

# PhaseTrack® 110

Phase Stable Cable



PT-110 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

$\Omega$  Impedance  
50 Ohms

Op Temp  
-85 to +302°F  
-65 to +150°C

Units

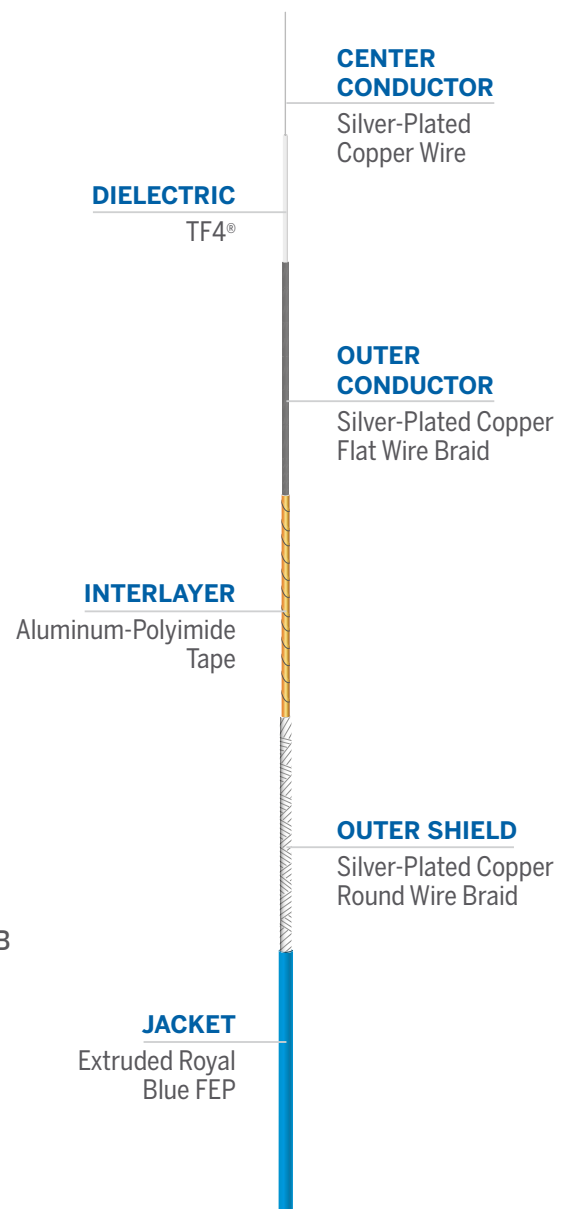
	Units	
Maximum Diameter	in (mm)	0.110 (2.79)
Weight	lb/ft (kg/m)	0.014 (0.02)
Maximum Cutoff Frequency	GHz	70
Minimum Bend Radius	in (mm)	0.44 (11.1)
Velocity of Propagation	%	79.5
Capacitance	pF/ft (pF/m)	24.20 (88.3)
Time Delay	ns/ft (ns/m)	1.24 (4.1)
Shielding Effectiveness	dB	-90

## 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	0.0065810	0.021586
K2	0.0000120	0.000039



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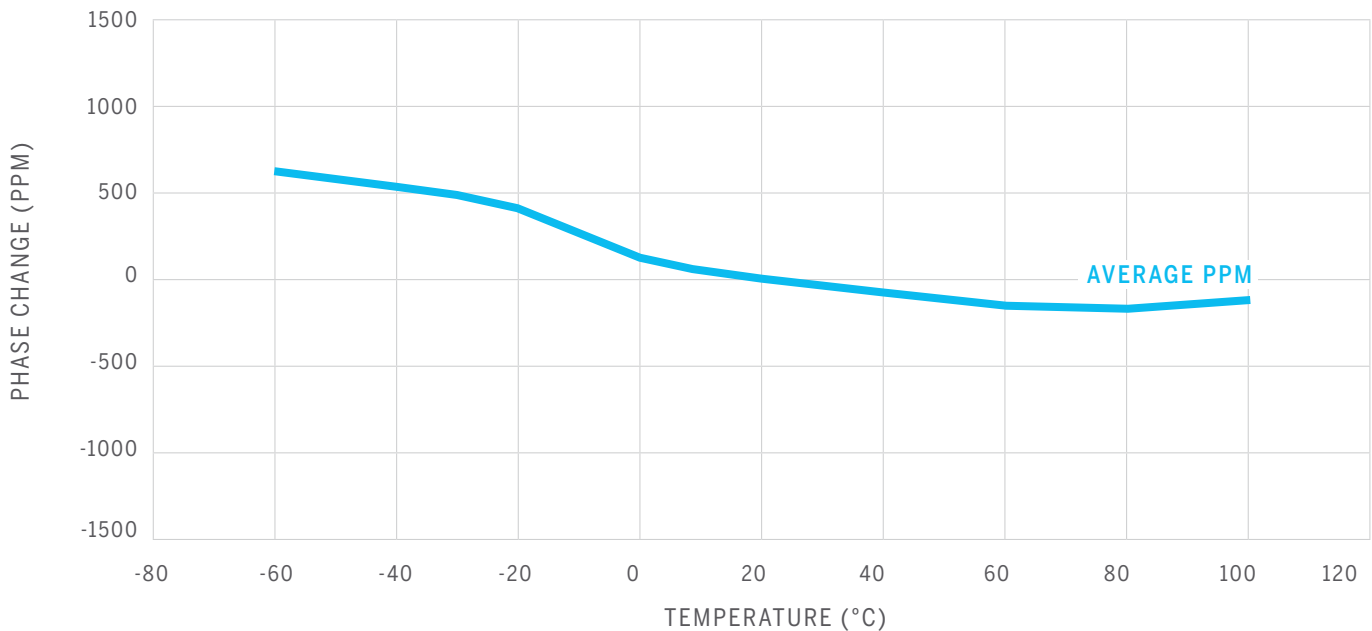
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## Connectors

	Gender	Description	Stock Code	Connector Code	Max. Frequency (GHz)	Connector Loss (dB)
2.4mm	Male	Straight Plug	47316	24M	40	0.1 x √f(GHz)
	Female	Straight Bulkhead Jack	47465	24FBH	40	0.1 x √f(GHz)
SMA	Male	Straight Plug	3190-6287	SM	18	0.1 x √f(GHz)
	Female	Straight Jacket	47292	SFBH	18	0.1 x √f(GHz)

## Phase Change VS Temperature (PPM)



## Ordering Guide

**PT110**

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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