RF FLEXIBLE INTERCONNECTION LINE

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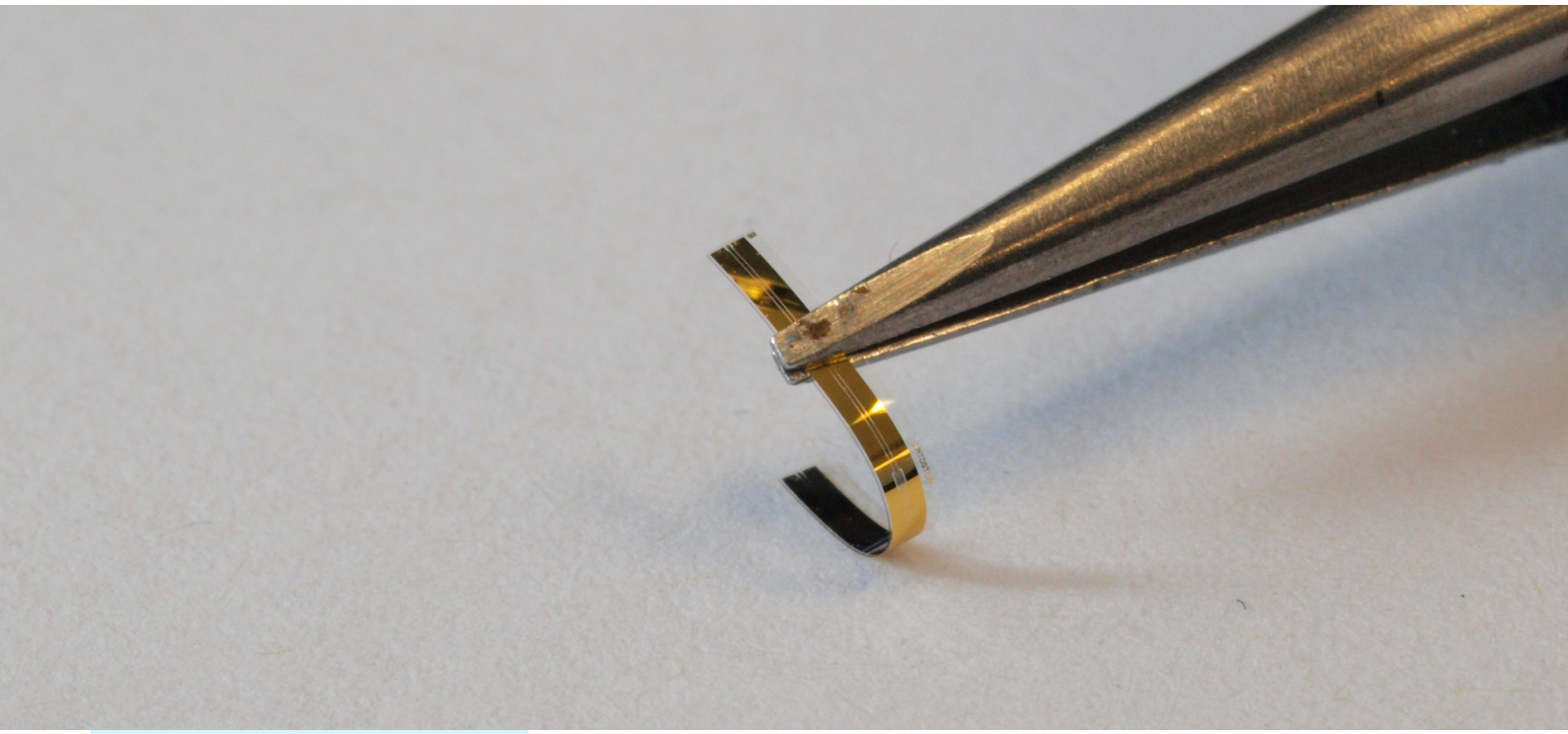

AT A GLANCE

Flexible RF Interconnection >100 GHz

Features

- Flexible interconnection
- Excellent RF performance >100 GHz
- 4“ -wafer fabrication
- Customized design

Applications

- Optoelectronic modules, submount
- 3-D packaging
- Multichip Modules
- Applications for thermal isolation
- Folderble, wearable applications

Technical Background

Flexible RF transmission lines are high-speed interconenction medium for high-speed components. It can especially exploited to isolate thermal interactions between devices, e.g. driver IC and optical components. Also, it supports flexible 3-D packaging, multichip modules, optoelectronic modules, and wearable packaging applications.

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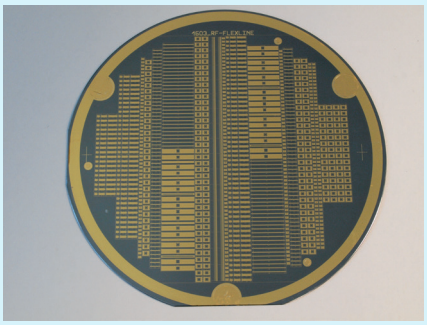
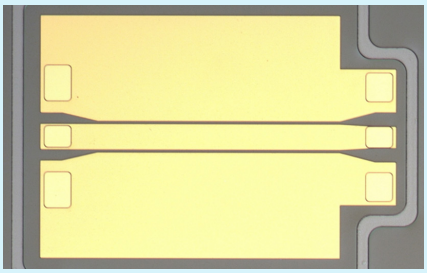


Fabricated 4" wafer



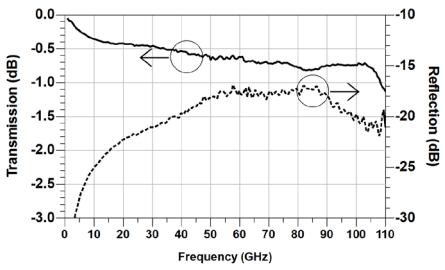
coplanar waveguide (CPW)

Specifications

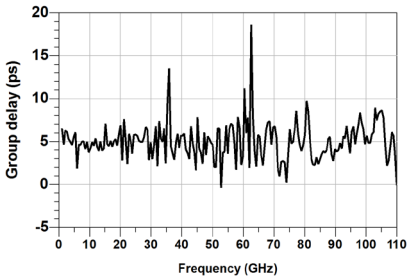
	Typical
Dielectric constant	2.7
Tangent loss 30 GHz	0.002
Polymer layer thickness	10 – 15 µm
Conducer (Au) thickness	3.5 µm

Coplanar Waveguide measurement (1 mm)

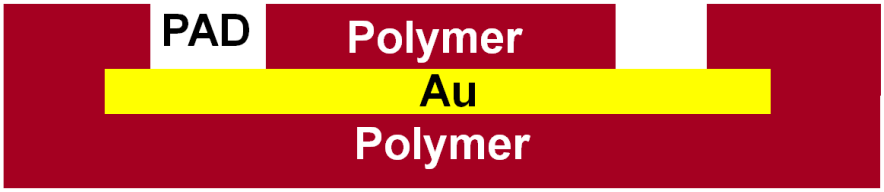
Insertion losses	0.48 dB @ 30 GHz, 0.75 dB @ 100 GHz
Reflection	< -17 dB (up to 100 GHz)
Group delay distortion	± 3 ps



S-parameters for CPW



Group delay distortion or CPW



Cross sectional View

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