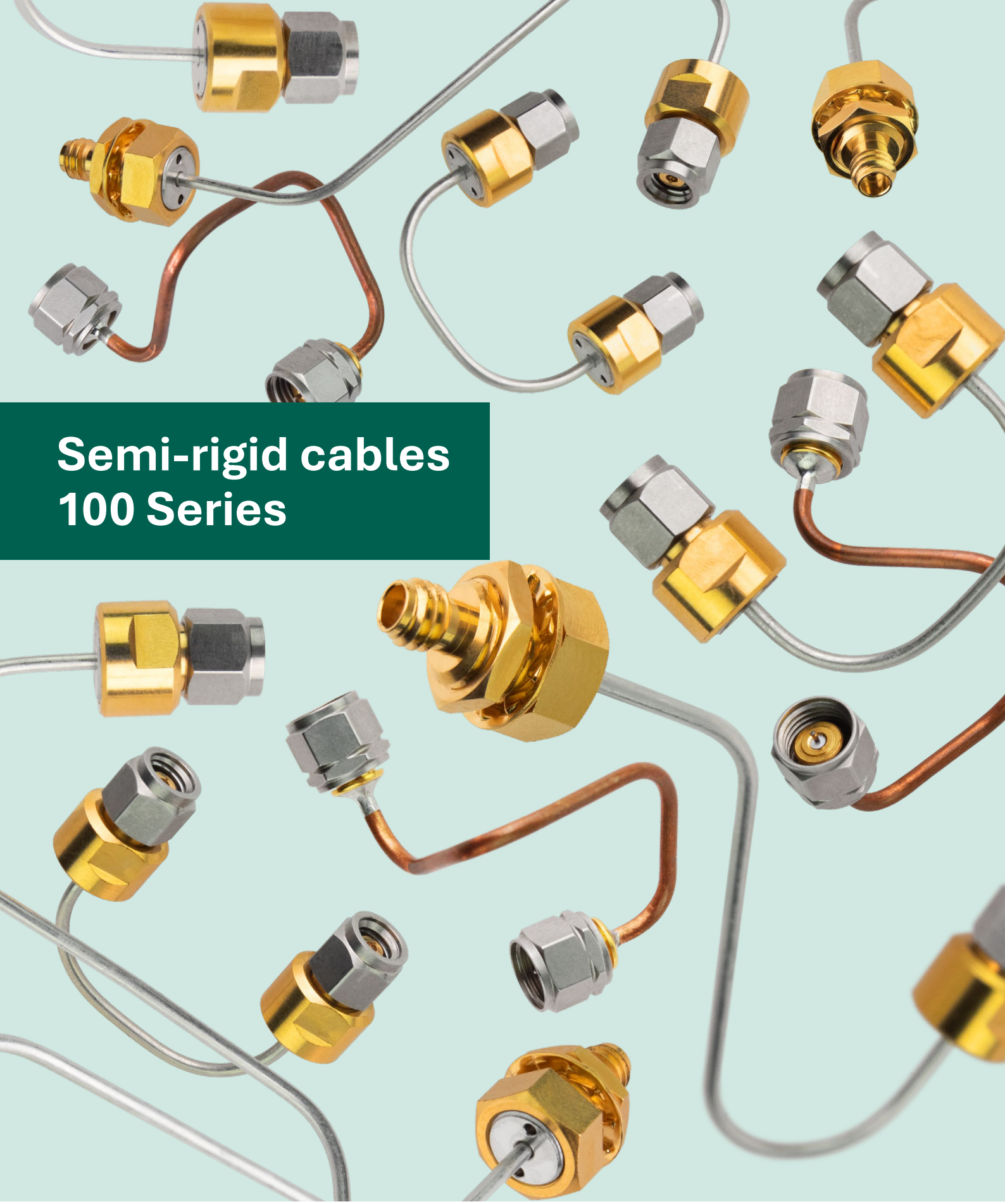


Semi-rigid cables 100 Series

hubersuhner.com

HUBER+SUHNER

Automated Swiss manufacturing for consistent quality & reliable supply

Manufactured in Switzerland, HUBER+SUHNER's 100 Series semi-rigid cable assemblies combine excellent RF performance, high shielding effectiveness, and reliable mechanical stability. Produced on an automated cable line with in-house PTFE dielectric manufacturing, every assembly benefits from end-to-end process control – from raw material to finished product – ensuring repeatable quality where signal integrity cannot be compromised.

Typical applications include test and measurement, aerospace and defense, medical diagnostic equipment, and advanced communication systems. Their robust construction, compact routing capability, and precise bending characteristics make them ideal for installations with limited space.

The 100 Series meets MIL-DTL-17 requirements, addressing the most stringent military and commercial specifications. Combined with HUBER+SUHNER's expertise in both manual and CNC-automated bending, customers receive fully tested assemblies with short, reliable lead times.



How to order your 100 Series

- **Bulk Cable**

  To order standard bulk cable, visit our website to review product specifications, check lead times, and place your order through our distribution partners or via the HUBER+SUHNER contact page. Find out more here

- **Cable assemblies**

  For cable assemblies, use our Variant Configurator (VC) to select the cable and connector combination that best meets your electrical and mechanical requirements. Find out more here

- **Custom bent assemblies**

  For custom bent assemblies, please contact your sales representative and provide a dimensioned drawing or 3D model in .stp format, bend table data or reference geometry, any additional requirements such as pre-conditioning, and your projected annual volume. Please note that Non-Recurring Engineering (NRE) charges may apply if drawings must be prepared or new tooling is required.

The form-stable copper microwave cable

Product features

- 50 Ω characteristic impedance
- Shielding effectiveness >120 dB up to 18 GHz
- Form-stable construction for precise and repeatable routing
- PTFE dielectric for stable electrical performance
- Suitable for manual and CNC bending
- Operating temperature from -55 °C to +125 °C (depending on cable type)
- Available as bulk cable or fully assembled solutions
- Manufactured in Switzerland with automated production processes

Main benefits

High shielding and RF stability
High shielding and stable impedance support reliable RF performance. They help preserve signal integrity in demanding and space-constrained environments.



Precision bending and assembly competence
Pre-bent and fully assembled solutions reduce installation variability. Manual and CNC bending expertise improves routing repeatability and helps preserve system performance.



Supply security with Swiss engineering/manufacturing
Swiss manufacturing, backed by strong engineering support from qualification through lifecycle management, simplifies sourcing process and shortens delivery lead times.



Global expertise and local support
Our global engineering and manufacturing footprint provides customers with responsive technical support, application expertise, and reliable service – from initial design and qualification through series production.

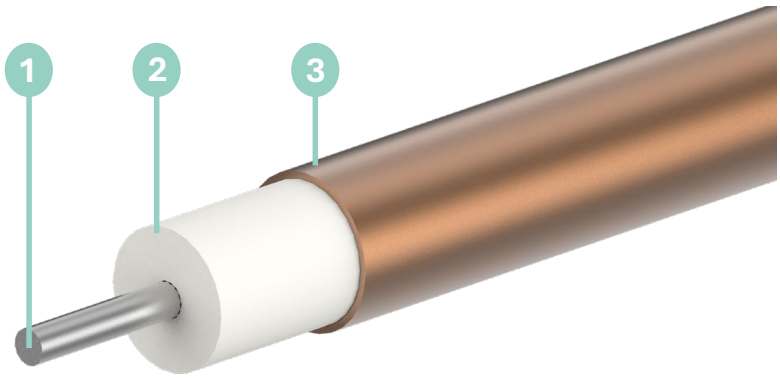


The 100 Series new generation

Construction

Cable Type	Inner conductor ❶	Dielectric ❷	Outer conductor ❸	Outer diameter (mm)	Outer plating
0.141 in / 3.58 mm					
SR_141_100	SPCW	PTFE	Cu	3.58 +/- 0.025	None
SR_141_CU_100	SPC	PTFE	Cu	3.58 +/- 0.025	None
0.086 in / 2.18 mm					
SR_86_100	SPCW	PTFE	Cu	2.2 +/- 0.015	None
SR_86_CU_100	SPC	PTFE	Cu	2.2 +/- 0.015	None
0.047 in / 1.19 mm					
SR_47_100	SPCW	PTFE	Cu	1.19 +/-0.01	None
SR_47_CU_100	SPC	PTFE	Cu	1.19 +/-0.01	None

Legend: SPCW = silver plated copper clad steel, SPC = silver plated copper



Technical data

Cable Type	Item Number	Cutoff frequency (GHz)	Temperature range (°C)	Screening effectiveness up to 18 GHz (dB)
SR_141_100				
SR_141_100	85212397 (3m), 85289534 (1.5m)	33	-55 °C ... 125 °C	>120
SR_141_CU_100	85263608 (3m), 85289535 (1.5m)	33	-55 °C ... 125 °C	>120
SR_86_100				
SR_86_100	85263613 (3m), 85289531 (1.5m)	60	-55 °C ... 125 °C	>120
SR_86_CU_100	85213363 (3m), 85289533 (1.5m)	60	-55 °C ... 125 °C	>120
SR_47_100				
SR_47_100	85213344 (3m), 85289514 (1.5m)	109	-55 °C ... 100 °C	>120
SR_47_CU_100	85264280 (3m), 85289529 (1.5m)	109	-55 °C ... 100 °C	>120

Standard delivery in 3 meter (9.84 feet) and 1.5 meter (4.92 feet). Other specifications on request.

Further materials and platings available on request.

From raw cable to bent assemblies

Cable assembly design and configuration

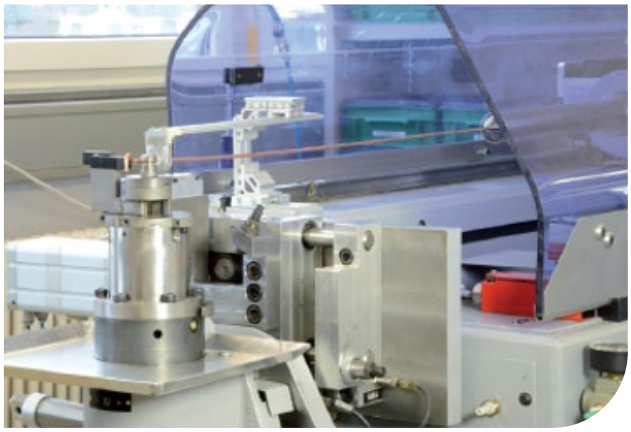
Assembly development starts with the cable type, operating frequency, routing envelope and connector interface. Based on these inputs, the assembly is defined with the correct semi-rigid diameter, connector family, strip dimensions and target electrical limits. More interfaces for higher frequencies are available on request.

Cable Type	Recommended connectors
SR_141_100	N, 3.5 mm, QMA, QN, SMA, TNC
SR_86_100	BNC, MCX, MMCX, N, 1.85 mm, 3.5 mm, QMA, SK, SMA, TNC
SR_47_100	MCX, MMCX, 2.92 mm (SK), SMA

Precision assembly and bending capabilities

The assembly process follows a controlled sequence: cable cutting, precision stripping of outer conductor and dielectric, center-conductor preparation, connector attachment, soldering and final forming. Bending is carried out manually for prototypes or on CNC equipment for series production, using defined bend radii and reference points to protect impedance stability. Finished assemblies are inspected against drawing requirements and, upon customer request, are electrically tested for parameters such as return loss, insertion loss and impedance before release.





Automated cable line for consistent quality

The automated line is designed to control the full cable manufacturing sequence from dielectric production to finished semi-rigid cable. PTFE dielectric manufacturing stabilizes the critical insulation geometry, followed by outer tube processing and dimensional control of the cable cross-section. This supports tight control of impedance, concentricity and outer diameter before the cable enters downstream bending and assembly operations. With one controlled process chain, material traceability, lot consistency and production scalability are maintained from prototype to series supply.

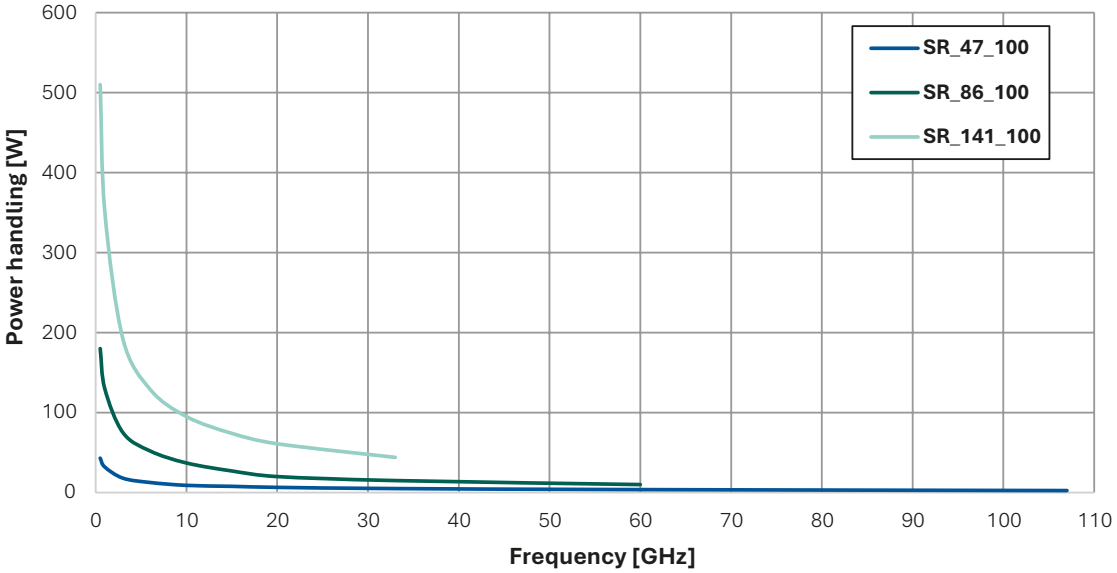
Connector Compatibility

Cable type	Connector series	Pattern / configuration	HUBER+SUHNER type	Operating frequency (GHz)	Item no.
SR_47_100	MCX	straight cable plug	11_MCX-50-1-14/111_NE	6.0	23032081
SR_47_100	MCX	right angle cable plug	16_MCX-50-1-11/111_NE	6.0	23024700
SR_47_100	MMCX	straight cable plug	11_MMCX-50-1-3/111_OE	6.0	22648893
SR_47_100	MMCX	right angle cable plug	16_MMCX-50-1-4/111_OE	6.0	22649182
SR_47_100	SK	straight cable plug	11_SK-50-1-2/119_NE	40.0	84013232
SR_47_100	SMA	straight cable plug	11_SMA-50-1-53/119_NH	18.0	23013327
SR_47_100	SMA	right angle cable plug	16_SMA-50-1-97/19-_NE	18.0	23024708
SR_47_100	SMA	straight cable jack	21_SMA-50-1-2/111_NE	18.0	22642386
SR_86_100	BNC	straight cable plug (male)	11_BNC-50-2-20/103_NE	4.0	22641778
SR_86_100	MCX	straight cable plug	11_MCX-50-2-19/111_NE	6.0	23024699
SR_86_100	MCX	right angle cable plug	16_MCX-50-2-104/111_NH-1	6.0	23032067
SR_86_100	MCX	right angle cable plug	16_MCX-50-2-104/111_NH	6.0	22658277
SR_86_100	MMCX	straight cable plug	11_MMCX-50-2-1/111_OE	6.0	22649039
SR_86_100	MMCX	right angle cable plug	16_MMCX-50-2-1/111_OE	6.0	22645957
SR_86_100	MMCX	straight cable jack	21_MMCX-50-2-1/111_OE	6.0	22645290
SR_86_100	N	straight cable plug	11_N-50-2-15/113_UE	18.0	22660315
SR_86_100	N	right angle cable plug	16_N-50-2-9/13-_UH	11.0	23013729
SR_86_100	N	straight cable jack	21_N-50-2-14/133_NE	18.0	22642666
SR_86_100	PC3.5	straight cable plug	11_PC35-50-2-4/199_UE	33.0	84009440
SR_86_100	PC3.5	straight cable jack	21_PC35-50-2-4/199_UE	33.0	84009419
SR_86_100	QMA	straight cable plug	11_QMA-50-2-3/133_NE	6.0	23017704
SR_86_100	SK	straight cable plug	11_SK-50-2-56/119_NE	40.0	84013230
SR_86_100	SMA	straight cable plug	11_SMA-50-2-15/111_NE	18.0	22544545
SR_86_100	SMA	straight cable plug	11_SMA-50-2-110/133_NE	18.0	84130715
SR_86_100	SMA	right angle cable plug	16_SMA-50-2-43/133_NE	18.0	22641953
SR_86_100	SMA	right angle cable plug	16_SMA-50-2-100/199_NH	26.5	23018813
SR_86_100	SMA	straight cable jack	21_SMA-50-2-15/111_NE	18.0	22544549
SR_86_100	TNC	straight cable plug	11_TNC-50-2-20/103_NE	11.0	22642519
SR_141_100	N	straight cable plug	11_N-50-3-13/113_NE	11.0	22542083
SR_141_100	N	straight cable plug	11_N-50-3-51/133_NE	18.0	22543919
SR_141_100	N	right angle cable plug	16_N-50-3-15/133_NE	11.0	22648832
SR_141_100	N	straight cable jack	21_N-50-3-51/19-_NE	18.0	22543922
SR_141_100	PC3.5	straight cable plug	11_PC35-50-3-4/199_UE	33.0	84009380
SR_141_100	PC3.5	straight cable jack	21_PC35-50-3-3/199_UE	33.0	84009382
SR_141_100	QMA	straight cable plug	11_QMA-50-3-3/133_NE	6.0	23017695
SR_141_100	QMA	right angle cable plug	16_QMA-50-3-3/133_NE	6.0	23017693
SR_141_100	QN	straight cable plug	11_QN-50-3-3/113_NE	11.0	23033393

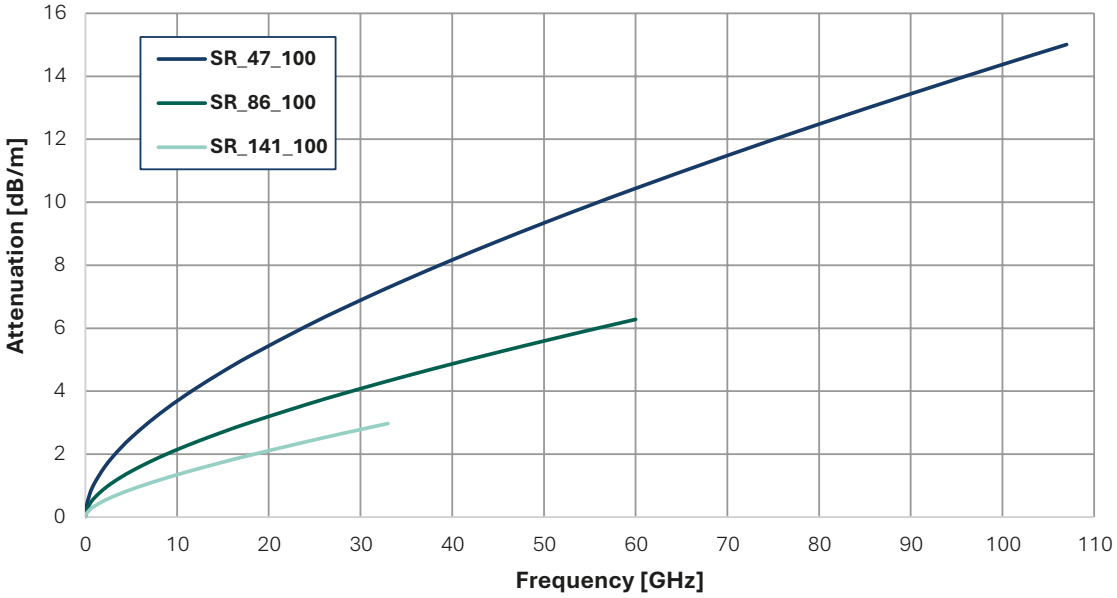
SR_141_100	QN	right angle cable plug	16_QN-50-3-3/13-_NE	11.0	23033268
SR_141_100	SMA	straight cable plug	11_SMA-50-3-77/119_NH	18.0	84005524
SR_141_100	SMA	straight cable plug	11_SMA-50-3-235/133_NE	18.0	84130698
SR_141_100	SMA	right angle cable plug	16_SMA-50-3-3/111_NE	18.0	22640073
SR_141_100	SMA	right angle cable plug	16_SMA-50-3-13/133_NE	18.0	84130707
SR_141_100	SMA	straight cable jack	21_SMA-50-3-15/111_NE	18.0	22544550
SR_141_100	TNC	straight cable plug	11_TNC-50-3-29/103_NE	11.0	22641997
SR_141_100	TNC	right angle cable plug	16_TNC-50-3-24/13-_NE	11.0	84021420

Source: Microwave cable assemblies, Edition 2025, pages 138-139. SR_141_100 is listed on page 139, which continues the connector table from page 138.

Power handling (maximum values at +25 °C and sea level)



Attenuation (nominal values at +25°C)



Why HUBER+SUHNER

HUBER+SUHNER stands as a globally recognized leader in the manufacturing of coaxial connectors, cables, and cable assemblies. Leveraging our extensive expertise in both manual and automatic bending processes, we ensure exceptional product performance, stability, and repeatability.

Our strategically located centers of excellence in Herisau (Switzerland), the UK and Poland in EMEA; Warren (USA); and Malaysia in Asia, enable us to stay close to our customers. This global footprint not only enhances supply chain resilience during unforeseen events but also simplifies sourcing, providing comprehensive solutions from raw cables to complex bent cable assemblies. Always.

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HUBER+SUHNER is certified according to ISO 9001, ISO 14001, OHSAS 18001, EN(AS) 9100, IATF 16949 and ISO/TS 22163 – IRIS.

Waiver
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ELB/MB/10.2026

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