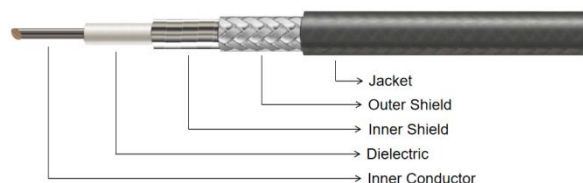


## FS830A

18GHz, 50 Ohm,  $\Phi$ 8.3mm, FEP Jacket, Flexible Cable. Solid Inner Conductor

### Structure:



### Structure Details:

| Cable Type      | Dia.(mm) | Material                   |
|-----------------|----------|----------------------------|
| Inner Conductor | 2.44     | Silver plated Copper       |
| Dielectric      | 6.50     | Low Density PTFE           |
| Inner Shield    | 6.90     | Silver Plated Copper Strip |
| Outer Shield    | 7.65     | Silver Plated Copper Braid |
| Jacket          | 8.30     | FEP                        |

### Electrical Specifications:

Operating Freq.: 18 GHz

Cut-off Freq.: 18 GHz

Impedance: 50  $\Omega$

Velocity of Propagation: 83%

Shielding Effectiveness: >90 dB

Dielectric Withstanding Voltage: 3000 V DC

Passive Intermodulation (PIM): -155 dBc

Phase Change vs Temperature: <750PPM@-55~+85 °C

### Mechanical Specifications:

Static Bending Radius: 42 mm

Dynamic Bending Radius: 83 mm

Weight: 162 g/m

### Environmental Specifications:

Temperature: -55~+165 °C

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

| Freq.(GHz)                 | 1    | 2    | 3    | 6    | 8    | 10   | 12.4 | 16   | 18   |
|----------------------------|------|------|------|------|------|------|------|------|------|
| Attenuation <sup>1</sup>   | 13.3 | 18.9 | 23.4 | 33.6 | 39.1 | 44.1 | 49.5 | 56.9 | 60.6 |
| Avg. Power <sup>2</sup>    | 2433 | 1703 | 1380 | 960  | 824  | 731  | 651  | 567  | 532  |
| K1: 0.408997, K2: 0.000320 |      |      |      |      |      |      |      |      |      |

1: Typical value@+25 °C,VSWR=1.0;

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

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

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

### Cable Assemblies Naming Rule:

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

Eg.: FS830A-18-NM-NF-1 means FS830A cable, DC-18GHz, N (m)-N(f), 1m.