

SMA High Power Limiter, 1 GHz to 18 GHz, 1W CW Power, -20 dBm Flat Leakage



FMLM2013

Features

- 1 Watt Input Power(CW)
- 1 GHz to 18 GHz Frequency Range
- 4 dB Insertion Loss max.
- VSWR 2:1
- Leakage @ 1 Watt CW -15 dBm Max
- Peak Power Leakage -17 dBm
- Field Replaceable SMA Connectors

Applications

- Electronic Warfare
- Test & Measurement
- Military & Space
- Military Communication Systems
- Stabilizing generator outputs
- Reducing amplitude variations
- Protects low noise amplifiers and other devices from ESD or input power damage
- Receiver Protection
- Weapon systems

Description

The FMLM2013 is a Signal Limiter that operates in the 1 GHz to 18 GHz frequency range. The Limiter has up to 1 Watt CW input power handling capability with a -15 dBm max leakage output power level. Typical performance includes 4 dB max insertion loss, 2:1 typical input VSWR. The low profile pin package supports field replaceable SMA connectors. The module has an operational temperature range from -40°C to 85°C and is guaranteed to meet a series of environmental test conditions for Altitude, Vibration, Humidity and Shock.

Electrical Specifications

Description	Min	Typ	Max	Unit
Frequency Range	1		18	GHz
Insertion Loss		3.5	4	dB
Input VSWR		1.5:1	2:1	
Output VSWR		1.5:1	2:1	
Voltage		5		V
Current		200		mA
Leakage (CW) @ 1 Watt CW		-20	-15	dBm
Leakage (Peak)		-17		dBm
Input Power (CW)			1	Watt

Mechanical Specifications

Size

Length	1.77 in [44.96 mm]
Width	1.18 in [29.97 mm]
Height	0.47 in [11.94 mm]
Weight	0.08 lbs [36.29 g]
Body Material and Plating	Aluminum

Configuration

Style	High Power Limiter
Connector 1	SMA Female
Connector 2	SMA Female

SMA High Power Limiter, 1 GHz to 18 GHz,
1W CW Power, -20 dBm Flat Leakage



FMLM2013

Environmental Specifications

Temperature

Operating Range

-40 to +85 deg C

Storage Range

-50 to +105 deg C

Humidity

100% RH at 35°, 95%RH at 40°

Shock

20G for 11msec half sine wave, 3 axis both directions

Vibration

25g RMS (15 degrees 2KHz) endurance, 1 hour per axis

Altitude

35,000 ft. (Epoxy Sealed Controlled environment)

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Values at 25°C, sea level.

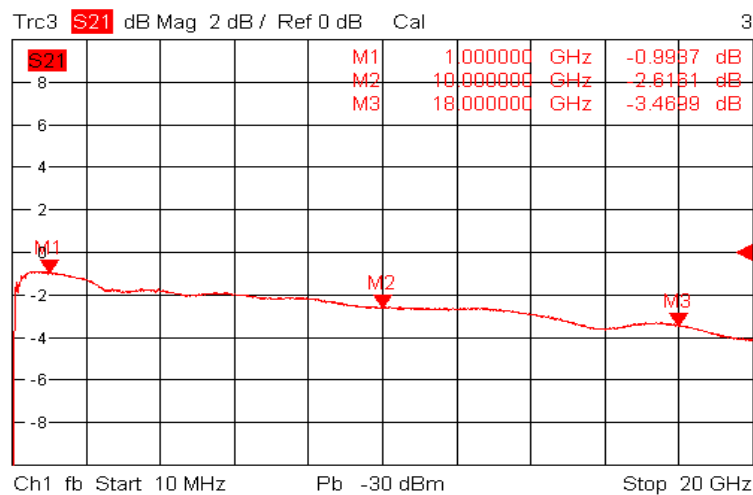
SMA High Power Limiter, 1 GHz to 18 GHz,
1W CW Power, -20 dBm Flat Leakage



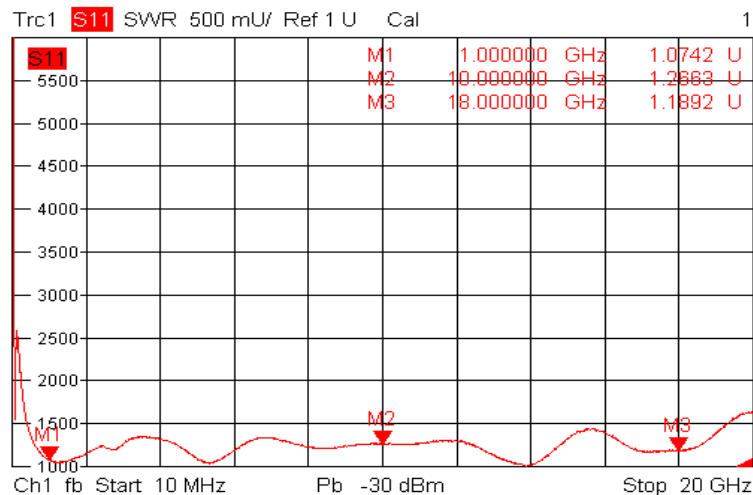
FMLM2013

Typical Performance Data

Insertion Loss @+25°C



Input VSWR @+25°C

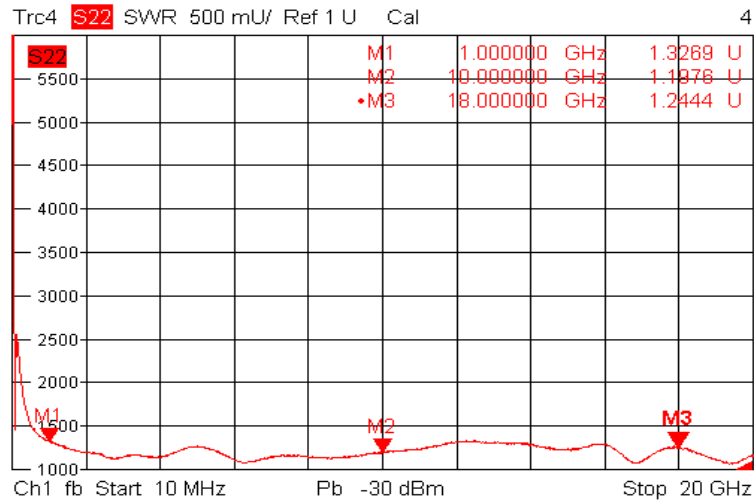


SMA High Power Limiter, 1 GHz to 18 GHz,
1W CW Power, -20 dBm Flat Leakage

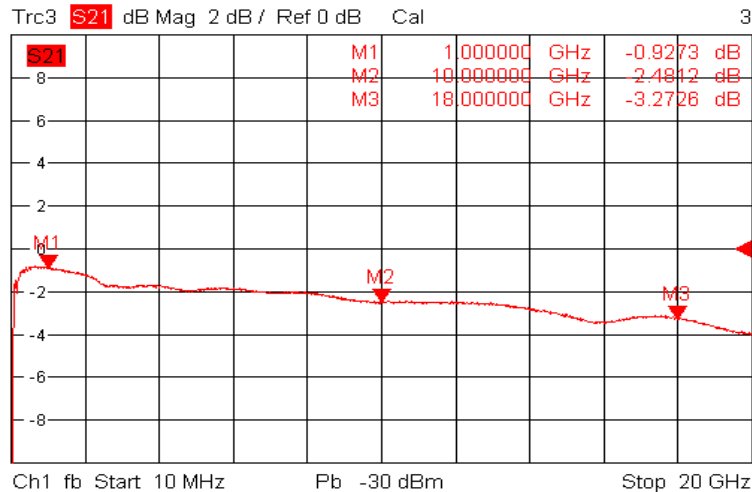


FMLM2013

Output VSWR @+25°C



Insertion Loss @-40°C

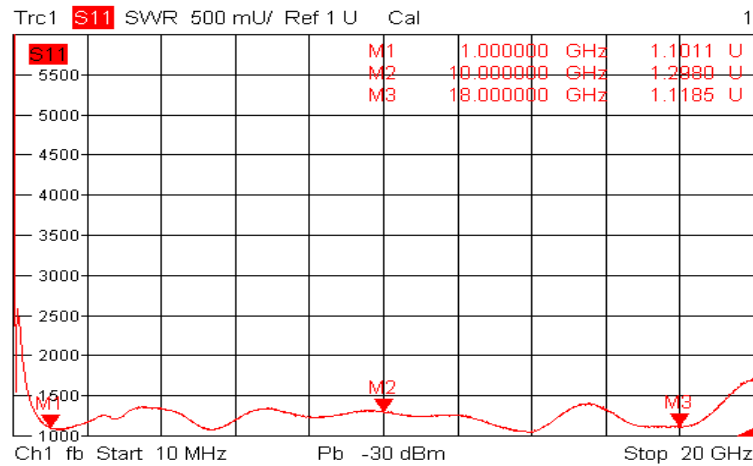


SMA High Power Limiter, 1 GHz to 18 GHz,
1W CW Power, -20 dBm Flat Leakage

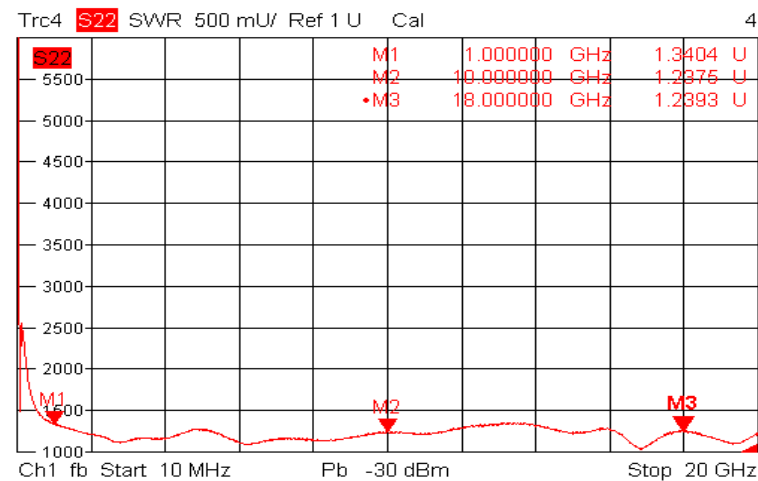


FMLM2013

Input VSWR @-40°C



Output VSWR @-40°C

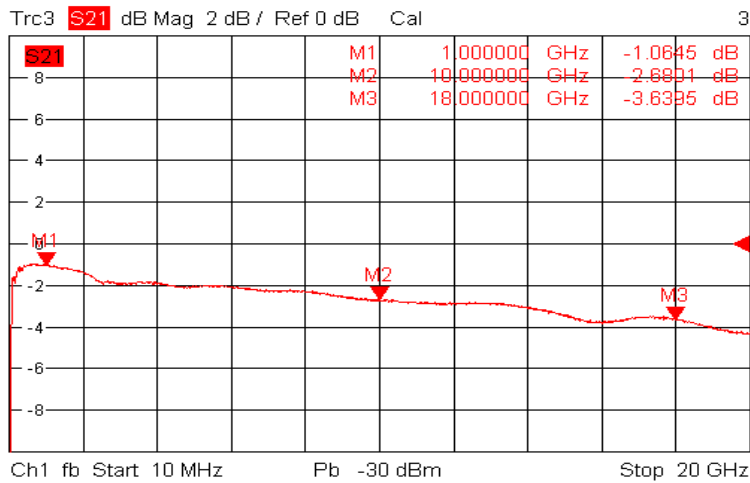


SMA High Power Limiter, 1 GHz to 18 GHz,
1W CW Power, -20 dBm Flat Leakage

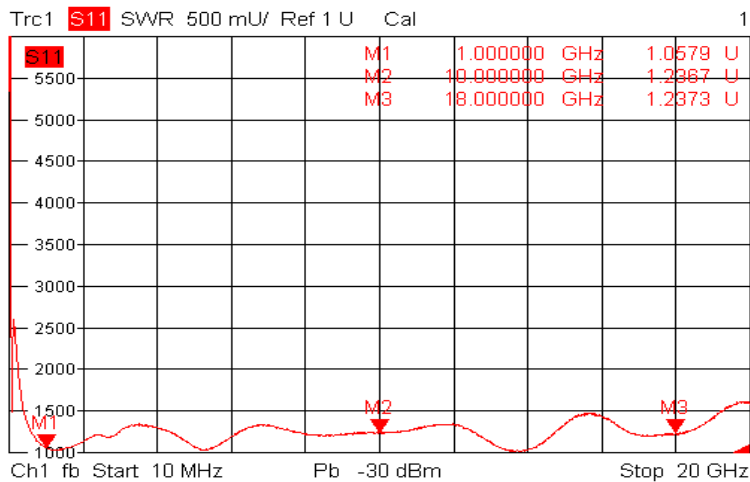


FMLM2013

Insertion Loss @+85°C



Input VSWR @+85°C

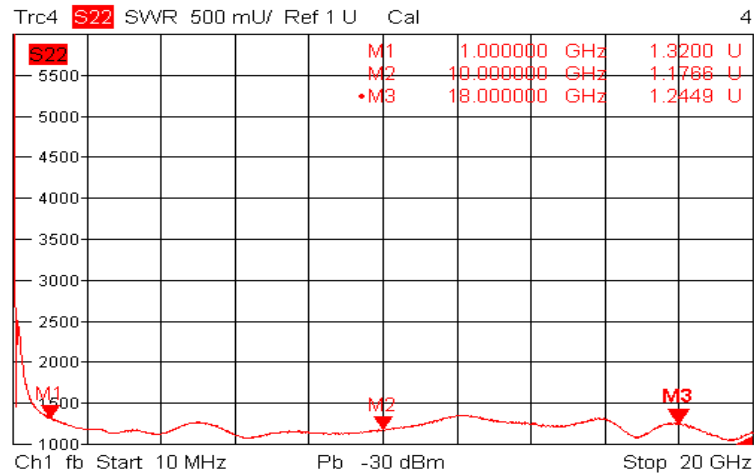


SMA High Power Limiter, 1 GHz to 18 GHz,
1W CW Power, -20 dBm Flat Leakage

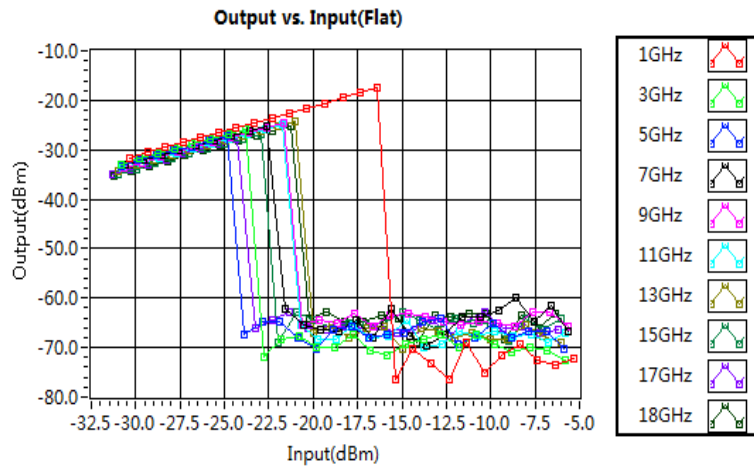
FMLM2013



Output VSWR @+85°C



Flat Leakage Power

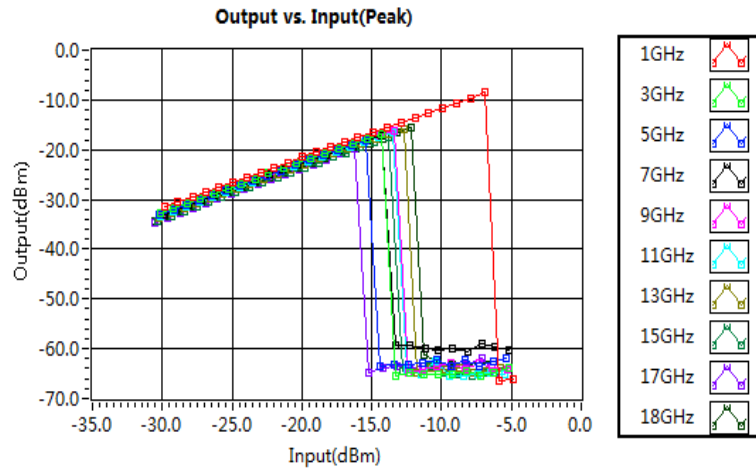


SMA High Power Limiter, 1 GHz to 18 GHz,
1W CW Power, -20 dBm Flat Leakage

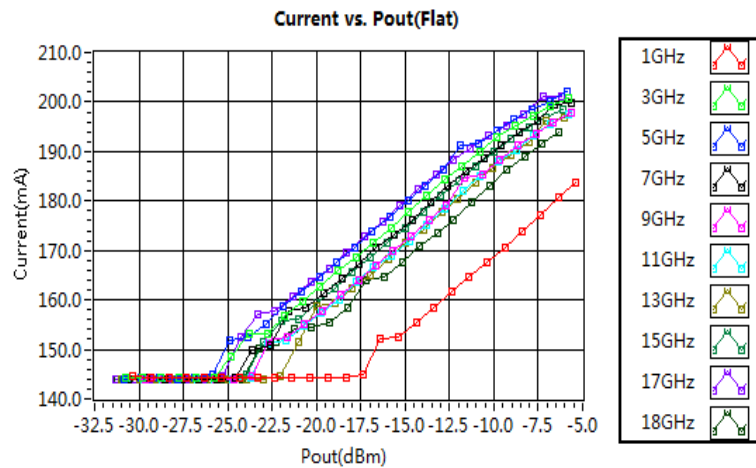
FMLM2013



Peak Power Leakage



Current vs. Pout(Flat)

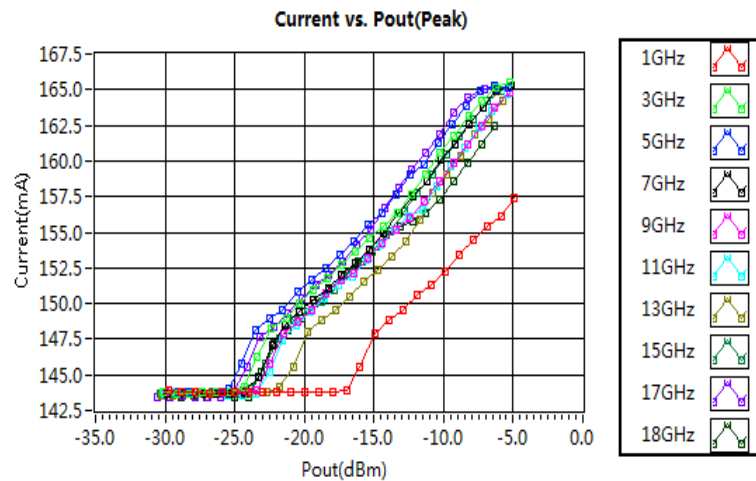


SMA High Power Limiter, 1 GHz to 18 GHz,
1W CW Power, -20 dBm Flat Leakage

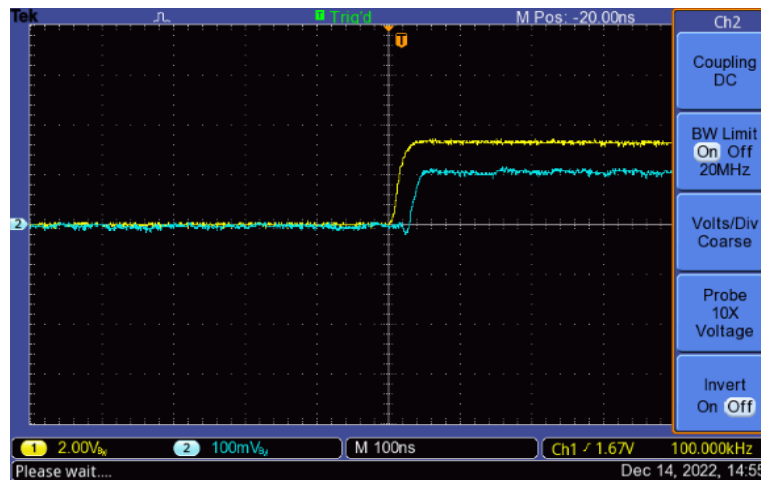


FMLM2013

Current vs. Pout(Peak)

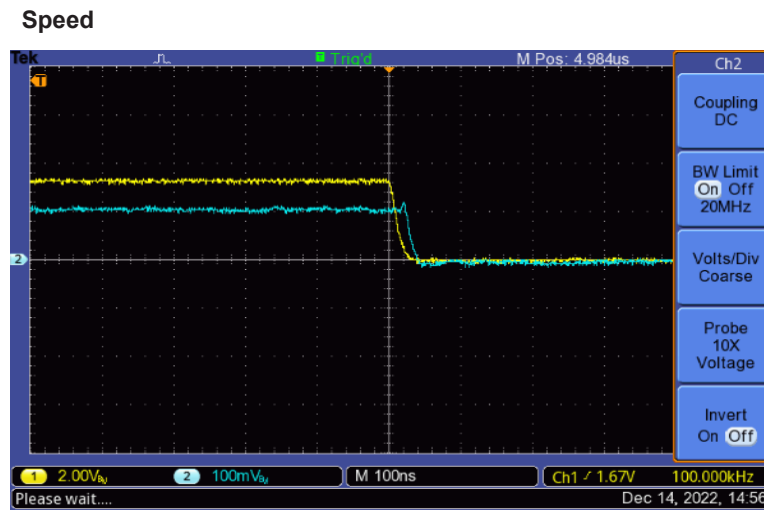


Speed



SMA High Power Limiter, 1 GHz to 18 GHz,
1W CW Power, -20 dBm Flat Leakage

FMLM2013



SMA High Power Limiter, 1 GHz to 18 GHz, 1W CW Power, -20 dBm Flat Leakage from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [SMA High Power Limiter, 1 GHz to 18 GHz, 1W CW Power, -20 dBm Flat Leakage FMLM2013](#)

SMA High Power Limiter, 1 GHz to 18 GHz,
1W CW Power, -20 dBm Flat Leakage



FMLM2013

URL: <https://www.fairviewmicrowave.com/high-power-limiter-sma-1w-peak-power-1-to-18-ghz-fmlm2013-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume liability arising out of the use of any part or document.

FMLM2013 CAD Drawing
SMA High Power Limiter, 1 GHz to 18 GHz, 1W CW Power, -20 dBm Flat Leakage

