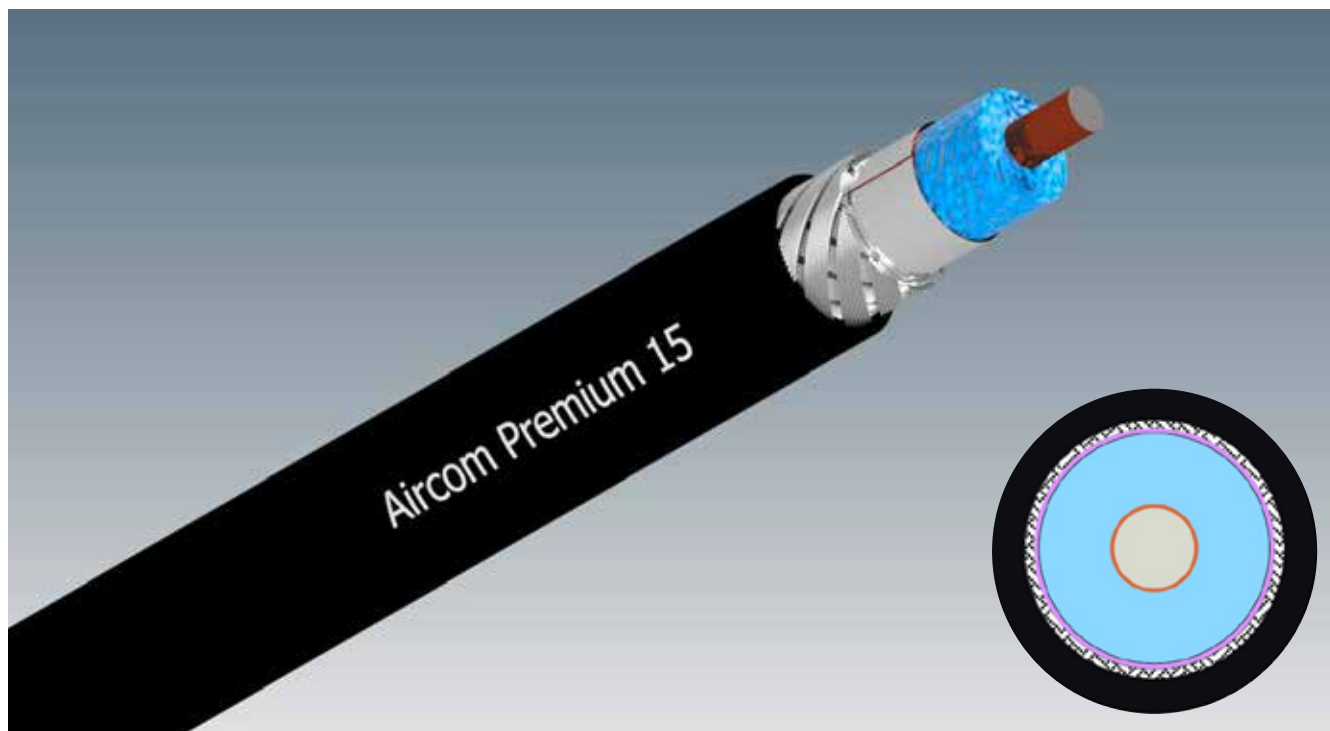


# Aircom® Premium 15

ultra low loss up to 10 GHz



Aircom Premium 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 Premium 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 Premium 15 is achieved by a low loss PE dielectric. The material is also resistant to moisture. Another feature of Aircom Premium 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 Premium 15 is UV-stabilized. Aircom Premium 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

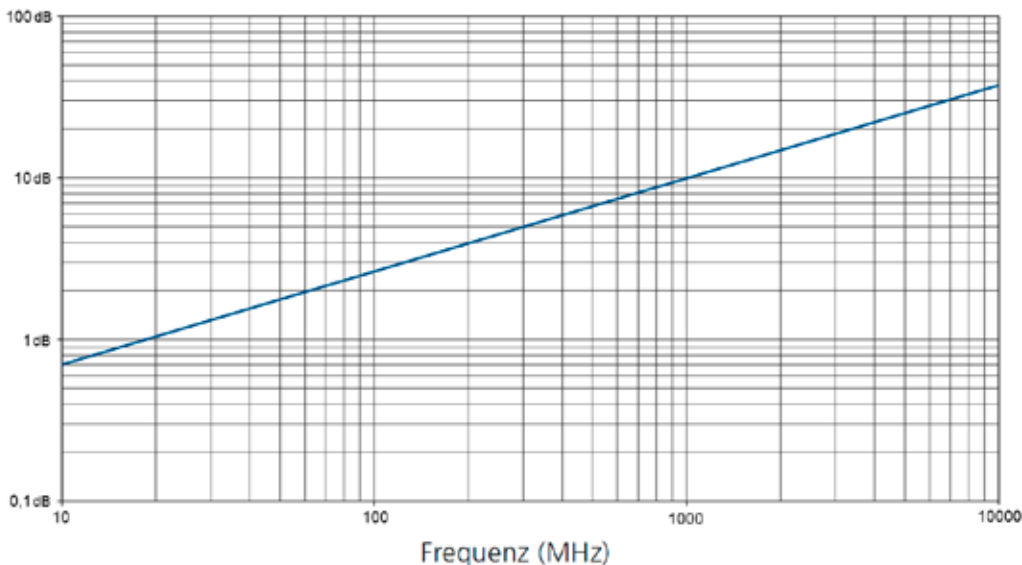
Inner conductor	Hybrid CCA – bare copper-clad aluminium wire
Inner conductor Ø	1 x 4,4 mm
Dielectric	blue foamed Polyethylene (PE) with skin
Dielectric Ø	11,3 mm
Outer conductor 1	alulamine foil overlapped
Shielding factor	100%
Outer conductor 2	shield braiding of tinned copper wires
Shielding factor	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	≤ 5,0 Ω/km
Insulation resistance	≥ 10 GΩ*km
Max. Voltage	≤ 5 kV
Test voltage (wire/screen rms 50 Hz 1 min.)	1000 V

	Aircom Pre-mium 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		