SIEMENS

SIMATIC NET

Industrial Wireless LAN and Industrial 5G Coaxial components

System Manual

03/2024
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Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

⚠ DANGER

indicates that death or severe personal injury **will** result if proper precautions are not taken.

⚠ WARNING

indicates that death or severe personal injury **may** result if proper precautions are not taken.

⚠ CAUTION

indicates that minor personal injury can result if proper precautions are not taken.

NOTICE

indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

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Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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Preface

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Purpose of the system manual

This manual gives you an overview of coaxial components for setting up industrial WLAN and 5G networks that are used in various applications. For a flexible combination and installation of the individual network devices indoors and outdoors, a wide ranging selection of compatible coaxial accessories are available. The manual also covers connection cables as well as a variety of plug-in connectors, lightning protectors, termination resistors, a power splitter and an attenuator.

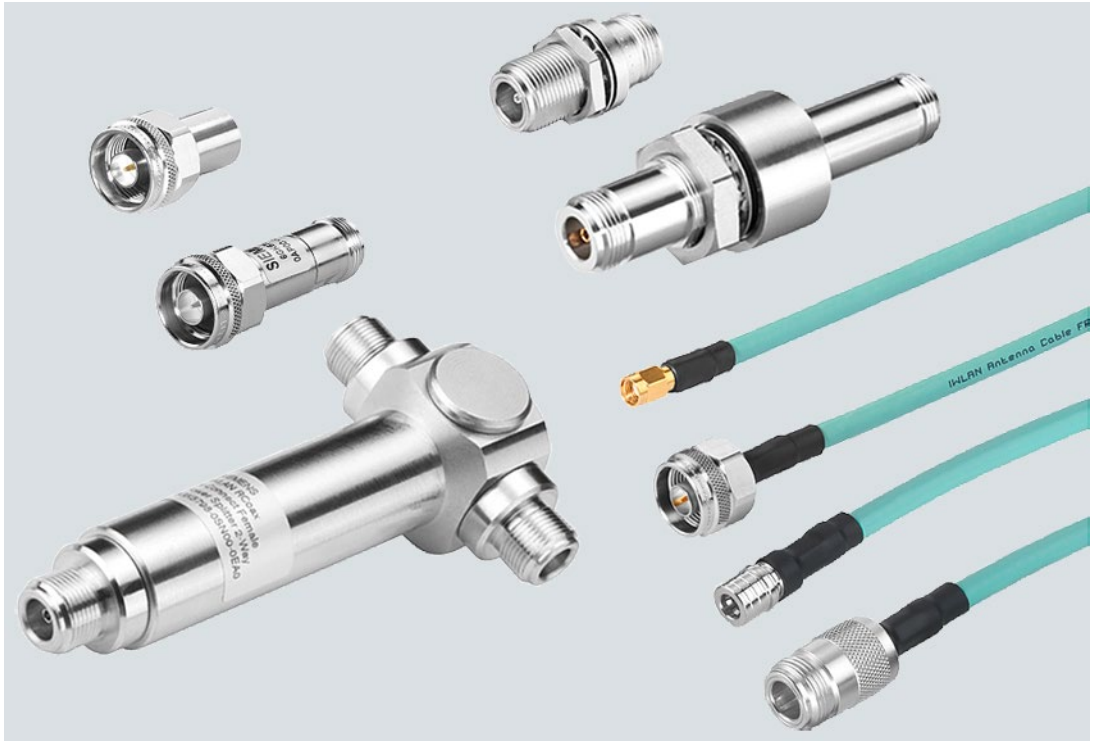

Figure 1-1 IWLAN product overview

Certification

The products and systems listed in this document are manufactured and marketed using a quality management system complying with DIN ISO 9001 (Certificate Register no. 2613) and certified by DQS. The DQS certificate is recognized in all IQNet countries (reg. no.: 2613).

Cybersecurity notes

Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial cybersecurity measures that may be implemented, please visit
https://www.siemens.com/cybersecurity-industry
(https://www.siemens.com/industrialsecurity).

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under
https://new.siemens.com/cert (https://new.siemens.com/cert).

Device defective

If a fault develops, send the device to your SIEMENS representative for repair. Repairs on-site are not possible.

Decommissioning

Shut down the device properly to prevent unauthorized persons from accessing confidential data in the device memory.

To do this, restore the factory settings on the device.

Also restore the factory settings on the storage medium.

Recycling and disposal

The products are low in pollutants, can be recycled and meet the requirements of the WEEE directive 2012/19/EU for the disposal of electrical and electronic equipment.

Do not dispose of the products at public disposal sites.

For environmentally friendly recycling and the disposal of your old device contact a certified disposal company for electronic scrap or your Siemens contact (Product return (https://support.industry.siemens.com/cs/ww/en/view/109479891)).

Note the different national regulations.

SIMATIC NET glossary

The SIMATIC NET glossary describes terms that may be used in this document.

You will find the SIMATIC NET glossary in the Siemens Industry Online Support at the following address:

50305045 (https://support.industry.siemens.com/cs/ww/en/view/50305045)

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- SCALANCE
- SINEMA
- SINEC

Product overview

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This section introduces you to coaxial components for IWLAN and Industrial 5G applications. You will find technical specifications in the section "Technical specifications (Page 21)".

2.1 Coaxial HF components

2.1.1 Overview

The following passive components are available:

Flexible connection cables

Flexible connection cable N-Connect male/male Flexible connection cable e.g. for connecting antennas, suitable for IWLAN and mobile wireless. Pre-assembled with two N-Connect male connections. • 6XV1875-5AH10 (length 1 m) • 6XV1875-5AH20 (length 2 m) • 6XV1875-5AH50 (length 5 m) • 6XV1875-5AN10 (length 10 m)	
Flexible connection cable N-Connect/R-SMA male/male Flexible connection cable for connecting an access point antenna (RCoax and others) to a SCALANCE W device. Pre-assembled with N-Connect and R-SMA male/male connections. • 6XV1875-5CE30 (length 0.3m) • 6XV1875-5CH10 (length 1 m) • 6XV1875-5CH20 (length 2 m) • 6XV1875-5CH50 (length 5 m) • 6XV1875-5CN10 (length 10 m)	

Flexible connection cable R-SMA/ SMA male/male Flexible connection cable for components with R-SMA and SMA connector. Pre-assembled with R-SMA/ SMA male/male connections. • 6XV1875-5DE30 (length 0.3 m) • 6XV1875-5DH20 (length 2 m)	
Flexible connection cable N-Connect/SMA male/male Flexible connection cable for connecting a mobile wireless antenna to a SCALANCE M device. Pre-assembled with N-Connect and SMA male/male connections. • 6XV1875-5LE30 (length 0.3 m) • 6XV1875-5LH10 (length 1 m) • 6XV1875-5LH20 (length 2 m) • 6XV1875-5LH50 (length 5 m) • 6XV1875-5LN10 (length 10 m)	

Flexible connection cables for railway applications

Flexible connection cable N-Connect male/male Flexible connection cable, e.g. for connecting antennas; suitable for IWLAN and mobile wireless; for railway applications. Pre-assembled with two N-Connect male/male connections: • 6XV1875-5SH10 (length 1 m) • 6XV1875-5SH20 (length 2 m) • 6XV1875-5SH50 (length 5 m)	
Flexible connection cable N-Connect/ R-SMA male/male Flexible connection cable e.g. for access point antenna, suitable for railway applications. Pre-assembled with N-Connect/ R-SMA male/male connections: • 6XV1875-5TH10 (length 1 m) • 6XV1875-5TH20 (length 2 m) • 6XV1875-5TH30 (length 3 m) • 6XV1875-5TH50 (length 5 m)	
Flexible connection cable N-Connect/SMA male/male Flexible connection cable e.g. for SCALANCE M antenna, suitable for railway applications. Pre-assembled with N-Connect/ SMA male/male connections: • 6XV1875-5UH10 (length 1 m) • 6XV1875-5UH20 (length 2 m) • 6XV1875-5UH50 (length 5 m)	

Termination resistors

N-Connect male termination resistor TI795-1N N-Connect termination resistor for RCoax cables and open radio interfaces an SCALANCE devices, 2.4 and 5 GHz, IP65, 0 ... 6 GHz, impedance 50 ohms • 6GK5795-1TN00-1AA0	
R-SMA male termination resistor TI795-1R R-SMA termination resistor for RCoax cables and open radio interfaces to SCALANCE devices, 2.4 and 5 GHz, IP65, 0 ... 6 GHz, impedance 50 ohms 1 pack of 3 • 6GK5795-1TR10-0AA6	
SMA male termination resistor TI898-1U SMA termination resistor for RCoax cables and open radio interfaces on SCALANCE devices, 2.4 and 5 GHz, IP65, 0 ... 6 GHz, impedance 50 ohms 1 pack = 2 items • 6GK5898-1TU00-1AA0	

Lightning protectors

Lightning protector with N-Connect female/female LP798-2N Lightning protector with maintenance-free quarter-wave technology for SCALANCE antennas for frequencies in the range 2 ... 6 GHz, IP65, -40...+85 °C • 6GK5798-2LP10-2AA6	
Lightning protector with N-Connect female/female LP798-1N Lightning protector with gas discharge technology for SCALANCE antennas, also suitable for DC transmission with the flexible connection cable; for frequencies in the range 0 ... 6 GHz, IP66/68, -40...+85 °C • 6GK5798-2LP00-2AA6	

Panel feedthroughs

N-Connect female/female panel feedthrough Panel feedthrough/adapter, 2.4 and 5 GHz, for wall thicknesses up to max. 4.5 mm • 6GK5798-2PP00-2AA6	
N-Connect/SMA female/female panel feedthrough Panel feedthrough, 2.4 and 5 GHz, with mounting flange for wall thicknesses up to max. 5.5 mm • 6GK5798-0PT00-2AA0	

Attenuator

N-Connect male/female attenuator 10 dB Attenuator with N-Connect male/female connections • 6GK5798-0AP00-4CA0	

Power splitter

N-Connect female power splitter 2-way Two-way power splitter, Y element for splitting the RCoax cable or for the use of two antennas on one radio interface, 2.4 and 5 GHz • 6GK5798-0SN00-0EA0	

HF coupler

N-Connect male/male coupler HF coupling with two N-Connect male/male connections, e.g. for connecting two RCoax cables • 6GK5798-0CP00-1AA0	

HF angle adapter

R-SMA male/female angle adapter 90° angle adapter with R-SMA male/female connections • 6GK5798-1CS00-4AA0	
SMA male/female angle adapter 90° angle adapter with SMA male/female connectors • 6GK5898-1CV00-4AA0	

HF adapter

SMA/SMB adapter Adapter with SMA female to SMB male connections • 6GK5898-0CX00-2AA0	

2.1.2 Area of application

Flexible connection cables

- The flexible RCoax/antenna connection cables are required for connecting RCoax segments or antennas to active devices.
- The cables provide low attenuation so that the quality of the wireless signal is only minimally impaired.
- The antenna cables are flame retardant, chemical resistant and silicone-free.

Termination resistors

- Termination resistors are required to terminate unused antenna ports on the active components (e.g. access point and client or mobile router).
- RCoax segments must be terminated at the end with a termination resistor.

Lightning protectors

When using separate antennas outdoors, there is a risk of lightning strikes. To protect the equipment, a lightning protector can be used.

Panel feedthroughs

The panel feedthroughs along with the antenna connection cables allow simple connection of separately installed antennas and the active components installed in cabinets or cubicles.

Attenuator

The 10 dB attenuator is always used when the transmitted power both in the send and receive direction needs to be reduced. Typical areas of application are short RCoax segments or directional wireless links that need to be restricted in terms of spread.

Power splitter

With the aid of the power splitter, the transmit power of an access point is distributed over two RCoax or antenna segments. This allows wireless coverage in two different areas with only one access point.

Adapter and angle adapter

The watertight adapters for various connections are suitable for coaxial connections for transmitting average power at high frequencies and are designed for a high number of plug-in cycles.

Product variants

Flexible connection cables

- Prefabricated cable lengths from 0.3 m to 10 m
- Different connector types and combinations:
  - N-Connect
  - R-SMA
  - SMA

Termination resistors

- TI795-1R: Termination resistor for R-SMA antenna sockets
- TI795-1N: Termination resistor for N-Connect antenna sockets or RCoax segments
- TI898-1U: Termination resistor for SMA antenna sockets

Lightning protectors

- LP798-2N

  Maintenance-free lightning protector for N-Connect connectors:
  - Quarter wave technology (lambda quarter) for the frequency range 2 to 6 GHz
  - Forms a short-circuit for direct voltages so that all kinds of overvoltages can be diverted reliably
  - Not suitable for DC supply via antenna cable
- LP798-1N

  Lightning protector for N-Connect connectors:
  - With gas discharge protector for the frequency range 0 to 6 GHz for N-Connect connectors
  - Suitable for DC supply via antenna cable

Panel feedthroughs

- N-Connect female/SMA female with mounting flange for wall thicknesses up to max. 5.5 mm.
- N-Connect female/female without flange for wall thicknesses up to max. 4.5 mm. This can also be used as a coupling between two antenna connection cables.

Attenuator

- N-Connect male/female

Angle adapter

- R-SMA male/female
- SMA male/female

Adapter

- SMA female to SMB male

2.2 Further passive components

2.2.1 Antennas

Product connections

The products described up to this point are used to connect the following passive components to access points and clients or mobile routers:

Type	Properties	Article number
ANT792-4DN	IWLAN antenna for RCoax systems 4 dBi Helix antenna, circular polarizing clockwise; incl. N-Connect female, IP65, -40 ... +70 °C; 2.4 GHz	6GK5792-4DN00-0AA6
ANT792-6MN	IWLAN antenna with omnidirectional characteristic incl. N-Connect female, 6 dBi, IP67, -40 ... +70 °C; 2.4 GHz; mast/wall mounting, Wi-Fi compliance and national approvals to be observed; scope of delivery: 1x ANT792-6MN, 1x termination resistor TI795-1R	6GK5792-6MN00-0AA6
ANT792-8DN	IWLAN antenna with strong directivity incl. N-Connect female, 14 dBi, IP23, outdoor, -40 ... +70 °C; 2.4 GHz, mast/wall mounting, Wi-Fi compliance and national approvals to be observed; scope of delivery: 1x ANT792-8DN, 1x mounting aid for alignment	6GK5792-8DN00-0AA6
ANT793-4MN	IWLAN antenna for RCoax systems; Lambda/4 with omnidirectional characteristic, 6 dBi, incl. N-Connect female, IP65, -40 ... +70°C, 5GHz	6GK5793-4MN00-0AA6
ANT793-6DG	IWLAN antenna dual-slant with weak directivity, incl. 2 x N-Connect female, 9 dBi, IP66/67, -40 ... +80 °C, 5 GHz, mast/wall mounting, Wi-Fi compliance and national approvals to be observed; scope of delivery: 1x ANT793-6DG, 1x mounting aid for alignment	6GK5793-6DG00-0AA0

Type	Properties	Article number
ANT793-8DJ	IWLAN antenna vertical-horizontal polarized with strong directivity incl. 2 x N-Connect female, 18 dBi, IP67, -45 ... +70°C, 5 GHz, mast/wall mounting, Wi-Fi compliance and national approvals to be observed; scope of delivery: 1x ANT793-8DJ, 1x mounting aid for alignment	6GK5793-8DJ00-0AA0
ANT793-8DK	IWLAN antenna vertical-horizontal polarized with strong directivity incl. 2x N-Connect female, 23 dBi, IP67, -45 ... +70°C, 5 GHz, mast/wall mounting, Wi-Fi compliance and national approvals to be observed; scope of delivery: 1x ANT793-8DK, 1x mounting aid for alignment	6GK5793-8DK00-0AA0
ANT793-8DL	IWLAN antenna vertical-horizontal polarized with strong directivity incl. 2x N-Connect female, 14 dBi, IP66, -45 ... +70 °C, 5 GHz, suitable for railway applications, mast/wall mounting, Wi-Fi compliance and national approvals to be observed; scope of delivery: 1x ANT793-8DL, 1x mounting aid for alignment	6GK5793-8DL00-0AA0
ANT793-8DP	IWLAN antenna with strong directivity incl. N-Connect female, 13/13,5 dBi; IP66/67, -40 ... +80 °C; 4.9 to 5.35 GHz, mast/wall mounting, Wi-Fi compliance and national approvals to be observed, scope of delivery: 1x ANT793-8DP, 1x mounting aid for alignment This antenna is not available in Korea	6GK5793-8DP00-0AA0
ANT795-4MA	IWLAN antenna with omnidirectional characteristic, radial rotation, with additional joint, incl. R-SMA connector, 3/5 dBi, IP30, -20 ... +60 °C; 2.4/5 GHz, for direct mounting on device, adjustable angle connector 0° - 180°, Wi-Fi compliance and national approvals to be observed	6GK5795-4MA00-0AA3
ANT795-4MB	IWLAN antenna with omnidirectional characteristic, radial rotation, with additional joint, incl. R-SMA connector, 2/3 dBi, IP65, -20 ... +60 °C; 2.4/5 GHz, for direct mounting on device, adjustable angle connector 0° - 90°, Wi-Fi compliance and national approvals to be observed	6GK5795-4MB00-0AA0
ANT795-4MC	IWLAN antenna with omnidirectional characteristic, incl. N-Connect male straight; 3/5 dBi, IP65, -20 ... +60°C; 2.4/5GHz, for direct mounting on device, straight connection, Wi-Fi compliance and national approvals to be observed	6GK5795-4MC00-0AA3
ANT795-4MD	IWLAN antenna with omnidirectional characteristic, incl. N-Connect male with fixed 90° angle, 3/5 dBi, IP65, -20 ... +60 °C, 2.4/5 GHz, for direct mounting on device, 90° connection, Wi-Fi compliance and national approvals to be observed	6GK5795-4MD00-0AA3

Type	Properties	Article number
ANT795-4MX	Antenna with omnidirectional characteristic, with railway approval, incl. N-Connect male straight, 2/2,5 dBi, IP68/69K, -40 ... +85°C, WLAN 2.4/5 GHz and private 5G networks, for direct mounting on device, Wi-Fi compliance and national approvals to be observed	6GK5795-4MX00-0AA0
ANT795-6DC	IWLAN antenna with weak directivity, incl. N-Connect female, 9 dBi, IP66/67, -40 ... +80 °C, 2.4/5 GHz, mast/wall mounting, Wi-Fi compliance and national approvals to be observed; scope of delivery: 1x ANT795-6DC, 1x mounting aid for alignment	6GK5795-6DC00-0AA0
ANT795-6MN	Antenna with omnidirectional characteristic, incl. N-Connect female, 6/8dBi, IP65, -40 ... +70 °C, WLAN 2.4/5GHz and private 5G networks, mounting on roof and vehicle, Wi-Fi compliance and national approvals to be observed; scope of delivery: 1x ANT795-6MN, 6GK5795-6MN01-0AA6 kit is available as mounting aid	6GK5795-6MN10-0AA6
ANT795-6MP	IWLAN antenna with omnidirectional characteristic, incl. N-Connect female, 5/7 dBi, IP65/67; -40 ... +80°C, 2.4/5 GHz, mast/wall mounting, Wi-Fi compliance and national approvals to be observed; scope of delivery: 1x ANT795-6MP, 1x mounting aid	6GK5795-6MP00-0AA0
ANT794-4MR	Wireless communication antenna with omnidirectional characteristic, for 2G/3G/4G EU, GSM/UMTS/ LTE EU mobile networks, rod antenna, weatherproof for use indoors and outdoors; 5m connection cable permanently attached to the antenna, incl. SMA connector male; scope of delivery: 1x ANT794-4MR, 1x mounting bracket, fastening material for mounting	6NH98601AA0
ANT895-6ML	GPS antenna with integrated signal amplifier incl. 0.3m connection cable and N-Connect female, 3 dBi, IP67, -40 ... +85 °C, mounting with magnet or screw fastening, observe national approvals	6GK5895-6ML00-0AA0
ANT896-4MA	Mobile wireless antenna with omnidirectional characteristic, incl. SMA connector male, for GSM (2G), UMTS (3G) and LTE(4G) mobile networks; radial rotation, with additional joint, 2 dBi, IP54, -40 ... +85°C, direct mounting, observe national approvals	6GK5896-4MA00-0AA3
ANT896-4ME	Mobile wireless antenna with omnidirectional characteristic, incl. N-Connect female, for GSM (2G), UMTS (3G) and LTE(4G) mobile networks, 3 dBi, IP66, -40 ... +70 °C, mounting on control cabinet, observe national approvals	6GK5896-4ME00-0AA0
ANT896-6MH	Mobile wireless antenna with omnidirectional characteristic, incl. N-Connect female, for GSM (2G), UMTS (3G) and LTE (4G) mobile networks, suitable for railway applications, 5/6 dBi, IP69K -40 ... +85 °C, mounting on vehicle roof, observe national approvals	6GK5896-6MH00-0AA0

Type	Properties	Article number
ANT897-1NY	Mobile wireless antenna with omnidirectional characteristic, for public and private 5G/4G/3G/2G mobile networks, with 2 antenna elements incl. 2x 3 m cable with SMA connections male, 0-2 dBi, 0.7 ... 4.2 GHz, IP69K; -30 ... +70 °C, mounting on non-conductive surface on roof and vehicle, observe national approvals	6GK5897-1NY00-0AA0
ANT897-4MA	Mobile wireless antenna with omnidirectional characteristic, incl. SMA connector male, radial rotation with additional joint, for public 3G/4G/5G mobile networks and private 5G networks world-wide, 1 ... 2 dBi, 0.6 ... 5 GHz, IP65, -20 ... +65 °C, direct mounting, observe national approvals	6GK5897-4MA00-0AA3
ANT897-4MC	Mobile wireless antenna with omnidirectional characteristic, incl. N-Connect male, for GSM (2G), UMTS (3G) and for public 3/4/5G mobile networks and private 5G mobile networks world-wide, 2 ... 3 dBi, 0.6 ... 5 GHz, IP67, -30 ... +70 °C, direct mounting, observe national approvals	6GK5897-4MC00-0AA0
ANT897-4ME	Antenna with omnidirectional characteristic, for public 3/4/5G mobile networks and private 5G-networks and WLAN 2.4/5GHz, world-wide, 0.6 ...6 GHz, 2 ... 6 dBi, incl. N-Connect female, IP65, -40 ... +85 °C, mast/wall mounting, observe national approvals; scope of delivery: 1x ANT897-4ME, 1x mounting bracket	6GK5897-4ME00-0AA0
ANT897-5FF	Mobile wireless antenna with weak directivity for private 5G mobile networks with 4 antenna elements incl. 4x N-Connect female, 3.4 ... 4.2 GHz, 9 dBi, IP66, -40 ... +80 °C, for mounting on mast and rail, observe national approvals; scope of delivery: 1x ANT897-5FF, fastening material for mounting	6GK5897-5FF00-0AA0
ANT897-5PN	Antenna with omnidirectional characteristic, for private 5G mobile networks and WLAN with 4 antenna elements incl. 4x cable with N-Connect female, 2.3 ... 7.2 GHz, 4 ... 6 dBi, staggered cable lengths 20 ... 27 cm, IP69K, -30 ... +70 °C, mounting on roof, vehicle and ceiling, observe national approvals	6GK5897-5PN00-0AA0

Note

You will find further information in the compact operating instructions of the individual components.

2.2.2 RCoax cables

Component	Description	Article number
IWLAN RCoax cable 1/2"	Radiating cable for areas with difficult wireless conditions as a special antenna for SCALANCE W access points. For the extended temperature range -40 °C ... + 85 °C. Sold by the meter, minimum order 20 meters	
	2.4 GHz	6XV1875-2A
	5 GHz	6XV1875-2D

Note

Further information

You will find further information in the system manual for RCoax (https://support.industry.siemens.com/cs/de/en/view/84922825).

2.3 Active components

Note

You can find current overviews of the active components in the Industry Mall:

- Industrial WLAN (www.siemens.com/mall-iwlan)
- Industrial 5G Infrastructure (www.siemens.com/mall-industrial-5g)
- Industrial Remote Networks (www.siemens.com/mall-modems-and-routers)

You can find an overview of the product families on the SIEMENS Industrial Communication (https://www.siemens.com/global/en/products/automation/industrial-communication.html) website. From there, you can access the individual products and application examples.

You can find detailed documentation on these products on the website Siemens Industry Online Support (https://support.industry.siemens.com/cs/ww/en/). Enter the name or article number of the product in the search filter.

You can find information about further accessories for cabling in the Passive Network Components System Manual (https://support.industry.siemens.com/cs/ww/de/view/109480868).

You can find information on RCoax cables and their accessories in the RCoax System Manual (https://support.industry.siemens.com/cs/ww/de/view/109480869/en).

Technical specifications

3

Note

The following tightening torques apply to the connectors:

- with N-Connect connectors: 1.7 Nm
- with SMA/R-SMA connectors: 1 Nm

Note

Installation outdoors

Protect the connectors from environmental influences (e.g. with self vulcanizing adhesive tape or a shrink-on hose).

3.1 Flexible connecting cables

Note

The flexible connecting cable is intended for connection of fixed and mobile users where the permitted bend radiuses are only seldom reached.
(Examples:

- Connection of a client on a vehicle, where the cable vibrates but is not permanently bent.
- Connection of an antenna to an access point when the antenna is occasionally aligned so that the cable position is changed).

The flexible connecting cable is not designed for continuous bending or twisting.

3.1.1 Flexible connection cable N-Connect male/male

Flexible connection cable for connecting an RCoax cable or an antenna to a SCALANCE device with N-Connect connections.

Technical specifications		
Article numbers	1 m	6XV1875-5AH10
	2 m	6XV1875-5AH20
	5 m	6XV1875-5AH50
	10 m	6XV1875-5AN10
Electrical data		
Impedance		50 Ω

Technical specifications		
Ratio of propagation speed		82%
Capacitance		82 pF/m
Return loss		≥ 23 dB
Frequency		≤ 6 GHz
Attenuation (1)	at 2.4 GHz	0.53 dB/m
	at 5.1 GHz	0.83 dB/m
	at 5.7 GHz	0.88 dB/m
Resistance to fire		
Flame retardant		UL 1685 (vertical tray) and UL 1581, Sec. 1090 (H)
Dimensions, materials and weight		
Number of plug-in connections		2
Outer diameter		6.3 mm
Materials	Inner conductor	• Silver-coated copper • Diameter: 1.4 mm
	Dielectric	• Polyethylene foam • Diameter: 3.8 mm
	Inner metal screen	• Tin plated copper wires with a wire diameter of 0.13 mm • Area coverage 95% • Diameter: 4.3 mm
	Outer metal shield	• Tin plated copper wires with a wire diameter of 0.13 mm • Area coverage 95% • Diameter: 4.8 mm
	Cable jacket	• Thermoplastic copolymer,pastel turquoise • Diameter: 6.3 mm • Jacket thickness: 0.76 mm
Degree of protection		IP67
Silicone-free		yes
Halogen-free		yes
UV resistant		resistant
Weight		0.075 kg/m
Permitted ambient conditions		
Ambient temperature		-40 °C ... +80 °C
Mechanical data		
Smallest bend radius	when bending once	3.2 cm
	when bending more than once	4.5 cm
Tensile strength		30 ... 80 N

(1) The specified attenuation values relate only to the cable without connectors. For the assembled cable, approximately 0.1 dB at 2.4 GHz and approximately 0.3 dB at 5 GHz must be added per plug-in connector.

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameter is specified in inches.

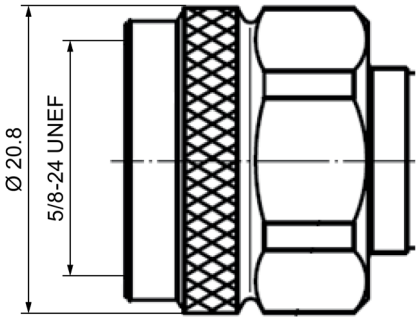


Figure 3-1 N-Connect male

3.1.2 Flexible connection cable N-Connect/R-SMA male/male

Flexible connection cable for connecting an RCoax cable or an antenna to a SCALANCE device with R-SMA connectors. Pre-assembled with two connectors N-Connect male and R-SMA male.

Technical specifications		
Article numbers	0.3 m	6XV1875-5CE30
	1 m	6XV1875-5CH10
	2 m	6XV1875-5CH20
	5 m	6XV1875-5CH50
	10 m	6XV1875-5CN10
Electrical data		
Impedance		50 Ω
Ratio of propagation speed		82%
Capacitance		82 pF/m
Return loss		≥ 23 dB
Frequency		≤ 6 GHz
Attenuation (1)	at 2.4 GHz	0.53 dB/m
	at 5.1 GHz	0.83 dB/m
	at 5.7 GHz	0.88 dB/m
Resistance to fire		
Flame retardant		UL 1685 (vertical tray) and UL 1581, Sec. 1090 (H)
Dimensions, materials and weight		
Number of plug-in connections		2
Outer diameter		6.3 mm
Materials	Inner conductor	• Silver-coated copper • Diameter: 1.4 mm
	Dielectric	• Polyethylene foam • Diameter: 3.8 mm
	Inner metal screen	• Tin plated copper wires with a wire diameter of 0.13 mm • Area coverage 95% • Diameter: 4.3 mm
	Outer metal shield	• Tin plated copper wires with a wire diameter of 0.13 mm • Area coverage 95% • Diameter: 4.8 mm
	Cable jacket	• Thermoplastic copolymer,pastel turquoise • Diameter: 6.3 mm • Jacket thickness: 0.76 mm
Degree of protection		IP67
Silicone-free		yes
Halogen-free		yes

Technical specifications		
UV resistant		resistant
Weight		0.075 kg/m
Permitted ambient conditions		
Ambient temperature		-40 °C ... +80 °C
Mechanical data		
Smallest bend radius	when bending once	3.2 cm
	when bending more than once	4.5 cm
Tensile strength		30 ... 80 N

(1) The specified attenuation values relate only to the cable without connectors. For the assembled cable, approximately 0.1 dB at 2.4 GHz and approximately 0.3 dB at 5 GHz must be added per plug-in connector.

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameter is specified in inches.

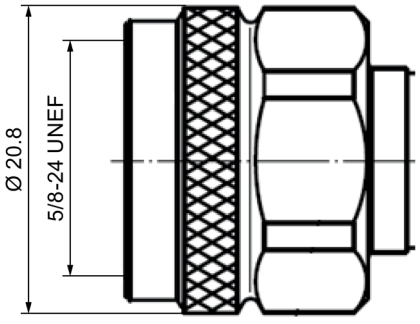


Figure 3-2 N-Connect male

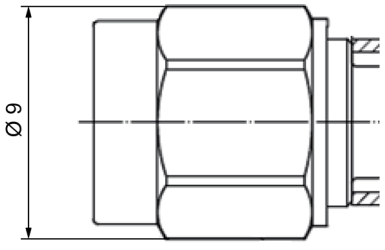


Figure 3-3 R-SMA male

3.1.3 Flexible connection cable R-SMA/SMA male/male

Flexible connecting cable for connecting an active device to components with R-SMA and SMA connectors, for example panel feedthrough. Preassembled with two R-SMA male to SMA male connectors:

Technical specifications		
Article numbers	0.3 m	6XV1875-5DE30
	2 m	6XV1875-5DH20
Electrical data		
Impedance		50 Ω
Ratio of propagation speed		82%
Capacitance		82 pF/m
Return loss		≥ 23 dB
Frequency		≤ 6 GHz
Attenuation (1)	at 2.4 GHz	0.53 dB/m
	at 5.1 GHz	0.83 dB/m
	at 5.7 GHz	0.88 dB/m
Resistance to fire		
Flame retardant		UL 1685 (vertical tray) and UL 1581, Sec. 1090 (H)
Dimensions, materials and weight		
Number of plug-in connections		2
Outer diameter		6.3 mm
Materials	Inner conductor	• Silver-coated copper • Diameter: 1.4 mm
	Dielectric	• Polyethylene foam • Diameter: 3.8 mm
	Inner metal screen	• Tin plated copper wires with a wire diameter of 0.13 mm • Area coverage 95% • Diameter: 4.3 mm
	Outer metal shield	• Tin plated copper wires with a wire diameter of 0.13 mm • Area coverage 95% • Diameter: 4.8 mm
	Cable jacket	• Thermoplastic copolymer,pastel turquoise • Diameter: 6.3 mm • Jacket thickness: 0.76 mm
Degree of protection		IP67
Silicone-free		yes
Halogen-free		yes
UV resistant		resistant
Weight		0.075 kg/m
Permitted ambient conditions		

Technical specifications		
Ambient temperature		-40 °C ... +80 °C
Mechanical data		
Smallest bend radius	when bending once	3.2 cm
	when bending more than once	4.5 cm
Tensile strength		30 ... 80 N

(1) The specified attenuation values relate only to the cable without connectors. For the assembled cable, approximately 0.1 dB at 2.4 GHz and approximately 0.3 dB at 5 GHz must be added per plug-in connector.

Dimension drawing

The dimensions are specified in mm.

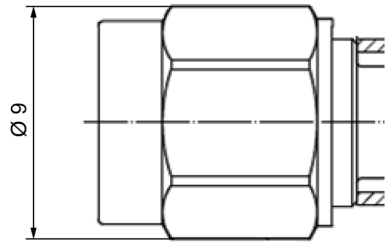


Figure 3-4 R-SMA/SMA male

3.1.4 Flexible connection cable N-Connect/SMA male/male

Flexible connection cable for connecting an RCoax cable or an antenna to a SCALANCE device with SMA connectors. Pre-assembled with two connectors N-Connect male and SMA male.

Technical specifications		
Article numbers	0.3 m	6XV1875-5LE30
	1 m	6XV1875-5LH10
	2 m	6XV1875-5LH20
	5 m	6XV1875-5LH50
	10 m	6XV1875-5LN10
Electrical data		
Impedance		50 Ω
Ratio of propagation speed		82%
Capacitance		83 pF/m
Return loss		≥ 23 dB
Frequency		≤ 6 GHz
Attenuation (1)	at 2.4 GHz	0.53 dB/m
	at 5.1 GHz	0.83 dB/m
	at 5.7 GHz	0.89 dB/m
Resistance to fire		
Flame retardant		UL 1685 (vertical tray) and UL 1581, Sec. 1090 (H)
Dimensions, materials and weight		
Number of plug-in connections		2
Outer diameter		6.3 mm
Materials	Inner conductor	• Copper • Diameter: 1.4 mm
	Dielectric	• Polyethylene foam • Diameter: 3.8 mm
	Inner metal screen	• Tin plated copper wires with a wire diameter of 0.13 mm • Area coverage 95% • Diameter: 4.3 mm
	Outer metal shield	• Tin plated copper wires with a wire diameter of 0.13 mm • Area coverage 95% • Diameter: 4.8 mm
	Cable jacket	• FRNC, pastel turquoise • Diameter: 6.3 mm • Jacket thickness: 0.76 mm
Degree of protection		IP67
Silicone-free		yes
Halogen-free		yes

Technical specifications		
UV resistant		resistant
Weight		0.075 kg/m
Permitted ambient conditions		
Ambient temperature	During operation	-40 °C ... +80 °C
	During storage	-40 °C ... +80 °C
	During transportation	-40 °C ... +80 °C
	During mounting	-25 °C ... +80 °C
Mechanical data		
Smallest bend radius	when bending once	3.2 cm
	when bending more than once	4.5 cm
Maximum tensile strength		80 N

(1) The specified attenuation values relate only to the cable without connectors. For the assembled cable, approximately 0.1 dB at 2.4 GHz and approximately 0.3 dB at 5 GHz must be added per plug-in connector.

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameter is specified in inches.

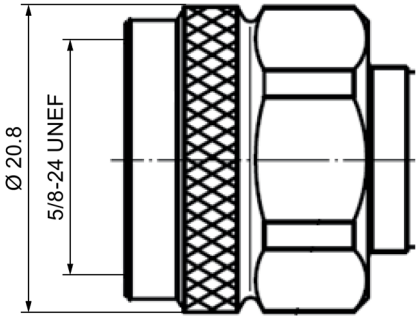


Figure 3-5 N-Connect male

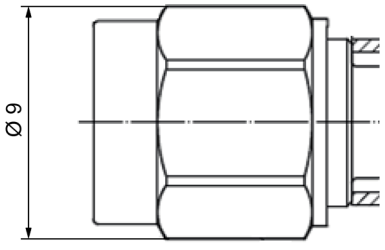


Figure 3-6 R-SMA male

3.1.5 Flexible connection cable N-Connect male/male (railway applications)

Flexible connection cable for connecting an antenna to a SCALANCE device with N-Connect, suitable for IWLAN and mobile wireless. Preassembled with two N-Connect connectors. Suitable for railway applications.

Technical specifications		
Article numbers	1 m	6XV1875-5SH10
	2 m	6XV1875-5SH20
	5 m	6XV1875-5SH50
Electrical data		
Impedance		50 Ω
Ratio of propagation speed		83%
Capacitance		80.2 pF/m
Return loss		≥ 23 dB
Frequency		≤ 6 GHz
Attenuation (1)	at 2.4 GHz	0.47 dB/m
	at 5.1 GHz	0.77 dB/m
	at 5.7 GHz	0.83 dB/m
Resistance to fire		
Fire prevention		According to DIN 5510-2, NF F 16-101
Standard for fire behavior		
Smoke emission		EN 61034-2
Flame resistance		EN 60332-1-2, IEC 60332-3-22, EN 50305,9.1.2
Toxic gas emission		NF-X 70-100
Dimensions, materials and weight		
Number of plug-in connections		2
Outer diameter		5.5 mm
Materials	Inner conductor	• Silver-coated copper • Diameter: 1.4 mm
	Dielectric	• SPEX • Diameter: 3.8 mm
	Cable jacket	• RADOX, black • Diameter: 5.5 mm
Degree of protection		IP67
Silicone-free		yes
Halogen-free		yes
UV resistant		resistant
Weight		47.8 kg/km
Permitted ambient conditions		
Ambient temperature		-30 °C ... +100 °C
Mechanical data		
Smallest bend radius	when bending once	2.5 cm
	when bending more than once	9 cm

Technical specifications	
Number of bending cycles	50
Tensile strength	30 ... 80 N

(1) The specified attenuation values relate only to the cable without connectors. For the assembled cable, approximately 0.1 dB at 2.4 GHz and approximately 0.3 dB at 5 GHz must be added per plug-in connector.

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameter is specified in inches.

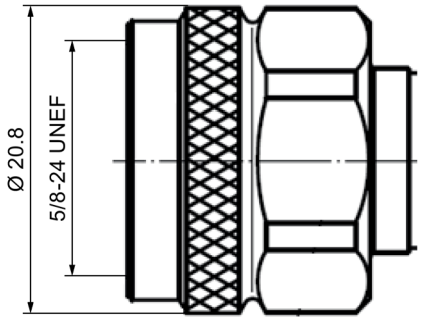


Figure 3-7 N-Connect male

3.1.6 Flexible connection cable N-Connect/R-SMA male/male (railway applications)

Flexible connection cable for connecting an RCoax cable or an antenna to a SCALANCE device with R-SMA connectors. Pre-assembled with two connectors N-Connect male and R-SMA male. Suitable for railway applications.

Technical specifications		
Article numbers	1 m	6XV1875-5TH10
	2 m	6XV1875-5TH20
	3 m	6XV1875-5TH30
	5 m	6XV1875-5TH50
Electrical data		
Impedance		50 Ω
Ratio of propagation speed		83%
Capacitance		80.2 pF/m
Return loss		≥ 23 dB
Frequency		6 GHz
Attenuation (1)	at 2.4 GHz	0.47 dB/m
	at 5.1 GHz	0.77 dB/m
	at 5.7 GHz	0.83 dB/m
Resistance to fire		
Fire prevention		According to DIN 5510-2, NF F 16-101
Standard for fire behavior		
Smoke emission		EN 61034-2
Flame resistance		EN 60332-1-2, IEC 60332-3-22, EN 50305,9.1.2
Toxic gas emission		NF-X 70-100
Dimensions, materials and weight		
Number of plug-in connections		2
Outer diameter		5.5 mm
Materials	Inner conductor	• Silver-coated copper • Diameter: 1.4 mm
	Dielectric	• SPEX • Diameter: 3.8 mm
	Cable jacket	• RADOX, black • Diameter: 5.5 mm
Degree of protection		IP67
Silicone-free		yes
Halogen-free		yes
UV resistant		resistant

Technical specifications		
Weight		47.8 kg/km
Permitted ambient conditions		
Ambient temperature		-30 °C ... +100 °C
Mechanical data		
Smallest bend radius	when bending once	2.5 cm
	when bending more than once	9.0 cm
Number of bending cycles		50
Tensile strength		30 ... 80 N

(1) The specified attenuation values relate only to the cable without connectors. For the assembled cable, approximately 0.1 dB at 2.4 GHz and approximately 0.3 dB at 5 GHz must be added per plug-in connector.

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameter is specified in inches.

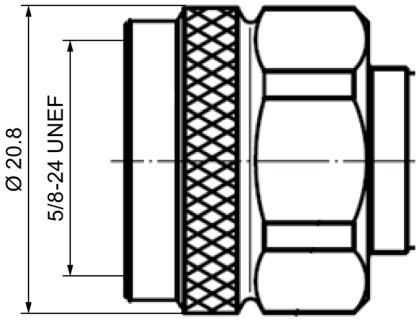


Figure 3-8 N-Connect male

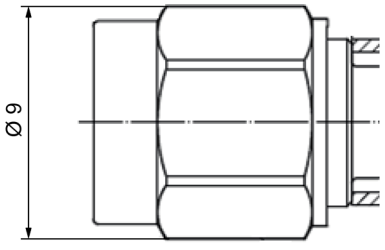


Figure 3-9 R-SMA male

3.1.7 Flexible connection cable N-Connect/SMA male/male (railway applications)

Flexible connection cable for connecting an RCoax cable or an antenna to a SCALANCE device with SMA connectors. Pre-assembled with two connectors N-Connect male and SMA male. Suitable for railway applications.

Technical specifications		
Article numbers	1 m	6XV1875-5UH10
	2 m	6XV1875-5UH20
	5 m	6XV1875-5UH50
Electrical data		
Impedance		50 Ω
Ratio of propagation speed		83%
Capacitance		80.2 pF/m
Return loss		≥ 23 dB
Frequency		≤ 6 GHz
Attenuation (1)	at 2.4 GHz	0.47 dB/m
	at 5.2 GHz	0.77 dB/m
	at 5.85 GHz	0.83 dB/m
Resistance to fire		
Flame retardant		UL 1685 (vertical tray) and UL 1581, Sec. 1090 (H)
Dimensions, materials and weight		
Number of plug-in connections		2
Outer diameter		5.5 mm
Materials	Inner conductor	• Copper, silver-plated • Diameter: 1.4 mm
	Dielectric	• Polyethylene foam • Diameter: 3.8 mm
	Inner metal screen	• Tin plated copper wires with a wire diameter of 0.13 mm • Area coverage 95% • Diameter: 4.3 mm
	Outer metal shield	• Tin plated copper wires with a wire diameter of 0.13 mm • Area coverage 95% • Diameter: 4.8 mm
	Cable jacket	• RADOX, black • Diameter: 5.5 mm • Jacket thickness: 0.76 mm
Degree of protection		IP67
Silicone-free		yes
Halogen-free		yes
UV resistant		resistant
Weight		0.0478 kg/m

Technical specifications		
Permitted ambient conditions		
Ambient temperature	During operation	-30 °C ... +100 °C
	During storage	-30 °C ... +100 °C
	During transportation	-30 °C ... +100 °C
Mechanical data		
Smallest bend radius	when bending once	3.2 cm
	when bending more than once	4.5 cm
Maximum tensile strength		80 N

(1) The specified attenuation values relate only to the cable without connectors. For the assembled cable, approximately 0.1 dB at 2.4 GHz and approximately 0.3 dB at 5 GHz must be added per plug-in connector.

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameter is specified in inches.

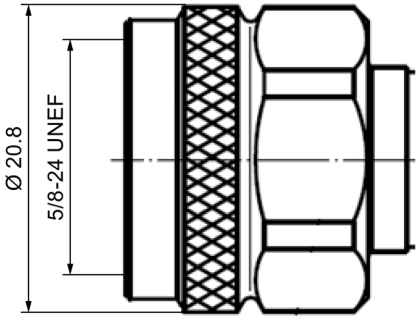


Figure 3-10 N-Connect male

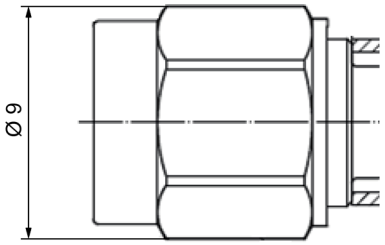


Figure 3-11 R-SMA male

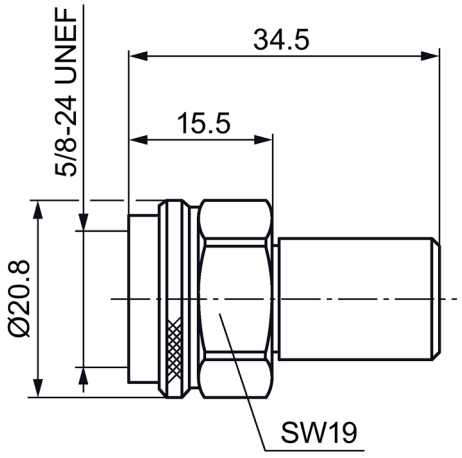
3.2 Termination resistors

3.2.1 N termination resistor 50 Ω – male

Technical specifications					
Article number		6GK5795-1TN00-0AA6			
Electrical data					
Standing wave ratio (VSWR)	f [GHz]	2.0	2.4	4.0	6.0
	Return flow attenuation [dB]	> 35	> 30	> 30	> 35
	VSWR	< 1.036	< 1.064	< 1.064	< 1.118
Frequency range		≤ 6 GHz			
Impedance		50 Ω			
Return loss		< 25 dB/6 GHz			
Power range		< 1 W			
Dimensions, materials and weight					
Number of plug-in connections		1			
Dimensions (length x diameter)		34.5 x 21 mm			
Materials	Inner conductor	• Core material: CuZn39Pb3 • Coating: Cu2Ag5			
	Outer conductor	• Core material: CuZn39Pb3 • Coating: CuSnZn3			
	Other metal parts	• Core material: CuZn39Pb3 • Coating: CuSnZn3			
	Insulation	• PTFE • Silicone-free			
	Seal	• WBR • Silicone-free			
Weight		45 g			
Degree of protection		IP65			
Permitted ambient conditions					
Ambient temperature	During operation	-40 °C ... +70 °C			
	During storage	-40 °C ... +70 °C			
	During transportation	-40 °C ... +70 °C			

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameter is specified in inches.

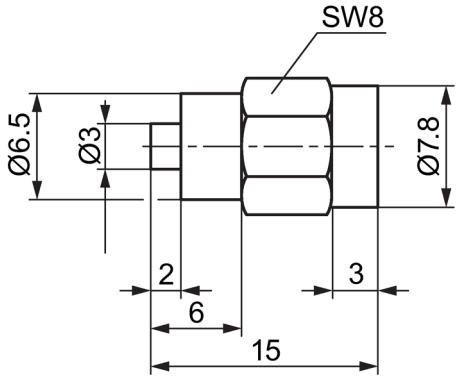


3.2.2 R-SMA termination resistor 50 Ω – male

Technical specifications					
Article number		6GK5795-1TR10-0AA6			
Electrical data					
Frequency range		≤ 6 GHz			
Impedance		50 Ω			
Return loss	Frequency	1 GHz	2 GHz	3 GHz	6 GHz
	Return loss	38 dB	34 dB	28 dB	23 dB
Power range		< 1 W			
Dimensions, materials and weight					
Number of plug-in connections		1			
Dimensions (length x diameter)		15 x 9 mm			
Materials	Inner conductor	• Core material: CuBe2 • Coating: Cu1Ni2Au1.27			
	Outer conductor	• Core material: CuZn39Pb3 • Coating: Cu1Ni2Au1.27			
	Other metal parts	• Core material: CuZn39Pb3 • Coating: Cu2Ni5Au0.8			
	Insulation	• PTFE • Silicone-free			
	Seal	• WBR • Silicone-free			
Weight		5 g			
Degree of protection		IP65			
Permitted ambient conditions					
Ambient temperature	During operation	-40 °C ... +70 °C			
	During storage	-40 °C ... +70 °C			
	During transportation	-40 °C ... +70 °C			

Dimension drawing

The dimensions are specified in mm.

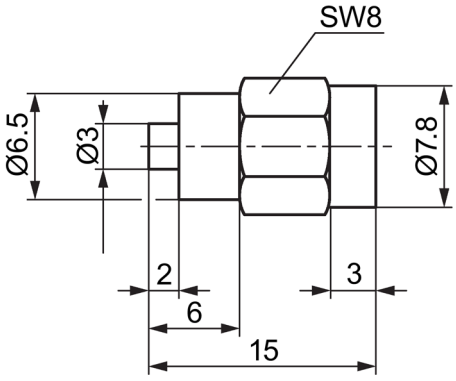


3.2.3 SMA termination resistor 50 Ω – Male

Technical specifications					
Article number		6GK5898-1TU00-1AA0			
Electrical data					
Frequency range		≤ 6 GHz			
Impedance		50 Ω			
Return loss	Frequency	1 GHz	2 GHz	3 GHz	6 GHz
	Return loss	38 dB	34 dB	28 dB	23 dB
Power range		< 1 W			
Dimensions, materials and weight					
Number of plug-in connections		1			
Dimensions (length x diameter)		15 x 9 mm			
Materials	Inner conductor	• Core material: CuZn39Pb3 • Coating: Cu1Ni2Au1.27			
	Outer conductor	• Core material: CuZn39Pb3 • Coating: NiP-Au			
	Other metal parts	• Core material: CuZn39Pb3 • Coating: NiP-Au			
	Insulation	• PTFE • Silicone-free			
	Seal	• Silicone			
Weight		3 g			
Degree of protection		IP68			
Permitted ambient conditions					
Ambient temperature	During operation	-55 °C ... +155 °C			
	During storage	-55 °C ... +155 °C			
	During transportation	-55 °C ... +155 °C			

Dimension drawing

The dimensions are specified in mm.



3.3 Lightning protectors

3.3.1 Lightning protector LP798-1N

Note

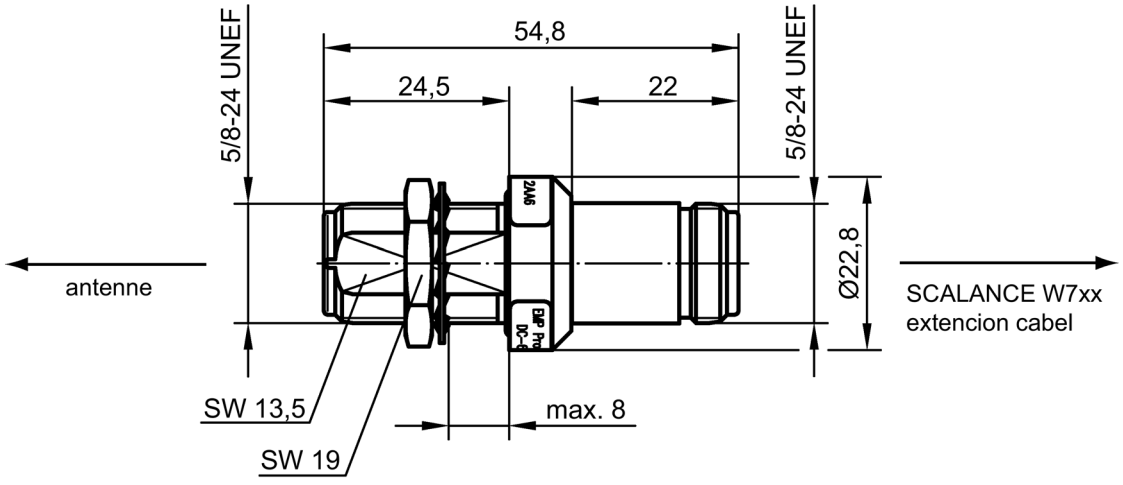
We recommend that you use the maintenance-free lightning protector LP798-2N with low residual voltage.

Exception: When there is also DC power is supplied via the antenna cable. In this case, only use the lightning protector LP798-1N.

Technical specifications	
Article number	6GK5798-2LP00-2AA6
Electrical data	
Frequency range	0 to 6 GHz
Impedance	50 Ω
Operating voltage	< 36 V
Design, dimensions and weight	
Number of plug-in connections	2
Design of the plug-in connector	N-Connector female / female
Dimensions (length x diameter)	54.8 x ∅22.8 mm
Materials	Silicone-free
Degree of protection	IP67
Weight	50 g
Permitted ambient conditions	
Ambient temperature	-40 °C... + 85 °C

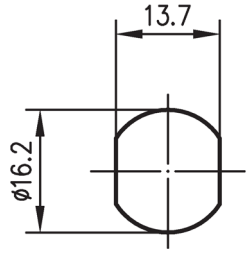
Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameters are specified in inches.



Dimension drawing through hole

The dimensions are specified in mm.

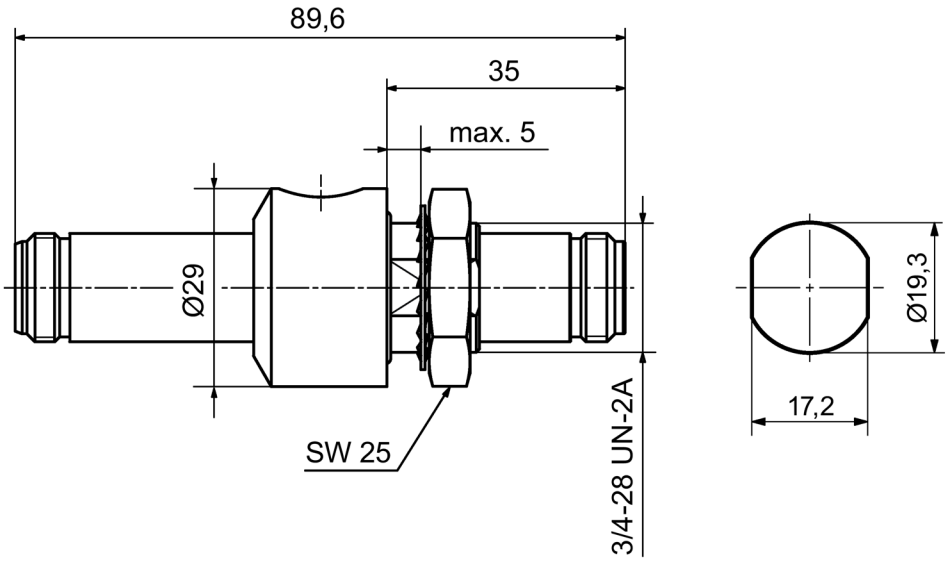


3.3.2 Lightning protector LP798-2N

Technical specifications		
Article number		6GK5798-2LP10-2AA6
Electrical data		
Frequency range		2 to 6 GHz
Impedance		50 Ω
Return loss		≥ 20 dB
Insertion loss		≤ 0.2 dB
RF CW power		≤ 300 W
Peak current capacity test pulse 8/20 µs		50 kA
Residual pulse energy (test pulse 4 kV 1.2/50 µs or 2 kA 8/20 µs)		0.2 µJ
Starting voltage		150 to 250 VDC (100V/s)
Dimensions, materials and weight		
Number of plug-in connections		2
Design of the plug-in connector		N-Connector female / female
Dimensions (length x diameter)		89.6 x ∅29 mm
Materials	Housing material	Aluminum
	Contacts	Copper beryllium alloy with gold coating
	Silicone-free	
Meets 2002/95/EC (RoHS)		
Degree of protection		IP68
Weight		80 g
Permitted ambient conditions		
Ambient temperature		-40 °C ... + 85 °C
Mechanical data		
Ports		N/N female/female
Maximum possible number of assembly procedures		100

Dimension drawing LP798-2N and through hole

All dimensions except thread diameters are in millimeters. The thread diameter is specified in inches.



3.4 Panel feedthroughs

3.4.1 Panel feedthrough N-Connect female/female

Panel feedthrough for wall thicknesses up to a maximum of 4.5 mm, two N-Connect female connectors.

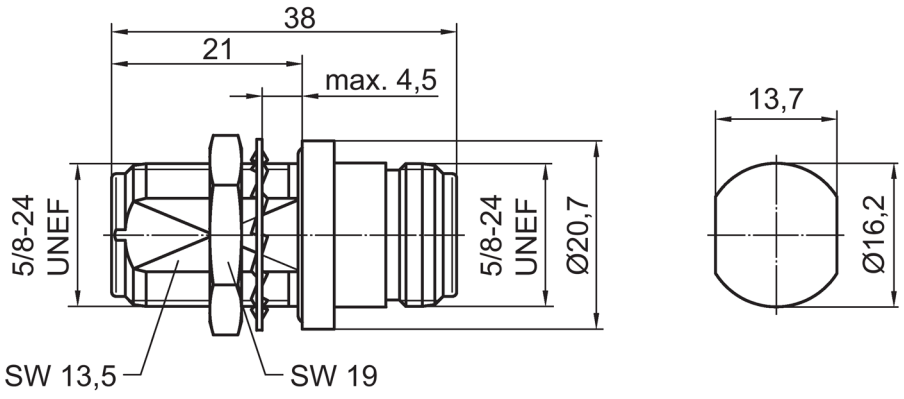
Technical specifications					
Article number		6GK5798-2PP00-2AA6			
Electrical data					
Frequency range		≤ 11 GHz			
Characteristic impedance		50 Ω			
Contact resistance	Inner conductor	≤ 2 mΩ			
	Outer conductor	≤ 0.5 mΩ			
Standing wave ratio (VSWR)	f [GHz]	1	2	4	10
	VSWR	1.018	1.020	1.036	1.094
Recommended coupling torque		4 ... 6 Nm			
Service life (insertions)		≥ 500			
Dimensions and materials					
Dimensions (length x diameter)		38 x ø20.7			
Materials	Inner conductor	Cu2Ag5			
	Outer conductor	• Core material: CuZn39Pb3 • Coating: – CuSnZn3 (Telealloy) – Ag2CuSnZn0.5 (Optargen)			
	Metallic parts	• Core material: • Coating:			
	Insulation	PTFE			
	Seal	Silicone-free			
	Spring contacts	CuBe2, CuPb1.15Ni1 (C97)			
	Other metal parts	• Core material: CuZn39Pb3 • Coating: – CuSnZn3 (Telealloy) – Cu2Ni5			
Meets 2002/95/EC (RoHS)					
Degree of protection		IP68			
Permitted ambient conditions					
Ambient temperature		-30°C... +100 °C			

Note

The N-N adapter also be used as a coupler between two IWLAN RCoax / antenna connecting cables.

Dimension drawing of the feedthrough and through hole

All dimensions except thread diameters are in millimeters. The thread diameters are specified in inches.



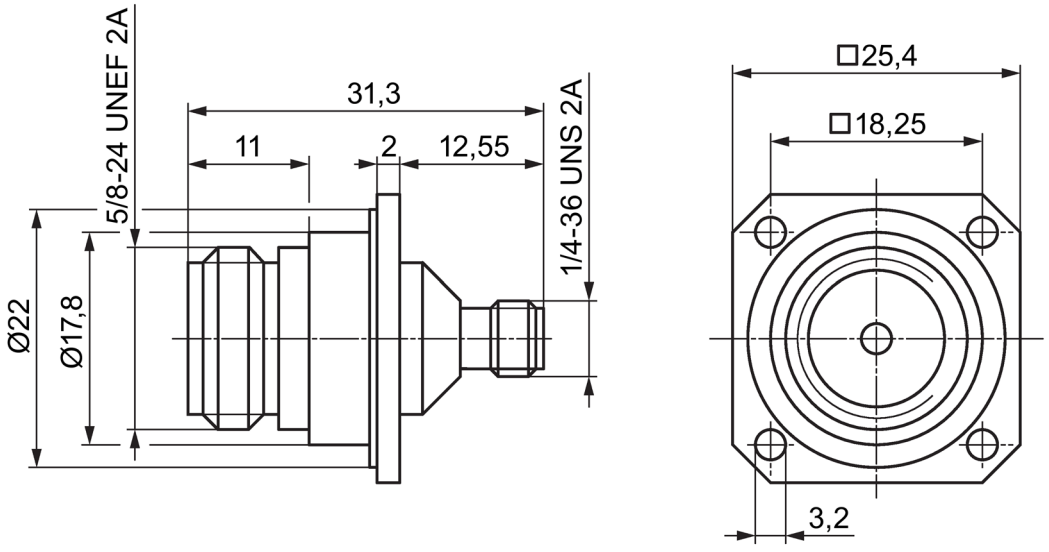
3.4.2 Panel feedthrough N/SMA female/female

Panel feedthrough for wall thicknesses up to a maximum of 5.5 mm, two N-Connect/SMA female connectors.

Technical specifications				
Article number		6GK5798-0PT00-2AA6		
Electrical data				
Standing wave ratio (VSWR)	f [GHz]	1.0	2.0	2.4
	VSWR	1.012	1.088	< 1.171
Dimensions and materials				
Dimensions (length x width x height)		31.3 x 25.4 x 25.4 mm		
Materials	Inner conductor	• Core material: CuBe2 • Coating: Ni2Au1.27		
	Outer conductor N end	• Core material: CuZn39Pb3 • Coating: CuSnZn3		
	Outer conductor SMA end	• Core material: CuZn39Pb3 • Coating: Ni2Au0.8		
	Insulation	• PTFE • Silicone-free		
	Inner seal	Silicone-free		
	Outer seal	• NBR • Silicone-free		
Permitted ambient conditions				
Ambient temperature		-40°C ... +70 °C		

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameters are specified in inches.

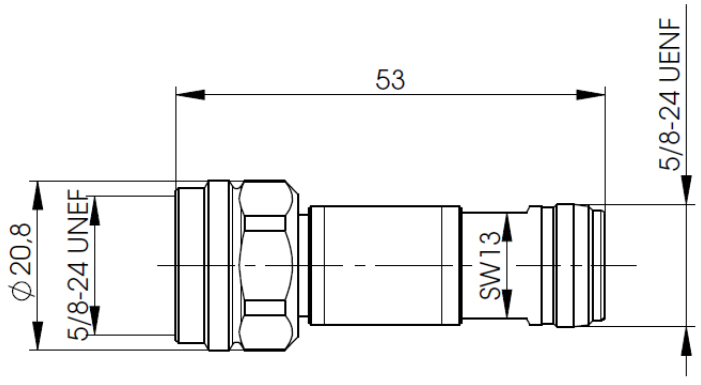


3.5 Attenuator N-Connect male/female

Technical specifications		
Article number		6GK5798-0AP00-4CA0
Electrical data		
Frequency range		≤ 6 GHz
Impedance		50 Ω
Insert attenuation		10 dB
Power range		1 W
Dimensions, materials and weight		
Number of plug-in connections		2
Dimensions (length x diameter)		45.7 x 21 mm
Materials	Inner conductor	• Core material: CuBe2 • Coating: Cu1Ni2Au0.8
	Metallic parts	• Core material: CuZn39Pb3 • Coating: CuSnZn3
	Insulation	PTFE
	Seal	Silicone-free
Weight		-
Degree of protection		-
Permitted ambient conditions		
Ambient temperature	During operation	-40 °C ... +70 °C
	During storage	-40 °C ... +70 °C
	During transportation	-40 °C ... +70 °C

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameter is specified in inches.



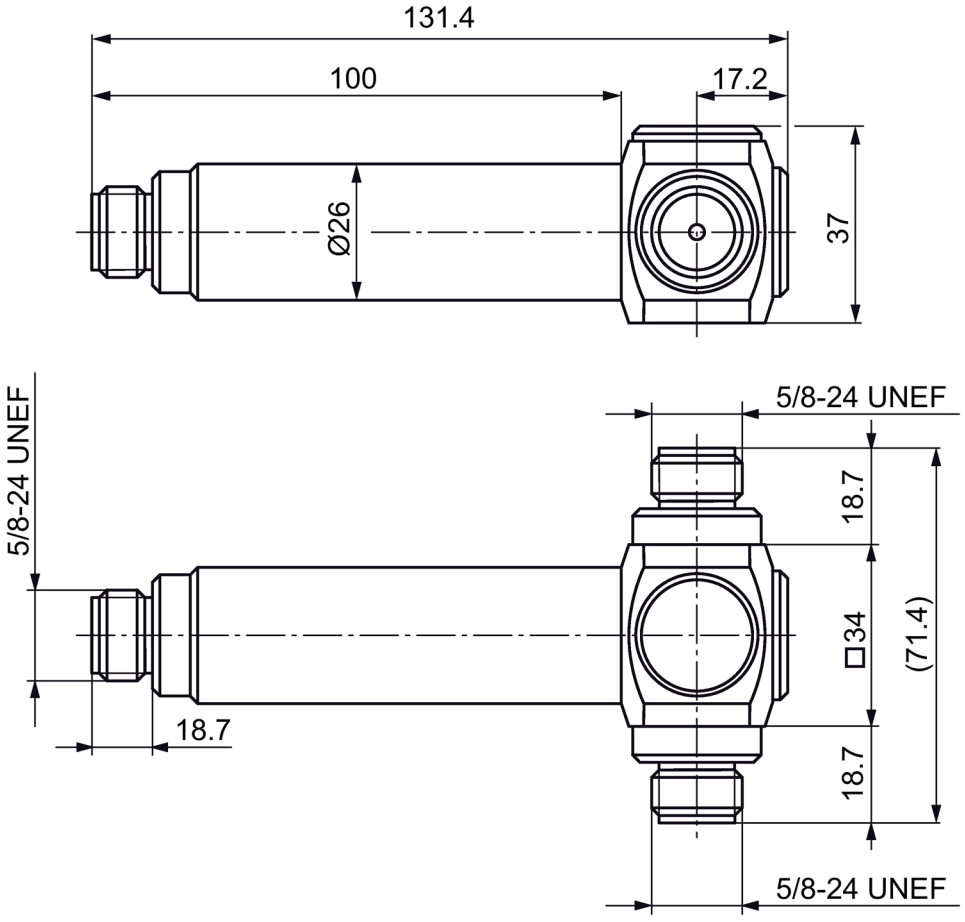
3.6 Power splitter N-Connect female

Double power splitter, Y element for splitting RCoax cables.

Technical specifications		
Article number		6GK5798-0SN00-0EA0
Electrical data		
Frequency range		2.4 to 6 GHz
Impedance		50 Ω
Return loss		≥ 24 dB
Insert attenuation		≤ 3.05 dB
Power range		250 W
Dimensions, materials and weight		
Number of plug-in connections		3
Dimensions (length x width x depth)		131.4 x 71.4 x 34 mm
Materials	Inner conductor	• Core material: Beryllium copper • Coating: Silver
	Outer conductor	• Core material: Brass • Coating: Optargen
	Housing	Brass
	Dielectric	PTFE
	Seal	NBR
Weight		937 g
Degree of protection		IP66/67, IP 68 (0.5 bar, 1h)
Permitted ambient conditions		
Ambient temperature	Temperature range	-40 °C... +110 °C
	During operation	-25 °C ... +110 °C
	During storage	-25 °C ... +110 °C
	During transportation	-25 °C ... +110 °C
Salt spray test	IEC 60068-2-52	Severity 3

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameters are specified in inches.

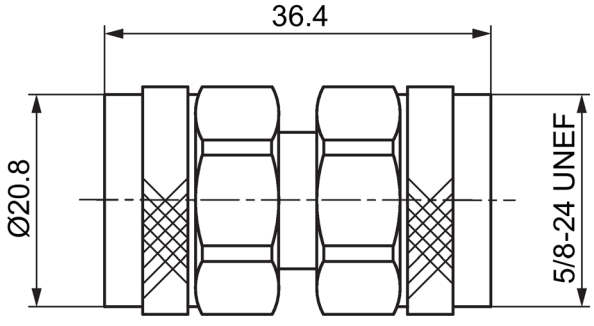


3.7 HF coupler N-Connect male/male

Technical specifications			
Article number		6GK5798-0CP00-1AA0	
Electrical data			
Frequency range		6 GHz	
Power range		1 W	
Return loss		≥ 0.1 dB	
Standing wave ratio (VSWR)	f [GHz]	1.0	2.4
	VSWR	1.012	< 1.048
Construction and dimensions			
Dimensions (length x diameter)		36.4 x Ø20.8 mm	
Materials	Inner conductor	• Core material: CuZn39Pb3 • Coating: Ag5	
	Outer conductor	• Core material: CuZn39Pb3 • Coating: CuSnZn3	
	Metallic parts	• Core material: CuZn39Pb3 • Coating: CuSnZn3	
	Insulation	PTFE	
	Seal	• MVQ • Silicone-free	
Permitted ambient conditions			
Ambient temperature		-40 ... +70 °C	

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameter is specified in inches.



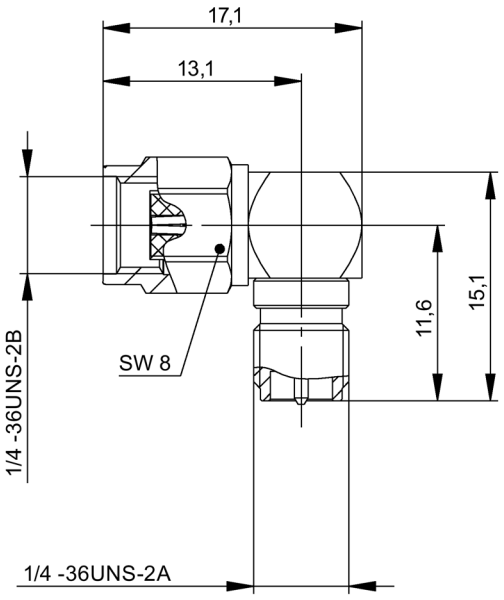
3.8 Angle adapter

3.8.1 R-SMA angle adapter

Technical specifications		
Article number		6GK5798-1CS00-4AA0
Mechanical data		
Plug-in cycles		> 500
Coupling torque		79 .. 113 Ncm
Electrical data		
Frequency range		≤ 18 GHz
Impedance		50 Ω
Return loss		typ.: 6 GHz -17.5 dB
Operating voltage		≤ 335 V_{eff} / 50 Hz
Test voltage		1 kV_{eff} / 50 Hz
Dimensions, materials and weight		
Number of plug-in connections		2
Dimensions (length x width)		17.1 x 15.1 mm
Material	Inner contact, pin	• Core material: Brass • Coating: Au 0.75
	Inner contact, socket	• Core material: CuBe • Coating: Au 0.75
	Outer contact	• Core material: Brass • Coating: Au 0.125
	Metallic parts	• Core material: Brass • Coating: Au 0.125
	Insulation	PTFE
	Seal	NBR
Weight		-
Degree of protection		IP 61 (IEC 60529)
RoHS compliant		2011/65//EU
Permitted ambient conditions		
Ambient temperature	During operation	-20 °C ... +80 °C
	During storage	-20 °C ... +80 °C
	During transportation	-20 °C ... +80 °C

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameters are specified in inches.



3.8.2 SMA angle adapter

Technical specifications		
Article number		6GK5898-1CV00-4AA0
Mechanical data		
Plug-in cycles		> 500
Coupling torque		79 .. 113 Ncm
Electrical data		
Frequency range		≤ 18 GHz
Impedance		50 Ω
Return loss		typ.: 6 GHz -17.5 dB
Operating voltage		≤ 335 V_{eff} / 50 Hz
Test voltage		1 kV_{eff} / 50 Hz
VSWR (typical)	1 GHz	1.025
	2 GHz	1.045
	6 GHz	1.193
Dimensions, materials and weight		
Number of plug-in connections		2
Dimensions (length x width)		17.1 x 15.1 mm
Material	Inner contact, pin	• Core material: Brass • Coating: Au 0.75
	Inner contact, socket	• Core material: CuBe • Coating: Au 0.75
	Outer contact	• Core material: Brass • Coating: Au 0.125
	Metallic parts	• Core material: Brass • Coating: Au 0.125
	Insulation	PTFE
	Seal	Silicone
Weight		-
Degree of protection		IP61 (IEC 60529)
RoHS compliant		2011/65//EU
Permitted ambient conditions		
Ambient temperature	During operation	-20 °C ... +80 °C
	During storage	-20 °C ... +80 °C
	During transportation	-20 °C ... +80 °C

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameters are specified in inches.

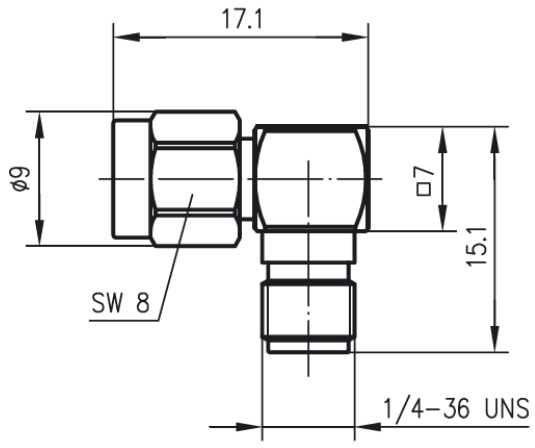


Figure 3-12 SMA angle adapter

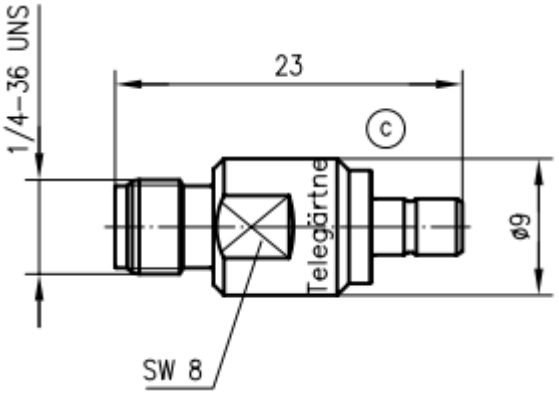
3.9 Adapter

3.9.1 SMA/SMB adapter

Technical specifications		
Article number		6GK5898-0CX00-2AA0
Mechanical data		
Plug-in cycles		> 500
Coupling torque		79 .. 113 Ncm
Electrical data		
Frequency range		≤ 4 GHz
Impedance		50 Ω
Return loss		typ.: 4 GHz -25 dB
Operating voltage		≤ 335 V_{eff} / 50 Hz
Test voltage		1 kV_{eff} / 50 Hz
Dimensions, materials and weight		
Number of plug-in connections		2
Dimensions (length x width)		23 x 9 mm
Material	Inner contact, pin	• Core material: Brass • Coating: Au 0.75
	Inner contact, socket	• Core material: CuBe2 • Coating: Au 0.75
	Outer contact	• Core material: Brass • Coating: Au 0.125
	Metallic parts	• Core material: Brass • Coating: Au 0.125
	Insulation	PTFE
	Seal	NBR
Weight		6 g
RoHS compliant		2011/65//EU
Permitted ambient conditions		
Ambient temperature	During operation	-55 °C ... +155 °C
	During storage	-55 °C ... +155 °C
	During transportation	-55 °C ... +155 °C

Dimension drawing

All dimensions except thread diameters are in millimeters. The thread diameters are specified in inches.



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