Microstrip Line

TL-B

1–110 GHz | 50 Ω reference | Same-side double bend

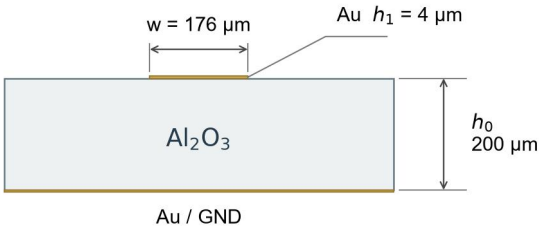
Thin-film microstrip on alumina, with a top Au signal trace and a continuous backside Au ground plane, for RF interconnect.

LAYOUT & DIMENSIONS

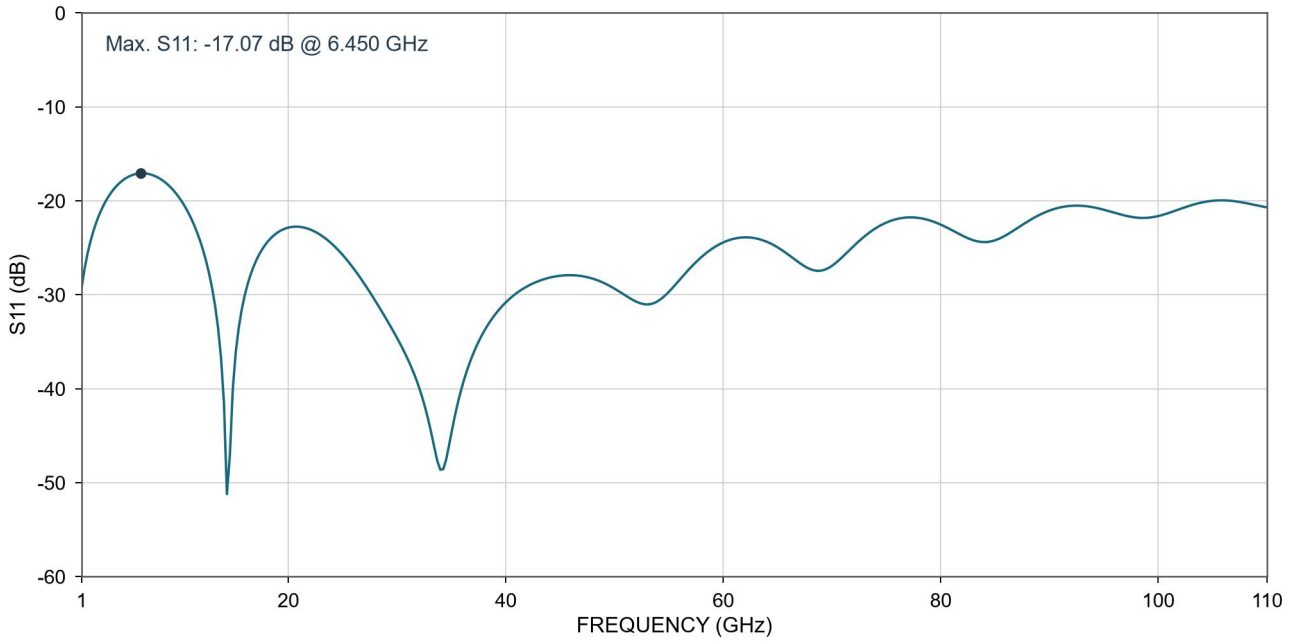
Substrate (L × W) 5 × 0.7 mm Line width w 176 µm

MATERIALS & SIMULATION CONDITIONS

Parameter	Value	Units
Substrate	Al_2O_3	—
Substrate thickness h_0	200	µm
Relative permittivity	9.8	—
Dielectric loss tangent	0.0003	—
Top / back metal	Au / Au	—
Metal thickness h_1	4	µm
Reference impedance	50	Ω



S11 ELECTRICAL CHARACTERISTICS (HFSS)

Frequency (GHz)	1–10	10–40	40–67	67–110	1–110
S11, max. (dB)	-17.07	-20.18	-23.89	-19.95	-17.07
Frequency at max. (GHz)	6.450	10.265	62.040	105.912	6.450

S11 FREQUENCY RESPONSE