

BRIMROSE

brimrose corporation of america

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BRIMROSE CORPORATION OF AMERICA

FOR CUSTOMER SERVICE

CALL (410) 472-7070

**FOR WARRANTY REPAIRS
OR TECHNICAL SUPPORT**

WARRANTY

Brimrose Corporation of America warrants that its products shall be free from defects in material and workmanship for: a period of one year from the date of shipment thereof, or, the product's stated total lifetime, whichever occurs first. Within the warranty period Brimrose Corporation of America will repair or replace such products which are returned to it with its prior written authorization and which are determined by Brimrose Corporation of America to be defective. This warranty does not apply to any product which has been: subjected to misuse, negligence, accident or misapplication; modified by unauthorized persons; improperly installed; or used in environments or circumstances which exceed the products guidelines as determined by Brimrose Corporation of America. Brimrose Corporation of America's responsibility is limited only to the replacement of products as described above. Furthermore, if the warranty seals are tampered with this voids the warranty. In this case, repair of the product will only be undertaken at the discretion of Brimrose Corporation of America. All authorized returned materials must be shipped back in the original container with the original shipping documents and inspection sheet.

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QUALITY ASSURANCE DEPARTMENT
CERTIFICATE OF INSPECTION

Customer's Name	Laser 2000 GmbH
Customer's PO Number	1701600
Description of Order	Fiber Pigtailed Acousto Optic Frequency Shifter
Part Number(s)	AMF-80-4-1550-2FP-FC/APC-0.3
Quantity Delivered	ONE
Serial Number(s)	1707-SY-16272

The undersigned certifies that all articles included in each shipment under the above Purchase Order are in accordance with said Purchase Order and with all requirements, specifications and drawings referenced therein; and that records of inspection and test providing objective evidence of the foregoing are on file.

	<u>2017/17</u>
QUALITY ASSURANCE SUPERVISOR	DATE

THE CARE AND HANDLING OF OPTICAL FIBER PIGTAILED UNITS

A great deal of care has been taken in the manufacture and packaging of these devices to ensure that they are delivered to you in a serviceable condition.

The mechanical support for the fiber and the stress relief that is provided, at the connectors and the enclosure ferrules, is robust enough to maintain the fiber in its alignment, during normal setup and use.

By observing the following rules you can avoid damaging the unit.

Never use the fibers to lift or move the device.

Always support the fibers when the device is lifted or moved.

Do not bend the fibers to less than a 10mm radius.

Never exceed the maximum permitted RF power.

The maximum RF power is noted on the specification sheet. Exceeding that level will result in reduced performance of the system, and may cause permanent damage to the unit.

Violating any of these rules may result in damage that is not covered by the Brimrose warranty.

Cleaning the connector face

The core diameter of the fiber is on the order of 3-9 μ m*, consequently, a small amount of contamination on the face of the fiber at the connector can result in large losses. Since small scratches on this surface will also degrade performance, it is recommended that care be taken in cleaning this polished face, and that it be done sparingly using a lens tissue and alcohol.

* The core diameter of the fiber diameter for your unit can be found on the specification sheet.

2 PORT FIBER PIGTAILED ACOUSTO-OPTIC FREQUENCY SHIFTER

Model No.: **AMF-80-4-1550-2FP+**

Serial No.: **1707-SY-16272**

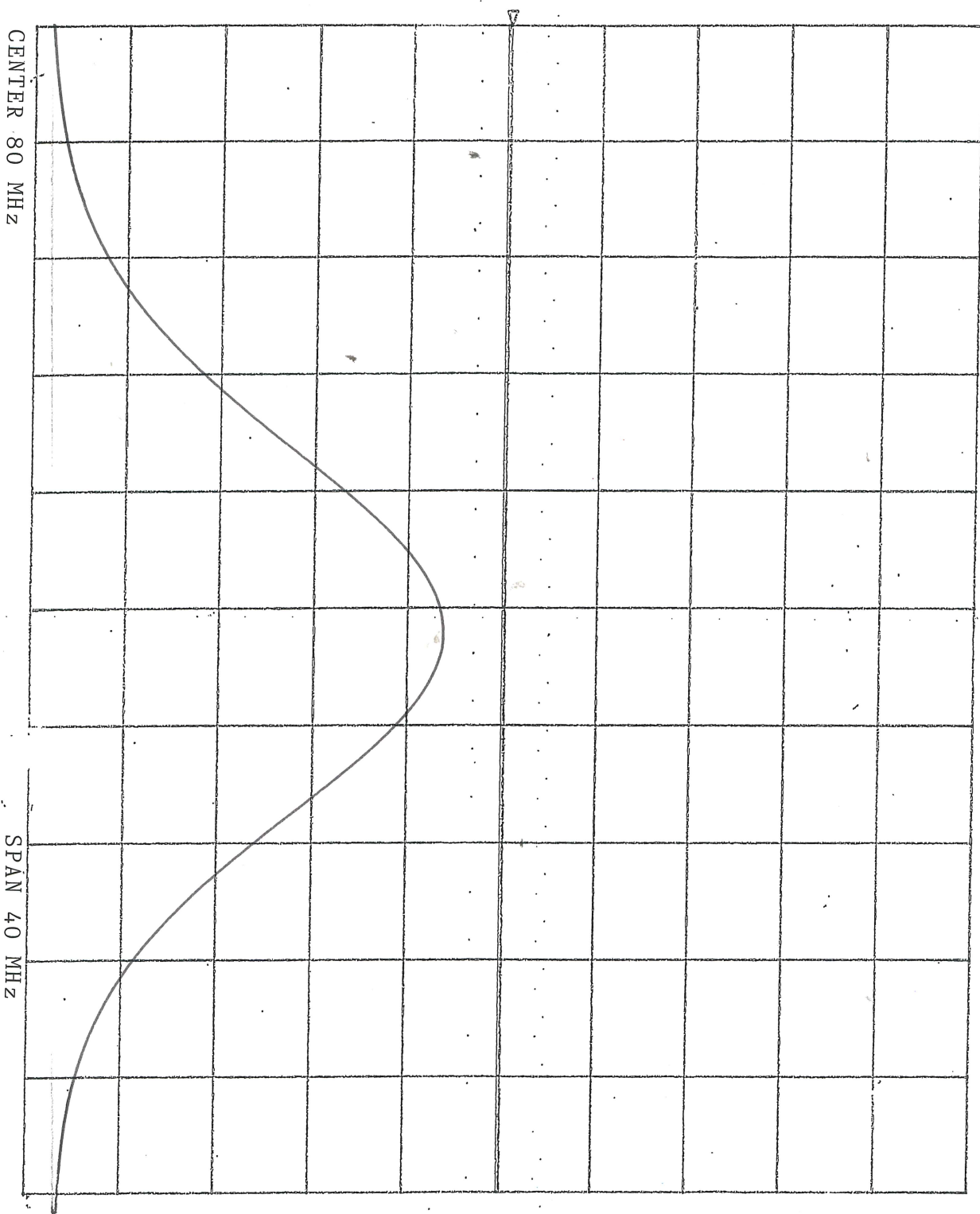
	SPECIFICATIONS	TEST DATA
Wavelength of Operation	1550 +/- 25 nm	1550 nm
Substrate	AMTIR	AMTIR
Maximum Optical power	200 mW	230 mW
Frequency Shift	+ 80 MHz	+80 MHz
Frequency Shift Range (3 dB)	4 MHz	4 MHz
Extinction Ratio	50 dB	50 dB
Acoustic Velocity	2.5 E+3 m/sec	2.5 E+3 m/sec
Maximum RF Power #	< 0.5 Watt	0.2 Watt #
RF connector	SMB	SMB
Input Impedance	50 Ohms	50 Ohms
V.S.W.R.	2.1:1	2.1:1
Type of Fiber, Port 1 & 2	8 μ m core, 125 μ m	cladding Single Mode PM
Polarization	Linear	Linear
PER	16 - 19 dB	17 dB
Case Type	2 Port fiber-optically	pigtailed, case
Polishing of Fiber End	APC	APC
Fiber Connector	FC	FC
Fiber Length	0.3 m	0.3 m
Fiber Jacket	900 μ m OD	900 μ m OD
Back Reflection*	40 dB	40 dB
Total Insertion Loss** center band edges	2.2 - 2.5 dB 3.5 dB	2.3 dB

Device is subject to RF saturation; that is, increased RF power could lead to worse performance or even damage to the device.

* Back reflection at the FC connectors is not included.

** This spec includes: coupling losses, optical transmission through the crystal and diffraction efficiency losses. Losses at the FC connectors are not included.

Bandwidth/diffraction efficiency plot. Data taken with 1550nm laser.
Model No.: AMF-80-4-1550-2FP-FC/APC-0.3
S/n: 1707-SY-16272

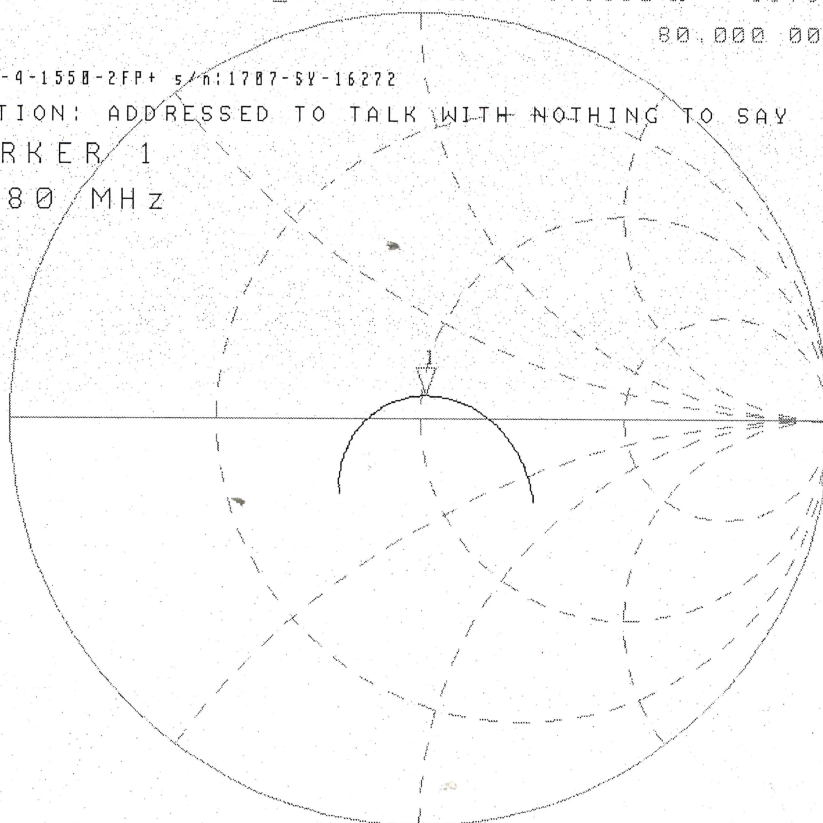


CH1 S₁₁ 1 U FS 1: 51.025 Ω 5.8652 Ω 11.669 nH
 80.000 000 MHz

AMF-BB-4-1550-2FP+ s/n:1787-SV-16272

CAUTION: ADDRESSED TO TALK WITH NOTHING TO SAY

Del MARKER 1
 80 MHz



CENTER 80.000 000 MHz SPAN 20.000 000 MHz

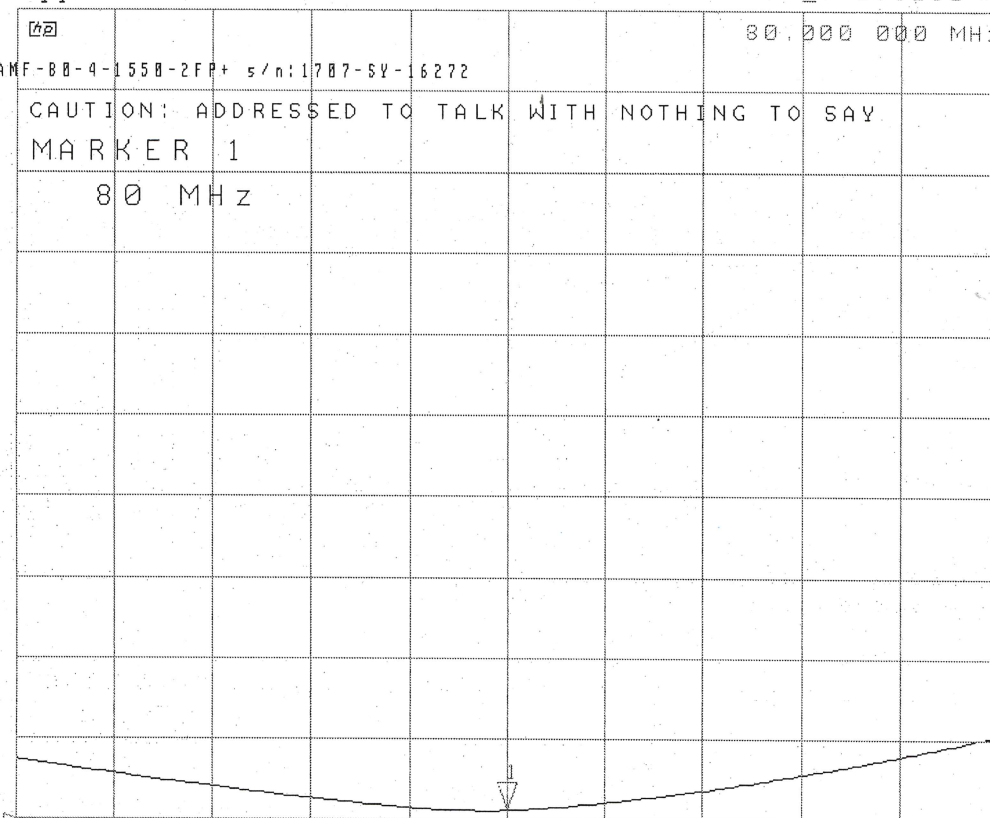
CH1 S₁₁ SWR 1 / REF 1 1: 1.1252

80.000 000 MHz

AMF-BB-4-1550-2FP+ s/n:1787-SV-16272

CAUTION: ADDRESSED TO TALK WITH NOTHING TO SAY

Del MARKER 1
 80 MHz



CENTER 80.000 000 MHz SPAN 20.000 000 MHz

CH1 S11 1 U FS

1: 271.64 mU -137.13 °

70

70.000 000 MHz

AMF-BB-4-1550-2FP+ s/n:1707-SY-16272

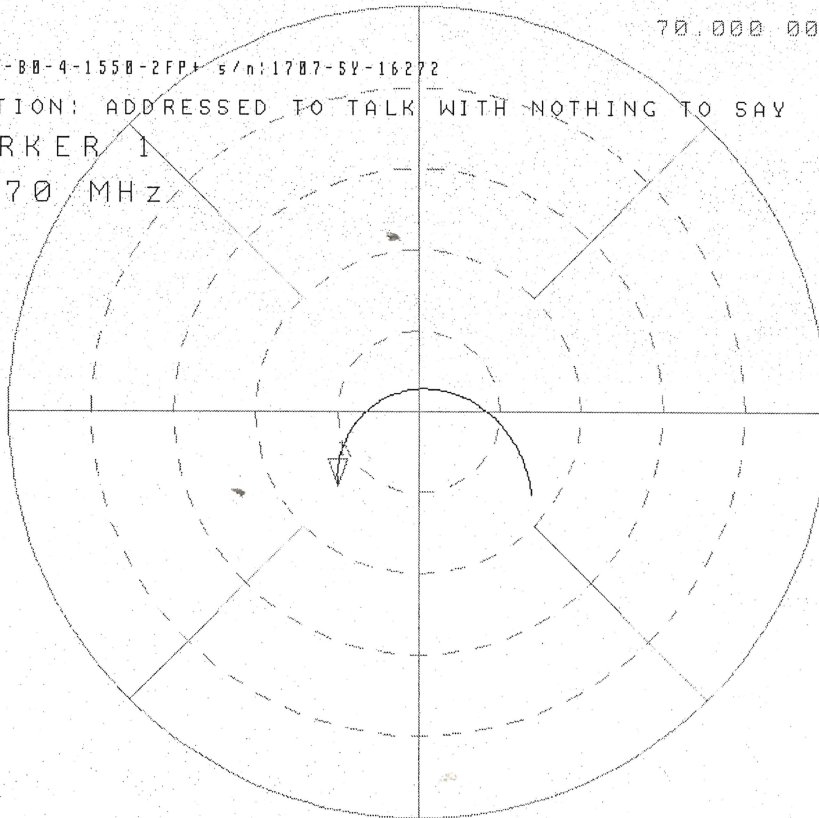
CAUTION: ADDRESSED TO TALK WITH NOTHING TO SAY

Del

MARKER 1

70 MHz

↑



CENTER 80.000 000 MHz

SPAN 20.000 000 MHz

CH1 S11 log MAG

10 dB/ REF 0 dB

1: -9.2464 dB

70

90.000 000 MHz

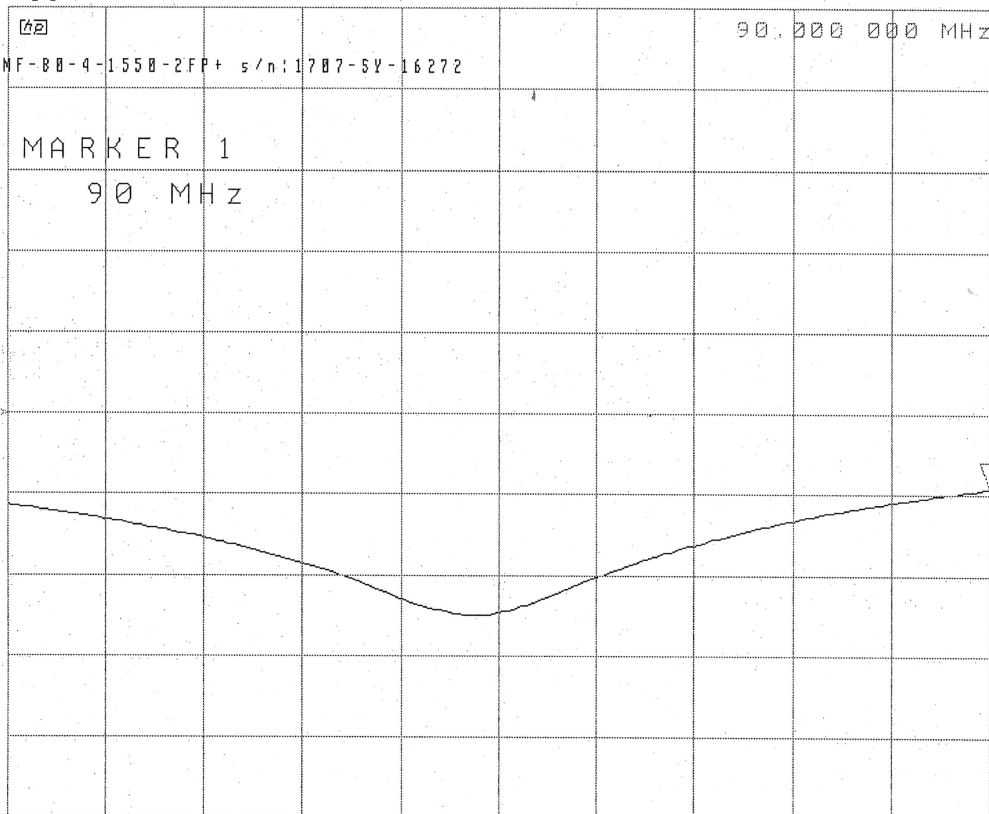
AMF-BB-4-1550-2FP+ s/n:1707-SY-16272

Del

MARKER 1

90 MHz

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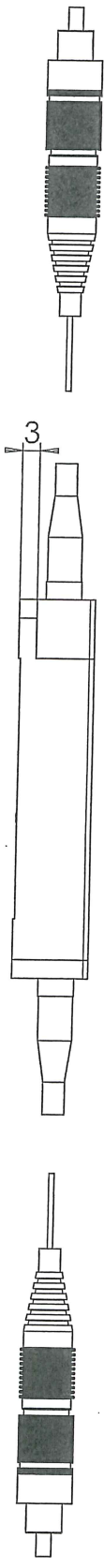
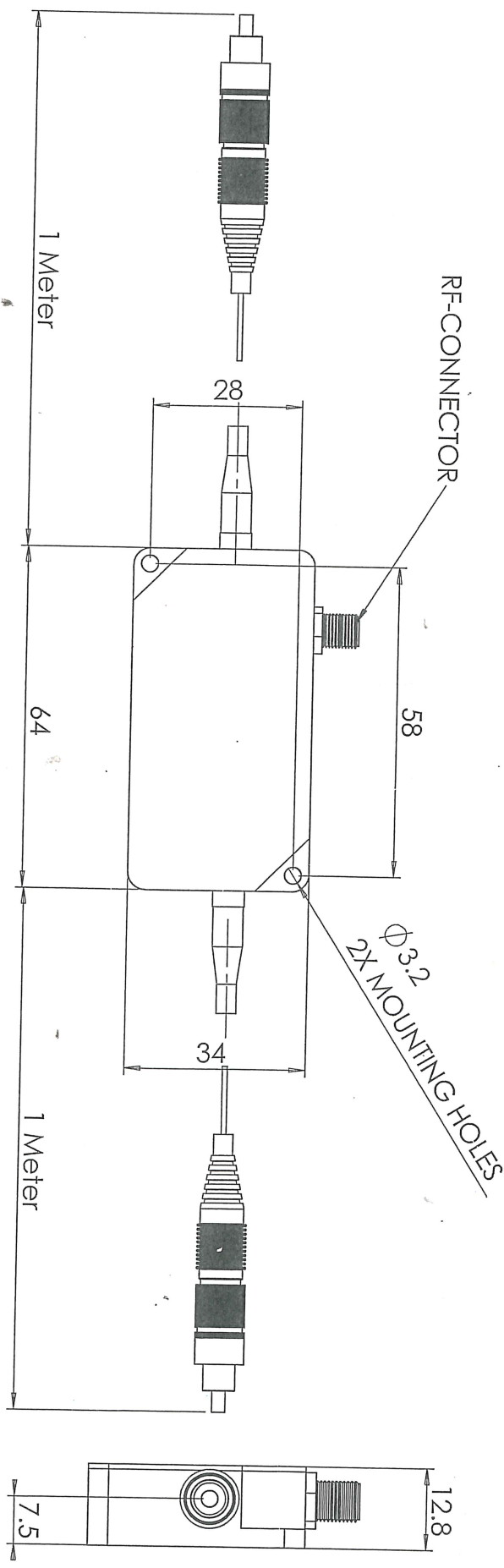


CENTER 80.000 000 MHz

SPAN 20.000 000 MHz

DRAWING No. :
 SURFACE FINISH :

REVISION	DATE
1.0	12/01/2011



UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN MILLIMETERS
 AND TOLERANCE ARE:

XX
 X

TITLE:
BRIMROSE CORP. OF AMERICA

042 TWO PORTS

DO NOT SCALE THIS DRAWING	DRAWN BY :	PART No. :
3rd ANGLE PROJECTION	CHECKED:	MATERIAL:
		2-00C