

THICK FILM ATTENUATORS, DIGITAL DROP-IN

DAD SERIES

1.0-4.0 GHz

GENERAL INFORMATION: The DAD Series of Precision Digital Attenuators utilize Thick Film Technology for all microwave and logic functions. All conductors, attenuator elements and bias resistors are screened on a single alumina substrate to achieve increased reliability and enhanced performance. All additional circuit elements including pin diodes, integrated circuits, capacitors, and coils are bonded directly to the Thick Film. Customized driver circuits are integrated on the RF substrate. The circuits are designed and manufactured to meet the requirements of MIL-STD-883.

FEATURES:

- Removable SMA Connectors
- Internal T²L Drivers
- Hermetic Seal Option
- Thick Film
- Accuracy $\pm 1/2$ LSB
- MIL-STD-883 SCREENING

GENERAL SPECIFICATIONS:

FREQUENCY RANGE: 1 GHz to 4 GHz

RF IMPEDANCE: 50 Ohms

DC POWER: 5V ± 0.5 at 40ma/Bit

LOGIC: T²L

DRIVER: Integrated on RF Substrate

ATTENUATION RANGE: 0 to 63dB

ACCURACY: ± 0.5 LSB

RF POWER: +10dBm Operating
+20dBm Survivability

OPERATING TEMP.: -55°C. To +85°C.

STORAGE TEMP.: -55°C. To +125°C.

SWITCHING SPEED: 100 nsec Typ; 125 nsec Max.

PACKAGE:

Housing Material	Seal	Option	Finish
Aluminum, sil. plate	Epoxy	Standard	Silver
Aluminum, sil. plate	Weld, hermetic	HA	Paint
Kovar, gold plate	Weld, hermetic	HK	Gold

Epoxy seal meets gross leak requirements of MIL STD 883

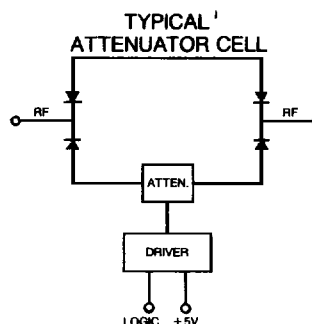
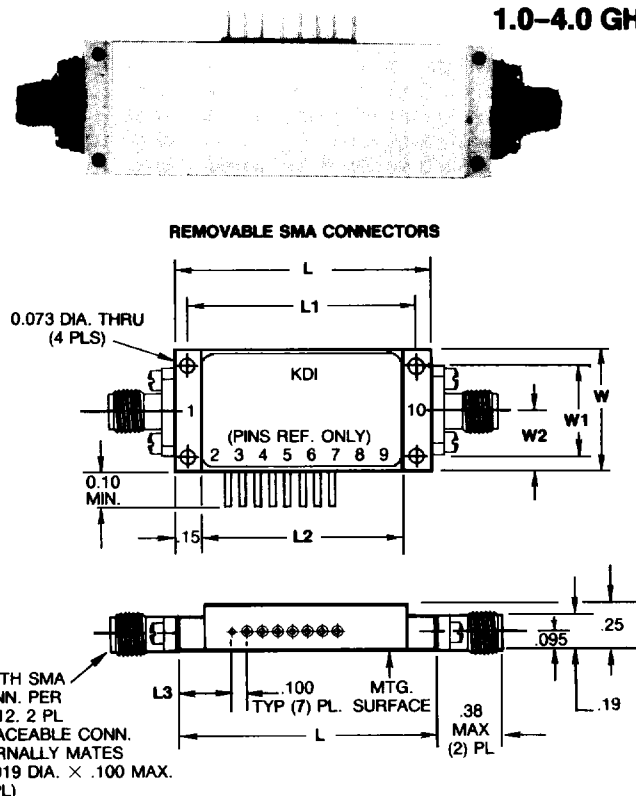
LOGIC & RF CONNECTIONS

Part No.		1, 10	2	3	4	5	6	7	8	9
DAD-124	-05	RF	GND	+5V	2 dB	1 dB	.5 dB	4 dB	+5V	GND
	-1	RF	GND	+5V	4 dB	2 dB	1 dB	8 dB	+5V	GND
	-2	RF	GND	+5V	8 dB	4 dB	2 dB	16 dB	+5V	GND
DAD-125	-05	RF	GND	8 dB	4 dB	2 dB	1 dB	.5 dB	N/C	+5V
	-1	RF	GND	16 dB	8 dB	4 dB	2 dB	1 dB	N/C	+5V
	-2	RF	GND	16 dB	8 dB	4 dB	2 dB	N/C	32 dB	+5V
DAD-126	-05	RF	GND	8 dB	4 dB	2 dB	1 dB	.5 dB	16 dB	+5V
	-1	RF	GND	16 dB	8 dB	4 dB	2 dB	1 dB	32 dB	+5V

ELECTRICAL PERFORMANCE

Part No.	Frequency GHz	# of Bits	LSB dB	MSB Max. dB	Ins. Loss dB Max.	VSWR Max.	Power Supply Ma Max.	Phase Degrees Typical	L $\pm .01$	L1 $\pm .01$	L2 $\pm .01$	L3 $\pm .01$	W $\pm .01$	W1 $\pm .01$	W2 $\pm .01$
DAD-124-**-	1-4	4	0.5	16	3.2	1.5	160	15°	1.43	1.28	1.13	.365	.67	.56	.33
DAD-125-**-	1-2	5	0.5	32	4.0	1.5	200	15°	2.25	2.09	1.95	.77	.75	.59	.38
DAD-225-**-	2-4	5	0.5	32	4.0	1.5	200	15°	2.25	2.09	1.95	.77	.75	.59	.38
DAD-126-**-	1-2	6	0.5	32	4.8	1.5	240	15°	2.25	2.09	1.95	.77	.75	.59	.38
DAD-226-**-	2-4	6	0.5	32	4.8	1.5	240	15°	2.25	2.09	1.95	.77	.75	.59	.38

**Dash number indicates LSB value—05 = 0.5dB etc.
Note: For Extended Specifications, Consult Factory.



TYPICAL MODEL NO.

DAD - 124 - 05 (XX)

Basic Series - Freq. # Bits - LSB - Options (HA, HK)

**KDI/triangle
ELECTRONICS**

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