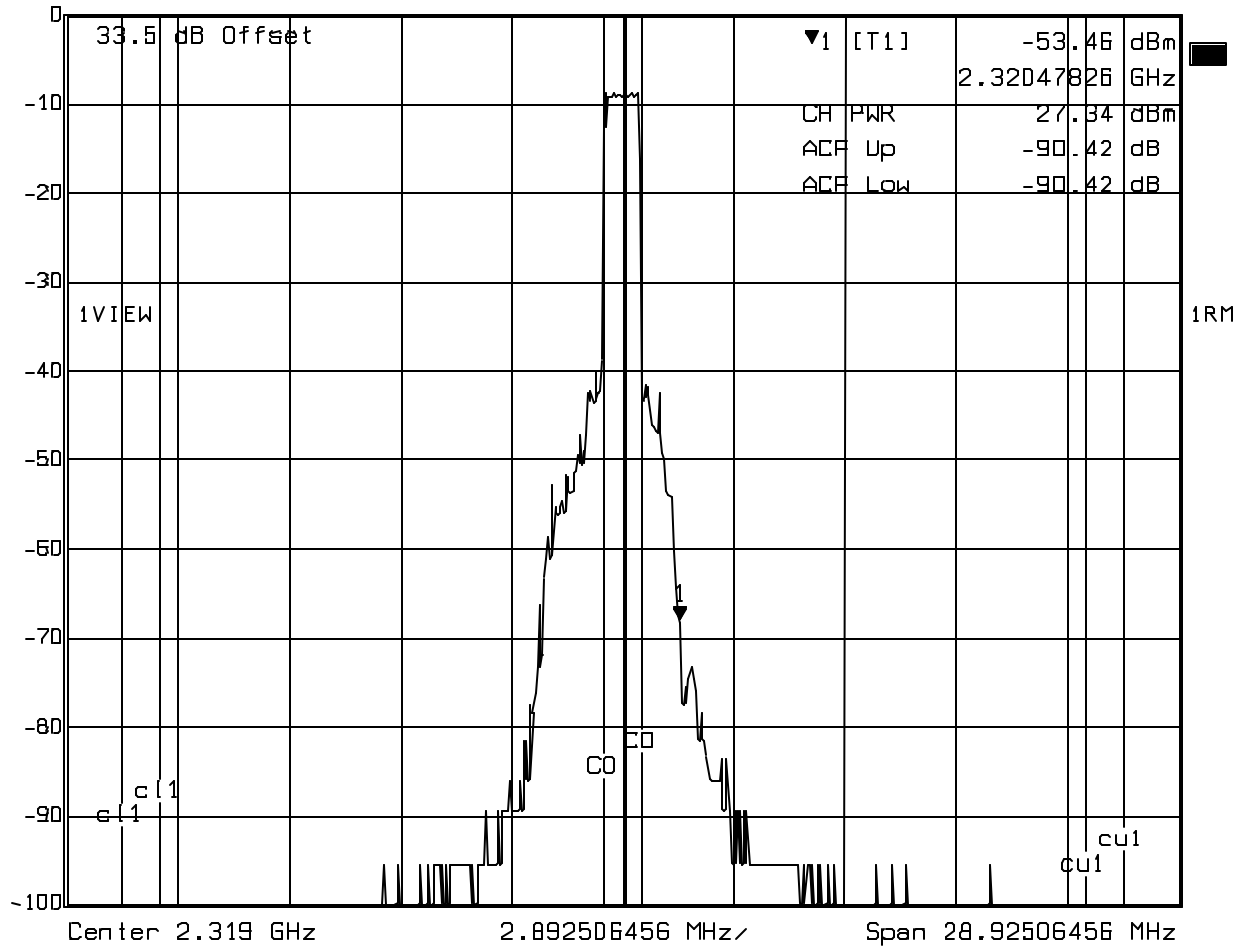
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-85.50 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.33145781 GHz	SWT	2.6 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 16:22:21


EQUIPMENT: 2.3 GHz CPE

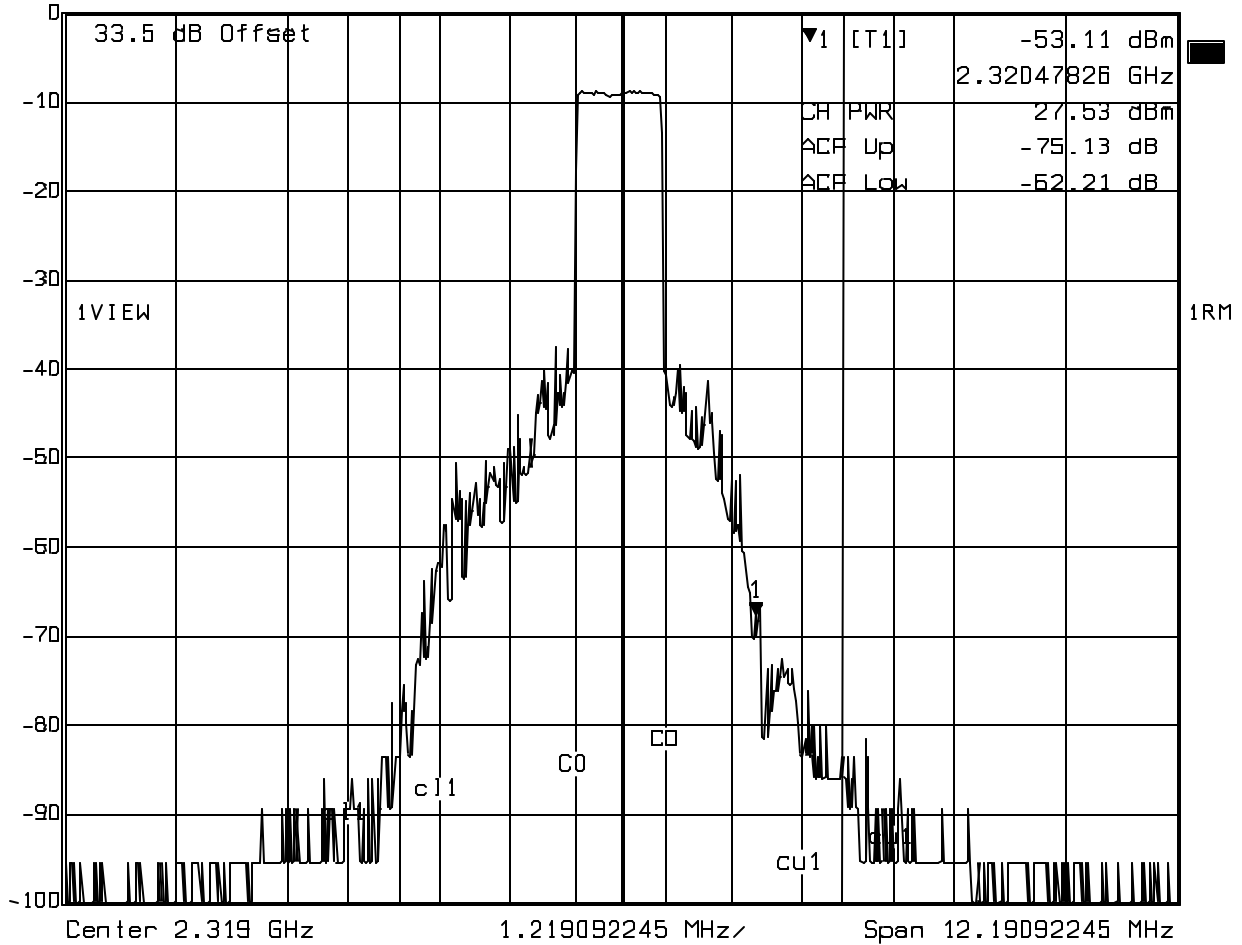
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-53.46 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.32047826 GHz	SWT	2.9 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 16:16:41


EQUIPMENT: 2.3 GHz CPE

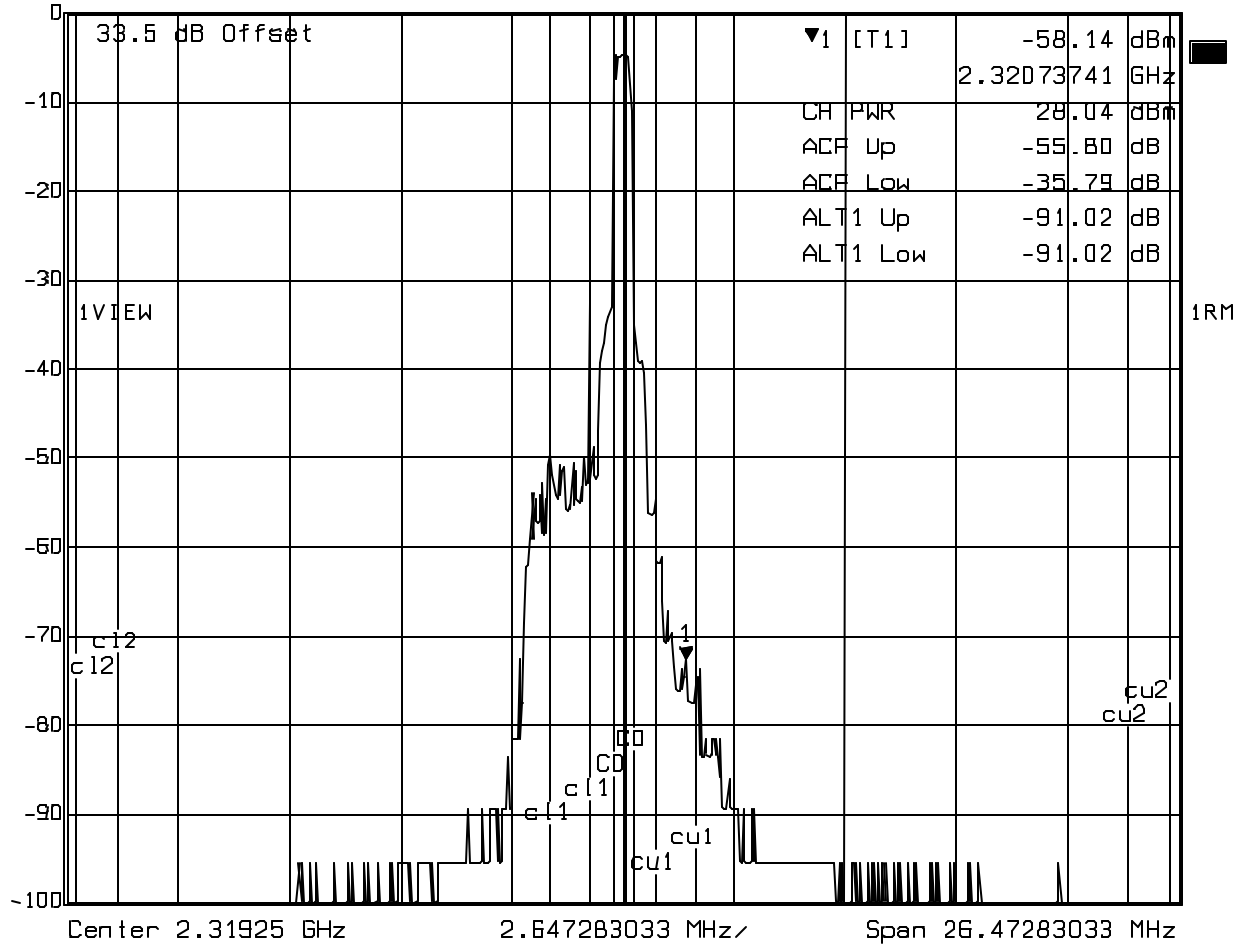
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-53.11 dBm	VBW	5 kHz	Mixer	-10 dB
	14.5 dBm	2.32047826 GHz	SWT	1.25 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 16:15:20

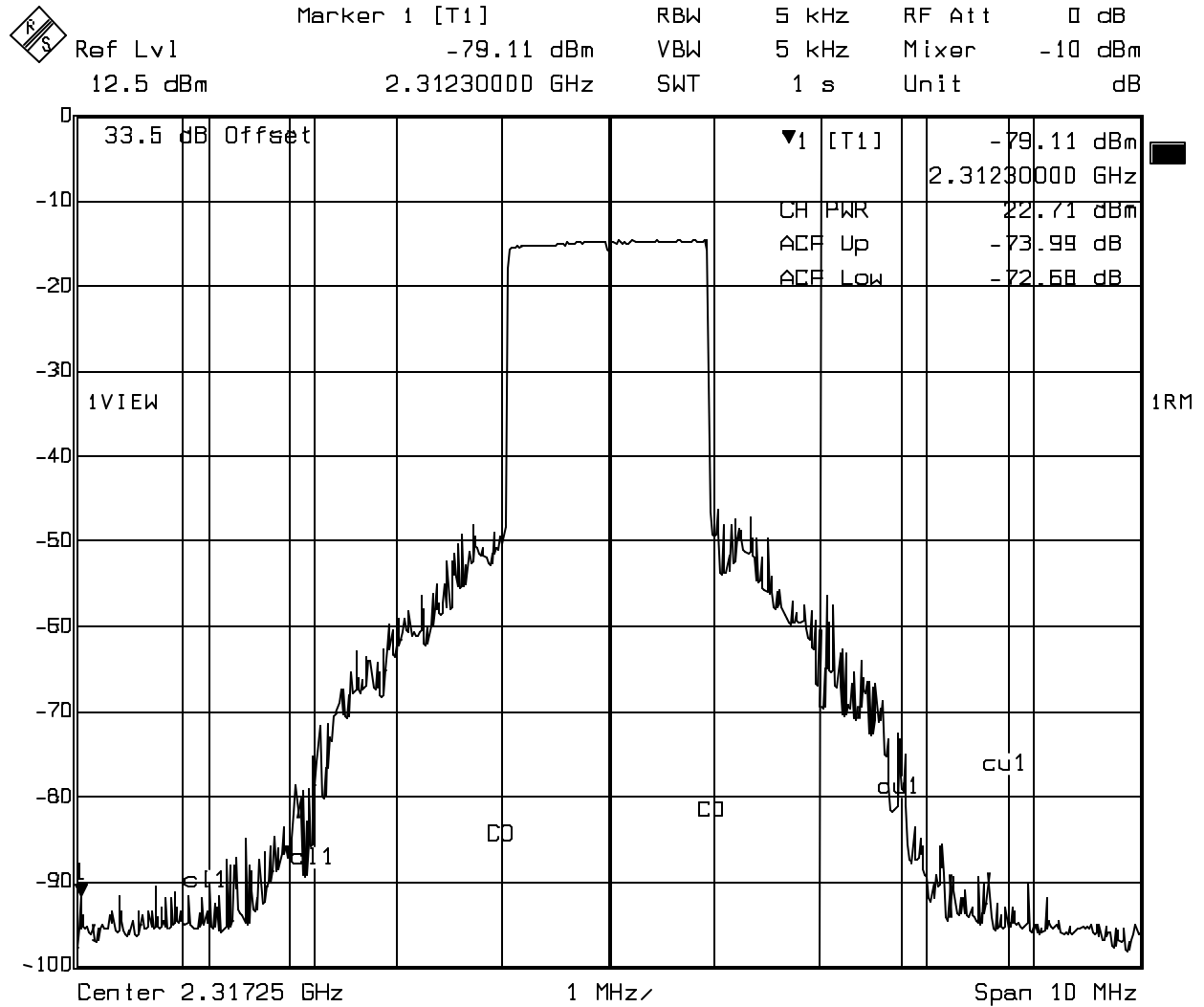
EQUIPMENT: 2.3 GHz CPE

	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-58.14 dBm	VBW	5 kHz	Mixer	-10 dBm
	14.5 dBm	2.32073741 GHz	SWT	2.7 s	Unit	dB




Title: 2DC
 Date: 11.NOV.2002 16:01:38

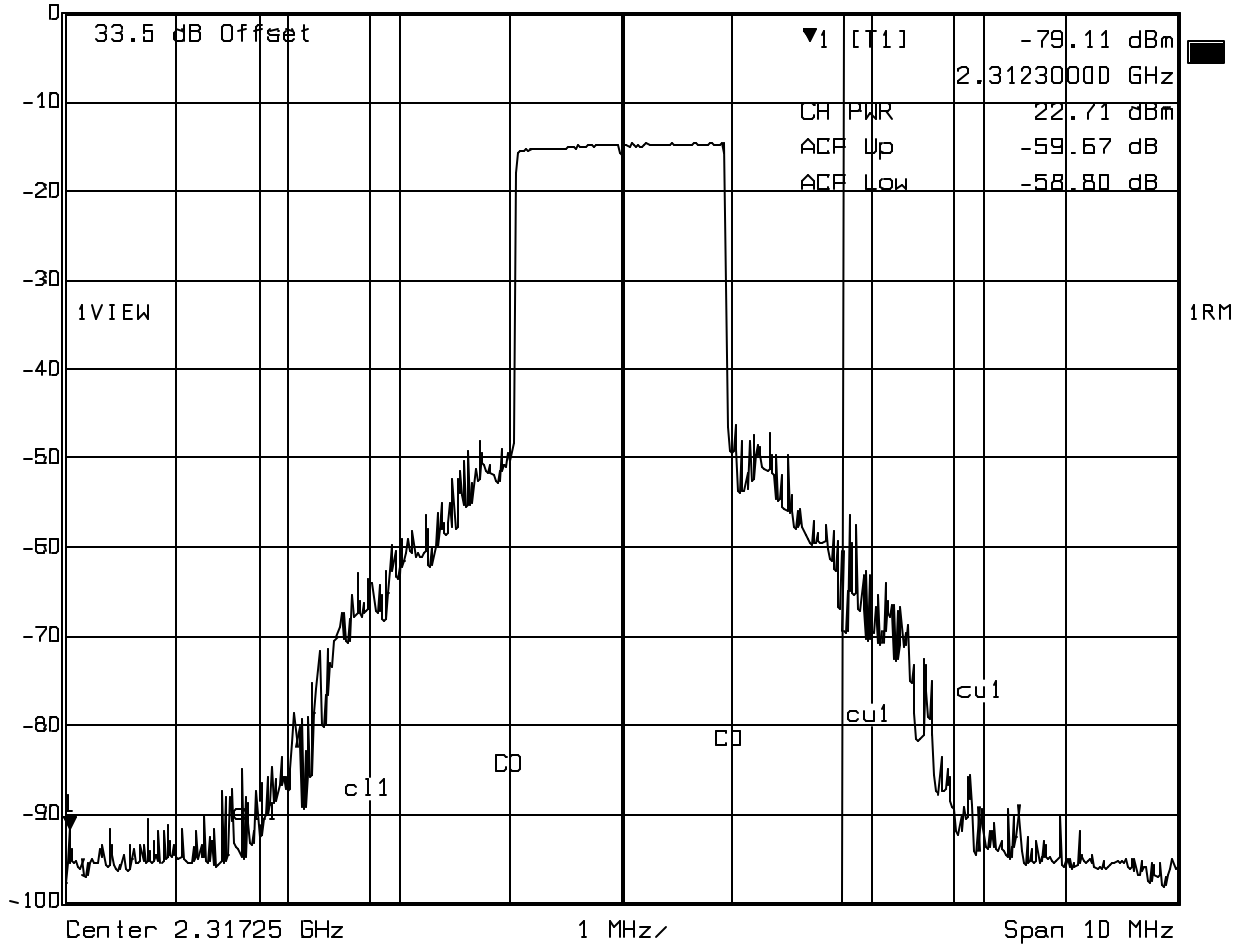
EQUIPMENT: 2.3 GHz CPE



Title: 2DC
 Date: 11.NOV.2002 11:44:45


EQUIPMENT: 2.3 GHz CPE

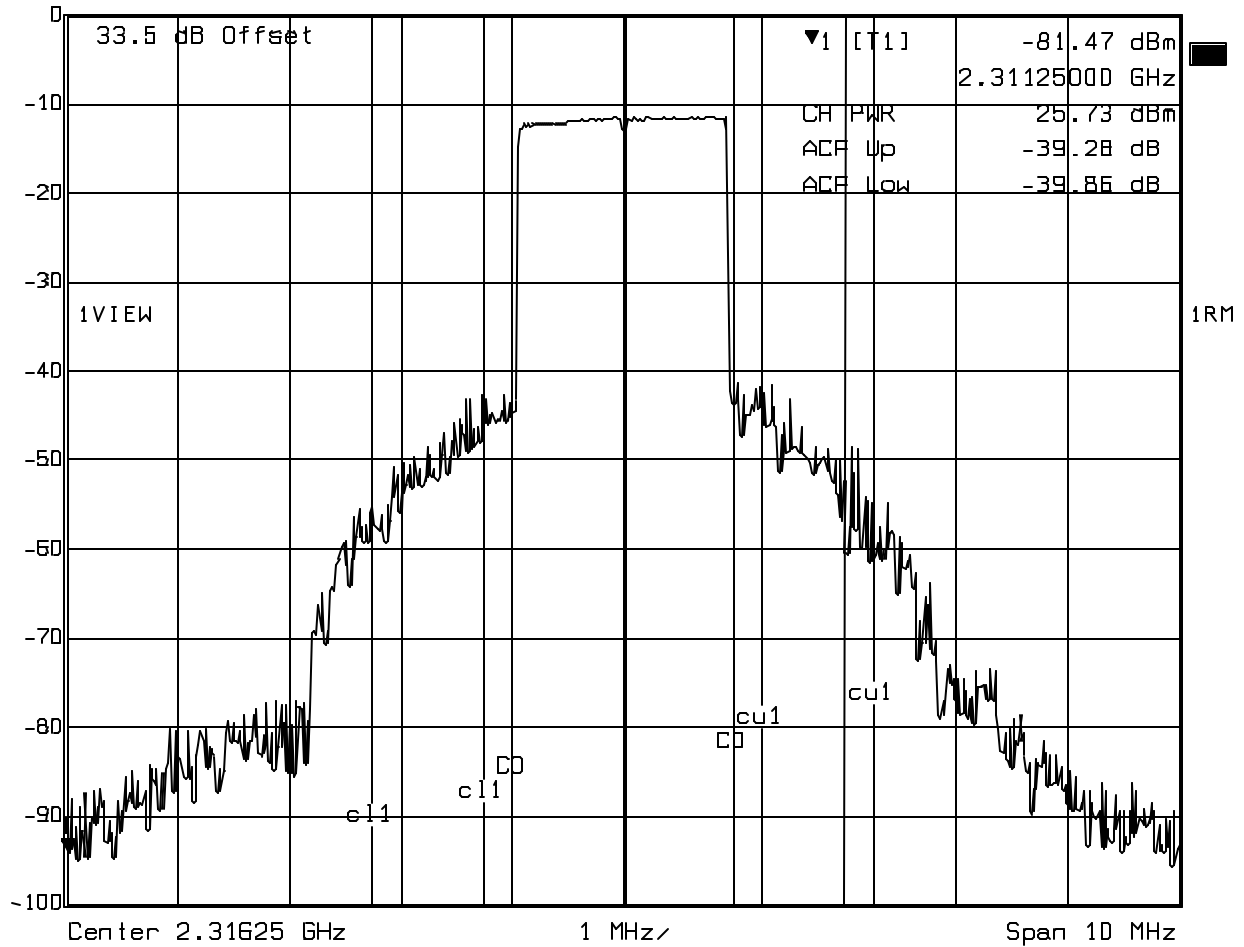
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-79.11 dBm	VBW	5 kHz	Mixer	-10 dB
	12.5 dBm	2.31230000 GHz	SWT	1 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 11:46:33


EQUIPMENT: 2.3 GHz CPE

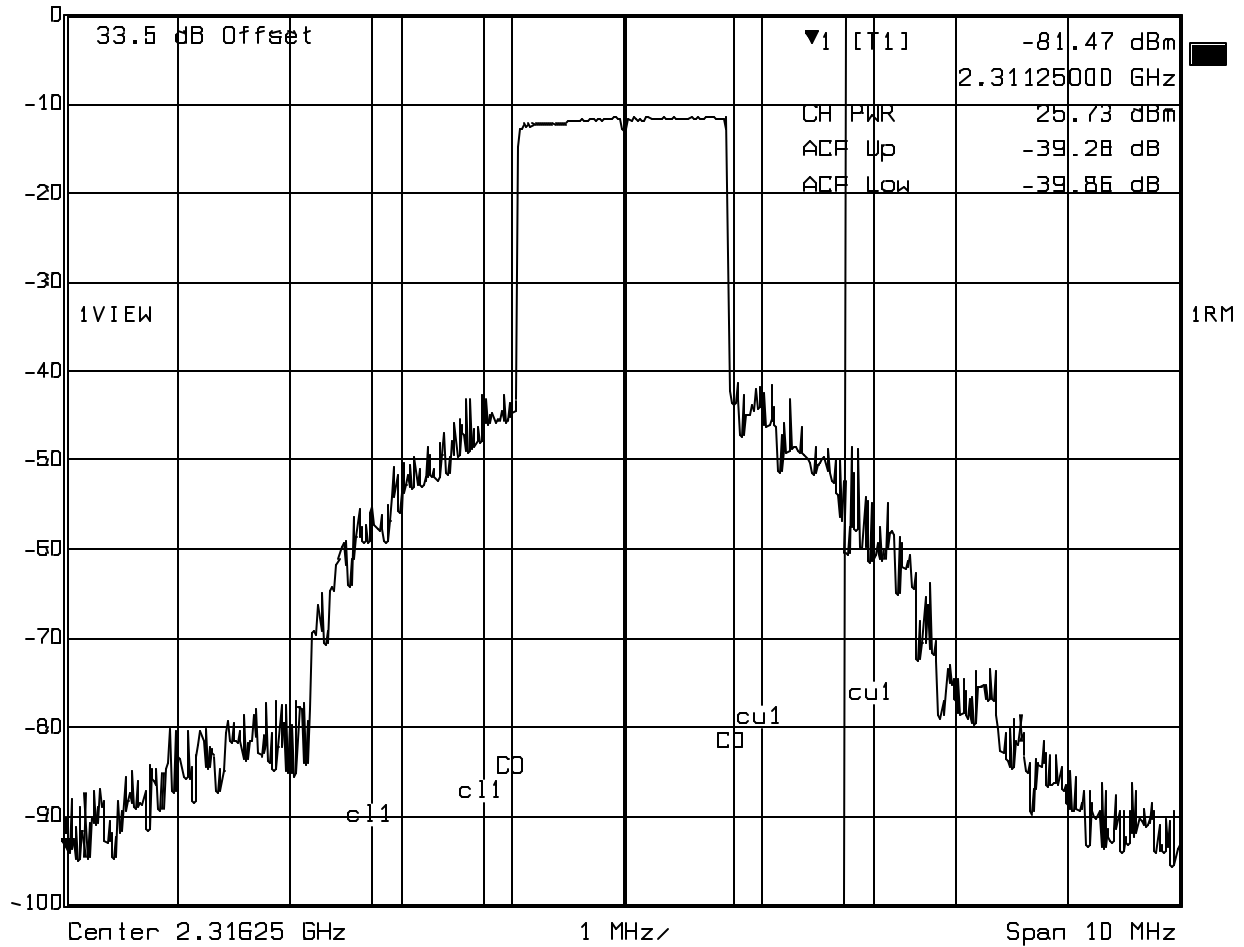
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-81.47 dBm	VBW	5 kHz	Mixer	-10 dB
	12.5 dBm	2.31125000 GHz	SWT	1 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 11:32:04


EQUIPMENT: 2.3 GHz CPE

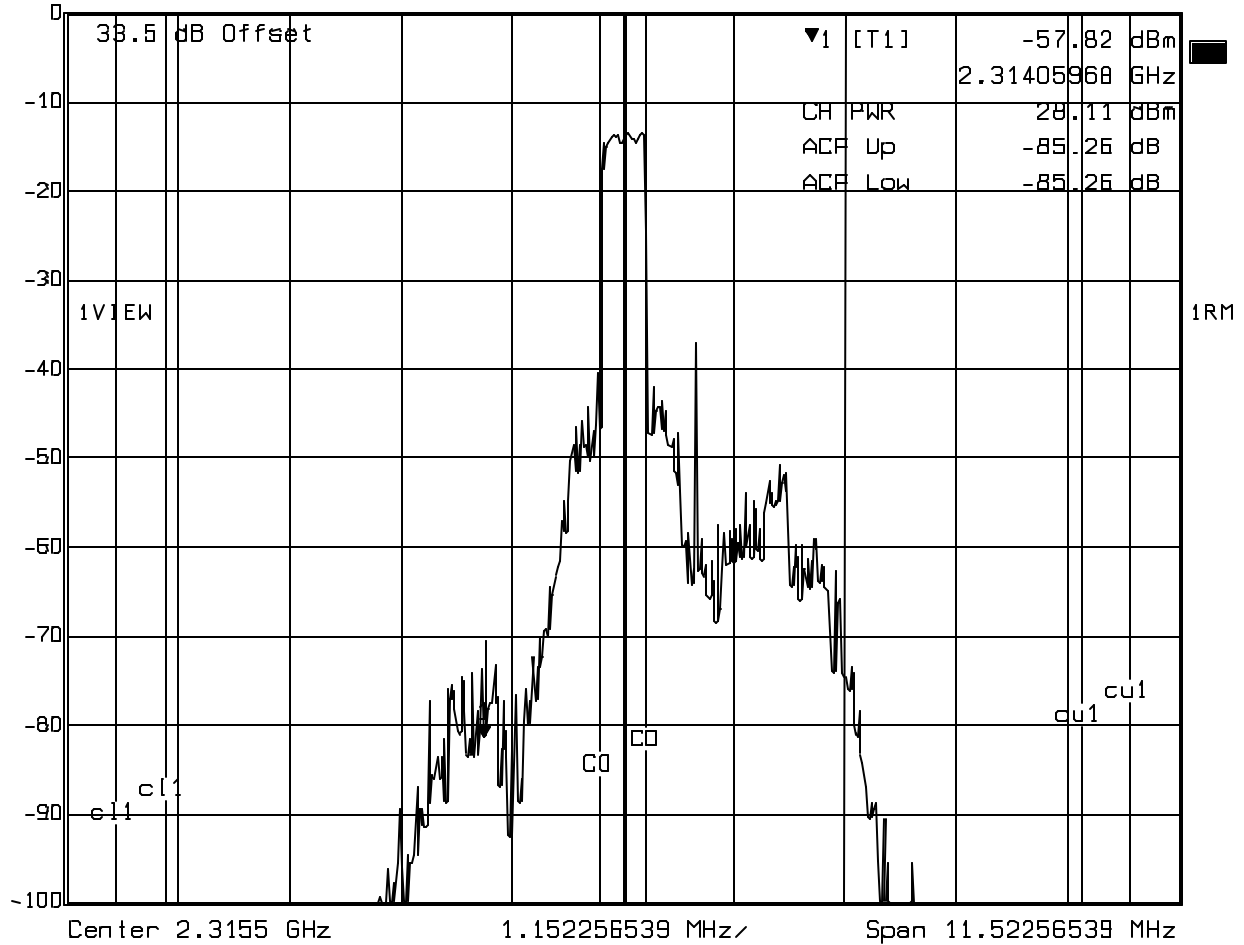
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-81.47 dBm	VBW	5 kHz	Mixer	-10 dB
	12.5 dBm	2.31125000 GHz	SWT	1 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 11:32:04


EQUIPMENT: 2.3 GHz CPE

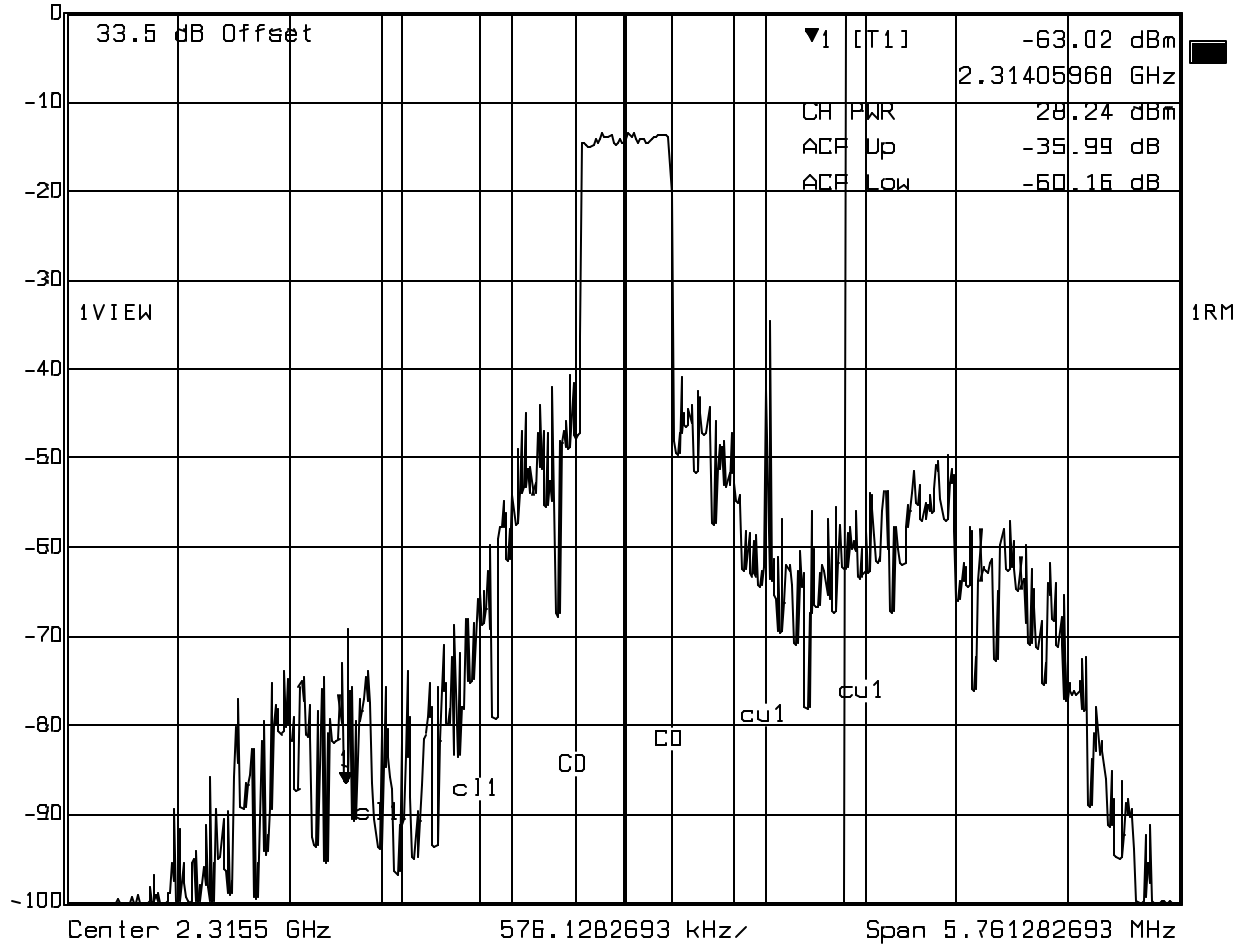
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-57.82 dBm	VBW	5 kHz	Mixer	-10 dB
	23.5 dBm	2.31405968 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:08:08


EQUIPMENT: 2.3 GHz CPE

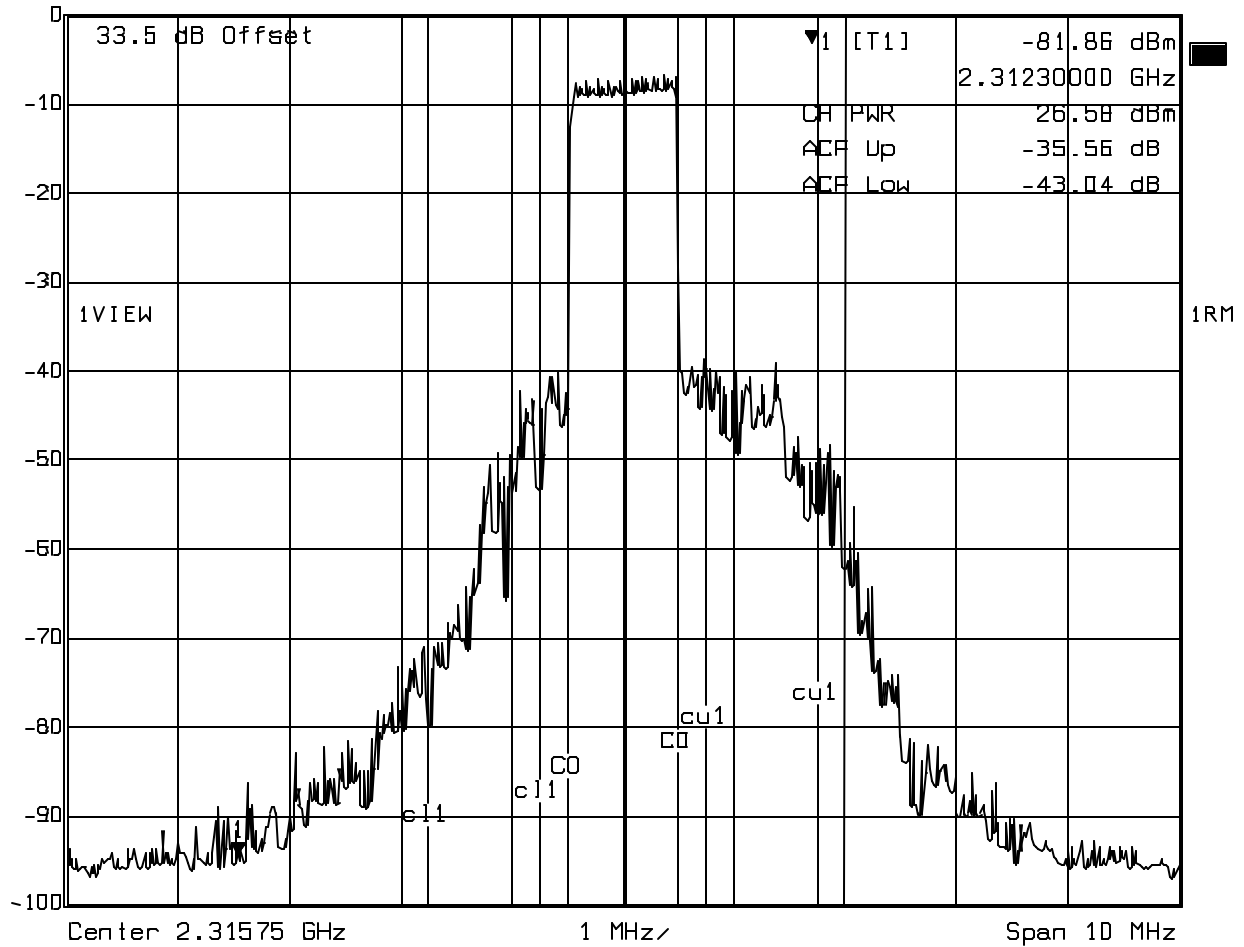
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-63.02 dBm	VBW	5 kHz	Mixer	-10 dB
	23.5 dBm	2.31405968 GHz	SWT	580 ms	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:06:07


EQUIPMENT: 2.3 GHz CPE

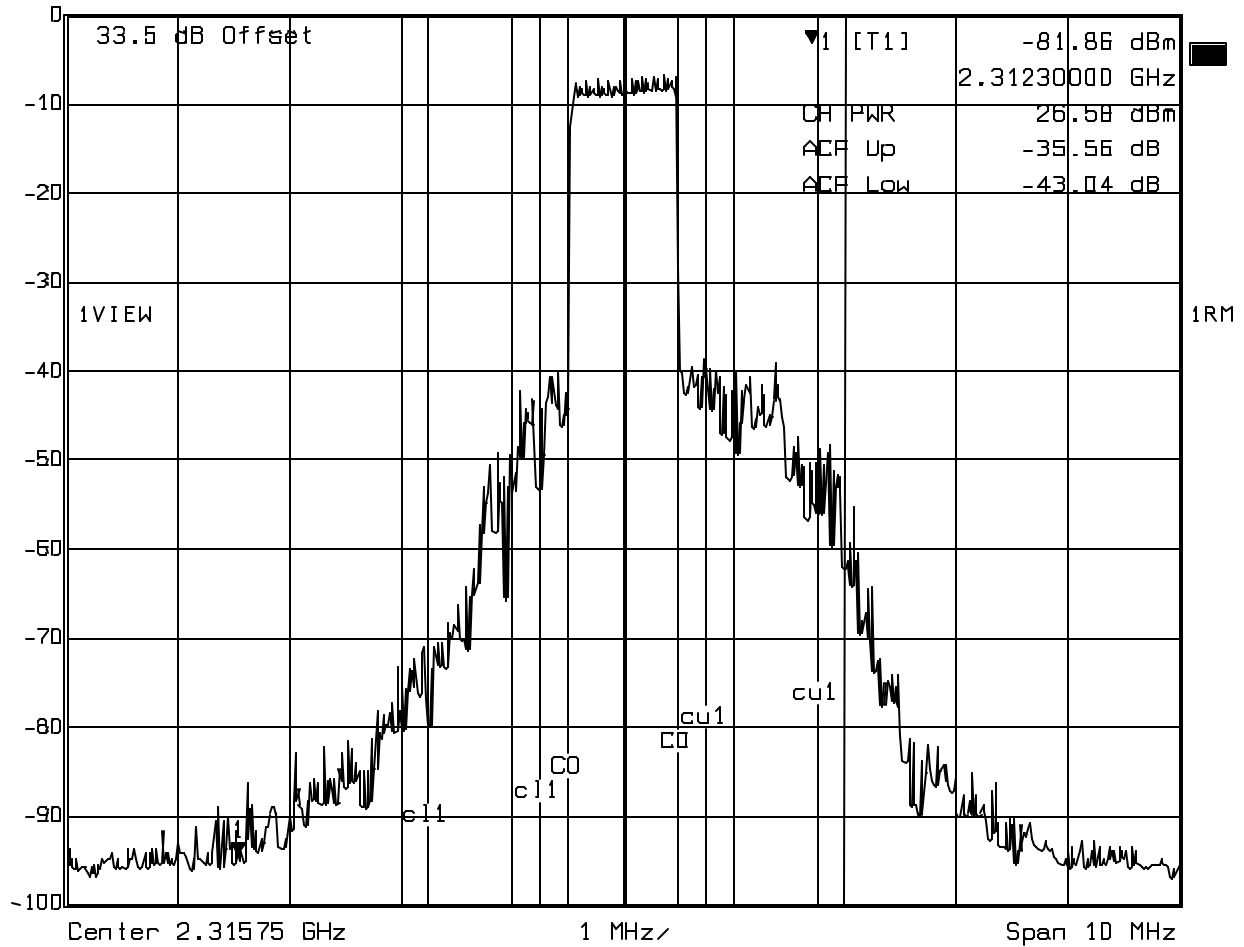
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-81.86 dBm	VBW	5 kHz	Mixer	-10 dB
	12.5 dBm	2.31230000 GHz	SWT	1 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 11:50:35


EQUIPMENT: 2.3 GHz CPE

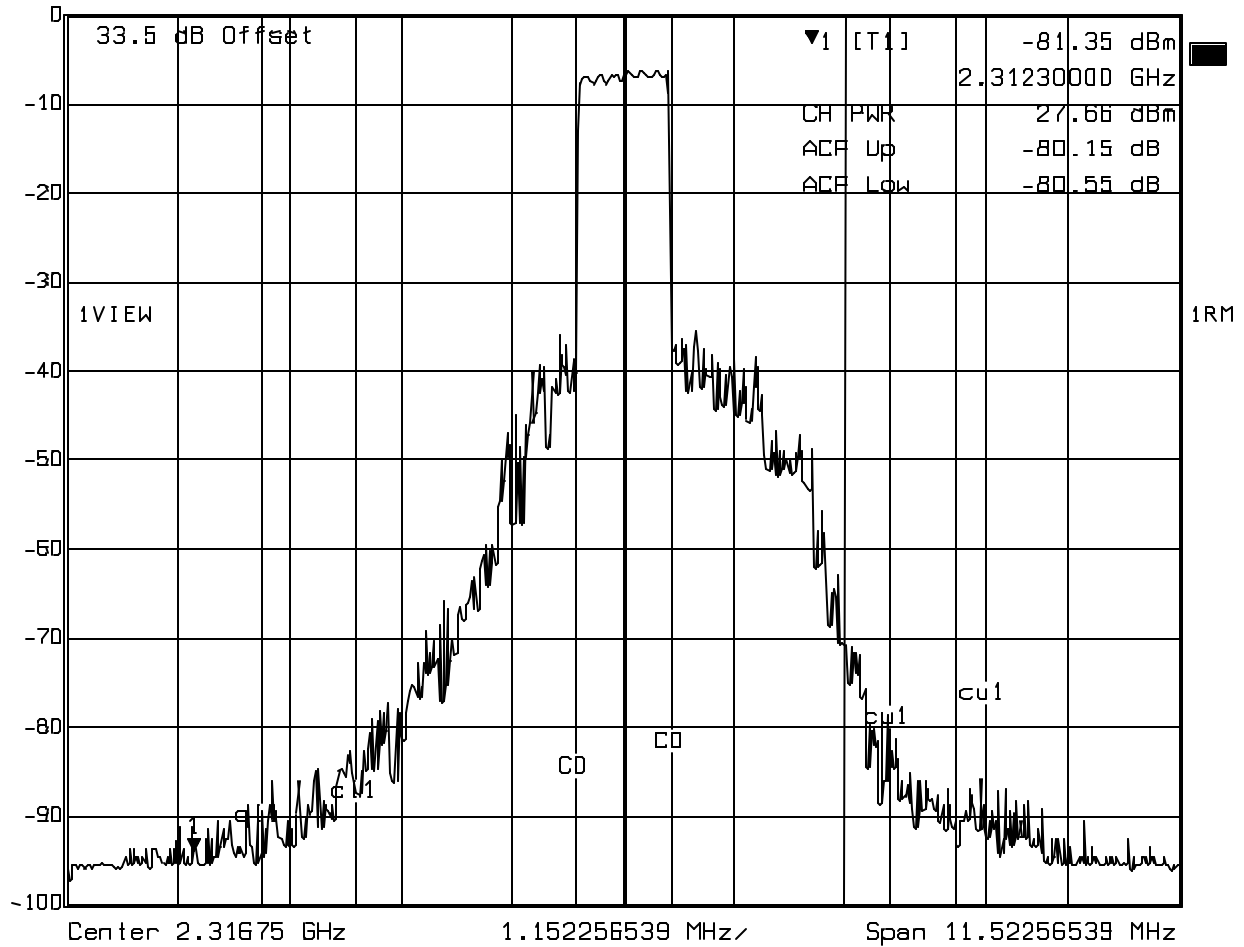
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-81.86 dBm	VBW	5 kHz	Mixer	-10 dB
	12.5 dBm	2.31230000 GHz	SWT	1 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 11:50:35


EQUIPMENT: 2.3 GHz CPE

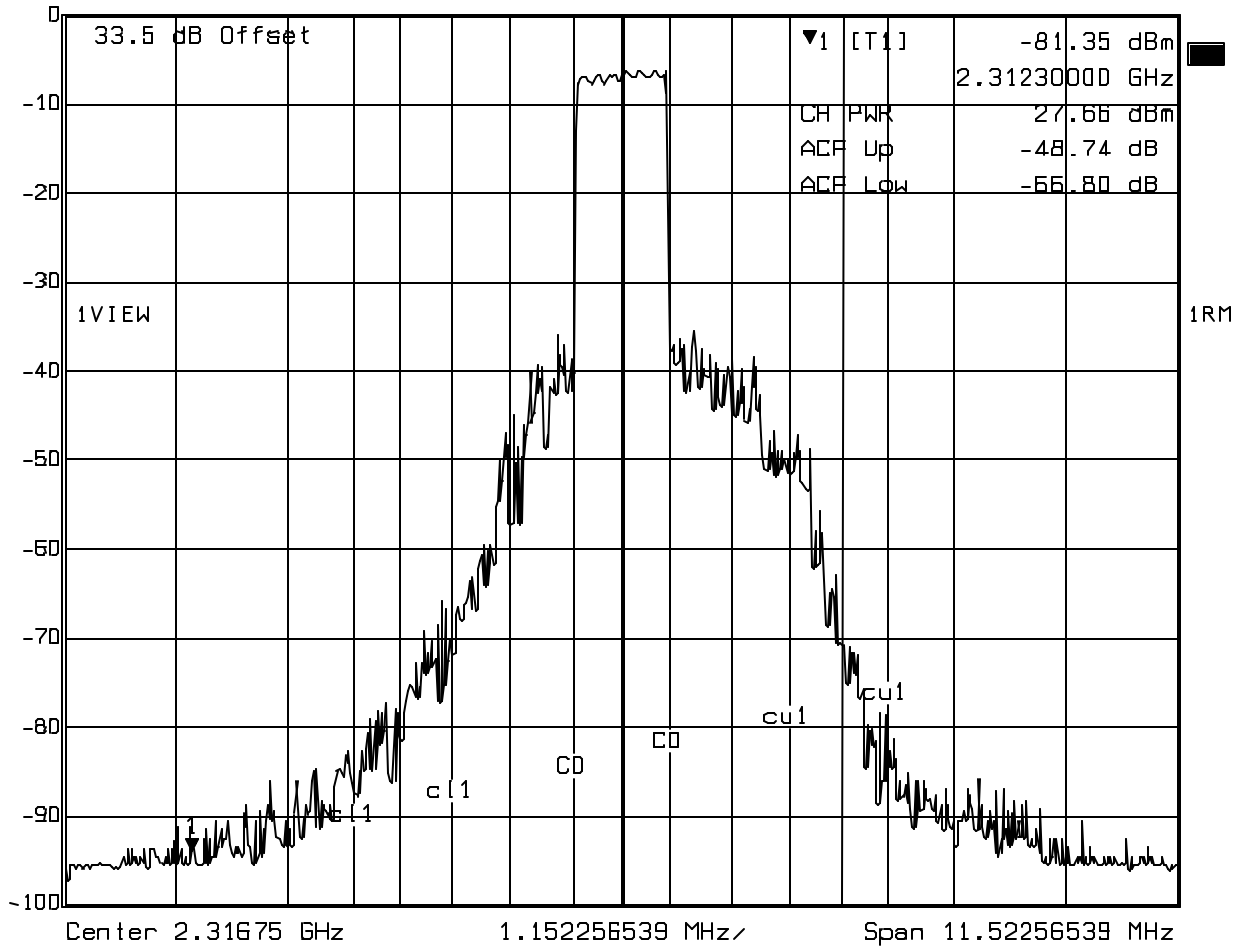
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-81.35 dBm	VBW	5 kHz	Mixer	-10 dBm
	12.5 dBm	2.31230000 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 11:55:29


EQUIPMENT: 2.3 GHz CPE

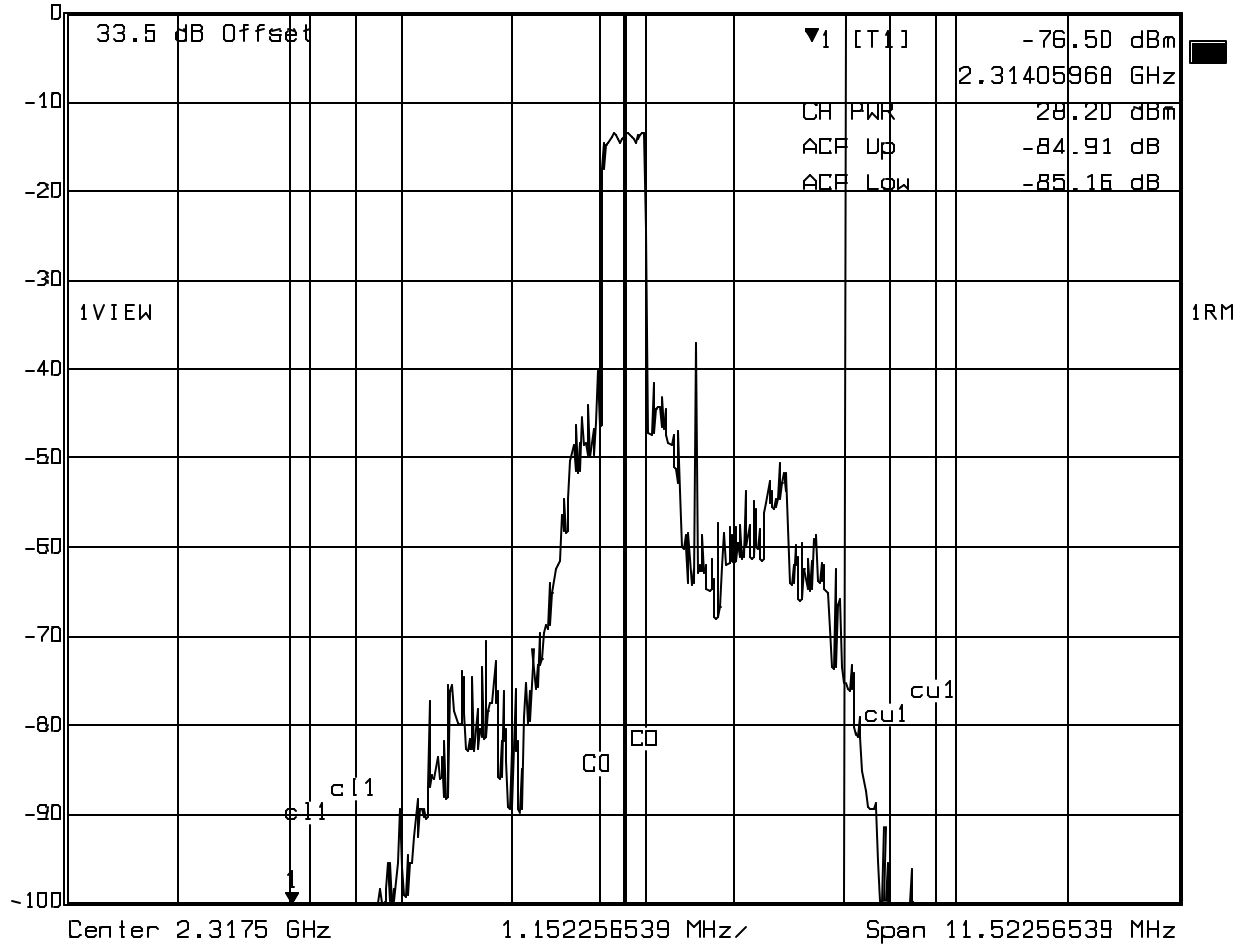
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-81.35 dBm	VBW	5 kHz	Mixer	-10 dB
	12.5 dBm	2.31230000 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 11:56:50


EQUIPMENT: 2.3 GHz CPE

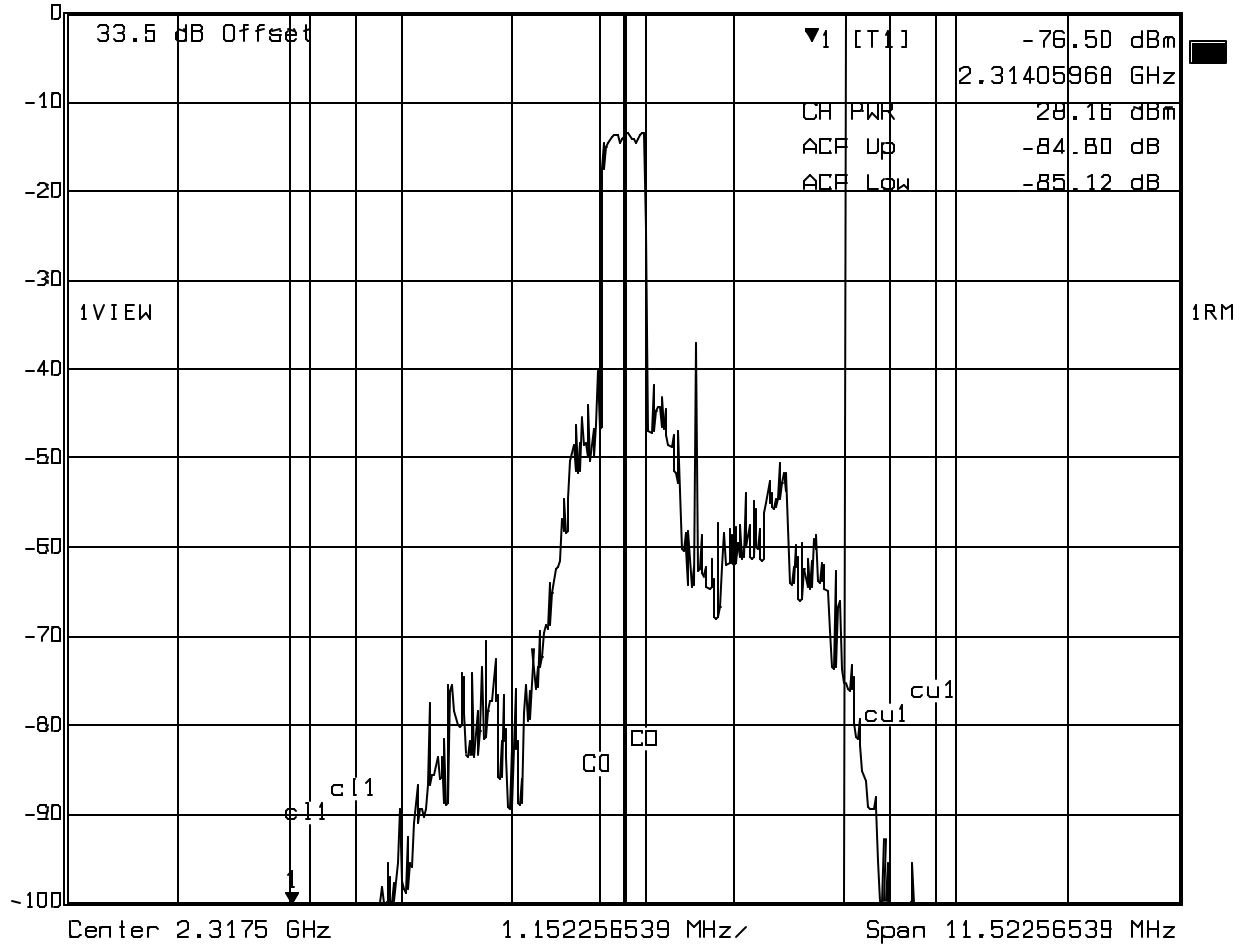
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-76.50 dBm	VBW	5 kHz	Mixer	-10 dB
	23.5 dBm	2.31405968 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:14:08


EQUIPMENT: 2.3 GHz CPE

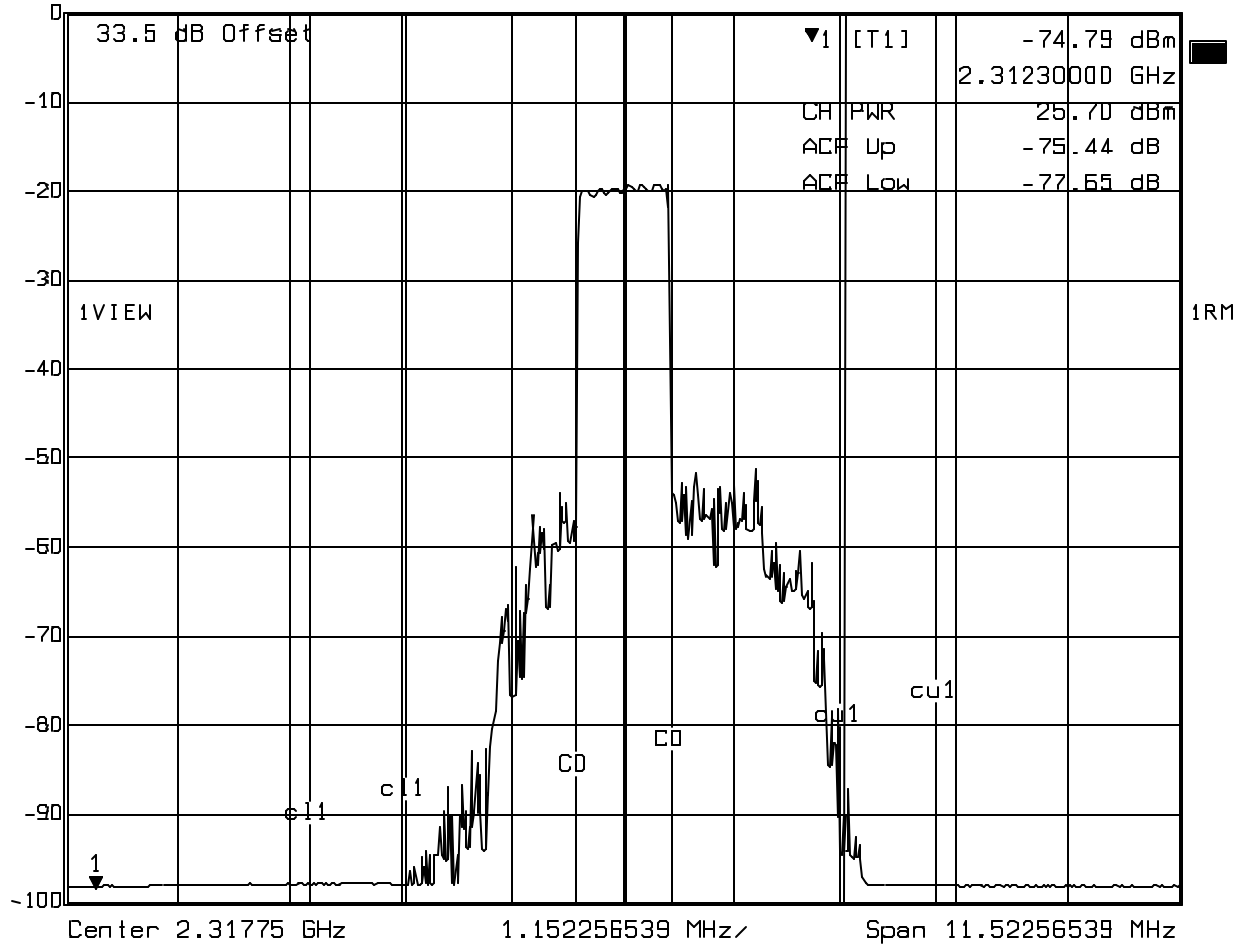
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-76.50 dBm	VBW	5 kHz	Mixer	-10 dB
	23.5 dBm	2.31405968 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:15:43


EQUIPMENT: 2.3 GHz CPE

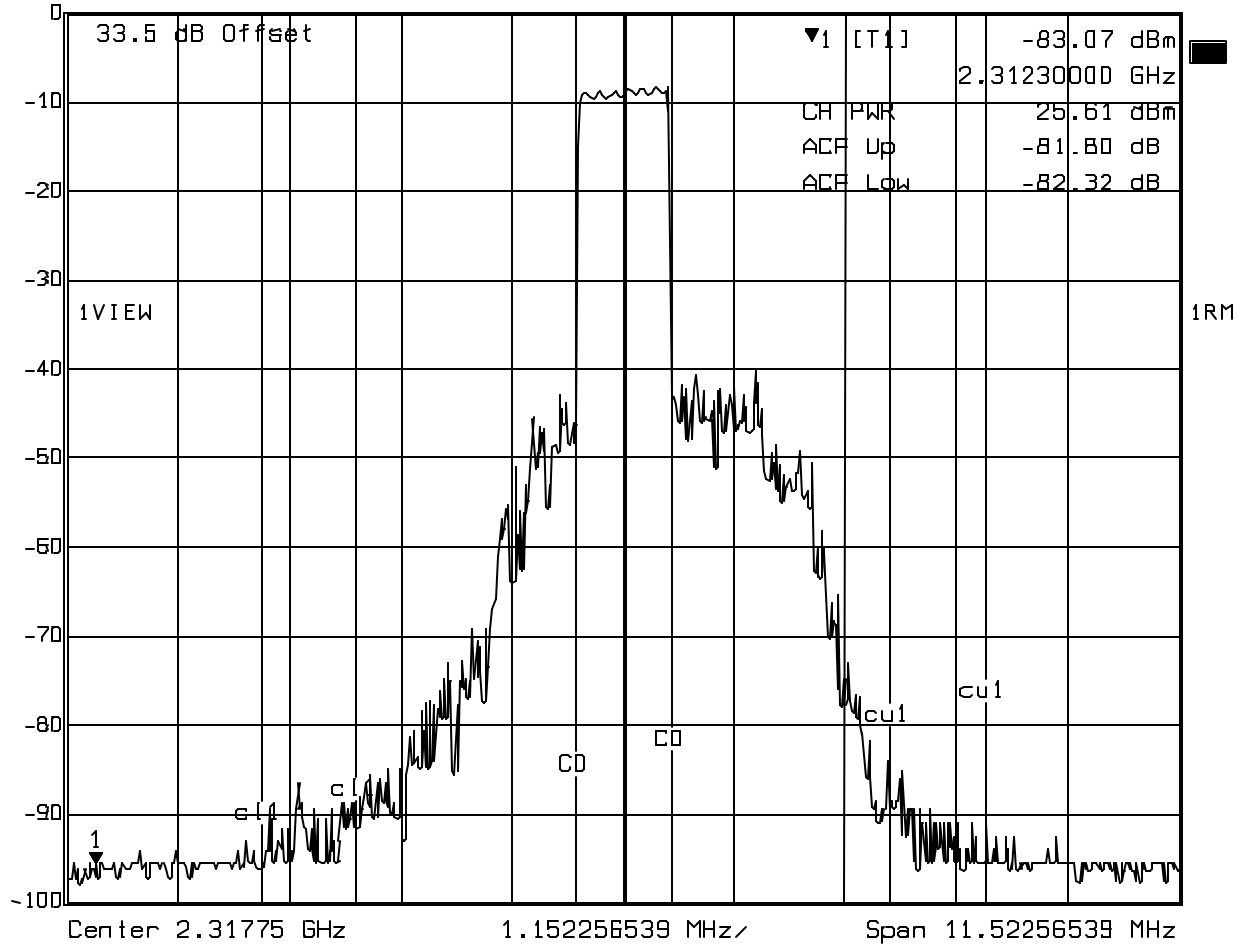
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-74.79 dBm	VBW	5 kHz	Mixer	-10 dB
	23.5 dBm	2.31230000 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:02:08


EQUIPMENT: 2.3 GHz CPE

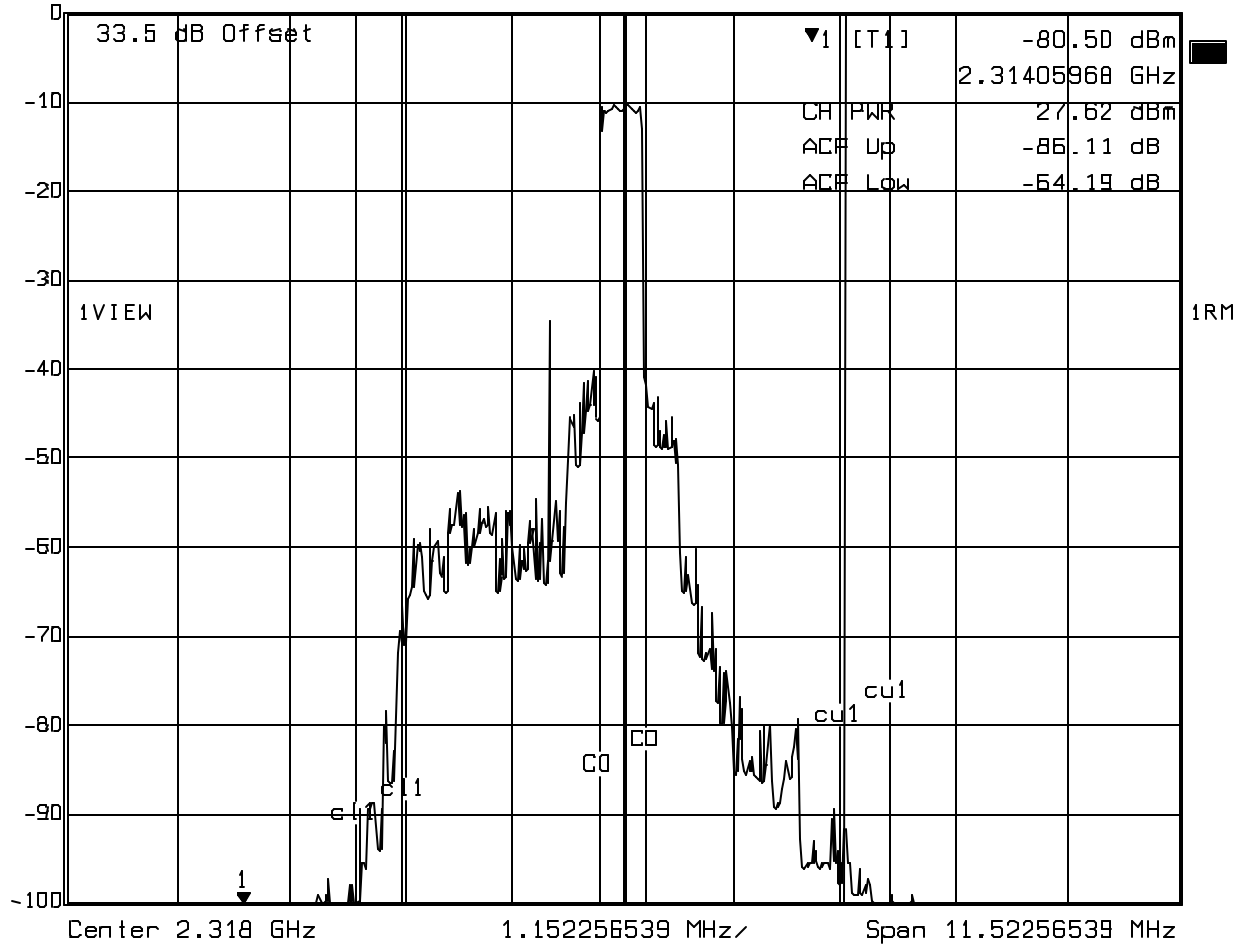
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-83.07 dBm	VBW	5 kHz	Mixer	-10 dB
	12.5 dBm	2.31230000 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 11:59:26


EQUIPMENT: 2.3 GHz CPE

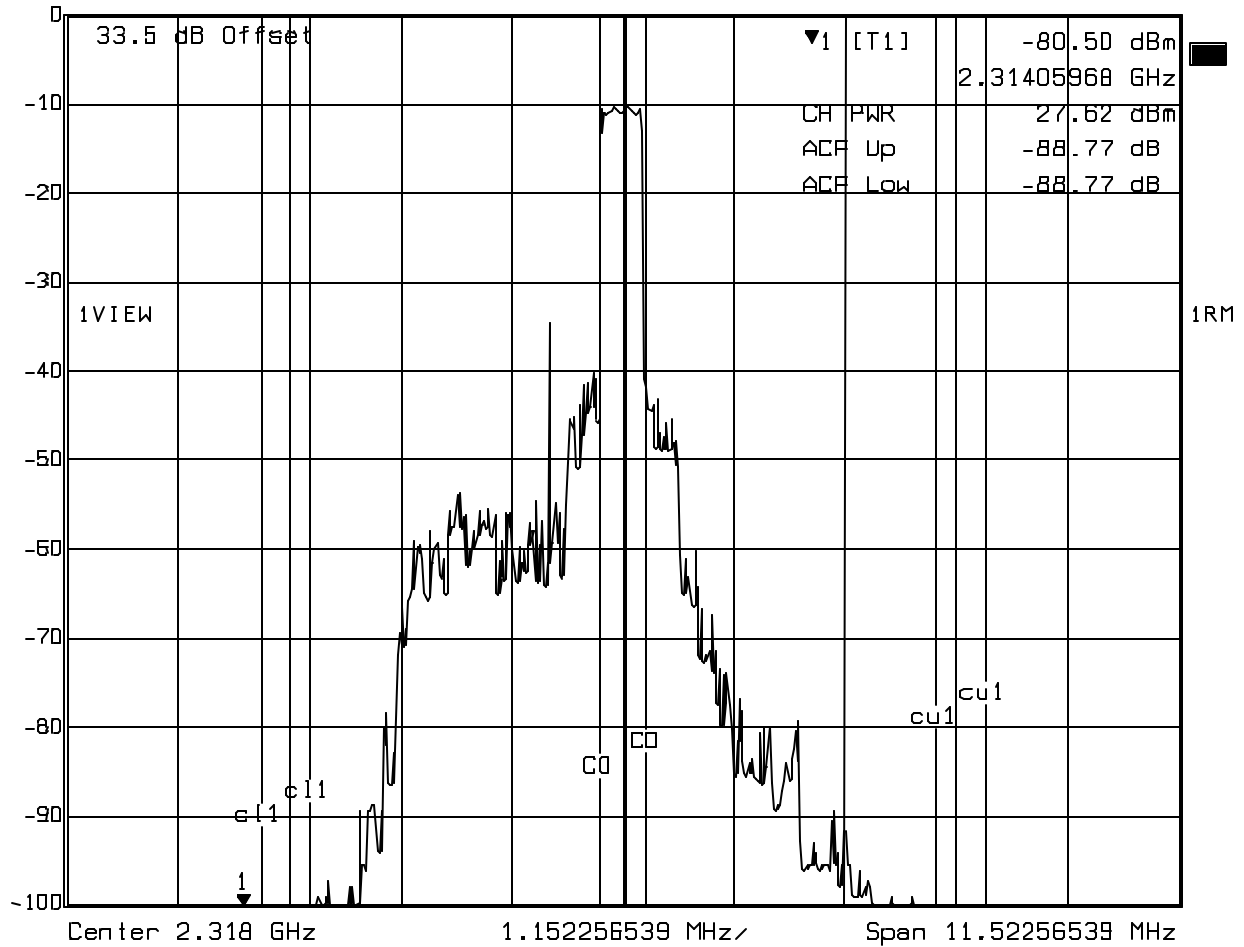
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-80.50 dBm	VBW	5 kHz	Mixer	-10 dB
	19.5 dBm	2.31405968 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:20:49

EQUIPMENT: 2.3 GHz CPE


	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-80.50 dBm	VBW	5 kHz	Mixer	-10 dB
	19.5 dBm	2.31405968 GHz	SWT	1.2 s	Unit	dB

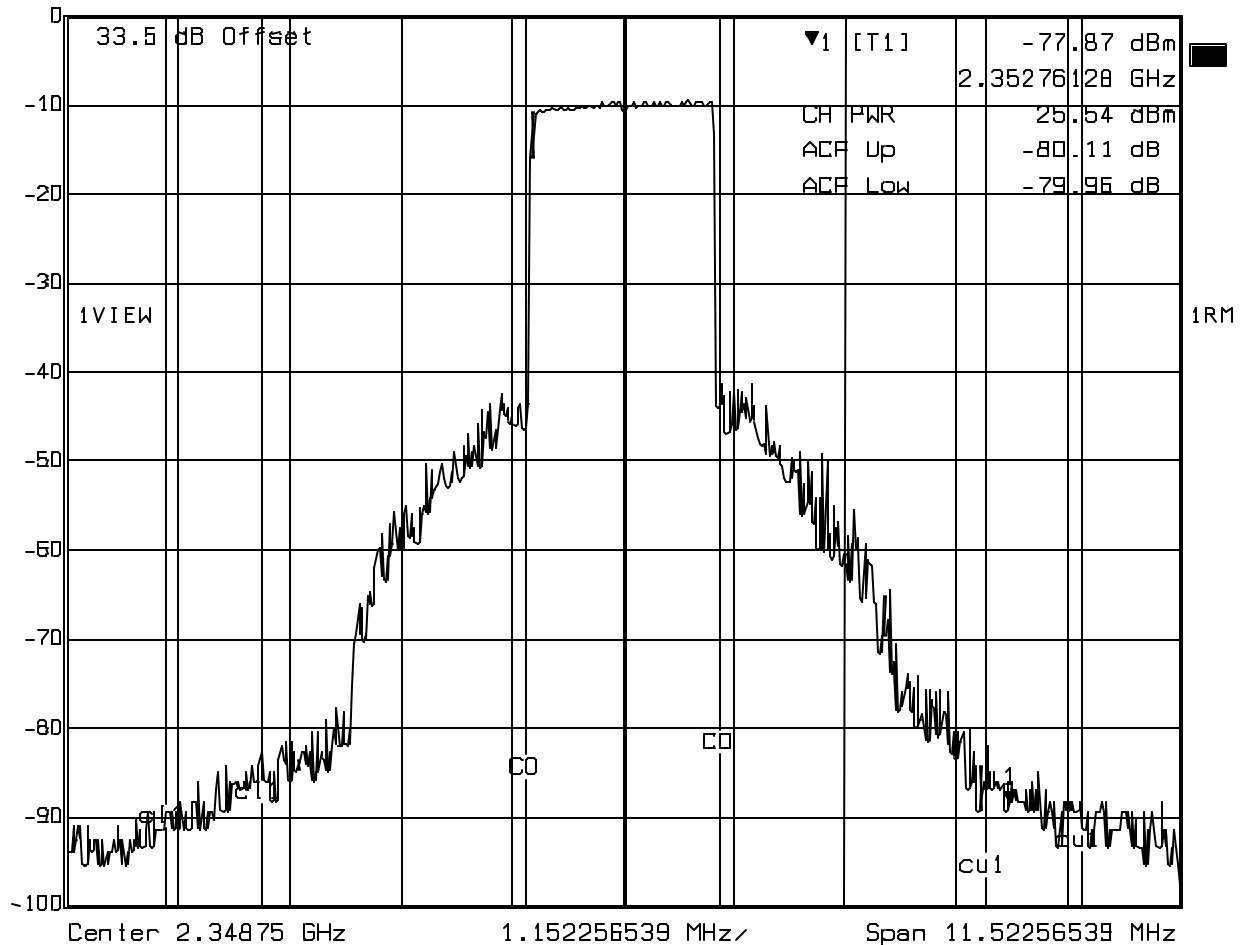


Title: 2DC
 Date: 11.NOV.2002 12:21:41

EQUIPMENT: 2.3 GHz CPE


Measurement Data – Block D (2345 – 2350 MHz)

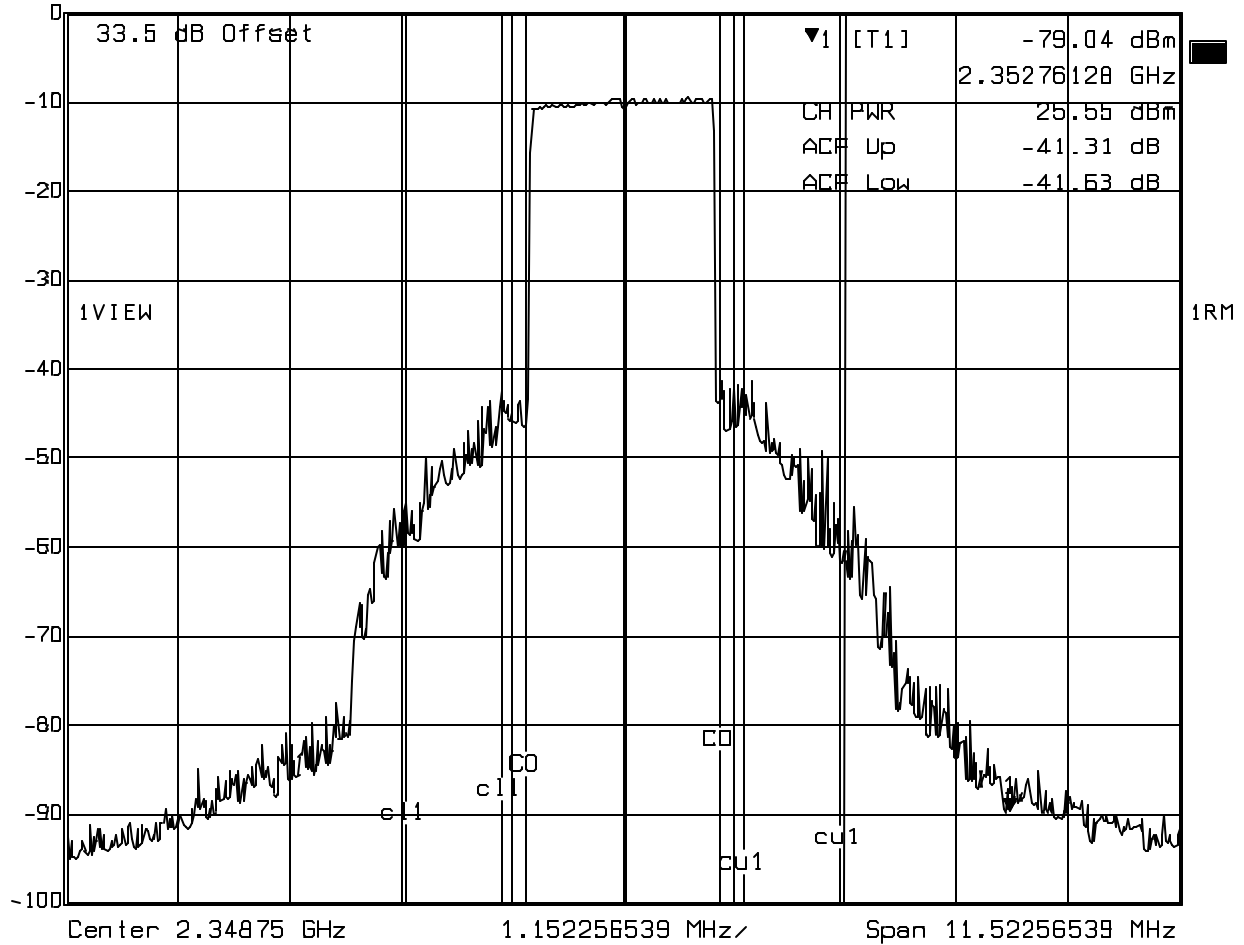
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-77.87 dBm	VBW	5 kHz	Mixer	-10 dBm
	10.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:07:55


EQUIPMENT: 2.3 GHz CPE

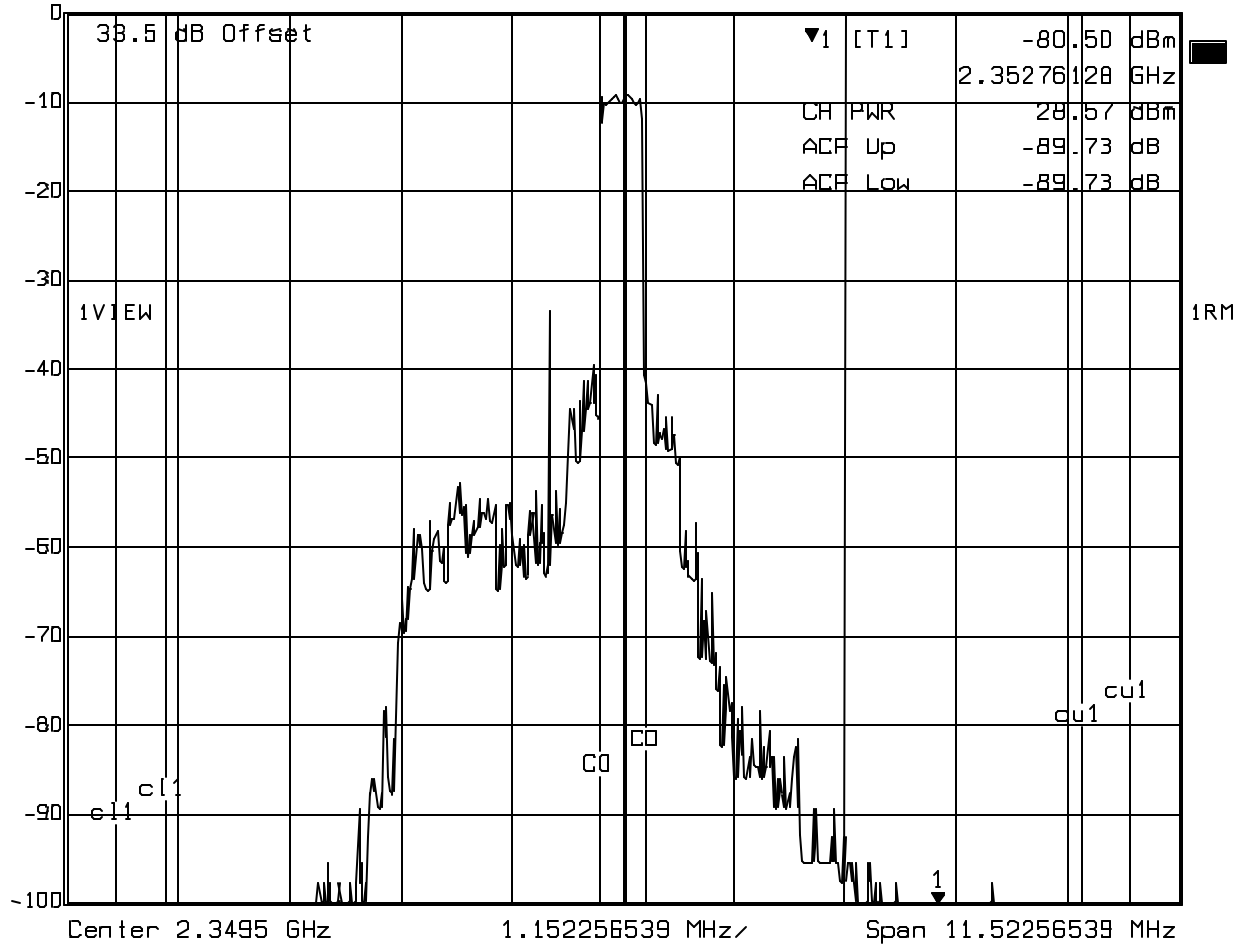
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-79.04 dBm	VBW	5 kHz	Mixer	-10 dBm
	10.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:06:28


EQUIPMENT: 2.3 GHz CPE

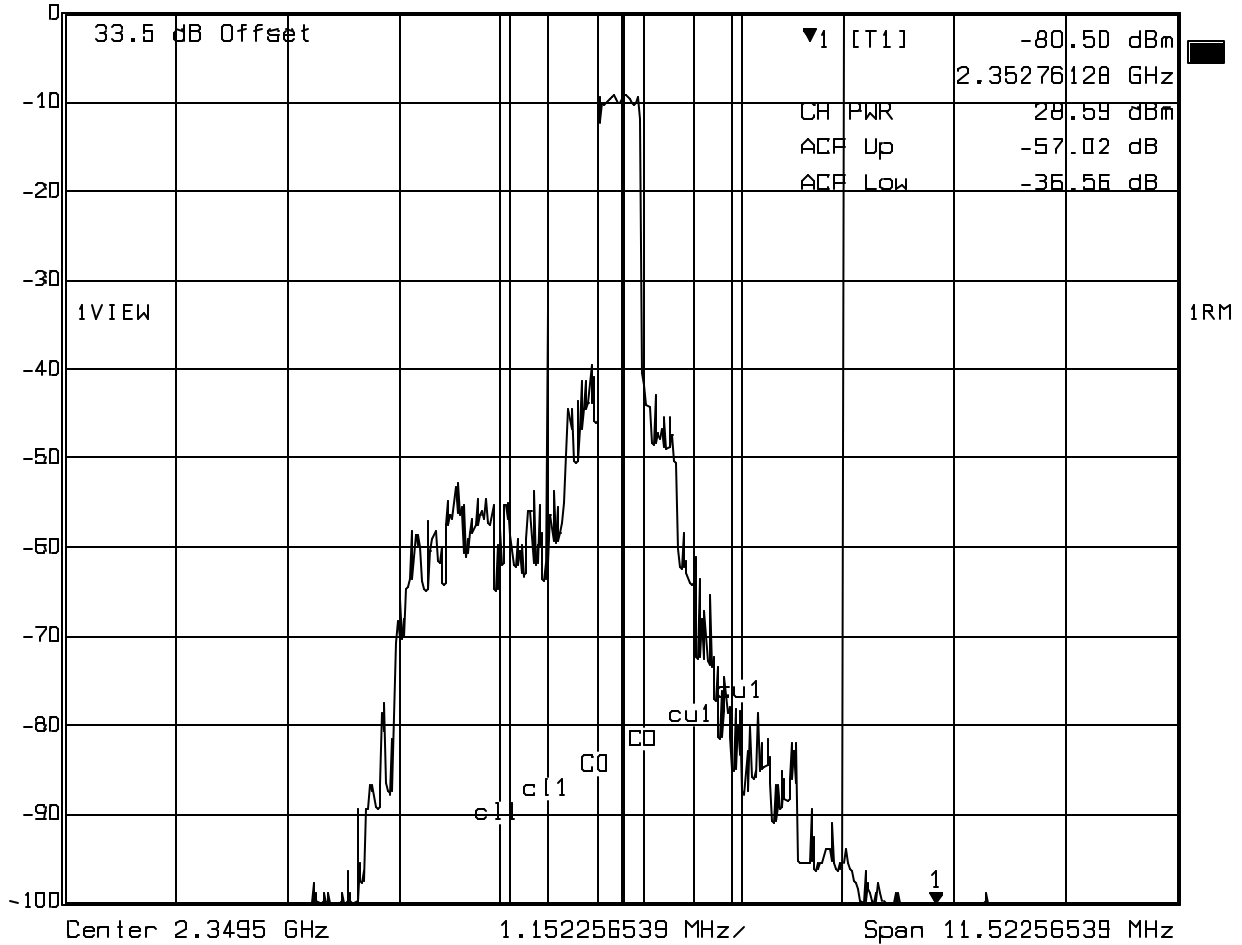
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-80.50 dBm	VBW	5 kHz	Mixer	-10 dB
	19.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:42:26


EQUIPMENT: 2.3 GHz CPE

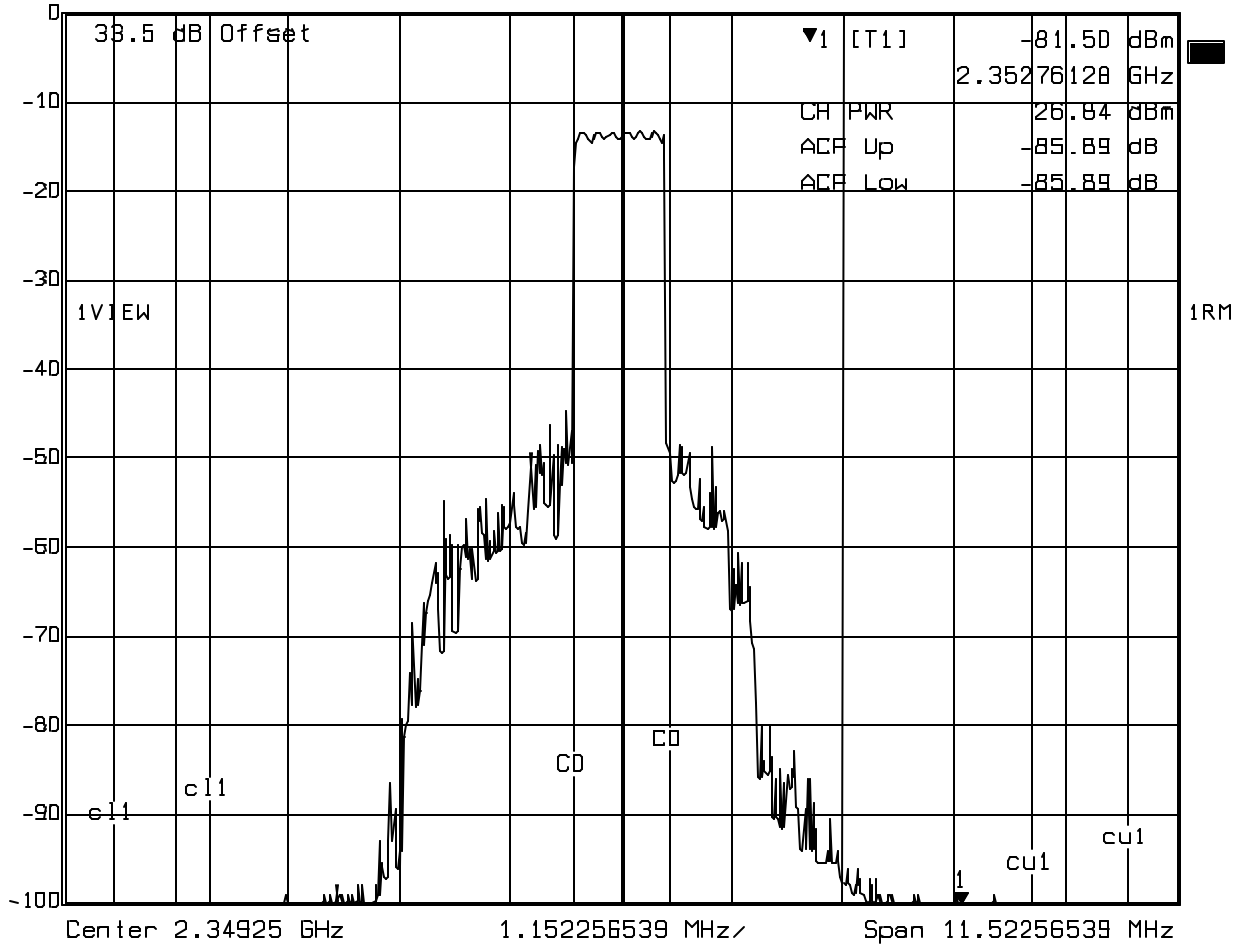
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-80.50 dBm	VBW	5 kHz	Mixer	-10 dB
	19.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:40:54


EQUIPMENT: 2.3 GHz CPE

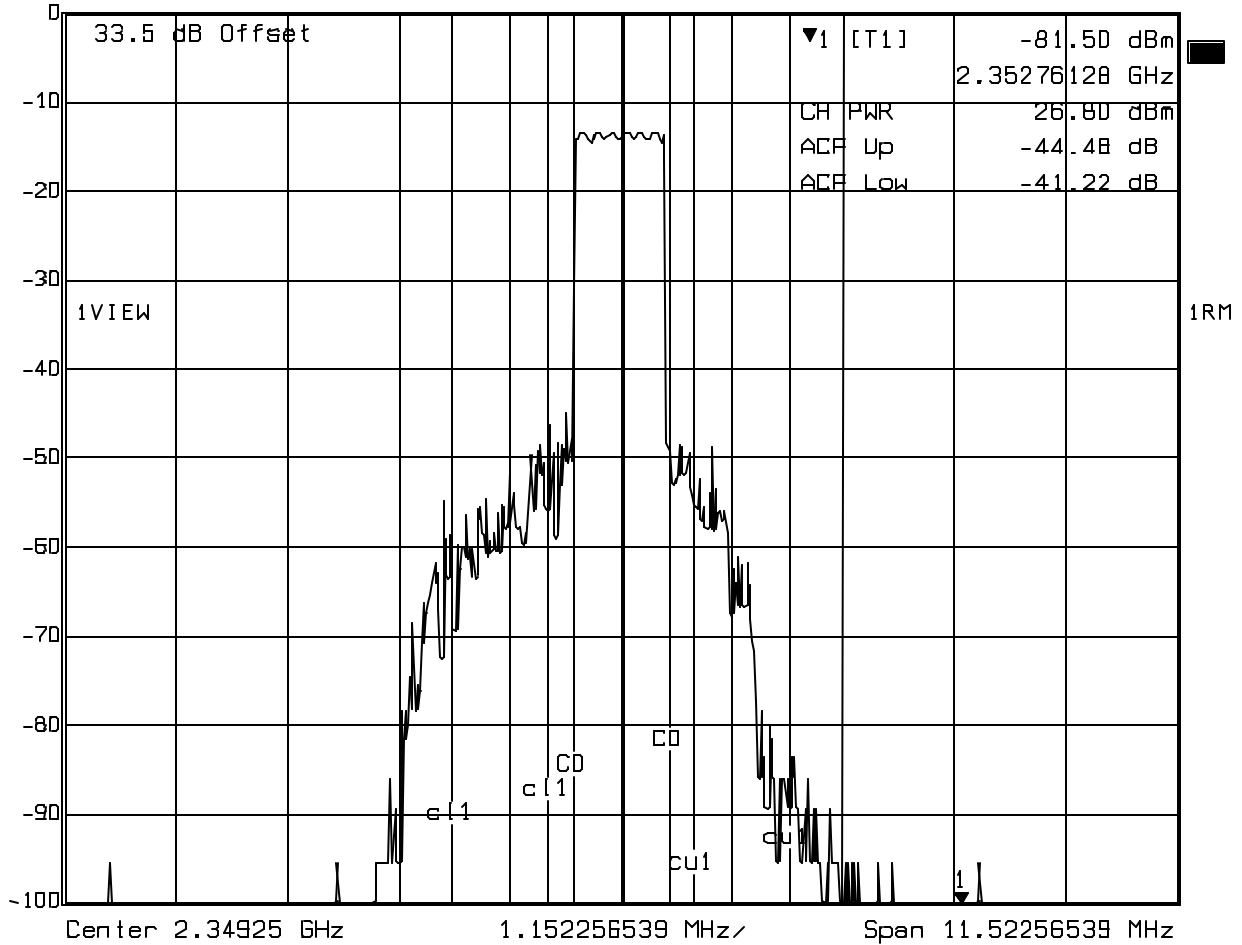
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-81.50 dBm	VBW	5 kHz	Mixer	-10 dB
	18.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:59:42


EQUIPMENT: 2.3 GHz CPE

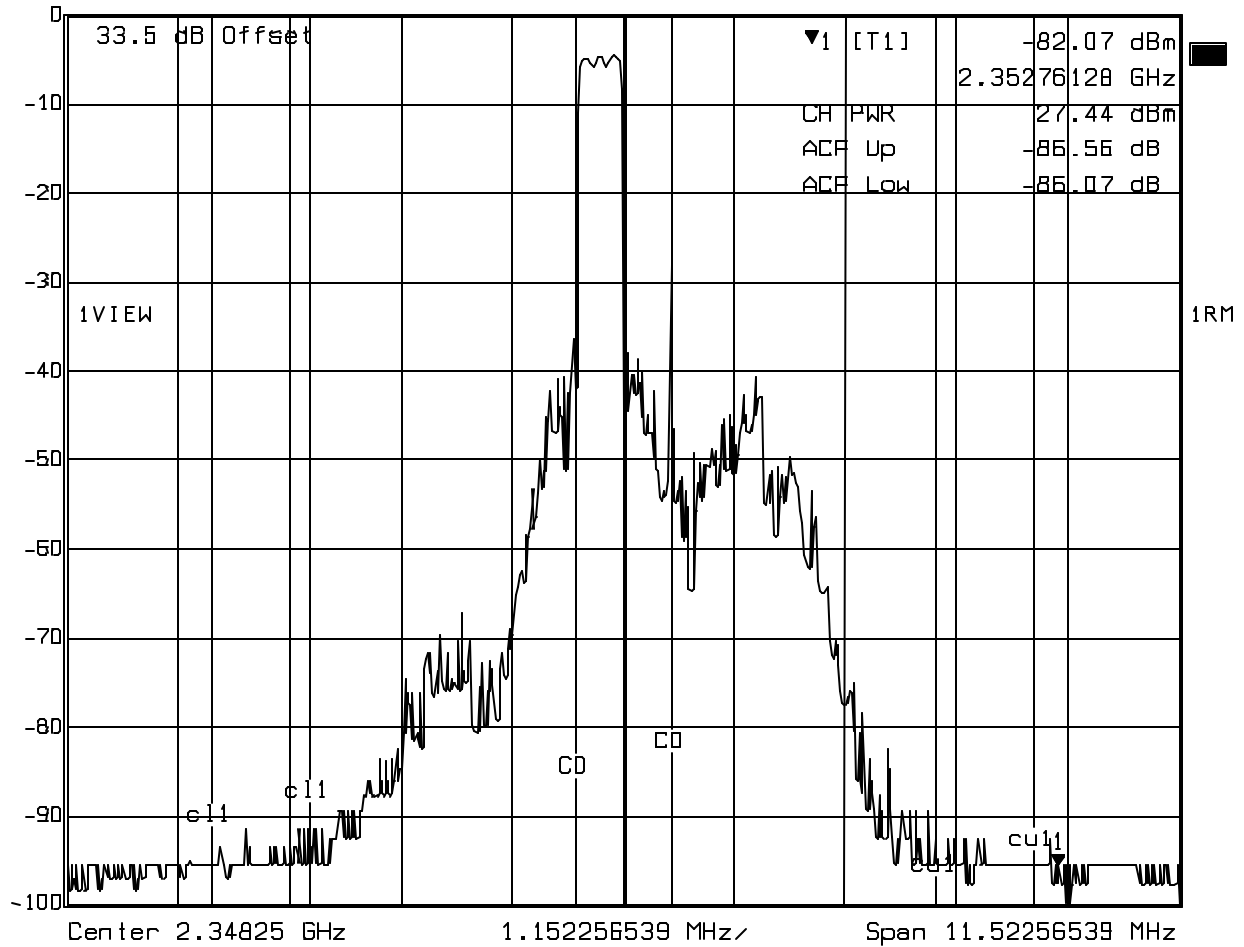
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-81.50 dBm	VBW	5 kHz	Mixer	-10 dB
	18.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:57:51


EQUIPMENT: 2.3 GHz CPE

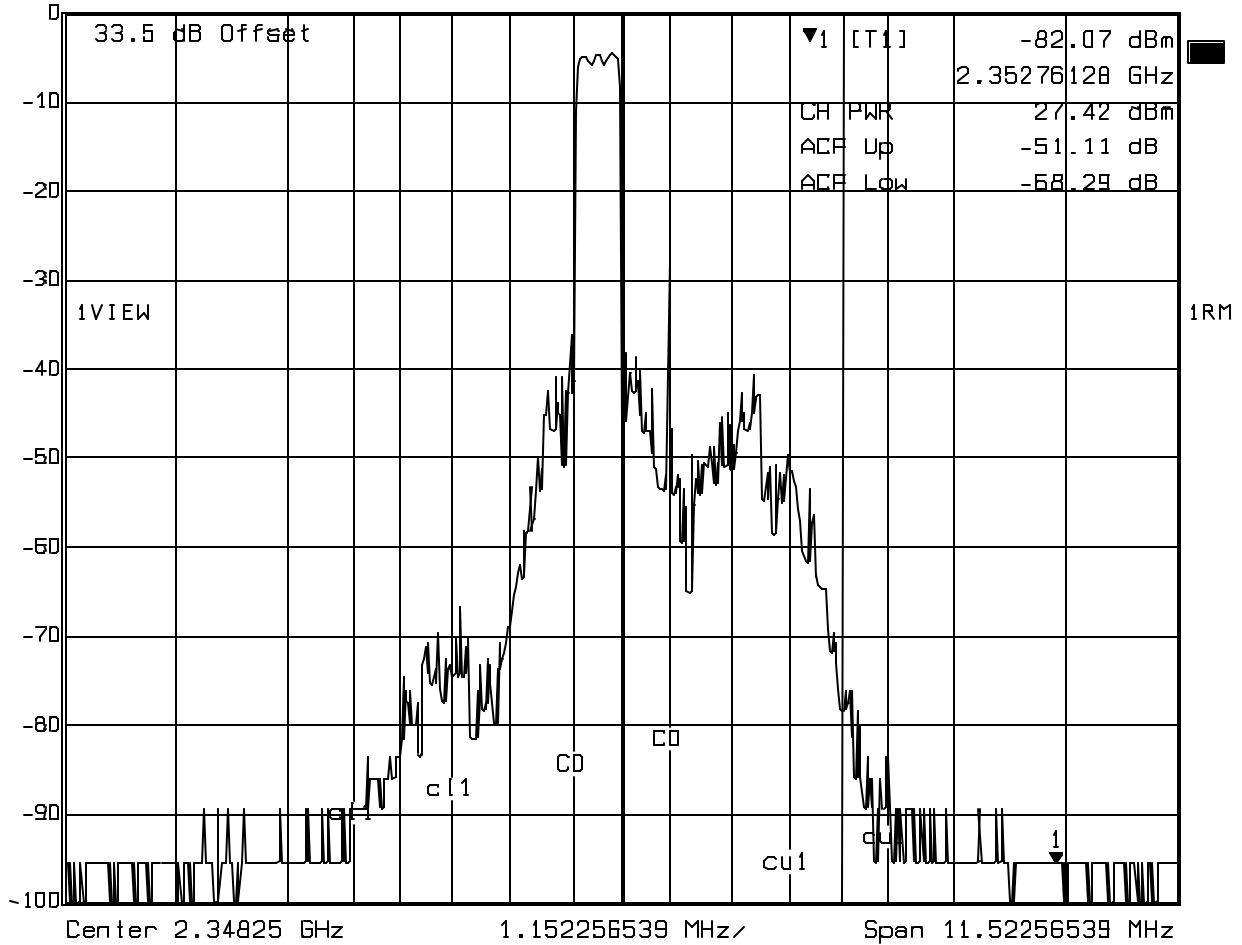
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-82.07 dBm	VBW	5 kHz	Mixer	-10 dB
	13.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:52:03


EQUIPMENT: 2.3 GHz CPE

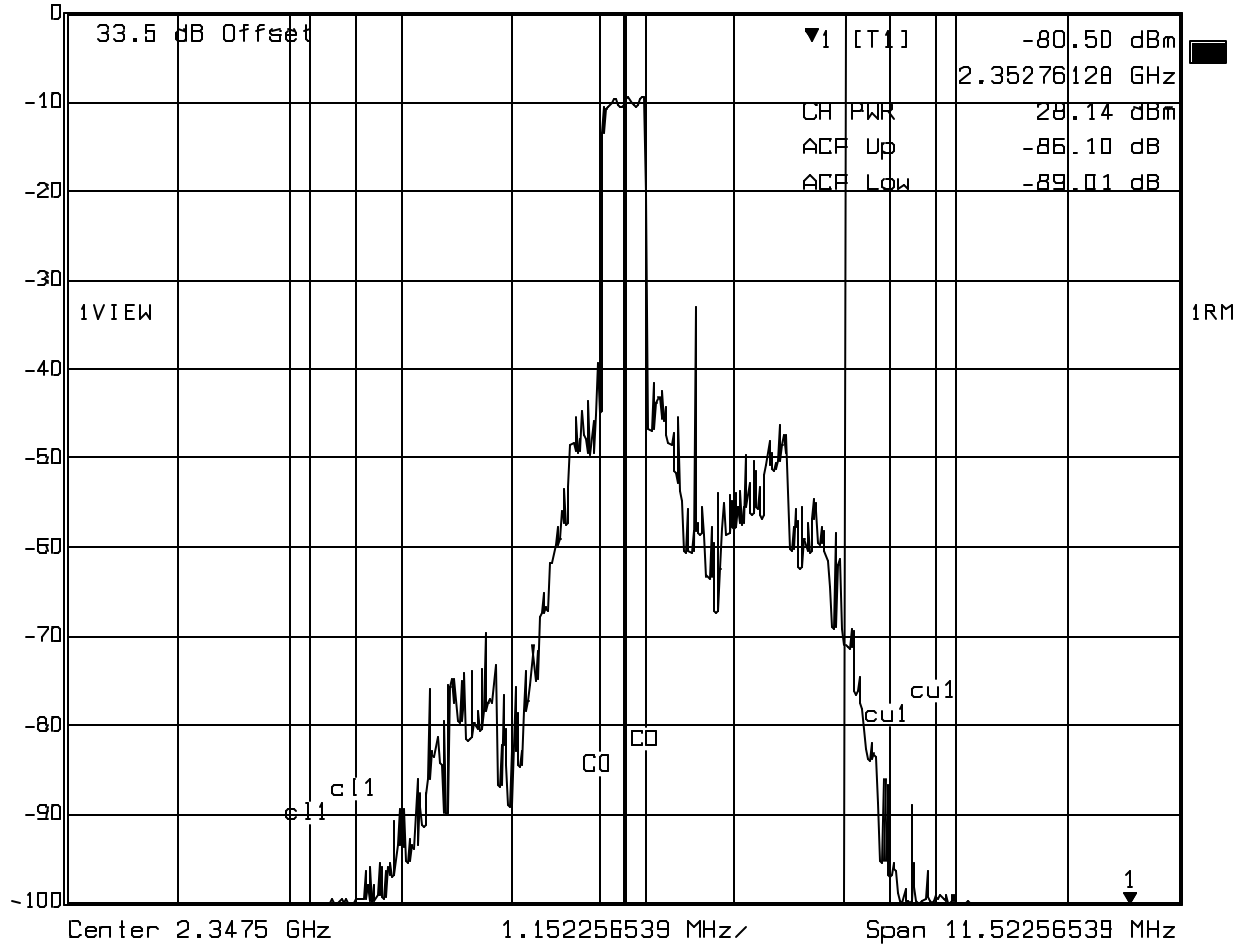
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-82.07 dBm	VBW	5 kHz	Mixer	-10 dB
	13.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:50:01


EQUIPMENT: 2.3 GHz CPE

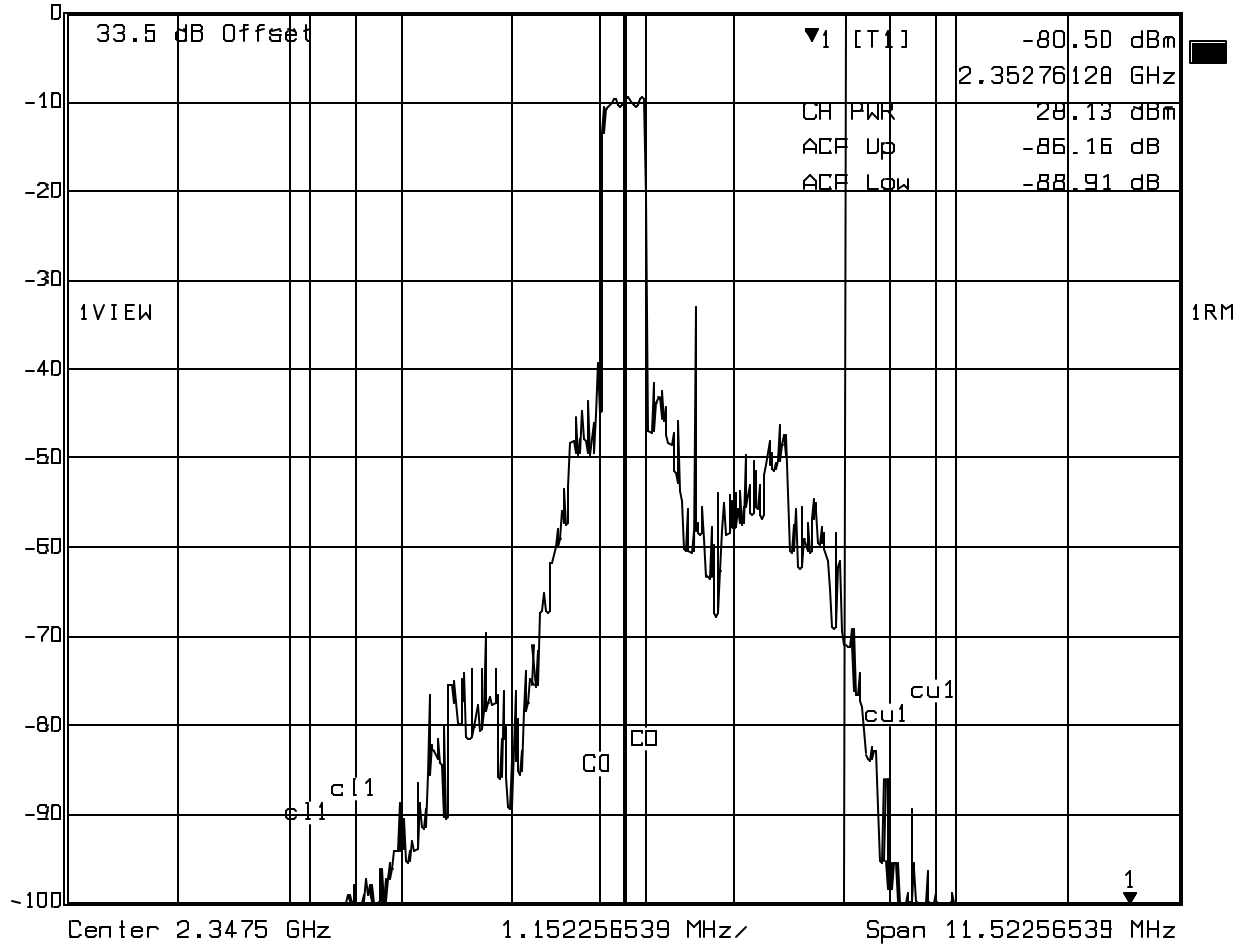
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-80.50 dBm	VBW	5 kHz	Mixer	-10 dB
	19.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:35:37


EQUIPMENT: 2.3 GHz CPE

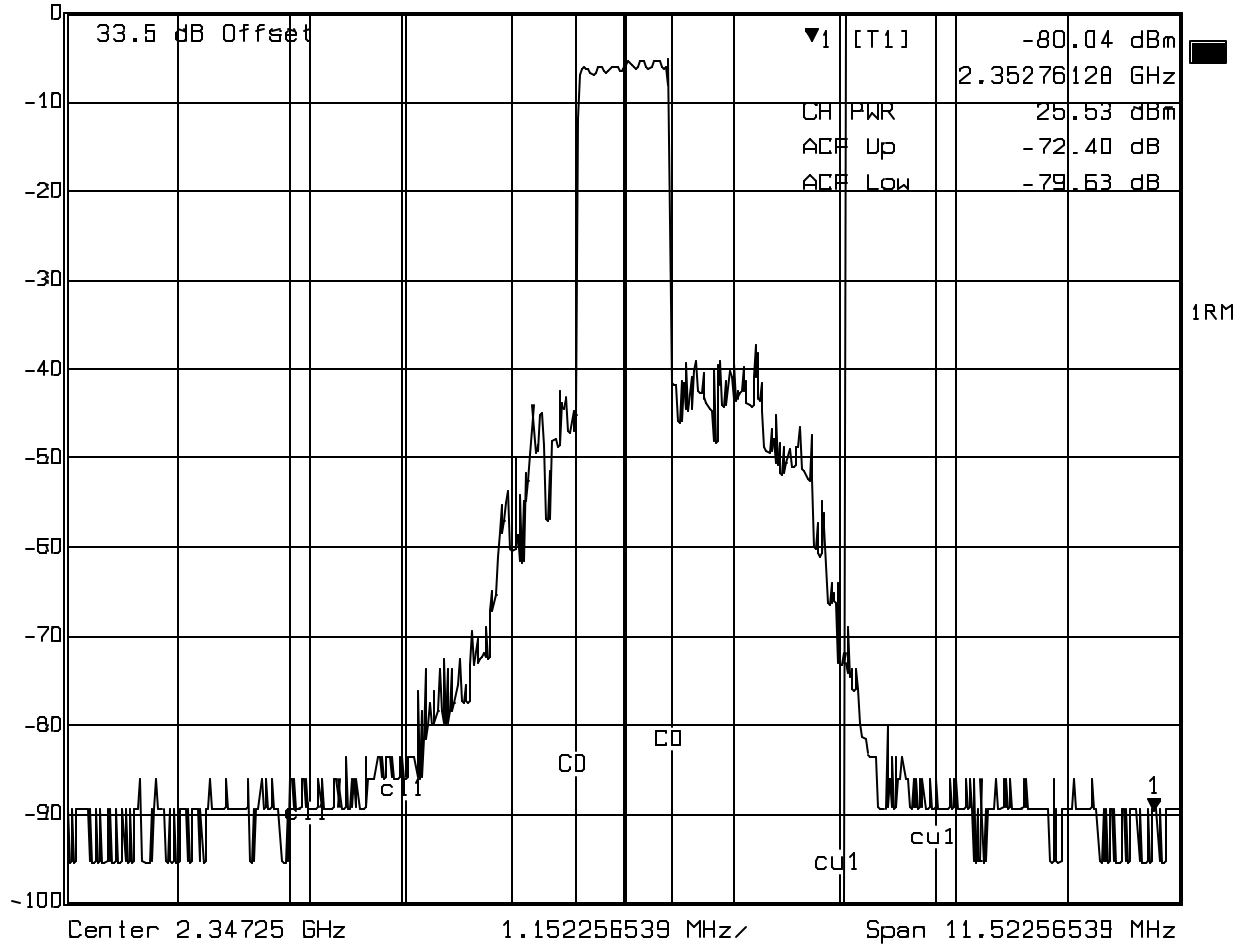
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-80.50 dBm	VBW	5 kHz	Mixer	-10 dB
	19.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:33:19


EQUIPMENT: 2.3 GHz CPE

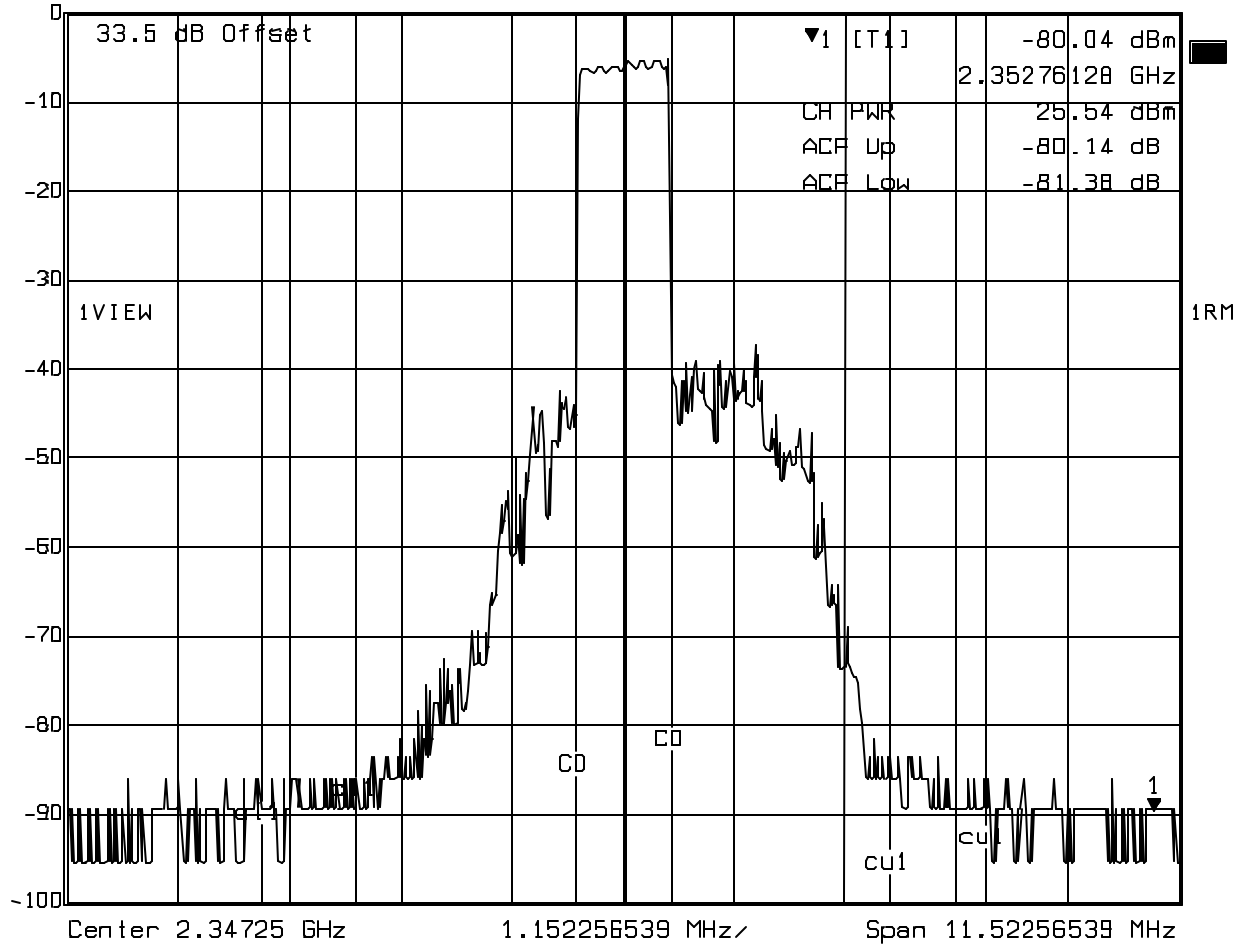
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-80.04 dBm	VBW	5 kHz	Mixer	-10 dB
	9.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:45:43


EQUIPMENT: 2.3 GHz CPE

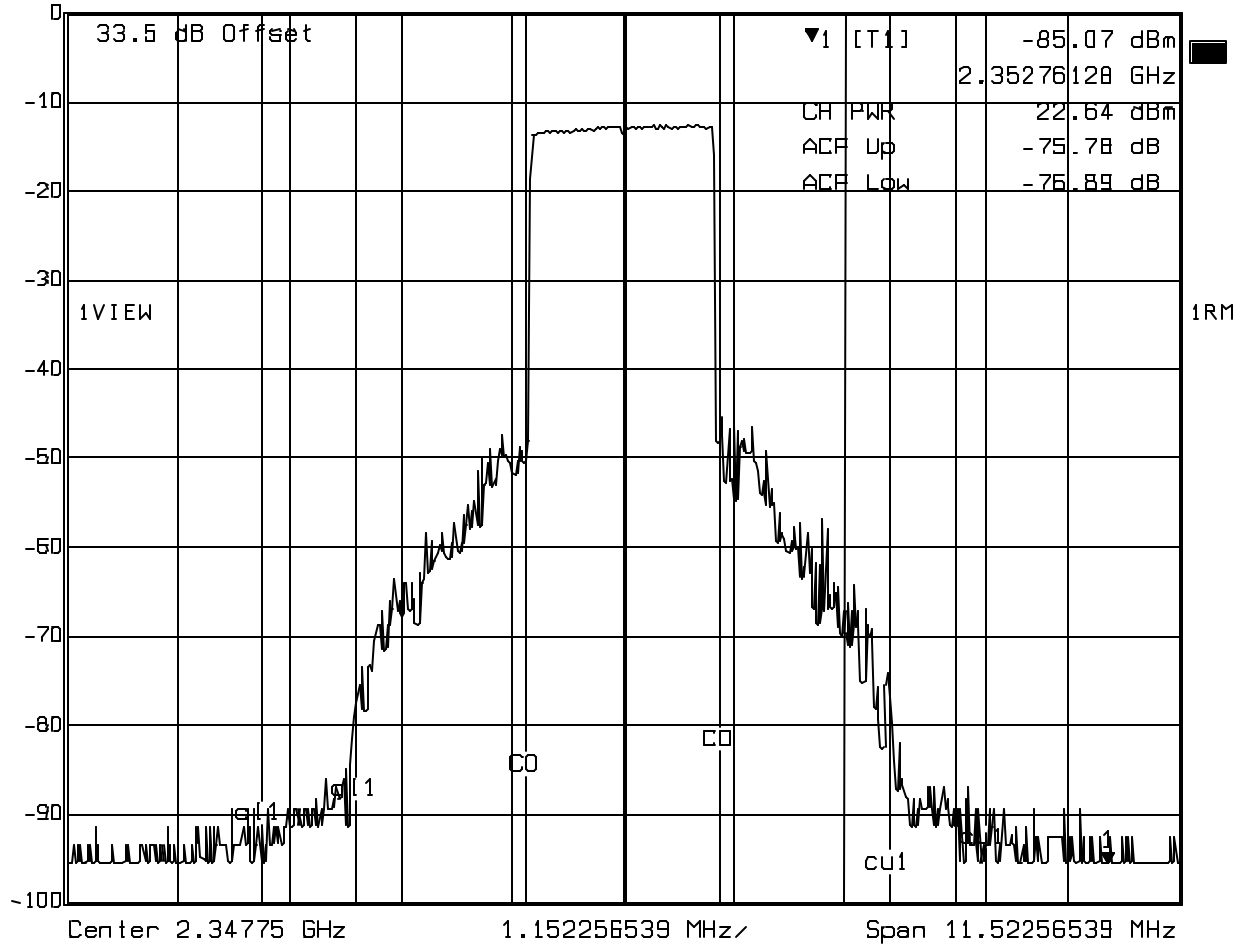
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-80.04 dBm	VBW	5 kHz	Mixer	-10 dB
	9.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:47:13


EQUIPMENT: 2.3 GHz CPE

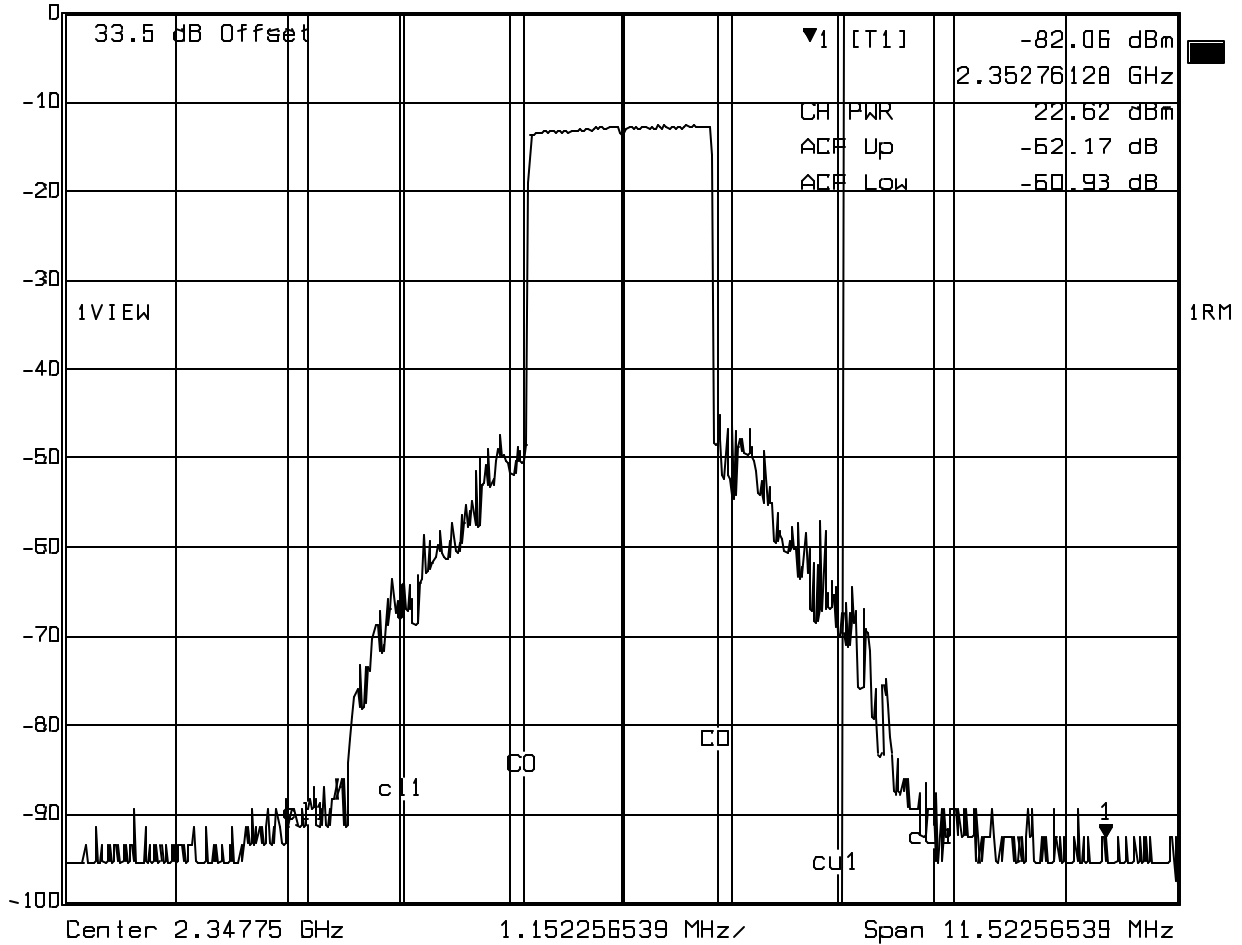
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-85.07 dBm	VBW	5 kHz	Mixer	-10 dB
	10.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:03:18


EQUIPMENT: 2.3 GHz CPE

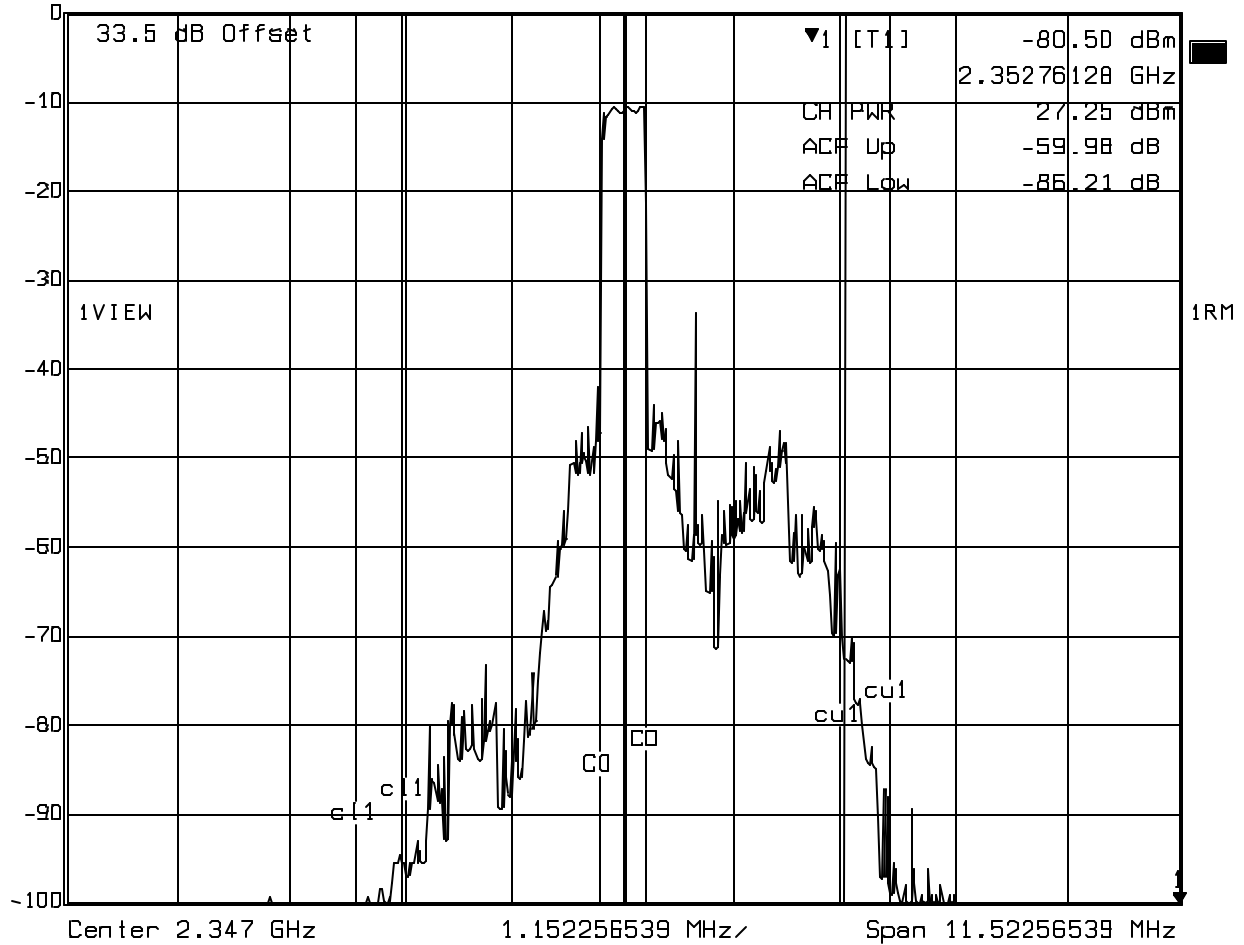
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-82.06 dBm	VBW	5 kHz	Mixer	-10 dB
	10.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 13:04:46


EQUIPMENT: 2.3 GHz CPE

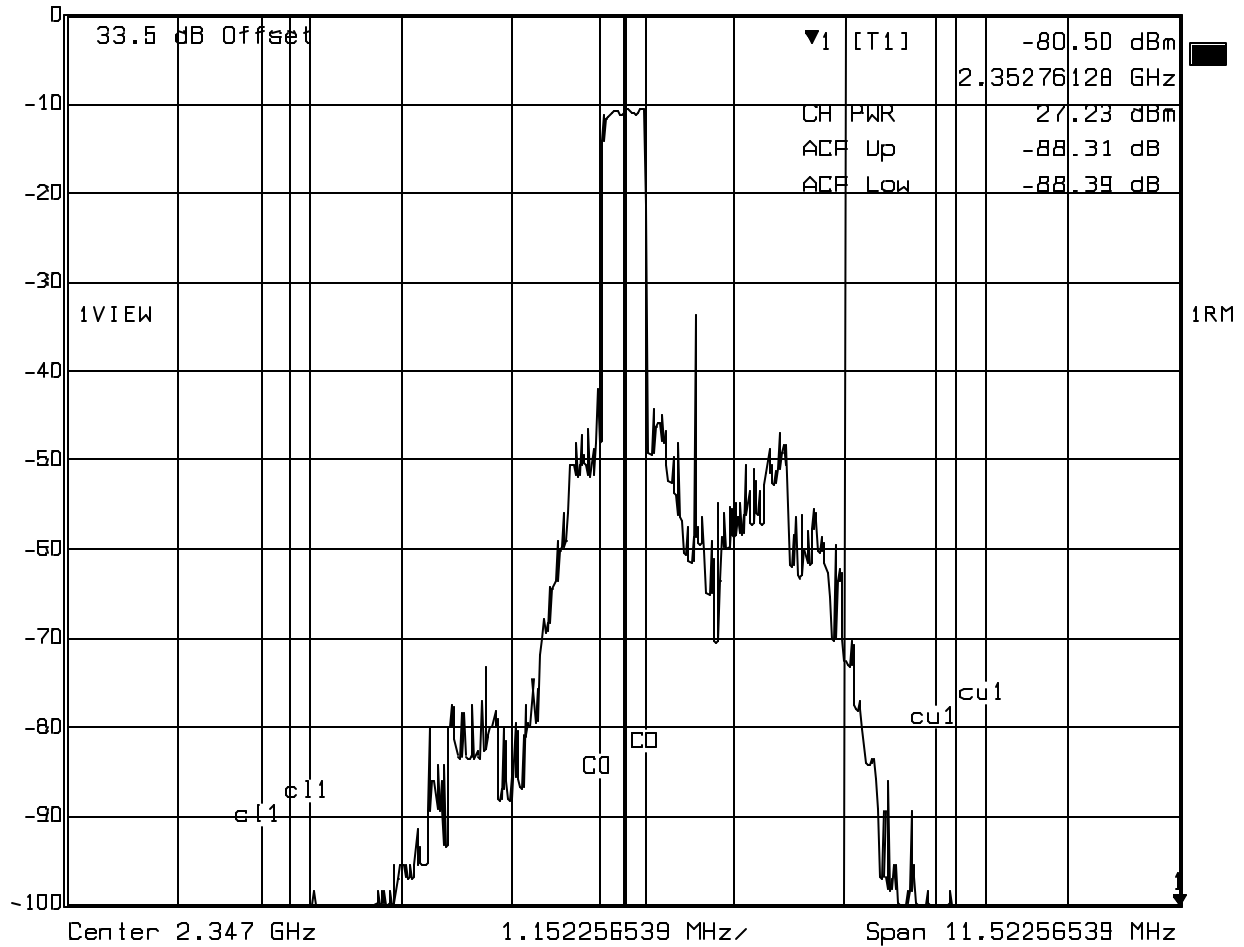
	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-80.50 dBm	VBW	5 kHz	Mixer	-10 dB
	19.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:28:49

EQUIPMENT: 2.3 GHz CPE

	Marker 1 [T1]	RBW	5 kHz	RF Att	0 dB	
	Ref Lvl	-80.50 dBm	VBW	5 kHz	Mixer	-10 dB
	19.5 dBm	2.35276128 GHz	SWT	1.2 s	Unit	dB



Title: 2DC
 Date: 11.NOV.2002 12:30:28

EQUIPMENT: 2.3 GHz CPE

Section 5. Spurious Emissions at Antenna Terminals

NAME OF TEST: Spurious Emissions @ Antenna Terminals	PARA. NO.: 2.1051
TESTED BY: Tom Tidwell	DATE: 11/11/2002

Test Results: Complies

Measurement Data: See attached data sheets.

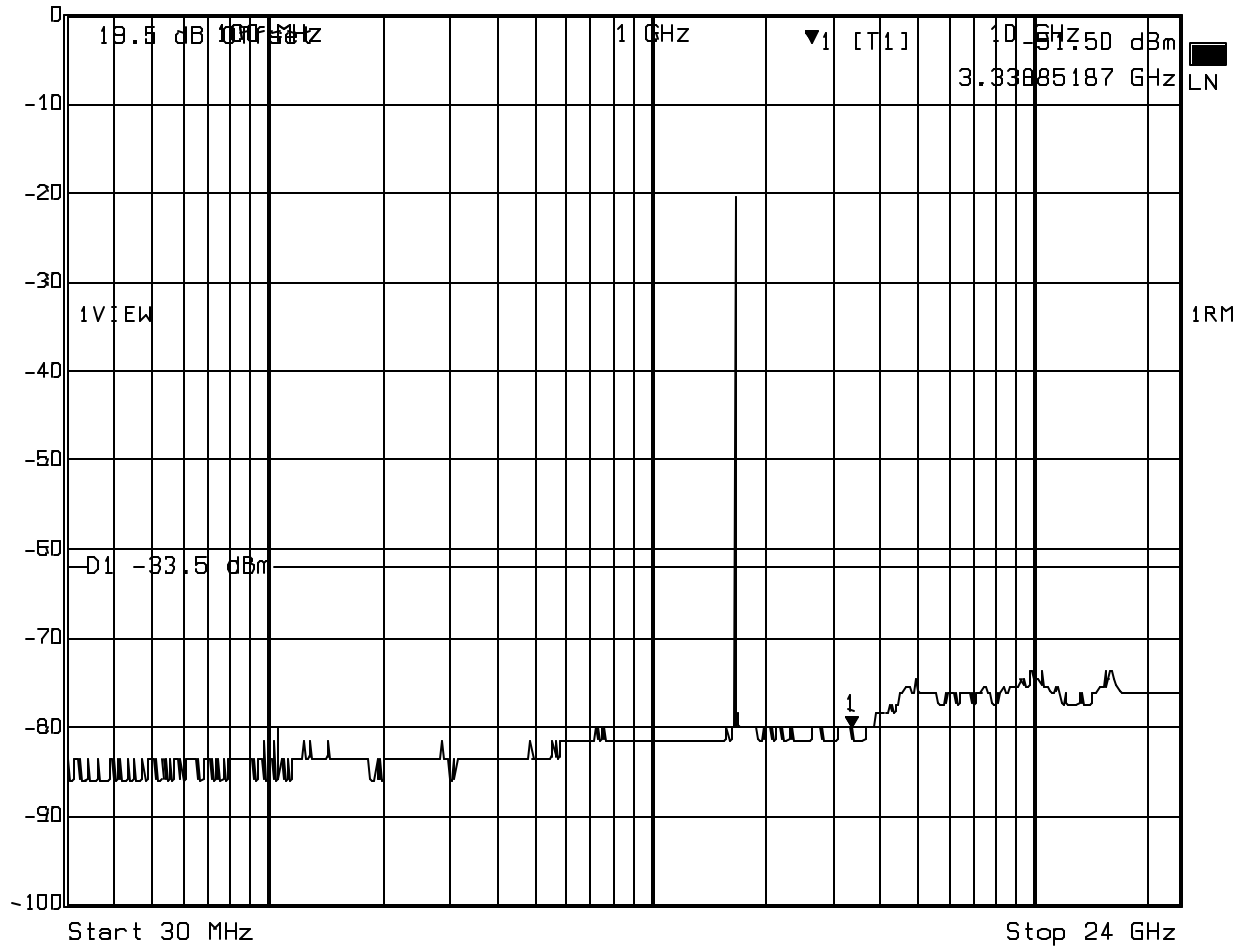
Measurement Uncertainty: +/- 1.7 dB

Test Data – Spurious Emissions at Antenna Terminals

EQUIPMENT: 2.3 GHz CPE

Test Data - +22 dBm


	Ref Lvl	Marker 1 [T1]	RBW	1 MHz	RF Att	20 dB
	28.5 dBm	3.33885187 GHz	VBW	1 MHz	Mixer	-20 dBm
			SWT	240 ms	Unit	dB

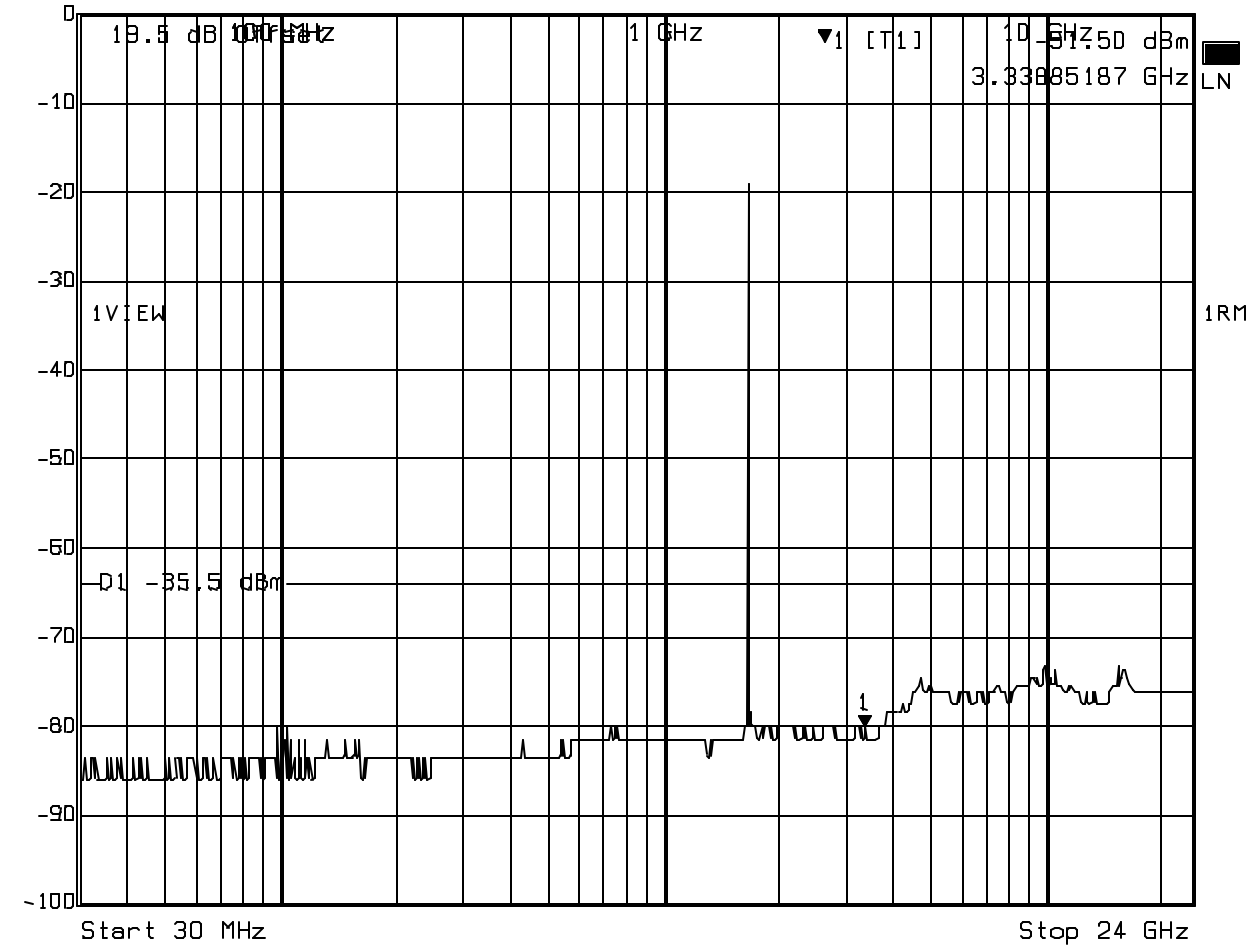


Title: 20C
Date: 11.NOV.2002 16:53:22

EQUIPMENT: 2.3 GHz CPE

Test Data - +24 dBm


	Marker 1 [T1]	RBW	1 MHz	RF Att	20 dB
Ref Lvl	-51.50 dBm	VBW	1 MHz	Mixer	-20 dBm
28.5 dBm	3.33885187 GHz	SWT	240 ms	Unit	dB

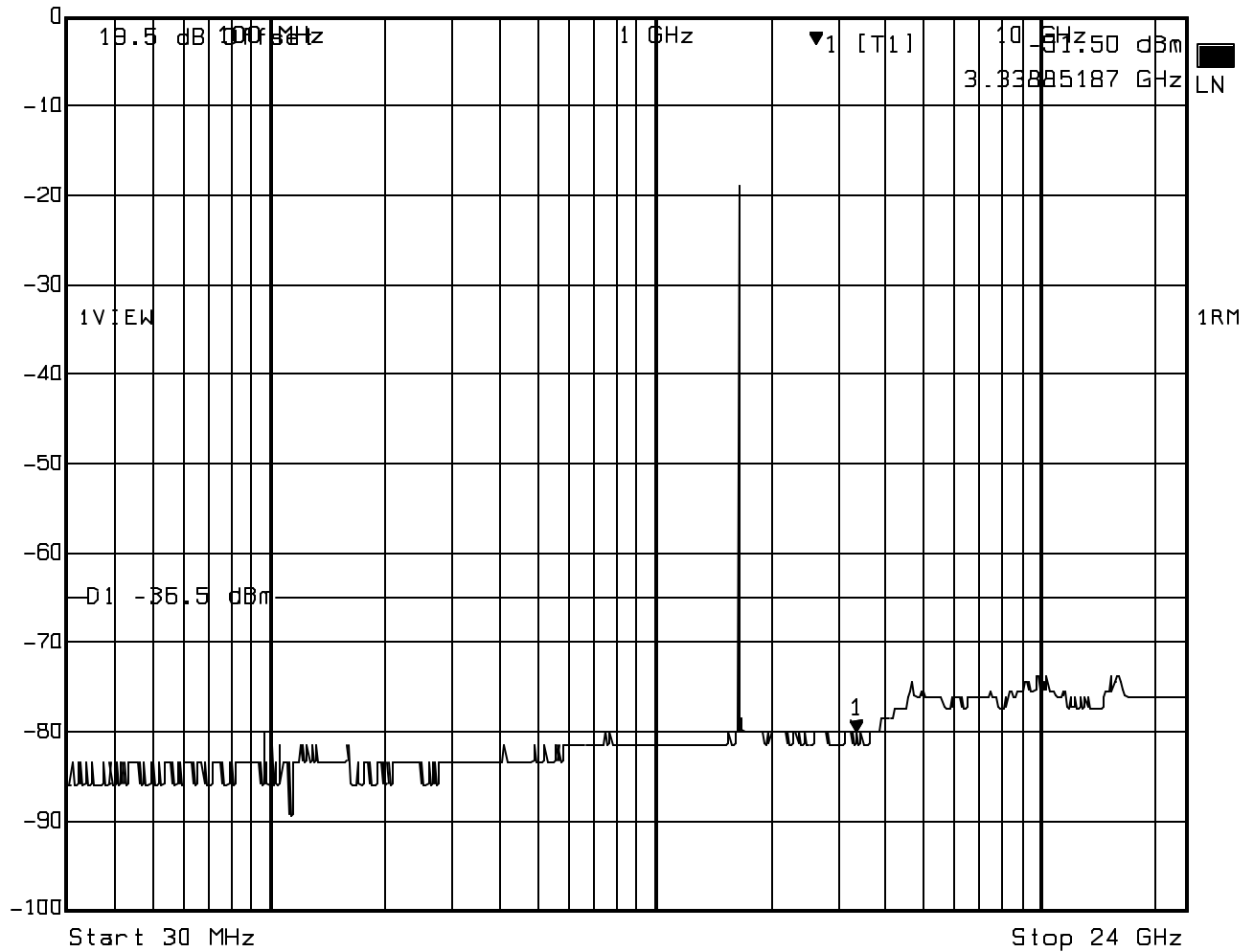


Title: 20C
Date: 11.NOV.2002 16:52:39

EQUIPMENT: 2.3 GHz CPE

Test Data - +25 dBm


	Ref Lvl	Marker 1 [T1]	RBW	1 MHz	RF Att	20 dB
	28.5 dBm	-51.50 dBm	VBW	1 MHz	Mixer	-20 dBm
		3.33885187 GHz	SWT	240 ms	Unit	dB

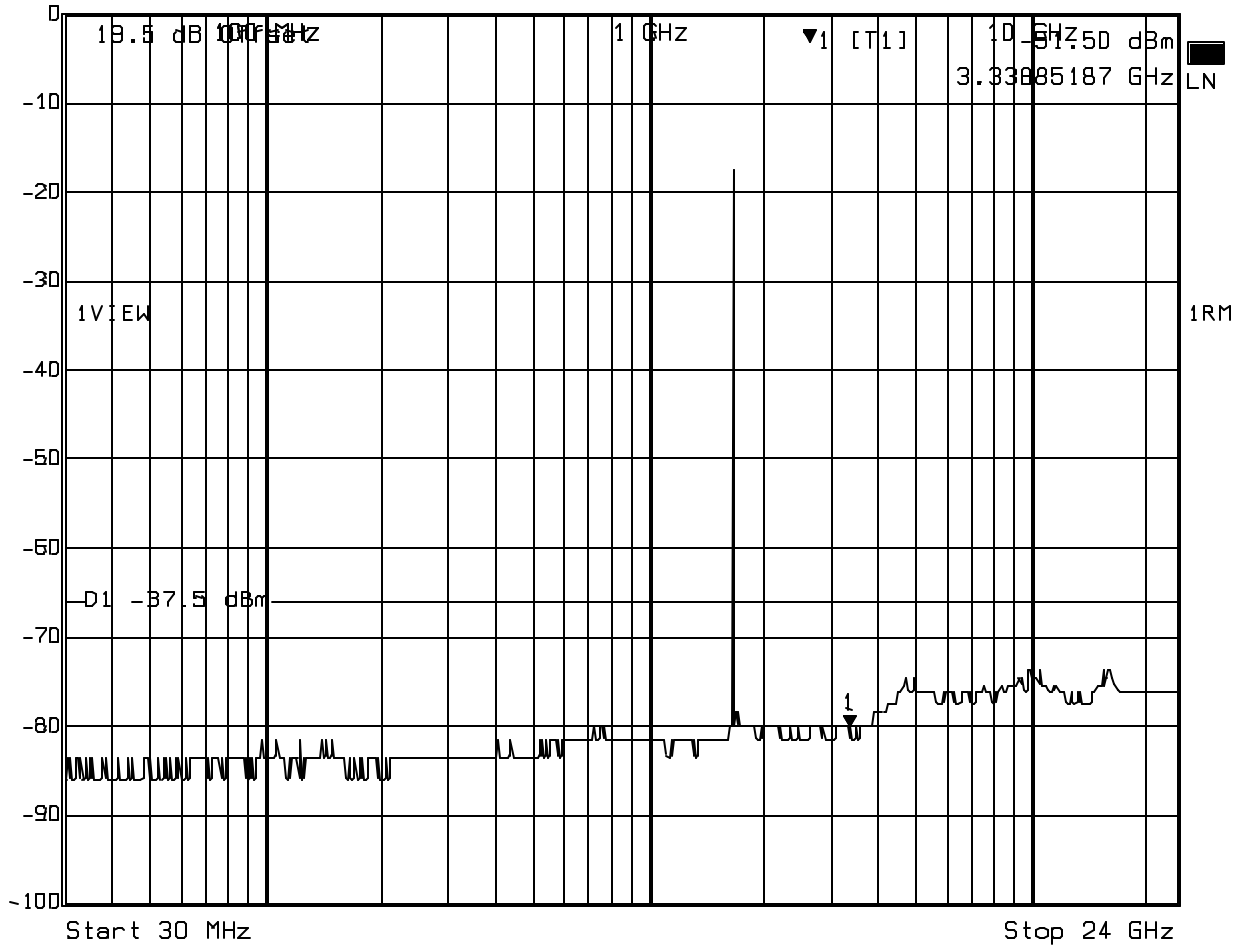


Title: 20C
Date: 11.NOV.2002 16:51:26

EQUIPMENT: 2.3 GHz CPE

Test Data - +26 dBm

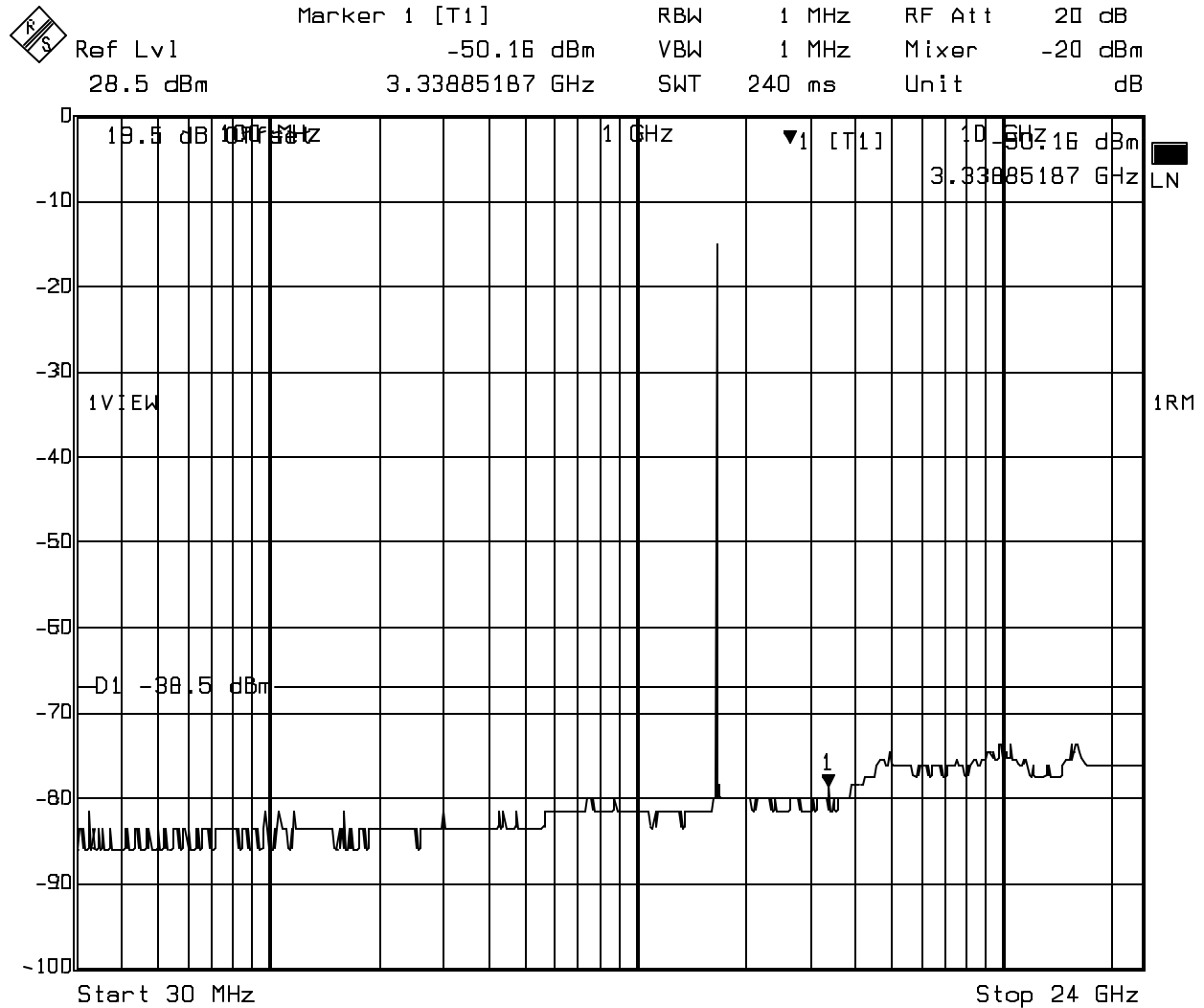
	Marker 1 [T1]	RBW	1 MHz	RF Att	20 dB
Ref Lvl	-51.50 dBm	VBW	1 MHz	Mixer	-20 dBm
28.5 dBm	3.33885187 GHz	SWT	240 ms	Unit	dB



Title: 20C
Date: 11.NOV.2002 16:50:37

EQUIPMENT: 2.3 GHz CPE


Test Data - +27 dBm

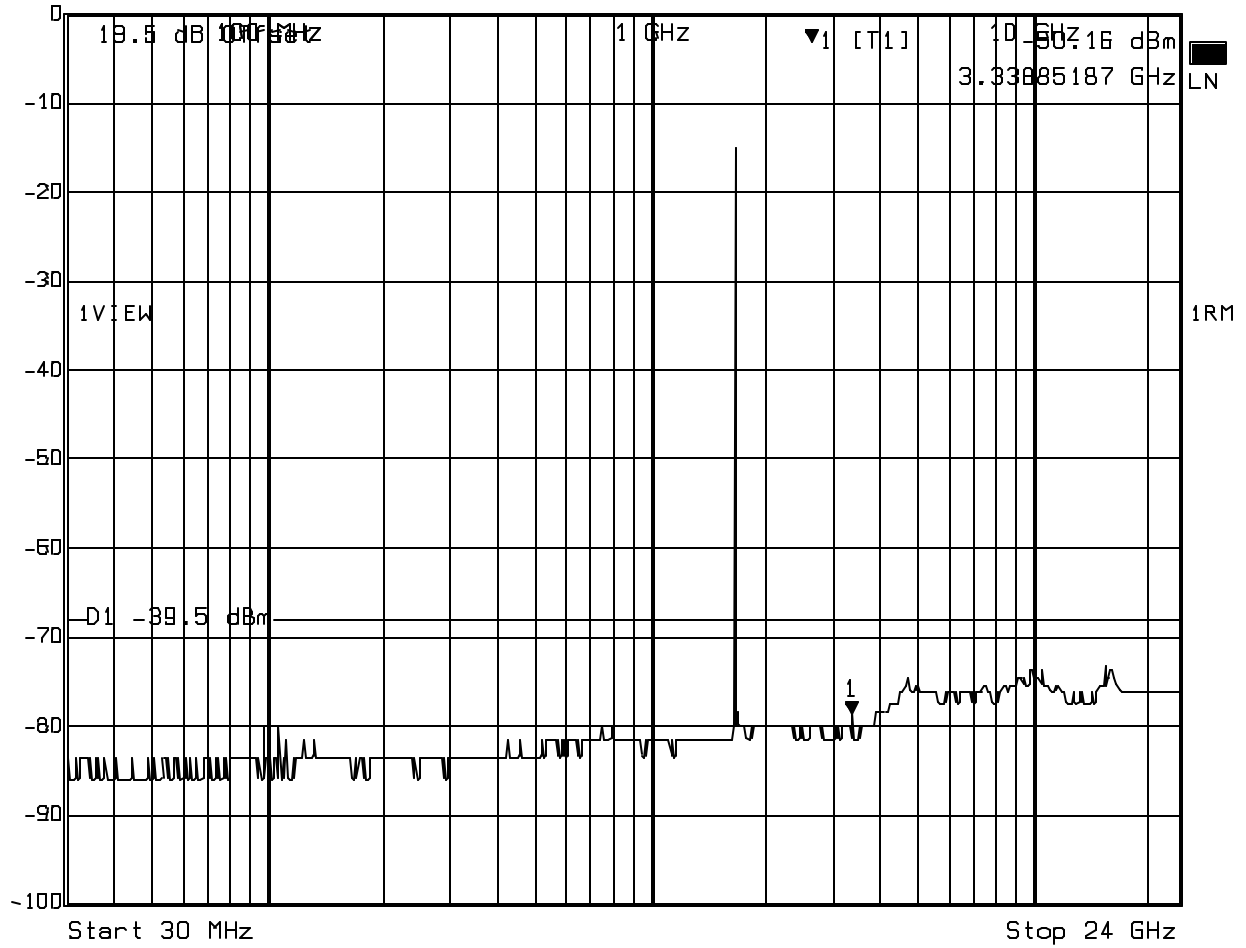


Title: 20C
Date: 11.NOV.2002 16:48:39

EQUIPMENT: 2.3 GHz CPE

Test Data - +28 dBm

	Marker 1 [T1]	RBW	1 MHz	RF Att	20 dB
Ref Lvl	-50.16 dBm	VBW	1 MHz	Mixer	-20 dBm
28.5 dBm	3.33885187 GHz	SWT	240 ms	Unit	dB



Title: 20C
Date: 11.NOV.2002 16:49:31

EQUIPMENT: 2.3 GHz CPE

Section 6. Field Strength of Spurious

NAME OF TEST: Field Strength of Spurious Emissions	PARA. NO.: 2.1053
TESTED BY: David Light	DATE:9/4/2002

Test Results: Complies

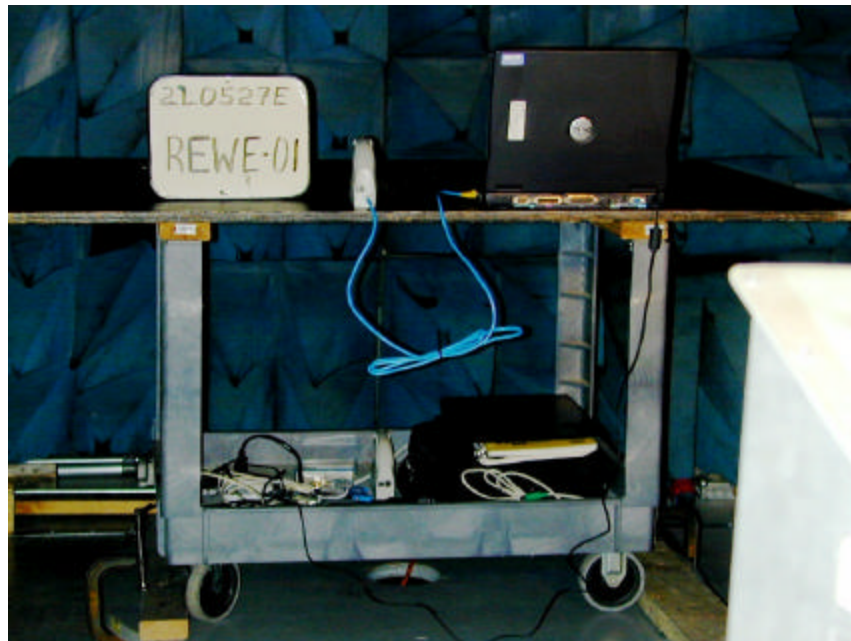
Measurement Data: See attached table.

Measurement Uncertainty: +/-1.7 dB

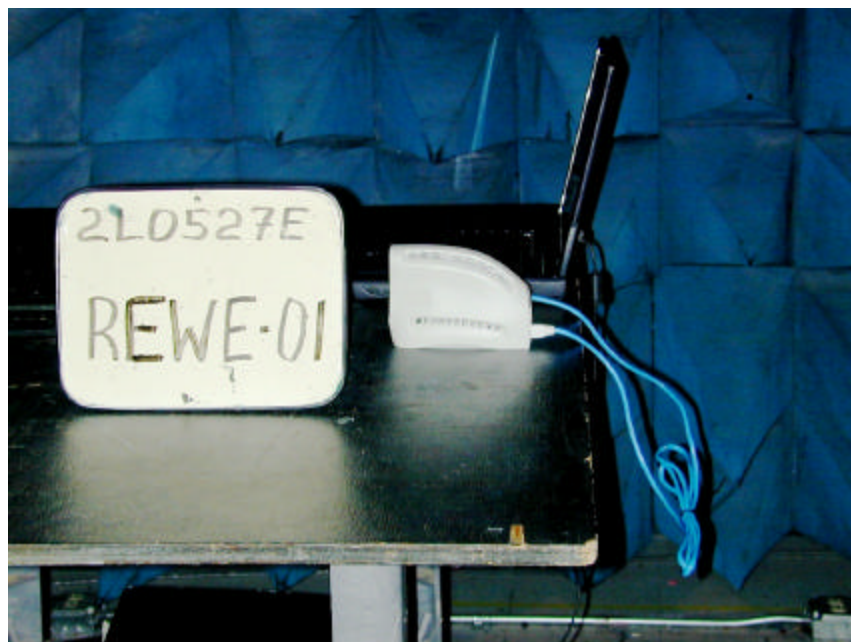
EQUIPMENT: 2.3 GHz CPE

Photos – Field Strength of Spurious Emissions

Rear



Side



EQUIPMENT: 2.3 GHz CPE

Section 7. Frequency Stability

NAME OF TEST: Frequency Stability	PARA. NO.: 2.1055
TESTED BY: Eldon Berry	DATE:11/22/2002

Test Results: Complies

Measurement Data: See attached data sheets.
The following plots show that the transmitted signal stays within the required emission limits when the equipment is subjected to temperature and voltage variations.

Note -.The device ceased operation at 21.5 Vdc and would not operate at -15% supply voltage. Data was taken at cutoff voltage.

Measurement Uncertainty: 1×10^{-7} ppm

EQUIPMENT: 2.3 GHz CPE

Test Data – Frequency Stability – Block A



Dallas Headquarters:

802 N. Kealy
 Lewisville, TX 75057
 Tel: (972) 436-9600
 Fax: (972) 436-2667

Nemko Dallas, Inc.

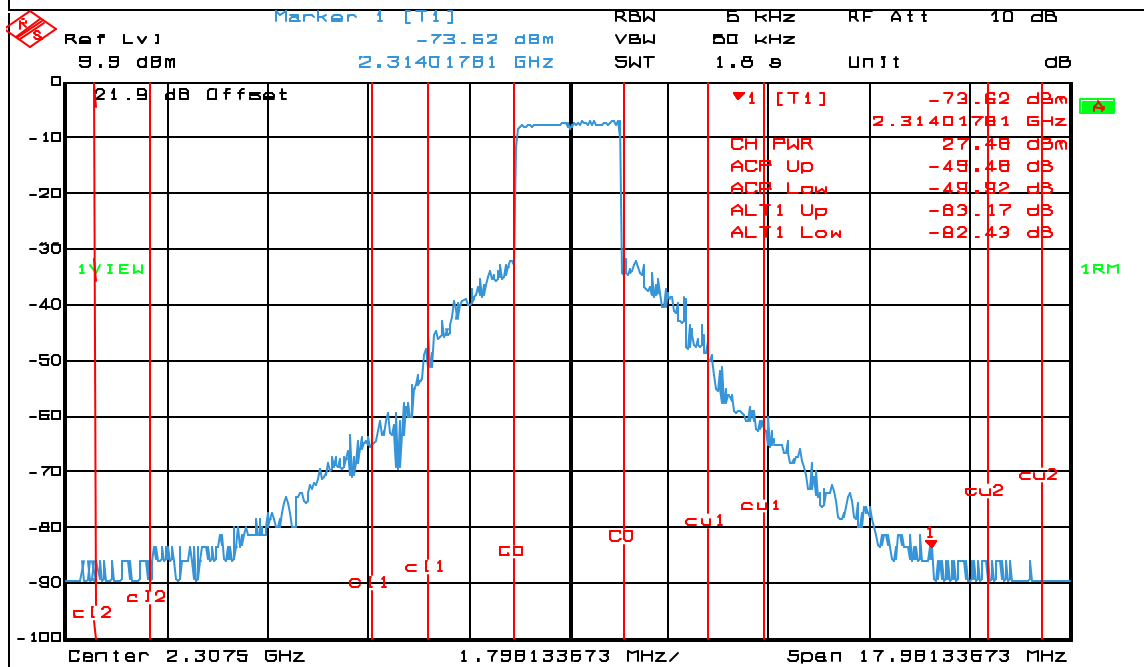
Data Plot

Page 1 of 11
 Job No.: 2L0527 Date: 11/22/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%): Uncontrolled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block A
 Sample Number: 1
 Detector Type: Rms
 RBW: Refer to plots
 VBW: Refer to plots

Complete X
 Preliminary _____

Test Equipment Used

Antenna: _____ Directional Coupler: _____
 Pre-Amp: _____ Cable #1: 1483
 Filter: _____ Cable #2: _____
 Receiver: 1036 Cable #3: _____
 Attenuator #1: 1474 Cable #4: _____
 Attenuator #2: _____ Mixer: _____
 Additional equipment used: _____
 Measurement Uncertainty: +/-3.6 dB



Title: 20C
 Date: 19.NOV.2002 11:04:31

Notes: 20/degree

EQUIPMENT: 2.3 GHz CPE



Dallas Headquarters:

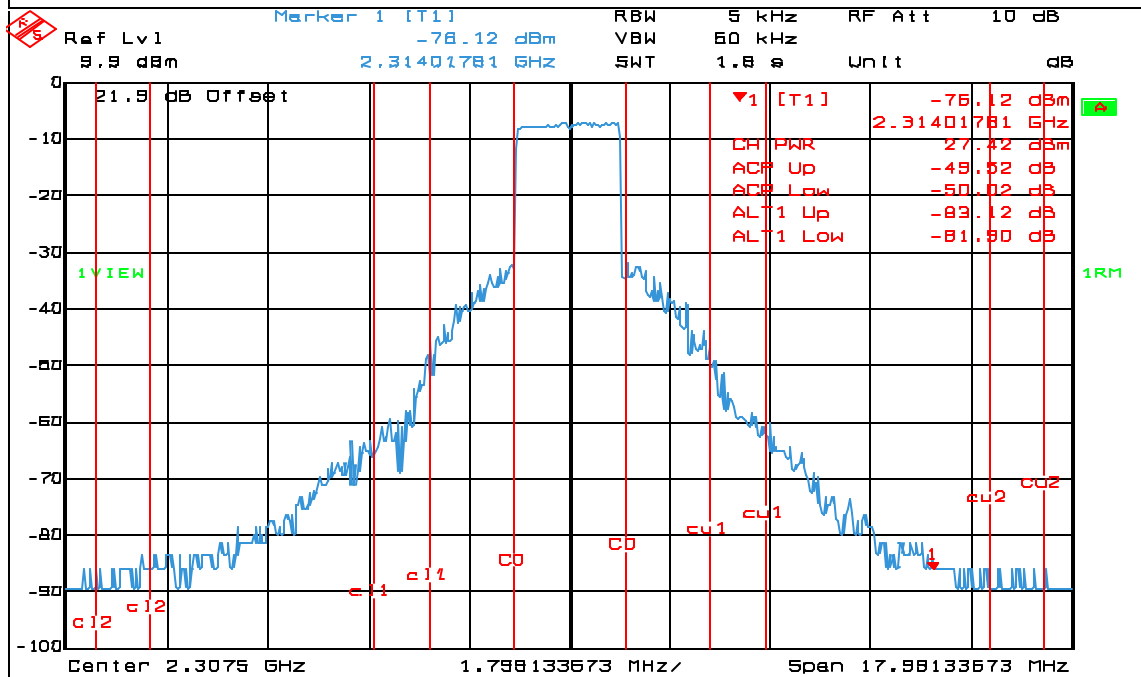
802 N. Kealy
 Lewisville, TX 75057
 Tel: (972) 436-9600
 Fax: (972) 436-2667

Nemko Dallas, Inc.

Data Plot

Page 2 of 11

Job No.: 2L0527 Date: 11/22/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Uncontrolled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block A



Title: 20C
 Date: 19.NOV.2002 11:49:06

Notes: 50 Deg

EQUIPMENT: 2.3 GHz CPE



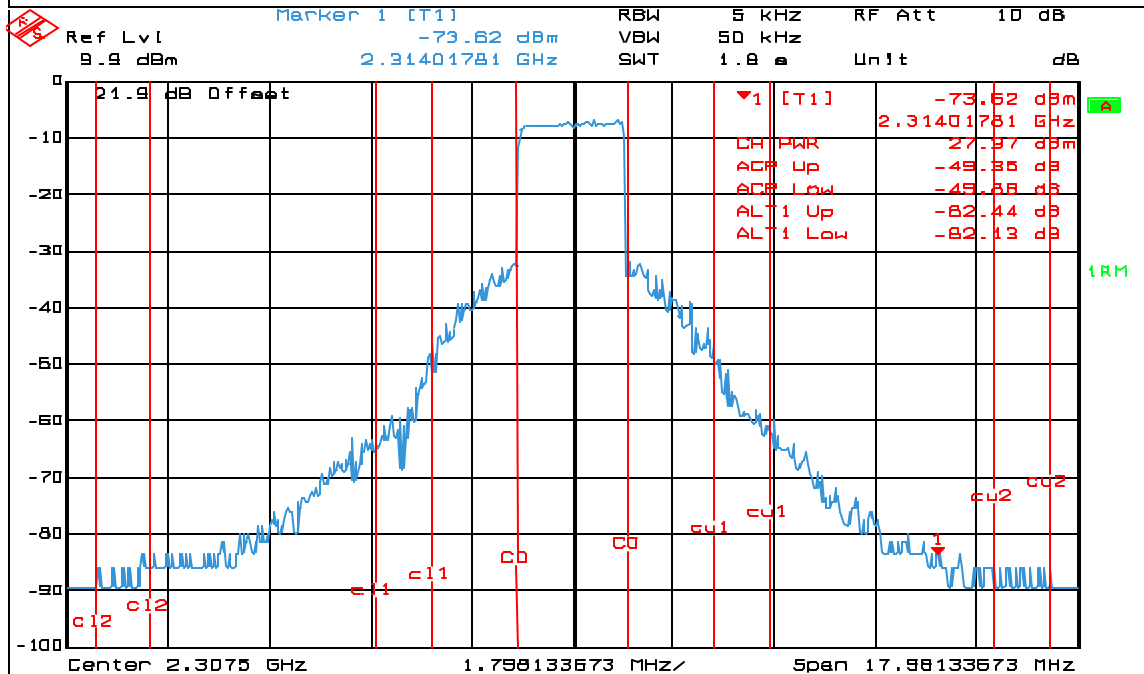
Nemko Dallas, Inc.

Dallas Headquarters:
 802 N. Kealy
 Lewisville, TX 75057
 Tel: (972) 436-9600
 Fax: (972) 436-2667

Data Plot

Page 3 of 11

Job No.: 2L0527 Date: 11/22/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Uncontrolled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block A



Title: 20C
 Date: 19.NOV.2002 12:36:67

Notes: 40 Deg

EQUIPMENT: 2.3 GHz CPE



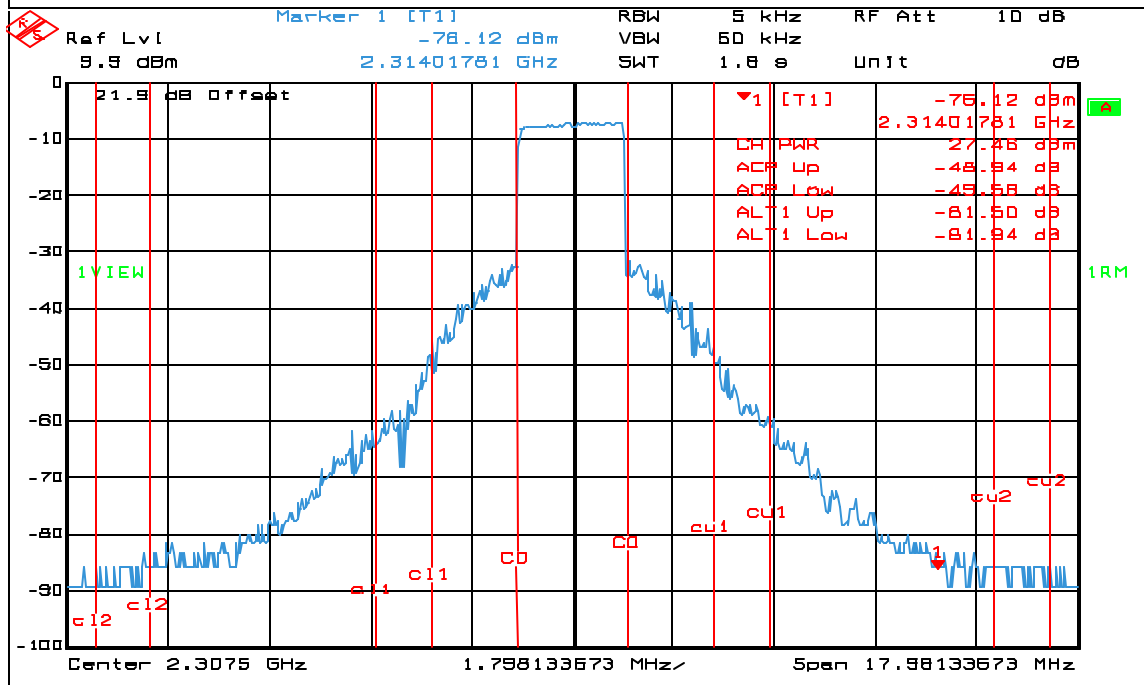
Dallas Headquarters:

802 N. Kealy
 Lewisville, TX 75057
 Tel: (972) 436-9600
 Fax: (972) 436-2667

Nemko Dallas, Inc.

Test Plot:

Page 4 of 11
 Job No.: 2L0527 Date: 11/22/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Uncontrolled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block A



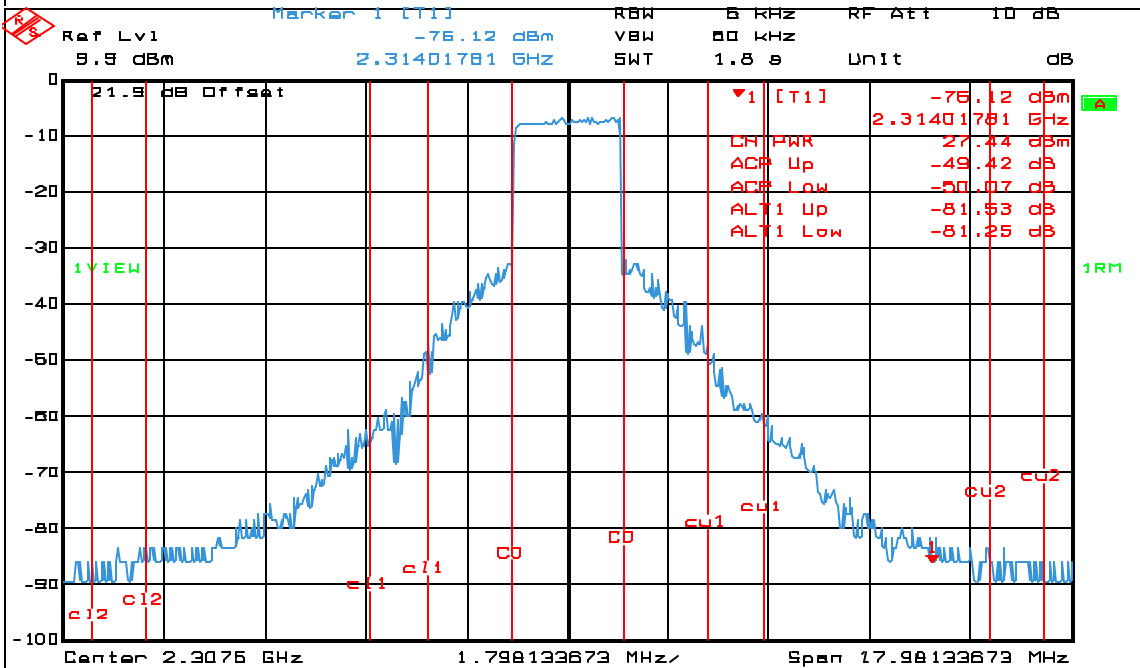
Title: 20C
 Date: 18.NOV.2002 13:24:03

Notes: 30 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 5 of 11
 Job No.: 2L0527 Date: 11/22/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Uncontrolled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block A



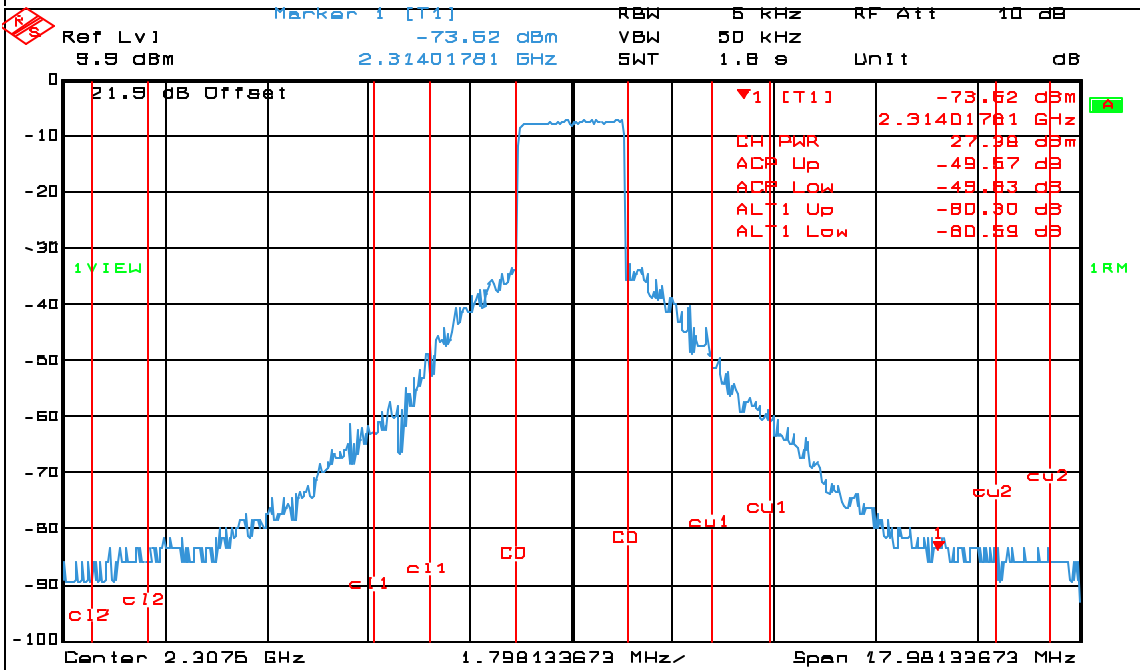
Title: 20C
 Date: 15.NOV.2002 14:21:12

Notes: 10 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/22/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Uncontrolled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block A



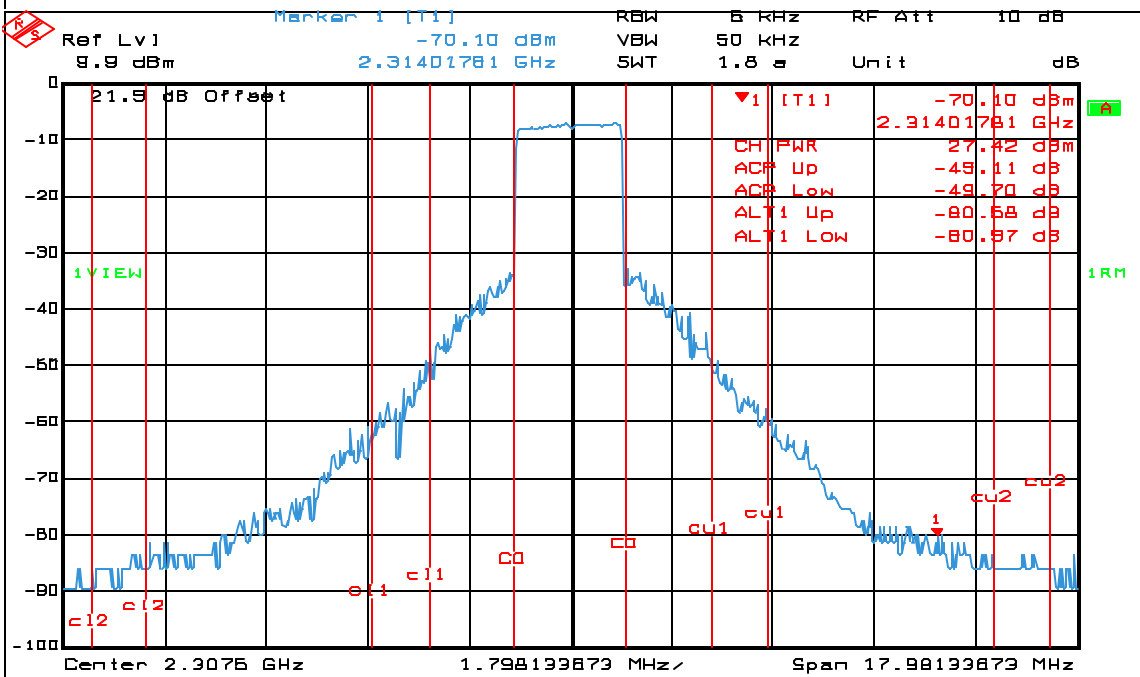
Title: 2DC
 Date: 18.NOV.2002 15:24:53

Notes: 0 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 7 of 11
 Job No.: 2L0527 Date: 11/22/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block A



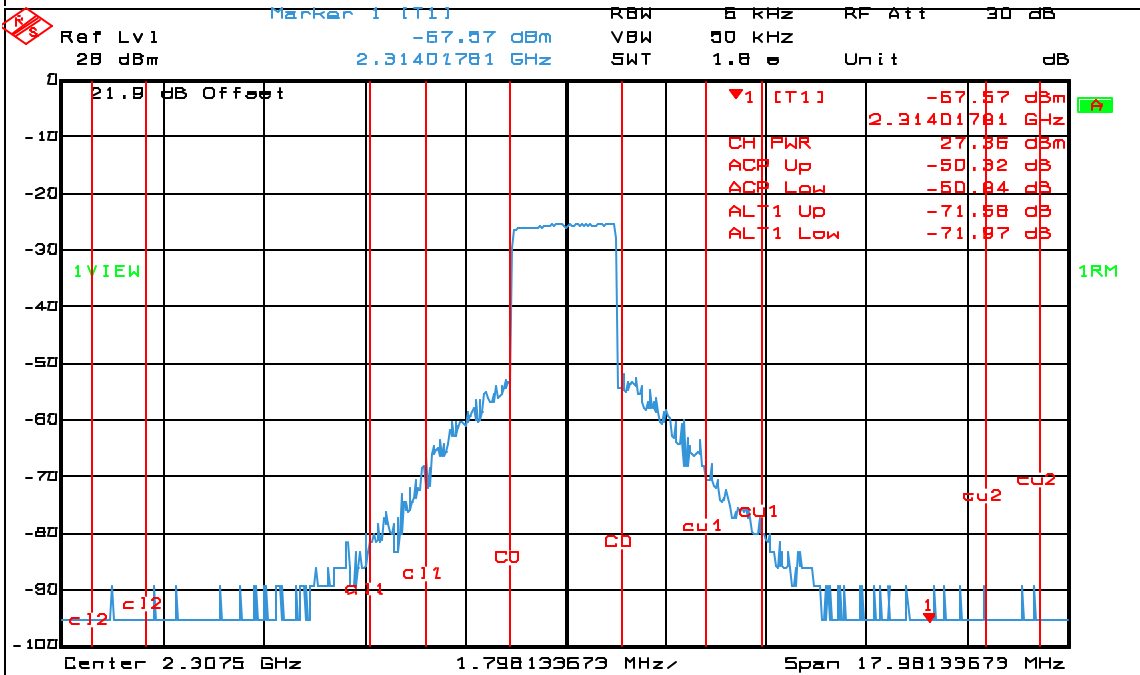
Title: 20C
 Date: 18.NOV.2002 16:58:08

Notes: -10 Deg

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 8 of 11
 Job No.: 2L0527 Date: 11/22/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block A



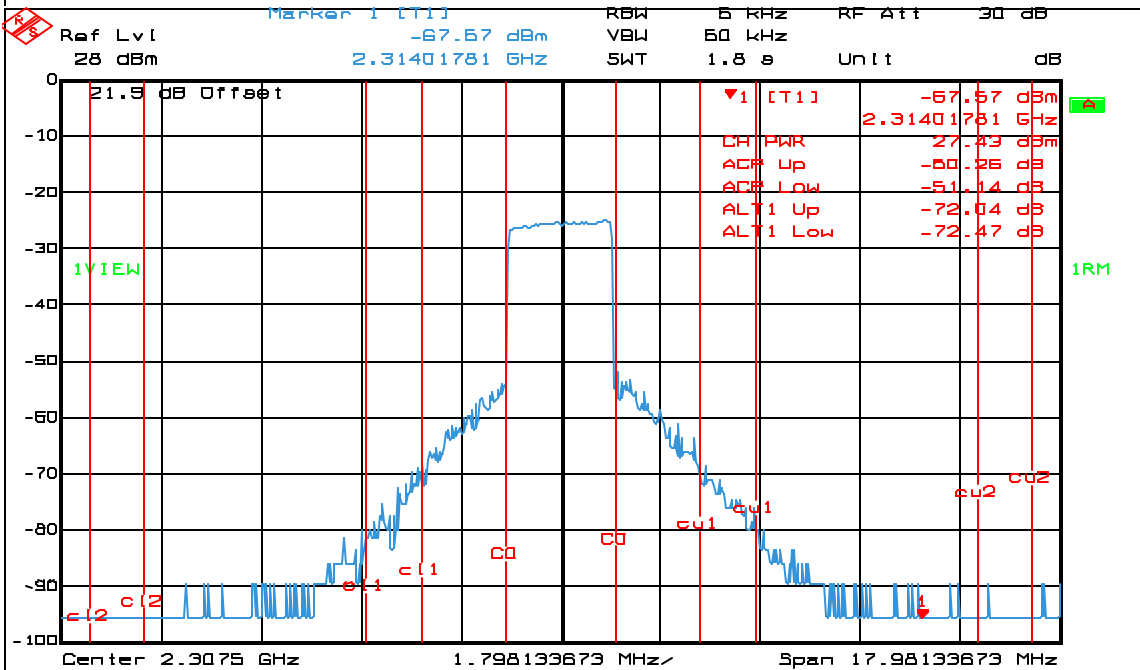
Title: 20C
 Date: 19.NOV.2002 17:37:40

Notes: -20 Degrees

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 9 of 11
 Job No.: 2L0527 Date: 11/22/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block A



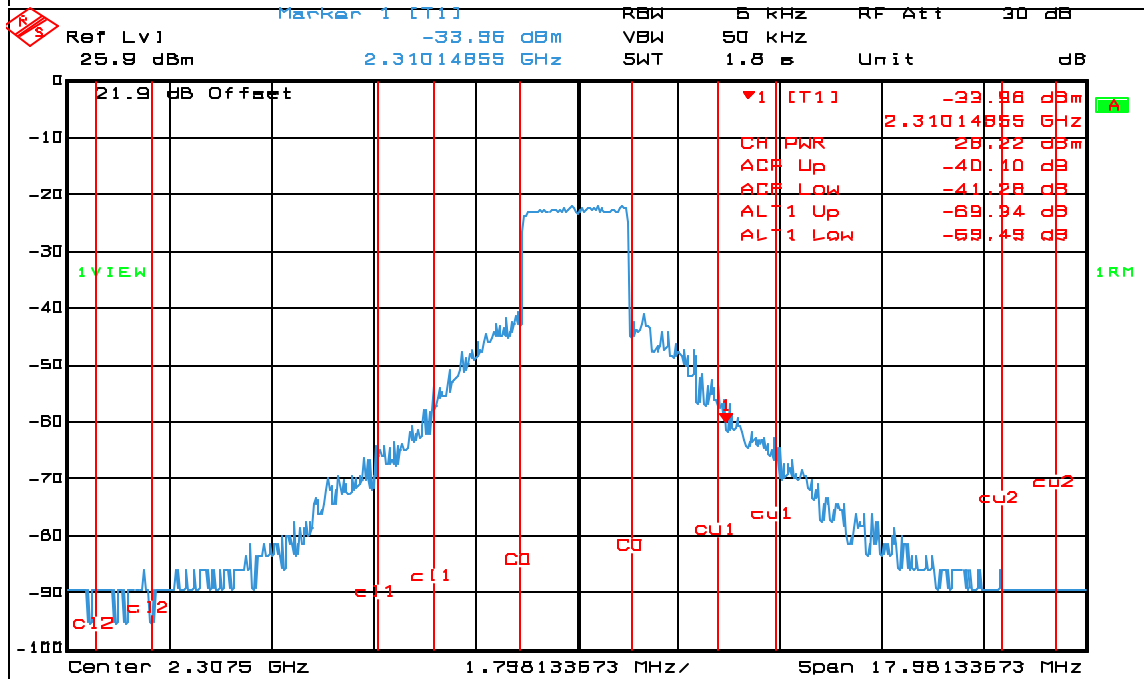
Title: 20C
 Date: 19.NOV.2002 18:16:51

Notes: -30 Degrees

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 10 of 11
 Job No.: 2L0527 Date: 11/22/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block A



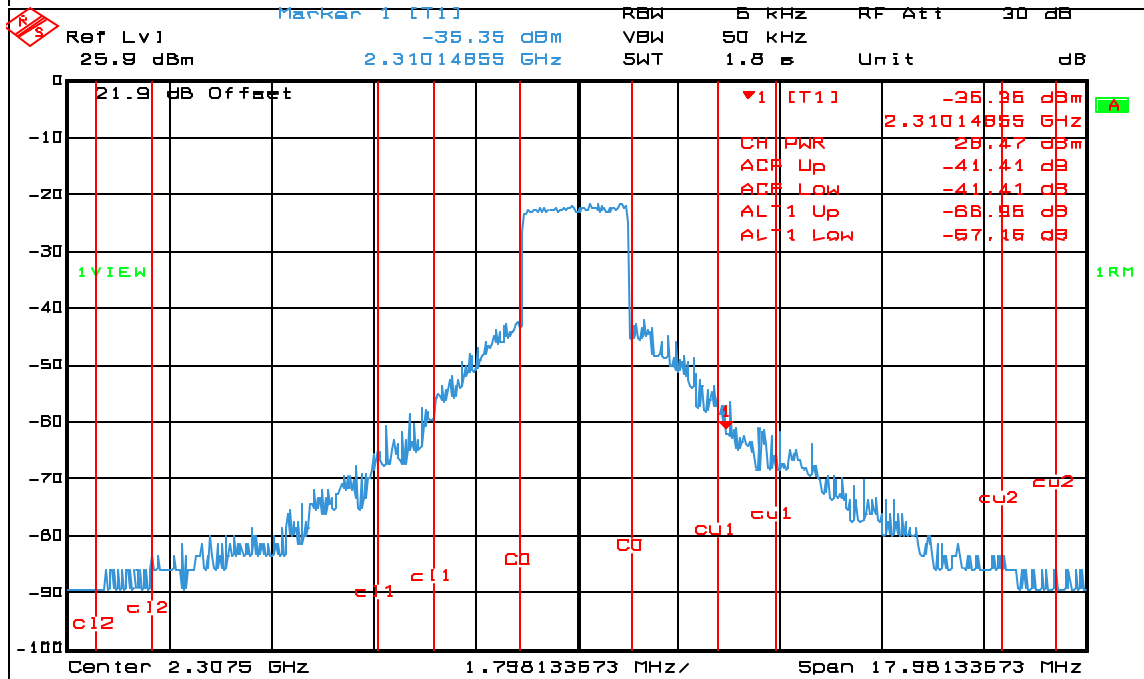
Title: 20C
 Date: 22.NOV.2002 17:08:06

Notes: 20 degrees, 5 Vdc

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 11 of 11
 Job No.: 2L0527 Date: 11/22/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block A

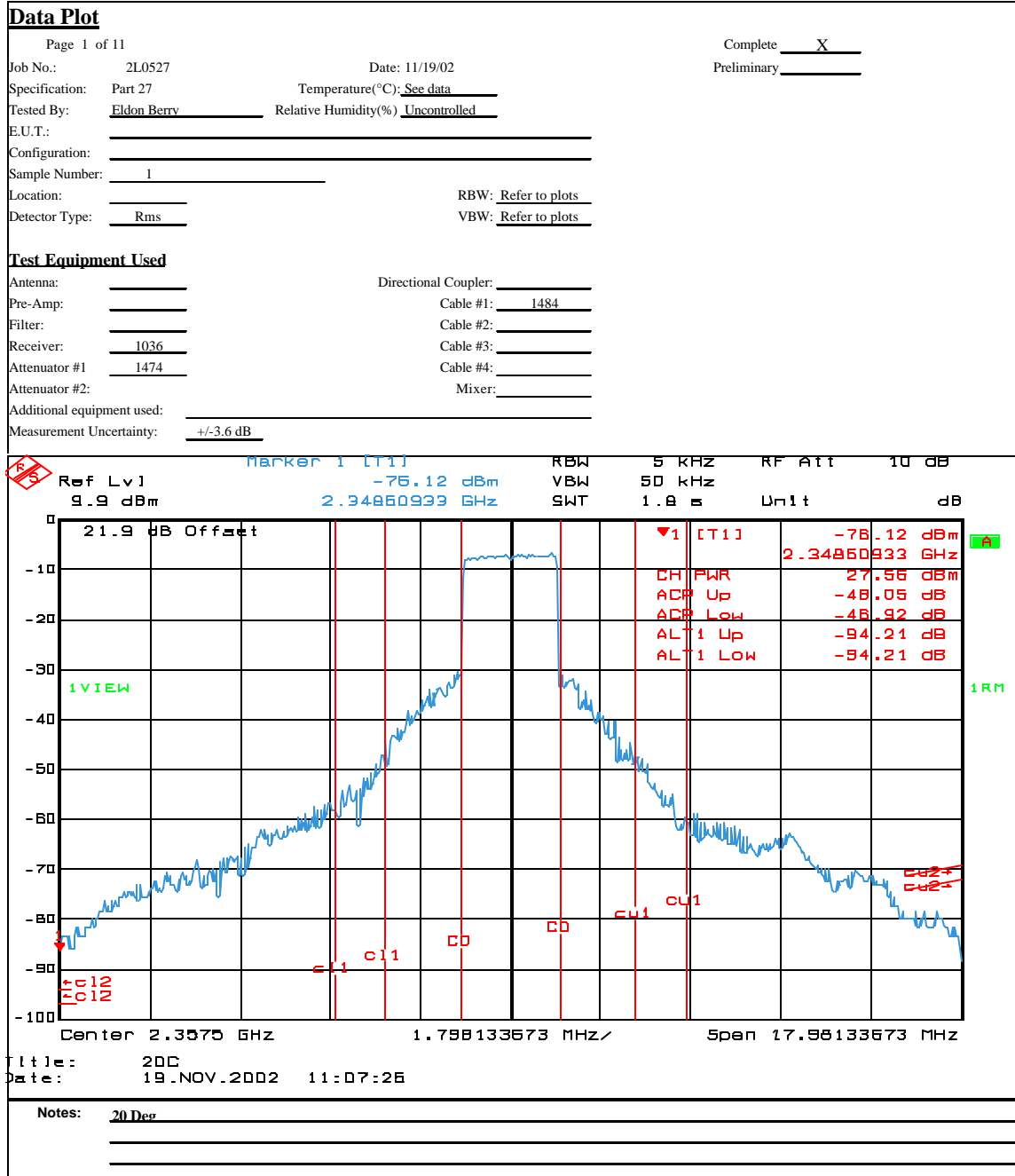


Title: 20C
 Date: 22.NOV.2002 17:11:33

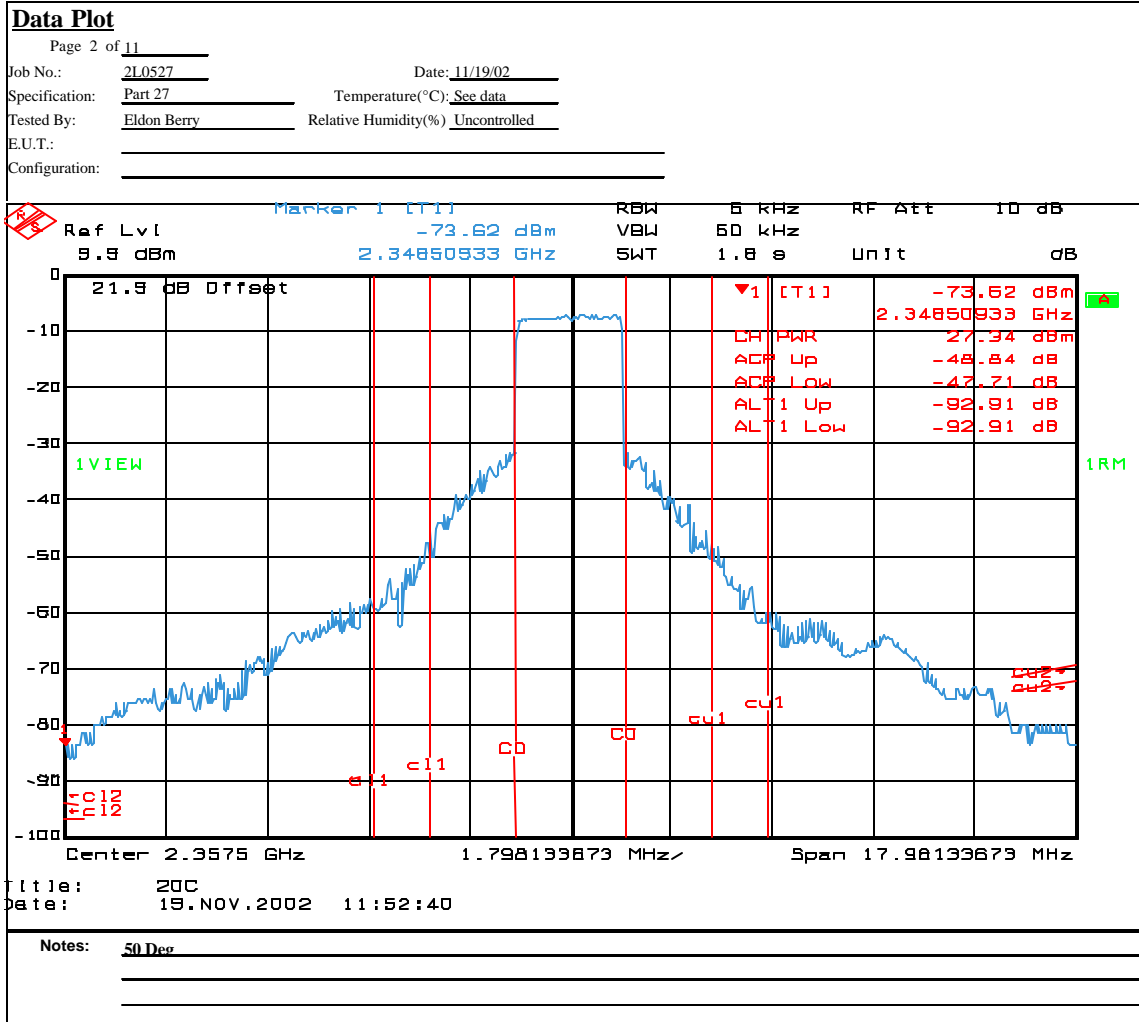
Notes: 20 degrees, +6.9 Vdc

EQUIPMENT: 2.3 GHz CPE

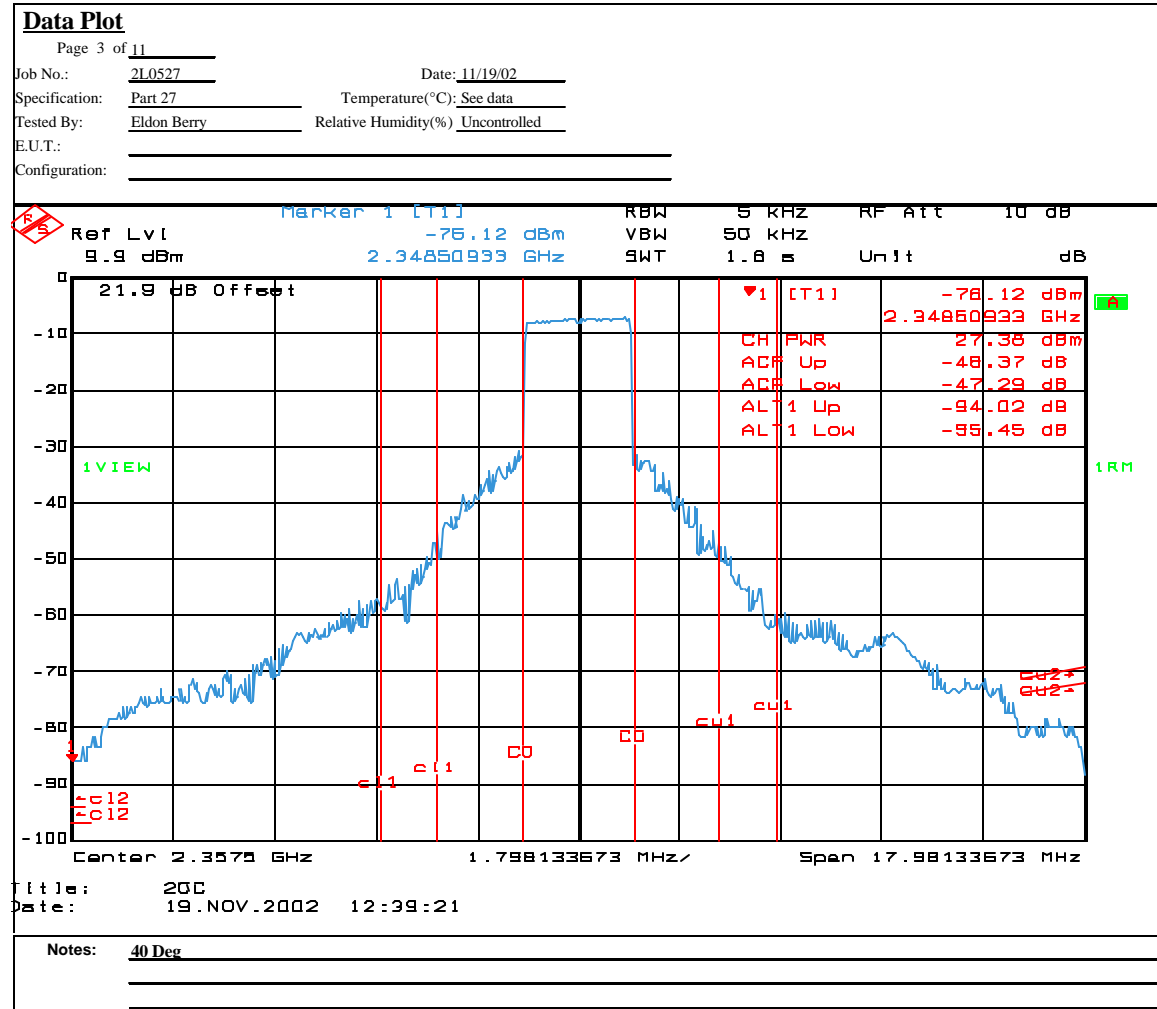
Test Data – Frequency Stability (Block B)



EQUIPMENT: 2.3 GHz CPE



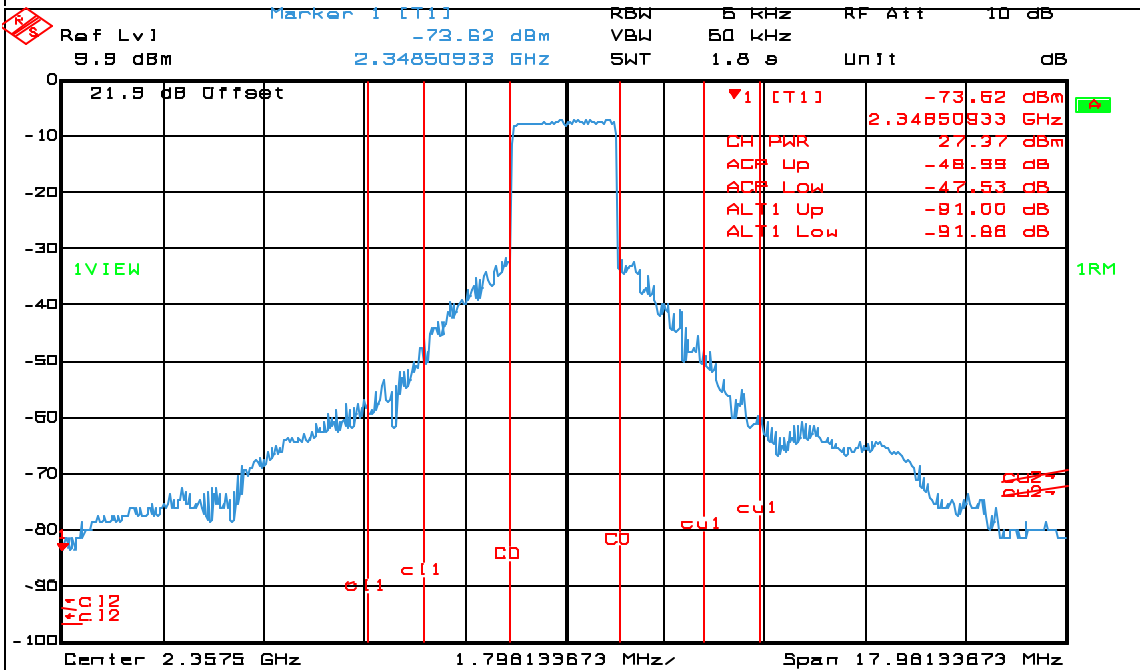
EQUIPMENT: 2.3 GHz CPE



EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 4 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Uncontrolled
 E.U.T.:
 Configuration:



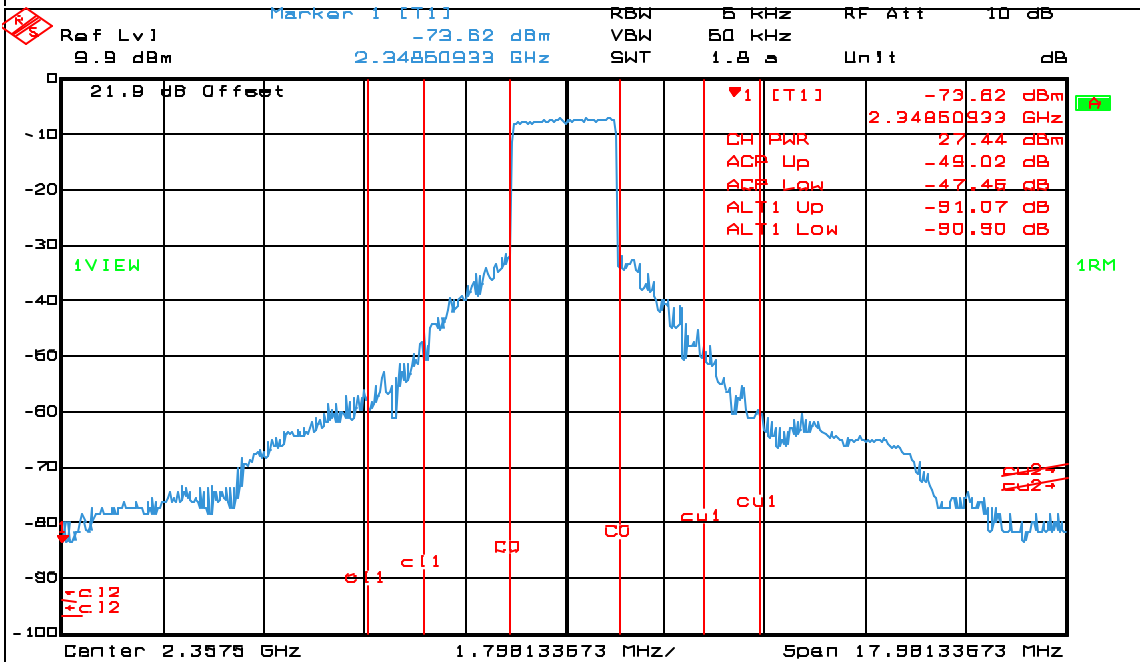
Title: ZDC
 Date: 19.NOV.2002 13:21:24

Notes: 30 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 5 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Uncontrolled
 E.U.T.:
 Configuration:



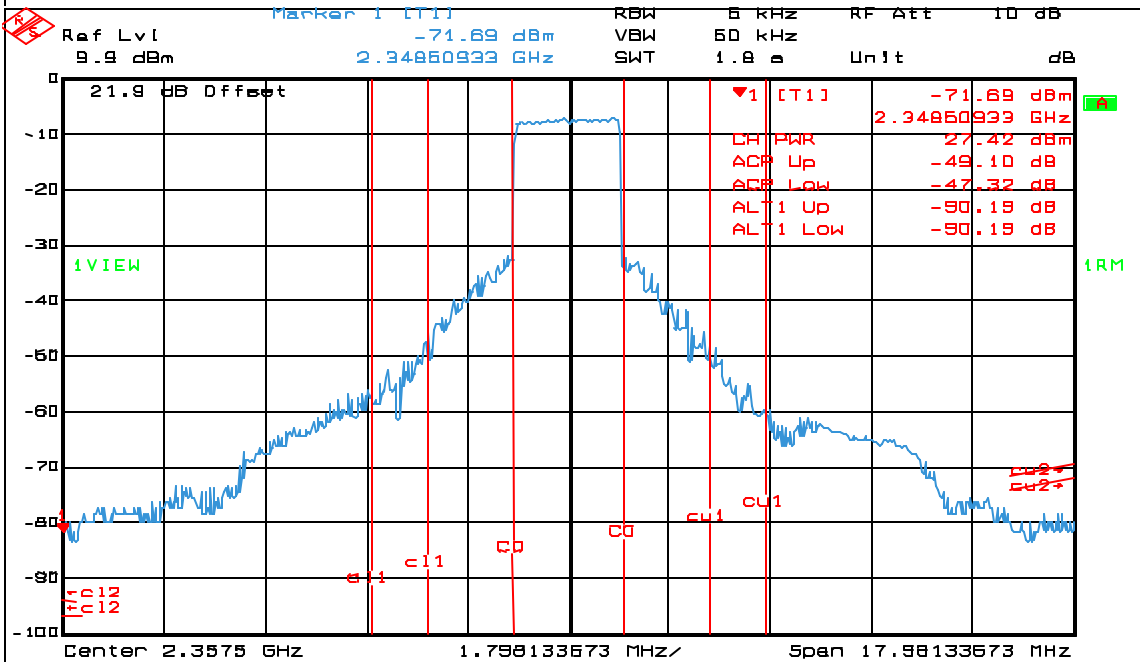
Title: 2DC
 Date: 18.NOV.2002 14:23:19

Notes: 10 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Uncontrolled
 E.U.T.:
 Configuration:



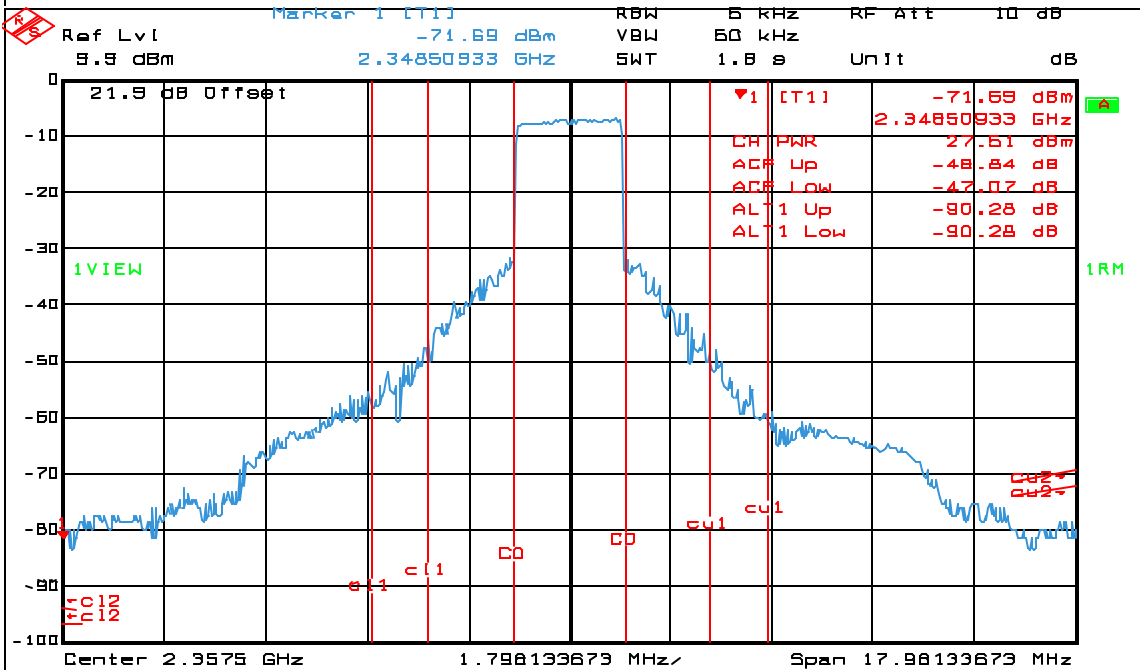
Title: 20C
 Date: 18.NOV.2002 15:27:25

Notes: 0 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.:
 Configuration:



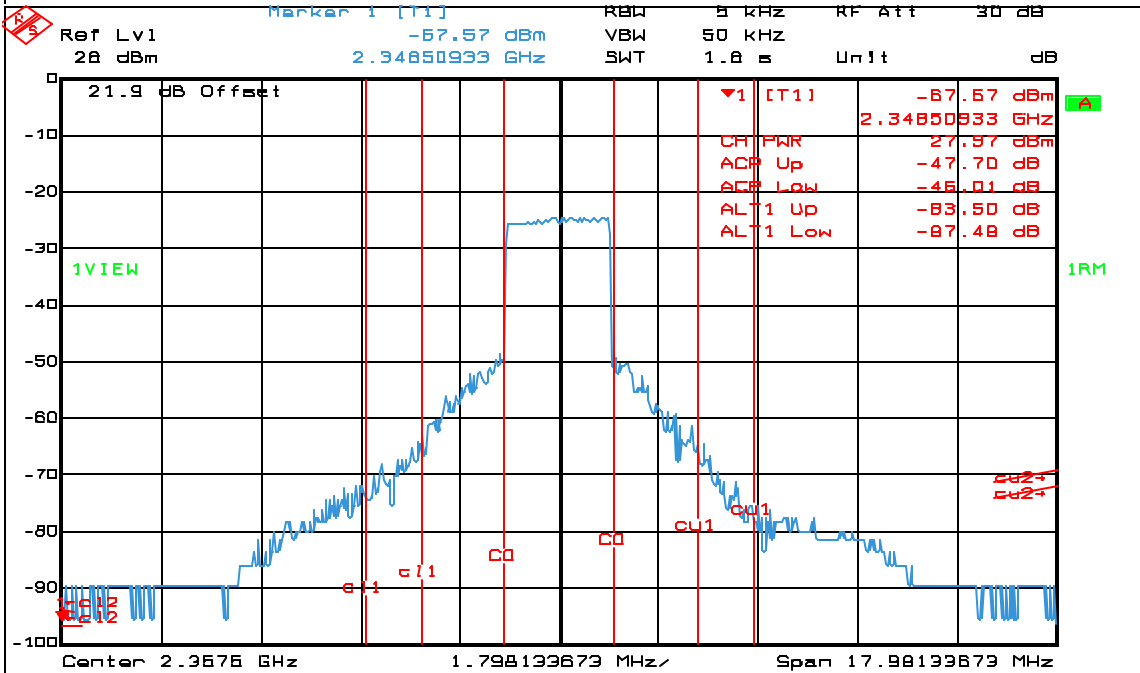
Title: 20C
 Date: 19.NOV.2002 16:55:46

Notes: -10 Deg

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.:
 Configuration:



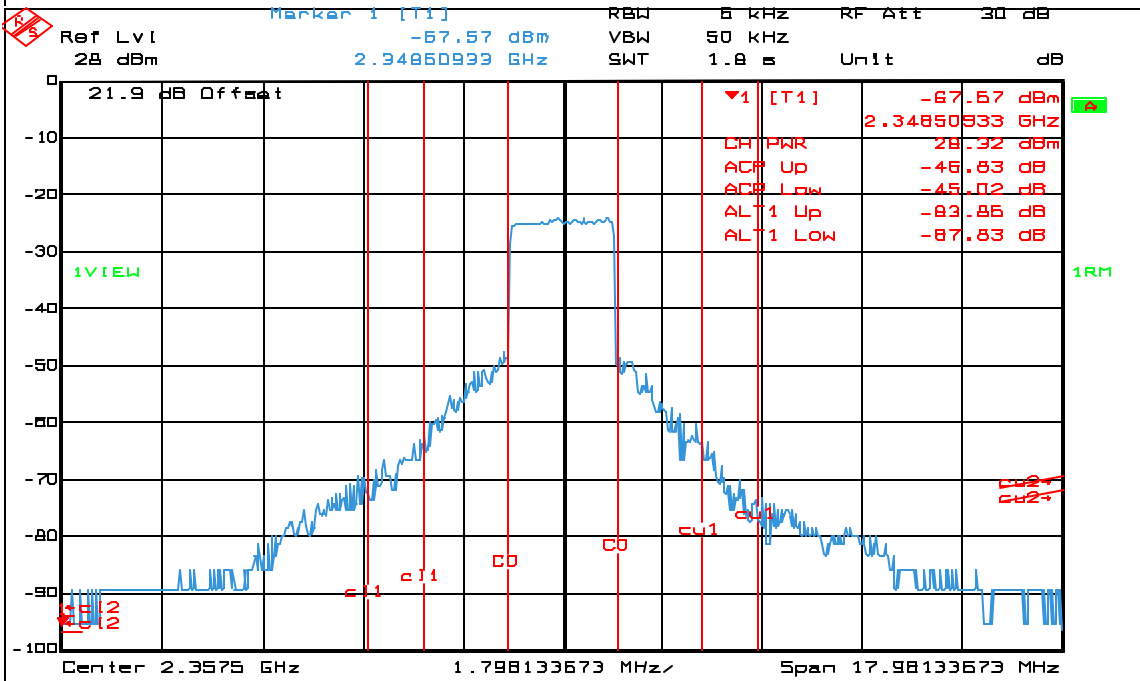
Title: 20C
 Date: 19.NOV.2002 17:40:02

Notes: -20 Degrees

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.:
 Configuration:



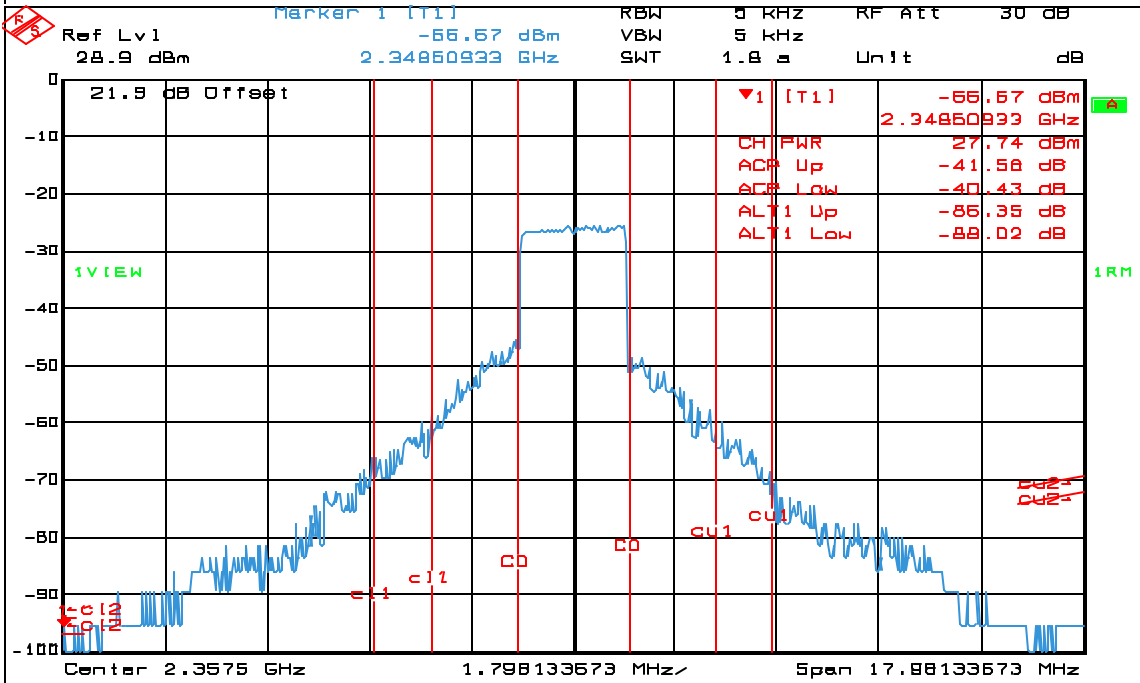
Title: 20C
 Date: 19.NOV.2002 18:14:50

Notes: -30 Degrees

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.:
 Configuration:



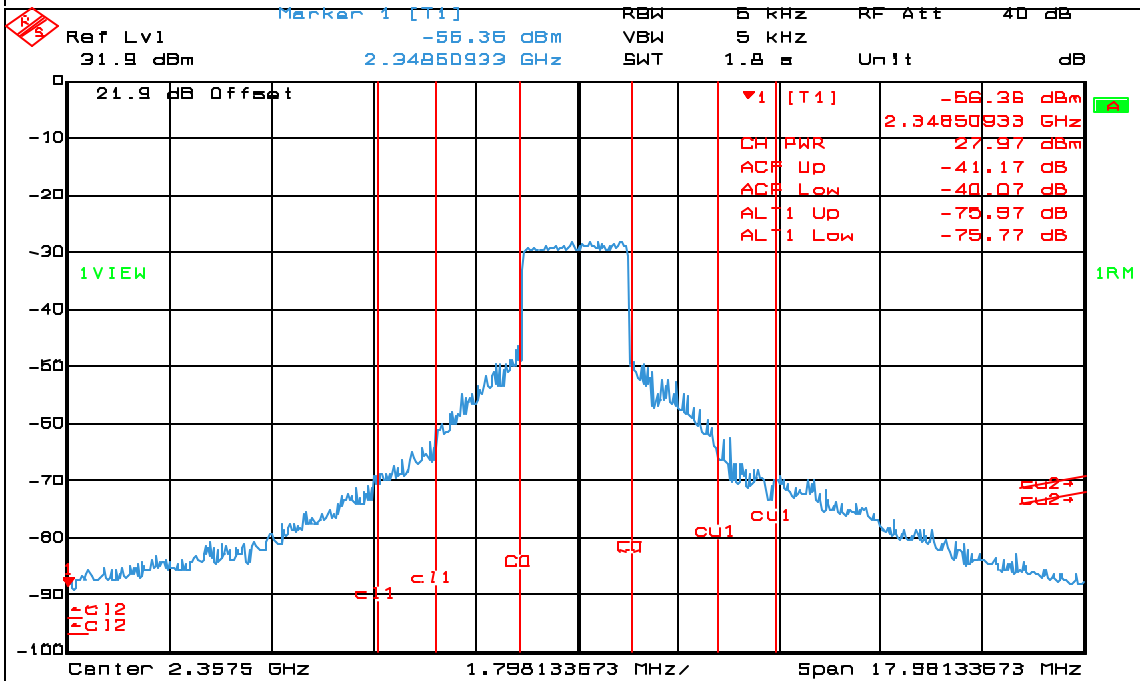
Title: 20C
 Date: 22.NOV.2002 17:24:28

Notes: 20 Degrees, 5 Vdc

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.:
 Configuration:



Title: 20C
 Date: 22.NOV.2002 17:18:51

Notes: 20 Degrees, 6.9 Vdc

EQUIPMENT: 2.3 GHz CPE

Test Data – Frequency Stability

Data Plot

Page 1 of 11

Job No.: 2L0527 Date: 1/19/02 Complete Preliminary

Specification: Part 27 Temperature(°C): See data

Tested By: Eldon Berry Relative Humidity(%): Uncontrolled

E.U.T.: 2.3 GHz CPE

Configuration: Block C

Sample Number: 1

Location: _____ RBW: Refer to plots

Detector Type: Rms VBW: Refer to plots

Test Equipment Used

Antenna: _____ Directional Coupler: _____

Pre-Amp: _____ Cable #1: 1484

Filter: _____ Cable #2: _____

Receiver: 1036 Cable #3: _____

Attenuator #1: 1474 Cable #4: _____

Attenuator #2: _____ Mixer: _____

Additional equipment used: _____

Measurement Uncertainty: +/-3.6 dB

Ref Lvl	21.9 dBm	RBW	5 kHz	RF Att	10 dB
		VBW	5 kHz		
		SWT	2 s	Unit	dB

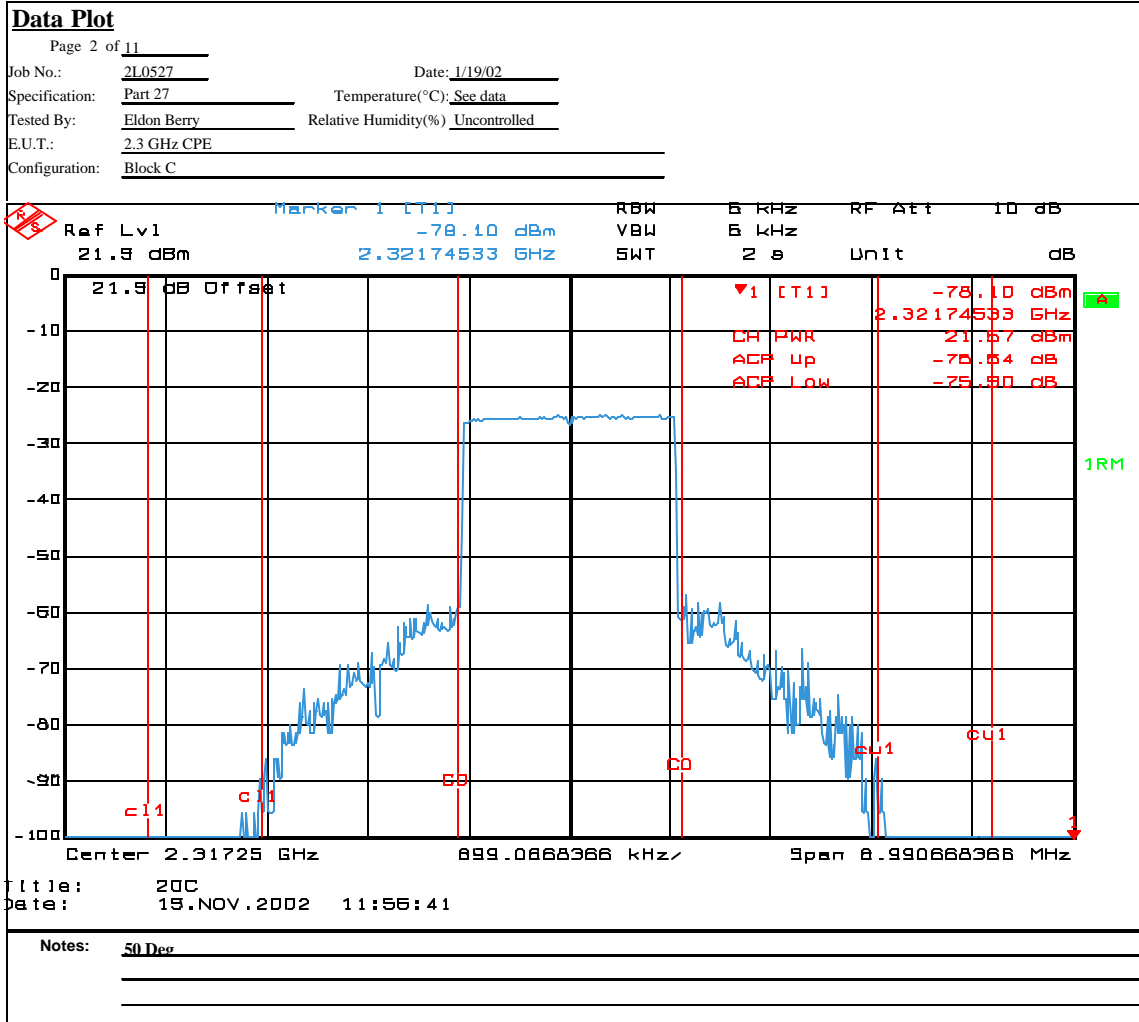
21.9 dB Offset					
▼ 1 [T1]	-78.10 dBm	2.32174533 GHz			
			CH FWR	21.79 dBm	
			ACF Up	-79.66 dB	
			ACF Low	-78.11 dB	

Center 2.31725 GHz 899.0668366 kHz Span 8.990668366 MHz

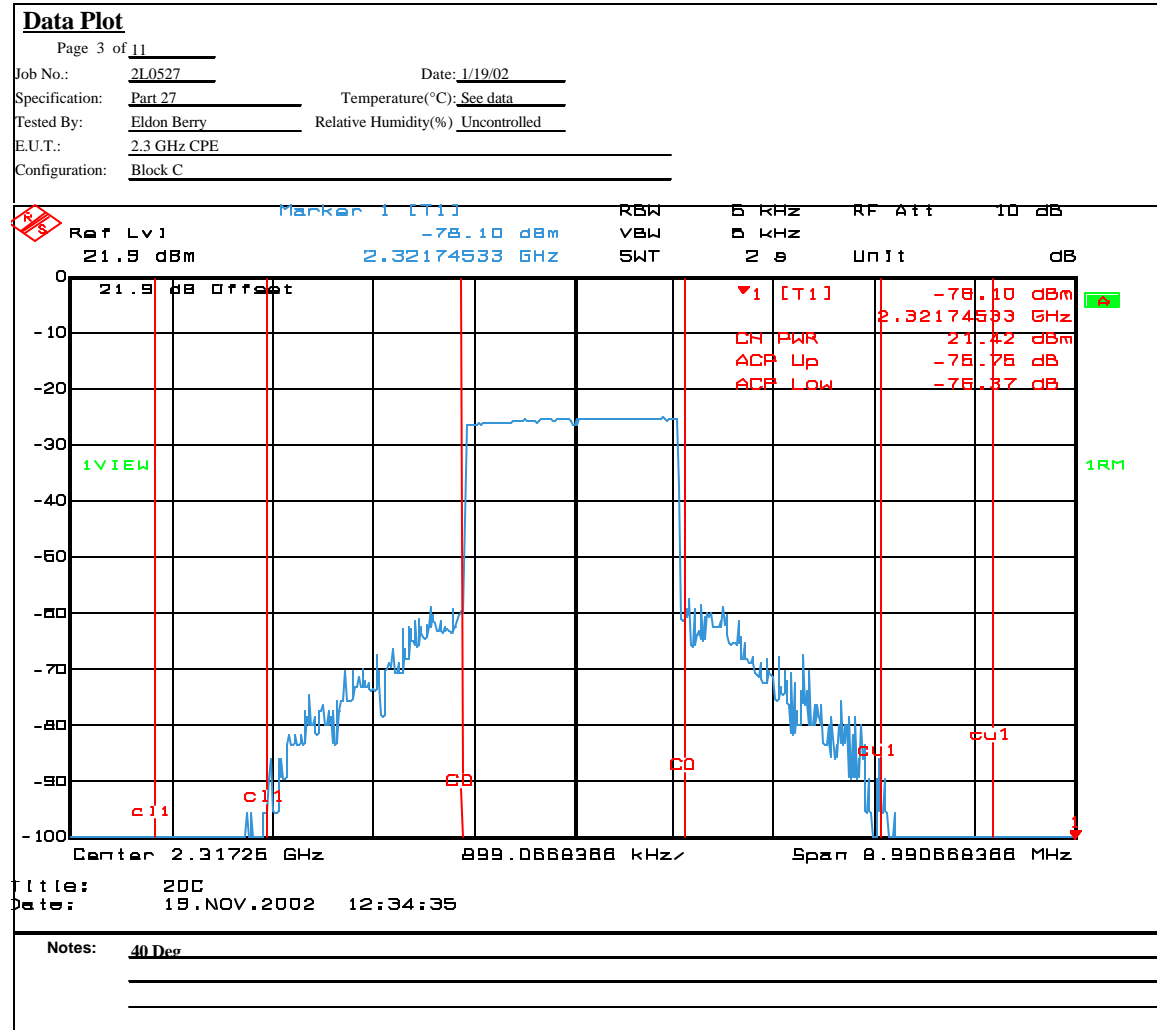
Title: 20C
 Date: 19.NOV.2002 11:12:52

Notes: 20 Deg

EQUIPMENT: 2.3 GHz CPE



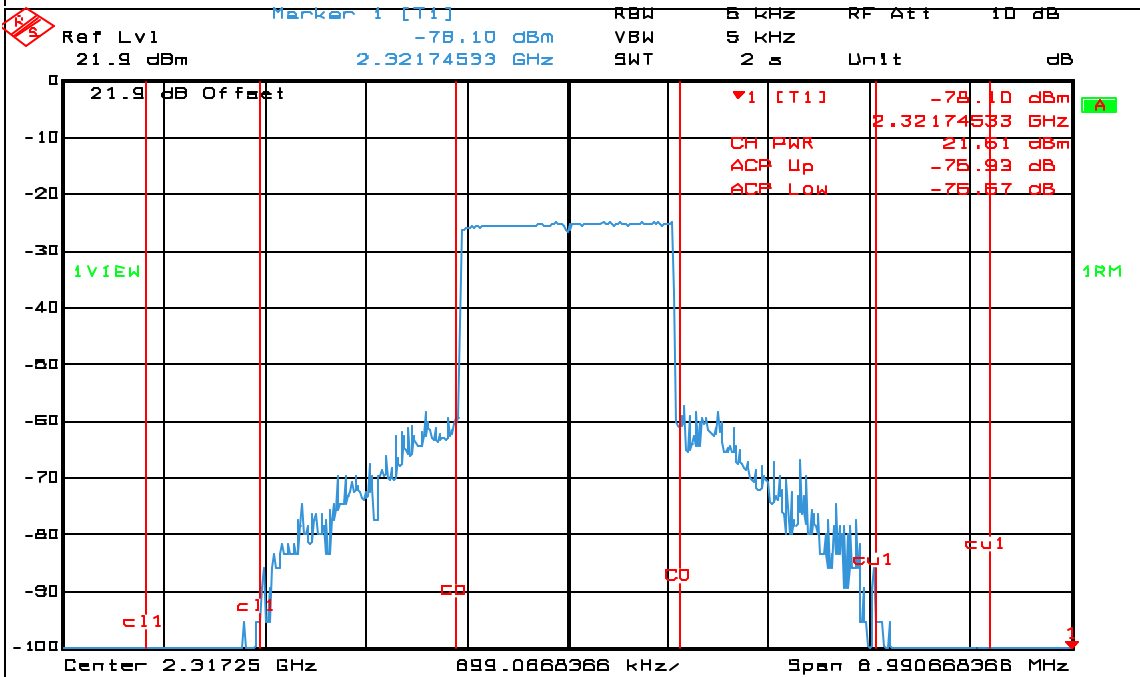
EQUIPMENT: 2.3 GHz CPE



EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 4 of 11
 Job No.: 2L0527 Date: 1/19/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Uncontrolled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block C



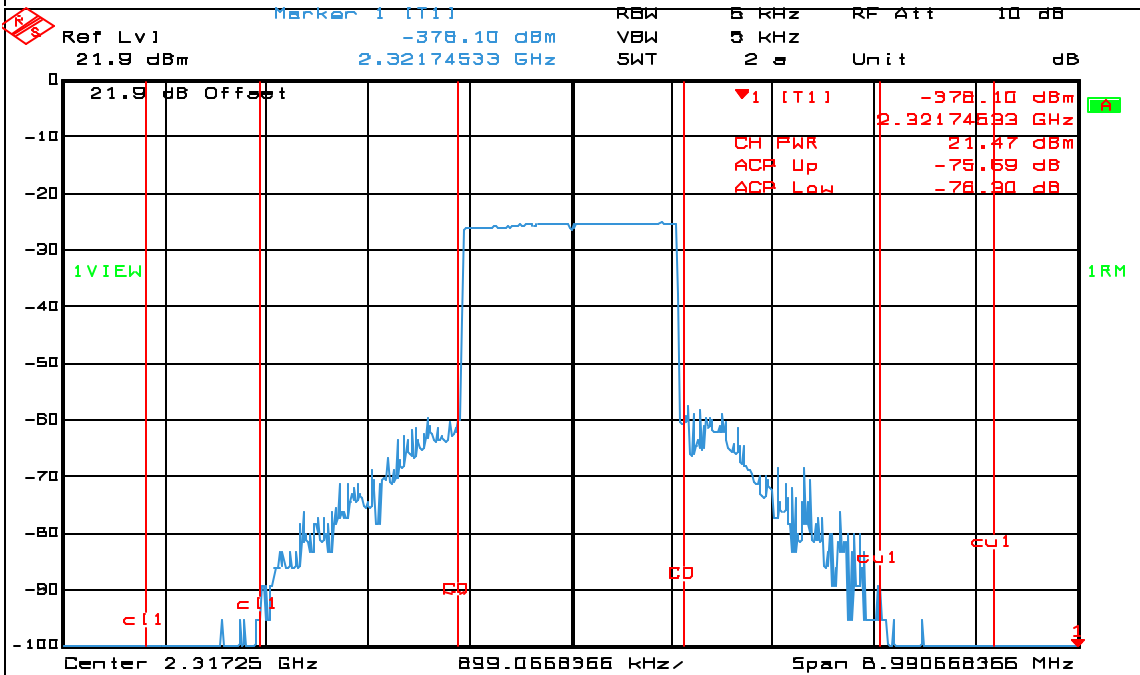
Title: 20C
 Date: 18.NOV.2002 13:32:06

Notes: 30 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 5 of 11
 Job No.: 2L0527 Date: 1/19/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Uncontrolled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block C



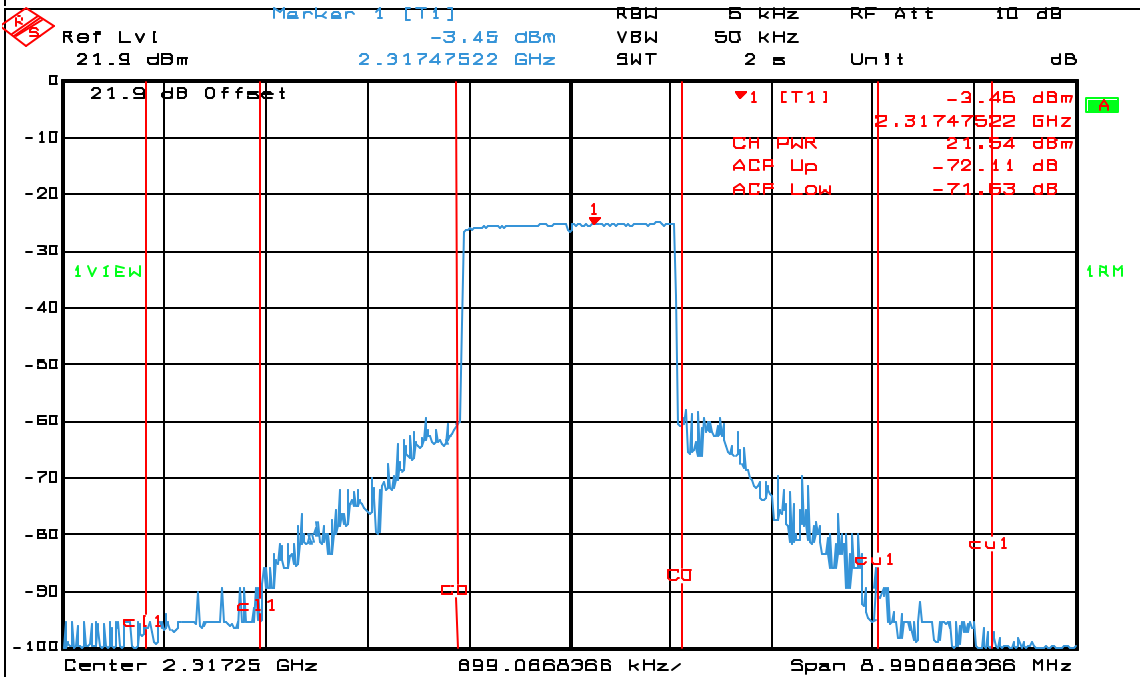
Title: 20C
 Date: 19.NOV.2002 14:16:14

Notes: 10 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 1/19/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Uncontrolled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block C



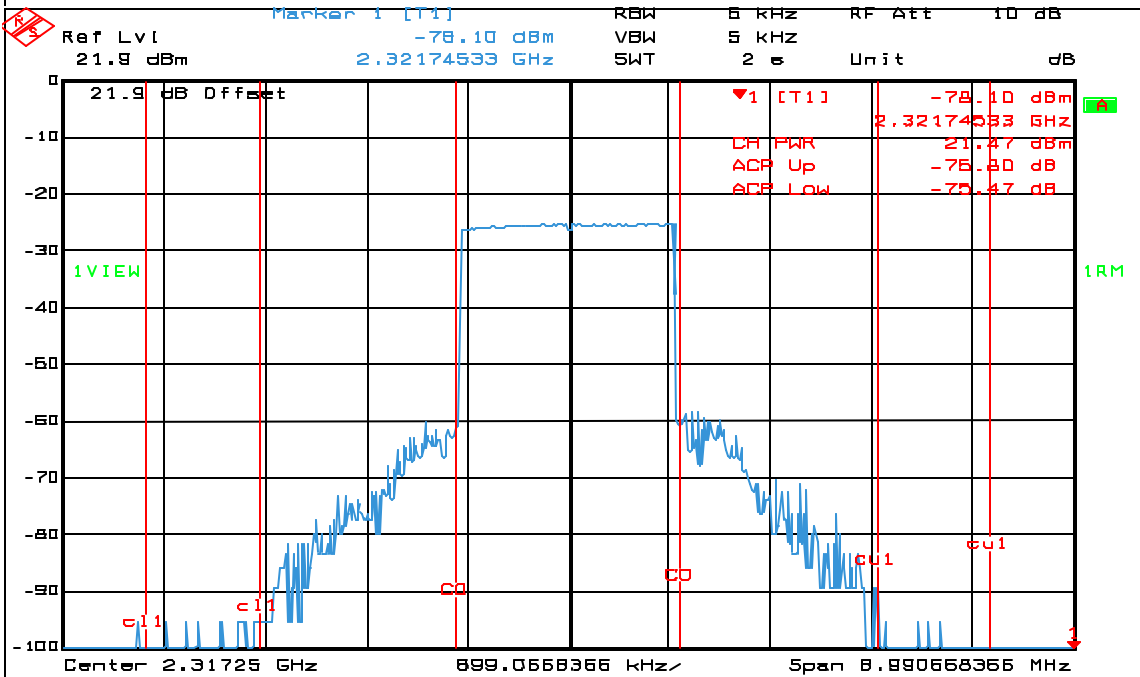
Title: 20C
 Date: 19.NOV.2002 16:18:33

Notes: 0 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 1/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block C



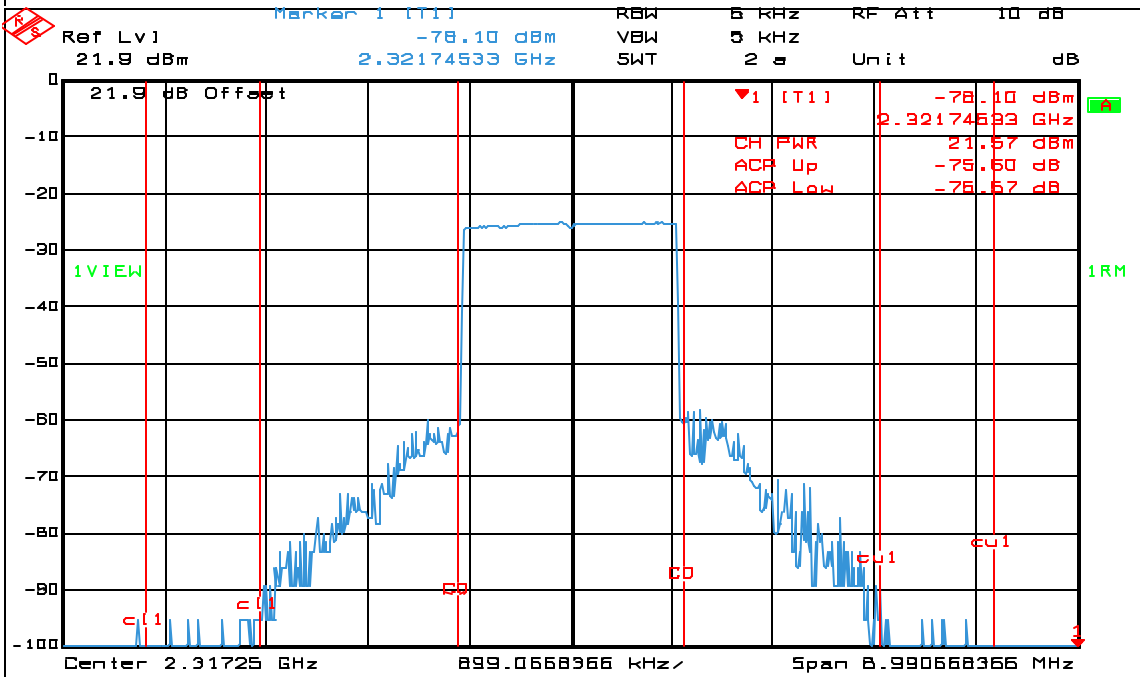
Title: 20C
 Date: 18.NOV.2002 17:00:31

Notes: -10 Deg

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 1/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block C



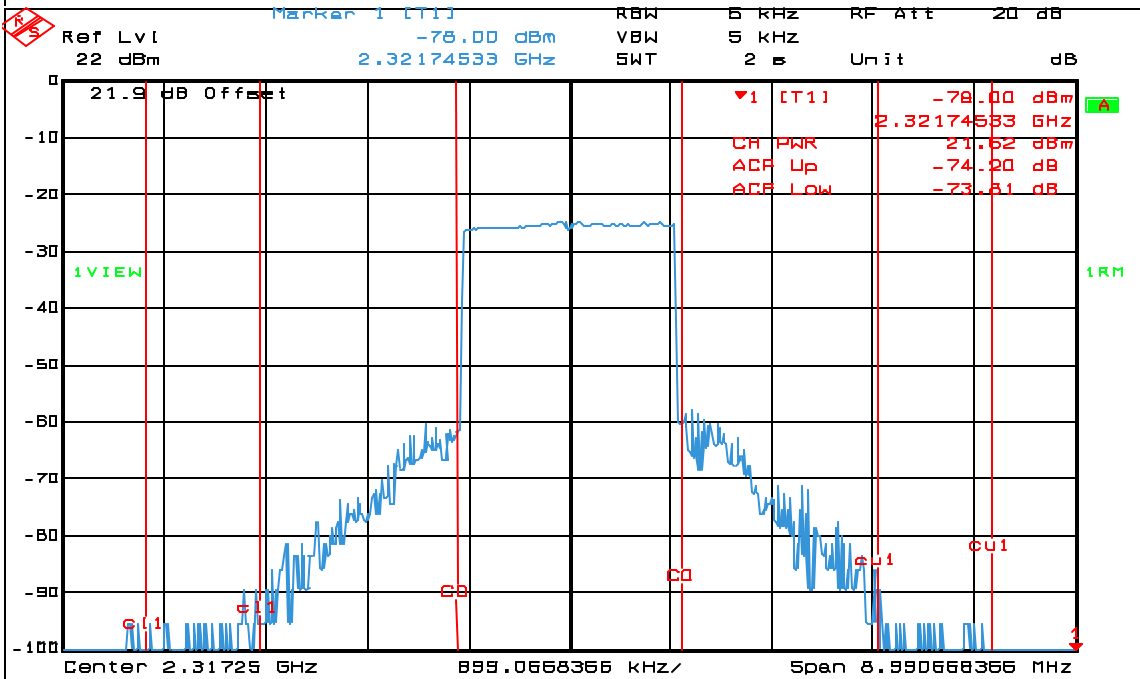
Title: 20C
 Date: 19.NOV.2002 17:35:12

Notes: -20 Degrees

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 1/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block C



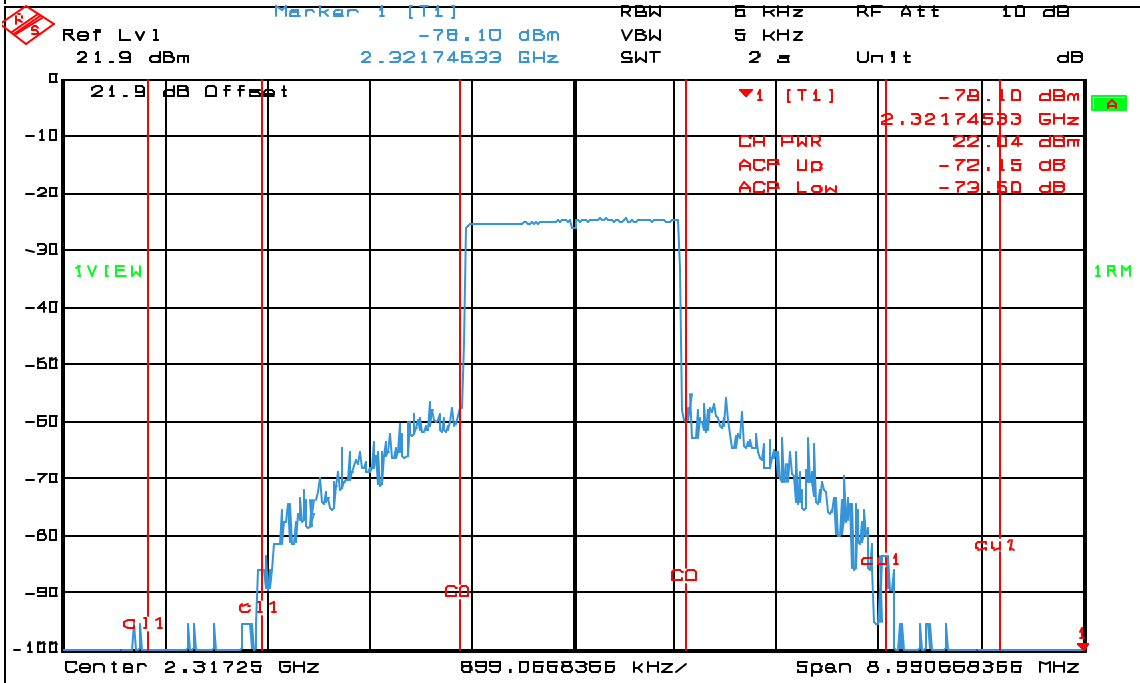
Title: 200
 Date: 19.NOV.2002 18:19:31

Notes: -30 Degrees

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 1/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block C



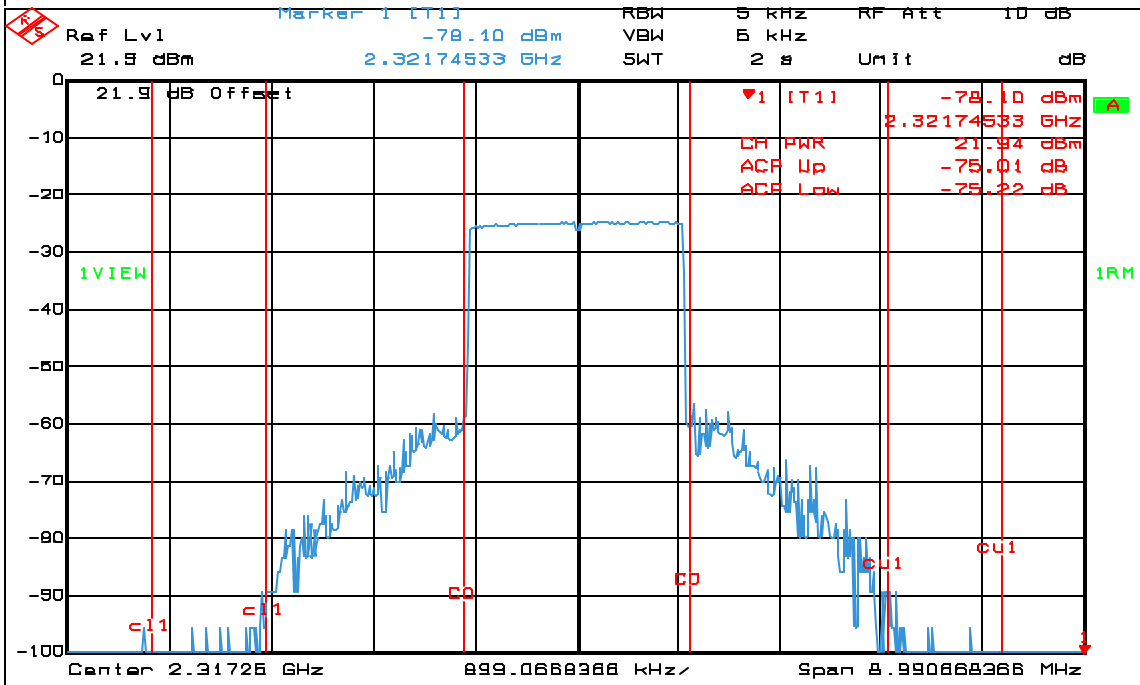
Title: 20C
 Date: 22.NOV.2002 17:35:09

Notes: 20 Degrees, 5 Vdc

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 1/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block C



Title: 20C
 Date: 22.NOV.2002 17:33:19

Notes: 20 Degrees, 6.9 Vdc

EQUIPMENT: 2.3 GHz CPE

Test Data – Frequency Stability – Block D

Data Plot

Page 1 of 11

Job No.: 2L0527 Date: 11/19/02 Complete X
 Preliminary _____

Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Not Controlled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block D
 Sample Number: 1
 Location: _____ RBW: Refer to plots
 Detector Type: Rms VBW: Refer to plots

Test Equipment Used

Antenna: _____ Directional Coupler: _____
 Pre-Amp: _____ Cable #1: 1484
 Filter: _____ Cable #2: _____
 Receiver: 1036 Cable #3: _____
 Attenuator #1: 1474 Cable #4: _____
 Attenuator #2: _____ Mixer: _____
 Additional equipment used: _____
 Measurement Uncertainty: +/-3.6 dB

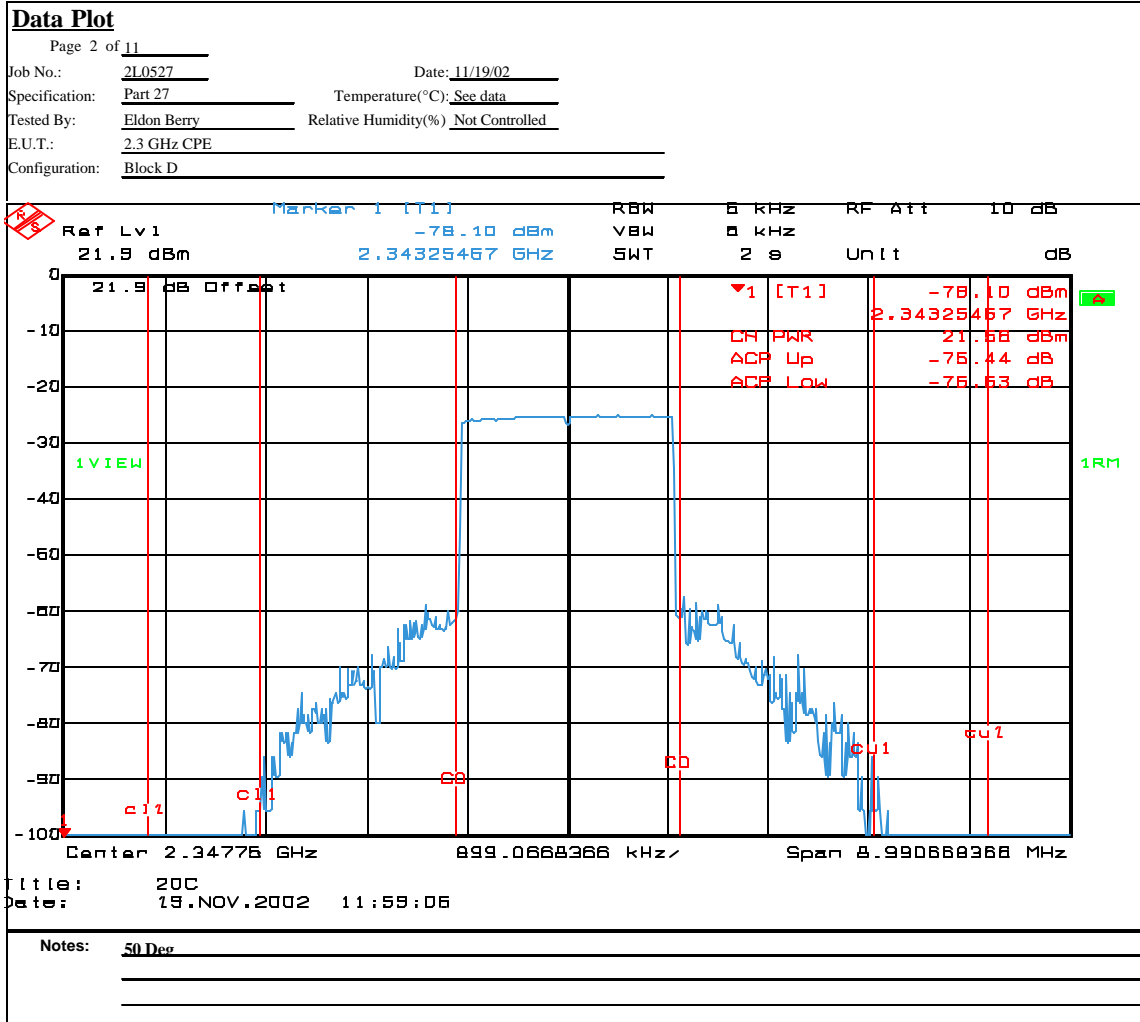
Ref Lvl	21.9 dBm	Marker 1 [T1]	-78.10 dBm	RBW	5 kHz	RF Att	10 dB
			2.34325487 GHz	VBW	5 kHz		
				SWT	2 s	Unit	dB

Center 2.34775 GHz 899.0668988 kHz Span 0.990668988 MHz

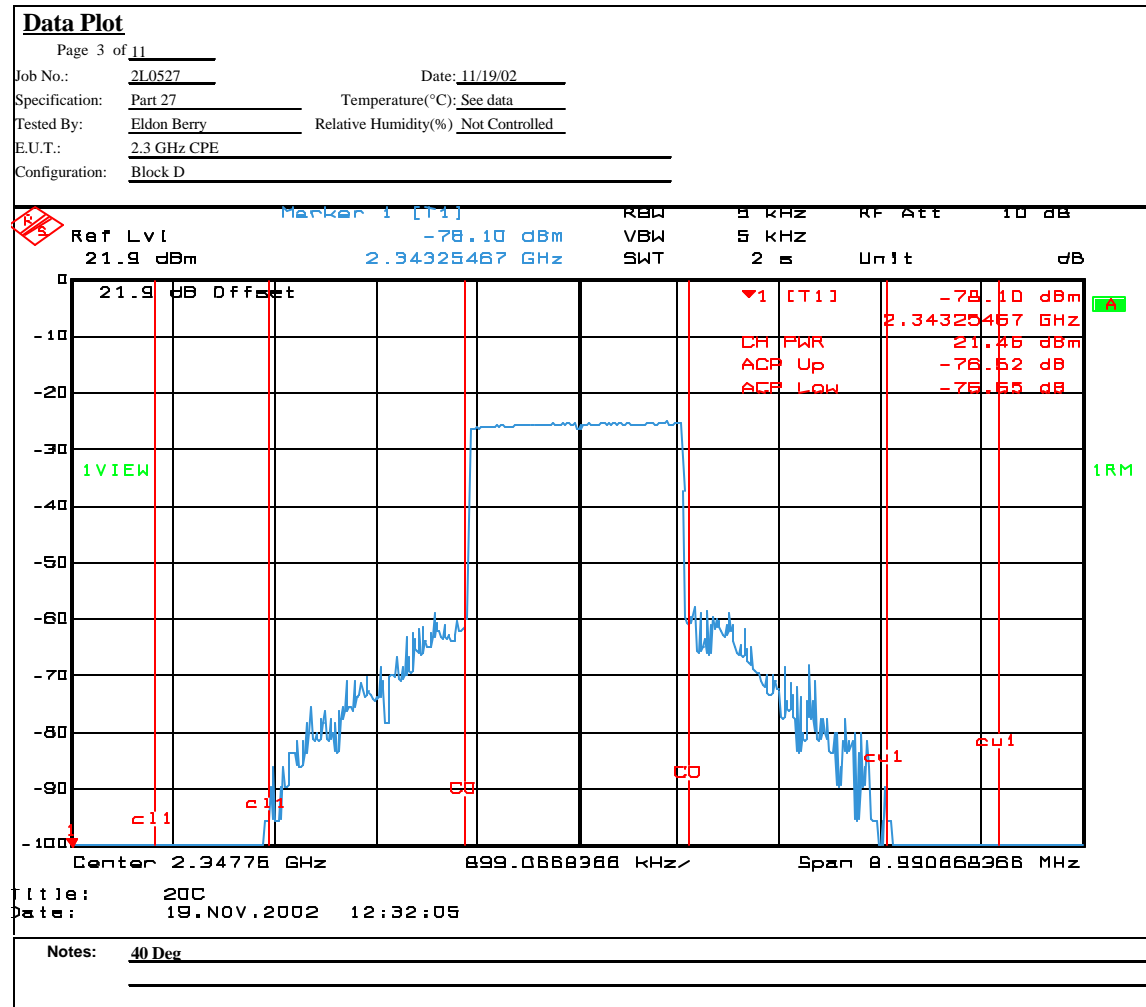
Title: 20C
 Date: 19.NOV.2002 11:15:42

Notes: 20 Dec

EQUIPMENT: 2.3 GHz CPE



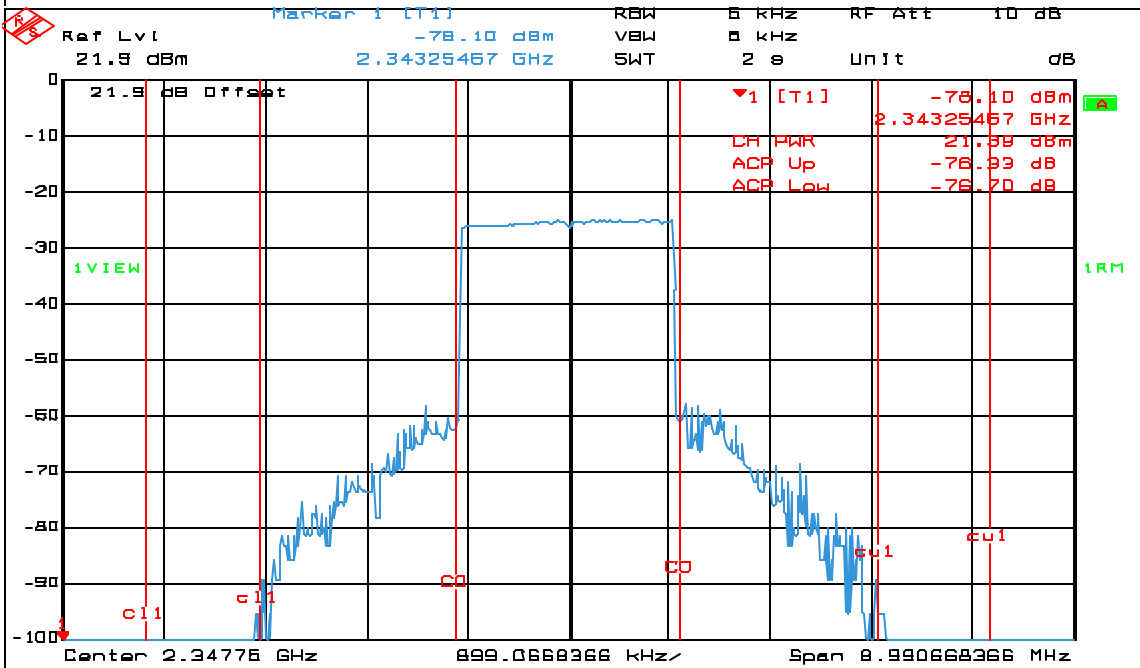
EQUIPMENT: 2.3 GHz CPE



EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 4 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Not Controlled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block D



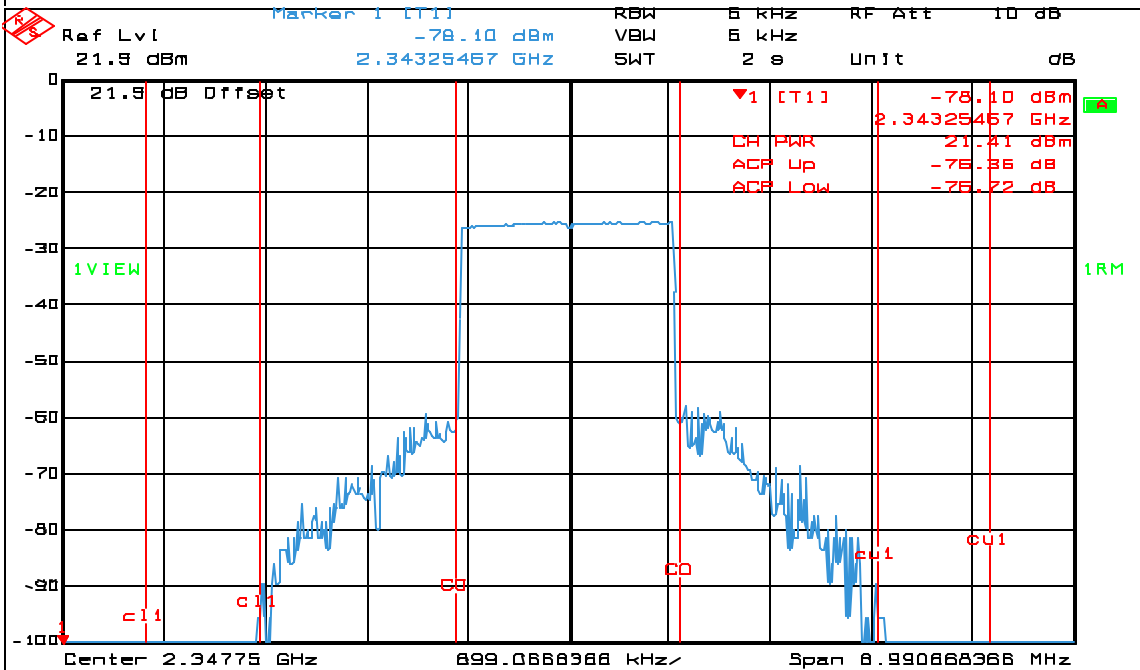
Title: 20C
 Date: 19.NOV.2002 13:29:41

Notes: 30 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 5 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Not Controlled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block D



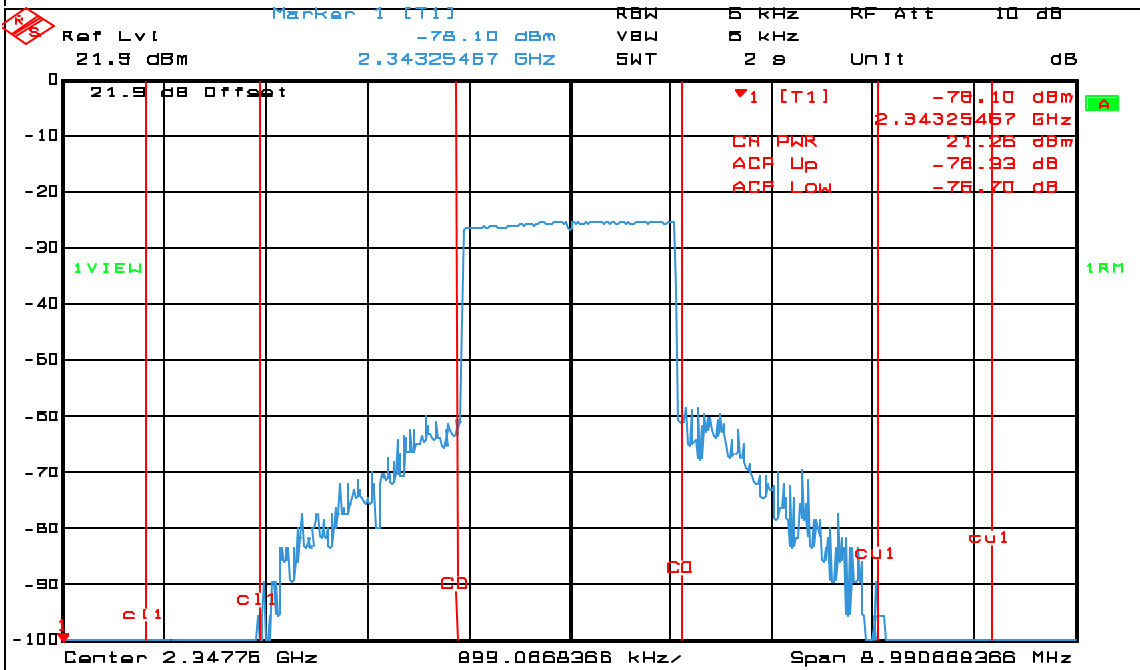
Title: 20C
 Date: 19.NOV.2002 14:18:48

Notes: 10 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C): See data
 Tested By: Eldon Berry Relative Humidity(%) Not Controlled
 E.U.T.: 2.3 GHz CPE
 Configuration: Block D



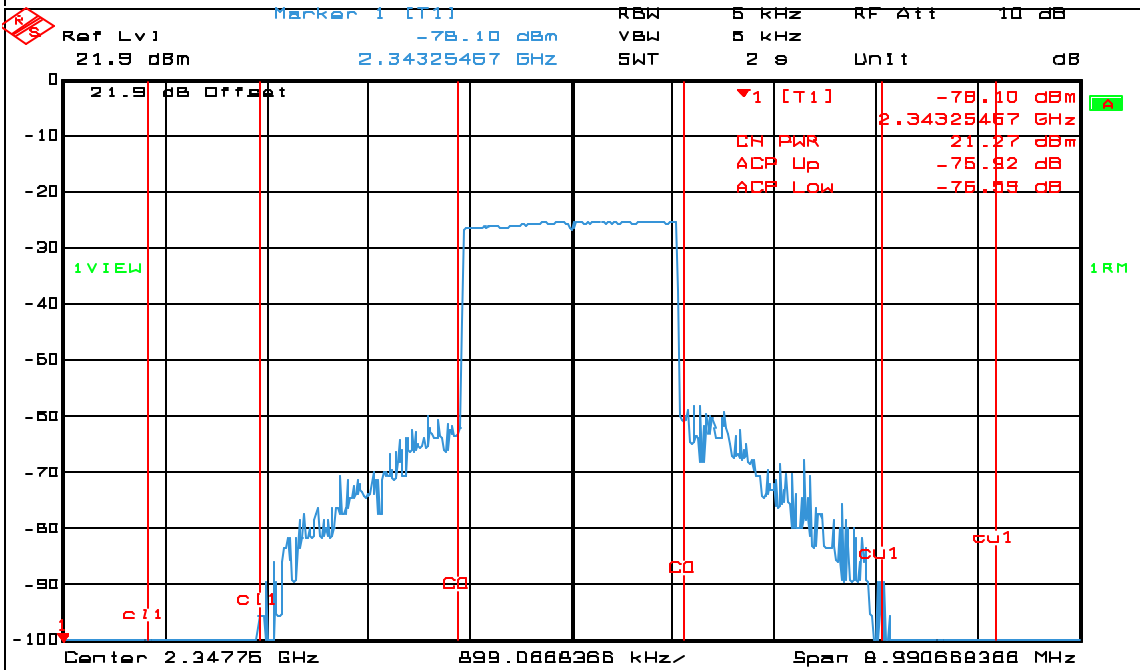
Title: 20C
 Date: 19.NOV.2002 16:20:32

Notes: 0 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block D



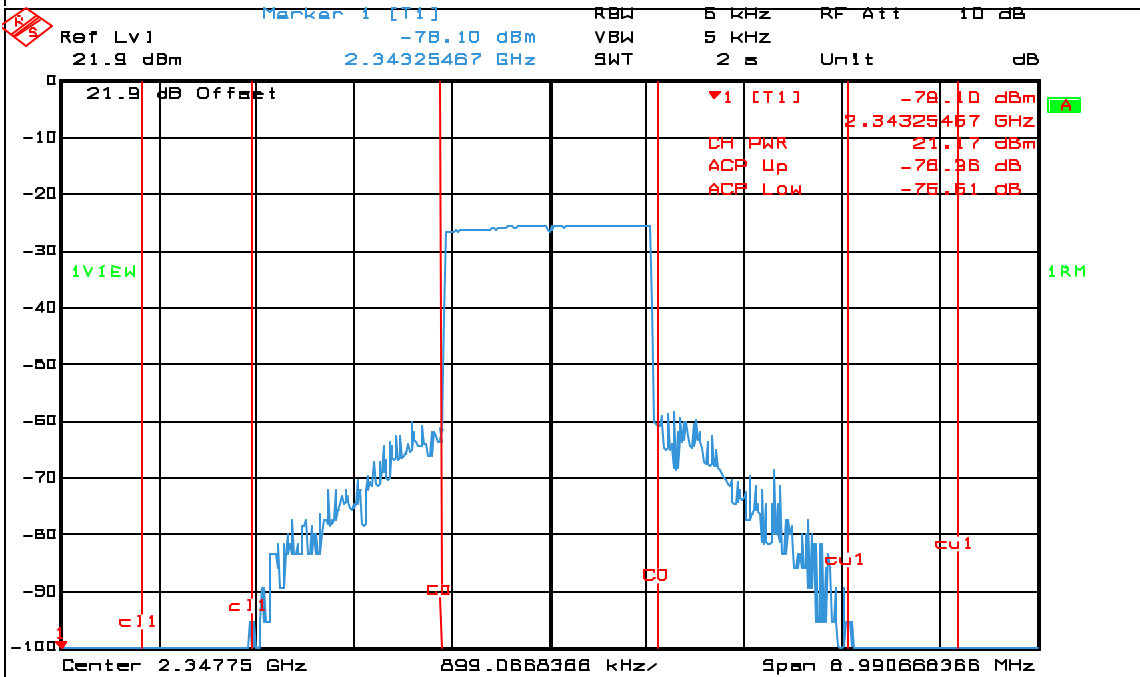
Title: 2DC
 Date: 19.NOV.2002 17:02:55

Notes: -10 Dec

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block D



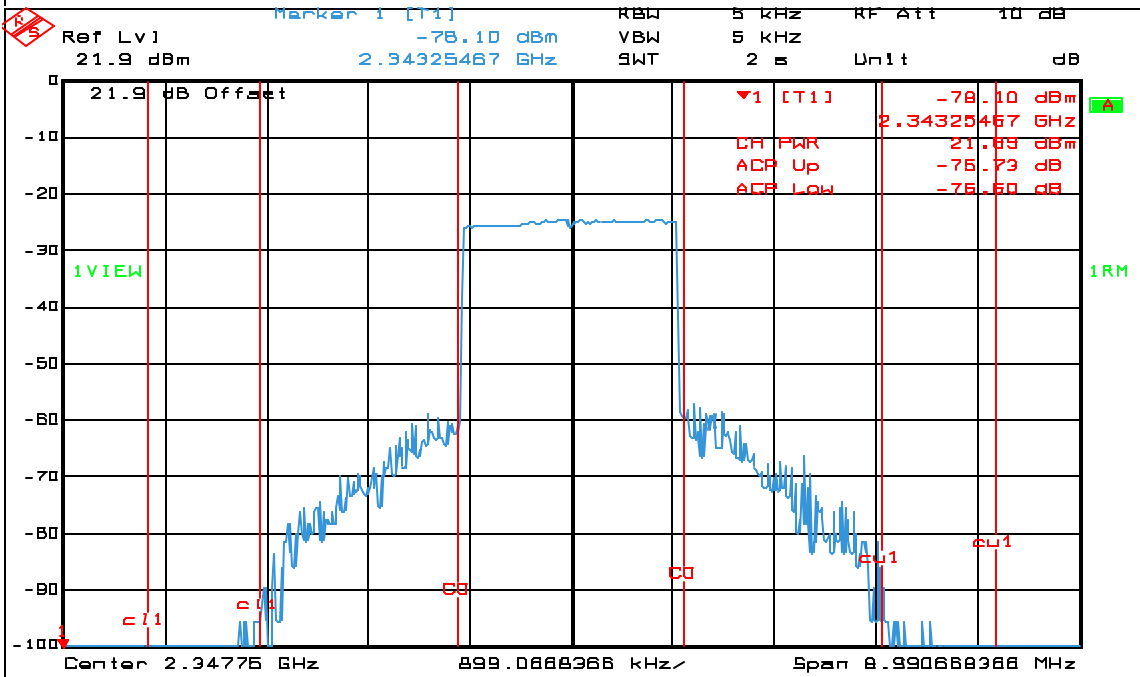
Title: 20C
 Date: 19.NOV.2002 17:32:52

Notes: -20 Degrees

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block D



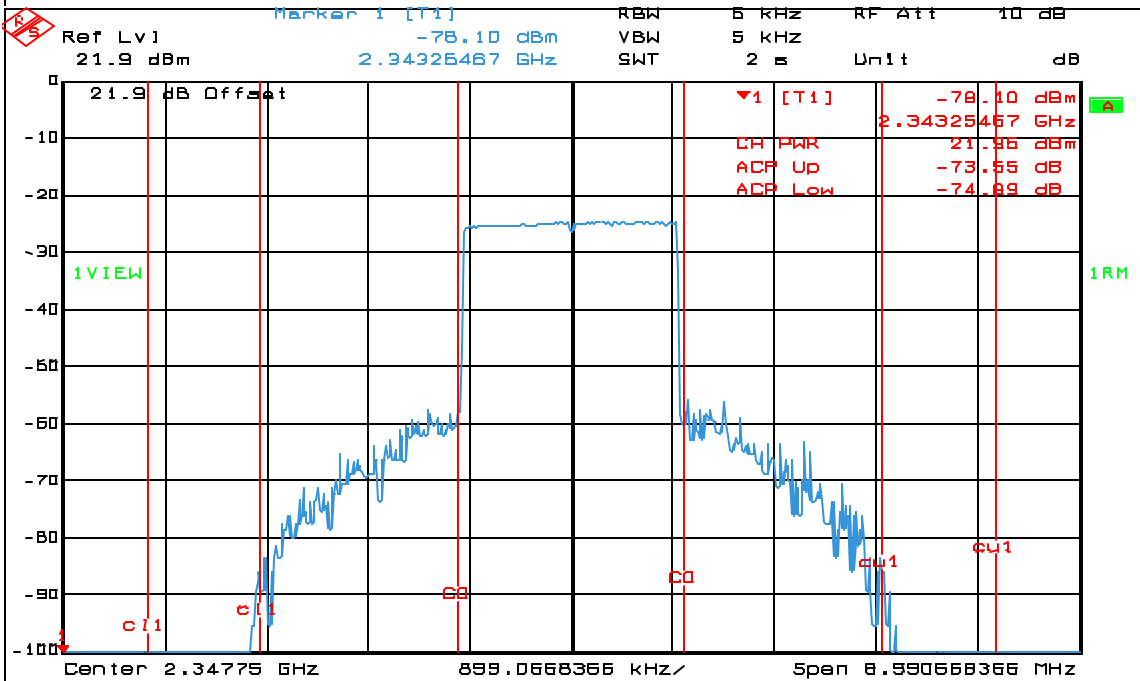
Title: 20C
 Date: 19.NOV.2002 18:21:16

Notes: -30 Degrees

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block D



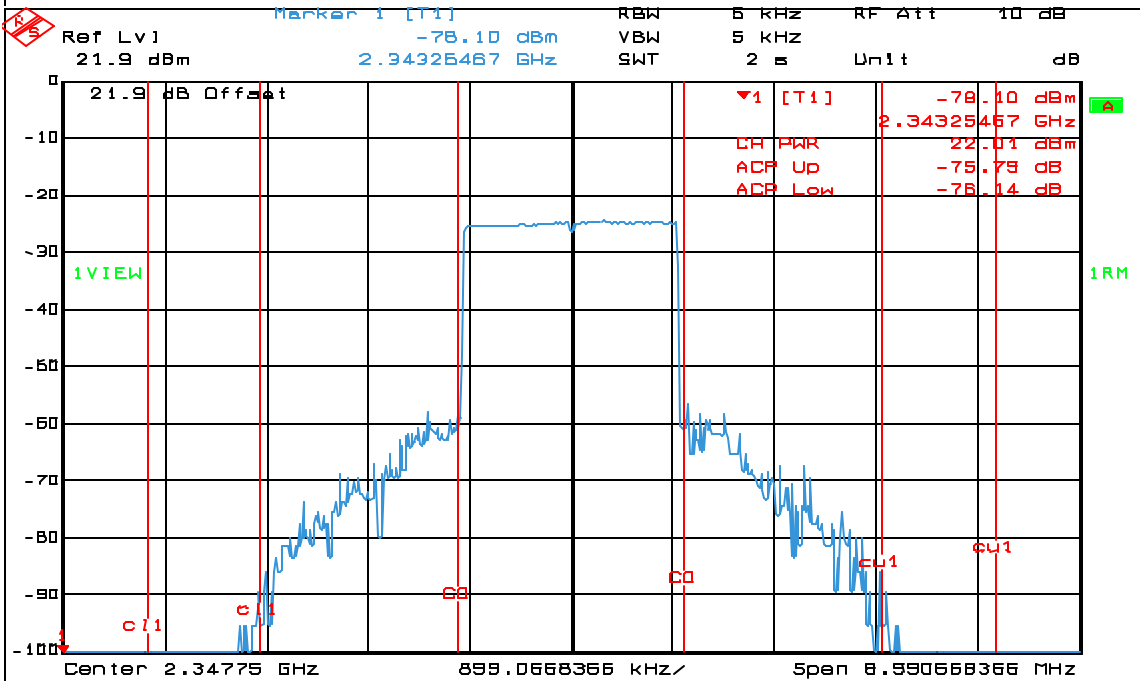
Title: 20C
 Date: 22.NOV.2002 17:40:09

Notes: 20 Degrees, 5Vdc

EQUIPMENT: 2.3 GHz CPE

Test Plot:

Page 6 of 11
 Job No.: 2L0527 Date: 11/19/02
 Specification: Part 27 Temperature(°C):
 Tested By: Eldon Berry Relative Humidity(%)
 E.U.T.: 2.3 GHz CPE
 Configuration: Block D



Title: 20C
 Date: 22.NOV.2002 17:43:24

Notes: 20 Degrees, 6.9 Vdc

EQUIPMENT: 2.3 GHz CPE

Section 8. Test Equipment List

Nemko ID	Description	Manufacturer Model Number	Serial Number	Calibration Date	Calibration Due
1036	SPECTRUM ANALYZER	ROHDE & SCHWARZ FSEK30	830844/006	12/18/01	12/19/03
1474	20db Attenuator DC 18 Ghz	MCL Inc. BW-S20W2	NONE	CBU	N/A
1484	Cable 2.0-18.0 Ghz	Storm PR90-010-072	N/A	07/15/02	07/15/03
1304	HORN ANTENNA	ELECTRO METRICS RGA-60	6151	07/30/01	07/31/03
1016	Pre-Amp	HEWLETT PACKARD 8449A	2749A00159	07/15/02	07/15/03
1482	Band Pass Filter	K & L 11SH10-4000/T12000-0/0	2	Cal B4 Use	N/A
1484	Cable 2.0-18.0 Ghz	Storm PR90-010-072	N/A	07/15/02	07/15/03
1485	Cable 2.0-18.0 Ghz	Storm PR90-010-216	N/A	07/15/02	07/15/03
283	Environmental Chamber with controller # 1189006	ENVIROTRONICS SH27 & 2030-22844	129010083	01/10/02	01/10/03

Nemko Dallas

FCC PART 27, SUBPART C
MULTIPOINT DISTRIBUTION SERVICE
PROJECT NO.:2L0527RUS1

EQUIPMENT: 2.3 GHz CPE

Section 9. Test Details

Nemko Dallas

FCC PART 27, SUBPART C
MULTIPOINT DISTRIBUTION SERVICE
PROJECT NO.:2L0527RUS1

EQUIPMENT: 2.3 GHz CPE

NAME OF TEST: RF Power Output	PARA. NO.: 2.1046
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Method Of Measurement:

Antenna Conducted:

The rms power at antenna terminals is measured using a Power Meter. Power output is measured with the maximum rated rf output level.

E.I.R.P.:

Peak EIRP is calculated based on the following:

RMS rf Output Power at antenna terminals: +28 dBm (nominal)

Peak to Average Ratio of rf waveform: 6 dB

Antenna gain (nominal): 5 dBi

Peak EIRP is:

+28 dBm + 6 dB + 5 dBi = +39 dBm (8 watts)

EQUIPMENT: 2.3 GHz CPE

NAME OF TEST: Occupied Bandwidth	PARA. NO.: 2.1049
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Method Of Measurement:

Adjacent Band Emissions:

A portion of the transmitted signal is coupled to a Spectrum Analyzer with a resolution bandwidth of at least 1% of the fundamental bandwidth of the transmitted carrier. A carrier is has a bandwidth of 500 kHz, thus the minimum resolution bandwidth used is 5 kHz.

Out-of-Band Emissions:

A portion of the transmitted signal is coupled to a Spectrum Analyzer with a resolution bandwidth of at least 1 MHz.

The limits are expressed as attenuation below carrier level thus the relative ACP function of the spectrum analyzer is used to show compliance.

The appropriate emission limit is applied to the output waveform to verify compliance.

EQUIPMENT: 2.3 GHz CPE

NAME OF TEST: Spurious Emission at Antenna Terminals	PARA. NO.: 2.1051
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Antenna Conducted:

Method Of Measurement:

Adjacent Band Emissions:

A portion of the transmitted signal is coupled to a Spectrum Analyzer with a resolution bandwidth of at least 1% of the fundamental bandwidth of the transmitted carrier. A carrier is has a bandwidth of 500 kHz, thus the minimum resolution bandwidth used is 5 kHz.

Out-of-Band Emissions:

A portion of the transmitted signal is coupled to a Spectrum Analyzer with a resolution bandwidth of at least 1 MHz.

The limits are expressed as attenuation below carrier level thus the relative ACP function of the spectrum analyzer is used to show compliance.

The appropriate emission limit is applied to the output waveform to verify compliance.

EQUIPMENT: 2.3 GHz CPE

NAME OF TEST: Field Strength of Spurious Radiation

PARA. NO.: 2.1053

The antenna is detachable from the transmitter, thus it is removed and replaced with a 50 ohm load. Emissions are measured up to the 10th harmonic of the highest transmit frequency that the transmitter is capable of producing.

E. I.R.P.:

If the antenna is detachable from the circuit then the antenna is replaced with a 50 ohm load for this test.. The EIRP is measured using the substitution antenna method of measurement as described in EIA/TIA 603B. The field strength of the emission is measured using a RBW setting on the spectrum analyzer greater than the 20 dB bandwidth of the transmitted waveform. The EUT is then replaced with an antenna with known gain relative to either a dipole or an isotropic radiator. A signal generator is used to feed the substitution antenna until the previously measured field strength level is obtained. The level of signal needed to drive the substitution antenna to obtain the previously measured field strength is the eirp.

EQUIPMENT: 2.3 GHz CPE

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NAME OF TEST: Frequency Stability	2.1055
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Method Of Measurement:

Frequency Stability With Voltage Variation:

The E.U.T. is placed in an environmental chamber and allowed to stabilize at +20 degrees Celsius for at least 15 minutes. The spectrum is plotted to determine if the fundamental frequency remains within the specified limits in the authorized band. The procedure is repeated at 85 STV, 100% S.T.V. and 115% S.T.V. with the temperature at 20 degrees Celsius.

Frequency Stability With Temperature Variation:

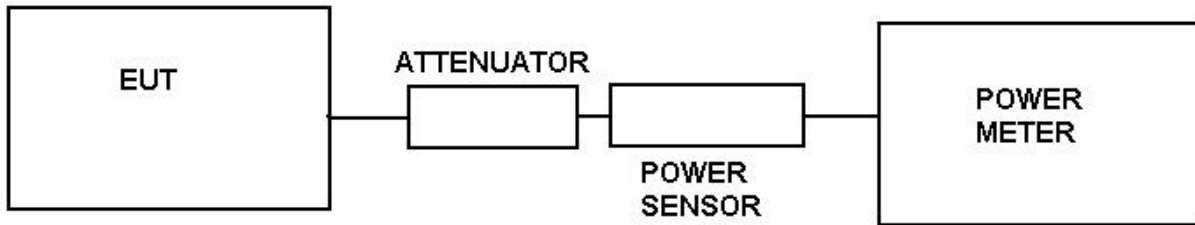
The input voltage to the E.U.T. is set to S.T.V. and the temperature of the environmental chamber is varied in 10 degree steps from -30 degrees C to +50 degrees C. The E.U.T. is allowed to stabilize at each temperature and the spectrum is plotted at each temperature.

EQUIPMENT:
FCC ID:

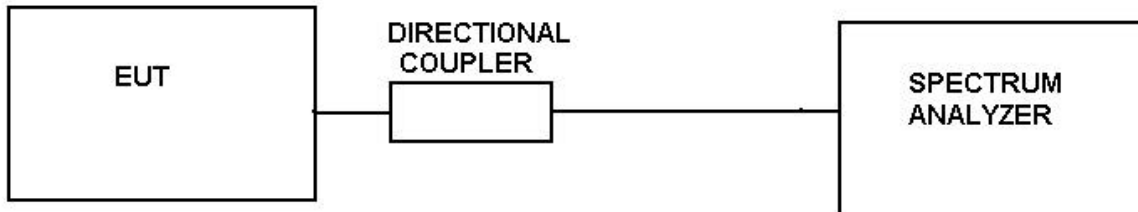
Section 10. Test Diagrams

EQUIPMENT:
FCC ID:

Para. No. 2.1046 - R.F. Power Output

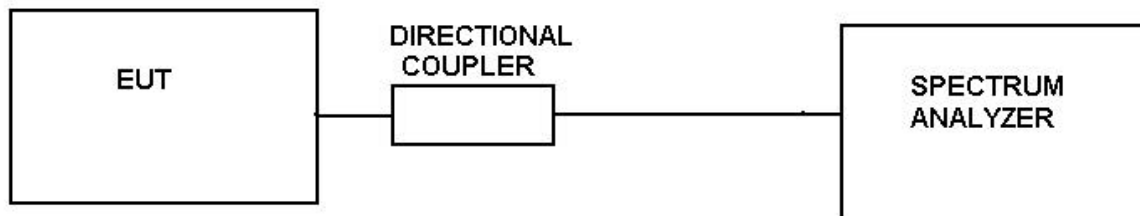


Para. No. 2.1049 - Occupied Bandwidth



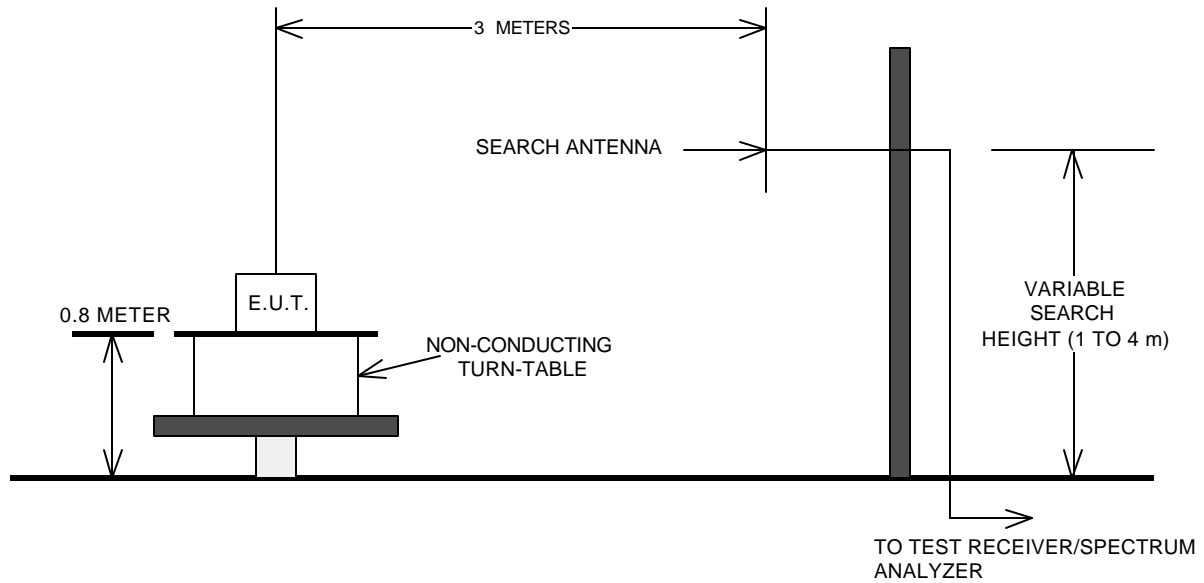
EQUIPMENT:
FCC ID:

Para. No. 2.1051 - Spurious Emissions at Antenna Terminals



EQUIPMENT:
FCC ID:

Para. No. 2.1053 - Field Strength of Radiation



Para. No. 2.1055 - Frequency Stability

