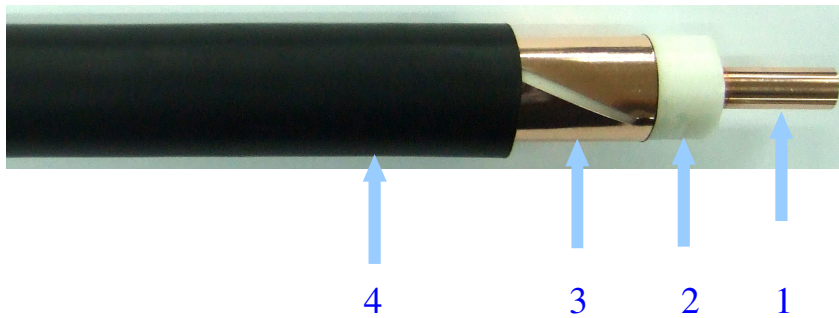


# Leaky Coaxial Cables

## Application

RADIALCX can be laid at the places not covered by radio wave, such as tunnel or basement, as an auxiliary communication for operating need and tall building and basement.

## Structure



- ❶ Inner conductor-Corrugated Copper tube /Copper tube/Copper Clad Aluminum wire
- ❷ Dielectric –Foam Polyethylene
- ❸ Outer Conductor-Slot Copper/Aluminum tape
- ❹ Sheath-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
- ◆ Meet the relative certification

## Size

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

## 1. Construction

Item		Specification			
		RADIALCX 1/2"	RADIALCX 7/8"	RADIALCX 1-1/4"	RADIALCX 1-5/8"
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	Slot Copper/Aluminum tape			
	Dia.(mm)	13.0	23.0	33.0	43.0
Sheath	Material	Low Smoke Fre Halogen compound			
	Dia.(mm)	15.0	28.7	38.1	48.0
Cable weight (kg/m)		0.34	0.77	1.16	1.50

### Cable identification

<u>PACIFIC</u>	<u>RADIALCX</u>	<u>7/8"</u>	<u>CFC</u>	<u>—FR</u>	<u>50 OHM</u>	<u>MMYY</u>	<u>IEC 60332-1</u>	<u>IEC 60332-3</u>	<u>xxxM</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(8)	(9)

- (1) Product name of Pacific Electric Wire & Cable Co. Ltd.
- (2) Name of PEWC leaky coaxial cable product
- (3) Size of cable
- (4) Material of inner conductor 、 dielectric and outer conductor
- (5) Material of sheath
- (6) Characteristic impedance
- (7) Year and month of manufacture
- (8) Comply with standard
- (9) Length marking

## 2. Mechanical properties

Item	Specification			
	RADIALCX 1/2"	RADIALCX 7/8"	RADIALCX 1-1/4"	RADIALCX 1-5/8"
Min. Bending radius (mm)	125	250	380	700
Max. Tensile force (kg)	110	140	170	170
Clamp spacing (m)	0.5	0.9	1.3	1.5
Temperature range	-40℃ ~+60℃	-40℃ ~+60℃	-40℃ ~+60℃	-40℃ ~+60℃

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

Item	Specification			
	RADIALCX 1/2"	RADIALCX 7/8"	RADIALCX 1-1/4"	RADIALCX 1-5/8"
Inner conductor resistance ( $\Omega$ /km)	1.6	1.0	0.8	0.8
Inner conductor resistance ( $\Omega$ /km)	5.0	3.0	1.5	1.5
Insulation resistance(M $\Omega$ -km)	> 1000	> 1500	> 1500	> 1500
Capacitance(pF/m)	75	75	75	75
Velocity of propagation (%)	88	88	88	88
Impedance( $\Omega$ ) @200MHz	50	50	50	50
VSWR	<1.5	<1.5	<1.5	<1.5
Attenuation(dB/100m)	Table 1.	Table 1.	Table 1.	Table 1.
Coupling loss(dB)	Table 2.	Table 2.	Table 2.	Table 2.

Table 1 Attenuation

Freq. MHz	(dB/100m)			
	1/2"	7/8"	1-1/4"	1-5/8"
75	2.17	0.75	0.70	0.60
150	3.10	1.23	0.97	0.77
450	5.74	2.79	2.19	1.50
800	8.78	3.83	3.01	2.10
870	9.24	4.51	3.55	2.24
900	9.42	4.56	3.59	2.25
960	9.74	4.74	3.73	4.24
1800	21.98	8.99	7.07	4.50
1900	22.72	9.49	7.46	4.71
2000	23.45	9.65	7.59	5.25
2200	25.48	11.54	9.08	7.40
2400	27.93	15.00	11.80	8.27

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

Table 2 Coupling loss

Freq. MHz	(dB)				
		RADIALCX 1/2"	RADIALCX 7/8"	RADIALCX 1-1/4"	RADIALCX 1-5/8"
75	50%	54	55	55	64
	95%	65	66	61	78
150	50%	61	62	60	74
	95%	72	65	69	82
450	50%	68	75	68	80
	95%	79	84	76	90
800	50%	69	69	68	79
	95%	82	82	78	89
870	50%	73	73	69	81
	95%	84	84	78	90
900	50%	70	70	69	77
	95%	79	79	78	90
960	50%	72	72	69	80
	95%	83	83	78	90
1800	50%	63	63	69	72
	95%	74	74	78	84
1900	50%	64	64	69	72
	95%	73	73	78	82
2000	50%	66	66	69	71
	95%	72	72	78	83
2200	50%	62	62	69	71
	95%	71	71	78	83
2400	50%	64	64	69	69
	95%	75	75	78	79

The maximum value shall not exceed than nominal value of 10dB ◦