

EMISSION LIMITS

TEST OF MDS LEDR700S

TO REQUIREMENTS OF SECTION 27.53 SHOWN BELOW

150 kHz Base Transmitter ACCP Requirements

Offset from Center Frequency (kHz)	Measurement Bandwidth (kHz)	Maximum ACCP (dBc)
100	50	-40
200	50	-50
300	50	-55
400	50	-60
600 to 1000	30 (s)	-65
1000 to receive band	30 (s)	-75 (continues @-6dB/oct)
In the receive band	30 (s)	-100

TESTED CONFIGURATION

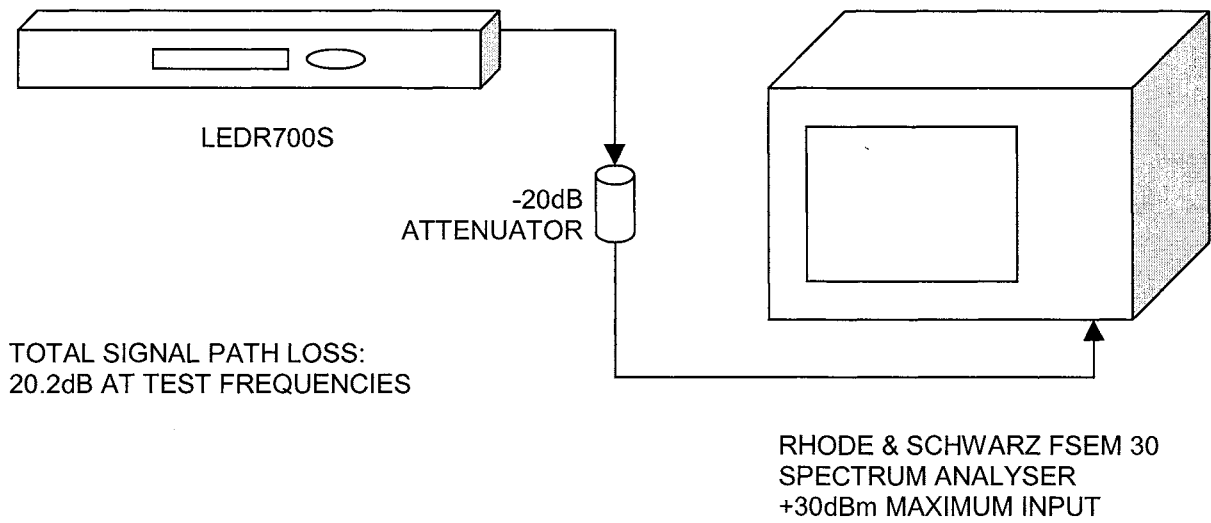
REQUESTED AUTHORIZED BANDWIDTH	100kHz *
MODULATION TYPE	16-QAM
PAYLOAD DATA RATE	256kbps
OUTPUT POWER	1 WATT AVERAGE

* *Authorized bandwidth.* Provided that the ACCP requirements of this section are met, applicants may request any authorized bandwidth that does not exceed the channel size.

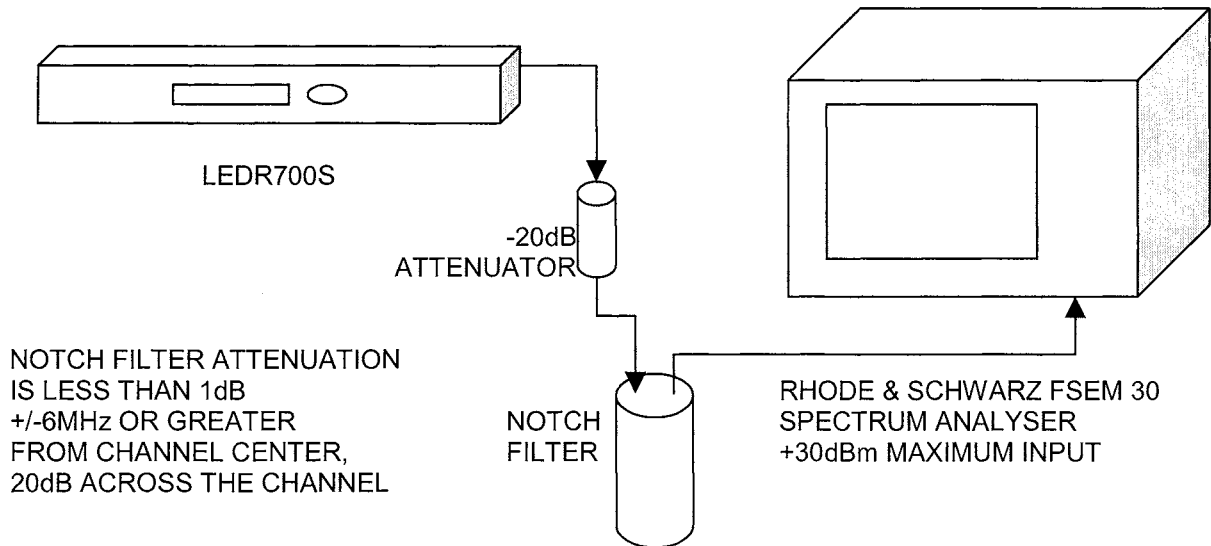
TESTED FREQUENCIES

GUARDBAND	WIDTH	HIGH/CENTER/LOW	FREQUENCY
746MHz-747MHz	1 MHz	CENTER	746.50MHz
762MHz-764MHz	2 MHz	LOW	762.05MHz
762MHz-764MHz	2 MHz	HIGH	763.95MHz
776MHz-777MHz	1 MHz	CENTER	776.50MHz
792MHz-794MHz	2 MHz	LOW	792.05MHz
792MHz-794MHz	2 MHz	HIGH	793.95MHz

TEST OF LEDR700S WITHOUT CHANNEL NOTCH FILTER



TEST OF LEDR700S WITH CHANNEL NOTCH FILTER



MDS Test Equipment List

Spectrum Analyser

Rhode & Schwarz Model FSEM 30
S/N 849016/011
Calibrated on 6-04-02
Calibration Due on 6-04-03

Power Meter (Used to Verify 1 Watt Average Output Power)

Hewlett-Packard Model 436A
S/N 2101A08734
Calibrated on 12-9-02
Calibration Due on 12-19-03

Network Analyser (Used to tune Notch Filter and Verify Path Loss)

Hewlett-Packard Model 8753D
S/N 3410A08458
Calibrated on 1-14-03
Calibration Due on 1-14-04

Network Analyser (Used to tune Notch Filter and Verify Path Loss)

Hewlett-Packard Model 8753D
S/N 3410A08437
Calibrated on 11-26-01
Calibration Due on 11-26-03

20dB Attenuator

JFW Model 50FH-020-10

Tunable Notch Filter

Microwave Filter Company Model 6367-5

EMISSION LIMITS PER SECTION 27.53 IN WT Docket No. 99-168 SECOND REPORT AND ORDER
MEASURED CHANNEL CENTER FREQUENCY (MHz):
746.5000

+/-100kHz and +/-200kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label		Center (MHz)	Adjacent Channel Frequency Limits Shown On Plot (MHz)							
			cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+100kHz	746.6000					746.5750	746.6250		
ACP Low	-100kHz	746.4000			746.3750	746.4250				
ALT1 Up	+200kHz	746.7000							746.6750	746.7250
ALT2 Low	-200kHz	746.3000	746.2750	746.3250						

+/-300kHz and +/-400kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label		Center (MHz)	Adjacent Channel Frequency Limits Shown On Plot (MHz)							
			cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+300kHz	746.8000					746.7750	746.8250		
ACP Low	-300kHz	746.2000			746.1750	746.2250				
ALT1 Up	+400kHz	746.9000							746.8750	746.9250
ALT2 Low	-400kHz	746.1000	746.0750	746.1250						

+/-600kHz and +/-1000kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Marker		Frequency (MHz)
1	-1000kHz	745.5000
2	-600kHz	745.9000
3	+600kHz	747.1000
4	+1000kHz	747.5000

Frequencies for plot with 84MHz Span *

LOW		RECEIVE		HIGH
704.5000		776.5000		788.5000

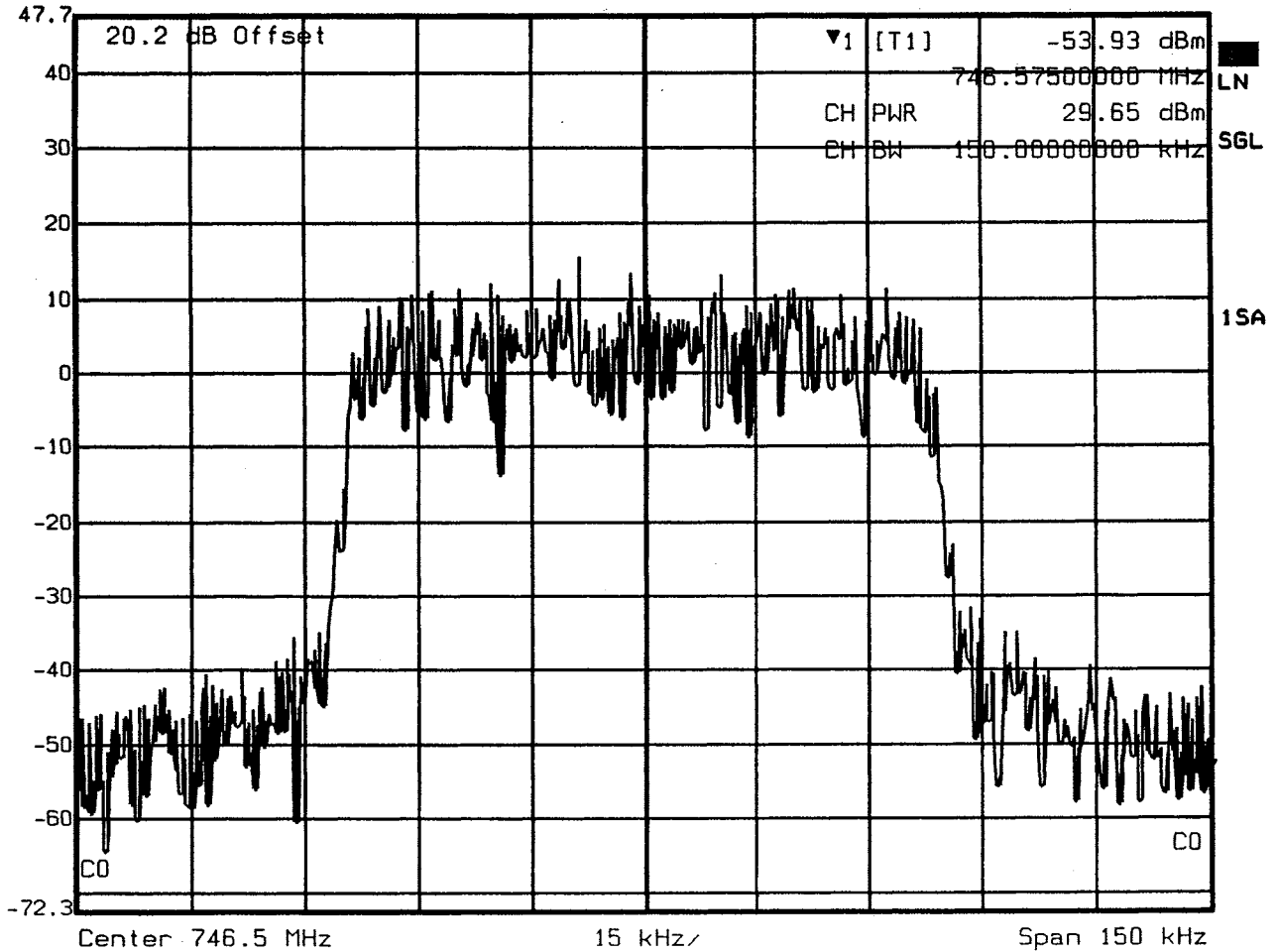
Frequencies for plots with 12MHz Spans *

LOW		CENTER		HIGH
704.5000		710.5000		716.5000
716.5000		722.5000		728.5000
728.5000		734.5000		740.5000
740.5000		746.5000		752.5000
752.5000		758.5000		764.5000
764.5000		770.5000		776.5000
776.5000		782.5000		788.5000

* Channel Notch Filter Used Unless Otherwise Noted



Marker 1 [T1] RBW 300 Hz RF Att 40 dB
 Ref Lvl -53.93 dBm VBW 300 Hz Mixer -20 dBm
 47.7 dBm 746.57500000 MHz SWT 8.4 s Unit dBm



Date: 10.JAN.2003 19:00:38

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 746.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

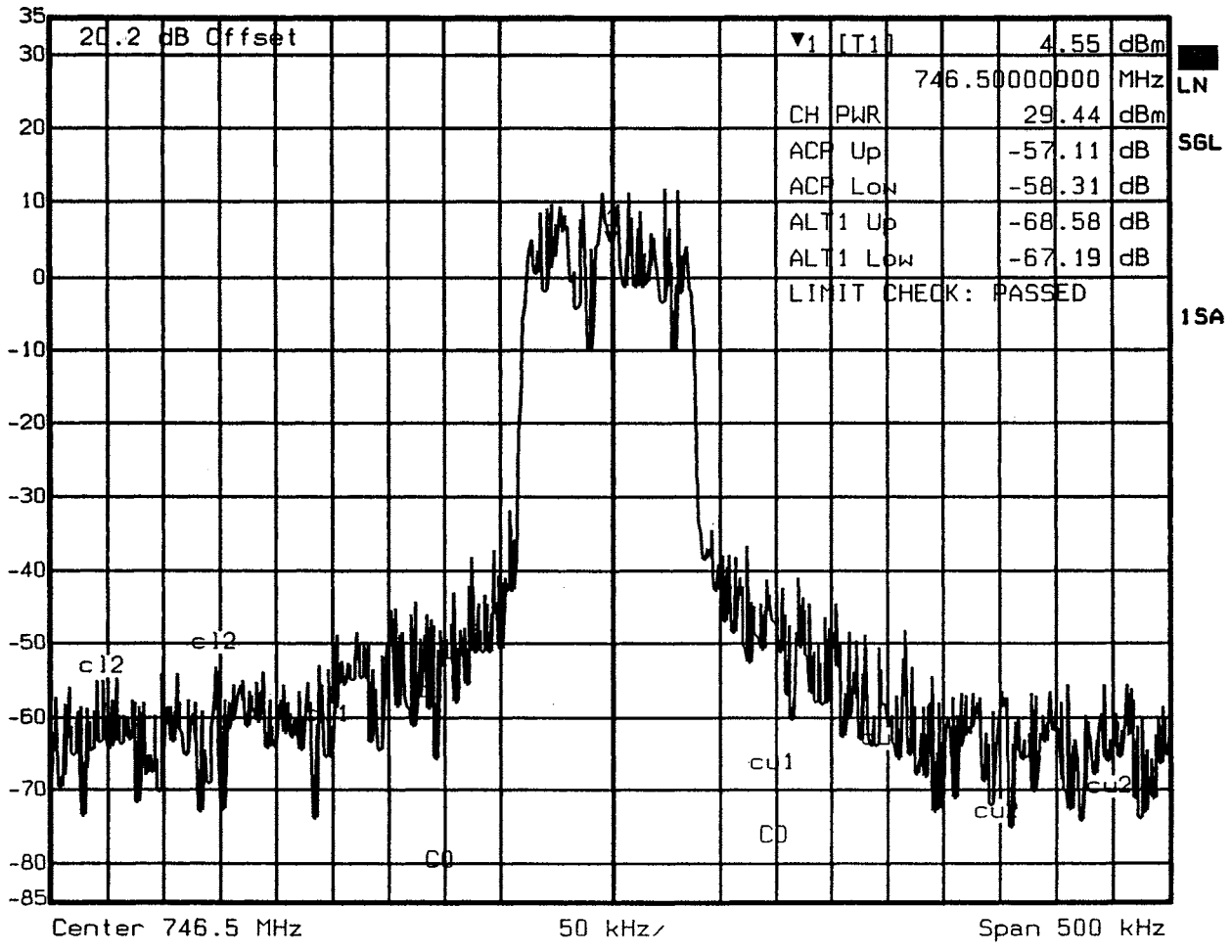
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 967650

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl 4.55 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 746.5000000 MHz SWT 28 s Unit dBm



+/-100kHz and +/-200kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label Center (MHz) Adjacent Channel Frequency Limits Shown On Plot (MHz)

Label	Offset	Center (MHz)	cl2	cl1	cu1	cu2
ACP Up	+100kHz	746.6000			746.5750	746.6250
ACP Low	-100kHz	746.4000		746.3750	746.4250	
ALT1 Up	+200kHz	746.7000				746.6750
ALT2 Low	-200kHz	746.3000	746.2750	746.3250		

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 746.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

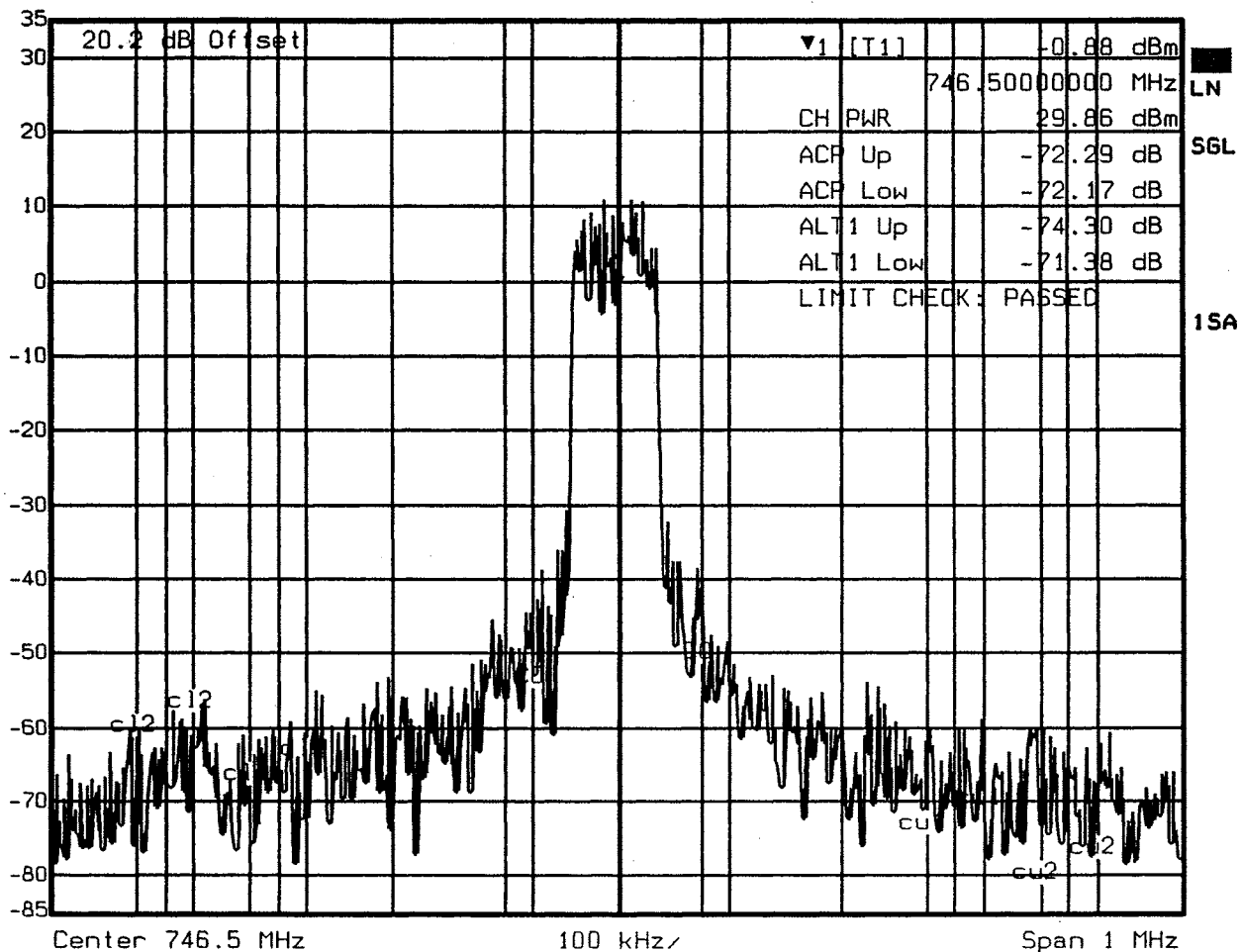
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 967650

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl -0.88 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 746.5000000 MHz SWT 56 s Unit dBm



+/-300kHz and +/-400kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label Center (MHz) Adjacent Channel Frequency Limits Shown On Plot (MHz)

		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+300kHz	746.8000				746.7750	746.8250		
ACP Low	-300kHz	746.2000		746.1750	746.2250				
ALT1 Up	+400kHz	746.9000						746.8750	746.9250
ALT2 Low	-400kHz	746.1000	746.0750	746.1250					

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 746.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

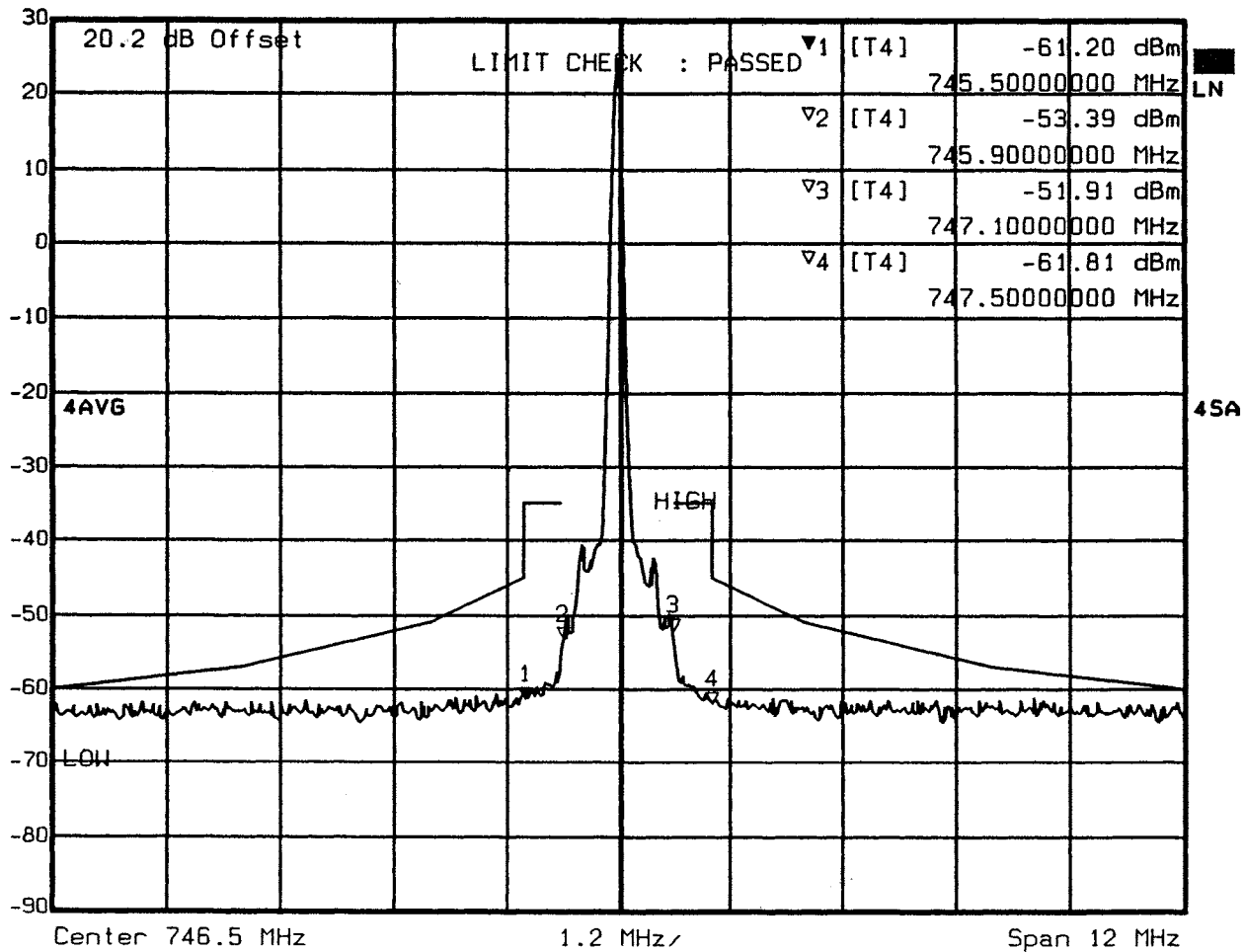
Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 967650

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -61.20 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 745.5000000 MHz SWT 34 ms Unit dBm



Date: 3.FEB.2003 19:07:01

+/-600kHz and +/-1000kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Marker	Frequency (MHz)
1	-1000kHz 745.5000
2	-600kHz 745.9000
3	+600kHz 747.1000
4	+1000kHz 747.5000

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

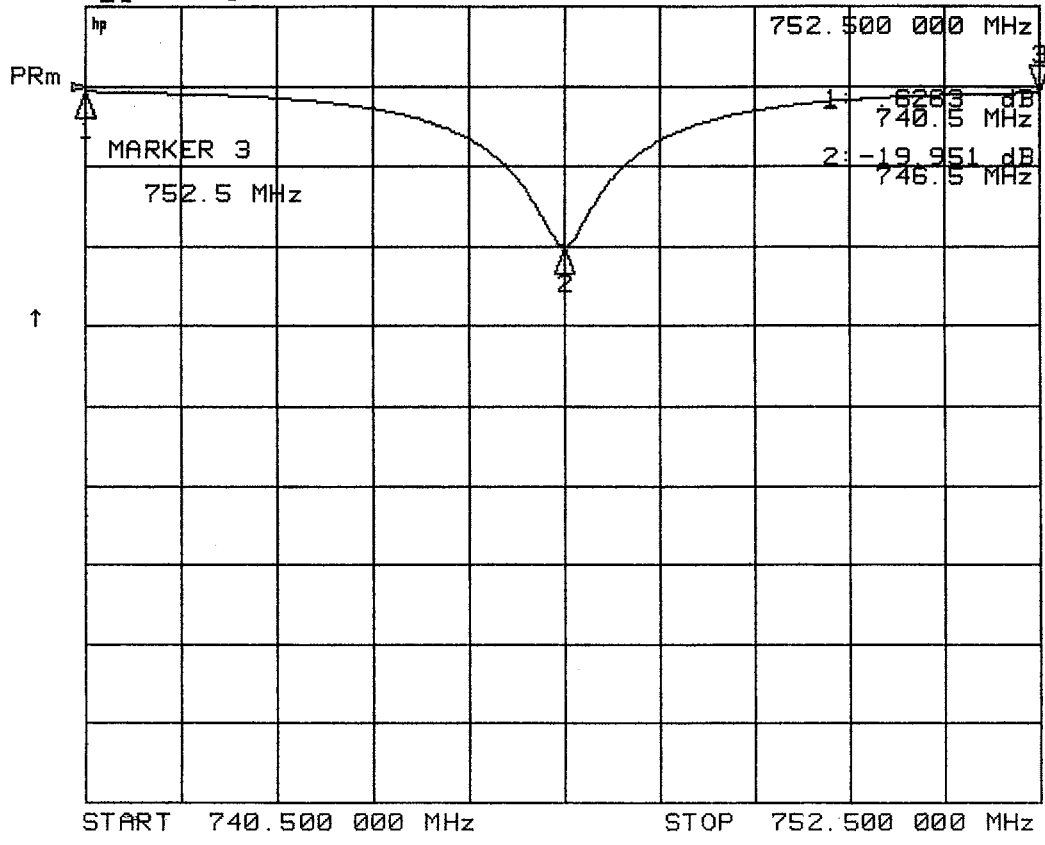
Frequency: 746.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 967650

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS

10 Feb 2003 14:55:46
CH1 S21 log MAG 10 dB/ REF 0 dB 3: -.7954 dB

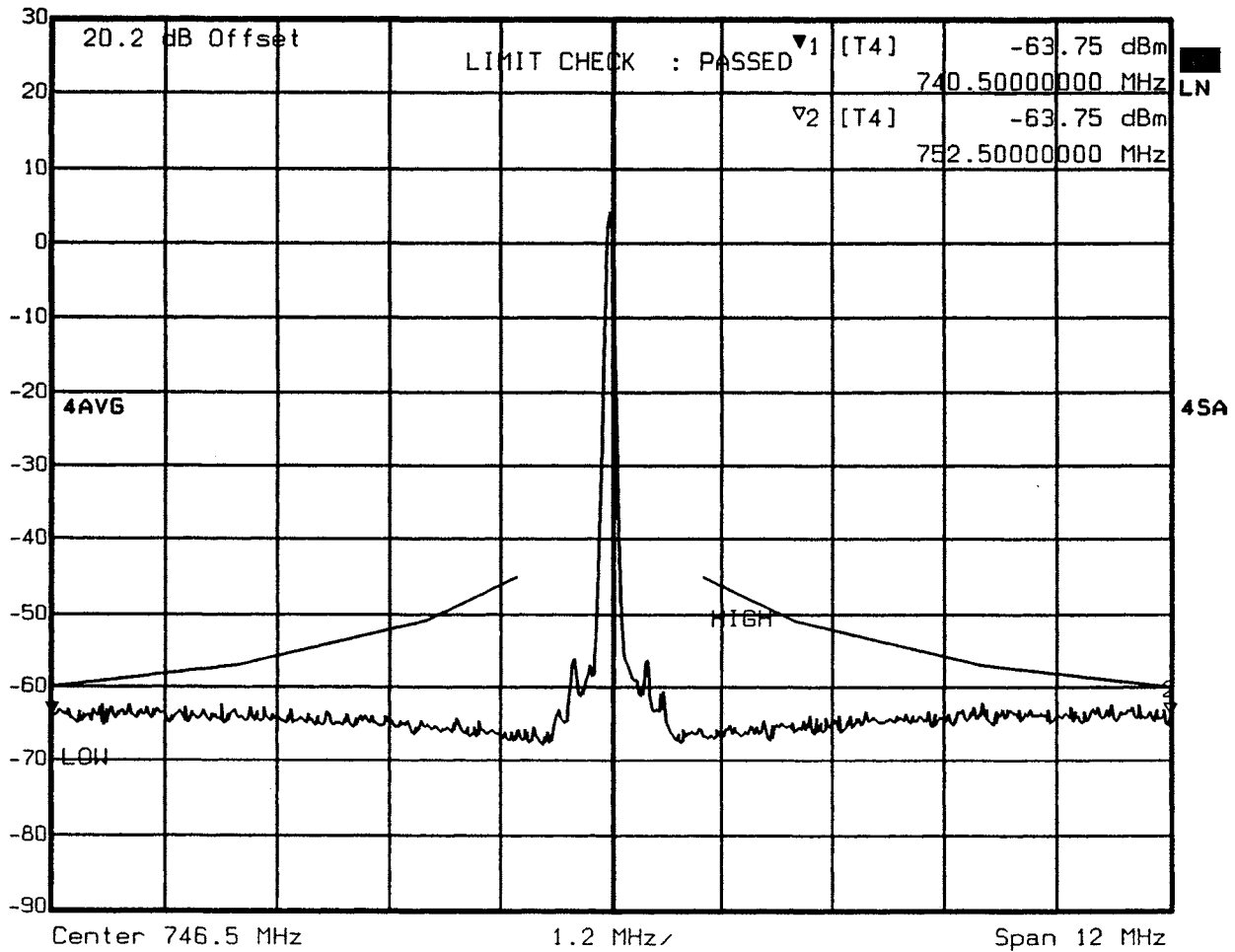


CHANNEL NOTCH FILTER RESPONSE

Insertion Loss When Tuned To 746.5 MHz.



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -63.75 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 740.5000000 MHz SWT 34 ms Unit dBm



Date: 3.FEB.2003 18:06:28

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 746.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

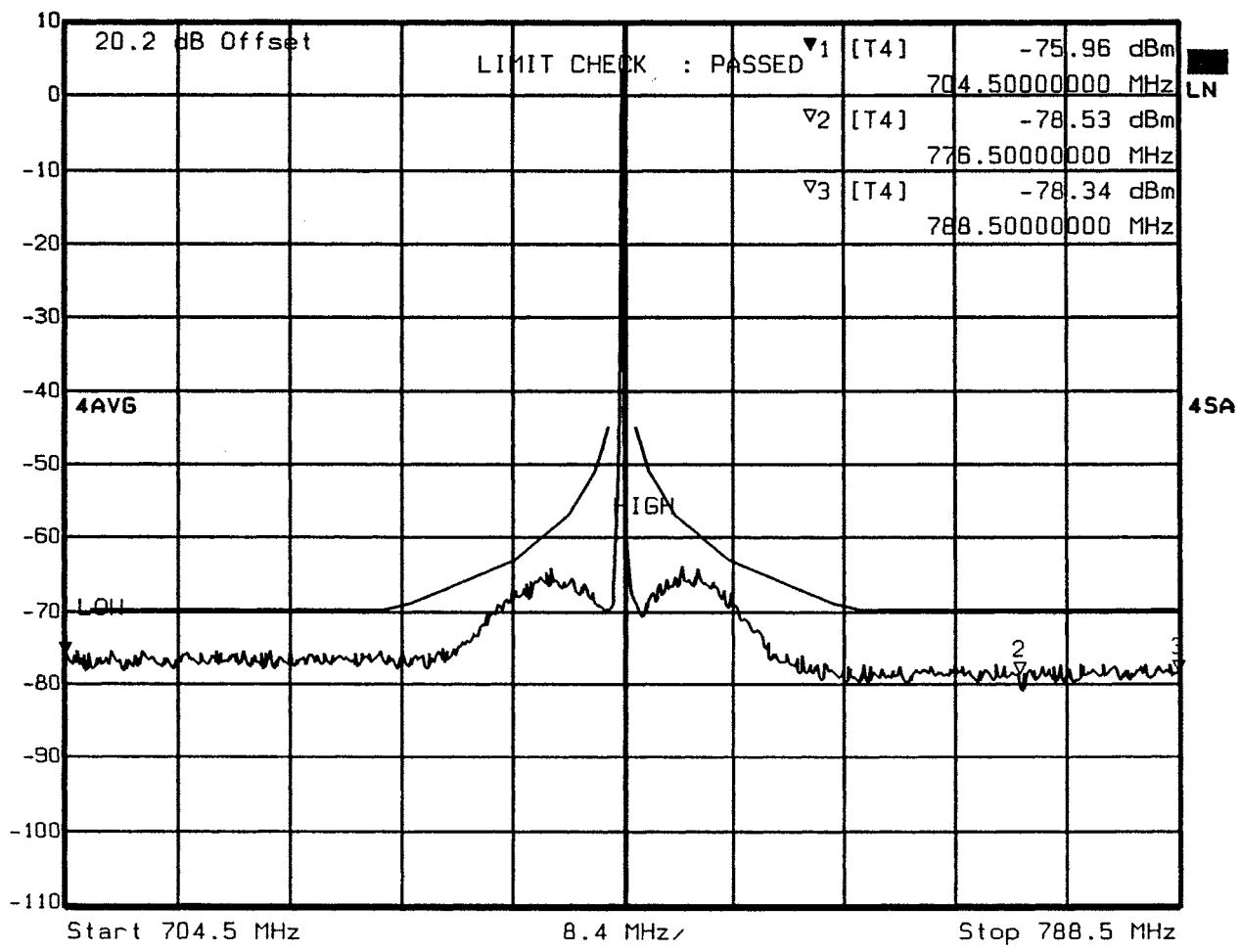
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 967650

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -75.96 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 704.5000000 MHz SWT 235 ms Unit dBm



Date: 3.FEB.2003 18:53:28

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 746.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

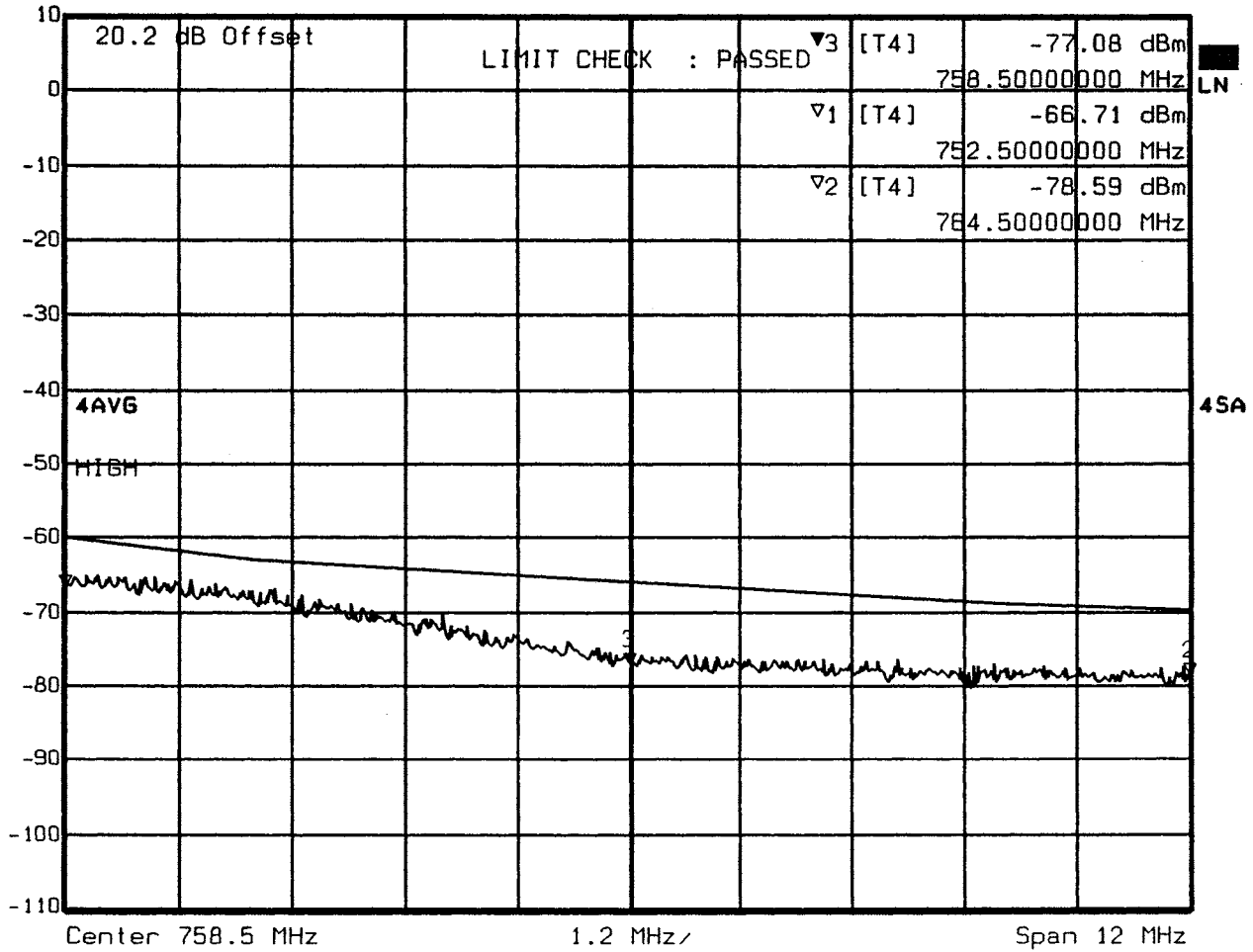
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 967650

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 3 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -77.08 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 758.5000000 MHz SWT 34 ms Unit dBm



Date: 3.FEB.2003 18:18:11

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 746.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

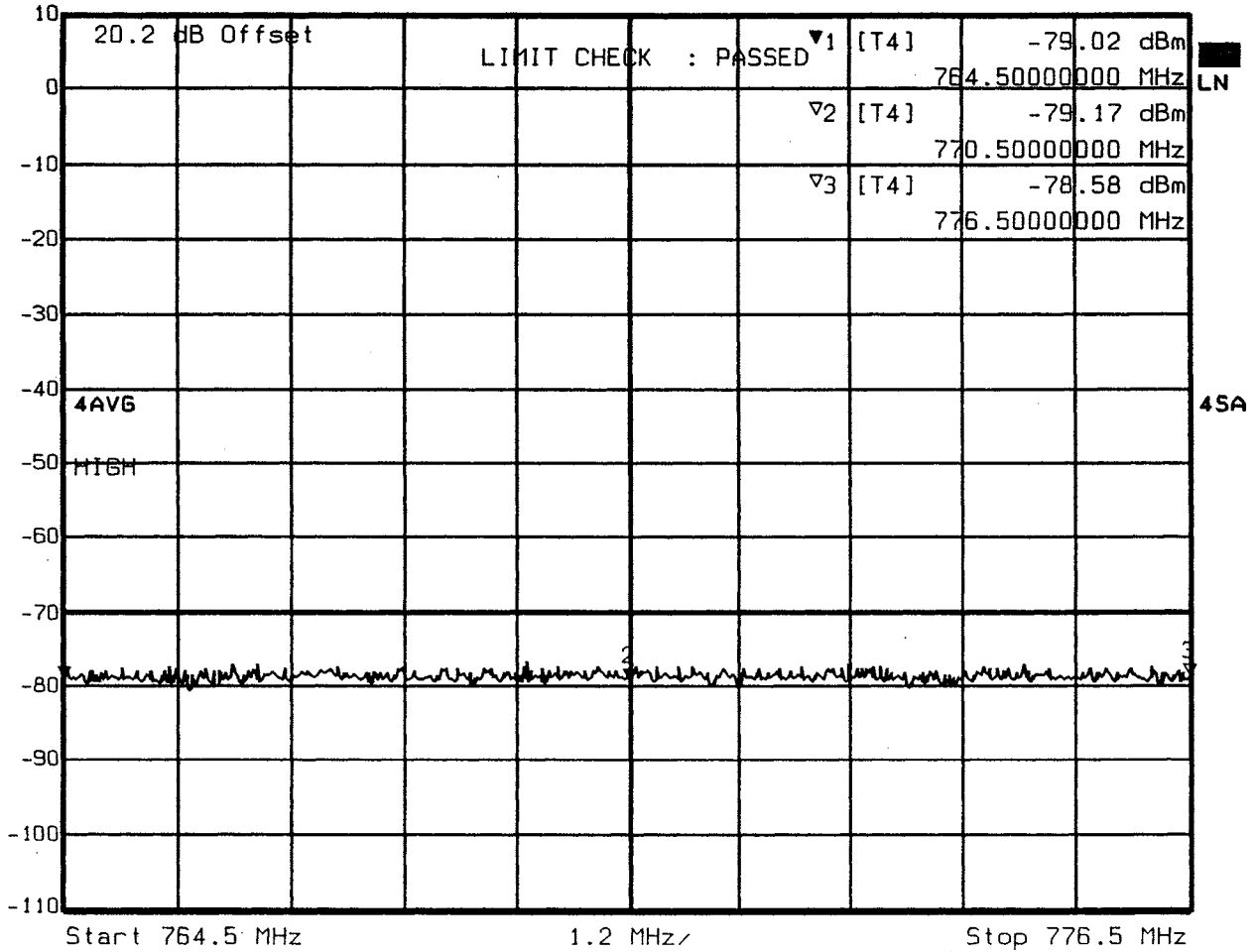
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 967650

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -79.02 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 764.5000000 MHz SWT 34 ms Unit dBm



Date: 3.FEB.2003 18:25:29

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 746.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

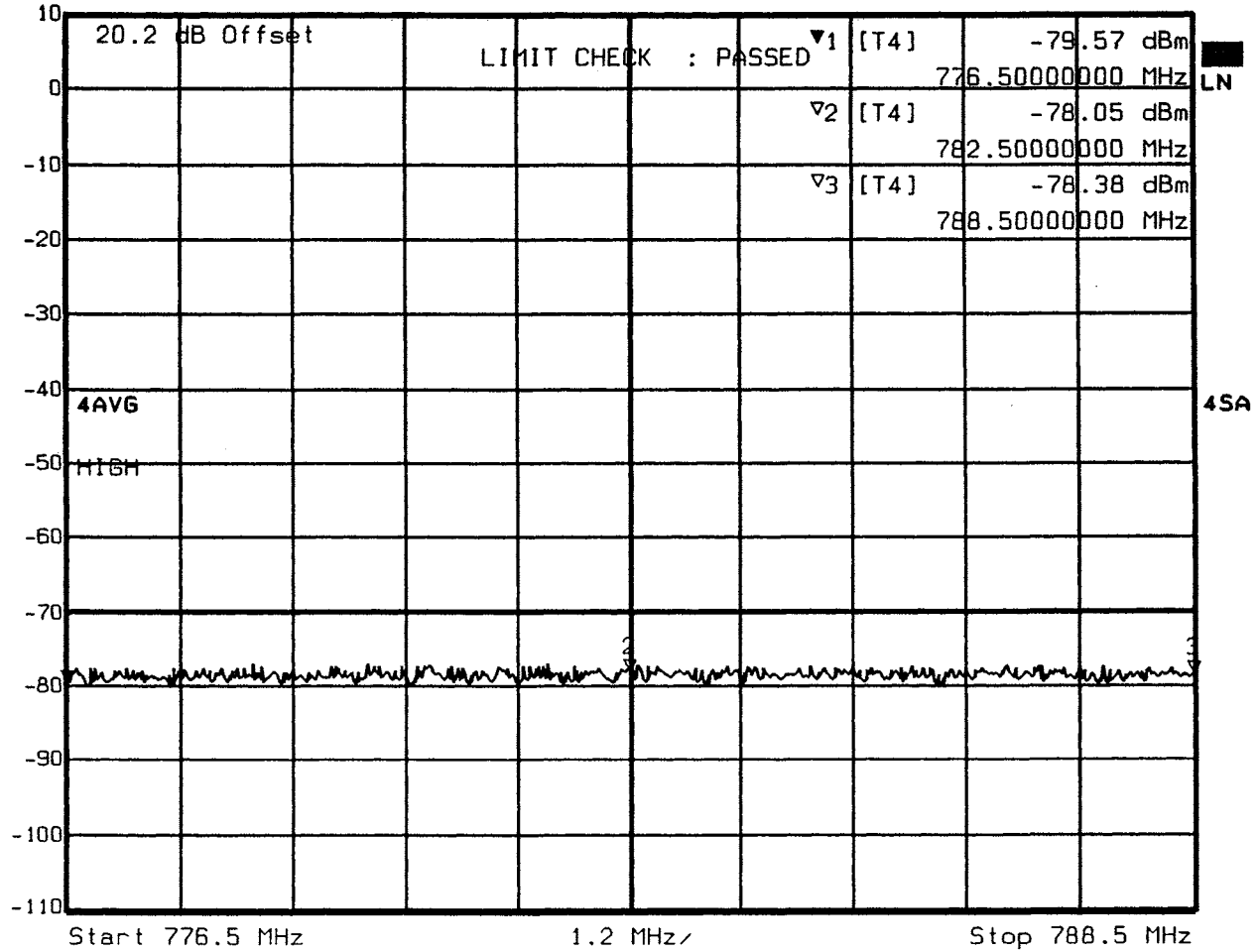
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 967650

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -79.57 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 776.5000000 MHz SWT 34 ms Unit dBm



Date: 3.FEB.2003 18:36:10

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 746.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

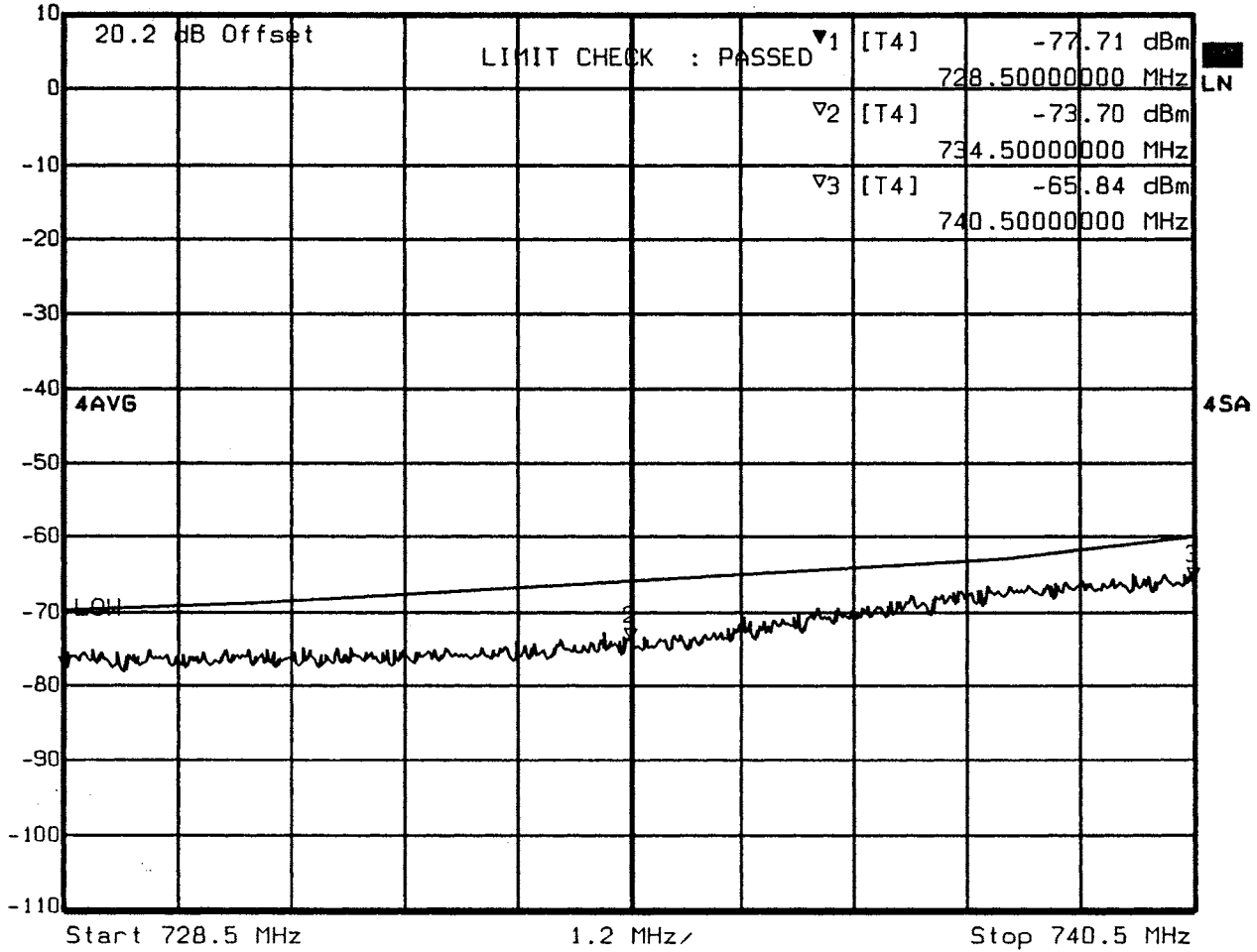
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 967650

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -77.71 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 728.5000000 MHz SWT 34 ms Unit dBm



Date: 3.FEB.2003 18:41:34

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 746.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

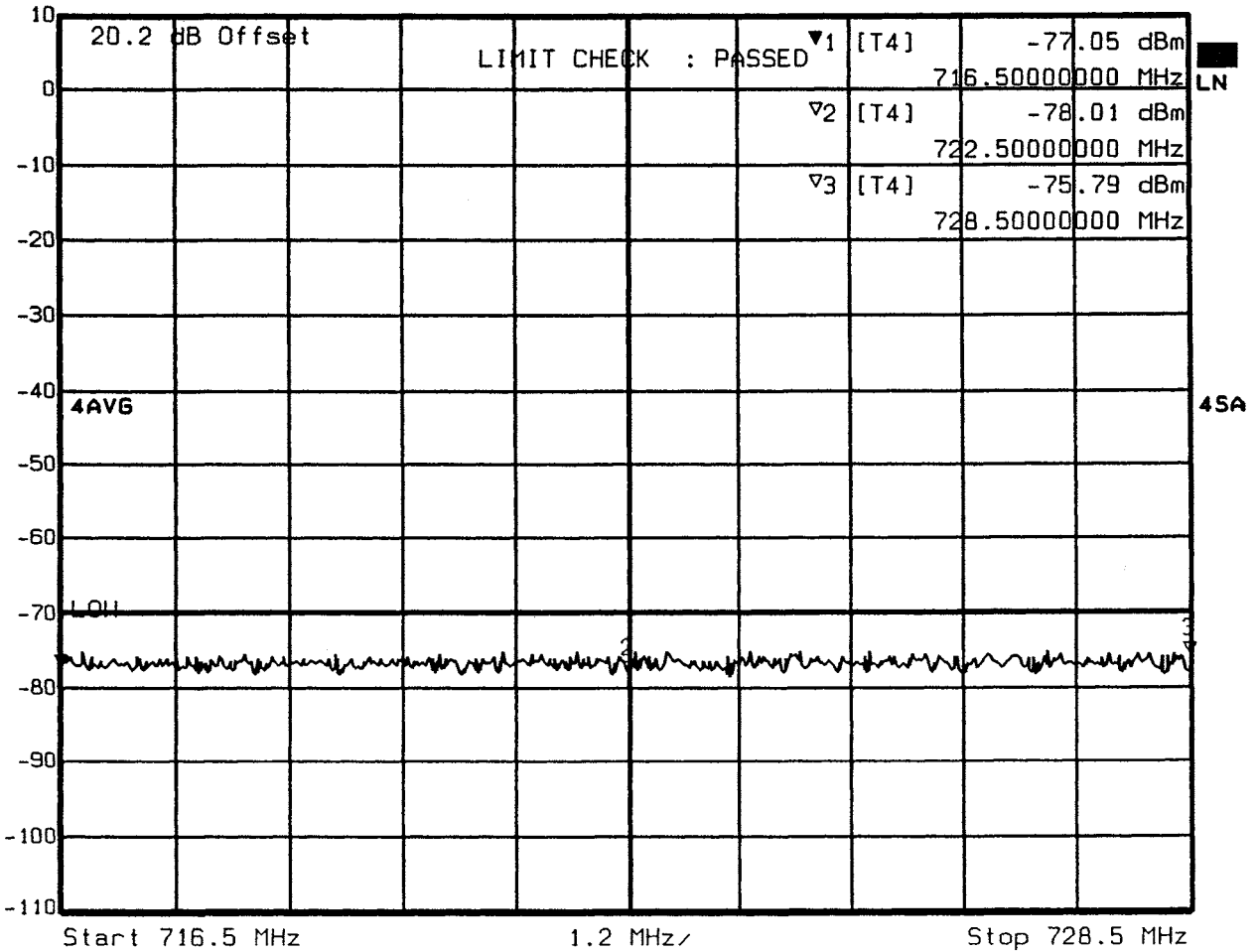
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 967650

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -77.05 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 716.5000000 MHz SWT 34 ms Unit dBm



Date: 3.FEB.2003 18:45:44

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 746.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 967650

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4]

RBW 30 kHz RF Att 10 dB

Ref Lvl
10 dBm

-77.03 dBm

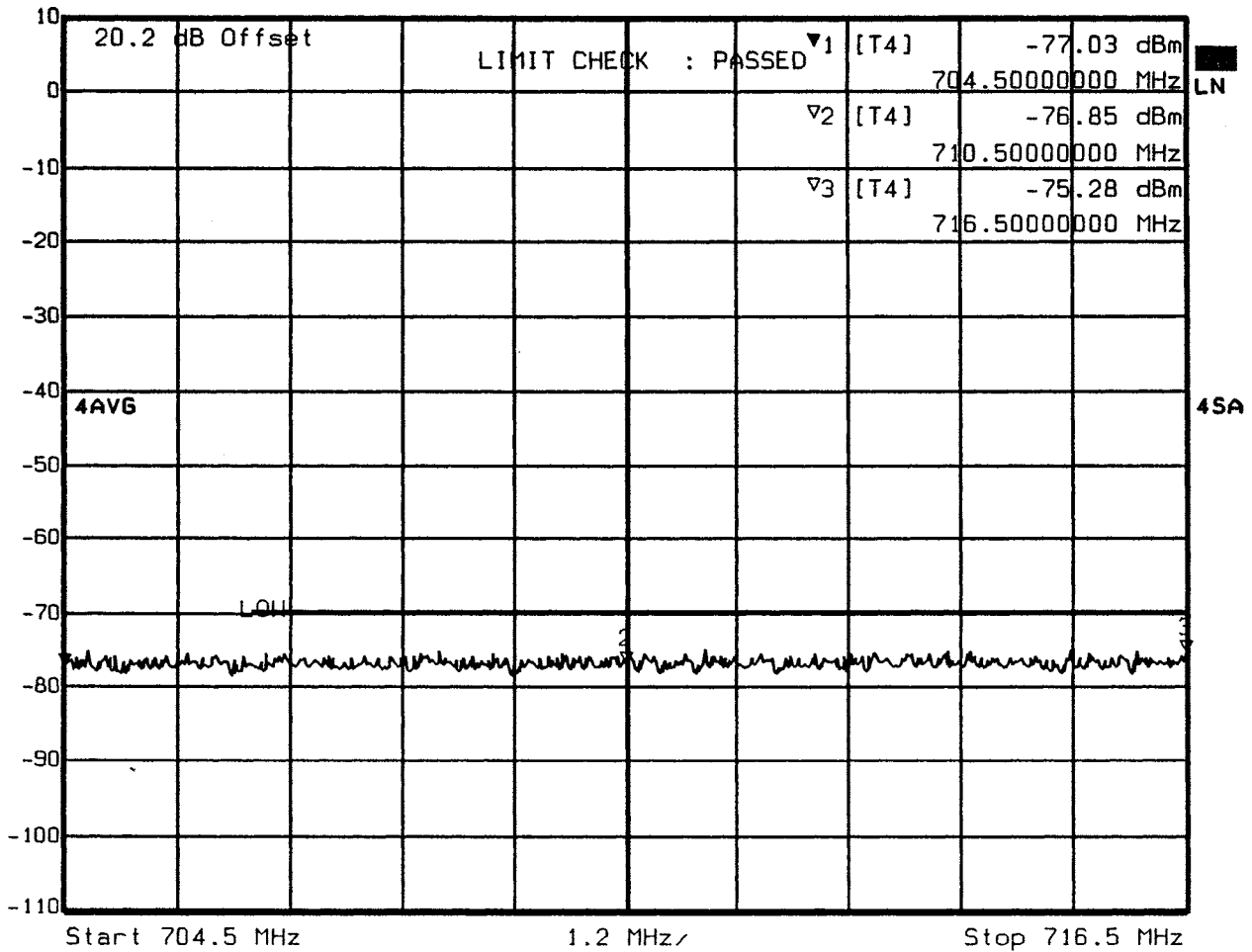
VBW 1 MHz

Mixer -20 dBm

704.5000000 MHz

SWT 34 ms

Unit dBm



Date: 3.FEB.2003 18:49:27

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 746.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 967650

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS

EMISSION LIMITS PER SECTION 27.53 IN WT Docket No. 99-168 SECOND REPORT AND ORDER
MEASURED CHANNEL CENTER FREQUENCY (MHz):
762.0500

+/-100kHz and +/-200kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label	Center (MHz)	Adjacent Channel Frequency Limits Shown On Plot (MHz)							
		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+100kHz	762.1500				762.1250	762.1750		
ACP Low	-100kHz	761.9500		761.9250	761.9750				
ALT1 Up	+200kHz	762.2500						762.2250	762.2750
ALT2 Low	-200kHz	761.8500	761.8250	761.8750					

+/-300kHz and +/-400kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label	Center (MHz)	Adjacent Channel Frequency Limits Shown On Plot (MHz)							
		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+300kHz	762.3500				762.3250	762.3750		
ACP Low	-300kHz	761.7500		761.7250	761.7750				
ALT1 Up	+400kHz	762.4500						762.4250	762.4750
ALT2 Low	-400kHz	761.6500	761.6250	761.6750					

+/-600kHz and +/-1000kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Marker	Frequency (MHz)
1	-1000kHz 761.0500
2	-600kHz 761.4500
3	+600kHz 762.6500
4	+1000kHz 763.0500

Frequencies for plot with 84MHz Span *

LOW	RECEIVE	HIGH
720.0500	792.0500	804.0500

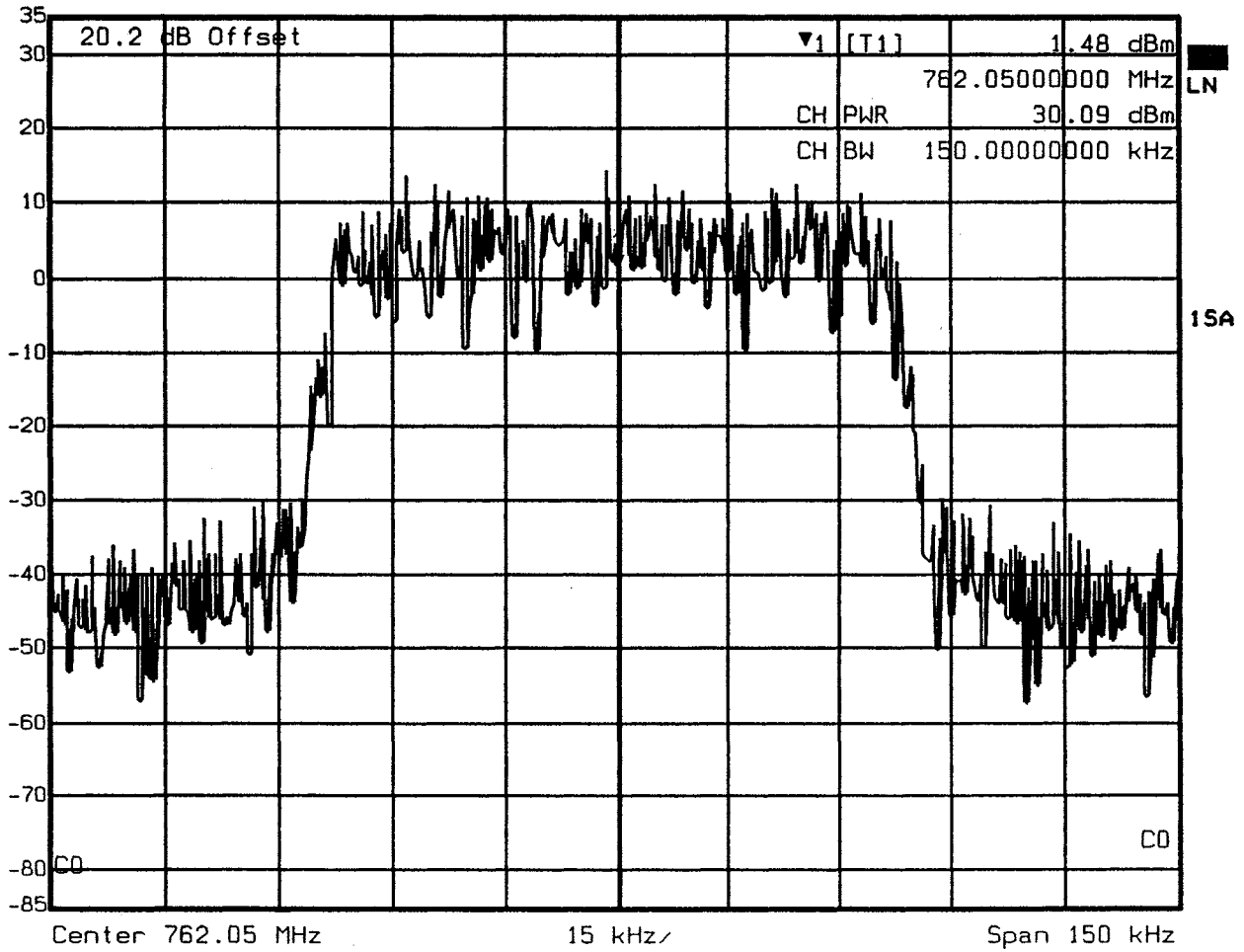
Frequencies for plots with 12MHz Spans *

LOW	CENTER	HIGH
720.0500	726.0500	732.0500
732.0500	738.0500	744.0500
744.0500	750.0500	756.0500
756.0500	762.0500	768.0500
768.0500	774.0500	780.0500
780.0500	786.0500	792.0500
792.0500	798.0500	804.0500

* Channel Notch Filter Used Unless Otherwise Noted



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl 1.48 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 762.0500000 MHz SWT 8.4 s Unit dBm



Date: 13.JAN.2003 17:16:24

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

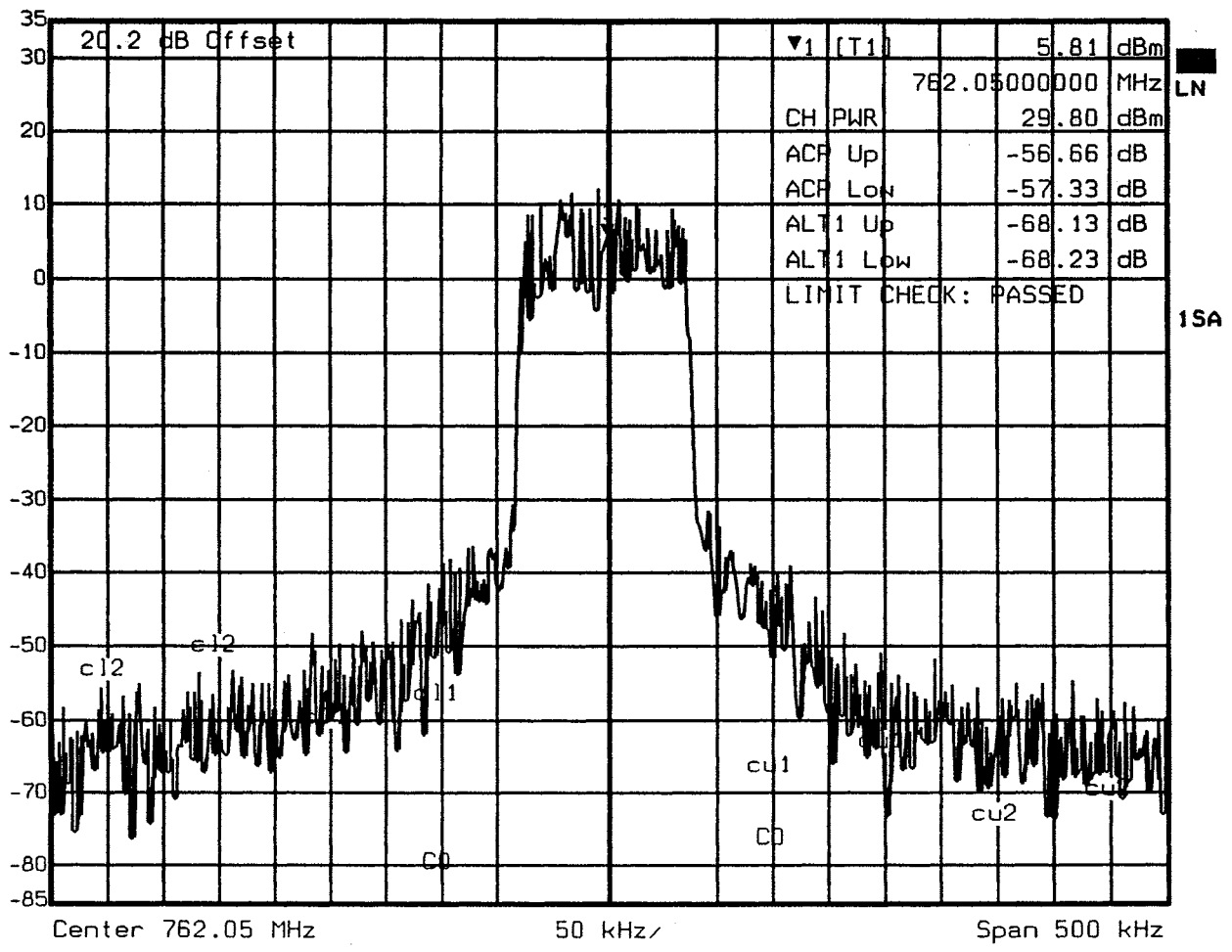
Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl 5.81 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 762.05000000 MHz SWT 28 s Unit dBm



+/-100kHz and +/-200kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label Center (MHz) Adjacent Channel Frequency Limits Shown On Plot (MHz)

Label	Center (MHz)	cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+100kHz 762.1500					762.1250	762.1750		
ACP Low	-100kHz 761.9500			761.9250	761.9750				
ALT1 Up	+200kHz 762.2500							762.2250	762.2750
ALT2 Low	-200kHz 761.8500	761.8250	761.8750						

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

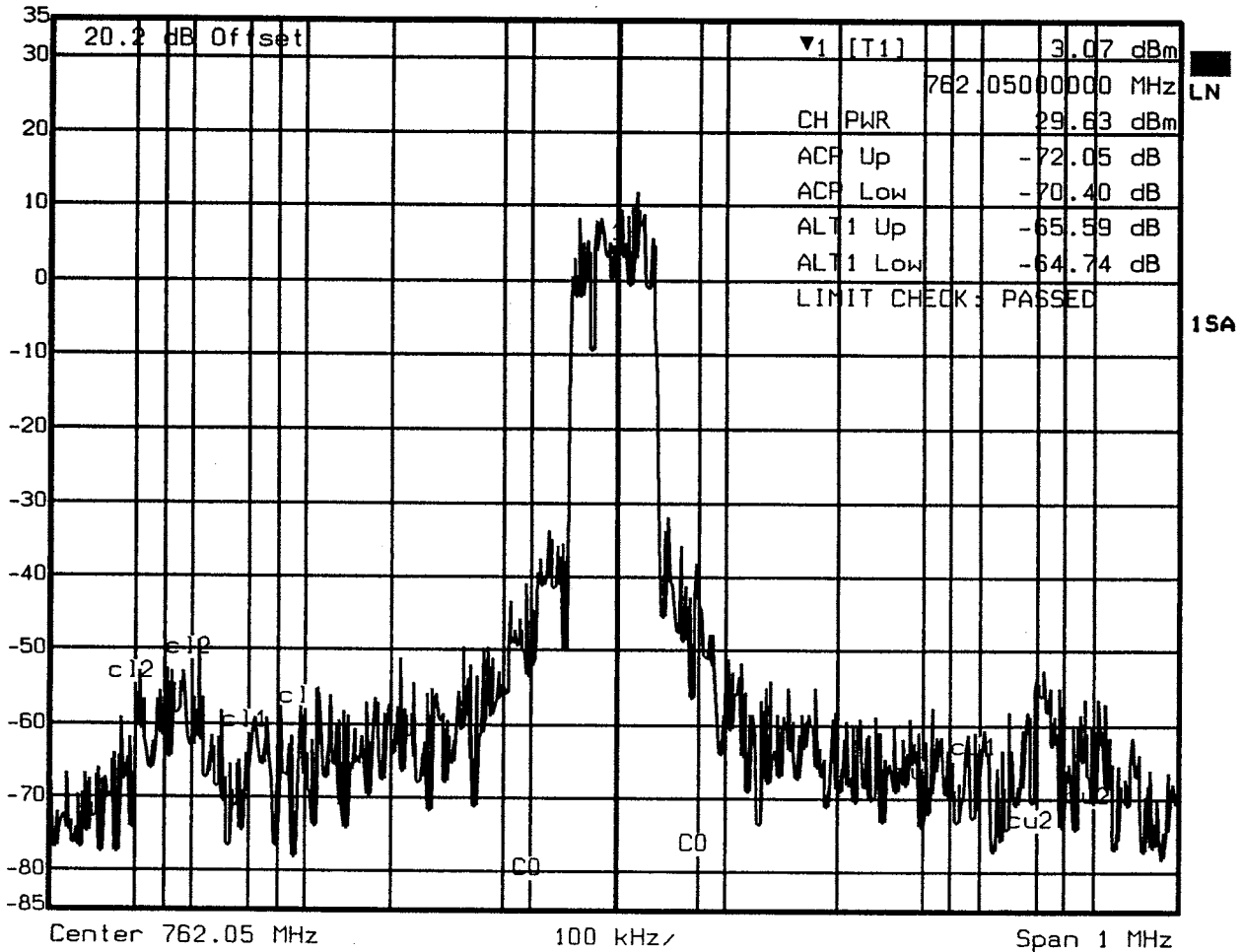
Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl 3.07 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 762.0500000 MHz SWT 56 s Unit dBm



+/-300kHz and +/-400kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label Center (MHz) Adjacent Channel Frequency Limits Shown On Plot (MHz)

			cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+300kHz	762.3500					762.3250	762.3750		
ACP Low	-300kHz	761.7500			761.7250	761.7750				
ALT1 Up	+400kHz	762.4500							762.4250	762.4750
ALT2 Low	-400kHz	761.6500	761.6250	761.6750						

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

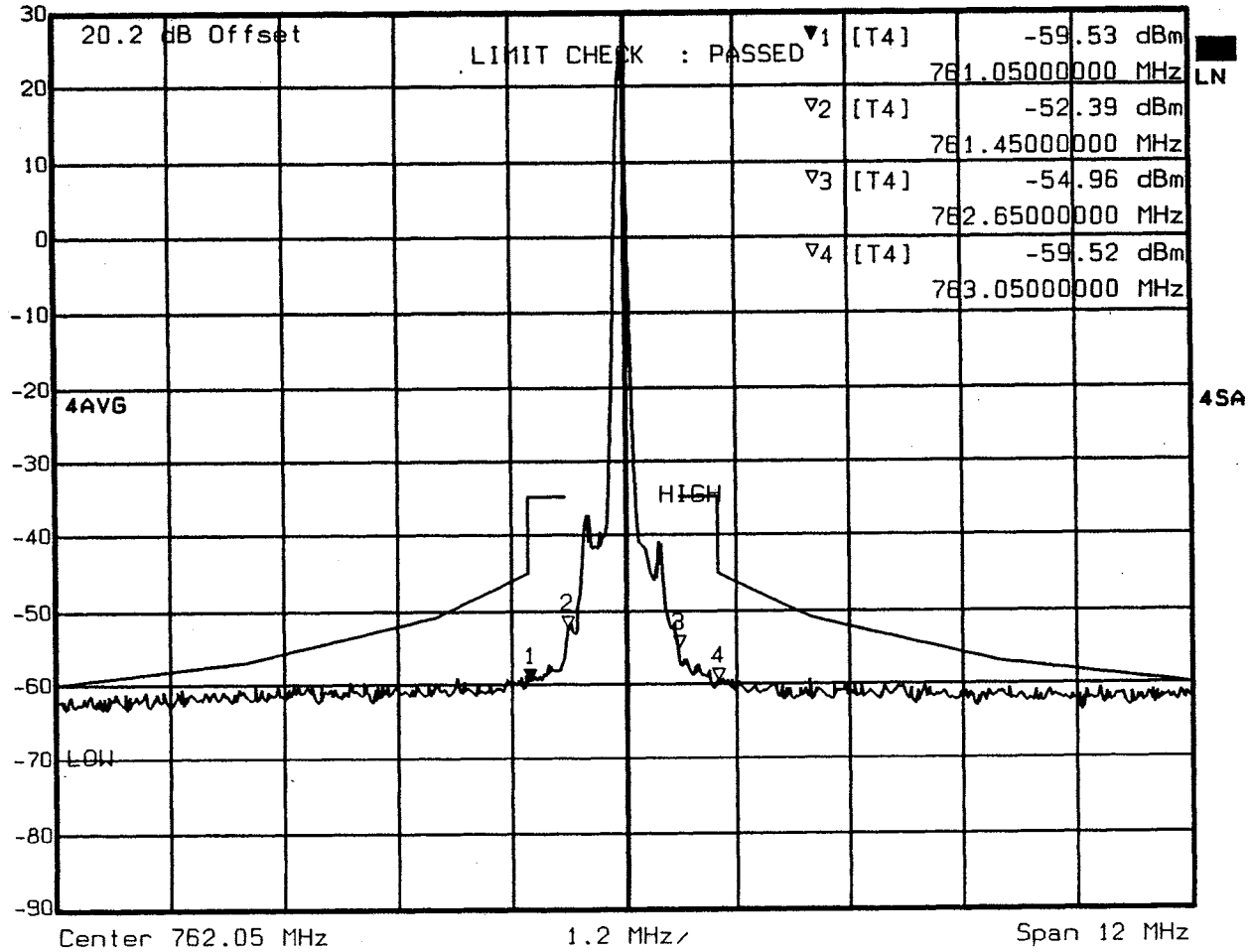
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -59.53 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 761.0500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 16:36:01

+/-600kHz and +/-1000kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Marker	Frequency (MHz)
1	-1000kHz 761.0500
2	-600kHz 761.4500
3	+600kHz 762.6500
4	+1000kHz 763.0500

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

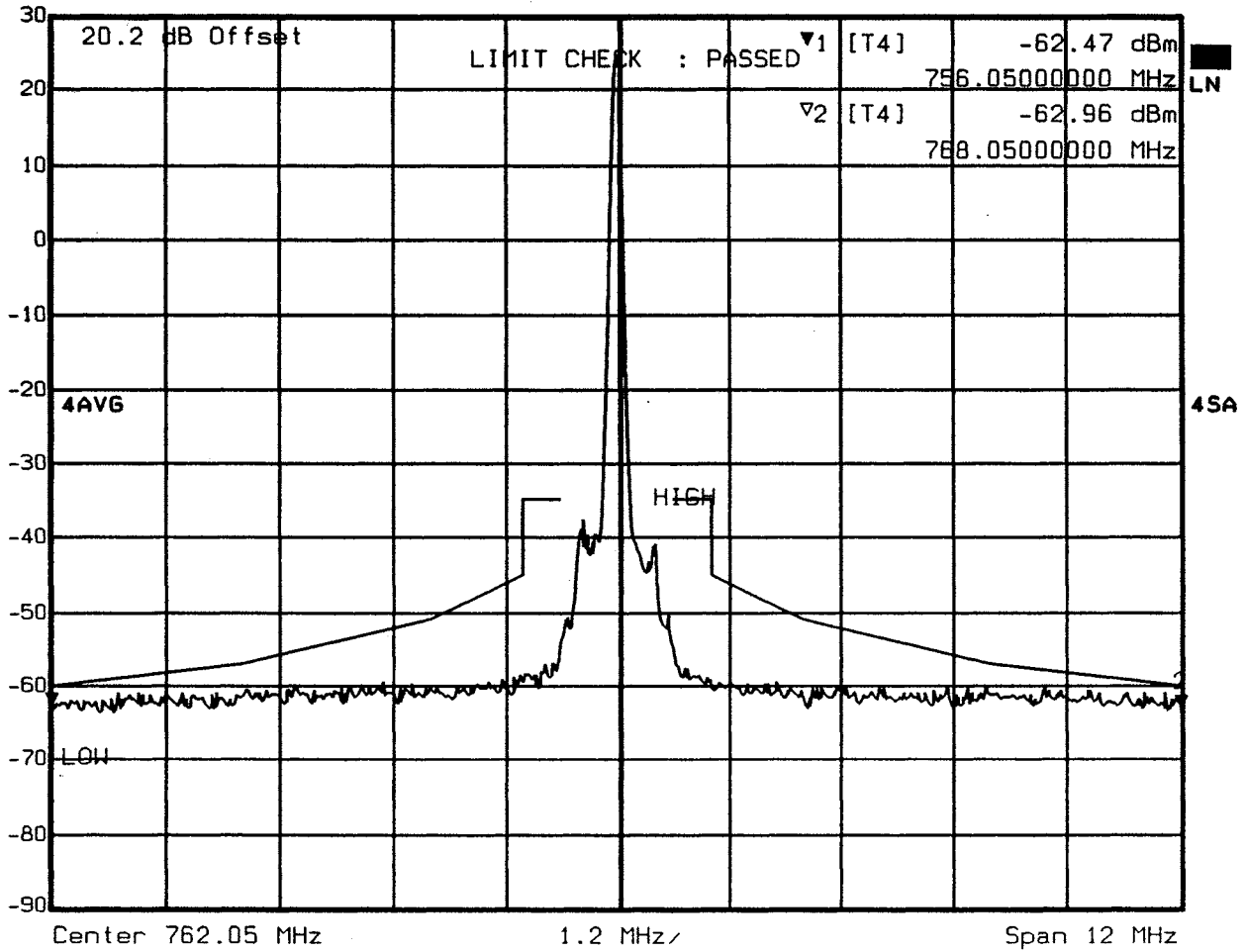
Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -62.47 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 756.05000000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 16:34:17

CHANNEL NOTCH FILTER NOT USED

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

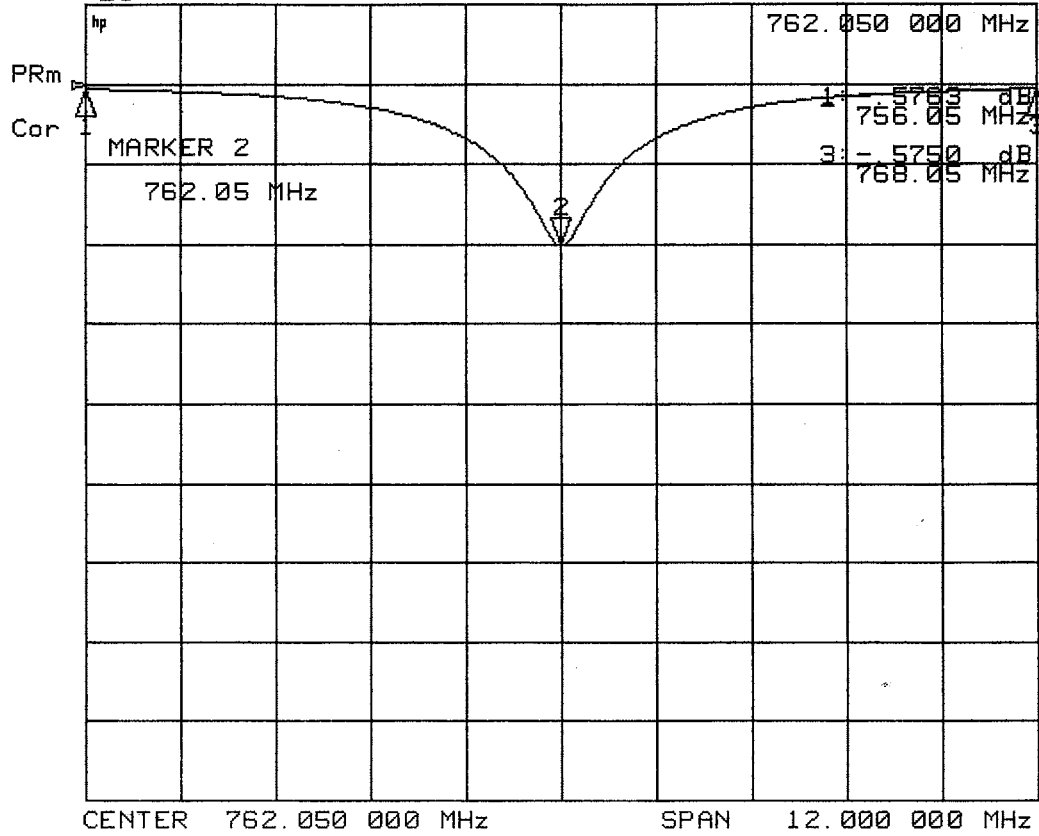
Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS

10 Feb 2003 15:14:04

CH1 S21 log MAG 10 dB/ REF 0 dB 2: -20.113 dB

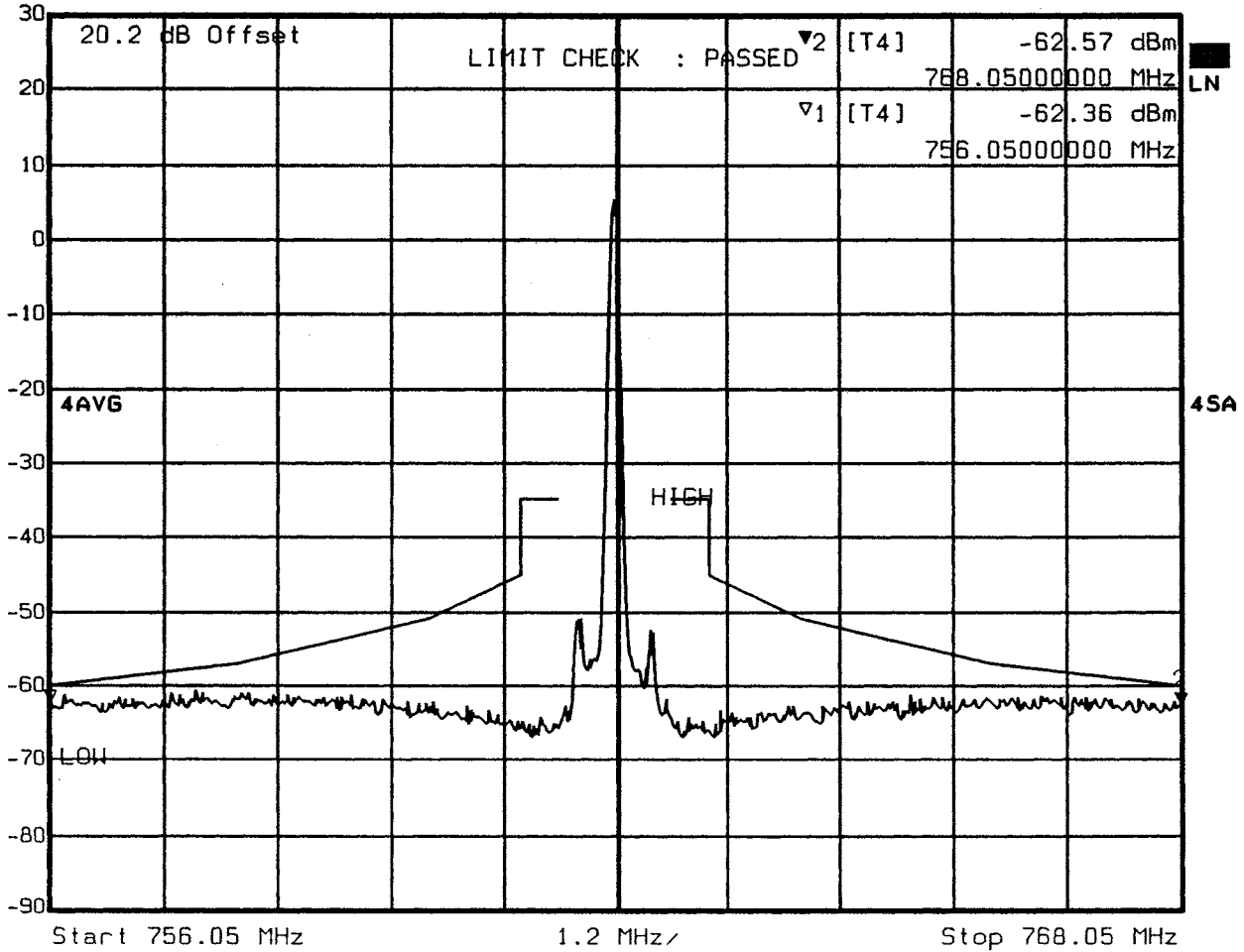


CHANNEL NOTCH FILTER RESPONSE

Insertion Loss When Tuned To 762.05 MHz.



Marker 2 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -62.57 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 768.0500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 16:39:32

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

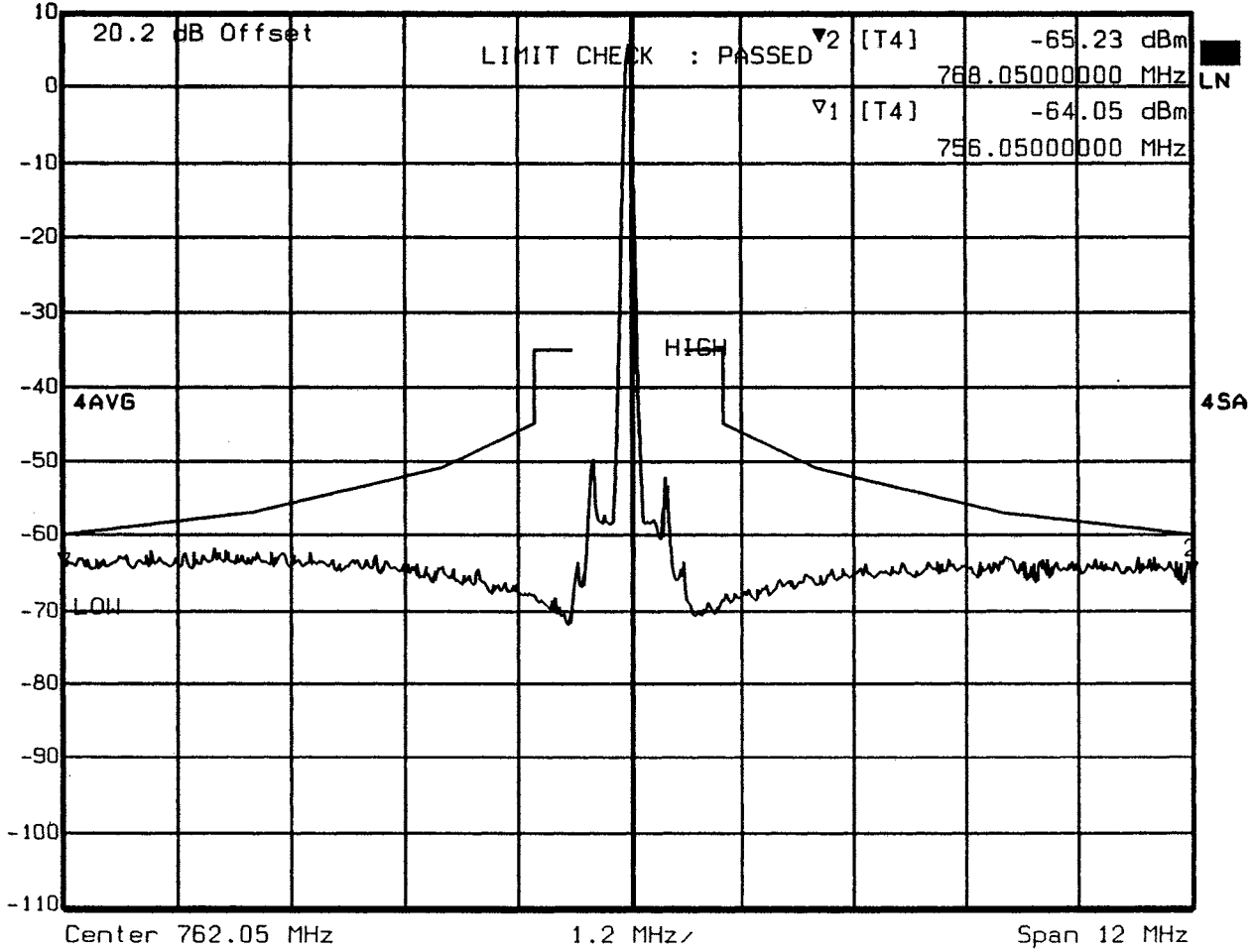
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 2 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -65.23 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 768.0500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 16:43:44

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

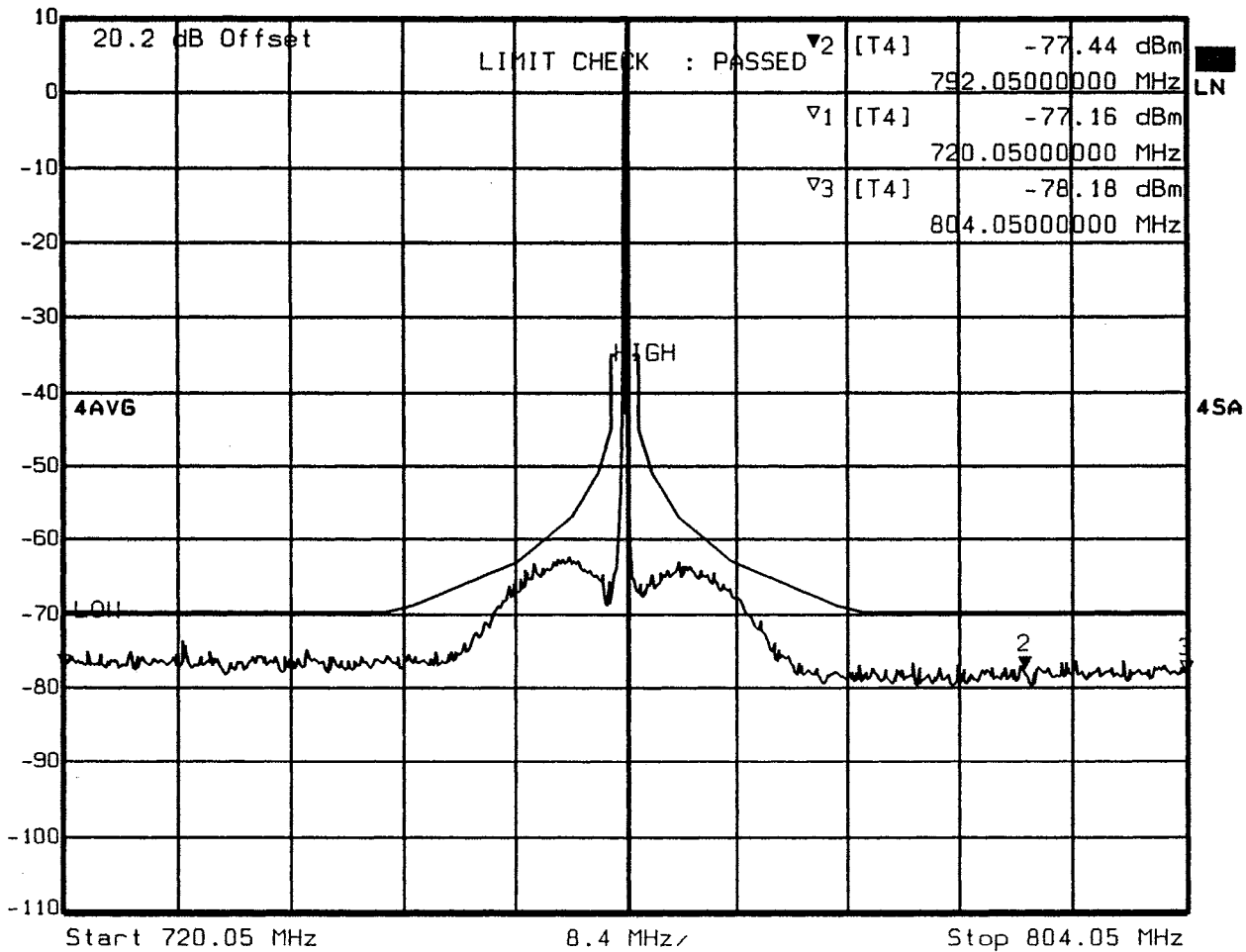
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 2 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -77.44 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 792.05000000 MHz SWT 235 ms Unit dBm



Date: 11.FEB.2003 16:46:35

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

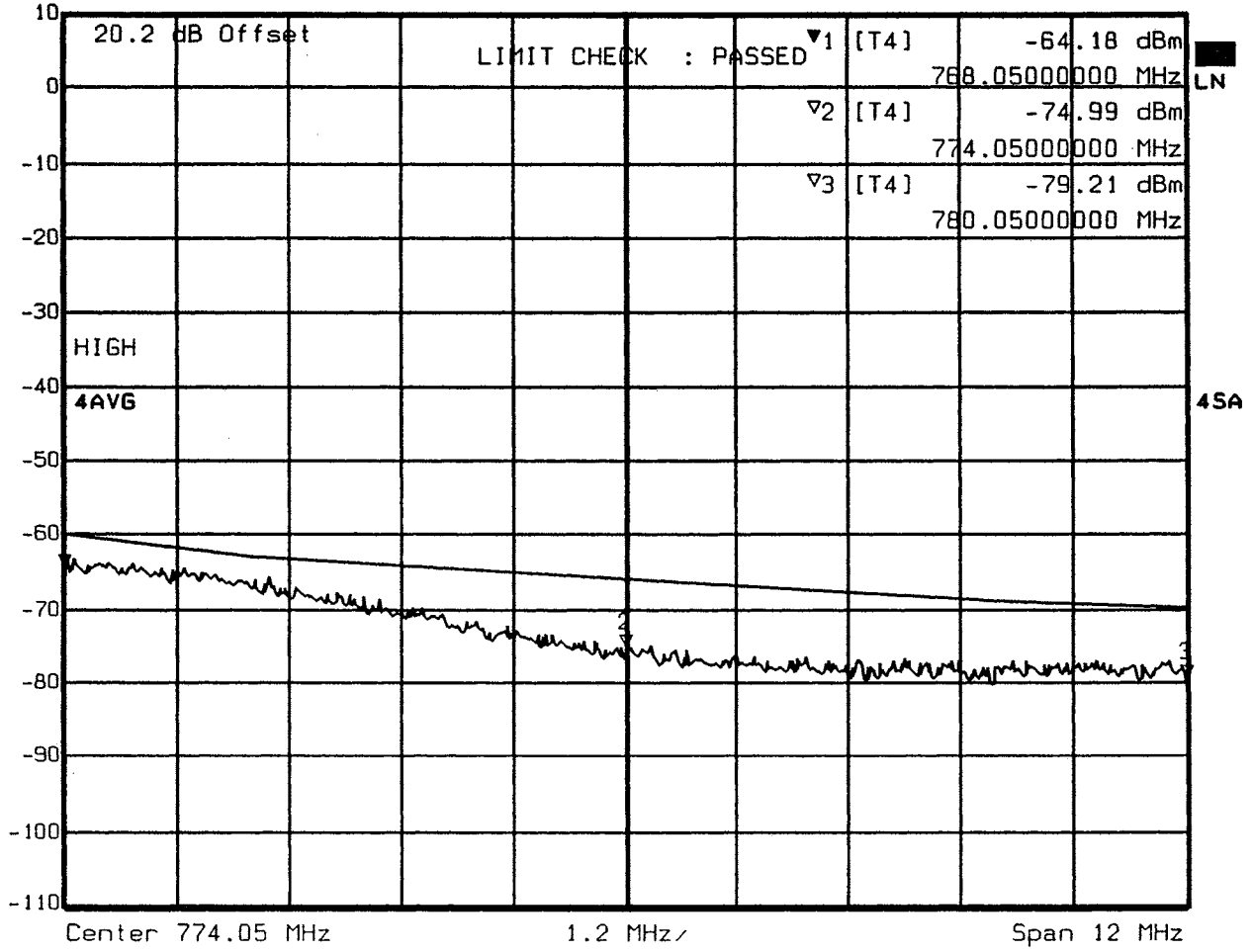
Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -64.18 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 768.0500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 16:49:47

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

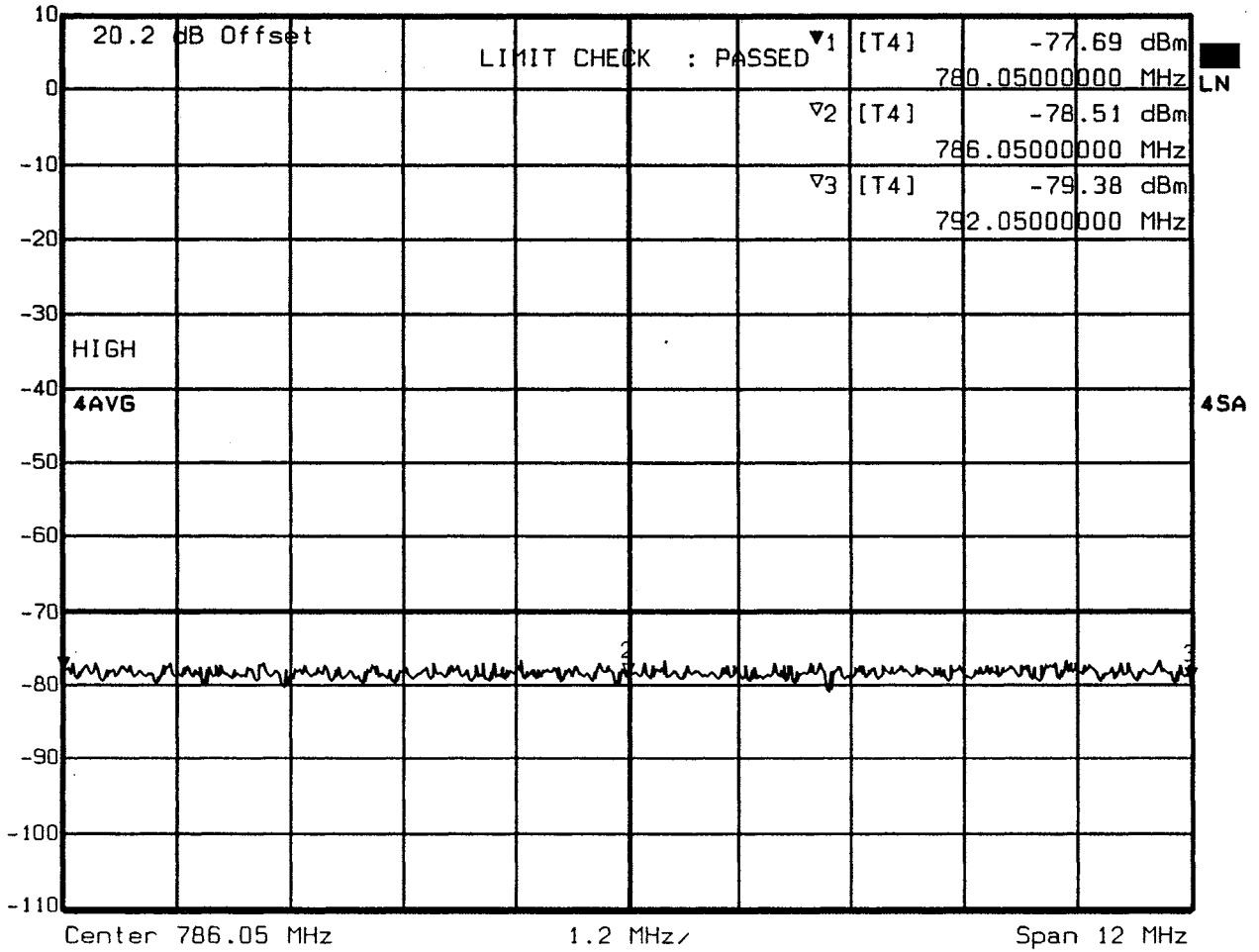
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -77.69 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 780.05000000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 17:00:19

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 702.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

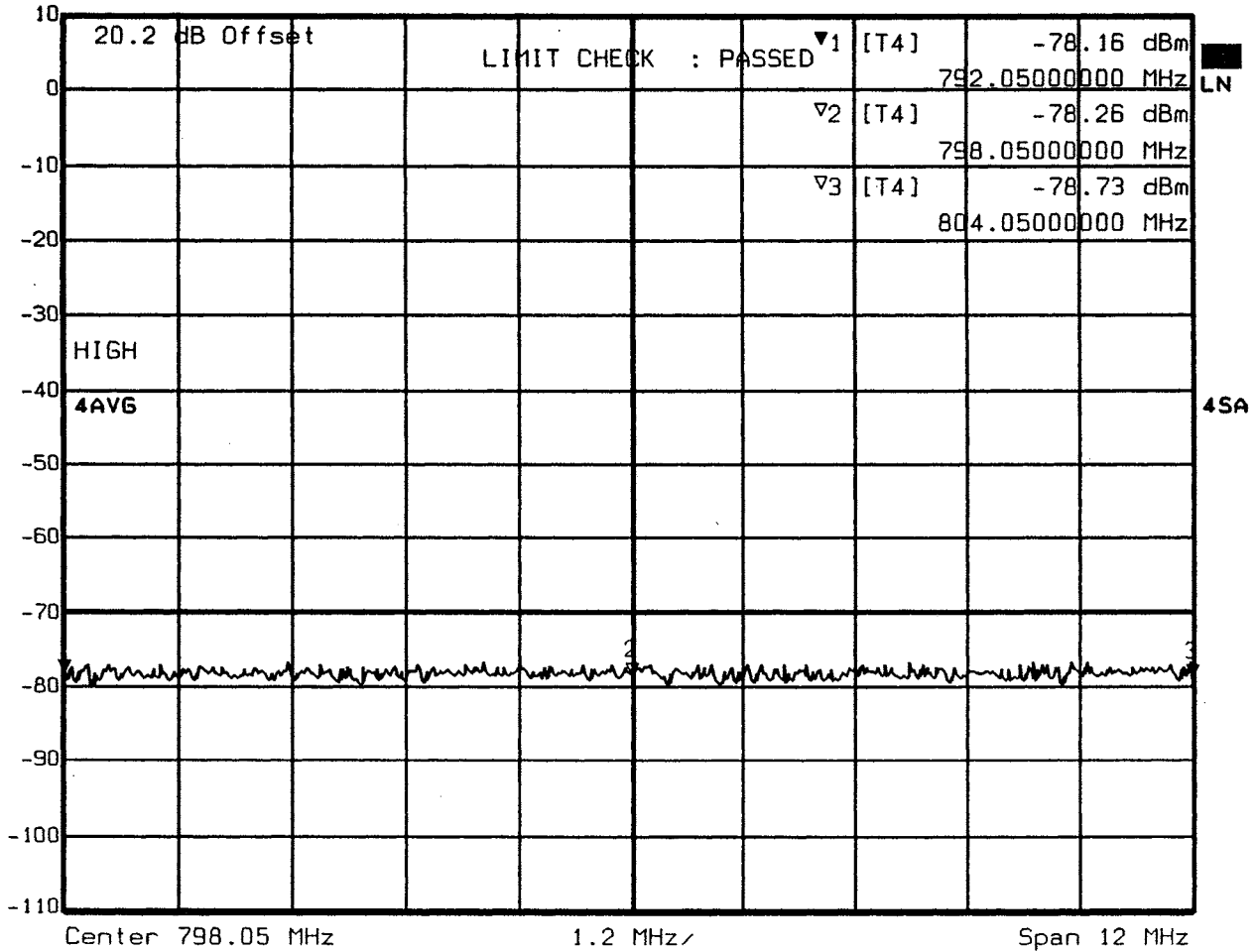
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -78.16 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 792.0500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 17:01:48

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

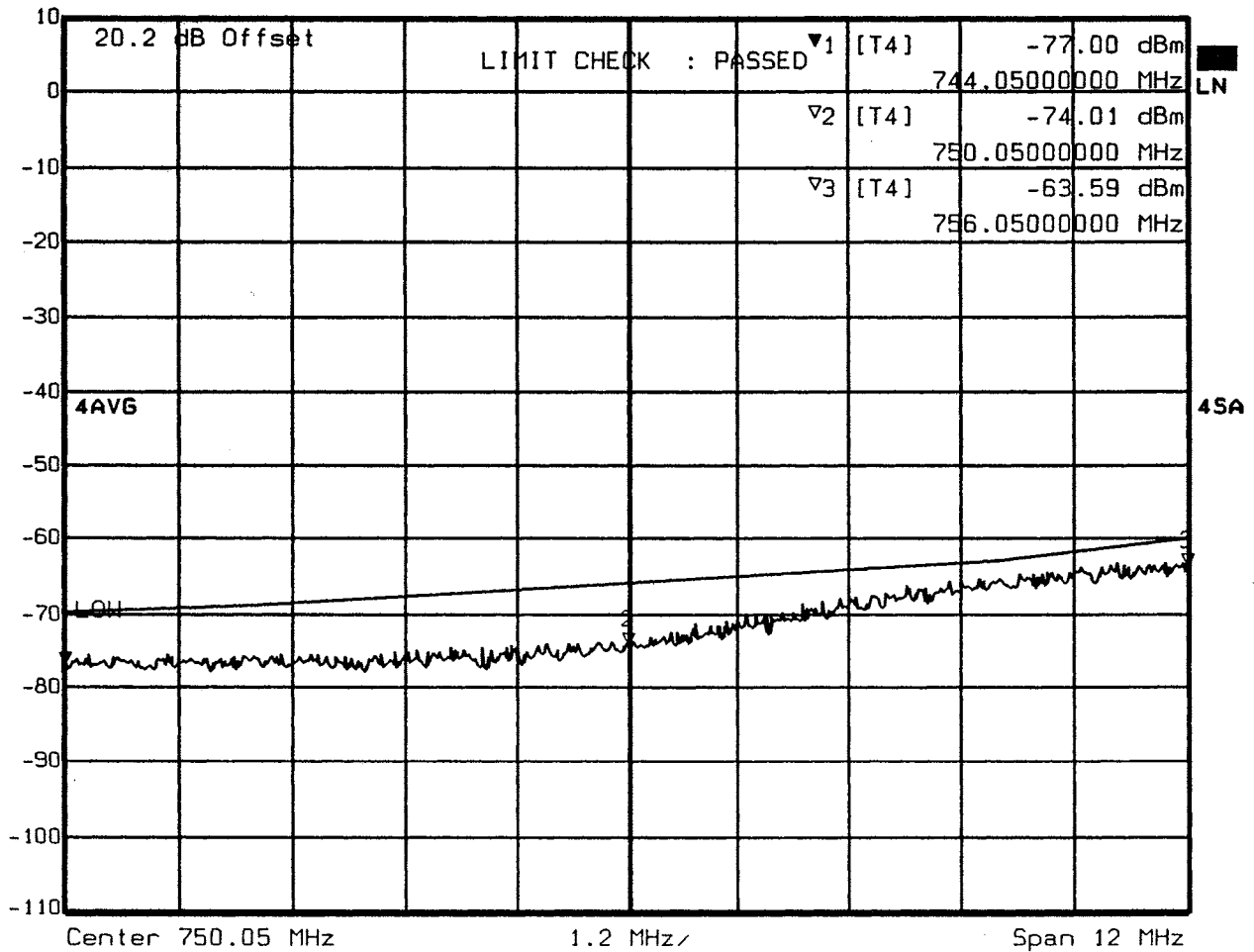
Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -77.00 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 744.0500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 17:03:52

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

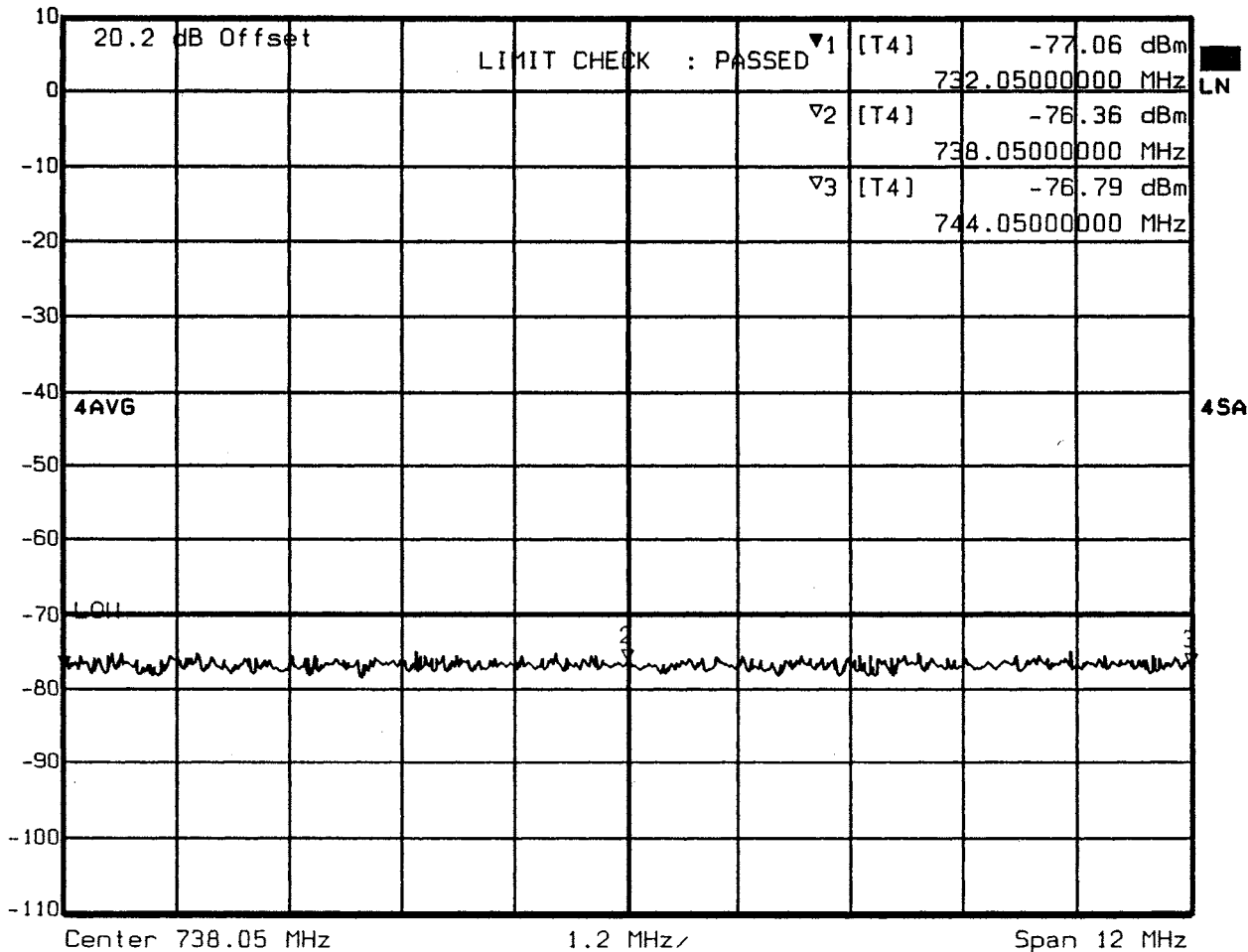
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -77.06 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 732.0500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 17:05:12

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

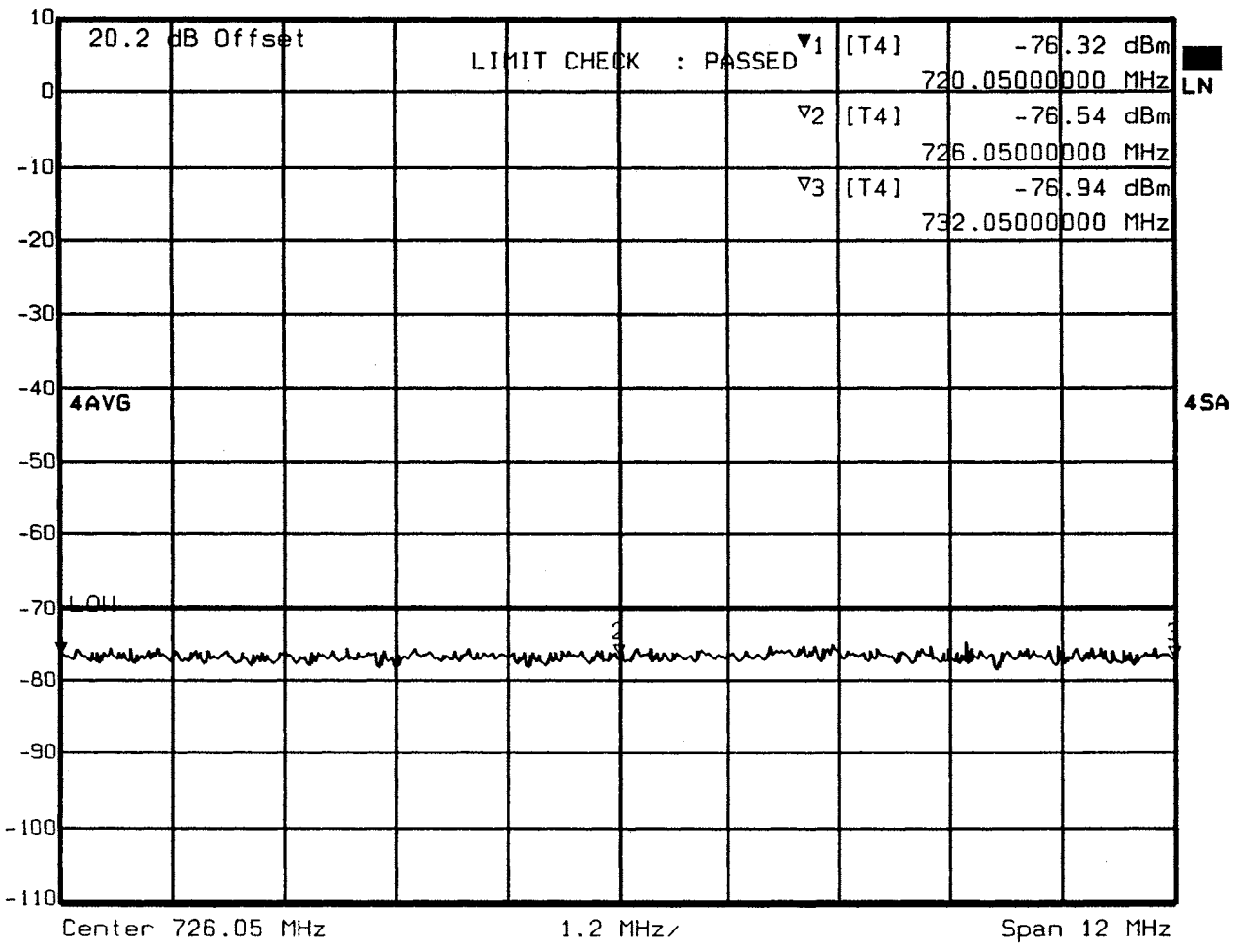
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -76.32 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 720.0500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 17:06:15

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 762.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088621

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS

EMISSION LIMITS PER SECTION 27.53 IN WT Docket No. 99-168 SECOND REPORT AND ORDER
MEASURED CHANNEL CENTER FREQUENCY (MHz):
763.9500

+/-100kHz and +/-200kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label	Center (MHz)	Adjacent Channel Frequency Limits Shown On Plot (MHz)								
			cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+100kHz	764.0500					764.0250	764.0750		
ACP Low	-100kHz	763.8500			763.8250	763.8750				
ALT1 Up	+200kHz	764.1500							764.1250	764.1750
ALT2 Low	-200kHz	763.7500	763.7250	763.7750						

+/-300kHz and +/-400kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label	Center (MHz)	Adjacent Channel Frequency Limits Shown On Plot (MHz)								
			cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+300kHz	764.2500					764.2250	764.2750		
ACP Low	-300kHz	763.6500			763.6250	763.6750				
ALT1 Up	+400kHz	764.3500							764.3250	764.3750
ALT2 Low	-400kHz	763.5500	763.5250	763.5750						

+/-600kHz and +/-1000kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Marker	Frequency (MHz)
1	-1000kHz 762.9500
2	-600kHz 763.3500
3	+600kHz 764.5500
4	+1000kHz 764.9500

Frequencies for plot with 84MHz Span *

LOW	RECEIVE	HIGH
721.9500	793.9500	805.9500

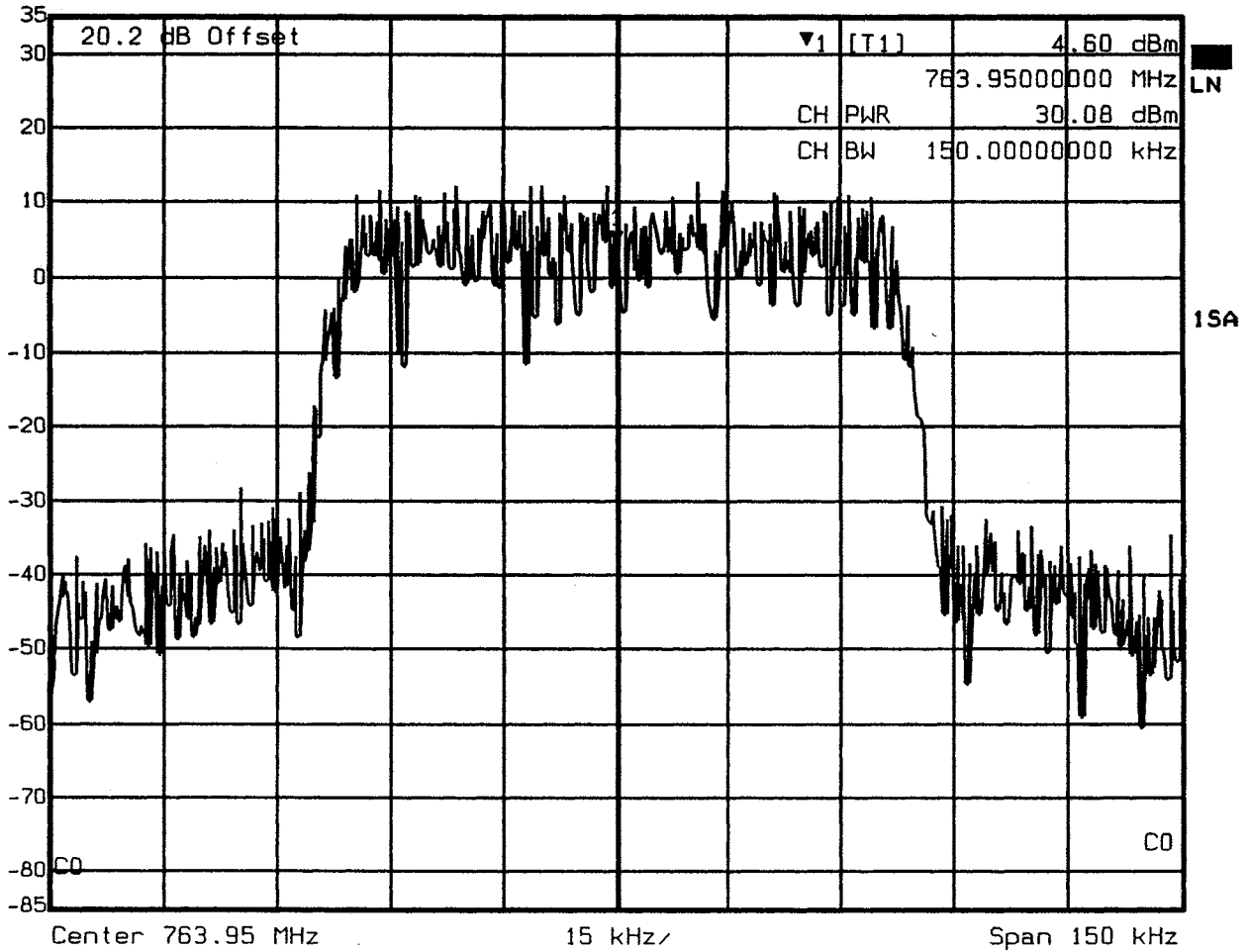
Frequencies for plots with 12MHz Spans *

LOW	CENTER	HIGH
721.9500	727.9500	733.9500
733.9500	739.9500	745.9500
745.9500	751.9500	757.9500
757.9500	763.9500	769.9500
769.9500	775.9500	781.9500
781.9500	787.9500	793.9500
793.9500	799.9500	805.9500

* Channel Notch Filter Used Unless Otherwise Noted



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl 4.60 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 763.95000000 MHz SWT 8.4 s Unit dBm



Date: 12.JAN.2003 16:20:06

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 763.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088622

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS

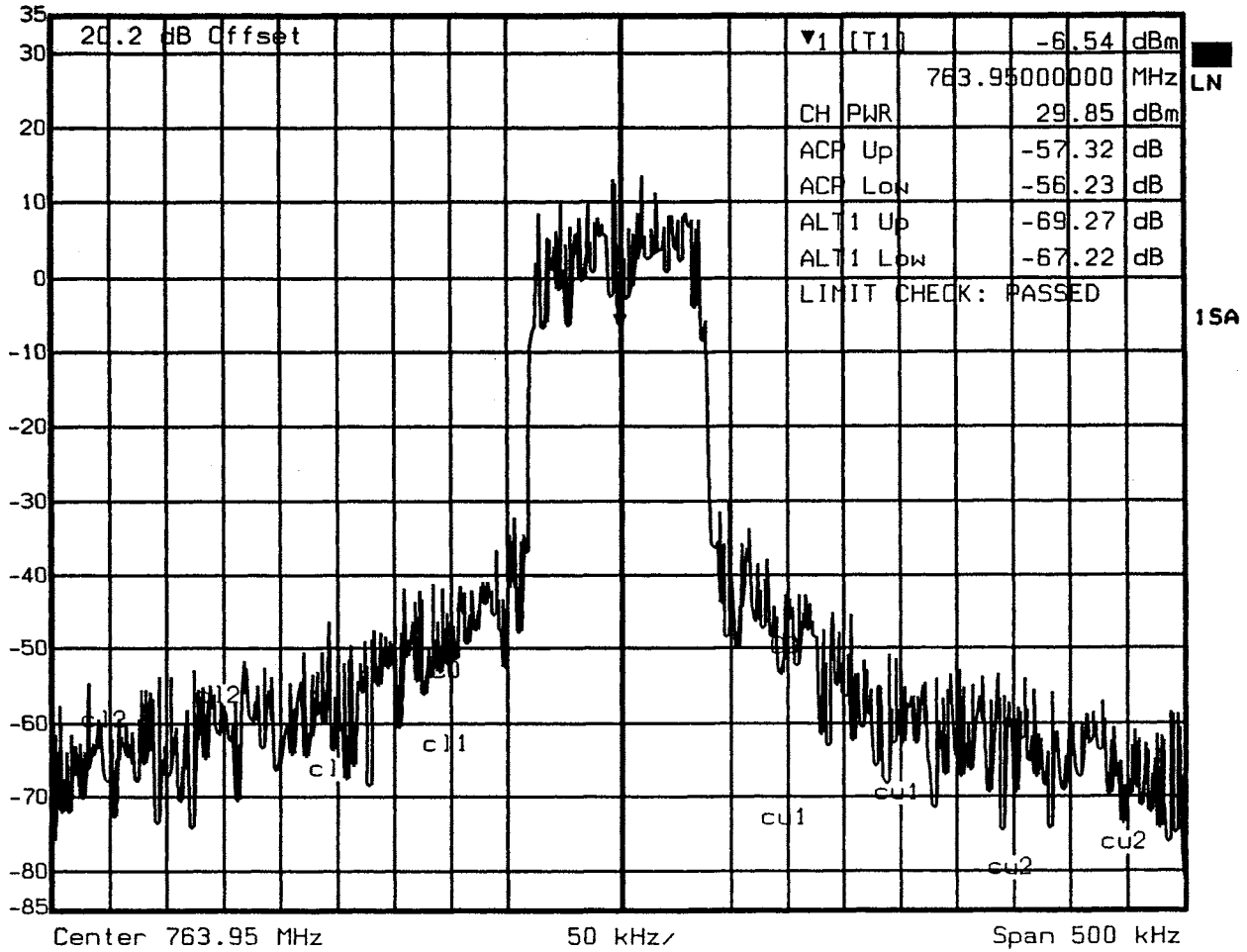


Marker 1 [T1]

RBW 300 Hz RF Att 30 dB
VBW 300 Hz Mixer -20 dBm
SWT 28 s Unit dBm

Ref Lvl
35 dBm

-6.54 dBm
763.95000000 MHz



+/-100kHz and +/-200kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label Center (MHz) Adjacent Channel Frequency Limits Shown On Plot (MHz)

		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+100kHz	764.0500				764.0250	764.0750		
ACP Low	-100kHz	763.8500		763.8250	763.8750				
ALT1 Up	+200kHz	764.1500						764.1250	764.1750
ALT2 Low	-200kHz	763.7500	763.7250	763.7750					

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 763.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

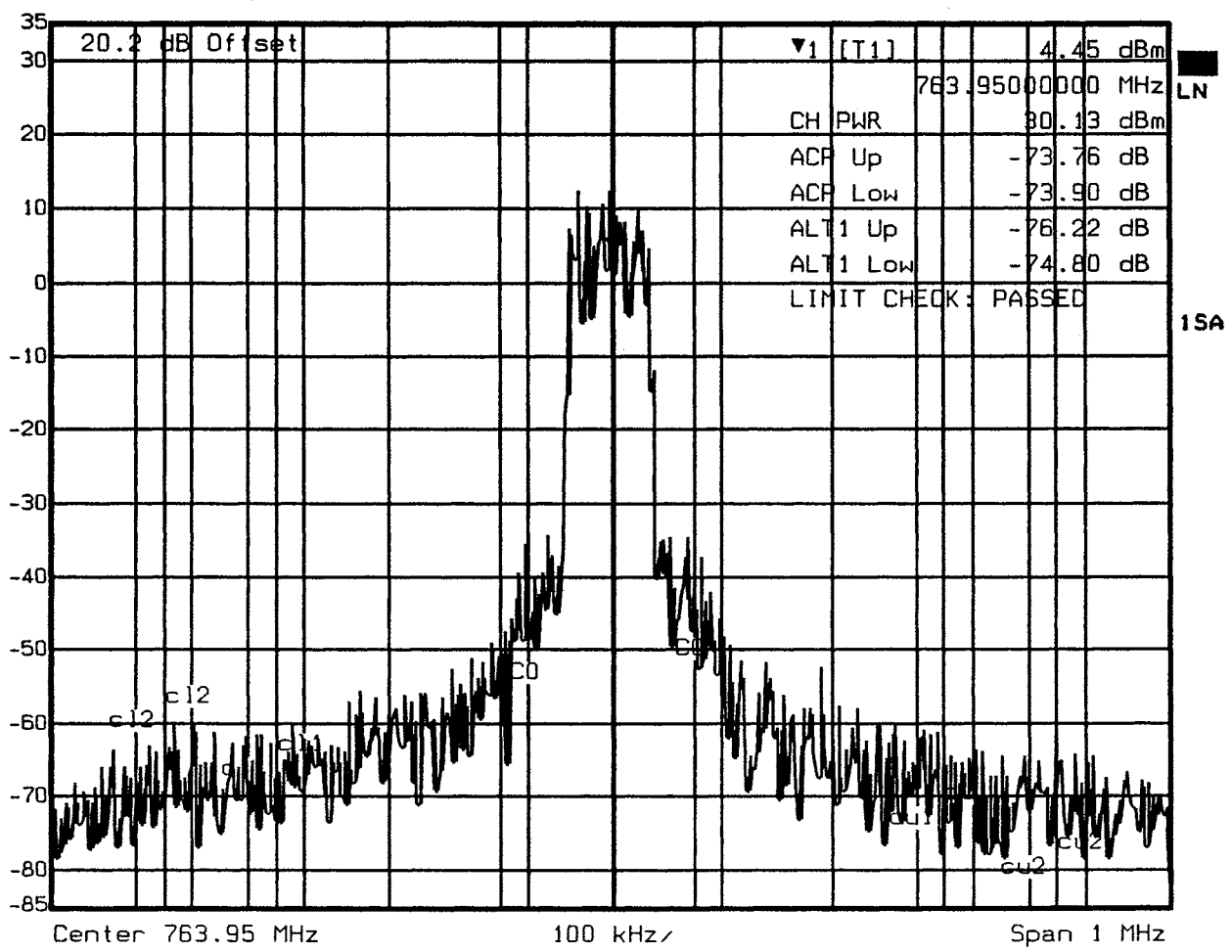
Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088022

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl 4.45 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 763.9500000 MHz SWT 56 s Unit dBm



+/-300kHz and +/-400kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label Center (MHz) Adjacent Channel Frequency Limits Shown On Plot (MHz)

		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+300kHz	764.2500				764.2250	764.2750		
ACP Low	-300kHz	763.6500		763.6250	763.6750				
ALT1 Up	+400kHz	764.3500						764.3250	764.3750
ALT2 Low	-400kHz	763.5500	763.5250	763.5750					

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 763.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

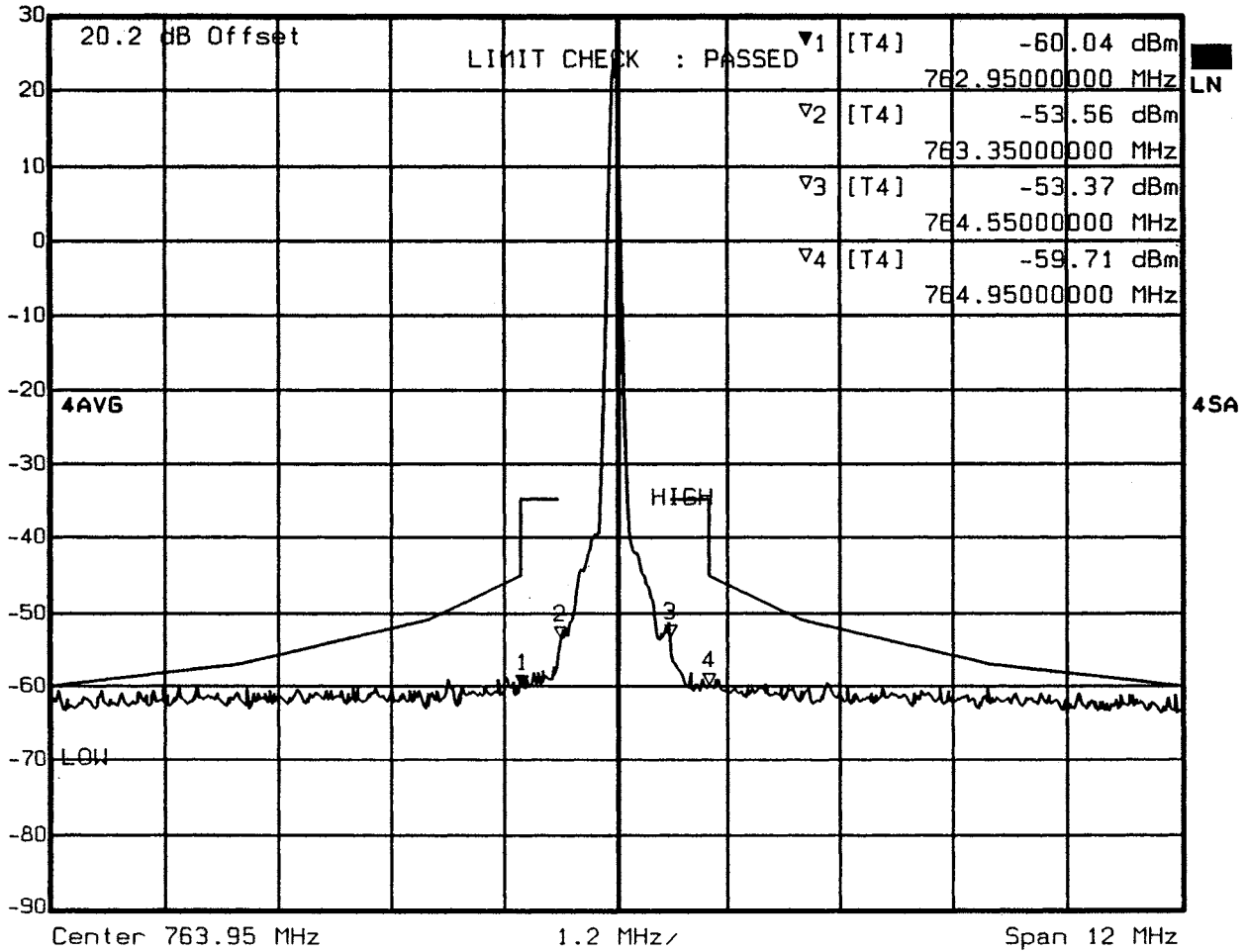
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088622

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -60.04 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 762.9500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 18:27:19

+/-600kHz and +/-1000kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Marker	Frequency (MHz)
1	-1000kHz 762.9500
2	-600kHz 763.3500
3	+600kHz 764.5500
4	+1000kHz 764.9500

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

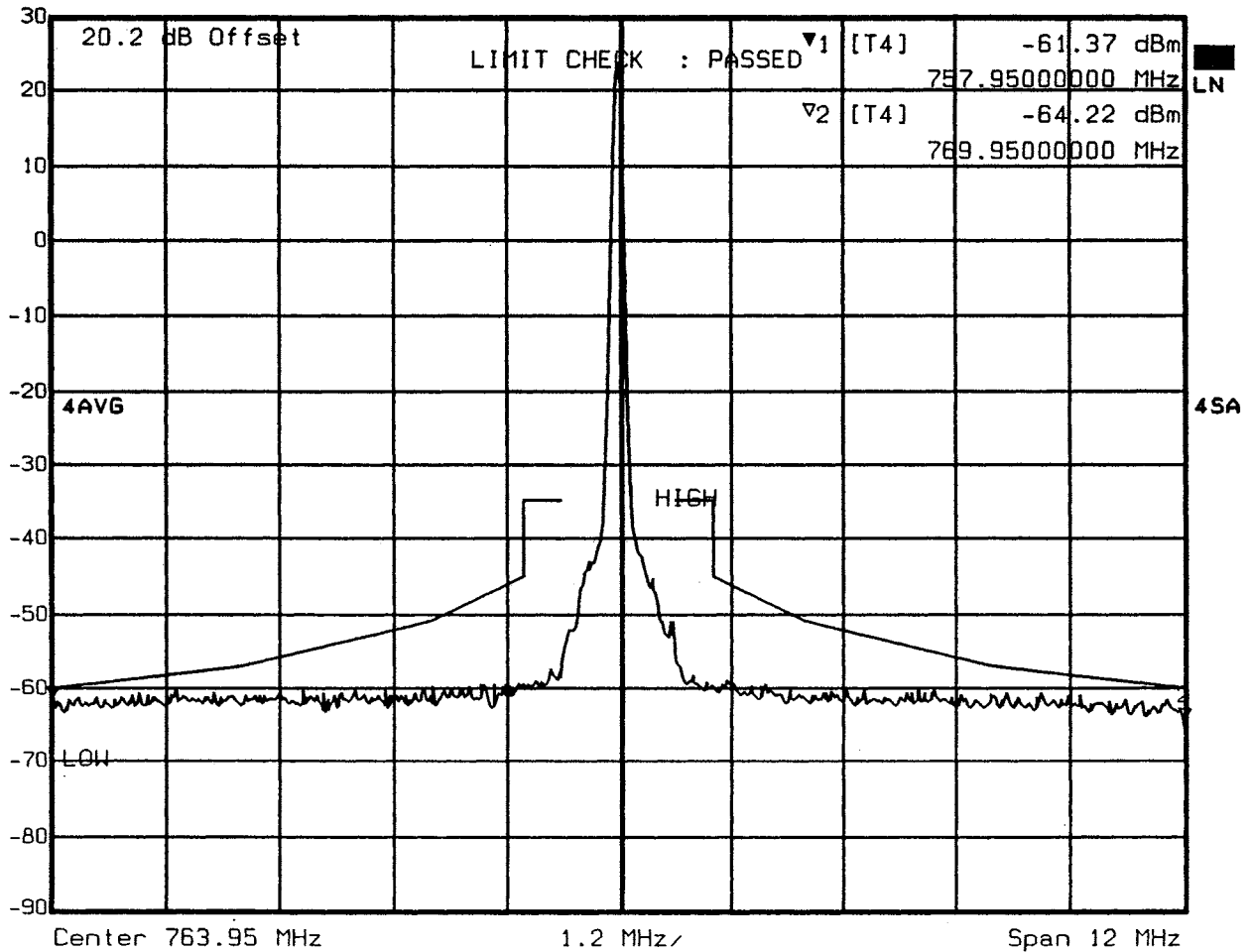
Frequency: 763.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088622

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -61.37 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 757.9500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 18:28:41

CHANNEL NOTCH FILTER NOT USED

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 763.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

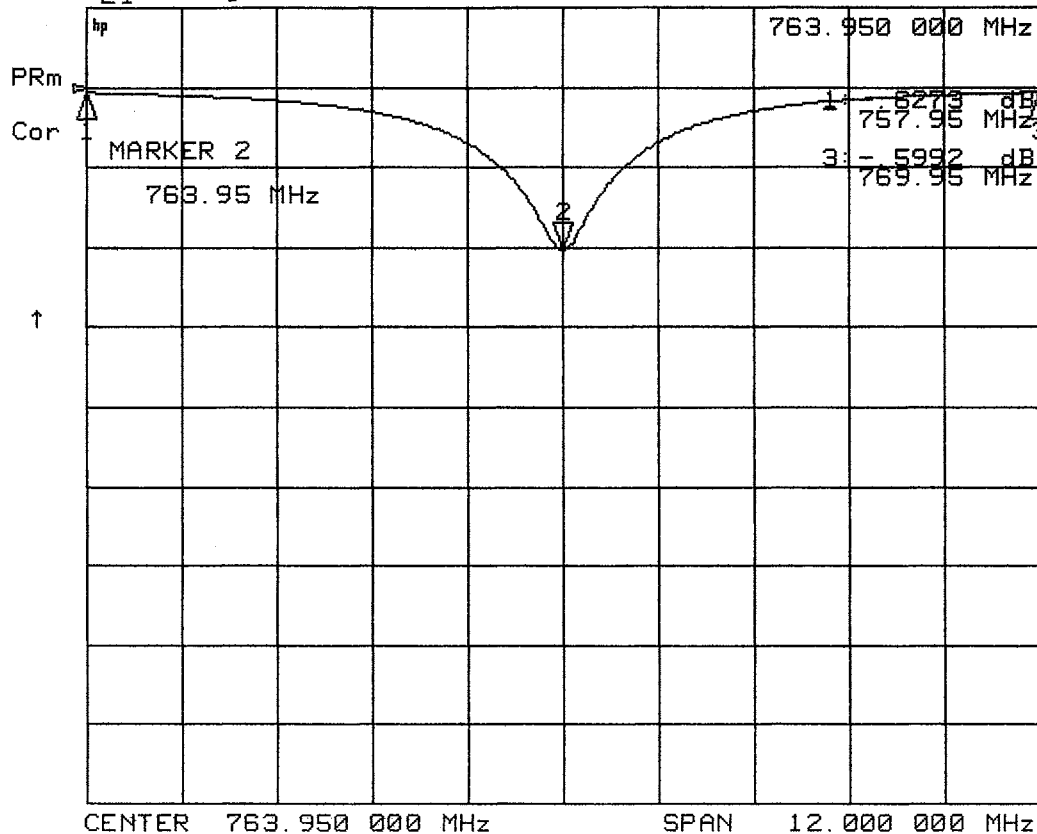
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088622

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS

10 Feb 2003 15:01:58

CH1 S21 log MAG 10 dB/ REF 0 dB 2: -20.331 dB

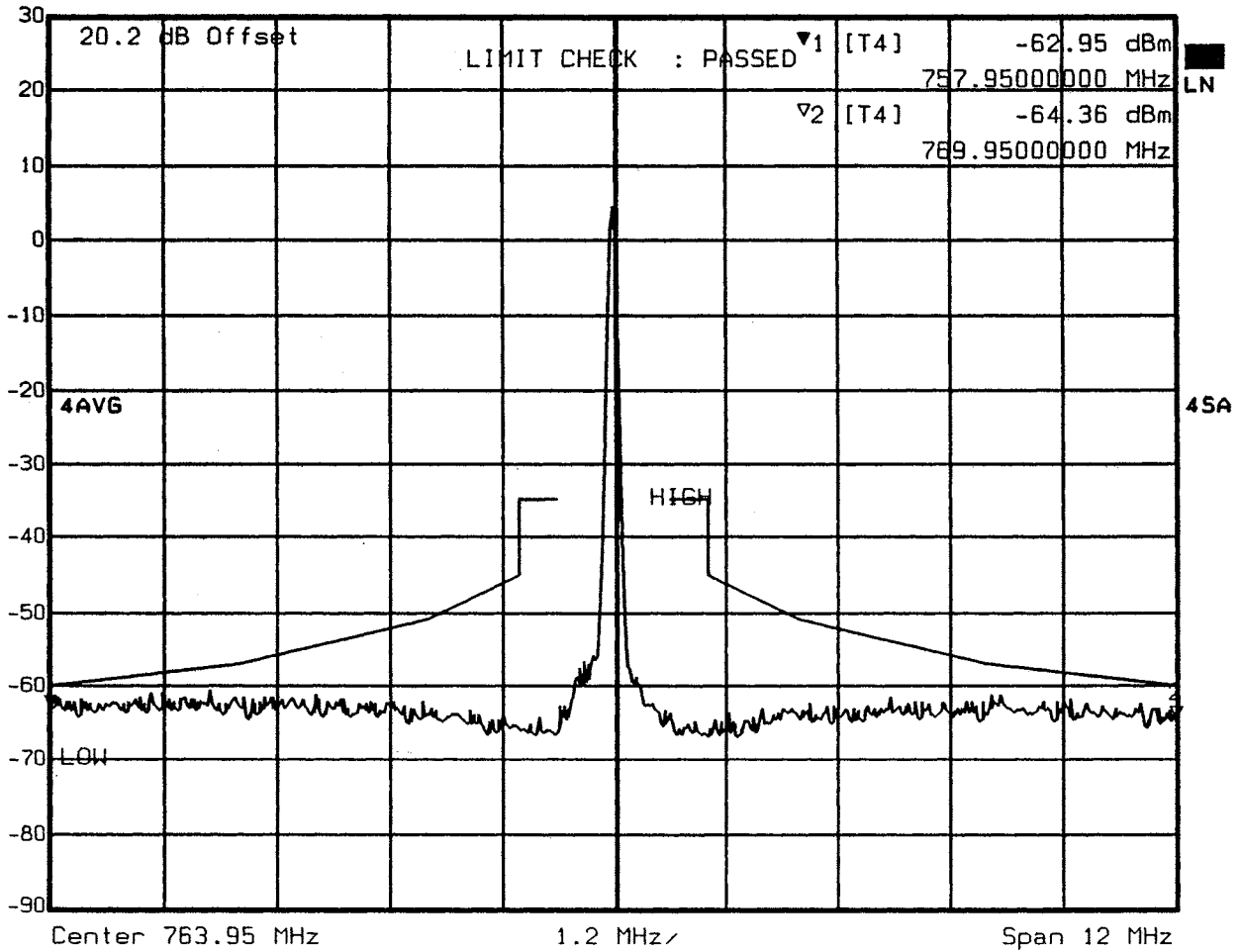


CHANNEL NOTCH FILTER RESPONSE

Insertion Loss When Tuned To 763.95 MHz.



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -62.95 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 757.9500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 18:29:42

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 763.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

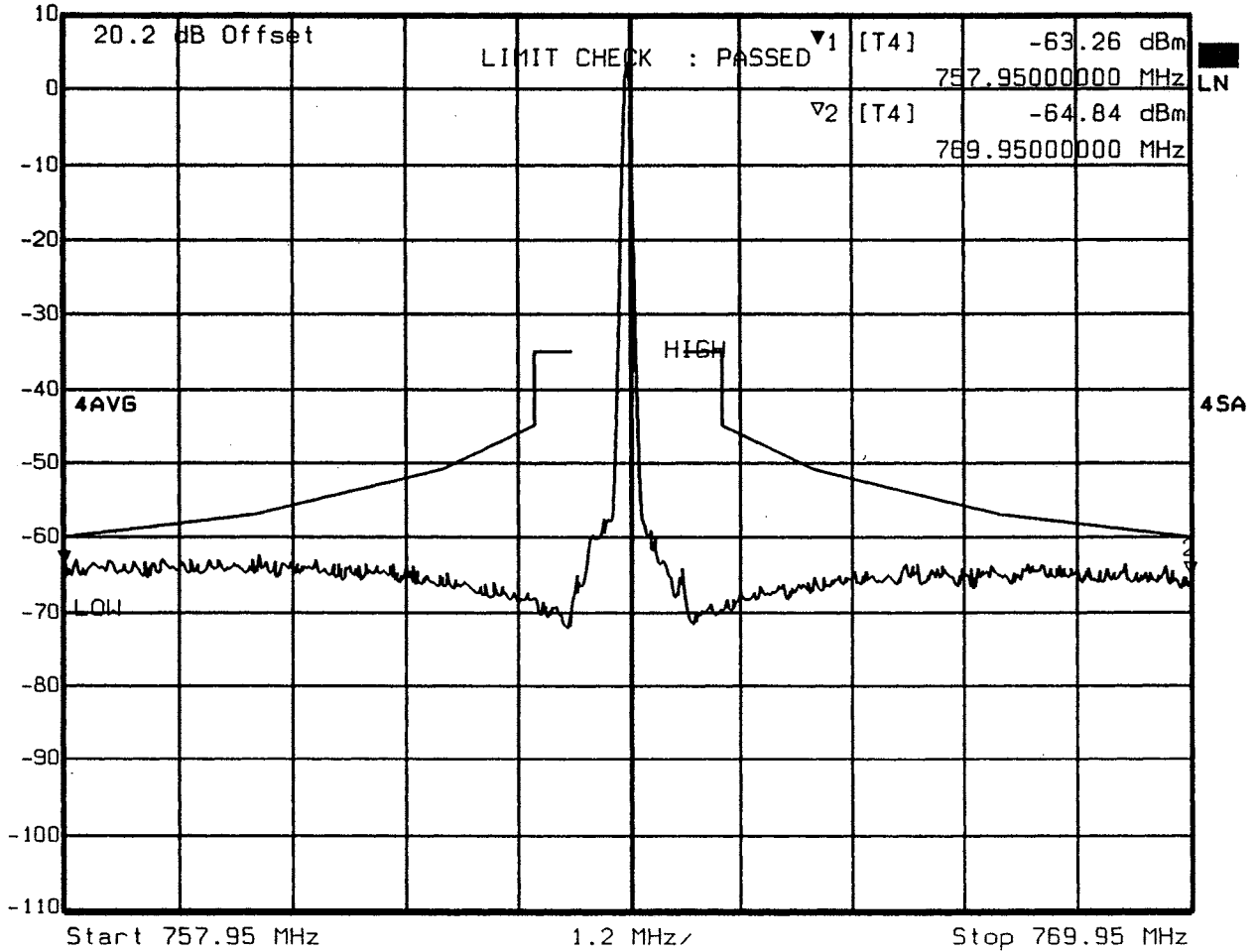
Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088622

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -63.26 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 757.9500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 18:30:37

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

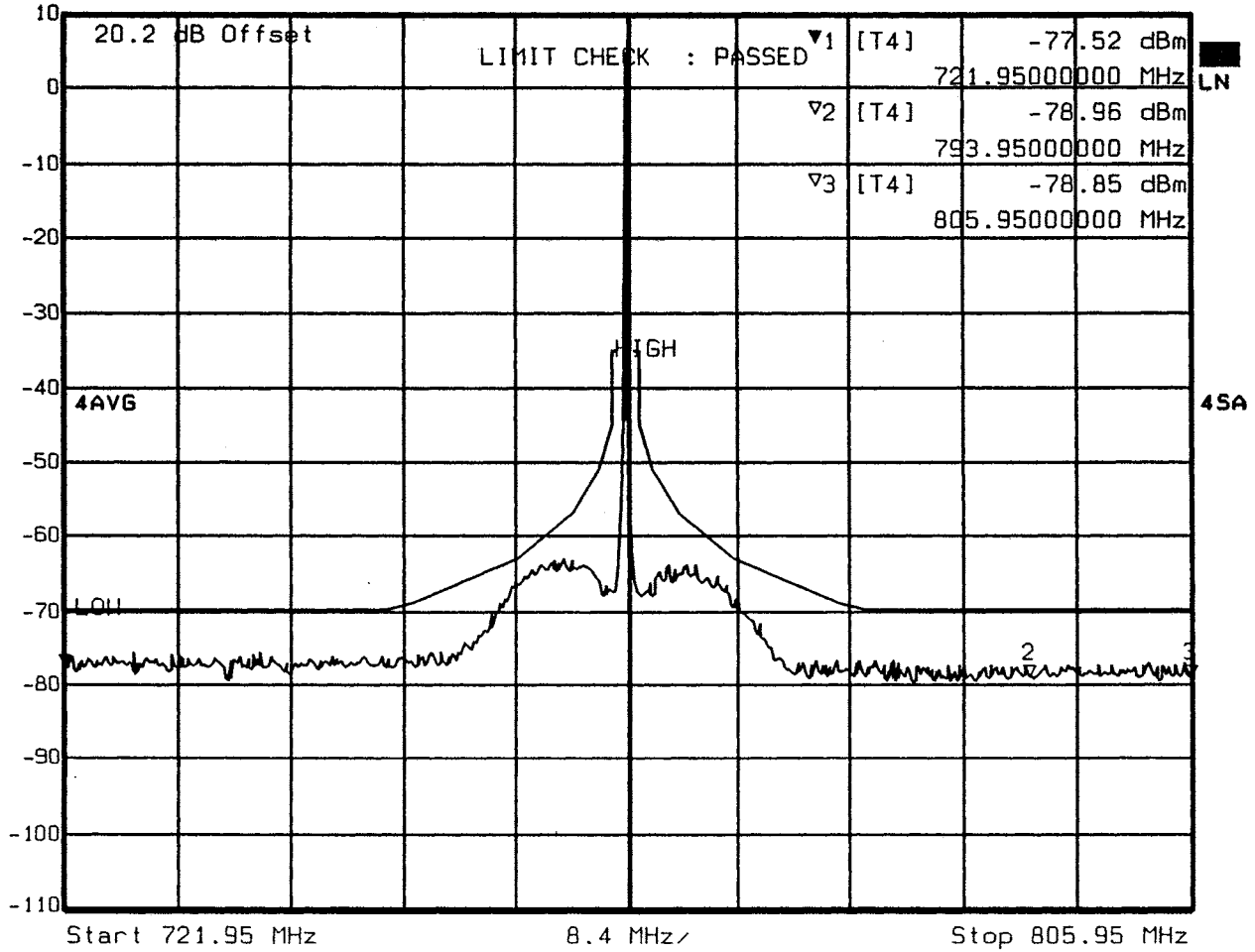
Frequency: 763.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088022

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -77.52 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 721.9500000 MHz SWT 235 ms Unit dBm



Date: 11.FEB.2003 18:32:35

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 763.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

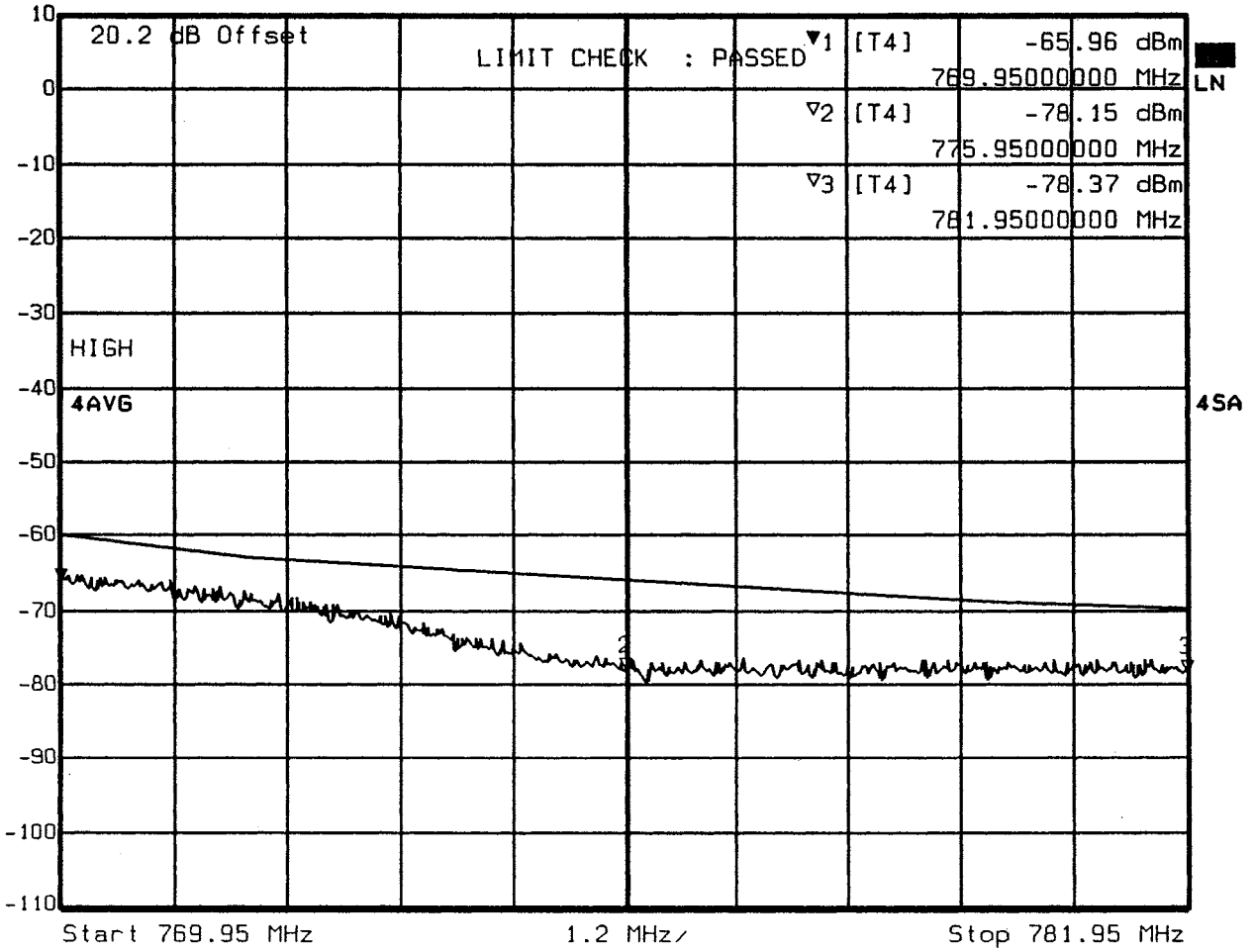
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088622

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -65.96 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 769.9500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 18:47:00

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

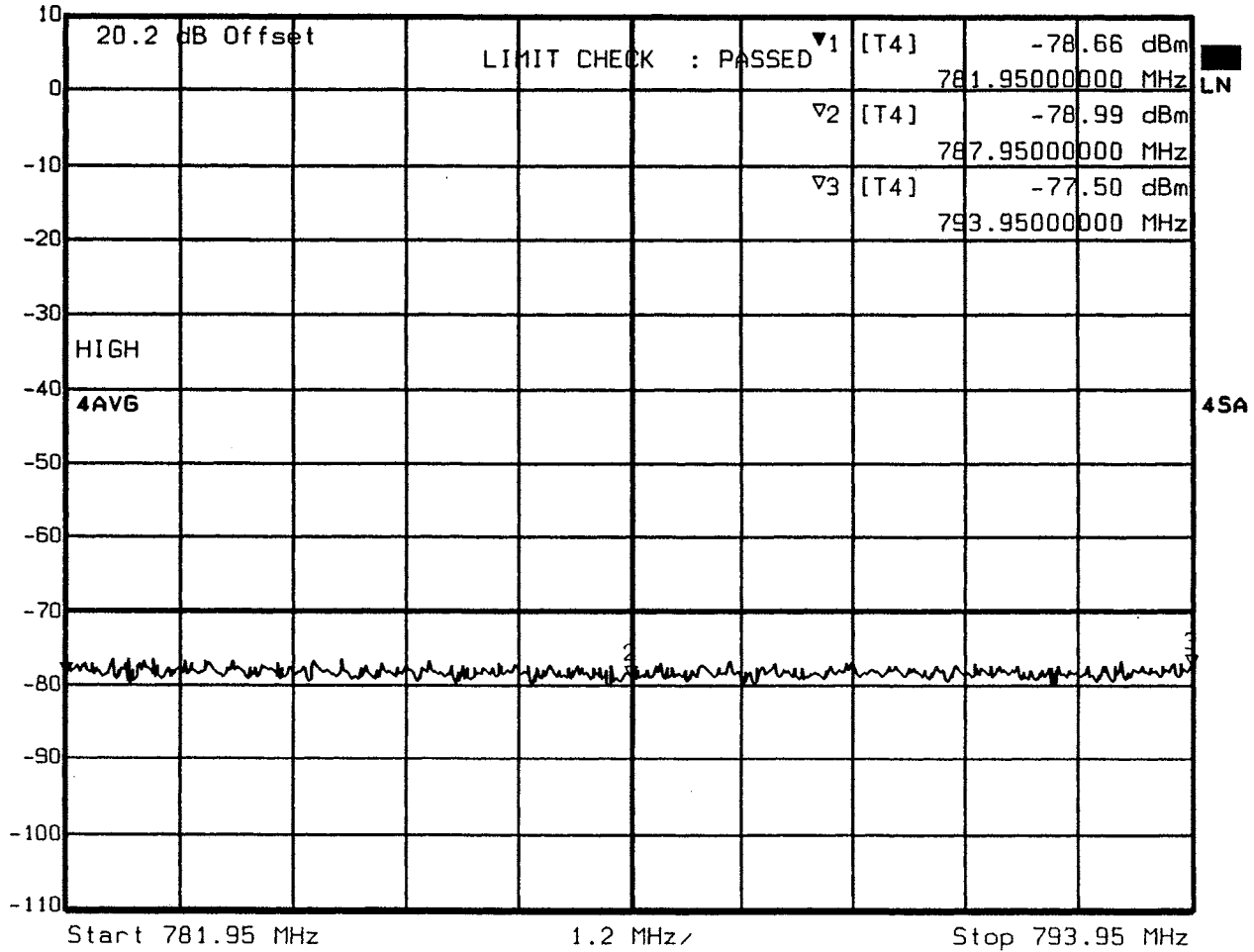
Frequency: 763.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088622

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -78.66 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 781.9500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 18:45:30

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

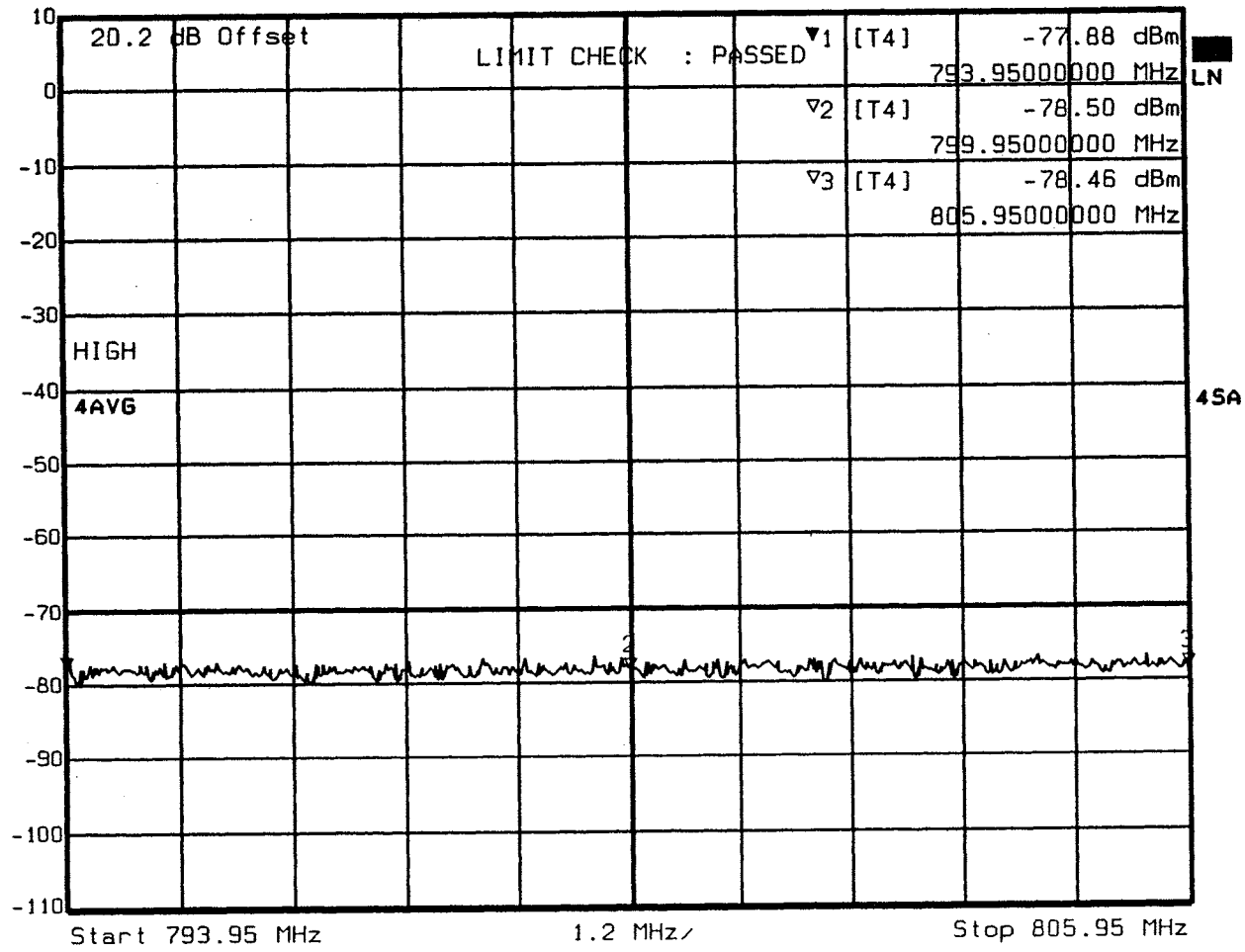
Frequency: 703.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088622

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -77.88 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 793.9500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 18:43:36

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

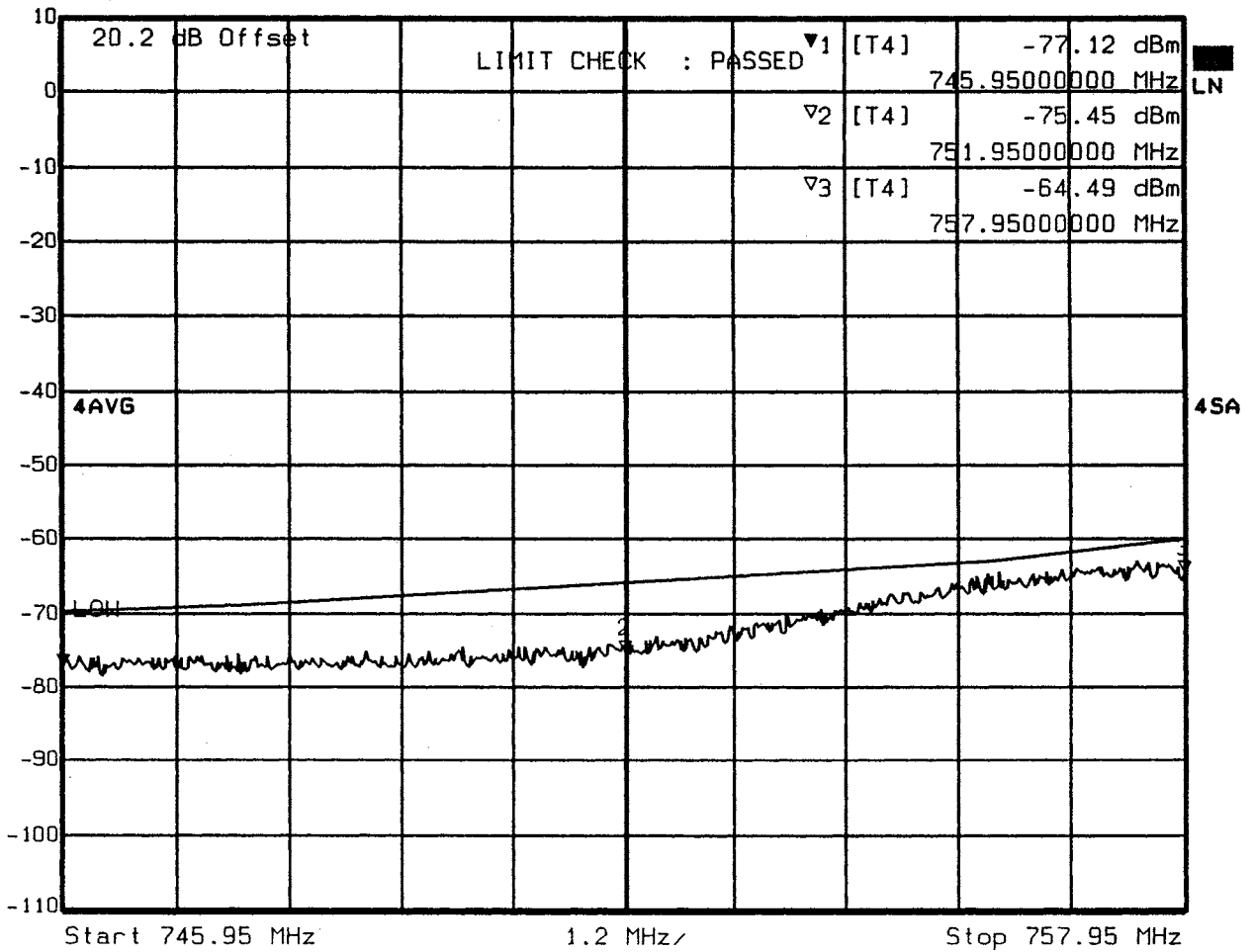
Frequency: 763.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088622

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -77.12 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 745.9500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 18:49:06

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 703.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

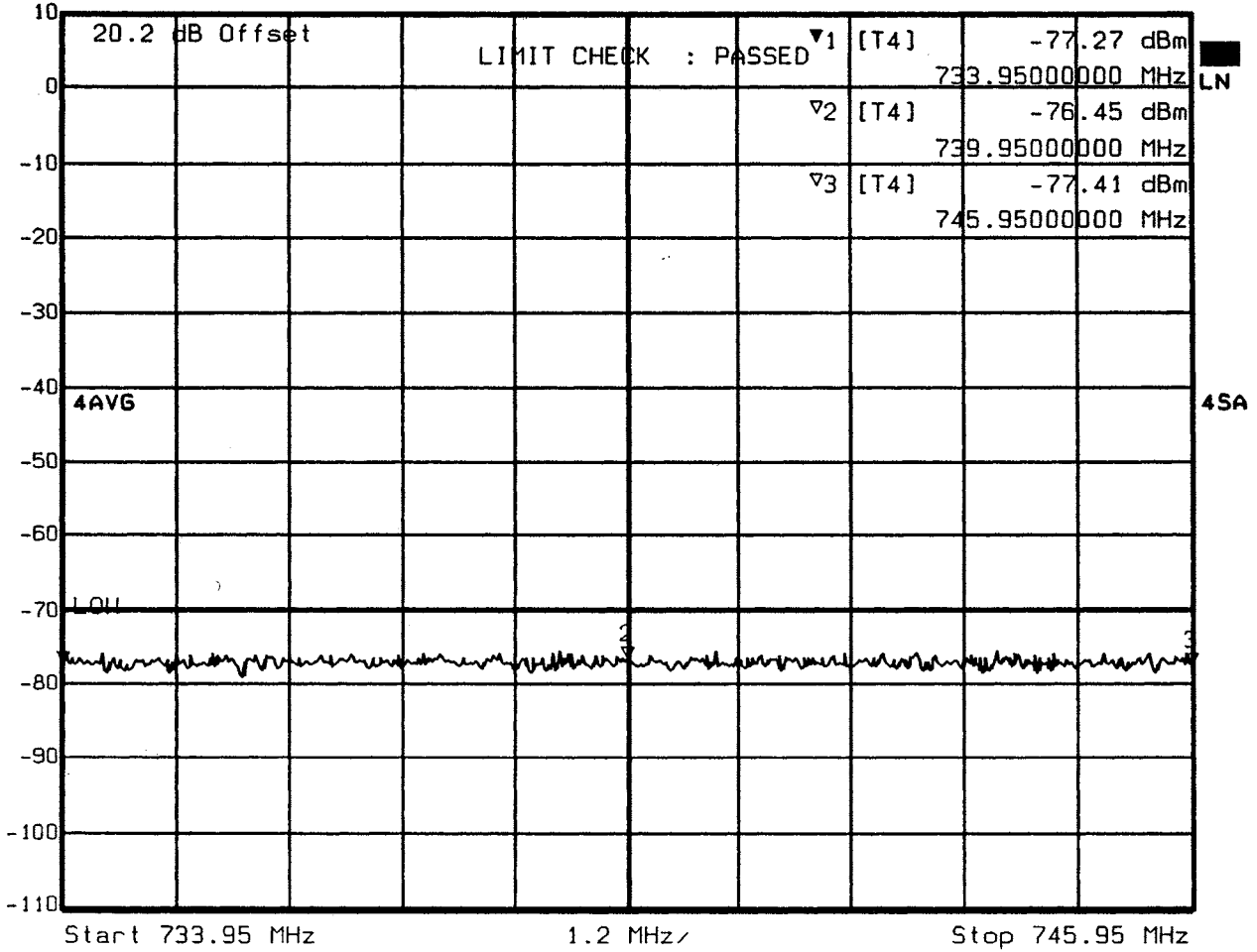
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088622

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -77.27 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 733.95000000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 18:50:44

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 733.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

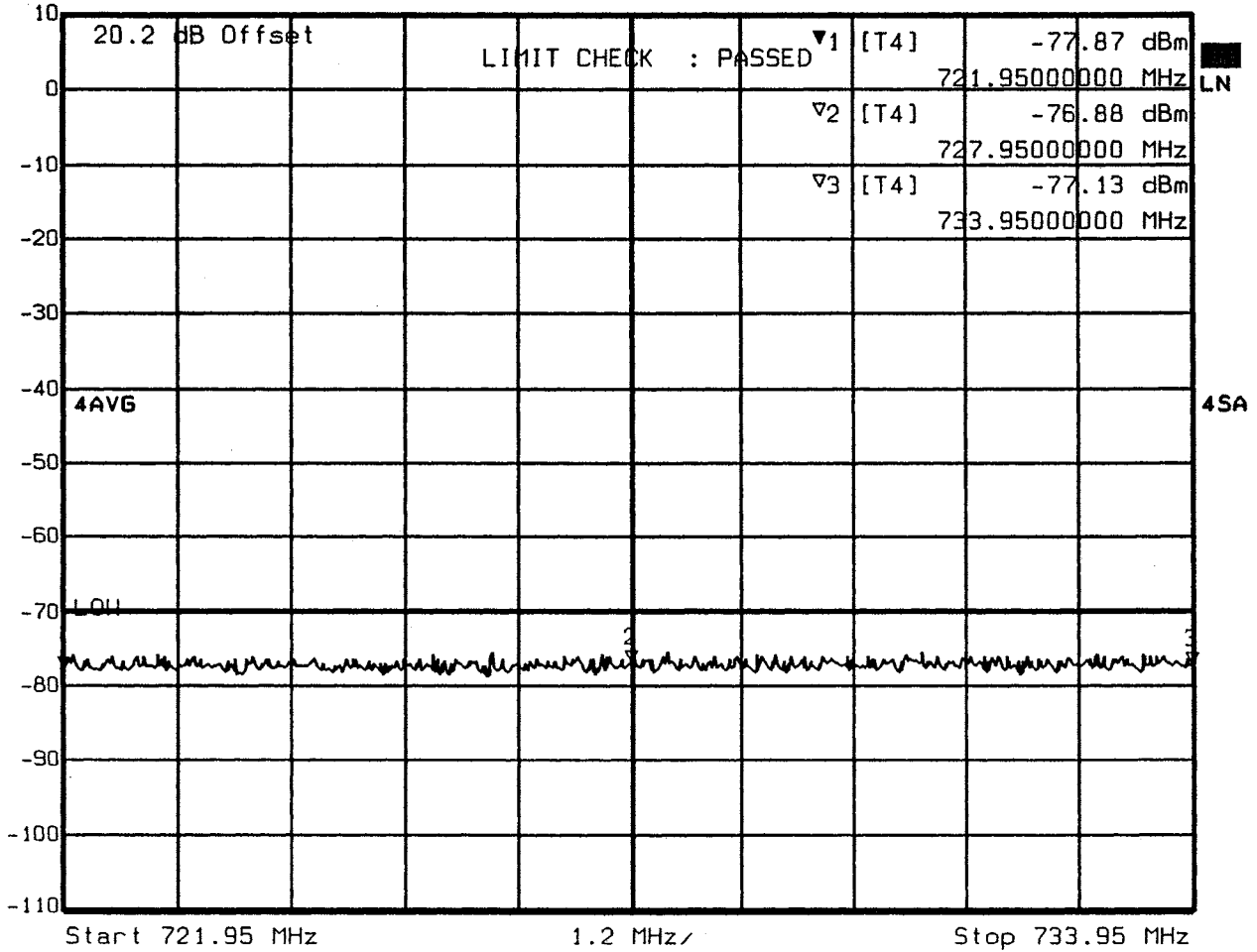
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088622

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -77.87 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 721.9500000 MHz SWT 34 ms Unit dBm



Date: 11.FEB.2003 18:52:05

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 703.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 2500 kbps. EUT-S/N 1088622

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS

EMISSION LIMITS PER SECTION 27.53 IN WT Docket No. 99-168 SECOND REPORT AND ORDER
MEASURED CHANNEL CENTER FREQUENCY (MHz):
776.5000

+/-100kHz and +/-200kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label	Center (MHz)	Adjacent Channel Frequency Limits Shown On Plot (MHz)							
		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+100kHz 776.6000					776.5750	776.6250		
ACP Low	-100kHz 776.4000			776.3750	776.4250				
ALT1 Up	+200kHz 776.7000							776.6750	776.7250
ALT2 Low	-200kHz 776.3000	776.2750	776.3250						

+/-300kHz and +/-400kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label	Center (MHz)	Adjacent Channel Frequency Limits Shown On Plot (MHz)							
		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+300kHz 776.8000					776.7750	776.8250		
ACP Low	-300kHz 776.2000			776.1750	776.2250				
ALT1 Up	+400kHz 776.9000							776.8750	776.9250
ALT2 Low	-400kHz 776.1000	776.0750	776.1250						

+/-600kHz and +/-1000kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Marker	Frequency (MHz)
1	-1000kHz 775.5000
2	-600kHz 775.9000
3	+600kHz 777.1000
4	+1000kHz 777.5000

Frequencies for plot with 84MHz Span *

LOW	RECEIVE	HIGH
734.5000	746.5000	818.5000

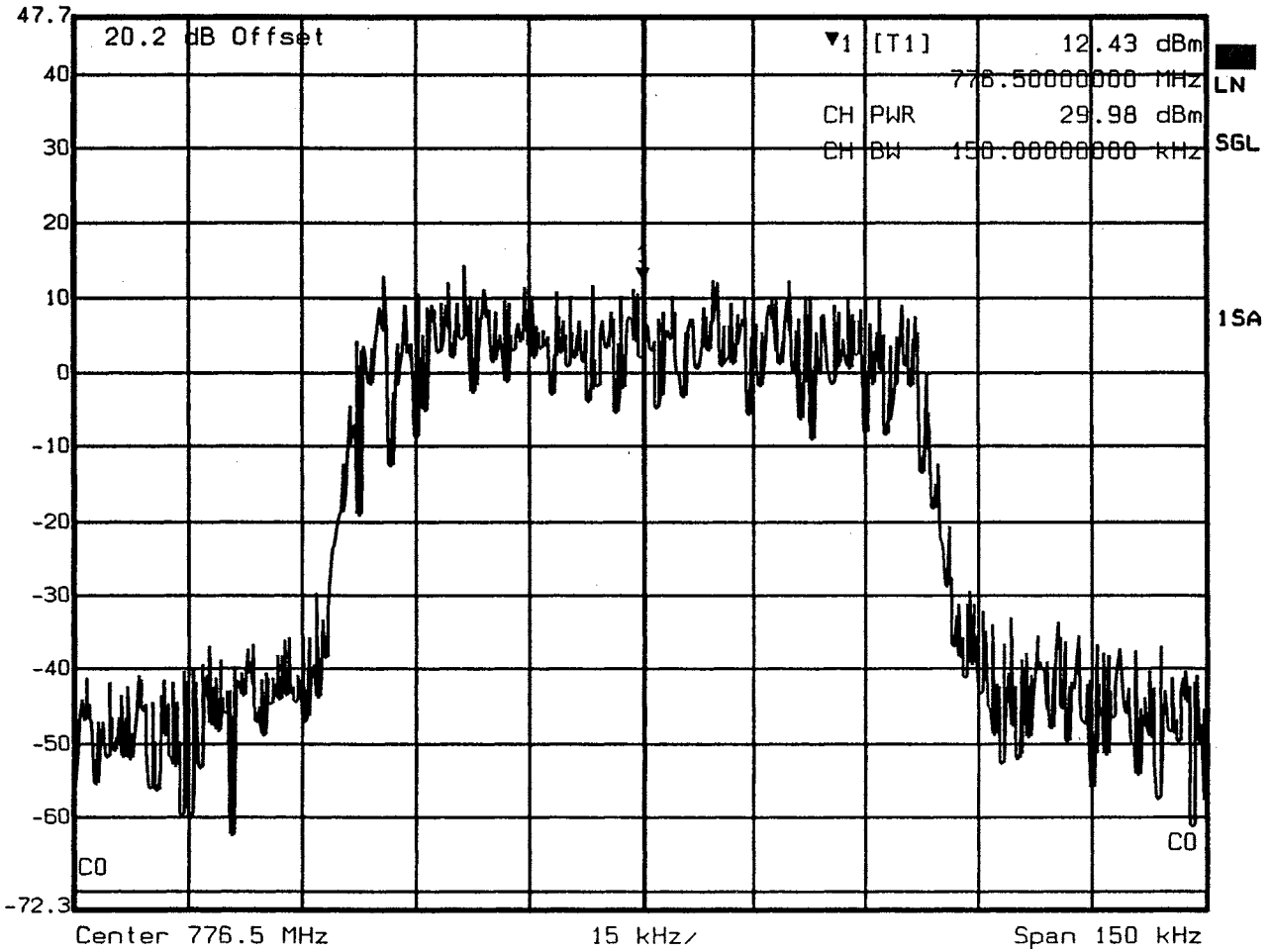
Frequencies for plots with 12MHz Spans *

LOW	CENTER	HIGH
734.5000	740.5000	746.5000
746.5000	752.5000	758.5000
758.5000	764.5000	770.5000
770.5000	776.5000	782.5000
782.5000	788.5000	794.5000
794.5000	800.5000	806.5000
806.5000	812.5000	818.5000

* Channel Notch Filter Used Unless Otherwise Noted



Marker 1 [T1] RBW 300 Hz RF Att 40 dB
 Ref Lvl 12.43 dBm VBW 300 Hz Mixer -20 dBm
 47.7 dBm 776.5000000 MHz SWT 8.4 s Unit dBm



Date: 10.JAN.2003 18:30:19

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 776.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

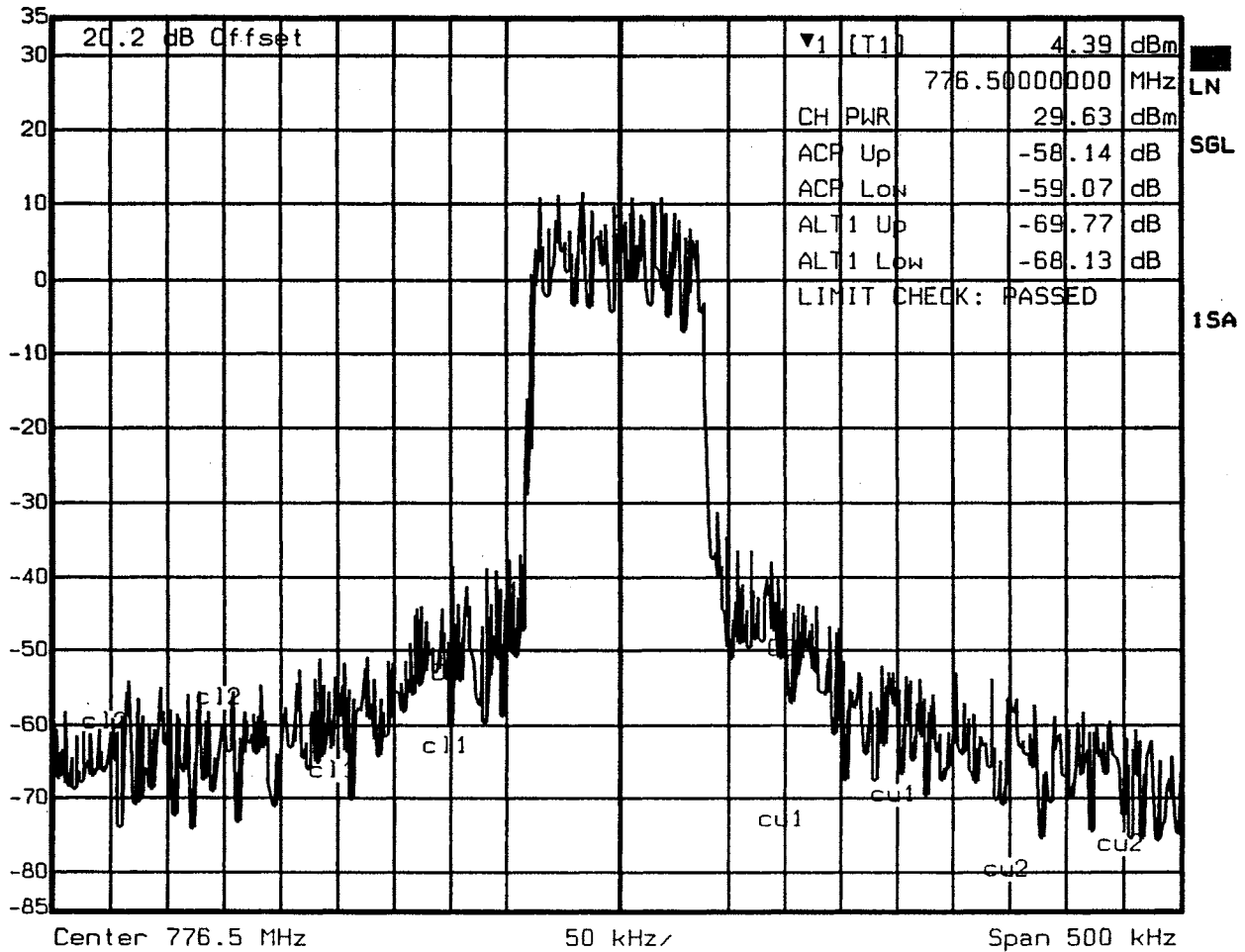
Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1098095

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl 4.39 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 776.5000000 MHz SWT 28 s Unit dBm



+/-100kHz and +/-200kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label Center (MHz) Adjacent Channel Frequency Limits Shown On Plot (MHz)

Label	Center (MHz)	cl2	cl1	cu1	cu2
ACP Up	+100kHz 776.6000			776.5750	776.6250
ACP Low	-100kHz 776.4000		776.3750 776.4250		
ALT1 Up	+200kHz 776.7000				776.6750 776.7250
ALT2 Low	-200kHz 776.3000	776.2750 776.3250			

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 776.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

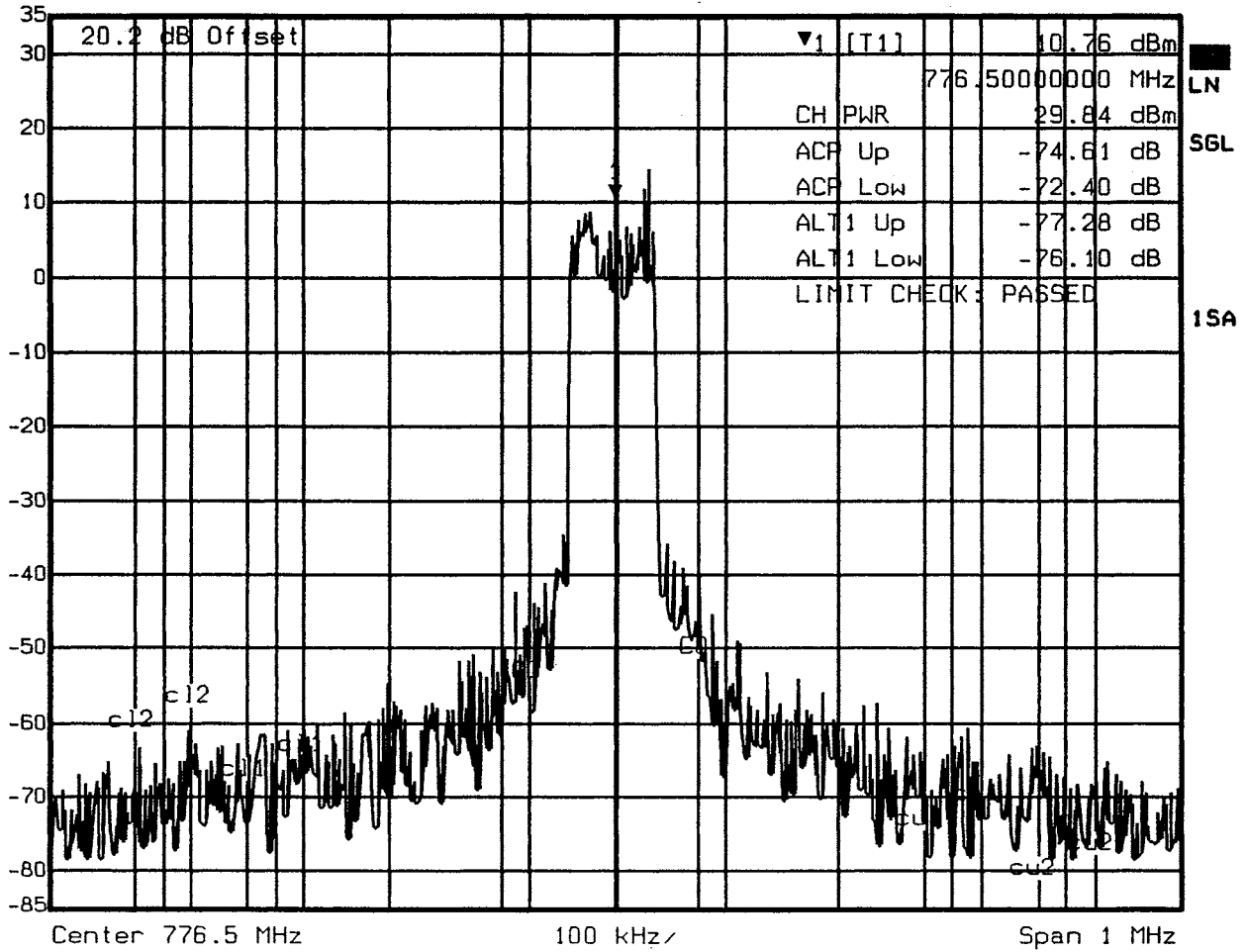
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1098095

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl 10.76 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 776.5000000 MHz SWT 56 s Unit dBm



+/-300kHz and +/-400kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label Center (MHz) Adjacent Channel Frequency Limits Shown On Plot (MHz)

		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+300kHz	776.8000				776.7750	776.8250		
ACP Low	-300kHz	776.2000		776.1750	776.2250				
ALT1 Up	+400kHz	776.9000						776.8750	776.9250
ALT2 Low	-400kHz	776.1000	776.0750	776.1250					

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 776.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

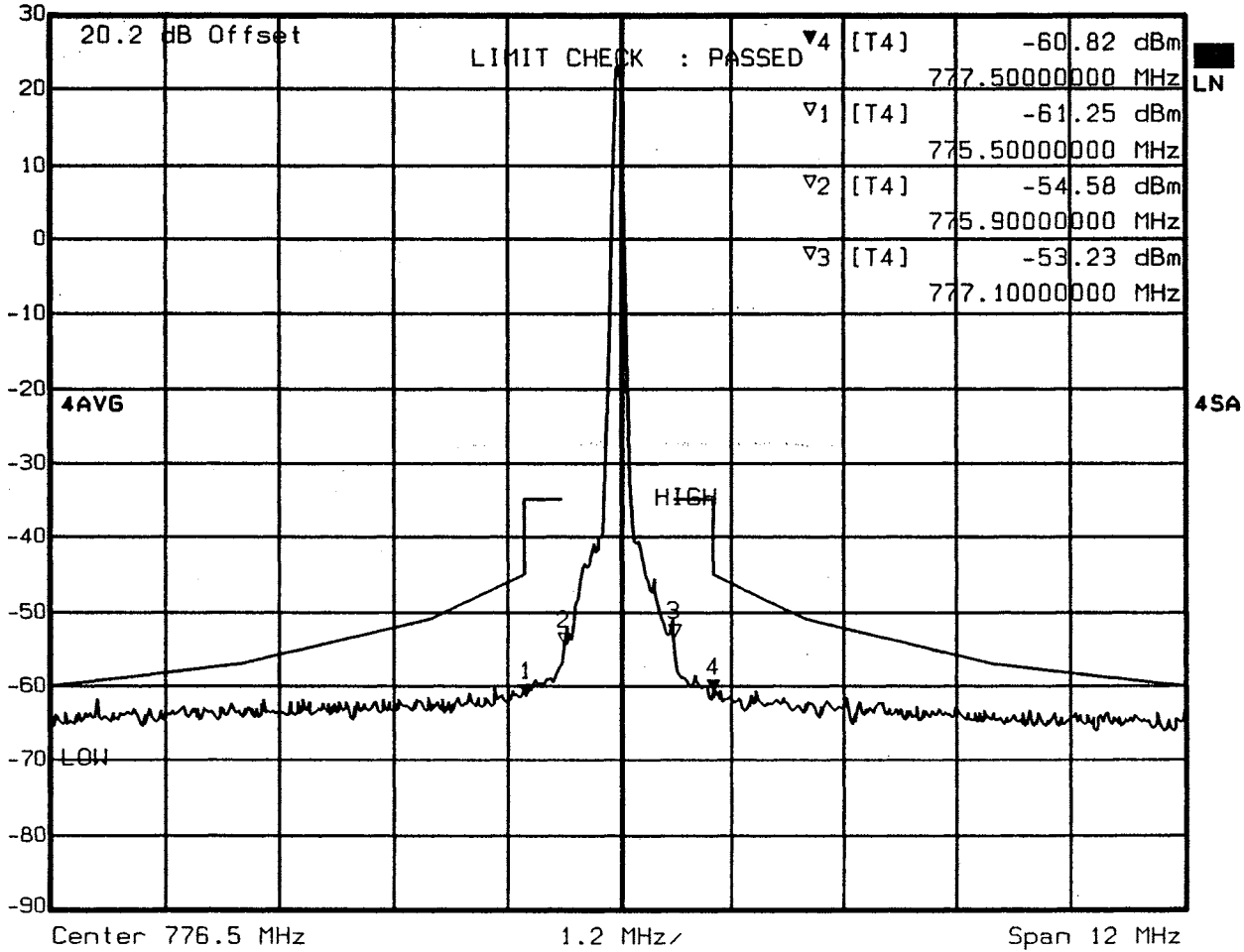
Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1098095

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 4 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -60.82 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 777.5000000 MHz SWT 34 ms Unit dBm



Date: 7.FEB.2003 11:26:41

+/-600kHz and +/-1000kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Marker	Frequency (MHz)
1	-1000kHz 775.5000
2	-600kHz 775.9000
3	+600kHz 777.1000
4	+1000kHz 777.5000

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 776.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

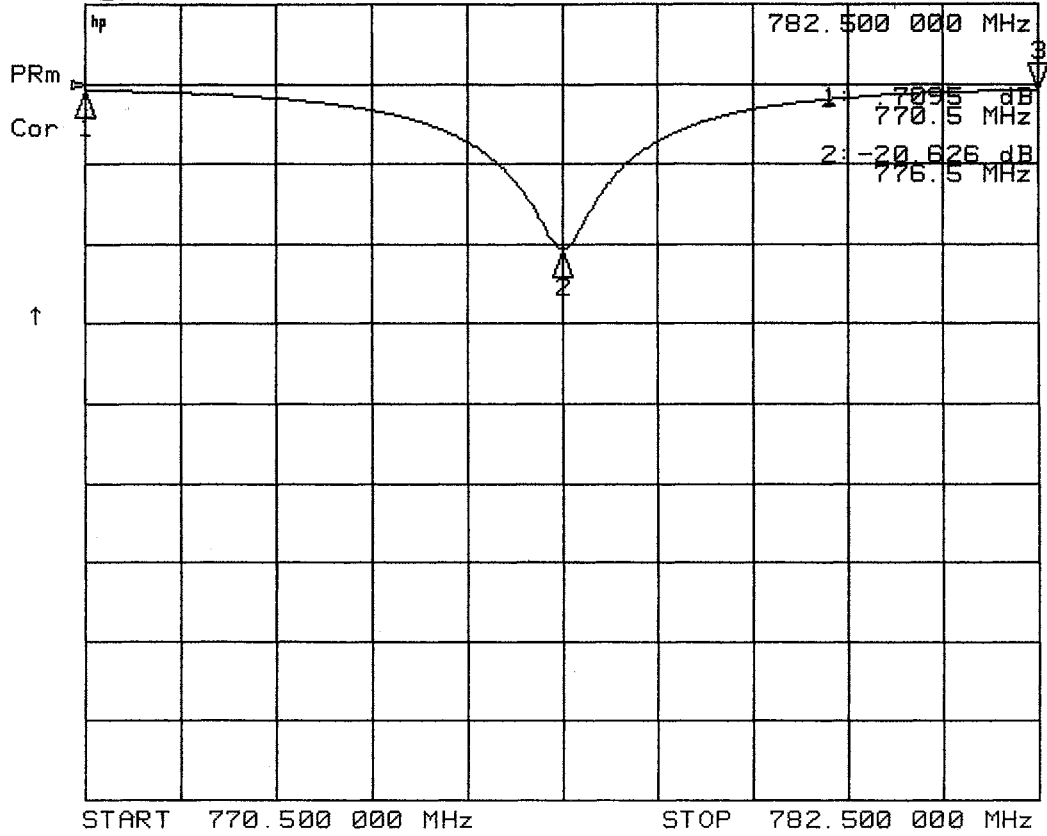
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1098095

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS

10 Feb 2003 14:51:44

CH1 S21 log MAG · 10 dB/ REF 0 dB 3: -.6727 dB

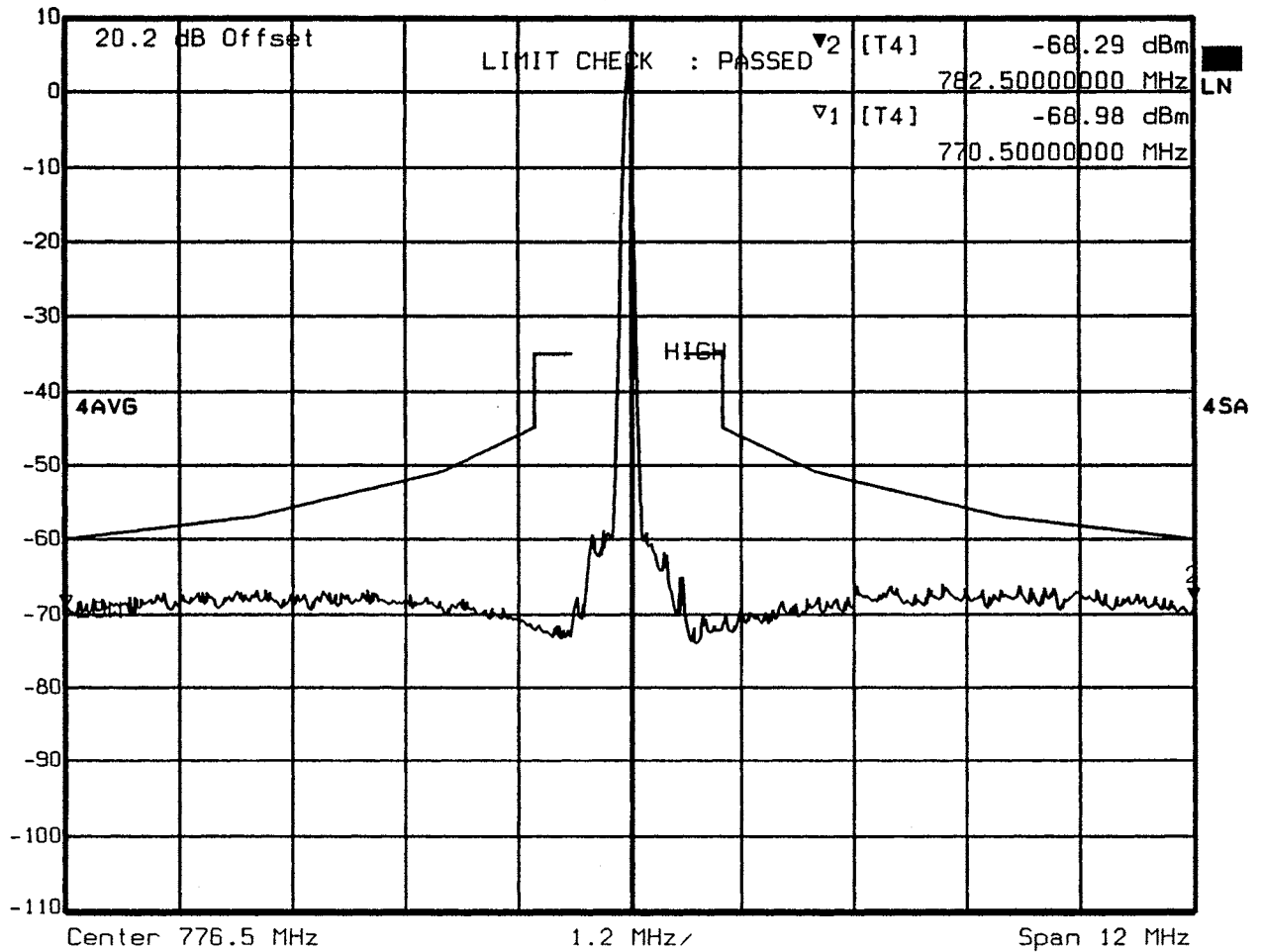


CHANNEL NOTCH FILTER RESPONSE

Insertion Loss When Tuned To 770.5 MHz.



Marker 2 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -68.29 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 782.5000000 MHz SWT 34 ms Unit dBm



Date: 7.FEB.2003 13:37:55

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 776.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

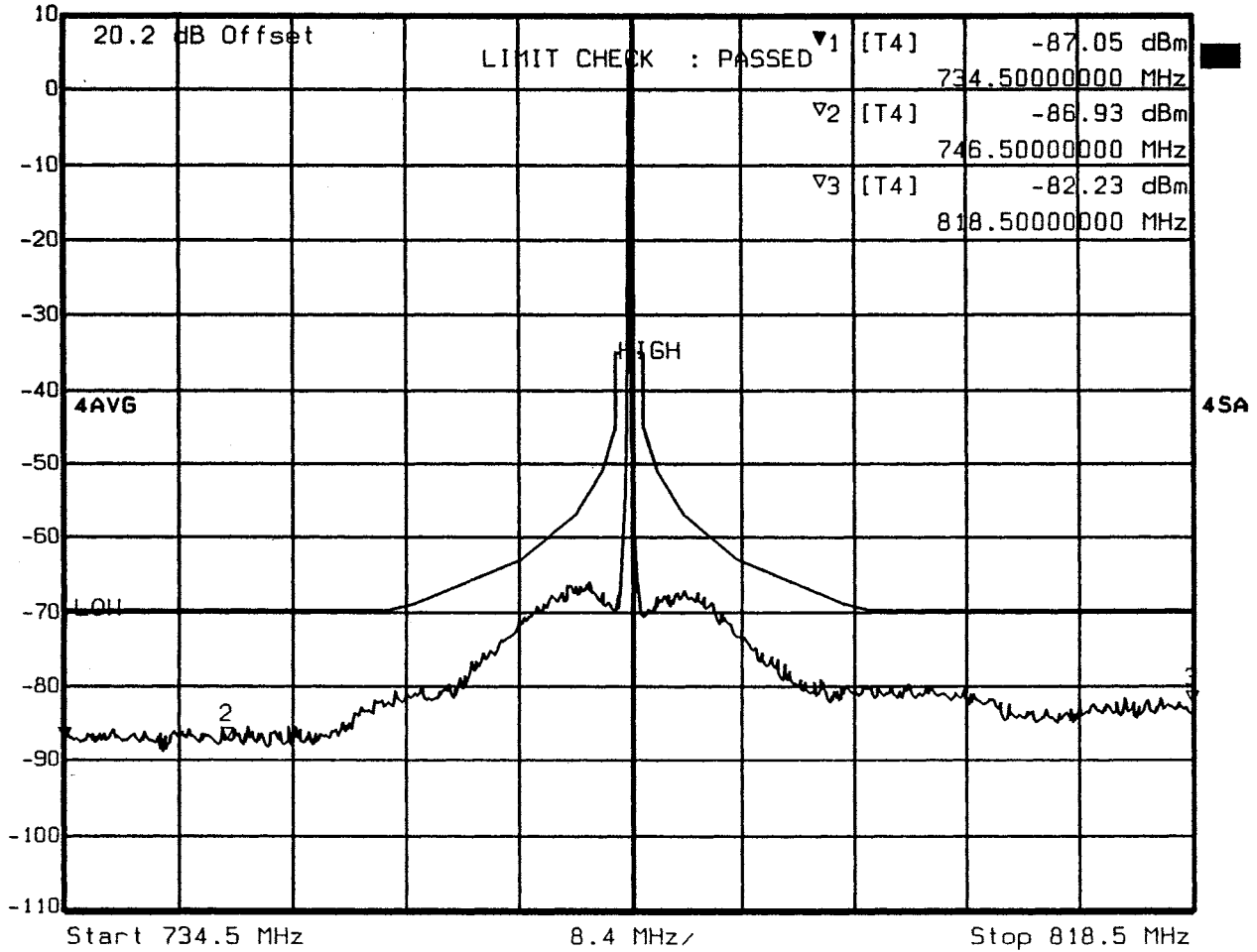
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1098095

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 0 dB
 Ref Lvl -87.05 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 734.5000000 MHz SWT 235 ms Unit dBm



Date: 7.FEB.2003 15:41:26

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

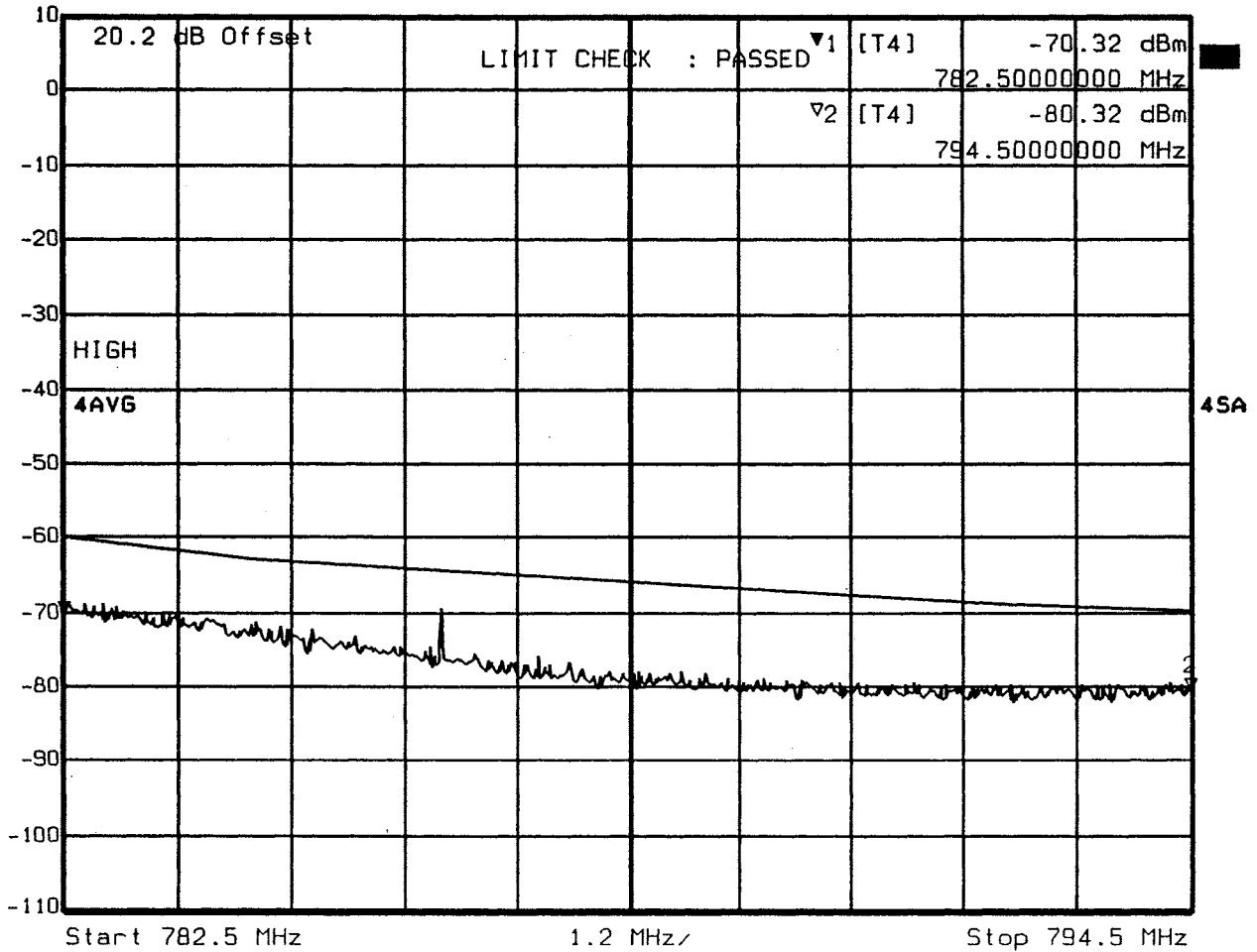
Frequency: 776.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1098095

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 0 dB
 Ref Lvl -70.32 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 782.5000000 MHz SWT 34 ms Unit dBm



Date: 7.FEB.2003 15:46:08

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 776.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

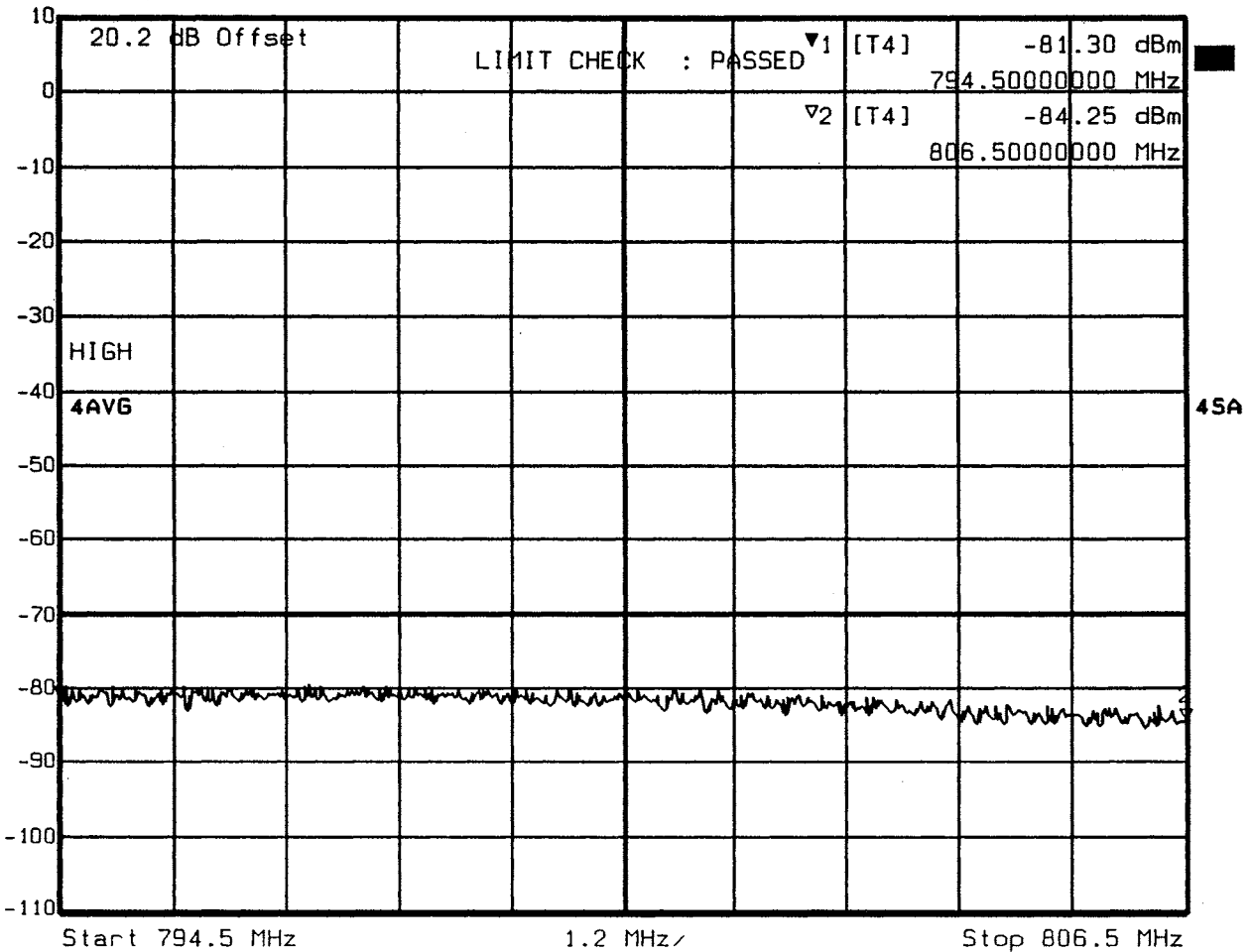
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1098095

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 0 dB
 Ref Lvl -81.30 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 794.5000000 MHz SWT 34 ms Unit dBm



Date: 7.FEB.2003 15:47:36

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 776.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

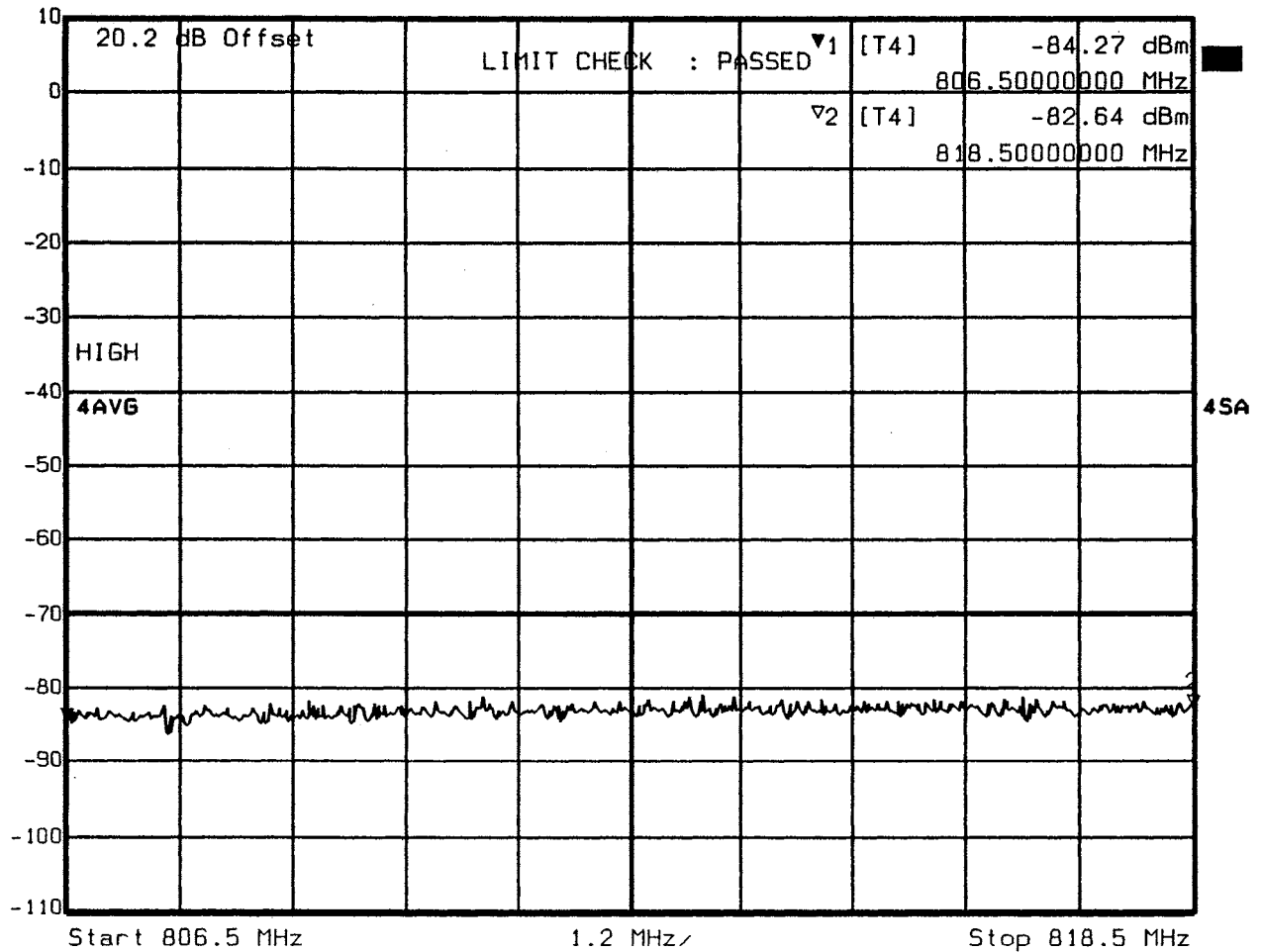
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1098095

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 0 dB
 Ref Lvl -84.27 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 806.5000000 MHz SWT 34 ms Unit dBm



Date: 7.FEB.2003 15:49:23

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

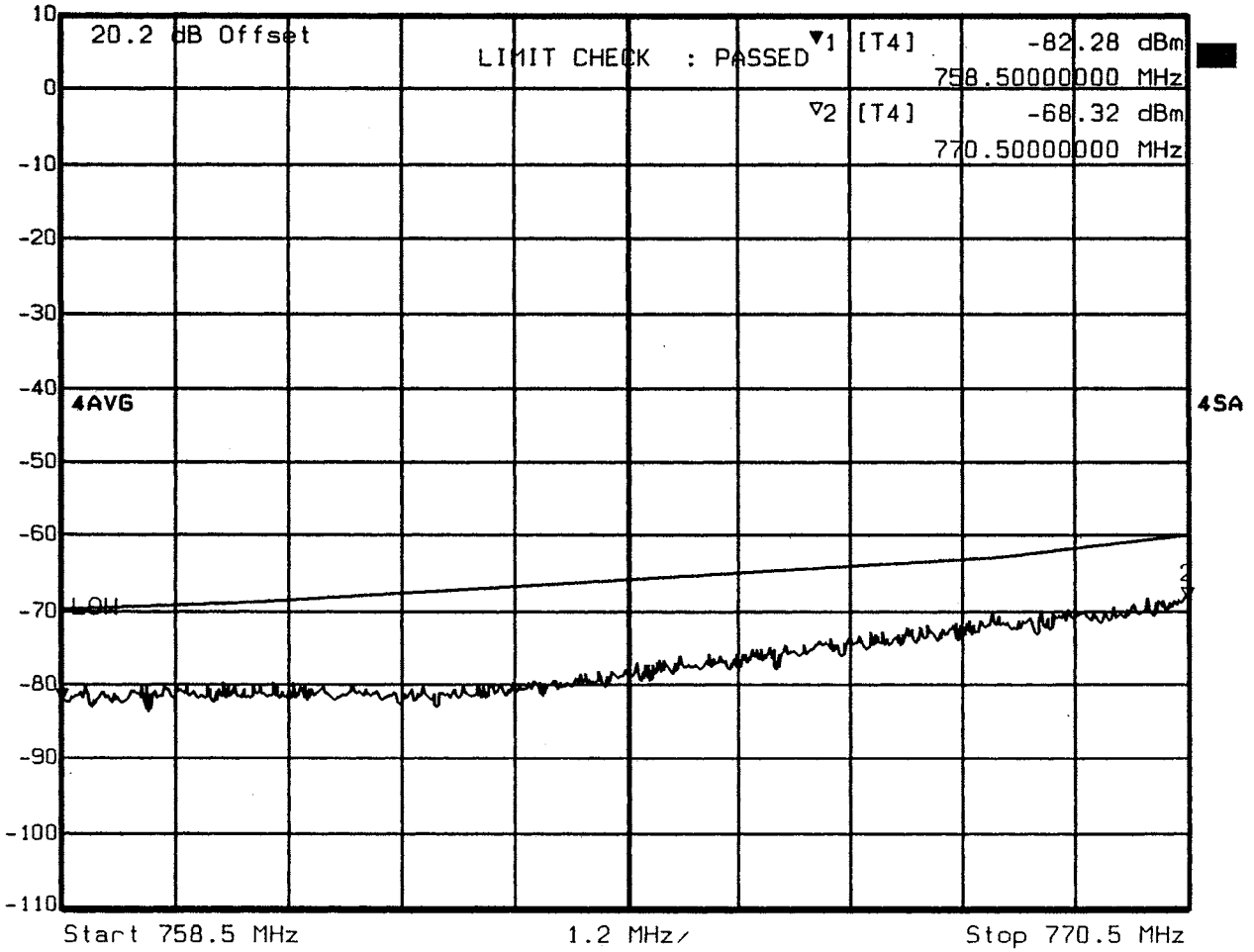
Frequency: 776.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1098095

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 0 dB
 Ref Lvl -82.28 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 758.5000000 MHz SWT 34 ms Unit dBm



Date: 7.FEB.2003 15:50:26

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

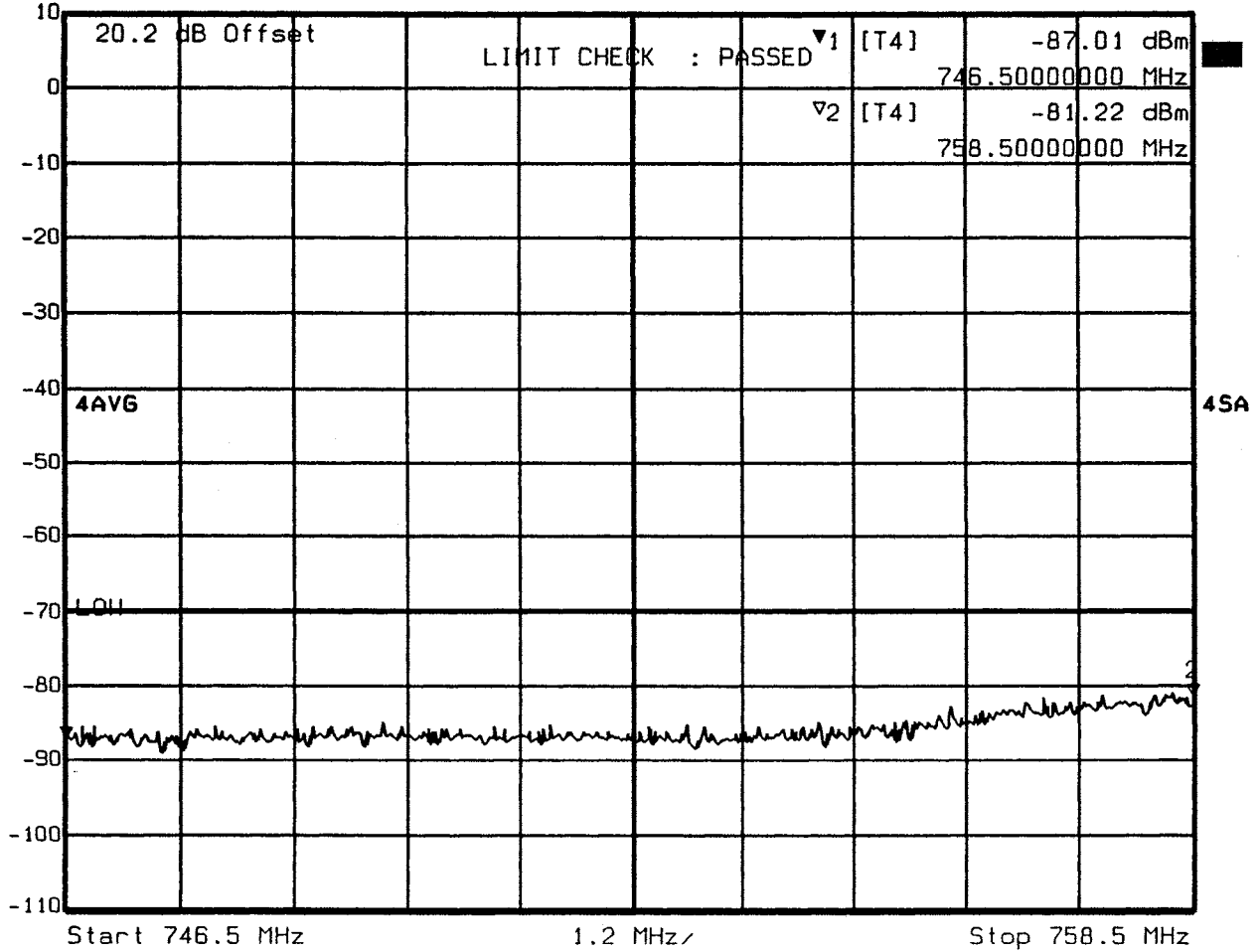
Frequency: 770.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1098095

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 0 dB
 Ref Lvl -87.01 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 746.5000000 MHz SWT 34 ms Unit dBm



Date: 7.FEB.2003 15:51:43

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

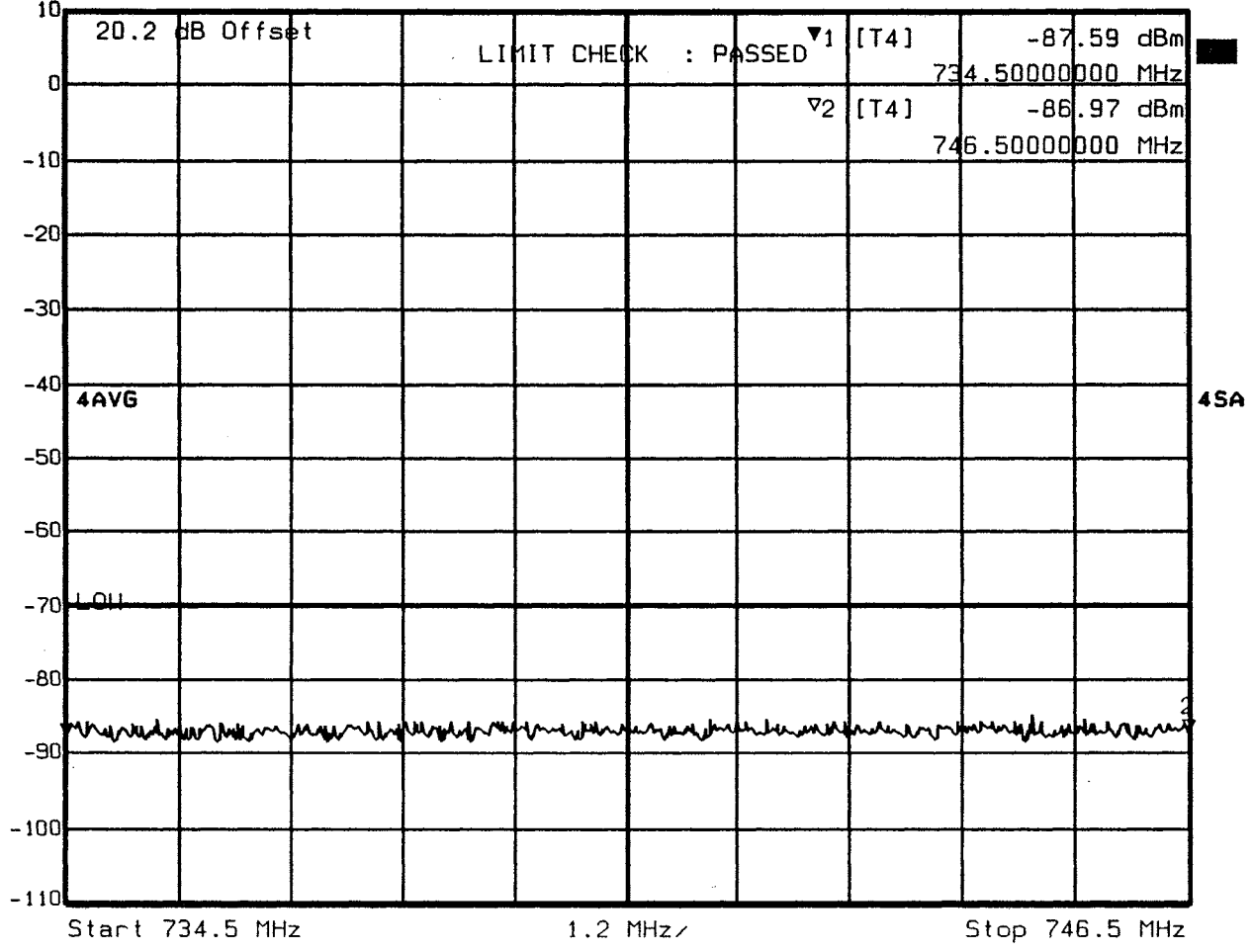
Frequency: 776.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1098095

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 0 dB
 Ref Lvl -87.59 dBm VBW 1 MHz Mixer -20 dB
 10 dBm 734.5000000 MHz SWT 34 ms Unit dBm



Date: 7.FEB.2003 15:52:53

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 770.5 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1098095

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS

EMISSION LIMITS PER SECTION 27.53 IN WT Docket No. 99-168 SECOND REPORT AND ORDER
MEASURED CHANNEL CENTER FREQUENCY (MHz):
792.0500

+/-100kHz and +/-200kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label	Center (MHz)	Adjacent Channel Frequency Limits Shown On Plot (MHz)								
			cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+100kHz	792.1500					792.1250	792.1750		
ACP Low	-100kHz	791.9500			791.9250	791.9750				
ALT1 Up	+200kHz	792.2500							792.2250	792.2750
ALT2 Low	-200kHz	791.8500	791.8250	791.8750						

+/-300kHz and +/-400kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label	Center (MHz)	Adjacent Channel Frequency Limits Shown On Plot (MHz)								
			cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+300kHz	792.3500					792.3250	792.3750		
ACP Low	-300kHz	791.7500			791.7250	791.7750				
ALT1 Up	+400kHz	792.4500							792.4250	792.4750
ALT2 Low	-400kHz	791.6500	791.6250	791.6750						

+/-600kHz and +/-1000kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Marker	Frequency (MHz)
1	-1000kHz 791.0500
2	-600kHz 791.4500
3	+600kHz 792.6500
4	+1000kHz 793.0500

Frequencies for plot with 84MHz Span *

LOW	RECEIVE	HIGH
750.0500	762.0500	834.0500

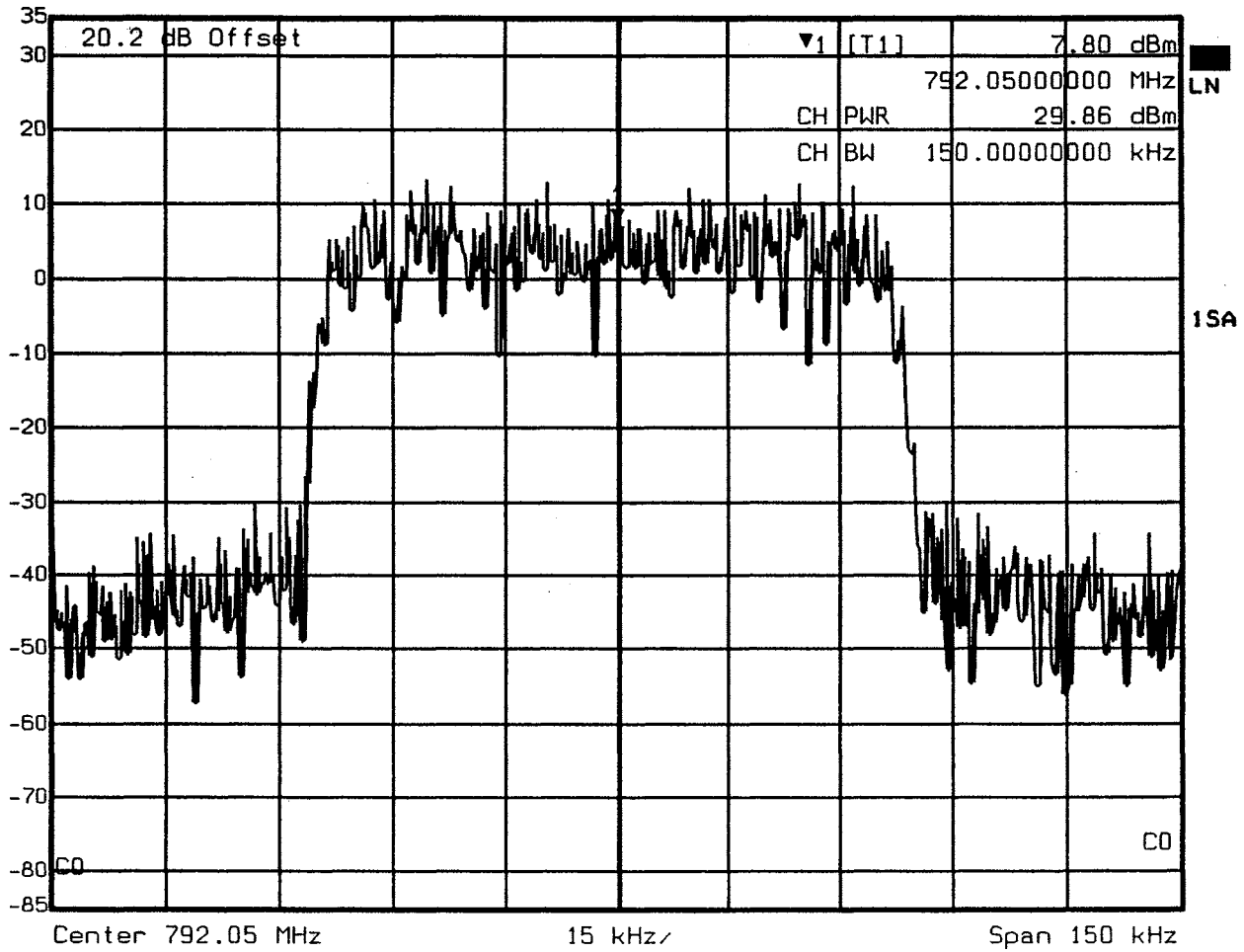
Frequencies for plots with 12MHz Spans *

LOW	CENTER	HIGH
750.0500	756.0500	762.0500
762.0500	768.0500	774.0500
774.0500	780.0500	786.0500
786.0500	792.0500	798.0500
798.0500	804.0500	810.0500
810.0500	816.0500	822.0500
822.0500	828.0500	834.0500

* Channel Notch Filter Used Unless Otherwise Noted



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
Ref Lvl 35 dBm 7.80 dBm VBW 300 Hz Mixer -20 dBm
792.05000000 MHz SWT 8.4 s Unit dBm



Date: 13.JAN.2003 18:09:15

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

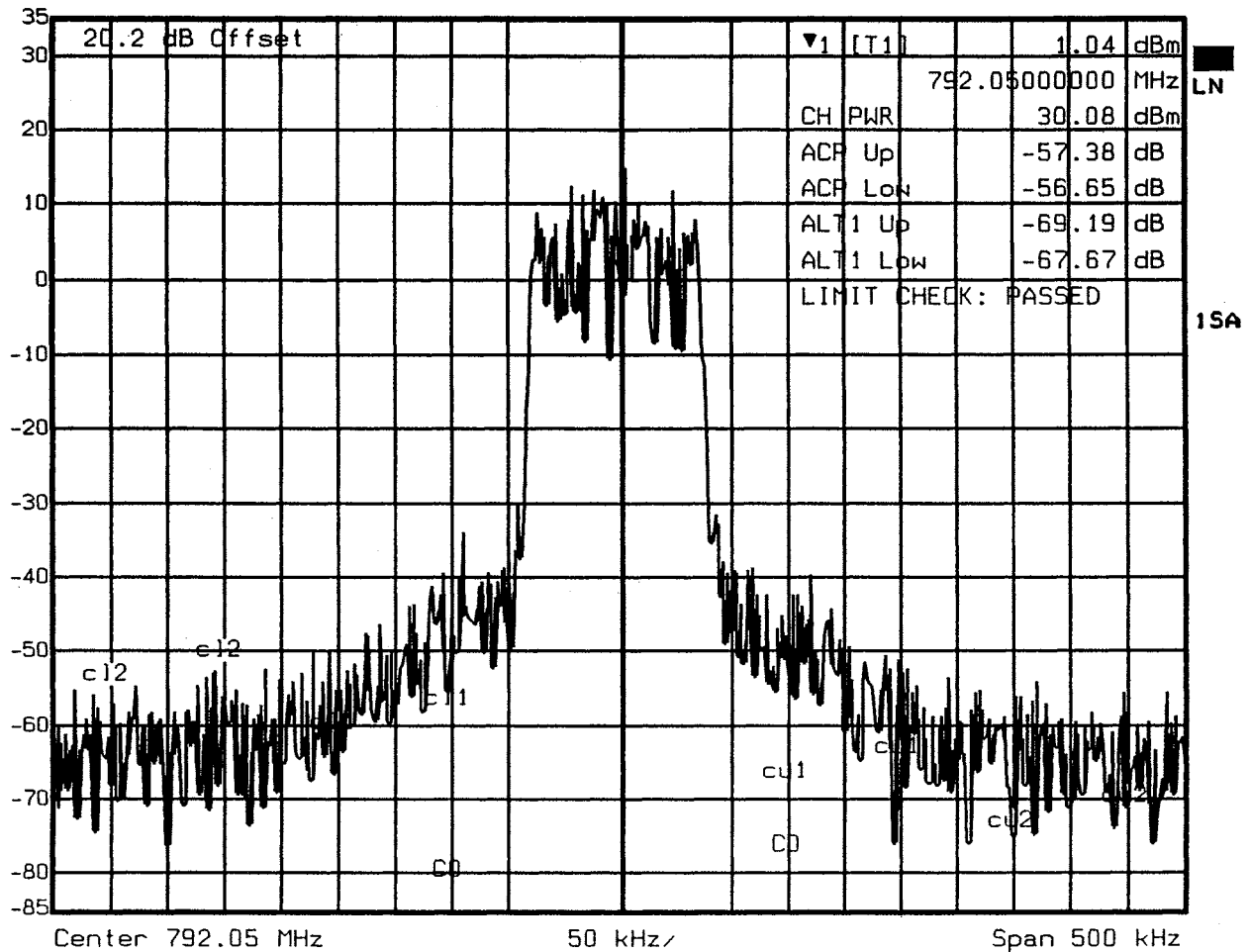
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl 1.04 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 792.0500000 MHz SWT 28 s Unit dBm



+/-100kHz and +/-200kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label Center (MHz) Adjacent Channel Frequency Limits Shown On Plot (MHz)

		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+100kHz	792.1500				792.1250	792.1750		
ACP Low	-100kHz	791.9500		791.9250	791.9750				
ALT1 Up	+200kHz	792.2500						792.2250	792.2750
ALT2 Low	-200kHz	791.8500	791.8250	791.8750					

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

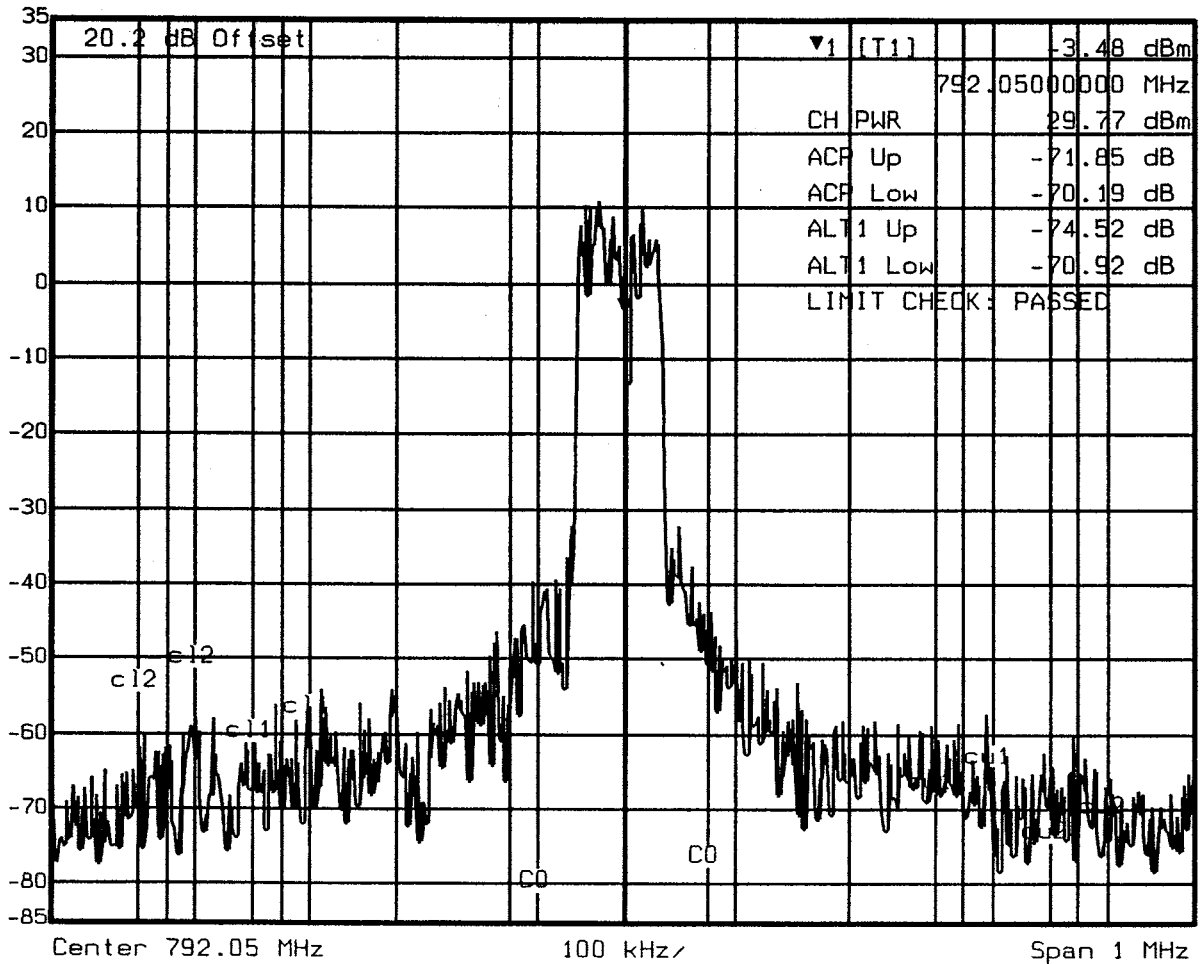
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl -3.48 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 792.0500000 MHz SWT 56 s Unit dBm



+/-300kHz and +/-400kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label Center (MHz) Adjacent Channel Frequency Limits Shown On Plot (MHz)

		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+300kHz	792.3500				792.3250	792.3750		
ACP Low	-300kHz	791.7500		791.7250	791.7750				
ALT1 Up	+400kHz	792.4500						792.4250	792.4750
ALT2 Low	-400kHz	791.6500	791.6250	791.6750					

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

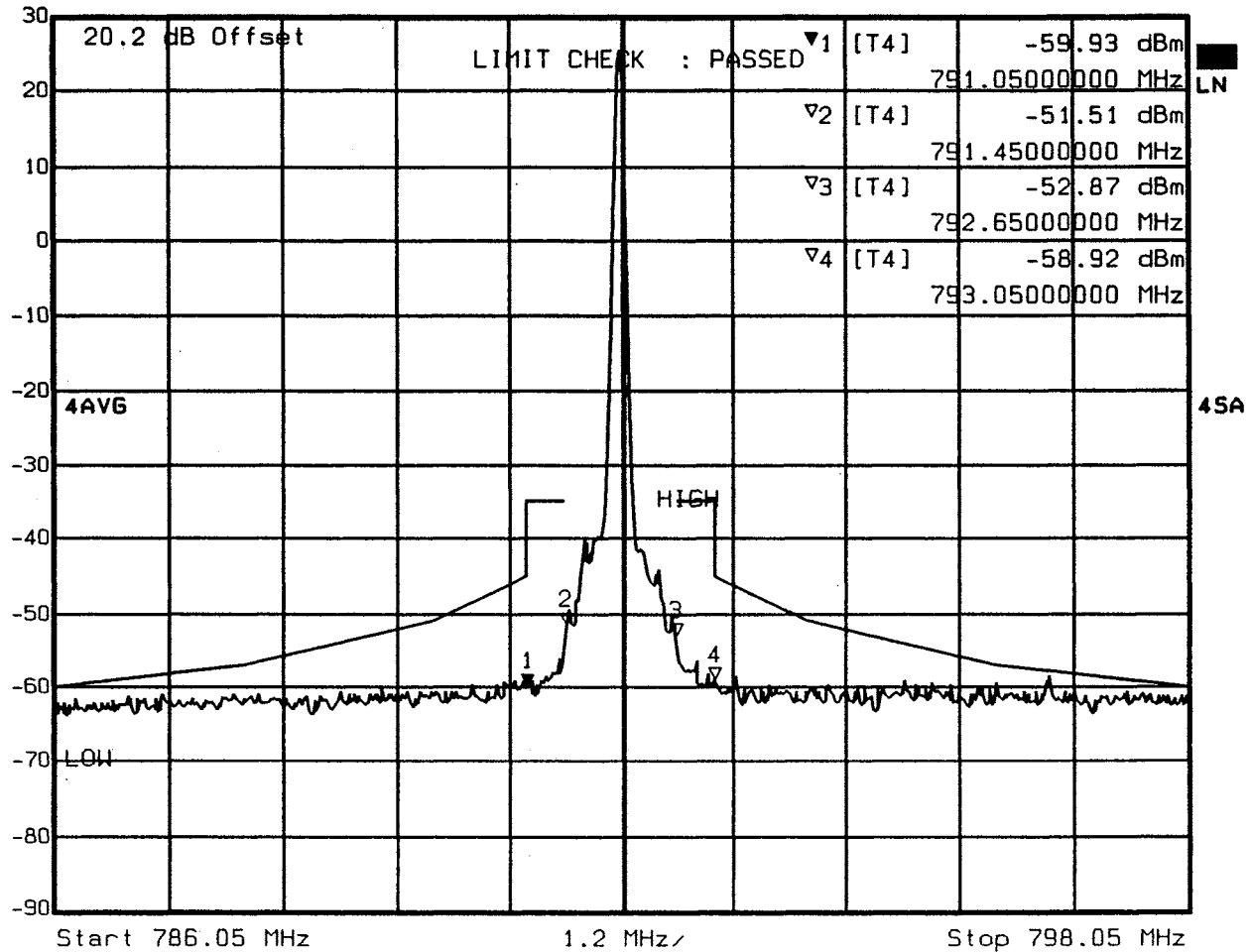
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -59.93 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 791.0500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 10:25:56

+/-600kHz and +/-1000kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Marker	Frequency (MHz)
1	-1000kHz 791.0500
2	-600kHz 791.4500
3	+600kHz 792.6500
4	+1000kHz 793.0500

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

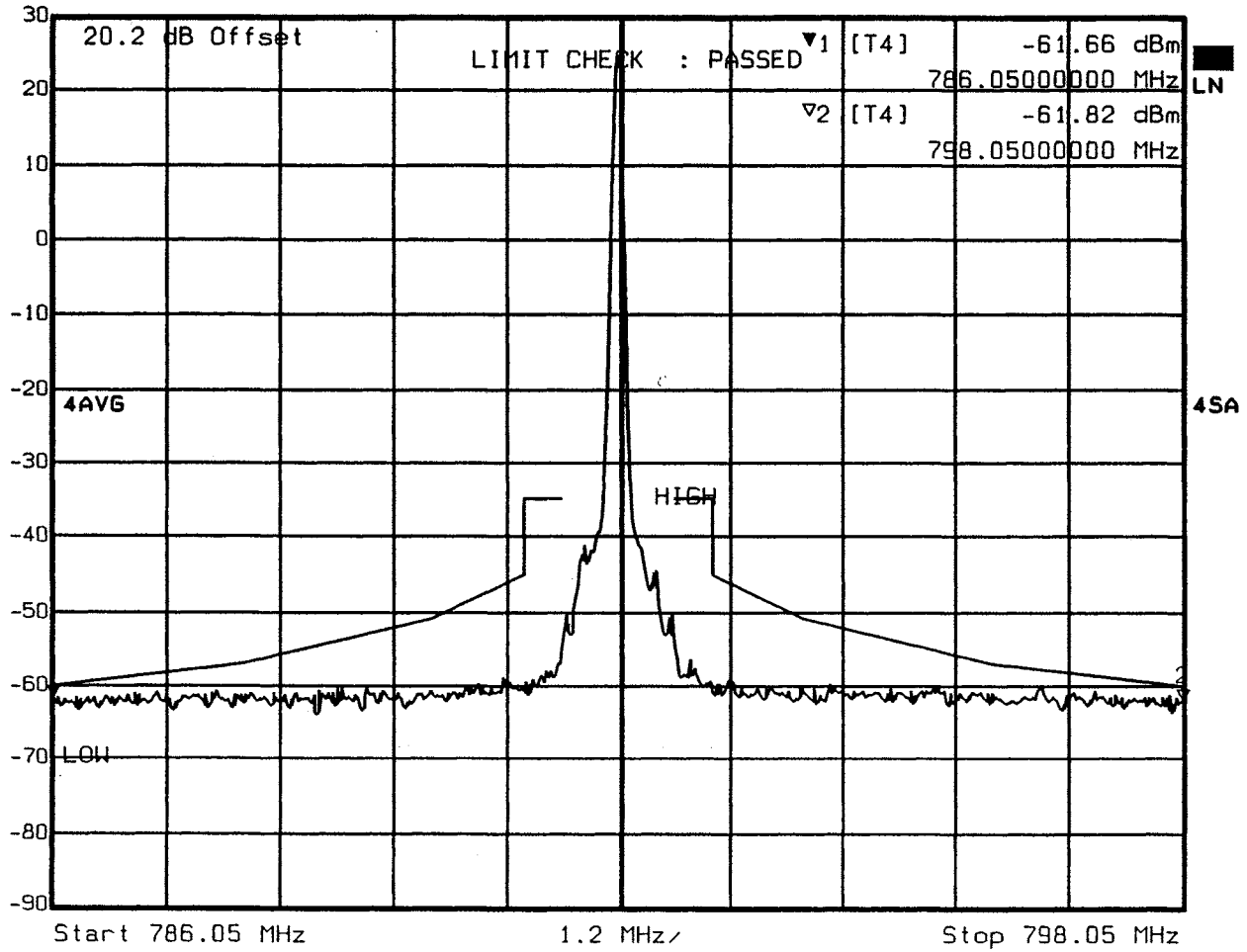
Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -61.66 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 786.05000000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 10:36:32

CHANNEL NOTCH FILTER NOT USED

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

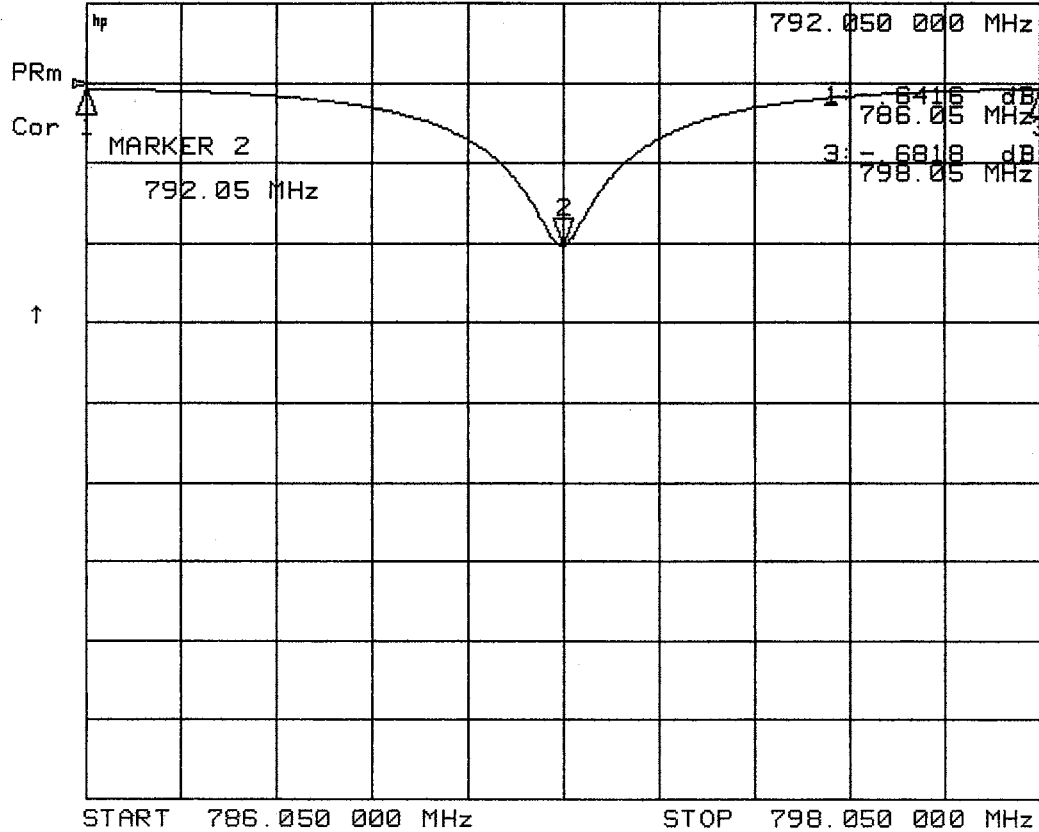
Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS

10 Feb 2003 15:05:58

CH1 S₂₁ log MAG 10 dB/ REF 0 dB 2: -20.271 dB

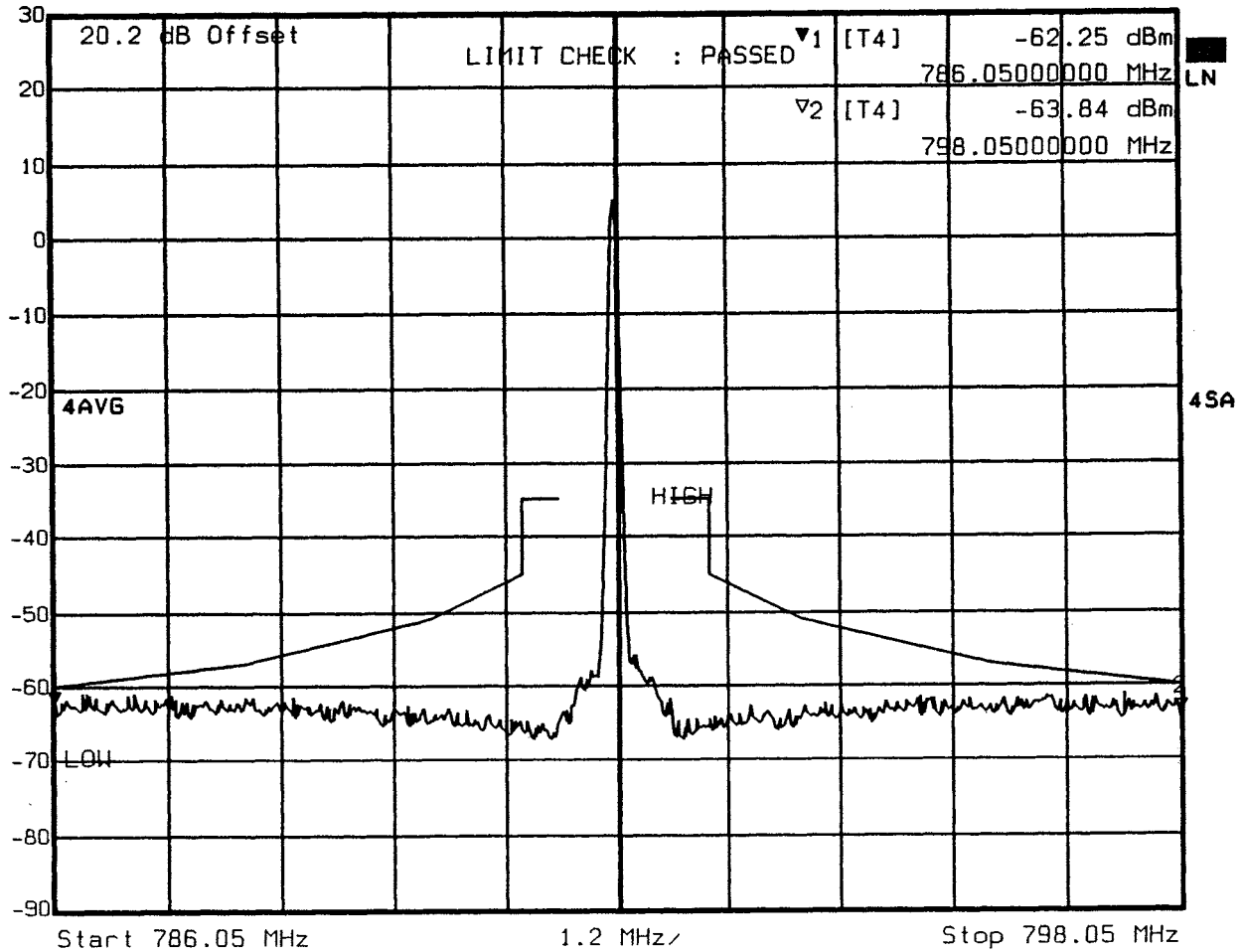


CHANNEL NOTCH FILTER RESPONSE

Insertion Loss When Tuned To 792.05 MHz.



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -62.25 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 786.0500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 10:37:39

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

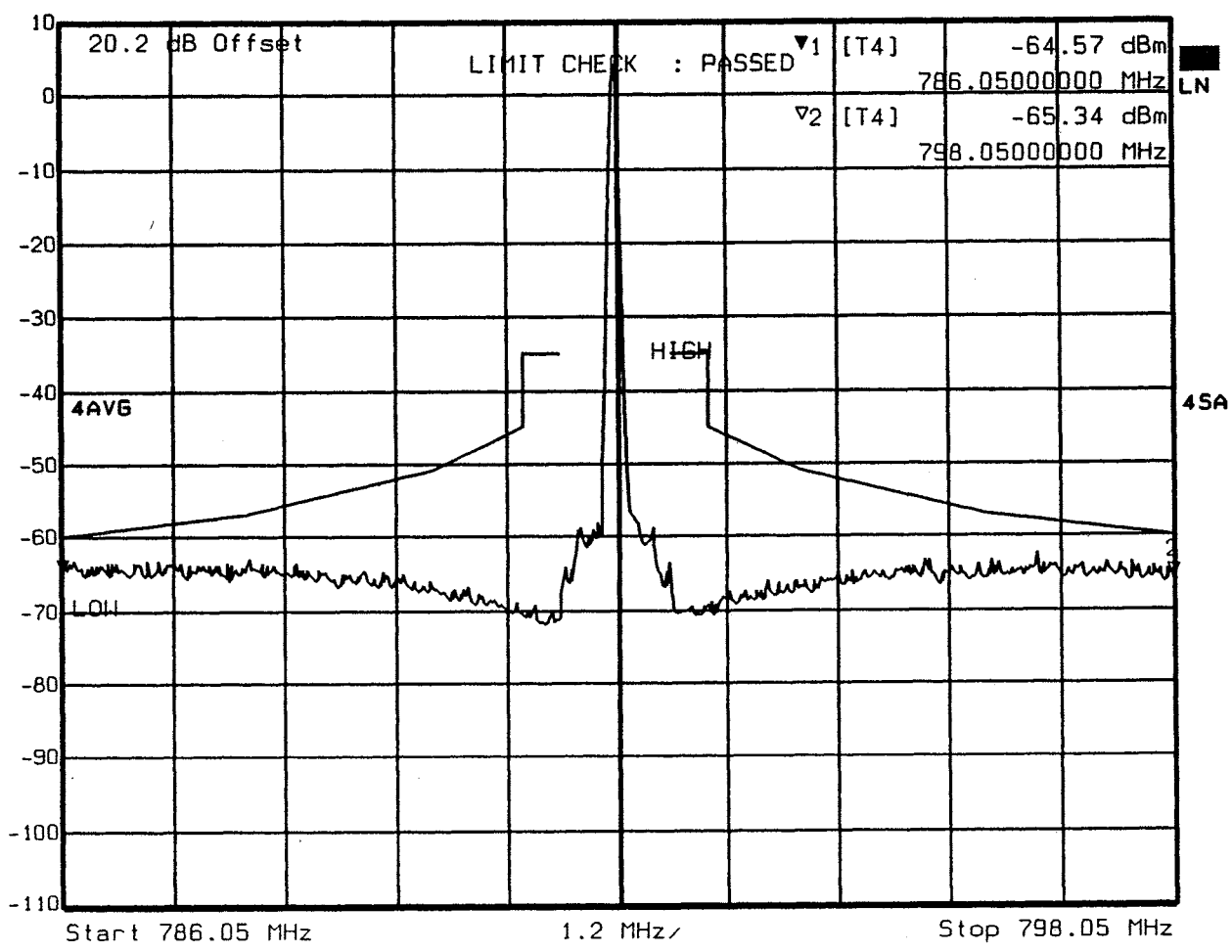
Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -64.57 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 786.0500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 10:38:50

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

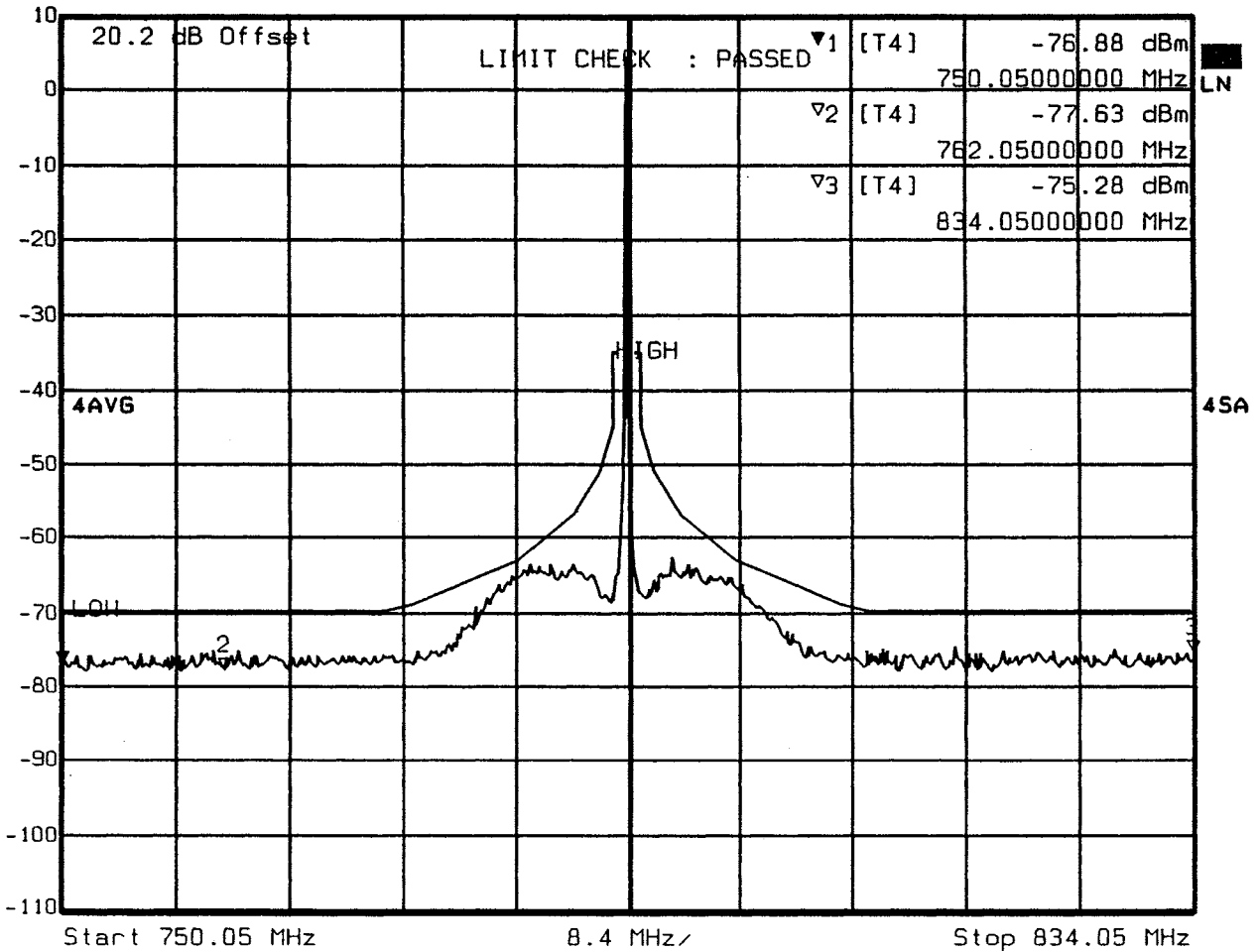
Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -76.88 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 750.0500000 MHz SWT 235 ms Unit dBm



Date: 12.FEB.2003 10:41:06

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

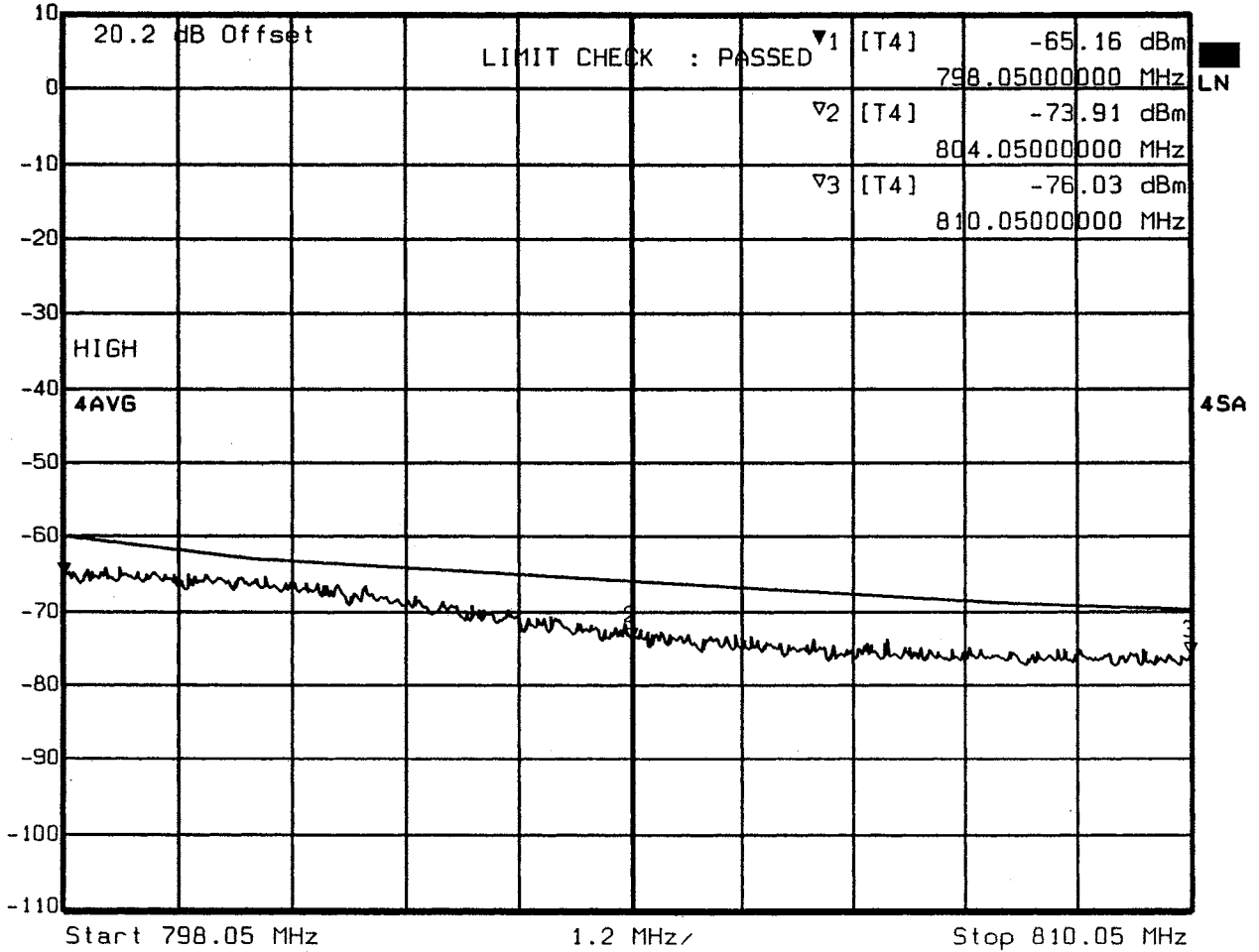
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl) -65.16 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 798.0500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 10:47:52

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

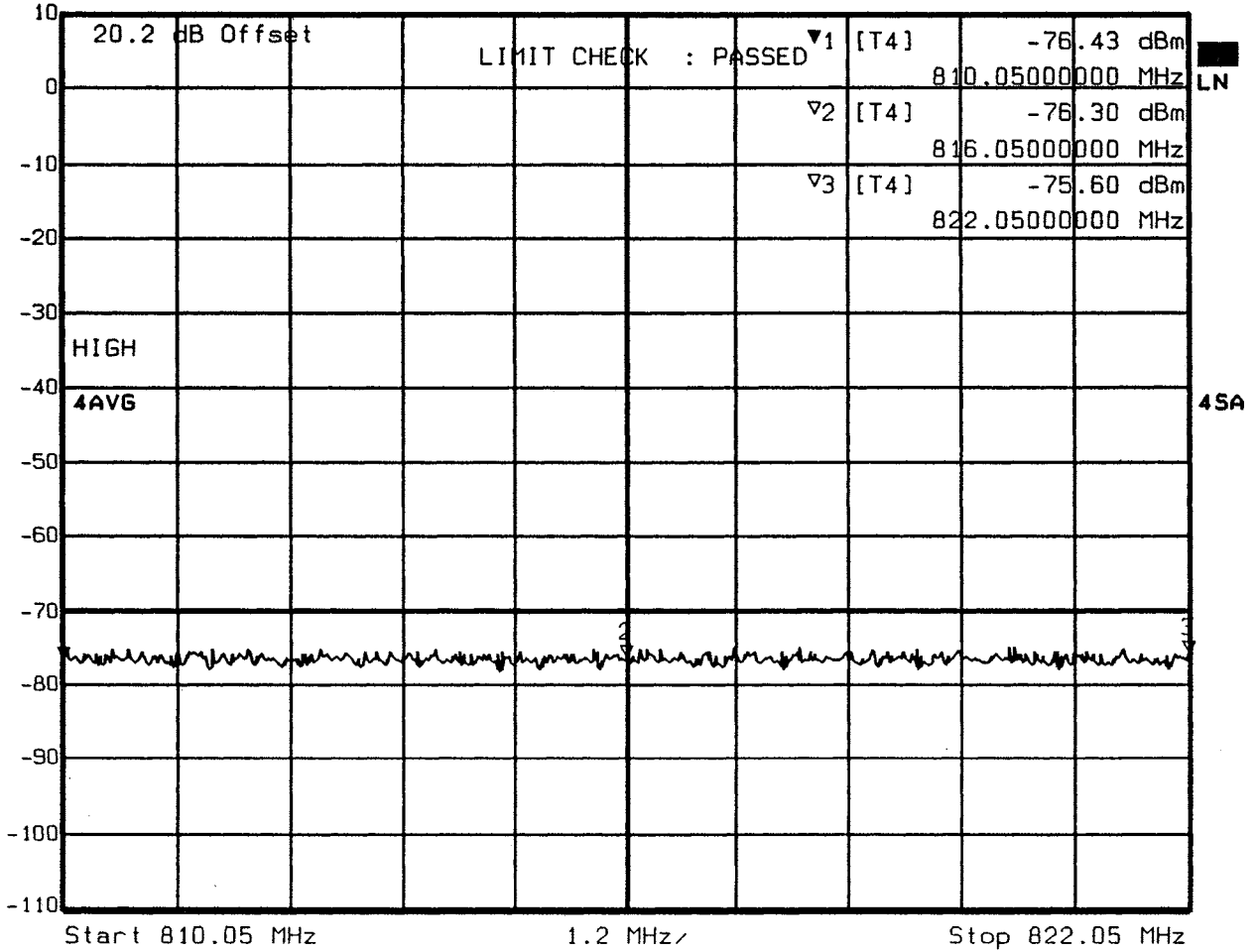
Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -76.43 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 810.0500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 10:49:15

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

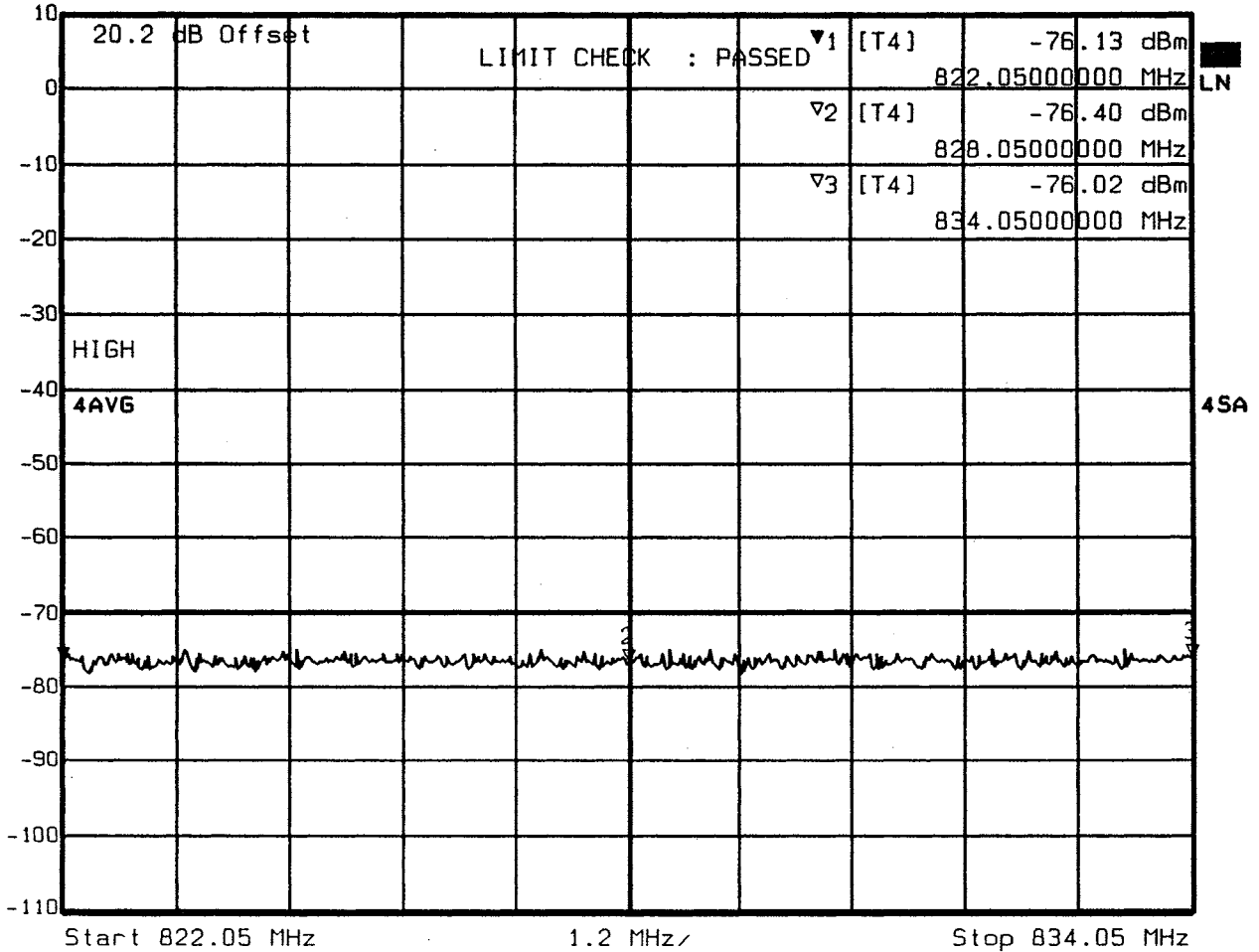
Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -76.13 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 822.05000000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 10:50:33

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

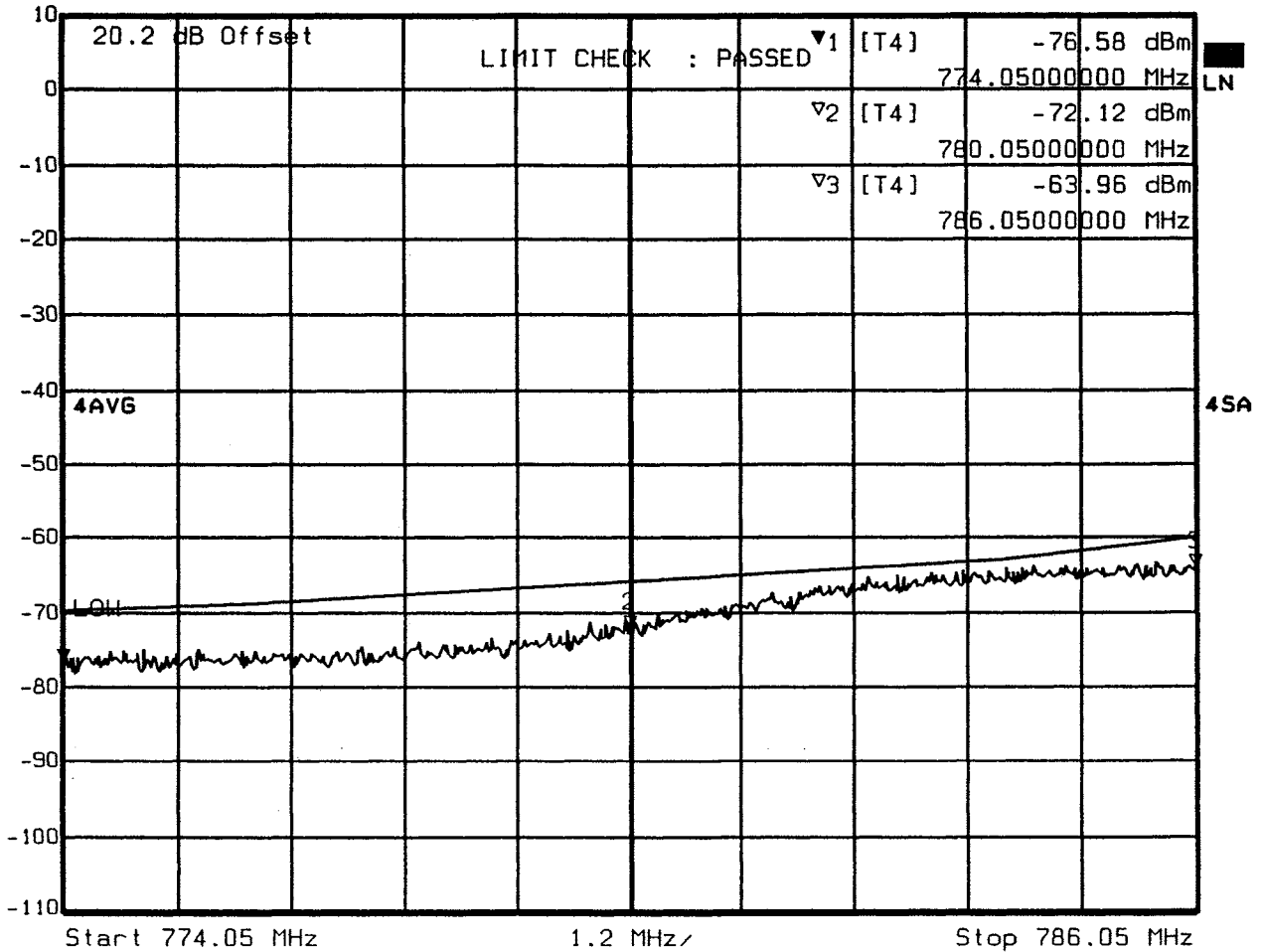
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -76.58 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 774.0500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 10:54:22

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

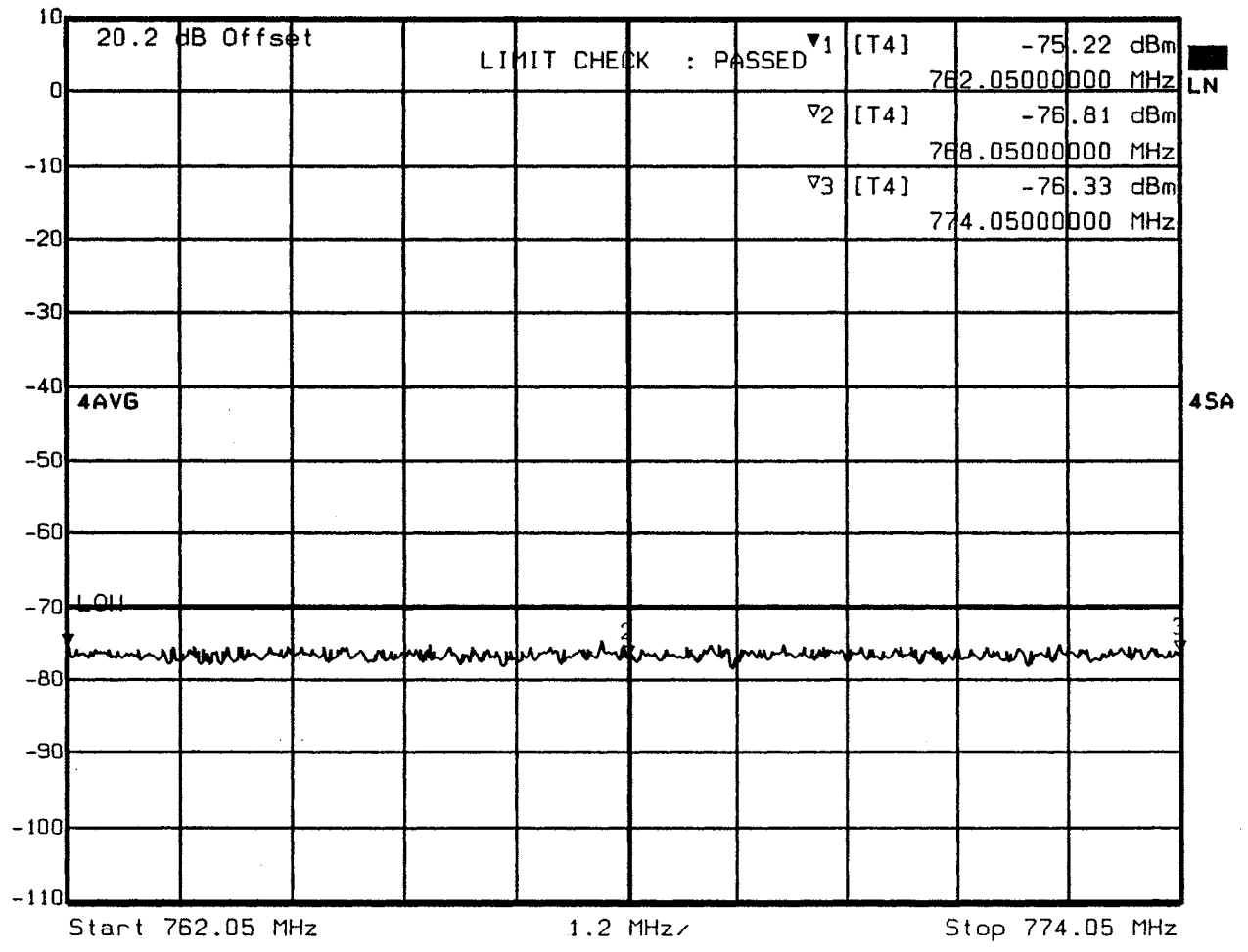
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -75.22 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 762.0500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 10:56:22

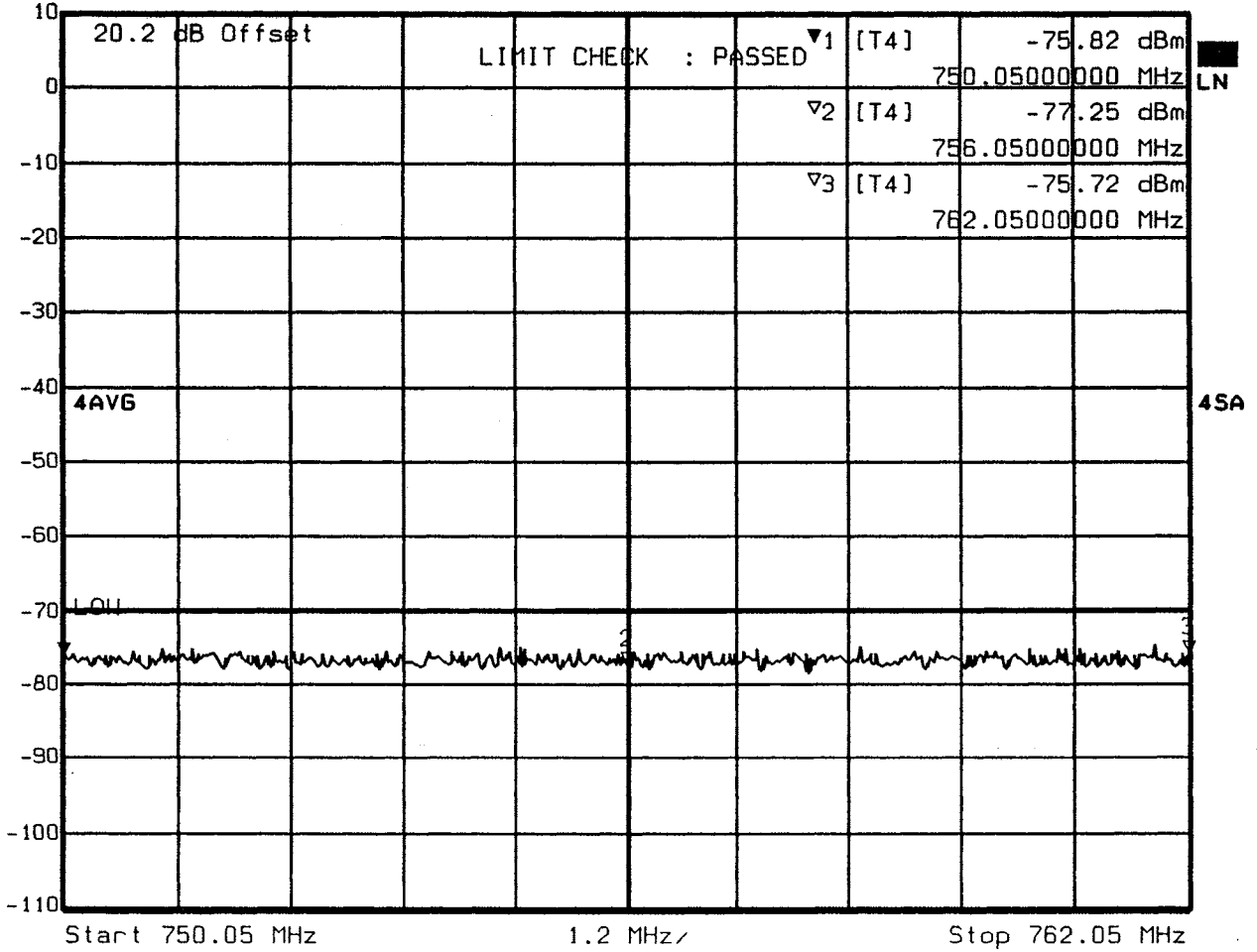
ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S
 Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,
 Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -75.82 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 750.0500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 10:57:42

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 792.05 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088619

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS

EMISSION LIMITS PER SECTION 27.53 IN WT Docket No. 99-168 SECOND REPORT AND ORDER
MEASURED CHANNEL CENTER FREQUENCY (MHz):
793.9500

+/-100kHz and +/-200kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label	Center (MHz)	Adjacent Channel Frequency Limits Shown On Plot (MHz)							
		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+100kHz	794.0500				794.0250	794.0750		
ACP Low	-100kHz	793.8500		793.8250	793.8750				
ALT1 Up	+200kHz	794.1500						794.1250	794.1750
ALT2 Low	-200kHz	793.7500	793.7250	793.7750					

+/-300kHz and +/-400kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label	Center (MHz)	Adjacent Channel Frequency Limits Shown On Plot (MHz)							
		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+300kHz	794.2500				794.2250	794.2750		
ACP Low	-300kHz	793.6500		793.6250	793.6750				
ALT1 Up	+400kHz	794.3500						794.3250	794.3750
ALT2 Low	-400kHz	793.5500	793.5250	793.5750					

+/-600kHz and +/-1000kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Marker	Frequency (MHz)
1	-1000kHz 792.9500
2	-600kHz 793.3500
3	+600kHz 794.5500
4	+1000kHz 794.9500

Frequencies for plot with 84MHz Span *

LOW	RECEIVE	HIGH
751.9500	763.9500	835.9500

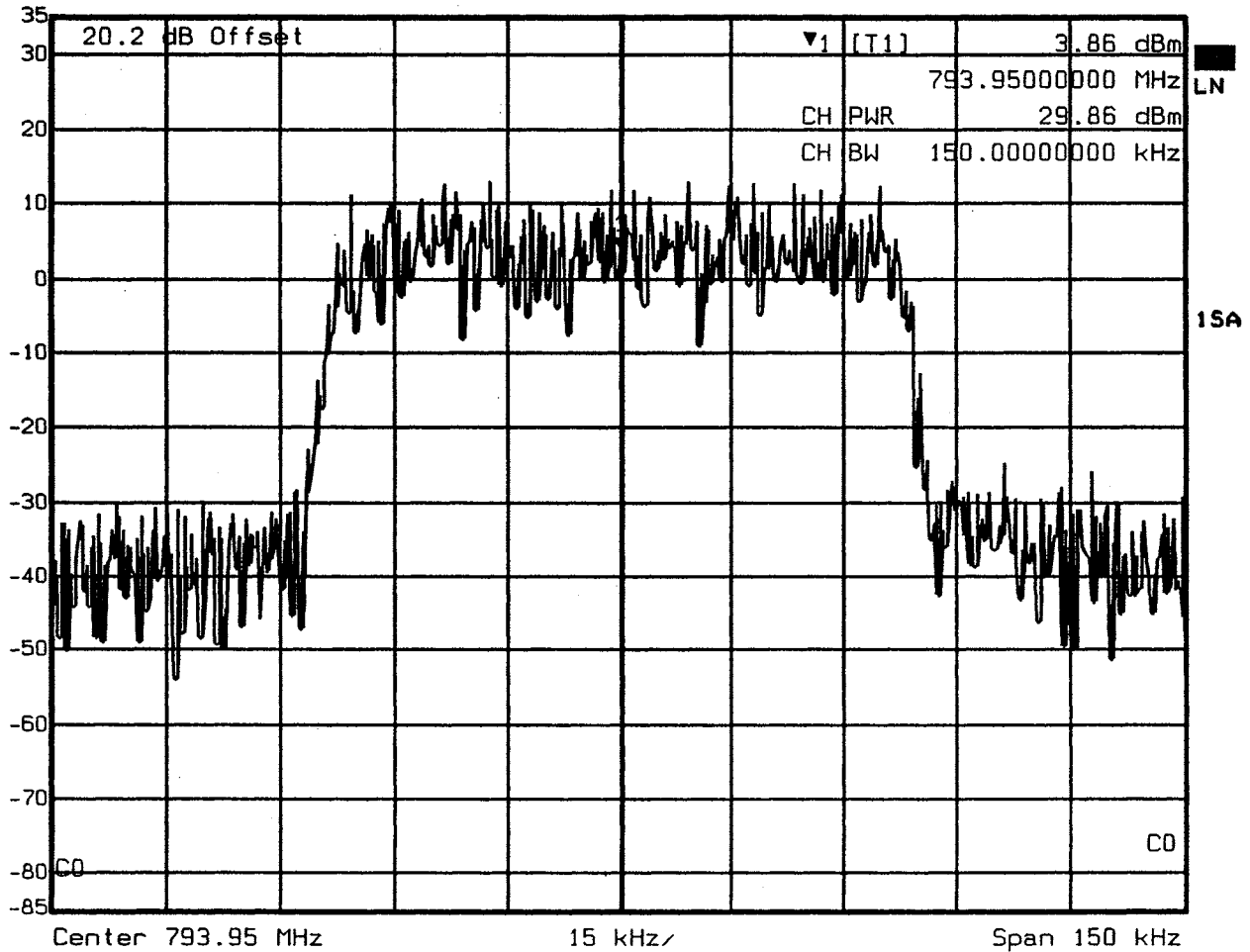
Frequencies for plots with 12MHz Spans *

LOW	CENTER	HIGH
751.9500	757.9500	763.9500
763.9500	769.9500	775.9500
775.9500	781.9500	787.9500
787.9500	793.9500	799.9500
799.9500	805.9500	811.9500
811.9500	817.9500	823.9500
823.9500	829.9500	835.9500

* Channel Notch Filter Used Unless Otherwise Noted



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl 3.86 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 793.9500000 MHz SWT 8.4 s Unit dBm



Date: 12.JAN.2003 15:45:21

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

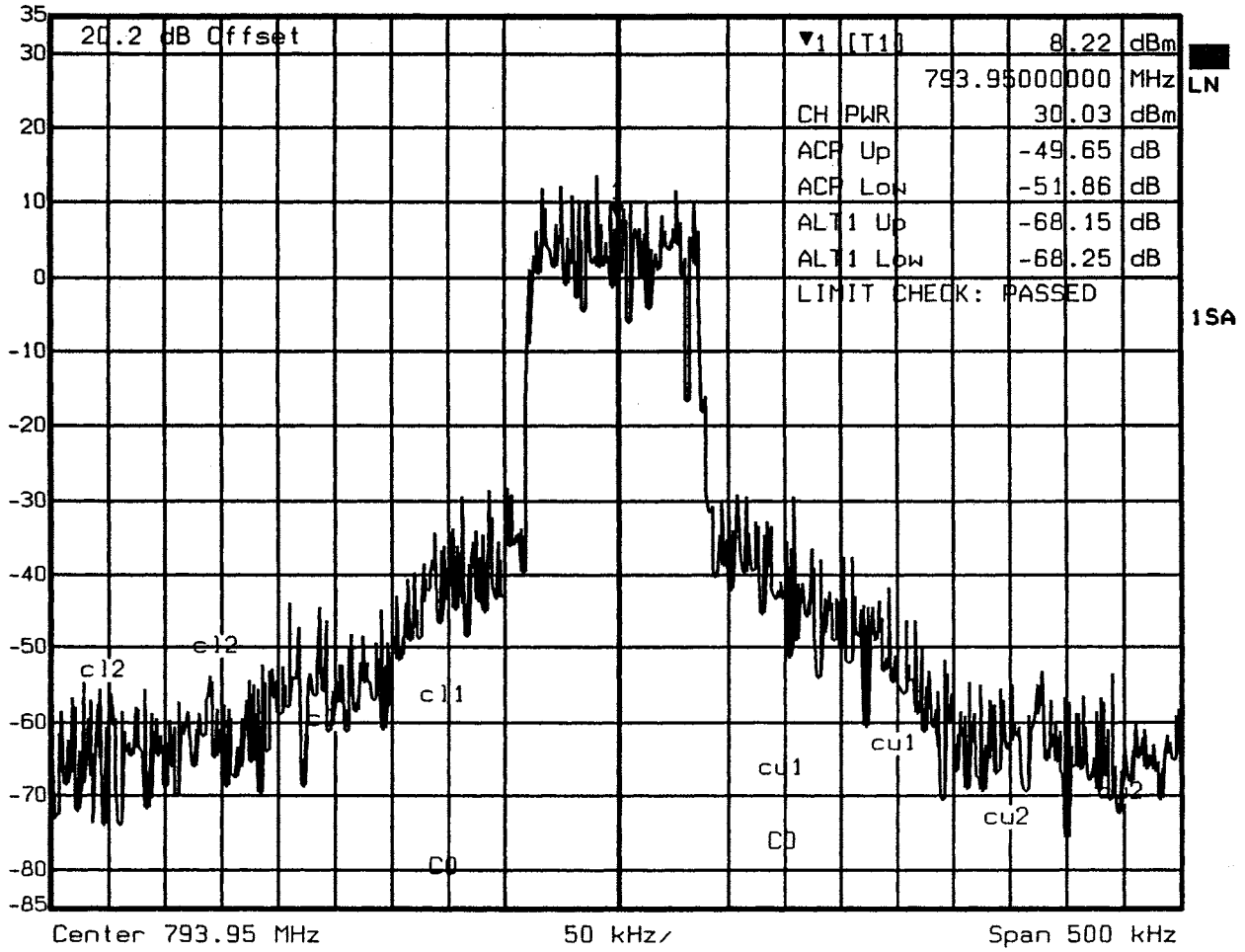
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl 8.22 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 793.95000000 MHz SWT 28 s Unit dBm



+/-100kHz and +/-200kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label Center (MHz) Adjacent Channel Frequency Limits Shown On Plot (MHz)

		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+100kHz	794.0500				794.0250	794.0750		
ACP Low	-100kHz	793.8500		793.8250	793.8750				
ALT1 Up	+200kHz	794.1500						794.1250	794.1750
ALT2 Low	-200kHz	793.7500	793.7250	793.7750					

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: **LEDR700S**

Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

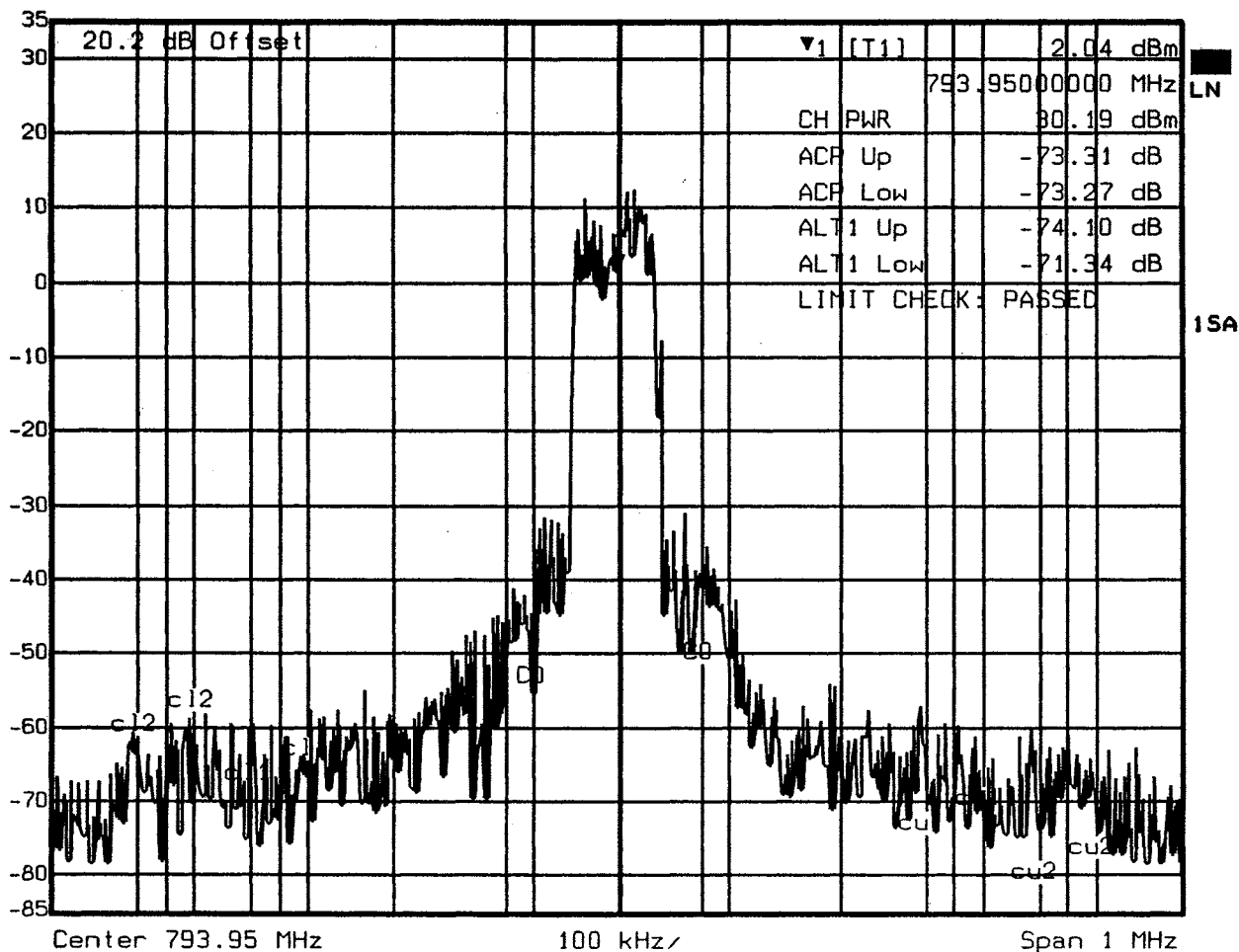
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T1] RBW 300 Hz RF Att 30 dB
 Ref Lvl 2.04 dBm VBW 300 Hz Mixer -20 dBm
 35 dBm 793.9500000 MHz SWT 56 s Unit dBm



+/-300kHz and +/-400kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Label Center (MHz) Adjacent Channel Frequency Limits Shown On Plot (MHz)

		cl2	cl2	cl1	cl1	cu1	cu1	cu2	cu2
ACP Up	+300kHz	794.2500				794.2250	794.2750		
ACP Low	-300kHz	793.6500		793.6250	793.6750				
ALT1 Up	+400kHz	794.3500						794.3250	794.3750
ALT2 Low	-400kHz	793.5500	793.5250	793.5750					

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

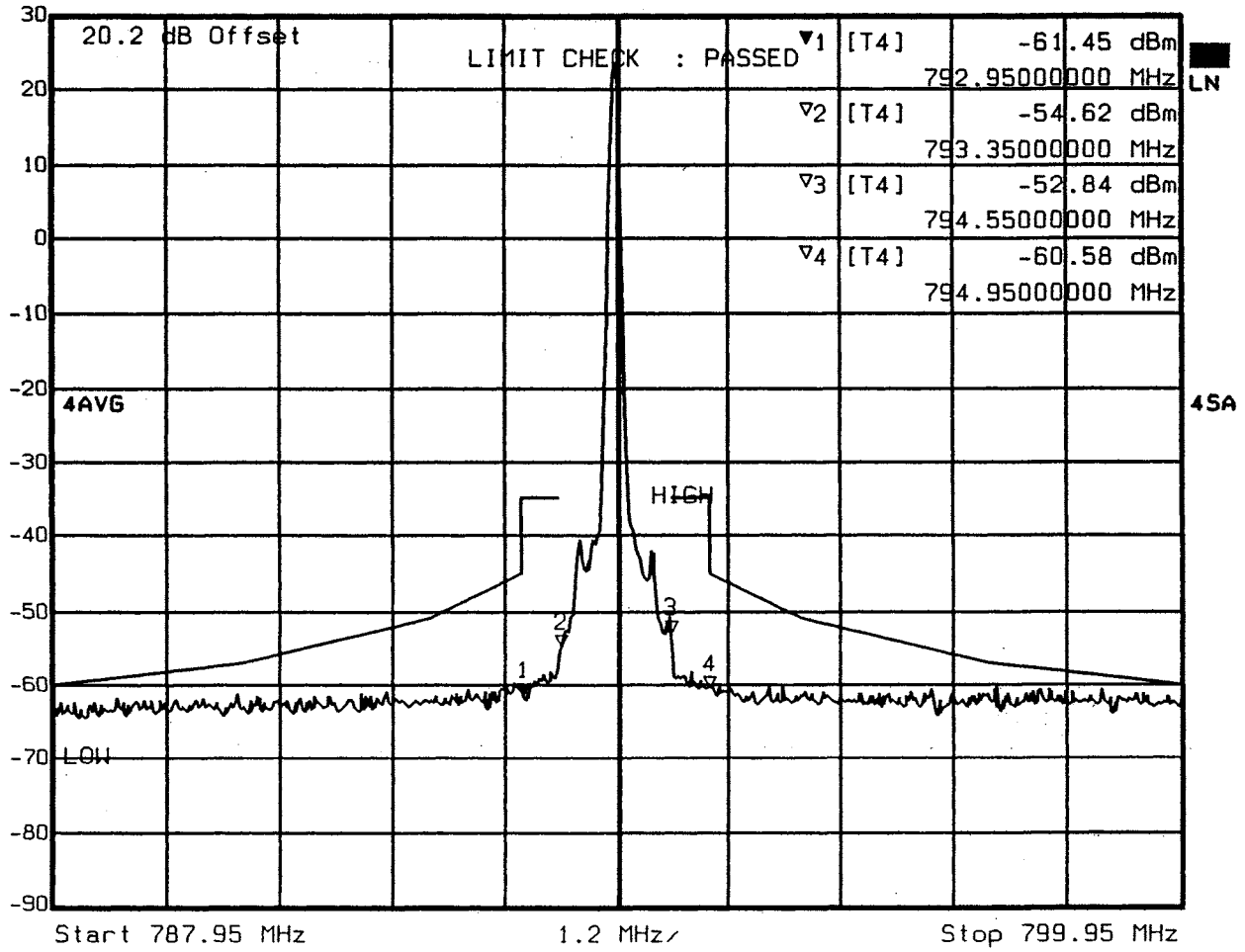
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -61.45 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 792.9500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 17:24:46

+/-600kHz and +/-1000kHz ACP Measurement Frequencies

Channel Notch Filter Not Used

Marker	Frequency (MHz)
1	-1000kHz 792.9500
2	-600kHz 793.3500
3	+600kHz 794.5500
4	+1000kHz 794.9500

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

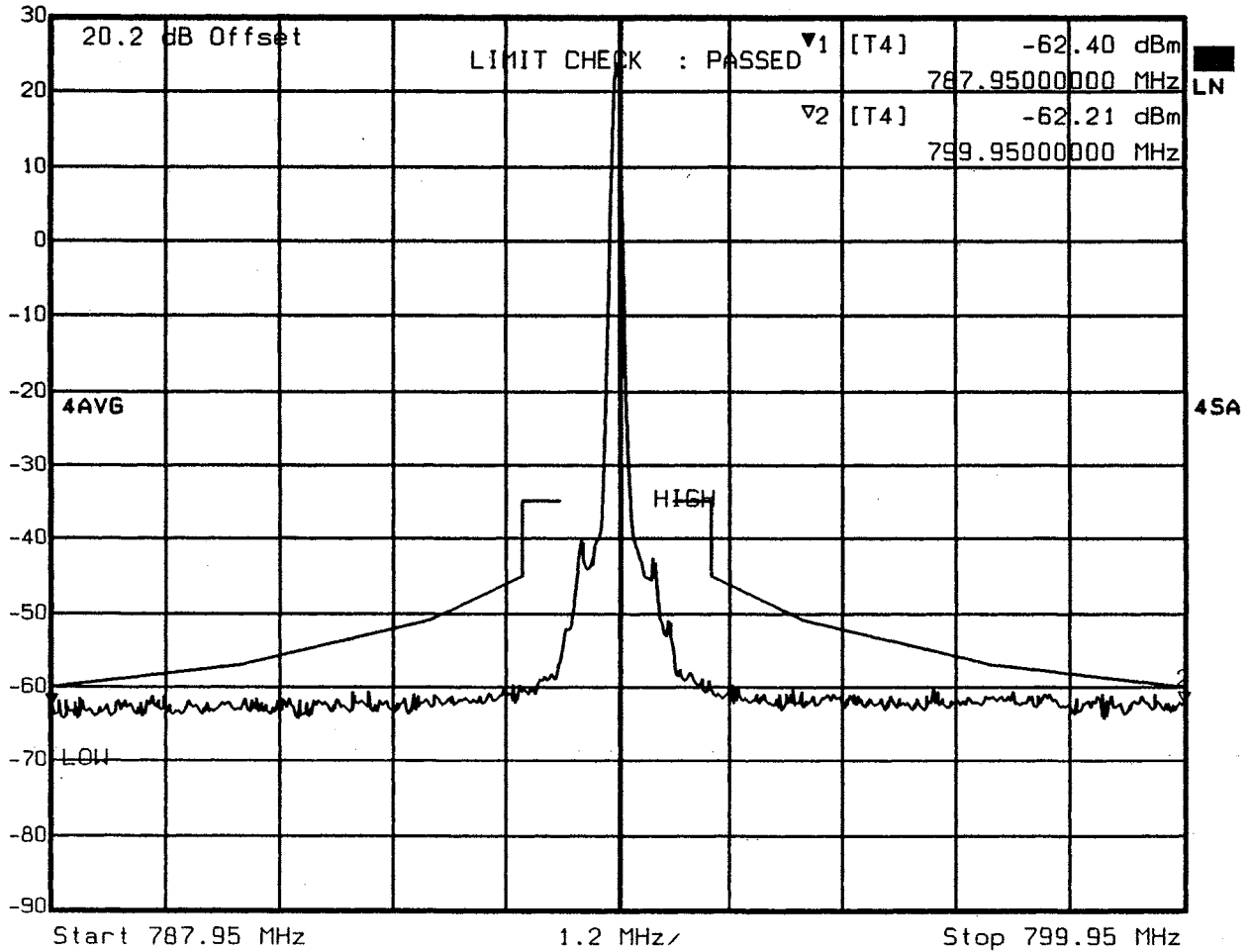
Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -62.40 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 787.95000000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 17:27:55

CHANNEL NOTCH FILTER NOT USED

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

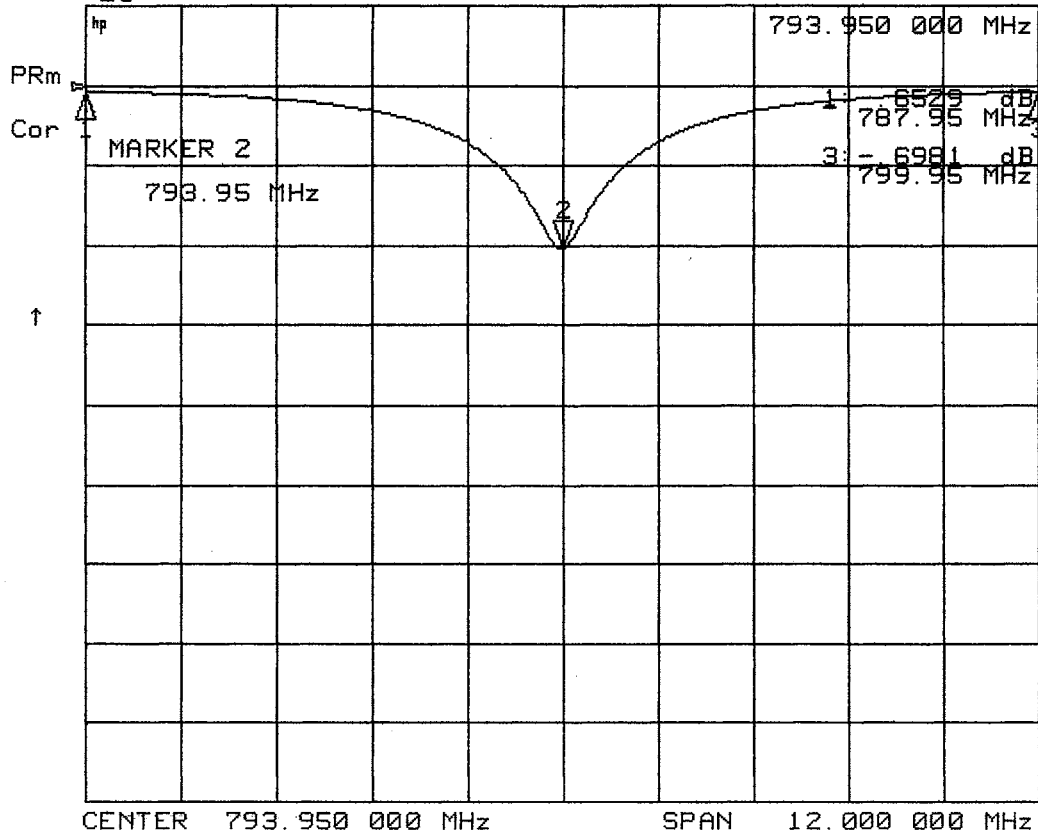
Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS

10 Feb 2003 15:09:04

CH1 S21 log MAG 10 dB/ REF 0 dB 2: -20.341 dB

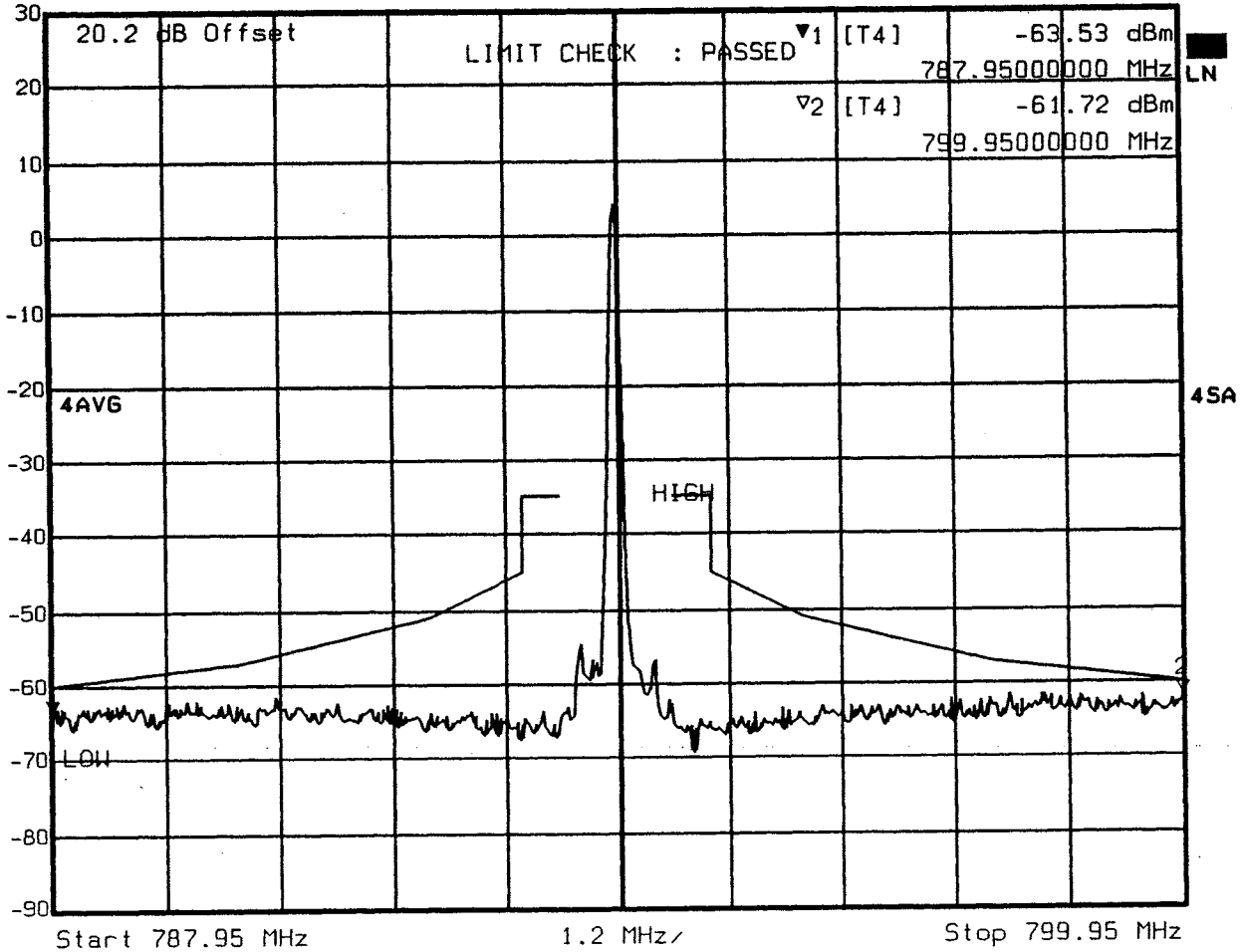


CHANNEL NOTCH FILTER RESPONSE

Insertion Loss When Tuned To 793.95 MHz.



Marker 1 [T4] RBW 30 kHz RF Att 20 dB
 Ref Lvl -63.53 dBm VBW 1 MHz Mixer -20 dBm
 30 dBm 787.9500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 17:29:25

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

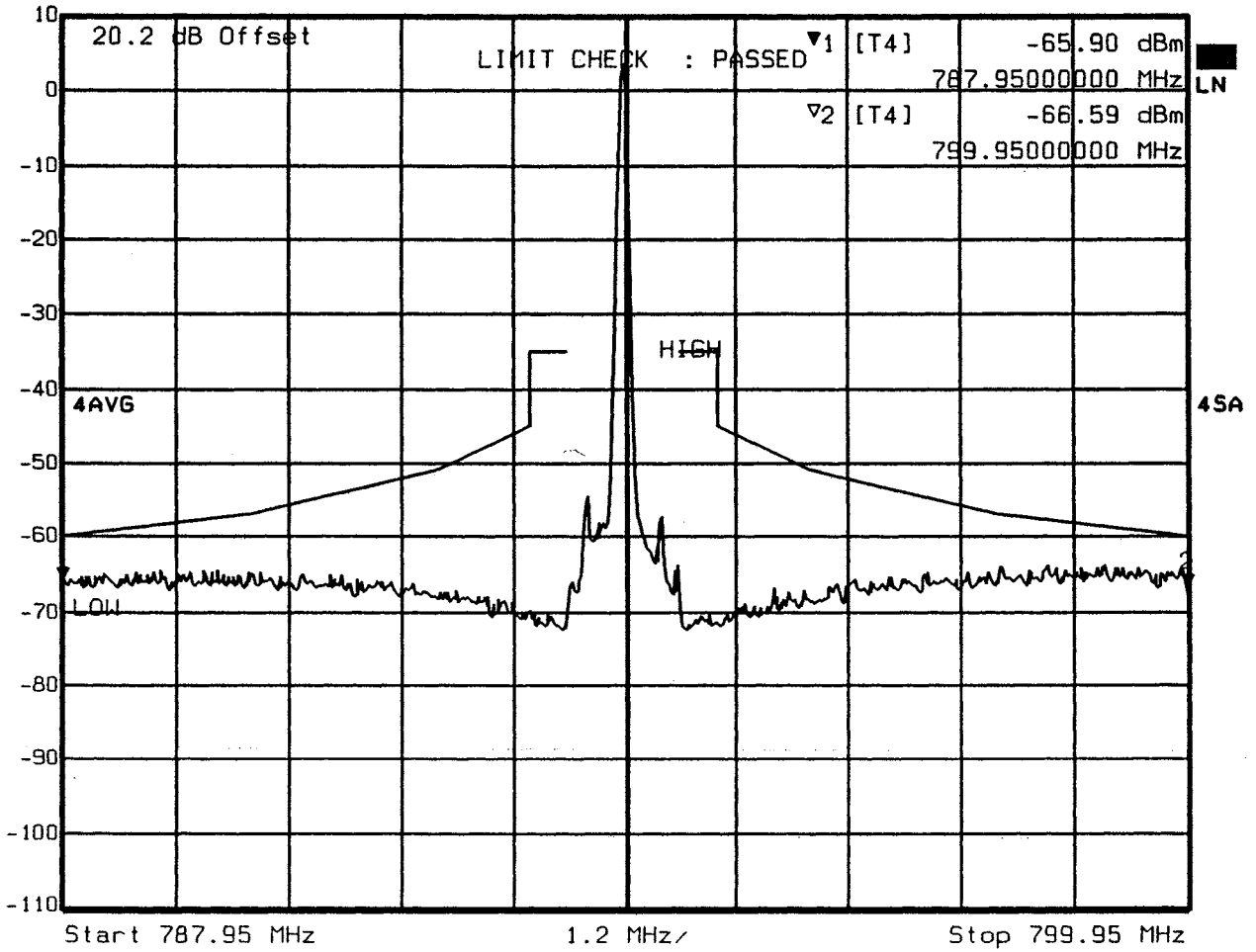
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -65.90 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 787.9500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 17:30:20

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

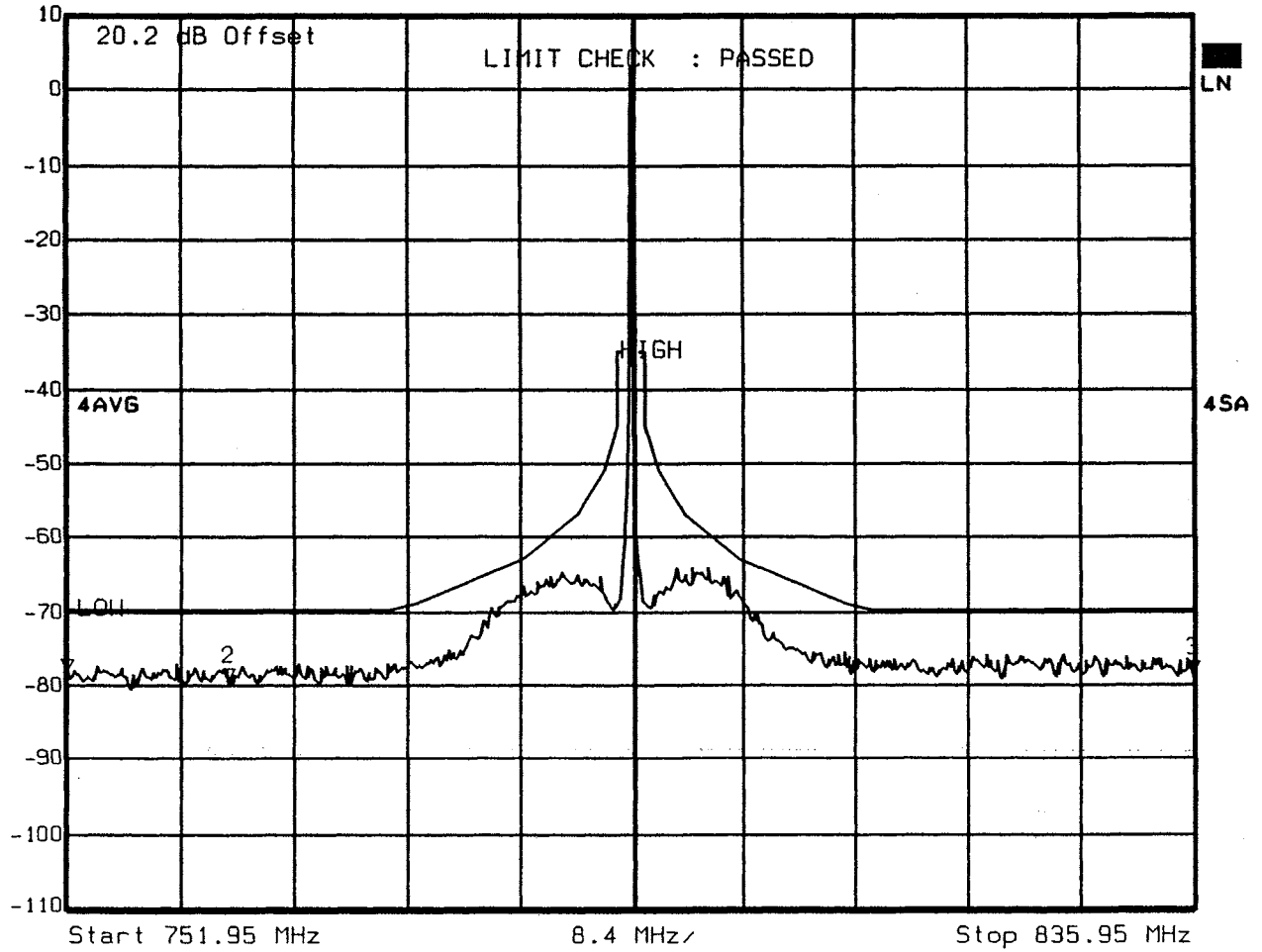
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 3 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -78.21 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 835.95000000 MHz SWT 235 ms Unit dBm



Date: 12.FEB.2003 17:32:23

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

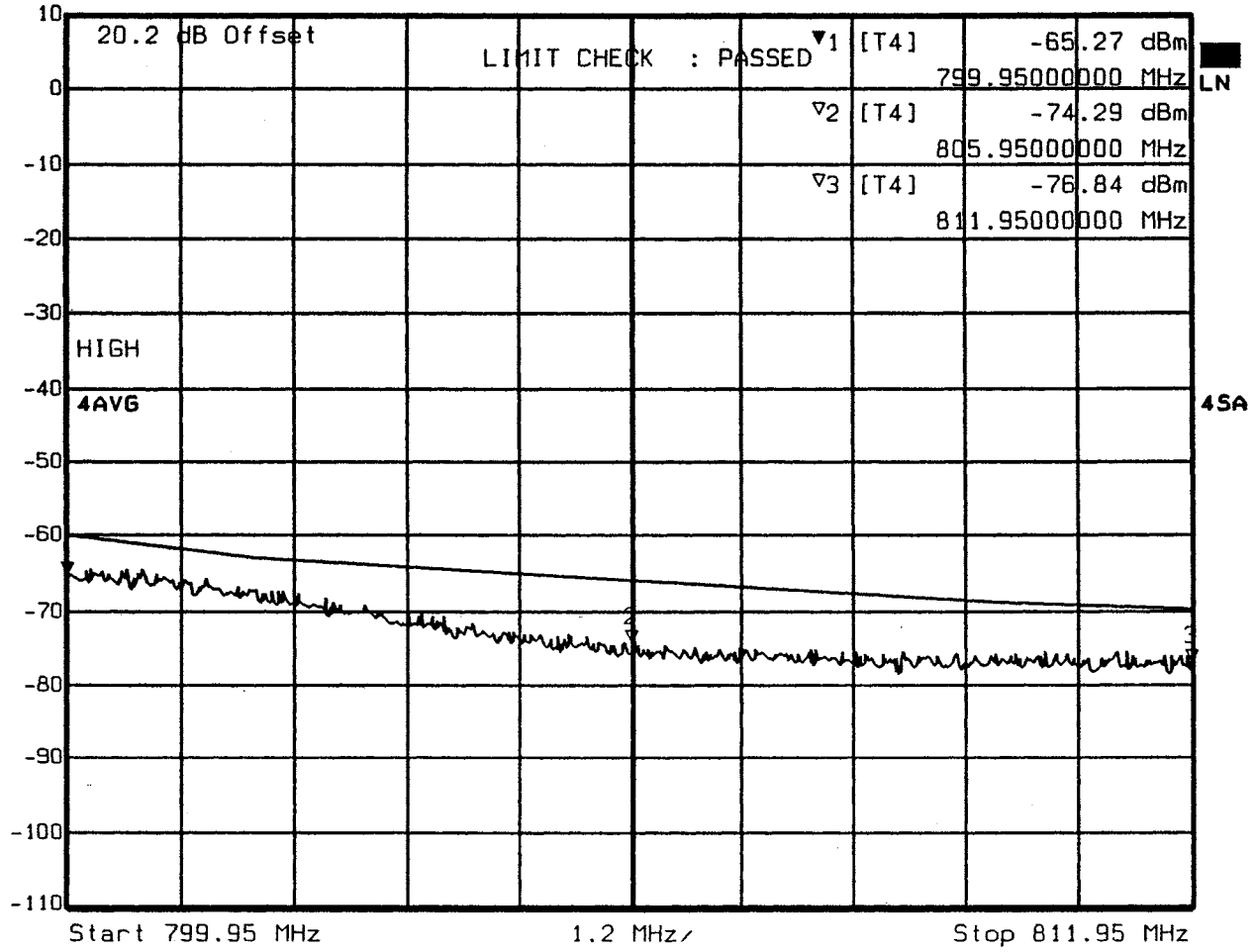
Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -65.27 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 799.9500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 17:48:22

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4]

RBW 30 kHz RF Att 10 dB

Ref Lvl
10 dBm

-77.28 dBm

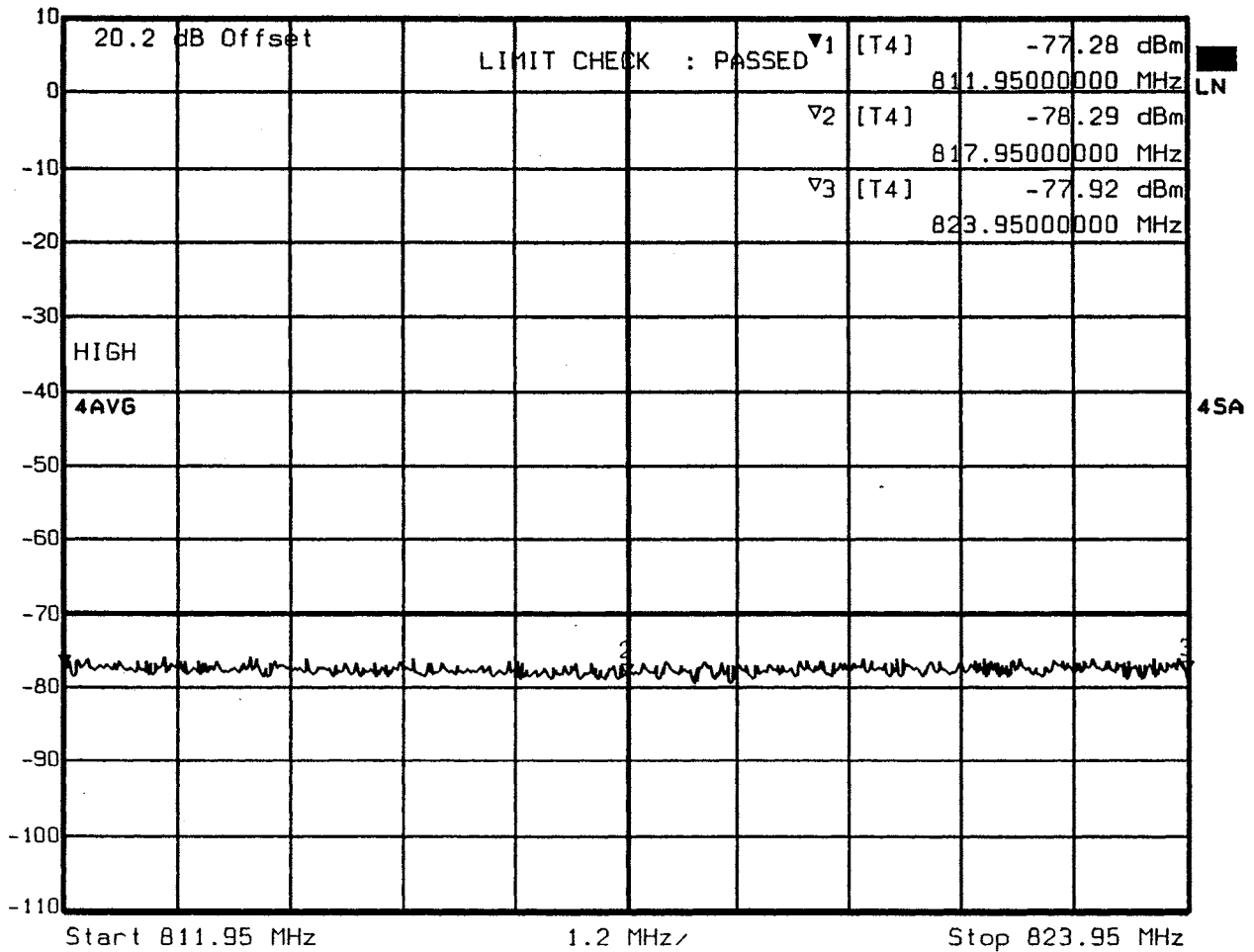
VBW 1 MHz

Mixer -20 dBm

811.9500000 MHz

SWT 34 ms

Unit dBm



Date: 12.FEB.2003 17:55:23

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4]

RBW 30 kHz RF Att 10 dB

Ref Lvl
10 dBm

-77.50 dBm

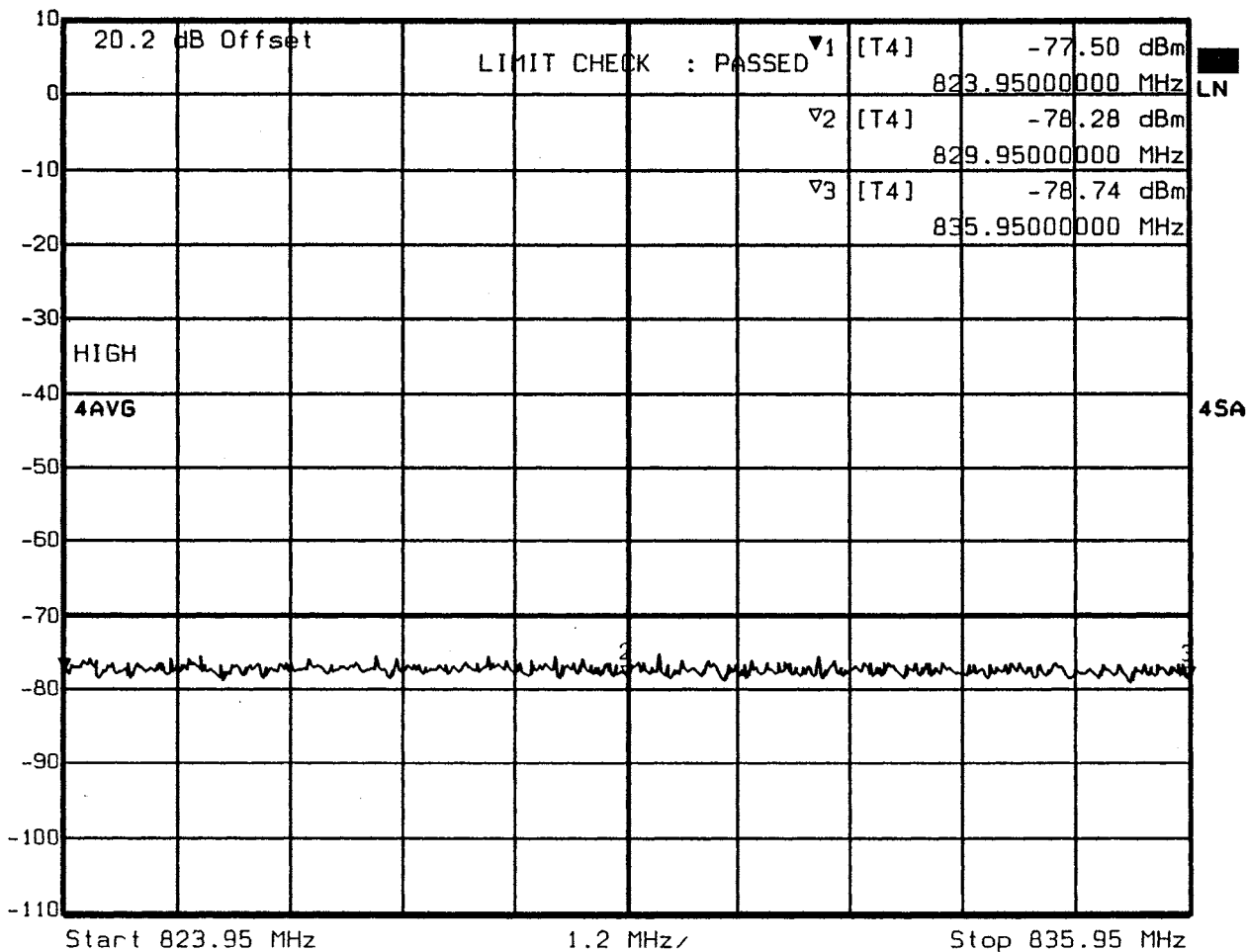
VBW 1 MHz

Mixer -20 dBm

823.9500000 MHz

SWT 34 ms

Unit dBm



Date: 12.FEB.2003 17:56:48

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

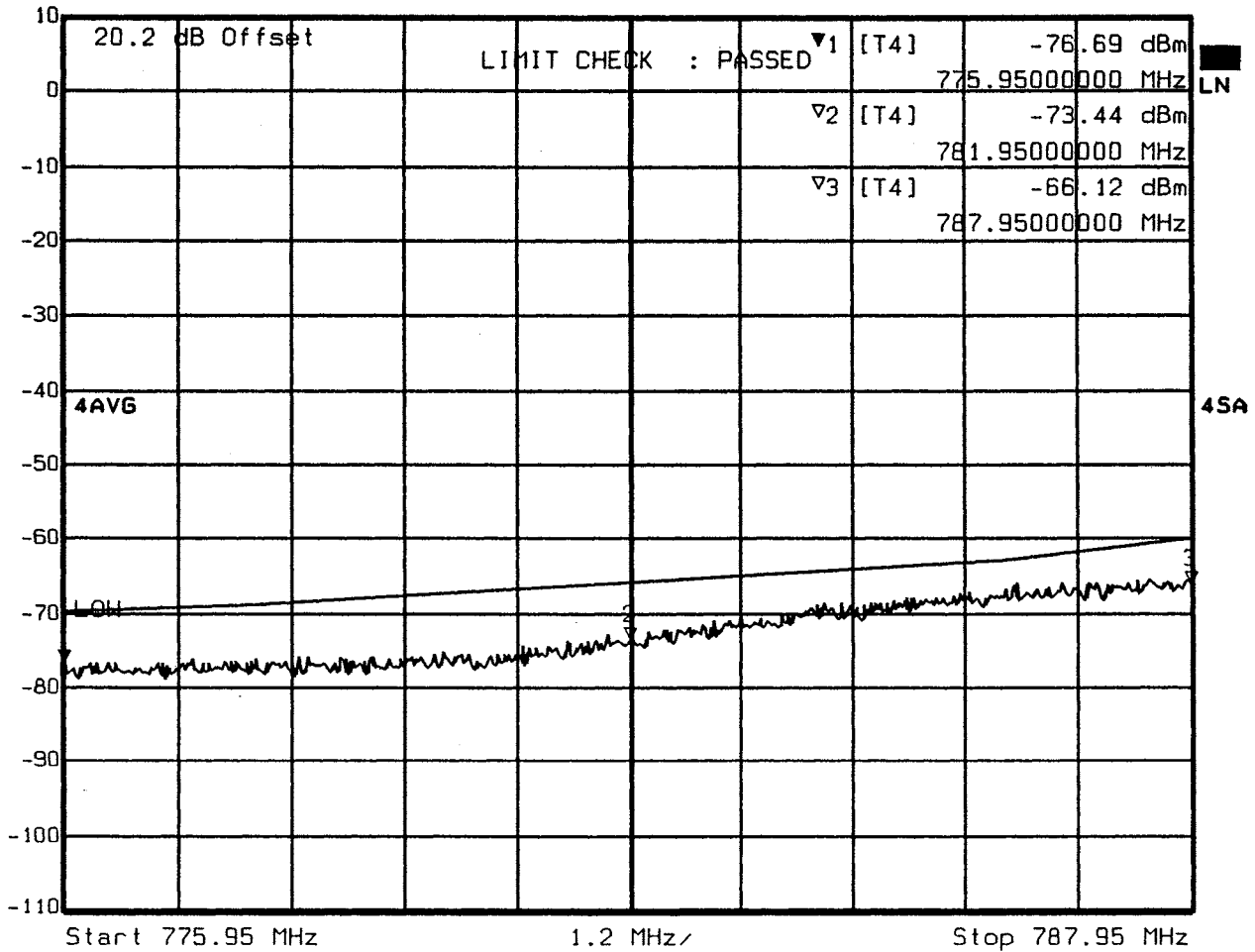
Modulation: 16-QAM with random data @ 250 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -76.69 dBm VBW 1 MHz Mixer -20 dB
 10 dBm 775.9500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 17:58:41

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

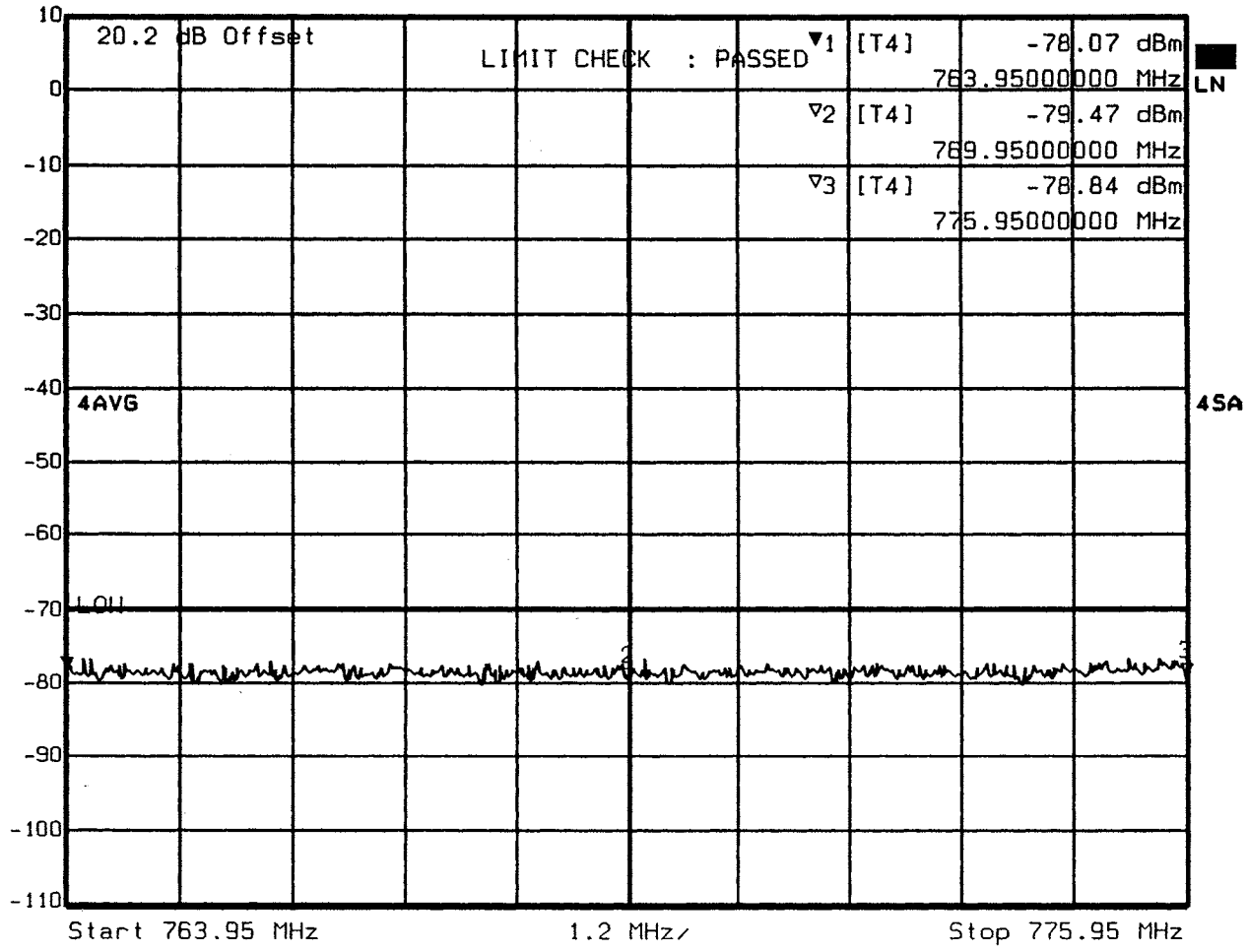
Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -78.07 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 763.9500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 18:00:35

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

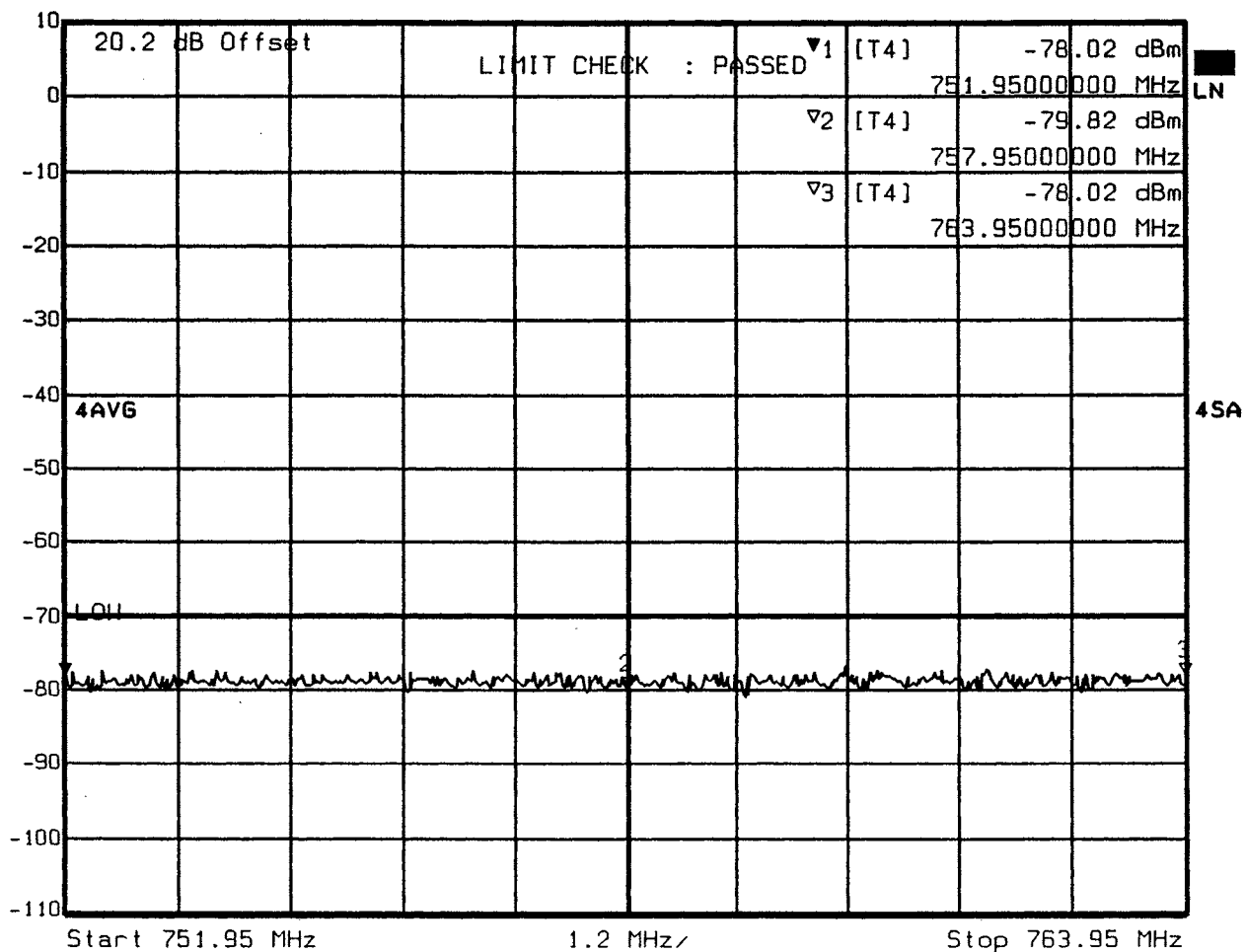
Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011
 Tested by: John Cmelko, Sr. Development Engineer, MDS



Marker 1 [T4] RBW 30 kHz RF Att 10 dB
 Ref Lvl -78.02 dBm VBW 1 MHz Mixer -20 dBm
 10 dBm 751.9500000 MHz SWT 34 ms Unit dBm



Date: 12.FEB.2003 18:01:49

ACCP MEASUREMENT (BASE TRANSMITTER)

MICROWAVE DATA SYSTEMS INC. LEDR DIGITAL MICROWAVE RADIO MODEL: LEDR700S

Frequency: 793.95 MHz, Power Output: 1 W., Channel Spacing: 150 kHz,

Modulation: 16-QAM with random data @ 256 kbps. EUT-S/N 1088620

Rhode & Schwarz Spectrum Analyzer Model: FSEM 30 S/N: 849016/011

Tested by: John Cmelko, Sr. Development Engineer, MDS