

Pulse Generators – Ultra-fast pulse edges for time-domain applications							
Model	Waveform	Leading Edge	Amplitude Max.	Adj. Amp.	Pulse Duration	Polarity	Max Rep Rate
10,050A	Pulse	45 ps	10 V	No	100 ps - 10 ns	Pos	100 KHz
10,060A	Pulse	55 ps	10 V	Yes	100 ps - 10 ns	Pos	100 KHz
10,070A	Pulse	65 ps	±7.5 V	Yes	100 ps - 10 ns	Pos or Neg	100 KHz
10,300B	Pulse	<300 ps	+50/-45 V	Yes	1 ns - 100 ns	Pos or Neg	100 KHz
2600C	Pulse	250 ps	+50/-45 V	Yes	1 ns - 100 ns	Pos or Neg	100 KHz
4005	Step	5 ps	5 V	No	16 ns	Neg	1 MHz
4015D	Step	10 ps	-5 V	No	5 ns	Neg	500 KHz
4050B	Step	45 ps	10 V	No	10 ns	Pos	1 MHz
4500E	Step	100 ps	35 V	Yes	20 ns	Pos	100 KHz
TD1110C/1107	Step	20-45 ps	230 mV	No	4 μs	Pos	50 KHz
1000D	Impulse	N/A	± 35 V	No	500 ps FWHM	Pos & Neg	1 MHz
3500D	Impulse	N/A	±8 V	Yes	65 ps FWHM	Pos or Neg	1 MHz
3600	Impulse	N/A	-7.5 V	No	70 ps FWHM	Neg	2.5 GHz
Custom-OEM	Specify your own ultra-fast rise-time generator. Contact us!						

Down Converters – High Performance Single Stage Down Conversion				
Model	Bandwidth	Sampling Rate	IF Amplification	Form factor
7601	25GHz	2GSamples/sec	No	Module
7620	25GHz	2GSamples/sec	Yes	1 Channel, VME or cPCI
7621	25GHz	2GSamples/sec	Yes	2 Channel, VME or cPCI

Comb Generators – Powerful comb harmonics to beyond 50 GHz			
Model	Input Freq Range	Input Power	High Output Harmonic
7100	100MHz-400MHz	20-24dBm	20GHz
7102	300MHz-700MHz	19-24dBm	20GHz
7103	600MHz-1.5GHz	19-24dBm	30GHz
7110	100MHz-300MHz	25-29dBm	20GHz
7112	300MHz-700MHz	25-29dBm	20GHz
7113	600MHz-1.5GHz	25-29dBm	30GHz
7123	800MHz-1.5GHz	25-29dBm	>50GHz
7124	1.2GHz – 2.3GHz	25-29dBm	>50GHz
Custom-OEM	We design to your specifications. Input frequencies to 10 GHz. Contact us!		
Available in Coaxial and Surface Mount Packaging. Contact us for more information!			

TDR Instruments – World's fastest TDR for high-resolution measurements						
Model	Waveform	Leading Edge	TDR Amplitude	TDT Amplitude	Pulse Duration	Polarity
4020	Single ended	9 ps	250 mV	2.5 V	>30 ns	Positive
4022	Differential	9 ps	250 mV	2.5 V	>30 ns	Pos and Neg

TDR Instrument Accessories – Interconnection support for high-resolution measurements

Model	Description	Contents
4022-DAK	Differential Adapter Kit	2 each of 4 high performance adapters
4022-DBK	Differential Adapter Kit	2 each of 7 high performance adapters

Samplers – Extremely high performance using our proprietary technology

Model	Bandwidth	Sampling Rate	Dynamic Range	RF Connectors
7040 Module	25 GHz	10 Msamples/sec	2 V _{p-p}	2.92 mm
Custom-OEM	to 100 GHz	10 Gsamples/sec	2 V _{p-p}	--

Amplifiers and Modulator Drivers – High speed performance; excellent transient response

Model	Function	Bandwidth	Gain	Output Voltage	Polarity
5810B	Amplifier	2 GHz	13 dB	1.8 V _{p-p}	Inverting
5840B	Amplifier	13.5 GHz	21 dB	2.5 V _{p-p}	Non-inverting
5828A	Amplifier	14.4 GHz	10.5 dB	2.5 V _{p-p}	Inverting
5867	Amplifier	15 GHz	15 dB	3.0 V _{p-p}	Inverting
5881	Amplifier	43 GHz	8.5 dB	2.7 V _{p-p}	Inverting
5882	Amplifier	45 GHz	16 dB	2.7 V _{p-p}	Non-inverting
5865	Modulator Driver	12.5 Gb/s	26 dB	8.0 V _{p-p}	Non-inverting

Edge Compressors – Non-linear transmission lines deliver astoundingly fast pulses

Model	Limiting Transition	Compression	RF Connectors	Maximum Amplitude
7001	20 ps	40 ps (P), 65 ps (N)	SMA, 2.92	10 V
7003	4 ps	65 ps (P), 80 ps (N)	SMA, 2.92, 2.4, 1.85 (mm)	10 V

Impulse Forming Networks – Transform fast pulse edges into narrow impulses

Model	Transfer Function	T _c	Impedance	RF Connectors
5206	$V_{out}=T_c*dV_{in}/dt$	3 ps	50 ± 2 Ohms	2.9 mm, 2.4 mm J-P
5210	$V_{out}=T_c*dV_{in}/dt$	13 ps	50 ± 2 Ohms	SMA Jacks
5212A	$V_{out}=T_c*dV_{in}/dt$	21 ps	50 ± 2 Ohms	SMA Jacks
5214	$V_{out}=T_c*dV_{in}/dt$	34 ps	50 ± 2 Ohms	SMA Jacks
5216	$V_{out}=T_c*dV_{in}/dt$	88 ps	50 ± 2 Ohms	SMA Jacks

Detailed Product Specifications may be found at <http://www.picosecond.com/techinfo/content.asp?spid=20>

Baluns and Transformers – Unbalanced 50 Ohms to differential 100 Ohms					
Model	Function	Low Freq -3 dB	High Freq -3 dB	Additional Info	
5100	Inverting Transformer	200 kHz	>20 GHz	50Ω Input and Output	
5310	Phase Matched Balun	4 MHz	6.5 GHz	Amplitude Balance ±0.1dB (100MHz – 3.5GHz) Phase Balance ±0.5dB (500MHz – 2GHz)	
5315A	Differential Splitter Balun	200 kHz	17 GHz		
5320B	Differential Splitter Balun	5 kHz	11 GHz		

Bias Tees – Reliable performance in coaxial and surface mount packages					
Model	Risetime	High Frequency -3 dB	Low Frequency -3 dB	Max DC Voltage	Max DC Current
5530A	28 ps	12.5 GHz	20 kHz	200 V	10 mA
5531	35 ps	10 GHz	750 kHz	1.5 kV	20mA
5541A	8 ps	26 GHz	80 kHz	50 V	100 mA
5542	7 ps	50 GHz	10 kHz 4 MHz	16 V 100 V	100 mA
5542K	7 ps	40 GHz	12 kHz	16 V	100 mA
5542LL	7 ps	40 GHz	12 kHz	16 V	100 mA
5545	12 ps	20 GHz	65 kHz	50 V	500 mA
5546	45 ps	7 GHz	3.5 KHz	50 V	500 mA
5547	23 ps	15 GHz	5 kHz	50 V	500 mA
5550B	20 ps	18 GHz	100 kHz	50 V	500 mA
5575A	30 ps	12 GHz	10 kHz	50 V	500 mA
5580	28 ps	15 GHz	10 kHz	50 V	1 A or 2 A
5585	N/A	18 GHz	2 GHz	100 V	6 A
5586	N/A	5 GHz	1 GHz	100 V	8 A
5587	N/A	2 GHz	0.2 GHz	100 V	6 A
5589	N/A	2.8 GHz	.3 GHz	100 V	7 A
SM100 (SMT)	21 ps	13 GHz	14 kHz	16 V	500 mA
SM101 (SMT)	21 ps	15 GHz	7 kHz	16 V	500 mA

DC Blocks – Excellent frequency and time domain response					
Model	Risetime	Bandwidth	Low Frequency -3 dB	Capacitance	Max DC Voltage
5500A	10 ps	>26 GHz	80 kHz	0.02 uF	50 V
5501A	10 ps	>26 GHz	7 kHz	0.22 uF	50 V
5508	<8 ps	>26 GHz	0.7 kHz	2.2 uF	16 V
5509	5 ps	50 GHz	7 kHz 3 MHz	0.22 uF 500 pF	16 V 50 V
SM500 (SMT)	10 ps	35 GHz	7 kHz	0.22 uF	16 V

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Attenuators - Frequency response to 60 GHz; ideal for time domain measurements				
Model	Bandwidth	Risetime	RF Connectors	Attenuation
5510	DC to 18 GHz	8 ps	SMA	1, 2, 3, 6, 10, 12, 14, or 20 dB
5510K	DC to 40 GHz	5 ps	2.92 mm	3, 6, 10, or 20 dB
5510V	DC to 60 GHz	5 ps	1.85 mm	3, 6, 10, or 20 dB

Trigger Countdown – Six models of dividers to choose from						
Model	Division Ratio	Input Frequency	RMS Jitter	Output into 50 Ohms	RF Connectors	DC Connector
5650	2, 4, 8 16, 32	0.2 to 16 GHz	<1 ps	900 mVp-p 250 mVp-p	SMA Jacks	SMB

Low Pass Risetime Filters – Standard and custom absorptive filters				
Model	-3 dB Frequency	Risetime	Return Loss	RF Connectors
5915	User-specified: 35 MHz to 10 GHz	~0.35/BW	>15dB @ f _o	SMA
5925	User-specified: 6 GHz to 15 GHz	~0.35/BW	>15dB @ f _o	SMA
5933	7.46 GHz, 8.0 GHz, and 4.5-18 GHz (Custom-OEM)	~0.35/BW	> 12 dB	SMA
5935	28 GHz and Custom-OEM	12.6 ps	>9 dB	2.92, 2.4, or 1.85 mm
SM601	1.5 GHz to 10 GHz	~0.35/BW		Surface Mount
Custom-OEM	Contact us to discuss your surface mount or bare die low-pass filter requirements!			

Power Dividers and Pick-Off Tees – Broadband devices to combine or split signals					
Model	Type	Risetime	Bandwidth	Output Ratios	RF Connectors
5331	Divider	17 ps	18 GHz	6 dB, 6 dB	SMA
5333	Divider	15 ps	25 GHz	6 dB, 6 dB	SMA
5336	Splitter	20 ps	20 GHz	6 dB, 6 dB	SMA
5350	Divider	8 ps	>40 GHz	6 dB, 6 dB	2.92 mm or 2.4 mm
5340	Pick-Off	50 ps	8 GHz	10 dB, 3.3 dB	SMA
5370	Pick-Off	<17 ps	>25 GHz	14 dB, 0.8 dB 20 dB, 0.4 dB	SMA
5361	Pick-Off	7 ps	>40 GHz	14 dB, 1.8 dB	2.92 mm or 2.4 mm

ECL Terminators – Terminate your logic signals for high quality measurements					
Model	Logic Type	VTT	Bandwidth	Attenuation	RF Connectors
5620	ECL	-2.0 V	DC to 10 GHz	12 dB (4x)	SMA
5622	PECL	+1.3 V	DC to 8 GHz	14 dB (5x)	SMA
5623	ECL or PECL	0.82*V _{DC}	DC to 8 GHz	20 dB (10x)	SMA

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