

SMA High Power Limiter, 1 GHz to 6 GHz, 20W Peak Power, 18 dBm Flat Leakage



FMLM2020

Features

- 6 Watt Input Power(CW)
- 1 GHz to 6 GHz Frequency Range
- 0.8dB Insertion Loss max.
- VSWR 1.3:1
- Leakage @ 1 Watt CW +21.5 dBm Max
- Peak Power Leakage +30 dBm
- +20 Watt Peak Input Power
- 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 FMLM2020 is a Signal Limiter that operates in the 1 GHz to 6 GHz frequency range. The Limiter has up to 6 Watts CW input power handling capability with a 21.5 dBm max leakage output power level and +20 Watt peak input power. Typical performance includes 0.8 dB max insertion loss, 1.3:1 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		6	GHz
Insertion Loss		0.6	0.8	dB
Input VSWR		1.2:1	1.3:1	
Output VSWR		1.2:1	1.3:1	
Leakage (CW) @ 1 Watt CW		+18	+21.5	dBm
Leakage (Peak)			+30	dBm
Input Power (CW)			6	Watt
Input Power (Peak) @30us pulse, 5% Duty Cycle			20	Watt

Mechanical Specifications

Size

Length	0.51 in [12.95 mm]
Width	0.39 in [9.91 mm]
Height	0.31 in [7.87 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

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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.

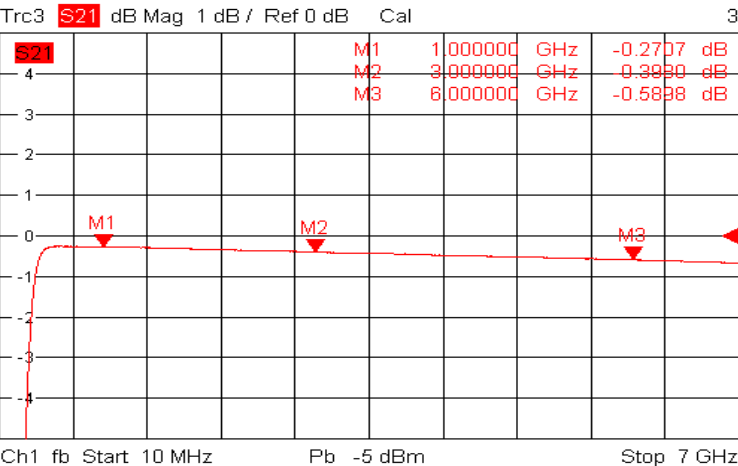
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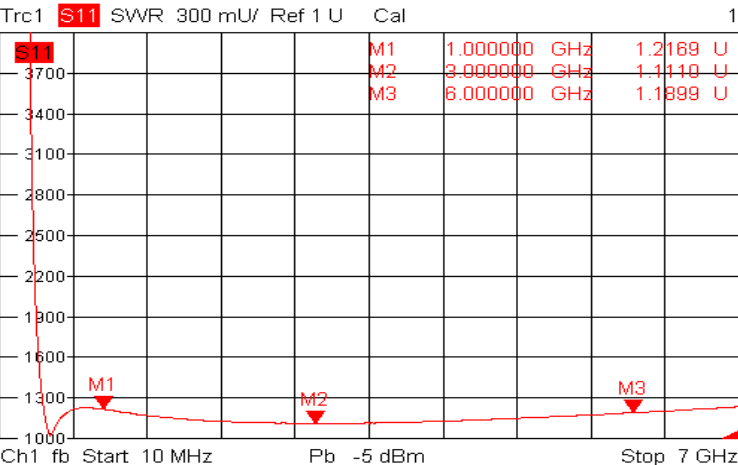
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Typical Performance Data

Insertion Loss @+25°C



Input VSWR @+25°C

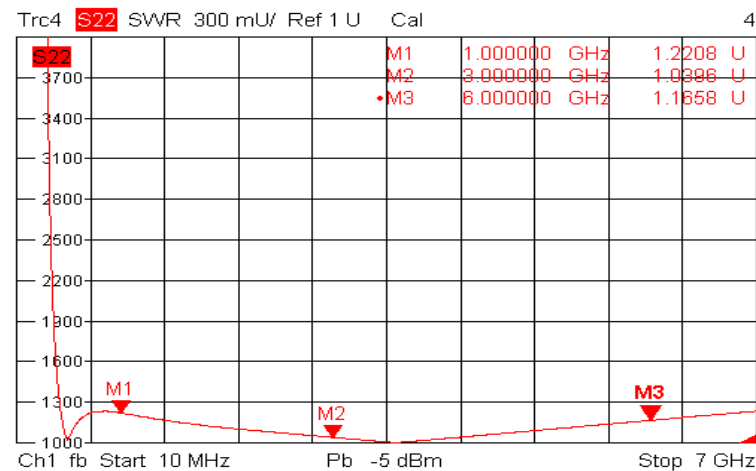


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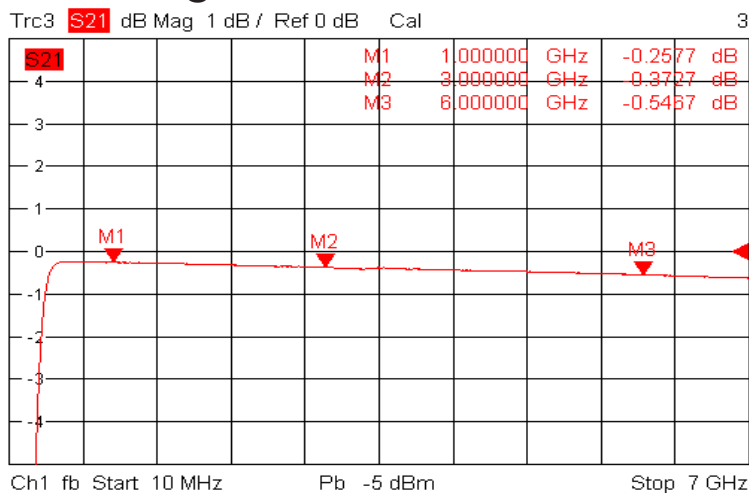


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Output VSWR @+25°C



Insertion Loss @-40°C

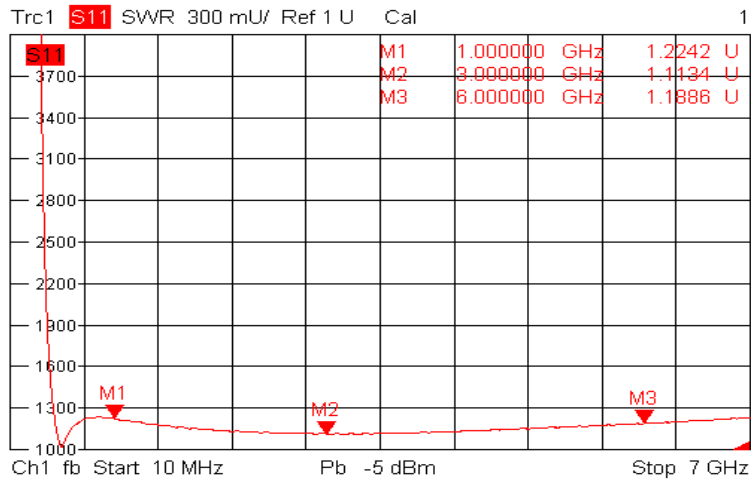


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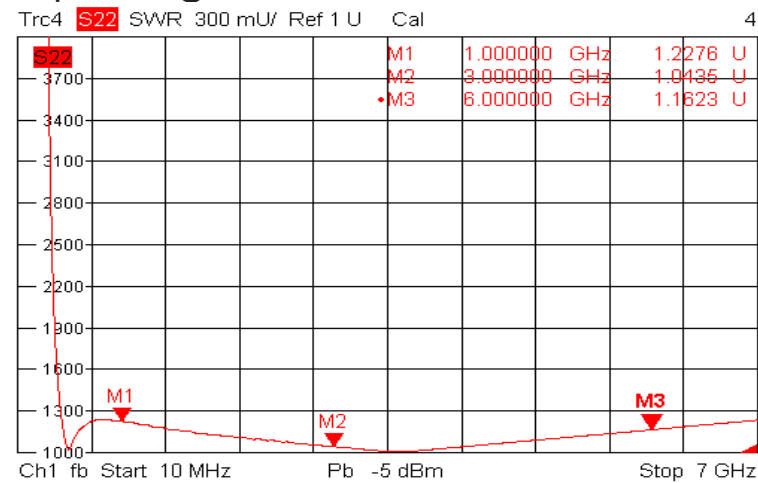


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Input VSWR @-40°C



Output VSWR @-40°C

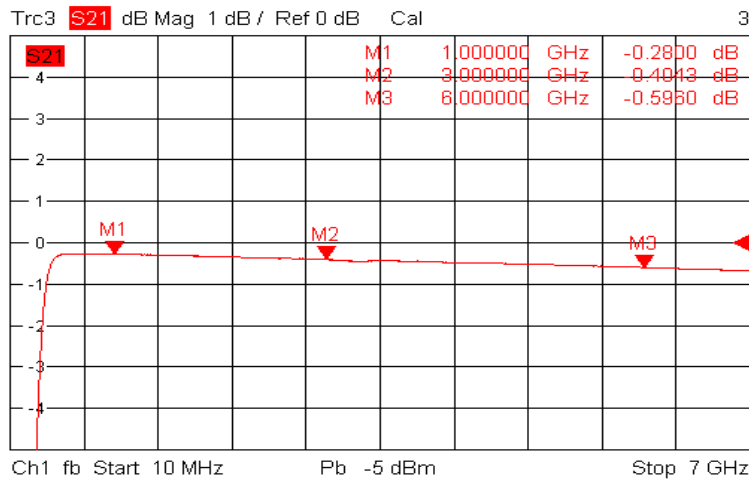


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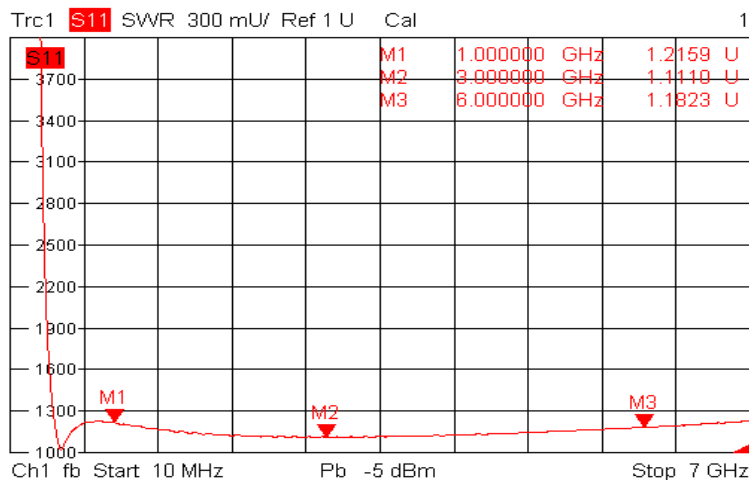


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Insertion Loss @+85°C



Input VSWR @+85°C

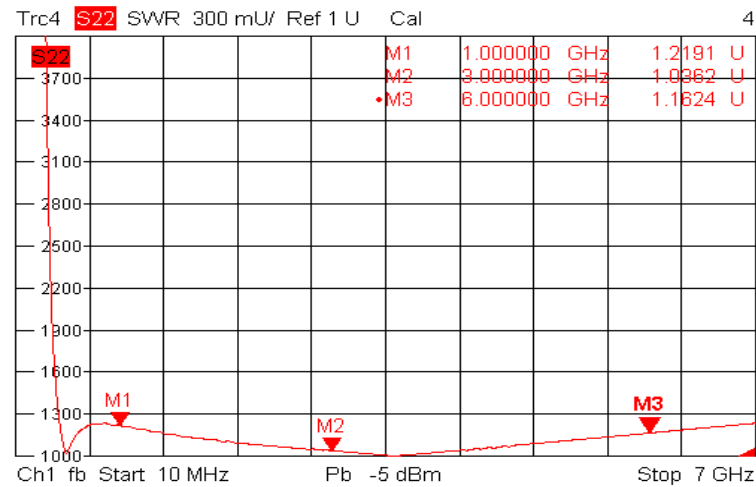


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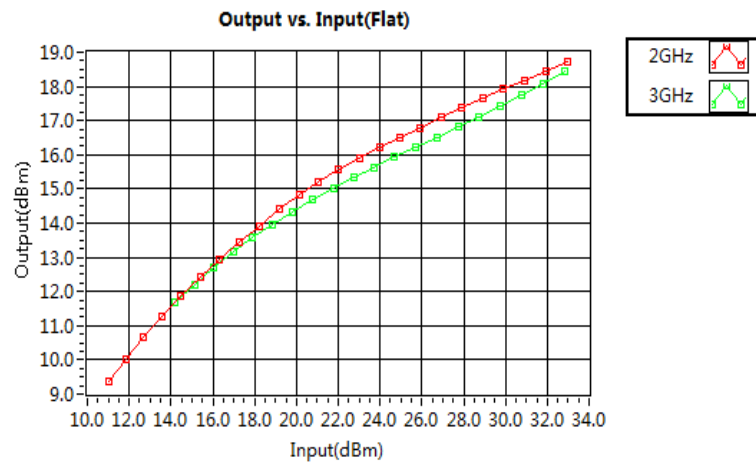


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Output VSWR @+85°C



Flat Leakage Power

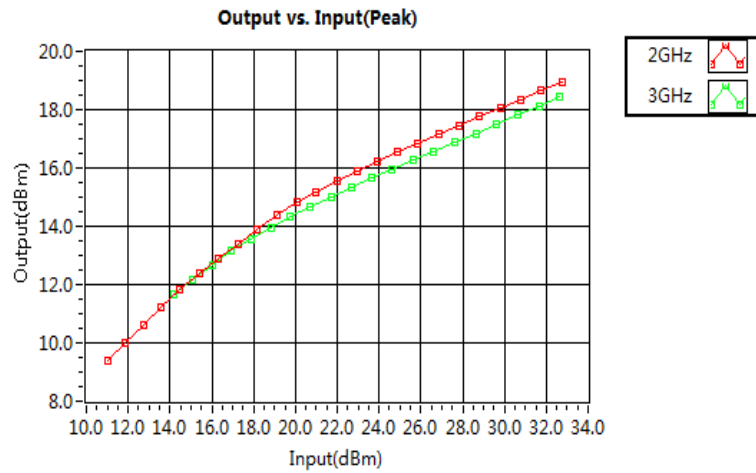


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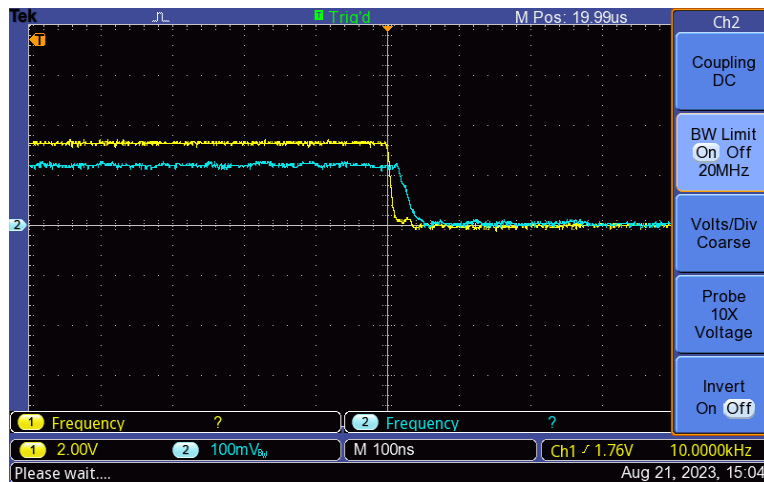
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Peak Power Leakage

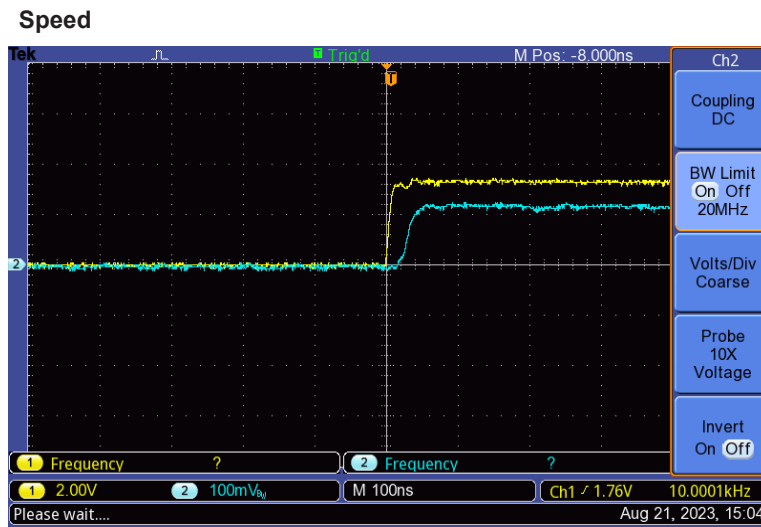


Speed



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SMA High Power Limiter, 1 GHz to 6 GHz, 20W Peak Power, 18 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 6 GHz, 20W Peak Power, 18 dBm Flat Leakage FMLM2020](#)

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URL: <https://www.fairviewmicrowave.com/high-power-limiter-sma-20w-peak-power-21.5-dbm-flat-leakage-1-to-6-ghz-fmlm2020-p.aspx>

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FMLM2020 CAD Drawing
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