Tektronix®

Test & Measurement Components

Component Selection Guide

Amplifiers & Drivers

www.tek.com/components/amplifiers-and-drivers

Model	Bandwidth	Gain	Output Voltage	Power Dissipation	Polarity	Connectors
PSPL5865	12.5 Gb/s	26 dB	7.5 Vp-p	2.3 W	Non-inverting	SMA Jack (F), Jack (F)
PSPL5866	10 GHz	26 dB	4.0 Vp-p Linear	1.7 W	Non-inverting	SMA Jack (F), Jack (F)
PSPL5867	15 GHz	15 dB	3.0 Vp-p	1.0 W	Inverting	SMA Jack (F), Jack (F)
PSPL5882	35 GHz	16 dB	2.7 Vp-p	1.3 W	Non-inverting	2.92 or 2.4 mm Jack (F), Jack (F)
PSPL8001	12.5 Gb/s	26 dB	7.5 Vp-p	N/A	Non-inverting	SMA Jack (F), Jack (F)
PSPL8003	15 GHz	15 dB	3.0 Vp-p	N/A	Inverting	SMA Jack (F), Jack (F)

Tektronix amplifiers and drivers are designed to provide the best possible time domain response and are ideal for applications requiring broadband frequency response and high speed performance.

Baluns & Transformers

http://www.tek.com/components/baluns-and-transformers

Model	Name	Low Freq. -3 dB	High Freq. -3 dB	Rise Time	Connectors
PSPL5100	Inverting Transformer	200 kHz	>20 GHz	15 ps	SMA Jack (F), Jack (F)
PSPL5310R	Phase-Matched Balun	4 MHz	6.5 GHz	54 ps	SMA Jack (F), Jack (F), Jack (F)
PSPL5315	Balun	200 kHz	17 GHz	21 ps	SMA Jack (F), Jack (F), Jack (F)
PSPL5320B	Balun	5 kHz	11 GHz	31 ps	SMA Jack (F), Jack (F), Jack (F)

Tektronix offers a variety of inverting transformers and differential pulse splitters (baluns). These baluns transform an unbalanced 50 ohm input into a balanced 100 ohm differential output, and are made of passive components and are therefore bi-directional. Tektronix baluns are an effective means for using single-ended test equipment (VNA's, pattern generators) for taking differential measurements.

DC Blocks

www.tek.com/components/dc-blocks

Model	Bandwidth	Rise Time	Low Freq. -3 dB	Capacitance	Max DC Voltage	Connectors
PSPL5501A	>26 GHz	10 ps	7 kHz	0.22 uF	50 V	SMA Jack (F), Plug (M)
PSPL5508	>26 GHz	<8 ps	0.7 kHz	2.2 uF	16 V	SMA Jack (F), Plug (M)
PSPL5509	40 / 50 GHz	5 ps	7 kHz	0.22 uF	16 V	2.92 or 2.4 mm Jack (F), Plug (M)

Tektronix DC blocks are high performance ultra-broadband components used for isolating DC voltages while allowing data signals to pass through unaffected. The PSPL5500 Series of DC Blocks are extremely broadband coaxial blocking capacitors. Due to the coaxial construction, excellent microwave performance and transient response is achieved. Large capacitance values provide low frequency response down to the kHz range.

Low-Pass Filters

www.tek.com/components/low-pass-filters

Model	Filter Values	High Freq. -3 dB	Return Loss	Connectors
PSPL5915	60 ps 100 ps 200 ps 300 ps 330 ps	5.83 GHz 3.5 GHz 1.75 GHz 1.67 GHz 1.06 GHz	>15 dB @ f_o	SMA Jack (F), Jack (F)

Tektronix designs low-pass (Rise Time) filters that produce very clean transient responses. Rise Time filters are also sometimes called Transition Time Converters or TTCs. These filters are based on a proprietary, absorption design that has frequency responses that are similar to Bessel-Thomson (B-T) filters, but provide superior transient response.

Need more information? visit **www.tek.com/components**

Bias Tees

www.tek.com/components/bias-tees

	Bandwidth	Rise Time	Low Freq. -3 dB	Max DC Voltage	Max DC Current	Connectors
PSPL5530B	12.5 GHz	35 ps	20 KHz	200 V	10 mA	SMA Jack (F), Jack (F), Jack (F)
PSPL5541A	>26 GHz	8 ps	80 kHz	50 V	100 mA	SMA Jack (F), Jack (F), Jack (F)
PSPL5542	40 / 50 GHz	7 ps	10 kHz	16 V	100 mA	2.92, 2.4 mm Jack (F), Jack (F)
PSPL5543	50 GHz	7 ps	20 kHz	100 V	500 mA	2.4 mm Jack (F), Jack (F)
PSPL5544	40 GHz	8 ps	50 kHz	100 V	2 A	2.92 mm Jack (F), Jack (F)
PSPL5547	15 GHz	23 ps	5 kHz	50 V	500 mA	SMA Jack (F), Jack (F)
PSPL5575A	12 GHz	30 ps	10 kHz	50 V	500 mA	SMA Jack (F), Jack (F)
PSPL5580	15 GHz	28 ps	10 kHz	50 V	2 Amps	SMA Jack (F), Jack (F)
PSPL5589	2.8 GHz	N/A	300 MHz	100 V	7.0 Amps	SMA Jack (F), Jack (F)

Tektronix bias tees are used to supply an active device like an amplifier, laser diode, photodiode, or optical modulator with a bias current or bias voltage while allowing high speed, ultra-broadband signals to pass through with minimum signal degradation. These bias tees have low insertion loss, very broad frequency response, and exceptional time domain performance.

Power Dividers and Pick-off Tees

www.tek.com/components /power-dividers-and-pick-off-tees

Model	Type	Bandwidth	Rise Time	Output Ratios	Connectors
PSPL5331	Power Divider	18 GHz	17 ps	6 dB, 6 dB	SMA Jack (F), Jack (F), Jack (F)
PSPL5333	Power Divider	25 GHz	15 ps	6 dB, 6 dB	SMA Jack (F), Jack (F), Jack (F)
PSPL5350	Power Divider	40 / 50 GHz	8 ps	6 dB, 6 dB	2.92 or 2.4 mm Jack (F), Jack (F), Jack (F)
PSPL5361	Pick-Off	40 GHz	7 ps	14 dB, 1.8 dB	2.92 mm Jack (F), Jack (F), Jack (F)
PSPL5370	Pick-Off	>25 GHz	<17 ps	14 dB, 0.8 dB / 20 dB, 0.4 dB	SMA Jack (F), Jack (F), Jack (F)
PSPL5372	Z-Matched Pick-Off	>26 GHz	15 ps	14 dB, 2.0 dB	SMA Jack (F), Jack (F), Jack (F)
PSPL5380	PAM-4 Combiner Kit	50 GHz	7 ps	6 dB, 12 dB	Inputs 1.85 mm Plugs (P), Output 2.4mm Jack (F)

Tektronix Power Dividers are resistive tees that have excellent performance and frequency response from DC to as high as 50 GHz. Power Dividers split the signal into two equal replicas of the input signal. Pick-Off Tees produce a small replica of a signal at a pick-off port at ratios of 10, 14, or 20 dB.

For Further Information

Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology. Please visit **www.tektronix.com.**

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