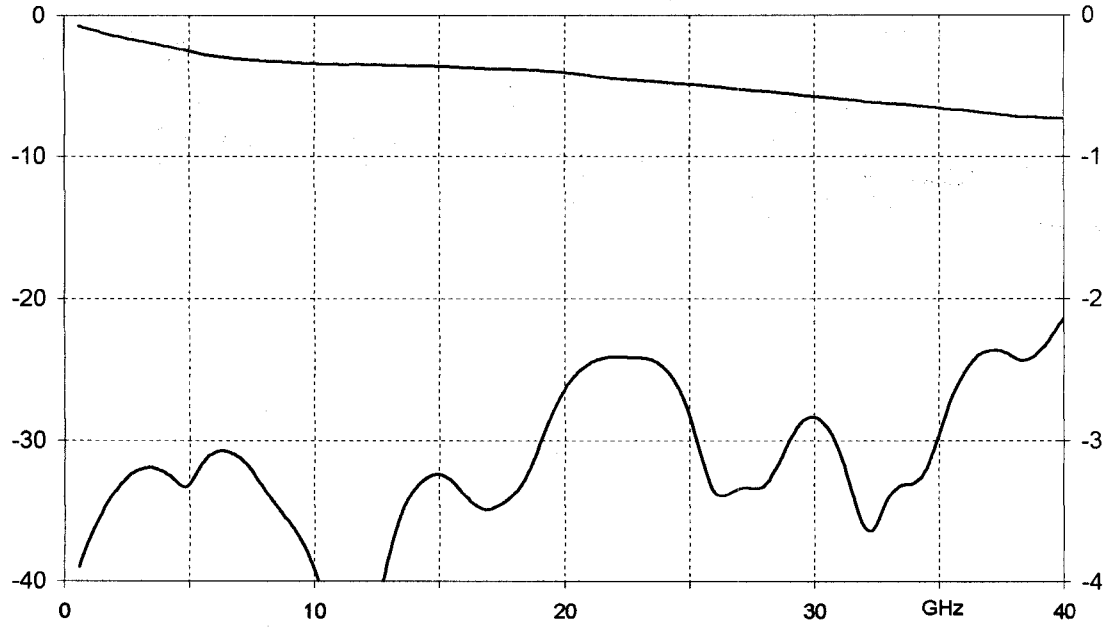
DEVICE DATA SHEET

Model	Z 040 Y1N GSG 125
Serial Number	B5082

Calibration Coefficient Using Calibration Substrate CSR-3		Use either left or right column	
OPEN	C = 18.8 fF		
SHORT	L = 16.5 pH	Delay = 0.033 ps	Line: 500 Ohms
LOAD	L = -19.8 pH	Delay = 0.040 ps	Line: 5 Ohms
THRU	Offset Length = 340 µm	Delay = 1.14 ps	

Uncalibrated Performance @ 40 GHz :	
Return Loss Into A 50 Ω LOAD :	-21,4 dB
Maximum Insertion Loss:	-0,73 dB



Return Loss

Insertion Loss

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DATA SHEET

Type YxN GSG, DC to 40 GHz
Extended temperature range / for vacuum prober
DUT from -265 °C to +300 °C

Electrical characteristics

Characteristic impedance:	50 Ω
RF power:	max. 5 W (-265 °C to +200 °C), max. 1 W (+200 °C to +300 °C)
DC current:	max. 1 A up to +200 °C
DC voltage:	max. 100 V
Contact resistance on Au:	≤ 0.04 Ω
Probe resistance:	≤ 0.1 Ω
Temperature range for DUT:	-265 °C to +200 °C @ max. +30 °C ambient +200 °C to +250°C: 5 min. contact time, 70% duty cycle +250 °C to +300°C: 5 min. contact time, 50% duty cycle
Cooling:	Probes ≥ 5 mm above DUT, cooling adapter required
Temperature range of probe:	-65 °C to +85 °C when connecting cable -235 °C to +85 °C during operation

Mechanical characteristics

Contact springs:	Nickel
Body:	Brass, gold plated
Insulator:	RF Dielectric
Contact cycles on Al:	≥ 1 000 000
Contact spring pressure:	≈ 6 N/mm
Angle and alignment error:	≤ 10 µm (50 µm to 250 µm), ≤ 15 µm (300 µm to 500 µm)
Touchdown height difference:	≤ 10 µm
Contact area:	30 µm x 5 µm ± 2 µm
Front thickness:	20 µm to 30 µm
Available pitches:	50 µm to 1250 µm
Standard pitches:	100 µm, 125 µm, 150 µm to 500 µm in 50 µm steps

Connector

Type:	PC 2.92 mm
Recommended coupling torque:	0.8 Nm to 1.1 Nm
Test coupling torque:	1.7 Nm
Outer contact:	Stainless steel
Center contact:	CuBe, gold plated
Insulator:	PS

Additional information

Probe cleaning:	Use special pads (Probe Polish™) to clean, no liquid
Maximum overtravel:	200 µm
Recommended overtravel on Al:	50 µm
Recommended overtravel on Au:	5 µm

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