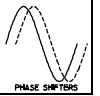


PWM-84C Series

PHASE SHIFTERS, DIGITAL

30 to 2500 MHz / 360° Range / 1.4° Resolution / 8-bit TTL Input / Monotonic / SMA Connectors



J3 Pin	Function
1	Bit 8 (MSB)
2	Bit 7
3	Bit 6
4	Bit 5
5	Bit 4
6	Bit 3
7	Bit 2
8	Bit 1 (LSB)
9	(NC)
10	-15V
11	(NC)
12	GND
13	(NC)
14	(NC)
15	+15V

Bit	Step
1 (LSB)	1.4°
2	2.8°
3	5.6°
4	11.2°
5	22.5°
6	45°
7	90°
8 (MSB)	180°

PRINCIPAL SPECIFICATIONS

Model Number	Center Frequency, f_c , MHz	Operating Bandwidth
PWM-84C-***B	30 - 200	30% of f_o
PWM-84C-****B	200 - 2500	10% of f_o

For complete Model Number replace *** with desired center frequency in MHz

GENERAL SPECIFICATIONS

Phase Characteristics:
 Minimum Shift: 0° to 360° in 255 steps @ f_c
 Phase Accuracy, typ: $\pm 15^\circ$ ($\pm 30^\circ$ above 1 GHz)
 (Guaranteed Monotonic)

RF Characteristics:
 Impedance: 50 Ω nom.
 VSWR: 2.0:1 max.
 Insertion Loss: 2 dB nom, 3 dB max.
 (3 dB nom, 4.5 dB max above 1 GHz)

Loss Var. vs. Phase: 1 dB (1.5 dB above 1 GHz)
 Max. Input Power: +10 dBm

Control Characteristics:
 Control Input : 8 Bit TTL
 Settling Time: 3 μ s max.
 Supply Power: ± 15 VDC @ 100 mA max.
 Weight, nominal: 4.5 oz (125 g)
 Operating Temp.: -55° to +85°C

Package Outline

(J3) CONNECTOR, PLUG, SUBMINIATURE, DAM-15PA, MATES WITH CONNECTOR SOCKET, DAM-15S (FURNISHED)

CONNECTOR, RECEPTACLE, FEMALE, SMA TYPE, MATES WITH CONNECTOR PLUG, MALE PER MIL-C-39012 TYP. (2) PLACES

NOTES: 1. Tolerance on 3 place decimals $\pm .020(.51)$ except as noted.
 2. Dimensions in inches over millimeters.

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General Notes:

- Phase Shifters in the PWM-84C series provide a minimum of 360° phase shift in 8 binary increments (255 steps) of approximately 1.4° each. Phase shift is produced using a series of frequency independent analog phase shifters which are driven by an 8-bit D/A converter. This method, unlike conventional switched cable designs is guaranteed to be monotonic even at higher frequencies.
- The monotonic feature of this design is advantageous when used for control applications in closed loop systems.