

## Flexible RF Cables & Assemblies

### FPA-220

Ultra Low Loss & Phase Stable

**Features:**

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

**Applications:**

- Phase-array Radar
- Satellite Communication
- Avionics

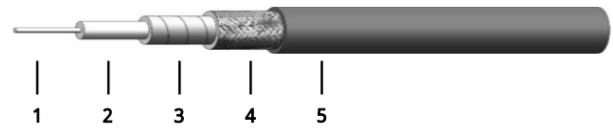
#### Electrical

Frequency	DC-50GHz
Impedance	50Ω
Velocity of Propagation	81%
Shielding Effectiveness	90dB Min.
Voltage Withstand	400V DC
PIM	-155dBc
Phase Stability (Max)	750PPM@-55°C~+85°C

#### Environmental

Temperature -55 ~ +125°C

#### Construction



#### Mechanical

Bend Radius (installation/ repeated)	8.8mm / 22mm
Weight	16g/m

No	Name	Size (mm)	Material
1	Inner Conductor	0.50	Silver-plated copper
2	Dielectric	1.38	Low density PTFE
3	Inner Shield	1.54	Silver-plated copper tape
4	Outer Shield	1.95	Silver-plated copper braid
5	Jacket	2.20	PFA

### Attenuation & Power Handling

Frequency (GHz)	0.3	0.5	1	2	6	10	12.4	18	26.5	35	40	50
Attenuation <sup>[1]</sup> (dB/100m)	34.6	44.8	63.7	90.8	160.4	209.8	235.2	287.1	354	412.4	444	502.8
Average Power <sup>[2]</sup> (W)	178	137	97	68	38	29	26	21	17	15	14	12

[1] VSWR: 1.0; Ambient: +25°C (77°F)

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

Calculate Cable Attenuation: Attenuation (dB/100m) = 1.975832 \* √F (MHz) + 0.001221 \* F (MHz)

Calculate Connector Attenuation: Attenuation (dB/100m) = 0.03 \* √F (MHz)

#### Connector Types:

- 1.85mm (50GHz, VSWR 1.5)
- Mini-SMP (mateable with GPPO & SSMP, 50GHz, VSWR 1.6)
- 2.4mm (50GHz, VSWR 1.4)
- 2.92mm (40GHz, VSWR 1.35)
- SSMA (40GHz, VSWR 1.35)
- SMP (40GHz, VSWR 1.4)
- 3.5mm (33GHz, VSWR 1.35)
- SMA (26.5GHz, VSWR 1.3)

Note: VSWR increase 0.1 (Right Angle)