



# MICROLAB/FXR

AB series

## Fixed Attenuators

Stable Attenuation Standards

DC to 4.5 GHz

- ◆ Miniaturized Package
- ◆ Integral Matching Structures
- ◆ High Reliability
- ◆ 2 - 4 Watt Average Power Rating
- ◆ N, BNC or TNC Connectors Standard



The Microlab/FXR AB series coaxial attenuators are general-purpose attenuation standards for use in the DC to 4.5 GHz frequency range.

The AB series attenuators are constructed with Microlab/FXR film resistors in conventional tee circuits. They are bi-directional, exceptionally stable, and unaffected by normal ambient temperature and humidity changes.

AB series attenuators are available to special order with special attenuation values, VSWR, power ratings, connector series, and connector polarities to meet your exact specifications. (7/02)

### Specifications

Frequency Range: DC to 4.5 GHz

VSWR: 1.35:1 max. for values 1 to 6 dB  
1.25:1 max. for values above 6 dB

Impedance: 50Ω nominal

Temperature Range: -55°C to +125°C  
Coefficient: 0.00008 dB/dB/°C

Connector Finish: Silver plate per QQ-S-365

### Alternate Connector Specifications

| Connector Series | Suffix | Typical Part No. | Physical Differences |                |
|------------------|--------|------------------|----------------------|----------------|
|                  |        |                  | Length in. (mm)      | Weight oz. (g) |
| N                | N      | AB-01N           | Reference            | Reference      |
| BNC              | B      | AB-01B           | -0.2 (5.1)           | -1.6 (-45)     |
| TNC              | T      | AB-01T           | -0.2 (5.1)           | -1.5 (-43)     |

| Attenuation<br>dB | Accuracy, dB  |         | Maximum<br>Power Input |         | Length<br>in. (mm) | Weight<br>oz. (g) | Model<br>Numbers<br>For N type |
|-------------------|---------------|---------|------------------------|---------|--------------------|-------------------|--------------------------------|
|                   | Over GHz band |         | Avg.                   | Peak    |                    |                   |                                |
|                   | 0 – 3.0       | 0 –4 .5 |                        |         |                    |                   |                                |
| 1                 | ±0.2          | ±0.3    | 4W                     | 2<br>kW | 2.7 (69)           | 2.8 (79)          | AB-01N                         |
| 2                 | ±0.4          | ±0.4    | 4W                     |         |                    |                   | AB-02N                         |
| 3                 | ±0.4          | ±0.4    | 4W                     |         |                    |                   | AB-03N                         |
| 4                 | ±0.4          | ±0.4    | 3W                     |         |                    |                   | AB-04N                         |
| 5                 | ±0.4          | ±0.4    | 3W                     | 2<br>kW | 2.7 (69)           | 2.8 (79)          | AB-05N                         |
| 6                 | ±0.5          | ±0.5    | 3W                     |         |                    |                   | AB-06N                         |
| 8                 | ±0.6          | ±0.6    | 2W                     |         |                    |                   | AB-08N                         |
| 10                | ±0.6          | ±0.6    | 2W                     |         |                    |                   | AB-10N                         |
| 12                | ±0.7          | ±0.7    | 2W                     | 2<br>kW | 2.7 (69)           | 2.8 (79)          | AB-12N                         |
| 15                | ±0.7          | ±0.8    | 2W                     |         |                    |                   | AB-15N                         |
| 20                | ±0.7          | ±1.0    | 2W                     |         |                    |                   | AB-20N                         |
| 25                | ±0.7          | ±1.5    | 2W                     |         |                    |                   | AB-25N                         |
| 30                | ±0.7          | ±1.5    | 2W                     | 2<br>kW | 2.7 (69)           | 2.8 (79)          | AB-30N                         |
| 40                | ±1.2          | ±1.5    | 2W                     |         | 3.9 (99)           | 3.2 (91)          | AB-40N                         |
| 50                | ±1.5          | ±2.0    | 2W                     |         | 3.9 (99)           | 3.2 (91)          | AB-50N                         |
| 60                | ±1.5          | ±2.0    | 2W                     |         | 3.9 (99)           | 3.2 (91)          | AB-60N                         |

