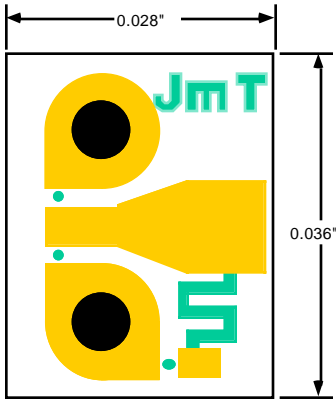


ProbePoint™ 1001 Test Interface Circuit - Coplanar to Microstrip with Kelvin (20X)



Test adapter and interface substrate for microstrip type active and passive components. Useful as a contact for test of devices which have a nominal “back-side ground.” Can also be used as a high impedance test point inserted into the signal path of active components.

Zo 50Ω
 Kelvin Point 950Ω nominal
 20X sample point

Metalization

Front/Back Au
 Resistors TaN

Size 10 X 28 X 36 mils

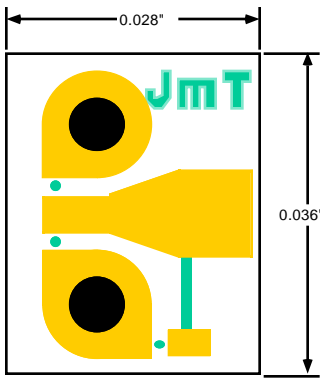
Features

- Compatible to coplanar probes 125μ to 250μ pitch
- Insertible circuit test point
- Kelvin test point
- 20X high speed test point
- Controlled impedance transition
- High quality backside vias

Benefits

- High precision
- High repeatability
- High accuracy measurements
- Calibration structures available
- Low cost test tooling

ProbePoint™ 1002 Test Interface Circuit - Coplanar to Microstrip with Kelvin (10X)



Test adapter and interface substrate for microstrip type active and passive components. Useful as a contact for test of devices which have a nominal “back-side ground.” Can also be used as a high impedance test point inserted into the signal path of active components.

Zo 50Ω
 Kelvin Point 450Ω nominal
 10X sample point

Metalization

Front/Back Au
 Resistors TaN

Size 10 X 28 X 36 mils

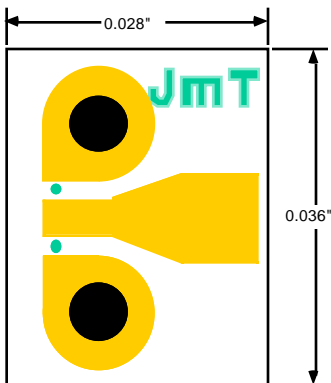
Features

- Compatible to coplanar probes 125μ to 250μ pitch
- Insertible circuit test point
- Kelvin test point
- 10X high speed test point
- Controlled impedance transition
- High quality backside vias

Benefits

- High precision
- High repeatability
- High accuracy measurements
- Calibration structures available
- Low cost test tooling

ProbePoint™ 1003 Test Interface Circuit - Coplanar to Microstrip



Test adapter and interface substrate for microstrip type active and passive components. Useful as a contact for test of devices which have a nominal “back-side ground.” Can also be used as a 50Ω transmission line inserted into the signal path of active components.

Zo 50Ω

Metalization

Front/Back Au

Size 10 X 28 X 36 mils

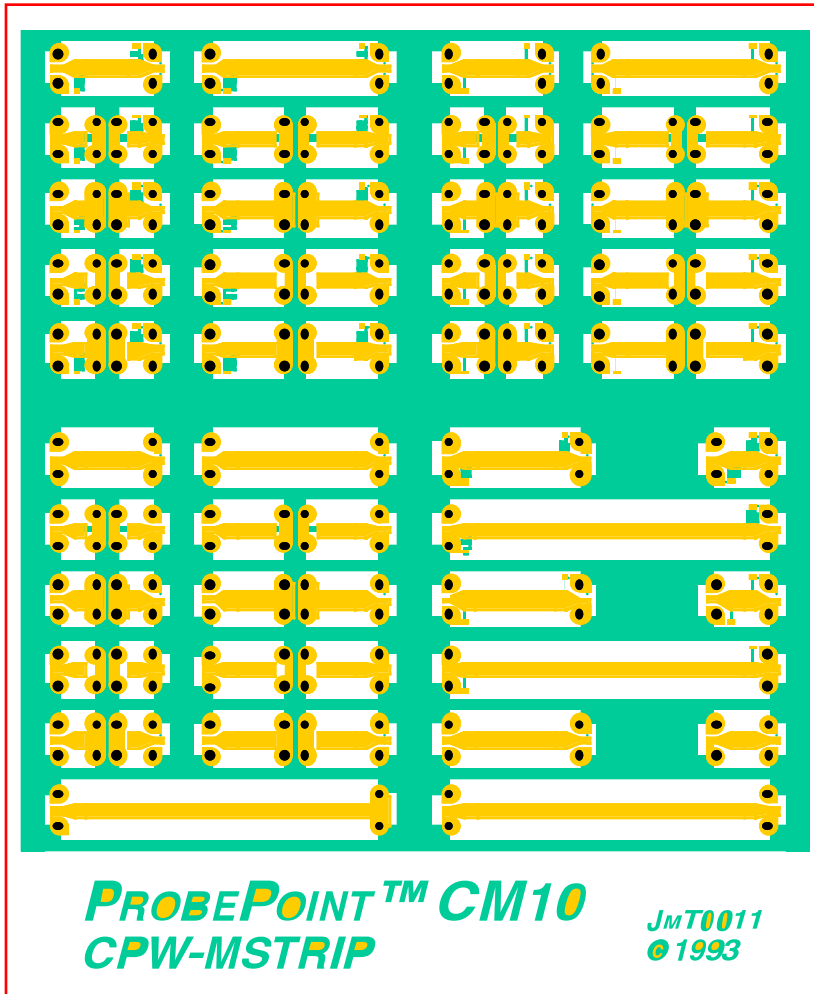
Features

- Compatible to coplanar probes 125μ to 250μ pitch
- Controlled impedance transition
- High quality backside vias

Benefits

- High precision
- High repeatability
- High accuracy measurements
- Calibration structures available
- Low cost test tooling

ProbePoint™ 10-cal Calibration Substrate - Coplanar to Microstrip (10 mil)



This substrate contains calibration structures to be used in the establishment of measurement corrections terms for measurements using network and time domain analysis. A variety of microwave structures which support the popular calibration methods are available for all the ProbePoint™ 10 Test Interface Circuits. This allows direct calibration to the microstrip bond pad side of the ProbePoint™ Test Interface Structures.

Zo 50Ω nominal
Metalization Front/Back Au
Resistors TaN
Size 20 X 525 X 640 mils

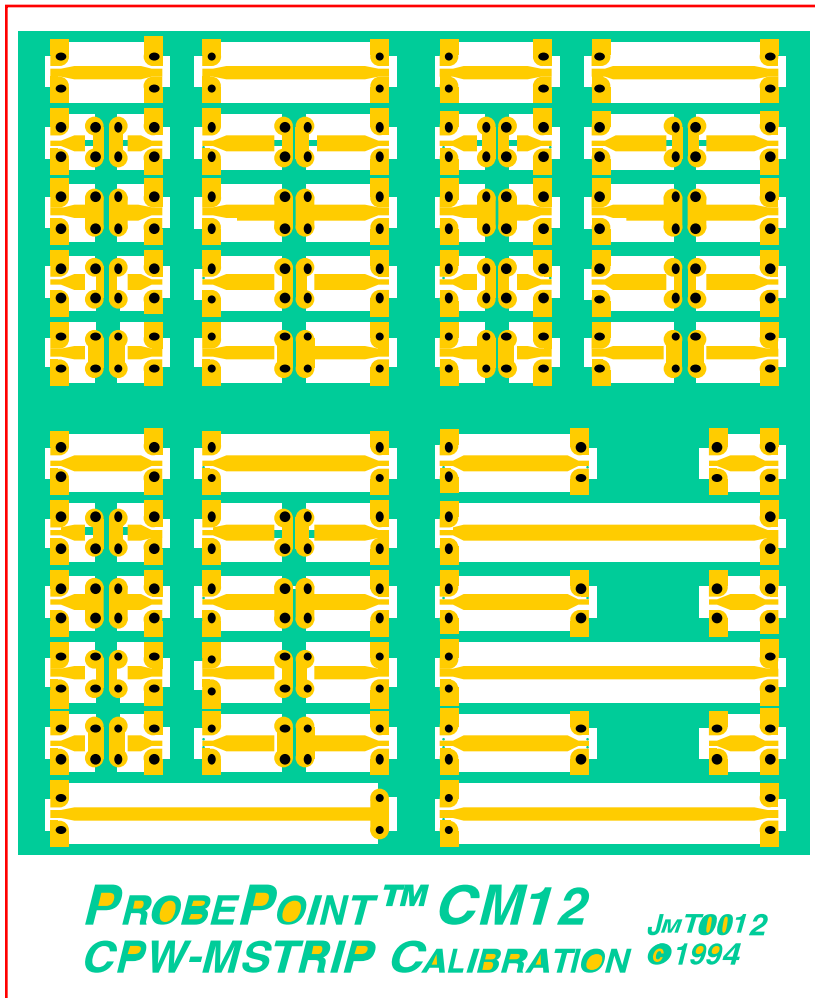
Features

- Compatible to coplanar probes 125μ to 250μ pitch
- Flexible to various calibration methods:
 - SOLT
 - LRM
 - LRL
 - TRL
- Laser trimmed resistors - ±1%
- Controlled impedance transition
- High quality backside vias

Benefits

- Direct Calibration
- High repeatability
- High accuracy calibration
- Low cost
- User flexibility

Coplanar Probe Calibration Substrate



This substrate contains calibration structures useful in the establishment of electrical measurement numerical corrections terms for CPW probes. This is useful for measurements of fine geometry electrical components using network and time domain analysis. A variety of microwave structures which support the popular calibration methods are available to calibrate coplanar probes of both the 'blade' and coaxial variety. There are three complete sets of calibration structures.

Z₀ 50Ω nominal

Frequency range >50 GHz

Metalization

Front/Back Au

Resistors TaN

Size 20 X 525 X 640 mils

Features

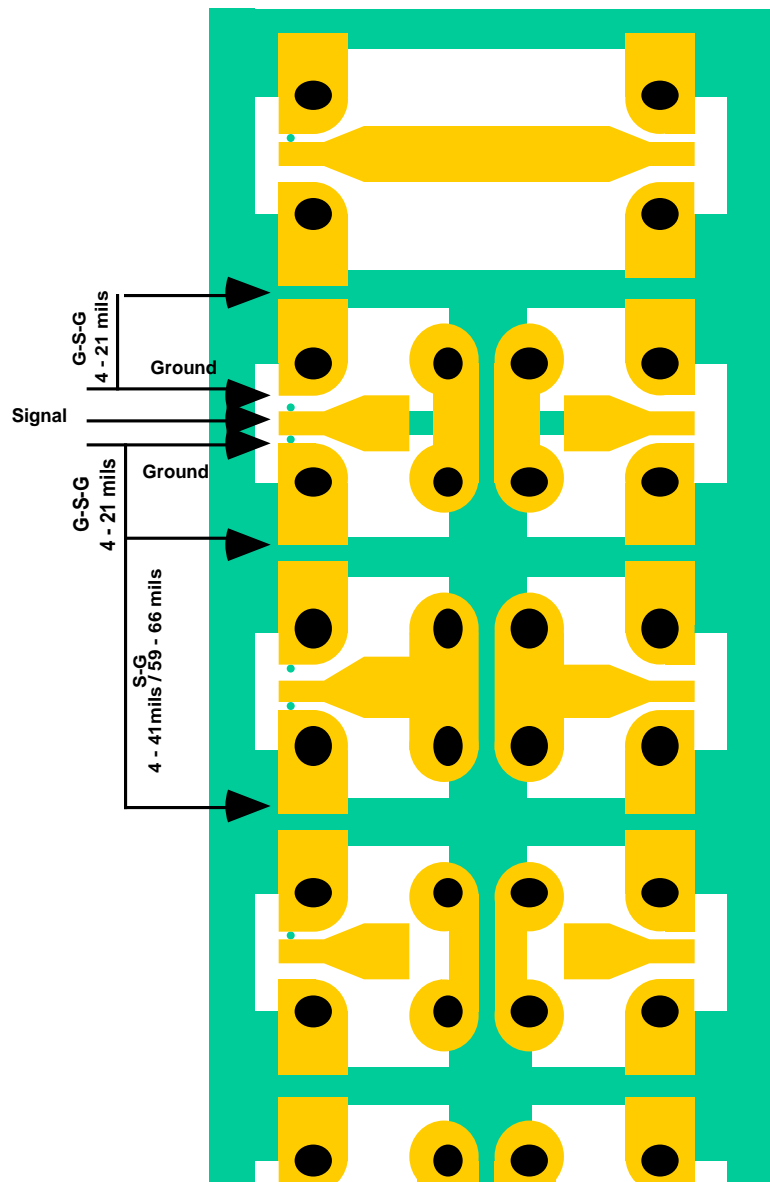
- Compatible to an extremely wide variety coplanar probe pitch dimensions.
- Flexible to various calibration methods:
 - SOLT
 - LRM
 - LRL
 - TRL
- Laser trimmed resistors - ±1%
- Controlled impedance transition
- High quality backside vias
- Applicable for wide pitch CPW probe calibration

Benefits

- Direct Calibration in a microstrip environment.
- High repeatability
- High accuracy calibration
- Low cost
- User flexibility

Probe Pitch Calibration Range

- G-S-G
125-500 μm
- S-G (rectangular)
125-1025 μm
(4 - 41 mils)
1225 - 1650 μm
(49 - 66 mils)
- S-G (angled position)
125-1700 μm
(4 - 68 mils)



Calibration Kit - optional

- HP8510 description of calibration constants and structures.

Application

With the optional CM12-Cal Kit, the CM12 calibration substrate can be used to perform calibration on a wide range of CPW probe pitches. This range is from 125 to 500 μm for G-S-G probes. S-G probes with pitches from 125 to 1025 μm and 1225 to 1650 μm can be calibrated with the probe approach position restricted to rectangular placement. The full pitch range, from 125 to 1700 μm , can be achieved by an angular approach to the calibration patterns for the S-G probes.

The normal limitations of wide pitch coplanar calibration standards are avoided with the application of small well decoupled microstrip circuit structures. This results in broadband resonate free calibration.