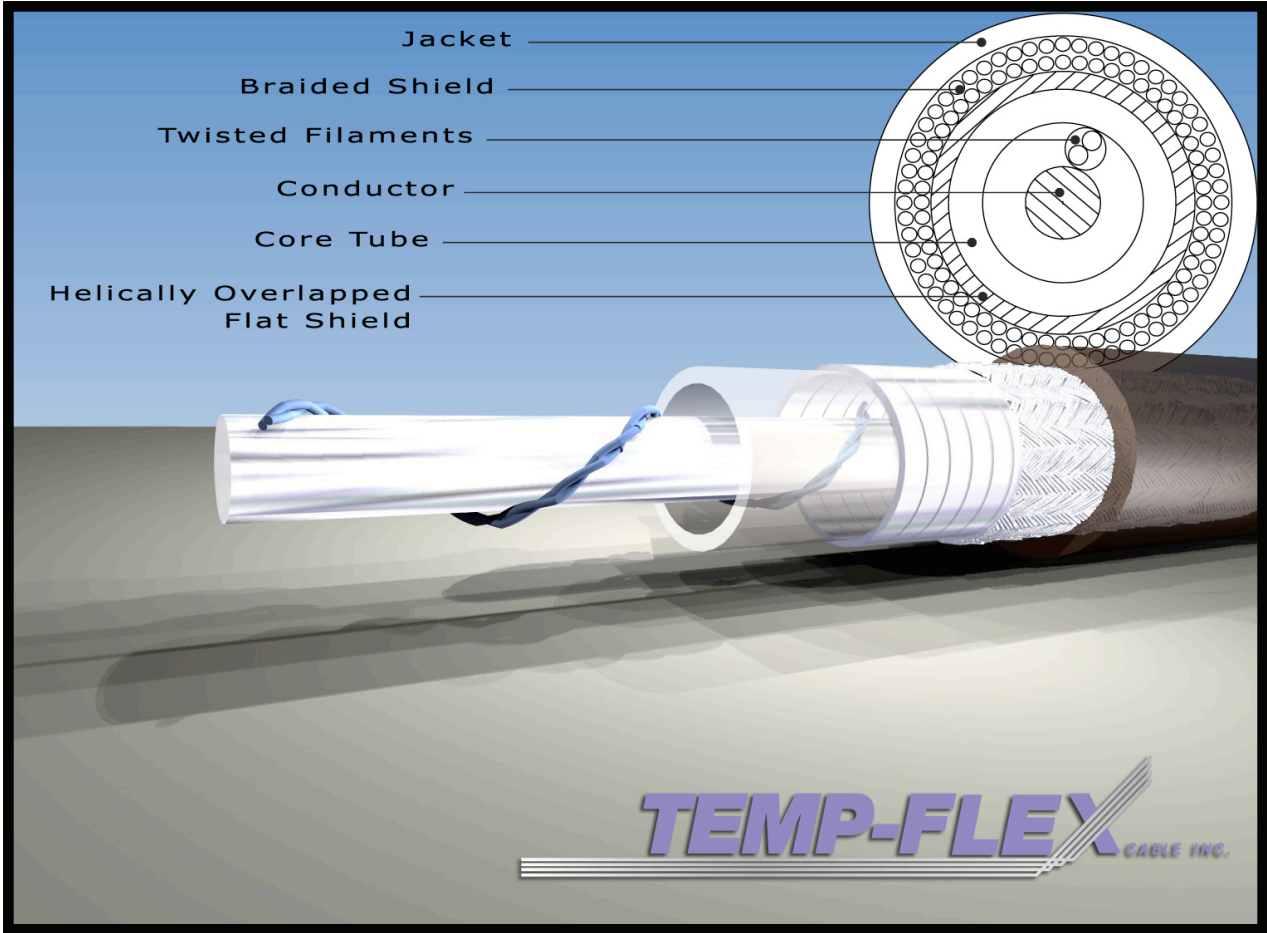


Microwave Coax



Microwave Coax

Product Description

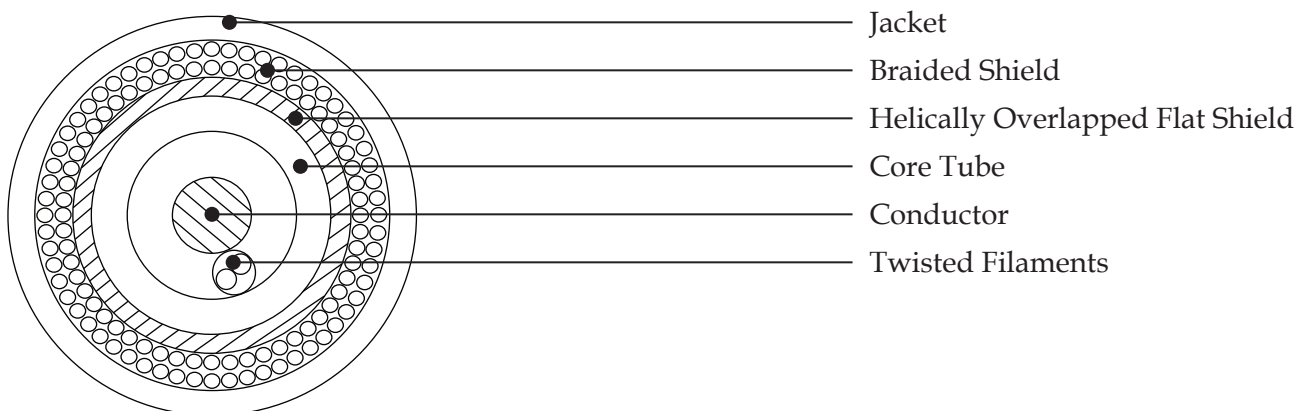
Low Loss, Flexible Microwave products incorporate a patented dual monofilament technology proven to enhance performance at high frequencies (>12 GHz). Consistent mechanical tolerances yield extremely consistent electrical performance.

Features & Benefits

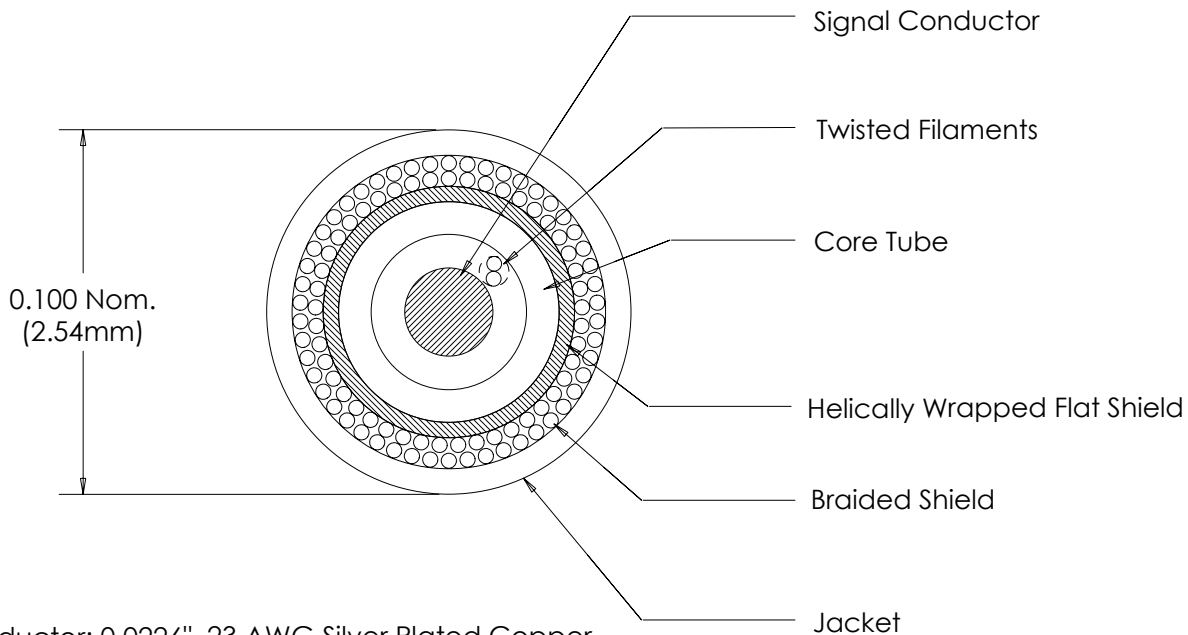
- Consistent 50 OHM Impedance
- High Velocity of Propagation (>85%)
- High RF Bandwidth
- Low Dielectric Constant
- Low Capacitance
- Robust Design
- Solder Resistant Insulation
- Dual Monofilament Technology

Product Scope

Please see specific construction details.



REVISION RECORD			
REV	DESCRIPTION	DFTM	DCR
X5	Jacket Color to Violet Tint	KP	0474
X6	Jacket Color to Black Tint	KP	0484



NOTES

Signal Conductor: 0.0226", 23 AWG Silver Plated Copper

Filaments: PFA

Setup: Two Filaments twisted to form one air spaced filler helically wrapped around Signal Conductor

Core Tube: Fluoropolymer, 0.057" OD

Helically Wrapped Shield: Flat SPC overlapped

Braid Shield: 36 AWG SPC, >90% Coverage

Overall Shield Diameter: 0.085"

Jacket: FEP, 0.008" Wall Thickness

Color: Black Tint

Impedance: 50+/-1 ohms

Propagation Delay: 1.15+/-0.01 ns/ft (3.77 ns/m)

Velocity Of Propagation: 88.5%

Capacitance: 23 pF/ft (75.5 pF/m)

U.L. Style: 10186

U.S. Patent No. 6,812,401

<p>This document is the property of TEMP-FLEX. It may not be disclosed, reproduced, or otherwise used without permission.</p>	TEMP-FLEX CABLE, INC.		CAGE CODE: 0CGL7	
	26 Milford Road South Grafton, MA 01560 Phone: 508-839-5987 Fax: 508-839-4128			
	DFTM: KP	DATE: 4/24/06	TITLE: Low Loss Microwave Coax, 23 AWG	
	APPD: DK	DATE: 4/26/06		
			PART No: 086-2301	
			SHEET 1 OF 1	REV: X6

086-2301

Microwave Coax

Construction Details 086-2301

Signal Conductor	0.0226 inch (0.57 mm)
Signal Material	Silver Plated Copper
Monofilament	PFA, Blue
Core Tube OD	0.057 +/- 0.0005 inch (1.45 +/- 0.013 mm)
Core Tube Material	FEP, Clear
Braid Shield OD	0.085 +/- 0.002 inch (2.16 +/- 0.05 mm)
Braid Shield Material	SPC
Jacket OD	0.100 +/- 0.003 inch (2.54 +/- 0.076 mm)
Jacket Material	FEP, Black Tint

Mechanical Properties

Minimum Bend Radius	0.5 inch (12.7 mm)
Weight	12.5 lbs/kft (18.6 kg/km)

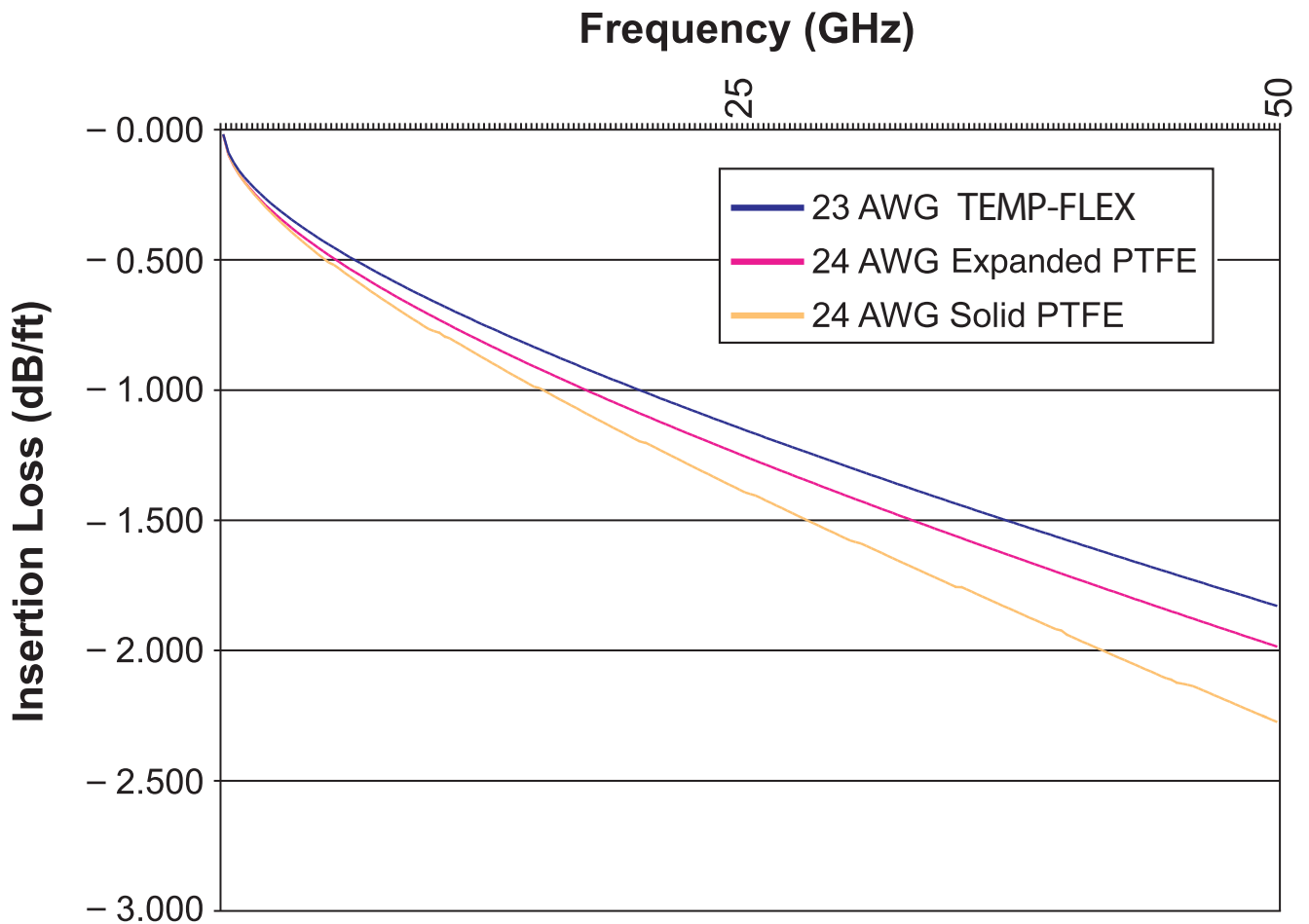
Thermal Properties

Operating Temperature Range	-65 C to 200 C
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Electrical Properties

Characteristic Impedance	50 +/- 1 OHMS
Capacitance	23.0 pF/ft (75.4 pF/m)
Inductance	0.058 μ H/ft (0.19 μ H/m)
Shielding Effectiveness	>100 dB
Cut Off Frequency	80 GHz
Velocity of Propagation	88.0 %

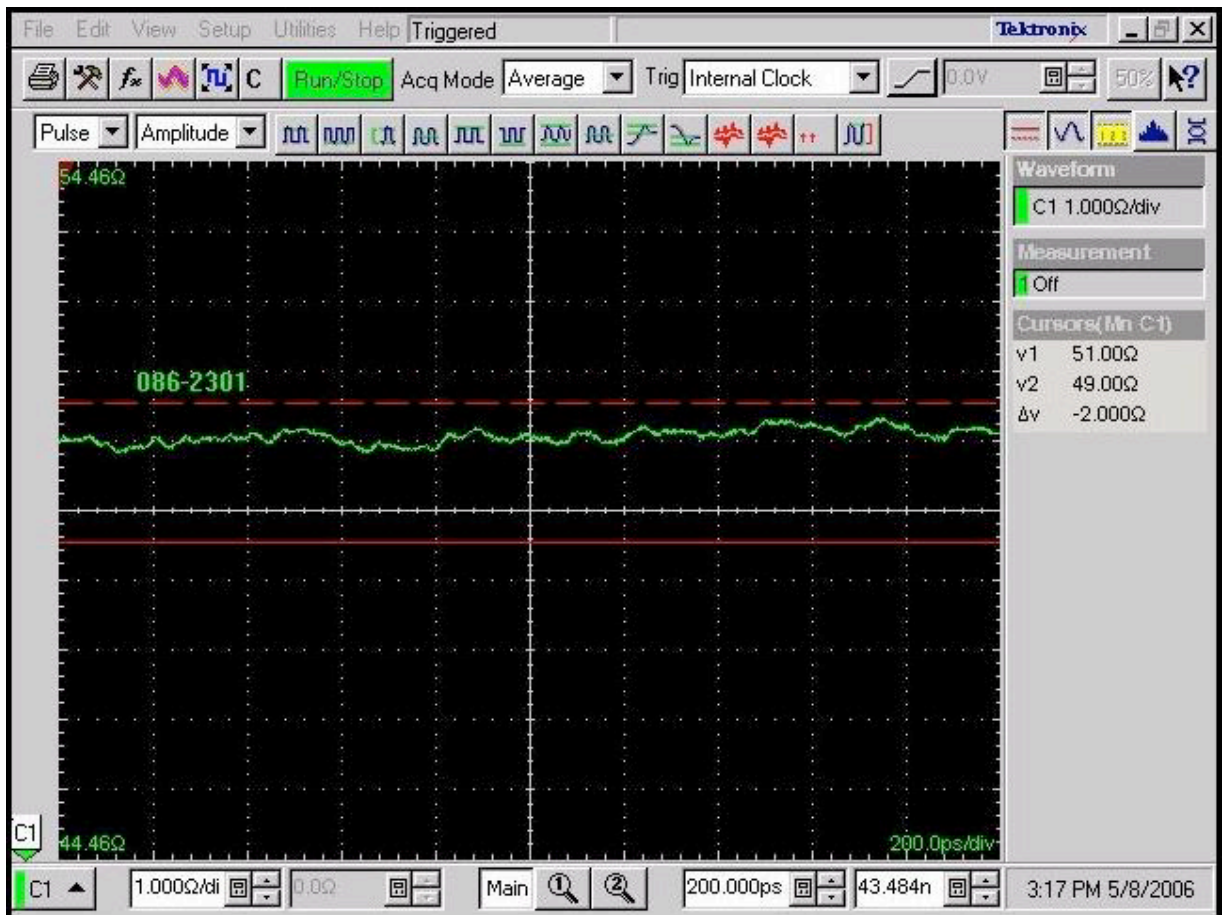
086 Cable Insertion Loss



086 CABLE	Insertion Loss, dB/ft (dB/m)				
	10 GHz	20 GHz	30 GHz	40 GHz	50 GHz
23 AWG TEMP-FLEX	0.7 (2.3)	1.0 (3.3)	1.3 (4.3)	1.6 (5.2)	1.8 (5.9)
24 AWG EXPANDED PTFE	0.7 (2.3)	1.1 (3.6)	1.4 (4.6)	1.7 (5.6)	2.0 (6.6)
24 AWG SOLID PTFE	0.8 (2.6)	1.2 (3.9)	1.6 (5.2)	1.9 (6.2)	2.3 (7.5)

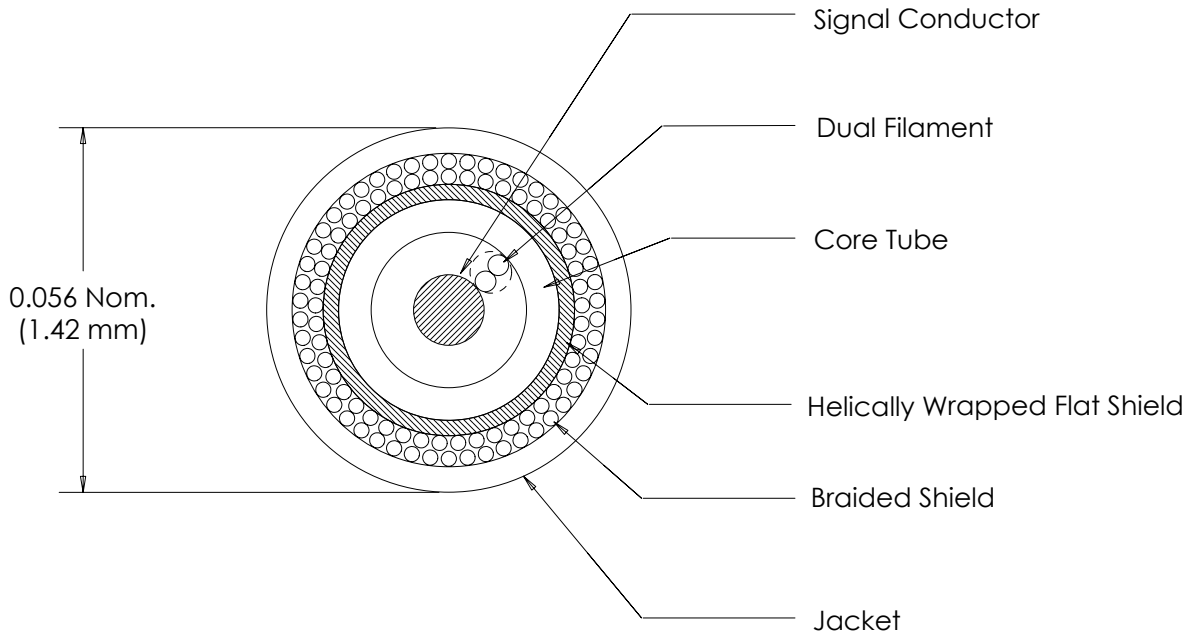
086-2301

Impedance Stability



Description
23 AWG Conductor
.086" Outer Shield Diameter

REVISION RECORD			
REV	DESCRIPTION	DFTM	DCR
X1	Preliminary Release	KP	
X2	Jacket Color To Black Tint	KP	0485



NOTES

Signal Conductor: 0.0126", 28 AWG Silver Plated Copper

Filament: PFA

Setup: Twisted in a Pair and helically wrapped around Signal Conductor

Core Tube: Fluoropolymer, 0.032" OD

Helically Wrapped Shield: Flat SPC overlapped

Braid Shield: 42 AWG SPC, >90% Coverage

Overall Shield Diameter: 0.046"

Jacket: FEP, 0.005" Wall Thickness

Color: Black Tint

Impedance: 50+/-1 ohms

Propagation Delay: 1.155+/-0.01 ns/ft (3.79 ns/m)

Velocity Of Propagation: 88%

Capacitance: 23 pF/ft (75.5 pF/m)

U.S. Patent No. 6,812,401

U.L. Style: 10186

TEMP-FLEX CABLE, INC.

26 Milford Road South Grafton, MA 01560 Phone: 508-839-5987 Fax: 508-839-4128

CAGE CODE: 0CGL7

PART No:

047-2801

DFTM: KP

DATE: 4/24/06

TITLE:

Low Loss Microwave Coax,
28 AWG

APPD: DK

DATE: 4/24/06

SHEET 1 OF 1

REV: X2

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047-2801

Microwave Coax

Construction Details 047-2801

Signal Conductor	0.0126 inch (0.32 mm)
Signal Material	Silver Plated Copper
Monofilament	PFA, Blue
Core Tube OD	0.032 +/- 0.0005 inch (0.81 +/- 0.013 mm)
Core Tube Material	FEP, Clear
Braid Shield OD	0.046 +/- 0.002 inch (1.17 +/- 0.05 mm)
Braid Shield Material	SPC
Jacket OD	0.056 +/- 0.003 inch (1.42 +/- 0.076 mm)
Jacket Material	FEP, Black Tint

Mechanical Properties

Minimum Bend Radius	0.25 inch (6.35 mm)
Weight	3.7 lbs/kft (5.5 kg/km)

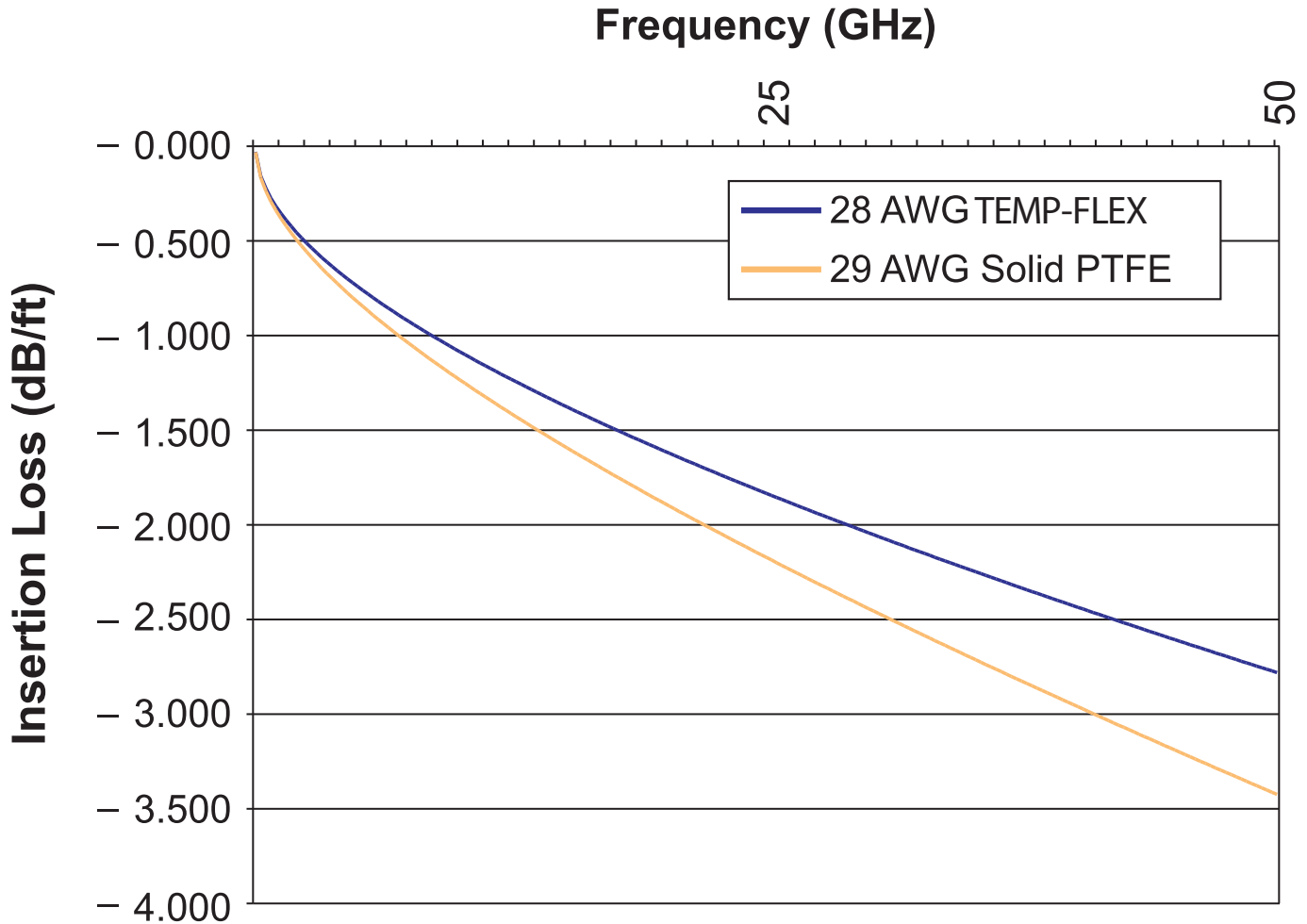
Thermal Properties

Operating Temperature Range	-65 C to 200 C
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Electrical Properties

Characteristic Impedance	50 +/- 1 OHMS
Capacitance	23.0 pF/ft (75.4 pF/m)
Inductance	0.058 μ H/ft (0.19 μ H/m)
Shielding Effectiveness	>100 dB
Cut Off Frequency	144 GHz
Velocity of Propagation	88.0 %

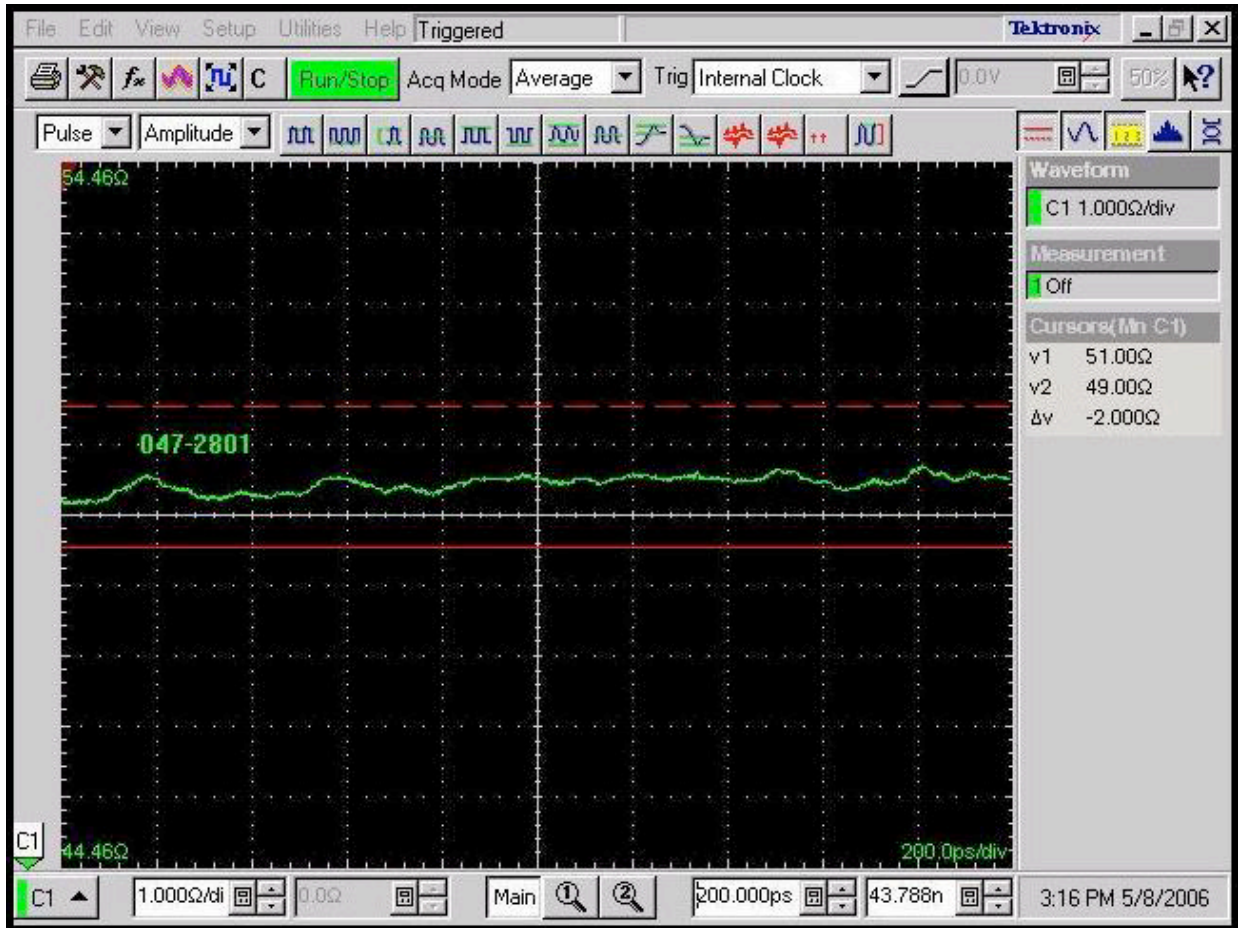
047 Cable Insertion Loss



047 CABLE	Insertion Loss, dB/ft (dB/m)				
	10 GHz	20 GHz	30 GHz	40 GHz	50 GHz
28 AWG TEMP-FLEX	1.1 (3.6)	1.6 (5.2)	2.1 (6.9)	2.4 (7.9)	2.8 (9.2)
29 AWG SOLID PTFE	1.2 (3.9)	1.9 (6.2)	2.5 (8.2)	3.0 (9.8)	3.4 (11.2)

047-2801

Impedance Stability



Description
28 AWG Conductor
.047" Outer Shield Diameter