

# Surface Mount Power Splitter/Combiner

## LRPS-2-25+ LRPS-2-25

2 Way-0° 50Ω 1700 to 2500 MHz



### Maximum Ratings

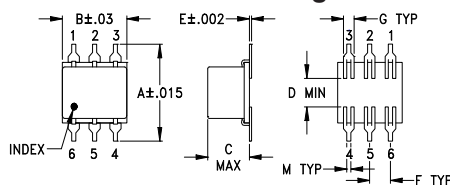
|                             |                |
|-----------------------------|----------------|
| Operating Temperature       | -40°C to 85°C  |
| Storage Temperature         | -55°C to 100°C |
| Power Input (as a splitter) | 1W max.        |
| Internal Dissipation        | 0.125W max.    |

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

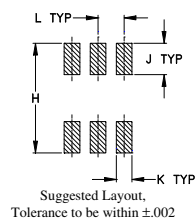
### Pin Connections

|          |       |
|----------|-------|
| SUM PORT | 6     |
| PORT 1   | 4     |
| PORT 2   | 3     |
| GROUND   | 1,2,5 |

### Outline Drawing



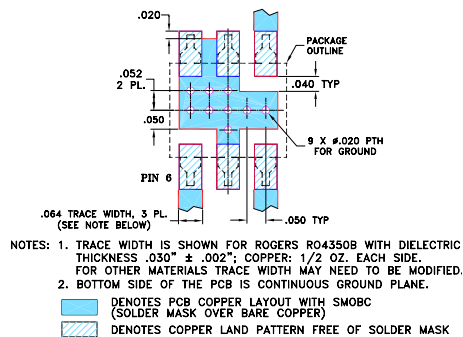
### PCB Land Pattern



### Outline Dimensions (inch/mm)

|       |      |      |      |      |      |       |
|-------|------|------|------|------|------|-------|
| A     | B    | C    | D    | E    | F    | G     |
| .400  | .31  | .200 | .10  | .010 | .100 | .050  |
| 10.16 | 7.87 | 5.08 | 2.54 | 0.25 | 2.54 | 1.27  |
| H     | J    | K    | L    | M    |      | wt    |
| .420  | .120 | .060 | .100 | .020 |      | grams |
| 10.67 | 3.05 | 1.52 | 2.54 | 0.51 |      | 0.55  |

### Demo Board MCL P/N: TB-100 Suggested PCB Layout (PL-057)



### Features

- low insertion loss, 0.8 dB typ.
- good isolation, 20 dB typ.

### Applications

- PCS
- DCS
- ISM
- communications systems

CASE STYLE: QQQ130  
PRICE: \$21.95 ea. QTY. (10-49)

+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.

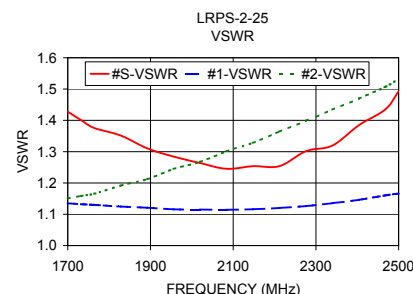
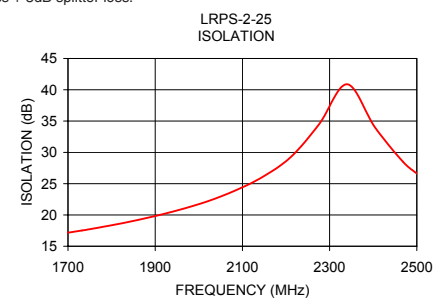
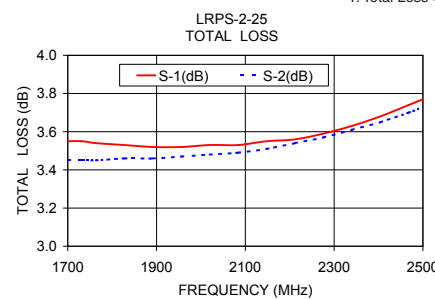
### Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) |      | INSERTION LOSS (dB) ABOVE 3.0 dB |      | PHASE UNBALANCE (Degrees) | AMPLITUDE UNBALANCE (dB) |
|-------------------|----------------|------|----------------------------------|------|---------------------------|--------------------------|
|                   | Typ.           | Min. | Typ.                             | Max. | Max.                      | Max.                     |
| $f_c - f_u$       | 20             | 16   | 0.8                              | 1.3  | 10                        | 0.9                      |
| 1700-2500         |                |      |                                  |      |                           |                          |

### Typical Performance Data

| Frequency (MHz) | Total Loss <sup>1</sup> (dB) |      | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR S | VSWR 1 | VSWR 2 |
|-----------------|------------------------------|------|--------------------------|----------------|------------------------|--------|--------|--------|
|                 | S-1                          | S-2  |                          |                |                        |        |        |        |
| 1700.00         | 3.55                         | 3.45 | 0.10                     | 17.17          | 1.63                   | 1.43   | 1.14   | 1.15   |
| 1732.00         | 3.55                         | 3.45 | 0.10                     | 17.52          | 1.55                   | 1.40   | 1.13   | 1.16   |
| 1764.00         | 3.54                         | 3.45 | 0.09                     | 17.89          | 1.53                   | 1.38   | 1.13   | 1.17   |
| 1828.00         | 3.53                         | 3.46 | 0.07                     | 18.73          | 1.43                   | 1.35   | 1.12   | 1.19   |
| 1892.00         | 3.52                         | 3.46 | 0.07                     | 19.69          | 1.24                   | 1.31   | 1.12   | 1.21   |
| 1956.00         | 3.52                         | 3.47 | 0.05                     | 20.83          | 1.13                   | 1.28   | 1.12   | 1.25   |
| 2020.00         | 3.53                         | 3.48 | 0.05                     | 22.18          | 0.94                   | 1.26   | 1.12   | 1.27   |
| 2084.00         | 3.53                         | 3.49 | 0.04                     | 23.91          | 0.75                   | 1.25   | 1.11   | 1.30   |
| 2148.00         | 3.55                         | 3.51 | 0.04                     | 26.14          | 0.50                   | 1.25   | 1.12   | 1.33   |
| 2212.00         | 3.56                         | 3.54 | 0.02                     | 29.31          | 0.34                   | 1.25   | 1.12   | 1.36   |
| 2276.00         | 3.59                         | 3.57 | 0.03                     | 34.50          | 0.11                   | 1.30   | 1.13   | 1.40   |
| 2340.00         | 3.63                         | 3.61 | 0.03                     | 40.88          | 0.21                   | 1.32   | 1.14   | 1.43   |
| 2404.00         | 3.68                         | 3.65 | 0.03                     | 34.00          | 0.40                   | 1.38   | 1.15   | 1.47   |
| 2468.00         | 3.74                         | 3.70 | 0.03                     | 28.52          | 0.79                   | 1.44   | 1.16   | 1.51   |
| 2500.00         | 3.77                         | 3.73 | 0.03                     | 26.61          | 0.93                   | 1.49   | 1.17   | 1.53   |

1. Total Loss = Insertion Loss + 3dB splitter loss.



### electrical schematic



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