

Test Report: 1W04204

Applicant: Elisra Electronic Systems Ltd.
48 Mivtza Kadesh Street
51203, Bene-Beraq
Israel

**Equipment Under Test:
(EUT)** MW-CBDA-ESMR-10W80A
MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80
OIWCBD AESMR1W80

In Accordance With: **FCC Part 90**

Tested By: Nemko Canada Inc.
3325 River Road, R.R. 5
Ottawa, Ontario K1V 1H2

Authorized By:

R. Grant, Wireless Group Manager

Date:

Total Number of Pages: 49

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*EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A**FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A*

Section 1. Summary of Test Results

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 90.

☐

New Submission

☐

Production Unit

☒

Class II Permissive Change

☐

Pre-Production Unit

A	M	P
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Equipment Code

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.

See " Summary of Test Data".



NVLAP LAB CODE: 100351-0

TESTED BY: _____ DATE: _____
Glen Westwell, Wireless Technologist

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This report applies only to the items tested.

*EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A**FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A*

Summary Of Test Data

Name Of Test	Para. No.	Result
Occupied Bandwidth	2.1049	Complies
Spurious Emissions at Antenna Terminals	2.1051	Complies
Field Strength of Spurious Emissions	2.1053	Complies

Footnotes For N/A's:

- (1) The equipment has previously been certified under FCC ID: OIWCBD AESMR10W80 for Model: MW-CBDA-ESMR-10W80A and OIWCBD AESMR1W80 for Model: MW-CBDA-ESMR-1W80A.
- (2) These bi-directional amplifiers were previously certified with a D7W emission.
- (3) This Class II Permissive change report contains supporting data to allow for the addition of the following emission designators for both model amplifiers: F1D, F1E and F3E.
- (4) Worst case emissions were found to be with AGC "OFF". Therefore AGC "OFF" plots were submitted.

.

EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A

Section 2. General Equipment Specification

Manufacturer: Elisra Electronic Systems Ltd.

Model No.: (1) MW-CBDA-ESMR-10W80A
(2) MW-CBDA-ESMR-1W80A

Serial No.: (1) 01041090
(2) 01041039

Transmitter

Uplink: (1) 806-821MHz, 24dBm
(2) 806-821MHz, 24dBm

Downlink: (1) 851-866MHz, 30dBm
(2) 851-866MHz, 24dBm

Emission: F1D
F1E
F3E

EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A

Section 3. Occupied Bandwidth

Para. No.: 2.1049

Test Performed By: Glen Westwell

Date of Test: August 30, 2001

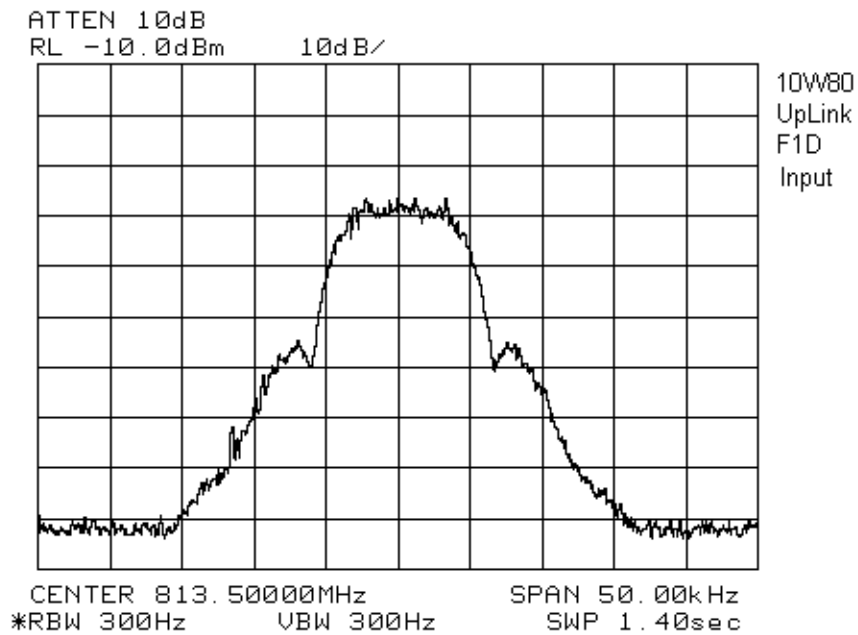
Test Results: Complies.

Measurement Data: See attached graphs.

The modulated input/output signals were compared in order to ensure that there is no degradation in the occupied bandwidth.

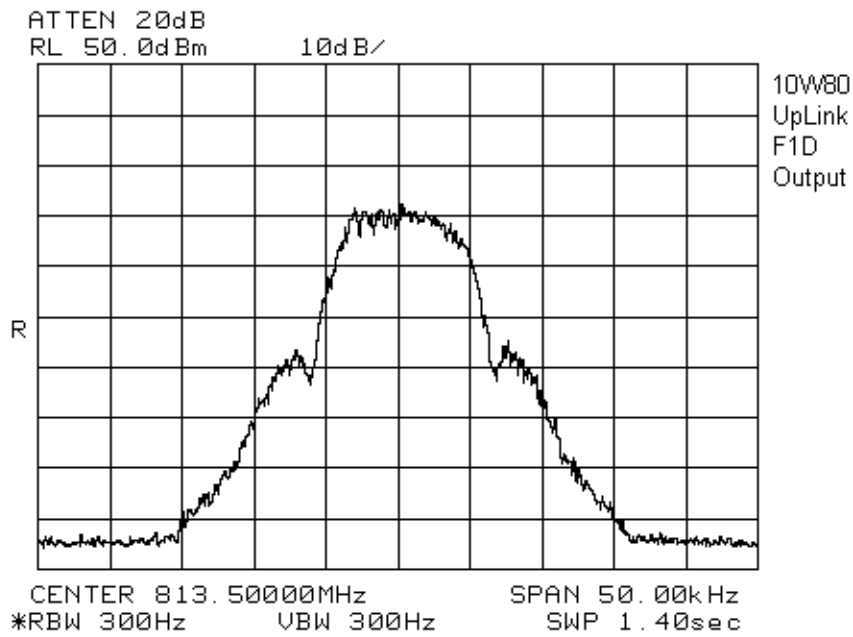
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



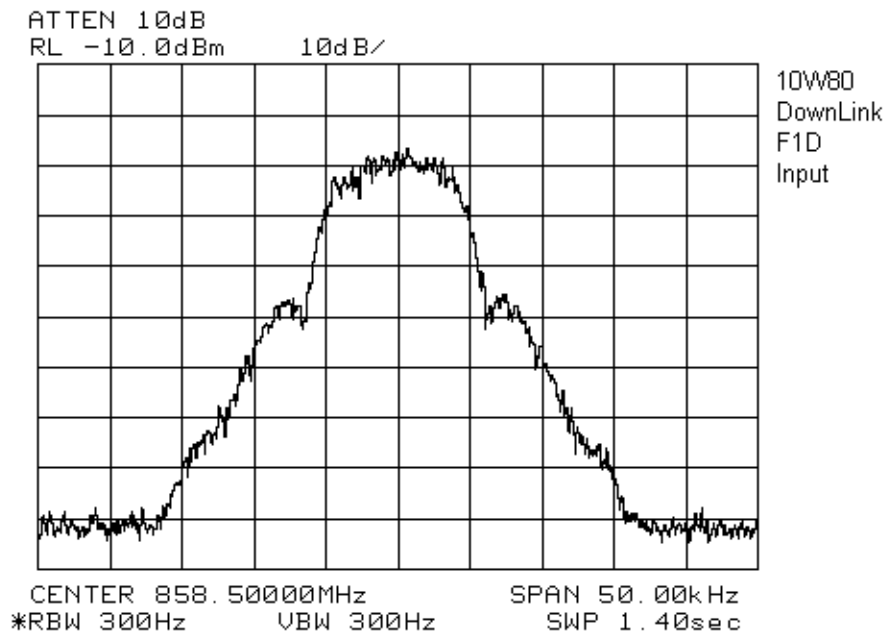
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



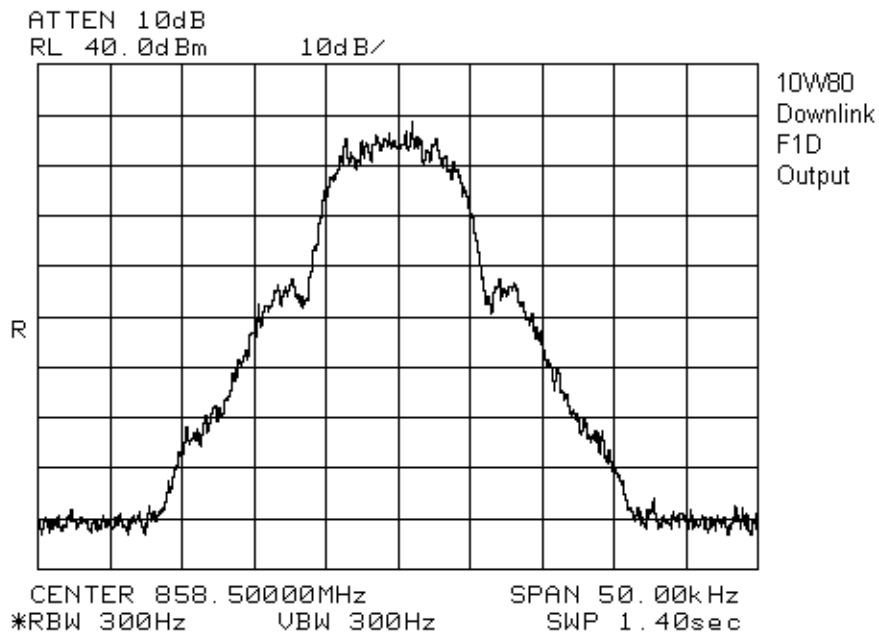
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



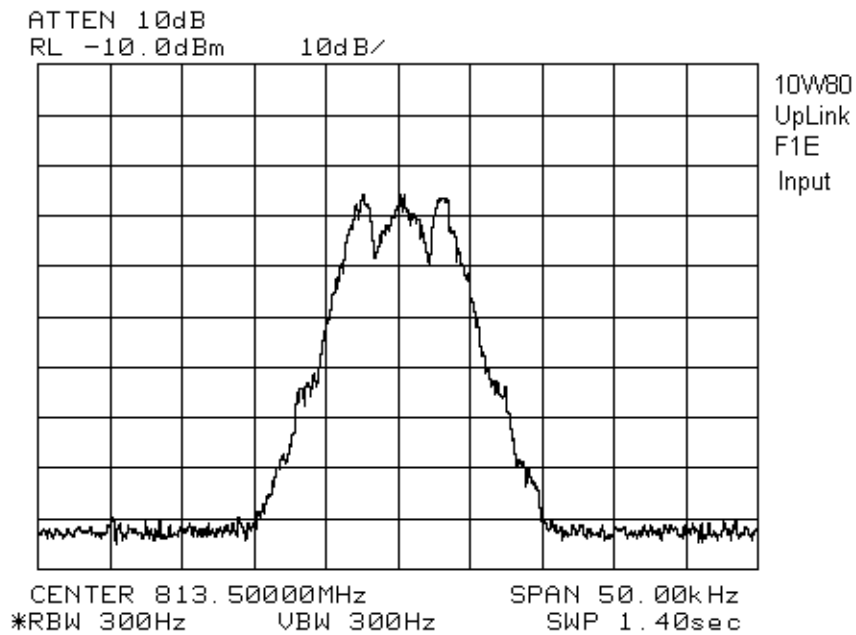
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



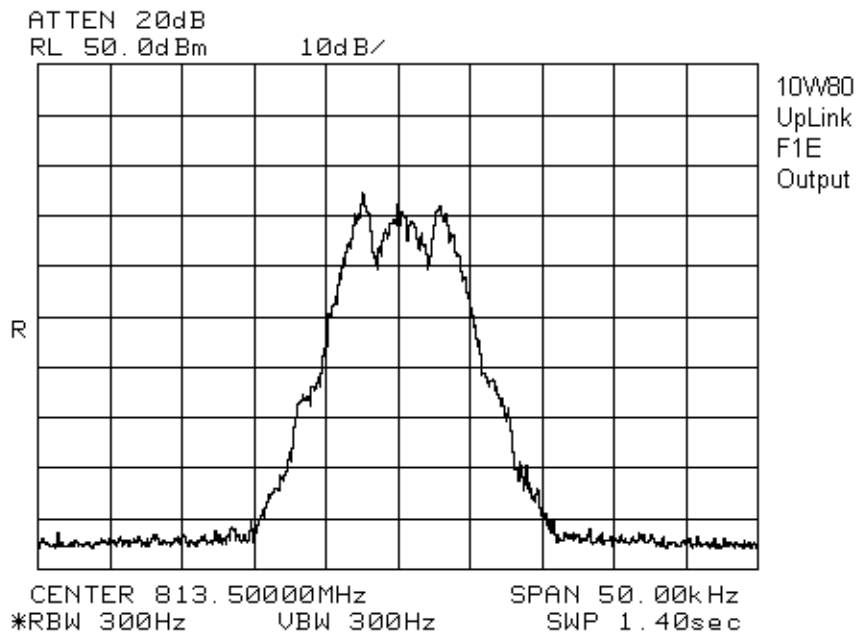
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



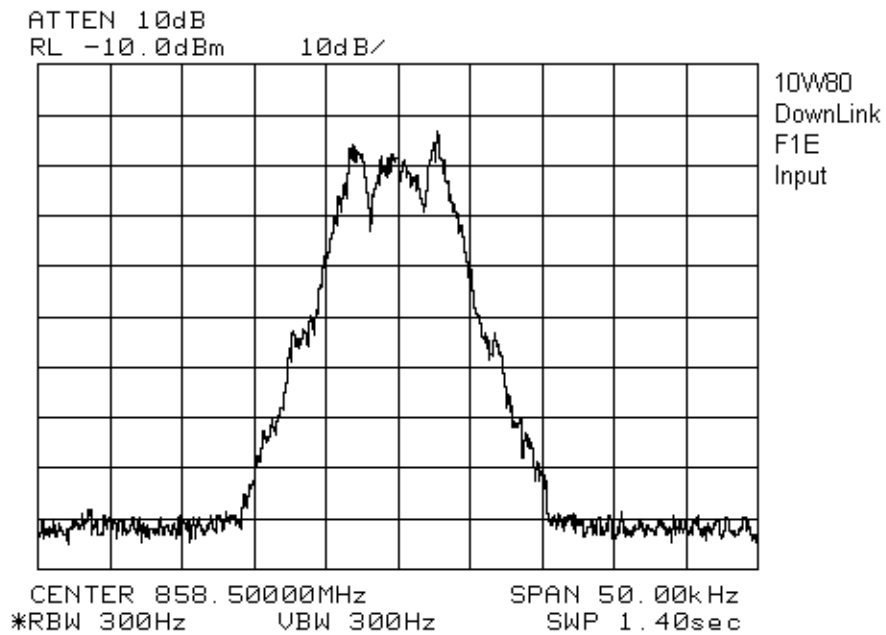
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



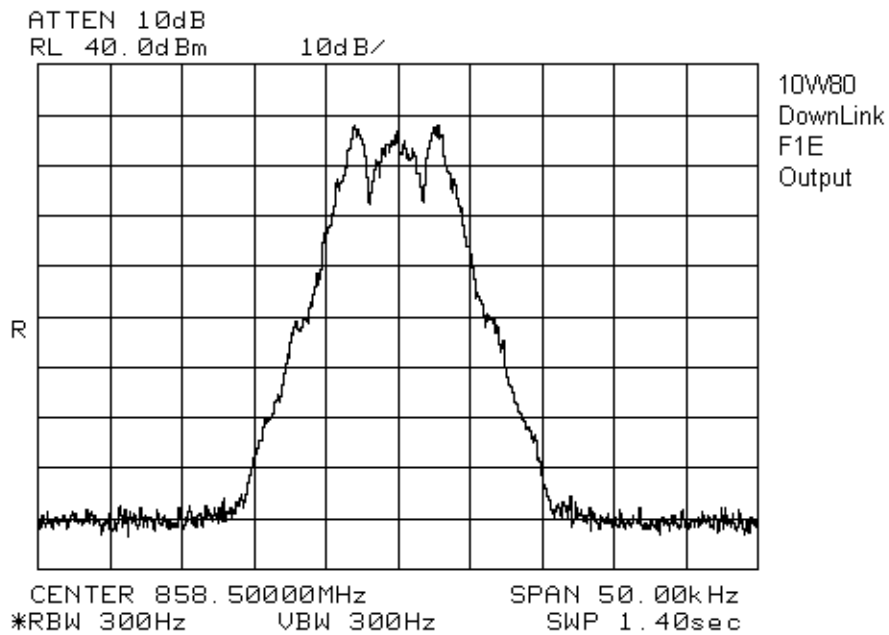
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



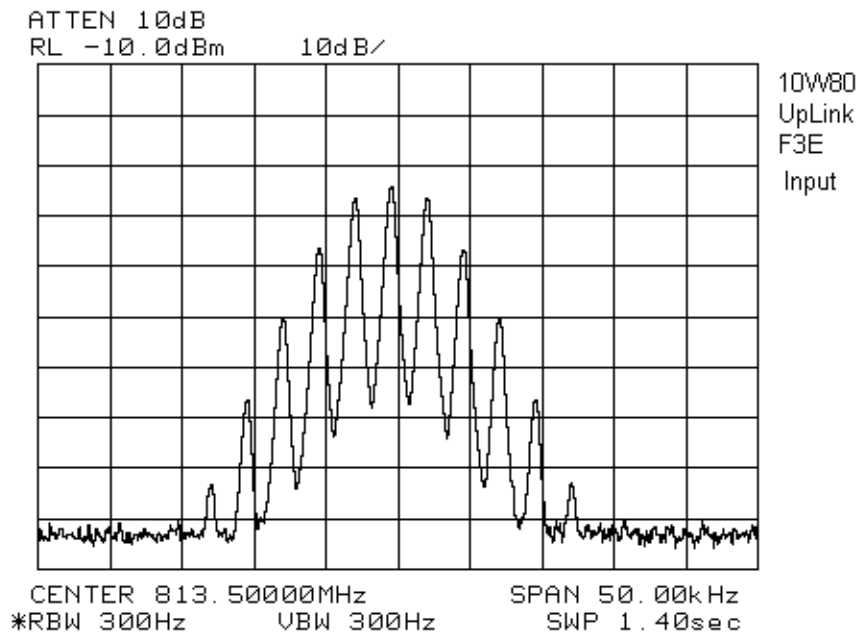
EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



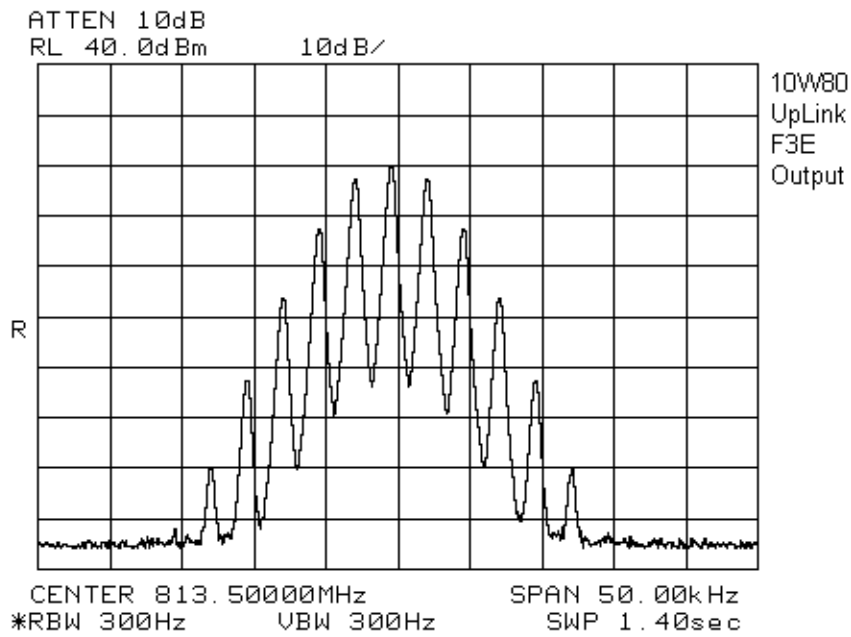
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



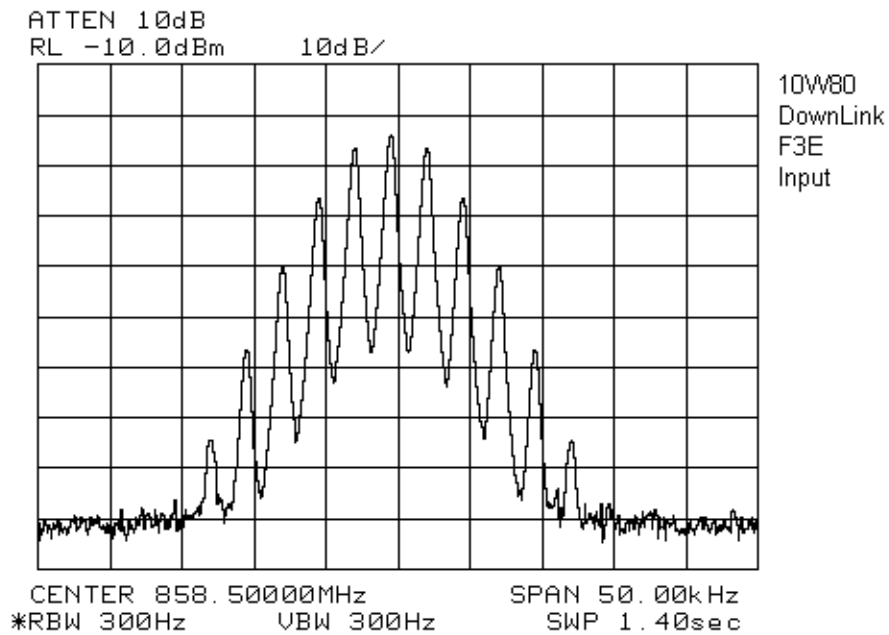
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



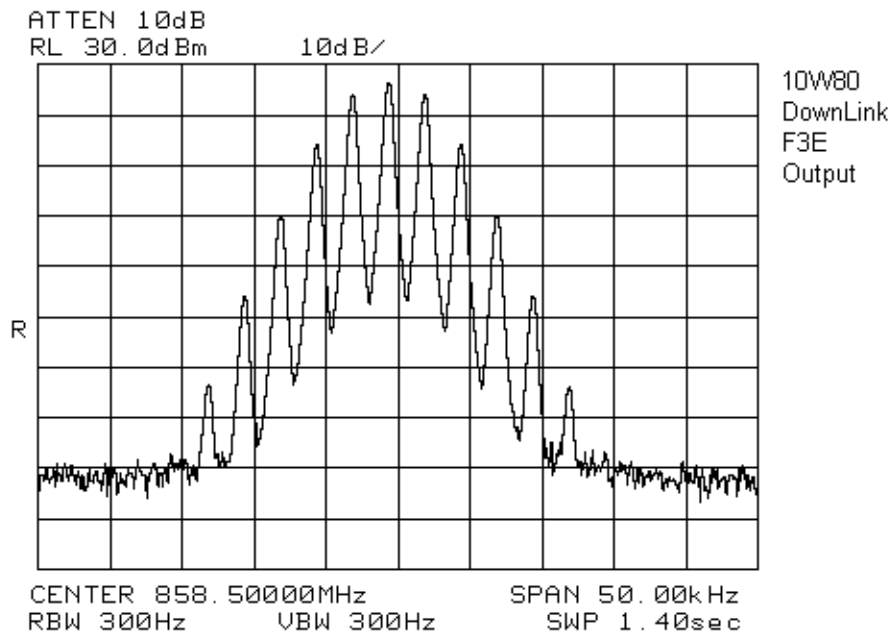
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



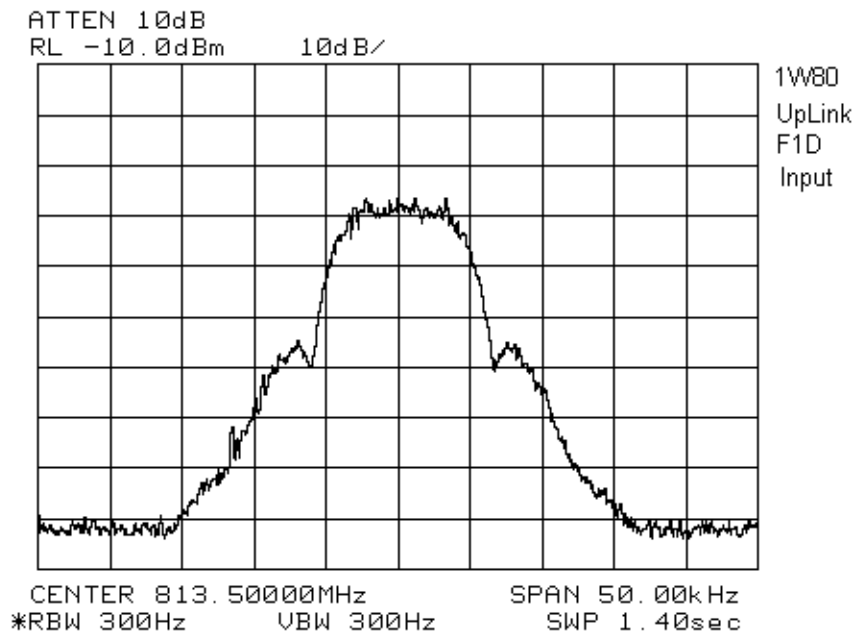
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



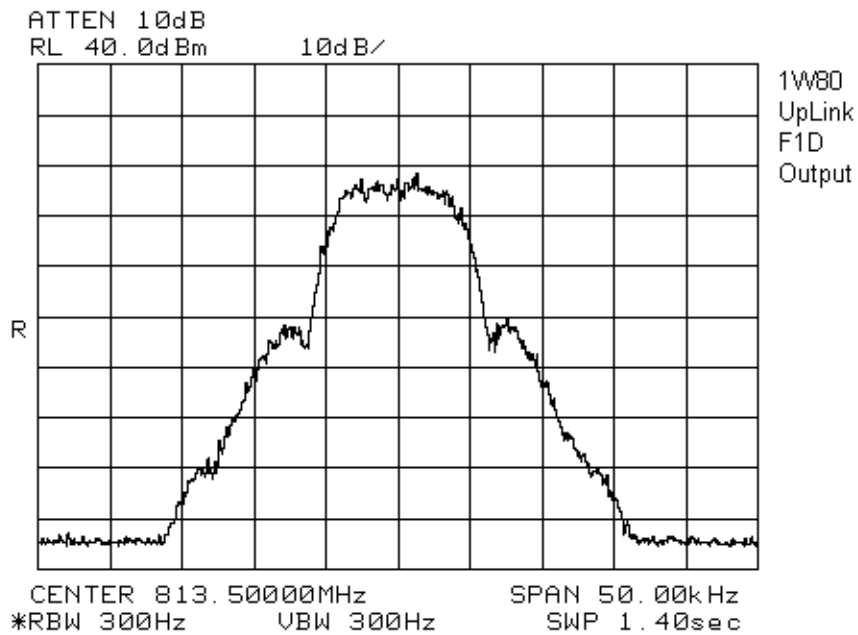
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



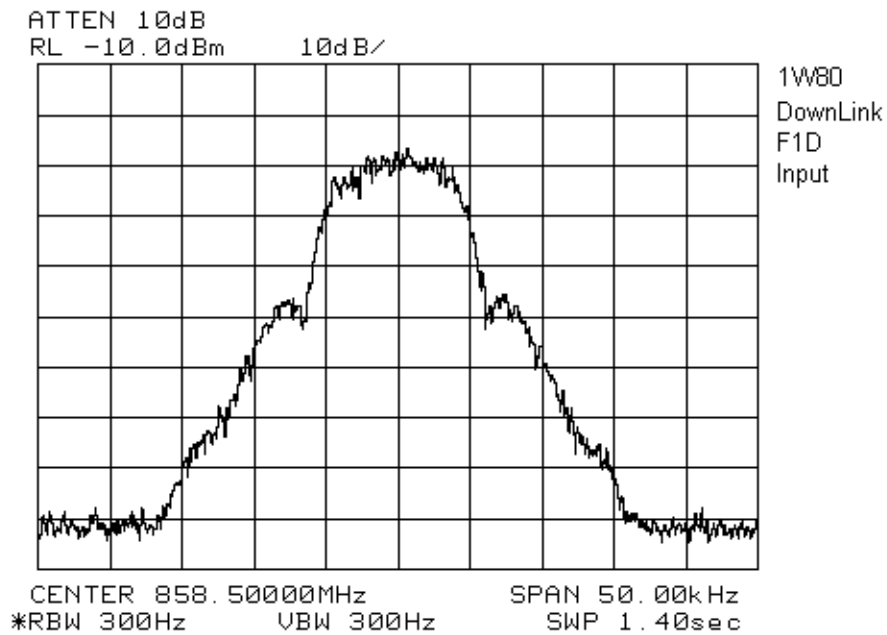
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



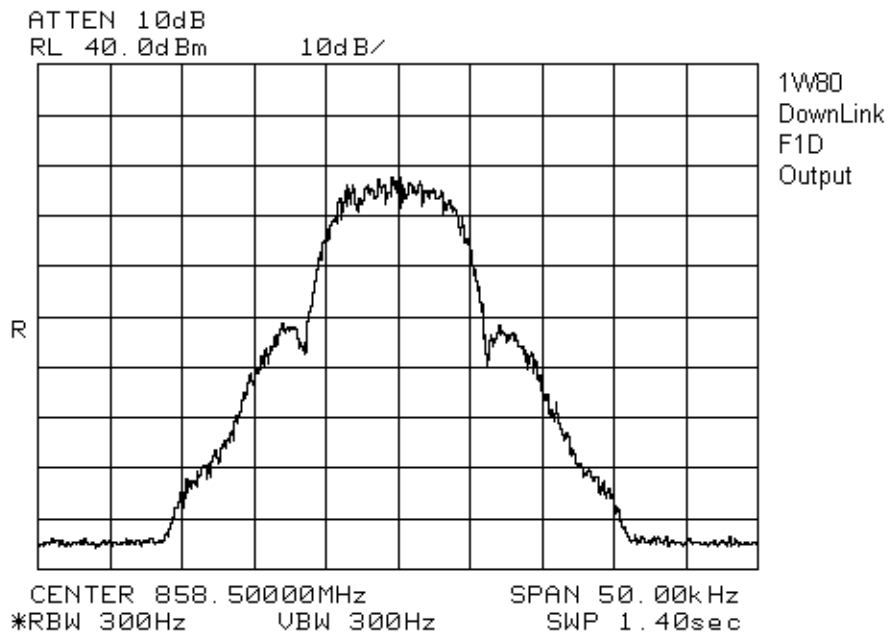
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



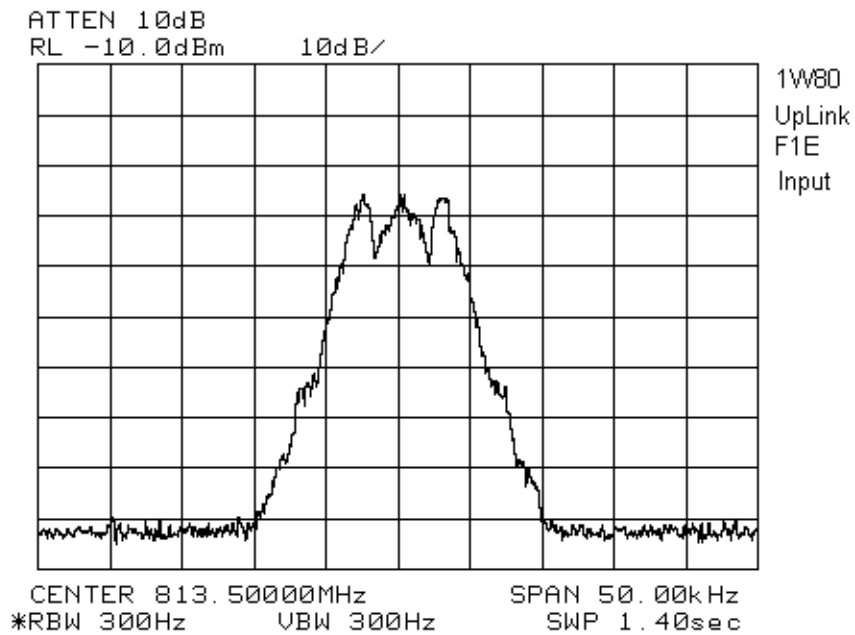
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



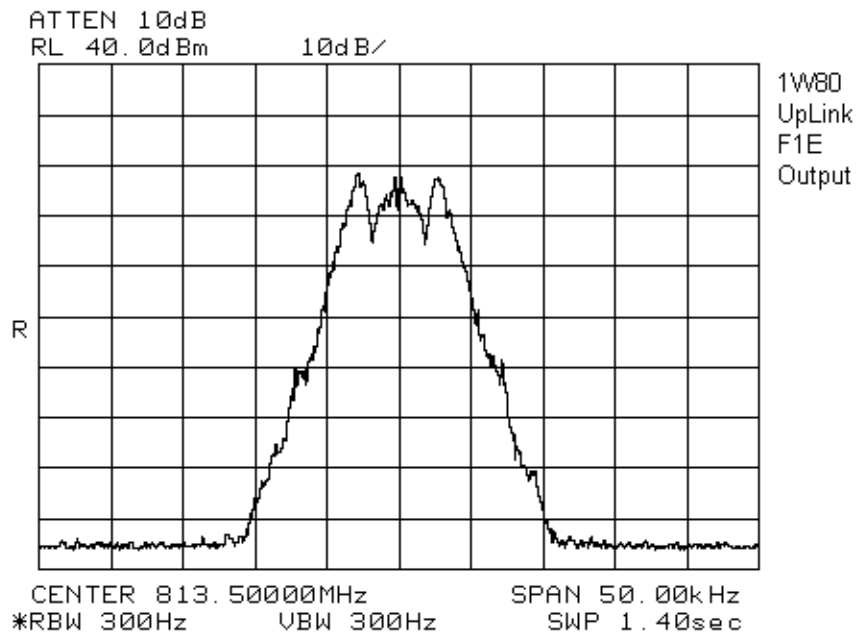
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



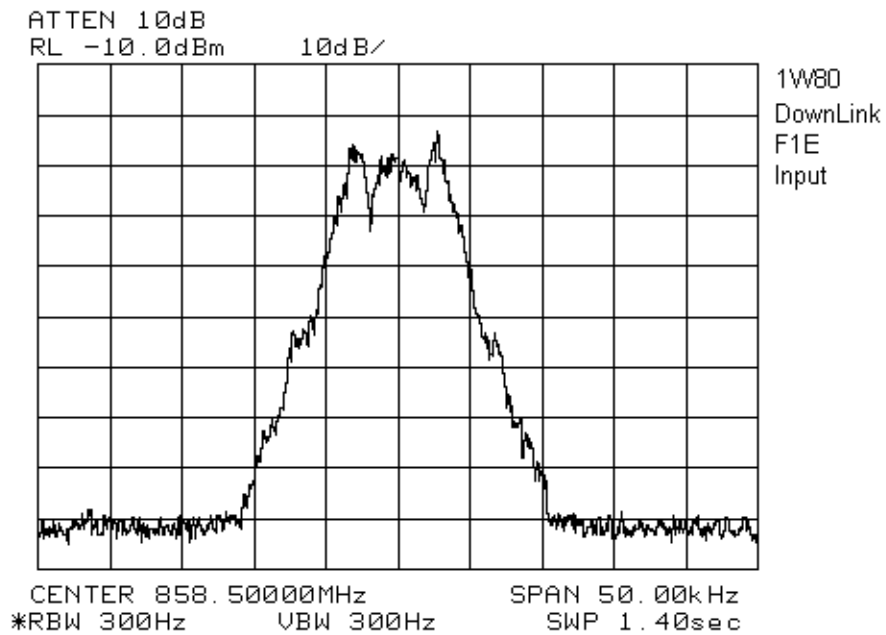
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



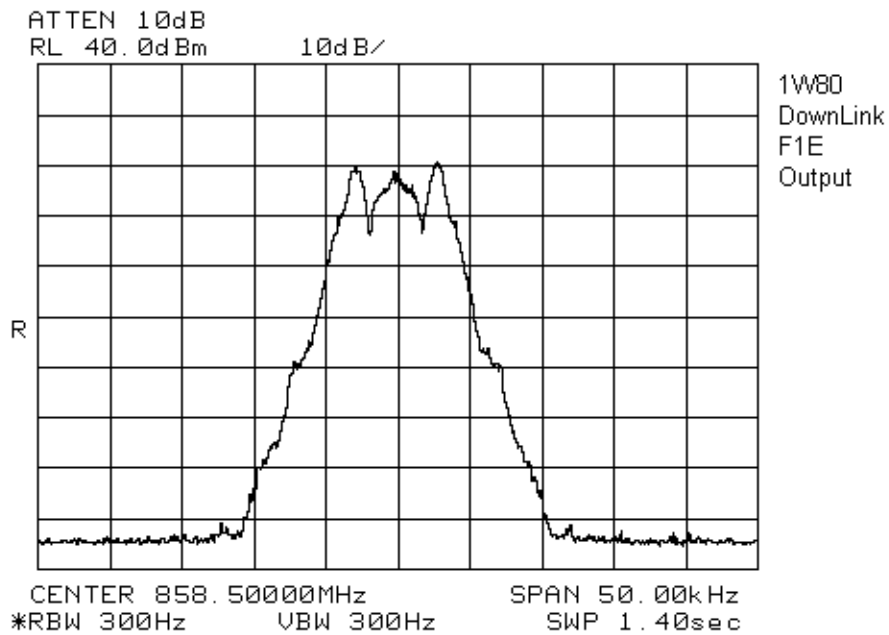
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



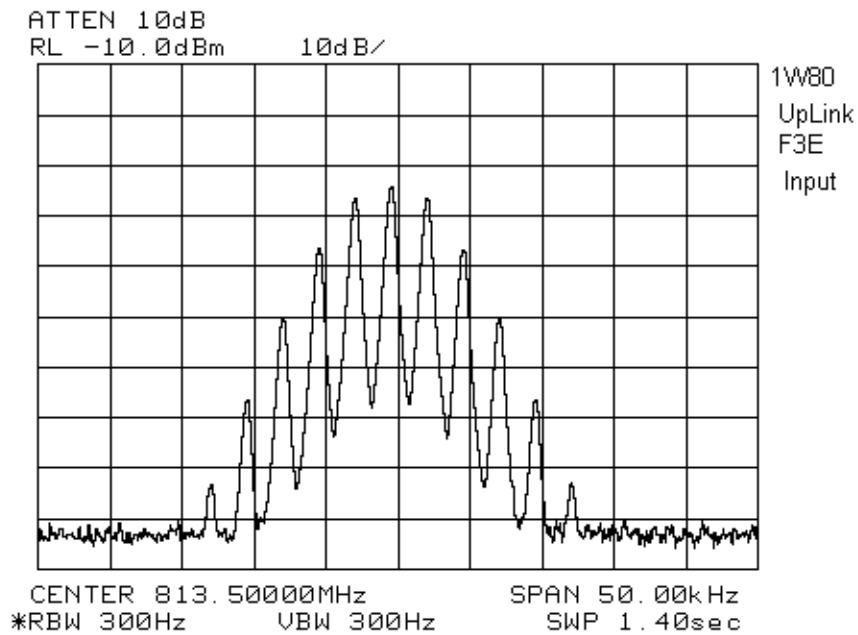
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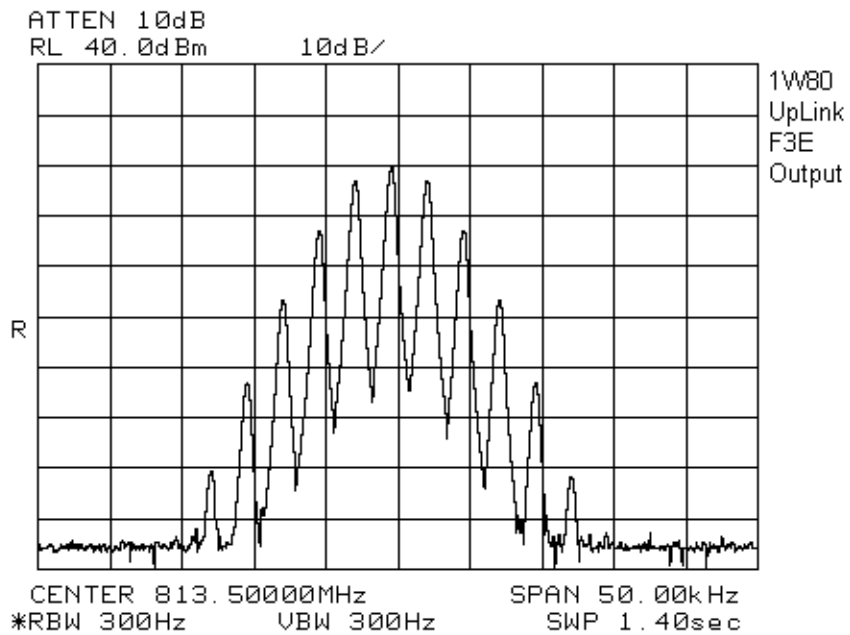
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



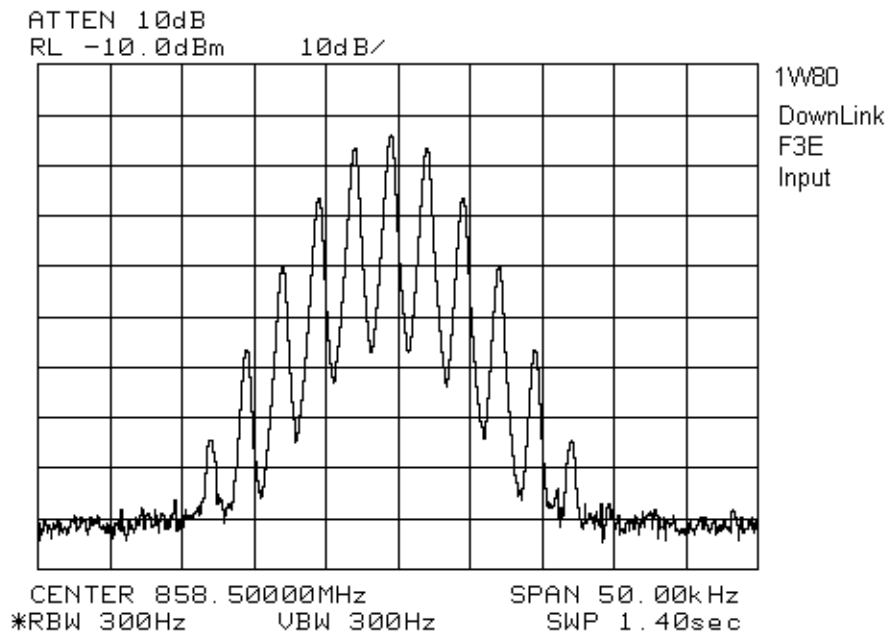
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



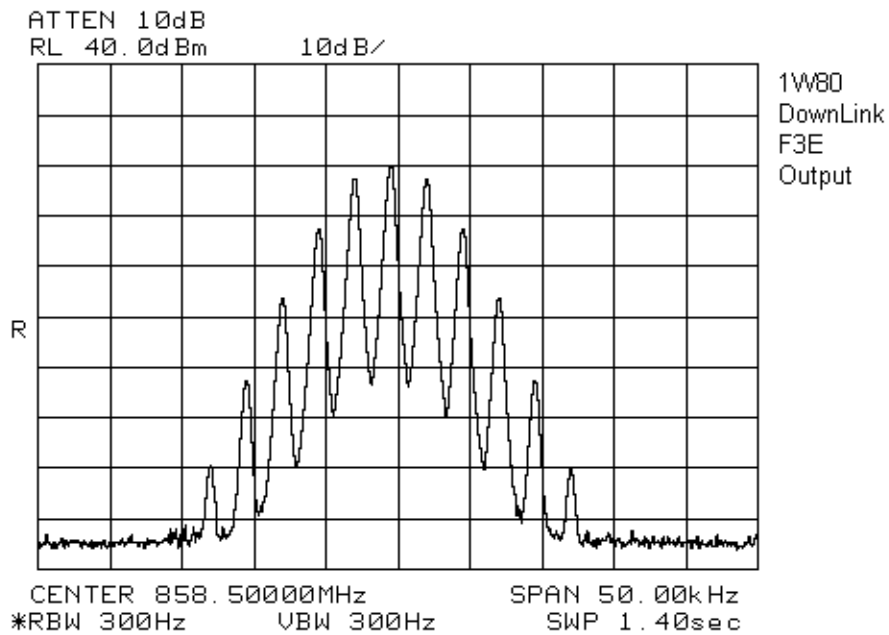
EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A

Section 4. Spurious Emissions at Antenna Terminals

Para. No.: 2.1051

Test Performed By: Glen Westwell	Date of Test: August 30, 2001
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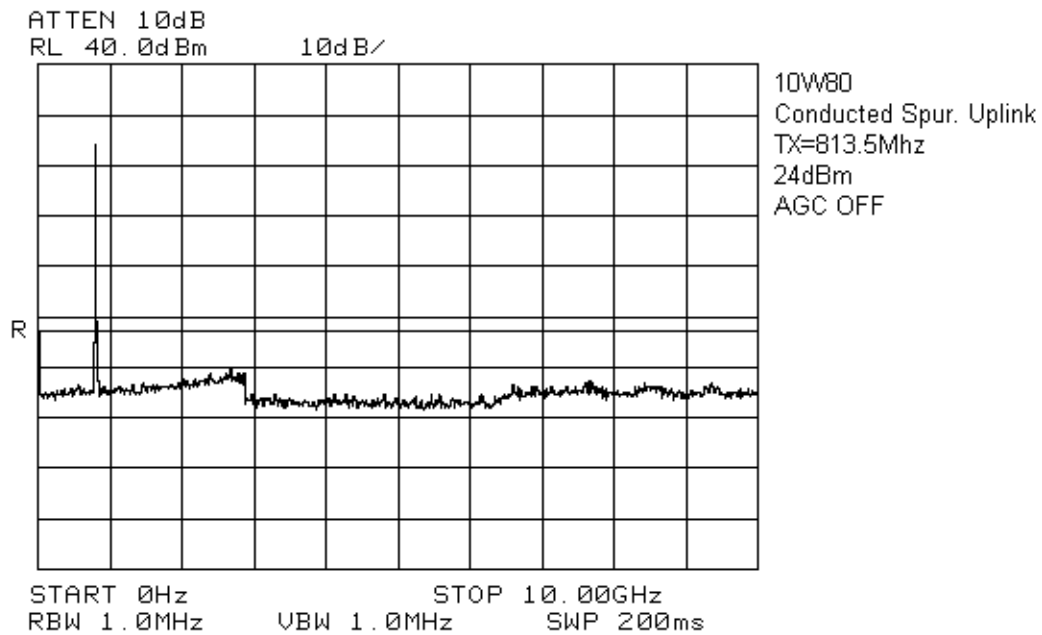
Minimum Standard: -13dBm

Test Results: Complies.

Measurement Data: See attached graphs.

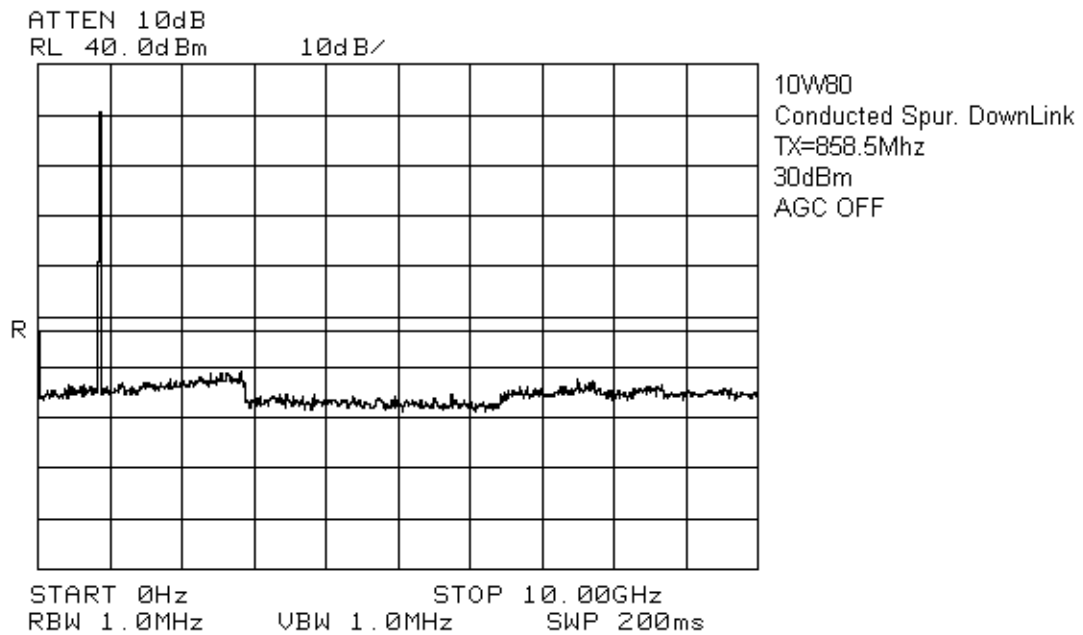
EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



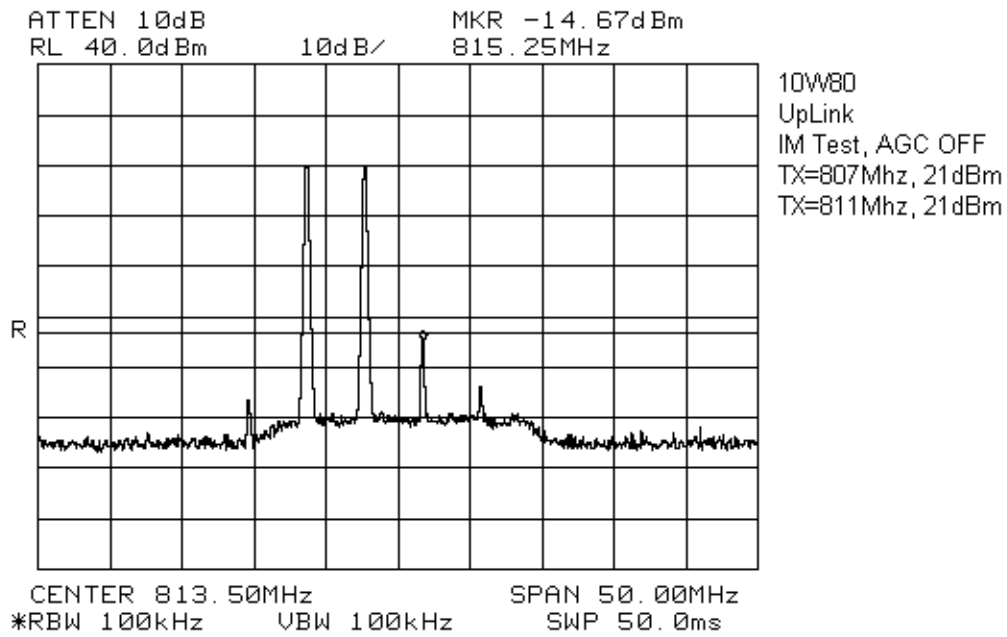
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



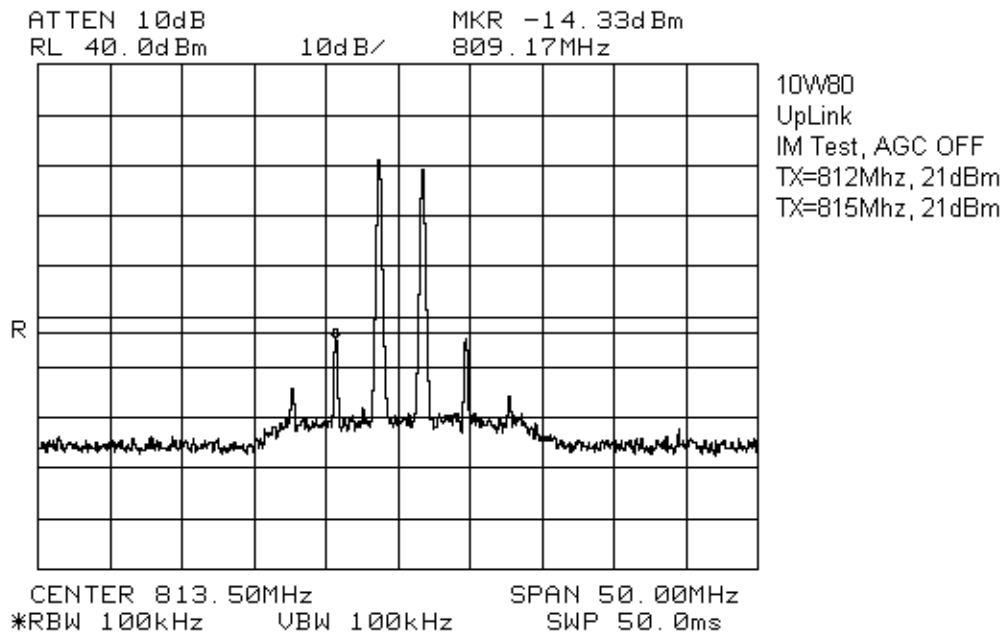
EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



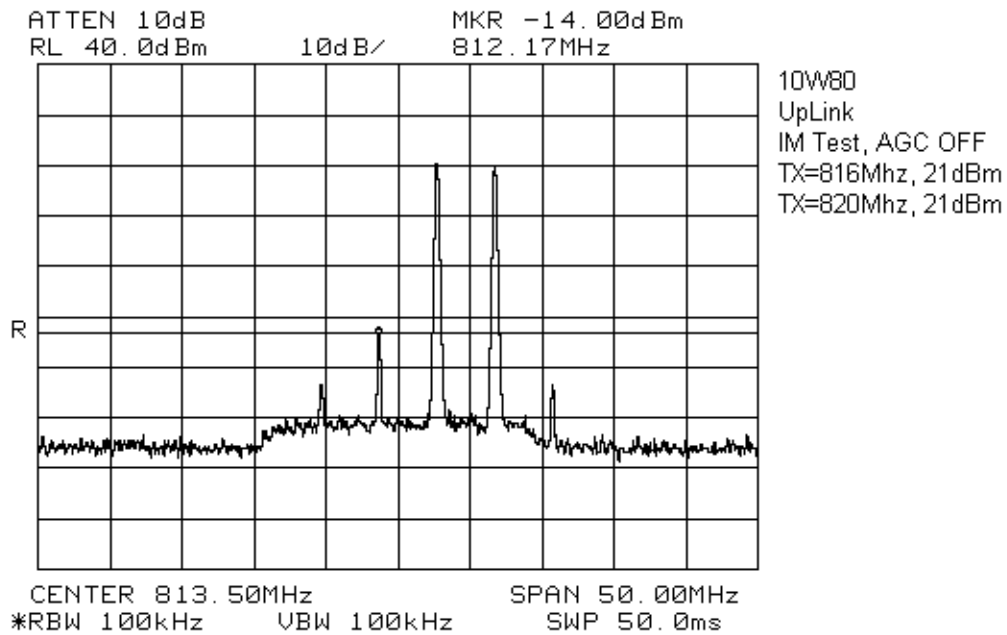
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



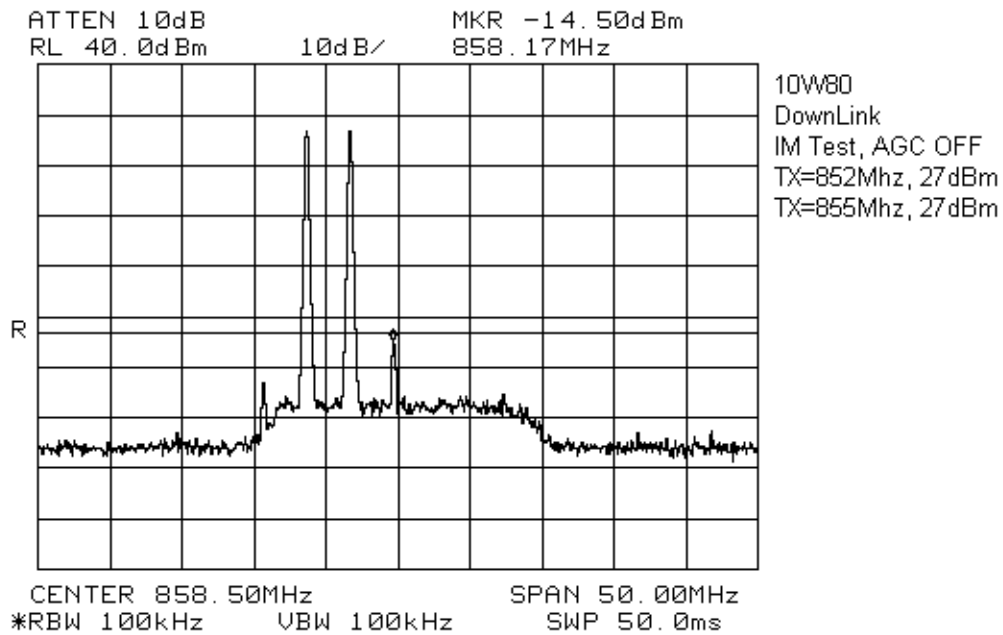
EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



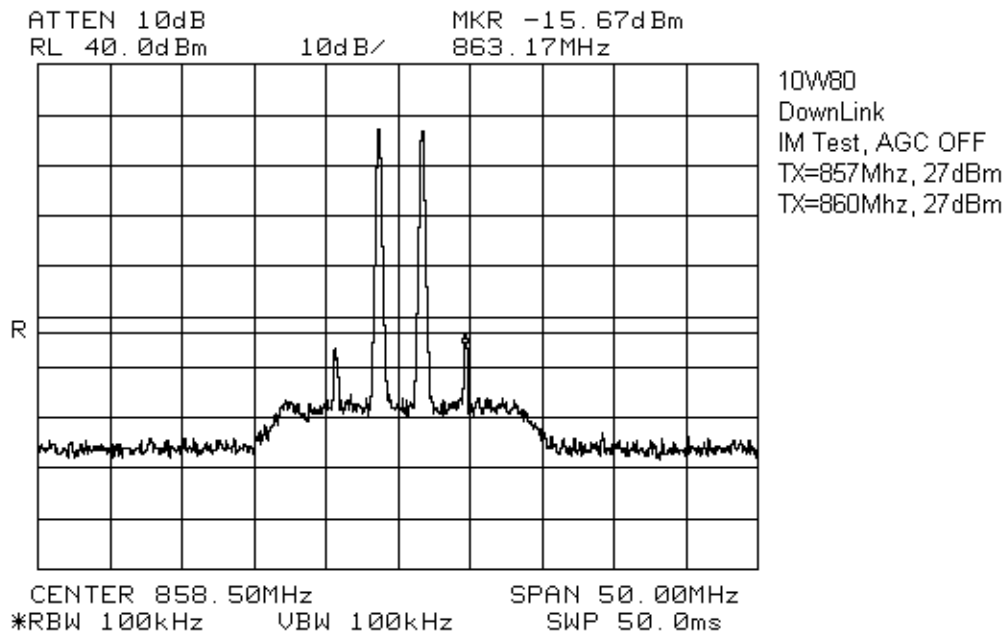
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



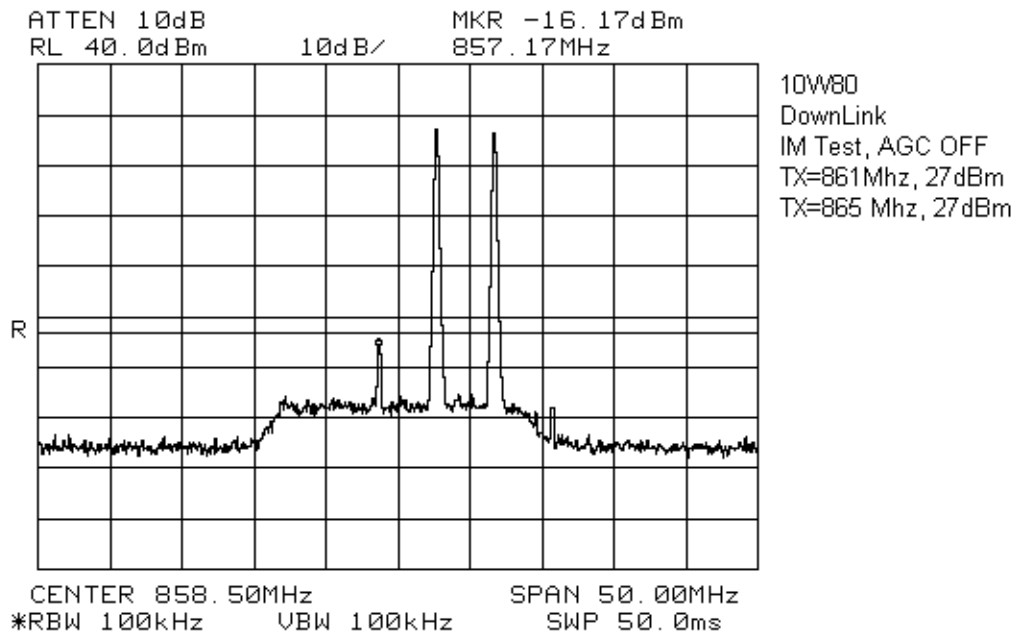
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



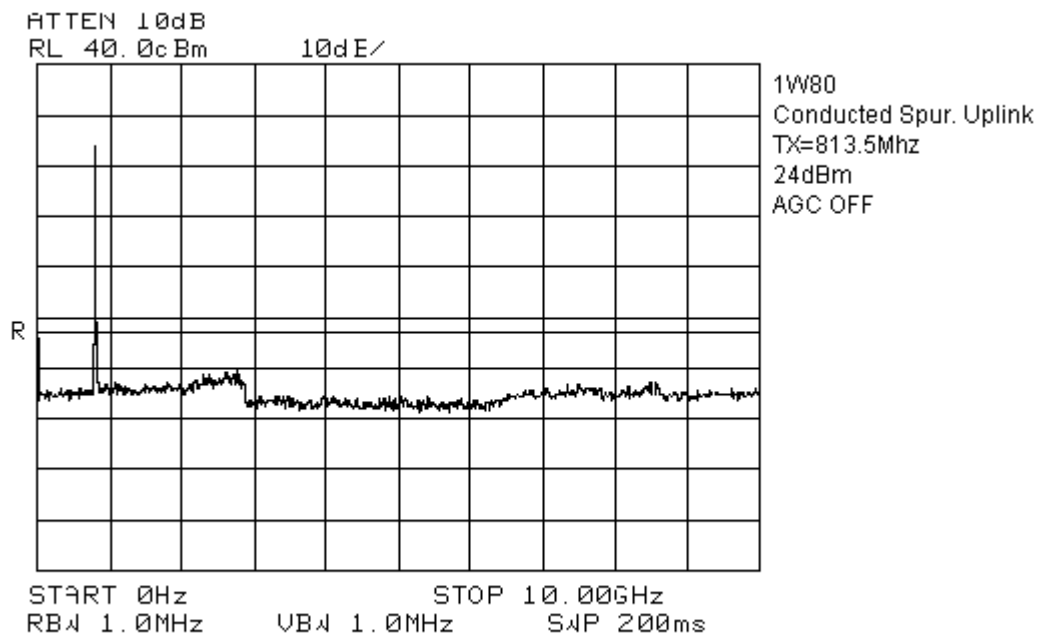
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



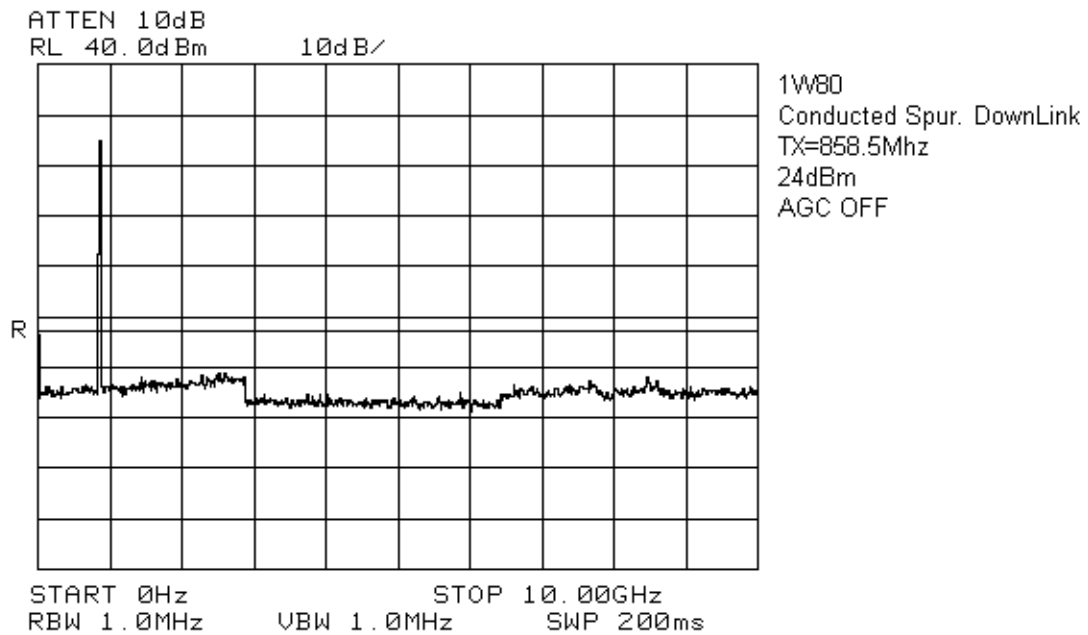
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



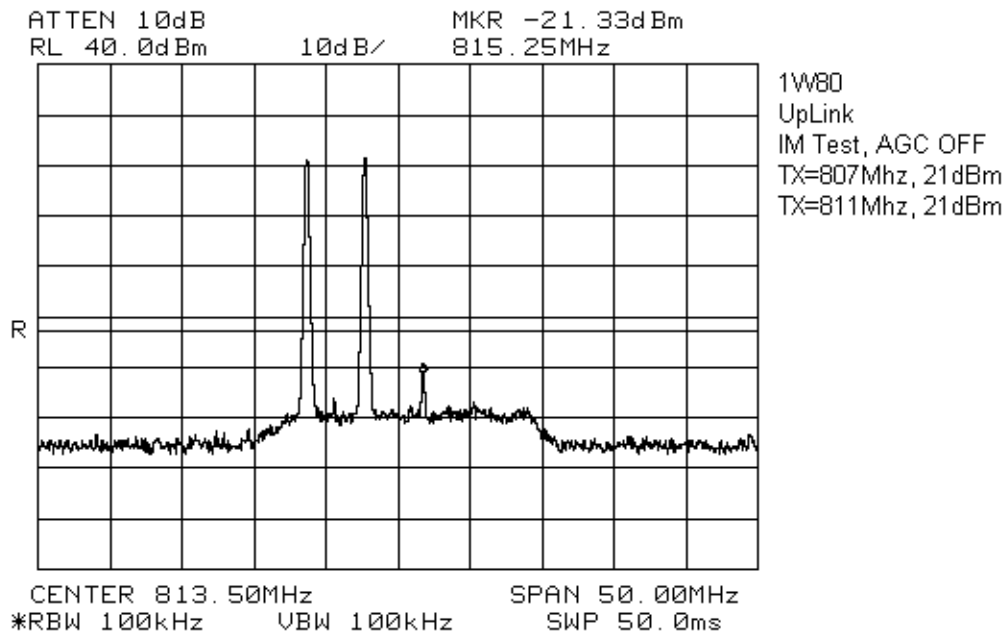
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



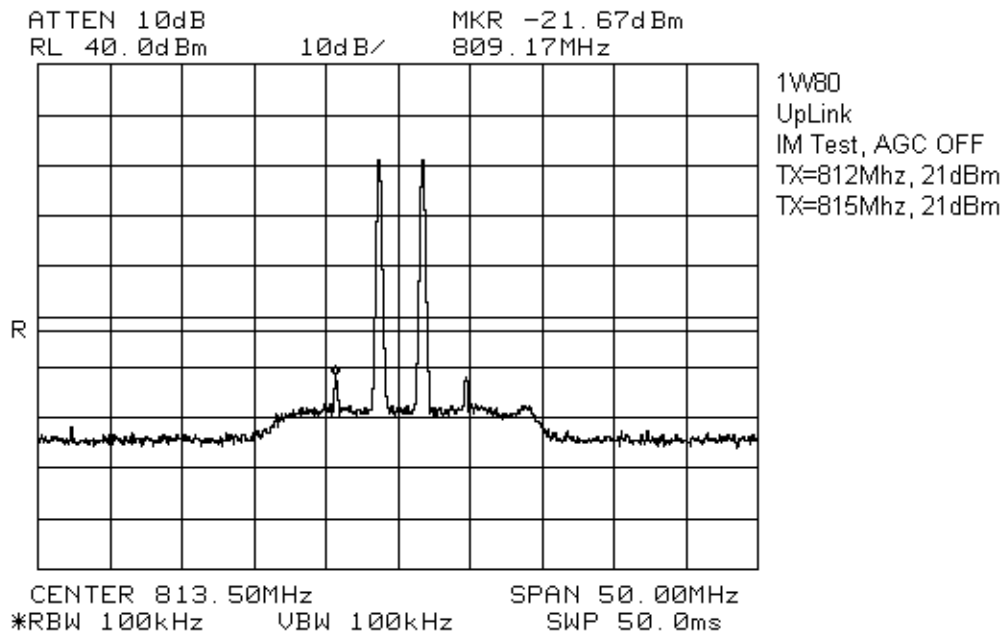
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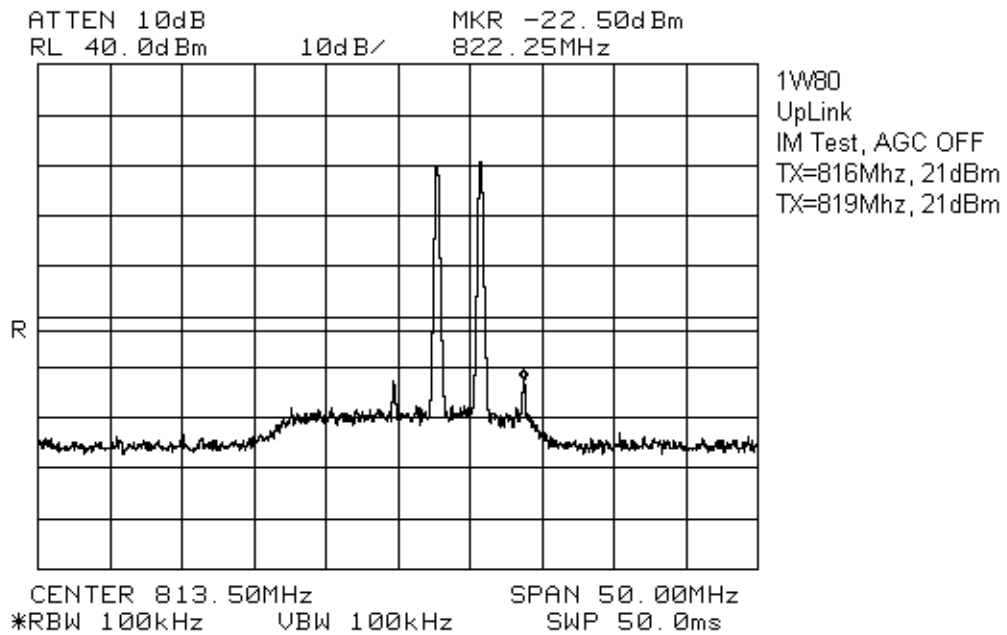
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FCC ID: OIWCBDAESMR10W80 & OIWCBDAESMR1W80A



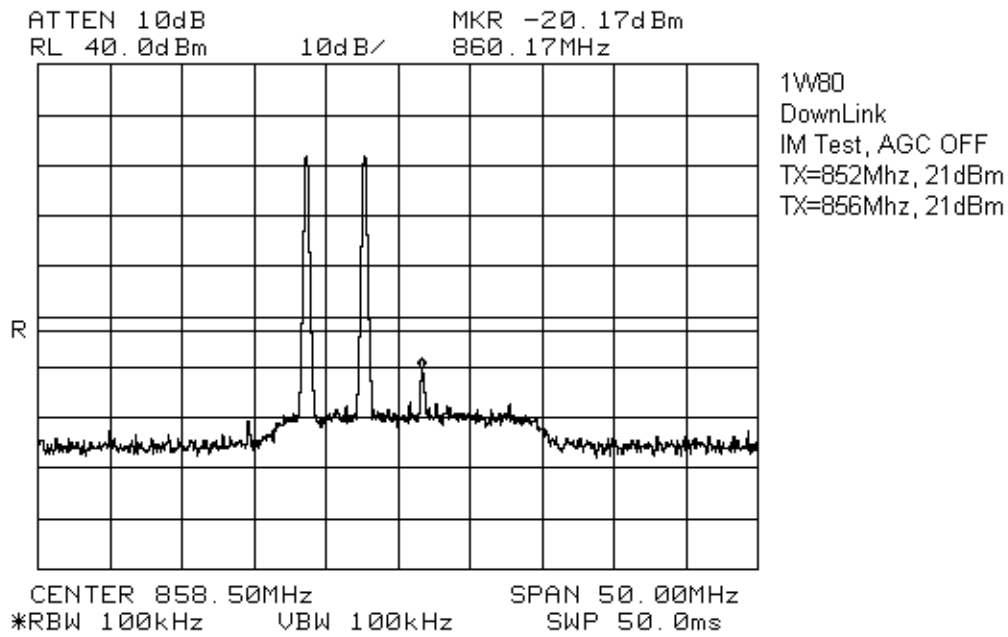
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



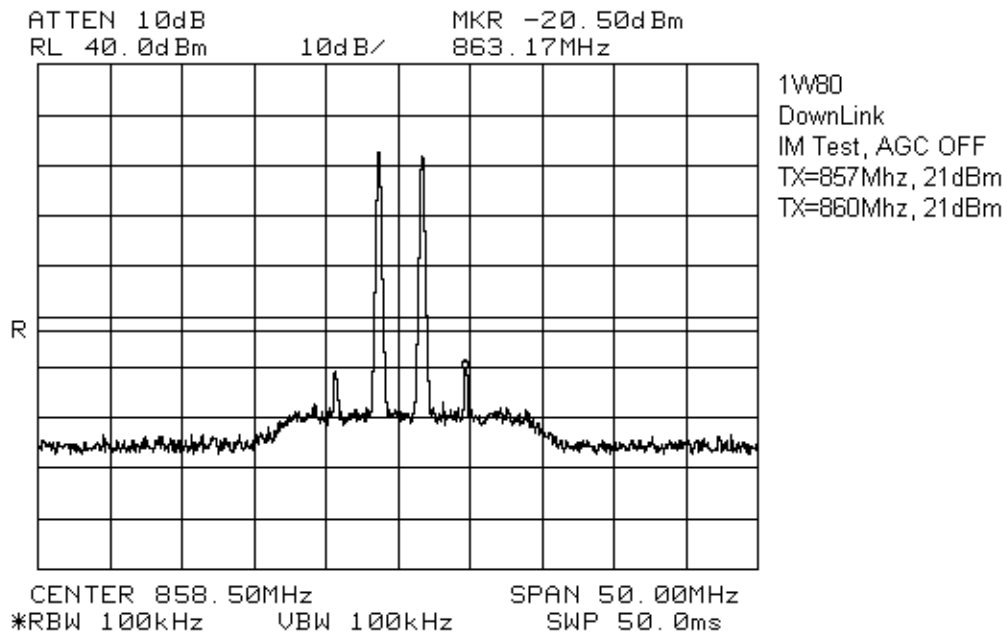
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FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



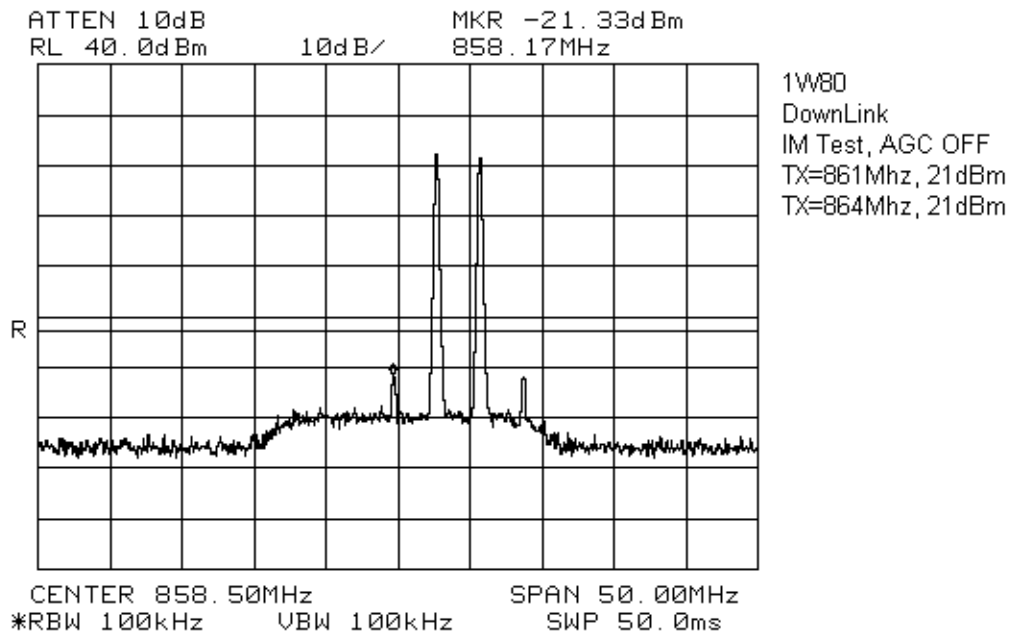
EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A



EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A

Section 5. Field Strength of Spurious Emissions

Para. No.: 2.1053

Test Performed By: Glen Westwell

Date of Test: August 31, 2001

Minimum Standard: -13dBm

Test Results: Complies.

Measurement Data: No emissions detected.

The spectrum for both amplifiers was searched up to the 10th harmonic of the fundamental frequency of operation. No emissions were detected within 20dB of the specification limit.

*EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A**FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A*

Section 6. Test Equipment List

CAL CYCLE	EQUIPMENT	MANUFACTURER	MODEL	SERIAL	LAST CAL.	NEXT CAL.
1 Year	Spectrum Analyzer	Hewlett Packard	8564E	3846A01407	Mar. 2/01	Mar. 2/02
1 Year	Attenuator	Narda	768-10	9707	Aug. 23/99	Aug. 23/00
1 Year	Attenuator	Narda	768-10	9709	Oct. 8/99	Oct. 8/00
1 Year	Attenuator	Narda	769-20	4153	Oct. 1/99	Oct. 1/00
2 Year	RF Millivoltmeter	Rohde & Schwarz	URV5	FA000420	Oct. 6/99	Oct. 6/01
2 Year	Power Sensor	Rohde & Schwarz	URV5-Z5	FA000419	Oct. 6/99	Oct. 6/01
1 Year	Horn Antenna	EMCO #2	3115	4336	Dec. 1/00	Dec. 1/01
3 Year	Signal Generator	Rohde & Schwarz	SM1Q03	DE22004	Sept. 18/00	Sept. 18/03
3 Year	Standard Gain Horn	Electro-Metrics	SH-50/60-1	FA000479	July 7/00	July 7/01
3 Year	RF Generator	Rohde & Schwarz	SIMI03E	DE24154	Oct. 4/99	Oct. 4/01

NA: Not Applicable
NCR: No Cal Required
COU: CAL On Use

EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A

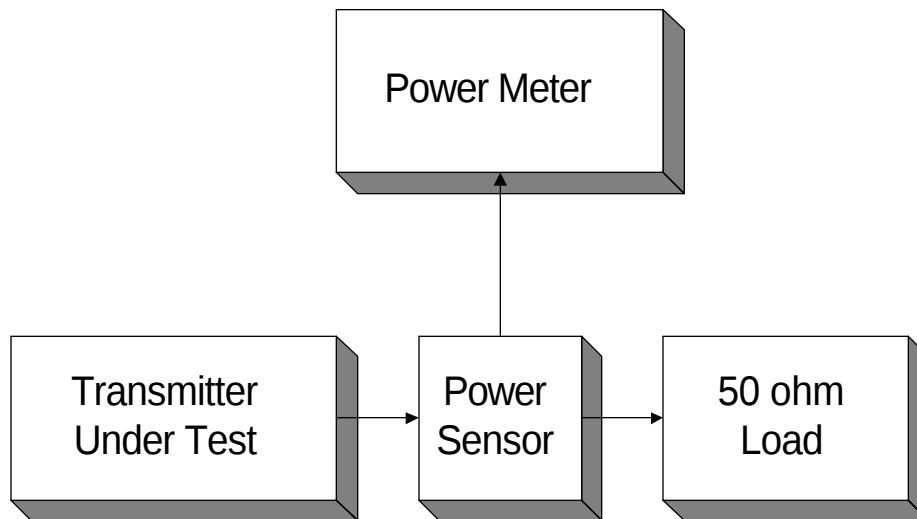
FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A

Annex A

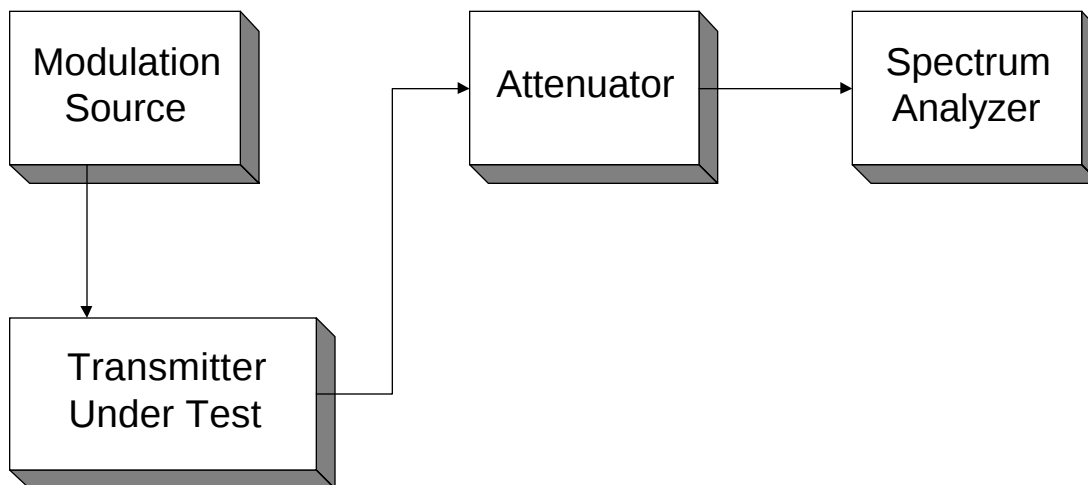
Test Diagrams

EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A
FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A

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

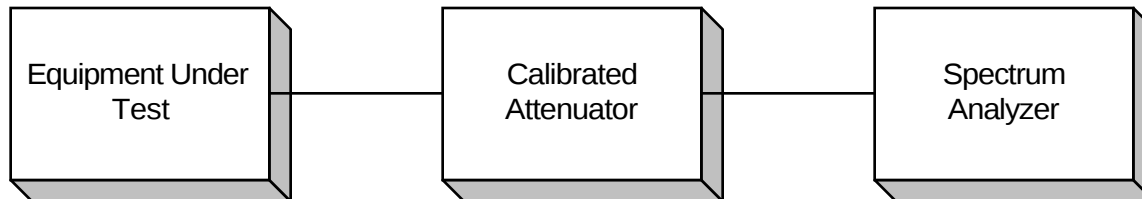


Para. No. 2.1049 - Occupied Bandwidth



EQUIPMENT: MW-CBDA-ESMR-10W80A & MW-CBDA-ESMR-1W80A
FCC ID: OIWCBD AESMR10W80 & OIWCBD AESMR1W80A

Para. No. 2.1051 - Spurious Emissions at Antenna Terminals



Para. No. 2.1053 - Field Strength of Spurious Radiation

