

## SMA High Power Limiter, 1 GHz to 18 GHz, 10W Peak Power, 19 dBm Flat Leakage

### FMLM2011



#### Features

- 20 Watt Input Power(CW)
- 1 GHz to 18 GHz Frequency Range
- 2.2 dB Insertion Loss max.
- VSWR 2:1
- 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 FMLM2011 is a Signal Limiter that operates in the 1 GHz to 18 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 2.2 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                                   |     |       | 2.1   | dB   |
| Input VSWR                                       |     | 1.5:1 | 1.8:1 |      |
| Output VSWR                                      |     | 1.5:1 | 1.8:1 |      |
| Leakage (CW) @ 1 Watt CW                         |     |       | 21.5  | dBm  |
| Leakage (Peak)                                   |     |       | 25    | dBm  |
| Input Power (CW)                                 |     |       | 6     | Watt |
| Input Power (Peak)<br>@30us pulse, 5% Duty Cycle |     |       | 20    | Watt |

#### Performance by Frequency

| Description         | F1     | F2      | F3 | F4 | F5 | Units |
|---------------------|--------|---------|----|----|----|-------|
| Frequency Range     | 1 to 6 | 6 to 18 |    |    |    | GHz   |
| Insertion Loss, Typ | 1.2    | 1.8     |    |    |    | dB    |
| Peak Power          | 20     | 10      |    |    |    | Watt  |
| Power In, Max (CW)  | 6      | 2       |    |    |    | Watt  |
| Flat Leakage, Max   | 21.5   | 21      |    |    |    | dBm   |

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### Mechanical Specifications

#### Size

|                           |                    |
|---------------------------|--------------------|
| Length                    | 0.71 in [18.03 mm] |
| Width                     | 0.59 in [14.99 mm] |
| Height                    | 0.37 in [9.4 mm]   |
| Weight                    | 0.08 lbs [36.29 g] |
| Body Material and Plating | Aluminum           |

#### Configuration

|             |                    |
|-------------|--------------------|
| Style       | High Power Limiter |
| Connector 1 | SMA Male           |
| Connector 2 | SMA Female         |

### 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.

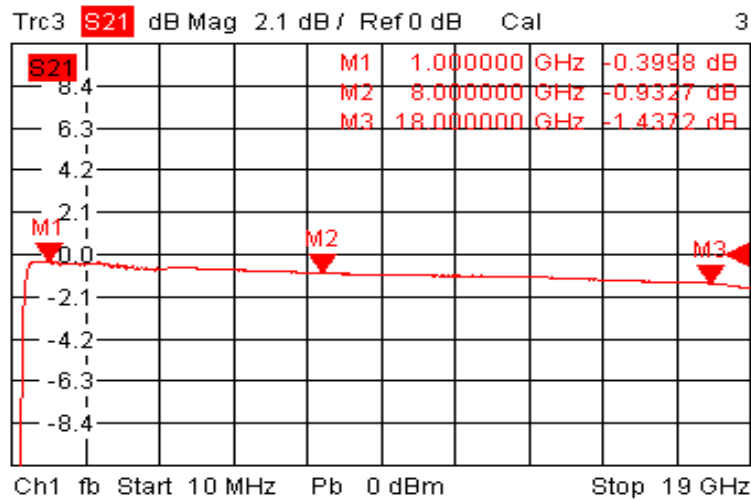
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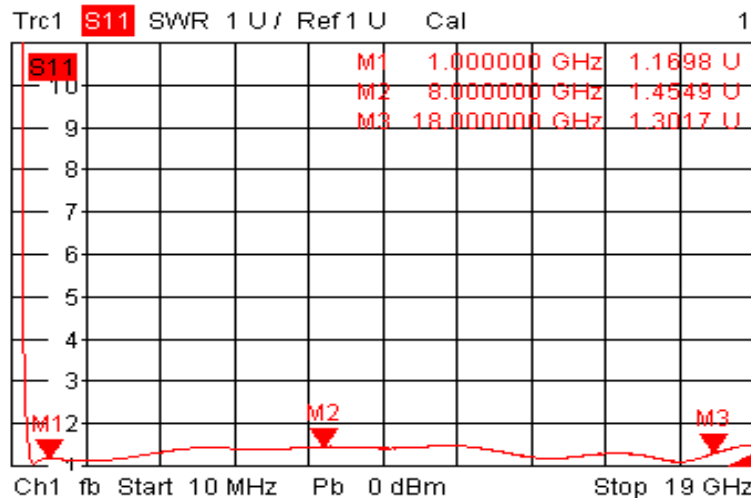


### Typical Performance Data

#### Insertion Loss @+25°C



#### Input VSWR @+25°C

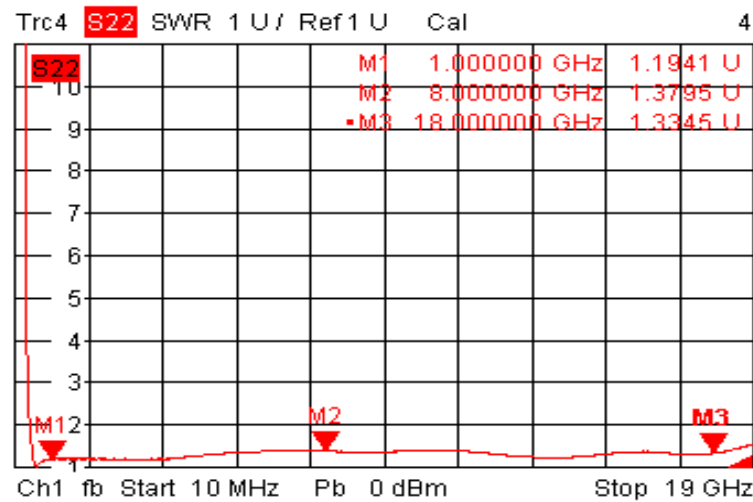


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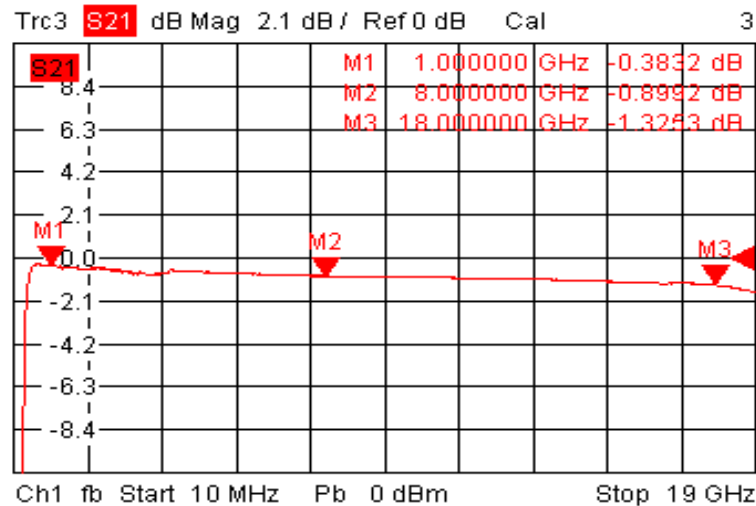
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Output VSWR @+25°C



Insertion Loss @-40°C

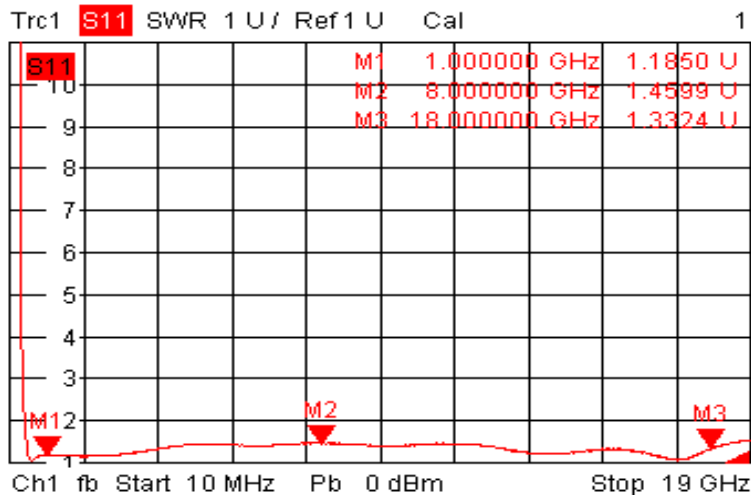


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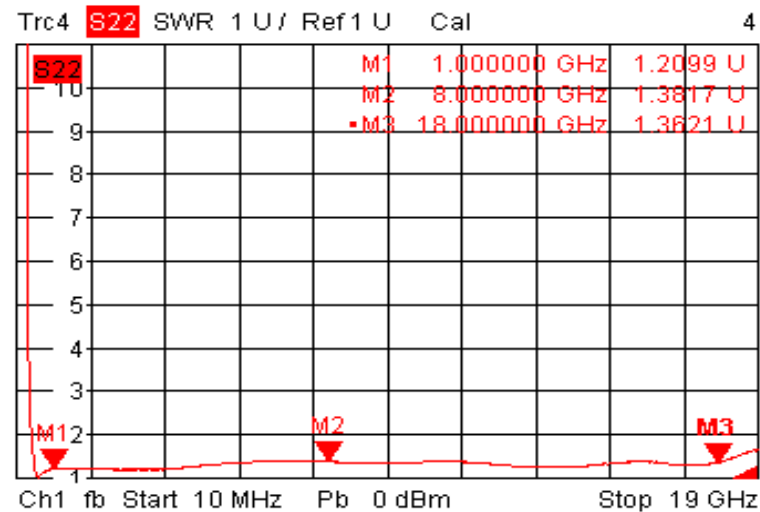
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**Input VSWR @-40°C**



**Output VSWR @-40°C**

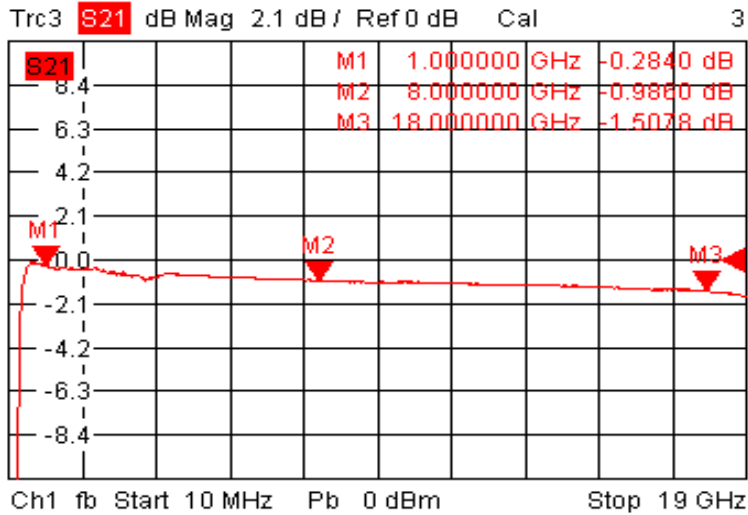


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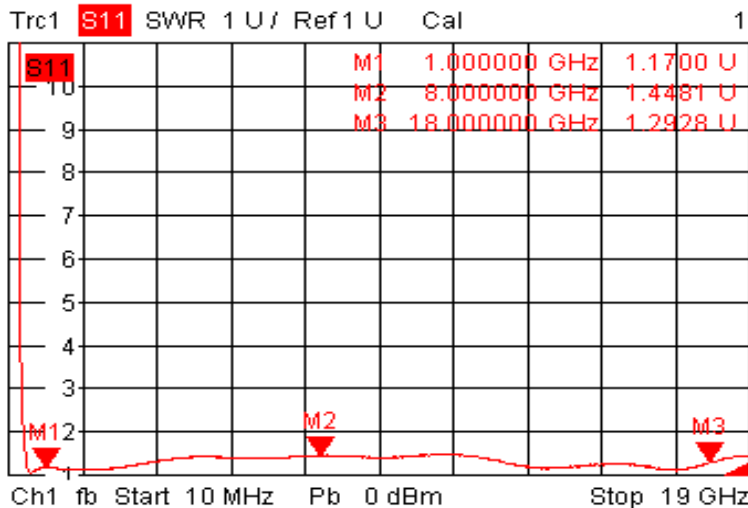
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**Insertion Loss @+85°C**



**Input VSWR @+85°C**

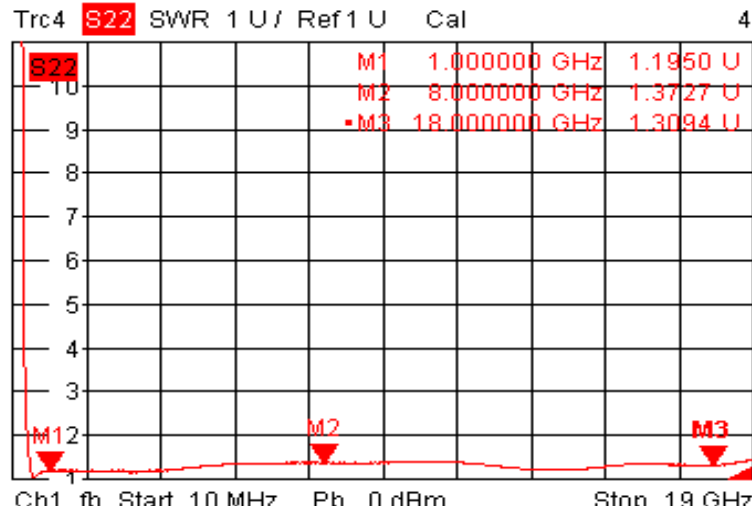


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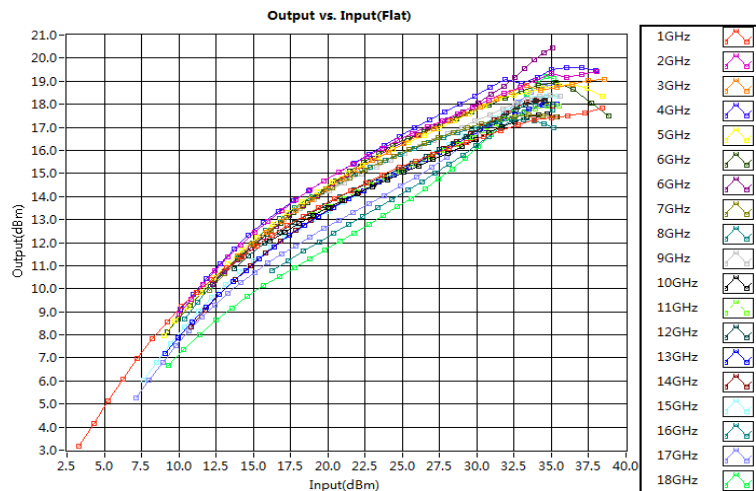
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#### Output VSWR @+85°C



#### Flat Leakage Power

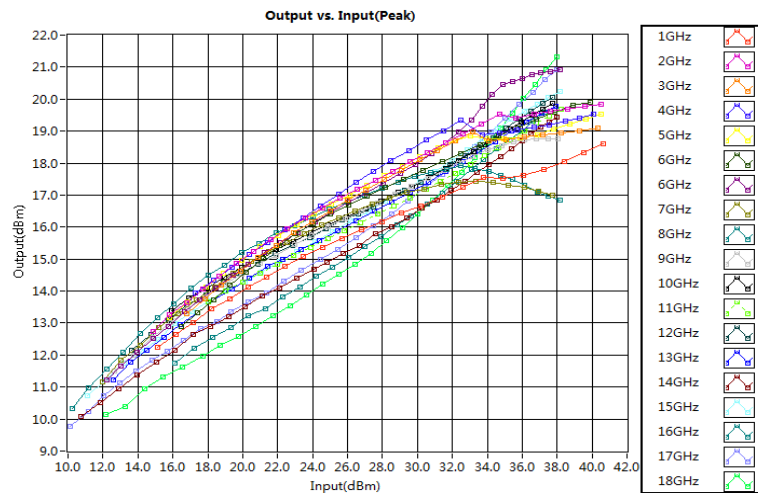


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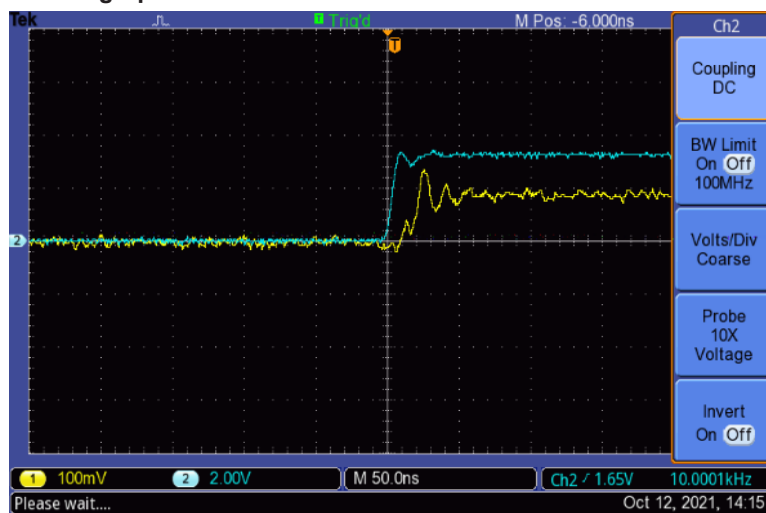
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### Peak Power Leakage

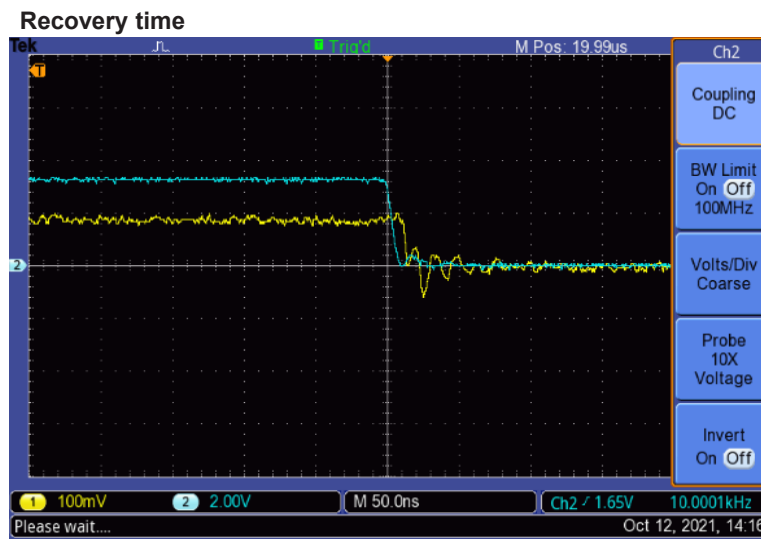


### Limiting Speed



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SMA High Power Limiter, 1 GHz to 18 GHz, 10W Peak Power, 19 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, 10W Peak Power, 19 dBm Flat Leakage FMLM2011](#)

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URL: <https://www.fairviewmicrowave.com/high-power-limiter-sma-10w-peak-power-19-dbm-flat-leakage-1-to-18-ghz-fm-lm2011-p.aspx>

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FMLM2011 CAD Drawing
SMA High Power Limiter, 1 GHz to 18 GHz, 10W Peak Power, 19 dBm Flat Leakage

