

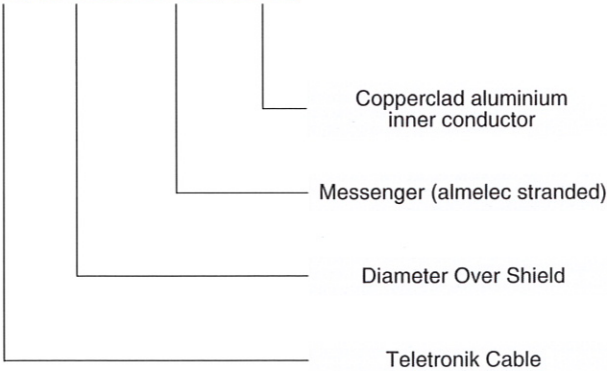
*Brief Introduction*

Teletronik TC series coaxial cable was developed to meet the increasing demand of tomorrow's broadband networks. TC series cable has the highest reliability and flexibility of any coaxial cable, low RF attenuation and an unprecedented 10 year warranty. TC series is optimized for use in broadband feeder plants. It offers lower attenuation than other traditional products, with unmatched flexibility, reliability and cost effectiveness.

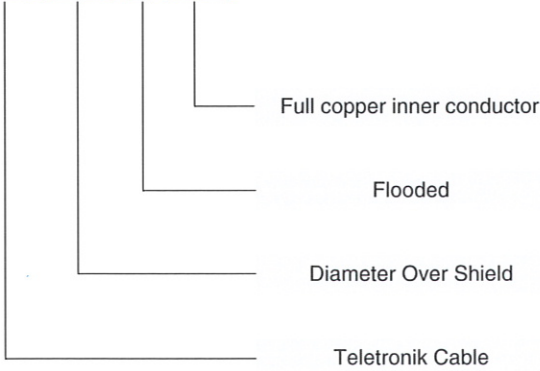
*Explanation of Codes*

- TC-412
- TC-500
- TC-540
- TC-625
- TC-750

**TC-540-ASM/CA**



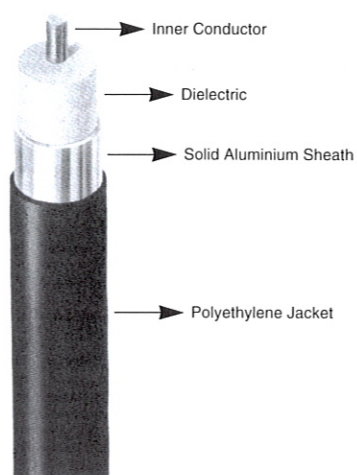
**TC-540-F/CU**



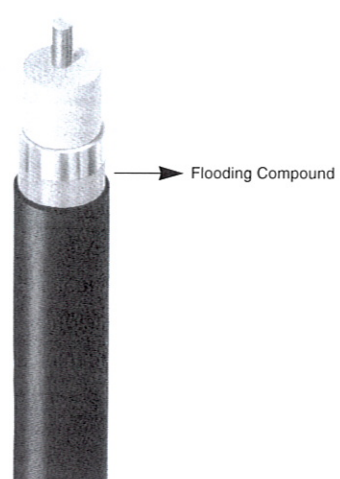
**Suffix**

- F** = Flooding Compound
- ASM** = Almelec stranded messenger
- SSM** = Solid steel wire messenger
- CA** = Copperclad aluminium inner conductor
- CU** = Full copper inner conductor

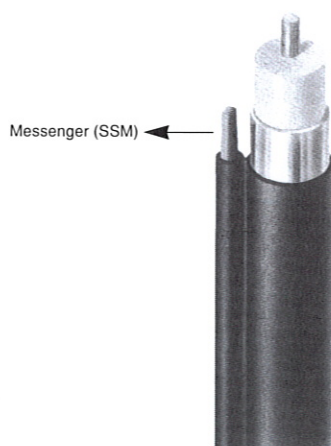
## Cable Construction



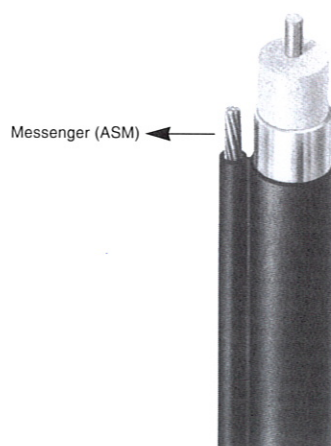
Standard



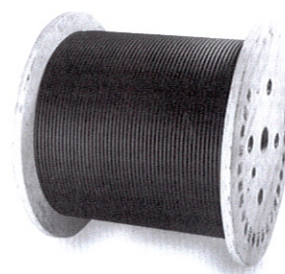
Flooded



Messengered  
(Solid steel wire)



Messengered  
(Almelec stranded)



## Specifications

### Physical Dimensions

Component	Inches	mm
Nominal Center Conductor Diameter	0.124	3.15
Nominal Diameter Over Dielectric	0.513	13.03
Nominal Diameter Over Outer Conductor	0.540	13.72
Nominal Outer Conductor Thickness	0.0135	0.343
Nominal Diameter Over Jacket	0.610	15.49
Nominal Jacket Wall Thickness	0.035	0.89

### Messenger Versions

Diameter of Steel Messenger	0.109	2.77
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### Mechanical Characteristics

Minimum Bending Radius (Jacketed)	4.0 in.	10.2cm
Maximum Pulling Tension	220 lbs.	100 kg <sub>f</sub>
Minimum Breaking Strength of Messenger	1800 lbs.	816 kg <sub>f</sub>

### Electrical Characteristics

Capacitance	15.3±1.0 pf/ft	50±3.0 nf/km
Impedance	75±2ohms	
Velocity of Propagation	87%	
Shielding Effectiveness	>100dB	

### Mechanical D.C. Resistance @ 68°F. (20°C)

#### Copper Clad

Inner Conductor	1.02ohms/1000ft.	3.34ohms/km
Outer Conductor	0.59ohms/1000ft.	1.94ohms/km
Loop	1.61ohms/1000ft.	5.28ohms/km

#### Solid Copper

Inner Conductor	0.67ohms/1000ft.	2.20ohms/km
Outer Conductor	0.59ohms/1000ft.	1.94ohms/km
Loop	1.26ohms/1000ft.	4.14ohms/km

### Attenuation [ @ 68°F. (20°C) ]

Frequency (MHz)	Maximum (dB/100ft.)	Maximum (dB/100m)
5	0.14	0.46
30	0.34	1.12
45	0.41	1.35
50	0.44	1.44
55	0.47	1.54
83	0.58	1.90
108	0.66	2.17
150	0.79	2.59
181	0.88	2.89
193	0.90	2.95
211	0.95	3.12
220	0.98	3.22
250	1.03	3.38
270	1.07	3.51
300	1.13	3.71
325	1.18	3.87
350	1.23	4.03
375	1.27	4.17
400	1.32	4.33
425	1.37	4.49
450	1.40	4.59
500	1.49	4.89
550	1.56	5.12
600	1.64	5.38
750	1.85	6.07
865	2.00	6.56
1000	2.17	7.12

## Standard Construction

0.124 in. (3.15mm) copper clad aluminium or copper center conductor; gas expanded polyethylene dielectric; continuous aluminium outer conductor; flame retardant polyethylene (PE) jacket. Nominal O.D. 0.610 in. (15.49mm).