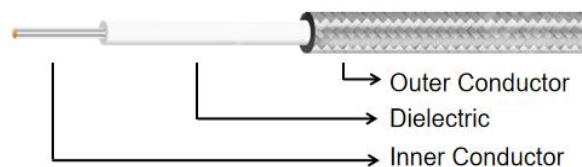


## FS086SF

40GHz, 50 Ohm, Φ2.15mm, Tinned Copper Braid, Hand Formable RF Cable

### Structure:



### Structure Details

| Cable Type      | Dia.(mm) | Material             |
|-----------------|----------|----------------------|
| Inner Conductor | 0.52     | Silver plated Copper |
| Dielectric      | 1.65     | PTFE                 |
| Outer Conductor | 2.15     | Tinned Copper Braid  |

### Electrical Specifications:

Operating Freq.: 40 GHz

Impedance: 50 Ω

Signal delay: 4.7ns/m

Velocity of Propagation: 70%

Shielding Effectiveness: >100 dB

Dielectric Withstanding Voltage: 1000 V DC

### Mechanical Specifications:

Static Bending Radius: 6.0 mm

Dynamic Bending Radius: 20 mm

Weight: approx.16 g/m

### Environmental Specifications:

Temperature: -55°C~+125 °C

### Typical Attenuation(dB/100m) and Power handling (W)

| Freq.(GHz)                 | 0.5 | 1   | 2   | 3   | 6   | 10  | 18  | 26.5 | 40  |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Attenuation <sup>1</sup>   | 50  | 72  | 105 | 131 | 194 | 261 | 374 | 477  | 623 |
| Avg. Power <sup>2</sup>    | 229 | 162 | 115 | 94  | 66  | 51  | 38  | 31   | 26  |
| K1: 2.115000, K2: 0.004990 |     |     |     |     |     |     |     |      |     |

1: Typical value@+25 °C, VSWR=1.0;

2: Typical value@+40 °C, atmospheric pressure;

3: Typical Cable Attenuation Calculation Formula:  $K1 \cdot \sqrt{F(\text{MHz})} + K2 \cdot F(\text{MHz})$ ;

4: Typical Connector Attenuation Calculation Formula:  $0.03 \cdot \sqrt{F(\text{GHz})}$  .

### Cable Assemblies Naming Rule:

PN: Cable-Freq.-Conn.1-Conn.2-Length(m)

Eg.: FS086SF-40-KM-KF-1 means FS086SF cable, DC-40GHz, 2.92mm(m)-2.92mm(f), 1m.

Add "R" for right-angle or "H" for bulkhead after the connector code (e.g., KMR, KFH)

| Connectors Options | Frequency (Max) | VSWR (Max) | Body Material*             |
|--------------------|-----------------|------------|----------------------------|
| 2.92mm (K)         | 40GHz           | 1.30:1     | Passivated Stainless Steel |
| SMP (P)            | 40GHz           | 1.30:1     | Beryllium Copper           |
| 3.5mm (3)          | 33GHz           | 1.25:1     | Passivated Stainless Steel |
| SMA (S)            | 26.5GHz         | 1.25:1     | Passivated Stainless Steel |
| N (N)              | 18GHz           | 1.25:1     | Nickel Plated Brass        |
| BNC (B)            | 4GHz            | 1.25:1     | Nickel Plated Brass        |
| SMB (E)            | 4GHz            | 1.25:1     | Nickel Plated Brass        |

\*Connector material is subject to availability; please confirm material when placing your order.