

# THICK FILM ATTENUATORS, DIGITAL HIGH RELIABILITY

# DAP SERIES

20-2000 MHz

T-74-09-01

**GENERAL INFORMATION:** The DAP Series of Thick Film digital attenuators offers high reliability for operation up to 2 GHz. The plug-in style package offers a very reliable, easy to use and cost effective alternative. TTL driver circuits are integrated directly on the RF substrate. All circuits on hermetically sealed and meet the requirements of MIL-STD-883.

**FEATURES:**

- Thick Film
- Accuracy  $\pm 1/2$  LSB
- Laser Trimmed
- Hermetically Sealed
- Internal TTL Drivers
- Plug In Style Package

**GENERAL SPECIFICATIONS:**

**FREQUENCY RANGE:** 20 MHz-2000 MHz

**RF IMPEDANCE:** 50 Ohms

**DC POWER:** 5V  $\pm 0.5V$  at 10ma/bit

**LOGIC:** T<sup>2</sup>L Compatible

**DRIVER:** Integrated on RF Substrate

**ATTENUATION RANGE:** To 31.5dB

**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.  
(50% Logic to 90% RF).

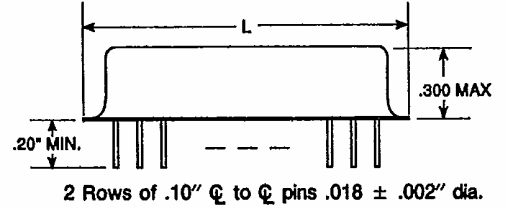
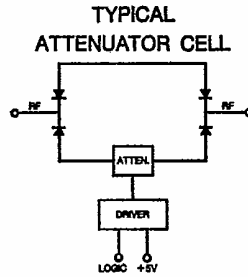
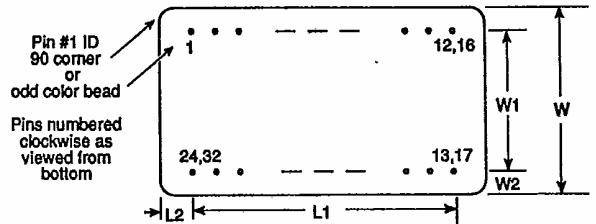
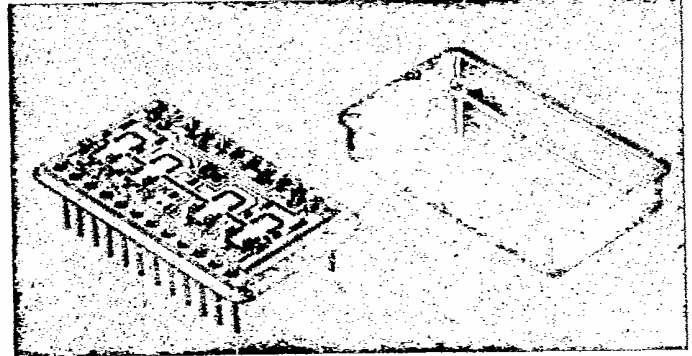
For DAP0024 and DAP0025

max. switching speed is 2  $\mu$ sec.

**PACKAGE:** Plug-In Hermetic Seal per MIL-STD-883

**PACKAGE MATERIAL:** Gold Plated Kovar.

**ACCURACY:**  $\pm 1/2$  LSB



2 Rows of .10"  $\phi$  to  $\phi$  pins .018  $\pm$  .002" dia.

## ELECTRICAL PERFORMANCE

## DIMENSIONS

Part No.	Frequency MHz	# of Bits dB	LSB dB	MSB Max. dB	Ins. Loss dB Max.	VSWR Max.	Power Supply mA Max.	Phase Degrees Typical	L	W	L1	W1	L2	W2	TOTAL PINS
									$\pm .02$	$\pm .02$	$\pm .01$	$\pm .01$	$\pm .02$	$\pm .02$	
DAP0024-**	20-1000	4	0.5	8	4.0	2.0	40	10	1.37	.794	1.10	.60	.135	.10	24
DAP0025-**	20-1000	5	0.5	16	5.0	2.0	50	10	1.74	1.14	1.50	.90	.12	.12	32
DAP0524-**	500-2000	4	0.5	16	2.4	1.5	40	10	1.37	.794	1.10	.60	.135	.10	24
DAP0525-**	750-1500	5	0.5	16	3.0	1.5	50	10	1.74	1.14	1.50	.90	.12	.12	32
DAP0526-**	750-1500	6	0.5	16	3.6	1.5	60	15	1.74	1.14	1.50	.90	.12	.12	32

\*\*Dash number indicates LSB value e.g.: 05 = 0.5 dB

## 24 PIN LOGIC & RF CONNECTIONS

## 32 PIN LOGIC & RF CONNECTIONS

Model No.	1	3	5	8	10	13	24	Model No.	1	3	5	8	10	12	14	17	32
DAP-0024-05	+5	4dB	.5dB	1dB	2dB	RF	RF	DAP-0025-05	+5	NC	.5dB	1dB	2dB	4dB	8dB	RF	RF
DAP-0024-1	+5	8dB	1dB	2dB	4dB	RF	RF	DAP-0025-1	+5	16dB	NC	1dB	2dB	4dB	8dB	RF	RF
DAP-0524-05	+5	4dB	.5dB	1dB	2dB	RF	RF	DAP-0525-05	+5	NC	.5dB	1dB	2dB	4dB	8dB	RF	RF
DAP-0524-1	+5	8dB	1dB	2dB	4dB	RF	RF	DAP-0526-05	+5	16dB	.5dB	1dB	2dB	4dB	8dB	RF	RF
DAP-0524-2	+5	16dB	2dB	4dB	8dB	RF	RF	DAP-0525-1	+5	16dB	NC	1dB	2dB	4dB	8dB	RF	RF

NOTES: ALL OTHER PINS GROUNDED  
LOGIC 1 = BIT ENABLED

**KDI/triangle  
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