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PRODUCT GUIDE
Limiters & Detectors

Broad Selection of Ready-to-Ship Limiters and Detectors

Fairview Microwave provides a comprehensive selection of coaxial, and waveguide packaged RF limiters and RF detectors that cover broadband frequencies ranging from 1 MHz to 110 GHz. RF detector options include biased, log, power, Schottky Zero Bias, threshold, and tunnel diode zero bias detectors that support frequency ranges covering 1 MHz to 26.5 GHz. Fairview’s waveguide detectors are available in power and zero bias designs and support frequencies ranging from 26.5 -110 GHz. RF limiters support frequency ranges of 2 MHz to 40 GHz and are available in PIN-PIN as well as PIN-Schottky designs.

All models are in-stock and ready to ship with no minimum order quantity, making these RF components ideal for prototyping and proof-of-concept in precision instrumentation, test and measurement, and subsystem assemblies.












Our RF limiter and RF detector models can be viewed online at www.fairviewmicrowave.com with real-time inventory, pricing, and detailed datasheets that include typical performance graphs and CAD drawings. Our application engineers are available to answer any of your technical questions and can assist you with selecting the right product for your application.

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Limiters





High Rel

FM P/N	Frequency Range (GHz)	Insertion Loss Max. (dB)	Input VSWR Typ.	Leakage Power Max. (dBm)	Recovery Time Typ. (ns)	Input Power (CW) Max. (W)	Peak Power Max. (W)	Limiting Threshold Typ (dBm)
FMLM2003 	20 MHz - 4	0.8	1.8:1	13	15,000	2	100	10
SML-0518-01-14-SMA 	500 MHz - 18	1.5	1.5:1	10	10	1	100	10
FMLM2009 	500 MHz - 18	1.6	1.8:1	14		2	20	14
FMLM2005 	500 MHz - 18	2	1.8:1	18	15,000	5	100	14
SML-0208-05-13-SMA 	2 - 8	1	2:1	13	40	5	100	
FMLM2006 	2 - 18	2.5	2:1	14	15,000	5	100	6
SML-0618-10-15-SMA 	6 - 18	2.5		15	12	10	100	
FMLM2004 	8 - 12	1.2	1.8:1	18	15,000	3	100	15
SML-1840-01-18-K 	18 - 40	4	2.1:1	12	10	1	20	5
FMLM2007 	18 - 40	4.5	3:1	13	15,000	1	100	6
FMLM2008 	26.5 - 40	3	2:1	13	15,000	1	100	6

PIN-PIN
















FM P/N	Frequency Range (GHz)	Limiting Threshold Typ. (dBm)	Leakage @1W CW Input Max. (dBm)	Insertion Loss Typ. (dB)	Input VSWR Typ.	Input Power (CW) Max. (W)	Input Peak Power Max. (W)
FMMT1018 	500 MHz - 2	12	19	0.5	1.4:1	1	100
FMMT1019 	1 - 2	9	19	0.2	1.2:1	1	100
FMMT1020 	2 - 4	12	18.5	0.8	1.5:1	1	100
FMMT1021 	2 - 8	9	16	1.2	1.6:1	1	100
FMMT10022 	2 - 18	12	18	2.5	2.2:1	1	100
FMMT1023 	4 - 8	9	16	1	1.3:1	1	100
FMMT10024 	6 - 18	12	16	2.2	2:1	1	100
FMMT10025 	7 - 12	12	16	1.8	1.8:1	1	100
FMMS10027 	11 - 18	9	16	2	2:1	1	100

PIN-Schottky












FM P/N	Frequency Range (GHz)	Limiting Threshold Typ. (dBm)	Leakage @1W CW Input Max. (dBm)	Insertion Loss Typ. (dB)	Input VSWR Typ.	Input Power (CW) Max. (W)	Input Peak Power Max. (W)
FMMT10033 	2 - 18	4	18	2.5	2.2:1	1	100
FMMT1034 	4 - 8	4	13	1.4	1.5:1	1	100
FMMT10035 	6 - 18	4	13	2.5	2.2:1	1	100
FMMT10036 	7 - 12	4	16	1.6	1.6:1	1	100

Detectors


Tunnel Diode Zero Bias

FM P/N	Frequency Range (GHz)	Output Polarity	VSWR Max.	Pulse Video Response Risetime Typ. (ns)	Voltage Sensitivity Typ. (mV/mW)	Flatness Max. (dB)	Input Power Max. (dBm)	Video Capacitance Typ. (pF)	Tangential Signal Sensitivity Typ. (dBm)
FMMT6000 	100 MHz - 2	Negative	2:1	5	800	0.75	17	470	-51
FMMT6001 	100 MHz - 2	Positive	2:1	5	800	0.75	17	470	-51
FMMT6002 	100 MHz - 4	Negative	2.2:1	5	800	0.75	17	470	-51
FMMT6003 	100 MHz - 4	Positive	2.2:1	5	800	0.75	17	470	-51
FMMT6010 	500 MHz - 1	Negative	2:1	5	1,000	0.5	17	100	-51
FMMT6011 	500 MHz - 1	Positive	2:1	5	1,000	0.5	17	100	-51
FMMT6004 	500 MHz - 18	Negative	3.5:1	5	400	1	17	100	-50
FMMT6005 	500 MHz - 18	Positive	3.5:1	5	400	1	17	100	-50
FMMT6012 	1 - 2	Negative	2:1	5	1,000	0.5	17	50	-51
FMMT6013 	1 - 2	Positive	2:1	5	1,000	0.5	17	50	-51
FMMT6014 	2 - 4	Negative	2:1	5	1,000	0.5	17	20	-51
FMMT6015 	2 - 4	Positive	2:1	5	1,000	0.5	17	20	-51
FMMT6016 	2 - 6	Negative	2.5:1	5	1,000	0.5	17	20	-50
FMMT6017 	2 - 6	Positive	2.5:1	5	1,000	0.5	17	20	-50
FMMT6006 	2 - 18	Negative	3.5:1	5	500	1	17	20	-47



Tunnel Diode Zero Bias Continued

FM P/N	Frequency Range (GHz)	Output Polarity	VSWR Max.	Pulse Video Response Risetime Typ. (ns)	Voltage Sensitivity Typ. (mV/mW)	Flatness Max. (dB)	Input Power Max. (dBm)	Video Capacitance Typ. (pF)	Tangential Signal Sensitivity Typ. (dBm)
FMMT6007 	2 - 18	Positive	3.5:1	5	500	1	17	20	-47
FMMT6018 	4 - 8	Negative	2.5:1	5	900	0.7	17	20	-50
FMMT6019 	4 - 8	Positive	2.5:1	5	900	0.7	17	20	-50
FMMT6020 	6 - 12	Negative	2.7:1	5	800	0.6	17	10	-50
FMMT6021 	6 - 12	Positive	2.7:1	5	800	0.6	17	10	-50
FMMT6008 	6 - 18	Negative	3:1	5	700	0.75	17	10	-47
FMMT6009 	6 - 18	Positive	3:1	5	700	0.75	17	10	-47
FMMT6022 	12 - 18	Negative	3:1	5	700	0.7	17	10	-47
FMMT6023 	12 - 18	Positive	3:1	5	700	0.7	17	10	-47
FMMT6024 	18 - 26	Negative	4:1	5	400	1	17	5	-47
FMMT6025 	18 - 26	Positive	4:1	5	400	1	17	5	-47











Schottky Zero Bias

FM P/N	Frequency Range (GHz)	Impedance (Ohm)	Polarity	Voltage Sensitivity (mV/mW)	VSWR Max.	Video Capacitance (pF)	Signal Level and Input Level Min (dBm)
SMD0018 	10 MHz - 18	50	Negative	500	1.7:1	470	-30


Finline

FM P/N	Frequency Range (GHz)	Impedance (Ohm)	Detected Output Voltage (Volts)	Frequency Response Typ. (dB/Octave)	Voltage Sensitivity (mV/mW)	VSWR Max.	Maximum Input Power (Watts)
FMMT1004 	100 MHz - 12.4	50	+10.5	+/- 0.2	800	1.7:1	0.5
FMMT1005 	100 MHz - 18	50	+9.5	+/- 0.2	800	1.7:1	0.5



Biased

FM P/N	Frequency Range (GHz)	Polarity	Voltage Sensitivity (mV/mW)	Flatness (dB)	Input Power (dBm)	Tangential Signal Sensitivity (dBm)
FMMT1001 	500 MHz - 1	Negative	1,800	0.25	23	-54
FMMT1002 	1 - 2	Negative	2,000	0.25	23	-52
FMMT1003 	2 - 4	Negative	2,000	0.5	23	-52
FMMT1003-P 	2 - 4	Positive	2,000	0.5	23	-52
FMMT1004-P 	4 - 8	Positive	2,000	0.5	23	-52
FMMT1006-P 	8 - 12	Positive	1,800	0.5	23	-52
FMMT1007 	8 - 16	Negative	1,800	0.6	23	-52
FMMT1008 	8 - 18	Negative	1,600	0.7	23	-52
FMMT1008-P 	8 - 18	Positive	1,600	0.7	23	-52
FMMT1009 	18 - 26	Negative	1,500	1	23	-52




Log

FM P/N	Frequency Range (GHz)	Impedance (Ohm)	Slope (mV/dB)	Input Power Max. (dBm)	Output Voltage Max. (dB)	Slew Rate (V/us)
FMMT10040 	10 MHz - 3	50	40	10	2	1




Threshold

FM P/N	Frequency Range (GHz)	Impedance (Ohm)	Signal Level and Input Level Min. (dBm)	Input Power Max. (dBm)	Propagation Delay Typ. (ns)	DC Voltage
SMD-0218-20-SMA 	2 - 18	50	-20	10	15	15
SMD-0218-45-SMA 	2 - 18	50	-45	10	20	12


Phase

FM P/N	Frequency Range (GHz)	Impedance (Ohm)	VSWR Max.	Input Power Max. (dBm)	DC Voltage
FMMT4000 	3 MHz - 300 MHz	50	2:1	17	15
FMMT4002 	5 MHz - 25 MHz	50	2:1	17	15
FMMT4001 	200 MHz - 800 MHz	50	2:1	10	15

Power

FM P/N	Frequency Range (GHz)	Dynamic Range (dB)	True RMS Output Voltage Typ (V)	Output Slope	VSWR	Max RF Input Power (dBm)	RF Connectors
FMPT1001 	30 MHz - 4	80	0.62 - 1.89	Positive	2:1	20	SMA
FMPT1002 	50 MHz - 3	60	0.12 - 2.1	Positive	2:1	10	SMA
FMPT1000 	50 MHz - 5	30	0.15 - 4.95	Positive	2:1	15	SMA

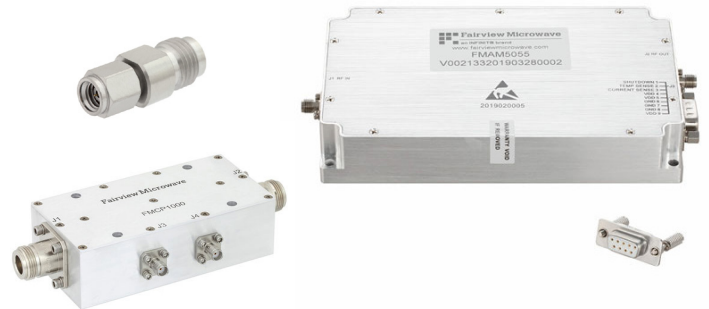
Waveguide Detectors

FM P/N	Connector 1	RF Frequency Range (GHz)	Voltage Sensitivity (V/nW)	Input Power (dBm)	Connector 2	ECCN
FMMT3000 	WR-10 UG-387/U	75 - 100	-900	20	SMA Female	EAR99

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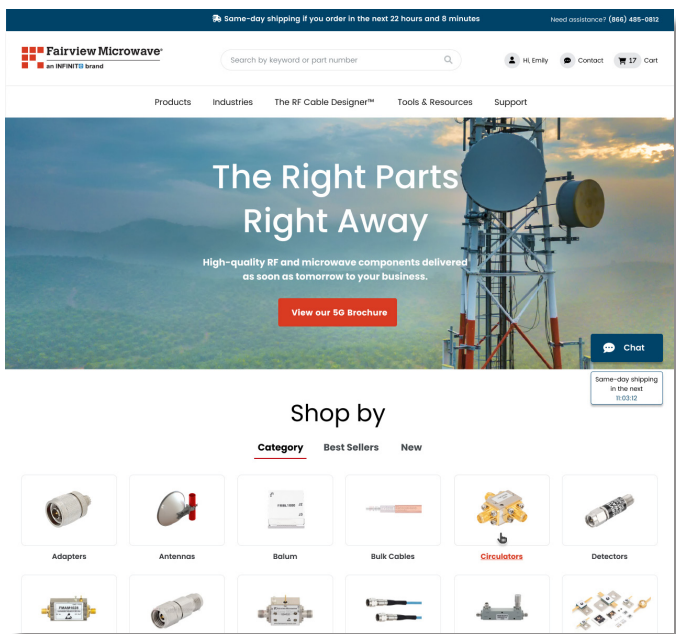


Who We Are

Since 1992, Fairview Microwave has been a leading supplier of high-quality RF and microwave components in the U.S. and across the globe and specializes in immediate product needs by offering same-day shipping on thousands of in-stock items with no minimum purchasing requirements.

We know that having the correct parts shipped directly to you the same day you order them can mean the difference between project success and failure. That's why Fairview maintains an inventory of thousands of RF products including adapters, connectors, amplifiers, attenuators, coaxial cables, waveguide, terminations and more. In addition, Fairview holds an extensive component inventory to build custom cable assemblies that can be designed to your exact specifications and shipped same day.

All orders are shipped from our ISO 9001:2015 certified production facilities in Lewisville, Texas and backed by expert technical service and engineering support so that no matter the project, timeline, or requirements you can get the right parts, right away.



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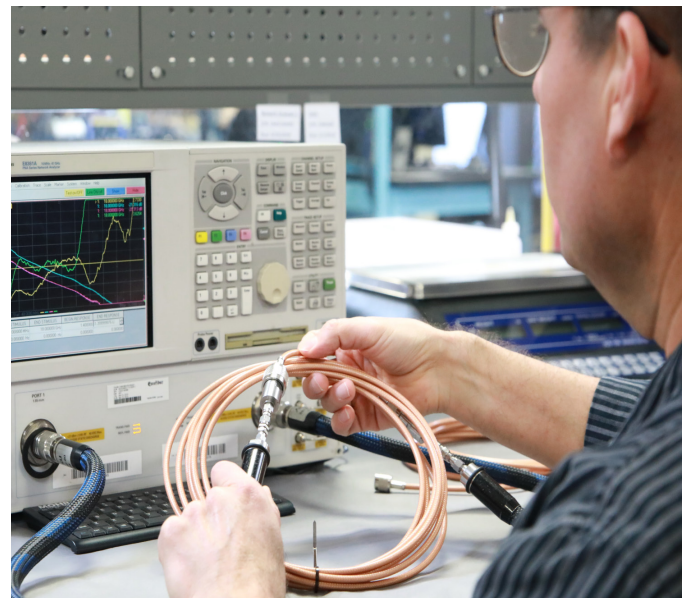


Full-Service Testing Including:

- RF testing to 65 GHz
- PIM testing up to -117 dBm (-160 dBc)
- Phase Matching +/- 2 degrees per GHz
- Hi Pot testing to 5,000 volts DC and 6,000 volts AC

Value-Added Services for Custom Assemblies Include:

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- Test plots provided for an additional fee
- Custom connector clocking of right angle connectors
- Serialized test data available for high performance test cables



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Infinite Electronics has a global portfolio of leading in-stock connectivity solution brands. Infinite's brands help propel the world's innovators forward by working urgently to provide products, solutions and real-time support for their customers. Backed by Warburg Pincus, Infinite's brands serve customers across a wide range of industries with a broad inventory selection, same-day shipping and 24/7 customer service. Learn more at [InfiniteElectronics.com](https://www.InfiniteElectronics.com)

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