

Bench Type Rotary Step Attenuators

Bench type attenuators are designed as discrete instruments for the use in the electronics lab, production or metrology applications such as intermediate testing or quality assurance.

The rotary miniature step attenuators as described on pages 3 and 4, mounted singly or in pairs in a small, bench type case with connectors on either side make up the bench type units. Connectors may be specified as per the listing below.



Model No. 8143 A

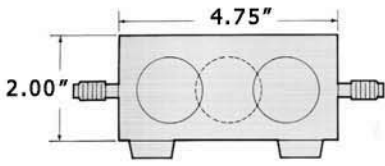
SPECIFICATIONS (for definition and meaning of specs, see page 2)

Model	8128	8129	8143
Attenuation Range	100 dB	10 dB	110 dB
Steps	10 dB	1 dB	1 dB
Frequency Range	DC to 2.0 GHz	DC to 2.0 GHz	DC to 2.0 GHz
Accuracy-Incremental Attenuation	3%	±0.2 dB or 3% whichever is greater	± 0.2 dB or 3% whichever is greater
Accuracy-Incremental (Step to Step) ^t	See Table 2	1 dB ±0.14 dB	See Table 1
Impedance	50 ohms	50 ohms	50 ohms
VSWR	1.3:1 to 1GHz 1.4:1 from 1.0 to 2.0 GHz	1.3:1 to 1GHz 1.4:1 from 1.0 to 2.0 GHz	1.3:1 to 1GHz 1.4:1 from 1.0 to 2.0 GHz
Insertion Loss @Maximum Frequency	0.4 dB max.	0.4 dB max.	0.8 dB max.
Power Rating Average/Peak	3W @ 85°C 200W 5uS/sec. Max.	3W @ 85°C 200W 5uS/sec. Max.	3W @ 85°C 200W 5uS/sec. Max.

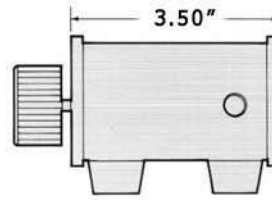
^t Note: Incremental accuracy tolerances are not accumulative; at any position, attenuation will always be within the specified accuracy of 3%.

Bench Type Rotary Step Attenuators

DRAWING A (Center Knob)



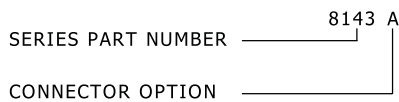
DRAWING B (Dual Knob)



Model	8128	8129	8143
Connector Types Available (See Codes Below)	S,E,A*	S,E,A*	S,E,A*
Weight (approx)	2.2 lb. max	2.2 lb. max	2.2 lb. max
Temperature Operating/Storage	-55 to +85°C -55 to +125°C	-55 to +85°C -55 to +125°C	-55 to +85°C -55 to +125°C
Angle Between Steps	30°	30°	30°

HOW TO ORDER

Specify part number and connector option



CONNECTOR CODE

- "S" - SMA JACK 50 ohms
- "E" - N JACK 50 ohms
- "A" - BNC JACK 50 ohms

TABLE 1

Mode No.	Combination of:
8143	8120/8122

TABLE 2

Accuracy-Incremental
(Step to Step)

Step	Accuracy
10 dB	10 dB±0.3 dB
20 dB	10 dB±0.5 dB
30 dB	10 dB±0.7 dB
40 dB	10 dB±0.8 dB
50 dB	10 dB±1.0 dB
60 dB	10 dB±1.2 dB
70 dB	10 dB±1.3 dB
80 dB	10 dB±1.4 dB
90 dB	10 dB±1.5 dB
100 dB	10 dB±1.6 dB

*Frequency limited to 1 GHz with "A" type connectors.

Incremental (step-to-step) attenuation accuracy is the same as the incremental (step-to-step) accuracy of the units that go to make up the tandem units, and are not accumulative, except at the transition points x9 to x*10. Example: From 30 to 40 dB, the incremental (step-to-step) accuracy

of the 9 dB step and the (step-to-step) incremental accuracy of the 10 dB step attenuator are additive. Please contact the factory for further clarification of this specification if necessary. (see pages 3 and 4 for accuracy specifications)