

MEASUREMENT AND TECHNICAL REPORT

DIRECTED ELECTRONICS INCORPORATED
1 Viper Way
Vista, CA 92083

DATE: 13 July 2006

This Report Concerns:	Original Grant:	Class II Change: X
Equipment Type:		
Responder SST HHU, Models 7701V, 7701P, and 7701X		
Deferred grant requested per 47 CFR 0.457(d)(1)(ii)?	Yes: Defer until:	No: X
Company Name agrees to notify the Commission by:	N/A	
of the intended date of announcement of the product so that the grant can be issued on that date.		
Transition Rules Request per 15.37?	Yes:	No: X*
(*) FCC Part 15, Paragraph(s) 15.247(a), 15.247(b), 15.247(c), 15.109(a), and 15.209(a) and RSS-Gen 4.4.1; 4.4.2; 4.6; 7.2.2; and 7.2.3.2		
Report Prepared by:	TÜV AMERICA, INC 10040 Mesa Rim Road San Diego, CA 92121-2912 Phone: 858 678 1400 Fax: 858 546 0364	



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GENERAL INFORMATION

Testing was performed according to the procedures in FCC/ANSI C63.4 and CSA 108.8-M1983.

Test Facility

The open area test site and conducted measurement data were tested by:

TÜV AMERICA, INC
10040 Mesa Rim Road
San Diego, CA 92121-2912
Phone: 858 678 1400
Fax: 858 546 0364

The Test Site Data and performance comply with ANSI C63.4 and are registered with the FCC, 7435 Oakland Mills Road, Columbia Maryland 21046. All Measurement Data is acquired according to the content of FCC Measurement Procedure and ANSI C63.4, unless supplemented with additional requirements as noted in the test report.

SYSTEM TEST CONFIGURATION

See Test Setup Photos Exhibit

Test Conditions: BANDWIDTH: FCC Part 15.247(a)(1)(i) and RSS-Gen 4.4.1
 CHANNEL SEPARATION: FCC 15.247(a)(1) and RSS-210, Annex 8.1
 NUMBER OF HOPPING CHANNELS: FCC Part 15.247(a)(1)(i) and RSS-210, Annex 8.1
 PEAK OUTPUT POWER: FCC Part 15.247(b)(1) and RSS-Gen 4.6
 BANDEDGE: FCC Part 15.247(c) and RSS-Gen 4.4.2
 RF CONDUCTED EMISSIONS: FCC Part 15.247(c) and RSS-Gen 7.2.2
 RADIATED SPURIOUS EMISSIONS: FCC Part 15.209(a), 15.247(c) and RSS-Gen 7.2.3.2

The following measurements were performed at the San Diego Testing Facility:

☐ - Test not applicable

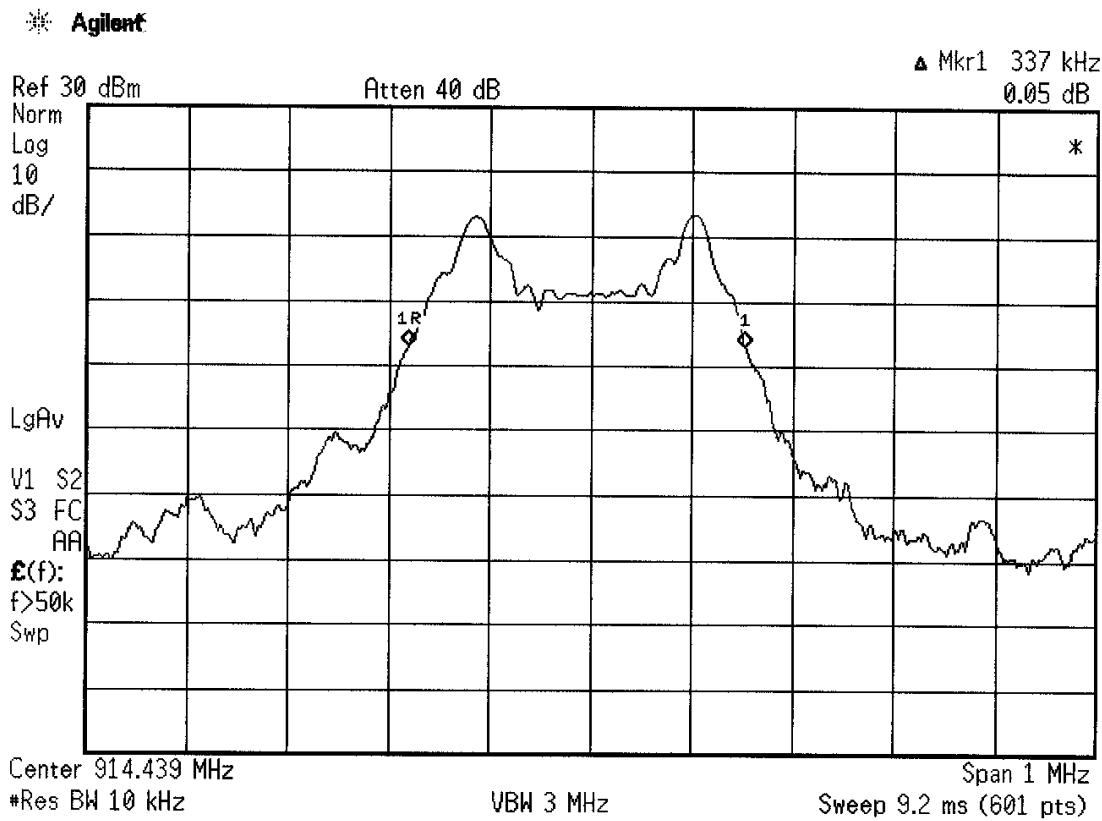
- - SR 3, Shielded Room, 12' x 20' x 8', Metal Chamber
- - Roof (Small Open Area Test Site)

Test Equipment Used:

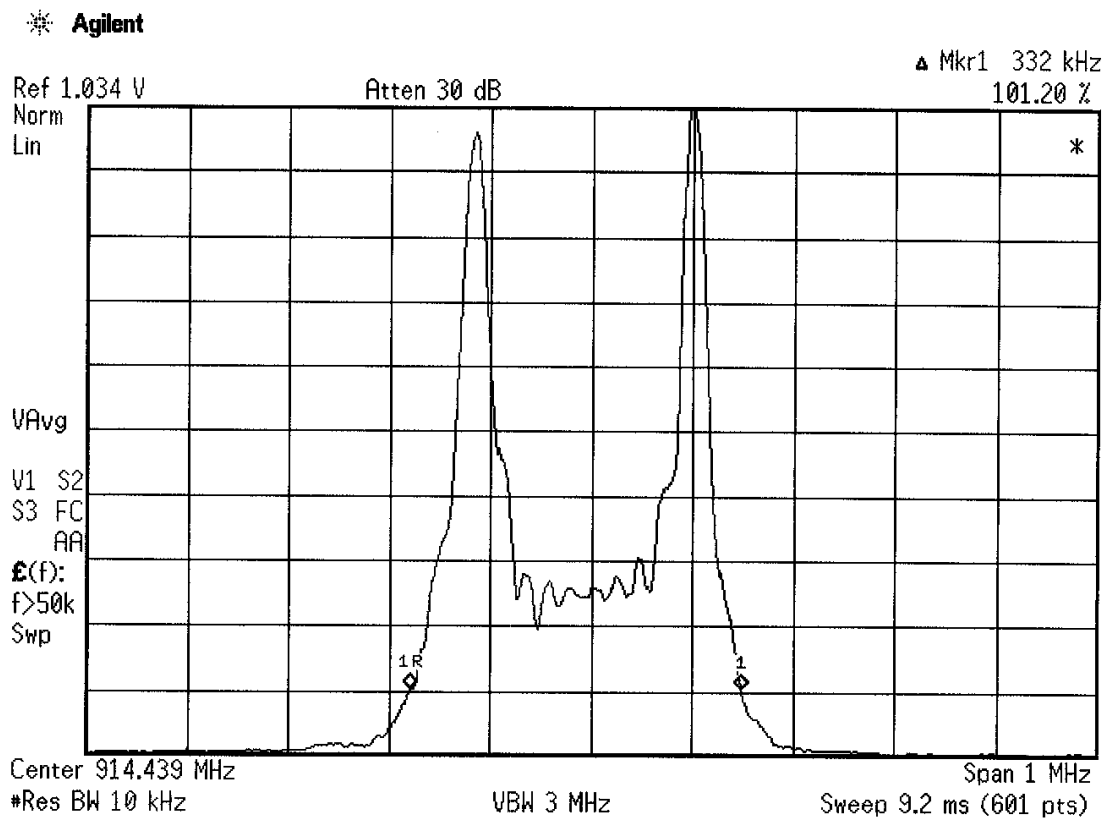
Model No.	Prop. No.	Description	Manufacturer	Serial No.	Date Cal'ed
E4440A	6814	Spectrum Analyzer	Hewlett Packard	MY42510441	02/06
3110B	6644	Biconical Antenna	EMCO	9508-2134	10/05
3146	6641	Antenna, Log Periodic Dipole	EMCO	106X	06/06
3115	6669	Double Ridge Antenna	EMCO	9412-4364	08/05
AMF-5D-010180-35-10P	719	Preamplifier	Miteq	549460	Verified
E4446A	6823	Spectrum Analyzer	Agilent	US44300486	04/06
CBL6111	6527	Bilog Antenna	Chase Electronics	1013	Verified
AA-19030.00.0	7492	30' Coaxial Cable	United Microwave	--	--

Remarks: One year calibration cycle for all test equipment and sites.

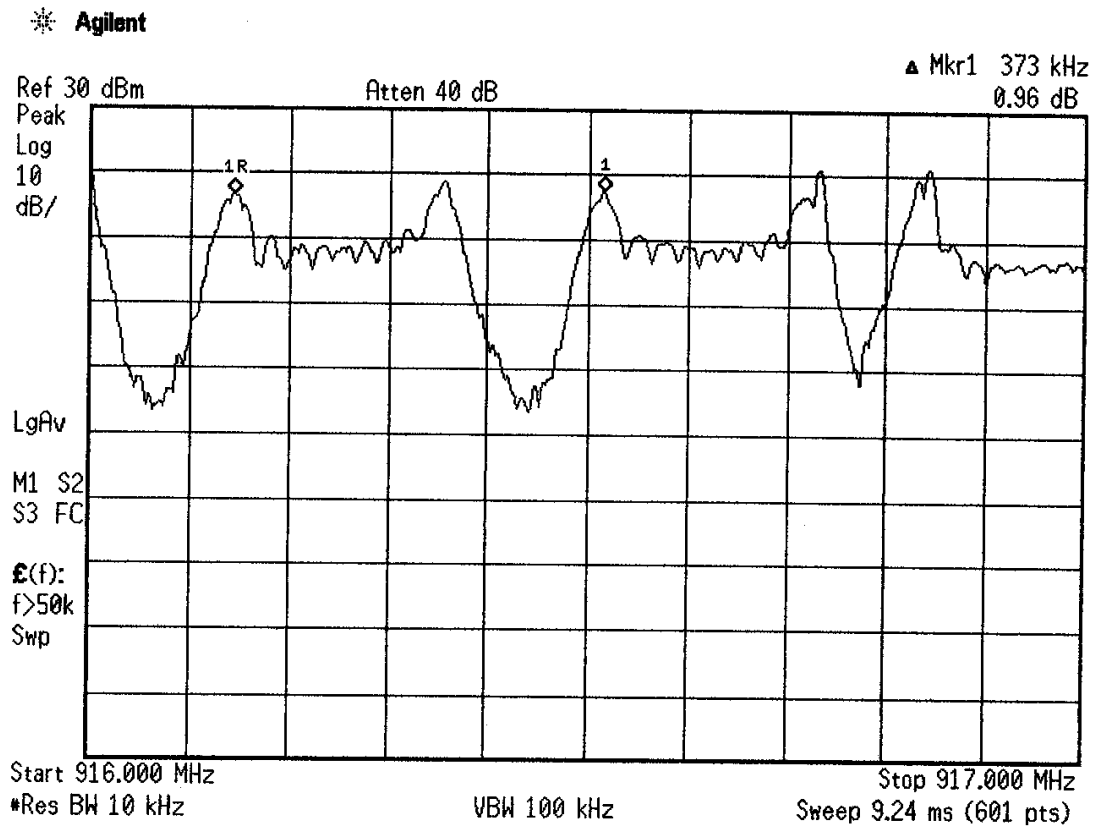
15.247(a), 20 dB bandwidth



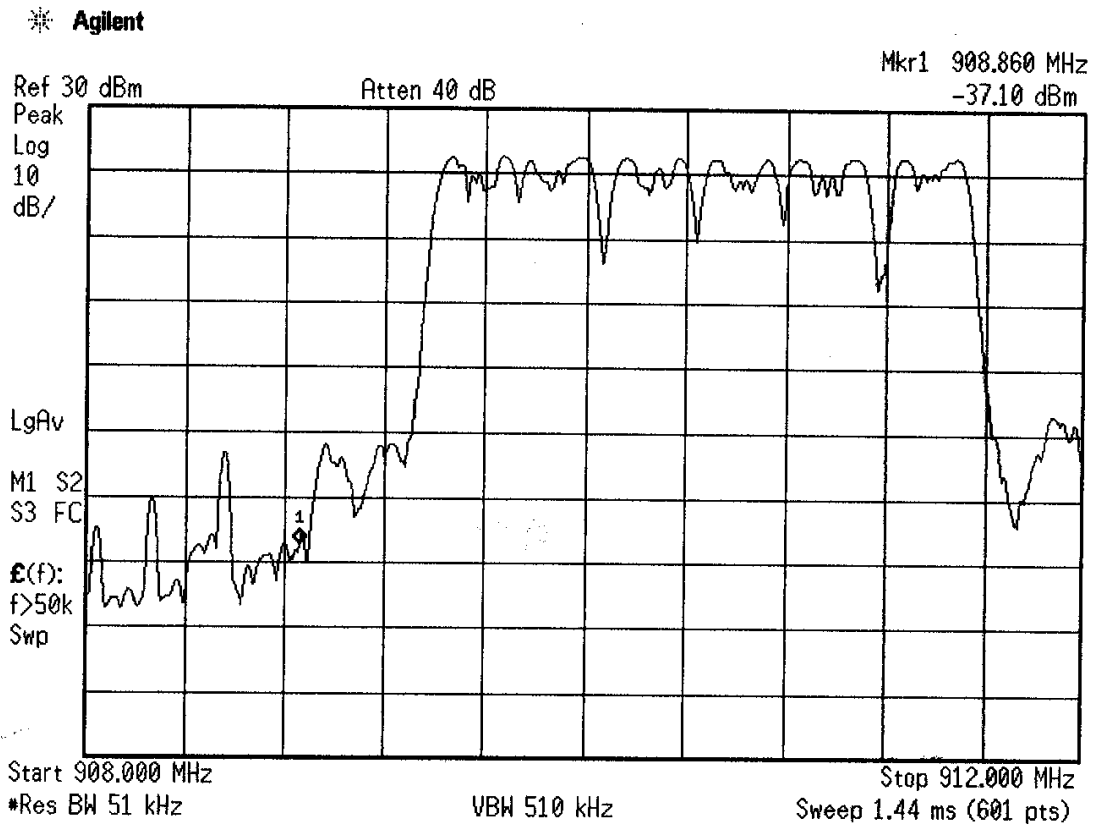
RSS-GEN 4.4.1 20 dB bandwidth



15.247(a) (RSS 210, Annex 8.1) Channel separation

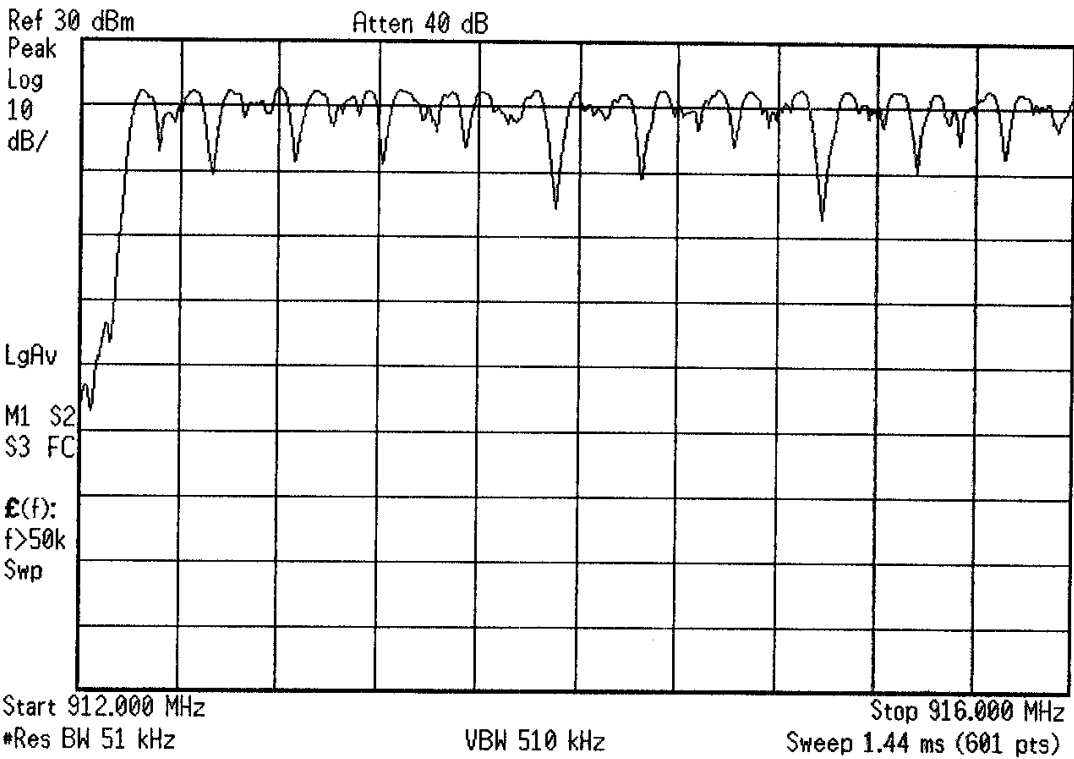


15.247(a) (RSS 210, Annex 8.1) Number of hopping channels (6)



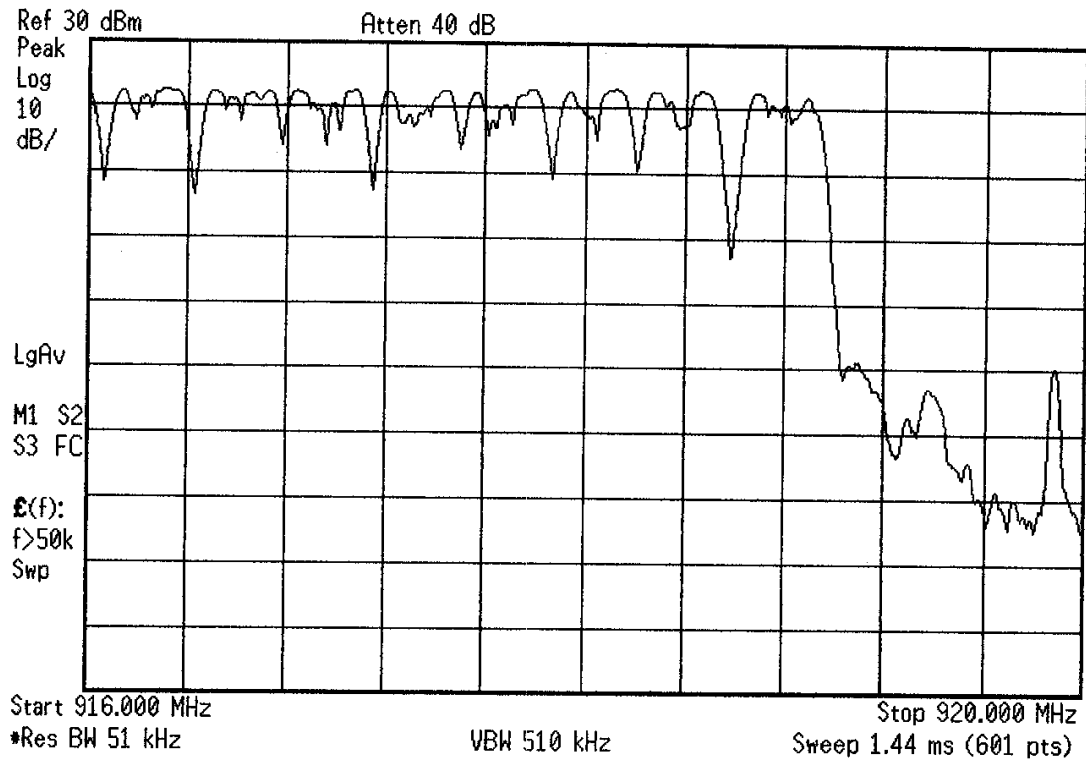
15.247(a) (RSS 210, Annex 8.1) Number of hopping channels (11)

✱ Agilent

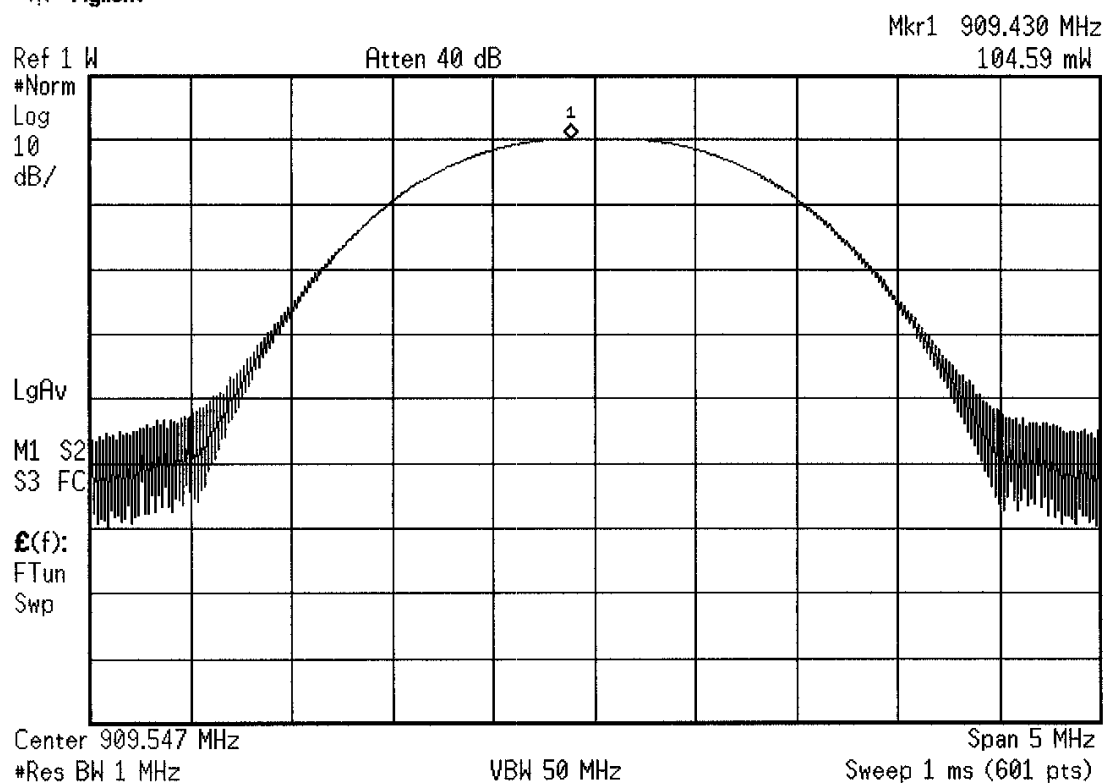


15.247(a) (RSS 210, Annex 8.1) Number of hopping channels (8)

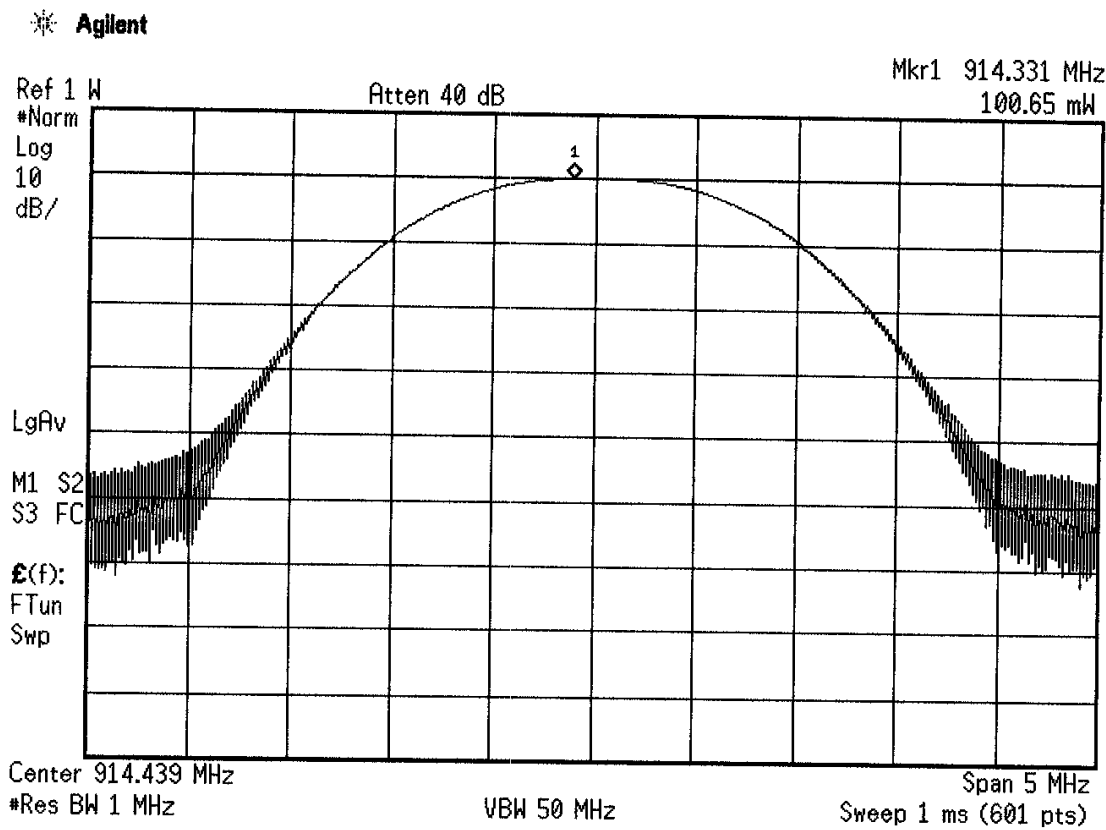
✱ Agilent



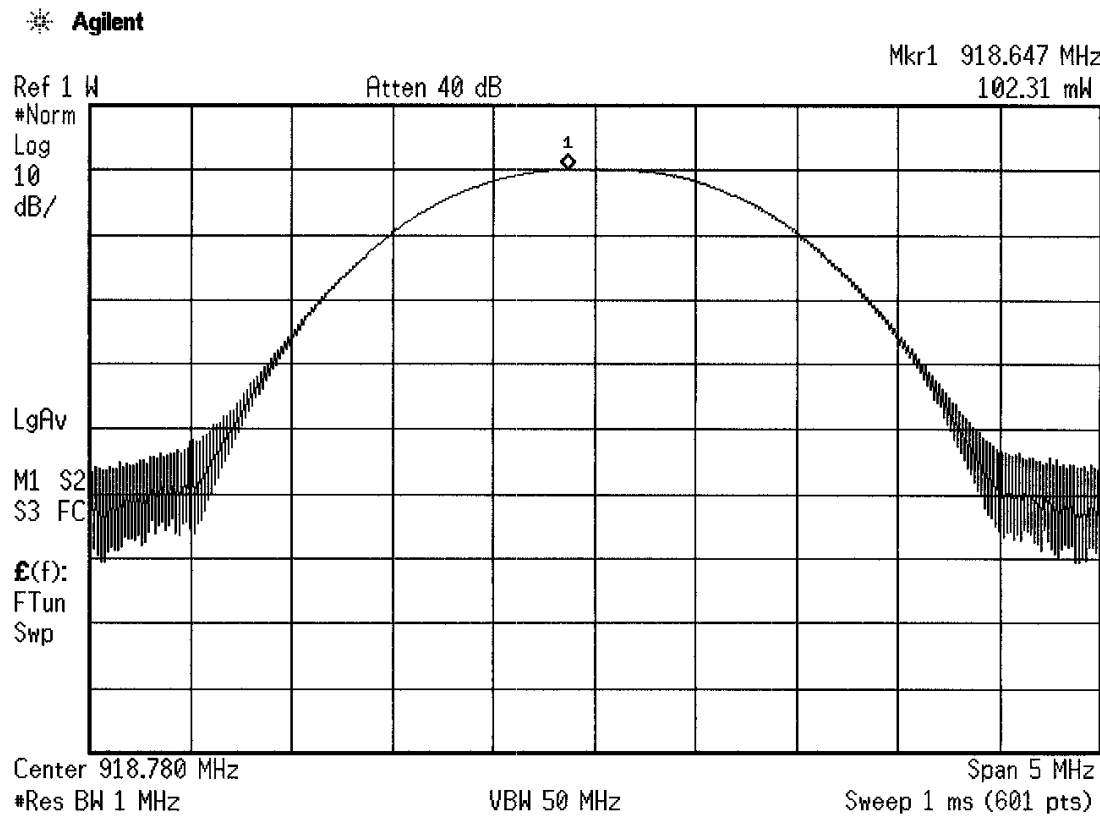
15.247(a) (RSS-Gen 4.6) Peak power output, low channel



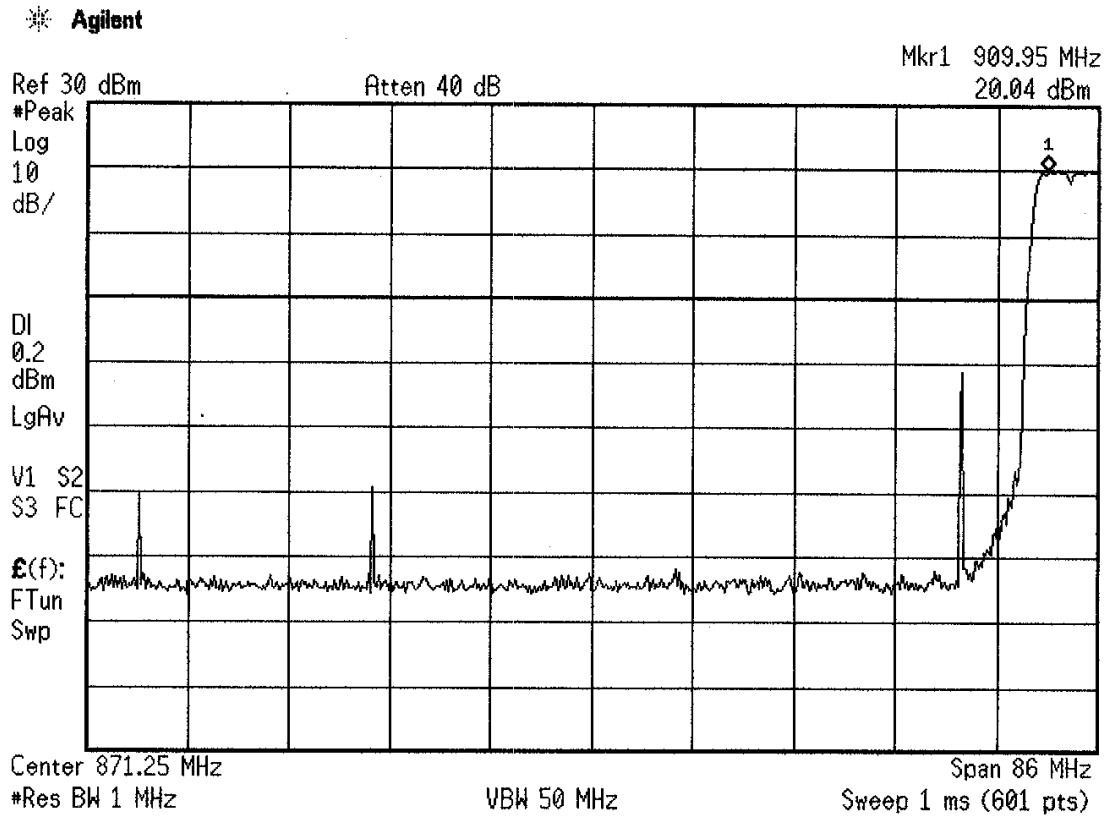
15.247(a) (RSS-Gen 4.6) Peak power output, mid channel



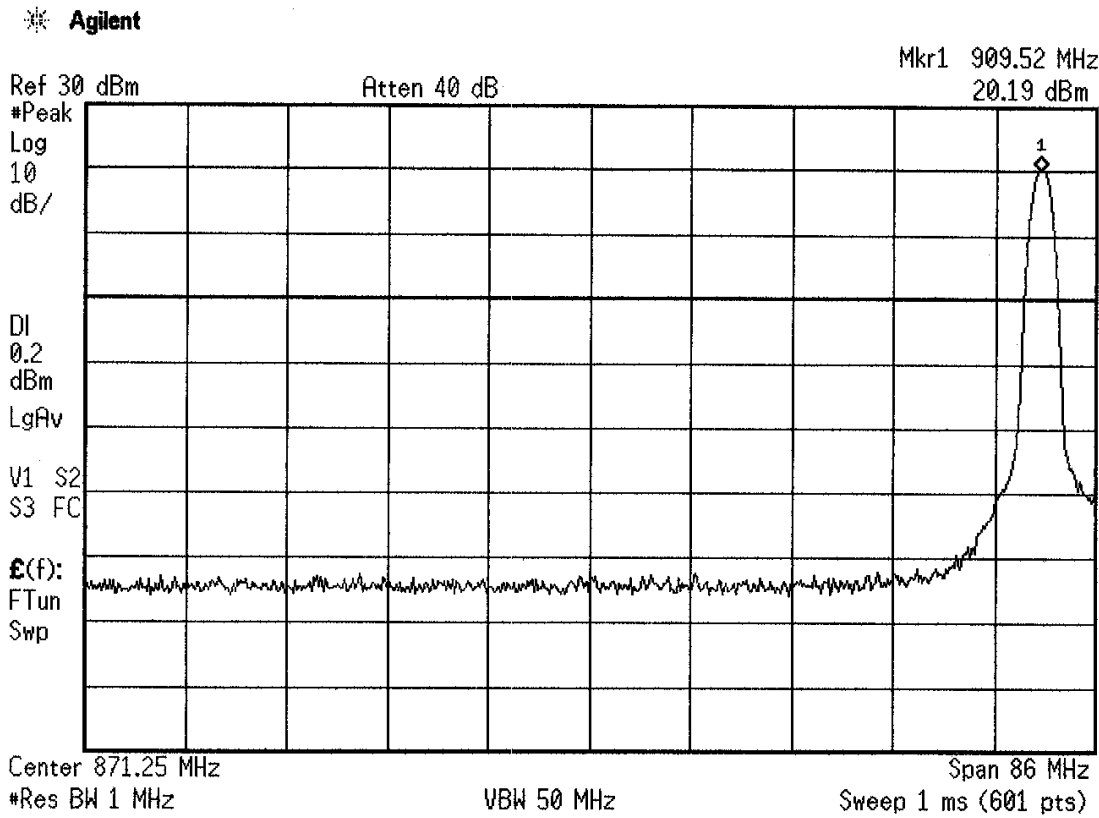
15.247(a) (RSS-Gen 4.6) Peak power output, high channel



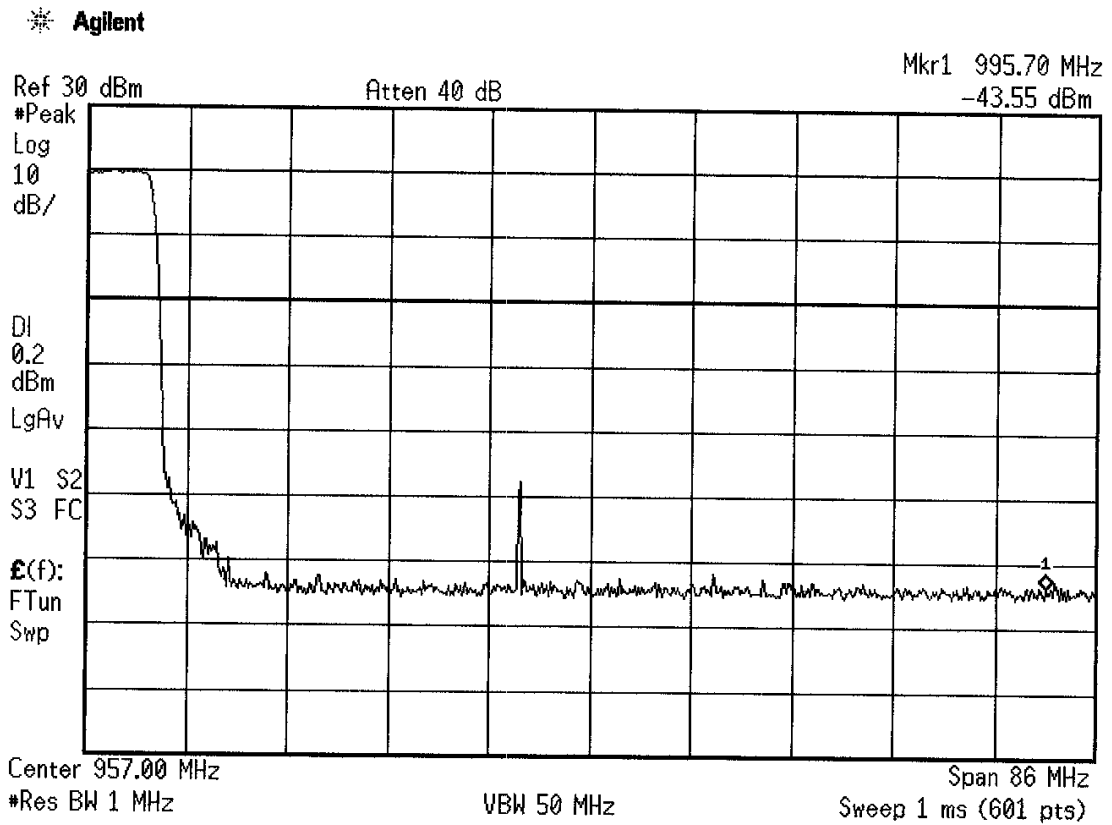
15.247(a) (RSS-Gen 7.2.2) RF conducted modulated, lower band edge



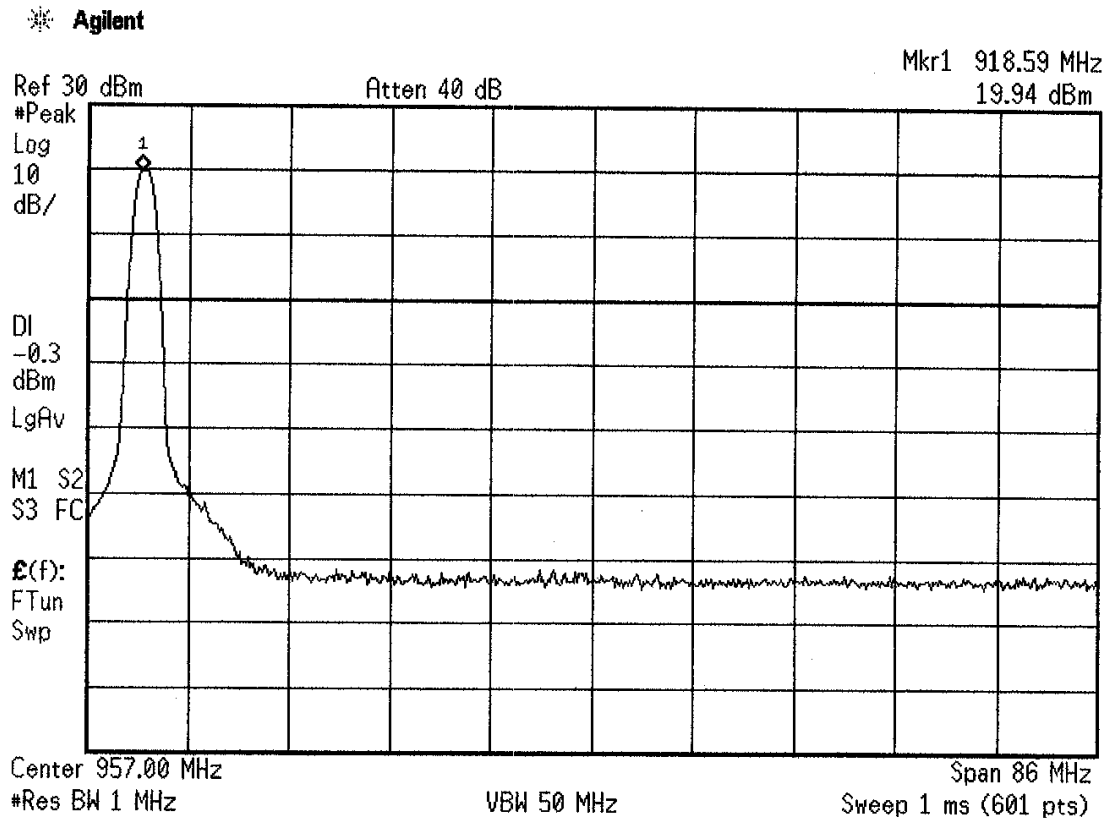
15.247(a) (RSS-Gen 7.2.2) RF conducted unmodulated, lower band edge



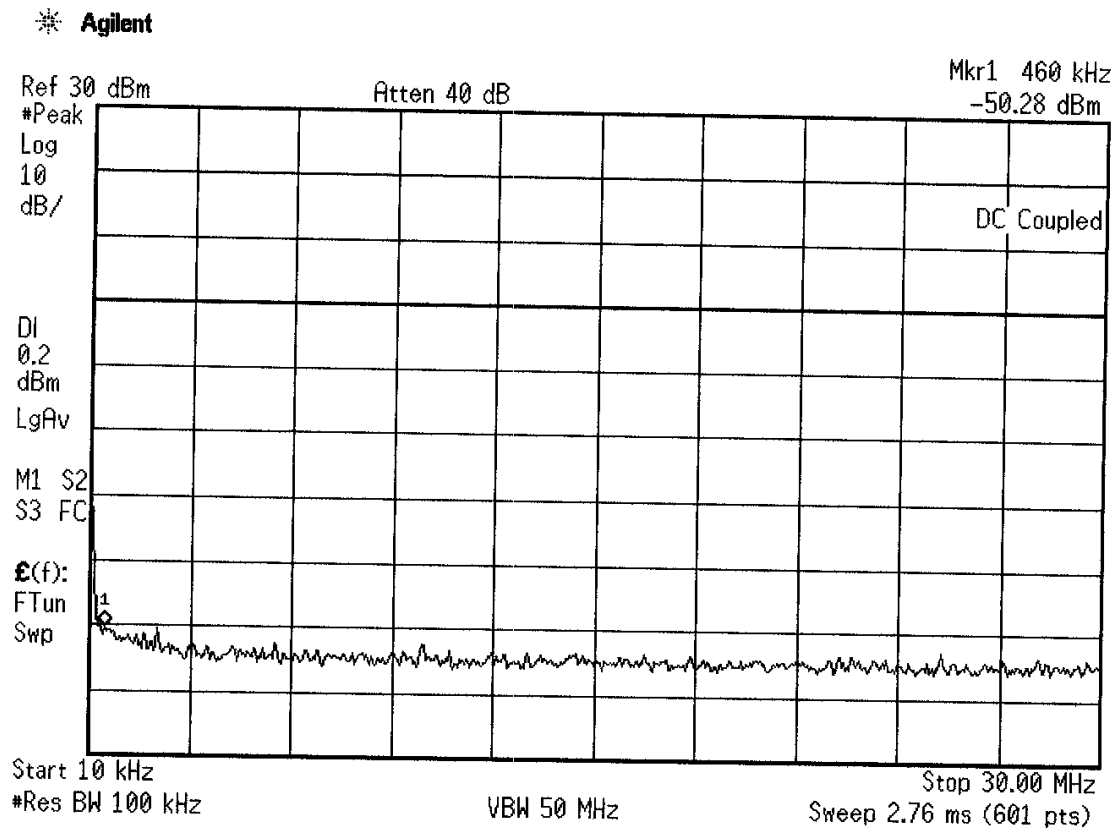
15.247(a) (RSS-Gen 7.2.2) RF conducted modulated, upper band edge



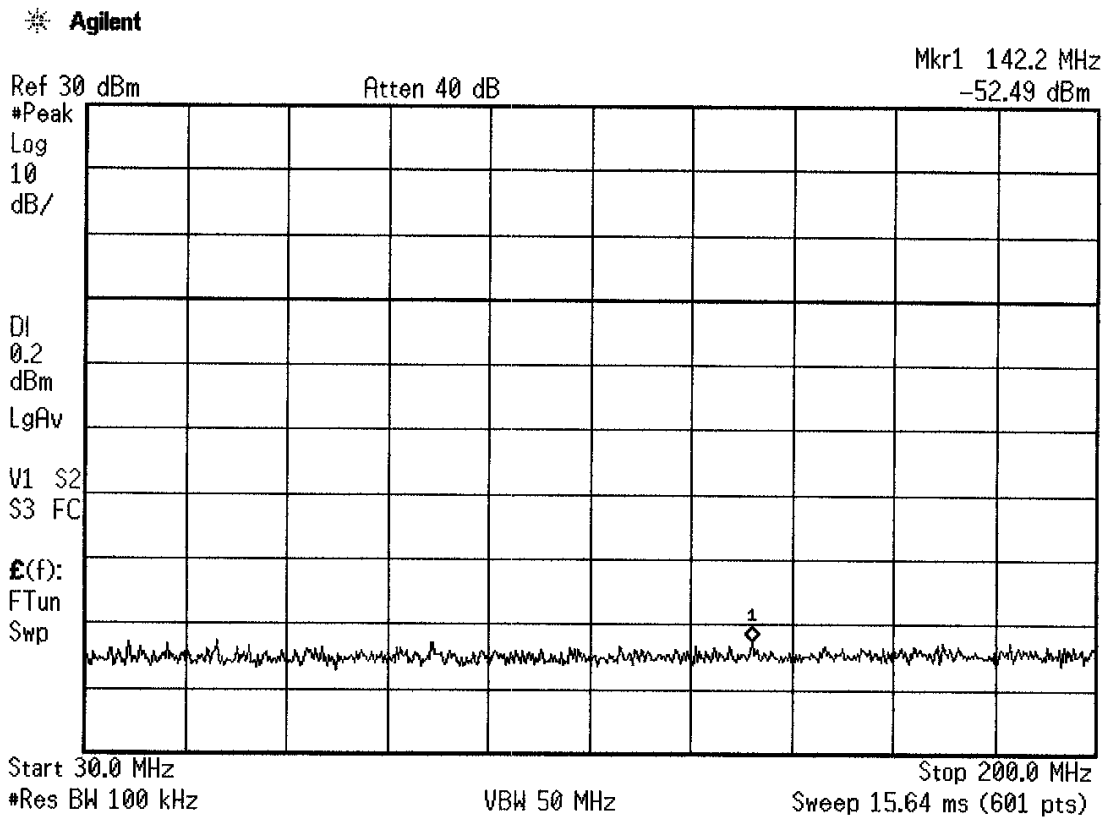
15.247(a) (RSS-Gen 7.2.2) RF conducted unmodulated, upper band edge



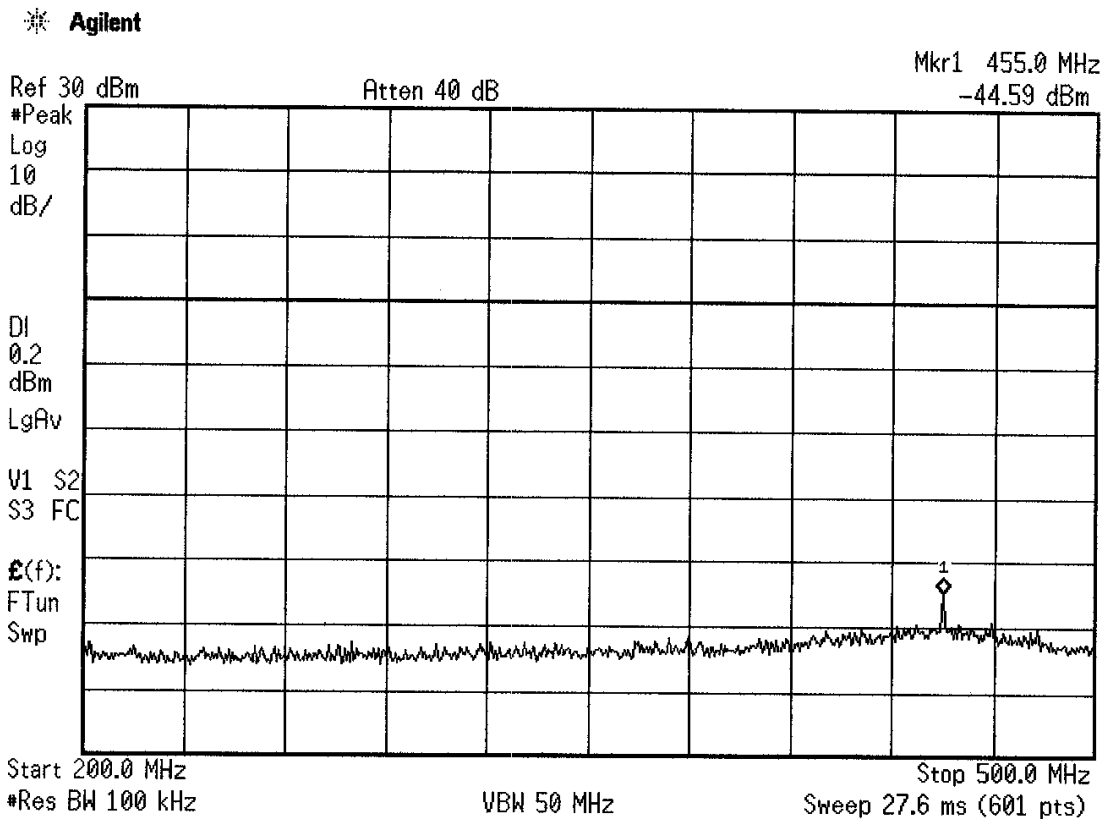
15.247(a) (RSS-Gen 7.2.2) RF conducted, low channel



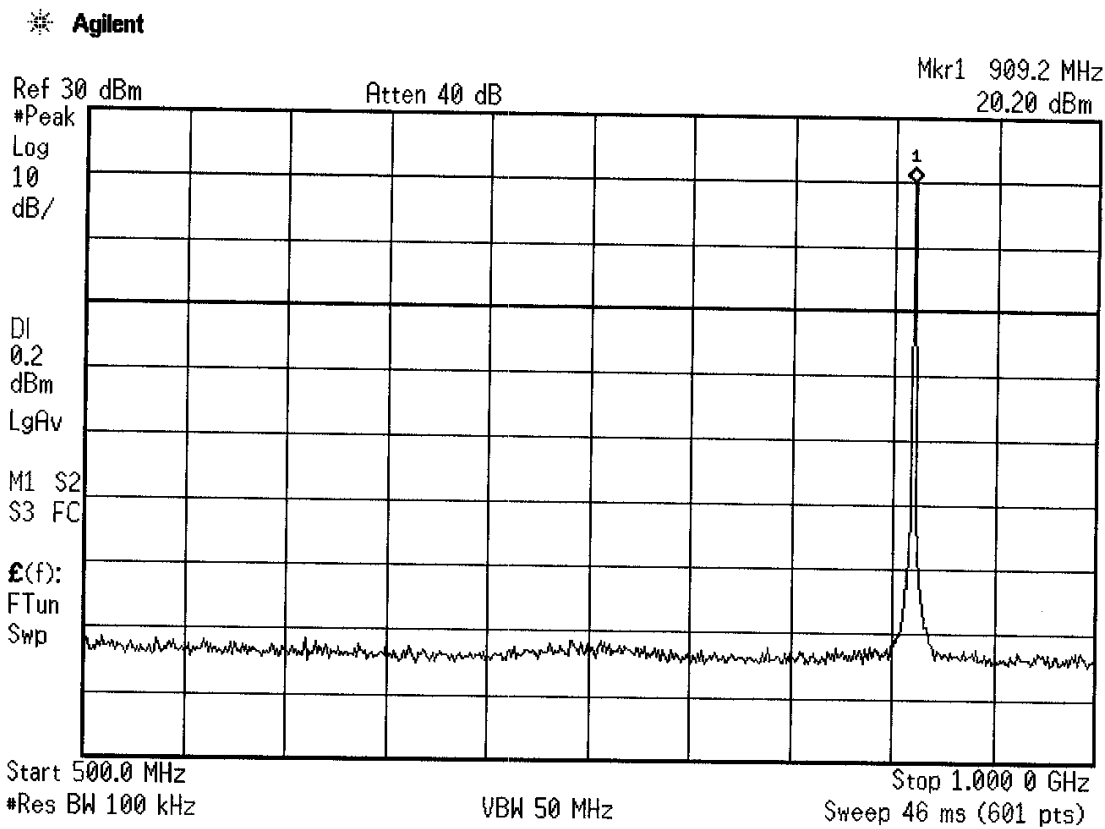
15.247(a) (RSS-Gen 7.2.2) RF conducted, low channel



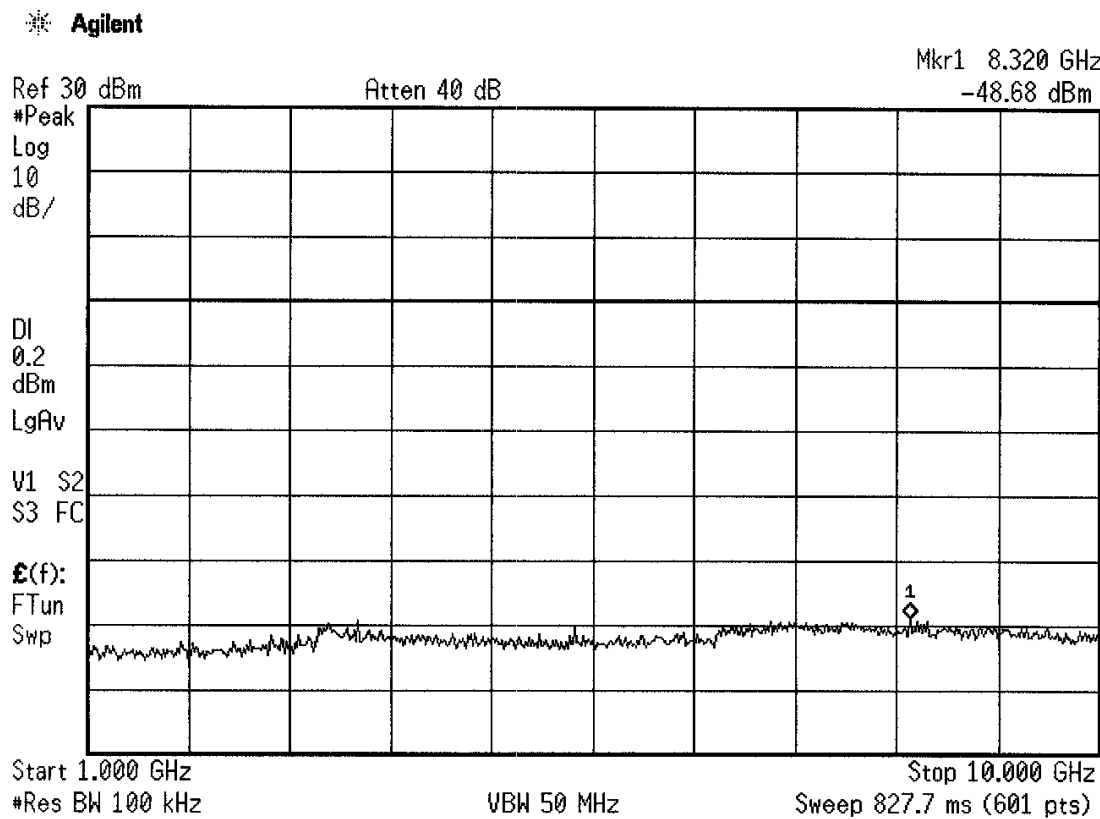
15.247(a) (RSS-Gen 7.2.2) RF conducted, low channel



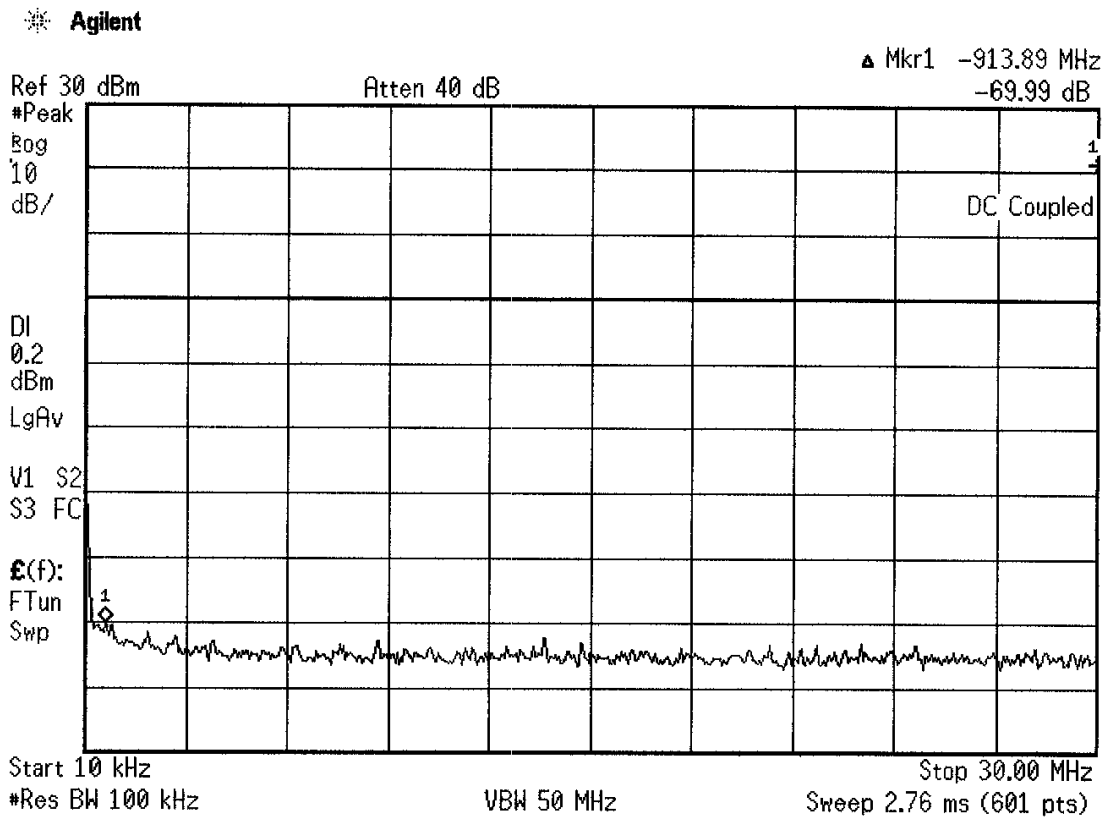
15.247(a) (RSS-Gen 7.2.2) RF conducted, low channel



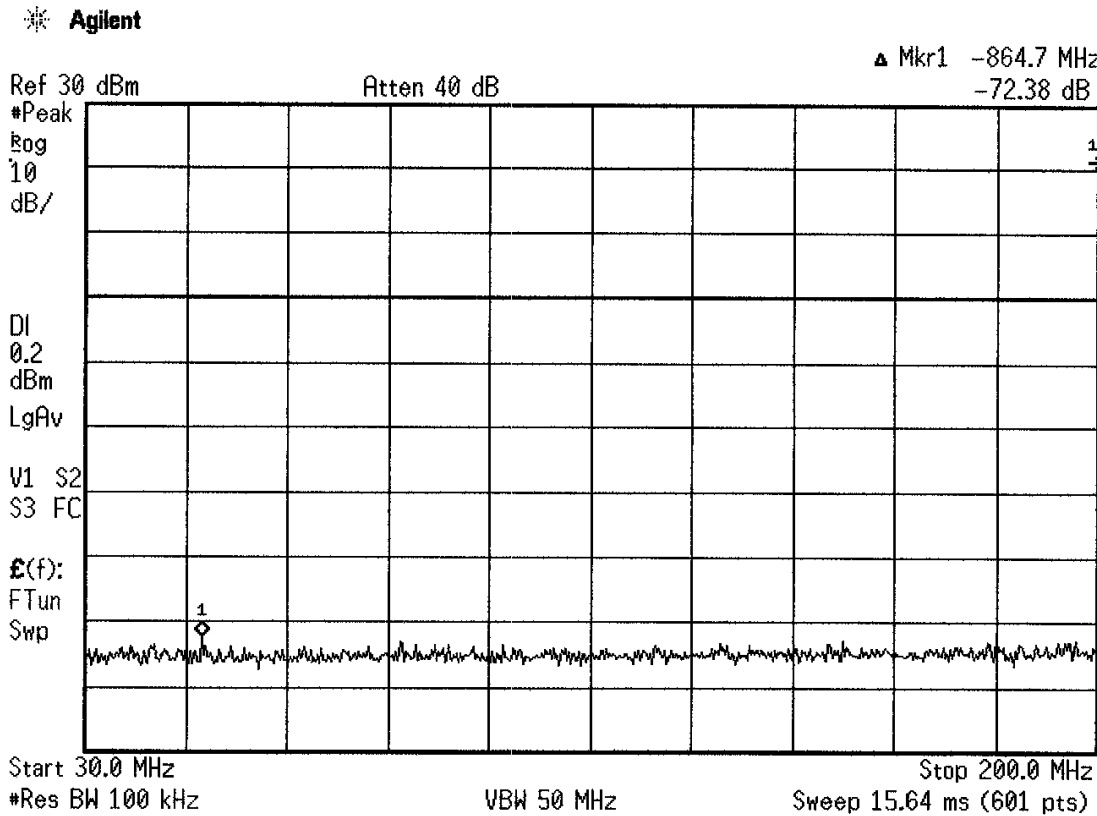
15.247(a) (RSS-Gen 7.2.2) RF conducted, low channel



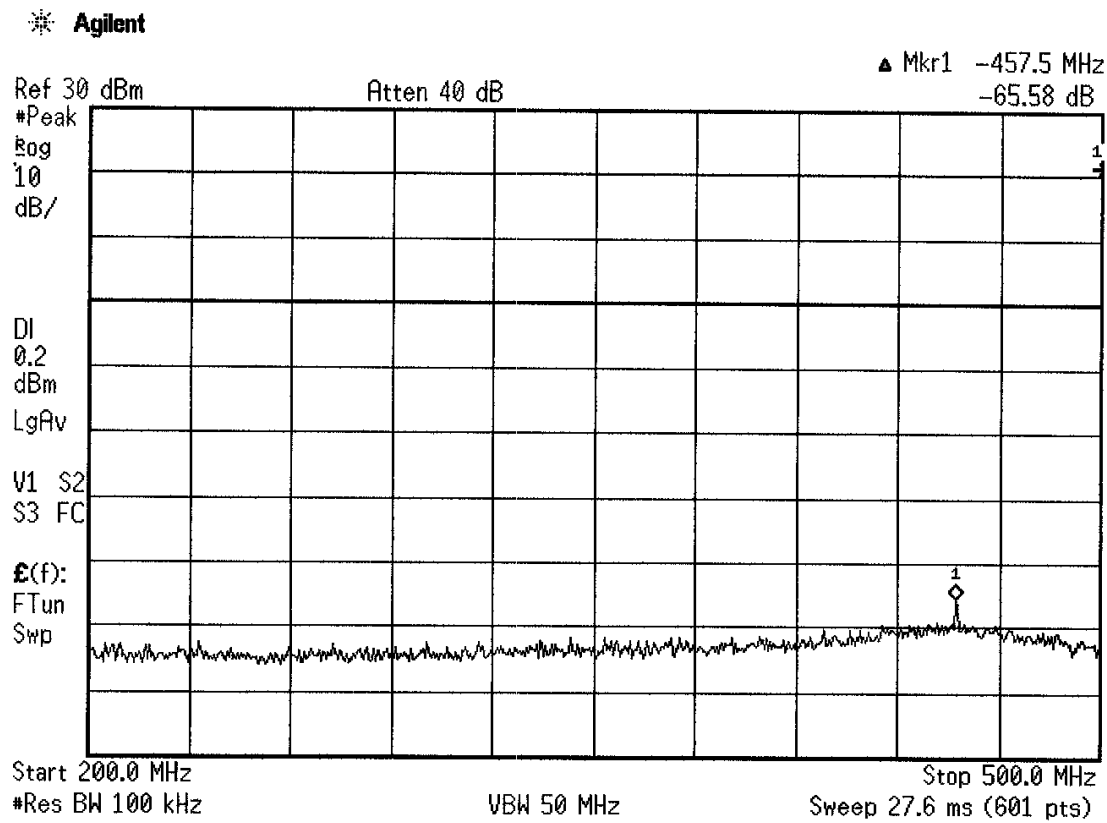
15.247(a) (RSS-Gen 7.2.2) RF conducted, mid channel



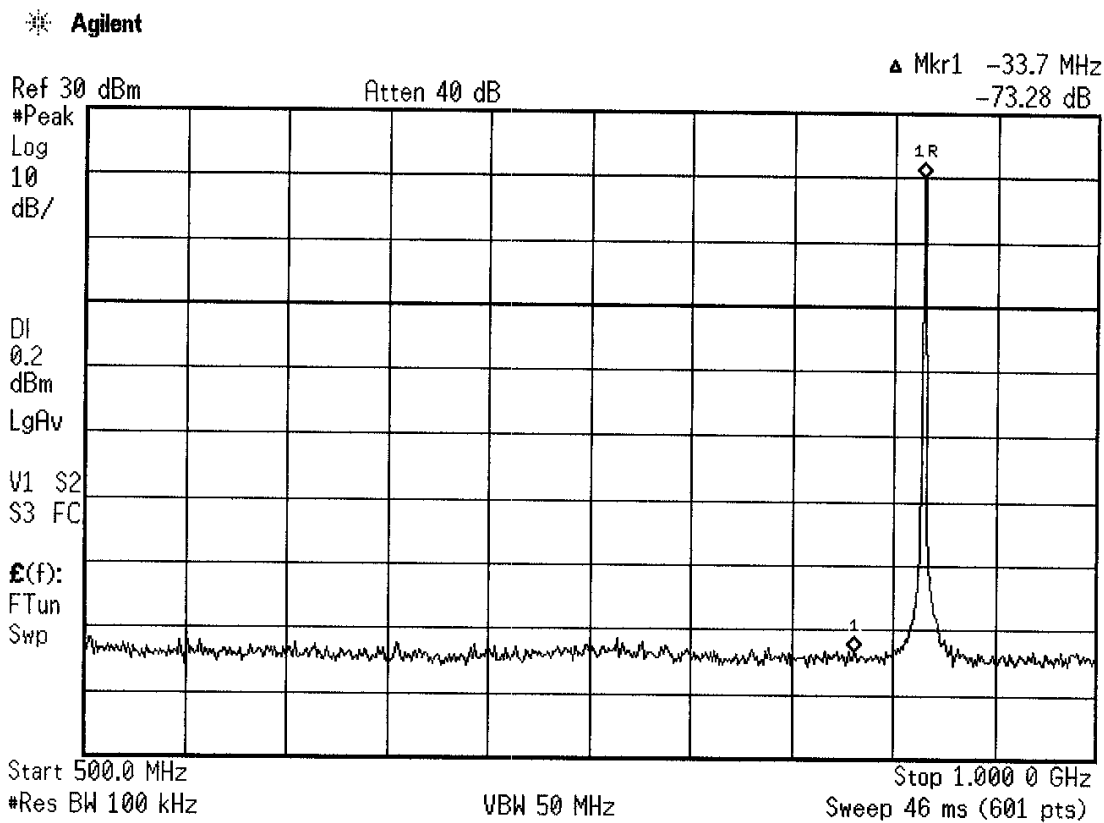
15.247(a) (RSS-Gen 7.2.2) RF conducted, mid channel



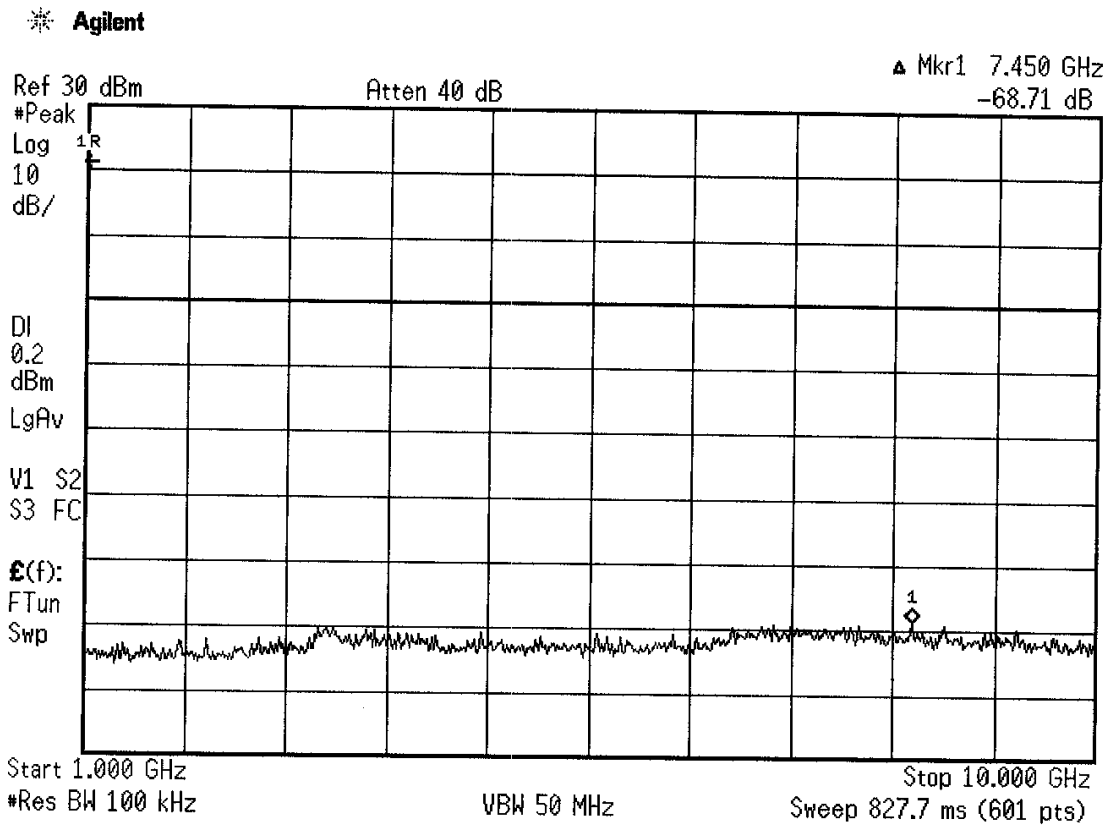
15.247(a) (RSS-Gen 7.2.2) RF conducted, mid channel



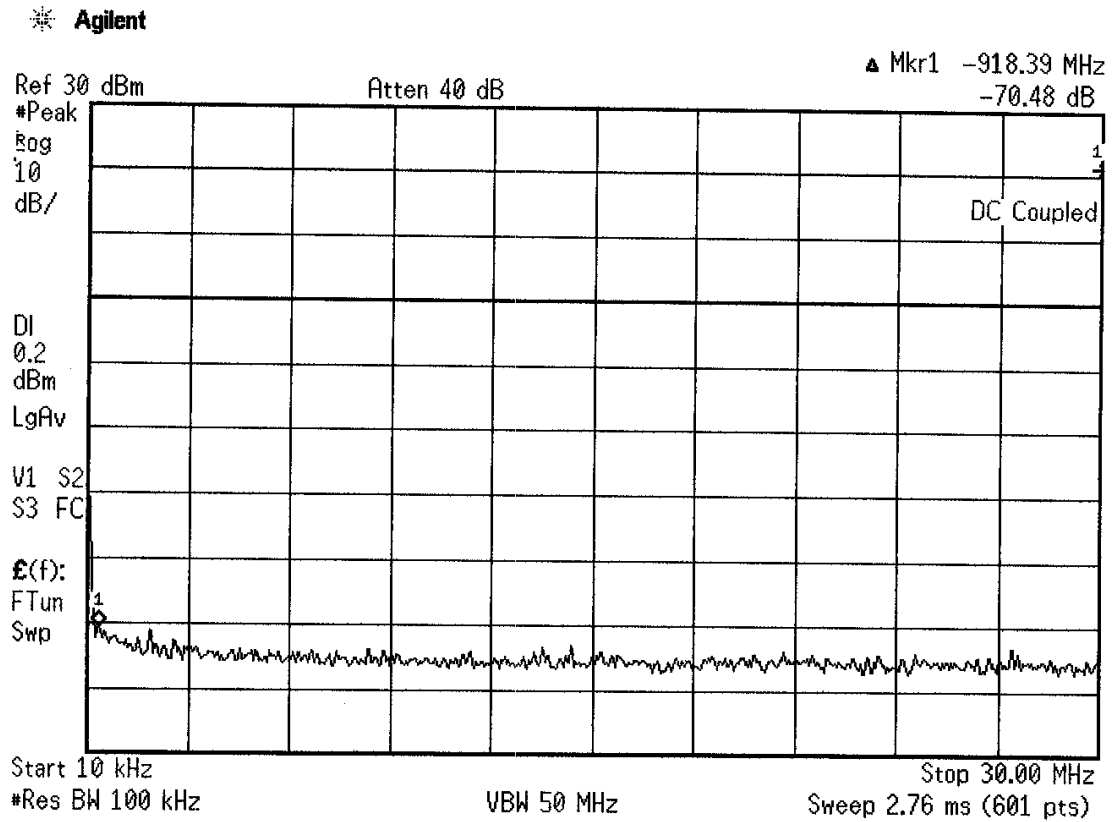
15.247(a) (RSS-Gen 7.2.2) RF conducted, mid channel



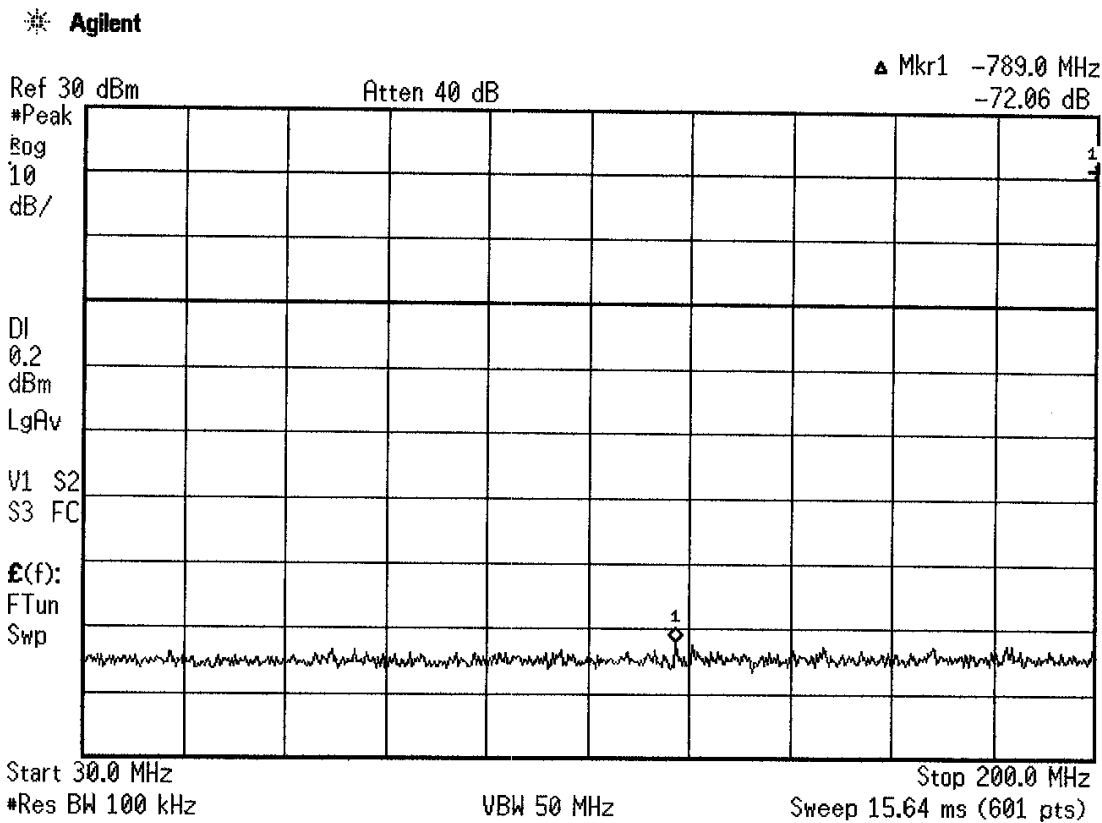
15.247(a) (RSS-Gen 7.2.2) RF conducted, mid channel



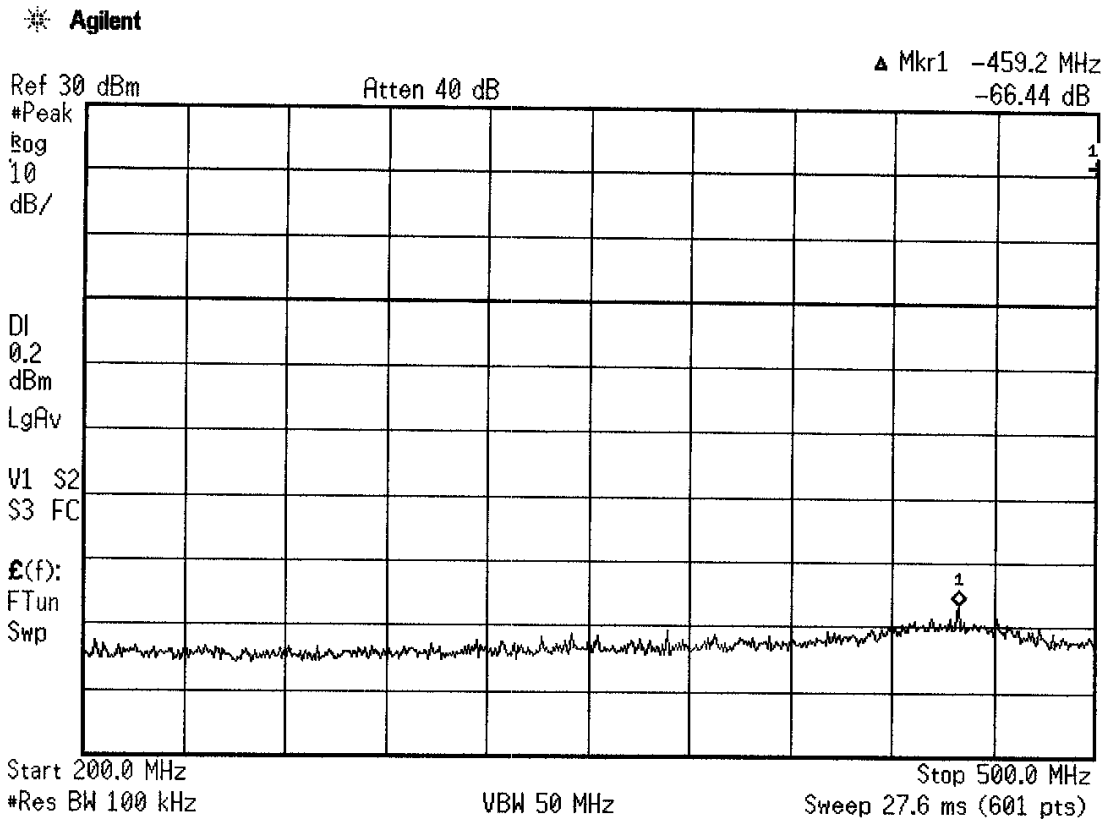
15.247(a) (RSS-Gen 7.2.2) RF conducted, high channel



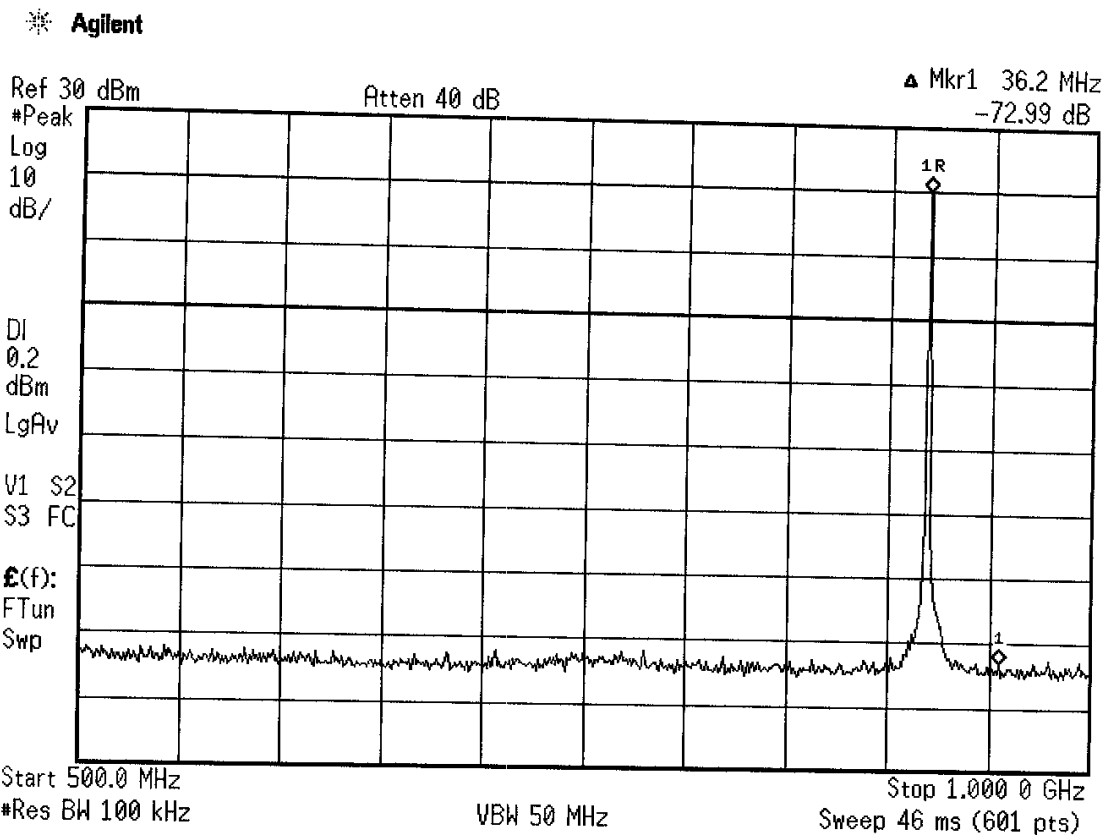
15.247(a) (RSS-Gen 7.2.2) RF conducted, high channel



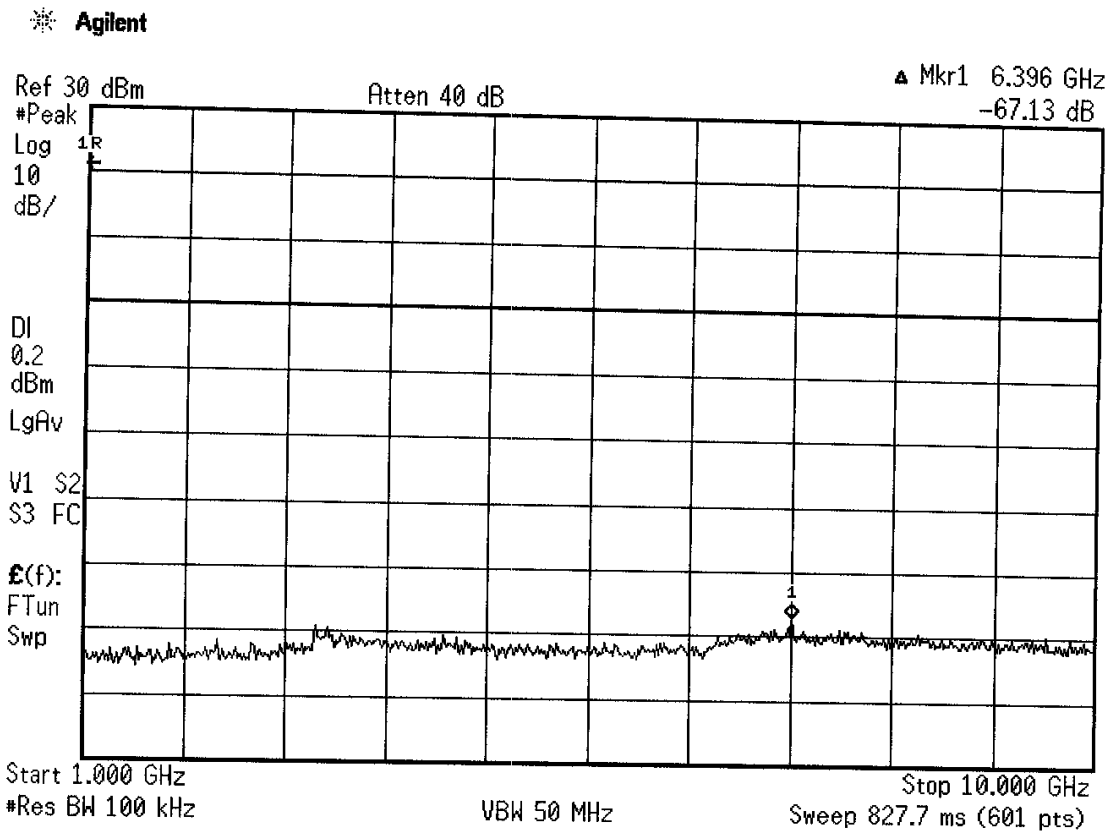
15.247(a) (RSS-Gen 7.2.2) RF conducted, high channel



15.247(a) (RSS-Gen 7.2.2) RF conducted, high channel



15.247(a) (RSS-Gen 7.2.2) RF conducted, high channel



[illegible]

4.0 ATTESTATION STATEMENT

GENERAL REMARKS:

SUMMARY:

All tests were performed per: CFR 47, Part(s) 15.247(a), 15.247(b), 15.247(c), 15.109(a), and 15.209(a)
RSS-Gen 4.4.1; 4.4.2; 4.6; 7.2.2; and 7.2.3.2

■ - Performed

The Equipment Under Test

■ - **Fulfills** the requirements of: CFR 47, Part(s) 15.247(a), 15.247(b), 15.247(c), 15.109(a), and 15.209(a)
RSS-Gen 4.4.1; 4.4.2; 4.6; 7.2.2; and 7.2.3.2

Testing Start Date: 06 July 2006

Testing End Date: 06 July 2006

- TÜV AMERICA, INC. -

Reviewing Engineer:



Chuck Rickard
(EMC Engineer)

Test Engineer:



David Gray
(EMC Engineer In Charge)