

# TFT™

*Flexible Alternative to Solder Braid and RG Coax for Military and Commercial Applications including, Low Loss Microwave and Wireless Base Station Interconnection.*



*IM<sub>3</sub> (all interfaces aside from QMA and SMA):*

*-160 dBc (static and dynamic) with two +43 dBm carriers*

*IIM<sub>3</sub> (SMA only):*

*-160 dBc (static and dynamic) with two +33 dBm carriers*

*IM<sub>3</sub> (QMA only):*

*-160 dBc (static only) with two +33 dBm carriers*

*TFT cable meets the UL-910 plenum requirements, and is type CMP listed and marked (UL/CSA) per UL file #E-170516*

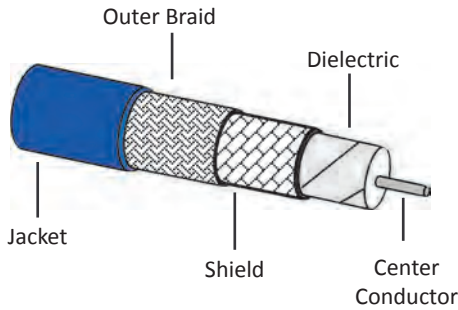
TFT is a better performing alternative to semi-flexible (solder braid) coax and RG type coax for interconnects in military and commercial RF and microwave systems. Unlike solder braid cables, TFT cable's flat braid outer conductor is not susceptible to cracking when bent, allowing for installation in tight spaces without performance degradation. Compared to standard RG cables, the flat braid provides much better shielding and lower attenuation. The FEP jacket provides excellent protection in corrosive environments and is highly resistant to UV making these cables suitable for outdoor installation.

TFT cables are CMP (plenum) rated and provide better than -160 dBc PIM performance when properly terminated, making them ideal for interconnects in cellular base stations and DAS coverage systems.

#### Features & Benefits:

- Low Passive Intermodulation Distortion (PIM)
- UL910 plenum rated satisfying building code requirements
- Stable Loss, Phase and VSWR vs. Flexing
- Extremely Flexible, Low Minimum Bend Radius
- Lower loss than standard semi-rigid
- Uses Standard Solder-on Semi-rigid Connectors
- Good Shielding Effectiveness

# TFT™ Specifications:



## Cable Construction:

Center Conductor: Silver Plated Copper  
 Dielectric: Taped PTFE  
 Shield: Silver Plated Flat Braid  
 Outer Braid: Tin Plated Copper Braid  
 Jacket: Blue FEP

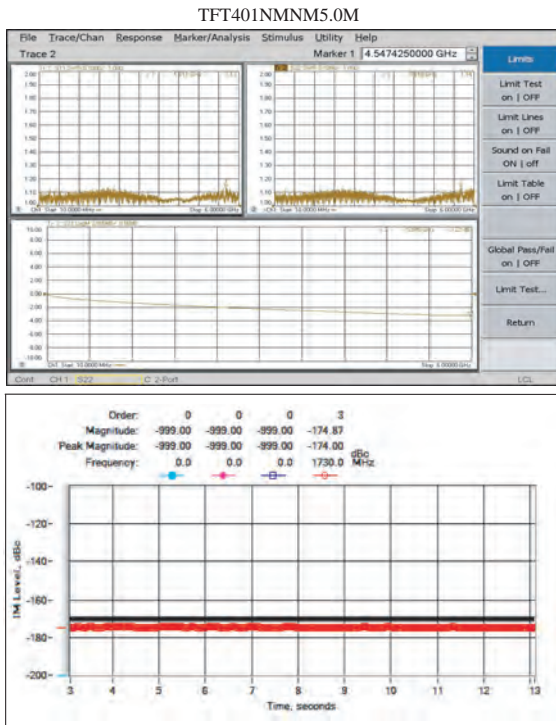
## Connectors:

Low PIM connectors are available with interfaces of N, SMA and 7-16 DIN. Please consult Times Microwave Systems with your requirements.

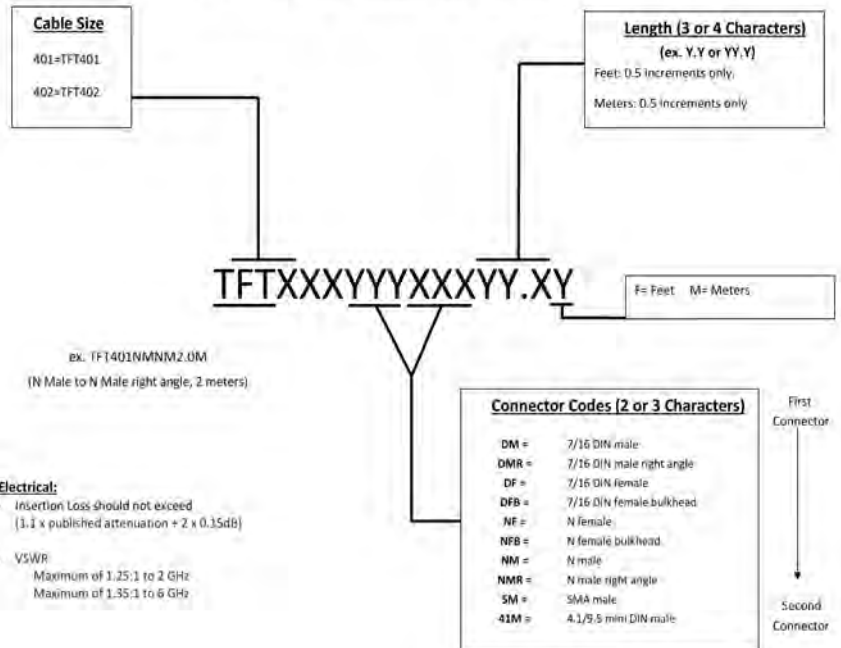
## Cable Assemblies:

TFT™ cable assemblies of standard configuration are available in stock, factory tested for dynamic and static PIM, IL and VSWR. In addition, Times Microwave Systems also provides customized TFT™ cable assemblies according to the special requirements. Below are some typical test reports.

	TFT-401		TFT-402	
<b>AA Drawing Number</b>	AA-11410		AA-11408	
<b>Physical Specifications</b>				
Dimensions	in	(mm)	in	(mm)
Center Conductor	0.0641	1.628	0.037	0.93
Dielectric	0.208	5.28	0.113	2.87
Shield	0.218	5.53	0.121	3.07
Outer braid	0.240	6.09	0.138	3.51
Jacket	0.265	6.73	0.160	4.06
<b>Mechanical Specifications</b>				
Bend Radius	1.375	34.93	0.750	19.05
Weight	78 lbs/1000ft		31 lbs/1000ft	
Operating Temperature Range	-55 to +150°C		-55 to +150°C	
<b>Electrical Specifications</b>				
Impedance	50 Ohms		50 Ohms	
Velocity of Propagation	72%		76%	
Capacitance	28.2 pf/ft		26.7 pf/ft	
Shielding Effectiveness	-80 dB		-80 dB	
Nominal Attenuation: dB/100ft (100m) (+25°C Ambient)				
30 MHz	1.2	3.8	1.9	6.2
150 MHz	2.6	8.6	4.1	13.6
450 MHz	4.7	15.4	7.2	23.7
900 MHz	6.9	22.7	10.3	33.8
2000 MHz	10.7	35.1	15.4	50.6
2500 MHz	12.1	39.8	17.3	56.8
5800 MHz	19.7	64.7	26.7	87.5
Power (kW) (+25°C Ambient; Sea Level)				
30 MHz	3.86		3.00	
150 MHz	1.73		1.34	
450 MHz	1.00		0.77	
900 MHz	0.70		0.55	
2000 MHz	0.47		0.37	
2500 MHz	0.42		0.33	
5800 MHz	0.28		0.21	



## Smart Part Number Key for TFT Low PIM Jumpers



ex: TTF401NMNM2.0M  
 (N Male to N Male right angle, 2 meters)

- Electrical:**
- Insertion Loss should not exceed (1.1 x published attenuation + 2 x 0.35dB)
  - VSWR: Maximum of 1.25:1 to 2 GHz, Maximum of 1.35:1 to 6 GHz

Many assembly configurations are available from stock. Refer to the on-line Price List for specific configurations.



World Headquarters: 358 Hall Avenue, Wallingford, CT 06492 • Tel: 203-949-8400, 1-800-867-2629 Fax: 203-949-8423  
 International Sales: 4 School Brae, Dysart, Kirkcaldy, Fife, Scotland KY1 2XB UK • Tel: +44(0)1592655428  
 China: Bld 4, No.318 Yuanshan Road, Shanghai, China 201108 • Tel: 86-21-51761234 Fax: 86-21-64424098  
 www.timesmicrowave.com