



## 90° HYBRID

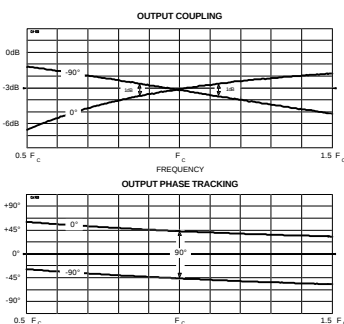
### MODEL HT40 SERIES

#### Very High Performance 90° HYBRIDS

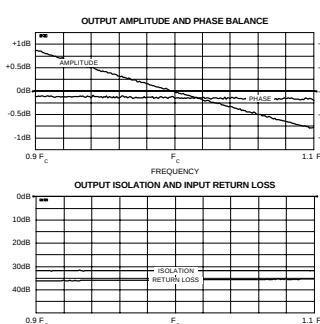
| Model Number | Operating Frequency | Output Phase | Port Impedance | Minimum Isolation | Amplitude Balance | Phase Balance | Insertion Loss | Package Type |
|--------------|---------------------|--------------|----------------|-------------------|-------------------|---------------|----------------|--------------|
| HT40         | 4.6 – 5.4 MHz       | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .20 dB         | TO-5         |
| HT41         | 9.7 – 11.7 MHz      | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .25 dB         | TO-5         |
| HT42         | 19.4 – 23.4 MHz     | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .25 dB         | TO-5         |
| HT43         | 27 – 33 MHz         | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .25 dB         | TO-5         |
| HT43-27      | 68.4 – 80.4 MHz     | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .25 dB         | TO-5         |
| HT43-28      | 85.2 – 99.2 MHz     | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .25 dB         | TO-5         |
| HT44         | 55 – 65 MHz         | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .25 dB         | TO-5         |
| HT44-27      | 100 – 120 MHz       | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .3 dB          | TO-5         |
| HT44-28      | 178.3 – 208.3 MHz   | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .3 dB          | TO-5         |
| HT45         | 63 – 77 MHz         | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .25 dB         | TO-5         |
| HT45-27      | 212 – 250 MHz       | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .3 dB          | TO-5         |
| HT46         | 145 – 175 MHz       | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .3 dB          | TO-5         |
| HT47         | 225 – 275 MHz       | 90°          | 50 Ohm         | 20 dB             | ±1 dB             | ±2°           | .3 dB          | TO-5         |
| HT48-27      | 585 – 686 MHz       | 90°          | 50 Ohm         | 25 dB             | ±1 dB             | ±2°           | .3 dB          | TO-5         |
| HT49         | 800 – 900 MHz       | 90°          | 50 Ohm         | 15 dB             | ±1 dB             | ±2°           | .75 dB         | TO-5         |

Note: All specifications apply in a 50 Ohm system driving pin 1 with outputs on pins 2 and 3 with pin 4 terminated in 50 Ohms.

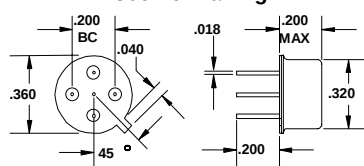
#### Transfer Characteristics



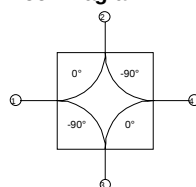
#### Typical Performance



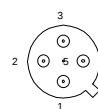
#### Outline Drawing



#### Block Diagram



#### Pin Connections



|       |   |
|-------|---|
| INPUT | 1 |
| 0°    | 2 |
| -90°  | 3 |
| TERM. | 4 |
| GRND  | 5 |

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