Series: LL032, Cable Assembly, 50 Ω

Part Number:

LL032-XXXX-XXXXXX-XXXX

END 1 CONNECTOR
-92SP: 2.92mm Plug

END 2 CONNECTOR
-92SP: 2.92mm Plug

OVERALL ASSEMBLY LENGTH (OAL)
XXXX (MILLIMETERS)
(0100 MIN)

Series: LL032, Cable Assembly, 50 Ω

CABLE CONSTRUCTION

Center Conductor	Solid, Silver Plated Copper (SPC)
Dielectric	Low Density PTFE
Inner Shield	SPC Flat Wire
Dynamic Performance Layer	Tape Wrapped PTFE
Outer Shield	SPC Braid
Jacket	Orange FEP

MECHANICAL DATA

Max Outer Diameter	4.72 mm (0.186 inch)
Min. Static Bend Radius[1]	9.52 mm (0.375 inch)
Min. Dynamic Bend Radius	50.8 mm (2.0 inch)
Max. Weight (cable only)	56.4 g/m (0.606 oz/ft)
Pull Strength[2]	5.44 kg (12.0 lbs.)
Compression Resistance[3]	700 N/100mm (40 lbs./inch)
Flex Life Snake[2] S-Bend[2] Tic-Toc[4]	 60,000 cycles 3,000 cycles 2,000 cycles
Torque Life[2]	1,000 cycles

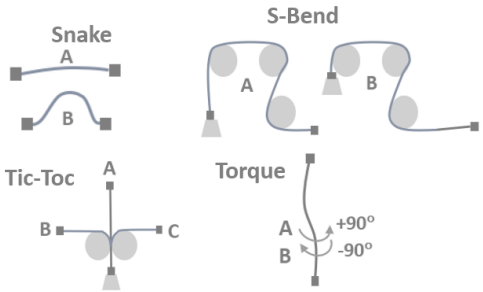
Mechanical Notes:

[1]360-degree bend, <= 0.5 Ω change in Z_o

[2]per IEC 60966-1:2019, paragraphs 9.1,9.3,9.5 & 9.6 as applicable, <=10% Δ Insertion Loss

[3]per IEC 60966-1:2019, paragraph 9.4, <=0.5 Ω Δ Z_o

[4]per MIL-T-81490, paragraph 3.6.5.4, <=10% Δ Insertion Loss



ENVIRONMENTAL DATA

Operating Temperature	-65°C to +125°C
Thermal Shock	20 cycles, -65°C to +125°C
Humidity	EIA-364-31 Method III, Condition B (240 Hours)
Flammability	AS4373 Method 801
Mechanical Shock[5]	EIA-364-27 Condition C (100 G Peak)
Random Vibration[5]	EIA-364-28 Condition VB (7.56 gRMS, 2 hrs/axis)

Mechanical Notes:

[5]Includes Nanosecond Event Detection

Series: LL032, Cable Assembly, 50 Ω

ELECTRICAL DATA

Impedance	50 Ω
Frequency Range	DC - 32 GHz[7]
Velocity of Propagation	76.5 %
Time Delay	4.36 ns/m (1.33 ns/ft)
Capacitance	86.9 pF/m (26.5 pF/ft)
Shielding Effectiveness[8]	90 dB to 18.0 GHz
Insulation Resistance	3,650 MΩ/KM (12,000 MΩ/1000 ft)
Insertion Loss[9]	***See Graph***
VSWR[10]	2.92mm: 1.35:1 Max @ DC – 32 GHz
Power Handling[11]	***See Graph***
Phase vs. Temperature	***See Graph***
Phase vs. Bending[12]	< 3° to 5 GHz < 4° to 10 GHz < 7° to 18 GHz < 8° to 32 GHz
Insertion Loss vs. Bending[13]	< 0.025 dB to 32 GHz

Electrical Notes:

[6]Unless otherwise specified at Temperature=25°C

[7]may be further limited by connectors. See Connector Options.

[8]per IEC 61000-4-21 (Mode Stir, 2-18 GHz) Connector options can affect shielding performance.

[9]Insertion loss graph does not include connectors; loss for each connector ≈ 0.03x√F(GHz)

[10]Standard product testing to 32 GHz

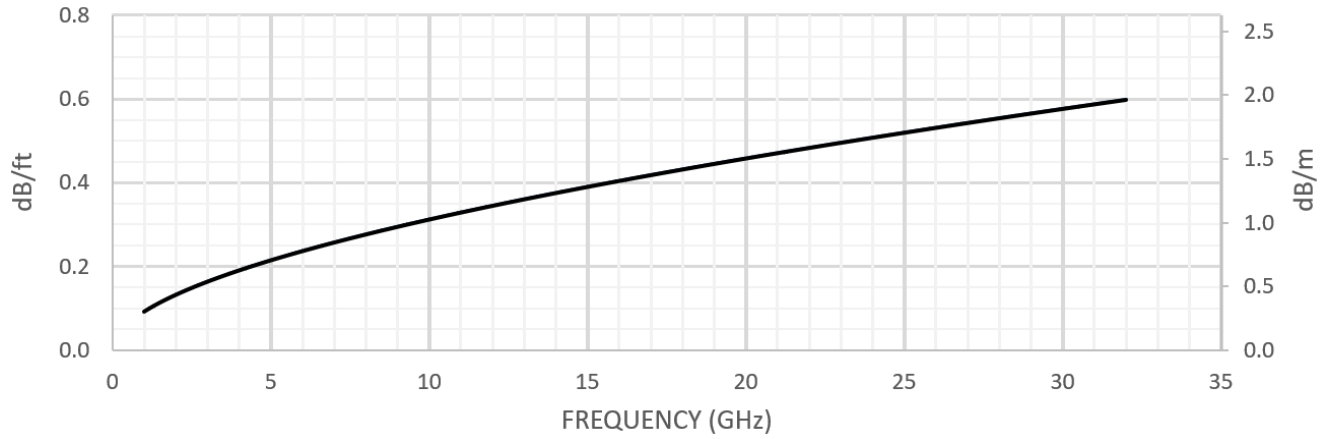
[11]Power Handling should be further derated for higher altitudes and temperatures.

[12]per IEC 60966-1:2019, paragraph 8.6, Method 2 (360° Bend, ϕ 95.2mm (2.0 in) mandrel

[13]per IEC 60966-1:2019, paragraph 8.6, Method 1 (±180° Bend, ϕ 95.2mm (2.0 in) mandrel

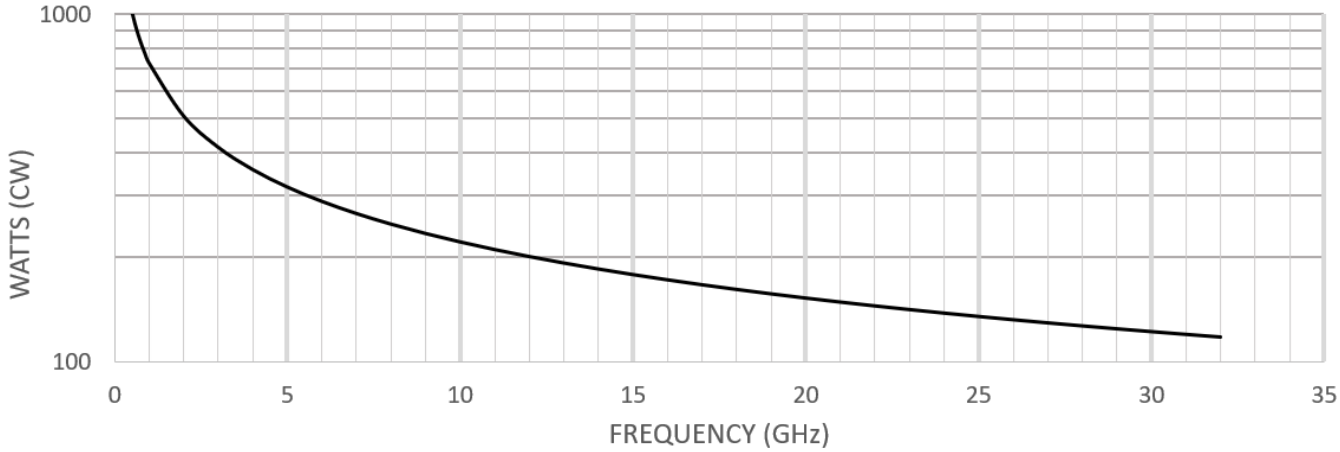
Series: LL032, Cable Assembly, 50 Ω

MAXIMUM INSERTION LOSS @ T=25°C[9]

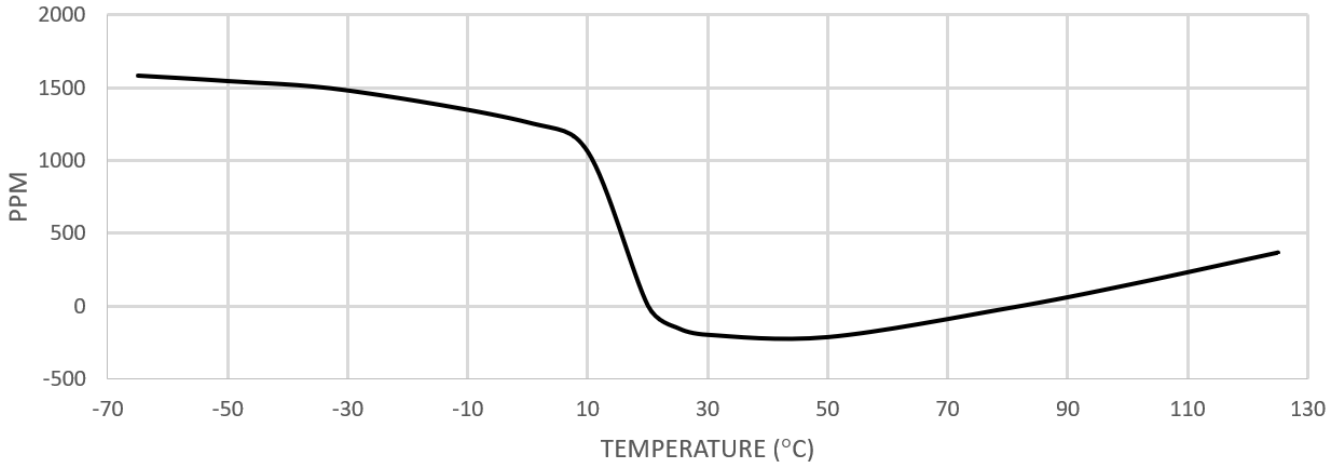


$$IL_{dB/ft} = \frac{9.0069 \times \sqrt{F_{GHz}} + 0.2771 \times F_{GHz}}{100}$$

TYPICAL POWER HANDLING @ T=25°C, SEA LEVEL[10]



TYPICAL PHASE VS. TEMPERATURE



Series: LL032, Cable Assembly, 50 Ω

CONNECTOR OPTIONS

End Option	Description	Drawing
92SP	2.92mm Plug	PRF92-P-C-EP-032B-SS

ADDITIONAL INFORMATION

Cable Type	Datasheet
Cable Assembly	LL032-XXXX-XXXXXX-XXXX-XX