

PhaseTrack® 318

Phase Stable Cable



PT-318 is a phase stable and low-loss coaxial cable. It uses Times Microwave Systems' proprietary TF4® dielectric technology, which provides excellent phase stability over wide range of temperatures for assemblies. Originally designed for space satellite programs, this high-performance cable has many applications across multiple markets.

Features

- Excellent phase stability over temperature
- PTFE Knee is nonexistent
- Low insertion loss
- Vapor seal layer to prevent contamination

Specifications

Ω Impedance
50 Ohms

Op Temp
-85 to +302°F
-65 to +150°C

Units

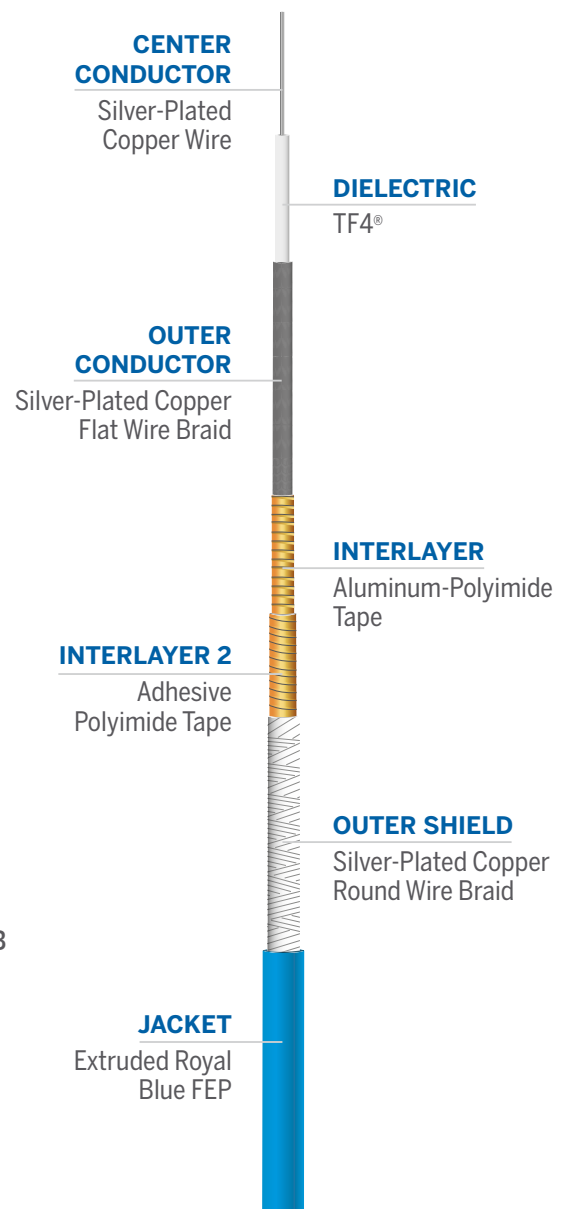
	Units	
Maximum Diameter	in (mm)	0.316 (8.03)
Weight	lb/ft (kg/m)	0.096 (0.14)
Maximum Cutoff Frequency	GHz	18
Minimum Bend Radius	in (mm)	1.75 (44.5)
Velocity of Propagation	%	83.5
Capacitance	pF/ft (pF/m)	23.85 (88.3)
Time Delay	ns/ft (ns/m)	1.22 (4.1)
Shielding Effectiveness	dB	-90

Calculation

$$IL = (K1 \times v(f) + K2 \times f) \times \text{Cable Length} + \text{Connector A Loss} + \text{Connector B Loss}$$

$v(f)$ = Cable Insertion Loss
 f = Frequency (MHz)
 Use K values with matching length unit

K values	dB/ft	dB/m
K1	0.0014150	0.004642
K2	0.0000070	0.000023



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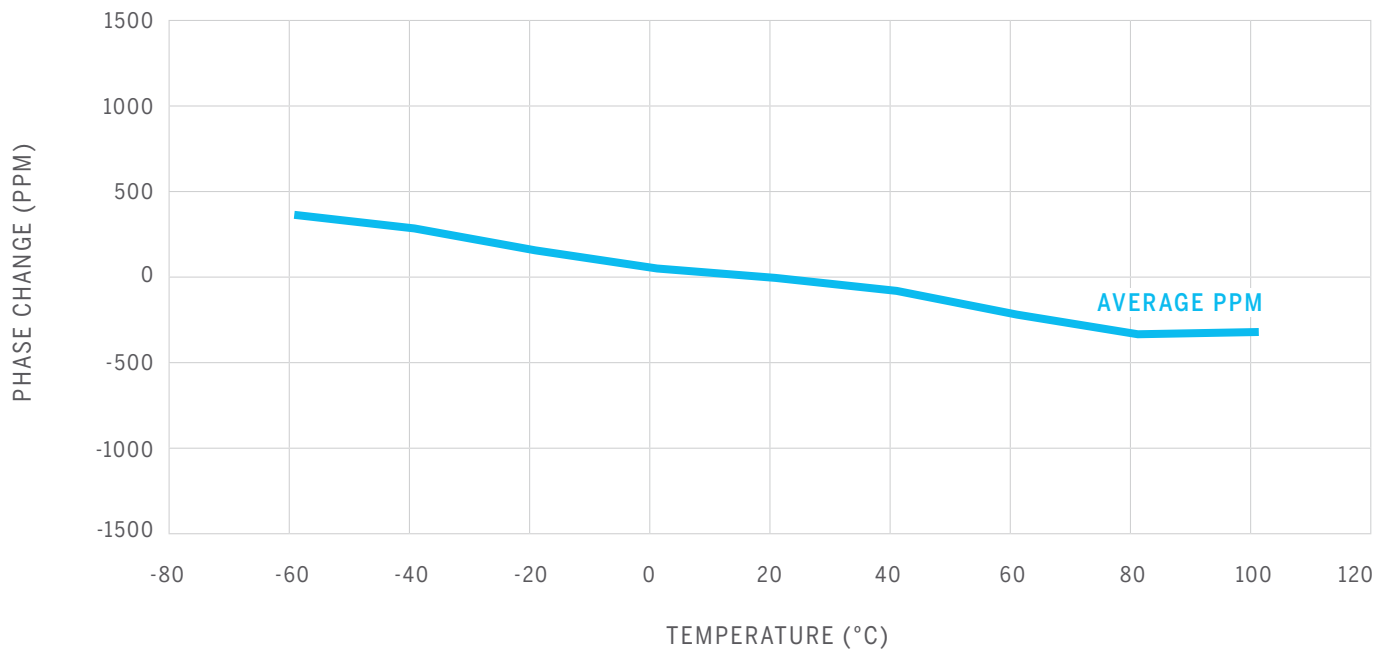
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Connectors

	Gender	Description	Stock Code	Connector Code	Max. Frequency (GHz)	Connector Loss (dB)
Type N	Male	Straight Plug	3190-3056	NM	40	0.1 x vf(GHz)
SMA	Male	Straight Plug	47261	SM	40	0.1 x vf(GHz)

Phase Change VS Temperature (PPM)



Ordering Guide

PT318

Cable Code

-XXX

Connector A Code

XXX-

Connector B Code

XX.X

Length

X

Units of measure: I = Inches, F = Feet, M = Meters



Global manufacturing capability:
US, Asia, and India.



Assembled and tested assemblies
provide assured performance.

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