QPSK MODULATORS

FEATURES

- **Switching speed** .... **150 ns maximum**
- **Phase accuracy** .... **±5° maximum**
- **Amplitude balance** .... **±0.75 dB maximum**
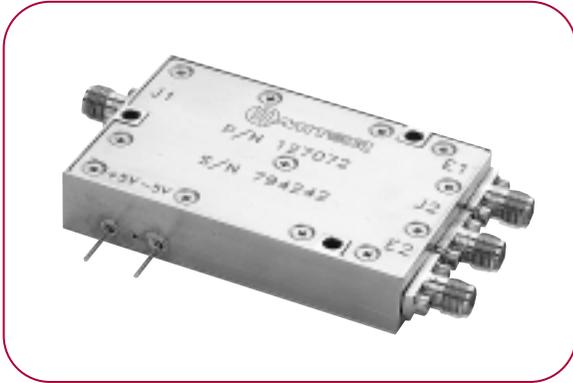
SPECIFICATIONS

PARAMETERS		Model 127072	Model 131008
Function		Phase shifter, 2-BIT (QPSK)	Phase shifter, 2-BIT (QPSK)
Frequency range		2.2–2.3 GHz	13.3–14.1 GHz
Phase states		0°, 90°, 180°, 270°	0°, 90°, 180°, 270°
Insertion loss		8 dB maximum	8 dB maximum
VSWR			
J1, RF input		2:1 maximum	2:1 maximum
J2, RF output		3:1 maximum	3:1 maximum
Control		TTL, 2 lines (E1, E2)	TTL, 2 lines (E1, E2)
Switching speed		150 ns maximum	150 ns maximum
Phase accuracy		±5° maximum	±5° maximum
Amplitude balance		±0.75 dB maximum	±0.75 dB maximum
DC power		±5 V @ 75 mA maximum each	±5 V @ 75 mA maximum each

Control logic

E1	E2	State
0	0	0°
0	1	90°
1	0	-90°
1	1	180°

90°
180°   0° (ref)
-90°
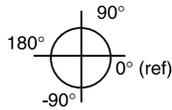
ENVIRONMENTAL CONDITIONS
Operating temperature . . . . 0 to 70°C
Storage temperature . . . . -30 to +85°C

OUTLINE DRAWING

0.225 [5.71]
2.38 [60.45]
0.38 [9.65] TYP. (4) PLACES
0.10 [2.54]
1.75 [44.45]
SMA FEMALE CONNECTOR TYP. (4) PLACES
1.56 [39.62]
1.30 [33.02]
1.09 [27.69]
1.31 [33.27]
0.78 [19.81]
0.26 [6.60]
0.125 [3.18]
0.120 [3.048] DIA. THRU TYP. (3) PLACES
0.45 [11.43]
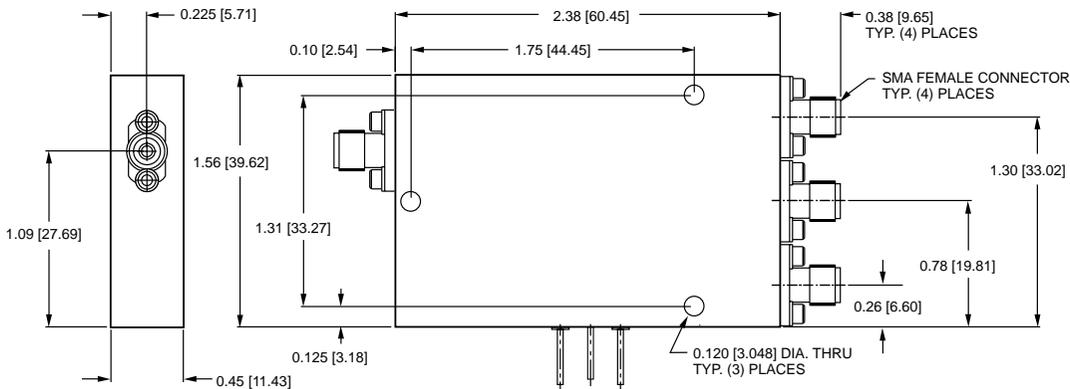
GENERAL NOTES:
1. Dimensions shown in brackets [ ] are in millimeters.
2. Tolerance as follows: .xx = ±0.01 [.xx = ±0.25], .xxx = ±0.005 [.xxx = ±0.13]