



Test Report: 3W07344

Applicant: Dekolink Wireless Ltd.
16 Bazel St. Qiryat-Arieh
Petah-Tikva, 49510
Israel

**Equipment Under Test:
(EUT)** MW-CBDA-800A-1W60-PG2
Bi-Directional Amplifier

FCC ID: OIWCBDA PG21W60

In Accordance With: **FCC Part 90**

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

Authorized By: 
Kevin Carr, EMC Specialist

Date: 27 October 2003

Total Number of Pages: 18

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EQUIPMENT: MW-CBDA-800A-1W60-PG2

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, Subpart I & S.



New Submission



Production Unit



Class II Permissive Change



Pre-Production Unit



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".



TESTED BY: _____ DATE: 24 October 2003
Glen Westwell, Wireless Technologist

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This report applies only to the items tested.

EQUIPMENT: MW-CBDA-800A-1W60-PG2

Summary Of Test Data

Name Of Test	Para. No.	Result
RF Power Output	2.1046	Complies
Occupied Bandwidth	2.1049	Complies
Spurious Emissions at Antenna Terminals	2.1051	Complies
Field Strength of Spurious Emissions	2.1053	Complies
Frequency Stability	2.1055	N/A

Footnotes For N/A's:

All Tests were conducted with the AGC circuitry enabled, and verified with AGC disabled.
The EUT is an f1-f1 amplifier, as such frequency stability was not performed.

Deviation

A QAM signal was substituted for IDen Modulation

Indoor Temperature: 23°C
 Humidity: 15%

Outdoor Temperature: 7°C
 Humidity: 80%

EQUIPMENT: MW-CBDA-800A-1W60-PG2

Section 2. General Equipment Specification

Manufacturer:	Dekolink Wireless Ltd.
Model No.	MW-CBDA-800A-1W60-PG2
Serial No:	03063977
Date Received In Laboratory:	15 Oct 2003
Nemko Identification No.:	#1
Supply Voltage:	120VAC, 60Hz
Frequency Range:	Downlink: 929-942MHz Uplink: 898-904 MHz
RF Output Power (Rated):	Downlink: 27.0dBm Uplink: 27.0dBm
Modulation:	iDen
Emission Designator:	G7W

EQUIPMENT: MW-CBDA-800A-1W60-PG2

Section 3. RF Power Output**Para. No.: 2.1046**

Test Performed By: Glen Westwell	Date of Test: 17 Oct 2003
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Minimum Standard: Para. No. 90.205(a).**Test Results:** Complied.

The maximum RF output power is within ± 1 dB of the manufacturer's rating. The RF output power is de-rated according to the number of channels via AGC and is equal to $P_{max} - 10\log N$.

 P_{max} = Maximum RF Output Power

N = Number Of Channels

Frequency (MHz)	Measured Power (dBm)	Rated Power (dBm)
898	26.6	27.0
901	27.4	27.0
904	27.1	27.0
929	26.5	27.0
935	27.3	27.0
942	27.1	27.0

EQUIPMENT: MW-CBDA-800A-1W60-PG2

Section 4. Occupied Bandwidth

Para. No.: 2.1049

Test Performed By: Glen Westwell	Date of Test: 17 Oct 2003
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Minimum Standard: Para. No. 90.210

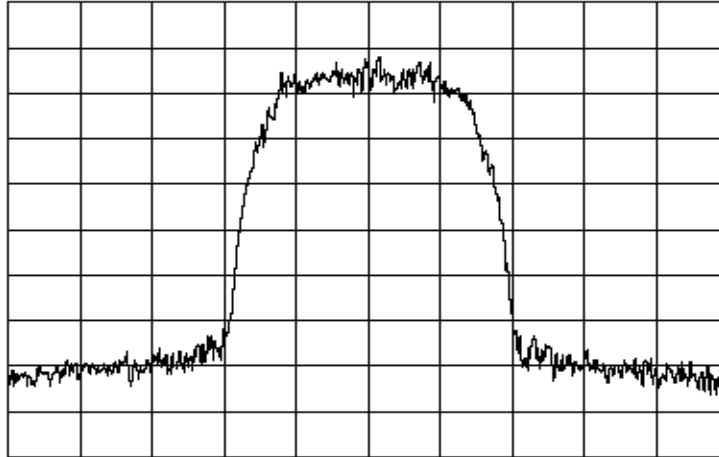
Test Results: Complied.

Measurement Data: See attached graphs.

The occupied bandwidth was measured by comparison of input to the output signal. This was done in order to determine if there was any degradation to the output signal due to the amplification through the repeater.

EQUIPMENT: MW-CBDA-800A-1W60-PG2

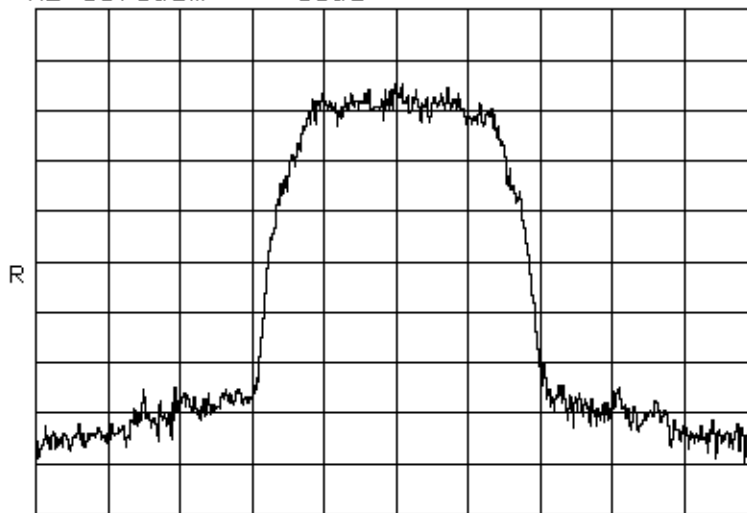
ATTEN 10dB
RL -20.0dBm 10dB/



iDen, Input Reference Signal

CENTER 901.00000MHz SPAN 50.00kHz
RBW 300Hz VBW 300Hz SWP 1.40sec

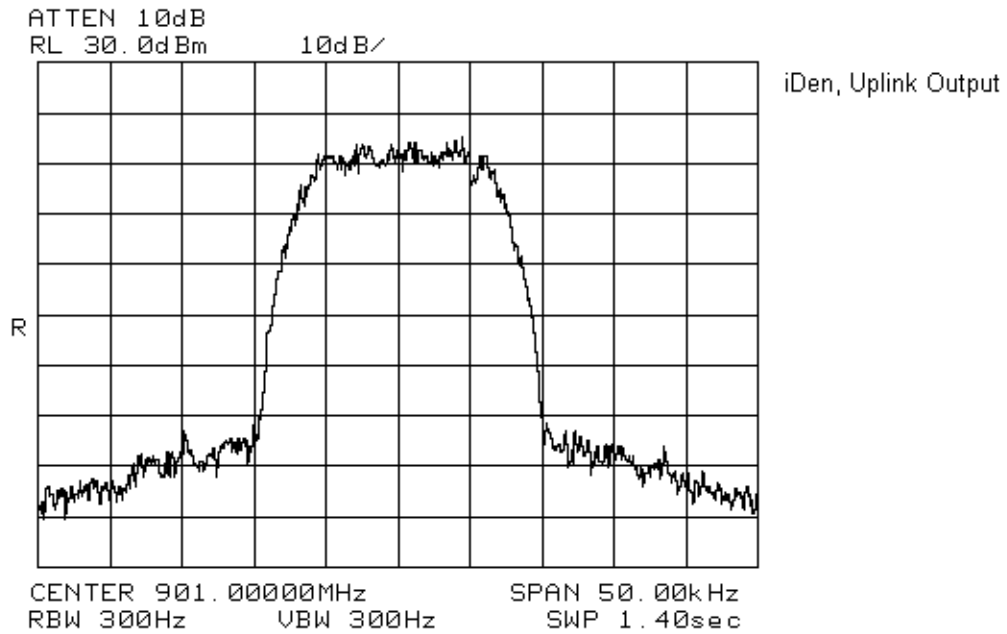
ATTEN 10dB
RL 30.0dBm 10dB/



iDen, Downlink Output

CENTER 935.00000MHz SPAN 50.00kHz
RBW 300Hz VBW 300Hz SWP 1.40sec

EQUIPMENT: MW-CBDA-800A-1W60-PG2



EQUIPMENT: MW-CBDA-800A-1W60-PG2

Section 5. Spurious Emissions at Antenna Terminals

Para. No.: 2.1051

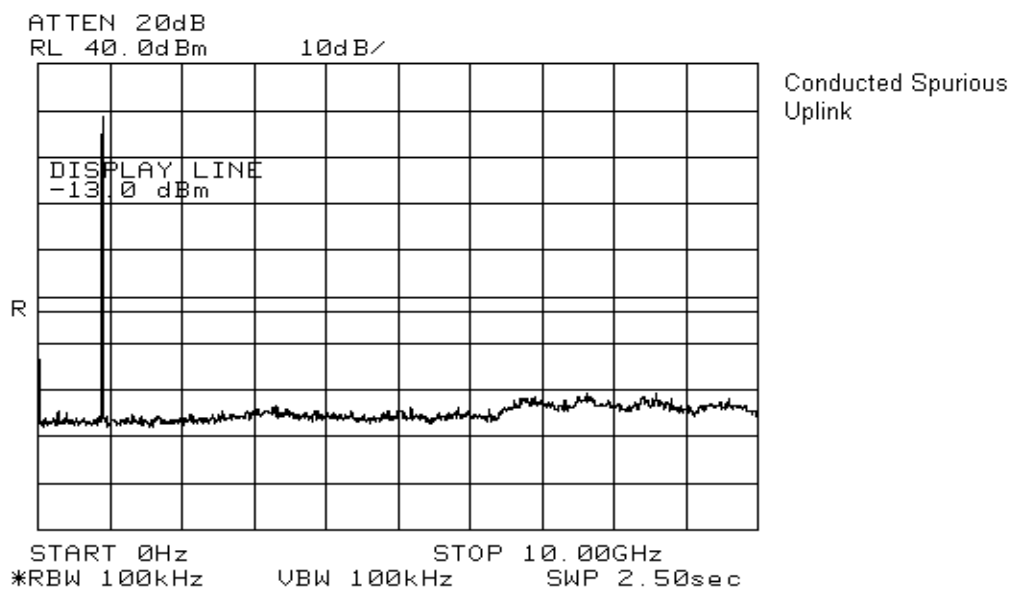
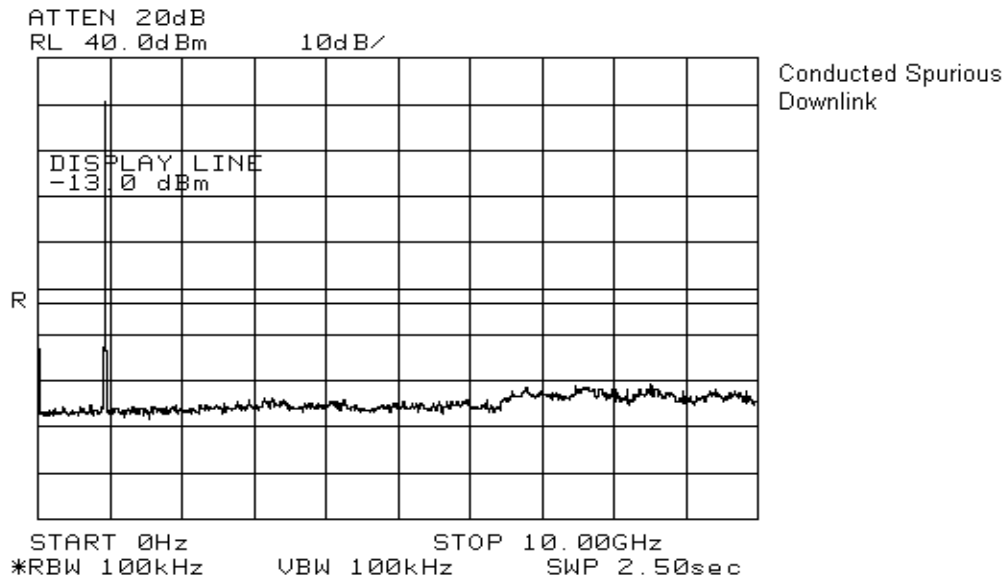
Test Performed By: Glen Westwell	Date of Test: 17 Oct 2003
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Minimum Standard: -13 dBm

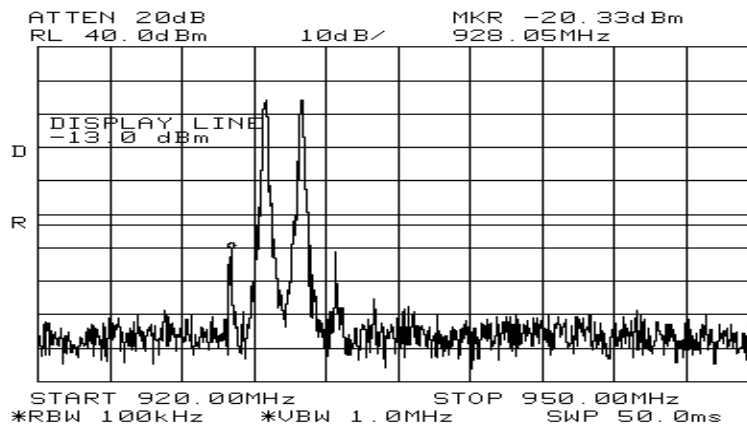
Test Results: Complied.

Measurement Data: See attached graph(s).

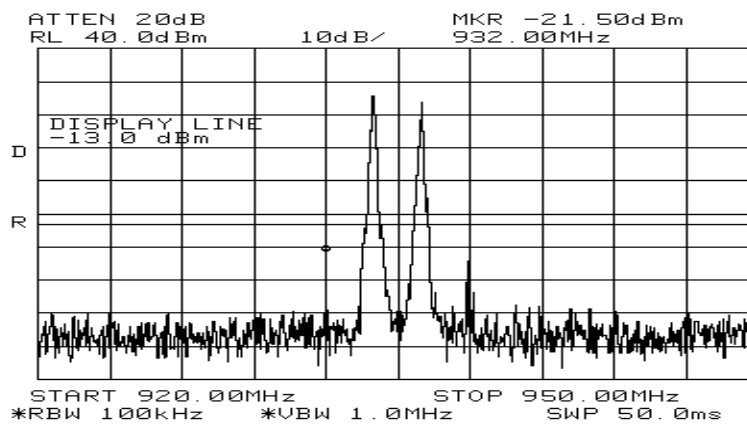
EQUIPMENT: MW-CBDA-800A-1W60-PG2



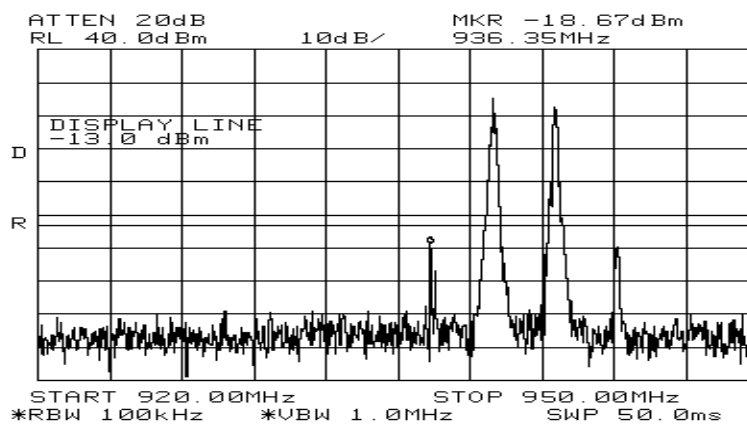
EQUIPMENT: MW-CBDA-800A-1W60-PG2



iDen, Downlink
+27dBm Composite Power

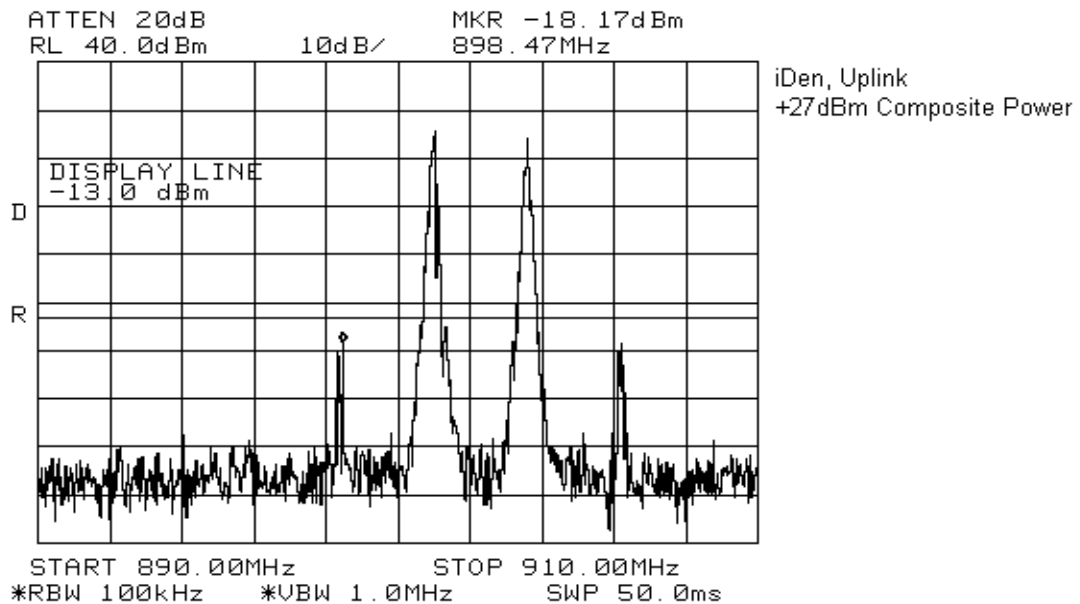
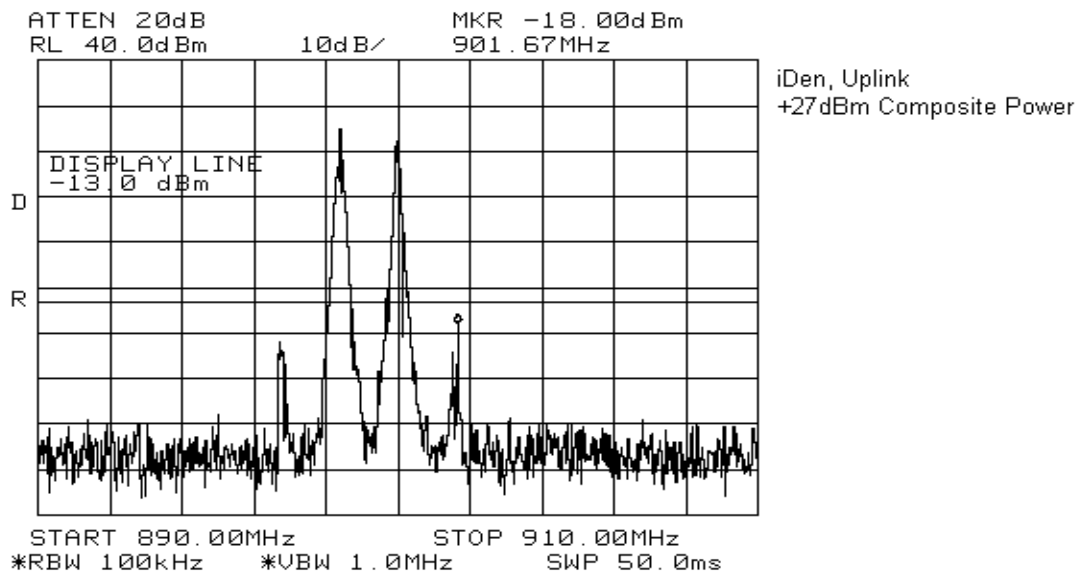


iDen, Downlink
+27dBm Composite Power



iDen, Downlink
+27dBm Composite Power

EQUIPMENT: MW-CBDA-800A-1W60-PG2



EQUIPMENT: MW-CBDA-800A-1W60-PG2

Section 6. Field Strength of Spurious Emissions

Para. No.: 2.1053

Test Performed By: Glen Westwell	Date of Test: 20 Oct 2003
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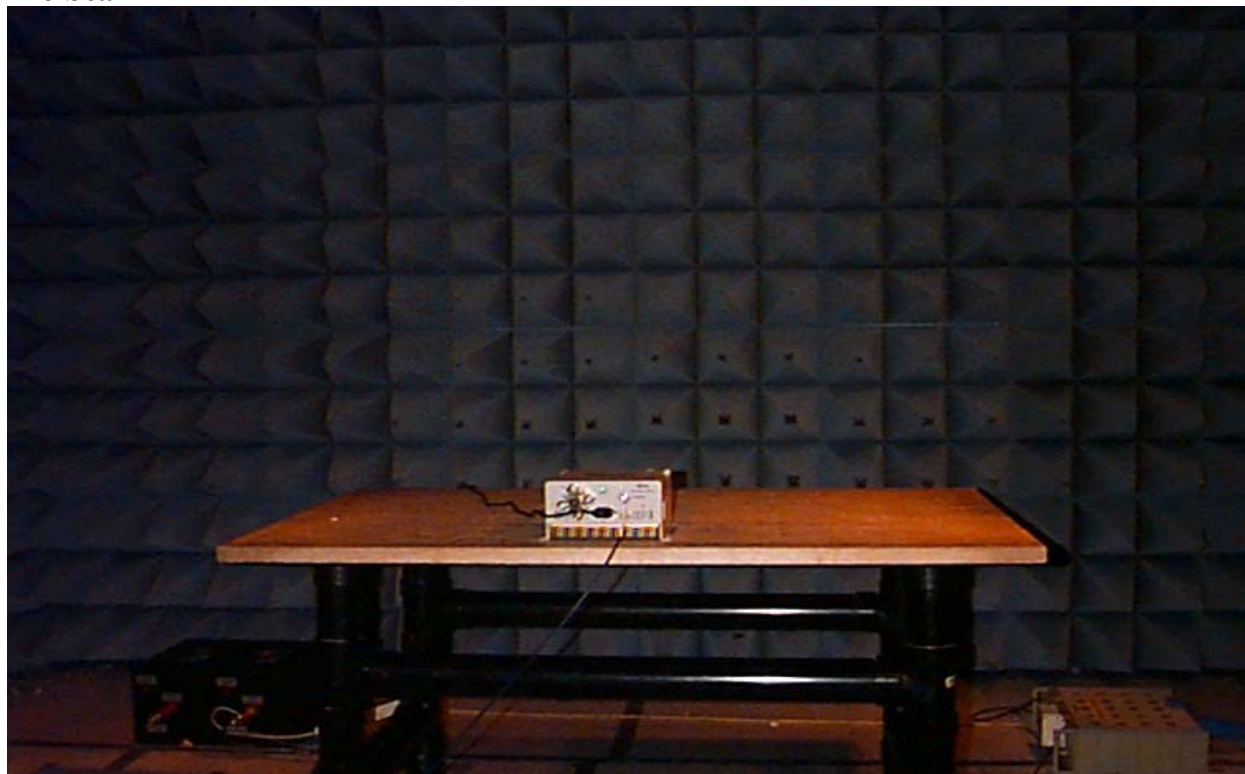
Minimum Standard: Para. No. 90.210

Test Results: Complied.
 No emissions detected.

Measurement Data: All emissions were searched to the 10th harmonic.

EQUIPMENT: MW-CBDA-800A-1W60-PG2

Photographs of Test Setup
Pre-Scan



OATS



EQUIPMENT: MW-CBDA-800A-1W60-PG2

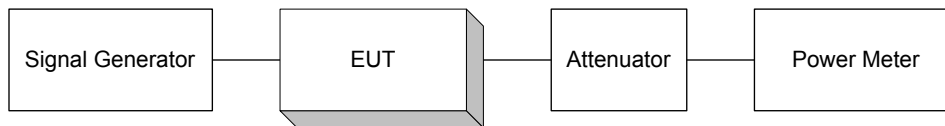
Section 7. Test Equipment List

CAL CYCLE	EQUIPMENT	MANUFACTURER	MODEL	SERIAL	LAST CAL.	NEXT CAL.
1 Year	Spectrum Analyzer	Hewlett Packard	8564E	FA001367	13 May 03	13 May 04
1 Year	Signal Generator	Rhode & Schwarz	SM1Q03E	FA001269	06 Dec 02	06 Dec 03
1 Year	Signal Generator	Rohde & Schwarz	SM1Q03	FA001091	25 Sep 03	25 Sep 04
1 Year	RF Millivoltmeter	Rohde & Schwarz	URV5	FA000420	20 May 03	20 May 04
1 Year	Insertion Unit	Rohde & Schwarz	URV5-Z4	FA000905	10 Apr 03	10 Apr 04
1 Year	Power Sensor	Hewlett Packard	8487A	FA001741	28 Mar 03	28 Mar 04
1 Year	Power Meter	Hewlett Packard	E4418B	FA001413	08 May 03	08 May 04
1 Year	RF AMP	JCA	4-8 GHz	FA001497	18 June 03	18 June 04
1 Year	RF AMP	JCA	2-4 GHz	FA001496	18 June 03	18 June 04
1 Year	RF AMP	JCA	1-2 GHz	FA001498	18 June 03	18 June 04
1 Year	Spectrum Analyzer	Hewlett-Packard	8566B	FA001309	June. 05/03	June. 05/04
1 Year	Spectrum Analyzer Display	Hewlett-Packard	85662A	FA001309	June. 05/03	June. 05/04
NCR	Bilog	Schaffner	CBL6112B	FA001504	NCR	NCR
1 Year	Horn Antenna #2	EMCO	3115	FA000825	Dec. 09/02	Dec. 09/03

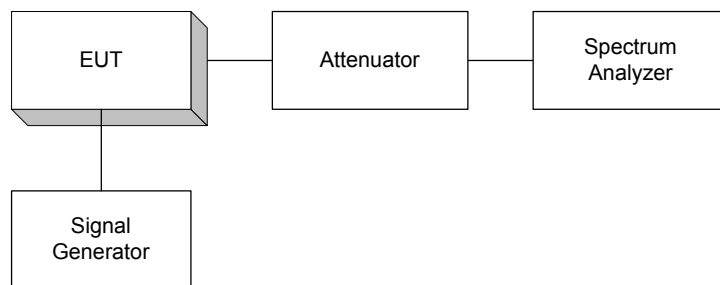
EQUIPMENT: MW-CBDA-800A-1W60-PG2

Section 8. Block Diagrams

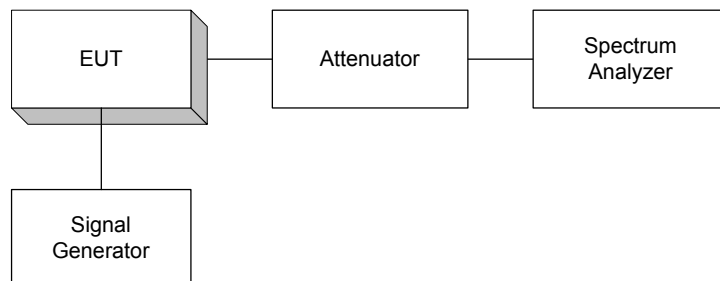
Para. No. 2.1046 - R.F. Power Output



Para. No. 2.1049 - Occupied Bandwidth

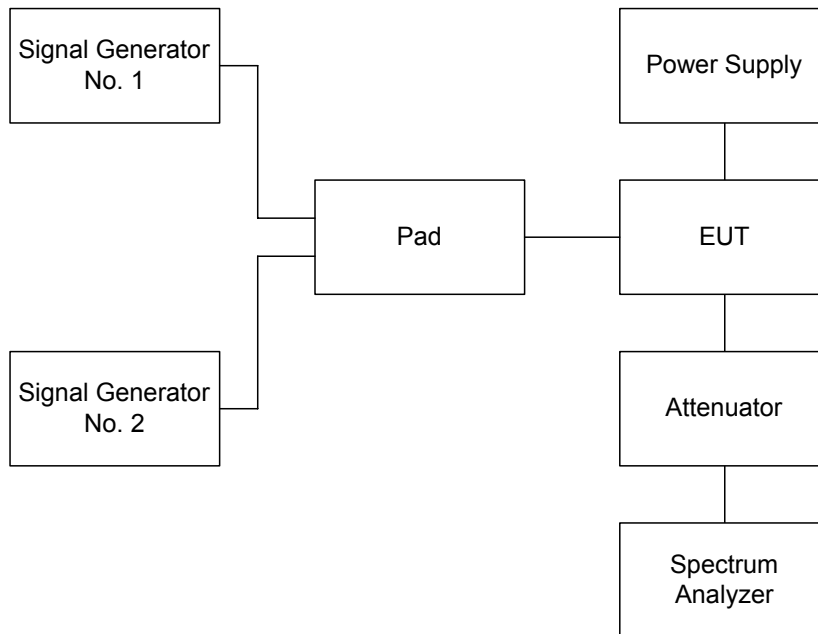


Para. No. 2.1051 - Spurious Emissions at Antenna Terminals



EQUIPMENT: MW-CBDA-800A-1W60-PG2

Para. No. 2.1051 - Spurious Emissions at Antenna Terminals



Para. No. 2.1053 - Field Strength of Spurious Radiation

TIA/EIA 603

Effective Radiated Power

Spurious Emissions

