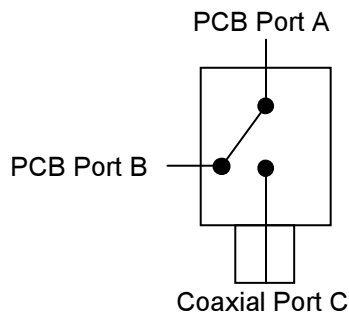


HUBER+SUHNER® DATA SHEET

RF Power Switch SMA Interface: PS92_SMA-50-0-13/131_N



Description: RF Power Switch Edge mount PCB jack



Coaxial port C unmated:

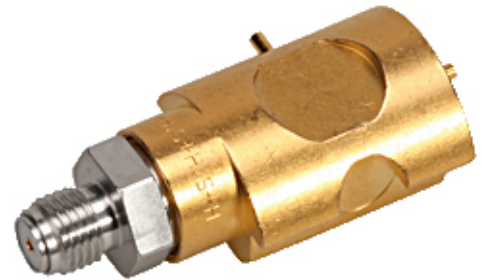
→ A-B: Connected

→ A-C: Interrupted

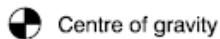
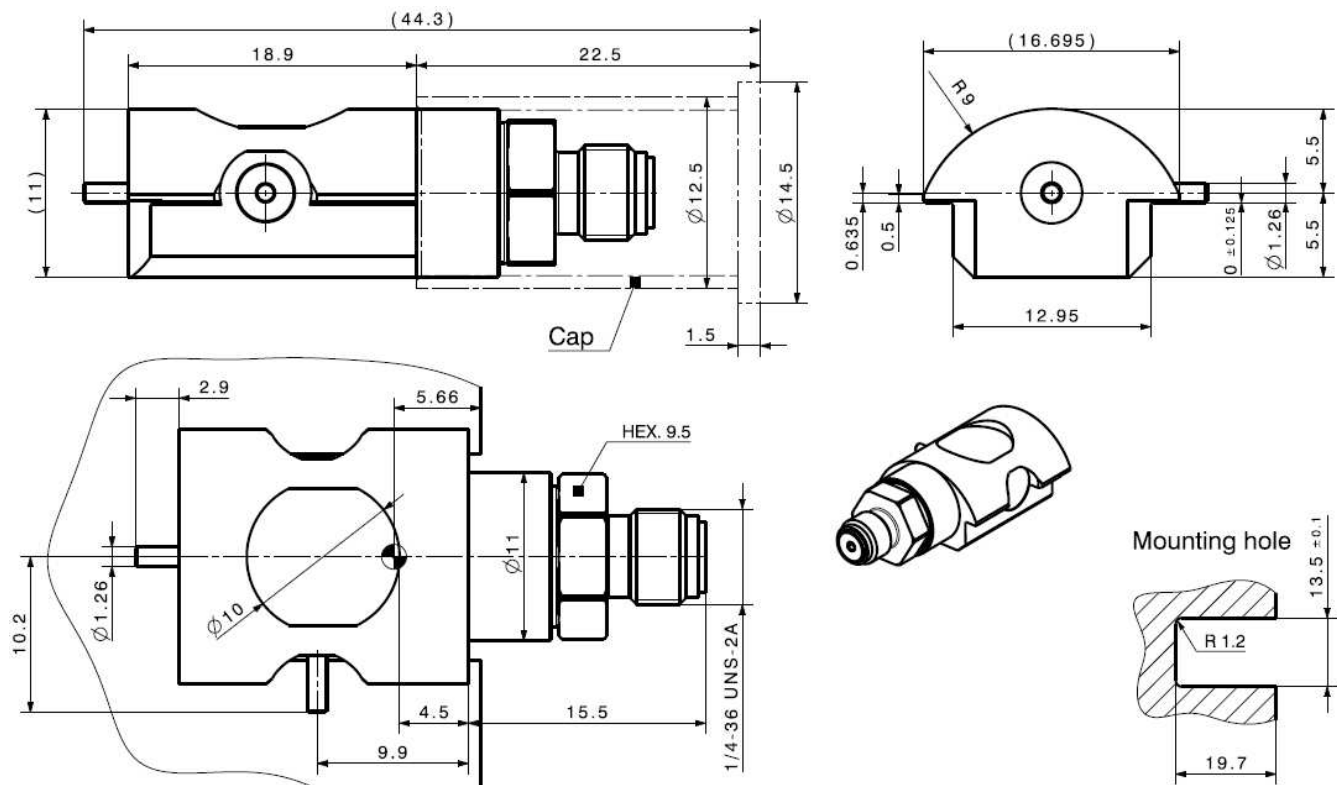
Coaxial port C mated:

→ A-C: Connected

→ A-B: Interrupted



Outline dimension



HUBER+SUHNER is certified according to ISO 9001 and ISO 14001

WAIVER!

It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical contained specifications and/or the fitness for any particular purpose. The facts and figures herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.

HUBER+SUHNER – Excellence in Connectivity Solutions



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RF Power Switch SMA Interface: PS92_SMA-50-0-13/131_N



Technical Data

TYPICAL ELECTRICAL DATA	TESTING STANDARD	REQUIREMENTS	
Impedance		50 Ω	
Frequency range		DC ... 4 GHz	
Return loss (Measurement done with H+S test board, PCB layout on page 4) DC ... 1 GHz 1 ... 2 GHz 2 ... 3 GHz 3 ... 4 GHz		 Transmission line to switched line 21 dB 18 dB 16 dB 12 dB	 Transmission line to direct line 21 dB 18 dB 16 dB 12 dB
Insertion loss switched and direct line		DC ... 1 GHz 1 ... 2 GHz 2 ... 4 GHz	0.10 dB 0.15 dB 0.25 dB
Isolation between switched and direct line		DC ... 1 GHz 1 ... 2 GHz 2 ... 3 GHz 3 ... 4 GHz	47 dB 43 dB 40 dB 35 dB
Power handling (continues power) ¹⁾		100 W	
Current DC at 25°C		4 Ampere	
Dielectric withstanding voltage (at sea level)	MIL-STD-202, Method 301	500 V rms, 50 Hz	
Working voltage (at sea level)	MIL-STD-202, Method 301	170 V rms, 50 Hz	
Insulation resistance	MIL-STD-202, Method 302	$\geq 5 \text{ G}\Omega$	
Contact resistance - centre contact - outer contact (switched line)	MIL-PRF-39012, Paragraph 4.7.13	$\leq 6 \text{ m}\Omega$ $\leq 3 \text{ m}\Omega$	

TYPICAL MECHANICAL DATA	TESTING STANDARD	REQUIREMENTS	
Coupling nut torque - recommended		45 Ncm / 4.0 in. lbs	
Switching movement in connector interface		max 3 mm	
Centre contact retention force	MIL-PRF-39012, Paragraph 4.7.9	Lateral pins $\geq 2 \text{ N} / 0.4 \text{ lbf}$ Interface contact $\geq 28 \text{ N} / 6.3 \text{ lbf}$ (only pushing)	
Weight		23.5 g	
Durability (matings)	MIL-PRF-39012, Paragraph 4.7.12	500	

TYPICAL PROCESSING DATA	TESTING STANDARD	REQUIREMENTS	
Adherent to the print - shearing ²⁾ - pulling (vertical to PCB) ²⁾ - torque ²⁾		> 80 N for 1 min > 80 N for 1 min 1.2 Nm	
Lead free reflow solder process	IPC / JEDEC J-STD-020C	recommended	
Packing	EIA-STD-481	Tape and Reel	

- 1) Turn off system before switching the RF Power Switch. Under load maximum short term temperature +105°C / 221°F up to 60 seconds.
2) Valid for recommended PCB structure only, force applied on interface reference plane.

HUBER+SUHNER® DATA SHEET

RF Power Switch SMA Interface: PS92_SMA-50-0-13/131_N



Technical Data (cont.)

TYPICAL ENVIRONMENTAL DATA	TESTING STANDARD	REQUIREMENTS
Temperature range	Long term	-40°C ... +85°C / -40°F ... 185°F
Corrosion	MIL-STD-202, Method 101, Condition B	Salt mist test 48 h
High temperature endurance	IEC-61-169-1	400 h / +165°C
Thermal shock	MIL-STD-202, Method 107, Condition A modified	-40°C ... +85°C / -40°F ... 185°F
Solderability	MIL-STD-883D	Field test
Vibration	MIL-STD-202, Method 204, Condition A	10g Max. interruption < 1µs
Mechanical shock	MIL-STD-202, Method 213, Condition I	100g / 6ms Max. interruption < 1µs
Basic transportation	MIL-STD-810E	Common carrier environment 2000 miles

MATERIAL DATA			
CONNECTOR PART	STANDARDS	MATERIAL	PLATING
Centre contact	QQ-C-530 / QQ-B-626	copper beryllium / brass	SUCOPRO
Outer contact	QQ-B-626	brass	SUCOPLATE
Body	QQ-B-626	brass	SUCOPRO
Insulator	SUHNER® specification	PEEK / PTFE	

ENVIRONMENTAL SAFETY		
TITLE	STANDARD	STATUS
DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)	2002/95/EC	Compliant (using exception 6)

The products are designed and guaranteed to pass the above mentioned test procedures. Any additional or different requirement arising from specific applications or environmental conditions which is not covered by these test procedures is subject to request.

Ordering Information

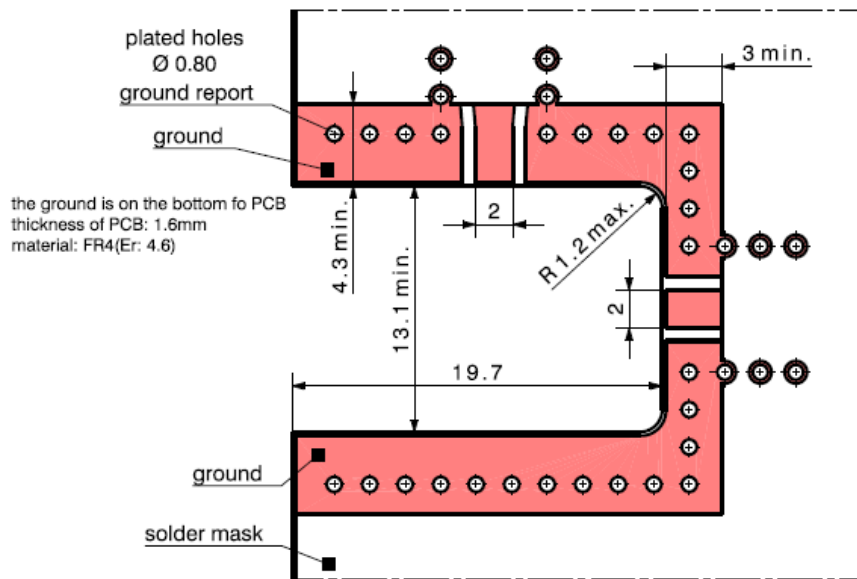
Tape and reel package PS92_SMA-50-0-13/131_NM Item number: **84039784**
Single package PS92_SMA-50-0-13/131_NE Item number: **84041796**

HUBER+SUHNER® DATA SHEET

RF Power Switch SMA Interface: PS92_SMA-50-0-13/131_N

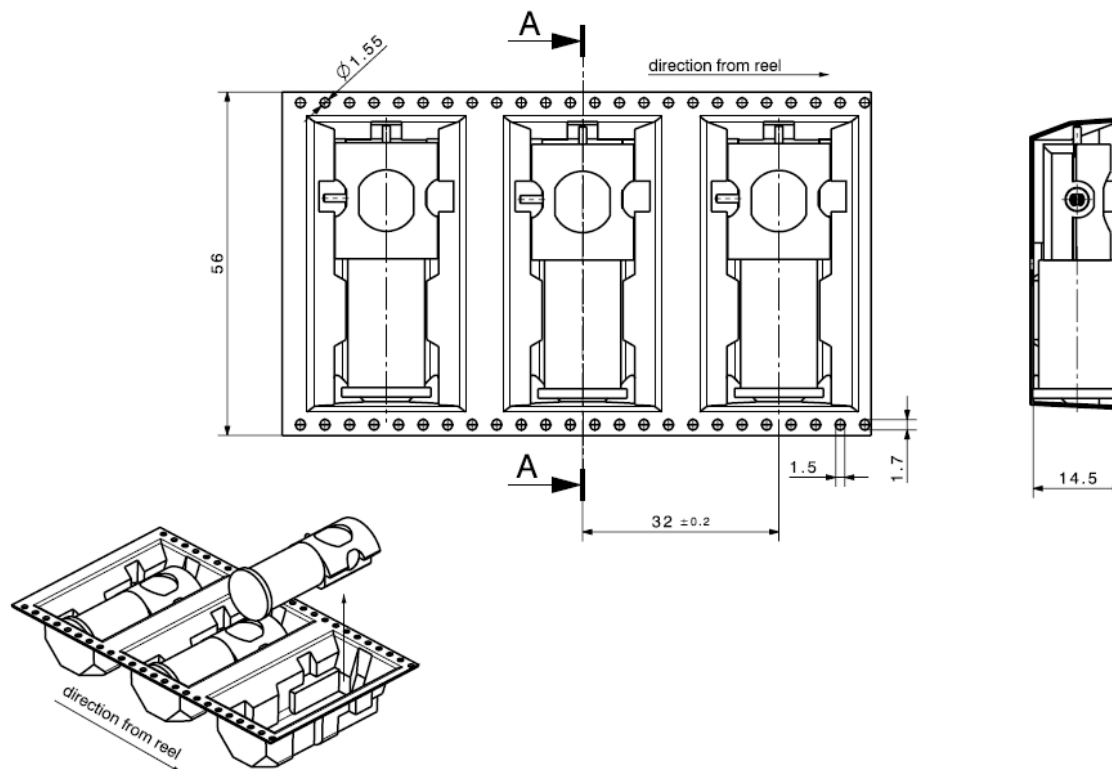


PCB Layout



Packaging feed

Tape according to standard IEC 286-3 / EIA-481 44 mm width
Reel outer diameter 330mm (13") inclusive 100 pieces



Uncoupling instruction for protection cap

In order to prevent from damages to the SMA-interface as well as plastic cap, please avoid an oblique pull off or attachment of the plastic caps.