

# Technical Data Sheet



1/2" RF Coaxial Cable

**COSMOS RF – CABLE -50-12V**



This product used for mobile network and telecommunication equipment

## Material and dimensions

Inner conductor	Copper tube	Ø 4.80mm
Dielectric	Foam PE	Ø 12.00 mm
Outer conductor	Corrugated copper(Annularly)	Ø 13.80mm
Jacket	PE, Black, UV resistant, Halogen free	Ø 15.70 mm
Ink marking : metric length DD/MM/YY-----xxxM	1/2" RF Coaxial Cable™_ COSMOS RF – CABLE - 50-12V-----	

## Documents

UV resistance	GB 14049-093; EN 50289-4-17, Method A
---------------	---------------------------------------

## Electrical Specification

Impedance	50Ω
Relative Velocity of Propagation	88%
Capacitance	75.8pF/m
Inductance	0.19μH/m
Maximum Operating Frequency	8.8GHz
Cut-off Frequency	8.8GHz
Peak Power Rating	40 kW
Insulation Resistance	≥ 5GΩ x km
DC Breakdown Voltage	8000V
Jacket Spark Test Voltage	4000 Vrms
Inner Conductor DC-resistance	≤1.65Ω/km
Outer Conductor DC-resistance	≤4.55 Ω/km

## Environmental Specification

Installation Temperature	-40°C to +70°C
2011/65/EU (RoHS)	compliant

**COSMOS RF TECHNOLOGIES, LP**

Add: 45B West Wilmot St., Suite 201 Richmond Hill, Ontario, Canada

# Technical Data Sheet



1/2" RF Coaxial Cable

**COSMOS RF – CABLE -50-12V**

## Mechanical Specification

Cable weight	175kg/km
Tensile strength	500N
Min. bending radius (single)	70mm
Min. bending radius (repeated)	125mm
Number of bends, minimum (typical)	15 (...)
Bending moment	2.5Nm
Flat plate crush strength	10N/mm
Recommended hanger spacing	≥0.2m

## Standard Conditions

Attenuation, Ambient Temperature	20°C
Average Power, Ambient Temperature	40°C
Average Power, Inner Conductor Temperature	100°C

## Return Loss

Return loss(Band A)	≤ 25dB 800 to 1000MHz
Return loss(Band B)	≤ 24dB 1700 to 1900MHz
Return loss(Band C)	≤ 24dB 1900 to 2200MHz
Return loss(Band D)	≤ 23dB 2200 to 2500MHz
Return loss(Band E)	≤ 23dB 2500 to 3000MHz

## Attenuation

Frequency (MHz)	Attenuation (dB/100m)	Average Power (KW)
100	2.17	3.49
200	3.10	2.44
300	3.83	1.97
400	4.43	1.75
450	4.75	1.59
800	6.46	1.17
900	6.87	1.12
1000	7.28	1.04
1800	10.10	0.76
2000	10.70	0.71
2200	11.32	0.66
2500	12.10	0.63
2700	12.73	0.60
3000	13.40	0.57

Maximum attenuation value shall be 105% of the nominal attenuation value

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

**COSMOS RF TECHNOLOGIES, LP**

Add: 45B West Wilmot St., Suite 201 Richmond Hill, Ontario, Canada