JEFA Tech
Wireless Technology Solutions

Low Loss 400 Cable

1.0 **SCOPE**: This document establishes the specifications for a flexible coaxial cable specifically designed to perform in any application requiring an easily routed, low loss RF cable.

2.0 **REQUIREMENTS**: This document contains test values for all import mechanical and electrical parameters, and as such, is the basis for all incoming inspection and acceptance.

3.0 **DIMENSIONS**:

- 3.1 Center conductor: 0.108in. (2.74mm) BCCAL
- 3.2 Dielectric: Foam polyethylene 0.285in. (7.24mm)
- 3.3 Outer conductor: Aluminum tape 0.291in. (7.39mm)
- 3.4 Overall braid: Tinned copper 0.320in. (8.13mm)
- 3.5 Jacket: Black polyethylene 0.405in. (10.29mm)

4.0 **MECHANICAL SPECIFICATIONS**:

4.1	Min Bending Radius:	1.0in.	25.4mm
4.2	Bending:	0.5ft lbs	0.68 N-m
4.3	Weight:	0.068 lbs/ft	0.10 kG/m
4.4	Tensile strength	160 lbs	72.6 kG
4.5	Flat plate crush	40 lb/in	0.71 g/mm

5.0 **ELECTRICAL SPECIFICATIONS**:

- 5.1 Cutoff frequency: 18.2 GHz
- 5.2 Velocity of propagation: 85%
- 5.3 Voltage withstand: 2500 VDO
- 5.4 Peak power: 16 kW
- 5.5 DC Resistance:
  - 5.5.1 Innder conductor, ohms: 1.02/1000ft (4.56km)
  - 5.5.2 Outer conductor, ohms: 185/1000ft (5.41km)
- 5.6 Capacitance: 23.9 pF/ft (78.40 pF/m)
- 5.7 Inductance: 0.060 uH/ft (0.20uH/m)
- 5.8 Jacket spark: 8000 VRMS
- 5.9 Shielding effectiveness: >90 dB
- 5.10 Phase stability: <10 ppm/degrees C

6.0 **ENVIRONMENTAL SPECIFICATIONS**:

- 6.1 Installation temperature range: -40/+185F (-40/+85C)
- 6.2 Storage temperature range: -94/+185F (-70/+85C)
- 6.3 Operating temperature range: -40/+185F (-40/+85C)

Frequency (MHz)	Attenuation dB/100ft	Attenuation dB/100m	Avg Power kW
30	0.7	2.2	3.3
150	1.5	5.0	1.5
450	2.7	8.9	0.83
1500	5.1	16.8	0.44
2000	6.0	19.6	0.37
2500	6.8	22.2	0.33