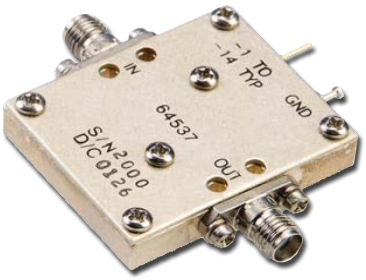
PQ-34
Analog Diode Phase Shifters

AEROFLEX
A passion for performance.

Features

- Octave bands up to 18 GHz
- Fast Phase responce as low as 10 nS
- RF power operation 10 mW peak/CW, RF power survival 100 mW peak/CW
- Bias connection using pin or connector options
- Custom configurations available



Specifications:

Parameter	Specification	Units
Frequency Range (min)	1.0 – 2.0	GHz
Phase Shift	360	Degrees
Insertion Loss (Max)	5.5	dB
Amplitude Ripple (Max)	1.5	±dB
VSWR (Max)	2.0:1	Ratio

Outline	A′	B′	C′	D′	E′	F′	G′
8	6.50	2.50	N/A	2.30	6.00	0.25	4PLCS

Screening:

Internal Visual per MIL-STD-883, Method 2017
Temperature Cycle: -65 °C to +100 °C, 10 cycles

Hermetically-sealed switches are fine and gross leak checked per MIL-STD-883, Method 1014.

Optional High-Rel screening available upon request. Contact the factory to discuss your screening requirements.

Environmental Specifications:

Designed to meet:

MIL-E-5400, MIL-STD-202, MIL-E-16400

Operating Temp: -55°C to +125°C

Storage Temp: -65°C to +150°C

Humidity: MIL-STD-202F, M103, Cond B

Shock: MIL-STD-202F, M213, Cond B

Altitude: MIL-STD-202F, M105, Cond B

Vibration: MIL-STD-202F, M204, Cond B

Thermal Shock: MIL-STD-202F, M107, Cond A

Temperature Cycle: MIL-STD-202F, M105C, Cond D

Additional Electrical Specifications:

DC Supply:	+5 V ± 0.5 V @ +275 mA -5 V ± 0.5 V @ -50 mA
Control:	8 Bits command 1 Strobe line Positive edge latched
Logic Levels:	TTL/HMOS
Attenuation Accuracy:	+/-0.15 dB or +/-1.5% whichever is greater
Attenuation Stability over Temperature:	+/-0.025 dB/°C

Mechanical Specifications:

Case Style:	PQ Outline
Connectors:	SMA Female per MIL-C-39012
Connector Control:	Micro-D 21 Pin
Bias & Control Pins:	ø0.02″ x 0.15″ long
Mounting:	ø0.10″ through holes (4) places

AEROFLEX
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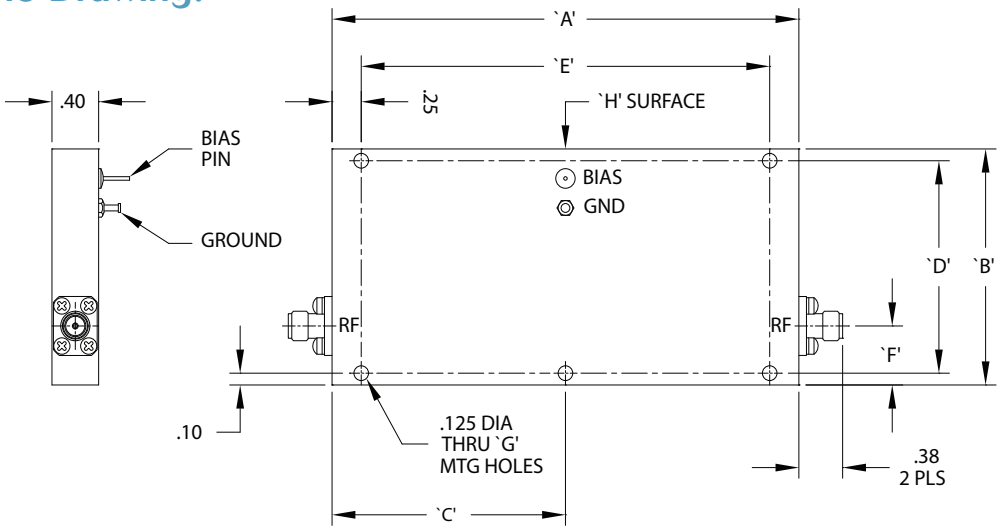
Outline Drawing:



OUTLINE CASE STYLE PQ

Notes:

1. Monotonicity is Guaranteed.
2. The Phase shift varies with frequency at any voltage setting. This variation, referenced to 0° at logic 0 for each frequency, is approximately ±15% for octave models, 10% for models with 25% bandwidth, and ±7.5% for models with 10% bandwidth. Phase flatness of the QQ-65 & QQ-74 is ±25%.
3. A Connector, (SMA Female) is available in place of the bias pin at no extra charge. This will be placed at the center of the surface marked "H" on the drawing. This is the .38 x "A" surface. If a SMA Female is desired, add the suffix "C" to the model number (e.g., PQ-45C)
4. Linearization models available, call for outline and details.

Custom Options – Contact the Factory

- Gray epoxy paint per MIL-C-22750
- Video transient suppression
- GPO connectors
- ECL logic input
- Phase and amplitude tracking
- Other frequency ranges available from 1 MHz to 26 GHz
- Reversed logic
- Available without SMA connectors for drop-in applications
- High rel screening

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Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.

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