

CONTINUOUSLY VARIABLE ATTENUATORS

Miniature
Models



Standard Form
2191 & 3651



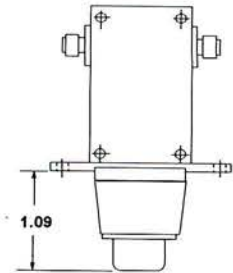
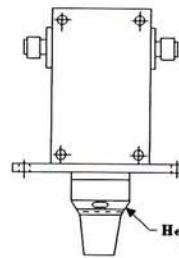
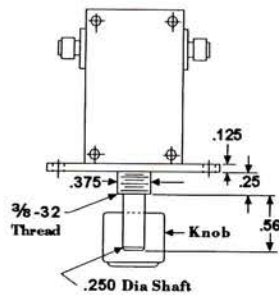
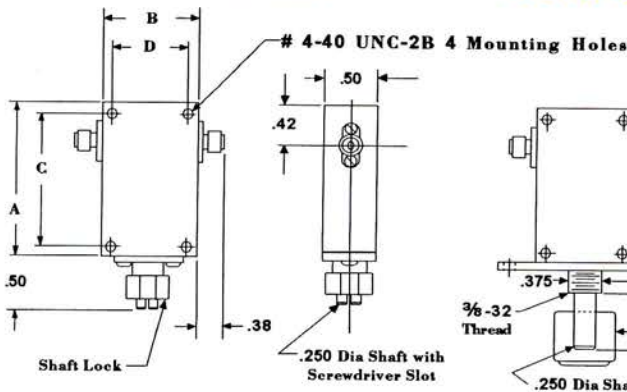
P Option
4321 & 4322



T Option
4319 & 4320

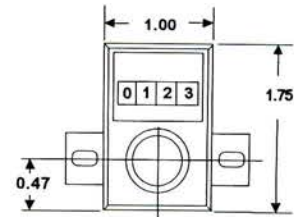
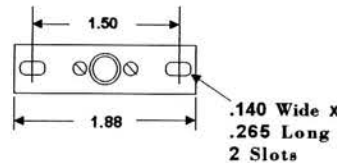


D Option
0-3345 & 0-3346



Dimensions - Inches

Form	A	B	C	D
2191	1.75	1.00	1.594	0.844
3651	2.00	1.25	1.844	1.094



OPTIONAL FEATURES

APPLICATIONS

The standard attenuator packages, Forms 2191 and 3651, have non-translating 1/4" diameter shafts with lock nut. They achieve full attenuation in less than 20 turns. To maintain versatility this attenuator comes in 3 other packages. To specify these options, precede the model number with P for panel-mount version, T for turns-counting version, or D for digital-counter version.

When options are ordered, Standard Form 2191 changes to Form 4321 for panel-mount type, Form 4319 for turns-counting type or Form 0-3345 for digital-counter type. Standard Form 3651 becomes Form 4322 for panel-mount type, Form 4320 for turns-counting type or Form 0-3346 for digital counter type.

The standard forms are ideal for applications where attenuation can be set, then locked and left for long periods of time without movement. The panel-mount version is ideally suited for applications where front panel adjustment is required and monitored via output power. Turns-counting dials are ideally suited for panel mount applications where calibration or reference for resetting is required. The digital counter version performs the same task as the turns-counting dial but with greater resolution. Both T & D options can be calibrated by utilizing a calibration chart. Order CT or CD option.

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GENERAL SPECIFICATIONS

- RF Power 5 Watts average
3 kW peak
- Connectors SMA Female standard
- Temperature Range . . . -55° C to +85° C
- Resettability 0.1 dB or better
- Material Body - Aluminum
Conn - Stainless Steel
- Finish ARRA Blue per
MIL-C-22750
- Mounting Provisions . . . All forms have tapped
or thru holes

These units represent the most complete line of miniature continuously variable attenuators.

Most models weigh 2 or 3 ounces and have been qualified for all types of military applications.

Since attenuation is achieved in a non-contacting manner, these units provide the utmost in wear-free performance and high reliability.



LEVEL SET MODELS

Frequency Range (GHz)	Atten Range (dB)	VSWR (Max)	Ins Loss (Max dB)	Standard Form Factor	Model No.
1.0-2.0	10	1.8	0.5	3651	3814-10
1.5-2.0	15	1.7	0.5	3651	3814-15
2.0-4.0	10	1.8	0.5	2191	4804-10
	20	1.5	0.5	3651	4814-20
2.5-4.0	10	1.5	0.5	2191	4804-10x
3.6-4.3	10	1.5	0.5	2191	4-5804-10
	20	1.5	0.5	2191	4-5804-20
	30	1.5	0.5	3651	4-5814-30
4.0-8.0	10	1.5	0.5	2191	5804-10
	20	1.5	0.5	2191	5804-20
	30	1.5	0.5	3651	5814-30
6.0-11.0	10	1.5	0.5	2191	5-6804-10
	20	1.5	0.5	2191	5-6804-20
	30	1.5	0.5	2191	5-6804-30
	40	1.5	0.5	3651	5-6814-40
8.0-12.4	10	1.5*	0.5	2191	6804-10
	20	1.5*	0.5	2191	6804-20
	30	1.5*	0.5	2191	6804-30
	40	1.5*	0.5	3651	6814-40
8.0-18.0	10	1.5*	1.0	2191	9804-10
	20	1.5*	1.0	2191	9804-20
	30	1.5*	1.0	2191	9804-30
	40	1.5*	1.0	3651	9814-40
12.0-18.0	10	1.5	0.5	2191	9804-10x
	20	1.5	0.5	2191	9804-20x
	30	1.7	0.5	2191	9804-30x
	40	1.7	0.5	2191	9804-40x

FLAT WITH FREQUENCY MODELS

Frequency Range (GHz)	Atten Range (dB)	Atten vs Freq (±dB)	VSWR (Max)	Ins Loss (Max dB)	Standard Form Factor	Model No.
2.5-3.0	20	1.0	1.5	0.5	3651	4813-20A
2.9-3.1	10	0.5	1.5	0.5	3651	4813-10A
	20	0.5	1.5	0.5	3651	4813-20B
3.0-4.0	15	1.0	1.5	0.5	3651	4813-15A
3.7-4.2	20	1.0	1.5	0.5	3651	4-5813-20
4.0-8.0	10	1.0	1.5	0.5	3651	5813-10
	20	1.5	1.5	0.5	3651	5813-20
5.4-5.0	20	0.5	1.5	0.5	3651	5813-20A
5.9-6.5	20	0.5	1.5	0.5	3651	5813-20B
7.2-7.8	30	0.5	1.5	0.5	3651	5813-30A
7.2-8.4	30	1.0	1.5	0.5	3651	5-6813-30A
7.9-8.4	30	0.5	1.5	0.5	3651	6813-30A
8.0-12.4	10	0.5	1.5*	0.5	3651	6813-10
	20	1.0	1.5*	0.5	3651	6813-20
8.0-18.0	10	1.5	1.5*	1.0	2191	9803-10
8.5-10.5	10	0.5	1.5	0.5	2191	6803-10A
	20	0.5	1.5	0.5	2191	6803-20A
10.0-12.0	30	0.5	1.5	0.5	2191	6803-30A
10.5-12.4	10	0.5	1.6	0.5	2191	6803-10B
	20	0.5	1.6	0.5	2191	6803-20B
12.0-18.0	10	1.0	1.5	0.5	2191	9803-10A

* 1.7 VSWR above 11 GHz.