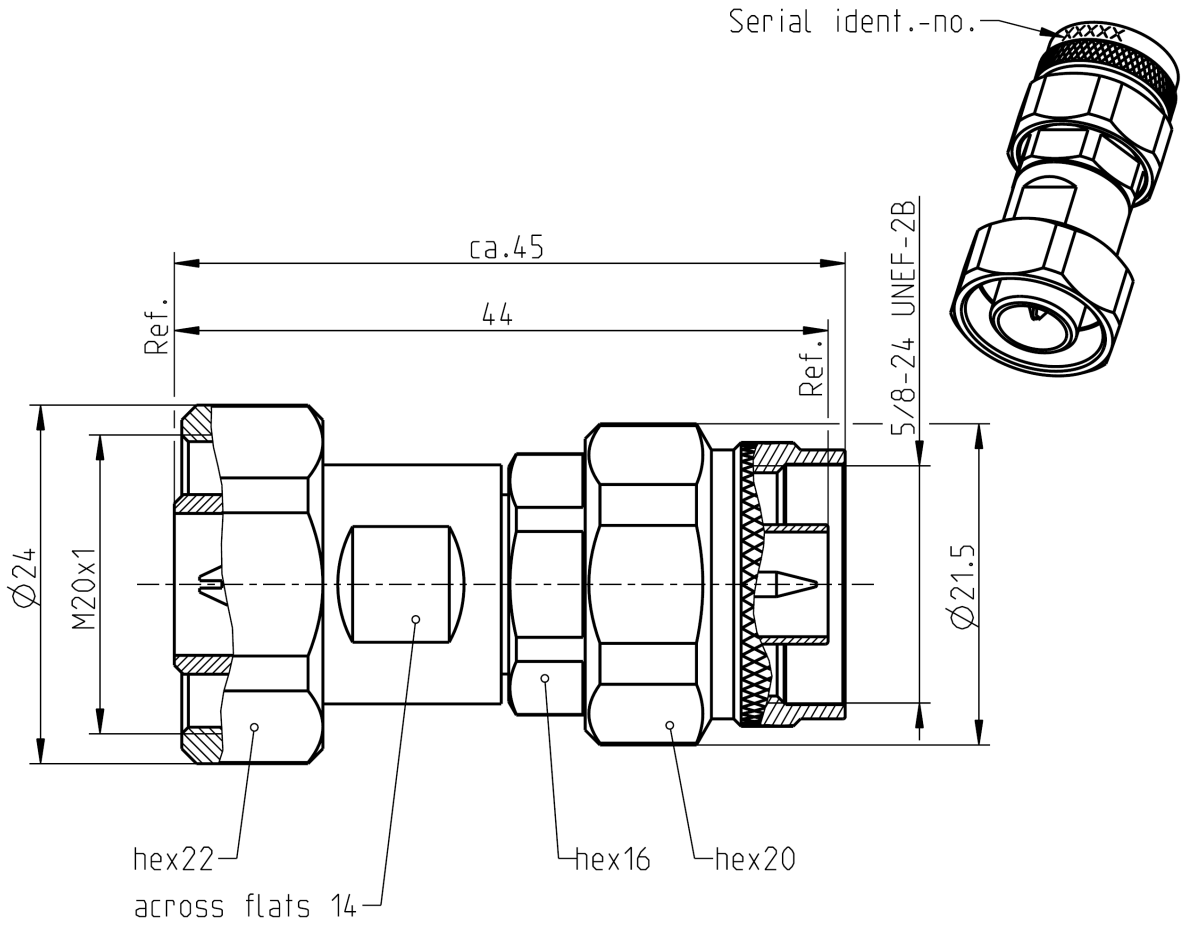
Technical Data Sheet	Rosenberger
Calibration Adaptor RPC-N Plug – 4.1-9.5 Plug	**05S165-S20S3**



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

Interface

RPC-N according to	IEC 61169-16
4.1-9.5 according to	IEC 61169-11, DIN 47231

Documents

Application note	AN001 “Calibration Services”

Material and plating

Connector parts	**Material**	**Plating**
Center conductor	CuBe	Gold, min. 1.27 µm, over nickel
Outer conductor	Stainless steel	Passivated
Coupling nut	Stainless steel	Passivated
Dielectric	PTFE	

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Electrical data

Frequency range	DC to 12 GHz
Return loss	≥ 34 dB, DC to 4 GHz ≥ 30 dB, 4 GHz to 6 GHz ≥ 28 dB, 6 GHz to 12 GHz

Mechanical data

Mating cycles	≥ 500	
	RPC-N	4.1-9.5
Maximum torque	1.70 Nm	15 Nm
Recommended torque	1.10 Nm	2 Nm
Gauge	5.28 mm to 5.36 mm	5.05 mm to 5.13 mm

General standard definitions

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_o / Impedance / Z_o	50 Ω
Offset Delay	153.1350 ps
Length (electrical) / Offset Length	45.90 mm
Offset Loss	1.40 GΩ/s
Loss	0.0186 dB/$\sqrt{\text{GHz}}$

Environmental data

Operating temperature range[1]	+ 20 °C to +26 °C
Rated temperature range of use[2]	0 °C to +50 °C
Storage temperature range	- 40 °C to +85 °C
RoHS	compliant

[1] *Temperature range over which these specification are valid.*
[2] *This range is underneath and above the operating temperature range, within the calibration adaptor is fully functional and could be used without damage.*

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