

**THICK FILM K D I/ TRIANGLE
ATTENUATORS, DIGITAL
HIGH RELIABILITY**

39E D ■ 5041502 0001193 I ■ KDIT

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 ± 0.5 V at 10ma/bit

LOGIC: T²L 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).

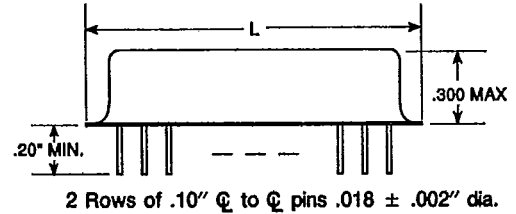
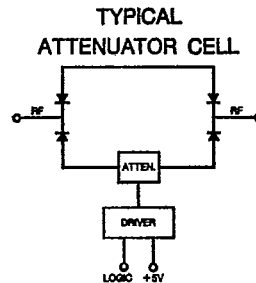
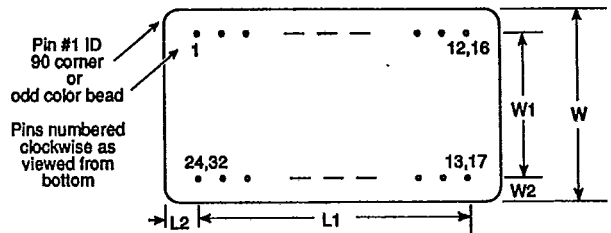
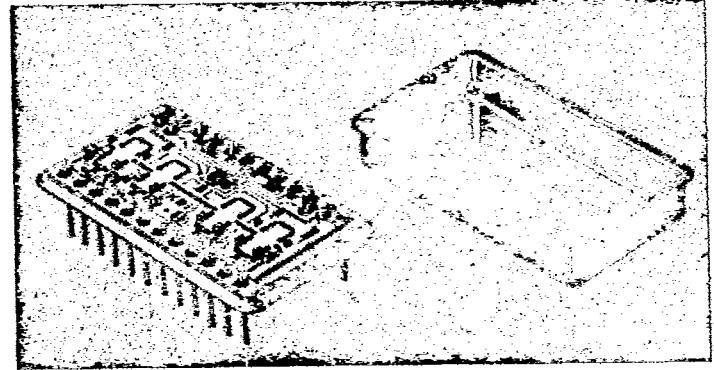
For DAP0024 and DAP0025

max. switching speed is 2 μ sec.

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

PACKAGE MATERIAL: Gold Plated Kovar.

ACCURACY: $\pm 1/2$ LSB



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
ELECTRONICS**

31 Farinella Drive • East Hanover, NJ 07936 • Phone: (201) 884-1423
TWX: (710) 986-8202 • FAX: (201) 884-0445