

Cryogenic Cables & Assemblies

FPCE-086

Low PIM

Features:
• Low PIM

Applications:
• Phase-array Radar
• Instrument
• Interconnection in and between equipment

Electrical

Frequency	DC-18GHz
Cut-off Frequency	67GHz
Impedance	50Ω
Velocity of Propagation	77%
Shielding Effectiveness	165dB Min.
Voltage Withstand	1000V DC

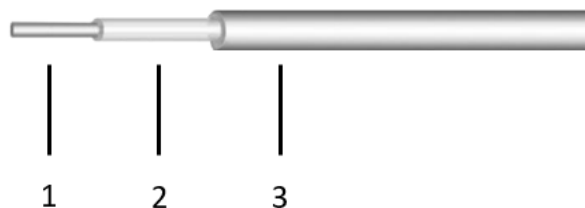
Mechanical

Bend Radius (installation)	4.3mm
Weight	20g/m

Environmental

Temperature -268 ~ +150°C

Construction



No	Name	Size (mm)	Material
1	Inner Conductor	0.56	Silver-plated copper nickel alloy
2	Dielectric	1.63	PTFE
3	Outer Conductor	2.15	Copper nickel alloy

Attenuation & Power Handling

Frequency (GHz)	1	2	3	6	8	10	12.4	16	18
Attenuation ^[1] (dB/100m)	115.2	163.2	200.1	284.0	328.5	367.8	410.3	467.1	496.0
Average Power ^[2] (W)	102	72	59	41	36	32	29	25	24

[1] VSWR: 1.0; Ambient: +25°C (77°F)

[2] VSWR: 1.0; Ambient: +40°C (104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m) = $3.624300 * \sqrt{F (MHz)} + 0.000540 * F (MHz)$

Calculate Connector Attenuation: Attenuation (dB) = $0.03 * \sqrt{F (GHz)}$