



Model: AE-A000-40D

Description:	.....	Digital Controlled PIN Attenuator
Operating Frequency:	.....	160 - 500 MHz
Phase-Invariant Frequency Region (<±10 Deg):	.....	260 - 500 MHz
Insertion Loss (0dB Attn. Ref.):	.....	1.8 dB Max
Attenuation Range:	.....	0 – 40 dB Nominal Min
Attenuation Flatness:	..... 0.9 dB Peak-Peak	..... up to 10 dB
	..... 1.3 dB Peak-Peak	..... up to 20 dB
	..... 1.5 dB Peak-Peak	..... up to 40 dB
Control Function:	.....	8 Bit Positive Binary TTL (LSB=0.25 dB, MSB=32 dB)
Transfer Function Accuracy:	..... 0 – 0.8 dB	..... ±50% Max
	..... > 0.8 – 10 dB	..... ±0.40 dB Max
	..... >10 - 30 dB	..... ±0.50 dB Max
	..... > 30 - 40 dB	..... ±0.90 dB Max
VSWR (all settings):	.....	1.6:1 Max
Settling Time (“±1dB of Target Setting”):	.....	1µs Max, (10µs<PW<0.1s)
Power Handling:	..... Operating	+10 dBm CW/Peak Max
	..... Survival	+30 dBm CW/AVG Max
Connectors (RF):	.....	SMA (f), Removable
Connector (Supply & Controls):	.....	15-Pin D-Type Male
Temperature Coefficient (over -20°C to +75°C):	.....	±0.025dB/°C Max
Power Supply (internally regulated):	.....	+12 to +15vdc @ 60mA Max
Impedance:	.....	50 Ohms Nominal
Quality:	.....	Best-Commercial-Grade

Environmental Ratings:

Temperature:	.....	{Operating: -40°C to +85°C} & {Storage: -50°C to +100°C}
Humidity:	.....	MIL-STD-202F, Method 103B, Cond. B (96 hours at 95% R.H.)
Shock:	.....	MIL-STD-202F, Method 213B, Cond. B (75G, 6mSec)
Vibration:	.....	MIL-STD-202F, Method 204D, Cond. B (.06” double amplitude, or 15G)
Altitude:	.....	MIL-STD-202F, Method 105C, Cond. B (50,000 Feet)
Temp. Shock:	.....	MIL-STD-202F, Method 107D, Cond. A (5 cycles)

Available Options:

(Units with listed options here may be subject to some specification tradeoffs from the standard, consult factory)

■ RF Connectors

- B1** [J1 SMA (male)]
- B2** [All SMA (male)]

■ Transfer Functions

- F3** [Inverse Logic (“00...00” = Max Attenuation)]

■ Control Function Resolution

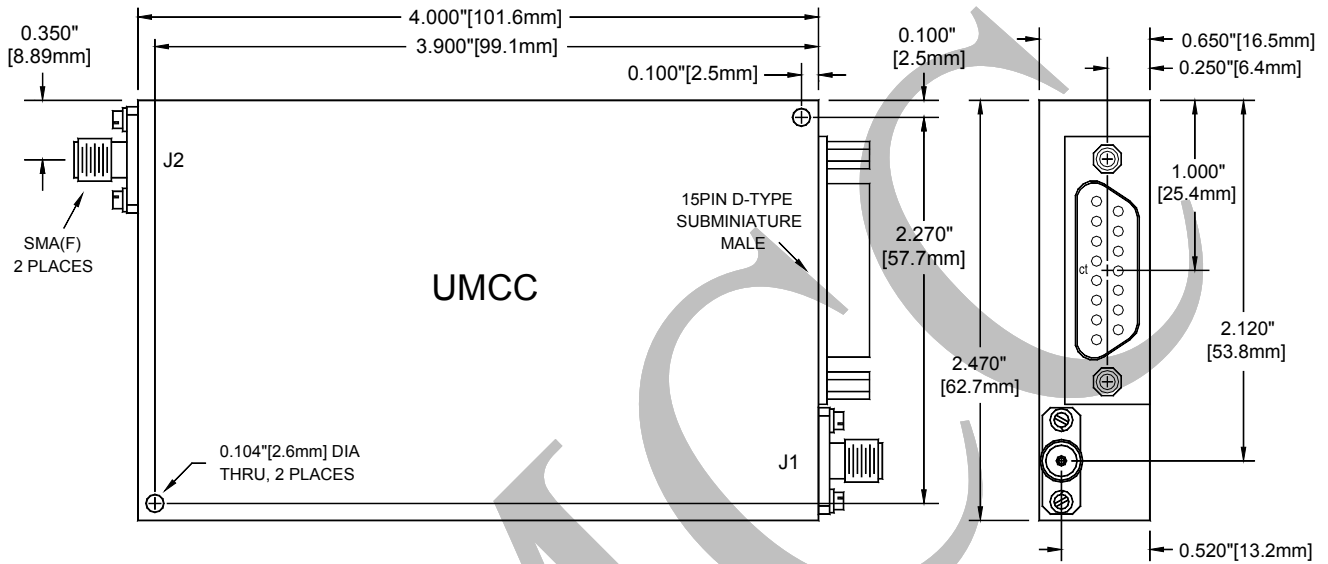
- E1** [LSB = 1/8 dB <> 9-Bits <> “fractional steps”]
- R1** [LSB = 0.1 dB <> 9-Bits <> “decimal steps”]
- E2** [LSB = 1/16 dB <> 10-Bits <> “fractional steps”]
- R2** [LSB = 0.05 dB <> 10-Bits <> “decimal steps”]
- E3** [LSB = 1/32 dB <> 11-Bits <> “fractional steps”]
- E4** [LSB = 1/64 dB <> 12-Bits <> “fractional steps”]



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Outline

(Tolerances: $\pm 0.015"$ [0.38mm])



Pin-Out Function

PIN	Function
1	N/C
2	N/C
3	N/C
4	N/C
5	0.25 dB
6	0.5 dB
7	1.0 dB
8	2.0 dB
9	4.0 dB
10	8.0 dB
11	16.0 dB
12	32.0 dB
13	+Vdc
14	N/C
15	GND (Chassis & Digital)

