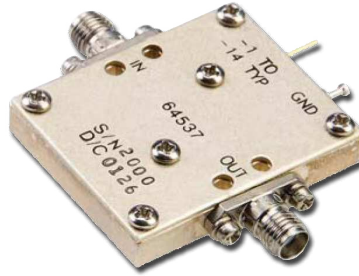


PQ-44

Analog Diode Phase Shifters

Features

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



Specifications:

Parameter	Specification	Units
Frequency Range (min)	2.0 – 4.0	GHz
Phase Shift	180	Degrees
Insertion Loss (Max)	4	dB
Amplitude Ripple (Max)	0.5	±dB
VSWR (Max)	1.75:1	Ratio

Outline	A'	B'	C'	D'	E'	F'	G'
3	5.00	2.00	N/A	1.80	4.50	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: +5V ±0.5V @ +275mA

-5V ±0.5V @ -50mA

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

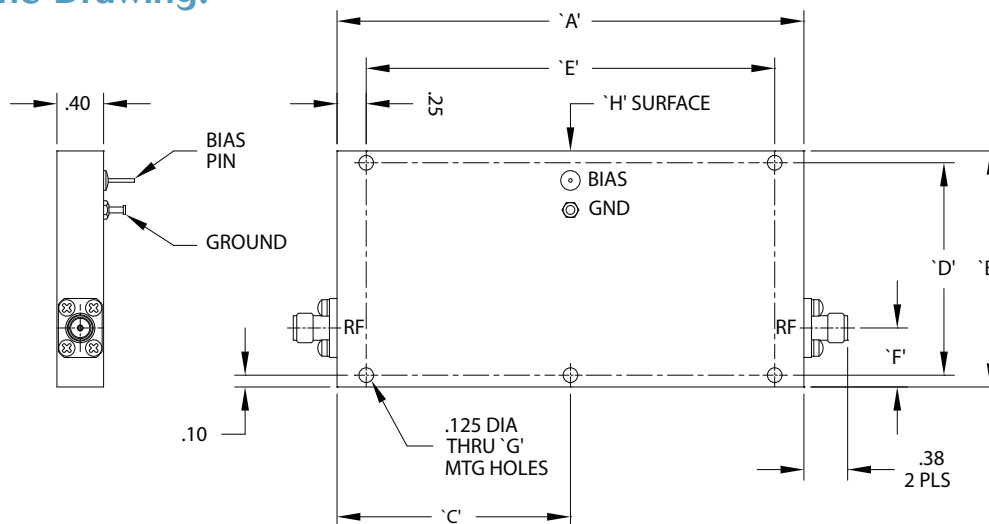
Bias & Control Pins: ø0.02" x 0.15" long

Mounting: ø0.10" through holes
(4) places



Revision Date: 2/23/2011

40 Industrial Way East, Eatontown, NJ 07724 [USA]
Phone: (732) 460-0212, Fax: (732) 460-0214
www.aeroflex.com/acc, email: acc-sales@aeroflex.com



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 $\pm 15\%$ for octave models, 10% for models with 25% bandwidth, and $\pm 7.5\%$ for models with 10% bandwidth. Phase flatness of the QQ-65 & QQ-74 is $\pm 25\%$.
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 1MHz to 26GHz
- Reversed logic
- Available without SMA connectors for drop-in applications
- High rel screening

Aeroflex Control Components
Aeroflex Microelectronic Solutions
40 Industrial Way East
Eatontown, NJ 07724 [USA]
Fax: (732) 460-0214

Sales
Phone: (732) 460-0212
ACC-sales@aeroflex.com

www.aeroflex.com/Microwave www.aeroflex.com/ACC

Aeroflex Control Components reserves the right to make changes to any products and services herein at any time without notice. Consult Aeroflex or an authorized sales representative to verify that the information in this data sheet is current before using this product. Aeroflex does not assume any responsibility or liability arising out of the application or use of any product or service described herein, except as expressly agreed to in writing by Aeroflex; nor does the purchase, lease, or use of a product or service from Aeroflex convey a license under any patent rights, copyrights, trademark rights, or any other of the intellectual rights of Aeroflex or of third parties.

Copyright 2011 Aeroflex Control Components. All rights reserved.

ISO 9001:2008 certified



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