

# FRG-50 Mini Coaxial Cable

## FENGER®

### APPLICATION

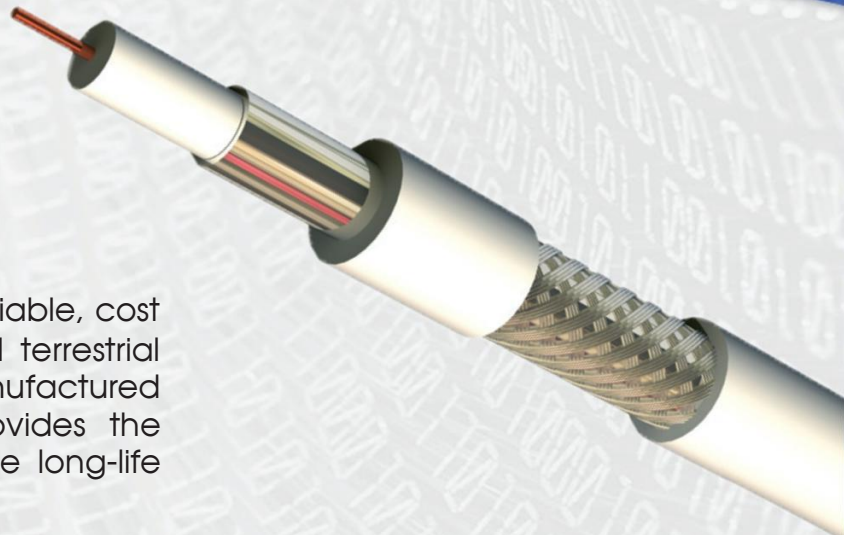
Fenger FRG-50 mini coaxial cable is the reliable, cost effective solution for today's satellite and terrestrial digital antenna systems. Designed and manufactured to industry standards, Fenger cable provides the lowest possible cost while ensuring reliable long-life performance.

### FEATURES & BENEFITS

- Meets or exceeds all applicable standards
- Copper-covered center conductor
- Triple layer insulation (Skin/Foam/Skin)
- Bi-Shield, 45% coverage braid
- White PVC Jacket, RoHS
- Printing every 1 meter
- Plastic Reel packaging
- Swept to 3 GHz

### ORDERING INFORMATION

- |        |   |
|--------|---|
| 527151 | FRG-50, 75 ohm Mini Coaxial Cable 5.0 mm<br>Reel 100 meters |
| 527152 | FRG-50, 75 ohm Mini Coaxial Cable 5.0 mm<br>Reel 200 meters |





# SPECIFICATIONS

# FRG-50

75 ohm Mini Coaxial Cable

## GENERAL SPECIFICATIONS

Shield Type	FRG-50 (Mini Coax)
Shield Type	BiShield
Packaging Type	Plastic Reel
Order No. 527151	100 m
Order No. 527152	200 m

## CONSTRUCTION MATERIALS

Inner Conductor	Copper Covered Steel
Conductivity	21% minimum
Dielectric	Gas Injected PE
Triple layer insulation	Skin/Foam/Skin
Outer Conductor	
1st Shield	Al/Pet/Al tape
Coverage	100%
2nd Shield	Al-braid (48 x 0.12 mm)
Coverage	45%
Jacket Material	PVC
Jacket Color	White

## DIMENSIONS

Diameter of Inner Conductor	0.81 (±0.01) mm
Diameter over Dielectric	3.50 (±0.10) mm
Diameter over Tape	3.58 (±0.10) mm
Diameter over Jacket	5.00 (±0.10) mm

## ELECTRICAL SPECIFICATIONS

Operating Frequency Band	5-3000 MHz
Impedance	75 (±3) Ohm
Capacitance	52 pF/m
Velocity Ratio	85%
Sheath Spark Test	4000 VAC
Screening Attenuation	
30 - 1000 MHz	>75 dB
1000 - 2000 MHz	>65 dB
2000 - 3000 MHz	>55 dB
DC Resistance	
Inner conductor	158.0 Ohm/km
Outer conductor	49.0 Ohm/km
Structural Return Loss (SRL)	
5 - 30 MHz	>20 dB
30 - 470 MHz	>20 dB
470 - 1000 MHz	>18 dB
1000 - 2000 MHz	>16 dB
2000 - 3000 MHz	>16 dB

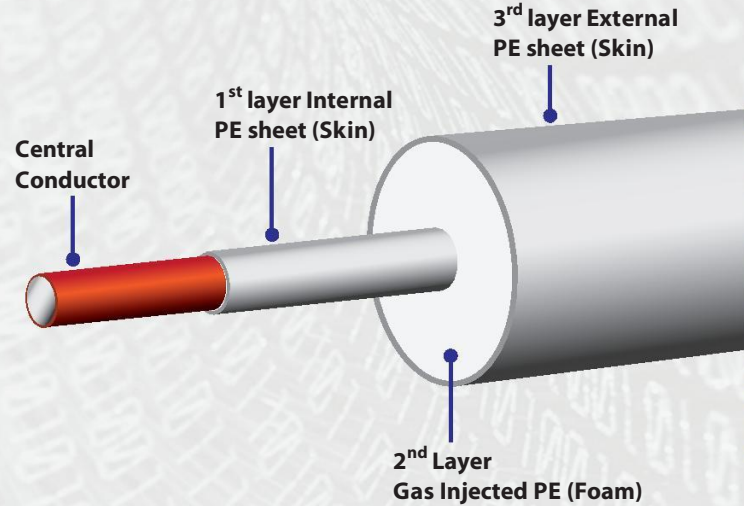
## MECHANICAL SPECIFICATIONS

Minimum Bending Radius	
For one bend	25 mm
For repeated bending	50 mm
Maximum Tensile Force	90 N
Temperature Rating	-20 to +60 °C

## STANDARD COMPLIANCE

RoHS / CE / EN 50 117-2-4	Compliant
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The latest technology in coaxial cables is Skin-Foam-Skin, Triple Isolation Extrusion (dielectric)



## Mechanically

- Thinner coaxial cables compared to the existing ones in the market but with same or better features
- Really insusceptible to moisture
- More robust and flexible cables

## Electrically

- Better Structural Return Loss parameters
- Lower attenuations
- Impedance more stable
- Better velocity ratio values

## ATTENUATION (@ 20°C nominal)

Frequency	dB/100m
5 MHz	2.8
50 MHz	6.0
100 MHz	8.0
200 MHz	11.0
400 MHz	16.0
800 MHz	23.0
1000 MHz	25.5
1500 MHz	31.5
1750 MHz	34.0
2150 MHz	38.0
2400 MHz	40.5
3000 MHz	46.0