

Test Report:	1W03672
Applicant:	Elisra Electronic Systems Ltd. 48 Mivtza Kadesh St. 51203, Bene-Beraq Israel
Equipment Under Test: (EUT)	Bi-Directional Amplifier
FCC ID:	OIWFBDA PCSA10W
In Accordance With:	FCC Part 24, Subpart E
Tested By:	Nemko Canada Inc. 3325 River Road, R.R. 5 Ottawa, Ontario K1V 1H2
Authorized By:	W. Clarke, Wireless Technologist
Date:	
Total Number of Pages:	25

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EQUIPMENT: Bi-Directional Amplifier
FCC ID: OIWFBDA PCSA10W

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 24, Subpart E.

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: _____
Russell Grant, Wireless Group Manager

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This report applies only to the items tested.

*EQUIPMENT: Bi-Directional Amplifier**FCC ID: OIWFBDA PCSA10W*

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	Complies

Test Conditions:**Indoor**

Temperature: 24 °C

Humidity: 55 %

Outdoor

Temperature: 33 °C

Humidity: 54 %

EQUIPMENT: Bi-Directional Amplifier
FCC ID: OIWFBDA PCSA10W

Section 2. General Equipment Specification

Manufacturer:	Elisra Electronics
Model No.:	MW-FBDA-PCS-A-10W
Serial No.:	0701M001
Date Received In Laboratory:	July 6, 2001
Nemko Identification No.:	Item #1

Tx 1930 – 1945MHz Downlink, 30dBm

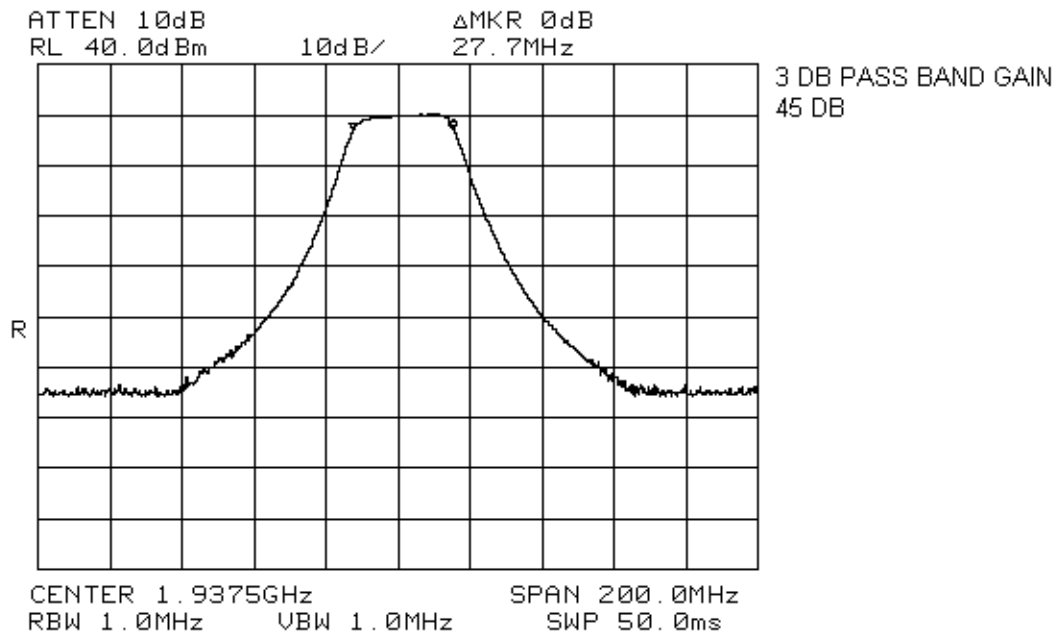
Receiver Only Uplink

CDMA F9W

TDMA D7W

EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA PCSA10W



EQUIPMENT: Bi-Directional Amplifier
FCC ID: OIWFBDA PCSA10W

Section 3. RF Power Output

Para. No.: 2.1046

Test Performed By: Russell Grant	Date of Test: July 18, 2001
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Minimum Standard: Para. No.: 24.232.

Test Results: 1W

Measurement Data: 1W

EQUIPMENT: Bi-Directional Amplifier
FCC ID: OIWFBDA PCSA10W

Section 4. Occupied Bandwidth

Para. No.: 2.1049

Test Performed By: Russell Grant	Date of Test: July 18, 2001
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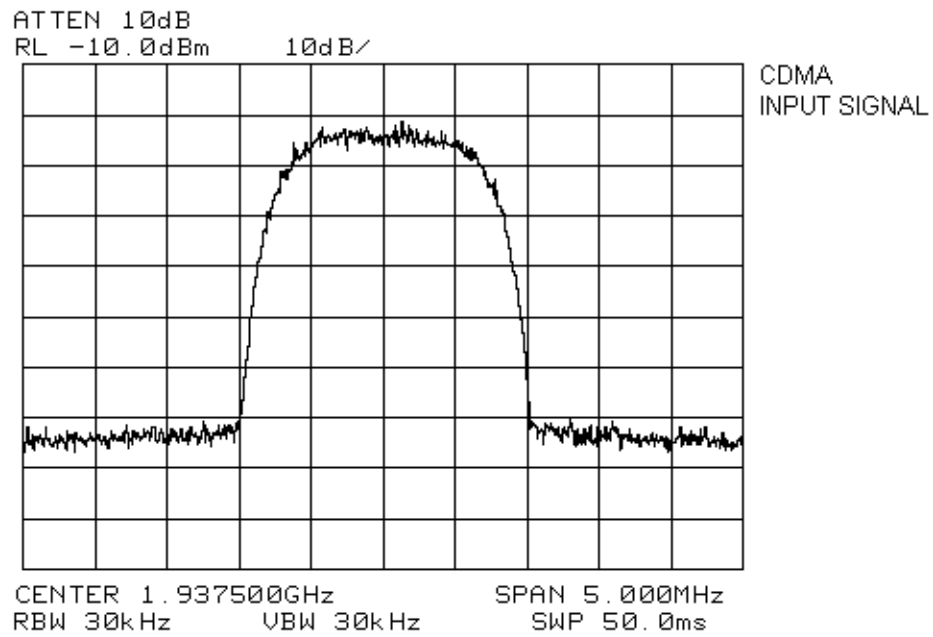
Minimum Standard: Para. No.: 24.238.

Test Results: Complies. See attached graphs.

Test Data: See attached graph(s).

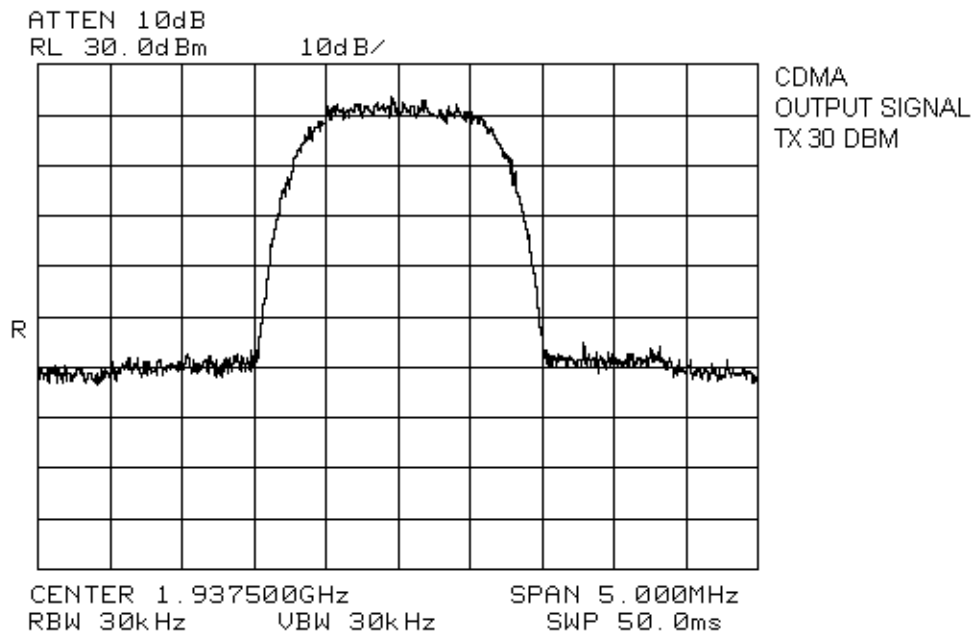
EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA PCSA10W



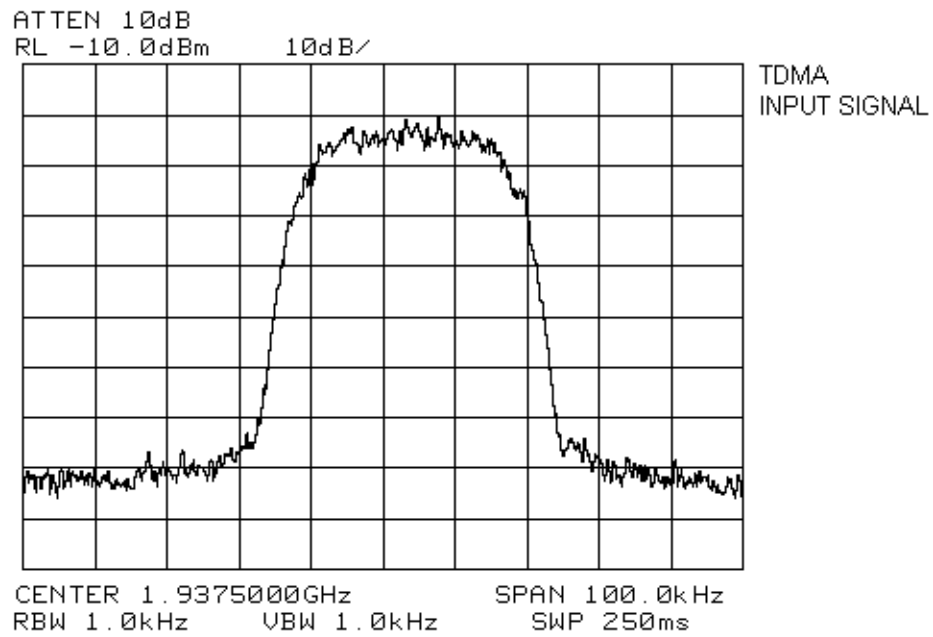
EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA PCSA10W



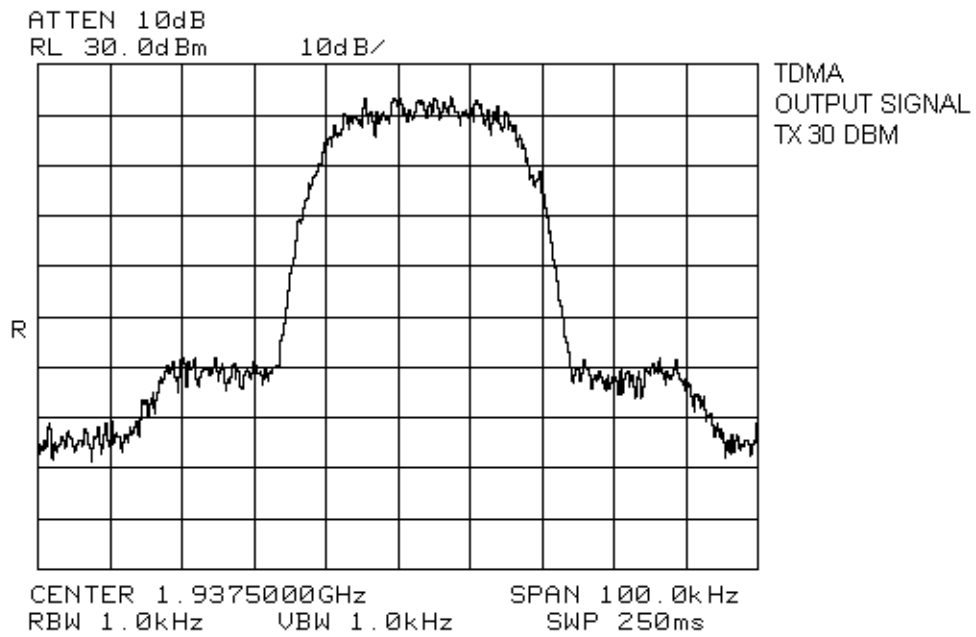
EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA10W



EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA PCSA10W



EQUIPMENT: Bi-Directional Amplifier
FCC ID: OIWFBDA PCSA10W

Section 5. Spurious Emissions at Antenna Terminals

Para. No.: 2.1051

Test Performed By: Russell Grant	Date of Test: July 16, 2001
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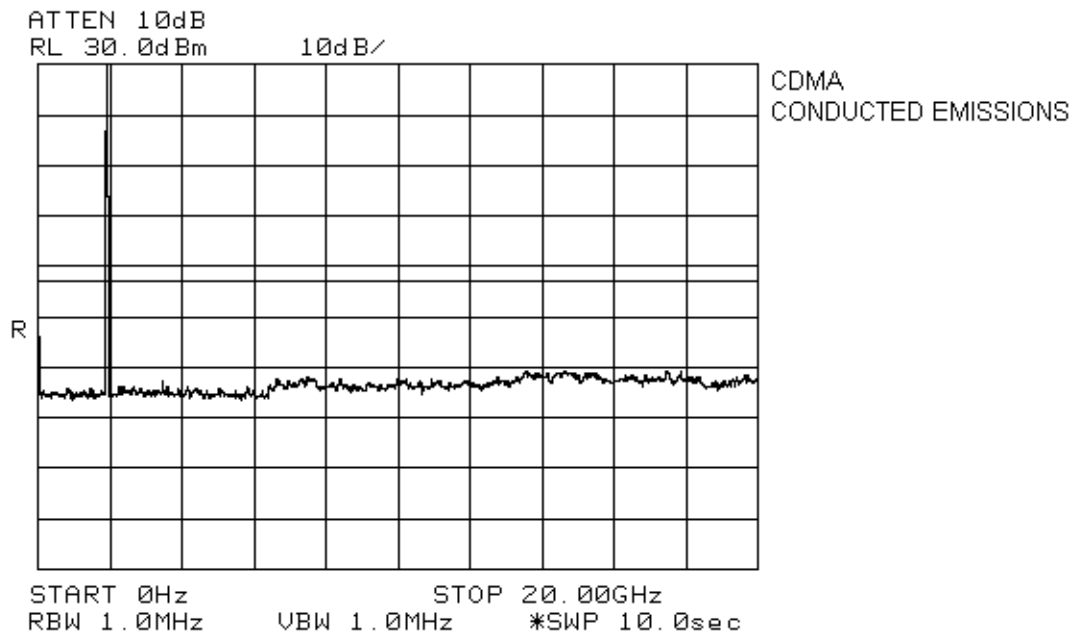
Minimum Standard: Para. No.: 24.238.

Test Results: Complies. See attached graphs.

Test Data: See attached graph(s).

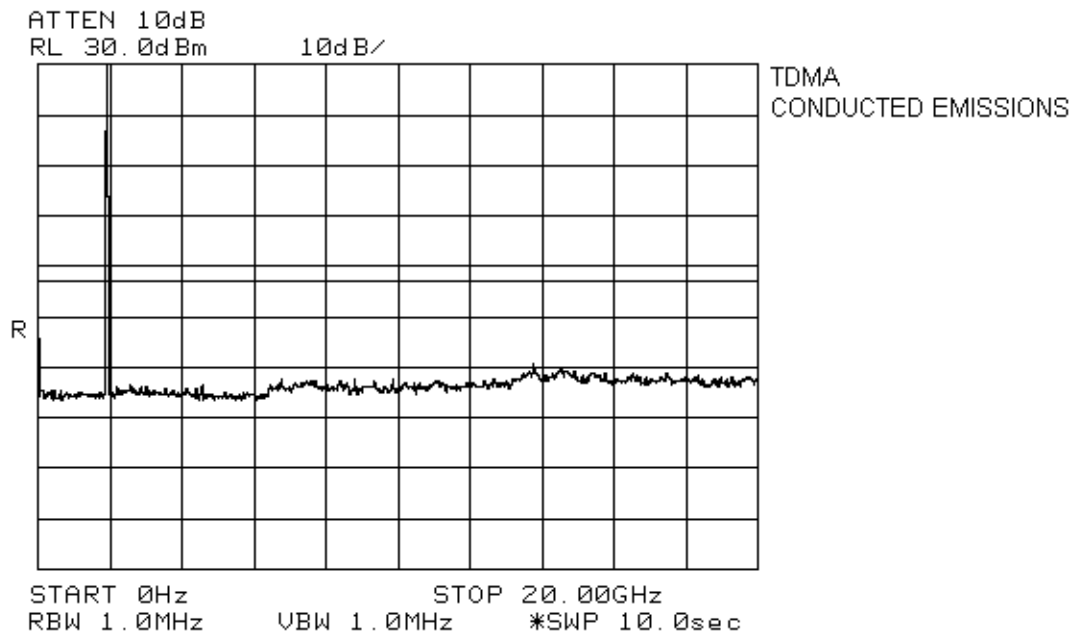
EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA PCSA10W



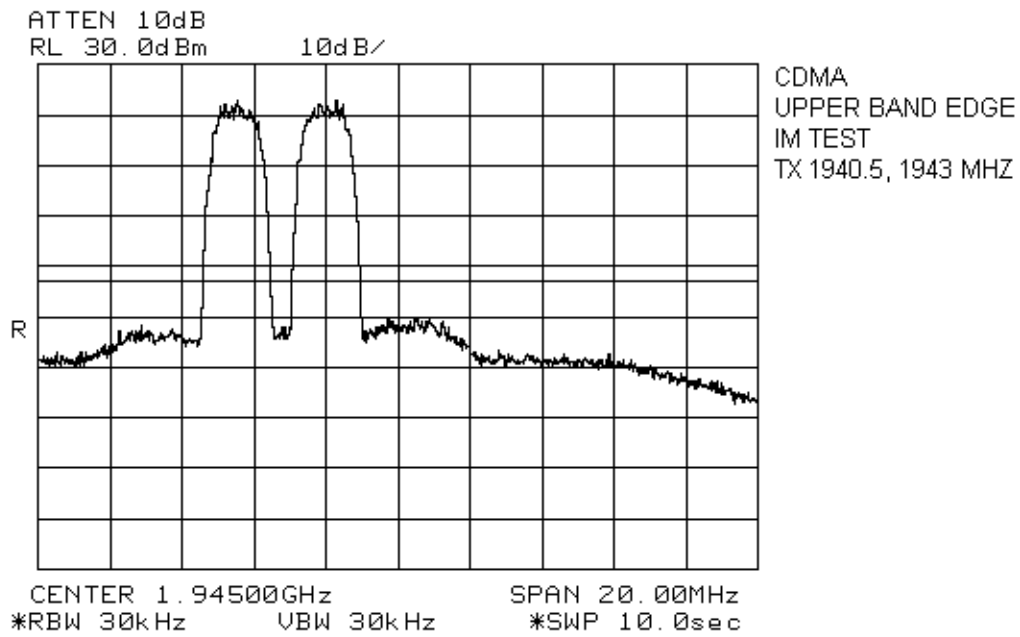
EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA PCSA10W



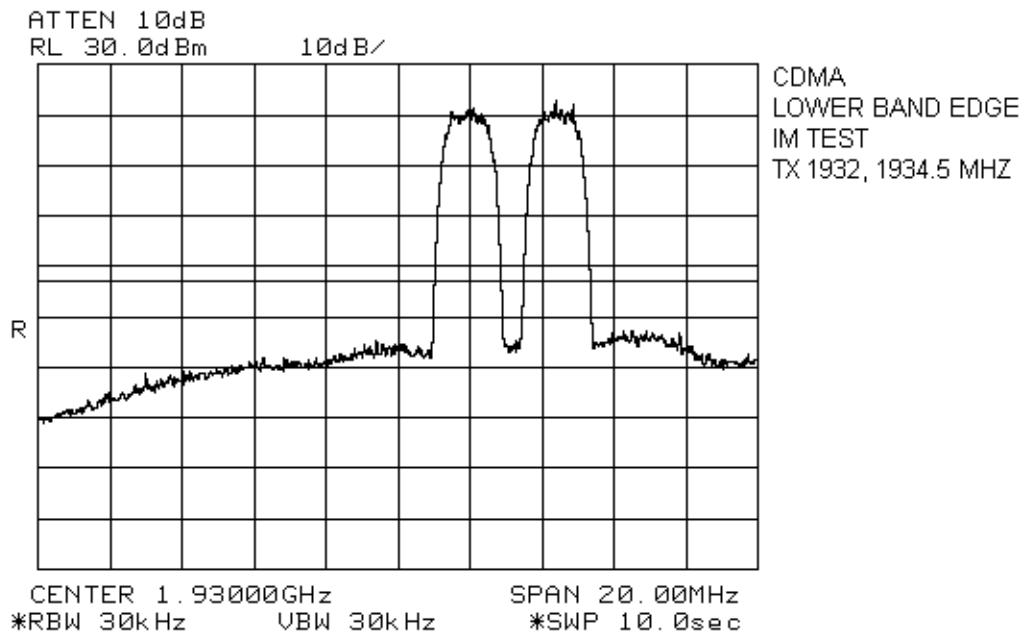
EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA PCSA10W



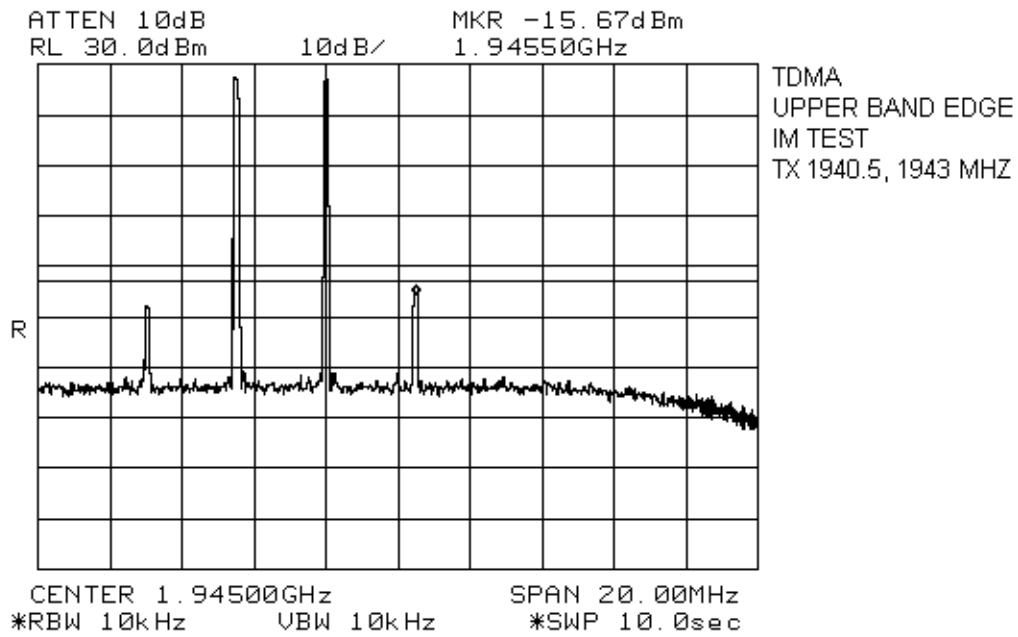
EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA PCSA10W



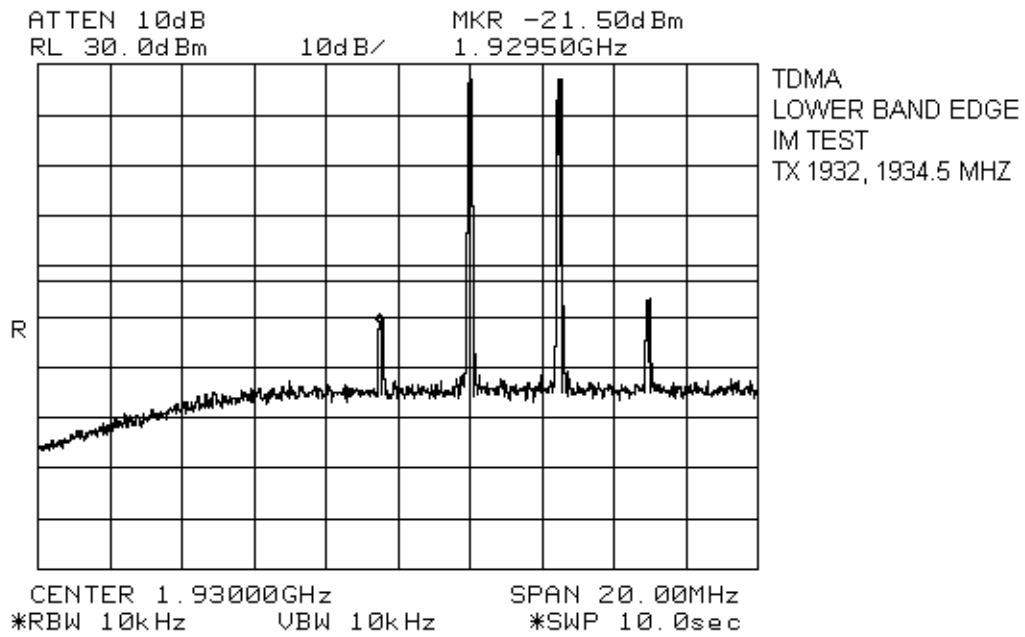
EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA PCSA10W



EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA PCSA10W



EQUIPMENT: Bi-Directional Amplifier
FCC ID: OIWFBDA PCSA10W

Section 6. Field Strength of Spurious

Para. No.: 2.1053

Test Performed By: Russell Grant	Date of Test: July 19, 2001
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Minimum Standard: Para. No.: 24.238.

Test Results: Complies. No emissions were detected within 20dB of the specification limit. The spectrum was searched to the 10th harmonic of the fundamental frequency at operation.

Test Data: As per attached tabulated data.

EQUIPMENT: Bi-Directional Amplifier
FCC ID: OIWFBDA PCSA10W

Section 7. Frequency Stability

Para. No.: 2.1055

Test Performed By: Russell Grant	Date of Test: July 16, 2001
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Minimum Standard: Para. No.: 24.235.

Test Results: Complies.

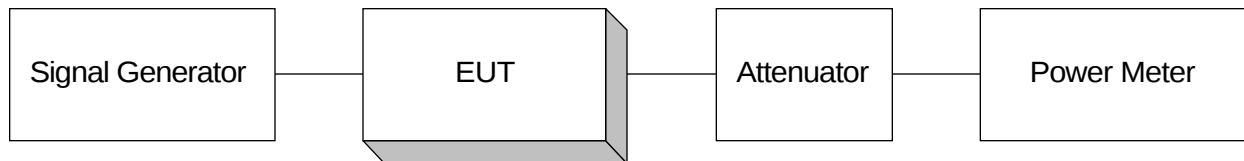
Measurement Data: 0Hz frequency drift from –30°C to +50°C with ±15% primary voltage variation.

EQUIPMENT: Bi-Directional Amplifier

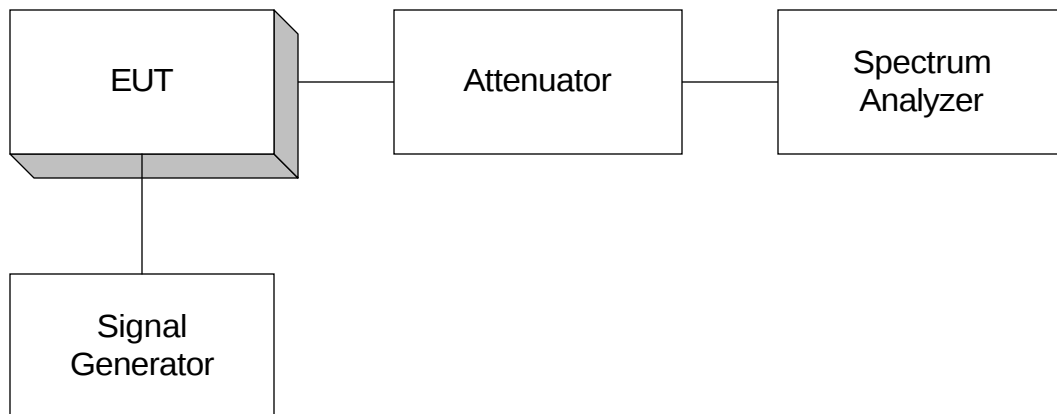
FCC ID: OIWFBDA PCSA10W

Section 8. Block Diagrams

Para. No. 1046 - R.F. Power Output



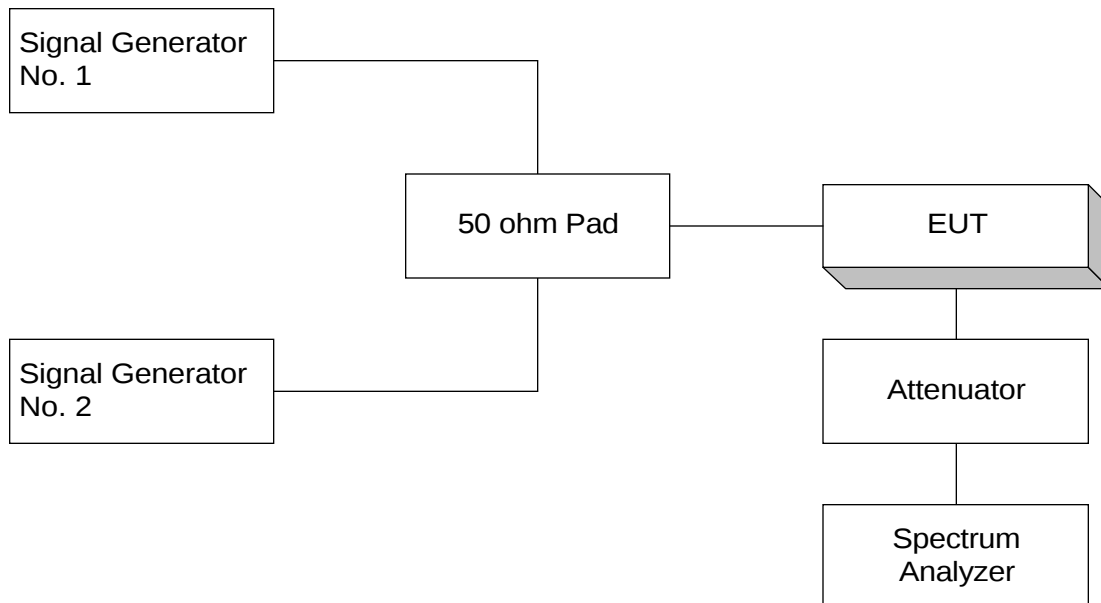
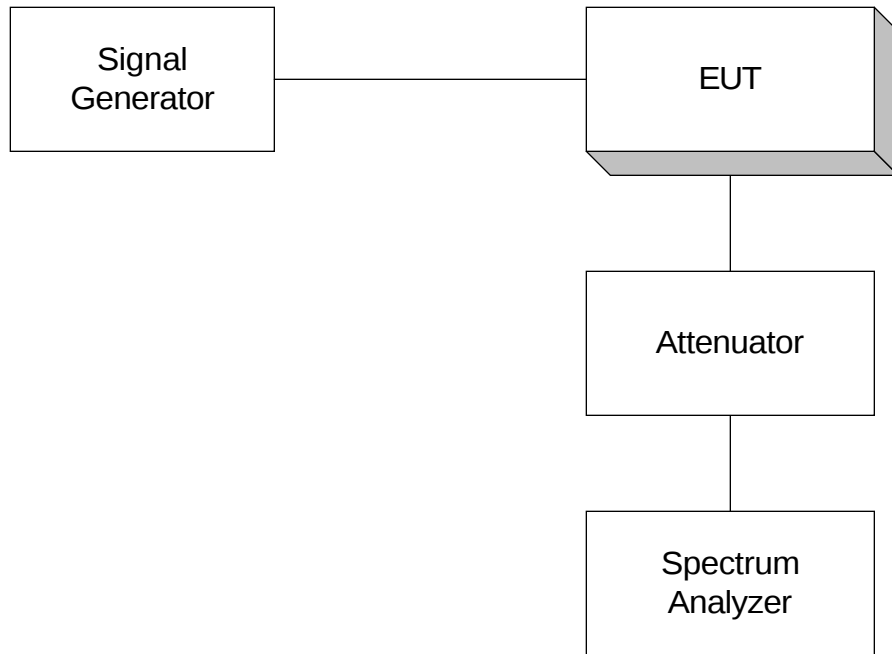
Para. No. 2.1049 - Occupied Bandwidth



EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA PCSA10W

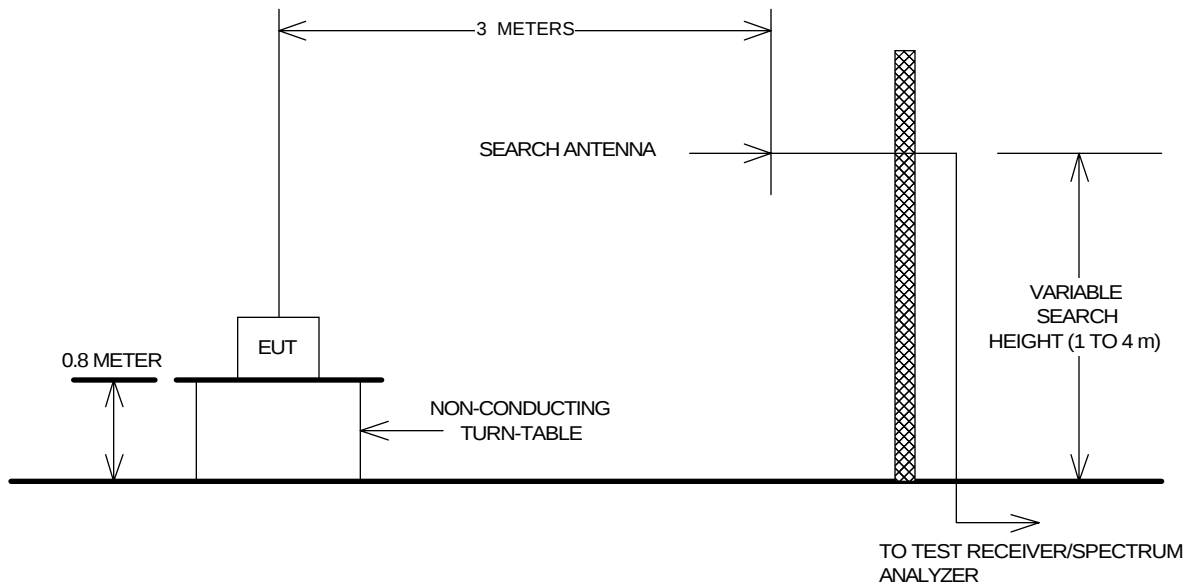
Para. No. 2.1051 - Spurious Emissions at Antenna Terminals



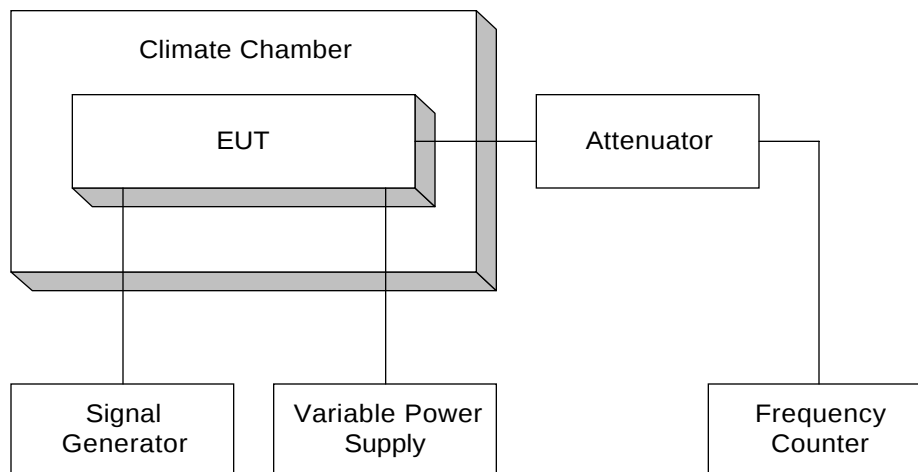
EQUIPMENT: Bi-Directional Amplifier

FCC ID: OIWFBDA PCSA10W

Para. No. 2.1053 - Field Strength of Spurious Radiation



Para. No. 2.1055 - Frequency Stability



EQUIPMENT: Bi-Directional Amplifier
FCC ID: OIWFBDAPCSA10W

Section 9. Test Equipment List

CAL CYCLE	EQUIPMENT	MANUFACTURER	MODEL	SERIAL	LAST CAL.	NEXT CAL.
1 Year	Spectrum Analyzer	Hewlett Packard	8565E	FA000981	June 08/01	June 08/02
1 Year	Climate Chamber	Thermotron	SM-16C	15649-S	COU	COU
1 Year	Attenuator	Narda	768-20	9507	Oct. 12/00	Oct. 12/01
1 Year	Attenuator	Narda	769-20	4153	Oct. 1/99	Oct. 1/00
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
1 Year	RF AMP	JCA	2-4 GHz	FA001496	May 31/01	May 31/02
1 Year	RF AMP	JCA	1-2 GHz	FA001498	May 31/01	May 31/02
1 Year	RF AMP	JCA	4-8 GHz	FA001497	May 31/01	May 31/02
2 Year	RF AMP	Narda	5 - 18GHz	FA001409	Nov. 9/99	Nov. 9/01
2 Year	RF AMP	Narda	18 - 26.5GHz	FA001550	July 7/00	July 7/02
1Year	Frequency Counter	Hewlett Packard	HP5350A	2444A00135	May 7/00	Nov. 4/01
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