



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](http://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](http://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 Ecoflex 10 FRNC	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  Continuous audit testing of samples by third-party notified product certification body
Ecoflex 15 PLUS Heatex Ecoflex 15 FRNC	Cca s2 d2 a1			Smoke production EN 50399/EN 61034-2 s1, s1a, s1b, s2, s3	Continuous factory inspection 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 ( $\text{m}^2/\text{s}$ )

# 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
<b>f max</b>	<b>10 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Eca</b>

## 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 DC (wire/screen)	4 kV
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

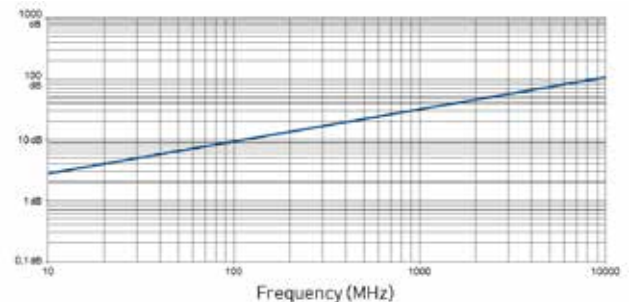
### Typ. Attenuation (db/100 m at 20°C)

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

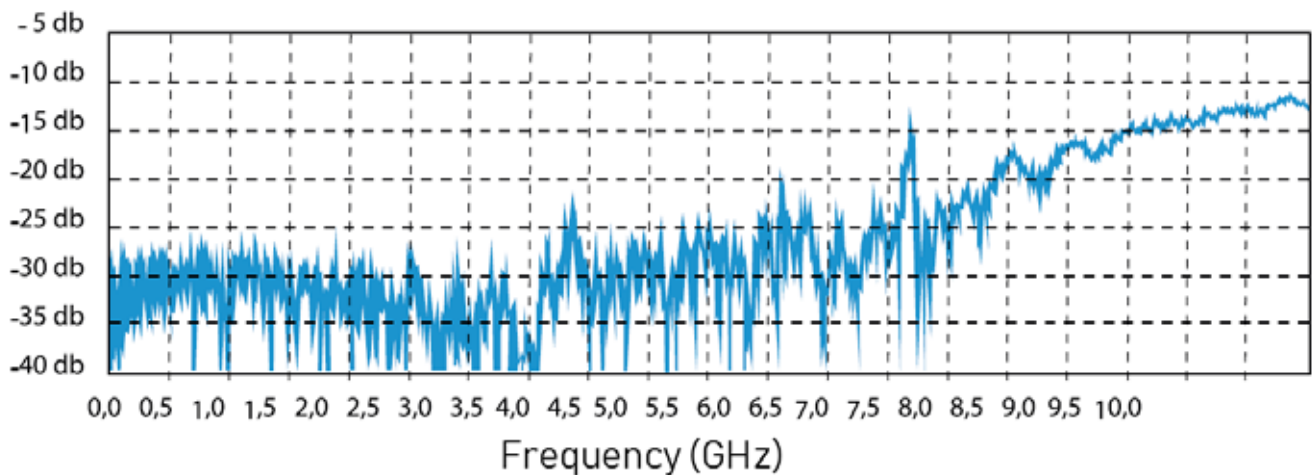
### Max. Power handling (W at 40°C)

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 and railway applications



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 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. 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.

Aircell 5 Heatex is certified for railway applications for interior and exterior use according requirement sets R15 and R16 of the EN45545-2 standard.

## Key features

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

## Characteristics

Certified according to EN 45545-2:2013+A1:2015 and EN 45545-2:2020 requirement sets R15 + R16 for railway applications  
Flame retardancy tested according to EN 60332-1-2:2004 + A1:2015 + A11:2016 and EN 60332-1-3:2004 + A1:2015  
Smoke density tested according to DIN EN 61034-2:2005  
Smoke toxicity tested according to EN 50305:2002 Section 9.2  
Vertical flame propagation tested according to EN 50305:2002 Section 9.1.2. (bundle test for cables with  $\varnothing \leq 6$  mm)  
Halogen-free tested according to DIN EN 50306-1:2003  
Halogen acid gas content tested according to DIN EN 60754-1:2015 (HCl < 0,5%)  
Acidity of gases tested according to DIN EN 60754-2:2015 (pH value > 4,3)  
Conductivity of gases tested according DIN EN 60754-2:2015 (< 10,0  $\mu$ S/mm)  
Fluorine content tested according to EN 60684-2:2011 Clause 45.2 Procedure A (< 0,1%)  
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)  
RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)  
Low Smoke, Fire retardant, Zero Halogen (LSZH)  
UV-resistant



## Technical data

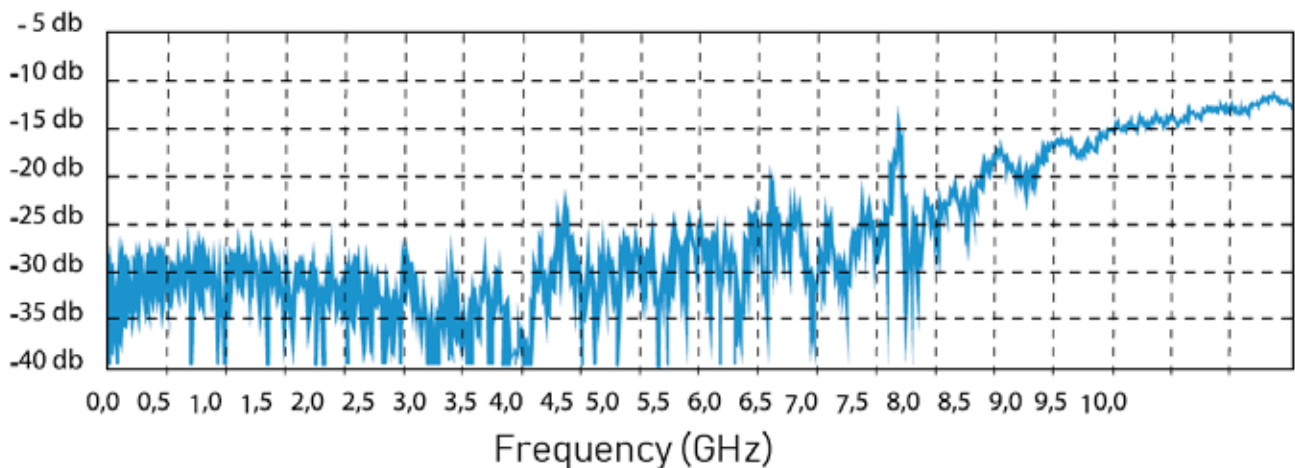
Inner conductor	bare copper wire
Inner conductor Ø	1 x 1,13 mm
Dielectric	foamed Polyethylene (PE) with skin
Dielectric Ø	3,1 mm
Outer conductor 1	copper foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of bare copper wires
Shielding factor	70%
Outer conductor Ø	3,7 mm
Jacket	thermoplastic 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 DC (wire/screen)	4 kV
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



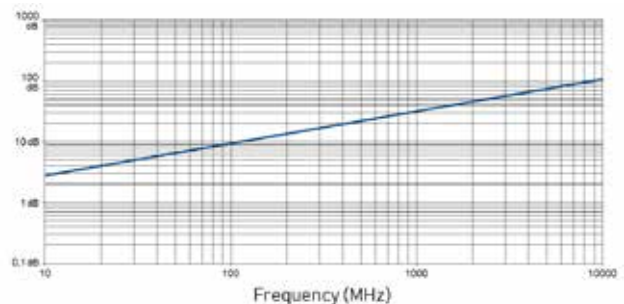
## Typ. Attenuation (db/100 m at 20°C)

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
<b>f max</b>	<b>6 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Fca</b>

## 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 DC (wire/screen)	4 kV
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

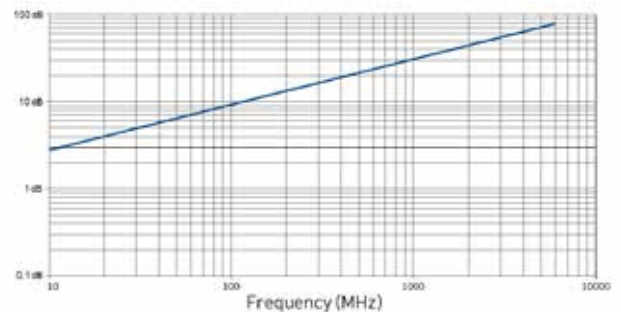
## Typ. Attenuation (db/100 m at 20°C)

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)

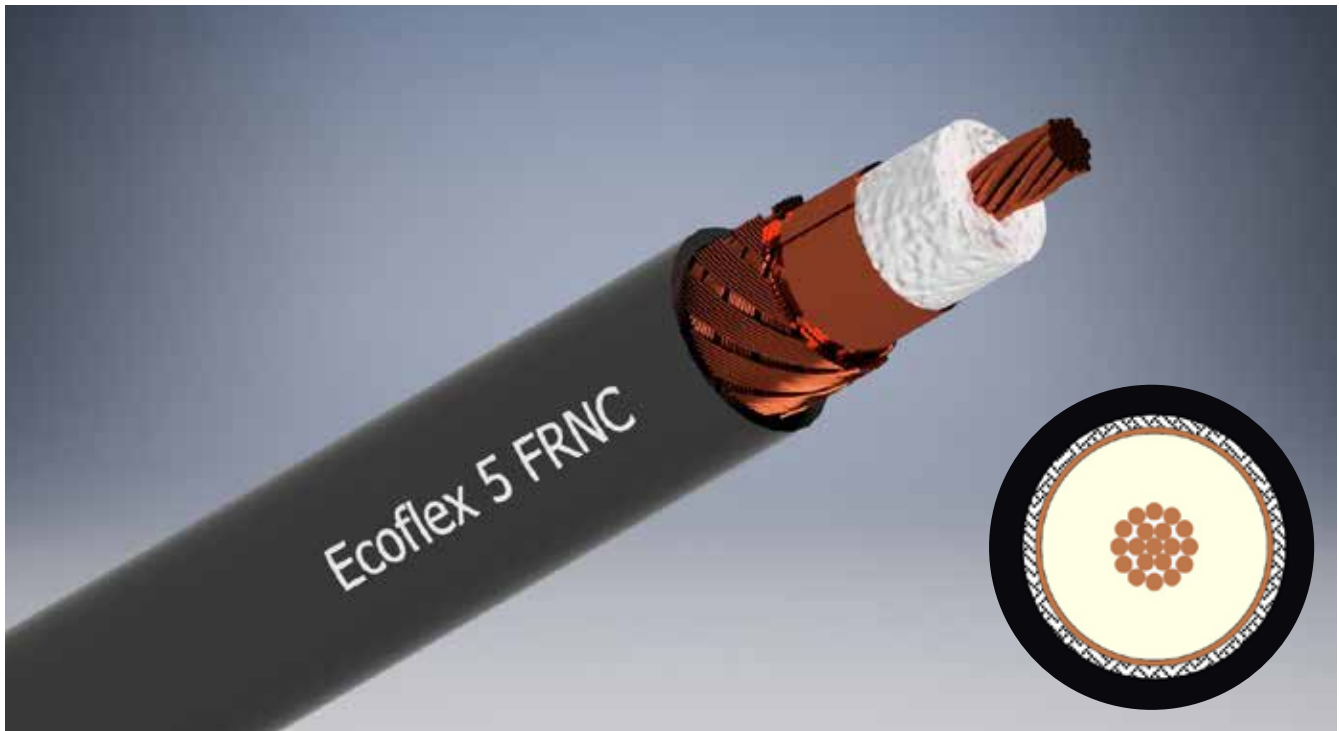
10 MHz	1.200	1000 MHz	123
20 MHz	914	2000 MHz	84
50 MHz	575	3000 MHz	67
100 MHz	405	4000 MHz	58
500 MHz	177	6000 MHz	45

## 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
<b>f max</b>	<b>6 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Fca</b>

## 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 DC (wire/screen)	4 kV
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

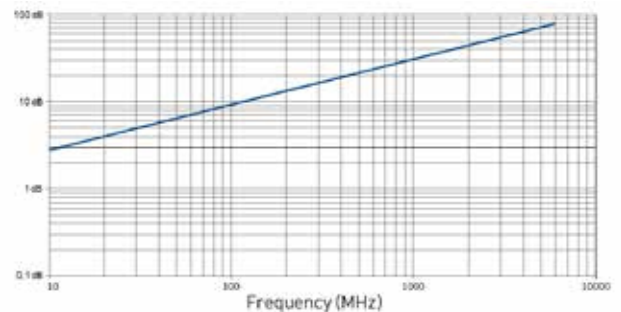
## Typ. Attenuation (db/100 m at 20°C)

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)

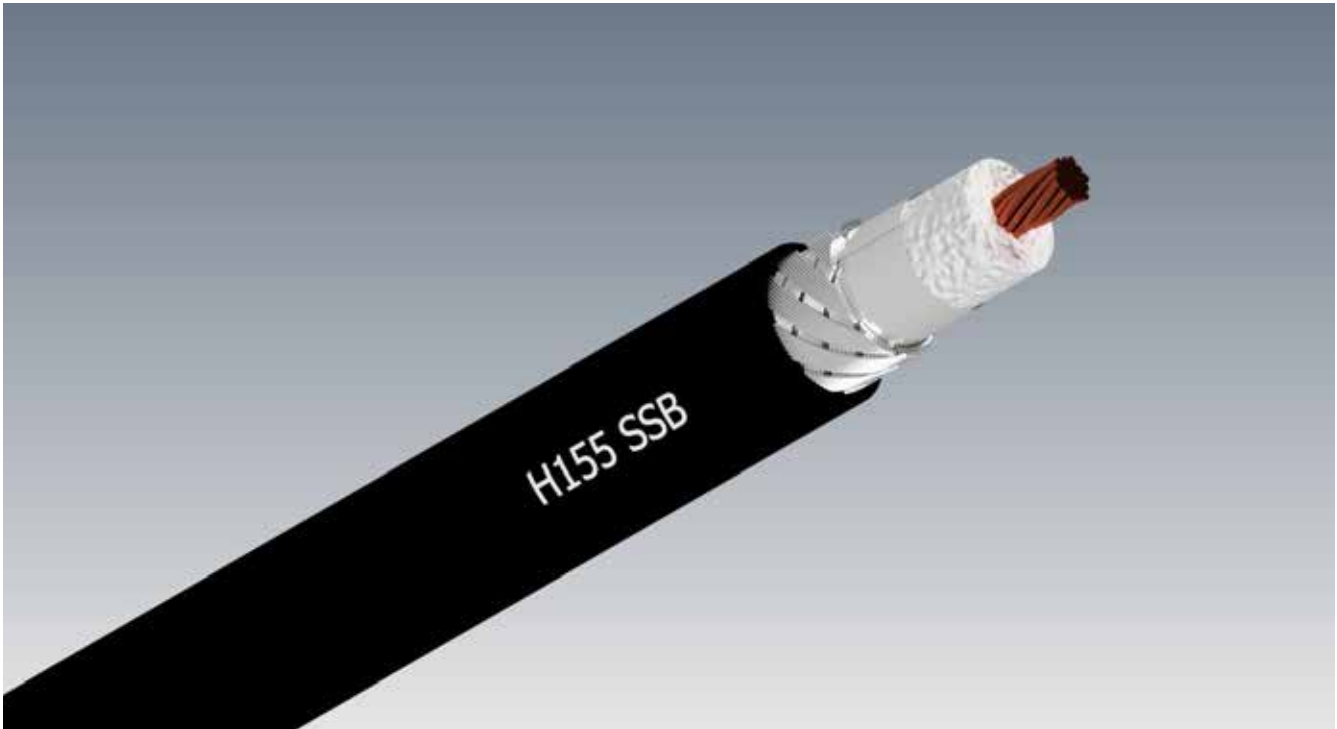
10 MHz	1.200	1000 MHz	123
20 MHz	914	2000 MHz	84
50 MHz	575	3000 MHz	67
100 MHz	405	4000 MHz	58
500 MHz	177	6000 MHz	45

## Typ. Attenuation (db/100 m at 20°C)



# H155 SSB

low loss and ultra flexible



H155 from SSB-Electronic is a thin and extremely flexible coaxial cable for the frequency range up to 6 GHz. Due to the low attenuation and the great flexibility, this cable can be used for many applications in communications and radio technology. The inner conductor of the cable consists of 19 stranded copper wires, each with a diameter of 0.28 mm. This structure of the inner conductor enables the outstanding flexibility of the cable. The extremely low attenuation of H155 is achieved through a low-loss PE dielectric. In order to achieve good shielding attenuation, the outer conductor of the cable has two layers. At first, the aluminium-PET-aluminium foil is used, with a special, particularly tear-resistant and heat-resistant Mylar® polyester as the PET layer. A shield braiding of tinned copper wires with a coverage of 75% is applied to this foil. The cable has a UV-resistant PVC outer jacket. The H155 from SSB-Electronic is suitable for numerous applications like WLAN, GPS, CB and cellular phone antenna connections, for short antenna feeder runs and many other high-frequency applications.

## Key features

Diameter	5,4 ± 0,2 mm
Impedance	50 ± 4 Ω
Attenuation at 1 GHz/100 m	29,60 dB
<b>fmax</b>	<b>6 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Fca</b>

## Characteristics

- Flame retardant according to IEC 60332-1-2
- UV-resistant according to IEC 61196-1-212
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- Reach compliant

## Technical data

Inner conductor	stranded bare copper wire
Inner conductor Ø	1,42 mm (19 x 0,28 mm)
Dielectric	foamed Polyethylene (PE)
Dielectric Ø	3,90 mm
Outer conductor 1	Aluminum-Mylar®Polyester-Aluminum foil
Shielding factor	100%
Outer conductor 2	shield braiding of tinned copper wires
Shielding factor	75%
Outer conductor Ø	4,3 mm ± 0,20 mm
Jacket	PVC black, UV-resistant
Weight	41 kg/km
Min. Bending radius	5XØ single, 10XØ repeated
Temperature range	-20°C to +70°C
Max. tensile load	200 N

## Typ. Attenuation (db/100 m at 20°C)

10 MHz	3,20	1296 MHz	33,90
20 MHz	4,40	1500 MHz	36,80
50 MHz	6,90	1750 MHz	40,30
100 MHz	9,10	1800 MHz	40,90
144 MHz	10,55	2000 MHz	43,70
200 MHz	12,40	2400 MHz	49,10
230 MHz	13,40	3000 MHz	56,30
300 MHz	15,30	3600 MHz	62,90
400 MHz	18,00	4000 MHz	67,00
432 MHz	18,70	4800 MHz	75,10
500 MHz	20,00	5000 MHz	77,10
800 MHz	26,10	5400 MHz	80,80
1000 MHz	29,60	6000 MHz	86,50

## Electrical data at 20°C

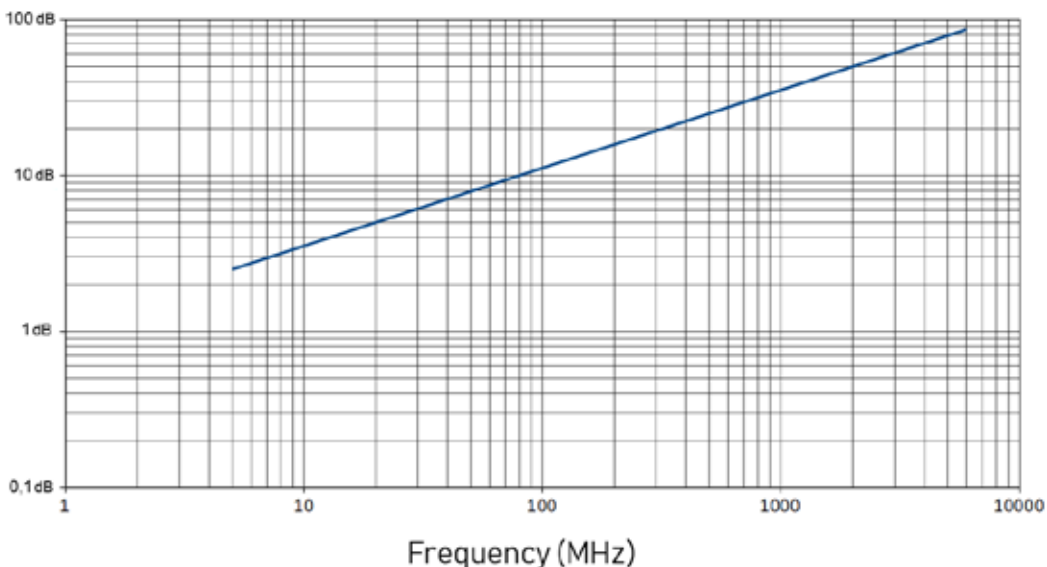
Capacitance (1 kHz)	80 pF/m
Velocity factor	0,80
DC-resistance inner conductor	15,4 Ω/km
DC-resistance outer conductor	17,0 Ω/km
Insulation resistance	≥ 5 GΩ*km
Max. voltage	2,5 kV
Test voltage (wire/screen)	AC 1,0 kV

## Max. Power handling (kW at 20°C)

50 MHz	0,9	2400 MHz	0,10
230 MHz	0,4	3000 MHz	0,09
400 MHz	0,3	3600 MHz	0,08
800 MHz	0,2	4800 MHz	0,06
1000 MHz	0,17	5400 MHz	0,06
1750 MHz	0,12	6000 MHz	0,05

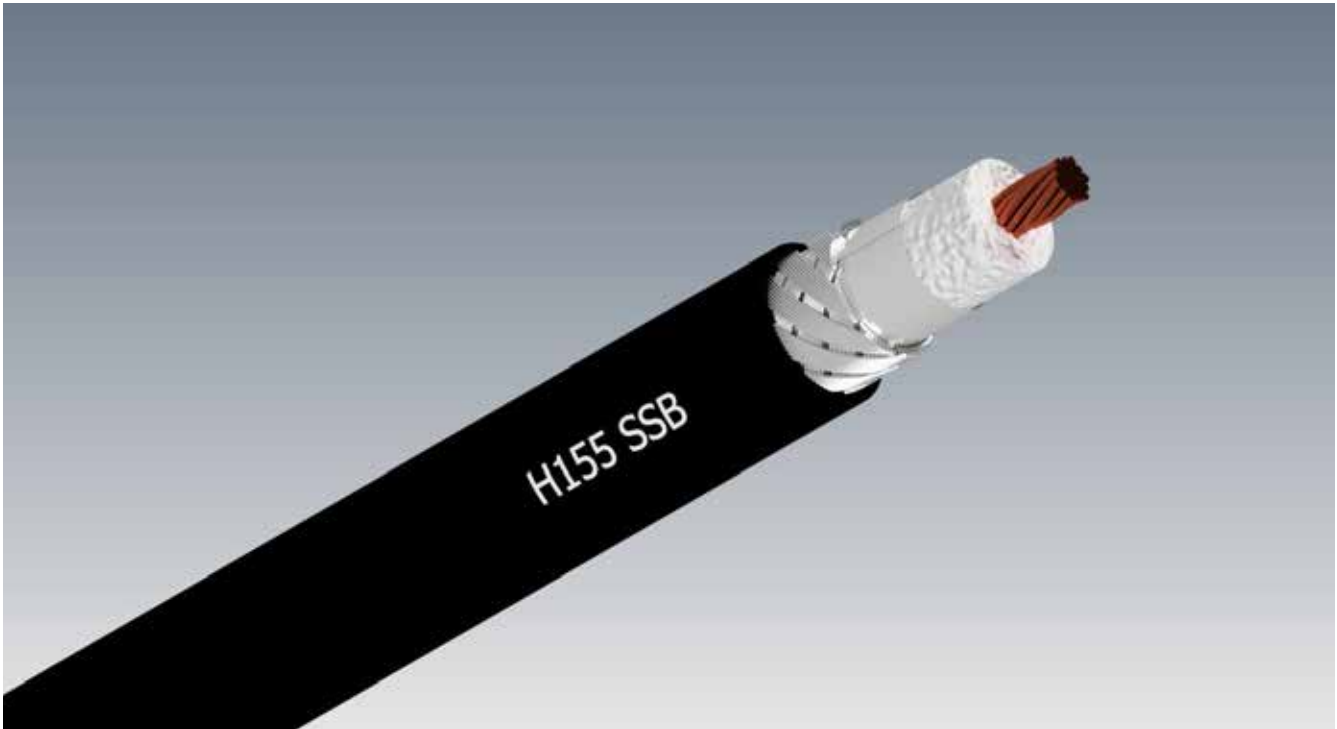
	H155 SSB	RG 58/U	RG 213/U
Capacity	80 pF/m	102 pF/m	101 pF/m
Velocity factor	0,80	0,66	0,66
Attenuation (dB/100m)			
10 MHz	3,20	5,00	2,00
100 MHz	9,10	17,00	7,00
500 MHz	20,00	39,00	17,00
1000 MHz	29,60	54,60	22,50
3000 MHz	56,30	118,00	58,50

## Typ. Attenuation (db/100 m at 20°C)



# H155 PE SSB

low loss and ultra flexible



H155 from SSB-Electronic is a thin and extremely flexible coaxial cable for the frequency range up to 6 GHz. Due to the low attenuation and the great flexibility, this cable can be used for many applications in communications and radio technology. The inner conductor of the cable consists of 19 stranded copper wires, each with a diameter of 0.28 mm. This structure of the inner conductor enables the outstanding flexibility of the cable. The extremely low attenuation of H155 is achieved through a low-loss PE dielectric. In order to achieve good shielding attenuation, the outer conductor of the cable has two layers. At first, the aluminium-PET-aluminium foil is used, with a special, particularly tear-resistant and heat-resistant Mylar® polyester as the PET layer. A shield braiding of tinned copper wires with a coverage of 75% is applied to this foil. The cable has a PE outer jacket. The H155 from SSB-Electronic is suitable for numerous applications like WLAN, GPS, CB and cellular phone antenna connections, for short antenna feeder runs and many other high-frequency applications.

## Key features

Diameter	5,4 ± 0,2 mm
Impedance	50 ± 4 Ω
Attenuation at 1 GHz/100 m	29,60 dB
<b>fmax</b>	<b>6 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Fca</b>

## Characteristics

- Flame retardant according to IEC 60332-1-2
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- Reach compliant



## Technical data

Inner conductor	stranded bare copper wire
Inner conductor Ø	1,42 mm (19 x 0,28 mm)
Dielectric	foamed Polyethylene (PE)
Dielectric Ø	3,90 mm
Outer conductor 1	Aluminum-Mylar®Polyester-Aluminum foil
Shielding factor	100%
Outer conductor 2	shield braiding of tinned copper wires
Shielding factor	75%
Outer conductor Ø	4,3 mm ± 0,20 mm
Jacket	Polyethylene (PE)
Weight	41 kg/km
Min. Bending radius	5XØ single, 10XØ repeated
Temperature range	-40°C to +80°C
Max. tensile load	200 N

## Typ. Attenuation (db/100 m at 20°C)

10 MHz	3,20	1296 MHz	33,90
20 MHz	4,40	1500 MHz	36,80
50 MHz	6,90	1750 MHz	40,30
100 MHz	9,10	1800 MHz	40,90
144 MHz	10,55	2000 MHz	43,70
200 MHz	12,40	2400 MHz	49,10
230 MHz	13,40	3000 MHz	56,30
300 MHz	15,30	3600 MHz	62,90
400 MHz	18,00	4000 MHz	67,00
432 MHz	18,70	4800 MHz	75,10
500 MHz	20,00	5000 MHz	77,10
800 MHz	26,10	5400 MHz	80,80
1000 MHz	29,60	6000 MHz	86,50

## Electrical data at 20°C

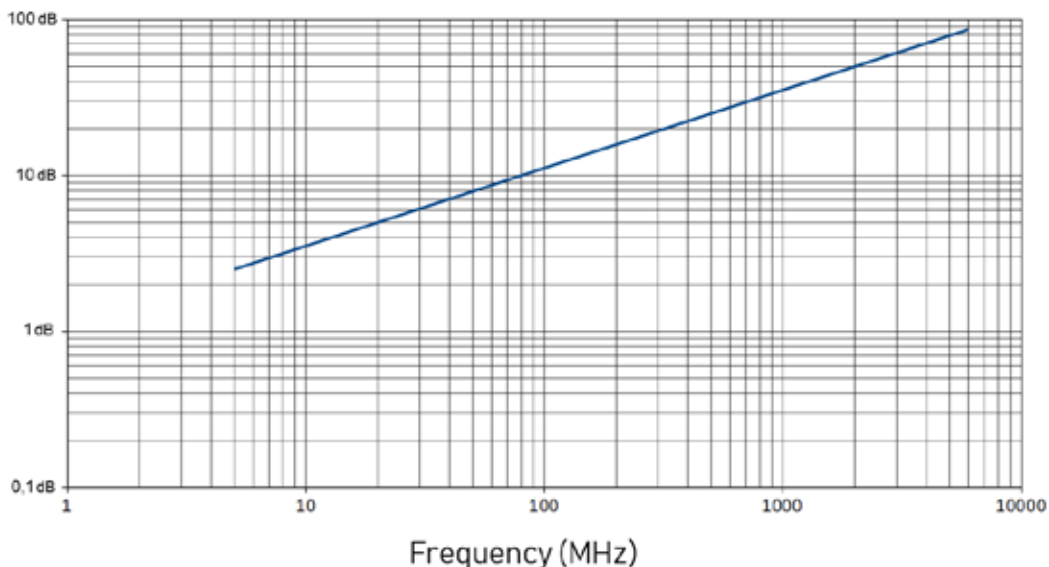
Capacitance (1 kHz)	80 pF/m
Velocity factor	0,80
DC-resistance inner conductor	15,4 Ω/km
DC-resistance outer conductor	17,0 Ω/km
Insulation resistance	≥ 5 GΩ*km
Max. voltage	2,5 kV
Test voltage (wire/screen)	AC 1,0 kV

## Max. Power handling (kW at 20°C)

50 MHz	0,9	2400 MHz	0,10
230 MHz	0,4	3000 MHz	0,09
400 MHz	0,3	3600 MHz	0,08
800 MHz	0,2	4800 MHz	0,06
1000 MHz	0,17	5400 MHz	0,06
1750 MHz	0,12	6000 MHz	0,05

	H155 SSB	RG 58/U	RG 213/U
Capacity	80 pF/m	102 pF/m	101 pF/m
Velocity factor	0,80	0,66	0,66
Attenuation (dB/100m)			
10 MHz	3,20	5,00	2,00
100 MHz	9,10	17,00	7,00
500 MHz	20,00	39,00	17,00
1000 MHz	29,60	54,60	22,50
3000 MHz	56,30	118,00	58,50

## 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
<b>f max</b>	<b>6 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Eca</b>

## 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

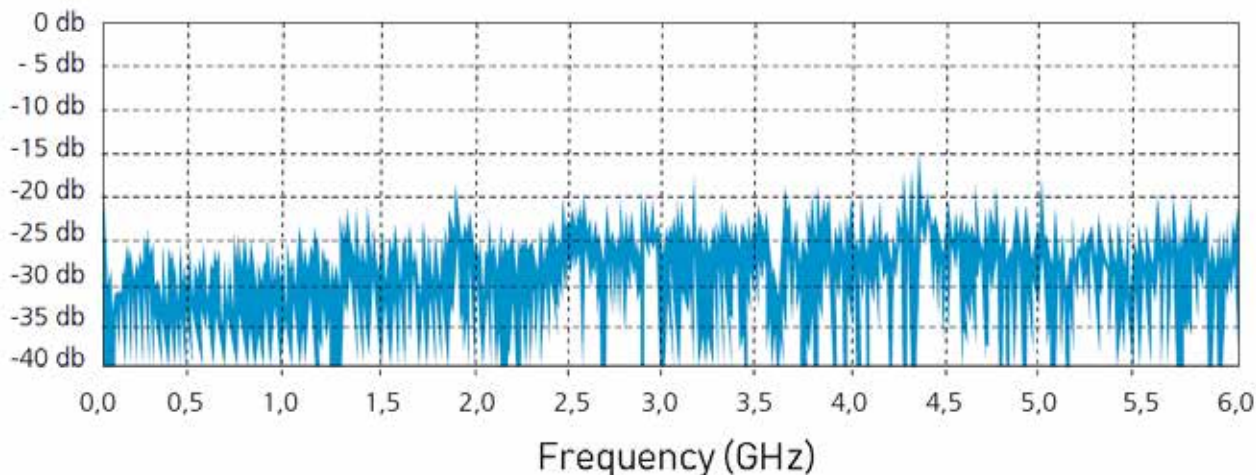
Inner conductor	stranded bare copper wire
Inner conductor Ø	1,9 mm (19 x 0,38 mm, 14 AWG)
Dielectric	foamed Polyethylene (PE) with skin
Dielectric Ø	5,0 mm
Outer conductor 1	copper foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of bare copper wires
Shielding factor	85%
Outer 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 DC (wire/screen)	10 kV
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



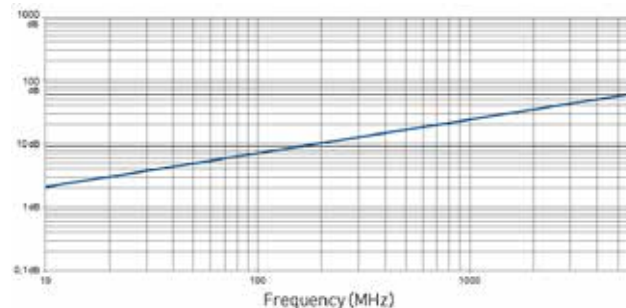
## Typ. Attenuation (db/100 m at 20°C)

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 and railway applications



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 certified for railway applications for interior and exterior use according requirement sets R15 and R16 of the EN45545-2 standard.

## Key features

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

## Characteristics

Certified according to EN 45545-2:2013+A1:2015 and EN 45545-2:2020 requirement sets R15 + R16 for railway applications

Flame retardancy tested according to EN 60332-1-2:2004 + A1:2015 + A11:2016 and EN 60332-1-3:2004 + A1:2015

Smoke density tested according to DIN EN 61034-2:2005

Smoke toxicity tested according to EN 50305:2002 Section 9.2

Vertical flame propagation tested according to EN 50305:2002 Section 9.1.1. (for cables with 12 mm > Ø > 6 mm)

Halogen-free tested according to DIN EN 50306-1:2003

Halogen acid gas content tested according to DIN EN 60754-1:2015 (HCl < 0,5%)

Acidity of gases tested according to DIN EN 60754-2:2015 (pH value > 4,3)

Conductivity of gases tested according to DIN EN 60754-2:2015 (< 10,0 µS/mm)

Fluorine content tested according to EN 60684-2:2011 Clause 45.2 Procedure A (< 0,1%)

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

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

Low Smoke, Fire retardant, Zero Halogen (LSZH)

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 DC (wire/screen)	10 kV
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

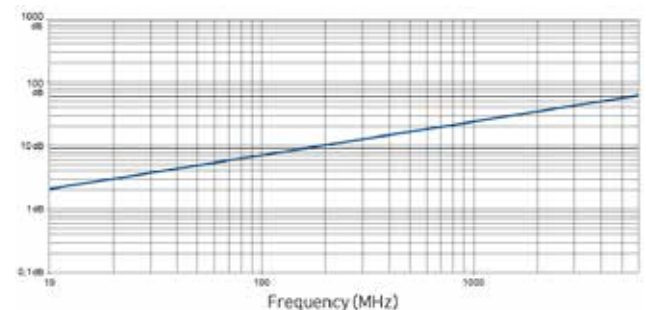
## Typ. Attenuation (db/100 m at 20°C)

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

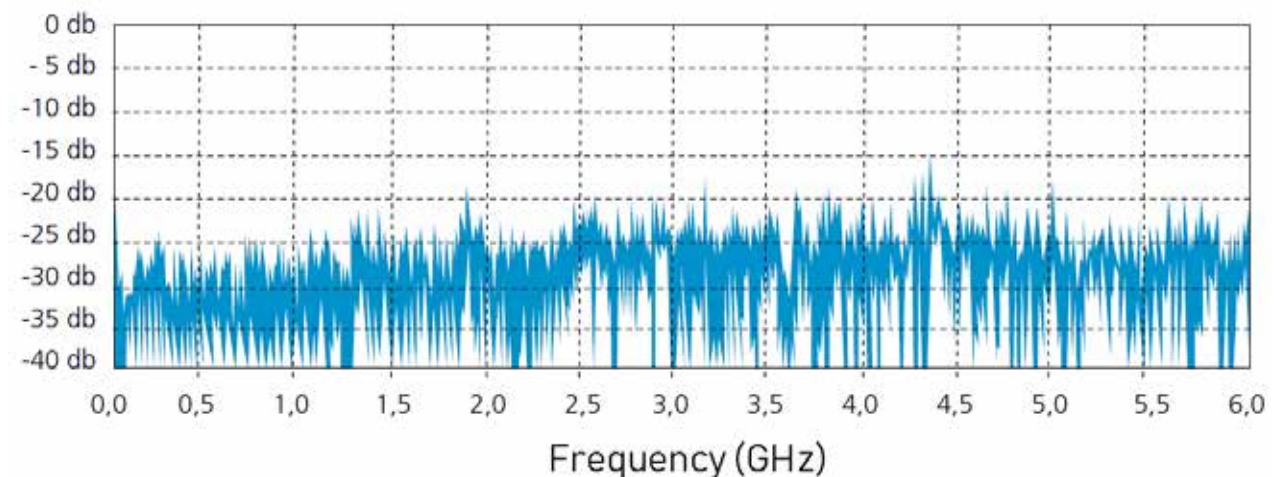
## Max. Power handling (W at 40°C)

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
<b>f max</b>	<b>6 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Eca</b>

## 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 DC (wire/screen)	10 kV
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

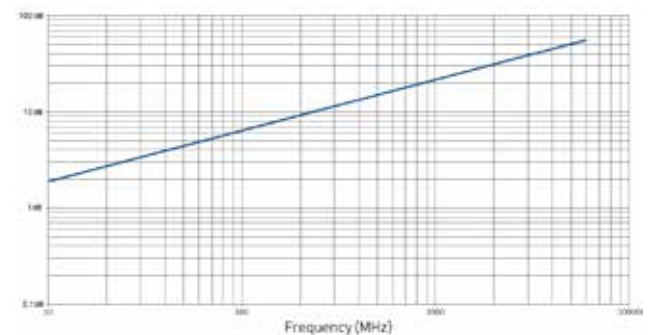
## Typ. Attenuation (db/100 m at 20°C)

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

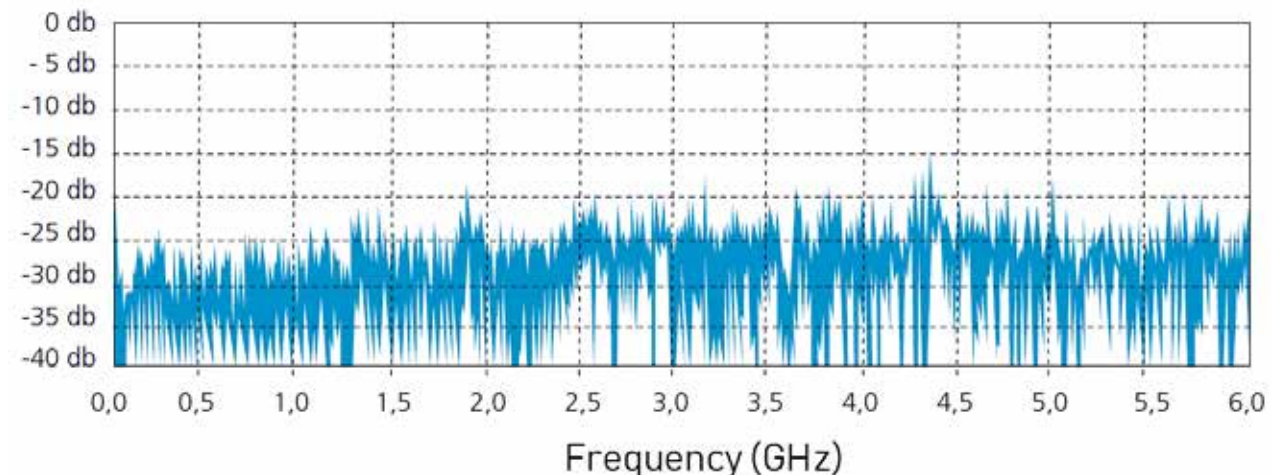
## Max. Power handling (W at 40°C)

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
<b>f max</b>	<b>6 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Fca</b>

## 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 DC (wire/screen)	10 kV
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

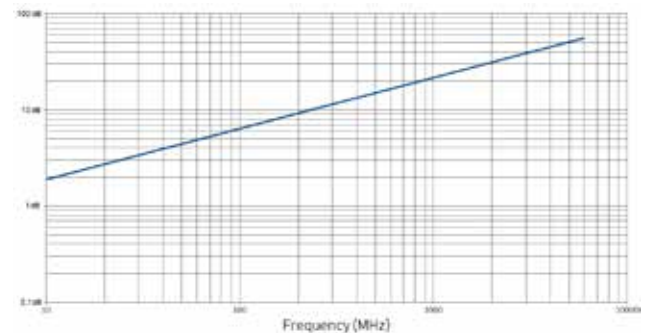
## Typ. Attenuation (db/100 m at 20°C)

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

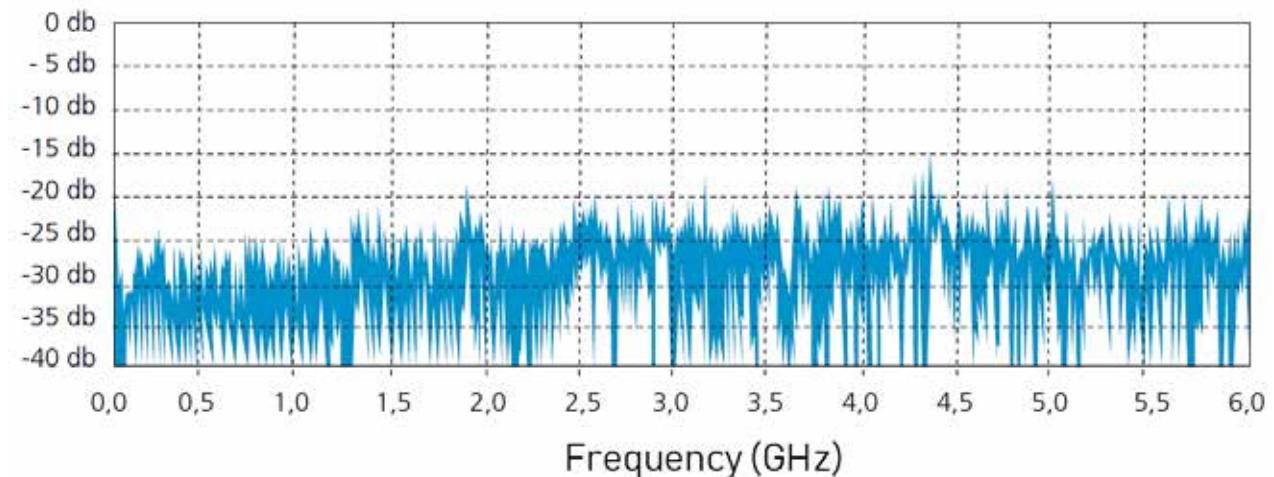
## Max. Power handling (W at 40°C)

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)



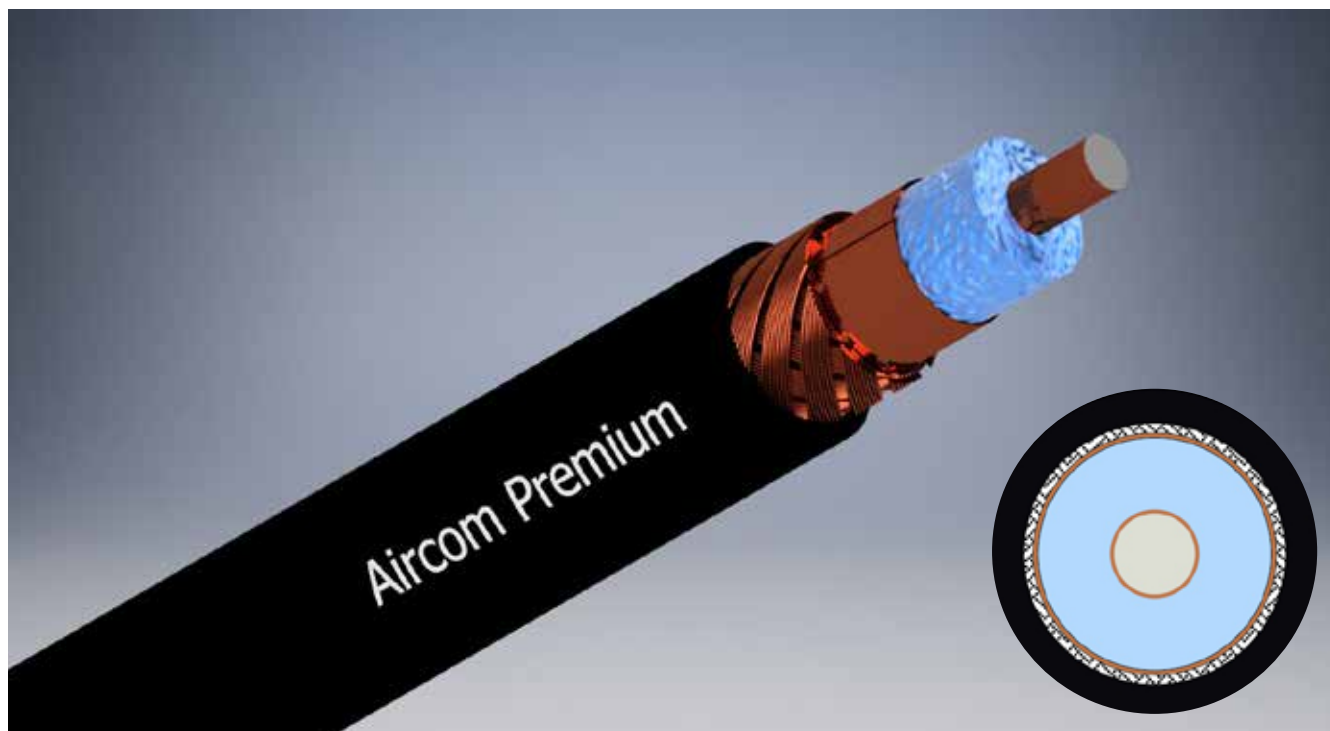
## Typ. Return loss





# 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
<b>f max</b>	<b>12 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Eca</b>

### 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 DC (wire/screen)	9 kV
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

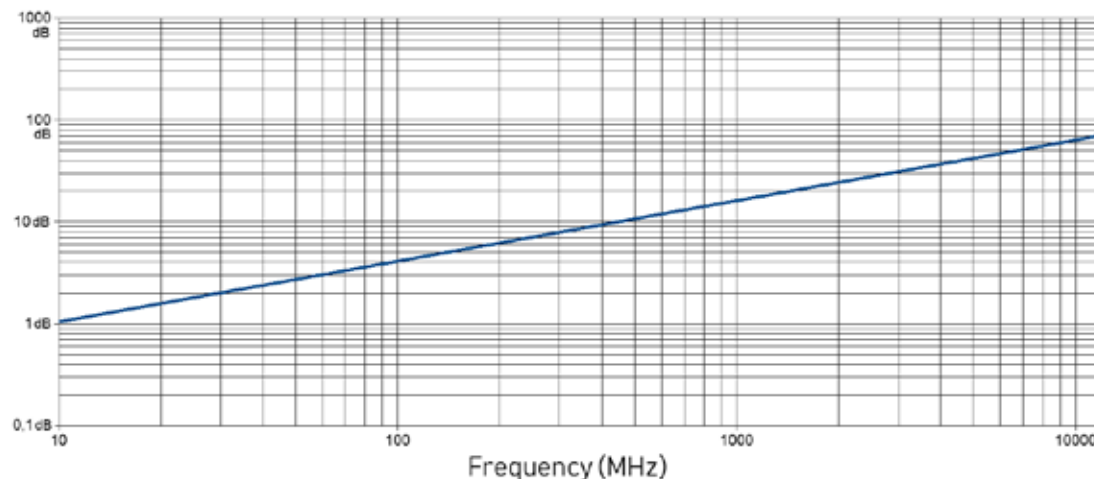
## Typ. Attenuation (db/100 m at 20°C)

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)

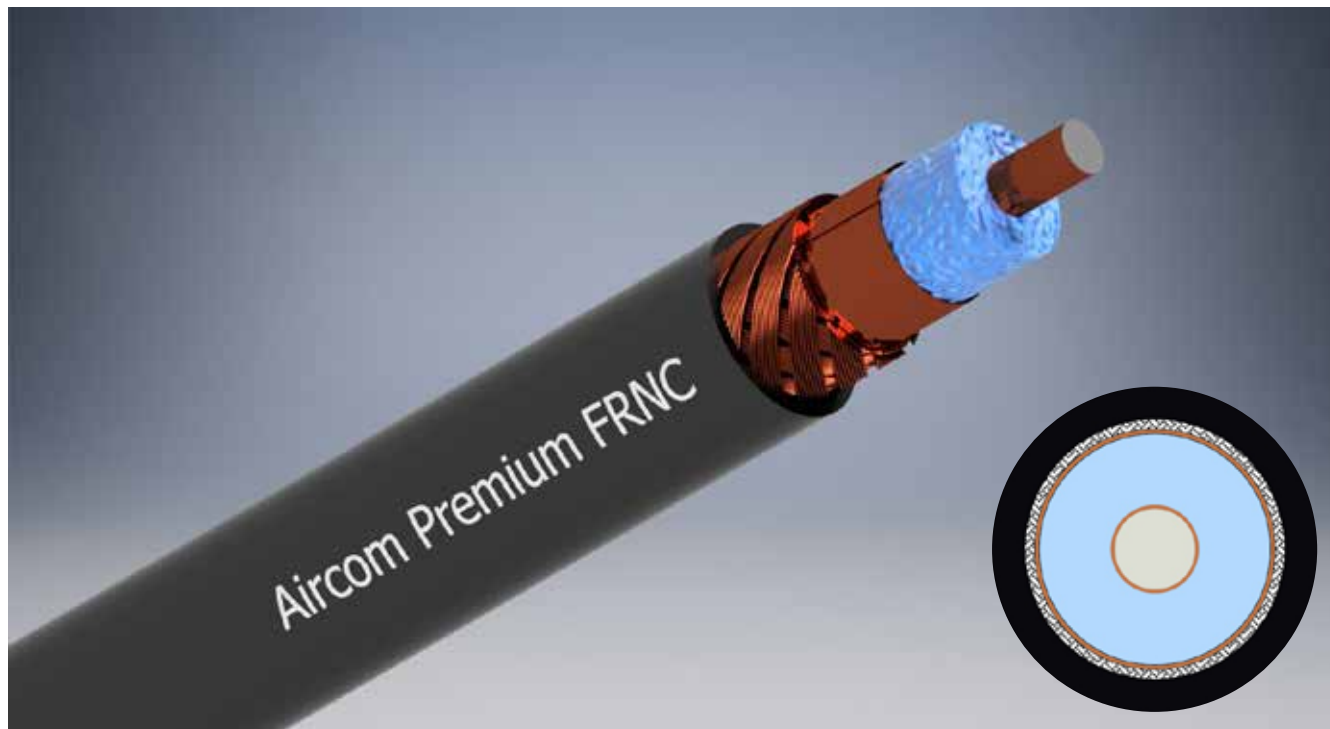
10 MHz	4.700	3000 MHz	230
100 MHz	1400	4000 MHz	190
500 MHz	620	5000 MHz	170
1000 MHz	420	6000 MHz	150
2000 MHz	290	8000 MHz	130
2400 MHz	260	10000 MHz	100
		12000 MHz	80

## 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
<b>f max</b>	<b>12 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Fca</b>

## 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 DC (wire/screen)	9 kV
Max. Voltage	7 kV

## 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

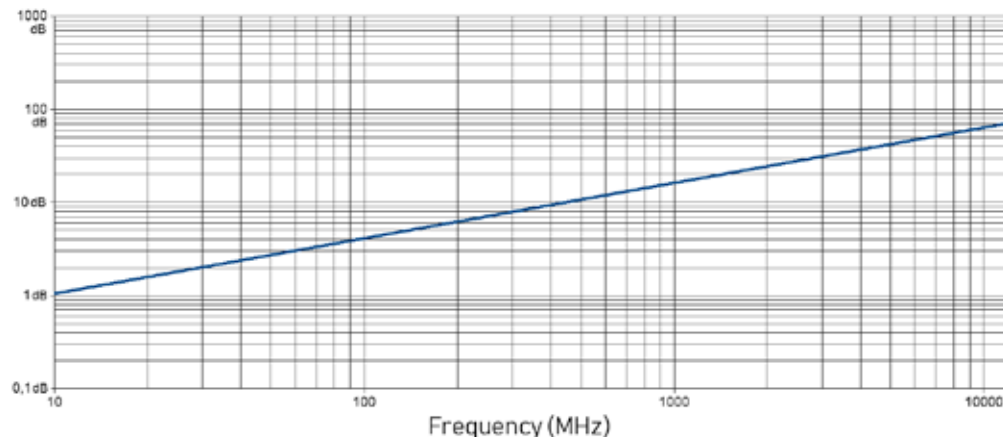
## Max. Power handling (W at 40°C)

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

### 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)



# 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
<b>f max</b>	<b>6 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Eca</b>

## 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 DC (wire/screen)	7 kV
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

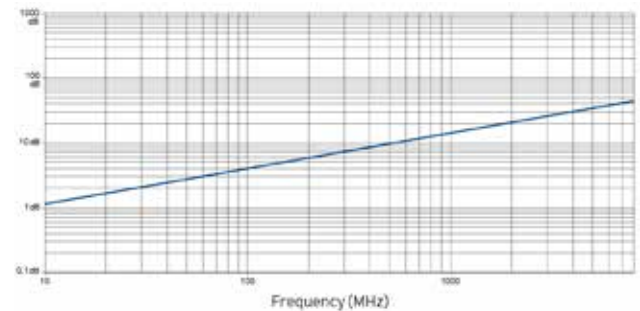
## Typ. Attenuation (db/100 m at 20°C)

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

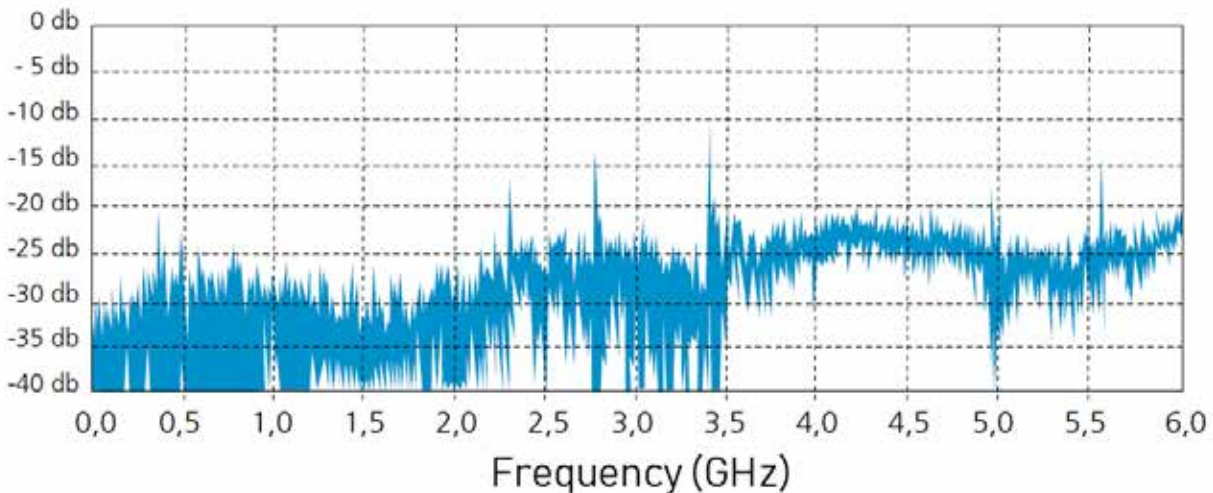
## Max. Power handling (W at 40°C)

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)



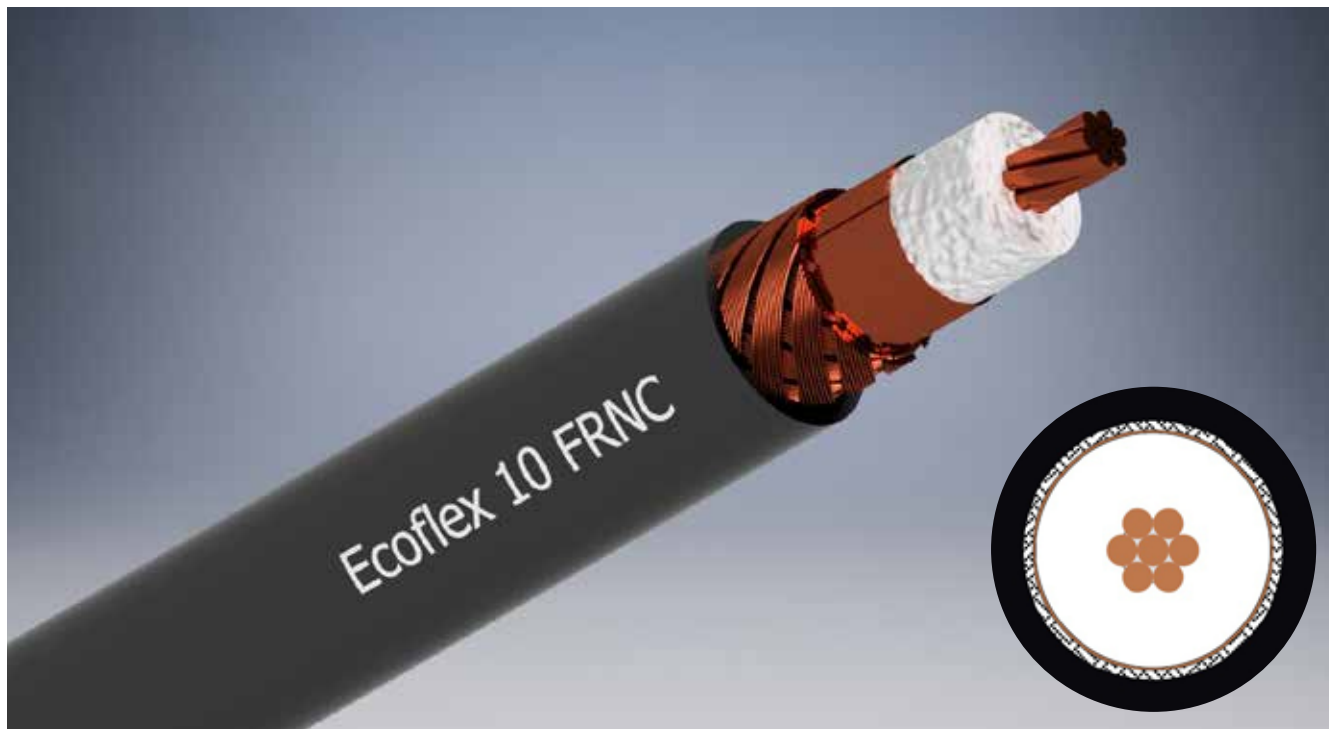
## Typ. Return loss





# 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. With the fire protection rating Cca Ecoflex 10 FRNC is approved for installation in public buildings.

## Key features

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

## Characteristics

Certified according to EN 50575:2014 + A1:2016 for applications in buildings with requirements to fire  
Flame retardancy tested according to DIN EN 60332-1-2:2005-06 + DIN EN 60332-1-1:2017-09  
Heat release tested according to DIN EN 50399:2017-02  
Vertical flame spread tested according to DIN EN 50399:2017-02  
Smoke production tested according to DIN EN 50399:2017-02  
Flaming droplets tested according to DIN EN 50399:2017-02  
Acidity of gases tested according to DIN EN 60754-2:2015-08 (pH value > 4,3)  
Conductivity of gases tested according to DIN EN 60754-2:2015-08 (< 2,5 μS/mm)  
Corrosivity of fumes according to IEC 60754-2  
Jacket material according to DIN EN 50290-2-27 (HD 624.7)  
RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)  
Low Smoke, Fire retardant, Zero Halogen (LSZH)  
UV-resistant  
Manufactured according to DIN EN 45545-2 Table 5 R15 HL2

## 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 DC (wire/screen)	7 kV
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

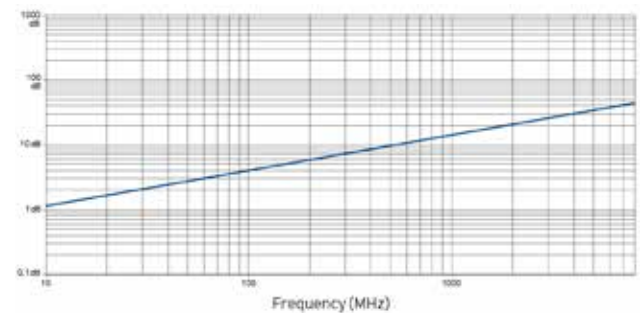
## Typ. Attenuation (db/100 m at 20°C)

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

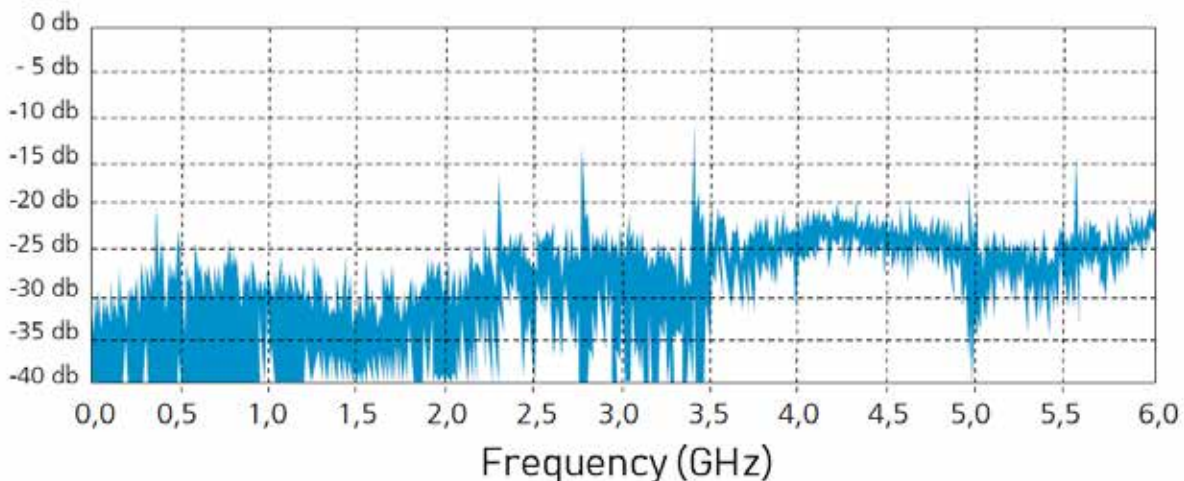
## Max. Power handling (W at 40°C)

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 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
<b>f max</b>	<b>8 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Eca</b>

## 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

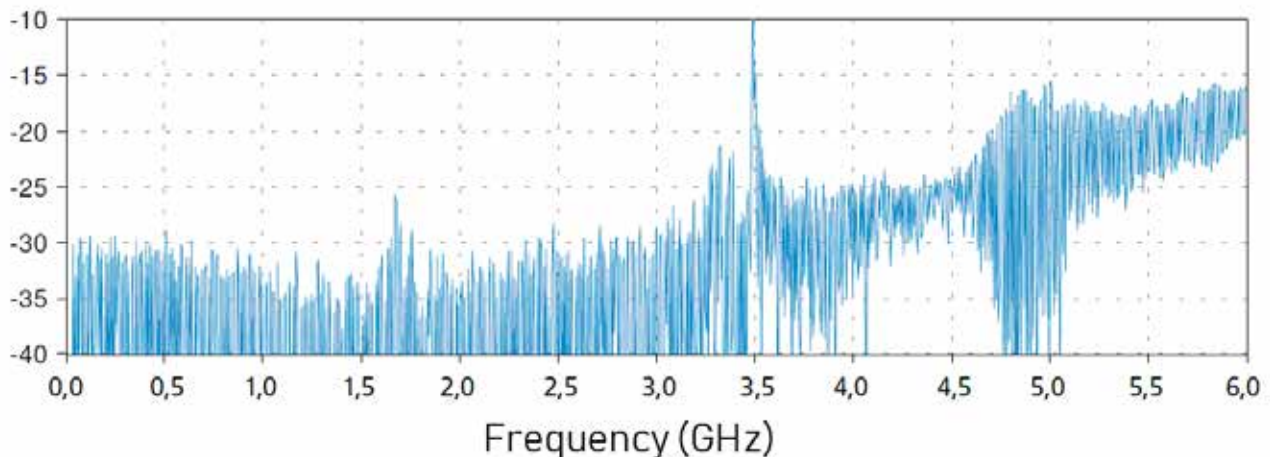
Inner conductor	Hybrid CCA – stranded copper-clad aluminium wire
Inner conductor Ø	2,85 mm (7 x 1,0 mm, 10 AWG)
Dielectric	foamed Polyethylene (PE) with skin
Dielectric Ø	7,2 mm
Outer conductor 1	copper foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of bare copper wires
Shielding 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 DC (wire/screen)	7 kV
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



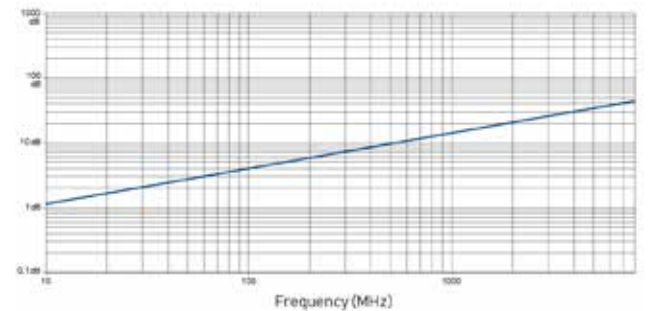
## Typ. Attenuation (db/100 m at 20°C)

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 railway applications



Ecoflex 10 Plus Heatex is a flame retardant and halogen-free coaxial cable for use in public buildings. 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. 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. Another advantage of Ecoflex 10 Plus Heatex 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. With the fire protection rating Cca Ecoflex 10 Plus Heatex is approved for installation in public buildings. Ecoflex 10 Plus Heatex is certified for railway applications for interior and exterior use according requirement sets R15 and R16 of the EN45545-2 standard.

## Key features

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

## Characteristics

Certified according to EN 45545-2:2013+A1:2015 and EN 45545-2:2020 requirement sets R15 + R16 for railway applications

Flame retardancy tested according to EN 60332-1-2:2004 + A1:2015 + A11:2016 and EN 60332-1-3:2004 + A1:2015

Smoke density tested according to DIN EN 61034-2:2005

Smoke toxicity tested according to EN 50305:2002 Section 9.2

Vertical flame propagation tested according to EN 50305:2002 Section 9.1.1. (for cables with 12 mm > Ø > 6 mm)

Halogen-free tested according to DIN EN 50306-1:2003

Halogen acid gas content tested according to DIN EN 60754-1:2015 (HCl < 0,5%)

Acidity of gases tested according to DIN EN 60754-2:2015 (pH value > 4,3)

Conductivity of gases tested according DIN EN 60754-2:2015 (< 10,0 µS/mm)

Fluorine content tested according to EN 60684-2:2011 Clause 45.2 Procedure A (< 0,1%)

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

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

Low Smoke, Fire retardant, Zero Halogen (LSZH)

UV-resistant



## Technical data

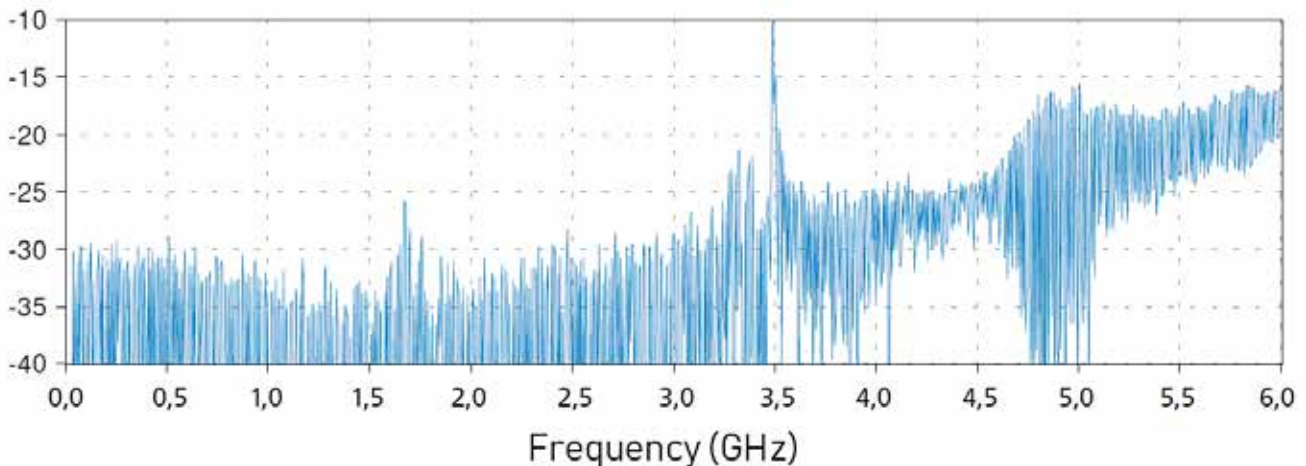
Inner conductor	Hybrid CCA – stranded copper-clad aluminium wire
Inner conductor Ø	2,85 mm (7 x 1,0 mm, 10 AWG)
Dielectric	foamed Polyethylene (PE) with skin
Dielectric Ø	7,2 mm
Outer conductor 1	copper foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of bare copper wires
Shielding 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 DC (wire/screen)	7 kV
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



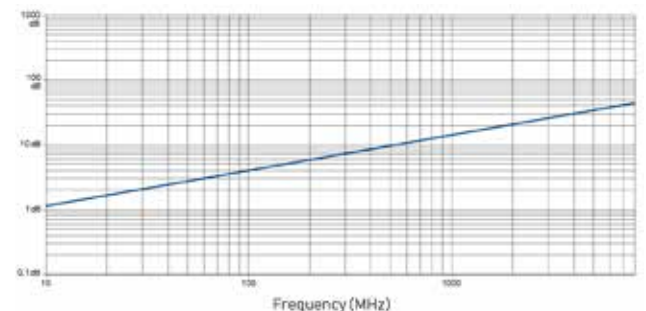
## Typ. Attenuation (db/100 m at 20°C)

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
<b>f max</b>	<b>6 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Eca</b>

## 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 DC (wire/screen)	7 kV
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

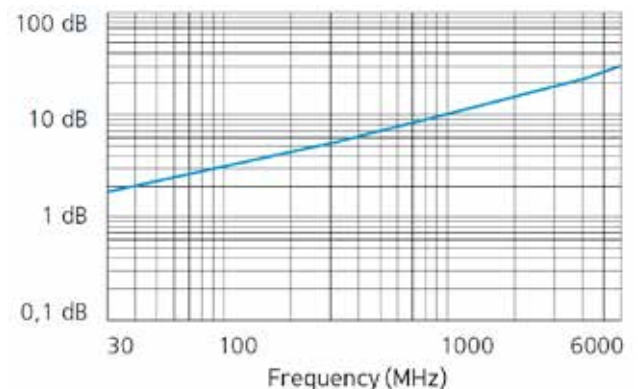
## Typ. Attenuation (db/100 m at 20°C)

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

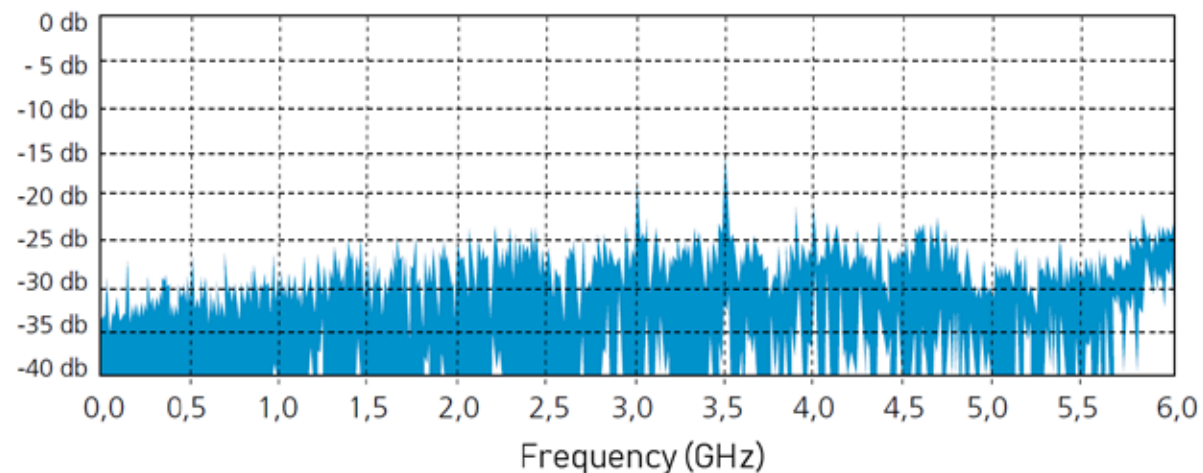
## Max. Power handling (W at 40°C)

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. With the fire protection rating Cca Ecoflex 15 FRNC is approved for installation in public buildings.

## Key features

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

## Characteristics

Certified according to EN 50575:2014 + A1:2016 for applications in buildings with requirements to fire  
Flame retardancy tested according to DIN EN 60332-1-2:2005-06 + DIN EN 60332-1-1:2017-09  
Heat release tested according to DIN EN 50399:2017-02  
Vertical flame spread tested according to DIN EN 50399:2017-02  
Smoke production tested according to DIN EN 50399:2017-02  
Flaming droplets tested according to DIN EN 50399:2017-02  
Acidity of gases tested according to DIN EN 60754-2:2015-08 (pH value > 4,3)  
Conductivity of gases tested according DIN EN 60754-2:2015-08 (< 2,5 μS/mm)  
Corrosivity of fumes according to IEC 60754-2  
Jacket material according to DIN EN 50290-2-27 (HD 624.7)  
RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)  
Low Smoke, Fire retardant, Zero Halogen (LSZH)  
UV-resistant  
Manufactured according to DIN EN 45545-2 Table 5 R15 HL2

## Technical data

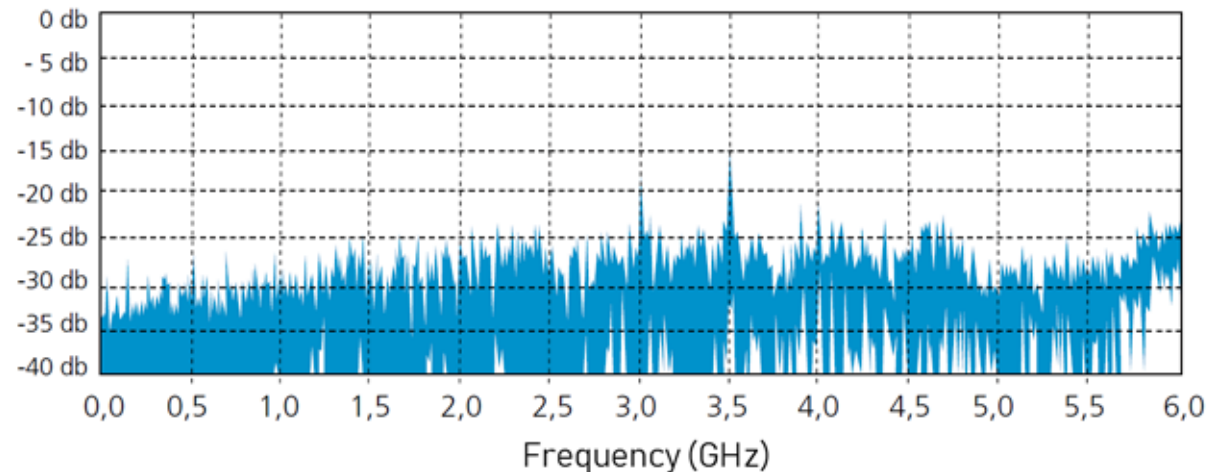
Inner conductor	Stranded bare copper wire
Inner conductor Ø	4,5 mm (7 x 1,5 mm)
Dielectric	foamed Polyethylene (PE) with skin
Dielectric Ø	11,3 mm
Outer conductor 1	copper foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of bare copper wires
Shielding factor	75%
Outer conductor 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 DC (wire/screen)	7 kV
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



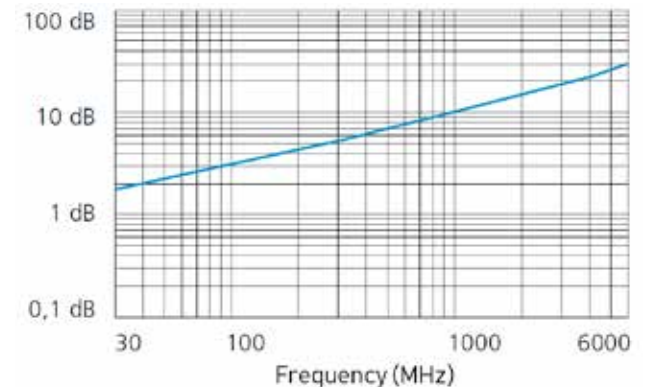
## Typ. Attenuation (db/100 m at 20°C)

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
<b>f max</b>	<b>8 GHz</b>
<b>Euroclass acc. to EN 50575</b>	<b>Eca</b>

## 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

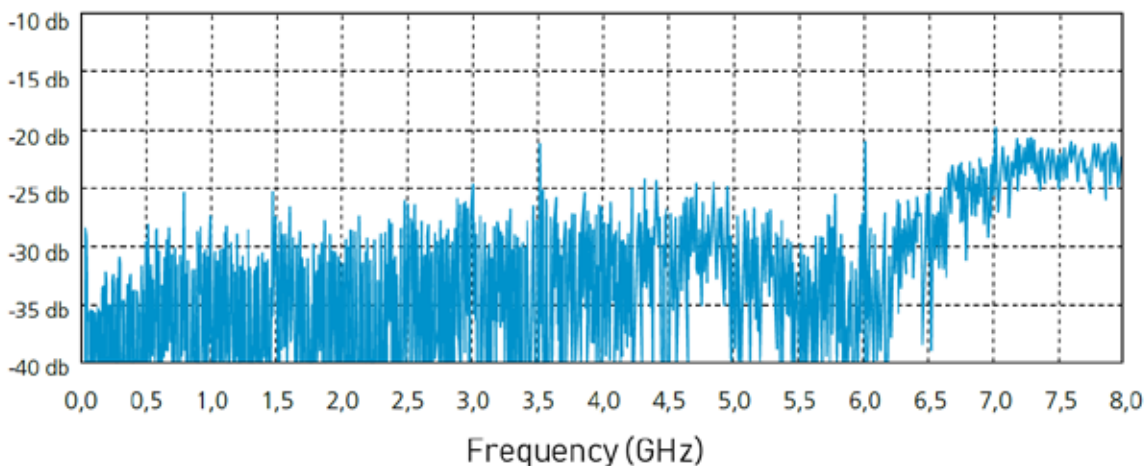
Inner conductor	Hybrid CCA – stranded copper-clad aluminium wire
Inner conductor Ø	4,5 mm (7 x 1,5 mm)
Dielectric	foamed Polyethylene (PE) with skin
Dielectric Ø	11,3 mm
Outer conductor 1	copper foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of bare copper wires
Shielding factor	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 DC (wire/screen)	7 kV
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. Return loss



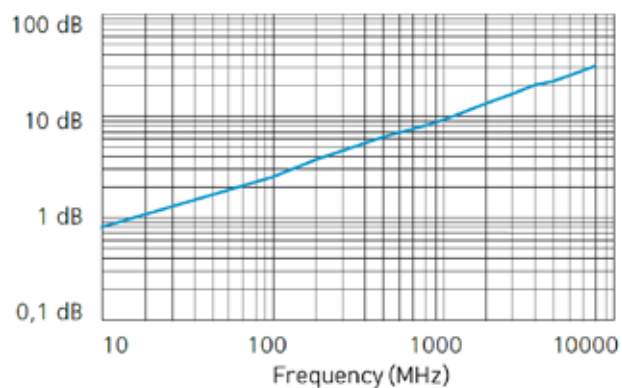
## Typ. Attenuation (db/100 m at 20°C)

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
		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)



# Ecoflex® 15 Plus Heatex®

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



Ecoflex 15 Plus Heatex is a flame retardant and halogen-free coaxial cable for use in public buildings. 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. 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. Another advantage of Ecoflex 15 Plus Heatex 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. With the fire protection rating Cca Ecoflex 15 Plus Heatex is approved for installation in public buildings. Ecoflex 15 Plus Heatex is certified for railway applications for interior and exterior use according requirement sets R15 and R16 of the EN45545-2 standard.

## Key features

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

## Characteristics

Certified according to EN 45545-2:2013+A1:2015 and EN 45545-2:2020 requirement sets R15 + R16 for railway applications

Flame retardancy tested according to EN 60332-1-2:2004 + A1:2015 + A11:2016 and EN 60332-1-3:2004 + A1:2015

Smoke density tested according to DIN EN 61034-2:2005

Smoke toxicity tested according to EN 50305:2002 Section 9.2

Vertical flame propagation tested according to EN 60332-3-24:2009 (Category C, cables with  $\varnothing \geq 12$  mm)

Halogen-free tested according to DIN EN 50306-1:2003

Halogen acid gas content tested according to DIN EN 60754-1:2015 (HCl < 0,5%)

Acidity of gases tested according to DIN EN 60754-2:2015 (pH value > 4,3)

Conductivity of gases tested according DIN EN 60754-2:2015 (< 10,0  $\mu$ S/mm)

Fluorine content tested according to EN 60684-2:2011 Clause 45.2 Procedure A (< 0,1%)

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

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

Low Smoke, Fire retardant, Zero Halogen (LSZH)

UV-resistant

## Technical data

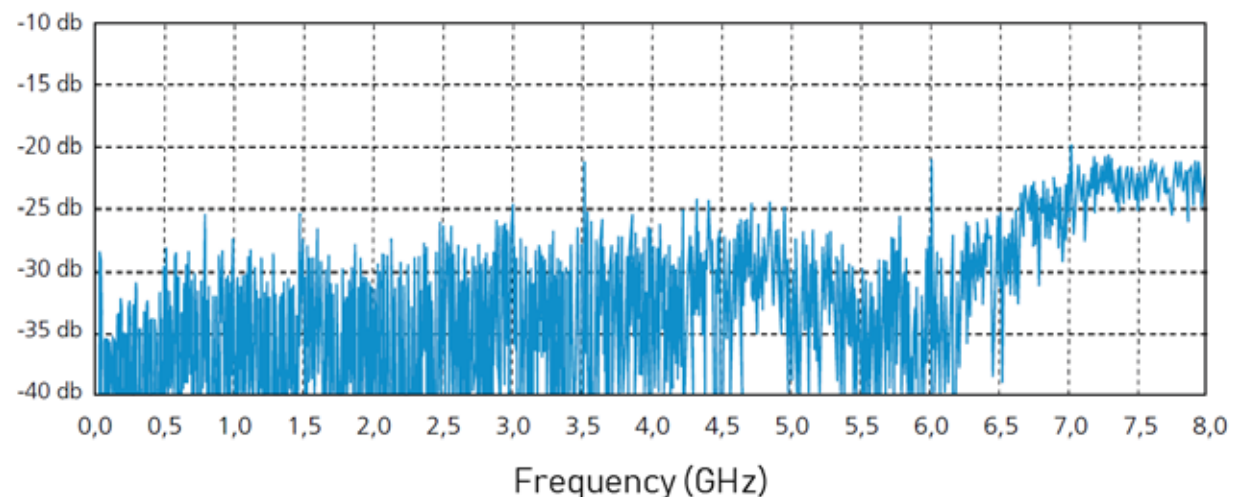
Inner conductor	Hybrid CCA – stranded copper-clad aluminium wire
Inner conductor Ø	4,5 mm (7 x 1,5 mm)
Dielectric	foamed Polyethylene (PE) with skin
Dielectric Ø	11,3 mm
Outer conductor 1	copper foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of bare copper wires
Shielding factor	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 DC (wire/screen)	7 kV
Max. Voltage	5 kV

	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. Return loss



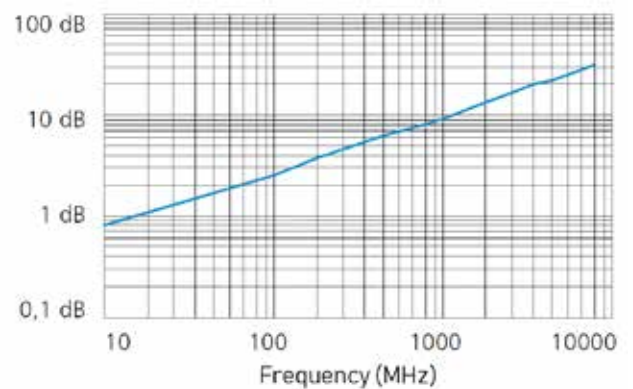
## Typ. Attenuation (db/100 m at 20°C)

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
		8000 MHz	32,70

## Max. Power handling (W at 40°C)

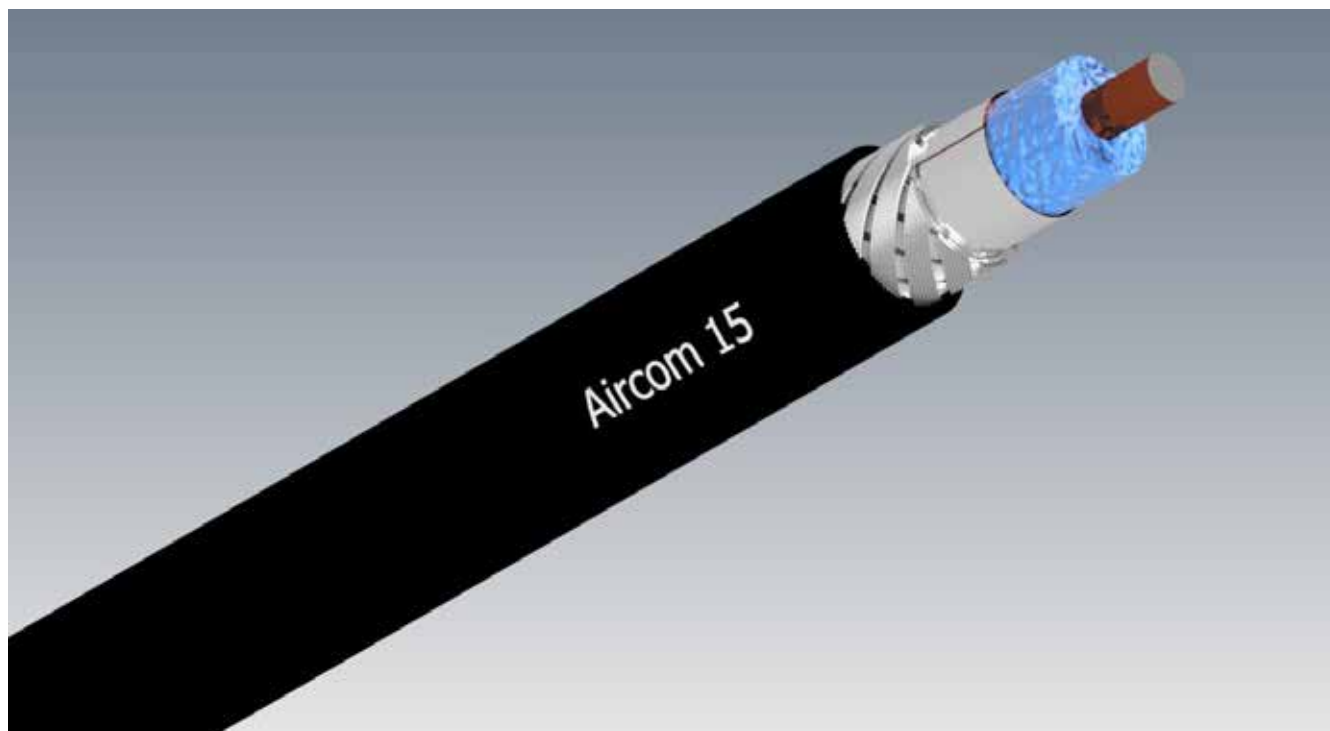
10 MHz	5.021	2400 MHz	270
100 MHz	1.542	3000 MHz	236
500 MHz	655	4000 MHz	198
1000 MHz	446	5000 MHz	173
2000 MHz	300	6000 MHz	154
		8000 MHz	129

## Typ. Attenuation (db/100 m at 20°C)



# Aircom® 15

ultra low loss up to 10 GHz



Aircom 15 is an ultra low loss coaxial cable with the maximum frequency of 10 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 15 perfectly suited for most RF 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 15 is achieved by a low loss PE dielectric. The material is also resistant to moisture. Another feature of Aircom 15 is its double shielding which is constructed of a thin, overlapping aluminium foil and an additional shield braiding of tinned copper wires with 70% coverage. The black PVC jacket of Aircom 15 is UV-stabilized. Aircom 15 is particularly suitable for mobile communication, for the installation of antenna systems and for numerous other RF and 5G applications.

## Kenndaten

Diameter	14,0 ± 0,3 mm
Impedance	50 ± 2 Ω
Attenuation at 1 GHz/100 m	8,7 dB
<b>f<sub>max</sub></b>	<b>10 GHz</b>
<b>Euroklasse nach EN 50575</b>	<b>Fca</b>

## Characteristics

- Conductor material according to DIN EN 13602 Cu-ETP-A
- Screen material according to DIN EN 13602 Cu-ETP-A...-B
- Insulating material according to DIN EN 50290-2-23 (VDE 0819), table L/MD (HD 624.3)
- Jacket material according to DIN EN 50290-2-22 (VDE 0819), compound type TM 52 (HD 624.2)
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- UV-resistant



## Technical data

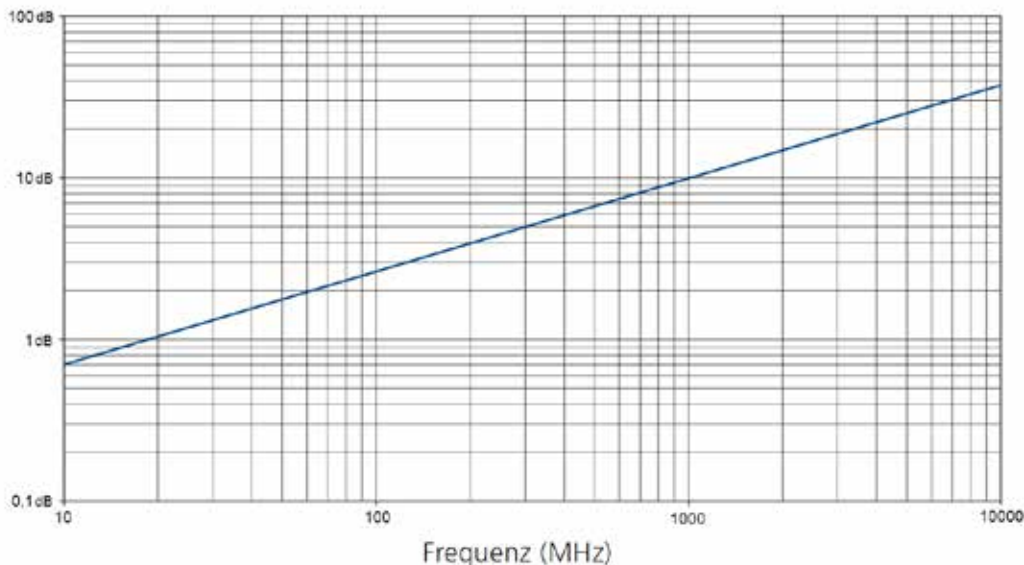
Inner conductor	Hybrid CCA – bare copper-clad aluminium wire
Inner conductor Ø	1 x 4,4 mm
Dielectric	blue foamed Polyethylene (PE) with skin
Dielectric Ø	11,3 mm
Outer conductor 1	alulaminare foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of tinned copper wires
Shielding factor	70%
Outer conductor Ø	12,1 mm
Jacket	PVC black, UV-resistant
Weight	166 kg/km
Min. Bending radius	5XØ single, 10XØ repeated
Temperature range	-55 bis +85°C Transport & fixed installation -40 bis +85°C Flexible use
Pulling strength	1400 N

## Electrical data at 20°C

Capacitance (1 kHz)	78 nF/km
Velocity factor	0,85
Screening attenuation 1 GHz	≥ 80 dB
DC-resistance inner conductor	≤ 2,0 Ω/km
DC-resistance outer conductor	5 Ω/km
Insulation resistance	≥ 10 GΩ*km
Max. Voltage	7 kV
Test voltage DC (wire/screen)	9 kV

	Aircom 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	0,70	2,00	5,00
100 MHz	2,40	7,00	17,00
500 MHz	5,80	17,00	39,00
1000 MHz	8,70	22,50	54,60
3000 MHz	16,90	58,50	118,00

## Typ. Attenuation (db/100 m at 20°C)



## Typ. Attenuation (db/100 m at 20°C)

10 MHz	0,70	1296 MHz	10,00
20 MHz	0,90	1500 MHz	10,90
50 MHz	1,46	1800 MHz	12,20
100 MHz	2,40	2000 MHz	13,10
144 MHz	2,77	2400 MHz	14,70
200 MHz	3,25	3000 MHz	16,90
300 MHz	4,10	4000 MHz	20,20
432 MHz	5,23	5000 MHz	23,50
500 MHz	5,80	6000 MHz	26,50
800 MHz	7,60	8000 MHz	32,10
1000 MHz	8,70	10000 MHz	37,50

## Max. Power handling (W at 40°C)

10 MHz	8.700	3000 MHz	375
100 MHz	2.660	5000 MHz	270
500 MHz	1.100	6000 MHz	240
1000 MHz	740	8000 MHz	195
2000 MHz	470	10000 MHz	170
2400 MHz	430		

# 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
<b>f max</b>	<b>10 GHz</b>

## 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	100 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 DC (wire/screen)	4 kV
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

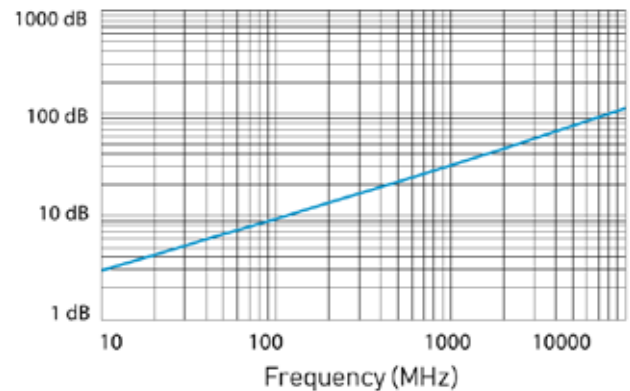
## Typ. Attenuation (db/100 m at 20°C)

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

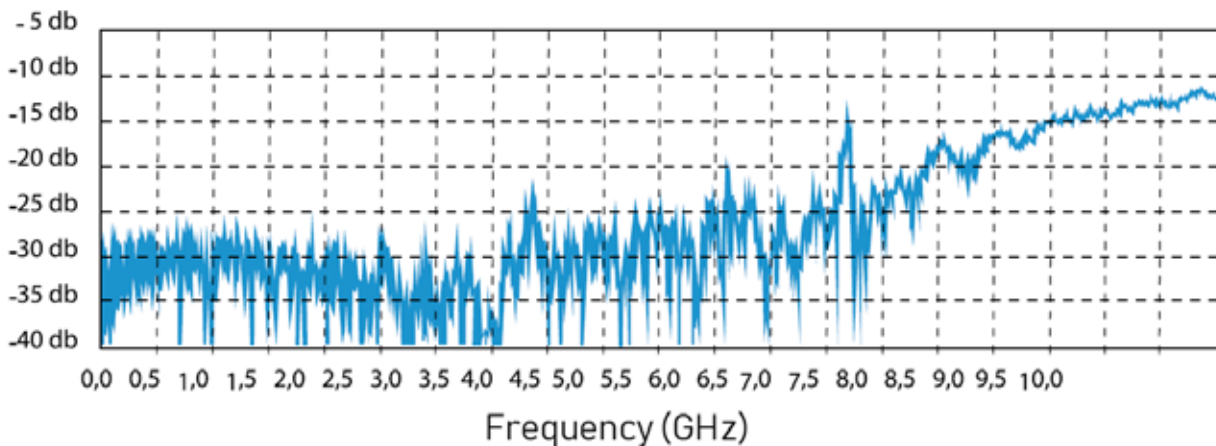
## Max. Power handling (W at 40°C)

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
<b>f max</b>	<b>6 GHz</b>

## 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 DC (wire/screen)	10 kV
Max. Voltage	8 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

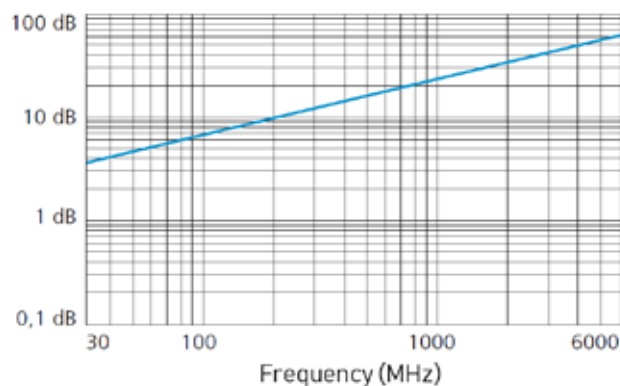
## Typ. Attenuation (db/100 m at 20°C)

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

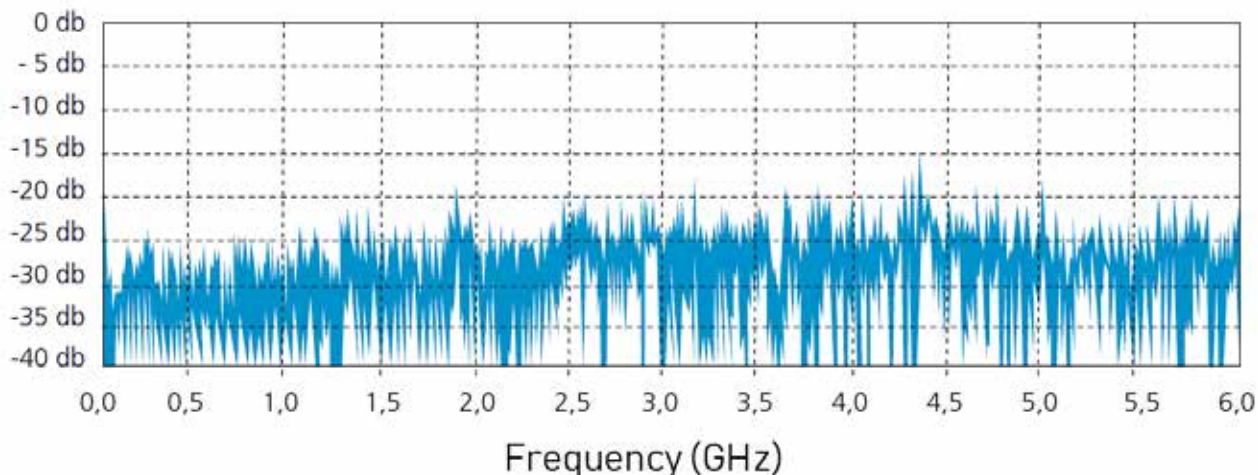
## Max. Power handling (W at 40°C)

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<sup>®</sup> 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
<b>f max</b>	<b>6 GHz</b>

## 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

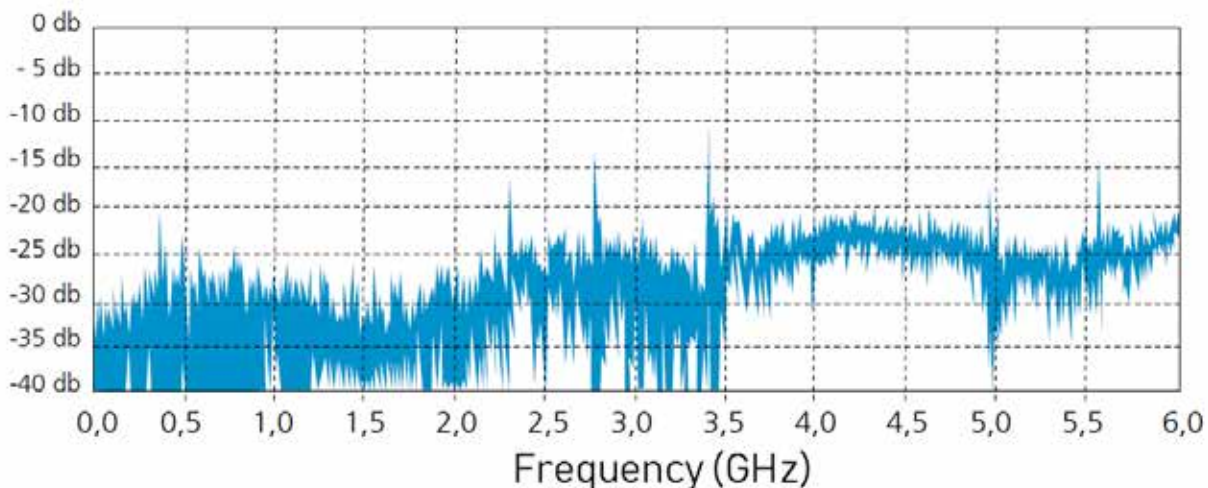
Inner conductor	Stranded bare copper wire
Inner conductor Ø	2,85 mm (7 x 1,0 mm, 10 AWG)
Dielectric	foamed Polyethylene (PE) with skin
Dielectric Ø	7,2 mm
Outer conductor 1	copper foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of bare copper wires
Shielding factor	75%
Outer conductor 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 DC (wire/screen)	7 kV
Max. voltage	5 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. Return loss



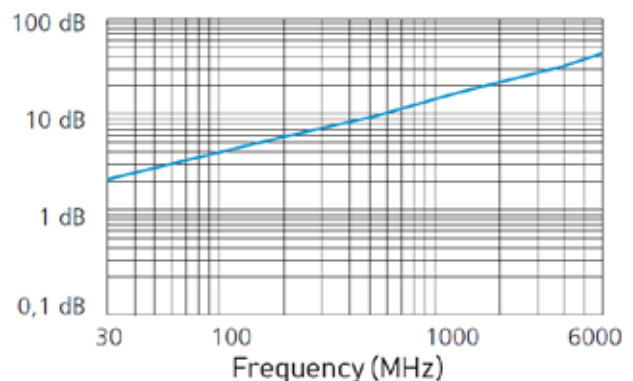
## Typ. Attenuation (db/100 m at 20°C)

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)



# 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
<b>f max</b>	<b>6 GHz</b>

## 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 DC (wire/screen)	7 kV
Max. Voltage	5 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

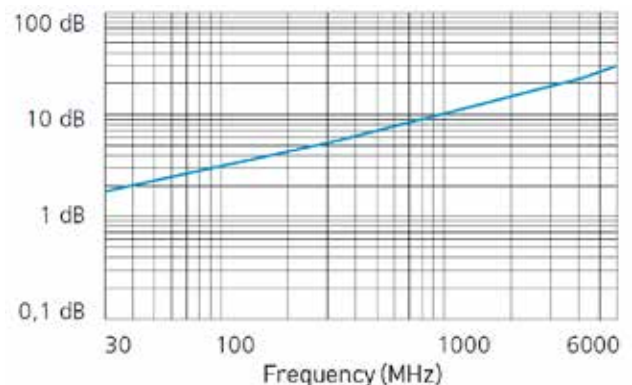
## Typ. Attenuation (db/100 m at 20°C)

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

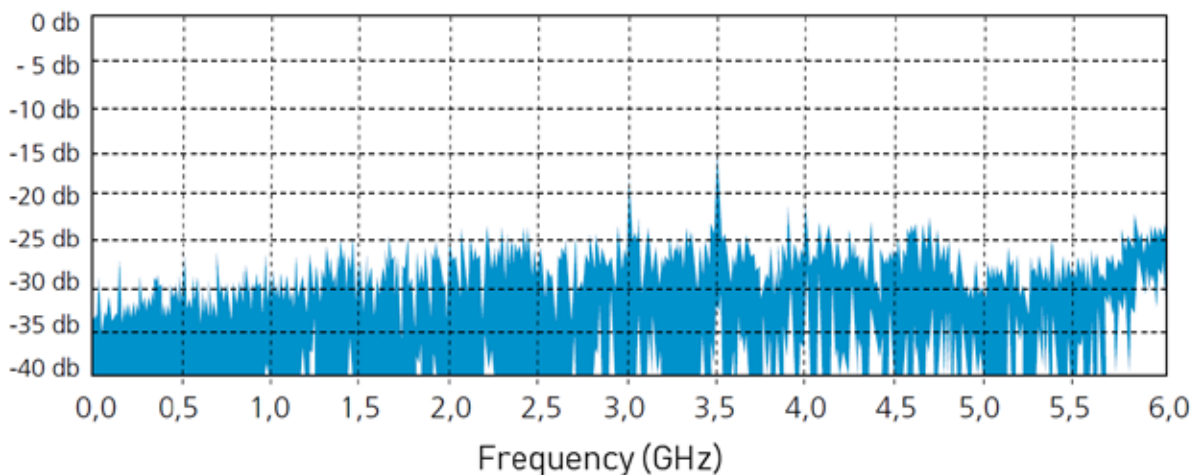
## Max. Power handling (W at 40°C)

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](http://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
<b>Surface body and metal parts excl. pin</b>	<b>Surface pin</b>	<b>Weight</b>	<b>SWR @ 3 GHz</b>	<b>Impe- dance</b>	<b>Max. frequen- cy</b>	<b>Return loss</b>	<b>Insertion loss</b>
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	-

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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	-

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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								

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# 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.



Am Pulverhäuschen 4  
59557 Lipstadt  
Germany



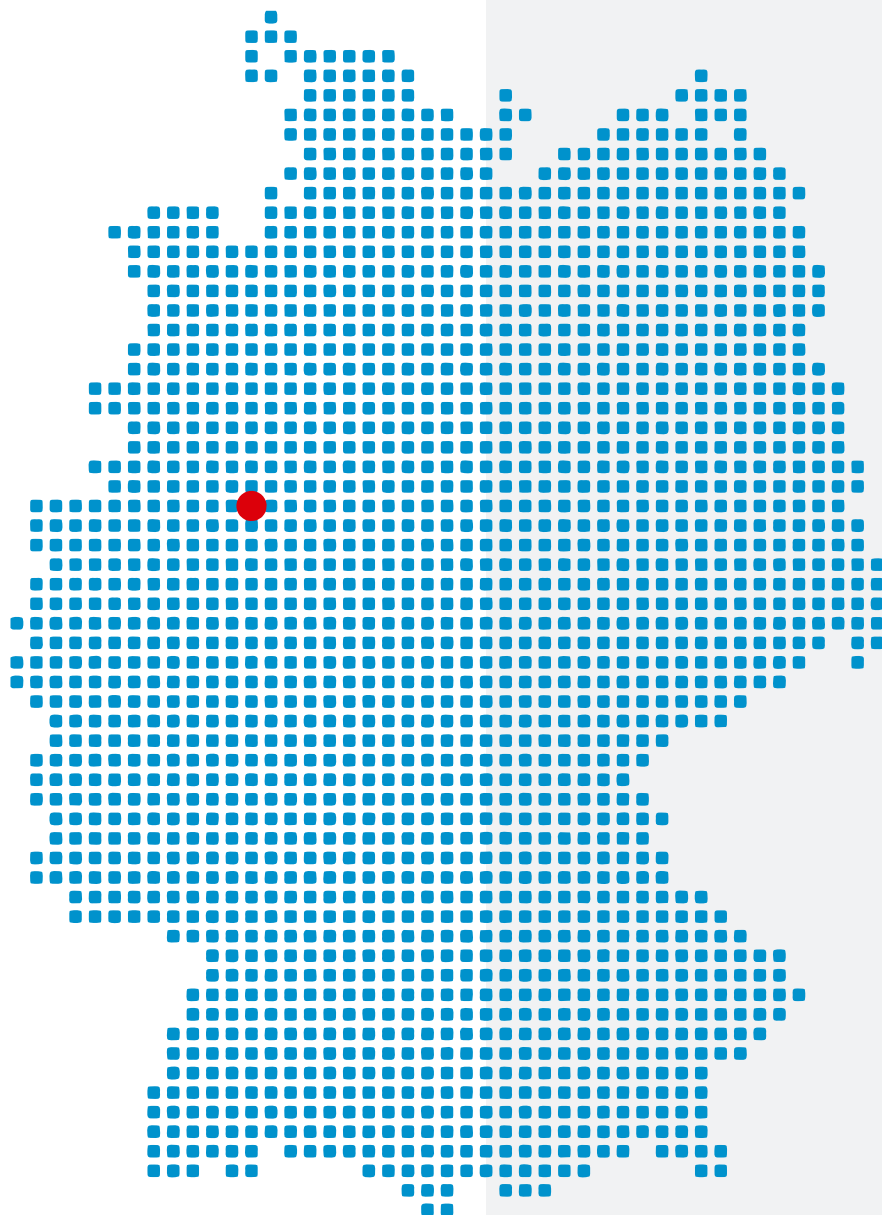
+49 (0) 2941-93385-0



[sales@ssb-electronic.com](mailto:sales@ssb-electronic.com)

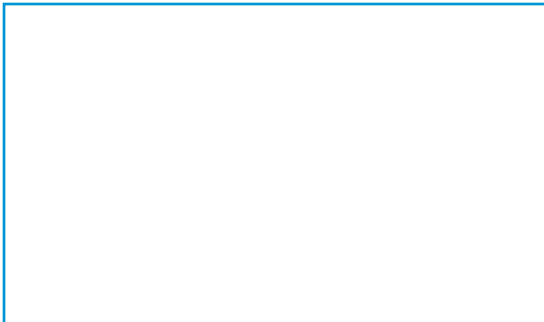


[www.ssb-electronic.com](http://www.ssb-electronic.com)





**Your dealer:**



**SSB-Electronic GmbH**

Am Pulverhäuschen 4  
59557 Lippstadt / Germany

Phone: +49 (0)2941-93385-0  
Fax: +49 (0)2941-93385-120

[sales@ssb-electronic.com](mailto:sales@ssb-electronic.com)  
[www.ssb-electronic.com](http://www.ssb-electronic.com)

