

# Power Splitter/Combiner

## Features

- wide band frequency, 1000-2500 MHz
- excellent amplitude unbalance, 0.2 dB typ.
- small size
- temperature stable LTCC base
- aqueous washable

## Applications

- PCN/PCS
- DECT
- PHS

## HT-SBTC-2-25L+



2 Way-0° 50Ω 1000 to 2500 MHz

### Electrical Specifications at 25°C

| Parameter                   | Frequency(MHz) | Min. | Typ. | Max. | Unit   |
|-----------------------------|----------------|------|------|------|--------|
| Frequency Range             |                | 1000 | -    | 2500 | MHz    |
| Insertion Loss Above 3.0 dB | 1000-2500      | -    | 1.4  | 2.5  | dB     |
|                             | 1400-1800      | -    | 0.9  | 1.7  |        |
|                             | 1800-2000      | -    | 1.0  | 1.7  |        |
| Isolation                   | 1000-2500      | 14   | 20   | -    | dB     |
|                             | 1400-1800      | 14   | 18   | -    |        |
|                             | 1800-2000      | 16   | 19   | -    |        |
| Phase Unbalance             | 1000-2500      | -    | -    | 14   | Degree |
|                             | 1400-1800      | -    | -    | 8    |        |
|                             | 1800-2000      | -    | -    | 8    |        |
| Amplitude Unbalance         | 1000-2500      | -    | -    | 1.2  | dB     |
|                             | 1400-1800      | -    | -    | 0.7  |        |
|                             | 1800-2000      | -    | -    | 0.8  |        |

### Maximum Ratings

|                             |                |
|-----------------------------|----------------|
| Operating Temperature       | -40°C to 85°C  |
| Storage Temperature         | -55°C to 100°C |
| Power Input (as a splitter) | 1W max.        |
| Internal Dissipation        | 0.125W max.    |

Permanent damage may occur if any of these limits are exceeded.

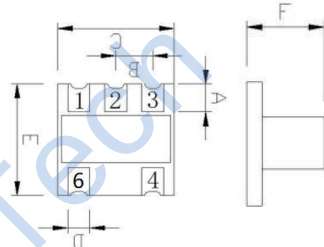
### Pin Connections

|          |     |
|----------|-----|
| SUM PORT | 6   |
| PORT 1   | 3   |
| PORT 2   | 4   |
| GROUND   | 1,2 |
| NOT USED | 5   |

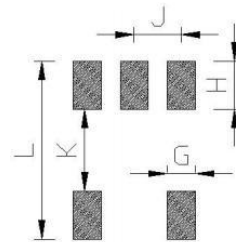
### Typical Performance Data

| Frequency (MHz) | Total Loss (dB) |      | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWRS |      |      |
|-----------------|-----------------|------|--------------------------|----------------|------------------------|-------|------|------|
|                 | S-1             | S-2  |                          |                |                        | S     | 1    | 2    |
| 1000            | 4.10            | 3.83 | 0.28                     | 22.47          | 2.79                   | 1.72  | 1.68 | 1.57 |
| 1100            | 4.07            | 3.85 | 0.21                     | 21.47          | 2.54                   | 1.66  | 1.59 | 1.51 |
| 1200            | 4.05            | 3.90 | 0.15                     | 20.62          | 2.39                   | 1.61  | 1.51 | 1.46 |
| 1300            | 4.01            | 3.93 | 0.08                     | 19.92          | 2.34                   | 1.56  | 1.45 | 1.41 |
| 1400            | 3.98            | 3.96 | 0.04                     | 19.49          | 2.36                   | 1.51  | 1.39 | 1.36 |
| 1500            | 3.96            | 4.00 | 0.05                     | 19.21          | 2.47                   | 1.47  | 1.33 | 1.32 |
| 1600            | 3.93            | 4.03 | 0.10                     | 19.18          | 2.66                   | 1.42  | 1.28 | 1.27 |
| 1700            | 3.90            | 4.06 | 0.16                     | 19.29          | 2.92                   | 1.37  | 1.24 | 1.23 |
| 1800            | 3.88            | 4.09 | 0.21                     | 19.68          | 3.28                   | 1.32  | 1.21 | 1.18 |
| 1900            | 3.86            | 4.12 | 0.27                     | 20.37          | 3.70                   | 1.26  | 1.19 | 1.14 |
| 2000            | 3.84            | 4.16 | 0.32                     | 21.53          | 4.23                   | 1.20  | 1.18 | 1.10 |
| 2100            | 3.83            | 4.21 | 0.37                     | 23.36          | 4.87                   | 1.13  | 1.18 | 1.08 |
| 2200            | 3.84            | 4.26 | 0.42                     | 26.19          | 5.57                   | 1.06  | 1.18 | 1.10 |
| 2300            | 3.88            | 4.34 | 0.46                     | 28.88          | 6.36                   | 1.09  | 1.18 | 1.15 |
| 2500            | 4.08            | 4.63 | 0.55                     | 21.85          | 8.22                   | 1.39  | 1.15 | 1.30 |

### Outline Drawing



### PCB Land Pattern



Suggested Layout,  
Tolerance to be within  $\pm 0.15$

### Outline Dimensions: Unit (mm)

|   |      |   |      |    |      |
|---|------|---|------|----|------|
| A | 1.00 | B | 1.27 | C  | 4.20 |
| D | 0.76 | E | 4.08 | F  | 2.90 |
| G | 0.76 | H | 1.30 | J  | 1.27 |
| K | 2.21 | L | 4.81 | wt | 0.06 |

### Electrical Schematic

