

The Industry's Largest Selection of Ready-to-Ship
Limiters and Detectors

In-Stock and Shipped Same Day

USA & Canada +1 (866) 727-8376
 International +1 (949) 261-1920
 pasternack.com



ES France - Département RF & Hyperfréquences - 127 rue de Buzenval BP 26 - 92380 Garches
 Tél. 01 47 95 99 60 - Fax. 01 47 01 16 22 - e-mail: hyper@es-france.com - Site Web: www.es-france.com

Broad Selection of Ready-to-Ship Limiters and Detectors

Pasternack offers a comprehensive selection of coaxial packaged RF limiters and detectors that cover broadband frequencies ranging from 3 MHz to 40 GHz. 35 limiter and 62 detector models are available in compact cylindrical or chassis mountable package outlines that utilize SMA or 2.92mm RF connectors. All models are in-stock with no minimum order quantity, making these components ideal for proof-of-concept and prototyping in precision test and measurement, instrumentation, and subsystem assemblies. Limiter applications include receiver front ends, stabilizing generator outputs, providing constant amplitude signals in phase-sensitive systems, and reducing amplitude variations in FM detection systems. The numerous applications for detectors include power measurements, leveling pulsed signal sources, AM noise measurements, radar or missile guidance systems, monitoring system level performance, and pulsed RF measurements.














All limiter and detector models can be viewed online at www.pasternack.com with real-time pricing, inventory, and comprehensive data-sheets that include typical performance graphs and detailed CAD drawings. Applications engineers are standing by to answer any of your technical questions and can assist with selecting the right product for your specific application.

Limiters	2
High Rel	2
PIN-PIN	3
PIN-Schottky	3
Detectors	4
Tunnel Diode Zero Bias	4
Schottky Zero Bias	6
Finline	7
Biased	7
Log	8
Threshold	9
Phase	9
Power	9
Log Amplifiers	10
Waveguide Detectors	10














Limiters




High Rel

PE 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)
PE80L2003 	20 MHz - 4	0.8	1.8:1	13	15,000	2	100	10
PE80L1000 	500 MHz - 18	1.5	1.5:1	10	10	1	100	10
PE80L2005 	500 MHz - 18	2	1.8:1	18	15,000	5	100	14
PE80L1001 	2 - 8	1	2:1	13	40	5	100	
PE80L2001 	2 - 18	2	2:1	14	100	1	200	6
PE80L3000 	2 - 18	2	2:1	14	100	1	200	6
PE80L2006 	2 - 18	2.5	2:1	14	15,000	5	100	6
PE80L2000 	6 - 18	2.5		15	12	10	100	
PE80L2004 	8 - 12	1.2	1.8:1	18	15,000	3	100	15
PE80L4000 	12 - 18	1.5	1.5:1	10	10	1	100	1
PE80L2002 	18 - 40	4	2.1:1	12	10	1	20	5
PE80L2007 	18 - 40	4.5	3:1	13	15,000	1	100	6
PE80L2008 	26.5 - 40	3	2:1	13	15,000	1	100	6









PIN-PIN

PE 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)
PE8017 	500 MHz - 1	12	20	0.4	1.4:1	1	100
PE8018 	500 MHz - 2	12	19	0.5	1.4:1	1	100
PE8019 	1 - 2	9	19	0.2	1.2:1	1	100
PE8020 	2 - 4	12	18.5	0.8	1.5:1	1	100
PE8021 	2 - 8	9	16	1.2	1.6:1	1	100
PE8022 	2 - 18	12	18	2.5	2.2:1	1	100
PE8023 	4 - 8	9	16	1	1.3:1	1	100
PE8024 	6 - 18	12	16	2.2	2:1	1	100
PE8025 	7 - 12	12	16	1.8	1.8:1	1	100
PE8026 	8 - 16	12	16	2	2:1	1	100
PE8027 	11 - 18	9	16	2	2:1	1	100

PIN-Schottky






PE P/N	Frequency Range (GHz)	Limiting Threshold Typ. (dBm)	Leakage @1W CW Input Max. (dBm)	Insertion Loss Max. (dB)	Input VSWR Max.	Input Power (CW) Max. (W)	Input Peak Power Max. (W)
PE8028 	500 MHz - 1	12	14	0.5	1.4:1	1	100
PE8029 	500 MHz - 2	9	14	0.4	1.25:1	1	200
PE8030 	1 - 2	4	14	0.6	1.4:1	1	100

PIN-Schottky Continued

PE P/N	Frequency Range (GHz)	Limiting Threshold Typ. (dBm)	Leakage @1W CW Input Max. (dBm)	Insertion Loss Max. (dB)	Input VSWR Max.	Input Power (CW) Max. (W)	Input Peak Power Max. (W)
PE8031 	2 - 4	4	14	0.8	1.5:1	1	200
PE8032 	2 - 8	9	14	1.2	1.4:1	1	200
PE8033 	2 - 18	4	18	2.5	2.2:1	1	100
PE8034 	4 - 8	4	13	1.4	1.5:1	1	100
PE8035 	6 - 18	4	13	2.5	2.2:1	1	100
PE8036 	7 - 12	4	16	1.6	1.6:1	1	100
PE8037 	8 - 16	9	12	2	1.5:1	1	200
PE8038 	11 - 18	4	14	2.4	2.2:1	1	100

Detectors







Tunnel Diode Zero Bias

PE 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)
PE80T6000 	100 MHz - 2	Negative	2:1	5	800	0.75	17	470	-51
PE80T6001 	100 MHz - 2	Positive	2:1	5	800	0.75	17	470	-51
PE80T6002 	100 MHz - 4	Negative	2.2:1	5	800	0.75	17	470	-51
PE80T6003 	100 MHz - 4	Positive	2.2:1	5	800	0.75	17	470	-51
PE80T6010 	500 MHz - 1	Negative	2:1	5	1,000	0.5	17	100	-51








Tunnel Diode Zero Bias Continued

PE 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)
PE80T6011 	500 MHz - 1	Positive	2:1	5	1,000	0.5	17	100	-51
PE80T6004 	500 MHz - 18	Negative	3.5:1	5	400	1	17	100	-50
PE80T6005 	500 MHz - 18	Positive	3.5:1	5	400	1	17	100	-50
PE80T6012 	1 - 2	Negative	2:1	5	1,000	0.5	17	50	-51
PE80T6013 	1 - 2	Positive	2:1	5	1,000	0.5	17	50	-51
PE80T6014 	2 - 4	Negative	2:1	5	1,000	0.5	17	20	-51
PE80T6015 	2 - 4	Positive	2:1	5	1,000	0.5	17	20	-51
PE80T6016 	2 - 6	Negative	2.5:1	5	1,000	0.5	17	20	-50
PE80T6017 	2 - 6	Positive	2.5:1	5	1,000	0.5	17	20	-50
PE80T6006 	2 - 18	Negative	3.5:1	5	500	1	17	20	-47
PE80T6007 	2 - 18	Positive	3.5:1	5	500	1	17	20	-47
PE80T6018 	4 - 8	Negative	2.5:1	5	900	0.7	17	20	-50
PE80T6019 	4 - 8	Positive	2.5:1	5	900	0.7	17	20	-50
PE80T6020 	6 - 12	Negative	2.7:1	5	800	0.6	17	10	-50
PE80T6021 	6 - 12	Positive	2.7:1	5	800	0.6	17	10	-50




Tunnel Diode Zero Bias Continued

PE 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)
PE80T6008 	6 - 18	Negative	3:1	5	700	0.75	17	10	-47
PE80T6009 	6 - 18	Positive	3:1	5	700	0.75	17	10	-47
PE80T6022 	12 - 18	Negative	3:1	5	700	0.7	17	10	-47
PE80T6023 	12 - 18	Positive	3:1	5	700	0.7	17	10	-47
PE80T6024 	18 - 26	Negative	4:1	5	400	1	17	5	-47
PE80T6025 	18 - 26	Positive	4:1	5	400	1	17	5	-47



Schottky Zero Bias

PE P/N	Frequency Range (GHz)	Impedance (Ohm)	Polarity	Voltage Sensitivity (mV/mW)	VSWR Max.	Video Capacitance (pF)	Signal Level and Input Level Min (dBm)
PE8010 	10 MHz - 2	50	Negative	500	1.2:1	470	-30
PE8011 	10 MHz - 4	50	Negative	500	1.3:1	470	-30
PE8012 	10 MHz - 12.4	50	Negative	500	1.6:1	470	-30
PE8012P 	10 MHz - 12.4	50	Positive	500	1.6:1	470	-30
PE8012-P 	10 MHz - 12.4	50	Positive	500	1.6:1	470	-30
PE80T1003 	10 MHz - 18	50	Negative	500	1.7:1	470	-30
PE8013 	10 MHz - 18.5	50	Negative	450	1.7:1	470	-30








Schottky Zero Bias Continued

PE P/N	Frequency Range (GHz)	Impedance (Ohm)	Polarity	Voltage Sensitivity (mV/mW)	VSWR Max.	Video Capacitance (pF)	Signal Level and Input Level Min (dBm)
PE8014 	10 MHz - 26.5	50	Negative	100		470	-30
PE8015 	2 - 4	50	Negative	500	1.45:1	20	-30
PE8016 	2 - 8	50	Negative	500	1.5:1	20	-30












Finline

PE P/N	Frequency Range (GHz)	Output Polarity	Input Power (dBm)	Video Output Typ. (V)	Voltage Sensitivity (mV/mW)
PE80T1004 	100 MHz - 12.4	Positive	27	+10.5	800
PE80T1005 	100 MHz - 18	Positive	27	+10	800


Biased

PE P/N	Frequency Range (GHz)	Polarity	Voltage Sensitivity (mV/mW)	Flatness (dB)	Input Power (dBm)	Tangential Signal Sensitivity (dBm)
PE8001 	500 MHz - 1	Negative	1,800	0.25	23	-54
PE8001-P 	500 MHz - 1	Positive	1,800	0.5	23	-54
PE8002 	1 - 2	Negative	2,000	0.25	23	-52
PE8002-P 	1 - 2	Positive	2,000	0.25	23	-52
PE8003 	2 - 4	Negative	2,000	0.5	23	-52
PE8003-P 	2 - 4	Positive	2,000	0.5	23	-52
PE8044 	4 - 8	Negative	2,000	0.5	23	-52




Biased Continued

PE P/N	Frequency Range (GHz)	Polarity	Voltage Sensitivity (mV/mW)	Flatness (dB)	Input Power (dBm)	Tangential Signal Sensitivity (dBm)
PE8004-P 	4 - 8	Positive	2,000	0.5	23	-52
PE8005 	6 - 18	Negative	1,600	0.8	23	-52
PE8005-P 	6 - 18	Positive	1,600	0.8	23	-52
PE8006 	8 - 12	Negative	1,800	0.5	23	-52
PE8006-P 	8 - 12	Positive	1,800	0.5	23	-52
PE8007 	8 - 16	Negative	1,800	0.6	23	-52
PE8007-P 	8 - 16	Positive	1,800	0.6	23	-52
PE8008 	8 - 18	Negative	1,600	0.7	23	-52
PE8008-P 	8 - 18	Positive	1,600	0.7	23	-52
PE8009 	18 - 26	Negative	1,500	1	23	-52
PE8009-P 	18 - 26	Positive	1,500	1	23	-52




Log

PE P/N	Frequency Range (GHz)	Impedance (Ohm)	Slope (mV/dB)	Input Power Max. (dBm)	Output Voltage Max. (dB)	Slew Rate (V/us)
PE8040 	10 MHz - 3	50	40	10	2	1




Threshold

PE P/N	Frequency Range (GHz)	Impedance (Ohm)	Signal Level and Input Level Min. (dBm)	Input Power Max. (dBm)	Propagation Delay Typ. (ns)	DC Voltage
PE80T1000 	2 - 18	50	-20	10	15	15
PE80T1001 	2 - 18	50	-45	10	20	12
PE80T1002 	16 - 40	50	-20	17		15






Phase

PE P/N	Frequency Range (GHz)	Impedance (Ohm)	VSWR Max.	Input Power Max. (dBm)	DC Voltage
PE80T4000 	3 MHz - 300 MHz		2:1	17	15
PE80T4002 	5 MHz - 25 MHz		2:1	17	15
PE80T4001 	200 MHz - 800 MHz		2:1	10	15







Power

PE P/N	Frequency Range (GHz)	Dynamic Range (dB)	True RMS Output Voltage Typ (V)	Output Slope	VSWR	Max RF Input. Power (dBm)	DC Voltage
PE80P1000 	50 MHz - 5	30	0.15 to 4.95	Positive	1.4:1	15	SMA Female
PE80P1001 	30 MHz - 4	80	0.62 to 1.89	Positive	1.5:1	20	SMA Female
PE80P1002 	50 MHz - 3	60	0.12 to 2.1	Positive	1.3:1	10	SMA Female

Log Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Typical Recovery Time (ns)	Minimum TSS (dBm)	Log Linearity (\pm dB)	Log Range (dBm)	Rise Time (ns)	Log Slope (mV/dB)	Voltage (\pm Volts)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A2000 	Log, High Rel	500 MHz - 4	40	-73	2.5	-70 to 0	5	25	12	3.2 x 1.8 x 0.4	SMA	EAR99
PE15A2003 	Log, High Rel	500 MHz - 18	150	-65	1.75	-65 to 5	20	20	15	3 x 3.5 x 0.5	SMA	EAR99
PE15A2001 	Log, High Rel	2 - 6	60	-73	1.75	-70 to 5	15	40	12	3.75 x 1.5 x 0.5	SMA	EAR99
PE15A2002 	Log, High Rel	6 - 18	70	-72	2.5	-70 to 0	50	25	12	3.2 x 2.05 x 0.4	SMA	EAR99
PE15A2004 	Log, High Rel	6 - 18	150	-40	1	-40 to 0	20	50	15	2.2 x 1.5 x 0.4	SMA	EAR99

Waveguide Detectors

PE P/N	Connector 1	RF Frequency Range (GHz)	Voltage Sensitivity (V/nW)	Input Power (dBm)	Connector 2	ECCN
PE80T3005 	WR-28 UG-599/U	26.5 - 40	-1,000	20	SMA Female	EAR99
PE80T3004 	WR-22 UG-383/U	33 - 50	-800	20	SMA Female	EAR99
PE80T3003 	WR-19 UG-383/U	40 - 60	-800	20	SMA Female	EAR99
PE80T3002 	WR-15 UG-385/U	50 - 75	-700	20	SMA Female	EAR99
PE80T3001 	WR-12 UG-387/U	60 - 90	-900	20	SMA Female	EAR99
PE80T3000 	WR-10 UG-387/U	75 - 100	-900	20	SMA Female	EAR99



Your immediate source for RF parts and RF smarts

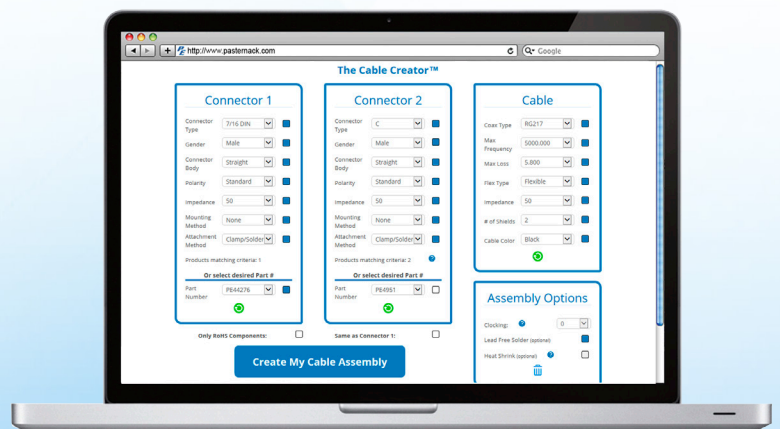
Since 1972, Pasternack has been satisfying the requirements of engineers around the world by offering the largest in-stock, ready-to-ship selection of RF, microwave, and mmWave components, assemblies and devices, including over 40,000 popular and hard-to-find items across 107 categories of interconnect, passives, actives, antennas, and test and measurement. In addition, our 99.4% in-stock availability allows us to ship your products the same day they're ordered, with no minimum order size requirements.

To ensure you get the support you need when you need it, our product line engineers and experts are on-hand, ready to help troubleshoot your technical issues and deliver the creative solutions you require for your specific project. Pasternack's highly trained sales and service team is also available to assist you 24/7 by phone, email or chat, and an extensive network of international distribution partners ensures you receive the same high level of service and support no matter where you may be.

Visit the RF Superstore at pasternack.com

Your parts are in-stock and ready to ship!

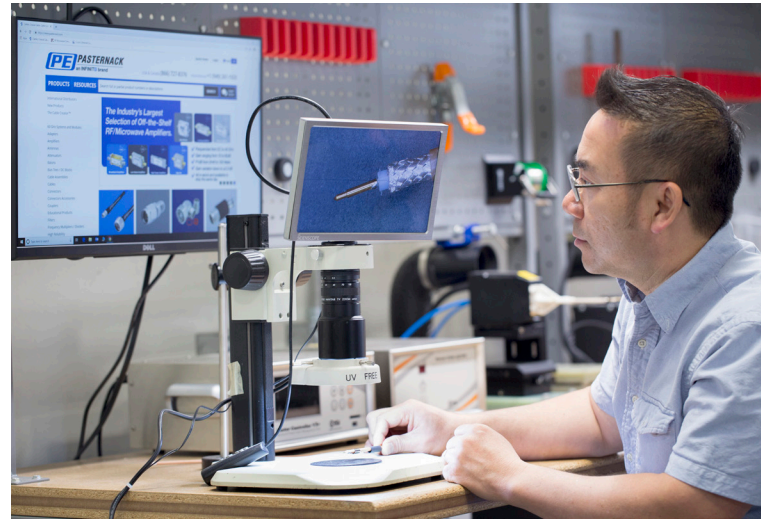
- ✓ Parameter-based online search for quick and easy product selection
- ✓ Online pricing and inventory for over 40,000 components and assemblies
- ✓ Detailed product datasheets with specifications and CAD drawings
- ✓ One page checkout saves time and streamlines the purchasing process
- ✓ "Engineer Resource Center" with RF calculators, conversion tools, RF-Opedia glossary of terms, technical articles and more
- ✓ Downloadable RF Product Guide
- ✓ Same-day shipping, with no minimum order
- ✓ Payment terms available to qualified businesses



With over 45 years of RF expertise, it's more than parts that sets us apart

Over 250,000 custom cable configurations available to ship same day!

- Choose from over 2,030 RF coax connectors
- 123 coaxial cable types, including Twinax
- Choose your desired length (metric or standard)
- Includes high-reliability and low PIM assembly types



Value-added services for custom assemblies include...

- Custom booting/heat shrink
- Special labeling
- Test plots provided for an additional fee
- Custom connector clocking of right angle connectors
- Serialized test data available for high performance test cables

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



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



Same-Day Shipping



24-Hour Support
by phone, chat or email



Secure Online Ordering
pasternack.com
sales@pasternack.com



USA & Canada: +1 (866) 727-8376
International: +1 (949) 261-1920

