

SERIES DRA

DIRECT READING ATTENUATORS



FEATURES:

- As low as 2% direct reading accuracy
- 60 dB attenuation range calibrated to 50 dB
- Highly repeatable
- Easy to use
- NIST calibration available

APPLICATIONS:

- Test and instrumentation
- Calibration systems

DESCRIPTION

Millitech series DRA direct reading attenuators are highly accurate, frequency-independent attenuators suitable for instrumentation and calibration. By virtue of their mechanical design features and an expanded helical drum scale, the attenuators offer a high degree of repeatability and accuracy measured over the full 50 dB attenuation range for full waveguide frequency bands.

These attenuators are available between 26.5 and 170 GHz. Low VSWR, small variation in phase shift versus frequency, and ease of reading are among the most attractive features of these attenuators. For programmable, remote-controllable, or computer-aided test and measurement systems, Millitech also offers the motorized waveguide attenuator (series MWA). If high precision or direct reading capability offered by series DRA is not essential, Millitech's series LSA level set attenuators may be used.

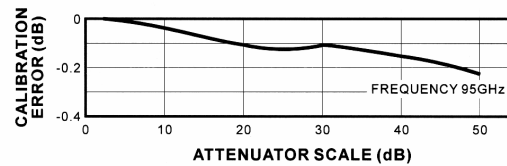
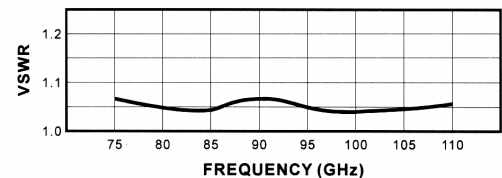
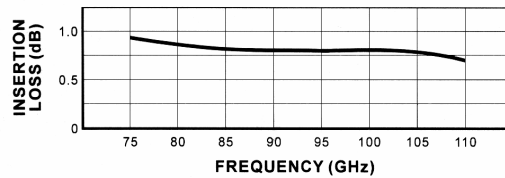
ELECTRICAL SPECIFICATIONS

Model Number	DRA-28	DRA-22	DRA-19	DRA-15	DRA-12	DRA-10	DRA-08	DRA-06
Frequency band and range (GHz)	Ka 26.5-40	Q 33-50	U 40-60	V 50-75	E 60-90	W 75-110	F 90-140	D 110-170
Accuracy (\pm dB/%) (whichever is greater)	0.1/2.0	0.1/2.0	0.1/2.0	0.1/2.0	0.1/2.5	0.1/2.5	0.2/3.0	0.3/3.0
VSWR (max)	1.15:1	1.15:1	1.15:1	1.15:1	1.20:1	1.20:1	1.25:1	1.5:1
Insertion loss (dB) (max)	0.5	0.6	0.7	0.8	1.0	1.0	1.5	2.0
Power rating (W) (max) ^{*1}	1	1	0.5	0.3	0.3	0.3	0.3	0.3

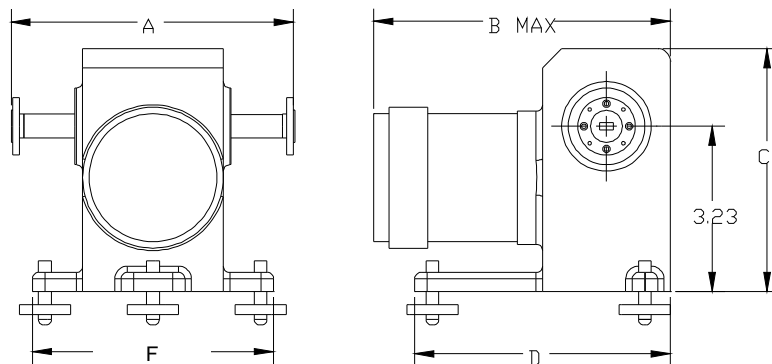
*1 – Higher power versions are available. Please consult Millitech.

TYPICAL PERFORMANCE

DRA-10-R0000



OUTLINE DRAWINGS*



*The outlines shown may not reflect the latest information. Please contact Millitech for current outline drawings.
NOTE: 3.23 dimension is ± 0.1 inches.



MECHANICAL SPECIFICATIONS

Model Number	DRA-28	DRA-22	DRA-19	DRA-15	DRA-12	DRA-10	DRA-08	DRA-06
A (in/mm)	6.89/175.0	5.91/150.1	4.92/150.1	3.94/100.1	3.94/100.01	3.94/100.01	3.54/89.9	3.54/89.9
B (in/mm)	6.50/165.1	6.50/165.1	5.30/134.6	5.30/134.6	5.30/134.6	5.30/134.6	5.30/134.6	5.30/134.6
C (in/mm)	4.80/121.9	4.80/121.9	4.25/108.0	4.25/108.0	4.25/108.0	4.25/108.0	4.25/108.0	4.25/108.0
D (in/mm)	5.04/128.0	5.04/128.0	3.94/100.1	3.94/100.1	3.94/100.1	3.94/100.1	3.94/100.1	3.94/100.1
F (in/mm)	4.72/119.8	4.72/119.8	3.54/89.9	3.54/89.9	3.54/89.9	3.54/89.9	3.54/89.9	3.54/89.9
Flange MIL.F-3922	/54-003*	/67B-006	/67B-007	/67B-008	/67B-009	/67B-010	/67B-M08	/67B-M08

*With #4-40 threaded holes.

HOW TO ORDER

Specify Model Number DRA-XX-ABØØØ
XX = Waveguide Band WR – number
A = Flange Type R – round S – square (WR-28 only) P – pin contact (WR-08 and WR-06 only)
B = Calibration N – NIST traceable calibration Ø – calibrated with NIST traceable test equipment