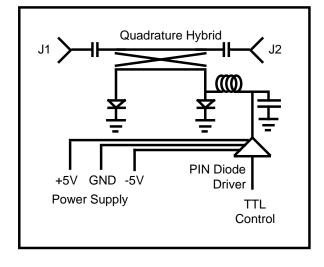
DESCRIPTION

This high-speed, high repetition rate, wideband, 180° PIN diode phase shifter/modulator utilizes MIC hybrid technology to yield a small, high-performance, and ruggedized unit featuring field-replaceable connectors. Diodes are selected to minimize the insertion loss variation as a function of phase state.

SCHEMATIC



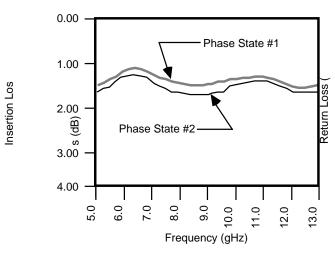
180° Phase Shifter CMCF0617

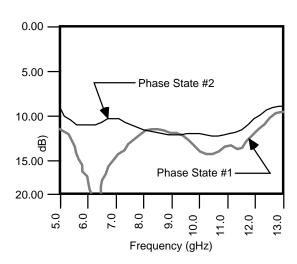
10 mHz Modulation Rate, ±0.25 dB Insertion Loss Variation

ELECTRICAL SPECIFICATIONS

CHARACTERISTIC	MAX.	TYP.
Frequency (gHz)	6.5-12.4	5.5-13.0
Insertion Loss (dB)	2.3	1.8
Insertion Loss Variation (dB)	±0.25	±0.10
VSWR	2.0:1	1.8:1
Phase Shift (180°±°)	±20°	±15°
Switching Speed (1)	40ns	25ns
Repetition Rate (2)	10 mHz	12 mHz
Power Handling (CW or peak)	+27 dBm	+30 dBm
Positive Supply	5V ± 2% 50 mA max	
Negative Supply	-5V ± 2% -20 mA max	
Control Impedance	TTL (1 unit loads max)	

TYPICAL PERFORMANCE





- (1) Turn-On Time is the time interval between 50% of the control voltage and 90% of the detected RF. Turn-Off Time is the time interval between 50% of the control voltage and 10% of the detected RF. Switching Speed is defined as the slower of the two times (usually the Turn-On Time).
- (2) Exceeding the maximum Repetition Rate may result in excessive power dissipation in the PIN Diode Driver and can cause unit failure.

ENVIRONMENTAL RATINGS

Temperature:

Operating——— -55°C to +85°C Non-operating—— -65°C to +125°C

Humidity:

MIL-STD-202C, Method 103B, Cond. B (96 hrs. at 95%)

Vibration:

MIL-STD-202C, Method 204A, Cond. B (0.06" double amplitude or 15G, whichever is less) Altitude:

MIL-STD-202C, Method 105C, Cond. B (50,000ft)

Temp Cycling:

MIL-STD-202C, Method 105C, Cond. D, 5 cycles

Shock:

MIL-STD-202C, Method 213, Cond. B (750G, 6ms)

OUTLINE

