

## 3dB Short Slot Hybrids

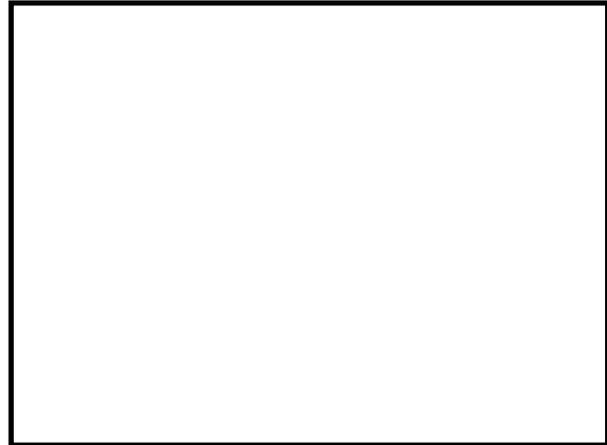
### FEATURES:

- ❖ Small
- ❖ Compact
- ❖ Negligible Coupling Variation

### APPLICATIONS:

- ❖ Waveguide Bridge Circuits
- ❖ Balanced Mixers
- ❖ Phase Shifters
- ❖ Power Splitters

### DESCRIPTION:



### CSH Series

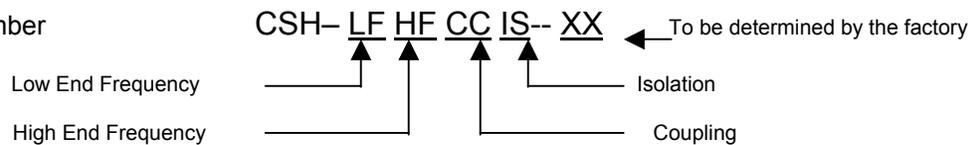
Cernex's CSH series short slot hybrid is a narrow wall 3 dB coupler, available in standard waveguide sizes from 18.0 to 110 GHz. This compact, four-port device is inherently matched and well suited for balanced mixers and power splitting circuits. There is a 90-degree phase difference between the output signals, while the fourth port is isolated from the input. Access to the input and output ports of these hybrids is achieved with a special dual-waveguide, single flange arrangement.

### SPECIFICATIONS:

| Waveguide Band        | Ku         | K          | Ka         | Q        | U        | V        | E        | W         |
|-----------------------|------------|------------|------------|----------|----------|----------|----------|-----------|
| Waveguide Size        | WR-62      | WR-42      | WR-28      | WR-22    | WR-19    | WR-15    | WR-12    | WR-10     |
| Frequency Range (GHz) | 12.4 to 18 | 18 to 26.5 | 26.5 to 40 | 33 to 50 | 40 to 60 | 50 to 75 | 60 to 90 | 75 to 110 |
| Coupling (dB)         | 3          | 3          | 3          | 3        | 3        | 3        | 3        | 3         |
| VSWR max.             | 1.15       | 1.15       | 1.15       | 1.15     | 1.15     | 1.15     | 1.15     | 1.15      |
| Isolation (dB) Min.   | 20         | 20         | 20         | 20       | 20       | 20       | 20       | 18        |
| Bandwidth (%)         | 6          | 6          | 6          | 6        | 6        | 6        | 6        | 6         |

### HOW TO ORDER:

Specify Model Number



**Example:** To order WR-15 3db short slot hybrid with a frequency band of 50-75Ghz, 3db coupling, and an isolation of 20db, specify CSH-50750320-XX.

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE