



All dimensions are in mm; tolerances according to ISO 2768 m-H

Interface

According to

MIL-STD-348

Mateable with GPPO™ (Gilbert Engineering Co., Inc.) and SSMP™ (Connectors Devices, Inc.)

Documents

Application note

AN001 "Calibration Services"

Material and plating

Connector parts

Center conductor
Outer conductor
Dielectric

Material

CuBe
CuBe
PEEK

Plating

Gold, min. 1.27 µm, over nickel
Gold, min. 1.27 µm, over nickel

Electrical data

Frequency range	DC to 40 GHz
Return loss	≤ 0.40 dB, DC to 18 GHz
	≤ 0.50 dB, 18 GHz to 40 GHz
Error from nominal phase ¹	≤ 5.0°, DC to 18 GHz
	≤ 10.0°, 18 GHz to 40 GHz

¹ The nominal phase is defined by the Offset Delay, the Offset Loss and the Fringing Capacitances

Mechanical data

Mating cycles	
if mating part is Smooth bore	≥ 500
if mating part is Full detent	≥ 100
Engagement force	
- Smooth bore	11 N typical
- Full detent	19 N typical
Disengagement force	
- Smooth bore	11 N typical
- Full detent	29 N typical
Gauge	0.00 mm to 0.08 mm

General standard definition

For proper operation the vector network analyzer (VNA) needs a model describing the electrical behaviour of this calibration standard. The different models, units, and terms used will depend on the VNA type and they will have to be entered into the VNA. All values are based on typical geometry and plating.

Offset Z_0 / Impedance / Z_0	50 Ω
Offset Delay	17.5121 ps
Length (electrical) / Offset Length	5.25 mm
Offset Loss	3.75 G Ω /s
Loss	0.0114 dB/ $\sqrt{\text{GHz}}$
Fringing Capacitances ²	

² Fringing Capacitances are determined individually for each open circuit and are documented in a Calibration Certificate.

Environmental data

Operating temperature range ³	+20 °C to +26 °C
Rated temperature range of use ⁴	0 °C to +50 °C
Storage temperature range	- 40 °C to +85 °C

RoHS compliant

³ Temperature range over which these specification are valid.

⁴ This range is underneath and above the operating temperature range, within the open circuit is fully functional and could be used without damage.

