

### FEATURE:

- Fast switching speeds(down to 20 ns maximum)
- Optimized for lowest phase deviation over band
- RMS phase error $\leq 3^\circ$ typical
- Low insertion loss
- Power handling up to 30 dbm
- IP3(typically 25 dbm)
- Hermetic sealing available

### APPLICATION:

- Test equipment
- Radar&Warfare array system
- Communication system



### ELECTRICAL SPECIFICATIONS@25°C:

| Parameter                    | Min | Typical | Max     | Units    |
|------------------------------|-----|---------|---------|----------|
| Frequency Range              | 2   |         | 4       | GHz      |
| Insertion Loss               |     |         | 3.5     | dB       |
| VSWR                         |     |         | 1.5:1   | Ratio    |
| Switching Speed              |     | 300     | 750     | ns       |
| Phase accuracy               |     |         | $\pm 3$ | $^\circ$ |
| Amplitude balance            |     |         | 0.6     | dB       |
| Phase shift                  |     |         | 360     | $^\circ$ |
| Phase shift step size        |     |         | 11.25   | $^\circ$ |
| Control Logic TTL Compatible |     | 5       |         | bits     |
| Power handling               |     |         | +27     | dBm      |
| DC Power supply +5V          |     | 300     |         | mA       |
| DC Power supply -5V          |     | 300     |         | mA       |

### ENVIRONMENTAL RATINGS:

| Parameter                          | Min   | Typical | Max   | Units            |
|------------------------------------|-------|---------|-------|------------------|
| Operating Temperature              | -40   |         | +85   | $^\circ\text{C}$ |
| Non-operating Temperature          | -55   |         | 125   | $^\circ\text{C}$ |
| Relative humidity (non-condensing) |       | 95      |       | %                |
| Altitude (MIL-STD-810F)            | 10000 |         | 30000 | feet             |
| Shock / Vibration (MIL-STD-810F)   |       | Airbone |       |                  |

### DB9 PIN ASSIGMENT:

| PIN1 | PIN2 | PIN3 | PIN4 | PIN5 | PIN6 | PIN7 | PIN8 | PIN9 |
|------|------|------|------|------|------|------|------|------|
| +5V  | C1   | C2   | C3   | C4   | C5   | GND  | GND  | -5V  |

### MECHANICAL SPECIFICATIONS:

| Parameter            | Value      | Limits  | Units      |
|----------------------|------------|---------|------------|
| Dimensions           | 50*30*16   | Max     | Millimeter |
| Weight               | 100        | typical | gram       |
| RF Connectors Input  | SMA-F      |         |            |
| RF Connectors output | SMA-F      |         |            |
| DC/Logic interface   | DB9 female |         |            |
| Impedance            | 50         |         | ohms       |

### CONTROL TRUE TABLE:

| Control    |        | Phase shift |     |     |      |
|------------|--------|-------------|-----|-----|------|
| C5C4C3C2C1 | 11.25° | 22.5°       | 45° | 90° | 180° |
| 00001      | ON     | OFF         | OFF | OFF | OFF  |
| 00010      | OFF    | ON          | OFF | OFF | OFF  |
| 00100      | OFF    | OFF         | ON  | OFF | OFF  |
| 01000      | OFF    | OFF         | OFF | ON  | OFF  |
| 10000      | OFF    | OFF         | OFF | OFF | ON   |

### OUTLINE DRAWING(mm):

