CERNEX, Inc.

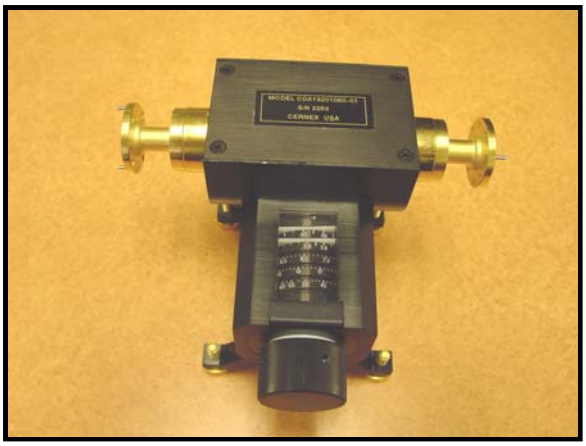
Direct-Reading Precision Attenuators

FEATURES:

- Low VSWR
- Direct Reading
- Low Insertion Loss
- Anti-Backlash Drive
- Negligible Phase Shift
- Precision Construction
- Frequency Independent

APPLICATIONS:

- Testbench
- Instrumentation



CDA Series

DESCRIPTION:

Cernex's CDA series direct-reading precision attenuators provide 0 to 60 dB of calibrated attenuation by rotation of a resistive vane mounted in a circular waveguide section. These units are often referred to as "precision rotary vane attenuators."

SPECIFICATIONS:

Waveguide Band	C	X	Ku	K	Ka	Q	U	V	E	W	F	D	G
Waveguide Size	WR-159	WR-90	WR-62	WR-42	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10	WR-8	WR-6	WR-5
Frequency Range (GHz)	4.9 to 7.05	8.2 to 12.40	12.4 to 18.0	18 to 26.5	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110	90 to 140	110 to 170	140 to 220
Insertion Loss (dB) Max.	0.3	0.4	0.5	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.2	1.5	1.8
VSWR Max	1.15	1.15	1.15	1.30	1.15	1.15	1.15	1.20	1.20	1.20	1.25	1.25	1.25
Average Power (Watts)	1.0	1.0	1.0	1.0	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.1	0.1

The following specifications are common to all bands.

Description	Specification	
Attenuation Range	0 dB to 60 dB (Above Residual Attenuation) over entire waveguide band	
Accuracy (The greater of the two)	0.1 dB or 2% of reading	
Scale Length	21 inches	
Scale Increments	0 dB to 0.1dB – 0.01 dB 0.1 dB to 1.0 dB – 0.05 dB 1.0 dB to 10.0 dB – 0.10 dB 10.0 dB to 20.0 dB – 0.20 dB	20.0 dB to 30.0 dB – 0.5 dB 30.0 dB to 50.0 dB – 1.0 dB Max Setting 60 dB Typical
Phase Shift vs. Attenuation	Neglible	

HOW TO ORDER:

Specify Model Number

CDA – WG LF HF IL -- XX ← To be specified by the factory

Waveguide Size — Insertion Loss

Low End Frequency — High End Frequency

Example: To order WR-15 Direct reading precision attenuator, specify CDA-5075-XX.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE