ACME TESTING INC., 2002 VALLEY HWY, P.O. BOX 3, ACME, WASHINGTON 98220-0003 888-226-3837.

REPORT OF MEASUREMENTS
PART 15C (15.249) - INTENTIONAL RADIATOR

DEVICE:	1 CHANNEL 916.5 MHz 15.249 TRANSMITTER
MODEL:	I-PORT
MANUFACTURER:	IDENTEC SOLUTIONS, INC.
ADDRESS:	SUITE 102, 1860 DAYTON STREET KELOWNA BRITISH COLUMBIA CANADA V1Y 7W6

THE DATA CONTAINED IN THIS REPORT WAS COLLECTED
ON 09 & 10 FEBRUARY 2000 AND COMPILED BY:

PAUL G. SLAVENS
CHIEF EMC ENGINEER

WORK ORDER: 32195REV1

1. General

1.1 Purpose

The purpose of this report is to show compliance to the FCC regulations for narrow band unlicensed devices operating under section 15.249 of the Code of Federal Regulations title 47.

1.2 Manufacturer

Company Name:	identec Solutions, Inc.
Contact:	Ralf Koehler
Street Address:	Suite 102, 1860 Dayton Street
City/Province:	Kelowna British Columbia
Country/Postal Code:	Canada V1Y 7W6
Telephone:	250 860-6567
Fax:	250 860-6541
E-mail:	rkoehler@identec.com
Web:	www.identec.com

1.3 Test location

Company:	Acme Testing Inc.
Street Address:	2002 Valley Highway
Mailing Address:	PO Box 3
City/State/Zip:	Acme WA 98220-0003
Laboratory:	Test Site 2
Telephone:	888 226-3837
Fax:	360 595-2722
E-mail:	acmetest@acmetesting.com
Web:	www.acmetesting.com

1.4 Test Personnel

Paul G. Slavens, Chief EMC Engineer

2. Test Results Summary

Summary of Test Results

Requirement	CFR Section	Test Result
Conducted Emissions < 48.0 dBuV	15.207	PASS
Radiated Emissions	15.249	PASS

The signed original of this report, supplied to the client, represents the only "official" copy. Retention of any additional copies (electronic or non-electronic media) is at Acme Testing's discretion to meet internal requirements only. The client has made the determination that EUT Condition, Characterization, and Mode of Operation are representative of production units, and meet the requirements of the specifications referenced herein.

Consistent with Industry practice, measurement and test equipment not directly involved in obtaining measurement results but having an impact on measurements (such as cable loss, antenna factors, etc.) are factored into the "Correction Factor" documented in certain test results. Instrumentation employed for testing meets tolerances consistent with known Industry Standards and Regulations.

The measurements contained in this report were made in accordance with the procedure ANSI C63.4 - 1992 and all applicable Public Notices received prior to the date of testing. All emissions from the device were found to be within the limits outlined in this report. Acme Testing assumes responsibility only for the accuracy and completeness of this data as it pertains to the sample tested.

Paul G. Slavens
Chief EMC Engineer

Date of Issuance

3. Description of Equipment and Peripherals

3.1 Equipment Under Test (EUT)

Device:	1 Channel 916.5 MHz 15.249 Transmitter
Model Number:	i-PORT/II
Serial Number:	None
Power:	120 V/60 Hz
Grounding:	Local
Antenna Distance:	3 meter

3.2 EUT Peripherals

Device	Manufacturer	Model Number	FCC ID	Serial Number
Antennas (4)	Astron Antenna Co.	HPD-9185	None	None
Radio Frequency Identification System	Identec Solutions Inc.	i-PORT	None	None
Laptop Computer	Daewoo	CPC-7550	FCC DOC	710N3557464
Ethernet Card	GVC	PE200	LNQ7S0811	8E190065

3.3 Description of Interface Cables

EUT/Antennas

Shielded	Unshielded	Flat	Round	Length	Ferrite
Yes	No	No	Yes	2 m	No

i-Port/Laptop Computer(Ethernet Card)

Shielded	Unshielded	Flat	Round	Length	Ferrite
No	Yes	Yes	No	2 m	No

3.4 Mode of Operation During Tests

The EUT was exercised by constantly transmitting. The EUT has 4 antenna ports. Only one antenna can transmit at any given time through the use of integrated antenna crossover switches. Therefore, the output from each antenna was measured separately and all signals were reported.

3.5 Modifications Required for Compliance

1. None.

4. Antenna requirement

4.1 Regulation

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of Part 15C. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of Sections 15.211, 15.213, 15.217, 15.219, or 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with Section 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this Part are not exceeded.

4.2 Result

The EUT uses a standard SMA connector. The EUT system must be professionally installed.

5. Conducted Emissions Tests

Test Requirement: FCC CFR47, Part 15C, 15.207

Test Procedure: ANSI C63.4:1992

5.1 Test Equipment

⇒ Spectrum Analyzer (yellow): Hewlett-Packard 8566B, Serial Number 2403A06519, Calibrated: 7 January 2000, Calibration due Date: 7 January 2001

⇒ RF Preselector (yellow): Hewlett-Packard 85685A, Serial Number 2926A00971, Calibrated: 17 March 2000, Calibration due Date: 17 March 2001

⇒ Quasi Peak Adapter (yellow): Hewlett-Packard 85650A, Serial Number 2521A-00689, Calibrated: 19 November 1999, Calibration due Date: 19 November 2000

⇒ Line Impedance Stabilization Network: Rhode & Schwarz ESH2-Z5, Serial Number ACMERS1, Calibrated: 1 September 1999, Calibration due Date: 01 September 2000

5.2 Purpose

The purpose of this test is to evaluate the level of conducted noise the EUT imposes on the AC mains.

5.3 Test Procedures

For tabletop equipment, the EUT is placed on a 1 meter by 1.5 meters wide and 0.8 meter high nonconductive table that is placed above the groundplane. Floor standing equipment is placed directly on the groundplane. Any supplemental grounding mechanisms are connected, if appropriate. The EUT is connected to its associated peripherals, with any excess I/O cabling bundled to approximately 1 meter. The EUT is connected to a dedicated LISN and all peripherals are connected to a second separate LISN circuit. The LISNs are bonded to the groundplane.

Conducted Emissions Test Characteristics	
Frequency range	0.45 MHz - 30.0 MHz
Test instrumentation resolution bandwidth	9 kHz
Lines Tested	Line 1/Line 2

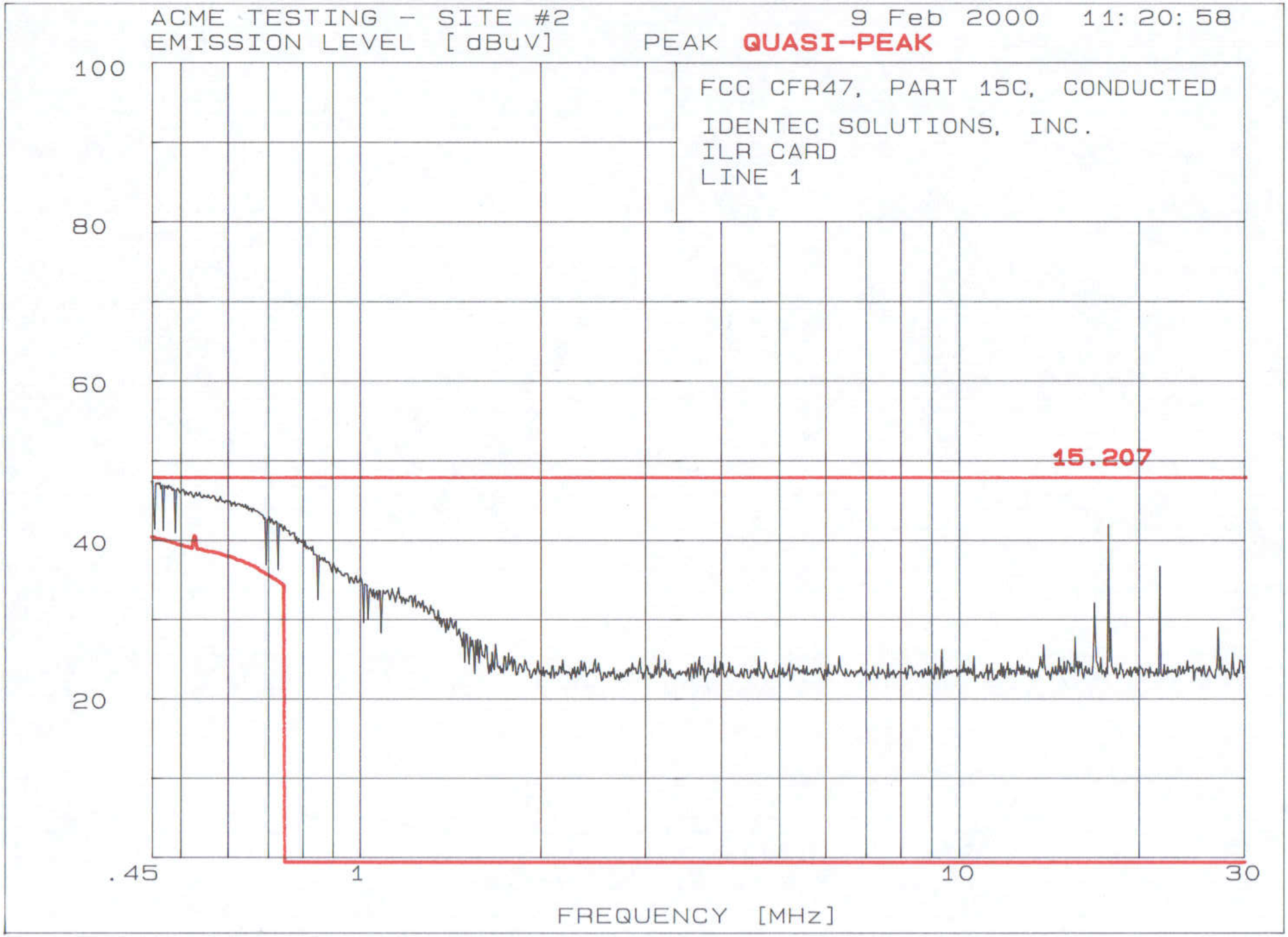
5.4 Test Results

LINE 1

PEAK #	FREQ. (MHz)	AMPL (dBuV)
1	17.17	33.2
2	17.76	37.6
3	21.63	29.4

LINE 2

PEAK #	FREQ. (MHz)	AMPL (dBuV)
1	0.6846	43.1
2	0.7139	42.7
3	0.7603	41.8
4	0.7699	41.6
5	16.81	37.7
6	17.76	38.1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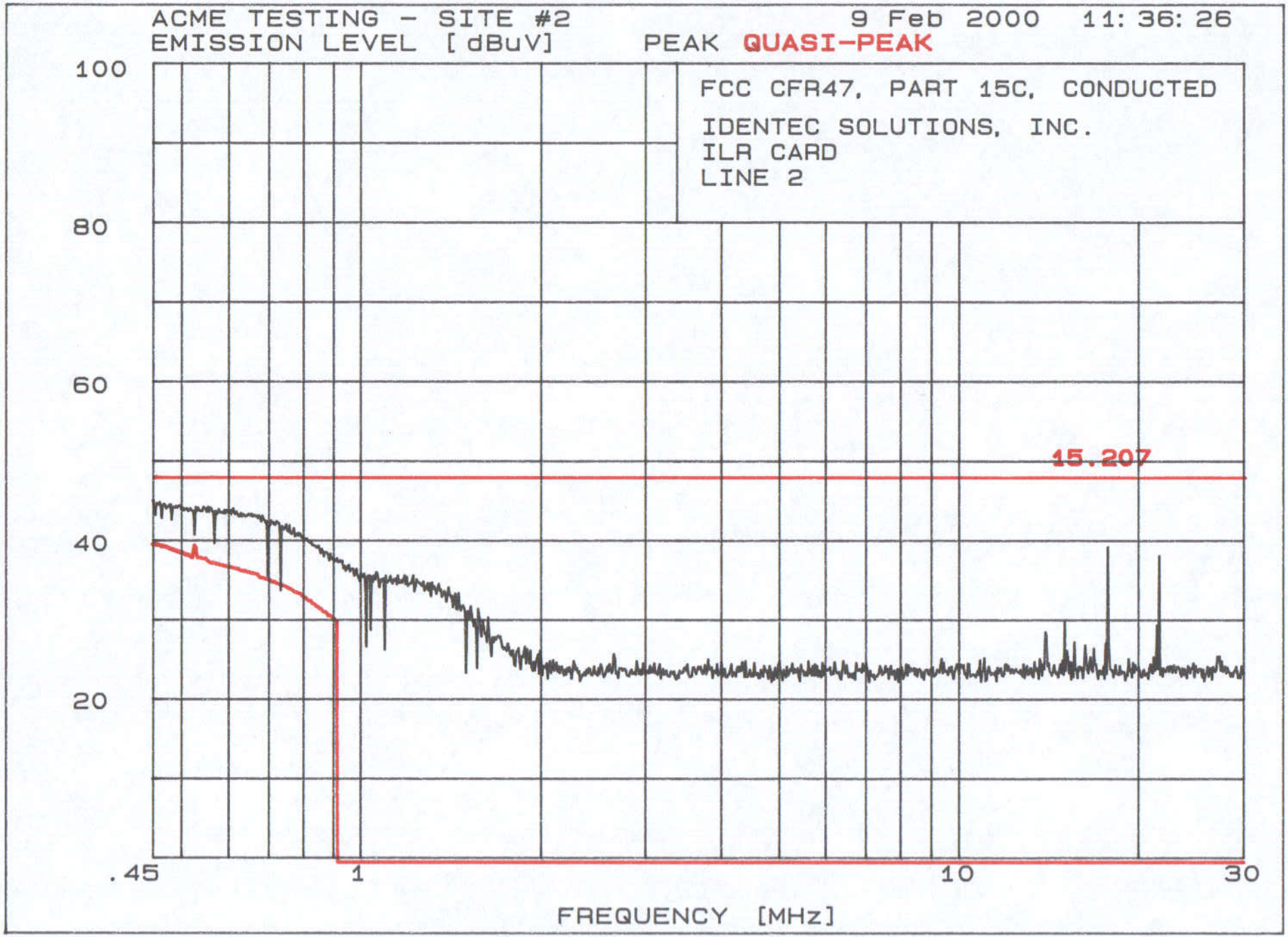
9 Feb 2000 11:20:58
EMISSION LEVEL [dBuV]
PEAK QUASI-PEAK
FCC CFR47, PART 15C, CONDUCTED
IDENTEC SOLUTIONS, INC.
ILR CARD
LINE 1
15.207
100
80
60
40
20
.45
1
10
30
FREQUENCY [MHz]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9 Feb 2000 11:36:26
EMISSION LEVEL [dBuV]
PEAK QUASI-PEAK
FCC CFR47, PART 15C, CONDUCTED
IDENTEC SOLUTIONS, INC.
ILR CARD
LINE 2
100
80
60
40
20
15.207
.45
1
10
30
FREQUENCY [MHz]