

SeaTex[®] 5

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



SeaTex 5 is a low-loss, halogen-free, highly flexible communication coaxial cable specially designed for marine and offshore applications. It holds the worldwide SHF shipbuilding approval (DNV certificate) and is suitable for deployment on ships, oil platforms, drilling rigs, and wind turbines. The outer jacket of SeaTex 5 is made of a special thermoplastic copolymer (SHF2), providing the cable with high resistance to heat, cold, oils, saltwater, UV radiation, and weather conditions, ensuring a long lifespan in harsh environments.

Based on the proven Aircell 5, SeaTex 5 features excellent attenuation values, and its flexibility and small bending radius allow for installation in tight spaces. Therefore, SeaTex 5 combines the advantages of Aircell coaxial cables with the requirements of maritime applications. The product is specified up to 10 GHz and can be used in a temperature range of -55 to 85°C.

Key features

Diameter	5.0 ± 0.2 mm
Impedance	50 ± 2 Ω
Attenuation at 1 GHz/100 m	31.09 dB
f max	10 GHz

Characteristics

- Insulation material according to DIN EN 50290-2-23 (VDE 0819), Tab. 2/A (HD 624.3)
- Jacket material according to IEC 60092-360 (IEC 60092-359) SHF2
- Wall thickness of the 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 hrs/100 °C)
- RoHS compliant (Directive 2011/65/EC & 2015/863/EU RoHS 3)
- Fire-resistant, low smoke, halogen-free (LSZH)
- Corrosivity of the combustion gases according to IEC 60754-2
- Smoke density according to IEC 61034
- UV-resistant
- Approved for marine and offshore applications
- DNV certificate no. TAE00001JX



Technical Data

Inner conductor	bare copper wire
Inner conductor Ø	1 × 1.13 mm
Dielectric	foamed cellular polyethylene (PE) with skin
Dielectric Ø	3.1 mm
Outer conductor 1	overlapping copper (Cu) foil
Shielding factor	100 %
Outer conductor 2	Copper (Cu) 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	4 × Ø single, 8 × Ø repeated
Temperature range	-55 to +85 °C transport & fixed installation -40 to +85 °C mobile application
Pulling strength	100 N

Electrical Data at 20 °C

Capacitance (1 kHz)	78 nF/km
Velocity factor	0.85
Shielding 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

Capacitance	78 pF/m	101 pF/m	102 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

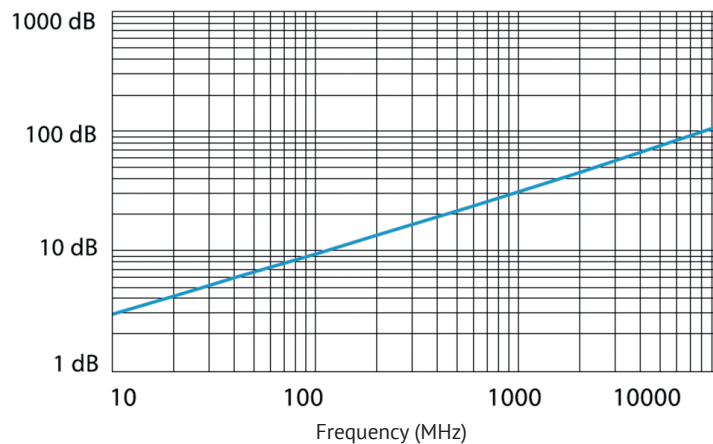
Typ. Attenuation (dB/100 m at 20 °C)

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

