

# FA400

## Ultra Low Loss & Phase Stable

**Features:**

- \* Low Insertion Loss
- \* High Phase Stability
- \* High Power
- \* Low PIM

**Applications:**

- \* Phased-array Radar
- \* Satellite Communication
- \* Avionics

**Electrical**

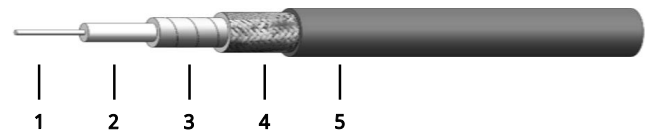
Frequency:	DC~40GHz
Cut-off Frequency:	41GHz
Impedance:	50Ω
Velocity of Propagation:	82%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	1500V DC
PIM:	-155dBc
Phase Stability:	750PPM@-55°C~+85°C max.

**Mechanical**

Bend Radius (installation):	20.0mm
Bend Radius (repeated):	40.0mm
Weight:	36g/m

**Environmental**

Temperature: -55~+165°C

**Construction**


No.	Name	Size (mm)	Material
1	Inner Conductor	1.05	Silver-plated copper
2	Dielectric	2.85	Low density PTFE
3	Inner Shield	3.05	Silver-plated copper tape
4	Outer Shield	3.40	Silver-plated copper braid
5	Jacket	4.00	PFA

**Attenuation & Power Handling**

Frequency (GHz)	1	2	3	6	8	10	12.4	18	26.5	40
Attenuation*1 (dB/100m)	33.5	47.5	58.3	82.8	95.8	107.2	119.7	144.7	176.4	218.1
Average Power*2 (W)	634	447	365	257	222	198	178	147	120	97

[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) =  $1.05447 * \sqrt{F \text{ (MHz)}} + 0.000180 * F \text{ (MHz)}$ 

 Calculate Connector Attenuation: Attenuation (dB) =  $0.03 * \sqrt{F \text{ (GHz)}}$ 
**How To Order**
**FA400-X-Y-Z**

X: Frequency in GHz

Y: Connector type

Z: Length in meters

**Examples:**

To order a FA400 cable assembly, DC-40GHz, 2.92mm male to 2.92mm female, 0.8 meter, specify FA400-40-KKF-0.8.

**Connector naming rules:**

K - 2.92mm (40GHz, VSWR 1.35)

3 - 3.5mm (33GHz, VSWR 1.35)

S - SMA (26.5GHz, VSWR 1.3)

N - N (18GHz, VSWR 1.25)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

**Mating Connector**

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**FCK-MG-A400-1**

2.92mm male, Stainless  
steel

**FCK-FG-A400-1**

2.92mm female, Stainless  
steel

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