

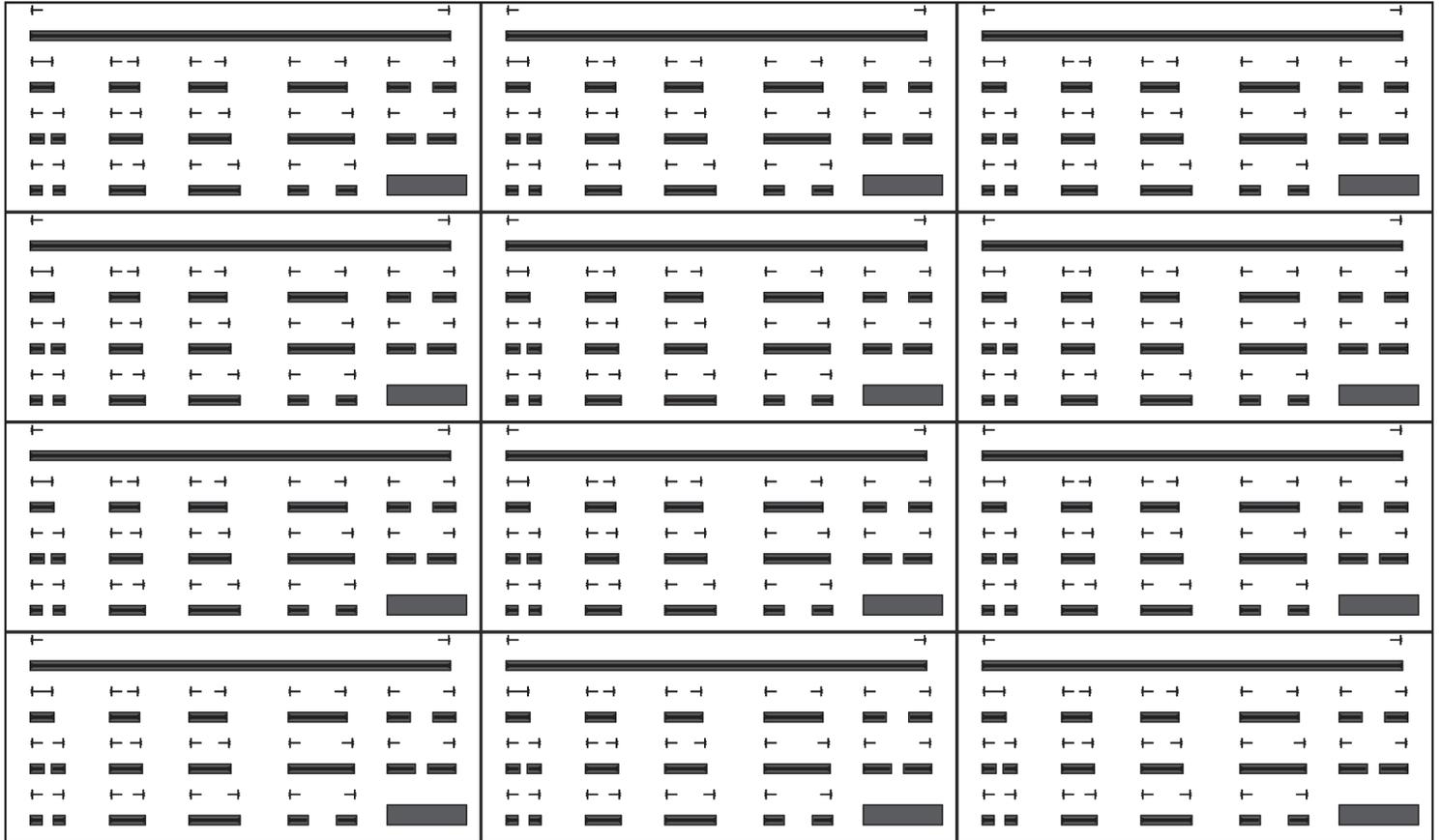
# Cascade Impedance Standard Substrate Map

## › Multiline TRL Calibration Substrate

**Pitch:** 50  $\mu\text{m}$ , **Frequency:** WR-2.2 – WR-5.1, **Configuration:** Ground-Signal-Ground

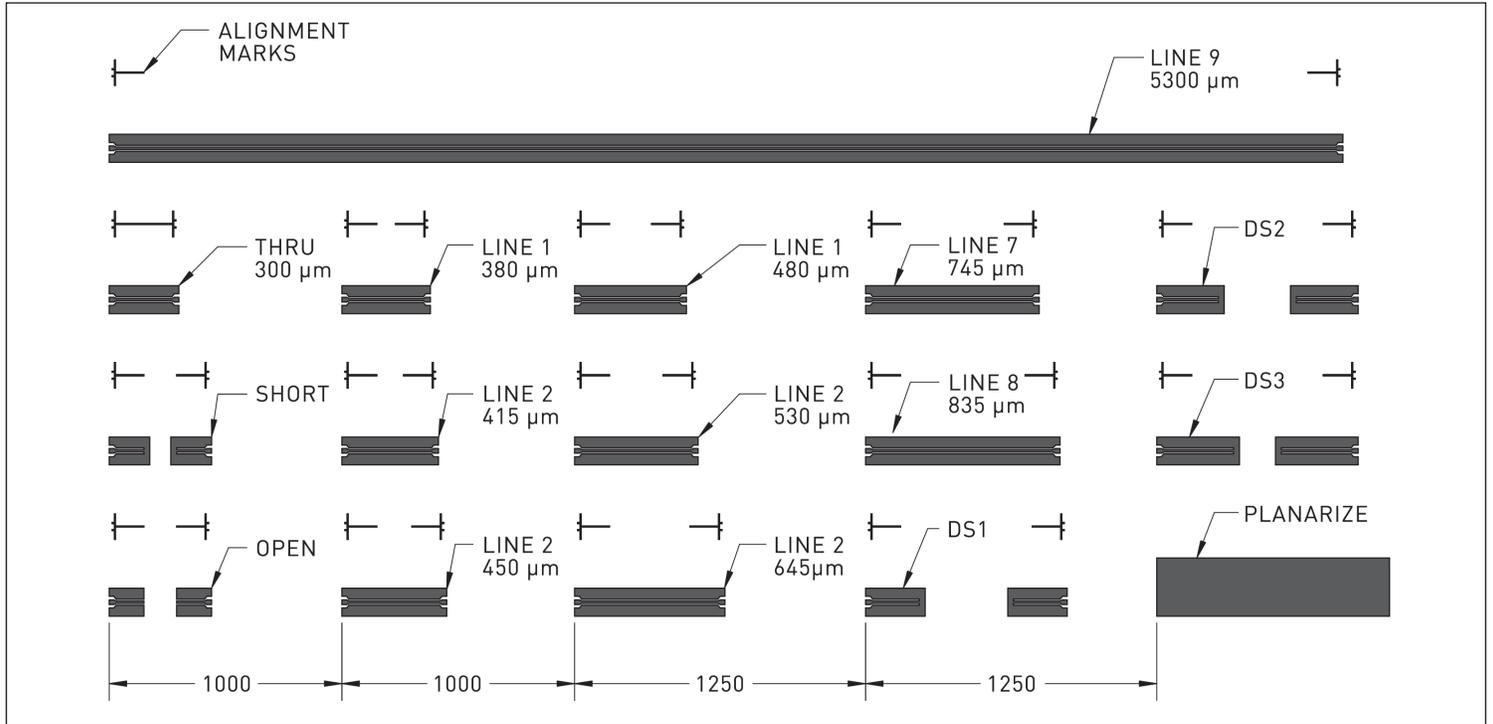
**P/N:** 172-886

**S/N:**



**Calibration Sites:** 12 **Site Spacing:** 6000  $\mu\text{m}$  x 2650  $\mu\text{m}$

West Probe Fixed Index Step: 1000/1250  $\mu\text{m}$  (as shown) x 650  $\mu\text{m}$ , Alignment Mark Offset: 325  $\mu\text{m}$  Step North



Note: Line lengths are specified as conductor edge-to-edge dimension.

**SPECIFICATIONS**

Substrate Material: High-resistivity Silicon, Substrate Thickness: 275  $\mu\text{m}$ , Dielectric Constant: 11.8, Nominal Line  $Z_0$ : 50 Ohm

**OVERTRAVEL AND ALIGNMENT**

Prior to contacting the calibration standards, alignment and overtravel should be set using the alignment marks. On initial contact, the leading edge of the probe contacts should be aligned with the outmost edge “A” of the alignment mark, shown in Figure 1. To reach final contact, overtravel should be increased until the leading edge of the probe contacts is aligned with the innermost edge “B” of the alignment mark, shown in Figure 2.

Note: Calibration substrate must be mounted on an absorber material (such as ISS Holder P/N 116-344).

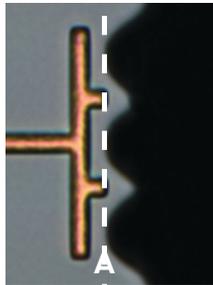


Figure 1: Initial contact

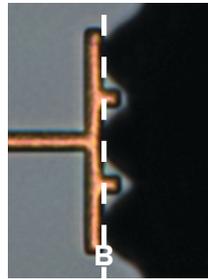


Figure 2: Final contact

**RECOMMENDED LINE CONFIGURATIONS**

Band	WR-2.2 (325 - 500 GHz)	WR-3.4 (220 - 330 GHz)	WR-4.3 (170 - 260 GHz)	WR-5.1 (140 - 220 GHz)
Lines	Thru Line 1 Line 5	Thru Line 2 Line 6	Thru Line 3 Line 7	Thru Line 4 Line 8

© Copyright 2018 FormFactor, Inc. All rights reserved. FormFactor and the FormFactor logo are trademarks of FormFactor, Inc. All other trademarks are the property of their respective owners. All information is subject to change without notice.