

Direct Reading and Programmable Full Band Attenuators, STA Series

FEATURES:

- ◆ Frequency coverage: 18 to 140 GHz
- ◆ Full band operations
- ◆ High attenuation accuracy
- ◆ Instrumentation grade



APPLICATIONS:

- ◆ Test labs
- ◆ Instrumentation
- ◆ Subassemblies

DESCRIPTION:

Direct reading and programmable attenuators are constructed with a precision, resistive rotary vane in a circular waveguide. The operating mode of the attenuators is the circular waveguide, TE₁₁ mode. Unlike fixed and level setting attenuators, the attenuation value and phase shift of these attenuators are independent of the frequency.

The direct reading attenuator uses a large scale dial to indicate the attenuation value, making this attenuator ideal in waveguide systems when a broadband direct reading of attenuation or a standard for system calibration and instrumentation is required.

The programmable attenuator is designed for both manual and computerized operations. While the toggle switch and LED indicator on the front panel are used for manual operations, an IEEE-488 or RS-232 interface on the back panel is used for automatic controls. The programmable attenuator is ideal in ATE systems where the attenuation is controlled remotely via a computer interface.

CATALOG MODELS (Direct Reading Attenuator):

Model Number	STA-60-42-D1	STA-60-28-D1	STA-60-22-D1	STA-60-19-D1	STA-60-15-D1	STA-60-12-D1	STA-60-10-D1	STA-60-08-D1
Waveguide Size	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10	WR-08
Frequency (GHz)	18.0 to 26.5	26.5 to 40.0	33.0 to 50.0	40.0 to 60.0	50.0 to 75.0	60.0 to 90.0	75.0 to 110.0	90.0 to 140.0
Attenuation Range	0 to 60 dB, Full Waveguide Band							
Attenuation Accuracy	0.1 dB or 3% of reading, whichever is larger, up to 40 dB.							
Insertion Loss (dB)	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9
VSWR	1.2:1	1.2:1	1.2:1	1.3:1	1.3:1	1.3:1	1.3:1	1.3:1
Power Handling (W)	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3
Insertion Length (")	8.48	6.87	6.25	5.97	4.36	3.86	3.79	3.78
Outline	TA-DK	TA-DA	TA-DQ	TA-DU	TA-DV	TA-DE	TA-DW	TA-DF

CATALOG MODELS (Programmable Attenuator):

Model Number	STA-60-42-P1	STA-60-28-P1	STA-60-22-P1	STA-60-19-P1	STA-60-15-P1	STA-60-12-P1	STA-60-10-P1	STA-60-08-P1
Waveguide Size	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10	WR-08
Frequency (GHz)	18.0 to 26.5	26.5 to 40.0	33.0 to 50.0	40.0 to 60.0	50.0 to 75.0	60.0 to 90.0	75.0 to 110.0	90.0 to 140.0
Attenuation Range	0 to 60 dB, Full Waveguide Band							
Attenuation Step Size	0.05 dB from 0 to 20 dB and 0.10 dB from 20 to 60 dB							
Insertion Loss (dB)	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9
Operating Voltage	+24 V _{DC} (100 to 240 VAC Adapter is Supplied)							
Control Port	IEEE-488							
VSWR	1.2:1	1.2:1	1.2:1	1.3:1	1.3:1	1.3:1	1.3:1	1.3:1
Power Handling (W)	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3
Insertion Length (")	8.54	6.50	6.15	5.94	5.78	5.78	5.78	5.78
Outline	TA-PK	TA-PA	TA-PQ	TA-PU	TA-PV	TA-PE	TA-PW	TA-PF

Note: Contact the factory for other frequency bands.