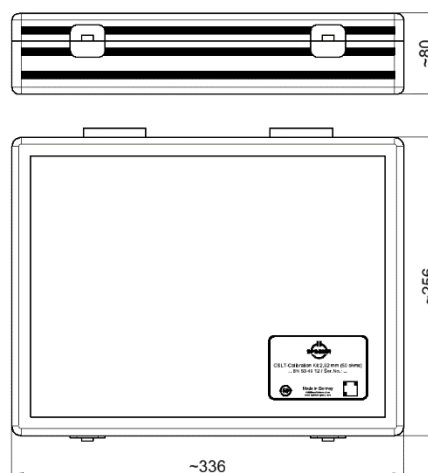


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all dimensions in millimeter

Radio frequency characteristics

Interface type		2.4 mm plug and socket per IEEE Std 287	
Frequency range		DC to 50 GHz	
THROUGH	Return loss, min.	32 dB @ DC to 4 GHz 30 dB @ 4 to 26.5 GHz 25 dB @ 26.5 to 40 GHz 23 dB @ 40 to 50 GHz	
	Insertion loss, max.	$0.045 \text{ dB} \times \sqrt{f \text{ (GHz)}}$	
OPEN ¹⁾	Phase deviation, max.	1.5 deg. @ DC to 26.5 GHz 2.5 deg. @ 26.5 to 50 GHz	
	Offset	see calibration data	
SHORT ¹⁾	Phase deviation, max.	1.5 deg. @ DC to 26.5 GHz 2.5 deg. @ 26.5 to 50 GHz	
	Offset	see calibration data	
LOAD	DC-resistance	$50 \Omega \pm 0.5 \Omega$	
	Return loss, min.	40 dB @ DC to 4 GHz 34 dB @ 4 to 10 GHz 30 dB @ 10 to 26.5 GHz 24 dB @ 26.5 to 50 GHz	
		Power rating, max.	0.25 W

¹⁾ The specifications for the opens and shorts are given as allowed deviation from the nominal model as defined in the calibration data.

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Mechanical characteristics

Center conductor material / surface finish	CuBe age hardened / gold-plated
Outer conductor material / surface finish	CuBe / gold-plated
Insulation	PS, cross linked polystyrene
Other metallic parts / surface finish	copper alloy / gold-plated CuBe / CuSnZn-plated
Weight, approx.	1.3 kg
Marking	laser engraving

Environmental conditions

Operation	
Ambient temperature range	+18 to +28°C ²⁾
Storage	
Ambient temperature range	-40 to +70°C (in line with EN 60068-2-1 and EN 60068-2-2)

²⁾ Temperature range within all components maintain conformance to their specification.

Scope of delivery

Description	Qty per kit	Part No	Calibration Option
2.4 mm Open circuit plug	1	BN 533774R000	Factory calibration
2.4 mm Open circuit socket	1	BN 533775R000	Factory calibration
2.4 mm Short circuit plug	1	BN 533772R000	Factory calibration
2.4 mm Short circuit socket	1	BN 533773R000	Factory calibration
2.4 mm Load plug	1	BN 533770R000	Factory calibration
2.4 mm Load socket	1	BN 533771R000	Factory calibration
2.4 mm Through plug / plug	1	BN 533777R000	Factory calibration
2.4 mm Through socket / socket	1	BN 533776R000	Factory calibration
Torque Wrench 8 mm / 90 N-cm	1	BN 154141	Factory calibration
Certificate of calibration incl. calibration data			
USB flash drive including certificate of calibration incl. calibration data data sheet			
Product manual calibration kit		M36002	
Handling instruction torque wrench		M31071	
Aluminium storage case			

Accessories

2.4 mm Through plug / socket	BN 533778R000
2.4 mm Gauge male conductor	BN 537078
2.4 mm Gauge female conductor	BN 537079

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Calibration data

Calibration data in formats for the common VNAs are included in the kit. It includes individual calibration coefficients for every kit to achieve the best possible performance.

Re-Calibration

The suggested initial interval for recalibration is 12 months or 500 mating's, whichever comes first. The actual need for recalibration depends on the use and the maintenance of the kit. The recalibration interval should begin with the day of initial use after recalibration.

Pin depth limits

Pin depth is the distance between outer conductor mating plane and inner conductor mating plane. Positive values stand for protrusion of the inner conductor, negative values for recession.

Connector Type	Typical Pin Depth	Measurement Uncertainty	Ranges of measurement ⁴⁾
2.4 mm	0 to -0.013 mm	0.003 mm	+0.003 to -0.016 mm

³⁾ Ranges of measurement is the limit that could be measured with a suitable gauge due to the measurement uncertainty. These values could still be within the specification. The measurement uncertainty is based on the measurement with SPINNER gauges and the specified operating temperature. Deviation from these conditions may cause higher measurement uncertainty.