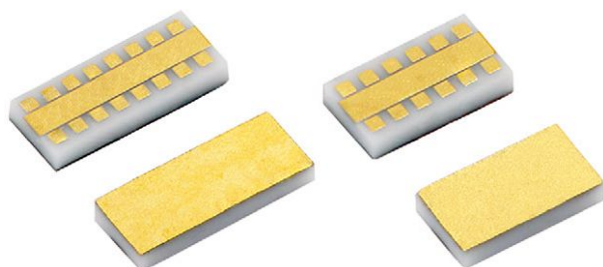


## Wire Bondable Thin Film Micro-Strip Transmission Line Resistor Arrays



Product may not be to scale

MTLP series of thin film 50  $\Omega$  micro-strip transmission lines with two rows of tuning pads are designed for test and measurement applications.

Standard configurations of the MTLP series include an array of wire bondable terminations that allow integration of discrete components.

Custom configurations including open, short and load element are available upon request.

### FEATURES

- 50  $\Omega$  micro-strip configuration
- Wire bondable terminations
- Alumina (99.6 %) substrate; as-fired or polished

### APPLICATIONS

- Test and measurement setups
- Network analyzer calibration elements
- RF bread boarding
- High frequency hybrid assemblies

### CUSTOM DESIGNED ELEMENTS

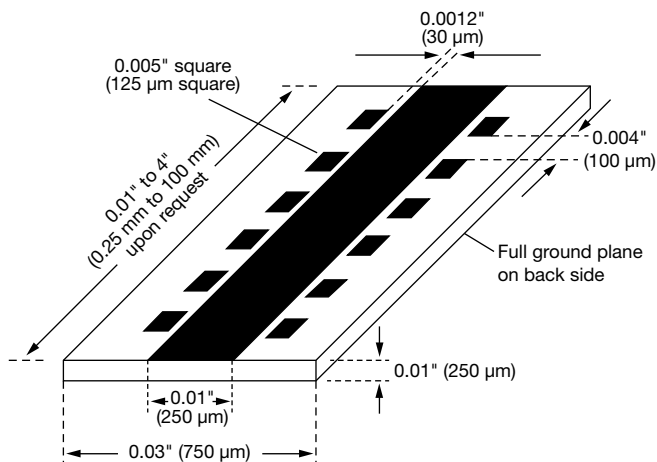
Vishay EFI will custom design additional geometries and form factors upon request.

Information about standard design rules can be found at [www.vishay.com/doc?49109](http://www.vishay.com/doc?49109)

### STANDARD ELECTRICAL SPECIFICATIONS

| PARAMETER                   | VALUE                             | UNIT               |
|-----------------------------|-----------------------------------|--------------------|
| Characteristic Impedance    | 50                                | $\Omega$           |
| Mechanical Tolerances       | $\pm 0.1$ ( $\pm 4 \mu\text{m}$ ) | mil                |
| Operating Temperature Range | -55 to +125                       | $^{\circ}\text{C}$ |

### DIMENSIONS in inches



| LENGTH      | WIDTH            | THICKNESS         |
|-------------|------------------|-------------------|
| 0.01 to 0.5 | $0.03 \pm 0.002$ | $0.010 \pm 0.001$ |

**MECHANICAL SPECIFICATIONS**

| PARAMETER              | VALUE                                                     |
|------------------------|-----------------------------------------------------------|
| Substrate Thickness    | 10 mils $\pm$ 1 mils (as-fired) $\pm$ 0.5 mils (polished) |
| Substrate Material     | Alumina 99.6 %                                            |
| Metallization          | TiW (750 $\pm$ 250 Å)/Au (120 $\mu$ " min.)               |
| Micro-strip Line Width | 10 mils $\pm$ 0.1 mils                                    |
| Available Line Lengths | 0.010" to 0.0500"                                         |

**ORDERING INFORMATION****MTLP 300 P WS - 0.30" long transmission line on polished Alumina**

| MODEL                                                         | LENGTH                                               | SURFACE FINISH                             | PACKAGING CODE                               |
|---------------------------------------------------------------|------------------------------------------------------|--------------------------------------------|----------------------------------------------|
| <b>MTLP</b><br>Micro-strip transmission line with tuning pads | <b>XXX</b><br>010<br>015<br>020<br>055<br>090<br>300 | <b>F</b> = as-fired<br><b>P</b> = polished | <b>WS</b> = 100 mult., 1 min.<br>waffle pack |



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