

High Power Limiter, SMA, 100W Peak Power, 10 ns Recovery, 14 dBm Flat Leakage, 500 MHz to 18 GHz

The SML-0518-01-14-SMA is a High Power Limiter that operates from 0.5 GHz to 18 GHz.

Electrical Specifications

Description	Min	Typ	Max	Unit
Frequency Range	0.5		18	GHz
Insertion Loss @Pin=-20 dBm		1.5	2	dB
Input VSWR		1.5:1	2:1	
Leakage (CW) Derated by 20% @ +125°C		+10	+14	dBm
Speed		10		ns
Recovery Time*		10		ns
Input Power (CW) Derated by 20% @ +125°C			1	Watt
Input Power (Peak) @1us pulse, 0.1% Duty Cycle			100	Watt
Limiting Threshold		+10		dBm

Electrical Specification Notes:

Values at 25°C, sea level.

* Single Tone Input Pulse: 1W @ 6 GHz (1 MHz - 50% Duty Cycle)

Mechanical Specifications

Size

Length	0.5 in [12.7 mm]
Width	0.5 in [12.7 mm]
Height	0.22 in [5.59 mm]
Weight	0.023 lbs [10.43 g]

Configuration

Style	Limiter
Impedance	50 Ohms
Connector 1	SMA Female
Connector 2	SMA Female

Environmental Specifications

Temperature

Operating Range	-54 to +85 deg C
Storage Range	-65 to +125 deg C



Features:

- High Speed 1 Watt Limit
- 0.5 GHz to 18 GHz Frequency Range
- Insertion Loss @ -20 dBm 1.5 dB
- VSWR @ -20 dBm 1.5:1
- Leakage @ 1 Watt CW 10 dBm
- Speed 10 ns
- Limiting Threshold +10 dBm
- High Power Handling
- Very Fast Recovery Time

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

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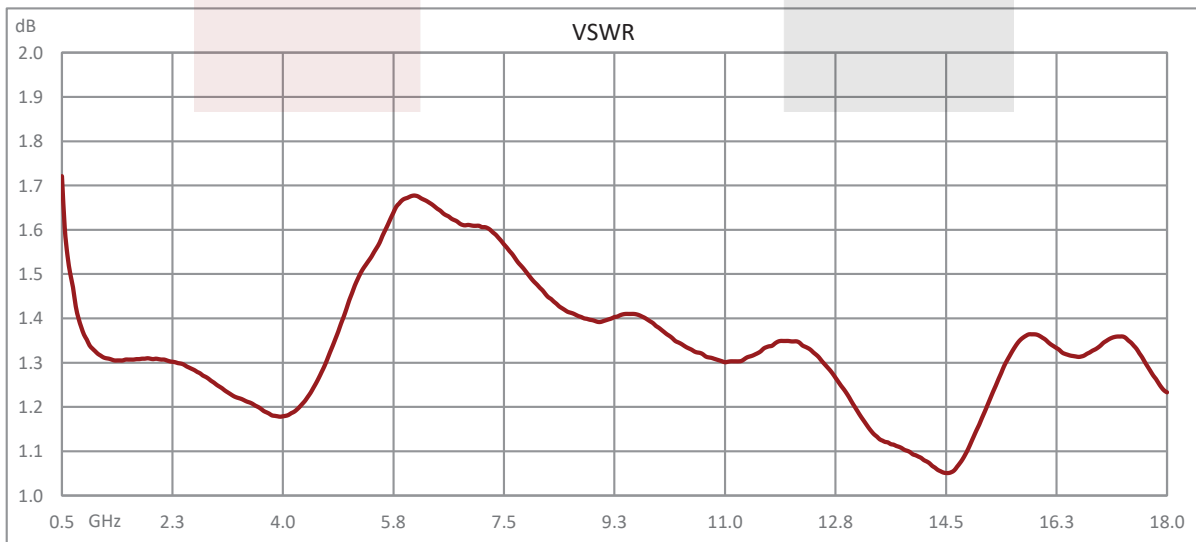
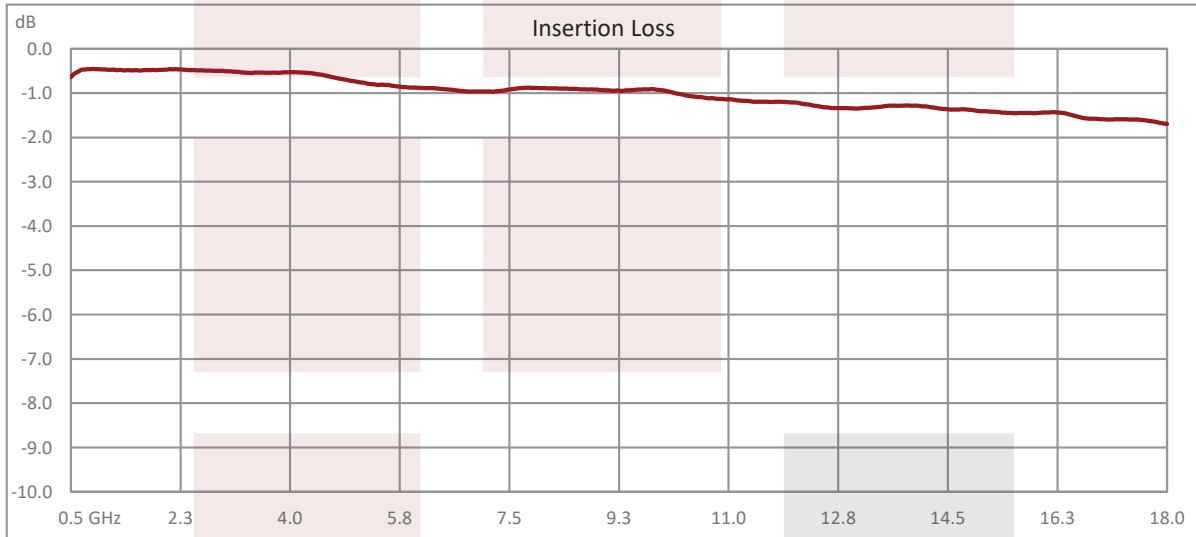
Humidity	MIL-STD-202F, METHOD 103B COND. B
Shock	MIL-STD-202F, METHOD 213B COND. B
Vibration	MIL-STD-202F, METHOD 204D COND. B
Altitude	MIL-STD-202F, METHOD 105C COND. B
Temperature Cycle	MIL-STD-202F, METHOD 107D COND. A
Fungus	MIL-STD-810F, METHOD 508.5
Salt Fog	MIL-STD-202F, METHOD 101D+EST Cond.B
ESD Sensitivity	Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

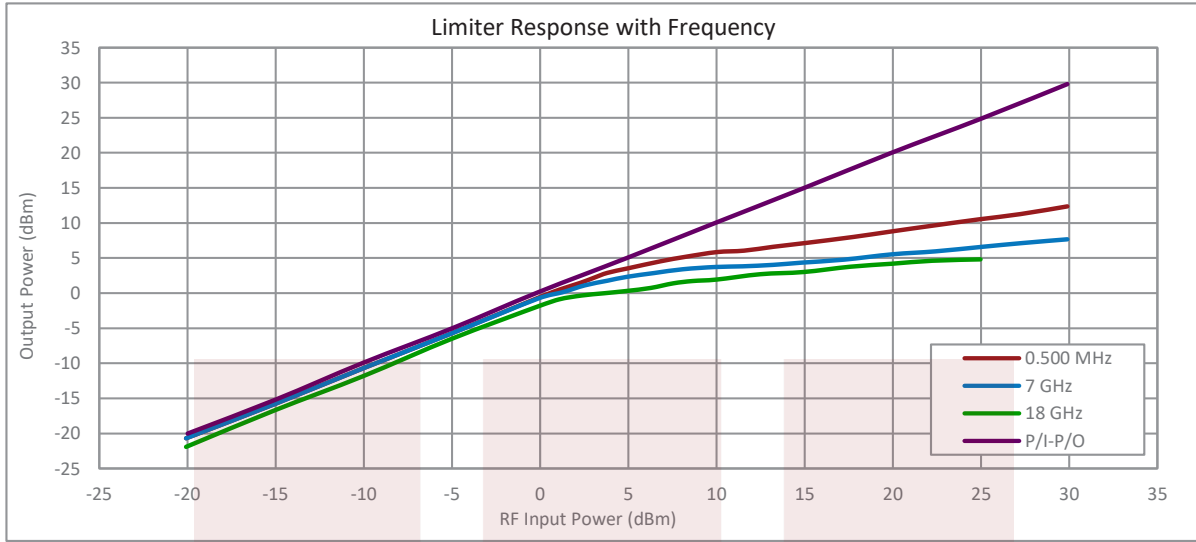
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

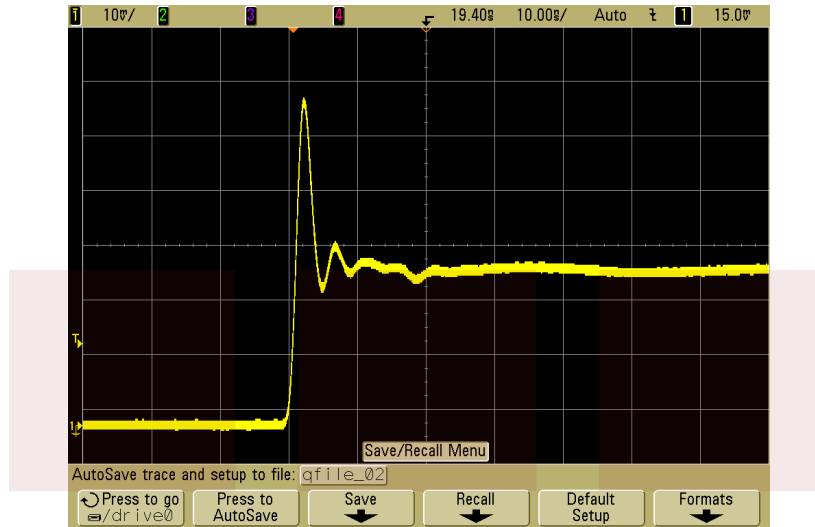
- Notes:
- Values at 25°C, sea level.

Typical Performance Data

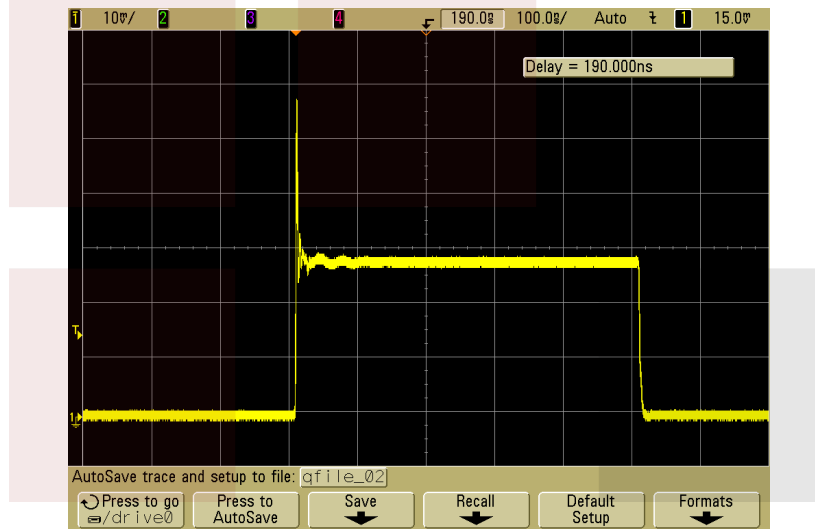




Overshoot and Flat Leakage Settling Time Response



Falling Edge Response



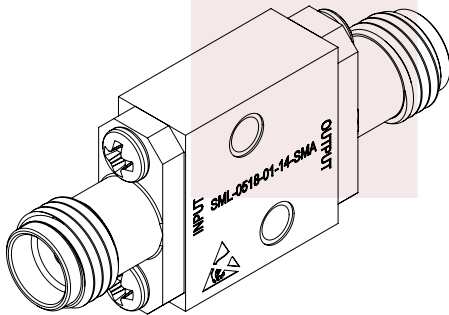
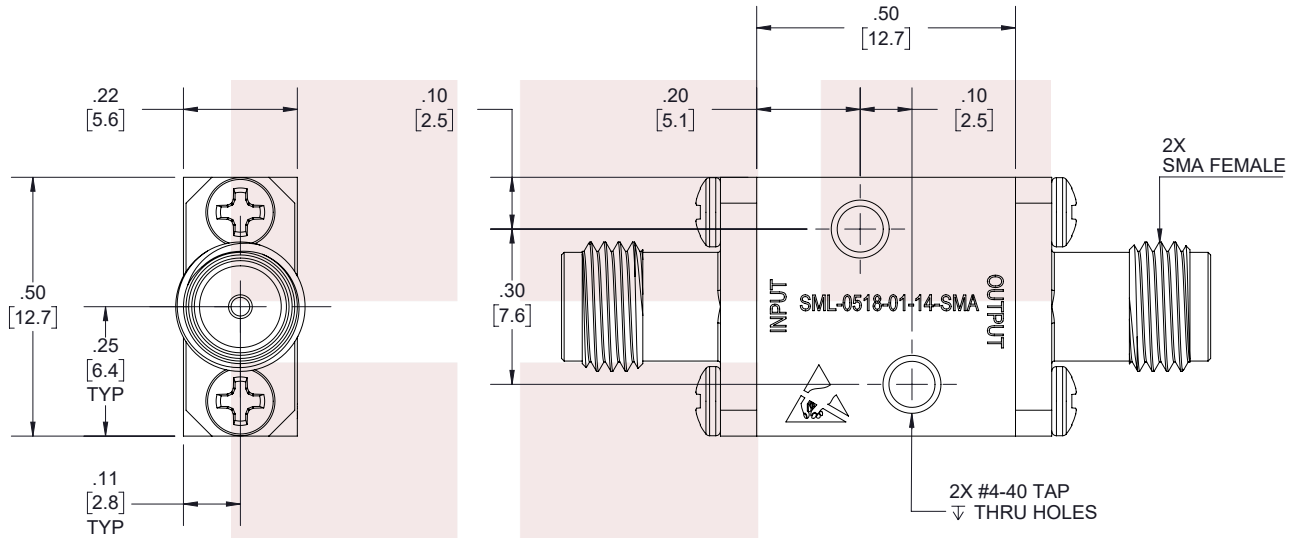
High Power Limiter, SMA, 100W Peak Power, 10 ns Recovery, 14 dBm Flat Leakage, 500 MHz to 18 GHz from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [High Power Limiter, SMA, 100W Peak Power, 10 ns Recovery, 14 dBm Flat Leakage, 500 MHz to 18 GHz SML-0518-01-14-SMA](https://www.fairviewmicrowave.com/sma-limiter-high-power-10-ns-18-ghz-sml-0518-01-14-sma-p.aspx)

URL: <https://www.fairviewmicrowave.com/sma-limiter-high-power-10-ns-18-ghz-sml-0518-01-14-sma-p.aspx>

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PCR SML-0518-01-14-SMA	4/24/2020	T.GALLA



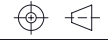
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TITLE
High Power Limiter, SMA, 100W Peak Power, 10 ns Recovery, 14 dBm Flat Leakage, 500 MHz to 18 GHz

UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:		CABLE LENGTH (L) TOLERANCES:	
.X = ±.2 [5.08]	FRACTIONS ± 1/32	L ≤ 12 [305] = +1 [25] / -0	
.XX = ±.02 [51]		12 [305] < L ≤ 60 [1524] = +2 [51] / -0	
.XXX = ±.005 [13]	ANGLES ± 1°	60 [1524] < L ≤ 120 [3048] = +4 [102] / -0	
		120 [3048] < L ≤ 300 [7620] = +6 [152] / -0	
		300 [7620] < L = +5%L / -0	

THIRD-ANGLE PROJECTION



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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	3FKR5	K.DANG	SML-0518-01-14-SMA	A

T-Rev.D