



90° HYBRID

MODEL HS88Q

90° QUADRATURE HYBRID

#### Guaranteed Specifications

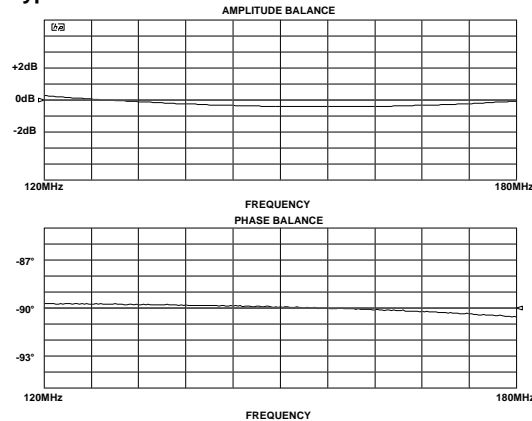
| Parameter         | Range              | Limits            |
|-------------------|--------------------|-------------------|
| Frequency         | 120 MHz to 180 MHz | Min               |
| Insertion Loss    | 120 MHz to 180 MHz | 0.7 dB Max        |
| Isolation         | 120 MHz to 180 MHz | 20 dB Min         |
| Phase Balance     | 120 MHz to 180 MHz | $\pm 3^\circ$ Max |
| Amplitude Balance | 120 MHz to 180 MHz | $\pm 1.2$ dB Max  |

Note: All specifications apply in a 50 Ohm system driving Pin 1 with outputs at Pins 3 and 5, and with Pin 7 terminated in 50 Ohms. 75 Ohm models are available.

#### Maximum Ratings

|                   |                |
|-------------------|----------------|
| Input Power       | 1 Watt         |
| Temperature Range | -54°C to +85°C |

#### Typical Performance



#### Reliability

All units are designed and constructed to meet or exceed specifications after exposure to any or all of the following MIL-STD-202 tests which are applicable.

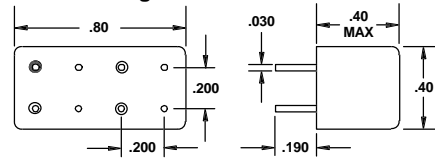
| Test              | Method | Condition |
|-------------------|--------|-----------|
| Temperature Cycle | 107G   | A         |
| Thermal Cycle     | 107G   | AA        |
| Vibration         | 204D   | A         |
| Solderability     | 208F   |           |
| Terminal Strength | 211A   | A         |
| Terminal Fatigue  | 211A   | C         |
| Mechanical Shock  | 213B   | C         |

All characteristics of Tele-Tech products may be modified to meet customer requirements.

#### Features

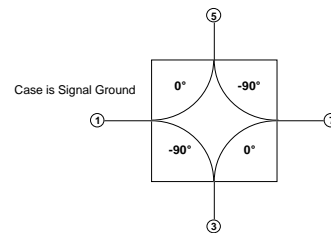
- ◆ MCL PSCQ-2-180 Equivalent
- ◆ Standard Relay Header
- ◆ Low Cost

#### Outline Drawing

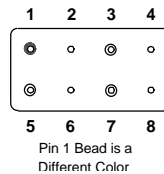


Pin 1 Location Marked on Top  
Weight (Approx.) 5.2 grams

#### Block Diagram



#### Connections



|             |         |
|-------------|---------|
| INPUT       | 1       |
| TERMINATE   | 7       |
| 0 DEGREES   | 5       |
| -90 DEGREES | 3       |
| GROUND      | 2,4,6,8 |