

CONTINUOUSLY VARIABLE ATTENUATORS

2.0-18.0 GHz
Models
3" Dia



GENERAL CHARACTERISTICS

- Frequency bands from 2.0-18.0 GHz
- Optional dial lock on P version (Form 6921)
- Many models exhibit flat attenuation vs frequency characteristics
- Zero backlash
- 0.1 dB or better resettability
- 10 watts average power, 5 kW peak
- Type N or SMA female connectors
- Low VSWR - 1.50 max
- Non-contacting
- Low insertion loss
0.5 dB max for models up to 60 dB
1.0 dB max for models above 60 dB
- Directly calibrated or degree dial
- Counter clockwise rotation increases loss
- Stop at low and high loss positions
- Material: Body - Aluminum
Connectors - Stainless Steel
- Finish: ARRA Blue per MIL-C-22750

GENERAL INFORMATION

This series of variable attenuators is our most popular type for direct reading requirements. As in most of our units, it features a non-contacting method of varying attenuation, and calibration does not change with usage.

Direct Reading Models are furnished with dials individually calibrated in 1 dB increments. These units are flat with frequency.

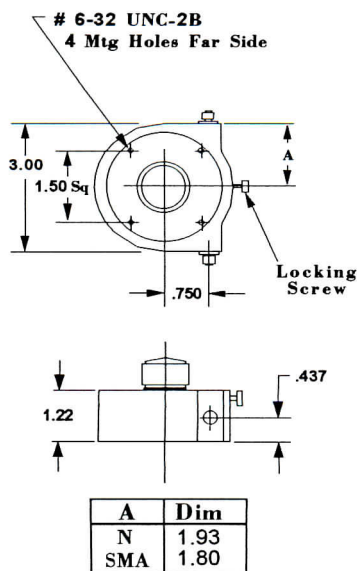
Level Set Models are supplied with dials in degrees for reference. These units do not have attenuation vs frequency specifications. All level set models can be directly calibrated at a spot frequency; contact factory.

Special Models - Most units are manufactured to customer specifications. Accuracies can be quoted for your exact attenuation range and frequency band; contact factory.

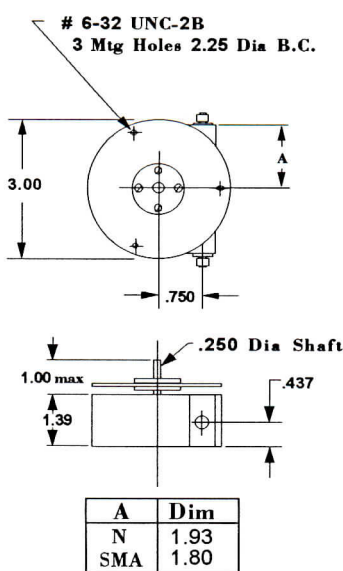
Type N Female Connectors are standard. For SMA female connectors, suffix model number with S.

Panel Mounting is standard on Forms 0-1028 and 0-1069. Form 0-701 can be changed to Form 0-1096 by preceding model number with P. When panel mounting these units, turn the shaft fully clockwise (0 dial position) and after removing the dial in the dial holder, mount the unit behind the panel with the shaft protruding thru. Then set screw the dial hub to the shaft. The dial can be slipped to align the 0 with the index line (a separate index plate is furnished) and calibration accuracy is perfectly maintained. Because of this arrangement, the units can be oriented in any position behind the panel, while the index plate can be mounted to the panel anywhere on the periphery of the dial.

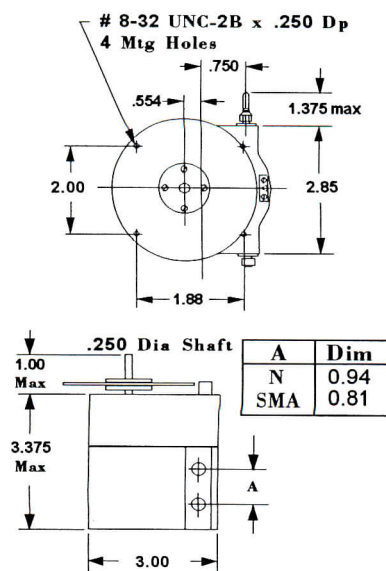
Standard Form 0-701



Panel Mount P Option Form 0-1096



Standard Forms 0-1028 & 0-1069



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TYPICAL DIRECT READING MODELS

Freq Range (GHz)	Atten Range (dB)	Atten vs Freq (±dB)	Form Factor	Model No.*
2.0-3.0	15	2.00	0-701-2	4684-20G
2.2-2.3	20	0.50	0-701-2	F4684-20
2.6-3.0	10	0.50	0-701-2	F4684-10
2.9-3.1	20	0.50	0-701-2	A4684-20
	30	1.00	0-701-2	F4684-30
	50	1.50	0-701-2	F4684-50
3.0-3.5	10	0.25	0-701-2	G4684-10
	20	0.50	0-701-2	G4684-20
3.5-4.5	10	0.60	0-701-2	4684-10G
3.7-4.2	20	0.50	0-701-2	B4684-20
	30	0.75	0-701-2	G4684-30
	40	1.50	0-701-2	F4684-40
	50	2.00	0-701-2	G4684-50
3.7-6.5	30	2.00	0-701-2	F4-5684-30
3.8-4.0	50	1.50	0-701-2	F4684-50A
3.8-6.0	20	1.00	0-701-2	G4684-20
3.9-4.1	100	2.00	0-1069-2	F4-5684-100
3.9-4.2	30	1.50	0-701-2	F4-5684-30A
4.0-4.5	50	1.25	0-701-2	5684-50F
4.0-5.0	20	0.50	0-701-2	F5684-20
4.2-4.4	20	0.20	0-701-2	5684-20G
	40	0.75	0-701-2	F5684-40
4.4-4.8	60	1.50	0-701-2	5684-60F
4.4-5.0	70	1.75	0-1069-2	5684-70F
4.5-5.0	20	0.25	0-701-2	G5684-20
4.8-5.2	40	0.30	0-701-2	5684-40F
4.9-5.1	30	0.50	0-701-2	A5684-30F
5.0-8.0	30	1.50	0-701-2	5684-30G
5.0-6.0	50	1.50	0-701-2	G5684-50
5.1-5.9	30	1.00	0-701-2	G5684-30
5.2-5.9	120	2.00	0-1069-2	F5684-120
5.2-5.8	20	0.50	0-701-2	A5684-20
5.4-5.9	70	1.75	0-1069-2	F5684-70
	100	2.00	0-1069-2	F5684-100
5.4-5.8	80	2.00	0-1069-2	F5684-80
5.5-7.5	30	1.00	0-701-2	B5684-30
5.5-6.1	60	1.50	0-701-2	F5684-60
5.6-5.9	50	0.50	0-701-2	F5684-50
	70	1.00	0-1069-2	5684-70G
5.9-6.4	20	0.25	0-701-2	B5684-20
	30	0.50	0-701-2	F5684-30
	40	1.00	0-701-2	G5684-40
	60	1.50	0-701-2	5684-60G
6.2-6.4	100	1.00	0-1069-2	G5684-100
6.5-7.0	30	0.50	0-701-2	A5684-30
7.1-8.4	40	1.00	0-701-4	F6684-40
7.2-7.8	20	0.50	0-701-4	F6684-20
	40	0.50	0-701-4	6684-40F
	50	1.00	0-701-4	6684-50F
7.7-8.4	60	2.00	0-701-4	6684-60F
7.7-7.9	50	0.50	0-701-4	6684-50G
7.8-8.4	30	0.50	0-701-4	F6684-30
7.9-8.4	20	0.25	0-701-4	6684-20G
	40	0.50	0-701-4	6684-40G
	50	1.00	0-701-4	F6684-50
8.0-10.0	30	1.00	0-701-4	G6684-30
8.1-8.4	70	0.50	0-1028-2	6684-70F
8.2-8.4	60	1.00	0-701-4	F6684-60
8.5-9.7	40	1.00	0-701-4	G6684-40
8.5-9.6	100	3.00	0-1028-2	6684-100F
8.7-10.2	60	1.50	0-701-4	6684-60G
8.7-9.5	70	1.00	0-1028-2	6684-70G
9.0-10.0	50	1.00	0-701-4	G6684-50
	100	2.00	0-1028-2	6684-100G
9.1-9.4	50	0.50	0-701-4	A6684-50
9.2-9.5	120	2.00	0-1028-2	6684-120F
9.4-9.7	100	1.50	0-1028-2	F6684-100
9.5-10.5	30	1.00	0-701-4	6684-30G
9.6-9.8	100	1.00	0-1028-2	G6684-100
10.9-12.2	50	2.00	0-701-4	B6684-50
11.7-12.2	40	0.50	0-701-4	A6684-40
12.7-13.3	50	1.00	0-701-4	F9684-50
14.0-14.5	30	0.20	0-701-4	F9684-30
	50	1.00	0-701-4	G9684-50
14.4-15.3	100	1.50	0-1028-2	F9684-100
15.0-17.0	50	1.00	0-701-4	9684-50G
15.5-16.5	30	1.00	0-701-4	G9684-30
15.7-16.2	40	0.50	0-701-4	F9684-40

DIRECT READING OCTAVE BAND MODELS

Freq Range (GHz)	Atten Range (dB)	Atten vs Freq (±dB)	Form Factor	Model No.*
2.0-4.0	10	1.25	0-701-2	4684-10F
4.0-8.0	10	0.60	0-701-2	5684-10F
	20	1.00	0-701-2	5684-20F
	30	2.50	0-701-2	5684-30F
5.4-11.0	10	1.00	0-701-4	5-6684-10F
	20	1.50	0-701-4	5-6684-20F
7.0-11.0	10	0.50	0-701-4	6684-10F
	20	1.00	0-701-4	6684-20F
	30	2.00	0-701-4	6684-30F
8.0-12.4	10	0.50	0-701-4	6684-10X
	20	1.00	0-701-4	6684-20X
	30	2.00	0-701-4	6684-30X
12.4-18.0**	10	0.50	0-701-3	9684-10FS
	20	1.00	0-701-3	9684-20FS
	30	1.00	0-701-3	9684-30FS
	40	2.00	0-701-3	9684-40FS

UNCALIBRATED LEVEL SET MODELS

Freq Range (GHz)	Atten Range (dB)	Form Factor	Model No. *
2.0-4.0	10	0-701-2	4684-10
	20	0-701-2	4684-20
3.0-4.0	10	0-701-2	4684-10X
	20	0-701-2	4684-20X
	30	0-701-2	4684-30X
	40	0-701-2	4684-40X
	50	0-701-2	4684-50X
4.0-7.0	10	0-701-2	5684-10
	20	0-701-2	5684-20
	30	0-701-2	5684-30
	40	0-701-2	5684-40
	50	0-701-2	5684-50
	70	0-1069-2	5684-70
	80	0-1069-2	5684-80
	90	0-1069-2	5684-90
	100	0-1069-2	5684-100
5.4-11.0	10	0-701-4	5-6684-10
	20	0-701-4	5-6684-20
	30	0-701-4	5-6684-30
	40	0-701-4	5-6684-40
	50	0-701-4	5-6684-50
7.0-12.4	10	0-701-4	6684-10
	20	0-701-4	6684-20
	30	0-701-4	6684-30
	40	0-701-4	6684-40
	50	0-701-4	6684-50
	60	0-701-2	6684-60
	70	0-1028-2	6684-70
	80	0-1028-2	6684-80
	90	0-1028-2	6684-90
	100	0-1028-2	6684-100
12.4-18.0 **	10	0-701-3	9684-10S
	20	0-701-3	9684-20S
	30	0-701-3	9684-30S
	40	0-701-3	9684-40S
	50	0-701-3	9684-50S
	60	0-701-3	9684-60S
	70	0-1028-1	9684-70S
	80	0-1028-1	9684-80S
	90	0-1028-1	9684-90S

* Model numbers indicate Type N connectors. For SMA connectors, suffix model number with S. Ex: 6684-10S

To indicate panel-mounted version, precede model number with P. Ex: P6684-10

** Units 12.4-18.0 GHz are available with SMA connectors only.