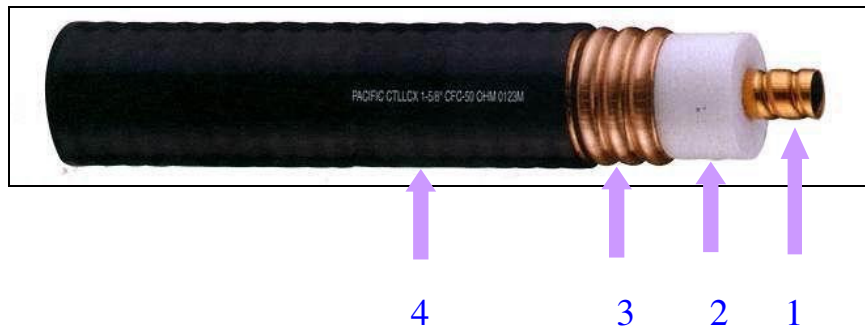


## Low Loss Coaxial Cables

### Application

Wireless transmission included mobile phone systems and microwave communication systems. The transmission media must be low transmission loss and high efficiency.

The cable laid at the places link tunnel, railway station or basement can continue the transmission signal.



- ❶ Inner conductor-Corrugated Copper tube /Copper tube/Copper Clad Aluminum wire
- ❷ Dielectric –Foam Polyethylene
- ❸ Outer Conductor-Corrugated Copper tube
- ❹ Sheath- Polyethylene or Low Smoke Fre Halogen compound

### Property

- ◆ Low transmission loss
- ◆ Low reflection loss
- ◆ Characteristic impedance is 50 ohm
- ◆ Weight lightly, easy to delivery and installation
- ◆ With low smoke, halogen free and fire performance
- ◆

### Size

1/2" 、 7/8" 、 1-1/4" 、 1-5/8" , [more....](#)

## 1. Construction

Item		Specification			
		CTLLCX 1/2" CFC-(FR)	CTLLCX 7/8" CFC-(FR)	CTLLCX 1-1/4" CFC-(FR)	CTLLCX 1-5/8" CFC-(FR)
Inner conductor	Material	Copper Clad Aluminum wire	Copper tube	Copper tube	Corrugated Copper tube
	Dia.(mm)	4.9	9.1	13.2	17.3
Dielectric	Material	Foam Polyethylene			
	Dia.(mm)	12.5	22.5	32.5	42.5
Outer conductor	Material	Corrugated Copper tube	Corrugated Copper tube	Corrugated Copper tube	Corrugated Copper tube
	Dia.(mm)	14.0	25.0	36.0	46.5
Sheath	Material	Polyethylene or Low Smoke Fre Halogen			
	Dia.(mm)	16.0	28.0	39.0	50.0
Cable weight (kg/m)		0.28	0.60	1.20	1.70
Cable marking		1/2" : "PACIFIC CTLLCX 1/2" CFC-50 OHM" and length 7/8" : "PACIFIC CTLLCX 7/8" CFC-50 OHM" and length 1-1/4" : "PACIFIC CTLLCX 1-1/4" CFC-50 OHM" and length 1-5/8" : "PACIFIC CTLLCX 1-5/8" CFC-50 OHM" and length			

\*CTLLCX : Name of PEWC low loss coaxial cable product

\*7/8" : Size of cable

\*CFC : Material of inner conductor 、 dielectric and outer conductor.

1<sup>st</sup> code "C" : Inner conductor material is copper.

2<sup>nd</sup> code "F" : Dielectric material is Foam polyethylene.

3<sup>rd</sup> code "C" : Outer conductor material is copper.

\*FR : Sheath material is flame retardant and low Smoke Fre Halogen compound.

## 2. Mechanical properties

Item	Specification			
	CTLLCX 1/2" CFC-(FR)	CTLLCX 7/8" CFC-(FR)	CTLLCX 1-1/4" CFC-(FR)	CTLLCX 1-5/8" CFC-(FR)
Min. Bending radius (mm)	125	250	380	500
Max. Tensile force (kg)	110	140	170	200
Clamp spacing (m)	0.6	0.83	1.0	1.2
Temperature range	-40°C~+60°C	-40°C~+60°C	-40°C~+60°C	-40°C~+60°C

### 3 Electrical properties ( at 20°C ) :

Item	Specification			
	CTLLCX 1/2" CFC-(FR)	CTLLCX 7/8" CFC-(FR)	CTLLCX 1-1/4" CFC-(FR)	CTLLCX 1-5/8" CFC-(FR)
Inner conductor resistance ( $\Omega$ /km)	1.6	1.0	0.6	0.8
Outer conductor resistance ( $\Omega$ /km)	1.9	1.0	0.4	0.3
Insulation resistance(M $\Omega$ -km)	>1500	>1500	>1500	>1500
Capacitance (pF/m)	75	75	75	75
Velocity of propagation (%)	88	88	88	88
Impedance ( $\Omega$ ) @200MHz	50	50	50	50
Return loss (dB) @824~960MHz @1710~1880MHz @1915~2165MHz	>20.8	>20.8	>20.8	>20.8
Attenuation(dB/100m)	Table 1	Table 1	Table 1	Table 1

Table 1 Attenuation

Freq.(MHz)	1/2"	7/8"	1-1/4"	1-5/8"
30	1.17	0.641	0.444	0.356
150	2.67	1.47	1.03	0.834
300	3.83	2.13	1.50	1.22
450	4.75	2.65	1.87	1.53
824	6.56	3.69	2.63	2.17
890	6.85	3.87	2.76	2.28
900	6.90	3.90	2.78	2.30
960	7.12	4.02	2.87	2.38
1700	9.74	5.56	4.04	3.35
1800	10.10	5.75	4.16	3.52
1900	10.40	5.95	4.28	3.60
2000	10.70	6.11	4.43	3.71
2200	11.20	6.46	4.70	3.88
2300	11.50	6.63	4.82	4.05

The maximum value shall not exceed than nominal value of 115%