

- 2.92 mm DC to 40 GHz
- 5 ps Risetime



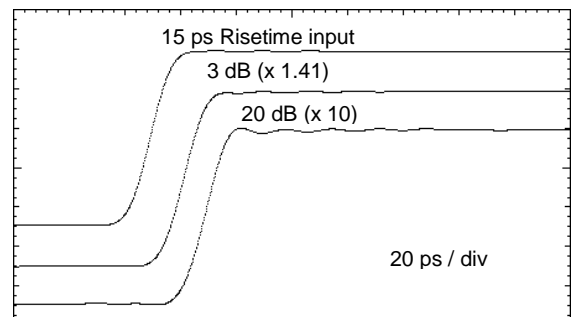
The PSPL Model 5510K Attenuators address a need that has been totally ignored by other microwave component manufacturers who specify their products in the frequency domain, but ignore the time domain responses. For time domain measurements, it is important to also know the transient response of attenuators used in a test set-up. These 2.92 mm attenuators have 5 ps risetimes and are recommended for measuring pulses with risetimes of 15 ps or slower. They are ideal for use with PSPL's Model 4015C, 15 ps pulse generator. For frequency domain measurements, the useful frequency range is DC to 40 GHz. The 2.92 mm connector is compatible with SMA and 3.5 mm connectors. PSPL also offers SMA, 18 GHz and 1.85 mm, 60 GHz attenuators.

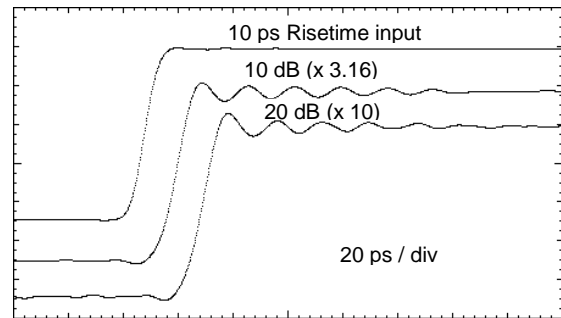
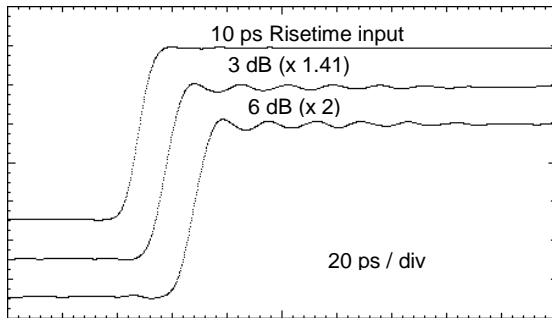
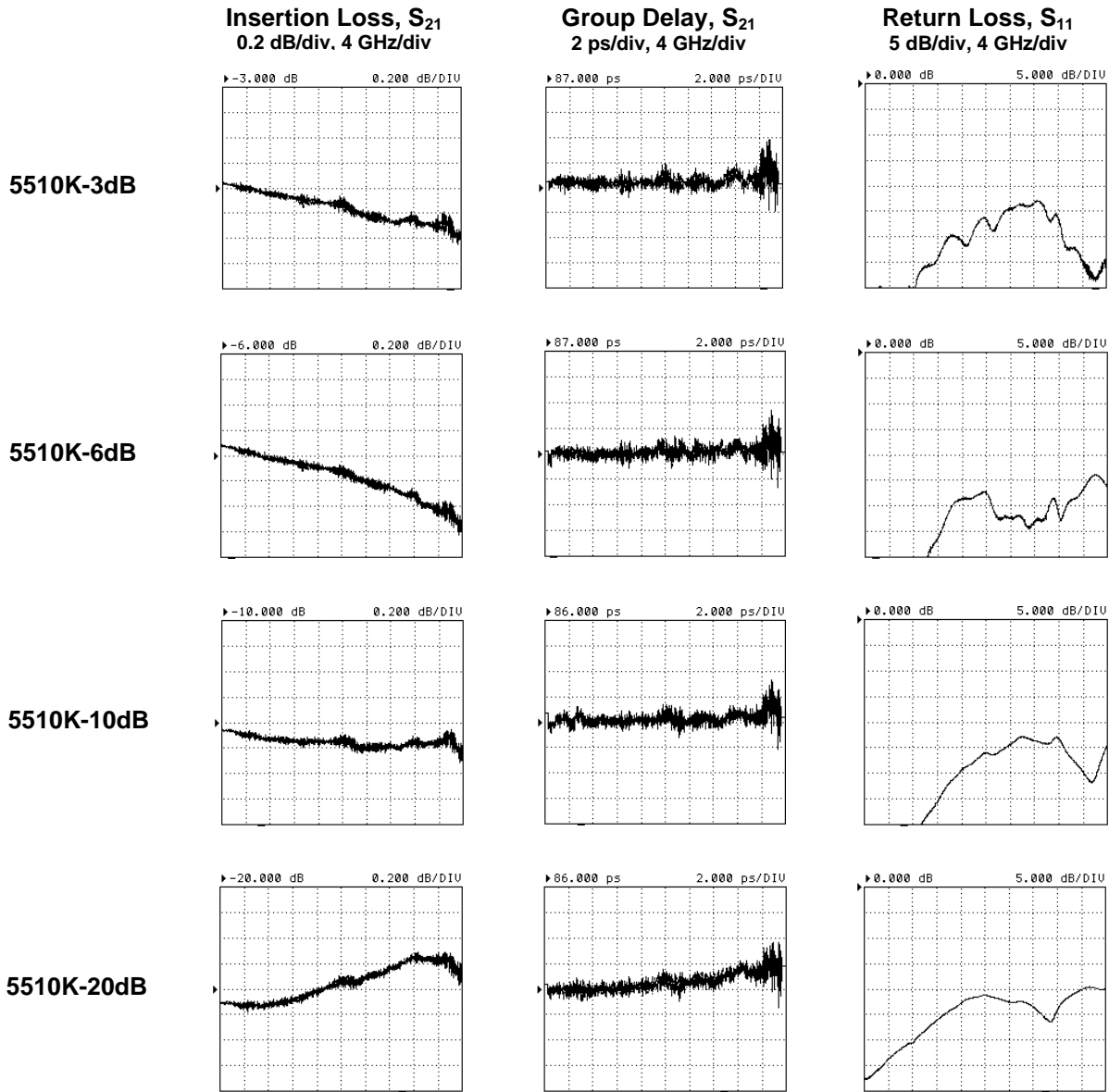
Model Number	5510K-222-XdB	Values Available	3, 6, 10, & 20 dB
Frequency Range	DC to 40 GHz	Connectors	2.92 mm jack & plug
Risetime (10% - 90%) (see typ. plots, p. 2)	5 ps, typical, when tested with 10 ps risetime pulse	Impedance – DC	50 Ω <± 1.5 Ω typical + 7.5 Ω, – 6.5 Ω max
DC Attenuation Accuracy	± 0.5 dB max. limits guaranteed	Return Loss – DC VSWR – DC	> 36 dB typ, 23 dB min < 1.03 typ, 1.15 max
Attenuation Flatness (see typ. plots, p.2)	<± 0.5 dB f < 18 GHz <± 1 dB f < 40 GHz	Return Loss – AC (see typ. plots, p.2)	> 20 dB, f < 18 GHz > 15 dB, f < 40 GHz
Delay	87 ps (see typical group delay plots, p. 2)		
Max. Power Input	2 W avg at 20C, derated linearly to 1 W at 85C, 50 W peak, < 0.1 μs pulse		
Temperature Range	–55C to +85C operating, –55C to +125C storage, 0.001 dB/dB/C temp. coeff.		
Dimensions & Weight	28.8 mm length, 8 mm diameter, 8 gm		
Material	stainless steel		
Serial Number	yes		
Warranty	One Year. See PSPL Terms & Conditions of Sale for details		

Note: All parameters listed are typical unless max/min guaranteed limits are provided.

Ordering Information

Model Number	Connector Configuration
5510K-222-XDB where X=attenuation in dB	2.92 mm Jack — Plug





Notes: All plots are from randomly selected samples. The 10 ps step responses were measured using a PSPL Model 4015C pulse generator and an HP-54750, 50 GHz oscilloscope. The frequency responses were measured using an Anritsu 37397A, 65 GHz vector network analyzer.