



Passion in high frequency

Coaxial cables, connectors and adaptors for radio communications



***You need the
best connection!***

SSB-Electronic GmbH:

From engineering firm to RF specialist

SSB-Electronic was established in 1976 as an engineering firm for communications technology. Since then, we have been recognized as a reliable partner for the design, production and distribution of devices and custom solutions in the area of radio frequency technology and communications engineering. Our customers are ambitious radio amateurs as well as companies in communications industry, research institutes, authorities, security services and relief organizations all over the world.

Since the company founding, we have been using our extensive know-how in high frequency to meet the market developments with innovative products. An increased demand for coaxial cables with optimized attenuation and return loss and the intensive utilization of frequency spectrum including the microwave range forced us to develop our low loss coaxial cables and corresponding connectors in 1989. Our coaxial cable brands - Aircell®, Aircom® and Ecoflex® - set new benchmarks in the market and since then established themselves as the European standard in communications technology.

Stricter requirements on fire safety and the growing usage of coaxial cables in harsh environments influenced the development of Ecoflex Heatex® and SeaTex® coaxial cables. Due to the unique jacket properties, Ecoflex Heatex cables are halogen-free, flame retardant, have a low fire spread and are qualified for use in public buildings and hazardous areas. Our SeaTex coaxial cable line is perfectly designed for marine applications. The jacket of these special cables is made of SHF2 material which ensures high resistance to oils, UV and weathering. Therefore the SeaTex line is particularly suitable for use on ships, offshore platforms and wind turbines.

Our engineering and in-house laboratory capabilities allow us to continuously improve and optimize our products and our RF design concepts with measurement and analysis tools up to 13 GHz. For example: we put a great focus on the capability of our coaxial cables to show almost no impurities in the entire frequency range causing unwanted signal reflections. We also improved our connectors by using a special finish like white bronze in order to increase their intermodulation resistance and their performance facing oxidation and corrosion.

After four decades of dedicated service to our customers SSB-Electronic will proudly continue to offer innovative products and leading edge solutions.

Our history

- 1976 Founding of SSB-Electronic by Bernd Bartkowiak and Rolf Albert as an engineering office for communications technology in Iserlohn
- 1989 Introduction of the first coaxial cable
- 2008 Introduction of halogen-free and flame-retardant Heatex® coaxial cables for areas with increased fire safety requirements
- 2008 Change in management: Peter Schulte-Nölle becomes the new owner and managing director
- 2010 Moving of the company location from Iserlohn to Lippstadt
- 2016 Location change within the industrial area Am Mondschein in Lippstadt to the current location Am Pulverhäuschen
- 2017 Introduction of weather resistant SeaTex® coaxial cables for marine and offshore applications
- 2017 Introduction of the quality management system with successful certification according to ISO 9001: 2015
- 2018 Acquisition of VF-Feintechnik GmbH – a company developing and manufacturing access control systems in Wiesentheid



Our philosophy: quality and sustainability



Quality

Reliable products that meet the needs of the customers and the outstanding product quality – this is our key for the customer satisfaction.

A thorough verification of our suppliers, quality inspection of incoming parts and materials as well as production quality control indicate our high quality awareness. Our products are manufactured according to the highest standards of quality and safety. We perform a rigorous in-house product testing in our high frequency laboratory using the latest methods and technologies, so that only safe, durable and reliable products are shipped to our customers.

Our company is certified according to ISO 9001: 2015. We work continuously to ensure and improve the quality of our processes and structures.

Social responsibility

In addition to product quality, we apply great importance to responsible and sustainable acting, also towards our employees. In our daily business we focus on a fair and respectful cooperation. We promote an open, appreciating and transparent way of communication.

We offer our employees the opportunity to continue their professional training. As an IHK certified company, we regularly provide education and training to young employees and support them in starting their careers.

Creating a family-friendly work environment is part of our company policy. Our employees profit from different working arrangements and options ensuring family-friendly working conditions and making it possible for our employees to balance work and family life more easily.

We strengthen our region by establishing a close long-term cooperation with local suppliers, local universities and vocational schools.

Sustainability

For us, responsible and sustainable acting also means manufacturing our products with respect to the environment. We perform our business activities in compliance with all relevant laws, regulations and codes.

Our products comply with the common European environmental guidelines:

- **Directive 2011/65/EU RoHS** (Restriction of Hazardous Substances) on the use of certain hazardous substances in electrical and electronic equipment,
- **Directive 2012/19/EU WEEE** (Waste Electrical and Electronic Equipment) for the disposal of electrical and electronic components and devices,
- **Regulation 1907/2006/EG REACH** (Registration, Evaluation, Authorisation and Restriction of Chemicals) for the production and use of chemical substances.

Increasing the longevity and durability of our products, avoiding toxic and contaminating substances such as lead, asbestos or hydrochlorofluorocarbons (HCFCs) and reducing our impact to the environment are important components of our corporate philosophy. We consistently focus our daily activities on these goals.



Our products

1 Coaxial cables & coaxial connectors

- Low loss coaxial cables
- Coaxial connectors of all standards
- Coaxial adaptors



2 Radio communications equipment

- Preamplifiers, amplifiers
- Remote powering couplers, sequencers
- Antennas, antenna switches



3 SDR systems

- Receivers (Perseus, Winradio)
- Transceivers (ZS-1)
- Transverters (ZS 200)



4 High frequency design

- Radio frequency circuit design and simulation
- Digital circuit design
- Radio frequency component design (amplifiers etc.)



5 Accessories

- Coaxial relays, attenuators, terminal loads
- Mounting clamps, grounding kits, lightning protection
- Power supplies
- Tools (crimping tools, cables cutters)



Assembled coaxial cables

We produce assembled coaxial cables according to your individual specification.

Tell us your application / installation. As a professional cable manufacturer, we will produce your desired cable quickly and in the highest quality. Special requirements can also be implemented. Unlike many other companies in the industry, we test all our cable assemblies by performing precise high frequency tests.

We keep what others promise.

Take advantage of our Online Cable Configurator on www.ssb-electronic.com and order your desired cable assemblies quickly and easily.

You can choose from different low loss coaxial cable types, coaxial connectors of all established standards and the optional bend protection.

Your benefits:

- Coaxial cables of the highest quality
- Technically precise cable assembly
- Highly precise RF measurements of coaxial cables before and after assembly
- Assembled coaxial cables made in Germany
- Detailed test certificate
- Cable test on the selected frequency in the range 100 KHz - 6000 MHz including test certificate
- Quick delivery after your order
- Special solutions such as in-phase coaxial cables for antenna arrays



**SSB-Electronic stands for premium coaxial cables:
we guarantee the highest quality of your cable assembly.**



Please contact us!
We look forward to your request.

Fire ratings of our coaxial cables

according to Construction Products Regulation



The Construction Products Regulation No. 305/2011 (CPR) sets uniform rules for the use of building products within buildings for all EU member states. The EN 50575 standard regulates the implementation of CPR at the national level in each country. Under the CPR, cables as construction products are classified in 7 Euroclasses according to their fire performance. Main classification criteria are flame spread and heat release, additional criteria include flaming droplets, smoke emission and corrosivity of gases. Every Euroclass has rigorous quality control requirements following the corresponding system of Assessment and Verification of Constancy of Performance (AVCP).

Thus the CPR creates a uniform system for classification, evaluation and certification of const-

ruction products for all EU countries. The purpose of the CPR is to ensure availability of reliable information to allow comparison of cables. The use of certified cables increases the fire safety in buildings, leaving more time for evacuation of people in case of fire.

Since 1st of July 2017, our coaxial cables are fire rated according to the CPR. Our cables have a mandatory CE marking indicating the conformity with the declared performance. All performance declarations (DoP) of our cables can be found on our website: www.ssb-electronic.com.

The following overview shows the fire ratings of our coaxial cables with examples of recommended applications.

| Coaxial Cable | Euroclass according to EN 50575 | Building Fire Safety Requirements | Application Area | Classification Criteria | AVCP System (Assessment and Verification of Constancy of Performance) |
|---|---------------------------------|-----------------------------------|---|--|---|
| Aircell 5 Aircell 7 Ecoflex 10 Ecoflex 10 PLUS Ecoflex 15 Ecoflex 15 PLUS Aircom Premium Ecoflex Multicore | Eca | low | Cables for standard applications: in buildings with low height or low volume of occupants, in apartments | Flame propagation EN 60332-1-2 $H \leq 425 \text{ mm}$ | System 3: Initial type-testing by third-party notified testing laboratory Factory production control (FCB) by manufacturer |
| Ecoflex 10 PLUS Heatex | Cca s1 d0 a1 | high | Cables for areas with increased fire risk: in tower buildings, facilities, administration & office buildings, commercial buildings, restaurants, hotels, underground parking, schools, prisons, leisure facilities, etc. | Flame propagation EN 60332-1-2 $H \leq 425 \text{ mm}$ Heat release, vertical flame spread EN 50399 $FS \leq 2,0 \text{ m}$ $THR \leq 30 \text{ MJ}$ $\text{max. HRR} \leq 60 \text{ kW}$ $FIGRA \leq 300 \text{ W/s}$ $\text{Flammenquelle} = 20,5 \text{ kW}$ | System 1+: Initial type-testing by third-party notified product certification body Continuous factory inspection by third-party notified product certification body |
| Ecoflex 15 PLUS Heatex | Cca s2 d2 a1 | | | Smoke production EN 50399/EN 61034-2 s1, s1a, s1b, s2, s3 | Continuous audit testing of samples by third-party notified product certification body |
| Aircell 5 Heatex Aircell 7 Heatex | Cca s1 d0 a1 | | | Acidity/Corrosivity EN 60754-2 a1, a2, a3 Flaming droplets EN 50399 d0, d1, d2 | Factory production control (FCB) by manufacturer |

Explanations:

Opacity of the emitted smoke / smoke

s1: Low smoke production and slow smoke propagation

$TSP \leq 50 \text{ m}^2$, max. $SPR \leq 0,25 \text{ m}^2/\text{s}$

s1a: Transmittance $\geq 80 \%$

s1b: Transmittance $\geq 60 \%$ < 80 %

s2: Average smoke production and propagation

$TSP \leq 400 \text{ m}^2$, max. $SPR \leq 1,5 \text{ m}^2/\text{s}$

s3: none of the above

Dripping of burning material during the fire / droplets

d0: No burning droplets or particles

d1: No burning droplets or particles that last more than 10 sec.

d2: none of the above

Emission of acid gases during the fire / acidity

a1: Low acidity of gases, conductivity < 2,5 $\mu\text{S}/\text{mm}$ and $\text{pH} > 4,3$

a2: Average acidity of gases, conductivity < 10 $\mu\text{S}/\text{mm}$ and $\text{pH} > 4,3$

a3: none of the above

Abbreviations:

H: Vertical Flame Spread (mm)

FS: Vertical Flame Spread (m)

THR: Total Heat Release

HRR: Max. Heat Release Rate

FIGRA: Fire Growth Rate

TSP: Total Smoke Production

SPR: Max. Smoke Production Rate (m^2/s)

Aircell® 5

thin, low loss and stray radiation resistant



Aircell 5 is a flexible and thin coaxial cable with 5 mm outer diameter for the frequency range from DC to 10 GHz. Its low loss characteristics in relation to the diameter and the ability to use standard RG 58 connectors make this cable the number one choice not only for Wireless LAN applications but also for general RF communications.

The low attenuation of Aircell 5 is achieved by using advanced manufacturing techniques and low loss PE-LLC dielectric with a foaming rate of more than 70%. This unique dielectric also offers water resistance and long term stability. Aircell 5 features a solid inner conductor extruded from low oxygen copper (OFC). Further advantages of this cable include the use of double shielding which is constructed of overlapping 100 % tight copper foil and an additional shield braiding of bare copper wires with 70 % coverage. The copper foil has an applied PE coating which prevents foil cracking due to short radius bends. The black PVC jacket of Aircell 5 is UV-stabilized.

Since Aircell 5 features the same dimensions as RG 58 type cables (5 mm outer diameter), almost all standard coaxial connectors for 5 mm coaxial cables can be used. Aircell 5 is the right choice, when a thin, low loss and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|---------------|
| Diameter | 5,0 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 29,54 dB |
| f max | 10 GHz |
| Euroclass acc. to EN 50575 | Eca |

Characteristics

- Insulating material according to DIN EN 50290-2-23 (VDE 0819), table 2/A (HD 624.3)
- Jacket material according to DIN EN 50290-2-22 (VDE 0819), compound type TM 52 (HD 624.2)
- Flame retardant according to IEC 60332-1-2
- Flame retardant according to UN/ECE-R 118:2019-06 § 6.2.6, ISO 6722-1:2011-10 § 5.22
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- UV-resistant

Technical data

| | |
|---------------------|--|
| Inner conductor | bare copper wire |
| Inner conductor Ø | 1 x 1,13 mm |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 3,1 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 70% |
| Outer conductor Ø | 3,7 mm |
| Jacket | PVC black, UV-resistant |
| Weight | 35 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 100 N |

Electrical data at 20°C

| | |
|---|-------------|
| Capacitance (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 20,5 Ω/km |
| DC-resistance Outer conductor | 22 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (wire/screen rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 2,5 kV |

| | Aircell 5 | RG 58/U | RG 213/U |
|-----------------------|-----------|----------|----------|
| Capacity | 78 pF/m | 102 pF/m | 101 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 2,78 | 5,00 | 2,00 |
| 100 MHz | 8,93 | 17,00 | 7,00 |
| 500 MHz | 20,49 | 39,00 | 17,00 |
| 1000 MHz | 29,54 | 54,60 | 22,50 |
| 3000 MHz | 53,57 | 118,00 | 58,50 |

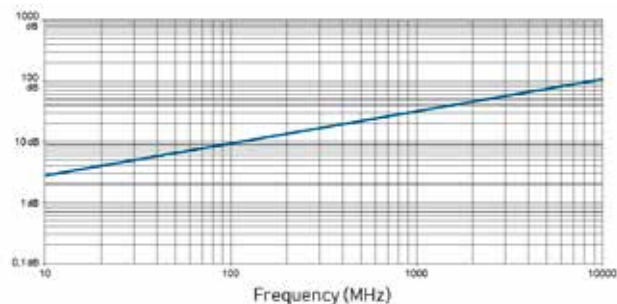
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|-----------|--------|
| 5 MHz | 1,97 | 1000 MHz | 29,54 |
| 10 MHz | 2,78 | 1296 MHz | 33,92 |
| 50 MHz | 6,28 | 1500 MHz | 36,70 |
| 100 MHz | 8,93 | 1800 MHz | 40,50 |
| 144 MHz | 10,76 | 2000 MHz | 42,88 |
| 200 MHz | 12,74 | 2400 MHz | 47,38 |
| 300 MHz | 15,70 | 3000 MHz | 53,57 |
| 432 MHz | 18,99 | 4000 MHz | 62,88 |
| 500 MHz | 20,49 | 5000 MHz | 71,30 |
| 800 MHz | 26,24 | 6000 MHz | 78,85 |
| | | 10000 MHz | 106,40 |

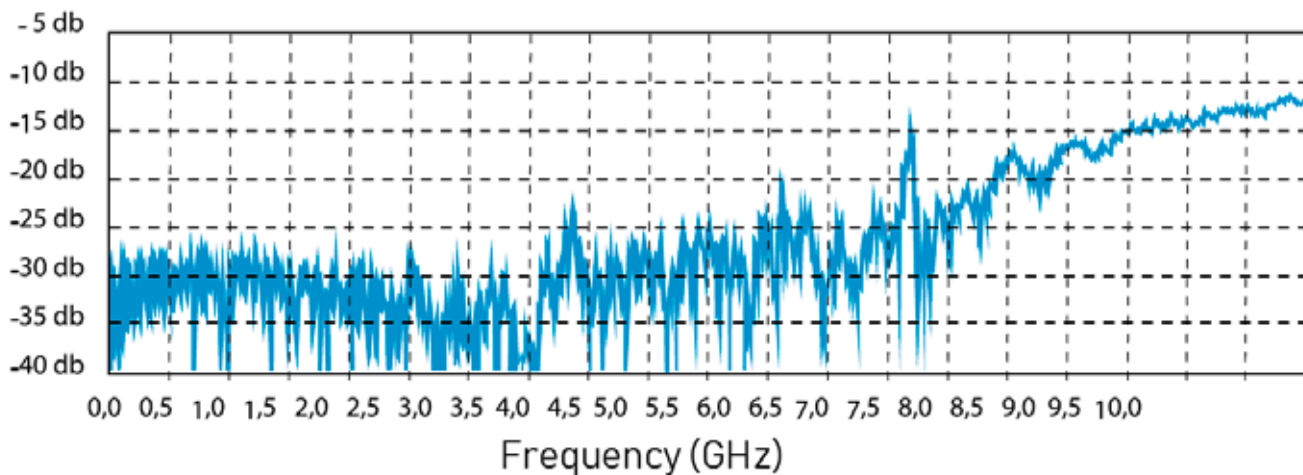
Max. Power handling (W at 40°C)

| | | | |
|----------|-------|-----------|----|
| 10 MHz | 1.885 | 3000 MHz | 98 |
| 100 MHz | 587 | 4000 MHz | 83 |
| 500 MHz | 256 | 5000 MHz | 74 |
| 1000 MHz | 178 | 6000 MHz | 66 |
| 2000 MHz | 122 | 10000 MHz | 49 |

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss



Aircell® 5 Heatex®

Low loss, flame retardant, free of halogen and qualified for use in public buildings



Aircell 5 Heatex is a flexible and thin coaxial cable with 5 mm outer diameter for the frequency range from DC to 10 GHz. Its low loss characteristics in relation to the diameter and the ability to use standard RG 58 connectors make this cable the number one choice not only for Wireless LAN applications but also for general RF communications.

The low attenuation of Aircell 5 Heatex is achieved by using advanced manufacturing techniques and low loss PE-LLC dielectric with a foaming rate of more than 70%. This unique dielectric also offers water resistance and long term stability. Aircell 5 Heatex features a solid inner conductor extruded from low oxygen copper (OFC). Further advantages of this cable include the use of double shielding which is constructed of overlapping 100 % tight copper foil and an additional shield braiding of bare copper wires with 70 % coverage. The copper foil has an applied PE coating which prevents foil cracking due to short radius bends. The jacket of the cable is made of a halogen-free and flame retardant copolymer. Due to this Heatex jacket, the cable has a low fire load, low flame propagation, limited smoke emission and reduced production of toxic and corrosive gases. With the fire protection rating Cca Aircell 5 Heatex is approved for installation in public buildings.

Since Aircell 5 Heatex features the same dimensions as RG 58 type cables (5 mm outer diameter), almost all standard coaxial connectors for 5 mm

coaxial cables can be used. Aircell 5 Heatex is the right choice, when a thin, low loss, halogen-free and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|---------------|
| Diameter | 5,0 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 29,54 dB |
| f max | 10 GHz |
| Euroclass acc. to EN 50575 | Cca |

Characteristics

| |
|---|
| Insulating material according to DIN EN 50290-2-23 (VDE 0819), table 2/A (HD 624.3) |
| Jacket material according to DIN EN 50290-2-27 (HD 624.7) |
| Flame retardant according to IEC 60332-1-2 |
| RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3) |
| Low Smoke, Fire retardant, Zero Halogen (LSZH) |
| Corrosivity of fumes according to IEC 60754-2 |
| Smoke density according to IEC 61034 |
| UV-resistant |

Technical data

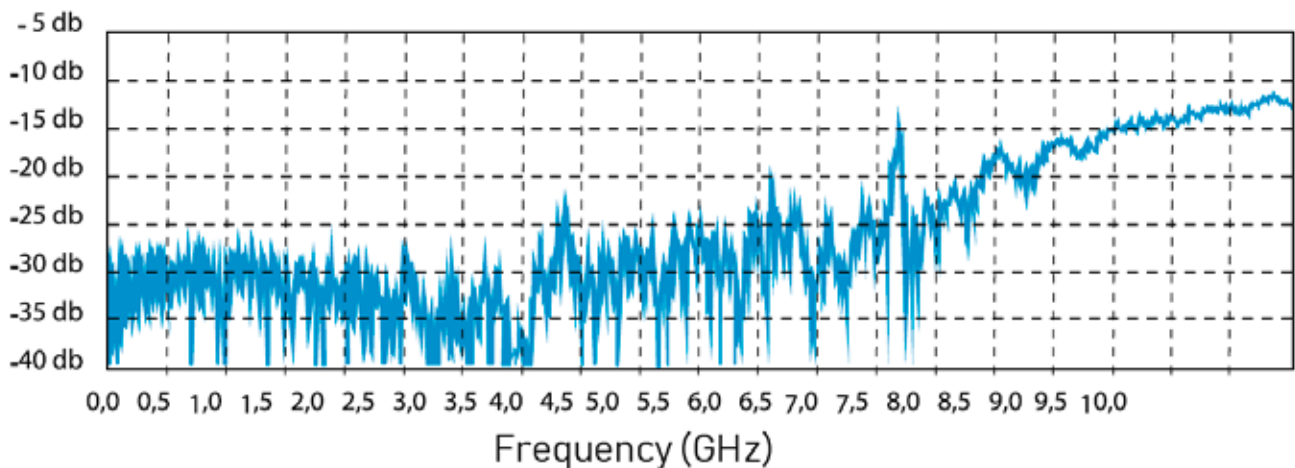
| | |
|---------------------|--|
| Inner conductor | bare copper wire |
| Inner conductor Ø | 1 x 1,13 mm |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 3,1 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 70% |
| Outer conductor Ø | 3,7 mm |
| Jacket | thermoplastic copolymer (FRNC) black |
| Weight | 37 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 100 N |

Electrical data at 20°C

| | |
|---|-------------|
| Capacitance (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 20,5 Ω/km |
| DC-resistance Outer conductor | 22 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (wire/screen rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 2,5 kV |

| | Aircell 5 Heatex | RG 58/U | RG 213/U |
|-----------------------|------------------|----------|----------|
| Capacitance | 78 pF/m | 102 pF/m | 101 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 2,78 | 5,00 | 2,00 |
| 100 MHz | 8,93 | 17,00 | 7,00 |
| 500 MHz | 20,49 | 39,00 | 17,00 |
| 1000 MHz | 29,54 | 54,60 | 22,50 |
| 3000 MHz | 53,57 | 118,00 | 58,50 |

Typ. Return loss



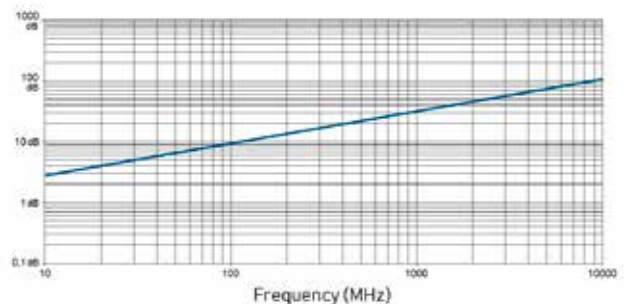
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|-----------|--------|
| 5 MHz | 1,97 | 1000 MHz | 29,54 |
| 10 MHz | 2,78 | 1296 MHz | 33,92 |
| 50 MHz | 6,28 | 1500 MHz | 36,70 |
| 100 MHz | 8,93 | 1800 MHz | 40,50 |
| 144 MHz | 10,76 | 2000 MHz | 42,88 |
| 200 MHz | 12,74 | 2400 MHz | 47,38 |
| 300 MHz | 15,70 | 3000 MHz | 53,57 |
| 432 MHz | 18,99 | 4000 MHz | 62,88 |
| 500 MHz | 20,49 | 5000 MHz | 71,30 |
| 800 MHz | 26,24 | 6000 MHz | 78,85 |
| | | 10000 MHz | 106,40 |

Max. Power handling (W at 40°C)

| | | | |
|----------|-------|-----------|----|
| 10 MHz | 1.885 | 3000 MHz | 98 |
| 100 MHz | 587 | 4000 MHz | 83 |
| 500 MHz | 256 | 5000 MHz | 74 |
| 1000 MHz | 178 | 6000 MHz | 66 |
| 2000 MHz | 122 | 10000 MHz | 49 |

Typ. Attenuation (db/100 m at 20°C)



Ecoflex® 5

thin, very low loss und extremely flexible



Ecoflex 5 is a thin and extremely flexible coaxial cable designed for frequencies up to 6 GHz. Due to its low loss in relation to the outer diameter of 5,5 mm and the very small bending radius the cable can be used for numerous RF applications.

The low attenuation values of Ecoflex 5 are achieved by using advanced manufacturing techniques and low loss PE-LLC dielectric with a foaming rate of more than 70%. This unique dielectric also offers water resistance and long term stability. The inner conductor of Ecoflex 5 contains 19 stranded bare copper wires with diameter of 0,287 mm each, manufactured from low oxygen copper (OFC). Such inner conductor structure provide the cable its remarkable flexibility. Further advantages of this cable include the use of double shielding which is constructed of overlapping 100 % tight copper foil and an additional shield braiding of bare copper wires with 80 % coverage. The copper foil has an applied PE coating which prevents foil cracking due to short radius bends. The black PVC jacket of Ecoflex 5 is UV-stabilized. Ecoflex 5 is an innovative coaxial cable, which is the right choice, when an extremely flexible, very low loss, and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|--------------|
| Diameter | 5,5 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 26,13 dB |
| f max | 6 GHz |
| Euroclass acc. to EN 50575 | Fca |

Characteristics

- Insulating material according to DIN EN 50290-2-23 (VDE 0819), table 2/A (HD 624.3)
- Jacket material according to DIN EN 50290-2-22 (VDE 0819), compound type TM 52 (HD 624.2)
- Flame retardant according to IEC 60332-1-2
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- UV-resistant

Technical data

| | |
|---------------------|--|
| Inner conductor | stranded bare copper wire |
| Inner conductor Ø | 1,44 mm (19 x 0,287 mm, 17 AWG) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 3,7 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 80% |
| Outer conductor Ø | 4,2 mm |
| Jacket | PVC black, UV-resistant |
| Weight | 42 kg/km |
| Min. Bending radius | 5XØ single, 10XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 150 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacitance (1 kHz) | ≈ 82 nF/km |
| Velocity factor | 0,80 |
| Screening attenuation 1 GHz | ≥ 85 dB |
| DC-resistance Inner conductor | ≤ 15 Ω/km |
| DC-resistance Outer conductor | 17 Ω/km |
| Insulation resistance | ≥ 5 GΩ*km |
| Test voltage (wire/screen rms 50 Hz 1 min.) | 1000 V |
| Max. Voltage | 2,5 kV |

| | Ecoflex 5 | RG 58/U | RG 213/U |
|-----------------------|-----------|----------|----------|
| Capacitance | 82 pF/m | 102 pF/m | 101 pF/m |
| Velocity factor | 0,80 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 2,66 | 5,00 | 2,00 |
| 100 MHz | 7,60 | 17,00 | 7,00 |
| 500 MHz | 18,05 | 39,00 | 17,00 |
| 1000 MHz | 26,13 | 54,60 | 22,50 |
| 3000 MHz | 49,40 | 118,00 | 58,50 |

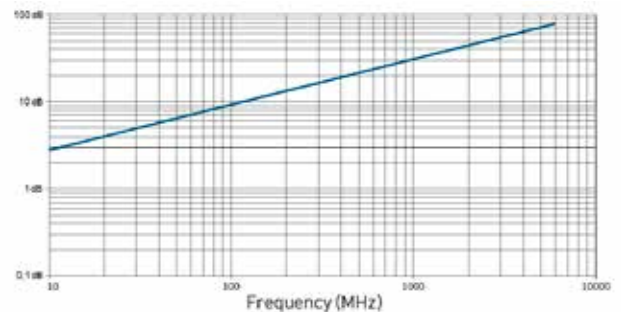
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|----------|-------|
| 10 MHz | 2,66 | 1000 MHz | 26,13 |
| 20 MHz | 3,80 | 1296 MHz | 29,93 |
| 50 MHz | 5,32 | 1500 MHz | 32,59 |
| 100 MHz | 7,60 | 1800 MHz | 36,39 |
| 144 MHz | 8,74 | 2000 MHz | 38,95 |
| 200 MHz | 10,21 | 2400 MHz | 43,23 |
| 300 MHz | 12,83 | 3000 MHz | 49,40 |
| 432 MHz | 16,29 | 4000 MHz | 57,95 |
| 500 MHz | 18,05 | 5000 MHz | 66,03 |
| 800 MHz | 22,90 | 6000 MHz | 74,10 |

Max. Power handling (W at 40°C)

| | | | |
|---------|-------|----------|-----|
| 10 MHz | 1.200 | 1000 MHz | 123 |
| 20 MHz | 914 | 2000 MHz | 84 |
| 50 MHz | 575 | 3000 MHz | 67 |
| 100 MHz | 405 | 4000 MHz | 58 |
| 500 MHz | 177 | 6000 MHz | 45 |

Typ. Attenuation (db/100 m at 20°C)



Ecoflex® 5 FRNC

thin, very low loss, extremely flexible and free of halogen



Ecoflex 5 FRNC is a thin and extremely flexible coaxial cable designed for frequencies up to 6 GHz. Due to its low loss in relation to the outer diameter of 5,5 mm and the very small bending radius the cable can be used for numerous RF applications.

The low attenuation values of Ecoflex 5 FRNC are achieved by using advanced manufacturing techniques and low loss PE-LLC dielectric with a foaming rate of more than 70%. This unique dielectric also offers water resistance and long term stability. The inner conductor of Ecoflex 5 FRNC contains 19 stranded bare copper wires with diameter of 0,287 mm each, manufactured from low oxygen copper (OFC). Such inner conductor structure provide the cable its remarkable flexibility. Further advantages of this cable include the use of double shielding which is constructed of overlapping 100 % tight copper foil and an additional shield braiding of bare copper wires with 80 % coverage. The copper foil has an applied PE coating which prevents foil cracking due to short radius bends. The jacket of Ecoflex 5 FRNC is made of a special thermoplastic copolymer (FRNC: Flame Retardant Non Corrosive). Due to this flame retardant and halogen-free material the cable has a low fire load, low flame propagation and limited smoke emission. The amount of toxic and corrosive gases is considerably reduced during combustion.

Ecoflex 5 FRNC is an innovative coaxial cable, which is the right choice, when an extremely flexible,

very low loss, halogen-free and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|--------------|
| Diameter | 5,5 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 26,13 dB |
| f max | 6 GHz |
| Euroclass acc. to EN 50575 | Fca |

Characteristics

| |
|---|
| Insulating material according to DIN EN 50290-2-23 (VDE 0819), table 2/A (HD 624.3) |
| Jacket material according to DIN EN 50290-2-27 (HD 624.7) |
| Flame retardant according to IEC 60332-1-2 |
| RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3) |
| Low Smoke, Fire retardant, Zero Halogen (LSZH) |
| Corrosivity of fumes according to IEC 60754-2 |
| Smoke density according to IEC 61034 |
| UV-resistant |

Technical data

| | |
|---------------------|--|
| Inner conductor | stranded bare copper wire |
| Inner conductor Ø | 1,44 mm (19 x 0,287 mm, 17 AWG) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 3,7 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 80% |
| Outer conductor Ø | 4,2 mm |
| Jacket | thermoplastic copolymer (FRNC) black |
| Weight | 45 kg/km |
| Min. Bending radius | 5XØ single, 10XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 150 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacitance (1 kHz) | ≈ 82 nF/km |
| Velocity factor | 0,80 |
| Screening attenuation 1 GHz | ≥ 85 dB |
| DC-resistance Inner conductor | ≤ 15 Ω/km |
| DC-resistance Outer conductor | 17 Ω/km |
| Insulation resistance | ≥ 5 GΩ*km |
| Test voltage (wire/screen rms 50 Hz 1 min.) | 1000 V |
| Max. Voltage | 2,5 kV |

| | Ecoflex 5 FRNC | RG 58/U | RG 213/U |
|-----------------------|-------------------|----------|----------|
| Capacitance | 82 pF/m | 102 pF/m | 101 pF/m |
| Velocity factor | 0,80 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 2,66 | 5,00 | 2,00 |
| 100 MHz | 7,60 | 17,00 | 7,00 |
| 500 MHz | 18,05 | 39,00 | 17,00 |
| 1000 MHz | 26,13 | 54,60 | 22,50 |
| 3000 MHz | 49,40 | 118,00 | 58,50 |

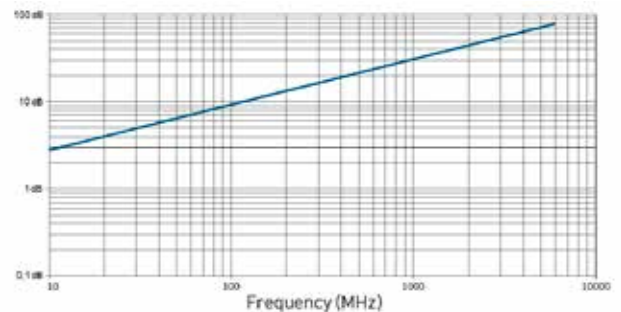
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|----------|-------|
| 10 MHz | 2,66 | 1000 MHz | 26,13 |
| 20 MHz | 3,80 | 1296 MHz | 29,93 |
| 50 MHz | 5,32 | 1500 MHz | 32,59 |
| 100 MHz | 7,60 | 1800 MHz | 36,39 |
| 144 MHz | 8,74 | 2000 MHz | 38,95 |
| 200 MHz | 10,21 | 2400 MHz | 43,23 |
| 300 MHz | 12,83 | 3000 MHz | 49,40 |
| 432 MHz | 16,29 | 4000 MHz | 57,95 |
| 500 MHz | 18,05 | 5000 MHz | 66,03 |
| 800 MHz | 22,90 | 6000 MHz | 74,10 |

Max. Power handling (W at 40°C)

| | | | |
|---------|-------|----------|-----|
| 10 MHz | 1.200 | 1000 MHz | 123 |
| 20 MHz | 914 | 2000 MHz | 84 |
| 50 MHz | 575 | 3000 MHz | 67 |
| 100 MHz | 405 | 4000 MHz | 58 |
| 500 MHz | 177 | 6000 MHz | 45 |

Typ. Attenuation (db/100 m at 20°C)



Aircell® 7

ultraflexible, low loss and stray radiation resistant



Aircell 7 is an ultraflexible coaxial cable designed for frequencies up to 6 GHz. Due to its low loss in relation to the outer diameter and the small bending radius the cable can be used for numerous RF applications.

The low attenuation of Aircell 7 is achieved by using advanced manufacturing techniques and low loss PE-LLC dielectric with a foaming rate of more than 70%. This unique dielectric also offers water resistance and long term stability. The inner conductor containing 19 stranded bare copper wires of low oxygen copper (OFC) provide the cable its remarkable flexibility. Further advantages of this cable include the use of double shielding which is constructed of overlapping 100 % tight copper foil and an additional shield braiding of bare copper wires with 85 % coverage. The copper foil has an applied PE coating which prevents foil cracking due to short radius bends. The black PVC jacket of Aircell 7 is UV-stabilized. Aircell 7 is the right choice, when a super flexible, low loss and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|--------------|
| Diameter | 7,3 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 20,44 dB |
| f max | 6 GHz |
| Euroclass acc. to EN 50575 | Eca |

Characteristics

- Conductor/screen material according to DIN EN 13602 Cu-ETP-A
- Jacket material according to DIN EN 50290-2-22 (VDE 0819), compound type TM 52 (HD 624.2)
- Flame retardant according to IEC 60332-1-2
- Flame retardant according to UN/ECE-R 118:2019-06 § 6.2.6, ISO 6722-1:2011-10 § 5.22
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- UV-resistant

Technical data

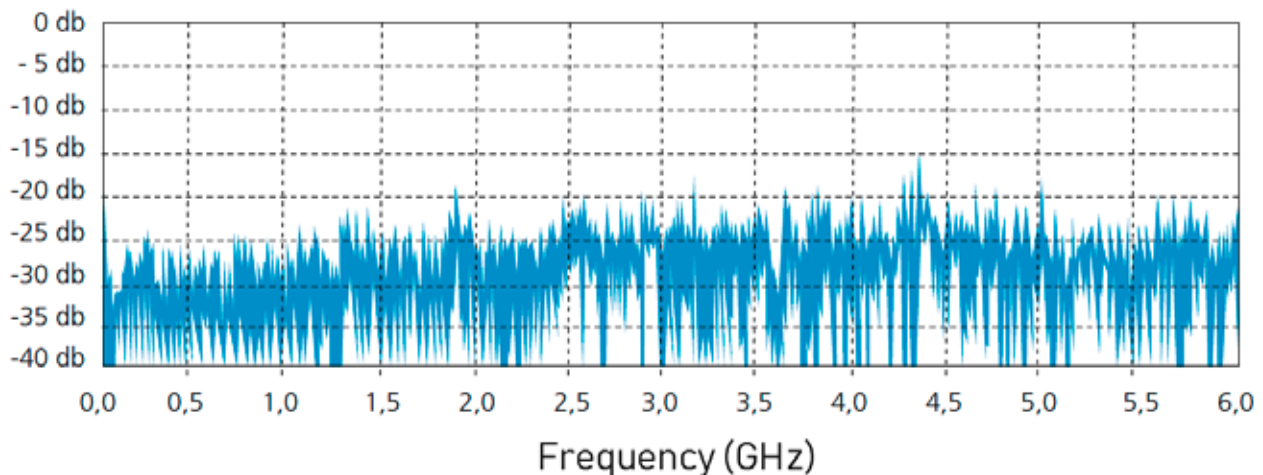
| | |
|---------------------|--|
| Inner conductor | stranded bare copper wire |
| Inner conductor Ø | 1,9 mm (19 x 0,38 mm, 14 AWG) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 5,0 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 85% |
| Outer conductor Ø | 5,7 mm |
| Jacket | PVC black, UV-resistant |
| Weight | 70 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 300 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacitance (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 9,0 Ω/km |
| DC-resistance Outer conductor | 8,7 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (wire/screen rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 8 kV |

| | Aircell 7 | RG 213/U | RG 58/U |
|-----------------------|-----------|----------|----------|
| Capacitance | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 2,09 | 2,00 | 5,00 |
| 100 MHz | 5,97 | 7,00 | 17,00 |
| 500 MHz | 13,98 | 17,00 | 39,00 |
| 1000 MHz | 20,44 | 22,50 | 54,60 |
| 3000 MHz | 38,84 | 58,50 | 118,00 |

Typ. Return loss



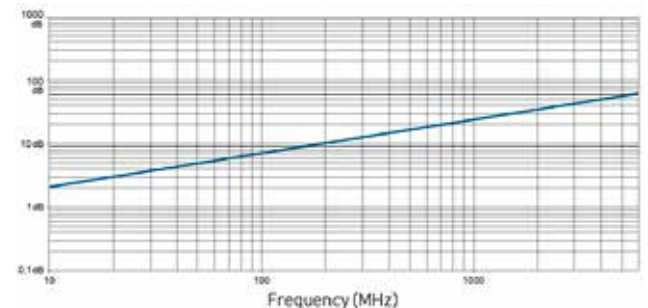
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|----------|-------|
| 5 MHz | 1,52 | 1000 MHz | 20,44 |
| 10 MHz | 2,09 | 1296 MHz | 23,60 |
| 50 MHz | 4,29 | 1500 MHz | 25,73 |
| 100 MHz | 5,97 | 1800 MHz | 28,50 |
| 144 MHz | 7,22 | 2000 MHz | 30,29 |
| 200 MHz | 8,59 | 2400 MHz | 33,82 |
| 300 MHz | 10,64 | 3000 MHz | 38,84 |
| 432 MHz | 12,92 | 4000 MHz | 46,66 |
| 500 MHz | 13,98 | 5000 MHz | 54,19 |
| 800 MHz | 18,05 | 6000 MHz | 61,66 |

Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 2.040 | 2400 MHz | 118 |
| 100 MHz | 620 | 3000 MHz | 104 |
| 500 MHz | 260 | 4000 MHz | 89 |
| 1000 MHz | 191 | 5000 MHz | 78 |
| 2000 MHz | 131 | 6000 MHz | 70 |

Typ. Attenuation (db/100 m at 20°C)



Aircell® 7 Heatex®

Ultraflexible, flame retardant, free of halogen and qualified for use in public buildings



Aircell 7 Heatex is an ultraflexible coaxial cable designed for frequencies up to 6 GHz. Due to its low loss in relation to the outer diameter and the small bending radius the cable can be used for numerous RF applications.

The low attenuation of Aircell 7 Heatex is achieved by using advanced manufacturing techniques and low loss PE-LLC dielectric with a foaming rate of more than 70%. This unique dielectric also offers water resistance and long term stability. The inner conductor containing 19 stranded bare copper wires of low oxygen copper (OFC) provide the cable its remarkable flexibility. Further advantages of this cable include the use of double shielding which is constructed of overlapping 100 % tight copper foil and an additional shield braiding of bare copper wires with 85 % coverage. The copper foil has an applied PE coating which prevents foil cracking due to short radius bends. The jacket of the cable is made of a halogen-free and flame retardant copolymer. Due to this Heatex jacket, the cable has a low fire load, low flame propagation, limited smoke emission and reduced production of toxic and corrosive gases. With the fire protection rating Cca Aircell 7 Heatex is approved for installation in public buildings. Aircell 7 Heatex is the right choice, when a super flexible, low loss, halogen-free and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|--------------|
| Diameter | 7,3 ± 0,3 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 20,44 dB |
| f max | 6 GHz |
| Euroclass acc. to EN 50575 | Cca |

Characteristics

- Jacket material according to DIN EN 50290-2-27 (HD 624.7)
- Flame retardant according to IEC 60332-1-2
- RoHS compliant (Directive 2011/65/EC & 2015/863/ EU RoHS 3)
- Low Smoke, Fire retardant, Zero Halogen (LSZH)
- Corrosivity of fumes according to IEC 60754-2
- Smoke density according to IEC 61034
- UV-resistant

Technical data

| | |
|---------------------|--|
| Inner conductor | stranded bare copper wire |
| Inner conductor Ø | 1,9 mm (19 x 0,38 mm, 14 AWG) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 5,0 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 85% |
| Outer conductor Ø | 5,7 mm |
| Jacket | thermoplastic copolymer (FRNC) black |
| Weight | 73 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -40 to +80°C Storage, installation and operating |
| Pulling strength | 300 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacitance (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 9,0 Ω/km |
| DC-resistance Outer conductor | 8,7 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (wire/screen rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 8 kV |

| | Aircell 7 Heatex | RG 213/U | RG 58/U |
|-----------------------|------------------|----------|----------|
| Capacitance | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 2,09 | 2,00 | 5,00 |
| 100 MHz | 5,97 | 7,00 | 17,00 |
| 500 MHz | 13,98 | 17,00 | 39,00 |
| 1000 MHz | 20,44 | 22,50 | 54,60 |
| 3000 MHz | 38,84 | 58,50 | 118,00 |

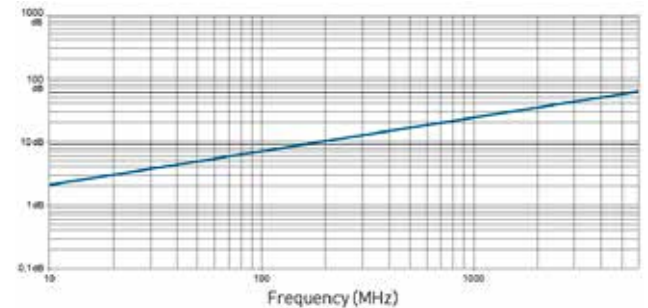
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|----------|-------|
| 5 MHz | 1,52 | 1000 MHz | 20,44 |
| 10 MHz | 2,09 | 1296 MHz | 23,60 |
| 50 MHz | 4,29 | 1500 MHz | 25,73 |
| 100 MHz | 5,97 | 1800 MHz | 28,50 |
| 144 MHz | 7,22 | 2000 MHz | 30,29 |
| 200 MHz | 8,59 | 2400 MHz | 33,82 |
| 300 MHz | 10,64 | 3000 MHz | 38,84 |
| 432 MHz | 12,92 | 4000 MHz | 46,66 |
| 500 MHz | 13,98 | 5000 MHz | 54,19 |
| 800 MHz | 18,05 | 6000 MHz | 61,66 |

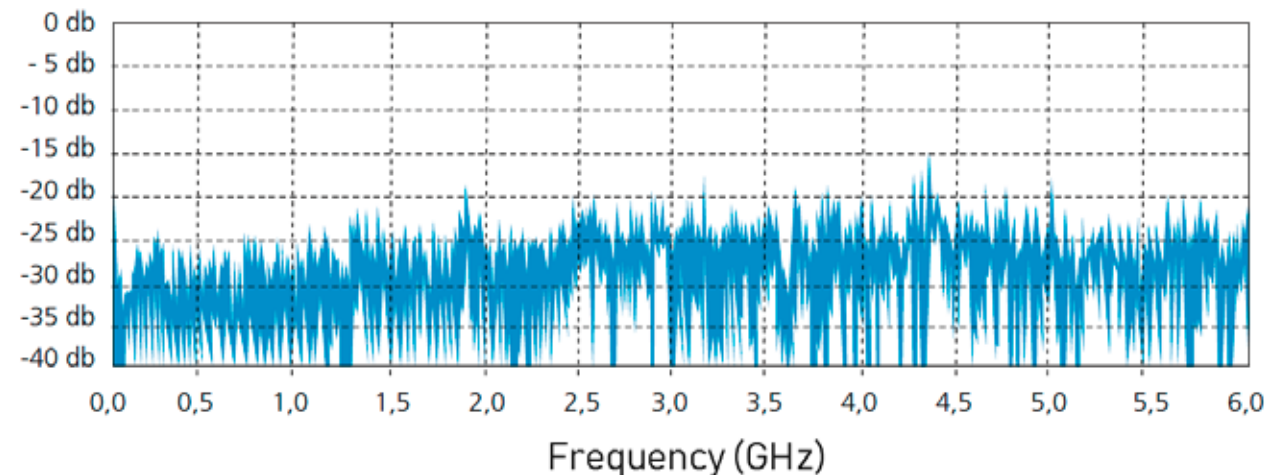
Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 2.040 | 2400 MHz | 118 |
| 100 MHz | 620 | 3000 MHz | 104 |
| 500 MHz | 260 | 4000 MHz | 89 |
| 1000 MHz | 191 | 5000 MHz | 78 |
| 2000 MHz | 131 | 6000 MHz | 70 |

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss



Ecoflex® 7

extraordinary low loss and highly flexible



Ecoflex 7 is an ultraflexible coaxial cable designed for frequencies up to 6 GHz. Due to its extraordinary low loss in relation to the outer diameter and the small bending radius the cable can be used for numerous RF applications.

The excellent attenuation values of Ecoflex 7 are achieved by using advanced manufacturing techniques and low loss PE-LLC dielectric with a foaming rate of more than 70%. This unique dielectric also offers water resistance and long term stability. The inner conductor of Ecoflex 7 contains 19 stranded bare copper wires with diameter of 0,38 mm each, manufactured from low oxygen copper (OFC). Such inner conductor structure provide the cable its remarkable flexibility. Further advantages of this cable include the use of double shielding which is constructed of overlapping 100 % tight copper foil and an additional shield braiding of bare copper wires with 85 % coverage. The copper foil has an applied PE coating which prevents foil cracking due to short radius bends. The black PVC jacket of Ecoflex 7 is UV-stabilized. Ecoflex 7 is an innovative coaxial cable, which is the right choice, when an extraordinary low loss, highly flexible and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|--------------|
| Diameter | 7,3 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 18,43 dB |
| f max | 6 GHz |
| Euroclass acc. to EN 50575 | Eca |

Characteristics

- Conductor/screen material according to DIN EN 13602 Cu-ETP-A
- Jacket material according to DIN EN 50290-2-22 (VDE 0819), compound type TM 52 (HD 624.2)
- Flame retardant according to IEC 60332-1-2
- Flame retardant according to ECE-R 118 Amendment 02, Paragraph 6.2.6 with the ISO 6722-1:2012 Paragraph 12
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- UV-resistant

Technical data

| | |
|---------------------|--|
| Inner conductor | stranded bare copper wire |
| Inner conductor Ø | 1,9 mm (19 x 0,38 mm, 14 AWG) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 5,0 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 85% |
| Outer conductor Ø | 5,7 mm |
| Jacket | PVC black, UV-resistant |
| Weight | 70 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 300 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacitance (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 9,0 Ω/km |
| DC-resistance Outer conductor | 8,7 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (wire/screen rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 8 kV |

| | Ecoflex 7 | RG 213/U | RG 58/U |
|-----------------------|-----------|----------|----------|
| Capacitance | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 1,88 | 2,00 | 5,00 |
| 100 MHz | 5,37 | 7,00 | 17,00 |
| 500 MHz | 12,59 | 17,00 | 39,00 |
| 1000 MHz | 18,43 | 22,50 | 54,60 |
| 3000 MHz | 34,96 | 58,50 | 118,00 |

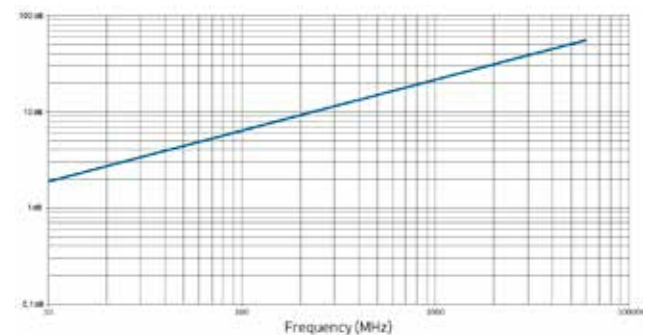
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|----------|-------|
| 5 MHz | 1,33 | 1000 MHz | 18,43 |
| 10 MHz | 1,88 | 1296 MHz | 20,71 |
| 50 MHz | 3,33 | 1500 MHz | 22,99 |
| 100 MHz | 5,37 | 1800 MHz | 25,46 |
| 144 MHz | 6,08 | 2000 MHz | 27,27 |
| 200 MHz | 7,13 | 2400 MHz | 30,40 |
| 300 MHz | 8,93 | 3000 MHz | 34,96 |
| 432 MHz | 11,40 | 4000 MHz | 41,99 |
| 500 MHz | 12,59 | 5000 MHz | 48,83 |
| 800 MHz | 15,96 | 6000 MHz | 55,48 |

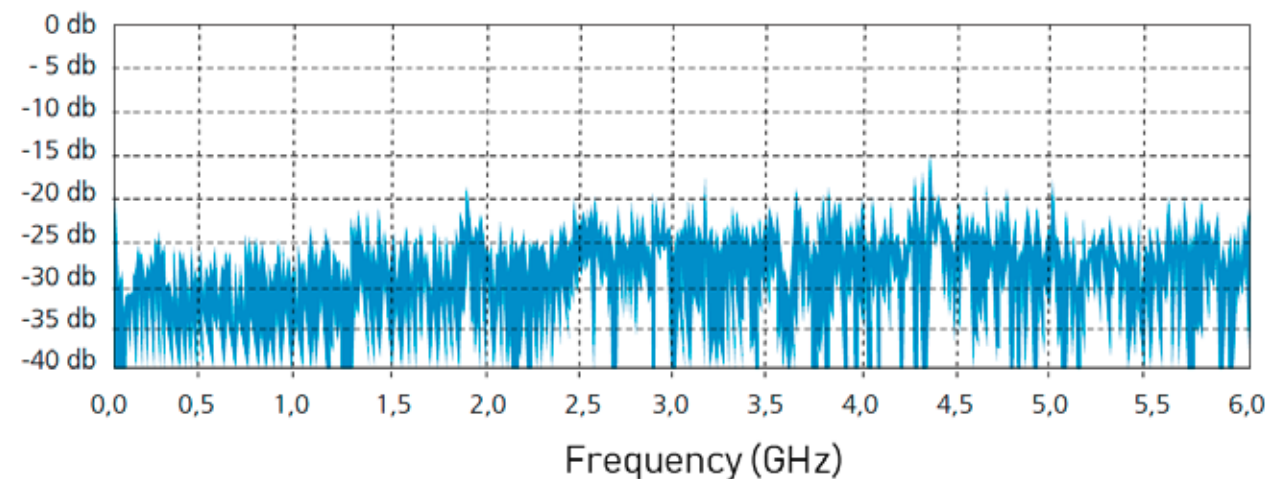
Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 2.040 | 2400 MHz | 118 |
| 100 MHz | 620 | 3000 MHz | 104 |
| 500 MHz | 260 | 4000 MHz | 89 |
| 1000 MHz | 191 | 5000 MHz | 78 |
| 2000 MHz | 131 | 6000 MHz | 70 |

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss



Ecoflex® 7 FRNC

extraordinary low loss, highly flexible and free of halogen



Ecoflex 7 FRNC is an ultraflexible coaxial cable designed for frequencies up to 6 GHz. Due to its extraordinary low loss in relation to the outer diameter and the small bending radius the cable can be used for numerous RF applications.

The excellent attenuation values of Ecoflex 7 FRNC are achieved by using advanced manufacturing techniques and low loss PE-LLC dielectric with a foaming rate of more than 70%. This unique dielectric also offers water resistance and long term stability. The inner conductor of Ecoflex 7 FRNC contains 19 stranded bare copper wires with diameter of 0,38 mm each, manufactured from low oxygen copper (OFC). Such inner conductor structure provide the cable its remarkable flexibility. Further advantages of this cable include the use of double shielding which is constructed of overlapping 100 % tight copper foil and an additional shield braiding of bare copper wires with 85 % coverage. The copper foil has an applied PE coating which prevents foil cracking due to short radius bends. The jacket of Ecoflex 7 FRNC is made of a special thermoplastic copolymer (FRNC: Flame Retardant Non Corrosive). Due to this flame retardant and halogen-free material the cable has a low fire load, low flame propagation and limited smoke emission. The amount of toxic and corrosive gases is considerably reduced during combustion.

Ecoflex 7 FRNC is an innovative coaxial cable, which is the right choice, when an extraordinary low loss,

highly flexible, halogen-free and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|--------------|
| Diameter | 7,3 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 18,43 dB |
| f max | 6 GHz |
| Euroclass acc. to EN 50575 | Fca |

Characteristics

- Conductor/screen material according to DIN EN 13602 Cu-ETP-A
- Jacket material according to DIN EN 50290-2-27 (HD 624.7)
- Flame retardant according to IEC 60332-1-2
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- Low Smoke, Fire retardant, Zero Halogen (LSZH)
- Corrosivity of fumes according to IEC 60754-2
- Smoke density according to IEC 61034
- UV-resistant

Technical data

| | |
|---------------------|--|
| Inner conductor | stranded bare copper wire |
| Inner conductor Ø | 1,9 mm (19 x 0,38 mm, 14 AWG) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 5,0 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 85% |
| Outer conductor Ø | 5,7 mm |
| Jacket | thermoplastic copolymer (FRNC) black |
| Weight | 70 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 300 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacitance (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 9,0 Ω/km |
| DC-resistance Outer conductor | 8,7 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (wire/screen rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 8 kV |

| | Ecoflex 7 FRNC | RG 213/U | RG 58/U |
|-----------------------|-------------------|----------|----------|
| Capacitance | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 1,88 | 2,00 | 5,00 |
| 100 MHz | 5,37 | 7,00 | 17,00 |
| 500 MHz | 12,59 | 17,00 | 39,00 |
| 1000 MHz | 18,43 | 22,50 | 54,60 |
| 3000 MHz | 34,96 | 58,50 | 118,00 |

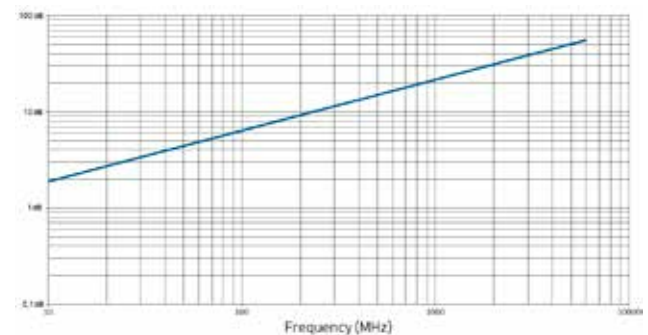
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|----------|-------|
| 5 MHz | 1,33 | 1000 MHz | 18,43 |
| 10 MHz | 1,88 | 1296 MHz | 20,71 |
| 50 MHz | 3,33 | 1500 MHz | 22,99 |
| 100 MHz | 5,37 | 1800 MHz | 25,46 |
| 144 MHz | 6,08 | 2000 MHz | 27,27 |
| 200 MHz | 7,13 | 2400 MHz | 30,40 |
| 300 MHz | 8,93 | 3000 MHz | 34,96 |
| 432 MHz | 11,40 | 4000 MHz | 41,99 |
| 500 MHz | 12,59 | 5000 MHz | 48,83 |
| 800 MHz | 15,96 | 6000 MHz | 55,48 |

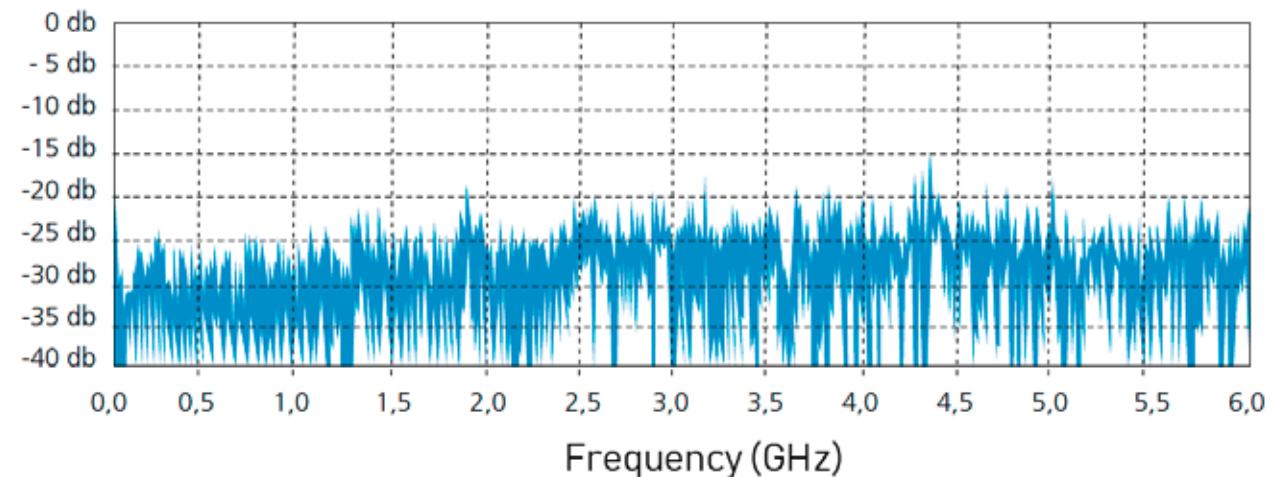
Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 2.040 | 2400 MHz | 118 |
| 100 MHz | 620 | 3000 MHz | 104 |
| 500 MHz | 260 | 4000 MHz | 89 |
| 1000 MHz | 191 | 5000 MHz | 78 |
| 2000 MHz | 131 | 6000 MHz | 70 |

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss



Aircom® Premium

ultra low loss up to 12 GHz



Aircom Premium is an ultra low loss coaxial cable with the maximum frequency of 12 GHz. It is characterized by a very low weight and a very low attenuation. Manufactured highly precisely this cable has a hybrid inner conductor of copper-clad aluminium wire (CCA), where copper cladding is covering the inner aluminium core. Combining copper's good electrical conductivity and aluminium's light weight in a composite material makes Aircom Premium perfectly suited for most high frequency coaxial applications. The precise formability of the aluminium core is responsible for almost no impurities in the entire frequency range. The skin effect ensures a high performance RF line. In addition, the cable is highly suitable for digital transmission modes due to its outstanding PIM (passive intermodulation) performance.

The extremely low attenuation of Aircom Premium is achieved by a low loss PE dielectric. The material is also resistant to moisture. Another feature of Aircom Premium is its double shielding which is constructed of a thin, overlapping copper foil and an additional shield braiding of bare copper wires with 75 % coverage. The copper foil has an applied PE coating which prevents foil cracking due to short radius bends. The black PVC jacket of Aircom Premium is UV-stabilized. Aircom Premium is the right choice, when a light, low loss and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|---------------|
| Diameter | 10,2 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 11,88 dB |
| f max | 12 GHz |
| Euroclass acc. to EN 50575 | Eca |

Characteristics

- Jacket material according to DIN EN 50290-2-22 (VDE 0819), compound type TM 52 (HD 624.2)
- Flame retardant according to IEC 60332-1-2
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- UV-resistant

Technical data

| | |
|---------------------|--|
| Inner conductor | Hybrid CCA – bare copper-clad aluminium wire |
| Inner conductor Ø | 1 x 2,75 mm |
| Dielectric | blue foamed Polyethylene (PE) with skin |
| Dielectric Ø | 7,2 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 75% |
| Outer conductor Ø | 7,9 mm |
| Jacket | PVC black, UV-resistant |
| Weight | 99 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 650 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacitance (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 5,0 Ω/km |
| DC-resistance Outer conductor | 7,3 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (wire/screen rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 7 kV |

| | Aircom Premium | RG 213/U | RG 58/U |
|-----------------------|----------------|----------|----------|
| Capacitance | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 1,05 | 2,00 | 5,00 |
| 100 MHz | 3,42 | 7,00 | 17,00 |
| 500 MHz | 8,08 | 17,00 | 39,00 |
| 1000 MHz | 11,88 | 22,50 | 54,60 |
| 3000 MHz | 21,85 | 58,50 | 118,00 |

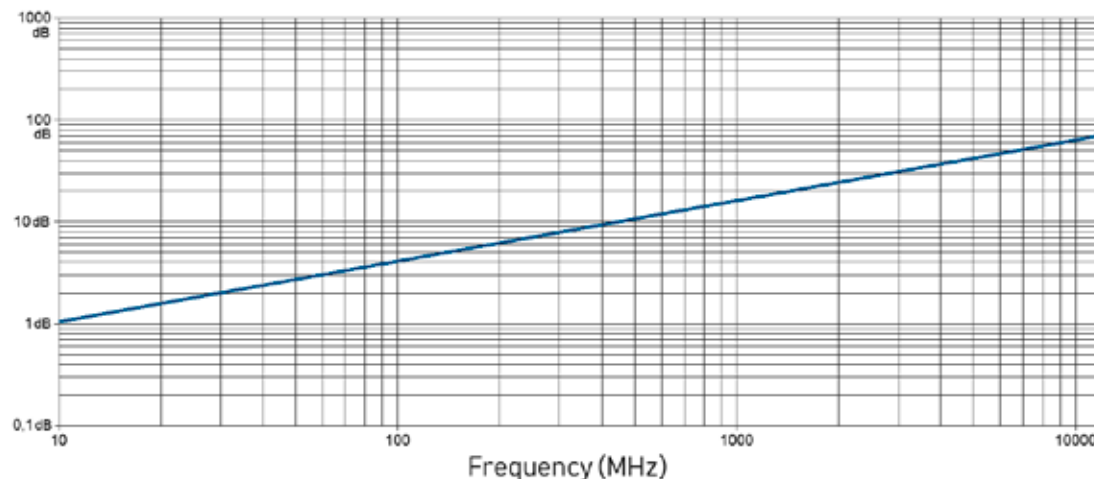
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|----------|-------|-----------|-------|
| 5 MHz | 1,03 | 1500 MHz | 14,28 |
| 10 MHz | 1,05 | 1800 MHz | 16,16 |
| 50 MHz | 2,09 | 2000 MHz | 17,29 |
| 100 MHz | 3,42 | 2400 MHz | 19,00 |
| 144 MHz | 3,90 | 3000 MHz | 21,85 |
| 200 MHz | 4,51 | 4000 MHz | 25,65 |
| 300 MHz | 5,70 | 5000 MHz | 29,45 |
| 432 MHz | 7,22 | 6000 MHz | 33,25 |
| 500 MHz | 8,08 | 8000 MHz | 42,75 |
| 800 MHz | 10,55 | 10000 MHz | 57,00 |
| 1000 MHz | 11,88 | 12000 MHz | 71,25 |
| 1296 MHz | 13,38 | | |

Max. Power handling (W at 40°C)

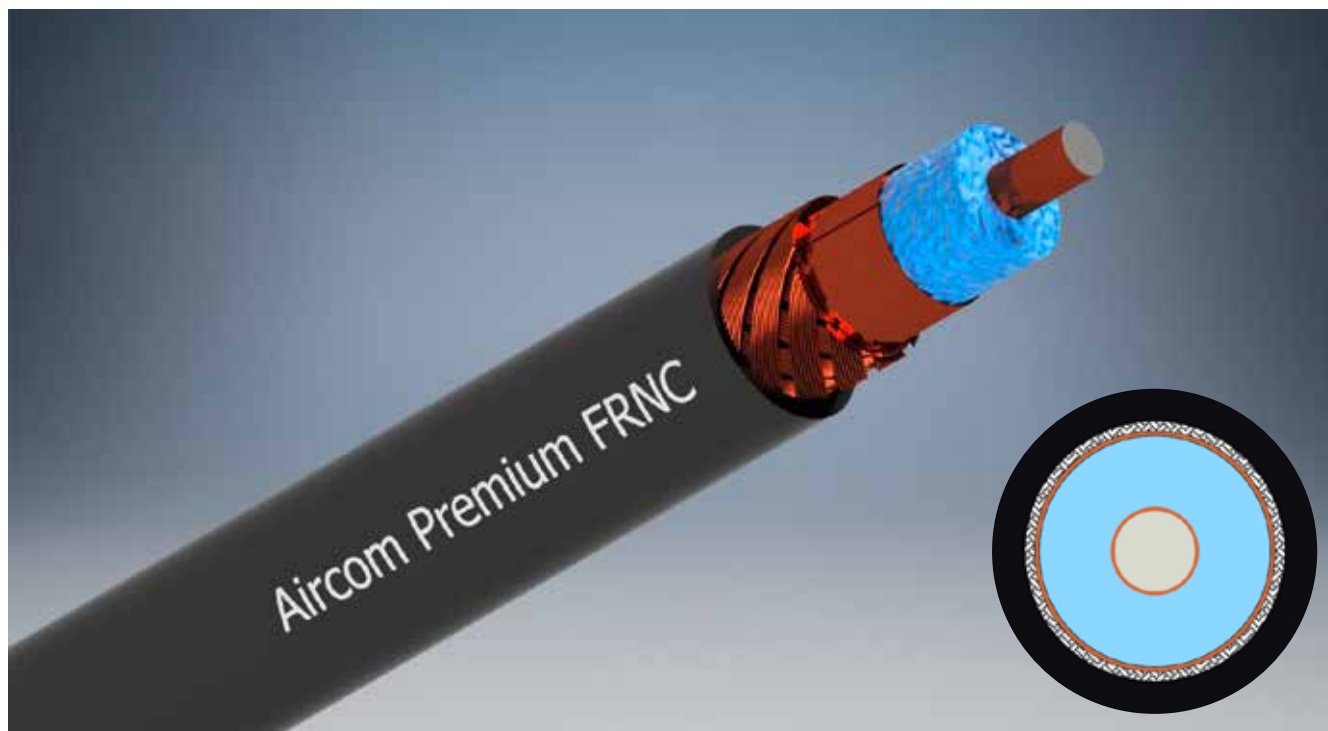
| | | | |
|----------|-------|-----------|-----|
| 10 MHz | 4.700 | 3000 MHz | 230 |
| 100 MHz | 1400 | 4000 MHz | 190 |
| 500 MHz | 620 | 5000 MHz | 170 |
| 1000 MHz | 420 | 6000 MHz | 150 |
| 2000 MHz | 290 | 8000 MHz | 130 |
| 2400 MHz | 260 | 10000 MHz | 100 |
| | | 12000 MHz | 80 |

Typ. Attenuation (db/100 m at 20°C)



Aircom® Premium FRNC

ultra low loss up to 12 GHz and free of halogen



Aircom Premium FRNC is an ultra low loss coaxial cable with the maximum frequency of 12 GHz. It is characterized by a very low weight and a very low attenuation. Manufactured highly precisely this cable has a hybrid inner conductor of copper-clad aluminium wire (CCA), where copper cladding is covering the inner aluminium core. Combining copper's good electrical conductivity and aluminium's light weight in a composite material makes Aircom Premium FRNC perfectly suited for most high frequency coaxial applications. The precise formability of the aluminum core is responsible for almost no impurities in the entire frequency range. The skin effect ensures a high performance RF line. In addition, the cable is highly suitable for digital transmission modes due to its outstanding PIM (passive intermodulation) performance.

The extremely low attenuation of Aircom Premium FRNC is achieved by a low loss PE dielectric. The material is also resistant to moisture. Another feature of Aircom Premium FRNC is its double shielding which is constructed of a thin, overlapping copper foil and an additional shield braiding of bare copper wires with 75 % coverage. The copper foil has an applied PE coating which prevents foil cracking due to short radius bends. The jacket of Aircom Premium FRNC is made of a special thermoplastic copolymer (FRNC: Flame Retardant Non Corrosive). Due to this flame retardant and halo-

gen-free material the cable has a low fire load, low flame propagation and limited smoke emission. The amount of toxic and corrosive gases is considerably reduced during combustion. Aircom Premium FRNC is the right choice, when a light, low loss, halogen-free and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|---------------|
| Diameter | 10,2 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 11,88 dB |
| f max | 12 GHz |
| Euroclass acc. to EN 50575 | Fca |

Characteristics

Jacket material according to DIN EN 50290-2-27 (HD 624.7)
Flame retardant according to IEC 60332-1-2
Manufactured according to DIN EN 45545-2 Table 5 R15 HL2
RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
Low Smoke, Fire retardant, Zero Halogen (LSZH)
Corrosivity of fumes according to IEC 60754-2
Smoke density according to IEC 61034
UV-resistant

Technical data

| | |
|---------------------|--|
| Inner conductor | Hybrid CCA – bare copper-clad aluminium wire |
| Inner conductor Ø | 1 x 2,75 mm |
| Dielectric | blue foamed Polyethylene (PE) with skin |
| Dielectric Ø | 7,2 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 75% |
| Outer conductor Ø | 7,9 mm |
| Jacket | thermoplastic copolymer (FRNC) black |
| Weight | 108 kg/km |
| Min. Bending radius | 4x Ø single, 8x Ø repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 650 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacitance (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 5,0 Ω/km |
| DC-resistance Outer conductor | 7,3 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (wire/screen rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 7 kV |

Aircom Premium FRNC

| | Aircom Premium FRNC | RG 213/U | RG 58/U |
|-----------------------|---------------------|----------|----------|
| Capacitance | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 1,05 | 2,00 | 5,00 |
| 100 MHz | 3,42 | 7,00 | 17,00 |
| 500 MHz | 8,08 | 17,00 | 39,00 |
| 1000 MHz | 11,88 | 22,50 | 54,60 |
| 3000 MHz | 21,85 | 58,50 | 118,00 |

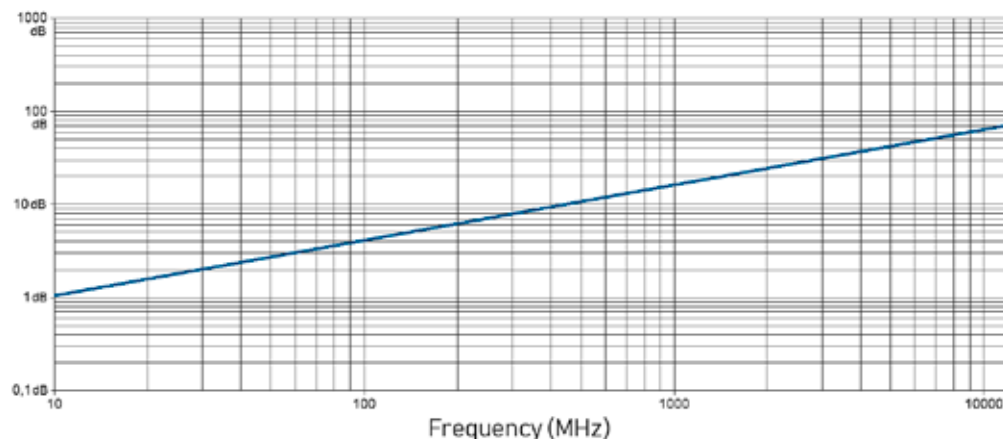
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|----------|-------|-----------|-------|
| 5 MHz | 1,03 | 1500 MHz | 14,28 |
| 10 MHz | 1,05 | 1800 MHz | 16,16 |
| 50 MHz | 2,09 | 2000 MHz | 17,29 |
| 100 MHz | 3,42 | 2400 MHz | 19,00 |
| 144 MHz | 3,90 | 3000 MHz | 21,85 |
| 200 MHz | 4,51 | 4000 MHz | 25,65 |
| 300 MHz | 5,70 | 5000 MHz | 29,45 |
| 432 MHz | 7,22 | 6000 MHz | 33,25 |
| 500 MHz | 8,08 | 8000 MHz | 42,75 |
| 800 MHz | 10,55 | 10000 MHz | 57,00 |
| 1000 MHz | 11,88 | 12000 MHz | 71,25 |

Max. Power handling (W at 40°C)

| | | | |
|----------|-------|-----------|-----|
| 10 MHz | 4.700 | 3000 MHz | 230 |
| 100 MHz | 1400 | 4000 MHz | 190 |
| 500 MHz | 620 | 5000 MHz | 170 |
| 1000 MHz | 420 | 6000 MHz | 150 |
| 2000 MHz | 290 | 8000 MHz | 130 |
| 2400 MHz | 260 | 10000 MHz | 100 |
| | | 12000 MHz | 80 |

Typ. Attenuation (db/100 m at 20°C)



Ecoflex® 10

ultraflexible and low loss



Ecoflex 10 is a flexible, low loss 50 ohm coaxial cable for the frequency range up to 6 GHz. Advanced manufacturing techniques combined with the use of a low loss PE-LLC dielectric with a foaming rate of more than 70% result in very low attenuation values, which set standards among flexible coaxial cables of this dimension.

The high flexibility of Ecoflex 10 is further enhanced through the use of an oxygen-free copper inner conductor containing 7 stranded bare copper wires. During a special manufacturing process the inner conductor is continuously compressed, calibrated and then pre-coated to achieve good attenuation, good return loss values and stable impedance matching. Another advantage of Ecoflex 10 is its double shielding: an overlapping copper foil and an additional shield braiding of bare copper wires with 75 % coverage ensure a high screening attenuation of > 90 dB at 1 GHz.

The black PVC jacket of Ecoflex 10 is UV-stabilized. For the easier installation of this cable, a special high quality solderless N male connector has been developed in addition to a full range of available standard connectors. It can be assembled in a few minutes without special tools. Ecoflex 10 is the right choice, when a highly flexible, low loss and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|---------------|
| Diameter | 10,2 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 13,49 dB |
| f max | 6 GHz |
| Euroclass acc. to EN 50575 | Eca |

Characteristics

- Conductor material according to DIN EN 13602 Cu-ETP-A
- Jacket material according to DIN EN 50290-2-22 (VDE 0819), compound type TM 52 (HD 624.2)
- Flame retardant according to IEC 60332-1-2
- Flame retardant according to UN/ECE-R 118:2019-06 § 6.2.6, ISO 6722-1:2011-10 § 5.22
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- UV-resistant

Technical data

| | |
|---------------------|--|
| Inner conductor | Stranded bare copper wire |
| Inner conductor Ø | 2,85 mm (7 x 1,0 mm, 10 AWG) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 7,2 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 75% |
| Outer conductor Ø | 7,9 mm |
| Jacket | PVC black, UV-resistant |
| Weight | 129 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 600 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacity (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 3,5 Ω/km |
| DC-resistance Outer conductor | 6,6 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 5 kV |

| | Ecoflex 10 | RG 213/U | RG 58/U |
|-----------------------|------------|----------|----------|
| Capacity | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 1,14 | 2,00 | 5,00 |
| 100 MHz | 3,80 | 7,00 | 17,00 |
| 500 MHz | 9,12 | 17,00 | 39,00 |
| 1000 MHz | 13,49 | 22,50 | 54,60 |
| 3000 MHz | 25,37 | 58,50 | 118,00 |

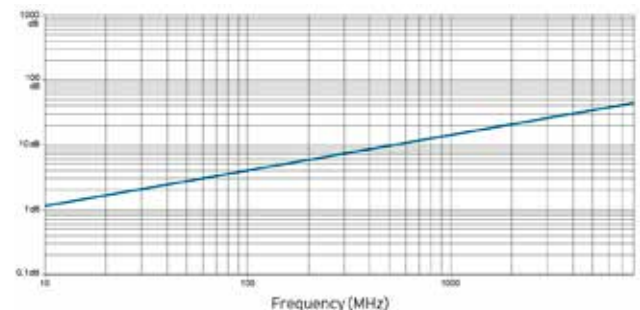
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|----------|-------|
| 5 MHz | 0,76 | 1000 MHz | 13,49 |
| 10 MHz | 1,14 | 1296 MHz | 15,68 |
| 50 MHz | 2,66 | 1500 MHz | 17,01 |
| 100 MHz | 3,80 | 1800 MHz | 18,91 |
| 144 MHz | 4,66 | 2000 MHz | 20,14 |
| 200 MHz | 5,51 | 2400 MHz | 22,42 |
| 300 MHz | 6,94 | 3000 MHz | 25,37 |
| 432 MHz | 8,46 | 4000 MHz | 29,55 |
| 500 MHz | 9,12 | 5000 MHz | 33,44 |
| 800 MHz | 11,88 | 6000 MHz | 37,05 |

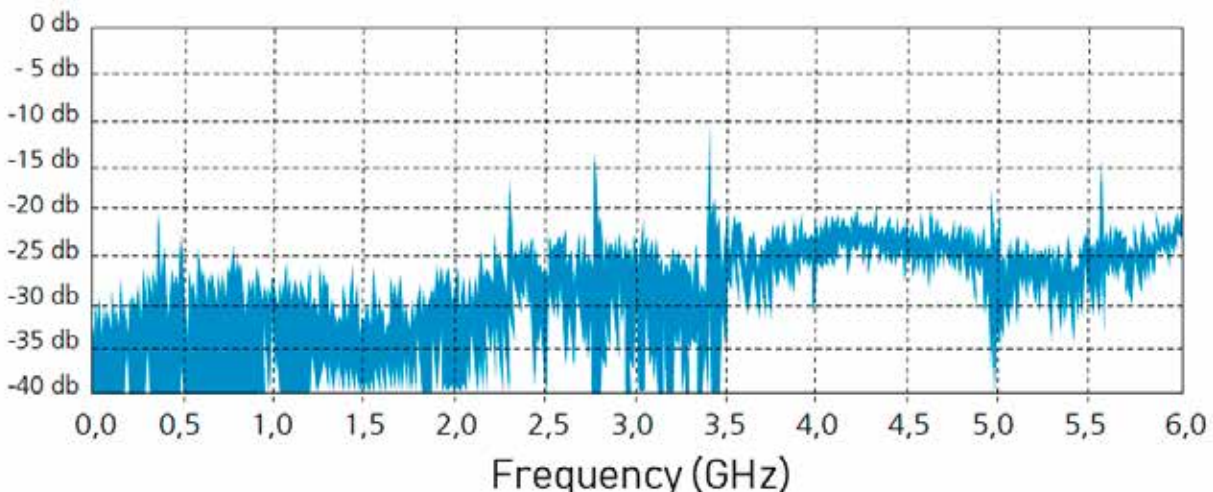
Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 3.960 | 2400 MHz | 210 |
| 100 MHz | 1.210 | 3000 MHz | 180 |
| 500 MHz | 510 | 4000 MHz | 150 |
| 1000 MHz | 350 | 5000 MHz | 130 |
| 2000 MHz | 230 | 6000 MHz | 120 |

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss



Ecoflex® 10 FRNC

ultraflexible, low loss and free of halogen



Ecoflex 10 FRNC is a flexible, low loss 50 ohm coaxial cable for the frequency range up to 6 GHz. Advanced manufacturing techniques combined with the use of a low loss PE-LLC dielectric with a foaming rate of more than 70% result in very low attenuation values, which set standards among flexible coaxial cables of this dimension.

The high flexibility of Ecoflex 10 FRNC is further enhanced through the use of an oxygen-free copper inner conductor containing 7 stranded bare copper wires. During a special manufacturing process the inner conductor is compressed, calibrated and then pre-coated to achieve good attenuation and return loss values. Another advantage of Ecoflex 10 FRNC is its double shielding: an overlapping copper foil and an additional shield braiding of bare copper wires with 75 % coverage ensure a high screening attenuation of > 90 dB at 1 GHz.

The jacket of Ecoflex 10 FRNC is made of a special thermoplastic copolymer (FRNC: Flame Retardant Non Corrosive). Due to this flame retardant and halogen-free material the cable has a low fire load, low flame propagation and limited smoke emission. The amount of toxic and corrosive gases is considerably reduced during combustion.

For the easier installation of Ecoflex 10 FRNC, a special high quality solderless N male connector has been developed in addition to a full range of available standard connectors. It can be mounted

in a few minutes without special tools. Ecoflex 10 FRNC is the right choice, when a highly flexible, low loss, halogen-free and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|---------------|
| Diameter | 10,2 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 13,49 dB |
| f max | 6 GHz |
| Euroclass acc. to EN 50575 | Fca |

Characteristics

- Jacket material according to DIN EN 50290-2-27 (HD 624.7)
- Flame retardant according to IEC 60332-1-2
- Manufactured according to DIN EN 45545-2 Table 5 R15 HL2
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- Low Smoke, Fire retardant, Zero Halogen (LSZH)
- Corrosivity of fumes according to IEC 60754-2
- Smoke density according to IEC 61034
- UV-resistant

Technical data

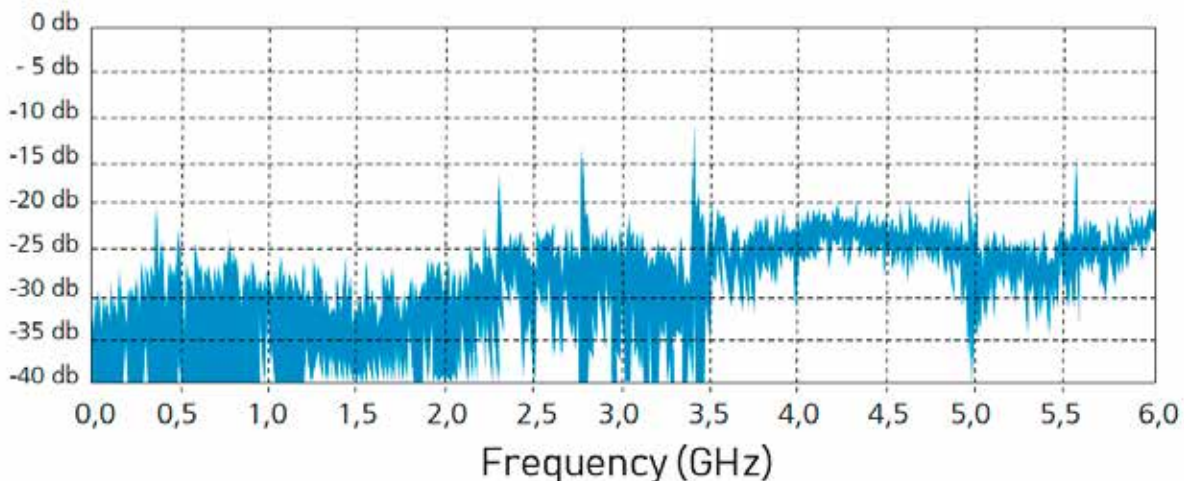
| | |
|---------------------|--|
| Inner conductor | Stranded bare copper wire |
| Inner conductor Ø | 2,85 mm (7 x 1,0 mm, 10 AWG) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 7,2 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 75% |
| Outer conductor Ø | 7,9 mm |
| Jacket | highly flexible thermoplastic copolymer (FRNC) black |
| Weight | 136 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 600 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacity (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 3,5 Ω/km |
| DC-resistance Outer conductor | 6,6 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 5 kV |

| | Ecoflex 10 FRNC | RG 213/U | RG 58/U |
|-----------------------|--------------------|----------|----------|
| Capacity | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 1,14 | 2,00 | 5,00 |
| 100 MHz | 3,80 | 7,00 | 17,00 |
| 500 MHz | 9,12 | 17,00 | 39,00 |
| 1000 MHz | 13,49 | 22,50 | 54,60 |
| 3000 MHz | 25,37 | 58,50 | 118,00 |

Typ. Return loss



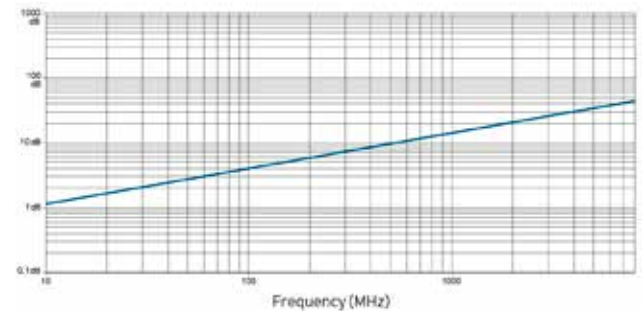
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|----------|-------|
| 5 MHz | 0,76 | 1000 MHz | 13,49 |
| 10 MHz | 1,14 | 1296 MHz | 15,68 |
| 50 MHz | 2,66 | 1500 MHz | 17,01 |
| 100 MHz | 3,80 | 1800 MHz | 18,91 |
| 144 MHz | 4,66 | 2000 MHz | 20,14 |
| 200 MHz | 5,51 | 2400 MHz | 22,42 |
| 300 MHz | 6,94 | 3000 MHz | 25,37 |
| 432 MHz | 8,46 | 4000 MHz | 29,55 |
| 500 MHz | 9,12 | 5000 MHz | 33,44 |
| 800 MHz | 11,88 | 6000 MHz | 37,05 |

Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 3.960 | 2400 MHz | 210 |
| 100 MHz | 1.210 | 3000 MHz | 180 |
| 500 MHz | 510 | 4000 MHz | 150 |
| 1000 MHz | 350 | 5000 MHz | 130 |
| 2000 MHz | 230 | 6000 MHz | 120 |

Typ. Attenuation (db/100 m at 20°C)



Ecoflex® 10 Plus

ultraflexible, low loss and suitable for use up to 8 GHz



Ecoflex 10 Plus is an extremely flexible, low loss coaxial cable designed to use in the frequency range up to 8 GHz. Advanced manufacturing techniques combined with the use of a low loss PE-LLC dielectric with a foaming rate of more than 70% result in very low attenuation values, which set standards among flexible coaxial cables.

The high flexibility of Ecoflex 10 Plus results from a hybrid CCA inner conductor containing 7 stranded copper-clad aluminium wires. Each wire has an aluminium core covered by copper cladding which combines copper's good electrical conductivity and aluminium's light weight. During a special manufacturing process the inner conductor is continuously compressed, calibrated and then pre-coated to achieve good attenuation, good return loss values and stable impedance matching. Another advantage of Ecoflex 10 Plus is its double shielding: an overlapping copper foil and an additional shield braiding of bare copper wires with 75 % coverage ensure a high screening attenuation of > 90 dB at 1 GHz. The copper foil has an applied PE coating which prevents foil cracking due to short radius bends. The black PVC jacket of Ecoflex 10 Plus is UV-stabilized.

For the easier installation of this cable, a special high quality solderless N male connector has been developed in addition to a full range of available standard connectors. It can be assembled in a few minutes without special tools. Ecoflex 10 Plus is the

right choice, when a highly flexible, light, low loss and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|---------------|
| Diameter | 10,2 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 13,49 dB |
| f max | 8 GHz |
| Euroclass acc. to EN 50575 | Eca |

Characteristics

| |
|---|
| Jacket material according to DIN EN 50290-2-22 (VDE 0819), compound type TM 52 (HD 624.2) |
| Flame retardant according to IEC 60332-1-2 |
| RoHS compliant (Directive 2011/65/EC & 2015/863/ EU RoHS 3) |
| UV-resistant |

Technical data

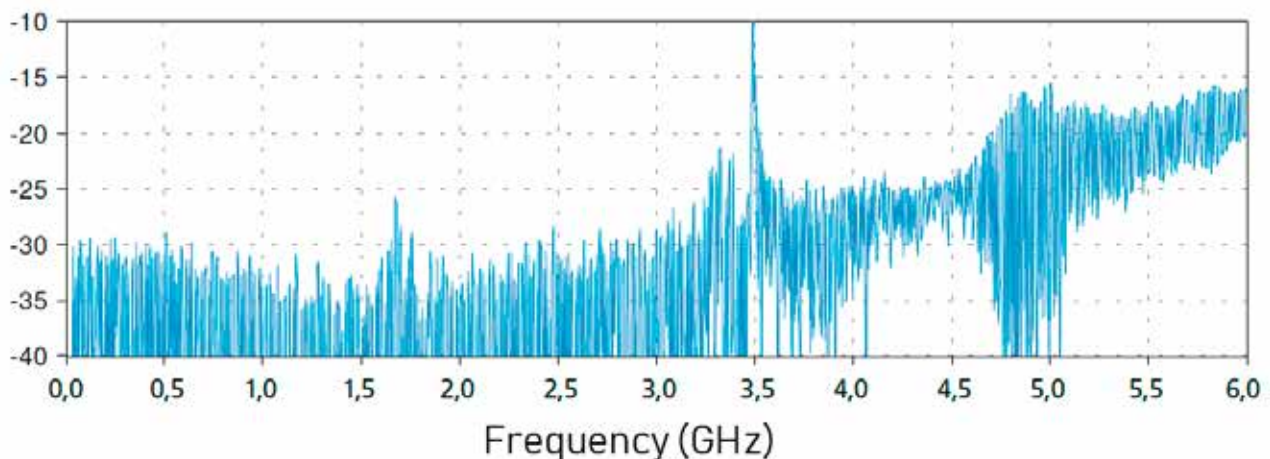
| | |
|---------------------|--|
| Inner conductor | Hybrid CCA – stranded copper-clad aluminium wire |
| Inner conductor Ø | 2,85 mm (7 x 1,0 mm, 10 AWG) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 7,2 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 75% |
| Outer conductor Ø | 7,9 mm |
| Jacket | PVC black, UV-resistant |
| Weight | 96 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 600 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacitance (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 5,4 Ω/km |
| DC-resistance Outer conductor | 6,6 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (wire/screen rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 5 kV |

| | Ecoflex 10 Plus | RG 213/U | RG 58/U |
|-----------------------|-----------------|----------|----------|
| Capacity | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 1,14 | 2,00 | 5,00 |
| 100 MHz | 3,80 | 7,00 | 17,00 |
| 500 MHz | 9,12 | 17,00 | 39,00 |
| 1000 MHz | 13,49 | 22,50 | 54,60 |
| 3000 MHz | 25,37 | 58,50 | 118,00 |

Typ. Return loss



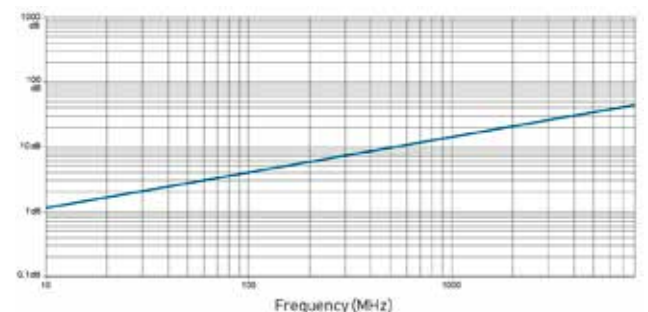
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|----------|-------|
| 5 MHz | 0,76 | 1000 MHz | 13,49 |
| 10 MHz | 1,14 | 1296 MHz | 15,68 |
| 50 MHz | 2,66 | 1500 MHz | 17,01 |
| 100 MHz | 3,80 | 1800 MHz | 18,91 |
| 144 MHz | 4,66 | 2000 MHz | 20,14 |
| 200 MHz | 5,51 | 2400 MHz | 22,42 |
| 300 MHz | 6,94 | 3000 MHz | 25,37 |
| 432 MHz | 8,46 | 4000 MHz | 29,55 |
| 500 MHz | 9,12 | 5000 MHz | 33,44 |
| 800 MHz | 11,88 | 6000 MHz | 37,05 |
| | | 8000 MHz | 44,08 |

Max. Power handling (W at 40°C)

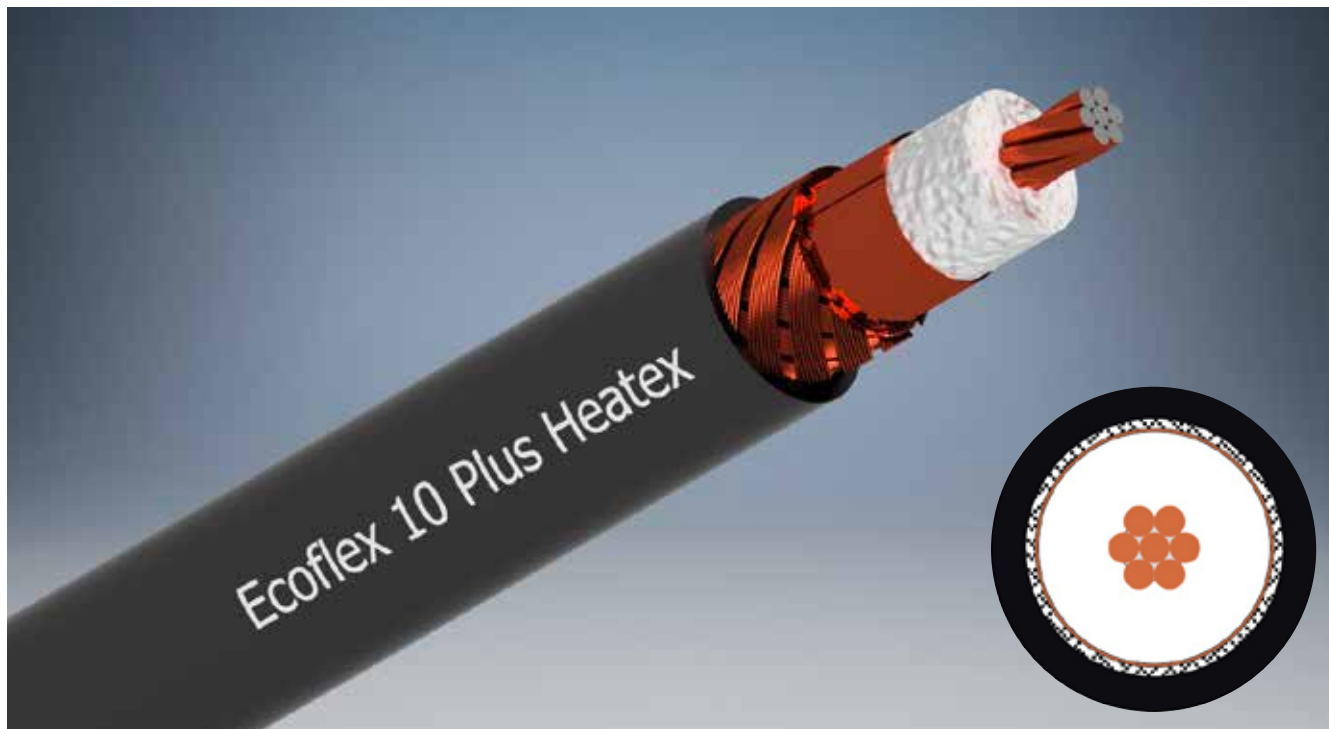
| | | | |
|----------|-------|----------|-----|
| 10 MHz | 3.100 | 2400 MHz | 175 |
| 100 MHz | 960 | 3000 MHz | 154 |
| 500 MHz | 413 | 4000 MHz | 130 |
| 1000 MHz | 285 | 5000 MHz | 115 |
| 2000 MHz | 194 | 6000 MHz | 100 |
| | | 8000 MHz | 86 |

Typ. Attenuation (db/100 m at 20°C)



Ecoflex® 10 Plus Heatex®

flame retardant, free of halogen and qualified for use in public buildings and hazardous areas



Ecoflex 10 Plus Heatex is a flame retardant and halogen-free coaxial cable for use in public buildings, plants, ships and hazardous areas. Due to a strong demand for low loss cables which meet all relevant fire protection requirements we developed Ecoflex Plus Heatex cable line with improved fire behaviour and reduced production of toxic gases. Ecoflex cables with Heatex jackets are flame retardant and have low fire propagation properties. They emit limited smoke, so that escape and emergency routes remain visible in case of fire.

Heatex jackets are free of halogen and contain no reactive elements such as fluorine, chlorine and bromine. They do not produce corrosive gases and fumes which are extremely hazardous to human health and are more deadly than the fire itself. Ecoflex Plus Heatex cables reduce flame spread drastically allowing people more time to escape areas of fire. Ecoflex Plus Heatex cables feature UV stabilization and are suitable for both indoor and outdoor use.

Ecoflex 10 Plus Heatex uses a hybrid CCA inner conductor containing 7 stranded copper-clad aluminium wires. Each wire has an aluminium core covered by copper cladding which combines copper's good electrical conductivity and aluminium's light weight. The resulting RF characteristics are significantly better compared to cables with the stranded bare copper inner conductor.

Ecoflex 10 Plus Heatex not only has excellent HF properties, it also meets all relevant fire safety standards:

Fire behaviour

EN 50265-2-1 IEC 60332-1 DIN 5510-2

Cable bundle test

IEC 60332-3-24

Smoke density

IEC 61034-1+2 EN 50268

Corrosivity of fumes

HD 602-1 EN 50267-2-3 IEC 60754-2

Key features

| | |
|-----------------------------------|---------------|
| Diameter | 10,2 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 13,49 dB |
| f max | 8 GHz |
| Euroclass acc. to EN 50575 | Cca |

Characteristics

Jacket material according to DIN EN 50290-2-27 (HD 624.7)

Flame retardant according to IEC 60332-1-2

Manufactured according to DIN EN 45545-2 Table 5 R15 HL2

RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)

Low Smoke, Fire retardant, Zero Halogen (LSZH)

Corrosivity of fumes according to IEC 60754-2

Smoke density according to IEC 61034

UV-resistant

Technical data

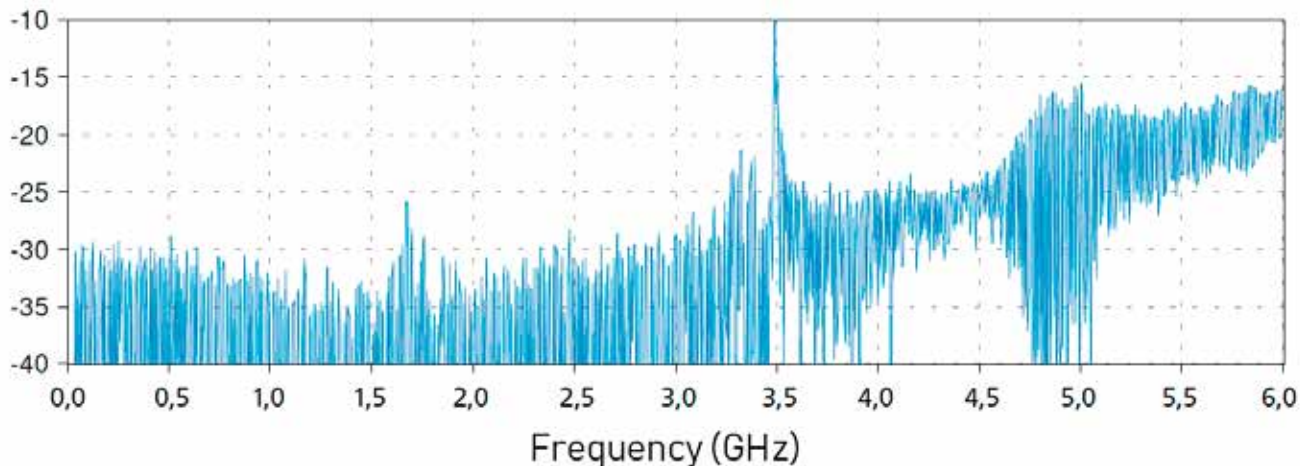
| | |
|---------------------|--|
| Inner conductor | Hybrid CCA – stranded copper-clad aluminium wire |
| Inner conductor Ø | 2,85 mm (7 x 1,0 mm, 10 AWG) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 7,2 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 75% |
| Outer conductor Ø | 7,9 mm |
| Jacket | highly flexible thermoplastic copolymer (FRNC) black |
| Weight | 106 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 600 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacity (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 5,1 Ω/km |
| DC-resistance Outer conductor | 6,6 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 5 kV |

| | Ecoflex 10 Plus Heatex | RG 213/U | RG 58/U |
|-----------------------|------------------------|----------|----------|
| Capacity | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 1,14 | 2,00 | 5,00 |
| 100 MHz | 3,80 | 7,00 | 17,00 |
| 500 MHz | 9,12 | 17,00 | 39,00 |
| 1000 MHz | 13,49 | 22,50 | 54,60 |
| 3000 MHz | 25,37 | 58,50 | 118,00 |

Typ. Return loss



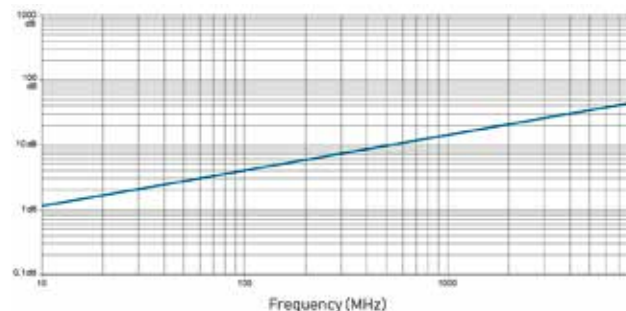
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|----------|-------|
| 5 MHz | 0,76 | 1000 MHz | 13,49 |
| 10 MHz | 1,14 | 1296 MHz | 15,68 |
| 50 MHz | 2,66 | 1500 MHz | 17,01 |
| 100 MHz | 3,80 | 1800 MHz | 18,91 |
| 144 MHz | 4,66 | 2000 MHz | 20,14 |
| 200 MHz | 5,51 | 2400 MHz | 22,42 |
| 300 MHz | 6,94 | 3000 MHz | 25,37 |
| 432 MHz | 8,46 | 4000 MHz | 29,55 |
| 500 MHz | 9,12 | 5000 MHz | 33,44 |
| 800 MHz | 11,88 | 6000 MHz | 37,05 |
| | | 8000 MHz | 44,08 |

Max. Power handling (W at 40°C)

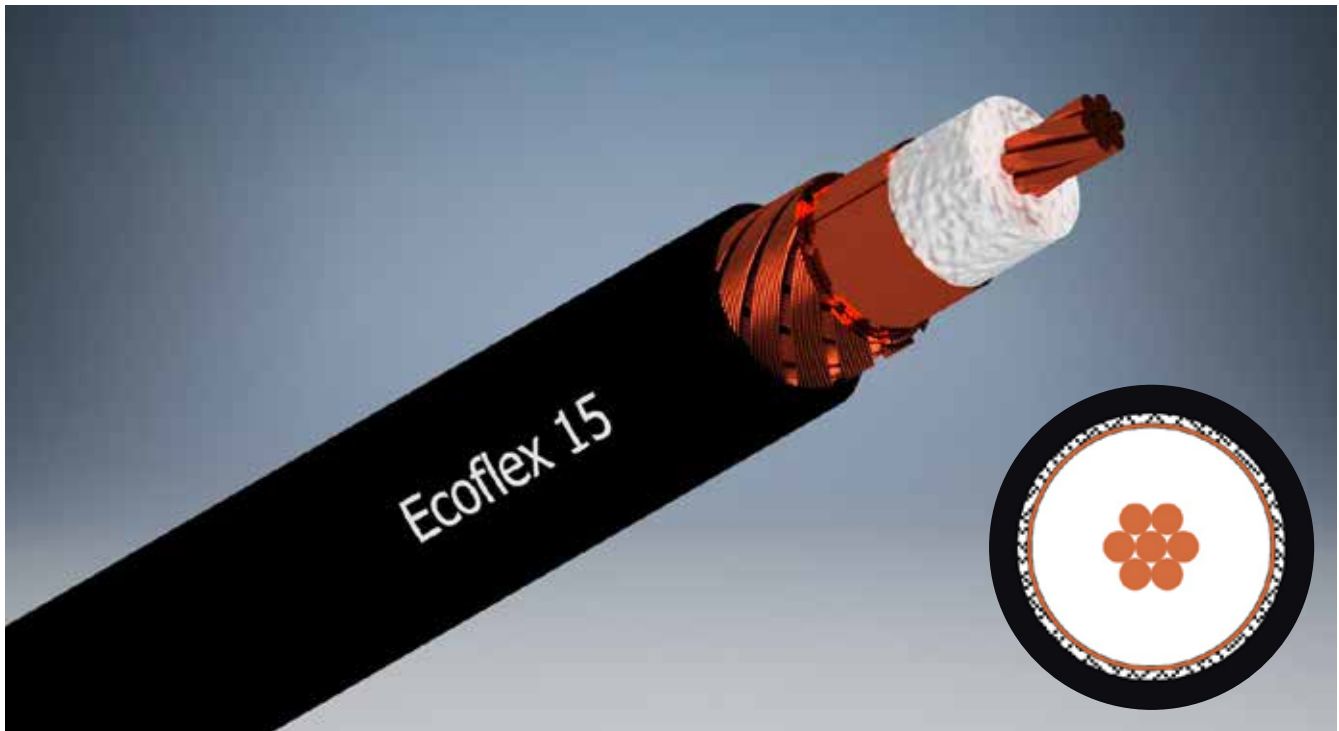
| | | | |
|----------|-------|----------|-----|
| 10 MHz | 3.100 | 2400 MHz | 175 |
| 100 MHz | 960 | 3000 MHz | 154 |
| 500 MHz | 413 | 4000 MHz | 130 |
| 1000 MHz | 285 | 5000 MHz | 115 |
| 2000 MHz | 194 | 6000 MHz | 100 |
| | | 8000 MHz | 86 |

Typ. Attenuation (db/100 m at 20°C)



Ecoflex® 15

flexible, low loss and stray radiation resistant



Ecoflex 15 is a flexible low loss 50 ohm coaxial cable for the frequency range up to 6 GHz. Advanced manufacturing techniques combined with the use of a low loss PE-LLC dielectric with a foaming rate of more than 70% result in very low attenuation values.

The unique construction of Ecoflex 15 combines the excellent attenuation properties of non-flexible solid inner conductor 1/2" cables with the high flexibility of cables manufactured with stranded inner conductors. The high flexibility of Ecoflex 15 is further enhanced through the use of an oxygen-free copper inner conductor containing 7 stranded bare copper wires. During a special manufacturing process the inner conductor is continuously compressed, calibrated and then pre-coated to achieve good attenuation, good return loss values and stable impedance matching. Another advantage of Ecoflex 15 its double shielding: an overlapping copper foil and an additional shield braiding of bare copper wires with 75 % coverage ensure a high screening attenuation of > 90 dB at 1 GHz.

The black PVC jacket of Ecoflex 15 is UV-stabilized. For the easier installation of this cable, solderless N, UHF and 7-16 DIN connectors were developed. They can be assembled in a short time without special tools. Ecoflex 15 is the right choice, when an extremely flexible, low loss and microwave rated cable is required. It can be used for numerous

RF applications. Especially in cases with long distances and critical connections, where every „dB“ is important, Ecoflex 15 offers a lot of advantages.

Key features

| | |
|-----------------------------------|---------------|
| Diameter | 14,6 ± 0,3 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 9,80 dB |
| f max | 6 GHz |
| Euroclass acc. to EN 50575 | Eca |

Characteristics

| |
|---|
| Jacket material according to DIN EN 50290-2-22 (VDE 0819), compound type TM 52 (HD 624.2) |
| Flame retardant according to IEC 60332-1-2 |
| RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3) |
| UV-resistant |

Technical data

| | |
|---------------------|--|
| Inner conductor | Stranded bare copper wire |
| Inner conductor Ø | 4,5 mm (7 x 1,5 mm) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 11,3 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 75% |
| Outer conductor Ø | 12,1 mm |
| Jacket | PVC black, UV-resistant |
| Weight | 245 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 1300 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacity (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 1,5 Ω/km |
| DC-resistance Outer conductor | 5,0 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 5 kV |

| | Ecoflex 15 | RG 213/U | RG 58/U |
|-----------------------|------------|----------|----------|
| Capacity | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 0,86 | 2,00 | 5,00 |
| 100 MHz | 2,81 | 7,00 | 17,00 |
| 500 MHz | 6,70 | 17,00 | 39,00 |
| 1000 MHz | 9,80 | 22,50 | 54,60 |
| 3000 MHz | 18,30 | 58,50 | 118,00 |

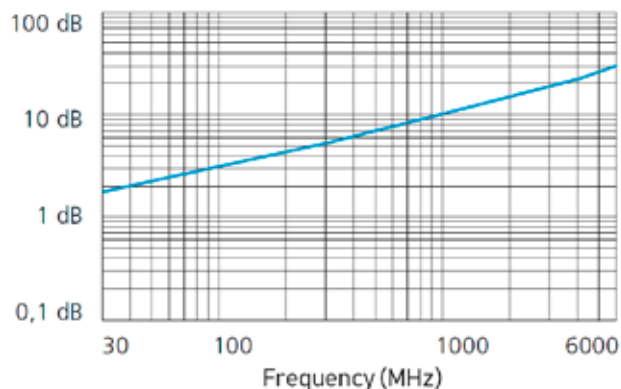
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|------|----------|-------|
| 5 MHz | 0,60 | 1000 MHz | 9,80 |
| 10 MHz | 0,86 | 1296 MHz | 11,40 |
| 50 MHz | 1,96 | 1500 MHz | 12,40 |
| 100 MHz | 2,81 | 1800 MHz | 13,80 |
| 144 MHz | 3,40 | 2000 MHz | 14,60 |
| 200 MHz | 4,05 | 2400 MHz | 16,20 |
| 300 MHz | 5,00 | 3000 MHz | 18,30 |
| 432 MHz | 6,10 | 4000 MHz | 21,60 |
| 500 MHz | 6,70 | 5000 MHz | 24,60 |
| 800 MHz | 8,60 | 6000 MHz | 27,50 |

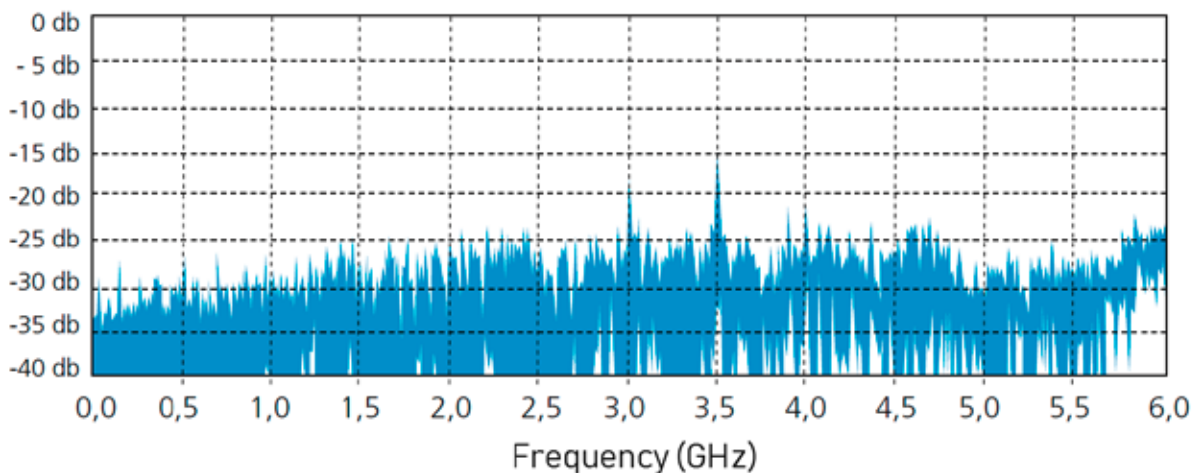
Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 6.327 | 2400 MHz | 326 |
| 100 MHz | 1.928 | 3000 MHz | 284 |
| 500 MHz | 810 | 4000 MHz | 237 |
| 1000 MHz | 547 | 5000 MHz | 206 |
| 2000 MHz | 364 | 6000 MHz | 183 |

Typ. Attenuation (db/100 m at 20°C)

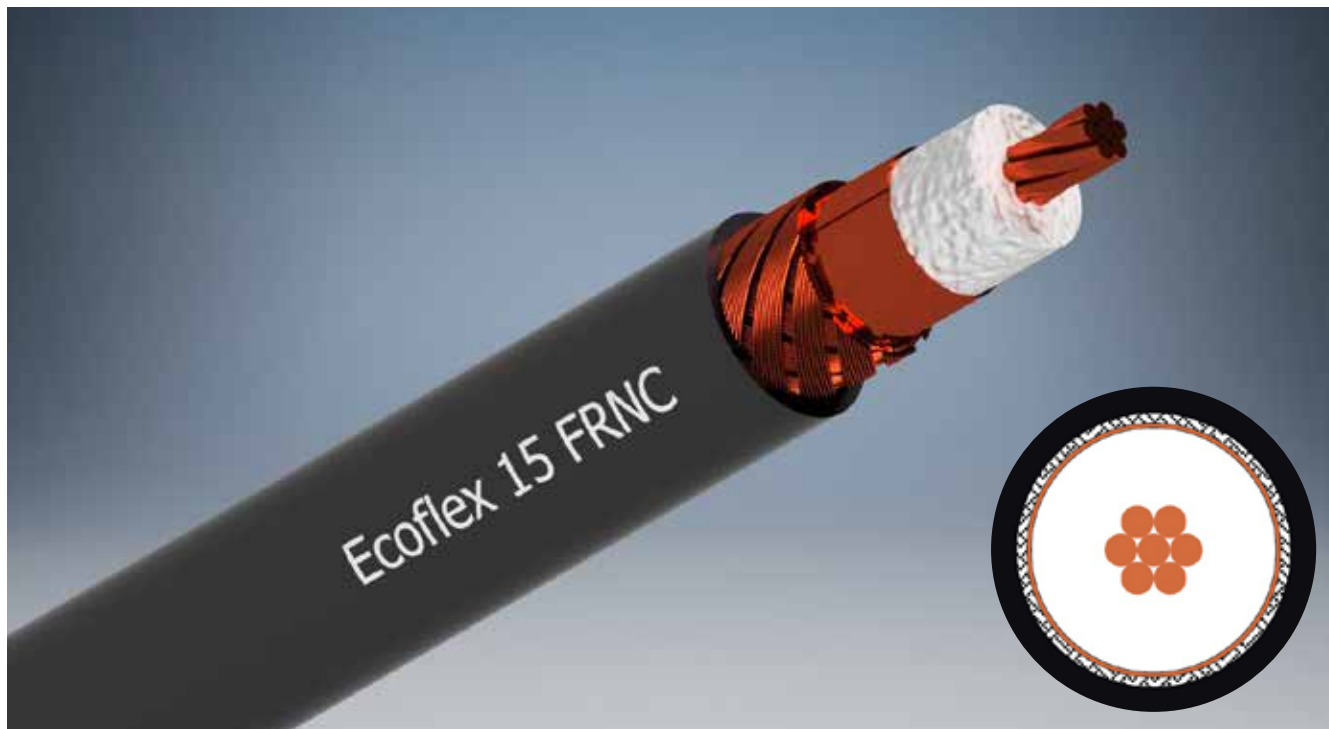


Typ. Return loss



Ecoflex® 15 FRNC

flexible, low loss, stray radiation resistant and free of halogen



Ecoflex 15 FRNC is a flexible low loss 50 ohm coaxial cable for the frequency range up to 6 GHz. Advanced manufacturing techniques combined with the use of a low loss PE-LLC dielectric with a foaming rate of more than 70% result in very low attenuation values.

The unique construction of Ecoflex 15 FRNC combines the excellent attenuation properties of non-flexible solid inner conductor 1/2" cables with the high flexibility of cables manufactured with stranded inner conductors. The high flexibility of Ecoflex 15 FRNC is further enhanced through the use of an oxygen-free copper inner conductor containing 7 stranded bare copper wires. During a special manufacturing process the inner conductor is continuously compressed, calibrated and then pre-coated to achieve good attenuation, good return loss values and stable impedance matching. Another advantage of Ecoflex 15 FRNC its double shielding: an overlapping copper foil and an additional shield braiding of bare copper wires with 75 % coverage ensure a high screening attenuation of > 90 dB at 1 GHz.

The jacket of Ecoflex 15 FRNC is made of a special thermoplastic copolymer (FRNC: Flame Retardant Non Corrosive). Due to this flame retardant and halogen-free material the cable has a low fire load, low flame propagation and limited smoke emission. The amount of toxic and corrosive gases is considerably reduced during combustion.

For the easier installation of this cable, solderless N, UHF and 7-16 DIN connectors were developed. They can be assembled in a short time without special tools. Ecoflex 15 FRNC is the right choice, when an extremely flexible, low loss, halogen-free and microwave rated cable is required. It can be used for numerous RF applications. Especially in cases with long distances and critical connections, where every „dB“ is important, Ecoflex 15 FRNC offers a lot of advantages.

Key features

| | |
|-----------------------------------|---------------|
| Diameter | 14,6 ± 0,3 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 9,80 dB |
| f max | 6 GHz |
| Euroclass acc. to EN 50575 | Fca |

Characteristics

| |
|--|
| Jacket material according to DIN EN 50290-2-27 (HD 624.7) |
| Flame retardant according to IEC 60332-1-2 |
| Manufactured according to DIN EN 45545-2 Table 5 R15 HL2 |
| RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3) |
| Low Smoke, Fire retardant, Zero Halogen (LSZH) |
| Corrosivity of fumes according to IEC 60754-2 |
| Smoke density according to IEC 61034 |
| UV-resistant |

Technical data

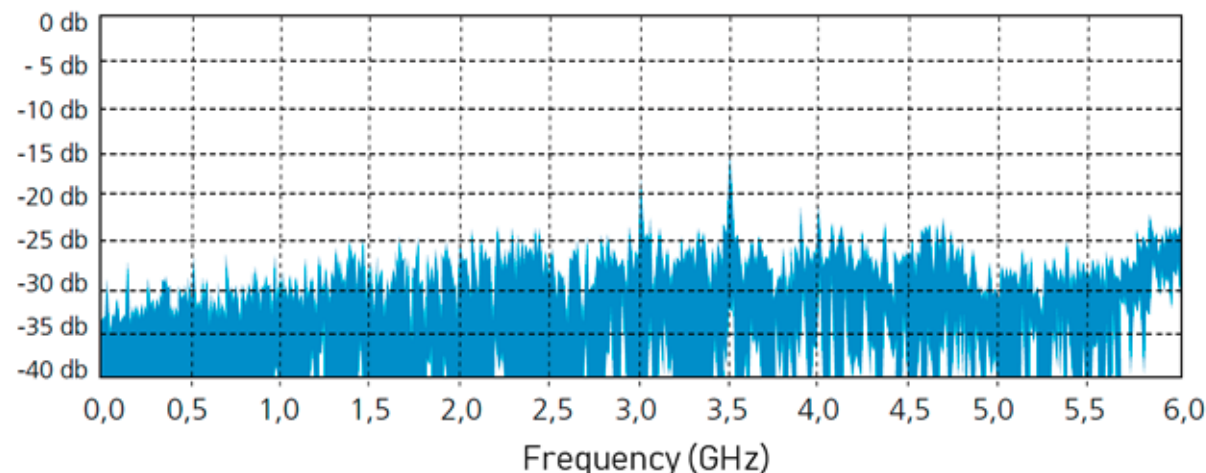
| | |
|---------------------|--|
| Inner conductor | Stranded bare copper wire |
| Inner conductor Ø | 4,5 mm (7 x 1,5 mm) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 11,3 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 75% |
| Outer conductor Ø | 12,1 mm |
| Jacket | highly flexible thermoplastic copolymer (FRNC) black |
| Weight | 184 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 1300 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacity (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 2,5 Ω/km |
| DC-resistance Outer conductor | 5,0 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 5 kV |

| | Ecoflex 15 FRNC | RG 213/U | RG 58/U |
|-----------------------|--------------------|----------|----------|
| Capacity | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 0,86 | 2,00 | 5,00 |
| 100 MHz | 2,81 | 7,00 | 17,00 |
| 500 MHz | 6,70 | 17,00 | 39,00 |
| 1000 MHz | 9,80 | 22,50 | 54,60 |
| 3000 MHz | 18,30 | 58,50 | 118,00 |

Typ. Return loss



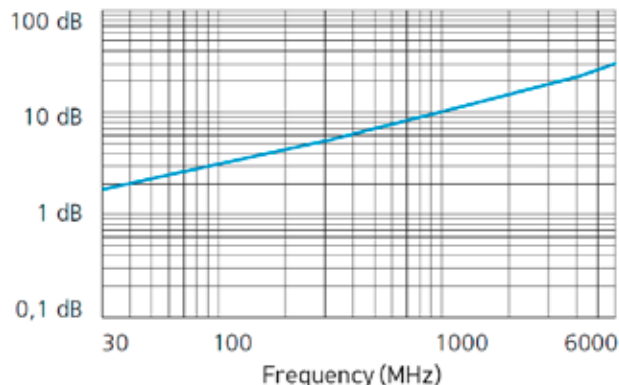
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|------|----------|-------|
| 5 MHz | 0,60 | 1000 MHz | 9,80 |
| 10 MHz | 0,86 | 1296 MHz | 11,40 |
| 50 MHz | 1,96 | 1500 MHz | 12,40 |
| 100 MHz | 2,81 | 1800 MHz | 13,80 |
| 144 MHz | 3,40 | 2000 MHz | 14,60 |
| 200 MHz | 4,05 | 2400 MHz | 16,20 |
| 300 MHz | 5,00 | 3000 MHz | 18,30 |
| 432 MHz | 6,10 | 4000 MHz | 21,60 |
| 500 MHz | 6,70 | 5000 MHz | 24,60 |
| 800 MHz | 8,60 | 6000 MHz | 27,50 |

Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 6.327 | 2400 MHz | 326 |
| 100 MHz | 1.928 | 3000 MHz | 284 |
| 500 MHz | 810 | 4000 MHz | 237 |
| 1000 MHz | 547 | 5000 MHz | 206 |
| 2000 MHz | 364 | 6000 MHz | 183 |

Typ. Attenuation (db/100 m at 20°C)



Ecoflex® 15 Plus

ultraflexible, low loss and suitable for use up to 8 GHz



Ecoflex 15 Plus has remarkably improved electrical and mechanical characteristics. The construction of the cable and the use of materials are optimized to achieve lowest attenuation values, higher max. frequency, high long-term stability and low weight, also allowing an easy installation.

Ecoflex 15 Plus is an extremely flexible, low loss 50 ohm coaxial cable for the frequency range up to 8 GHz. Advanced manufacturing techniques combined with the use of a low loss PE-LLC dielectric with a foaming rate of more than 70% result in very low attenuation values. The unique construction of Ecoflex 15 Plus combines the excellent attenuation properties of non-flexible solid inner conductor 1/2" cables with the high flexibility of cables manufactured with stranded inner conductors. So this cable represents an ideal combination. The high flexibility of Ecoflex 15 Plus results from a hybrid CCA inner conductor containing 7 stranded copper-clad aluminium wires. Each wire has an aluminium core covered by copper cladding which combines copper's good electrical conductivity and aluminium's light weight. During a special manufacturing process the inner conductor is continuously compressed, calibrated and then pre-coated to achieve good attenuation, good return loss values and stable impedance matching. Another advantage of Ecoflex 15 Plus is its double shielding: an overlapping copper foil and an additional shield braiding of bare copper wires with

75 % coverage ensure a high screening attenuation of > 90 dB at 1 GHz. The black PVC jacket of Ecoflex 15 Plus is UV-stabilized.

For the easier installation of this cable, we developed solderless connectors of the N, UHF and 7-16 DIN standards, which can be assembled in a short time without any special tools. Ecoflex 15 Plus is the right choice, when a highly flexible, light, low loss and microwave rated cable is required. It can be used for numerous RF applications.

Key features

| | |
|-----------------------------------|---------------|
| Diameter | 14,6 ± 0,3 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 9,80 dB |
| f max | 8 GHz |
| Euroclass acc. to EN 50575 | Eca |

Characteristics

Jacket material according to DIN EN 50290-2-22 (VDE 0819), compound type TM 52 (HD 624.2)
Flame retardant according to IEC 60332-1-2
RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
UV-resistant

Technical data

| | |
|---------------------|--|
| Inner conductor | Hybrid CCA – stranded copper-clad aluminium wire |
| Inner conductor Ø | 4,5 mm (7 x 1,5 mm) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 11,3 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 75% |
| Outer conductor Ø | 12,1 mm |
| Jacket | PVC black, UV-resistant |
| Weight | 167 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 1300 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacity (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 2,5 Ω/km |
| DC-resistance Outer conductor | 5,0 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 5 kV |

Ecoflex 15 Plus RG 213/U RG 58/U

| | | | |
|-----------------------|---------|----------|----------|
| Capacity | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 0,86 | 2,00 | 5,00 |
| 100 MHz | 2,81 | 7,00 | 17,00 |
| 500 MHz | 6,70 | 17,00 | 39,00 |
| 1000 MHz | 9,80 | 22,50 | 54,60 |
| 3000 MHz | 18,30 | 58,50 | 118,00 |

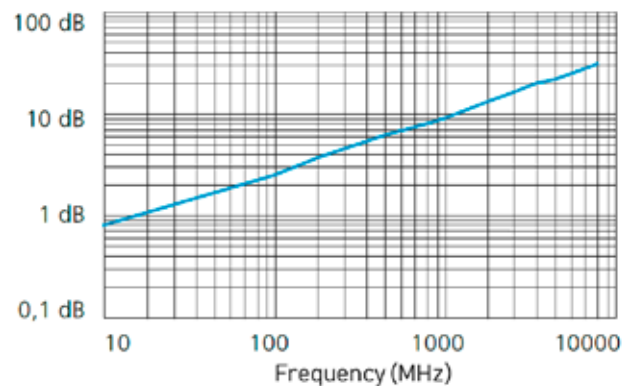
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|------|----------|-------|
| 5 MHz | 0,60 | 1000 MHz | 9,80 |
| 10 MHz | 0,86 | 1296 MHz | 11,40 |
| 50 MHz | 1,96 | 1500 MHz | 12,40 |
| 100 MHz | 2,81 | 1800 MHz | 13,80 |
| 144 MHz | 3,40 | 2000 MHz | 14,60 |
| 200 MHz | 4,05 | 2400 MHz | 16,20 |
| 300 MHz | 5,00 | 3000 MHz | 18,30 |
| 432 MHz | 6,10 | 4000 MHz | 21,60 |
| 500 MHz | 6,70 | 5000 MHz | 24,60 |
| 800 MHz | 8,60 | 6000 MHz | 27,50 |
| | | 8000 MHz | 32,70 |

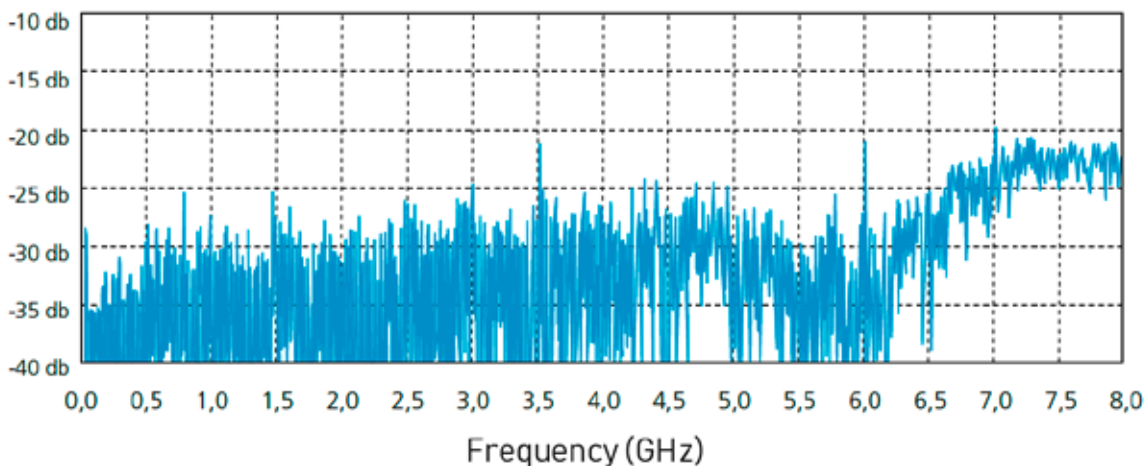
Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 5.021 | 2400 MHz | 270 |
| 100 MHz | 1.542 | 3000 MHz | 236 |
| 500 MHz | 655 | 4000 MHz | 198 |
| 1000 MHz | 446 | 5000 MHz | 173 |
| 2000 MHz | 300 | 6000 MHz | 154 |
| | | 8000 MHz | 129 |

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss



Ecoflex® 15 Plus Heatex®

flame retardant, free of halogen and qualified for use in public buildings and hazardous areas



Ecoflex 15 Plus Heatex is a flame retardant and halogen-free coaxial cable for use in public buildings, plants, ships and hazardous areas. Due to a strong demand for low loss cables which meet all relevant fire protection requirements we developed Ecoflex Plus Heatex cable line with improved fire behaviour and reduced production of toxic gases. Ecoflex cables with Heatex jackets are flame retardant and have low fire propagation properties. They emit limited smoke, so that escape and emergency routes remain visible in case of fire.

Heatex jackets are free of halogen and contain no reactive elements such as fluorine, chlorine and bromine. They do not produce corrosive gases and fumes which are extremely hazardous to human health and are more deadly than the fire itself. Ecoflex Plus Heatex cables reduce flame spread drastically allowing people more time to escape areas of fire. Ecoflex Plus Heatex cables feature UV stabilization and are suitable for both indoor and outdoor use.

Ecoflex 15 Plus Heatex uses a hybrid CCA inner conductor containing 7 stranded copper-clad aluminium wires. Each wire has an aluminium core covered by copper cladding which combines copper's good electrical conductivity and aluminium's light weight. The resulting RF characteristics are significantly better compared to cables with the stranded bare copper inner conductor.

Ecoflex 15 Plus Heatex not only has excellent HF properties, it also meets all relevant fire safety standards:

Fire behaviour

EN 50265-2-1 IEC 60332-1 DIN 5510-2

Cable bundle test

IEC 60332-3-24

Smoke density

IEC 61034-1+2 EN 50268

Corrosivity of fumes

HD 602-1 EN 50267-2-3 IEC 60754-2

Key features

| | |
|-----------------------------------|---------------|
| Diameter | 14,6 ± 0,3 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 9,80 dB |
| f max | 8 GHz |
| Euroclass acc. to EN 50575 | Cca |

Characteristics

Jacket material according to DIN EN 50290-2-27 (HD 624.7)

Flame retardant according to IEC 60332-1-2

Manufactured according to DIN EN 45545-2 Table 5 R15 HL2

RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)

Low Smoke, Fire retardant, Zero Halogen (LSZH)

Corrosivity of fumes according to IEC 60754-2

Smoke density according to IEC 61034

UV-resistant

Technical data

| | |
|---------------------|--|
| Inner conductor | Hybrid CCA – stranded copper-clad aluminium wire |
| Inner conductor Ø | 4,5 mm (7 x 1,5 mm) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 11,3 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 75% |
| Outer conductor Ø | 12,1 mm |
| Jacket | highly flexible thermoplastic copolymer (FRNC) black |
| Weight | 184 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 1300 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacity (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 2,5 Ω/km |
| DC-resistance Outer conductor | 5,0 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 5 kV |

Ecoflex 15 Plus Heatex RG 213/U RG 58/U

| | Ecoflex 15 Plus Heatex | RG 213/U | RG 58/U |
|-----------------------|------------------------|----------|----------|
| Capacity | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 0,86 | 2,00 | 5,00 |
| 100 MHz | 2,81 | 7,00 | 17,00 |
| 500 MHz | 6,70 | 17,00 | 39,00 |
| 1000 MHz | 9,80 | 22,50 | 54,60 |
| 3000 MHz | 18,30 | 58,50 | 118,00 |

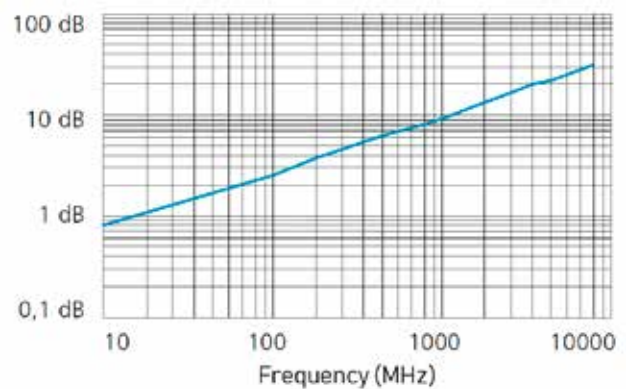
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|------|----------|-------|
| 5 MHz | 0,60 | 1000 MHz | 9,80 |
| 10 MHz | 0,86 | 1296 MHz | 11,40 |
| 50 MHz | 1,96 | 1500 MHz | 12,40 |
| 100 MHz | 2,81 | 1800 MHz | 13,80 |
| 144 MHz | 3,40 | 2000 MHz | 14,60 |
| 200 MHz | 4,05 | 2400 MHz | 16,20 |
| 300 MHz | 5,00 | 3000 MHz | 18,30 |
| 432 MHz | 6,10 | 4000 MHz | 21,60 |
| 500 MHz | 6,70 | 5000 MHz | 24,60 |
| 800 MHz | 8,60 | 6000 MHz | 27,50 |
| | | 8000 MHz | 32,70 |

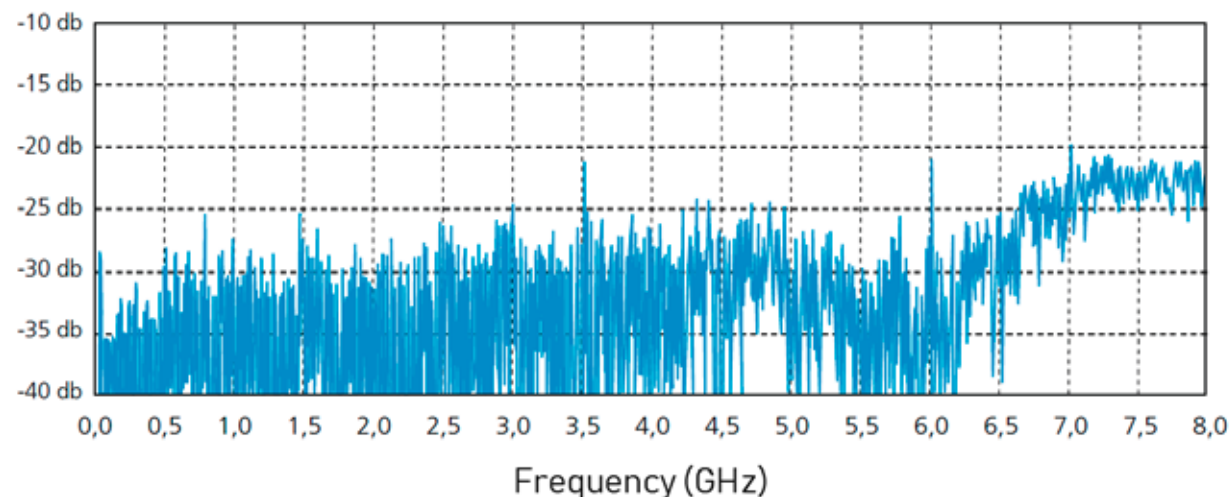
Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 5.021 | 2400 MHz | 270 |
| 100 MHz | 1.542 | 3000 MHz | 236 |
| 500 MHz | 655 | 4000 MHz | 198 |
| 1000 MHz | 446 | 5000 MHz | 173 |
| 2000 MHz | 300 | 6000 MHz | 154 |
| | | 8000 MHz | 129 |

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss



SeaTex® 5

thin, low loss and stray radiation resistant
and designed for marine applications



SeaTex 5 is a very flexible low loss and halogen-free communications coaxial cable perfectly designed to use for marine and offshore applications. It is worldwide approved for ship building (DNV GL certificate) and is suitable for use on ships, oil platforms, wind turbines and the entire maritime area. The jacket of the SeaTex 5 is made of a special thermoplastic copolymer (SHF2), which ensures that the cable is highly resistant to heat, cold, oils, salt-water, UV radiation and has a long service life in harsh environmental conditions.

The design of the SeaTex 5 is based on the successful Aircell 5 coaxial cable. It has excellent attenuation values, its flexibility and its small bending radius allow installation in limited spaces. Thus SeaTex 5 combines the advantages of Aircell coaxial cables with the special requirements in marine area. The product is specified up to 10 GHz and can be used in a temperature range from -55°C to 85°C.

Key features

| | |
|----------------------------|---------------|
| Diameter | 5,0 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 31,09 dB |
| f max | 10 GHz |

Characteristics

- Insulating material according to DIN EN 50290-2-23 (VDE 0819), table 2/A (HD 624.3)
- Jacket material according to IEC 60092-360 (IEC 60092-359) SHF2
- Wall thickness of cable jacket according to IEC 60092-376
- Flame retardant according to IEC 60332-3-22 (Cat. A)
- Flame retardant according to IEC 60332-1-2
- Oil resistant according to EN 60811-2-1 (24 hours/100°C)
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- Low Smoke, Fire retardant, Zero Halogen (LSZH)
- Corrosivity of fumes according to IEC 60754-2
- Smoke density according to IEC 61034
- UV-resistant
- Approved for marine and offshore applications
- DNV GL Certificate No. TAE00001JX



Technical data

| | |
|---------------------|--|
| Inner conductor | bare copper wire |
| Inner conductor Ø | 1 x 1,13 mm |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 3,1 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 70% |
| Outer conductor Ø | 3,7 mm |
| Jacket | special thermoplastic copolymer (SHF2) black |
| Weight | 36 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 150 N |

Electrical data at 20°C

| | |
|---|-------------|
| Capacity (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 20,5 Ω/km |
| DC-resistance Outer conductor | 17 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 2,5 kV |

| | SeaTex 5 | RG 58/U | RG 213/U |
|-----------------------|----------|----------|----------|
| Capacity | 78 pF/m | 102 pF/m | 101 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 2,93 | 5,00 | 2,00 |
| 100 MHz | 9,40 | 17,00 | 7,00 |
| 500 MHz | 21,57 | 39,00 | 17,00 |
| 1000 MHz | 31,09 | 54,60 | 22,50 |
| 3000 MHz | 56,39 | 118,00 | 58,50 |

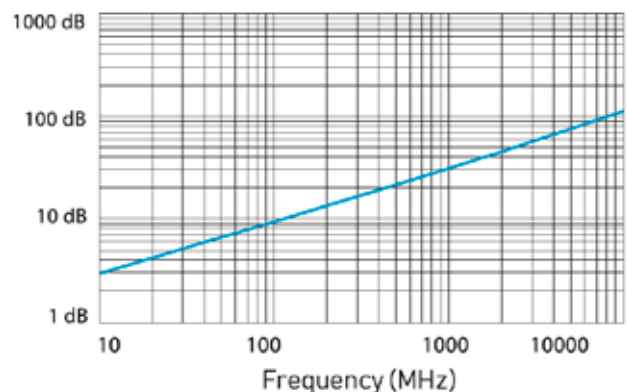
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|-----------|--------|
| 5 MHz | 2,07 | 1000 MHz | 31,09 |
| 10 MHz | 2,93 | 1296 MHz | 35,71 |
| 50 MHz | 6,61 | 1500 MHz | 38,63 |
| 100 MHz | 9,40 | 1800 MHz | 42,63 |
| 144 MHz | 11,33 | 2000 MHz | 45,14 |
| 200 MHz | 13,41 | 2400 MHz | 49,87 |
| 300 MHz | 16,53 | 3000 MHz | 56,39 |
| 432 MHz | 19,99 | 4000 MHz | 66,19 |
| 500 MHz | 21,57 | 5000 MHz | 75,05 |
| 800 MHz | 27,62 | 6000 MHz | 83,00 |
| | | 10000 MHz | 112,00 |

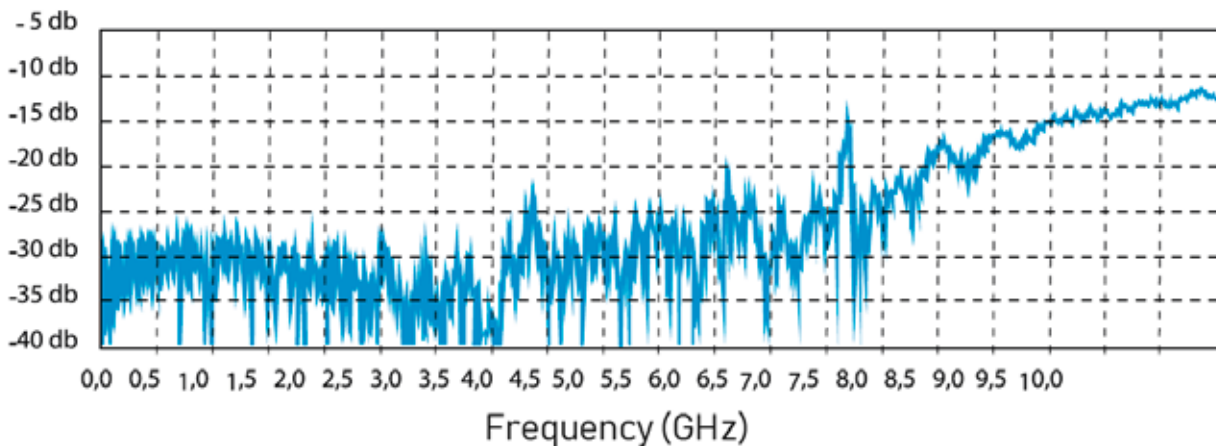
Max. Power handling (W at 40°C)

| | | | |
|----------|-------|-----------|----|
| 10 MHz | 1.885 | 3000 MHz | 98 |
| 100 MHz | 587 | 4000 MHz | 83 |
| 500 MHz | 256 | 5000 MHz | 74 |
| 1000 MHz | 178 | 6000 MHz | 66 |
| 2000 MHz | 122 | 10000 MHz | 49 |

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss



SeaTex® 7

ultraflexible, low loss, stray radiation resistant
and designed for marine applications



SeaTex 7 is a very flexible low loss and halogen-free communications coaxial cable perfectly designed to use for marine and offshore applications. It is worldwide approved for ship building (DNV GL certificate) and is suitable for use on ships, oil platforms, wind turbines and the entire maritime area. The jacket of the SeaTex 7 is made of a special thermoplastic copolymer (SHF2), which ensures that the cable is highly resistant to heat, cold, oils, salt-water, UV radiation and has a long service life in harsh environmental conditions.

The design of the SeaTex 7 is based on the successful Aircell 7 coaxial cable. It has excellent attenuation values, its flexibility and its small bending radius allow installation in limited spaces. Thus SeaTex 7 combines the advantages of Aircell coaxial cables with the special requirements in marine area. The product is specified up to 6 GHz and can be used in a temperature range from -55°C to 85°C.

Key features

| | |
|----------------------------|--------------|
| Diameter | 7,3 ± 0,3 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 21,52 dB |
| f max | 6 GHz |

Characteristics

- Conductor/screen material according to DIN EN 13602 Cu-ETP-R
- Screen material according to DIN EN 13602 Cu-ETP-A
- Insulating material according to ISO 6722-1 part 5.14, class „A“, bending diameter 80 mm
- Jacket material according to IEC 60092-360 (IEC 60092-359) SHF2
- Wall thickness of cable jacket according to IEC 60092-376
- Flame retardant according to IEC 60332-3-22 (Cat. A)
- Flame retardant according to IEC 60332-1-2
- Oil resistant according to EN 60811-2-1 (24 hours/100°C)
- RoHS compliant (Directive 2011/65/EC & 2015/863/ EU RoHS 3)
- Low Smoke, Fire retardant, Zero Halogen (LSZH)
- Corrosivity of fumes according to IEC 60754-2
- Smoke density according to IEC 61034
- UV-resistant
- Approved for marine and offshore applications
- DNV GL Certificate No. TAE00001JX



Technical data

| | |
|---------------------|--|
| Inner conductor | Stranded bare copper wire |
| Inner conductor Ø | 1,9 mm (19 x 0,38 mm, 14 AWG) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 5,0 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 85% |
| Outer conductor Ø | 5,7 mm |
| Jacket | special thermoplastic copolymer (SHF2) black |
| Weight | 73 kg/km |
| Min. Bending radius | 4X Ø single, 8X Ø repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 300 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacity (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 9,0 Ω/km |
| DC-resistance Outer conductor | 8,7 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 300 kV |

| | SeaTex 7 | RG 213/U | RG 58/U |
|-----------------------|----------|----------|----------|
| Capacity | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 2,20 | 2,00 | 5,00 |
| 100 MHz | 6,28 | 7,00 | 17,00 |
| 500 MHz | 14,72 | 17,00 | 39,00 |
| 1000 MHz | 21,52 | 22,50 | 54,60 |
| 3000 MHz | 40,88 | 58,50 | 118,00 |

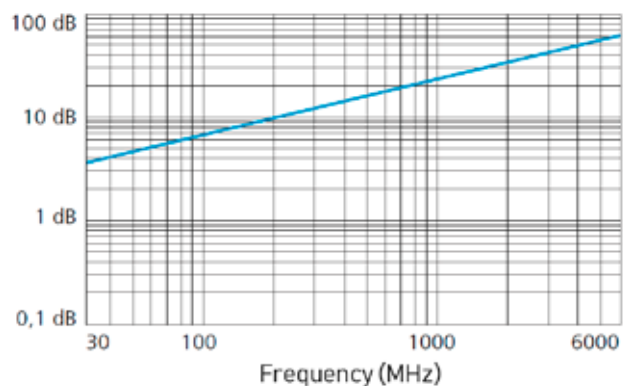
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|----------|-------|
| 5 MHz | 1,60 | 1000 MHz | 21,52 |
| 10 MHz | 2,20 | 1296 MHz | 24,84 |
| 50 MHz | 4,52 | 1500 MHz | 27,08 |
| 100 MHz | 6,28 | 1800 MHz | 30,00 |
| 144 MHz | 7,60 | 2000 MHz | 31,88 |
| 200 MHz | 9,04 | 2400 MHz | 35,60 |
| 300 MHz | 11,20 | 3000 MHz | 40,88 |
| 432 MHz | 13,60 | 4000 MHz | 49,12 |
| 500 MHz | 14,72 | 5000 MHz | 57,04 |
| 800 MHz | 19,00 | 6000 MHz | 64,90 |

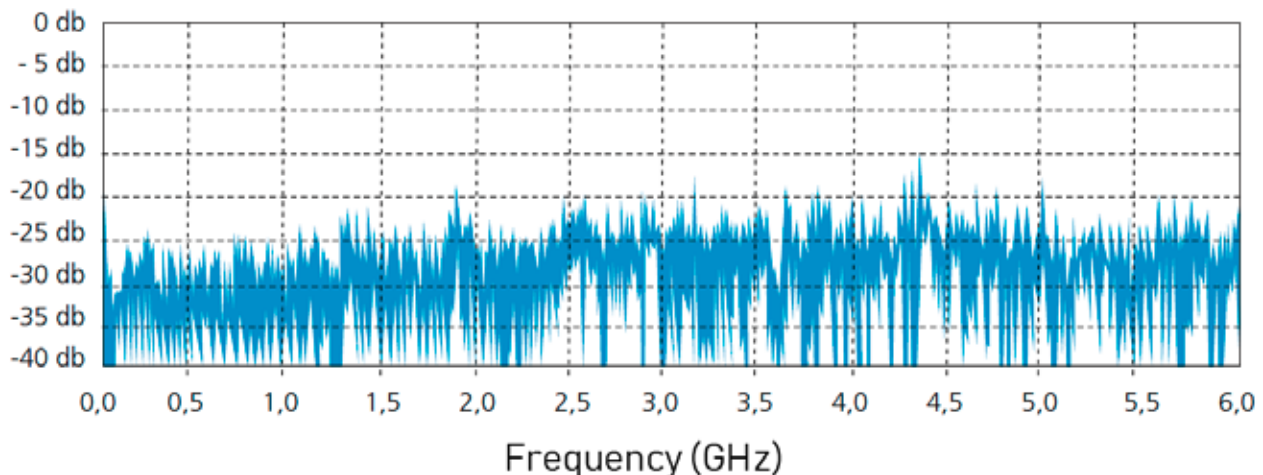
Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 2.040 | 2400 MHz | 118 |
| 100 MHz | 620 | 3000 MHz | 104 |
| 500 MHz | 260 | 4000 MHz | 89 |
| 1000 MHz | 191 | 5000 MHz | 78 |
| 2000 MHz | 131 | 6000 MHz | 70 |

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss



SeaTex® 10

ultraflexible, low loss and designed for marine applications



SeaTex 10 is a very flexible low loss and halogen-free communications coaxial cable perfectly designed to use for marine and offshore applications. It is worldwide approved for ship building (DNV GL certificate) and is suitable for use on ships, oil platforms, wind turbines and the entire maritime area. The jacket of the SeaTex 10 is made of a special thermoplastic copolymer (SHF2), which ensures that the cable is highly resistant to heat, cold, oils, salt-water, UV radiation and has a long service life in harsh environmental conditions.

The design of the SeaTex 10 is based on the successful Ecoflex 10 coaxial cable. It has excellent attenuation values, its flexibility and its small bending radius allow installation in limited spaces. Thus SeaTex 10 combines the advantages of Ecoflex coaxial cables with the special requirements in marine area. The product is specified up to 6 GHz and can be used in a temperature range from -55°C to 85°C.

Key features

| | |
|----------------------------|---------------|
| Diameter | 10,2 ± 0,2 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 14,20 dB |
| f max | 6 GHz |

Characteristics

- Conductor/screen material according to DIN EN 13602 Cu-ETP-R
- Screen material according to DIN EN 13602 Cu-ETP-A
- Insulating material according to ISO 6722-1 part 5.14, class „A“, bending diameter 80 mm
- Jacket material according to IEC 60092-360 (IEC 60092-359) SHF2
- Wall thickness of cable jacket according to IEC 60092-376
- Flame retardant according to IEC 60332-3-22 (Cat. A)
- Flame retardant according to IEC 60332-1-2
- Oil resistant according to EN 60811-2-1 (24 hours/100°C)
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- Low Smoke, Fire retardant, Zero Halogen (LSZH)
- Corrosivity of fumes according to IEC 60754-2
- Smoke density according to IEC 61034
- UV-resistant
- Approved for marine and offshore applications
- DNV GL Certificate No. TAE00001JX



Technical data

| | |
|---------------------|--|
| Inner conductor | Stranded bare copper wire |
| Inner conductor Ø | 2,85 mm (7 x 1,0 mm, 10 AWG) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 7,2 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 75% |
| Outer conductor Ø | 7,9 mm |
| Jacket | special thermoplastic copolymer (SHF2) black |
| Weight | 135 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 600 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacity (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 3,5 Ω/km |
| DC-resistance Outer conductor | 6,6 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 600 kV |

| | SeaTex 10 | RG 213/U | RG 58/U |
|-----------------------|-----------|----------|----------|
| Capacity | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 1,20 | 2,00 | 5,00 |
| 100 MHz | 4,00 | 7,00 | 17,00 |
| 500 MHz | 9,60 | 17,00 | 39,00 |
| 1000 MHz | 14,20 | 22,50 | 54,60 |
| 3000 MHz | 26,70 | 58,50 | 118,00 |

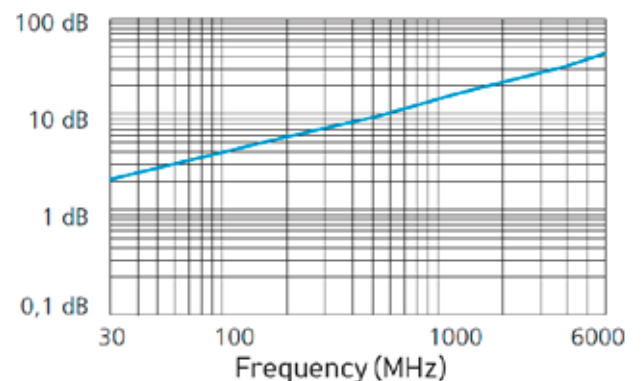
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|-------|----------|-------|
| 5 MHz | 0,80 | 1000 MHz | 14,20 |
| 10 MHz | 1,20 | 1296 MHz | 16,50 |
| 50 MHz | 2,80 | 1500 MHz | 17,90 |
| 100 MHz | 4,00 | 1800 MHz | 19,90 |
| 144 MHz | 4,90 | 2000 MHz | 21,20 |
| 200 MHz | 5,80 | 2400 MHz | 23,60 |
| 300 MHz | 7,30 | 3000 MHz | 26,70 |
| 432 MHz | 8,90 | 4000 MHz | 31,10 |
| 500 MHz | 9,60 | 5000 MHz | 35,20 |
| 800 MHz | 12,50 | 6000 MHz | 39,00 |

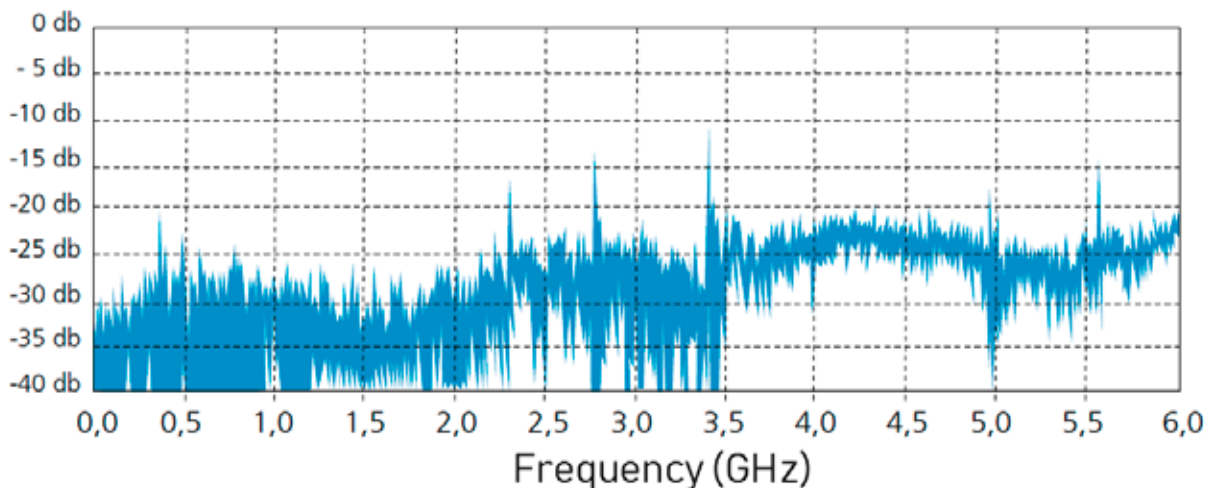
Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 3.960 | 2400 MHz | 210 |
| 100 MHz | 1.210 | 3000 MHz | 180 |
| 500 MHz | 510 | 4000 MHz | 150 |
| 1000 MHz | 350 | 5000 MHz | 130 |
| 2000 MHz | 230 | 6000 MHz | 120 |

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss



SeaTex® 15

flexible, low loss and stray radiation resistant
and designed for marine applications



SeaTex 15 is a very flexible low loss and halogen-free communications coaxial cable perfectly designed to use for marine and offshore applications. It is worldwide approved for ship building (DNV GL certificate) and is suitable for use on ships, oil platforms, wind turbines and the entire maritime area. The jacket of the SeaTex 15 is made of a special thermoplastic copolymer (SHF2), which ensures that the cable is highly resistant to heat, cold, oils, salt-water, UV radiation and has a long service life in harsh environmental conditions.

The design of the SeaTex 15 is based on the successful Ecoflex 15 coaxial cable. It has excellent attenuation values, its flexibility and its small bending radius allow installation in limited spaces. Thus SeaTex 15 combines the advantages of Ecoflex coaxial cables with the special requirements in marine area. The product is specified up to 6 GHz and can be used in a temperature range from -55°C to 85°C.

Key features

| | |
|----------------------------|---------------|
| Diameter | 14,6 ± 0,3 mm |
| Impedance | 50 ± 2 Ω |
| Attenuation at 1 GHz/100 m | 9,80 dB |
| f max | 6 GHz |

Characteristics

- Conductor/screen material according to DIN EN 13602 Cu-ETP-R
- Screen material according to DIN EN 13602 Cu-ETP-A
- Insulating material according to ISO 6722-1 part 5.14, class „A“, bending diameter 120 mm
- Jacket material according to IEC 60092-360 (IEC 60092-359) SHF2
- Wall thickness of cable jacket according to IEC 60092-376
- Flame retardant according to IEC 60332-3-22 (Cat. A)
- Flame retardant according to IEC 60332-1-2
- Oil resistant according to EN 60811-2-1 (24 hours/100°C)
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- Low Smoke, Fire retardant, Zero Halogen (LSZH)
- Corrosivity of fumes according to IEC 60754-2
- Smoke density according to IEC 61034
- UV-resistant
- Approved for marine and offshore applications
- DNV GL Certificate No. TAE00001JX



Technical data

| | |
|---------------------|--|
| Inner conductor | Stranded bare copper wire |
| Inner conductor Ø | 4,5 mm (7 x 1,5 mm) |
| Dielectric | foamed Polyethylene (PE) with skin |
| Dielectric Ø | 11,3 mm |
| Outer conductor 1 | copper foil overlapped |
| Shielding factor | 100% |
| Outer conductor 2 | shield braiding of bare copper wires |
| Shielding factor | 75% |
| Outer conductor Ø | 12,1 mm |
| Jacket | special thermoplastic copolymer (SHF2) black |
| Weight | 262 kg/km |
| Min. Bending radius | 4XØ single, 8XØ repeated |
| Temperature range | -55 to +85°C Transport & fixed installation -40 to +85°C Flexible use |
| Pulling strength | 1300 N |

Electrical data at 20°C

| | |
|---|------------|
| Capacity (1 kHz) | 78 nF/km |
| Velocity factor | 0,85 |
| Screening attenuation 1 GHz | ≥ 90 dB |
| DC-resistance Inner conductor | ≤ 1,5 Ω/km |
| DC-resistance Outer conductor | 5,0 Ω/km |
| Insulation resistance | ≥ 10 GΩ*km |
| Test voltage (Inner conductor/Outer conductor rms 50 Hz 1 Min.) | 1000 V |
| Max. Voltage | 1300 kV |

| | SeaTex 15 | RG 213/U | RG 58/U |
|-----------------------|-----------|----------|----------|
| Capacity | 78 pF/m | 101 pF/m | 102 pF/m |
| Velocity factor | 0,85 | 0,66 | 0,66 |
| Attenuation (dB/100m) | | | |
| 10 MHz | 0,86 | 2,00 | 5,00 |
| 100 MHz | 2,81 | 7,00 | 17,00 |
| 500 MHz | 6,70 | 17,00 | 39,00 |
| 1000 MHz | 9,80 | 22,50 | 54,60 |
| 3000 MHz | 18,30 | 58,50 | 118,00 |

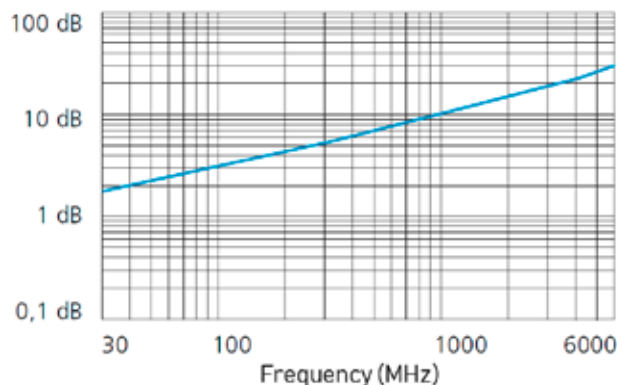
Typ. Attenuation (db/100 m at 20°C)

| | | | |
|---------|------|----------|-------|
| 5 MHz | 0,60 | 1000 MHz | 9,80 |
| 10 MHz | 0,86 | 1296 MHz | 11,40 |
| 50 MHz | 1,96 | 1500 MHz | 12,40 |
| 100 MHz | 2,81 | 1800 MHz | 13,80 |
| 144 MHz | 3,40 | 2000 MHz | 14,60 |
| 200 MHz | 4,05 | 2400 MHz | 16,20 |
| 300 MHz | 5,00 | 3000 MHz | 18,30 |
| 432 MHz | 6,10 | 4000 MHz | 21,60 |
| 500 MHz | 6,70 | 5000 MHz | 24,60 |
| 800 MHz | 8,60 | 6000 MHz | 27,50 |

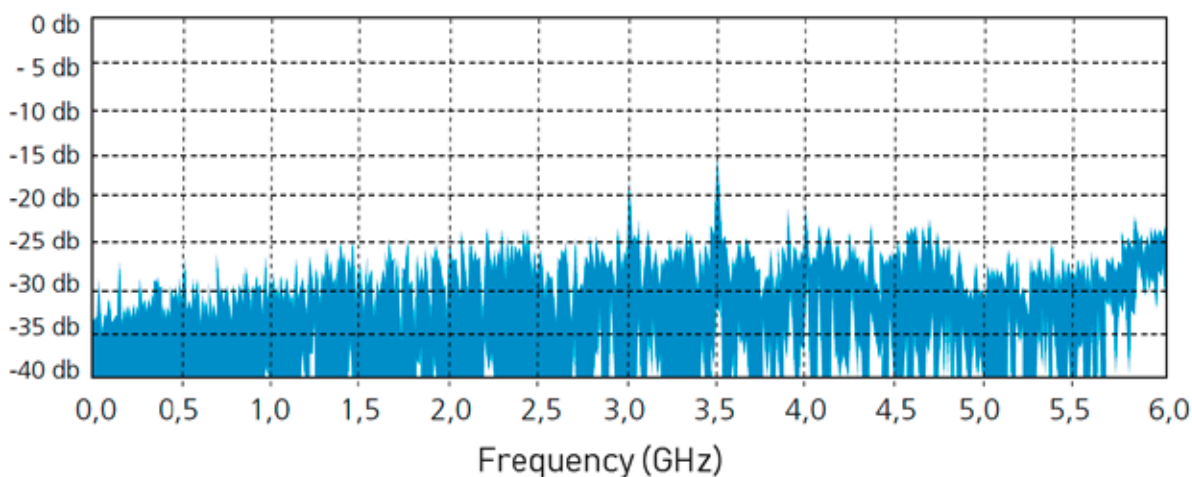
Max. Power handling (W at 40°C)

| | | | |
|----------|-------|----------|-----|
| 10 MHz | 6.327 | 2400 MHz | 326 |
| 100 MHz | 1.928 | 3000 MHz | 284 |
| 500 MHz | 810 | 4000 MHz | 237 |
| 1000 MHz | 547 | 5000 MHz | 206 |
| 2000 MHz | 364 | 6000 MHz | 183 |

Typ. Attenuation (db/100 m at 20°C)



Typ. Return loss



Coaxial connectors N

| Connector | Item No. | Suitable for | Inner conductor | Outer conductor | Material isolator | Material gasket in mating face |
|----------------------------|----------|---------------------|--------------------|-----------------|-------------------|--------------------------------|
| N male | 7700 | Aircell 5 | to solder | to screw | PTFE | Silicone |
| N male (crimp) | 7701 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| N female (crimp) | 7703 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| N male right-angle | 7704 | Aircell 5 | to solder | to screw | PTFE | Silicone |
| N male right-angle (crimp) | 7705 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| N female flange | 7708 | Aircell 5 | to solder | to screw | PTFE | Silicone |
| N female | 7393 | Aircell 7 | to solder | to screw | PTFE | - |
| N male | 7392 | Aircell 7 | to solder | to screw | PTFE | Silicone |
| N male (crimp) | 7371 | Aircell 7 | to solder | to crimp | PTFE | Silicone |
| N male right-angle | 7399 | Aircell 7 | to solder | to screw | PTFE | Silicone |
| N female | 7364 | Aircom / Ecoflex 10 | to solder | to screw | PTFE | - |
| N male | 7367 | Aircom / Ecoflex 10 | to solder | to screw | PTFE | Silicone |
| N female (crimp) | 7370 | Ecoflex 10 | to solder | to crimp | PTFE | - |
| N male (crimp) | 7366 | Ecoflex 10 | to solder or crimp | to crimp | PTFE | Silicone |
| N female (solderless) | 7373 | Ecoflex 10 | solderless | to screw | PTFE | - |
| N male (solderless) | 7383 | Ecoflex 10 | solderless | to screw | PTFE | Silicone |
| N male slottet | 7401 | Ecoflex 10 | to solder | to screw | PTFE | Silicone |
| N male right-angle | 7360 | Aircom / Ecoflex 10 | to solder | to screw | PTFE | Silicone |

For further information on our coaxial connectors please visit our website: www.ssb-electronic.com.

| Surface body and metal parts excl. pin | Surface pin | Weight | SWR @ 3 GHz | Impedance | Max. frequency | Return loss | Insertion loss |
|--|-------------|--------|-------------|-----------|----------------|---|----------------|
| CuZn39Pb3 nickel plated | gold plated | 4 g | <1.1 | 50 Ω | 6 GHz | ≤ -32,9dB@1GHz; ≤ -26,5dB@3GHz; ≤ -21,4dB@11GHz | ≤ 0,01 dB |
| CuZn39Pb3 nickel plated | gold plated | 4 g | <1.1 | 50 Ω | 6 GHz | ≤ -33,8dB@1GHz; ≤ -28,7dB@3GHz; ≤ -22,0dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 3 g | <1.1 | 50 Ω | 6 GHz | ≤ -33,8dB@1GHz; ≤ -28,7dB@3GHz; ≤ -22,0dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 7 g | <1.1 | 50 Ω | 6 GHz | ≤ -33,8dB@1GHz; ≤ -28,7dB@3GHz; ≤ -22,0dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 5 g | <1.1 | 50 Ω | 6 GHz | ≤ -44,0dB@1GHz; ≤ -29,5dB@3GHz; ≤ -28,0dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | | <1.1 | 50 Ω | 6 GHz | ≤ -37,7dB@1GHz; ≤ -30,0dB@3GHz; ≤ -29,9dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 50 g | <1.1 | 50 Ω | 10 GHz | ≤ -20dB @10GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 59 g | <1.05 | 50 Ω | 10 GHz | ≤ -27,5dB@11GHz; ≤ -36,1dB@3GHz; ≤ -39,6dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 31 g | <1.05 | 50 Ω | 4 GHz | ≤ -27,5dB@11GHz; ≤ -36,1dB@3GHz; ≤ -39,6dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 83 g | <1.05 | 50 Ω | 4 GHz | ≤ -20dB @10GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 60 g | <1.05 | 50 Ω | 10 GHz | ≤ -33,2dB@11GHz; ≤ -36,4dB@3GHz; ≤ -47,5dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 55 g | <1.06 | 50 Ω | 10 GHz | ≤ -30,0dB@11GHz; ≤ -31,6dB@3GHz; ≤ -39,9dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 31 g | <1.05 | 50 Ω | 4 GHz | ≤ -51,4dB@1GHz; ≤ -37,2dB@4GHz; ≤ -30,9dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 31 g | <1.05 | 50 Ω | 4 GHz | ≤ -32,4dB@11GHz; ≤ -35,6dB@3GHz; ≤ -42,5dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 60 g | <1.05 | 50 Ω | 10 GHz | ≤ -33,2dB@11GHz; ≤ -36,4dB@3GHz; ≤ -47,5dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 55 g | <1.05 | 50 Ω | 10 GHz | ≤ -32,4dB@11GHz; ≤ -35,6dB@3GHz; ≤ -42,5dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 55 g | <1.05 | 50 Ω | 10 GHz | ≤ -30,0dB@11GHz; ≤ -31,6dB@3GHz; ≤ -39,9dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 90 g | <1.06 | 50 Ω | 4 GHz | ≤ -29,1dB@11GHz; ≤ -31,5dB@3GHz; ≤ -35,4dB@1GHz | ≤ 0,05 dB |

| | | | | | | |
|-----------------------|-------------|--|-----------------------|----------|------|----------|
| N male right-angle | 7360 HTX | Aircom / Ecoflex 10 Heatex / SeaTex | to solder | to screw | PTFE | Silicone |
| N female | 7361 | Ecoflex 10 Heatex / SeaTex | solderless | to screw | PTFE | - |
| N male | 7368 | Ecoflex 10 Heatex/ SeaTex | to solder | to screw | PTFE | - |
| N male (solderless) | 7369 | Ecoflex 10 Plus Hea- tex/SeaTex | solderless | to screw | PTFE | Silicone |
| N male (solderless) | 7351 | Ecoflex 15 Heatex/ SeaTex | solderless | to screw | PTFE | Silicone |
| N female (solderless) | 7352 | Ecoflex 15 Heatex/ SeaTex | solderless | to screw | PTFE | Silicone |
| N male (solderless) | 7395 | Ecoflex 15 / Plus | to clamp | to screw | PTFE | Silicone |
| N female (crimp) | 7372 | Aircom | to solder | to crimp | PTFE | Silicone |
| N male (crimp) | 7359 | Aircom | to solder or crimp | to crimp | PTFE | Silicone |

Coaxial connectors BNC

| Connector | Item No. | Suitable for | Inner conductor | Outer conductor | Material isolator | Material gasket in mating face |
|-----------------------------|----------|--------------|-----------------|-----------------|-------------------|--------------------------------|
| BNC female | 7722 | Aircell 5 | to solder | to screw | PTFE | - |
| BNC male | 7720 | Aircell 5 | to solder | to screw | PTFE | Silicone |
| BNC female (crimp) | 7723 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| BNC male (crimp) | 7721 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| BNC mounting female (crimp) | 7727 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| BNC female | 7389 | Aircell 7 | to solder | to screw | PTFE | - |
| BNC male | 7391 | Aircell 7 | to solder | to screw | PTFE | - |

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| | | | | | | | |
|-------------------------------|-----------------------------|------|-------|------|--------|---|-----------|
| CuZn39Pb3 with CuSnZn3 finish | gold plated | 90 g | <1.06 | 50 Ω | 4 GHz | ≤ -29,1dB@11GHz; ≤ -31,5dB@3GHz; ≤ -35,4dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 with CuSnZn3 finish | gold plated | 60 g | <1.05 | 50 Ω | 10 GHz | ≤ -38,6dB@1GHz; ≤ -33,7dB@3GHz; ≤ -38,7dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 with CuSnZn3 finish | gold plated | 69 g | <1.06 | 50 Ω | 10 GHz | ≤ -41,2dB @ 1GHz; ≤ -32,0dB @ 3GHz; ≤ -31,2dB @ 11GHz | ≤ 0,05 dB |
| CuZn39Pb3 with CuSnZn3 finish | gold plated | 55 g | <1.06 | 50 Ω | 10 GHz | ≤ -41,2dB @ 1GHz; ≤ -32,0dB @ 3GHz; ≤ -31,2dB @ 11GHz | ≤ 0,05 dB |
| CuZn39Pb3 with CuSnZn3 finish | gold plated | 55 g | <1.06 | 50 Ω | 10 GHz | ≤ -29,1dB@11GHz; ≤ -31,5dB@3GHz; ≤ -35,4dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 with CuSnZn3 finish | gold plated | 74 g | <1.06 | 50 Ω | 11 GHz | ≤ -33,6dB@1GHz; ≤ -32,5dB@4GHz; ≤ -29,3dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 78 g | <1.06 | 50 Ω | 11 GHz | ≤ -29,1dB@11GHz; ≤ -31,5dB@3GHz; ≤ -35,4dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | CuSn C51900 Phosphor bronze | 31 g | <1.03 | 50 Ω | 6 GHz | ≤ -51,4dB@1GHz; ≤ -37,2dB@4GHz; ≤ -30,9dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | CuSn C51900 Phosphor bronze | 31 g | <1.04 | 50 Ω | 6 GHz | ≤ -32,4dB@11GHz; ≤ -35,6dB@3GHz; ≤ -42,5dB@1GHz | ≤ 0,05 dB |

| Surface body and metal parts excl. pin | Surface pin | Weight | SWR @ 3 GHz | Impedance | Max. frequency | Return loss | Insertion loss |
|--|-------------|--------|-------------|-----------|----------------|--|----------------|
| CuZn39Pb3 nickel plated | gold plated | 19 g | <1.1 | 50 Ω | 3 GHz | ≤ -46,4dB@0,5GHz; ≤ -42,9dB@1GHz; ≤ -26,5dB@3GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 3 g | <1.21 | 50 Ω | 2 GHz | ≤ -45,1dB@0,5GHz; ≤ -32,3dB@1GHz; ≤ -20,8dB@3GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 2 g | <1.09 | 50 Ω | 2 GHz | ≤ -35,9dB@0,5GHz; ≤ -35,2dB@1GHz; ≤ -27,8dB@3GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 8 g | <1.21 | 50 Ω | 4 GHz | ≤ -45,1dB@0,5GHz; ≤ -32,3dB@1GHz; ≤ -20,8dB@3GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 2 g | <1.1 | 50 Ω | 2 GHz | ≤ -35,8dB@0,5GHz; ≤ -31,0dB@1GHz; ≤ -27,3dB@3GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 37 g | <1.04 | 50 Ω | 3 GHz | ≤ -35,8dB@11GHz; ≤ -36,2dB@3GHz; ≤ -38,9dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 39 g | <1.04 | 50 Ω | 3 GHz | ≤ -35,8dB@11GHz; ≤ -36,2dB@3GHz; ≤ -38,9dB@1GHz | ≤ 0,05 dB |

| | | | | | | |
|------------------|------|---------------------|-----------|----------|------|----------|
| BNC male (crimp) | 7375 | Aircell 7 | to crimp | to crimp | PTFE | Silicone |
| BNC female | 7386 | Aircom / Ecoflex 10 | to solder | to screw | PTFE | - |
| BNC male | 7379 | Aircom / Ecoflex 10 | to solder | to screw | PTFE | - |

Coaxial connectors TNC

| Connector | Item No. | Suitable for | Inner conductor | Outer conductor | Material isolator | Material gasket in mating face |
|------------------------------|----------|---------------------|-----------------|-----------------|-------------------|--------------------------------|
| TNC female | 7742 | Aircell 5 | to solder | to screw | PTFE | Silicone |
| TNC male | 7740 | Aircell 5 | to solder | to screw | PTFE | Silicone |
| TNC female (crimp) | 7743 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| TNC male (crimp) | 7741 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| TNC male right-angle | 7744 | Aircell 5 | to solder | to screw | PTFE | Silicone |
| TNC male right-angle (crimp) | 7745 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| TNC-RP male (crimp) | 7746 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| TNC male | 7396 | Aircell 7 | to solder | to screw | PTFE | - |
| TNC male (crimp) | 7374 | Aircell 7 | to crimp | to crimp | PTFE | Silicone |
| TNC male | 7382 | Aircom / Ecoflex 10 | to solder | to screw | PTFE | - |
| TNC-RP male | 7384 | Aircom / Ecoflex 10 | to solder | to screw | PTFE | - |

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| | | | | | | | |
|---|--------------------------------|---------------|------------------------|------------------------|---------------------------------|---|---------------------------|
| CuZn39Pb3 nickel plated | gold plated | 11 g | <1.23 | 50 Ω | 3 GHz | ≤-20dB @ 3GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 56 g | <1.23 | 50 Ω | 3 GHz | ≤-20dB @ 3GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 54 g | <1.02 | 50 Ω | 3 GHz | ≤ -39,3dB@11GHz; ≤ -43,6dB@3GHz; ≤ -49,0dB@1GHz | ≤ 0,05 dB |
| Surface body and metal parts excl. pin | Surface pin | Weight | SWR @ 3 GHz | Impe- dance | Max. frequen- cy | Return loss | Insertion loss |
| CuZn39Pb3 nickel plated | gold plated | | <1.06 | 50 Ω | 3 GHz | ≤ -35,8dB@1GHz; ≤ -31,6dB@3GHz; ≤ -31,7dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 20 g | <1.15 | 50 Ω | 2 GHz | ≤ -27,6dB@1GHz; ≤ -23,2dB@3GHz; ≤ -27,4dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 11 g | <1.12 | 50 Ω | 3 GHz | ≤ -30,1dB@1GHz; ≤ -25,4dB@3GHz; ≤ -29,4dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 10 g | <1.1 | 50 Ω | 2 GHz | ≤ -31,4dB@1GHz; ≤ -27,3dB@3GHz; ≤ -29,9dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 19 g | <1.09 | 50 Ω | 3 GHz | ≤ -29,7dB@1GHz; ≤ -27,6dB@3GHz; ≤ -24,9dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | CuSn C51900 Phosphor bronze | 24 g | <1.09 | 50 Ω | 3 GHz | ≤ -32,4dB@1GHz; ≤ -28,1dB@3GHz; ≤ -23,0dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 13 g | <1.04 | 50 Ω | 3 GHz | ≤ -23,5dB@1GHz; ≤ -36,6dB@3GHz; ≤ -29,4dB@11GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 44 g | <1.12 | 50 Ω | 3 GHz | ≤-25dB @ 3GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | CuSn C51900 Phosphor bronze | 19 g | <1.12 | 50 Ω | 3 GHz | ≤-25dB @ 3GHz | ≤ 0,05 dB |
| CuZn39Pb3 with CuSnZn3 finish | gold plated | 50 g | <1.05 | 50 Ω | 3 GHz | ≤ -29,4dB@11GHz; ≤ -33,3dB@3GHz; ≤ -40,5dB@1GHz | ≤ 0,05 dB |
| CuZn39Pb3 with CuSnZn3 finish | gold plated | 60 g | <1.12 | 50 Ω | 3 GHz | ≤-25dB @ 3GHz | ≤ 0,05 dB |

Coaxial connectors SMA

| Connector | Item No. | Suitable for | Inner conductor | Outer conductor | Material isolator | Material gasket in mating face |
|------------------------------|----------|---------------------|-----------------|-----------------|-------------------|--------------------------------|
| SMA female (crimp) | 7751 | Aircell 5 | to crimp | to crimp | PTFE | Silicone |
| SMA male (crimp) | 7750 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| SMA-RP female (crimp) | 7756 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| SMA-RP male (crimp) | 7755 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| SMA male right-angle (crimp) | 7752 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| SMA male | 7385 | Aircell 7 | to solder | to screw | PTFE | Silicone |
| SMA male (crimp) | 7387 | Aircell 7 | to crimp | to crimp | PTFE | Silicone |
| SMA male | 7362 | Aircom / Ecoflex 10 | to solder | to solder | PTFE | Silicone |
| SMA male RP | 7365 | Aircom / Ecoflex 10 | to solder | to screw | PTFE | Silicone |
| SMA male RP | 7381 | Aircell 7 | to solder | to screw | PTFE | Silicone |

Coaxial connectors UHF

| Connector | Item No. | Suitable for | Inner conductor | Outer conductor | Material isolator | Material gasket in mating face |
|-----------------------|----------|----------------------|-----------------|-----------------|-------------------|--------------------------------|
| UHF male | 7760 | Aircell 5 | to solder | to screw | PTFE | Silicone |
| UHF male (crimp) | 7762 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| UHF male (standard) | 7390 | Aircell 7 | to solder | to screw | PTFE | - |
| UHF male PRO | 7394 | Aircell 7 | to solder | to screw | PTFE | - |
| UHF male | 7377 | Ecoflex 10 // Aircom | to solder | to screw | PTFE | - |
| UHF male PRO | 7378 | Aircom / Ecoflex 10 | to solder | to screw | PTFE | - |
| UHF male (solderless) | 7350 | Ecoflex 15 / Plus | to clamp | to screw | PTFE | Silicone |
| UHF female flange | 7340 | - | - | - | PTFE | - |

For further information on our coaxial connectors please visit our website: www.ssb-electronic.com.

| Surface body and metal parts excl. pin | Surface pin | Weight | SWR @ 3 GHz | Impedance | Max. frequency | Return loss | Insertion loss |
|--|-----------------------------|--------|-------------|-----------|----------------|--|----------------|
| CuZn39Pb3 nickel plated | gold plated | 5 g | <1.1 | 50 Ω | 6 GHz | ≤ -32,6dB@1GHz; ≤ -25,4dB@4GHz; ≤ -23,9dB@12,4GHz | ≤ 0,05 dB |
| CuZn39Pb3 Gold plated | gold plated | 10 g | <1.1 | 50 Ω | 6 GHz | ≤ -32,6dB@1GHz; ≤ -25,4dB@4GHz; ≤ -23,9dB@12,4GHz | ≤ 0,05 dB |
| CuZn39Pb3 Gold plated | gold plated | 10 g | <1.05 | 50 Ω | 6 GHz | ≤ -40,7dB@1GHz; ≤ -33,7dB@4GHz; ≤ -29,1dB@12,4GHz | ≤ 0,05 dB |
| CuZn39Pb3 Gold plated | gold plated | 7 g | <1.05 | 50 Ω | 6 GHz | ≤ -44,8dB@1GHz; ≤ -30,0dB@4GHz; ≤ -30,7dB@12,4GHz | ≤ 0,05 dB |
| CuZn39Pb3 Gold plated | gold plated | 10 g | <1.12 | 50 Ω | 6 GHz | ≤ -32,6dB@1GHz; ≤ -25,4dB@4GHz; ≤ -23,9dB@12,4GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 34 g | <1.12 | 50 Ω | 6 GHz | ≤ -25dB @ 4GHz | ≤ 0,05 dB |
| CuZn39Pb3 Gold plated | CuSn C51900 Phosphor bronze | 11 g | <1.12 | 50 Ω | 6 GHz | ≤ -25dB @ 4GHz | ≤ 0,05 dB |
| CuZn39Pb3 with CuSnZn3-finish | gold plated | 34 g | <1.12 | 50 Ω | 6 GHz | ≤ -25dB @ 4GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 34 g | <1.03 | 50 Ω | 6 GHz | ≤ -43,4dB@1GHz; ≤ -38,2dB@4GHz; ≤ -26,5dB@12,4GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 25 g | <1.03 | 50 Ω | 6 GHz | ≤ -43,4dB@1GHz; ≤ -38,2dB@4GHz; ≤ -26,5dB@12,4GHz | ≤ 0,05 dB |
| Surface body and metal parts excl. pin | Surface pin | Weight | SWR @ 3 GHz | Impedance | Max. frequency | Return loss | Insertion loss |
| CuZn39Pb3 nickel plated | gold plated | 17 g | <1.04 | 50 Ω | 1 GHz | ≤ -36,4dB@0,2GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 19 g | <1.06 | 50 Ω | 1 GHz | ≤ -31,5dB@0,2GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 44 g | <1.07 | 50 Ω | 1 GHz | ≤ -30,9dB@200MHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 44 g | <1.07 | 50 Ω | 1 GHz | ≤ -30,9dB @200MHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 23 g | <1.12 | 50 Ω | 200 MHz | ≤ -25dB @200MHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 44 g | <1.06 | 50 Ω | 200 MHz | ≤ -23,6dB@1GHz; ≤ -30,4dB@500MHz; ≤ -32,4dB@200MHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 78 g | <1.12 | 50 Ω | 1 GHz | ≤ -25dB @ 1GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | gold plated | 22 g | <1.12 | 50 Ω | 200 MHz | ≤ -25dB @ 1GHz | ≤ 0,05 dB |

Coaxial connectors 7-16 DIN

| Connector | Item No. | Suitable for | Inner conductor | Outer conductor | Material isolator | Material gasket in mating face |
|------------------------------|----------|---------------------|-----------------|-----------------|-------------------|--------------------------------|
| 7-16 DIN male | 7380 | Aircom / Ecoflex 10 | to solder | to screw | PTFE | - |
| 7-16 DIN female | 7388 | Aircom / Ecoflex 10 | to solder | to screw | PTFE | - |
| 7-16 DIN female (solderless) | 7349 | Ecoflex 15 / Plus | to clamp | to screw | PTFE | - |
| 7-16 DIN male (solderless) | 7398 | Ecoflex 15 / Plus | to clamp | to screw | PTFE | Silicone |

Coaxial connectors FME

| Connector | Item No. | Suitable for | Inner conductor | Outer conductor | Material isolator | Material gasket in mating face |
|--------------------|----------|--------------|-----------------|-----------------|-------------------|--------------------------------|
| FME female (crimp) | 7808 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| FME male (crimp) | 7807 | Aircell 5 | to solder | to crimp | PTFE | Silicone |
| FME female (crimp) | 7806 | Aircell 7 | to solder | to crimp | PTFE | Silicone |
| FME male (crimp) | 7805 | Aircell 7 | to solder | to crimp | PTFE | Silicone |

Coaxial connectors 4.3-10

| Connector | Item No. | Suitable for | Inner conductor | Outer conductor | Material isolator | Material gasket in mating face |
|---|----------|-----------------------------|-----------------|-----------------|-------------------|--------------------------------|
| SSB Snap-In 4.3-10 straight crimp | 7500 | Aircom Premium Aircell 5 | to crimp | to crimp | PTFE | Silicone |
| SSB Snap-In 4.3-10 straight clamp | 7501 | Aircom Premium Aircell 5 | to clamp | to clamp | PTFE | Silicone |
| SSB Snap-In 4.3-10 angle crimp | 7502 | Aircom Premium Aircell 5 | to solder | to crimp | PTFE | Silicone |
| SSB Snap-In 4.3-10 flange mounting socket | 7503 | Aircom Premium Aircell 5 | to solder | - | PTFE | - |

For further information on our coaxial connectors please visit our website: www.ssb-electronic.com.

| Surface body and metal parts excl. pin | Surface pin | Weight | SWR @ 3 GHz | Impedance | Max. frequency | Return loss | Insertion loss |
|--|---------------|--------|-------------|-----------|----------------|--|----------------|
| CuZn39Pb3 nickel plated | silver plated | 106 g | <1.06 | 50 Ω | 6 GHz | ≤ -40,7dB@1GHz; ≤ -30,7dB@3GHz; ≤ -32,8dB@7,5GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | silver plated | 106 g | <1.04 | 50 Ω | 6 GHz | ≤ -45,9dB@1GHz; ≤ -36,3dB@3GHz; ≤ -28,3dB@7,5GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | silver plated | 110 g | <1.04 | 50 Ω | 6 GHz | ≤ -45,8dB@1GHz; ≤ -36,2dB@3GHz; ≤ -28,1dB@7,5GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | silver plated | 146 g | <1.04 | 50 Ω | 6 GHz | ≤ -45,9dB@1GHz; ≤ -36,3dB@3GHz; ≤ -28,3dB@7,5GHz | ≤ 0,05 dB |

| Surface body and metal parts excl. pin | Surface pin | Weight | SWR @ 3 GHz | Impedance | Max. frequency | Return loss | Insertion loss |
|--|-------------|--------|-------------|-----------|----------------|--|----------------|
| CuZn39Pb3 nickel plated | - | 10 g | <1.12 | 50 Ω | 4 GHz | ≤ -25dB @ 2GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | - | 10 g | <1.1 | 50 Ω | 4 GHz | ≤ -32,9dB@1GHz; ≤ -26,5dB@3GHz; ≤ -21,4dB@11GHz | ≤ 0,01 dB |
| CuZn39Pb3 nickel plated | - | 12 g | <1.12 | 50 Ω | 2 GHz | ≤ -33,9dB@0,5GHz; ≤ -29,8dB@1GHz; ≤ -25,1dB@2GHz | ≤ 0,05 dB |
| CuZn39Pb3 nickel plated | - | 12 g | <1.04 | 50 Ω | 2 GHz | ≤ -32,9dB@0,5GHz; ≤ -30,7dB@1GHz; ≤ -36,1dB@2GHz | ≤ 0,05 dB |

| Surface body and metal parts excl. pin | Surface pin | Weight | SWR @ 3 GHz | Impedance | Max. frequency | Return loss | Insertion loss |
|--|-------------|--------|-------------|-----------|----------------|---|----------------|
| CuSnZn3 | Cu2Ag5 | 33 g | <1.04 | 50 Ω | 6 GHz | 1GHz - 40dB; 2,5GHz - 35dB; | ≤ 0,05 dB |
| CuSnZn3 | Cu2Ag5 | 61 g | <1.07 | 50 Ω | 6 GHz | 1GHz - 35dB; 2GHz - 32dB; 6GHz - 28dB | ≤ 0,05 dB |
| CuSnZn3 | Cu2Ag5 | 49 g | <1.07 | 50 Ω | 6 GHz | 1GHz - 34dB; 2GHz - 28dB; 6GHz - 17dB | ≤ 0,05 dB |
| CuSnZn3 | Cu2Ag5 | | <1.07 | 50 Ω | 6 GHz | 1 GHz - 38 dB 2.5 GHz - 32 dB | ≤ 0,05 dB |

Coaxial adaptors

| Adaptor | SMA male | SMA female | SMA-RP male | UHF female | UHF male | BNC female | BNC male | BNC female female |
|----------------------|----------|------------|-------------|------------|----------|------------|----------|-------------------|
| BNC female | 8733 | | | | | | | |
| BNC female | | | | | | 8738 | | |
| BNC male | | 8732 | | | | | | |
| BNC male | | | | 8730 | | | | |
| BNC male | | | | | | | 8739 | |
| BNC male | | | | | | | | 8737 |
| BNC male | | | | | | | | |
| BNC male | | | | | | | | |
| N female | | | | | | | | |
| N female | | | 8762 | | | | | |
| N female | | | | | | | | |
| N female | | | | | | | | |
| N female | | | | | | | 8701 | |
| N female | | | | | | | | |
| N female | | | | | | | | |
| N female | 8705 | | | | | | | |
| N female | | | | | | | | |
| N female | | | | | 8703 | | | |
| N female right angle | | | | | | | | |
| N male | | | | | | | 8700 | |
| N male | | | | | | | | |
| N male | | | | | | | | |
| N male | | 8704 | | | | | | |
| N male | | | | | | | | |
| N male | | | | 8702 | | | | |
| FME male | | | | | | | | |
| FME male | | 8745 | | | | | | |
| FME male | 8742 | | | | | | | |
| SMA female | | 8760 | | | | | | |
| UHF male | | | | | 8782 | | | |
| 7-16 DIN female | | | | | | | | |

For further information on our coaxial adaptors please visit our website: www.ssb-electronic.com.

Instructions for handling coaxial cables

Our coaxial cables are very durable and designed for continuous use. As consumable material, they are intended for one-time installation. Whether installation in buildings, in ships and oil platforms under rough conditions or in mobile use - there is a wide range of applications for our coaxial cables. In every application, correct handling of the coaxial cable is important for its durability.

In order to ensure the correct function of our coaxial cables as long as possible, we recommend you to follow the below information on handling the cables:



- Please avoid heavy mechanical stress on the coaxial cable, f. e. strong kinking, stepping on it, sharp edges, unnecessary cuts etc.
- Do not expose your coaxial cables to high temperatures ($> 85^{\circ}\text{C}$).
- Please avoid direct contact of the coaxial cable with caustic liquids.
- If possible, please avoid constant strong bending movements of the cable. Over time, this leads to damage of the outer conductor. Our coaxial cables are not suitable for drag chains and rotors.
- Please consider the tensile load on your coaxial cable. If cables are laid vertically over longer distances, they must be fixed at certain intervals to minimize the tensile load.

The exact technical data regarding temperature range, bending radius etc. can be found in the data sheet of each cable. Coaxial cables that have been damaged by incorrect use are excluded from warranty. Please note: All information without guarantee and subject to change.



How to contact us

You have a question to our products or a specific application?

Then call us or send us an e-mail.

We will get back to you as soon as possible.

We are looking forward to hearing your questions and your feedback.



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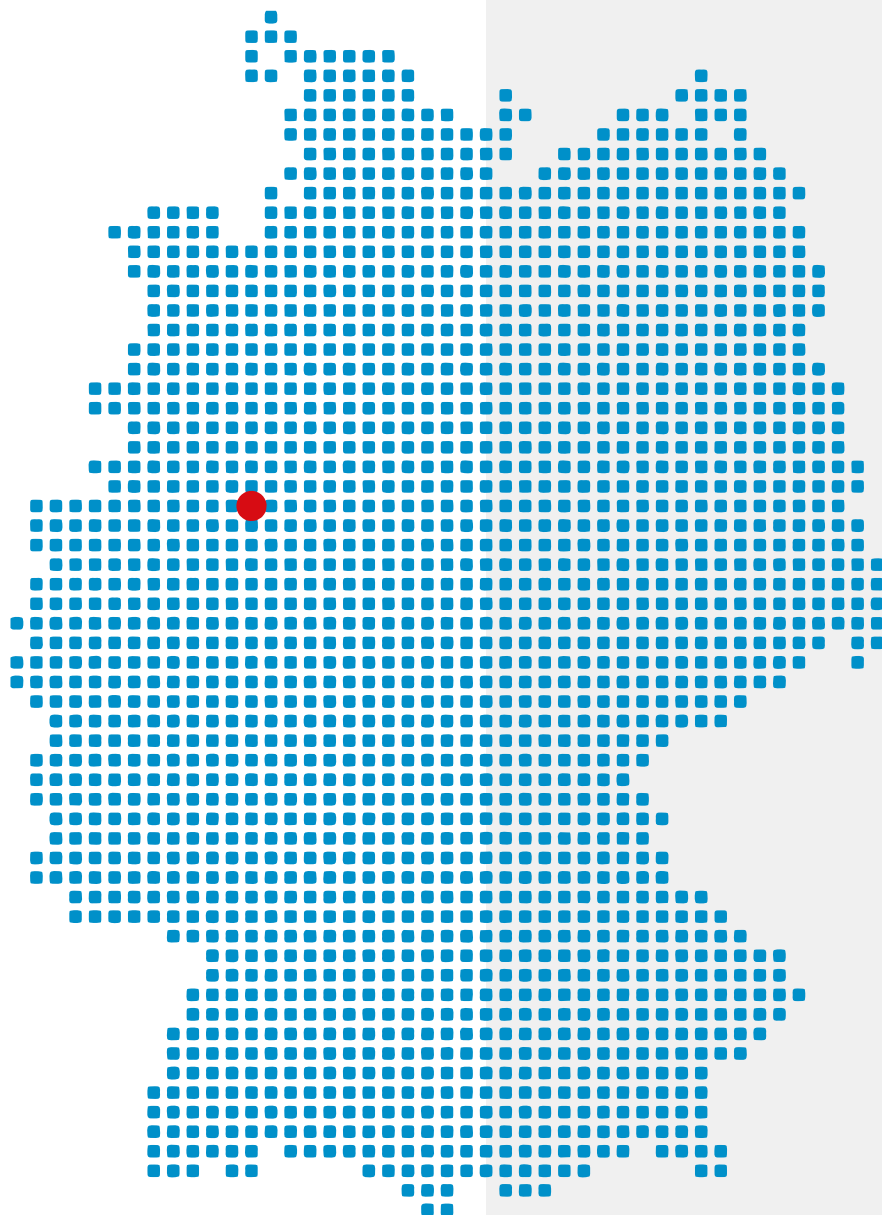
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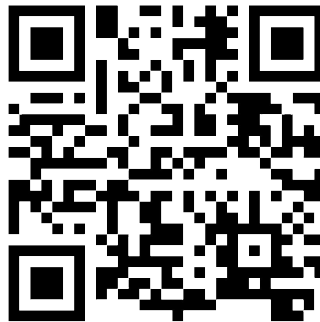
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