

Coaxial Feeder Cables 50 Ω

High Performance Coax Transmission Line Solutions

SITE SOLUTIONS





Rosenberger Site Solutions – Much More Than Technology

The Rosenberger Site Solutions Group designs, manufactures and provides solutions for the wireless infrastructure market. Our products and systems offer innovative and leading-edge designs with focus on high performance and quality. Having an efficient network implementation in mind, we focus on total site kitting, logistics and delivery time leading to reduced cost of ownership. Globally present, the Rosenberger Site Solutions Group offers extensive local support making Rosenberger Site Solutions a partner instead of just a supplier.

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Home of Innovation

A global network of Rosenberger research & development and production centers provides innovation, optimized cost structure and outstanding local customer service.



The Rosenberger headquarters located in Fridolfing in the southeast part of Bavaria, Germany

Rosenberger Worldwide

Rosenberger has more than 15,000 employees at the headquarters, manufacturing plants and sales offices in Europe, Asia as well as in North and South America, who are engaged in development, manufacture and sales of the products.

Rosenberger is always near you with its capable partners in the most important industrial countries when you need competent advice and trouble-free delivery on location.

In many countries, Rosenberger subsidiaries are active in the manufacture of connectors and cable assemblies. This facilitates flexibility on location and provides a national element that can help in reducing tax and customs charges.

With the establishment of a European assembly and logistics center in eastern Hungary together with the complete manufacturing plants in China and India, Rosenberger has, on the one hand, established a sustainable competitive advantage by international comparisons, and on the other hand, makes a useful contribution to the industrial development of emerging economies.

Rosenberger Global Network

Company Headquarters

- Fridolfing, Germany

Europe

- Austria: Timelkam
- Denmark: Lyngø
- Germany: Augsburg, Laufen, Neuenbürg, Radeberg
- Hungary: Jászárokszállás, Jászberény, Nyírbátor, Taksony
- Italy: Vimercate
- Spain: Madrid
- Sweden: Kista, Vallentuna
- UK: Bradford

North America

- Mexico: Apodaca
- USA: Akron, Pennsauken, Lake Charles

South America

- Brazil: Cacapava - São Paulo
- Chile: Santiago





Africa

- Tunisia

Asia

- China: Beijing, Changzhou, Dianshanhu, Dongguan, Shanghai, Shenzhen
- India: Manesar, Goa, Pune
- Japan: Tokyo
- Korea: Suwon-City

About Rosenberger Site Solutions

Rosenberger Site Solutions GmbH is located in Laufen, Germany. We design, manufacture and provide solutions for the wireless infrastructure market.

Our products and systems offer innovative and leading-edge designs with focus on high performance and quality. Our solutions are highly flexible and friendly installable to fit any installation scenario either outdoor, on a tower or on a rooftop, or indoor in shopping centres, parking places or the like.

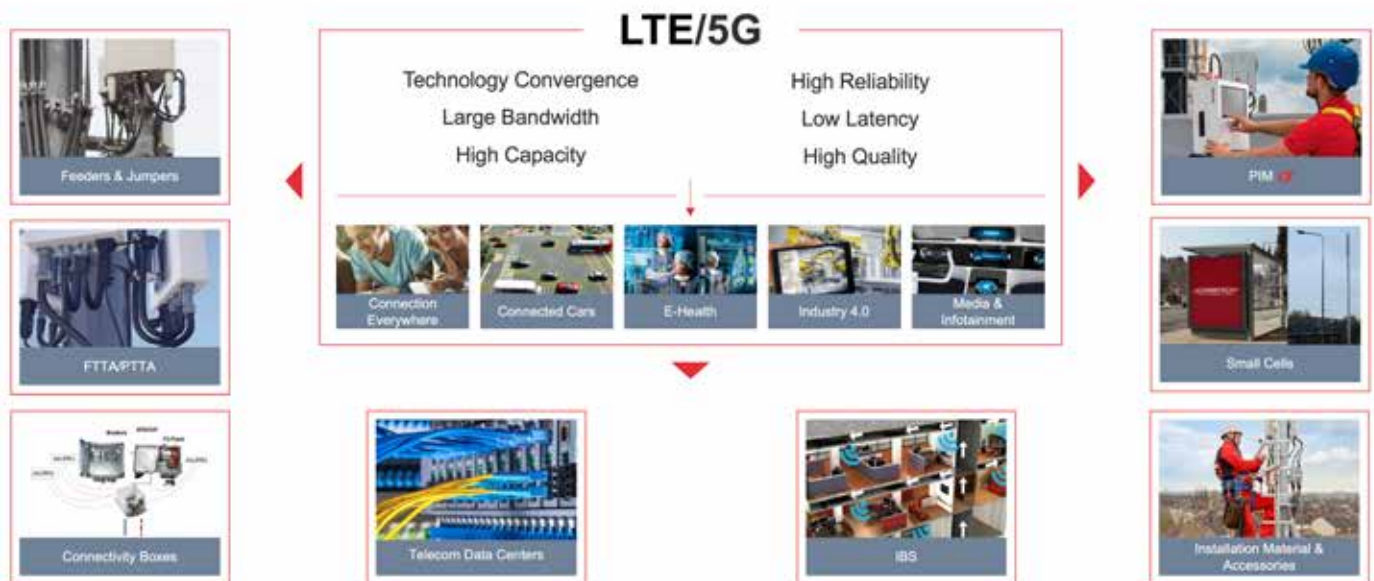
Our customers are OEMs, network operators, installers and system integrators.

From our distribution facility in Laufen, Germany or via our partners, we deliver our products and solutions to our customers according to their specific kitting, packing, delivery and logistics requirements.

Our focus is on efficient network implementation and reduced total costs of ownership.

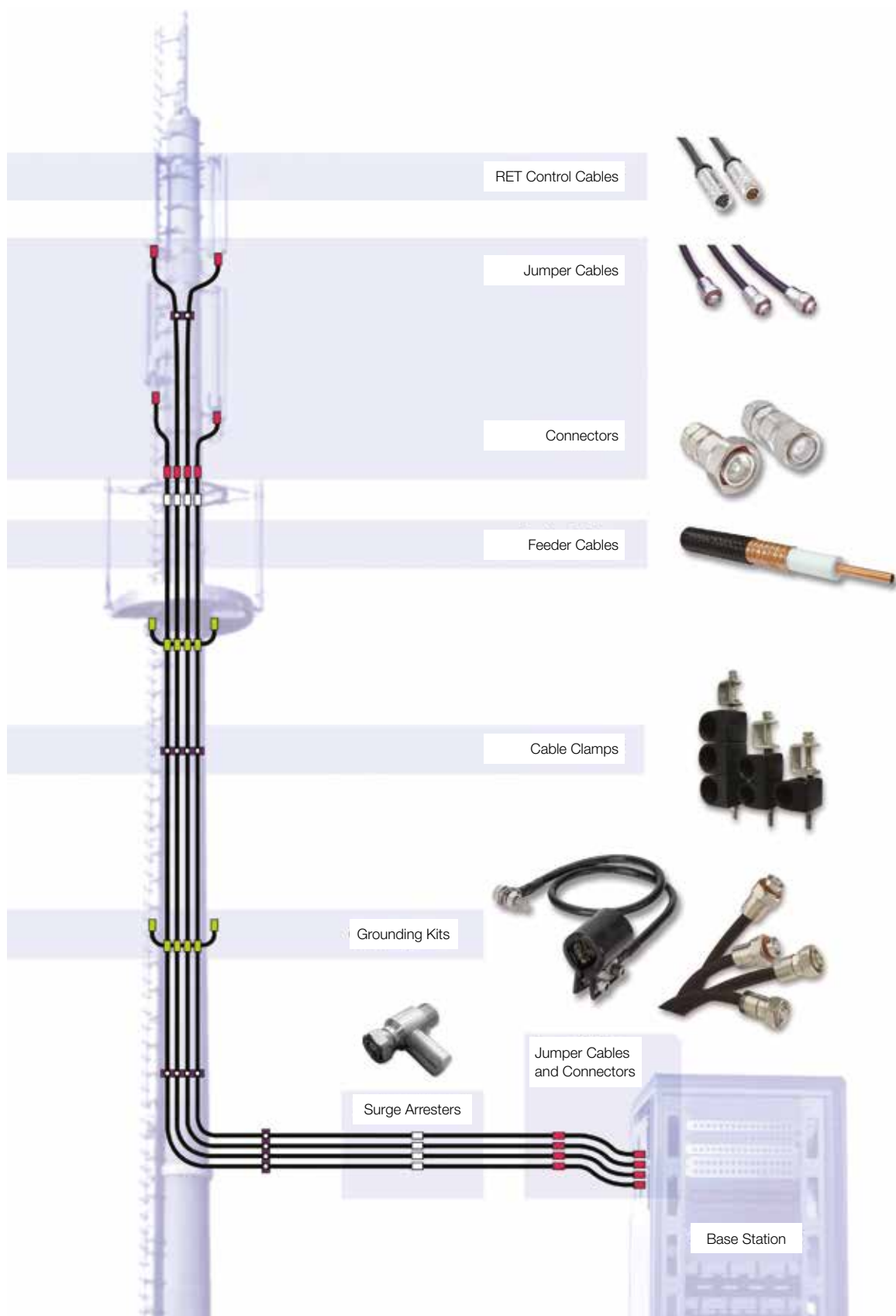
Rosenberger Site Solutions – Much More Than Technology





Coaxial Cables

Outdoor Coaxial Transmission Line Overview



Coaxial Cables 50 Ω

Rosenberger offers a complete range of 50 Ω coaxial cables, from 1/4" to 1 5/8".

The cable range provides best in-class electrical and mechanical performance:

- Low attenuation
- Low VSWR/RL
- Complete EMI shielding to minimize system interference
- Outstanding PIM performance
- High-power rating

The cable construction is similar for all cable sizes: Inner conductor, foam dielectric, outer conductor and outer jacket.

The inner conductor is made of a copper clad aluminum wire and a smooth or corrugated copper tube dependent on cable size. The use of high conductivity copper guarantees excellent low-loss performance.

The foam insulator consists of a mixture of low dielectric polyethylene – melted and extruded utilizing an insert gas injection process. Low density, close and homogenous cell dielectric contributes to further excellent low-loss performance and minimized risk of water penetration.

The outer conductor is made of copper and has a longitudinal weld that provides high quality screening and a tight bending radius.

The cables are available as standard with either a PE jacket for outdoor installations or in a flame retardant and halogen-free version to comply with indoor requirements for health and safety (IEC 60332 and CPR-EN 50575).


Coaxial Cable Overview

| Cable Type | Description | Rating* |
|-----------------|--|----------------|
| SL 014R PE | 1/4" flexible, halogen-free | Fca s1 d0 a1 |
| RTK 300 | Braided coax cable 0.300 inch, halogen-free | |
| RTK 400 | Braided coax cable 0.400 inch, halogen-free | |
| SL 012S PE | 1/2" superflexible, halogen-free | Eca s1 d0 a1 |
| SL 012R PE | 1/2" flexible, halogen-free | |
| SL 078R L PE | 7/8" flexible, halogen-free | |
| SL 114R L PE | 1 1/4" flexible, halogen-free | |
| SL 158R L PE | 1 5/8" flexible, halogen-free | Dca s1 d0 a1 |
| SL 012S FRNC | 1/2" superflexible, halogen-free, flame retardant | |
| RTK 300 FRNC | Braided coax cable 0.300 inch, halogen-free, flame retardant | |
| RTK 400 FRNC | Braided coax cable 0.400 inch, halogen-free, flame retardant | B2ca s1a d0 a1 |
| SL 014S FRNC | 1/4" super flexible, halogen-free, flame retardant | |
| SL 014R FRNC | 1/4" flexible, halogen-free, flame retardant | |
| SL 012R FRNC | 1/2" flexible, halogen-free, flame retardant | |
| SL 078R FRNC | 7/8" flexible, halogen-free, flame retardant | |
| SL 114R FRNC | 1 1/4" flexible, halogen-free, flame retardant | |
| SL 158R FRNC | 1 5/8" leaky feeder, halogen-free, flame retardant | B2ca s1a d2 a1 |
| SL 012B RK FRNC | 1/2" leaky feeder, halogen-free, flame retardant | |
| SL 078B RK FRNC | 7/8" leaky feeder, halogen-free, flame retardant | B2ca s1a d0 a1 |
| SL 114B RK FRNC | 1 1/4" leaky feeder, halogen-free, flame retardant | |
| SL 158B RK FRNC | 1 5/8" leaky feeder, halogen-free, flame retardant | |

– R = Ring corrugation
 – S = Spiral corrugation
 – RK = Radiating Cable
 – PE = Polyethylene
 – FRNC = Flame retardant & halogen-free (IEC 60332)

* Higher ratings available on request

Flexible Coaxial Cables 1/4" R

| Rosenberger No. | Description | Product |
|-----------------|--|---|
| SL 014R PE | Standard polyethylene jacket |  |
| SL 014R FRNC | Flame retardant, halogen-free jacket B2ca s1a d0 a1 | |

| Mechanical Characteristics | |
|---|-----------------------------------|
| Inner conductor | Copper clad aluminum wire, 2.6 mm |
| Dielectric | Foamed PE, 6.4 mm |
| Diameter over outer conductor | Corrugated copper, 7.6 mm |
| Diameter over outer jacket | PE / FRNC, 9.5 mm |
| Cable with standard UV resistant and halogen-free PE / FRNC | |
| Cable weight PE (FRNC) | approx. 94 kg/km |
| Tensile strength | 560 N |
| Min. bending radius, single | 50 mm |
| Min. bending radius, repeated | 120 mm |
| Number of bends, minimum (typical) | 15 (50) |
| Recommended hanger spacing | 0.6 m |
| Installation temperature | -25 °C to +60 °C |
| Operational temperature | -40 °C to +85 °C |
| CPR classification | B2ca s1a d0 a1 |


| Electrical Characteristics | |
|----------------------------------|--------------|
| Impedance | 50 ± 1 Ω |
| Relative velocity of propagation | 85 % |
| Capacitance | 78.5 pF/m |
| Inductance | 0.195 µH/m |
| Maximum operating frequency | 7.5 GHz |
| Cut-off frequency | 19.0 GHz |
| Peak power rating | 7.5 kW |
| DC breakdown voltage | 2200 V |
| Jacket spark, volts RMS | 5000 V |
| Inner conductor DC-resistance | ≤ 6.05 Ω/km |
| Outer conductor DC-resistance | ≤ 4.45 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Return loss 800 – 1000 MHz | 26 dB |
| Return loss 1700 – 2500 MHz | 24 dB |

Attenuation Value and Power Rating

| Frequency (MHz) | 100 | 200 | 300 | 400 | 450 | 800 | 900 | 1000 | 1800 | 2000 | 2200 | 2500 | 2700 | 3000 |
|------------------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Attenuation (dB/100 m) | 5.14 | 7.50 | 8.50 | 9.00 | 9.14 | 12.70 | 13.30 | 14.10 | 19.50 | 20.60 | 21.80 | 23.40 | 28.00 | 28.30 |
| Average power (kW) | 1.92 | 1.40 | 1.20 | 1.09 | 1.08 | 0.78 | 0.74 | 0.70 | 0.51 | 0.49 | 0.45 | 0.42 | 0.36 | 0.35 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Flexible Corrugated Cables 1/2" R

| Rosenberger No. | Description | Product |
|-----------------|--|---|
| SL 012R PE | Standard polyethylene jacket |  |
| SL 012R FRNC | Flame retardant, halogen-free jacket B2ca s1a d0 a1 | |

| Mechanical Characteristics | |
|---|-----------------------------------|
| Inner conductor | Copper clad aluminum wire, 4.8 mm |
| Dielectric | Foamed PE, 12.1 mm |
| Diameter over outer conductor | Corrugated copper tube, 13.8 mm |
| Diameter over outer jacket | PE / FRNC, 15.9 mm |
| Cable with standard UV resistant and halogen free PE / FRNC | |
| Cable weight PE (FRNC) | 210 kg/km (245 kg/km) |
| Tensile strength | 1150 N |
| Min. bending radius, single | 50 mm |
| Min. bending radius, repeated | 125 mm |
| Number of bends, minimum (typical) | 15 (50) |
| Recommended hanger spacing | 0.8 m |
| Installation temperature | -25 °C to +60 °C |
| Operational temperature | -40 °C to +85 °C |
| CPR classification | B2ca s1a d0 a1 |

| Electrical Characteristics | |
|----------------------------------|--------------|
| Impedance | 50 ± 1 Ω |
| Relative velocity of propagation | 88 % |
| Capacitance | 76 pF/m |
| Inductance | 0.190 µH/m |
| Maximum operating frequency | 8.8 GHz |
| Cut-off frequency | 10.0 GHz |
| Peak power rating | 40 KW |
| DC breakdown voltage | 6000 V |
| Jacket spark, volts RMS | 8000 V |
| Inner conductor DC-resistance | 1.5 Ω/km |
| Outer conductor DC-resistance | 2.3 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Return loss 800 – 1000 MHz | 26 dB |
| Return loss 1700 – 2500 MHz | 24 dB |

Attenuation Value and Power Rating

| Frequency (MHz) | 100 | 200 | 300 | 400 | 450 | 800 | 900 | 1000 | 1800 | 2000 | 2200 | 2500 | 2700 | 3000 |
|------------------------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
| Attenuation (dB/100 m) | 2.15 | 3.08 | 3.81 | 4.46 | 4.70 | 6.35 | 6.75 | 7.20 | 9.90 | 10.50 | 11.10 | 11.95 | 12.47 | 13.20 |
| Average power (kW) | 3.94 | 2.75 | 1.99 | 1.80 | 1.80 | 1.33 | 1.25 | 1.18 | 0.86 | 0.81 | 0.77 | 0.73 | 0.69 | 0.65 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Super Flexible Coaxial Cables

Rosenberger Super Flexible coaxial cables are designed for use in tight routing spaces. Typical applications include connections inside mobile base stations and jumpers for connecting the base stations, transmission lines and antennas.

Super Flexible cables have superior electrical and mechanical performance, and are ideal for applications requiring the tightest bending radii, high flexibility, low attenuation and high shielding.


Rosenberger Super Flexible coaxial cable assemblies achieve the highest standards in the industry including excellent intermodulation (IM3) and return loss performance.

The inner conductor consists of a copper clad aluminum wire. The outer conductor is made of a welded copper tube with spiral corrugations and marked accordingly with the letter 'S'.

The Rosenberger Super Flexible coaxial cables are available with outer jackets made of either polyethylene or flame-retardant, halogen-free materials.



Super Flexible Coaxial Cables 1/4" S

| Rosenberger No. | Description | Product |
|-----------------|--|---|
| SL 014S PE | Standard polyethylene jacket |  |
| SL 014S FRNC | Flame retardant, halogen-free jacket B2ca s1a d0 a1 | |

| Mechanical Characteristics | |
|---|-----------------------------------|
| Inner conductor | Copper clad aluminum wire, 1.9 mm |
| Dielectric | Foamed PE, 4.4 mm |
| Diameter over outer conductor | Corrugated copper tube, 6.4 mm |
| Diameter over outer jacket | Jacket PE / FRNC, 7.7 mm |
| Cable with standard UV resistant and halogen free PE / FRNC | |
| Cable weight PE (FRNC) | 71 kg/km (78 kg/km) |
| Tensile strength | 600 N |
| Min. bending radius, single | 13 mm |
| Min. bending radius, repeated | 25 mm |
| Number of bends, minimum (typical) | 20 (50) |
| Recommended hanger spacing | 0.6 m |
| Installation temperature | -25 °C to +60 °C |
| Operational temperature | -40 °C to +85 °C |
| CPR classification | B2ca s1a d0 a1 |


| Electrical Characteristics | |
|----------------------------------|--------------|
| Impedance | 50 ± 1 Ω |
| Relative velocity of propagation | 83 % |
| Capacitance | 80 pF/m |
| Inductance | 0.195 µH/m |
| Maximum operating frequency | 20.4 GHz |
| Cut-off frequency | 25.0 GHz |
| Peak power rating | 6.4 KW |
| DC breakdown voltage | 2000 V |
| Jacket spark, volts RMS | 5000 V |
| Inner conductor DC-resistance | 9.8 Ω/km |
| Outer conductor DC-resistance | 6.9 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Return loss 800 – 1000 MHz | 26 dB |
| Return loss 1700 – 2500 MHz | 24 dB |

Attenuation Value and Power Rating

| Frequency (MHz) | 100 | 200 | 300 | 400 | 450 | 800 | 900 | 1000 | 1800 | 2000 | 2200 | 2500 | 2700 | 3000 |
|------------------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Attenuation (dB/100 m) | 5.95 | 8.36 | 10.30 | 12.40 | 13.10 | 17.50 | 18.50 | 19.60 | 26.90 | 28.50 | 30.20 | 32.30 | 33.70 | 35.70 |
| Average power (kW) | 1.15 | 0.83 | 0.70 | 0.55 | 0.53 | 0.40 | 0.37 | 0.35 | 0.26 | 0.24 | 0.23 | 0.23 | 0.23 | 0.23 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Super Flexible Coaxial Cables 3/8" S

| Rosenberger No. | Description | Product |
|-----------------|--------------------------------------|---|
| SL 038S PE | Standard polyethylene jacket |  |
| SL 038S FRNC | Flame retardant, halogen-free jacket | |

| Mechanical Characteristics | |
|---|-----------------------------------|
| Inner conductor | Copper clad aluminum wire, 2.6 mm |
| Dielectric | Foamed PE, 6.7 mm |
| Diameter over outer conductor | Corrugated copper tube, 9.1 mm |
| Diameter over outer jacket | PE, 10.2 mm |
| Cable with standard UV resistant and halogen free PE / FRNC | |
| Cable weight PE (FRNC) | 115 kg/km (130 kg/km) |
| Tensile strength | 600 N |
| Min. bending radius, single | 13 mm |
| Min. bending radius, repeated | 25 mm |
| Number of bends, minimum (typical) | 20 (50) |
| Recommended hanger spacing | 0.6 m |
| Installation temperature | -25 °C to +60 °C |
| Operational temperature | -40 °C to +85 °C |


| Electrical Characteristics | |
|----------------------------------|--------------|
| Impedance | 50 ± 1 Ω |
| Relative velocity of propagation | 83 % |
| Capacitance | 81 pF/m |
| Inductance | 0.195 µH/m |
| Maximum operating frequency | 13.4 GHz |
| Cut-off frequency | 16.1 GHz |
| Peak power rating | 11.9 KW |
| DC breakdown voltage | 2500 V |
| Jacket spark, volts RMS | 5000 V |
| Inner conductor DC-resistance | < 4.76 Ω/km |
| Outer conductor DC-resistance | < 4.95 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Return loss 800 – 1000 MHz | 26 dB |
| Return loss 1700 – 2500 MHz | 24 dB |

Attenuation Value and Power Rating

| Frequency (MHz) | 100 | 200 | 300 | 400 | 450 | 800 | 900 | 1000 | 1800 | 2000 | 2200 | 2500 | 2700 | 3000 |
|------------------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Attenuation (dB/100 m) | 4.16 | 5.96 | 7.39 | 8.61 | 8.73 | 12.10 | 12.70 | 13.40 | 18.40 | 19.50 | 20.50 | 22.10 | 24.30 | 24.40 |
| Average power (kW) | 2.00 | 1.34 | 1.15 | 1.14 | 1.13 | 0.82 | 0.78 | 0.74 | 0.54 | 0.51 | 0.48 | 0.45 | 0.41 | 0.40 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Super Flexible Coaxial Cables 1/2" S

| Rosenberger No. | Description | Product |
|-----------------|--|---|
| SL 012S PE | Standard polyethylene jacket |  |
| SL 012S FRNC | Flame retardant, halogen-free jacket B2ca s1a d0 a1 | |

| Mechanical Characteristics | |
|---|-----------------------------------|
| Inner conductor | Copper clad aluminum wire, 3.6 mm |
| Dielectric | Foamed PE, 9.0 mm |
| Diameter over outer conductor | Corrugated copper tube, 12.2 mm |
| Diameter over outer jacket | PE / FRNC, 13.4 mm |
| Cable with standard UV resistant and halogen free PE / FRNC | |
| Cable weight PE (FRNC) | 171 kg/km (184 kg/km) |
| Tensile strength | 750 N |
| Min. bending radius, single | 25 mm |
| Min. bending radius, repeated | 35 mm |
| Number of bends, minimum (typical) | 20 (50) |
| Recommended hanger spacing | 0.8 m |
| Installation temperature | -25 °C to +60 °C |
| Operational temperature | -40 °C to +85 °C |
| CPR classification | B2ca s1a d0 a1 |

| Electrical Characteristics | |
|----------------------------------|--------------|
| Impedance | 50 ± 1 Ω |
| Relative velocity of propagation | 83 % |
| Capacitance | 80 pF/m |
| Inductance | 0.195 µH/m |
| Maximum operating frequency | 10.2 GHz |
| Cut-off frequency | 13.0 GHz |
| Peak power rating | 16 kW |
| DC breakdown voltage | 2500 V |
| Jacket spark, volts RMS | 5000 V |
| Inner conductor DC-resistance | 2.73 Ω/km |
| Outer conductor DC-resistance | 3.68 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Return loss 800 – 1000 MHz | 26 dB |
| Return loss 1700 – 2500 MHz | 24 dB |

Attenuation Value and Power Rating

| Frequency (MHz) | 100 | 200 | 300 | 400 | 450 | 800 | 900 | 1000 | 1800 | 2000 | 2200 | 2500 | 2700 | 3000 |
|------------------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Attenuation (dB/100 m) | 3.31 | 4.84 | 6.07 | 7.11 | 7.59 | 10.40 | 11.20 | 11.80 | 16.00 | 17.20 | 18.20 | 19.50 | 20.50 | 21.90 |
| Average power (kW) | 3.16 | 2.17 | 1.71 | 1.47 | 1.38 | 1.01 | 0.95 | 0.89 | 0.63 | 0.60 | 0.56 | 0.52 | 0.50 | 0.48 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Low Loss Coaxial Cables

Rosenberger 7/8" RL, 1 1/4" RL and 1 5/8" RL Low Loss coaxial cables are specifically designed to correspond to requirements of the mobile, cellular and broadcast networks. They deliver excellent performance for connections between the base station and antennas.


The transmission characteristics of the Rosenberger Low Loss coaxial cables have been improved significantly while still maintaining the outer dimensions to suit all connectors and installation material.

The inner conductor consists of a smooth copper tube for the 7/8" RL and the 1 1/4" RL and a corrugated copper tube for the 1 5/8" RL. The outer conductor of each cable is made of a welded copper tube with annular corrugations and marked accordingly with the letter "R" and "L" for Low Loss.

The Low Loss coaxial cables are offered with outer jackets made of either polyethylene or flame retardant, halogen-free materials.



Low Loss Coaxial Cables 7/8" RL

| Rosenberger No. | Description | Product |
|-----------------|--|---|
| SL 078R L PE | Standard polyethylene jacket |  |
| SL 078R FRNC | Flame retardant, halogen-free jacket B2ca s1a d0 a1 | |

| Mechanical Characteristics | |
|---|---|
| Inner conductor | Copper tube, 9.45 mm |
| Dielectric | Highly foamed polyethylene, 22.4 mm |
| Diameter over outer conductor | Regular corrugated copper tube, 25.4 mm |
| Diameter over outer jacket | PE / FRNC, 27.6 mm |
| Cable with standard UV resistant and halogen free PE / FRNC | |
| Cable weight PE (FRNC) | 410 kg/km (480 kg/km) |
| Tensile strength | 1450 N |
| Min. bending radius, single | 120 mm |
| Min. bending radius, repeated | 250 mm |
| Number of bends, minimum (typical) | 15 (50) |
| Recommended hanger spacing | 1.0 m |
| Installation temperature | -25 °C to +60 °C |
| Operational temperature | -40 °C to +85 °C |
| CPR classification | B2ca s1a d0 a1 |


| Electrical Characteristics | |
|----------------------------------|--------------|
| Impedance | 50 ± 1 Ω |
| Relative velocity of propagation | 89 % |
| Capacitance | 74 pF/m |
| Inductance | 0.195 µH/m |
| Maximum operating frequency | 5.0 GHz |
| Cut-off frequency | 5.2 GHz |
| Peak power rating | 95 KW |
| DC breakdown voltage | 10000 V |
| Jacket spark, volts RMS | 8000 V |
| Inner conductor DC-resistance | 1.39 Ω/km |
| Outer conductor DC-resistance | 1.22 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Return loss 800 – 1000 MHz | ≤ -26 dB |
| Return loss 1700 – 2500 MHz | ≤ -24 dB |

Attenuation Value and Power Rating

| Frequency (MHz) | 100 | 200 | 300 | 400 | 450 | 800 | 900 | 1000 | 1800 | 2000 | 2200 | 2500 | 2700 | 3000 |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Attenuation (dB/100 m) | 1.11 | 1.60 | 1.99 | 2.31 | 2.49 | 3.42 | 3.61 | 3.84 | 5.35 | 5.62 | 6.01 | 6.48 | 6.75 | 7.20 |
| Average power (kW) | 9.30 | 6.40 | 4.82 | 4.16 | 3.81 | 2.75 | 2.62 | 2.56 | 1.79 | 1.70 | 1.60 | 1.48 | 1.23 | 1.17 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Low Loss Coaxial Cables 1 1/4" RL

| Rosenberger No. | Description | Product |
|-----------------|--|---|
| SL 114R L PE | Standard polyethylene jacket |  |
| SL 114R FRNC | Flame retardant, halogen-free jacket B2ca s1a d0 a1 | |

| Mechanical Characteristics | |
|---|---|
| Inner conductor | Helically corrugated copper tube, 13.1 mm |
| Dielectric | Foamed polyethylene, 32.5 mm |
| Diameter over outer conductor | Annularly corrugated copper tube, 35.8 mm |
| Diameter over outer jacket | PE / FRNC, 39.5 mm |
| Cable with standard UV resistant and halogen free PE / FRNC | |
| Cable weight PE | ~ 800 kg/km |
| Tensile strength | 2500 N |
| Min. bending radius, single | 200 mm |
| Min. bending radius, repeated | 380 mm |
| Number of bends, minimum (typical) | 15 (50) |
| Recommended hanger spacing | 1.2 m |
| Installation temperature | -25 °C to +60 °C |
| Operational temperature | -40 °C to +85 °C |
| CPR classification | B2ca s1a d0 a1 |


| Electrical Characteristics | |
|----------------------------------|--------------|
| Impedance | 50 ± 1 Ω |
| Relative velocity of propagation | 89 % |
| Capacitance | 75 pF/m |
| Inductance | 0.190 µH/m |
| Maximum operating frequency | 3.5 GHz |
| Cut-off frequency | 3.7 GHz |
| Peak power rating | 200 KW |
| DC breakdown voltage | 10,000 V |
| Jacket spark, volts RMS | 10,000 V |
| Inner conductor DC-resistance | ≤ 0.91 Ω/km |
| Outer conductor DC-resistance | ≤ 0.90 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Return loss 800 – 1000 MHz | ≤ -24 dB |
| Return loss 1700 – 2500 MHz | ≤ -24 dB |

Attenuation Value and Power Rating

| Frequency (MHz) | 100 | 200 | 300 | 400 | 450 | 800 | 900 | 1000 | 1800 | 2000 | 2200 | 2500 | 2700 | 3000 |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Attenuation (dB/100 m) | 0.80 | 1.15 | 1.55 | 1.72 | 1.83 | 2.47 | 2.64 | 2.80 | 3.96 | 4.23 | 4.48 | 4.84 | 5.19 | 5.42 |
| Average power (kW) | 13.4 | 9.31 | 7.71 | 6.03 | 5.50 | 3.90 | 3.70 | 3.50 | 2.40 | 2.30 | 2.20 | 2.03 | 1.86 | 1.73 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Low Loss Coaxial Cables 1 5/8" RL

| Rosenberger No. | Description | Product |
|-----------------|--|---|
| SL 158R L PE | Standard polyethylene jacket |  |
| SL 158R FRNC | Flame retardant, halogen-free jacket B2ca s1a d0 a1 | |

| Mechanical Characteristics | |
|---|--|
| Inner conductor | Spiral corrugated copper tube, 17.6 mm |
| Dielectric | Highly foamed polyethylene, 41.0 mm |
| Diameter over outer conductor | Regular corrugated copper, 46.5 mm |
| Diameter over outer jacket | PE / FRNC, 49.8 mm |
| Cable with standard UV resistant and halogen free PE / FRNC | |
| Cable weight PE | 1055 kg/km |
| Tensile strength | 3500 N |
| Min. bending radius, single | 300 mm |
| Min. bending radius, repeated | 510 mm |
| Number of bends, minimum (typical) | 15 (50) |
| Recommended hanger spacing | 1.2 m |
| Installation temperature | -25 °C to +60 °C |
| Operational temperature | -40 °C to +85 °C |
| CPR classification | B2ca s1a d0 a1 |

| Electrical Characteristics | |
|----------------------------------|--------------|
| Impedance | 50 ± 1 Ω |
| Relative velocity of propagation | 90 % |
| Capacitance | 74 pF/m |
| Inductance | 0.190 µH/m |
| Maximum operating frequency | 2.7 GHz |
| Cut-off frequency | 2.9 GHz |
| Peak power rating | 310 KW |
| DC breakdown voltage | 15,000 V |
| Jacket spark, volts RMS | 10,000 V |
| Inner conductor DC-resistance | 1.25 Ω/km |
| Outer conductor DC-resistance | 0.65 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Return loss 800 – 1000 MHz | ≤ -24 dB |
| Return loss 1700 – 2500 MHz | ≤ -24 dB |

Attenuation Value and Power Rating

| Frequency (MHz) | 100 | 200 | 300 | 400 | 450 | 800 | 900 | 1000 | 1800 | 2000 | 2200 | 2500 | 2700 |
|------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Attenuation (dB/100 m) | 0.66 | 0.96 | 1.21 | 1.41 | 1.51 | 2.09 | 2.24 | 2.35 | 3.38 | 3.57 | 3.82 | 4.11 | 4.38 |
| Average power (kW) | 14.5 | 10.1 | 7.90 | 6.88 | 6.29 | 4.54 | 4.24 | 4.05 | 2.82 | 2.68 | 2.52 | 2.34 | 2.07 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Leaky (Radiating) Coax Cables 1/2"

| Rosenberger No. | Description | Product |
|-----------------|--|---------|
| SL 012B RK FRNC | Flame retardant, halogen-free jacket B2ca s1a d0 a1 | |

| Mechanical Characteristics | |
|--|-----------------------------------|
| Inner conductor | Copper clad aluminum wire, 4.8 mm |
| Dielectric | Foamed PE, 12.3 mm |
| Diameter over outer conductor | Overlapping copper foil, 12.6 mm |
| Diameter over outer jacket | FRNC, 15.85 mm |
| Cable with standard UV resistant and halogen free FRNC | |
| Cable weight | 205 kg/km |
| Tensile strength | 1000 N |
| Min. bending radius, single | 75 mm |
| Min. bending radius, repeated | 150 mm |
| Recommended hanger spacing | 0.8 m |
| Installation temperature | -40 °C to +80 °C |
| Operational temperature | -55 °C to +80 °C |
| CPR classification | B2ca s1a d0 a1 |


| Electrical Characteristics | |
|----------------------------------|--|
| Impedance | 50 ± 2 Ω |
| Relative velocity of propagation | 86 % |
| Capacitance | 75 pF/m |
| Maximum operating frequency | 2.7 GHz |
| DC breakdown voltage | 6000 V |
| Jacket spark, volts RMS | 8000 V |
| Inner conductor DC-resistance | 1.65 Ω/km |
| Outer conductor DC-resistance | 6.5 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Return loss 800 – 1000 MHz | 17 dB |
| Return loss 1700 – 2500 MHz | 17 dB |
| Polarization mode | Radial (5-150 MHz) / Vertical (570-2700 MHz) |

Attenuation Value and Power Rating

| Frequency (MHz) | 700 | 800 | 900 | 960 | 1500 | 1800 | 1900 | 2000 | 2100 | 2400 | 2600 | 2620 | 2700 |
|---------------------------|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|
| Attenuation (dB/100 m) | 6.8 | 7.2 | 7.7 | 8.3 | 10.7 | 11.8 | 12.3 | 12.8 | 13.5 | 15.5 | 16.9 | 17.8 | 18.1 |
| Coupling Loss 2m 50% (dB) | 73 | 69 | 68 | 68 | 68 | 65 | 66 | 67 | 66 | 63 | 64 | 64 | 65 |
| Coupling Loss 2m 95% (dB) | 78 | 73 | 72 | 71 | 72 | 68 | 68 | 70 | 69 | 67 | 68 | 68 | 68 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Leaky (Radiating) Coaxial Cables 7/8"

| Rosenberger No. | Description | Product |
|-----------------|--|---|
| SL 078B RK FRNC | Flame retardant, halogen-free jacket B2ca s1a d0 a1 |  |

| Mechanical Characteristics | |
|--|----------------------------------|
| Inner conductor | Copper tube, 9.45 mm |
| Dielectric | Foamed PE, 22.8 mm |
| Diameter over outer conductor | Overlapping copper foil, 23.5 mm |
| Diameter over outer jacket | FRNC, 27.2 mm |
| Cable with standard UV resistant and halogen free FRNC | |
| Cable weight | 450 kg/km |
| Tensile strength | 1350 N |
| Min. bending radius, single | 150 mm |
| Min. bending radius, repeated | 350 mm |
| Recommended hanger spacing | 0.80 m |
| Installation temperature | -40 °C to +80 °C |
| Operational temperature | -55 °C to +85 °C |
| CPR classification | B2ca s1a d0 a1 |


| Electrical Characteristics | |
|----------------------------------|--|
| Impedance | 50 ± 2 Ω |
| Relative velocity of propagation | 89 % |
| Capacitance | 75 pF/m |
| Maximum operating frequency | 3.7 GHz |
| DC breakdown voltage | 10000 V |
| Jacket spark, volts RMS | 8000 V |
| Inner conductor DC-resistance | 2.3 Ω/km |
| Outer conductor DC-resistance | 3.6 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Return loss 800 – 1000 MHz | ≤ -17 dB |
| Return loss 1700 – 2500 MHz | ≤ -15 dB |
| Polarization mode | Radial (5-470 MHz) / Vertical (570-2700 MHz) |

Attenuation Value and Power Rating

| Frequency (MHz) | 800 | 900 | 960 | 1800 | 1900 | 2000 | 2100 | 2200 | 2300 | 2400 | 2600 | 2700 | 3400 | 3700 |
|---------------------------|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| Attenuation (dB/100 m) | 4.0 | 4.3 | 4.5 | 6.7 | 6.9 | 7.3 | 7.6 | 8.0 | 8.3 | 8.8 | 9.4 | 10.0 | 13.2 | 16.5 |
| Coupling Loss 2m 50% (dB) | 72 | 71 | 70 | 68 | 68 | 68 | 68 | 68 | 68 | 68 | 65 | 65 | 62 | 61 |
| Coupling Loss 2m 95% (dB) | 78 | 76 | 76 | 73 | 72 | 73 | 72 | 72 | 72 | 72 | 70 | 70 | 68 | 66 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Leaky (Radiating) Coaxial Cables 1 1/4"

| Rosenberger No. | Description | Product |
|-----------------|--|---|
| SL 114B RK FRNC | Flame retardant, halogen-free jacket B2ca s1a d0 a1 |  |

| Mechanical Characteristics | |
|---|----------------------------------|
| Inner conductor | Copper tube, 12.8 mm |
| Dielectric | Foamed PE, 32.4 mm |
| Diameter over outer conductor | Overlapping copper foil, 32.8 mm |
| Diameter over outer jacket | FRNC, 36.8 mm |
| Cable with standard UV resistant and halogen free PE / FRNC | |
| Cable weight PE | 670 kg/km |
| Tensile strength | 2500 N |
| Min. bending radius, single | 300 mm |
| Min. bending radius, repeated | 400 mm |
| Recommended hanger spacing | 0.80 m |
| Installation temperature | -40 °C to +80 °C |
| Operational temperature | -55 °C to +85 °C |
| CPR classification | B2ca s1a d0 a1 |


| Electrical Characteristics | |
|----------------------------------|--|
| Impedance | 50 ±2 Ω |
| Relative velocity of propagation | 89 % |
| Capacitance | 75 pF/m |
| Maximum operating frequency | 3.7 GHz |
| DC breakdown voltage | 10000 V |
| Jacket spark, volts RMS | 10000 V |
| Inner conductor DC-resistance | 2.1 Ω/km |
| Outer conductor DC-resistance | 3.0 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Return loss 800 – 1000 MHz | ≤ -17 dB |
| Return loss 1700 – 2500 MHz | ≤ -17 dB |
| Polarization mode | Radial (5-470 MHz) / Vertical (570-2700 MHz) |

Attenuation Value and Power Rating

| Frequency (MHz) | 700 | 800 | 900 | 1800 | 1900 | 2000 | 2200 | 2400 | 2600 | 3400 | 3500 | 3600 | 3700 |
|---------------------------|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|
| Attenuation (dB/100 m) | 2.7 | 2.9 | 3.1 | 4.6 | 4.8 | 5.0 | 5.4 | 5.9 | 6.4 | 8.5 | 9.2 | 9.9 | 10.8 |
| Coupling Loss 2m 50% (dB) | 75 | 72 | 72 | 66 | 67 | 66 | 66 | 65 | 64 | 63 | 62 | 62 | 62 |
| Coupling Loss 2m 95% (dB) | 80 | 78 | 77 | 74 | 73 | 72 | 72 | 71 | 70 | 69 | 68 | 68 | 68 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Leaky (Radiating) Coaxial Cables 1 5/8"

| Rosenberger No. | Description | Product |
|-----------------|--|---|
| SL 158B RK FRNC | Flame retardant, halogen-free jacket B2ca s1a d0 a1 |  |

| Mechanical Characteristics | |
|---|----------------------------------|
| Inner conductor | Copper tube, 18 mm |
| Dielectric | Foamed PE, 42.8 mm |
| Diameter over outer conductor | Overlapping copper foil, 43.5 mm |
| Diameter over outer jacket | FRNC, 47.5 mm |
| Cable with standard UV resistant and halogen free PE / FRNC | |
| Cable weight PE | 930 kg/km |
| Tensile strength | 3000 N |
| Min. bending radius, single | 500 mm |
| Min. bending radius, repeated | 700 mm |
| Recommended hanger spacing | 0.80 m |
| Installation temperature | -40 °C to +80 °C |
| Operational temperature | -55 °C to +85 °C |
| CPR classification | B2ca s1a d0 a1 |

| Electrical Characteristics | |
|----------------------------------|--|
| Impedance | 50 ±2 Ω |
| Relative velocity of propagation | 89 % |
| Capacitance | 75 pF/m |
| Maximum operating frequency | 2.7 GHz |
| DC breakdown voltage | 10000 V |
| Jacket spark, volts RMS | 10000 V |
| Inner conductor DC-resistance | 1.5 Ω/km |
| Outer conductor DC-resistance | 2.0 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Return loss 800 – 1000 MHz | ≤ -17 dB |
| Return loss 1700 – 2500 MHz | ≤ -17 dB |
| Polarization mode | Radial (5-150 MHz) / Vertical (570-2700 MHz) |

Attenuation Value and Power Rating

| Frequency (MHz) | 75 | 100 | 150 | 700 | 800 | 900 | 1800 | 1900 | 2000 | 2100 | 2400 | 2600 | 2700 | 3700 |
|---------------------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
| Attenuation (dB/100 m) | 0.6 | 0.7 | 0.9 | 1.9 | 2.1 | 2.3 | 3.6 | 3.9 | 4.1 | 4.3 | 5.0 | 5.6 | 6.3 | 16.5 |
| Coupling Loss 2m 50% (dB) | 70 | 70 | 78 | 74 | 70 | 69 | 64 | 63 | 63 | 62 | 61 | 62 | 63 | 61 |
| Coupling Loss 2m 95% (dB) | 79 | 81 | 90 | 77 | 73 | 72 | 67 | 66 | 66 | 65 | 65 | 64 | 66 | 66 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Connector Solutions

Rosenberger connectors are available in 7-16 DIN, N, 4.3-10 and NEX10® series with both female and male interfaces. All connectors are designed for ease of attachment while providing consistent industry leading performance.

Rosenberger connectors have excellent mechanical and environmental properties that ensure long-term durability and performance in both indoor and outdoor installations.

All Rosenberger connectors are coated with a specially selected flash white bronze over silver plating. This coating is specifically selected to provide protection against oxidation while delivering exceptional intermodulation performance and electrical conductivity.

| | 4.3-10 | 7-16 (DIN) | N-Series | NEX10®-Series |
|--|---|---|---|--------------------------|
| Minimum flange size | 25.4 mm | 32 mm | 32 mm | |
| Return loss | ≥ 36 dB @ DC to 4 GHz ≥ 32 dB @ 4 GHz to 6 GHz | ≥ 36 dB @ DC to 4 GHz ≥ 32 dB @ 4 GHz to 6 GHz | ≥ 35 dB @ DC to 1 GHz ≥ 30 dB @ 1 GHz to 2.7 GHz | ≥ 30 dB @ DC to 3 GHz |
| RF-leakage | ≥ 120 dB @ DC to 3 GHz (screw, HEX) ≥ 90 dB @ DC to 3 GHz (hand-screw) ≥ 70 dB @ 3 to 6 GHz (push-pull) | ≥ 110 dB @ DC to 1 GHz (tool types) | ≥ 110 dB @ DC to 1 GHz (tool types) | ≥ 23 dB @ 3 GHz to 6 GHz |
| Passive intermodulation | ≥ 166 dBc @ 2 x 43 dBm | ≥ 160 dBc @ 2 x 43 dBm | ≥ 160 dBc @ 2 x 43 dBm | ≥ 110 dB @ DC to 1 GHz |
| Degree of protection (water tightness) | IP 68 (@ 25 m, 1 hour) | IP 68 (@ 25 m, 1 hour) | IP 68 (@ 25 m, 1 hour) | ≥ 160 dBc @ 2 x 43 dBm |
| Mating cycles | ≥ 100 | ≥ 500 | ≥ 500 | IP 68 (@ 1 m, 1 hour) |
| Coupling mechanisms | Screw (HEX), hand-screw, push-pull | Screw (HEX) | Screw (HEX) | ≥ 500 |
| Coupling torque (screw-on type) | > 5 Nm | > 25 Nm | 0.7-1.1 Nm | Screw (HEX) |

*not applicable for leaky feeder cables



4.3-10-Series



7-16-Series



N-Series



NEX10®-Series

| | 4.3-10 for Leaky (Radiating) Cables |
|---------------------------------|-------------------------------------|
| Return loss | See datasheets |
| Mating cycles | ≥ 100 |
| Coupling mechanisms | Screw (HEX) |
| Coupling torque (screw-on type) | > 5 Nm |



4.3-10 Connectors

| Feeder Cable Type | Male Straight | Male Right Angle | Female Straight |
|---------------------|---------------|------------------|-----------------|
| 1/4" Standard | 64S1C7-C01N1 | 64S2C7-C01N1 | 64K1C7-C01B1 |
| 1/4" Super Flexible | 64S1C7-C09N1 | 64S2C7-C09N1 | 64K1C7-C09B1 |
| 3/8" Super Flexible | 64S1C7-C02N1 | 64S2C7-C02N1 | 64K1C7-C02B1 |
| 1/2" Standard | 64S1C7-C03N1 | 64S2C7-C03N1 | 64K1C7-C03B1 |
| 1/2" Super Flexible | 64S1C7-C08N1 | 64S2C7-C08N1 | 64K1C7-C08B1 |
| 7/8" Standard | 64S1C7-CX5N1 | | 64K1C7-CX5B1 |
| 1 1/4" Standard | 64S1D7-C06N1 | | 64K1D7-C06B1 |
| 1 5/8" Standard | 64S1D7-C07N1 | | 64K1D7-C07B1 |

4.3-10 Connectors

| Leaky (Radiating) Cable Type | Male Straight | Male Right Angle | Female Straight |
|------------------------------|---------------|------------------|-----------------|
| 1/2" Standard | R64S1C7-R03N1 | | R64K1C7-R03B1 |
| 7/8" Standard | | | R64K1C7-R05B1 |
| 1 1/4" Standard | | | R64K1D7-R06B1 |
| 1 5/8" Standard | | | R64K1D7-R07B1 |

7-16 Connectors

| Feeder Cable Type | Male Straight | Male Right Angle | Female Straight |
|---------------------|---------------|------------------|-----------------|
| 1/2" Standard | 60S1C7-C03N1 | 60S2C7-C03N1 | 60K1C7-C03N1 |
| 1/2" Super Flexible | 60S1C7-C08N1 | 60S2C7-C08N1 | 60K1C7-C08N1 |
| 7/8" Standard | 60S1C7-CX5N1 | | 60K1C7-CX5N1 |
| 1 1/4" Standard | 60S1D7-C06N1 | | 60K1D7-C06N1 |
| 1 5/8" Standard | 60S1D7-C07N1 | | 60K1D7-C07N1 |

N Connectors

| Feeder Cable Type | Male Straight | Male Right Angle | Female Straight |
|---------------------|---------------|------------------|-----------------|
| 1/4" Standard | 53S115-C01N1 | 53S215-C01N1 | 53K115-C01N1 |
| 1/4" Super Flexible | 53S115-C09N1 | 53S215-C09N1 | 53K115-C09N1 |
| 1/2" Standard | 53S1C7-C03N1 | 53S2C7-C03N1 | 53K1C7-C03N1 |
| 1/2" Super Flexible | 53S1C7-C08N1 | 53S2C7-C08N1 | 53K1C7-C08N1 |
| 7/8" Standard | 53S1C7-CX5N1 | | 53K1C7-CX5N1 |
| 1 1/4" Standard | 53S1D7-C06N1 | | 53K1D7-C06N1 |
| 1 5/8" Standard | 53S1D7-C07N1 | | 53K1D7-C07N1 |

NEX10® Connectors

| Feeder Cable Type | Male Straight | Male Right Angle | Female Straight |
|---------------------|---------------|------------------|-----------------|
| 1/4" Super Flexible | 89S1C7-C09N1 | | |
| 1/2" Standard | 89S1C7-C03N1 | | |

Universal Preparation Tool



Preparation Tools

| Rosenberger No. | Description |
|-----------------|---------------------------------------|
| 60W107-C09 | Stripping tool for 1/4" S (superflex) |
| 60W107-C01 | Stripping tool for 1/4" S (flex) |
| 60W107-C08 | Stripping tool for 1/2" S (superflex) |
| 60W007-C03 | Stripping tool for 1/2" R (flex) |
| 60W007-C05 | Stripping tool for 7/8" R |
| 60W110-C06 | Stripping tool for 1 1/4" R |
| 60W110-C07 | Stripping tool for 1 5/8" R |
| SLZ0002-000 | Cable cutter up to 1 1/2" |
| SLZ0002-1001 | Cable cutter up to 1 5/8" |
| SLZ0009-000 | Cleaning Kit |



Low-PIM, On-Site Connector Installation

To achieve the best PIM test results we recommend following the procedures below in addition to the recommendations outlined in the assembly instructions included with each individual connector.

It is very important to keep the prepped cable and connectors absolutely clean of dirt, metal particles, and scratches.



Prepare the cable according to assembly instructions (e.g., with tool SLT001-Cxx).



Use a plastic tool for removing the cut-off bond on the dielectric (e.g., SLT004-000).










On cables with tube inner conductor, remove burrs and sharp edges on the inside of the conductor (e.g., flaring tool integrated in tool SLT001-Cxx).



Before finally attaching the connector to the cable, clean the contact areas of the cables with alcohol by using non-metallic cleaning brushes/tools (e.g., SLZ0009-000).



Accessories for Connector Preparation

| Rosenberger No. | Description | Product |
|-----------------|---|---|
| SLT013-C03 | Stripping tool for grounding kit ½"R cable |  |
| SLT013-C05 | Stripping tool for grounding kit 7/8" cable | |
| 60W000-002 | Torque wrench 7-16, 25 Nm |  |
| 64W022-001 | Torque wrench 4.3-10, 5 Nm | |
| 53W010-000 | Torque wrench N, 1.1 Nm | |
| | | |
| SLZ0002-000 | Cable cutter up to 1 1/4" |  |
| SLZ0002-100 | Cable cutter up to 1 5/8" | |
| | | |
| SLZ0009-000 | PIM cleaning kit |  |
| | | |
| SLT004-000 | Inner conductor stripper |  |
| | | |
| SLT006-060 | Box nut 7-16 for narrow situations |  |
| SLT006-064 | Box nut 4.3-10 for narrow situations | |
| | | |
| 99W057-000 | Adjustable spanner 0-35 mm |  |
| 99W057-001 | Adjustable spanner 0-46 mm | |
| 99W057-002 | Adjustable spanner 0-60 mm | |

RF Jumper Cables

Superior Performance up to 6 GHz

Rosenberger coaxial jumpers have been designed using the many years of experience gained by Rosenberger engineers in this field. Rosenberger's unique knowledge of designing and manufacturing world-leading PIM test-equipment is directly reflected in the jumpers.

Rosenberger jumpers have the industry-best PIM levels:

-117 dBm / -160 dBc @ 2 x 20 W (typ. -120 dBm / -163 dBc @ 2 x 20 W).

These excellent levels are guaranteed for every assembly that leaves the Rosenberger production facility.

- Specially developed connectors using proprietary soldering technique guarantee superior electrical performance
- Injection molded sealing between the cable jacket and connector ensures mechanical stability and weather-proof protection according to IP68
- Excellent return loss due to silver-plated connectors and attenuation-optimized cable
- Low intermodulation, IM3
- Guaranteed -160 dBc @ 2 x 20 W (typ. -163 dBc) – dynamic testing
- 100 % factory tested for PIM and RL
- Available with flame retardant, halogen-free cable jackets (FRNC)
- Available in any cable length with a large variety of connector combinations

Traceability – Online Measurement Reports

Every single coax jumper is tested for its return loss and PIM values after its assembly. By entering the serial number on our web-portal our customers are able to download the measurement reports of their cables.



Online Measurement Reports

Download VSWR and PIM measurements jumper.rosenberger.com

For a more convenient verification of the performance, the measurement report can easily be downloaded to mobile devices by scanning the DataMatrix code on the packaging.

| Return Loss | |
|--|-------------------------|
| DC - 1 GHz | ≥ 32 dB |
| 1 - 2.2 GHz | ≥ 30 dB |
| 2.2 - 2.7 GHz | ≥ 28 dB |
| 2.7 - 6 GHz | ≥ 23 dB |
| Insertion Loss typ. (½"R – Flexible) | |
| DC - 1 GHz | ≤ 0.07 dB/m + 0.01 dB |
| 1 - 2.2 GHz | ≤ 0.11 dB/m + 0.015 dB |
| 2.2 - 2.7 GHz | ≤ 0.125 dB/m + 0.016 dB |
| 2.7 - 6 GHz | ≤ 0.22 dB/m + 0.01 dB |
| Insertion Loss typ. (½"S – Super Flexible) | |
| DC - 1 GHz | ≤ 0.10 dB/m + 0.01 dB |
| 1 - 2.2 GHz | ≤ 0.168 dB/m + 0.015 dB |
| 2.2 - 2.7 GHz | ≤ 0.19 dB/m + 0.016 dB |
| 2.7 - 6 GHz | ≤ 0.31 dB/m + 0.01 dB |



Jumper Cable Configurator

Configure your individual jumper cable online: rosenberger.com/iso/#jumperconf

Rosenberger Number Code – Jumper Assemblies

| | | | | | | | | | |
|--------------------|----|---|-----|----|---|----|-----|-------|---|
| SLJ | 12 | S | P - | 60 | M | 64 | R - | 10m - | 00 |
| | | | | | | | | | Successive Number |
| | | | | | | | | | |
| | | | | | | | | | Length in meters (m) or feet (ft)* |
| | | | | | | | | | *metric lengths shorter than 10 meters with one decimal place, point as delimiter |
| | | | | | | | | | |
| | | | | | | | | | Connector Type/Gender Side 2 |
| | | | | | | | | | M male straight |
| | | | | | | | | | H male straight, hand screw (only series 64) |
| | | | | | | | | | Q male straight, push-pull (only series 64) |
| | | | | | | | | | F female straight |
| | | | | | | | | | R male right angle |
| | | | | | | | | | X male right angle, hand screw (only series 64) |
| | | | | | | | | | Y male right angle, push-pull (only series 64) |
| | | | | | | | | | |
| | | | | | | | | | Connector Series Side 2 (higher number) |
| | | | | | | | | | 89 NEX10 |
| | | | | | | | | | 64 4.3-10 |
| | | | | | | | | | 60 7-16 |
| | | | | | | | | | MQ4 / MQS |
| | | | | | | | | | |
| | | | | | | | | | Connector Type/Gender Side 1 |
| | | | | | | | | | M male straight |
| | | | | | | | | | H male straight, hand screw (only series 64) |
| | | | | | | | | | Q male straight, push-pull (only series 64) |
| | | | | | | | | | F female straight |
| | | | | | | | | | R male right angle |
| | | | | | | | | | X male right angle, hand screw (only series 64) |
| | | | | | | | | | Y male right angle, push-pull (only series 64) |
| | | | | | | | | | |
| | | | | | | | | | Connector Series Side 1 (lower number) |
| | | | | | | | | | 89 NEX10 |
| | | | | | | | | | 64 4.3-10 |
| | | | | | | | | | 60 7-18 |
| | | | | | | | | | MQ4 / MQ5 |
| | | | | | | | | | |
| | | | | | | | | | Cable Jacket |
| | | | | | | | | | P PE |
| | | | | | | | | | F FRNC |
| | | | | | | | | | |
| | | | | | | | | | Cable Type |
| | | | | | | | | | R flexible, ring corrugation |
| | | | | | | | | | S super flexible, spiral corrugation |
| | | | | | | | | | |
| | | | | | | | | | Cable Size |
| | | | | | | | | | 14 1/4" |
| | | | | | | | | | 38 3/8" |
| | | | | | | | | | 12 1/2" |
| Rosenberger Jumper | | | | | | | | | |



Jumper Cable Configurator

Configure your individual jumper cable online: [rosenberger.com/siso/#jumperconf](https://www.rosenberger.com/siso/#jumperconf)

Jumper Boot – RJB

Although jumpers comply with IP68, at times it might be required to add additional protection due to extreme weather conditions. The Rosenberger Jumper Boot, RJB, is an ideal alternative to tape. Whether pre-installed in the factory or installed in the field the RJB provides a fast, easy and durable solution.

Features and Benefits

- 7-16 DIN connectors (pre-installed in factory)
- 4.3-10 connectors (pre-installed in factory or field-installable)



SLWK111-C03



SLWK112-C03



SLWK112-C03/51

Jumper Boot – RJB

| Rosenberger No. | Connector Type | Cable Type |
|-----------------|------------------------------|--|
| SLWK111-C03 | 4.3-10 | 1/2" flexible and super flexible |
| SLWK112-C03 | 7-16 DIN | 1/2" flexible and super flexible |
| SLWK112-C03/51 | 7-16 DIN threaded connectors | Threaded 7-16 bulkhead connector adaptor |



RJB Assembly Instruction

Download the assembly instruction: www.rosenberger.com/iso/rjbinstruction



Easy and quick weatherproofing with the RJB: just flip over.

Weather-Proofing Kits

Rosenberger Weather-proofing kits are a convenient way of fast and reliable IP-protection of RF connections on antennas and RRHs. The kits are field installable and can easily be removed and reused. The kits add the same additional high level IP-protection to the RF connection as tape while avoiding the hassle of installation.



Weather-proofing kits for 7-16 DIN



Weather-proofing kit for transmission of 7/8" and 1 1/4" cable to 1/2"



Weather-Proofing Kits

| Rosenberger No. | Connector Type | Cable Types |
|-----------------|----------------|--|
| SLWK101-C03 | 4.3-10 | 1/2" flexible and super flexible |
| SLWK201-C03 | 7-16 DIN | 1/2" flexible and super flexible |
| SLWK202-C03-C05 | | 7/8" cable to 1/2" flexible or 1/2" super flexible |
| SLWK202-C03-C06 | | 1 1/4" cable to 1/2" flexible or 1/2" super flexible |



Cold shrink tube for 7/8" to 3/8" super flexible



Cold Shrink Tube

| Rosenberger No. | Connector Type | Cable Types |
|--------------------|--------------------------------------|--|
| RLCST-40/08-200-BK | diameter 40 mm, shrinks down to 8 mm | 7/8" cable to 1/2" and 3/8" super flexible |
| RLCST-30/08-125-BK | 125 mm, MinØ 8 mm, AØ-25 mm | |
| RLCST-25/06-200-BK | 200 mm, MinØ 6 mm, AØ-20 mm | |

Weather-Proofing Tape

The tapes and mastics are used for protection of connectors, splices and interfaces that are exposed to corrosive environmental conditions. An additional feature is to prevent the loosening of connectors at jumper cable interfaces caused by vibration.



Weather-Proofing Tape

| Rosenberger No. | Description |
|-----------------|---|
| SLWK009-000 | Weather proofing kit, 6 x butyl (63.5 mm), 2 x PVC (19 mm), 1 x PVC (50 mm) |
| SLWK009-001 | Weather proofing kit, 4 x butyl (63.5 mm), 1 x PVC (19 mm), 1 x PVC (50 mm) |
| SLWK013-000 | Butyl tape black, 63.5 mm x 3 mm x 0.6 m |
| SLWK014-000 | PVC tape black, 19 mm x 0, 19 mm x 20 m |
| SLWK014-001 | PVC tape black, 38 mm x 0, 19 mm x 10 m |
| SLWK014-002 | PVC tape black, 50 mm x 0, 19 mm x 10 m |
| SLWK014-003 | PVC tape blue, 19 mm x 0, 19 mm x 20 m |
| SLWK014-004 | PVC tape yellow/green, 15 mm x 0, 15 mm x 10 m |
| SLWK015-000 | Self fusing tape 50 mm x 1, 65 mm x 3 m |

Surge Arresters

Lightning protection components are essential for protecting radio base stations against overvoltages. Coaxial surge arresters from Rosenberger – integrated directly in the transmission line from the antenna down to the base station – safeguard the system and provide reliable deflection in case of overvoltages, e.g., by lightning strikes.

Effective lightning protection systems deflect overvoltages, caused by surge currents up to 20 kA, resulting in a residual output voltage of only 100 V.

Rosenberger offers coaxial surge arresters for "non-directed" mounting, with and without gas discharge tubes.



Surge protection from DC up to 6 GHz available for interface N, 4.3-10 and 7-16

Grounding Kits

Rosenberger Grounding kits are designed to withstand potential lightning strikes. A solid premium construction ensures elimination of corrosion caused by moisture and a long life time. Several options are available according to customer requirements.



Grounding Kits

| Rosenberger No. | Description | Weather-Proofing | Grounding Cable Length |
|-----------------|------------------|------------------|------------------------|
| SLGK004-C03-060 | For 1/2" cable | Included | 0.6 m |
| SLGK004-C02-060 | For 3/8" cable | Included | 0.6 m |
| SLGK004-C05-060 | For 7/8" cable | Included | 0.6 m |
| SLGK004-C06-060 | For 1 1/4" cable | Included | 0.6 m |
| SLGK004-C07-060 | For 1 5/8" cable | Included | 0.6 m |

Other grounding cable lengths available on request

Cable Clamps

For multiple cable runs on towers where space is limited. Without additional adaptors these clamps provide sturdy, reliable and long-term support.



Cable Clamps

| Rosenberger No. | Size | Description |
|-----------------|-------------------------|--|
| SLCC111-C08 | 1 x 1/2" super flexible | C-clamp connection, 26 mm opening |
| SLCC121-C08 | 2 x 1/2" super flexible | C-clamp connection, 26 mm opening |
| SLCC131-C08 | 3 x 1/2" super flexible | C-clamp connection, 26 mm opening |
| SLCC111-C03 | 1 x 1/2" flexible | C-clamp connection, 26 mm opening |
| SLCC121-C03 | 2 x 1/2" flexible | C-clamp connection, 26 mm opening |
| SLCC131-C03 | 3 x 1/2" flexible | C-clamp connection, 26 mm opening |
| | | |
| SLCC221-C08 | 2 x 1/2" super flexible | C-clamp connection, 26 mm opening |
| SLCC241-C08 | 4 x 1/2" super flexible | C-clamp connection, 26 mm opening |
| SLCC261-C08 | 6 x 1/2" super flexible | C-clamp connection, 26 mm opening |
| SLCC221-C03 | 2 x 1/2" flexible | C-clamp connection, 26 mm opening |
| SLCC241-C03 | 4 x 1/2" flexible | C-clamp connection, 26 mm opening |
| SLCC261-C03 | 6 x 1/2" flexible | C-clamp connection, 26 mm opening |
| | | |
| SLCC111-C05 | 1 x 7/8" flexible | For 7/8" R cable and hybrid cable 3 x 10 mm ² |

Cable Clamps

| Rosenberger No. | Size | Description |
|-----------------|---------------------|--|
| SLCC111-C06 | 1 x 1 1/4" flexible | C-clamp connection, 26 mm opening |
| SLCC121-C06 | 2 x 1 1/4" flexible | C-clamp connection, 26 mm opening |
| SLCC131-C06 | 3 x 1 1/4" flexible | C-clamp connection, 26 mm opening |
| | | |
| SLCC221-C06 | 2 x 1 1/4" flexible | C-clamp connection, 26 mm opening |
| SLCC241-C06 | 4 x 1 1/4" flexible | C-clamp connection, 26 mm opening |
| SLCC261-C06 | 6 x 1 1/4" flexible | C-clamp connection, 26 mm opening |
| | | |
| SLCC111-C07 | 1 x 1-5/8" flexible | C-clamp connection, 26 mm opening |
| SLCC121-C07 | 2 x 1-5/8" flexible | C-clamp connection, 26 mm opening |
| SLCC131-C07 | 3 x 1-5/8" flexible | C-clamp connection, 26 mm opening |
| | | |
| SLCC221-C07 | 1 x 1-5/8" flexible | C-clamp connection, 26 mm opening |
| SLCC241-C07 | 2 x 1-5/8" flexible | C-clamp connection, 26 mm opening |
| SLCC261-C07 | 3 x 1-5/8" flexible | C-clamp connection, 26 mm opening |
| | | |
| SLCC132-C03 | 3 x 1/2" flexible | Feeder clamp hook type, C-profile 40 x 22 mm |
| SLCC132-C05 | 3 x 7/8" flexible | Feeder clamp hook type, C-profile 40 x 22 mm |
| SLCC132-C06 | 3 x 1 1/4" flexible | Feeder clamp hook type, C-profile 40 x 22 mm |
| SLCC132-C07 | 3 x 1 5/8" flexible | Feeder clamp hook type, C-profile 40 x 22 mm |
| | | |
| SLCC122-C03 | 2 x 1/2" flexible | Feeder clamp hook type, C-profile 40 x 22 mm |
| SLCC122-C05 | 2 x 7/8" flexible | Feeder clamp hook type, C-profile 40 x 22 mm |
| SLCC122-C06 | 2 x 1 1/4" flexible | Feeder clamp hook type, C-profile 40 x 22 mm |
| SLCC122-C07 | 2 x 1 5/8" flexible | Feeder clamp hook type, C-profile 40 x 22 mm |

Cable Clamps for Leaky (Radiating) Cables

| Rosenberger No. | Size | Description |
|-----------------|--------|--------------------------------------|
| RLSLHK-C03-B | 1/2" | Clip-in hanger, plastic clamp |
| RLSLHK-C05-B | 7/8" | Clip-in hanger, plastic clamp |
| RLSLHK-C06-B | 1 1/4" | Clip-in hanger, plastic clamp |
| RLSLHK-C07-B | 1 5/8" | Clip-in hanger, plastic clamp |
| | | |
| RLCIHK-C03-B | 1/2" | Clip-in hanger, fire protection type |
| RLCIHK-C05-B | 7/8" | Clip-in hanger, fire protection type |
| RLCIHK-C06-B | 1 1/4" | Clip-in hanger, fire protection type |
| RLCIHK-C07-B | 1 5/8" | Clip-in hanger, fire protection type |



RLCIHK-C05-B



RLSLHK-C05-B



SLCC111-L01C03-SS



SLCC111-L02C03-SS

Hoisting Grips

Rosenberger Hoisting Grips are designed for hoisting feeder, power or hybrid cables up a tower or other site architectures. For long cable runs multiple grips have to be mounted on the cable to support the weight. The spacing depends on the cable. Once the cable is positioned in the cable clamps the grips can be attached to the structure to hold the cable weight.



Hoisting Grips

| Rosenberger No. | Max. Cable Diameter | Type |
|-----------------|---------------------|-----------|
| SLHG001-C03 | 18 mm | Pre-laced |
| SLHG001-C05 | 30 mm | Pre-laced |
| SLHG001-C06 | 40 mm | Pre-laced |
| SLHG001-C07 | 52 mm | Pre-laced |
| SLHG003-C03 | 18 mm | Lace-up |
| SLHG003-C05 | 30 mm | Lace-up |
| SLHG003-C06 | 40 mm | Lace-up |
| SLHG003-C07 | 52 mm | Lace-up |

RET Control Cable

RET control cable with 8 pin DIN-male and 8 pin DIN-female.

Pin Assignments

- 1. +12 V DC nominal
- 2. not connected
- 3. RS485 B
- 4. not connected
- 5. RS485 A
- 6. +24 V DC nominal
- 7. DC return
- 8. not connected



Product Features

- Protocol 3GPP/AISG 2.0/AISG 1.1
- Voltage maximum 300 V
- AISG 2.0 compliant RET control cable
- Feeds data & DC power to RET components
- RoHS compliant
- Halogen-free

RET Control Cable

| Rosenberger No. | Description |
|-----------------|--|
| L99-C197-XXX | RET control cable (AISG 2.0 compliant) |

Flexible Coaxial Cables for Microwave Links

Factory Made Assemblies

Rosenberger provides factory made coaxial cable assemblies for microwave links.



Product Features

- High-performance shielding > 90 dB
- Low loss
- UV and weather resistant PE outer jacket
- Tinned copper outer braid that provides for connector retention and ease of grounding
- RoHS compliant
- Halogen-free

Factory Made Assemblies

| Rosenberger No. | Description |
|--------------------|--|
| L08-153-xxx | N (male) – RG 223 – TNC right angle (male) |
| L08-249-xxx | N (male) – RG 223 – TNC (male) |
| L08-250-xxx | N (male) – RG 223 – N (male) |
| L08-251-xxx | N (male) – RG 223 – SMA (male) |
| SLJ14SP-53M53M-xxx | N (male) – 1/4" super flexible – N (male) |

xxx: Length in cm

Other configurations on request

Connectors for Field Installation

Rosenberger provides coaxial connectors for microwavel links with N and TNC interface with straight or right angle cable attachment.



The connectors are designed for ease of attachment while providing consistent industry leading performance. Rosenberger connectors have excellent mechanical and environmental properties that ensure long-term durability and performance in both indoor and outdoor installations.

Product Features


- High performance shielding > 90 dB
- Low loss
- UV and weather resistant PE outer jacket
- Tinned copper outer braid that provides for connector retention and ease of grounding
- RoHS compliant
- Halogen-free

All Rosenberger connectors are coated with a specially selected flash white bronze outer contact and gold center contact. This coating is specifically selected to provide protection against oxidation while delivering exceptional performance and electrical conductivity.

Connectors for Field Installation

| Rosenberger No. | Description |
|-----------------|------------------------------------|
| 56S10T-049N5 | TNC (male) straight for RTK 300 |
| 56S20T-049N5 | TNC (male) right angle for RTK 300 |
| 53S10A-049N5 | N (male) straight for RTK 300 |
| 53S20T-049N5 | N (male) right angle for RTK 300 |
| | |
| 56S105-0N9N5 | TNC (male) straight for RTK 400 |
| 56S201-0N9N5 | TNC (male) right angle for RTK 400 |
| 53S10A-0N9N5 | N (male) straight for RTK 400 |
| 53S20E-0N9N5 | N (male) right angle for RTK 400 |

50 Ω Coax Cables

| Rosenberger No. | Description | Product |
|-----------------|---|---|
| RTK 300 | 50 Ω coax cable |  |
| RTK 300 FRNC | Flame retardant, 50 Ω coax cable | |

| Mechanical Characteristics | |
|-------------------------------|---|
| Inner conductor | Copper clad aluminum wire, 1.79 mm |
| Dielectric | Foamed PE, 4.8 mm |
| Diameter over outer conductor | Aluminate foil overlapped, applied longitudinally, 5.5 mm |
| Diameter over outer jacket | Jacket PE/FRNC black, 7.2 ± 0.3 mm |
| Cable weight PE | 58 kg/km |
| Min. bending radius, single | 29 mm |
| Min. bending radius, repeated | 72 mm |
| Recommended hanger spacing | 0.5 m |
| Installation temperature | -25 °C to +60 °C |
| Operational temperature | -40 °C to +85 °C |


| Electrical Characteristics | |
|------------------------------------|--|
| Impedance | $50 \pm 2 \Omega$ |
| Relative velocity of propagation | 85 % |
| Capacitance | 78 pF/m |
| DC breakdown voltage | 1000 V |
| Conductor DC-resistance | 11 Ω /km |
| Insulation resistance | $\geq 10 \text{ G}\Omega \times \text{km}$ |
| Screening efficiency 30 – 2000 MHz | $\geq 95 \text{ dB}$ |
| Return loss 800 – 1500 MHz | 24 dB |

Attenuation Value and Power Rating

| Frequency (MHz) | 500 | 1000 | 1500 | 2000 | 2400 | 3000 | 5000 |
|------------------------|-------|-------|-------|-------|-------|------|------|
| Attenuation (dB/100 m) | 14.10 | 20.50 | 26.00 | 30.30 | 33.50 | 0.39 | 0.53 |
| Average power (kW) | 0.34 | 0.24 | 0.18 | 0.15 | 0.13 | 0.10 | 0.08 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

50 Ω Coax Cables

| Rosenberger No. | Description | Product |
|-----------------|----------------------------------|---|
| RTK 400 | 50 Ω coax cable |  |
| RTK 400 FRNC | Flame retardant, 50 Ω coax cable | |

| Mechanical Characteristics | |
|-------------------------------|---|
| Inner conductor | Copper clad aluminum wire, 2.75 mm |
| Dielectric | Foamed PE, 7.2 mm |
| Diameter over outer conductor | Aluminate foil overlapped, applied longitudinally, 7.9 mm |
| Diameter over outer jacket | Jacket PE/FRNC black, 10.2 ± 0.3 mm |
| Cable weight PE | 105 kg/km |
| Min. bending radius, single | 51 mm |
| Min. bending radius, repeated | 87 mm |
| Recommended hanger spacing | 0.6 m |
| Installation temperature | -25 °C to +60 °C |
| Operational temperature | -40 °C to +85 °C |

| Electrical Characteristics | |
|------------------------------------|--------------|
| Impedance | 50 ± 2 Ω |
| Relative velocity of propagation | 85 % |
| Capacitance | 77 pF/m |
| DC breakdown voltage | 2000 V |
| Conductor DC-resistance | 4.6 Ω/km |
| Insulation resistance | ≥ 10 GΩ x km |
| Screening efficiency 30 – 2000 MHz | ≥ 100 dB |
| Return loss 800 – 1500 MHz | 23 dB |

Attenuation Value and Power Rating

| Frequency (MHz) | 500 | 1000 | 1500 | 2000 | 2400 | 3000 | 5000 |
|------------------------|------|-------|-------|-------|-------|-------|-------|
| Attenuation (dB/100 m) | 9.40 | 13.50 | 16.80 | 19.60 | 21.70 | 24.50 | 35.10 |
| Average power (kW) | 0.80 | 0.60 | 0.45 | 0.40 | 0.35 | 0.30 | 0.25 |

- Attenuation, ambient temperature: 20 °C
- Average power, ambient temperature: 40 °C
- Average power, inner conductor temperature: 100 °C
- Maximum attenuation value shall be 105 % of the nominal attenuation value
- Other frequencies on request

Test, Measurement and Calibration

Test Cables

Cable assemblies from Rosenberger are characterized by excellent electrical and mechanical performances up to 18 GHz.

Product Features

- High phase stability
- Crush resistance (80 N/mm) with armour (cable only)



Test Cables DC-18 GHz not armoured

| Rosenberger No. | Connector 1 | Connector 2 |
|-----------------|------------------------|------------------------------------|
| LU7-036-500 | RPC-N 50 Ω male | RPC-N 50 Ω male |
| LU7-036-1000 | RPC-N 50 Ω male | RPC-N 50 Ω male |
| LU7-036-1500 | RPC-N 50 Ω male | RPC-N 50 Ω male |
| LU7-036-2000 | RPC-N 50 Ω male | RPC-N 50 Ω male |
| LU7-238-500 | RPC-N 50 Ω male | RPC-N 50 Ω female |
| LU7-238-1000 | RPC-N 50 Ω male | RPC-N 50 Ω female |
| LU7-238-1500 | RPC-N 50 Ω male | RPC-N 50 Ω female |
| LU7-238-2000 | RPC-N 50 Ω male | RPC-N 50 Ω female |
| LU7-307-500 | RPC-N 50 Ω male | RPC-N 50 Ω male right angle |
| LU7-307-1000 | RPC-N 50 Ω male | RPC-N 50 Ω male right angle |
| LU7-307-1500 | RPC-N 50 Ω male | RPC-N 50 Ω male right angle |
| LU7-307-2000 | RPC-N 50 Ω male | RPC-N 50 Ω male right angle |

Test Cables DC-18 GHz armoured

| Rosenberger No. | Connector 1 | Connector 2 |
|-----------------|------------------------|------------------------------------|
| LU7-096-500 | RPC-N 50 Ω male | RPC-N 50 Ω male |
| LU7-096-1000 | RPC-N 50 Ω male | RPC-N 50 Ω male |
| LU7-096-1500 | RPC-N 50 Ω male | RPC-N 50 Ω male |
| LU7-096-2000 | RPC-N 50 Ω male | RPC-N 50 Ω male |
| LU7-266-500 | RPC-N 50 Ω male | RPC-N 50 Ω female |
| LU7-266-1000 | RPC-N 50 Ω male | RPC-N 50 Ω female |
| LU7-266-1500 | RPC-N 50 Ω male | RPC-N 50 Ω female |
| LU7-266-2000 | RPC-N 50 Ω male | RPC-N 50 Ω female |
| LU7-275-500 | RPC-N 50 Ω male | RPC-N 50 Ω male right angle |
| LU7-275-1000 | RPC-N 50 Ω male | RPC-N 50 Ω male right angle |
| LU7-275-1500 | RPC-N 50 Ω male | RPC-N 50 Ω male right angle |
| LU7-275-2000 | RPC-N 50 Ω male | RPC-N 50 Ω male right angle |

T-Adaptor (Open-Short-Load)

Rosenberger's T-Adaptor Open-Short-Load (OSL) unique "T" configuration integrates three termination standards into a single unit to simplify precision calibration of 50 Ω analyzers.

The variety of available connector types facilitates calibration at the analyzer's test port or its adapted extension to mate directly with the input port of the device under test.



53S34R-MSON3



60S34R-MSON3



64S36R-MSON3

T-Adaptor (Open-Short-Load)

| Rosenberger No. | Connector 1 | Frequency |
|-----------------|---------------|-----------|
| 53S34R-MSON3 | N male | 4 GHz |
| 53K34R-MSON3 | N female | 4 GHz |
| 53S36R-MSON3 | N male | 6 GHz |
| 53K36R-MSON3 | N female | 6 GHz |
| | | |
| 60S34R-MSON3 | 7-16 male | 4 GHz |
| 60K34R-MSON3 | 7-16 female | 4 GHz |
| 60S36R-MSON3 | 7-16 male | 6 GHz |
| 60K36R-MSON3 | 7-16 female | 6 GHz |
| | | |
| 64S36R-MSON3 | 4.3-10 male | 6 GHz |
| 64K36R-MSON3 | 4.3-10 female | 6 GHz |

Loads

For testing and trouble shooting, these high quality precision loads are typically used to terminate system components at the characteristics impedance.



05S150-010S3



60S17R-001N1

Loads

| Rosenberger No. | Interface | Frequency |
|-----------------|-------------|------------------|
| 05S150-010S3 | N male | 18 Ghz, 0.5 Watt |
| 05K150-010S3 | N female | 18 Ghz, 0.5 Watt |
| 60S17R-001N1 | 7-16 male | 8 GHz, 1 Watt |
| 60K17R-001N1 | 7-16 female | 8 GHz, 1 Watt |

Adaptors

These precision adaptors can be used at the test port of the analyzer or its extension cable to provide a compatible interface with the specified system test point before starting the calibration process. The PIM optimized adaptors ensure optimum accuracy and stability for testing.



65S153-KIMN1



60S101-SIMN1



53S101-S00N5



64S101-S00N1

Adaptors

| | N Male | N Female | 7-16 Male | 7-16 Female | 4.3-10 Male | 4.3-10 Female | 4.3-10 Female Bulkhead | NEX10 [®] male | NEX10 [®] female |
|---------------------------|--------------|--------------|--------------|--------------|--------------|---------------|------------------------|-------------------------|---------------------------|
| N male | 53S101-S00N5 | 53S101-K00N5 | 53S160-SIMN1 | 53S160-KIMN1 | 53S164-S00N1 | 53S164-K00N1 | | 53S189-S00N1 | 53K189-S00N1 |
| N female | 53S101-K00N5 | 53K102-K00N2 | 60S153-KIMN1 | 53K160-KIMN1 | 53K164-S00N1 | 53K164-K00B1 | | 53S189-K00N1 | 53K189-K00N1 |
| 7-16 male | 53S160-SIMN1 | 60S153-KIMN1 | 60S101-SIMN1 | 60S101-KIMN1 | 60S164-S00N1 | 60S164-K00N1 | | 60S189-S00N1 | 60K189-S00N1 |
| 7-16 female | 53S160-KIMN1 | 53K160-KIMN1 | 60S101-KIMN1 | 60K101-KIMN1 | 60K164-S00N1 | 60K164-K00N1 | | 60S189-K00N1 | 60K189-K00N1 |
| 4.3-10 male | 53S164-S00N1 | 53K164-S00N1 | 60S164-S00N1 | 60K164-S00N1 | 64S101-S00N1 | 64S101-K00B1 | | 64S189-S00N1 | 64K189-S00N1 |
| 4.3-10 female | 53S164-K00N1 | 53K164-K00B1 | 60S164-K00N1 | 60K164-K00N1 | 64S101-K00B1 | 64K101-K00B1 | 64K501-K00B1 | 64S189-K01N1 | 64K189-K00N1 |
| NEX10 [®] male | 53S189-S00N1 | 53K189-S00N1 | 60S189-S00N1 | 60K189-S00N1 | 64S189-S00N1 | 64K189-S00N1 | | 89S101-S00N1 | |
| NEX10 [®] female | 53S189-K00N1 | 53K189-K00N1 | 60S189-K00N1 | 60K189-K00N1 | 64S189-K01N1 | 64K189-K00N1 | | | 89K101-K00N1 |

Rosenberger No.

| | | | |
|--------------|----|--------------|----|
| 05K150-010S3 | 49 | 60S34R-MSON3 | 48 |
| 05S150-010S3 | 49 | 60S36R-MSON3 | 48 |
| 53K102-K00N2 | 50 | 60W000-002 | 30 |
| 53K115-C01N1 | 27 | 60W007-C03 | 28 |
| 53K115-C09N1 | 27 | 60W007-C05 | 28 |
| 53K160-KIMN1 | 50 | 60W107-C01 | 28 |
| 53K164-K00B1 | 50 | 60W107-C08 | 28 |
| 53K164-S00N1 | 50 | 60W107-C09 | 28 |
| 53K189-K00N1 | 50 | 60W110-C06 | 28 |
| 53K189-S00N1 | 50 | 60W110-C07 | 28 |
| 53K1C7-C03N1 | 27 | 64K101-K00B1 | 50 |
| 53K1C7-C08N1 | 27 | 64K189-K00N1 | 50 |
| 53K1C7-CX5N1 | 27 | 64K189-S00N1 | 50 |
| 53K1D7-C06N1 | 27 | 64K1C7-C01B1 | 27 |
| 53K1D7-C07N1 | 27 | 64K1C7-C02B1 | 27 |
| 53K34R-MSON3 | 48 | 64K1C7-C03B1 | 27 |
| 53K36R-MSON3 | 48 | 64K1C7-C08B1 | 27 |
| 53S101-K00N5 | 50 | 64K1C7-C09B1 | 27 |
| 53S101-S00N5 | 50 | 64K1C7-CX5B1 | 27 |
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