

Leaky Coaxial Cable



Company Profile

Your Partner in Cable

ZTT was established in 1992, and now becomes a public high-tech enterprise with 56 subsidiaries, and about 15,000 employees (Code: 600522).

We provide products such as radio frequency cables, leaky coaxial cables, railway digital signal cables and accessories for mobile communications, which are widely used in over 20 countries. We have excellent R&D ability and with advanced equipments such as Maillefer and Rosendahl. We have capacity of manufacturing 80,000km radio frequency cables, 6,000km leaky coaxial cables , 5,000km railway digital signal cables and accessories per year.

Our products have passed the tests in many third laboratories, such as TLC&ROHS. We devote ourselves to offering safe and reliable products and quick and thoughtful service for our customers.

Type of Leaky Coaxial Cables for Communication Base Station

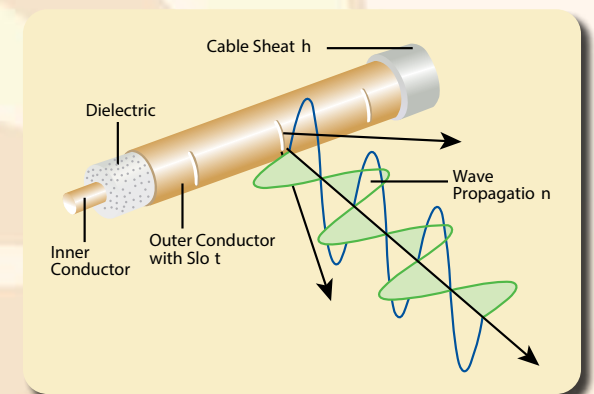
- HLRWUCYZ-50-12C(1/2")
- HLRCTSHYZ-50-22 (7/8")
- HLRCTSMYZ-50-22 (7/8")
- HLRWUCTCYZ-50-22(7/8")
- HLRCTSLYZ-50-32 (1-1/4")
- HLRCTCMYZ-50-32 (1-1/4")
- HLRCTSHYZ-50-32 (1-1/4")
- HLRWUCTCYZ-50-32(1-1/4")
- HLRHTSMYZ-50-42 (1-5/8")
- HLRHTCHYZ-50-42 (1-5/8")
- HLCTAYZ-50-22-C1 (7/8")
- HLCTAYZ-50-22-C2 (7/8")
- HLCTAYZ-50-32-C1 (1-1/4")
- HLCTAYZ-50-32-C2 (1-1/4")



Leaky coaxial cable is mainly used in the long, narrow and enclosed areas that conventional antenna signals can not be effectively covered, for example, track traffic, tunnels, mines, buildings and large edifices, and so on.

Leaky coaxial cable integrates the function of antenna and feeder cable. It has three functions, (a) transmit electromagnetic wave, (b) launch electromagnetic wave, (c) receive outside specific electromagnetic wave.

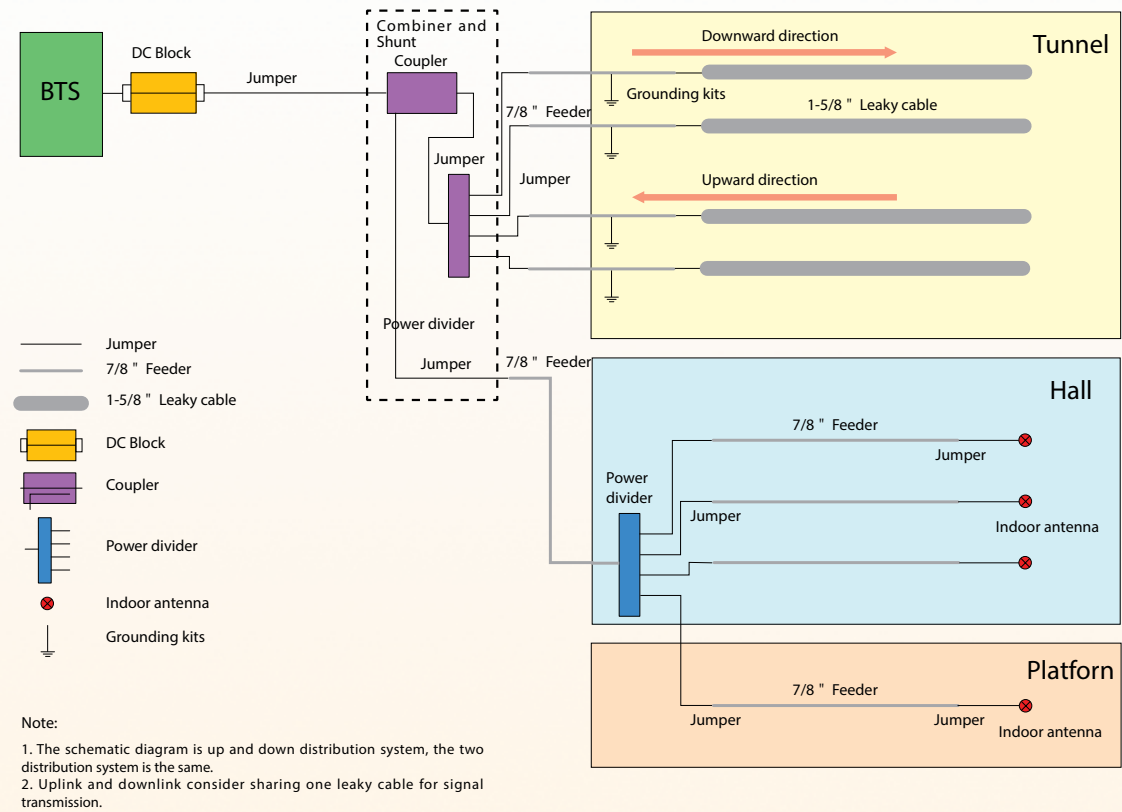
There are two kinds of leaky coaxial cable, radiating mode and coupling mode.



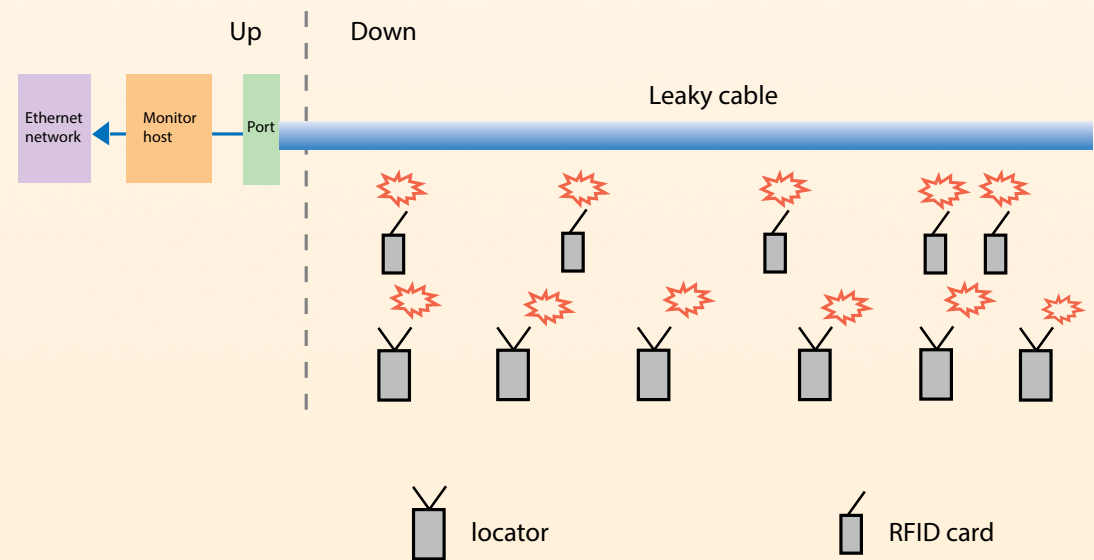
Transmit theory of leaky coaxial cable

Leaky cable application system

Wireless communication system in subway



Wireless communication system in mine



HLRWUCYZ-50-12C (1/2")



Advantages

- This product aims at building environment, through vertical polarization design, increase the radial radiation range and intensity of leaky cables to meet the needs of indoor distribution environment and ensure uniform indoor signal coverage. Compatible with mobile, unicom, Telecom 2G/3G/4G/5G communication frequency band, support double leakage cable 2*2MIMO. This product can be installed on buildings without environmental restrictions.
- Best working frequency range: 800~1000, 1700~2050, 2100~2700, 3300~3600MHz.

Performances

Structure

Cable type	Radiating
Size	1/2"
Inner conductor material / OD	Copper clad aluminum
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Overlapping corrugated copper foil/13.5mm
Jacket material	LSZH flame retardant polyolefin
Diameter over Jacket / color	15.6 mm / black

Mechanical characteristics

Tensile force	>1000 N
Minimum bending radius,single bend	80 mm
Installation temperature	-25~+60°C
Operation temperature	-40~+85°C
Storage temperature	-70~+85°C

Electrical characteristics

Radiation angle	≥170°
Cut-off band	None in operation frequency band
Polarization	Vertical
VSWR	<1.25
Impedance	50±2 Ω
Encircle DC resistance	6.5 Ω /km
Insulation dielectric strength	6000 V (DC,1min)
Minimum insulation resistance	10000 MΩ km
Jacket spark test voltage	8000 V (AC)
Peak power	40 kW
Velociy	88%

Wide-angle frequency band	Attenuation (dB/hm)	Coupling loss (0°)	Coupling loss (±85° Wide angle migration)
MHz	dB/100m, 20°C	95%, 2m, dB	95%, 2m, dB
800	7.52	73	76
900	8.24	71	74
1800	13.39	66	69
1900	13.49	69	72
2000	14.63	66	69
2100	15.24	66	69
2300	16.48	66	69
2400	16.92	67	70
2600	19.06	66	69
2650	19.16	68	71
3300	25.23	66	69
3400	26.18	66	69
3500	28.77	66	69
3600	30.39	66	69

Notes:

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %
Couplings Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards

HLRCTSHYZ-50-22 (7/8")

Advantages

- The product characterized long electromagnetic radiation distance and is suitable for the coverage of enclosed areas, such as rail tunnels, high speed railway tunnels, underground parking and so on. It has strong radiation performance and uniform fluctuation in narrow band.
- Best working frequency range: 800~1000 & 1700~2400MHz

Performances

• Structure

Cable type	Radiating
Size	7/8"
Inner conductor material / OD	Copper tube / 9.0 mm
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Overlapping copper foil / 23.0 mm
Jacket material	LSOH polyolefin
Diameter over Jacket / color	25.8 mm / black
Weight	490 kg/km

• Mechanical characteristics

Tensile force	>2000 N
Minimum bending radius , single bend	350 mm
Indication of slot alignment	Guides opposite to slots
Minimum distance to wall	100 mm
Recommended clamp spacing	0.9 m
Installation temperature	-25~+60℃
Operation temperature	-40~+85℃
Storage temperature	-70~+85℃

• Electrical characteristics

Cut-off frequency	1.3~1.4GHz & Its multiples
Polarization	Vertical
VSWR	1.3
Impedance	50±2 Ω
Encircle DC resistance	4.5 Ω/km
Insulation dielectric strength	15000 V (DC, 1min)
Minimum insulation resistance	5000 MΩ·km
Jacket spark test voltage	8000 V (AC)
Peak power	91 kW
Velocity	89 %

Frequency (MHz)	Attenuation (dB/100m, 20℃)	Coupling Loss (50% / 95%, 2m, dB)
150	1.58	70/82
450	2.97	73/81
800	4.19	69/75
900	4.54	69/77
1800	8.69	65/72
2200	11.30	66/72
2400	13.10	64/70

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %

Notes:

Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.

HLRCTSMYZ-50-22 (7/8")

Advantages

- The product characterized long electromagnetic radiation distance and is suitable for the coverage of enclosed areas, such as rail tunnels, high speed railway tunnels, underground parking and so on. It has strong radiation performance and uniform fluctuation in narrow band.
- Best working frequency range: 150~500 & 600~1000MHz

Performances

• Structure

Cable type	Radiating
Size	7/8"
Inner conductor material / OD	Copper tube / 9.0 mm
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Overlapping copper foil / 23.0 mm
Jacket material	LSOH polyolefin
Diameter over Jacket / color	25.8 mm / black
Weight	490 kg/km

• Mechanical characteristics

Tensile force	>2000 N
Minimum bending radius , single bend	350 mm
Indication of slot alignment	Guides opposite to slots
Minimum distance to wall	100 mm
Recommended clamp spacing	0.9 m
Installation temperature	-25~+60℃
Operation temperature	-40~+85℃
Storage temperature	-70~+85℃

• Electrical characteristics

Cut-off frequency	525~550 MHz & Its multiples
Polarization	Vertical
VSWR	1.3
Impedance	50±2 Ω
Encircle DC resistance	4.5 Ω/km
Insulation dielectric strength	15000 V (DC, 1min)
Minimum insulation resistance	5000 MΩ·km
Jacket spark test voltage	8000 V (AC)
Peak power	91 kW
Velocity	89 %

Frequency (MHz)	Attenuation (dB/100m, 20℃)	Coupling Loss (50% / 95%, 2m, dB)
150	1.56	62/74
350	2.76	59/68
450	3.10	62/70
800	4.40	62/71
900	4.94	61/71

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %

Notes:

Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.



HLRWUCTCYZ-50-22 (7/8")

Advantages

- This product aims at building environment, through vertical polarization design, increase the radial radiation range and intensity of leaky cables to meet the needs of indoor distribution environment and ensure uniform indoor signal coverage. Compatible with mobile, unicom, Telecom 2G/3G/4G/5G communication frequency band, support double leakage cable 2*2MIMO. This product can be installed on buildings without environmental restrictions.
- Best working frequency range: 350~500, 800~1000, 1700~2200, 2300~2700, 3400~3800MHz.

Performances

• Structure

Cable type	Radiating
Size	7 / 8"
Inner conductor material / OD	Copper tube
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Overlapping corrugated copper foil/23.5mm
Jacket material	LSZH flame retardant polyolefin
Diameter over Jacket / color	25.8mm / black

• Mechanical characteristics

Tensile force	>2000N
Minimum bending radius, single bend	250 mm
Installation temperature	-25~+60℃
Operation temperature	-40~+85℃
Storage temperature	-70~+85℃

• Electrical characteristics

Radiation angle	≥170°
Cut-off band(MHz)	500~600MHz, 1000~1200MHz, 1600~1700MHz, 2200~2300MHz, 2700~2900MHz, 3300~3400MHz
Polarization	Vertical
VSWR	<1.25
Impedance	50±2 Ω
Encircle DC resistance	5.0 Ω /km
Insulation dielectric strength	10000 V (DC, 1min)
Minimum insulation resistance	10000 MΩ km
Jacket spark test voltage	8000 V (AC)
Peak power	91kW
Velociy	89%

Wide-angle frequency band		Attention (dB/hm)	Coupling loss (0°)	Coupling loss (± 85° Wide angle migration)
MHz	dB /100m, 20℃	95%, 2m, dB	95%, 2m, dB	
800	4.0	79	81	
900	4.2	75	78	
1800	6.8	66	69	
1900	7.1	72	74	
2000	7.4	67	69	
2100	7.7	67	69	
2300	8.3	67	70	
2400	8.4	70	72	
2600	9.1	69	72	
2700	9.7	69	73	
3300	12.0	66	69	
3400	13.0	65	68	
3500	13.0	65	68	
3600	13.6	65	67	
3700	14.2	66	67	
3800	15.8	65	67	

Notes:

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %
Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.

HLRCTSLYZ-50-32 (1-1/4")

Advantages

- The product characterized long electromagnetic radiation distance and is suitable for the coverage of enclosed areas, such as rail tunnels, high speed railway tunnels, underground parking and so on. It has strong radiation performance and uniform fluctuation in narrow band.
- Best working frequency range: 300~500MHz

Performances

• Structure

Cable type	Radiating
Size	1-1/4"
Inner conductor material / OD	Copper tube / 13.1 mm
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Overlapping copper foil / 33.1 mm
Jacket material	LSOH polyolefin
Diameter over Jacket / color	38.0 mm / black
Weight	800 kg/km

• Mechanical characteristics

Tensile force	>2300 N
Minimum bending radius , single bend	500 mm
Indication of slot alignment	Guides opposite to slots
Minimum distance to wall	100 mm
Recommended clamp spacing	1~1.2 m
Installation temperature	-25~+60℃
Operation temperature	-40~+85℃
Storage temperature	-70~+85℃

• Electrical characteristics

Cut-off frequency	Non stop bands in working frequency
Polarization	Vertical
VSWR	1.3
Impedance	50±2 Ω
Encircle DC resistance	3 Ω/km
Insulation dielectric strength	15000 V (DC, 1min)
Minimum insulation resistance	5000 MΩ·km
Jacket spark test voltage	8000 V (AC)
Peak power	200 kW
Velocity	88 %

Frequency (MHz)	Attenuation (dB/100m, 20℃)	Coupling Loss (50% / 95%, 2m, dB)
350	1.93	66/76
450	2.21	67/77

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %

Notes:

Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.



HLRCTSLYZ-50-32 (1-1/4")

Advantages

- The product characterized long electromagnetic radiation distance and is suitable for the coverage of enclosed areas, such as rail tunnels, high speed railway tunnels, underground parking and so on. It has strong radiation performance and uniform fluctuation in narrow band.
- Best working frequency range: 300~3800MHz

Performances

• Structure

Cable type	Radiating
Size	1-1/4"
Inner conductor material / OD	Copper tube / 13.1 mm
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Overlapping copper foil / 33.6 mm
Jacket material	LSOH polyolefin
Diameter over Jacket / color	38.0 mm / black
Weight	800 kg/km

• Mechanical characteristics

Tensile force	>2300 N
Minimum bending radius single bend	500 mm
Indication of slot alignment	Guides opposite to slots
Minimum distance to wall	100 mm
Recommended clamp spacing	1~1.2 m
Installation temperature	-25~+60°C
Operation temperature	-40~+85°C
Storage temperature	-70~+85°C

• Electrical characteristics

Cut-off frequency	610~650 MHz
Polarization	Vertical
VSWR	1.3
Impedance	50±2 Ω
Encircle DC resistance	3 Ω/km
Insulation dielectric strength	15000 V (DC, 1min)
Minimum insulation resistance	5000 MΩ·km
Jacket spark test voltage	8000 V (AC)
Peak power	200 kW
Velocity	88 %

Frequency (MHz)	Attenuation (dB/100m, 20°C)	Coupling Loss (50% / 95%, 2m, dB)
350	1.70	75/83
450	2.00	73/79
800	2.90	66/68
900	3.10	64/68

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %

Notes:

Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.

HLRCTSHYZ-50-32 (1-1/4")

Advantages

- The product characterized long electromagnetic radiation distance and is suitable for the coverage of enclosed areas, such as rail tunnels, high speed railway tunnels, underground parking and so on. It has strong radiation performance and uniform fluctuation in narrow band.
- Best working frequency range: 800~1000 & 1700~2400MHz

Performances

• Structure

Cable type	Radiating
Size	1-1/4"
Inner conductor material / OD	Copper tube / 13.1 mm
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Overlapping copper foil / 33.1 mm
Jacket material	LSOH polyolefin
Diameter over Jacket / color	38.0 mm / black
Weight	800 kg/km

• Mechanical characteristics

Tensile force	>2300 N
Minimum bending radius , single bend	500 mm
Indication of slot alignment	Guides opposite to slots
Minimum distance to wall	100 mm
Recommended clamp spacing	1~1.2 m
Installation temperature	-25~+60°C
Operation temperature	-40~+85°C
Storage temperature	-70~+85°C

• Electrical characteristics

Cut-off frequency	1.1~1.5 GHz
Polarization	Vertical
VSWR	1.3
Impedance	50±2 Ω
Encircle DC resistance	3 Ω/km
Insulation dielectric strength	15000 V (DC, 1min)
Minimum insulation resistance	5000 MΩ·km
Jacket spark test voltage	8000 V (AC)
Peak power	200 kW
Velocity	88 %

Frequency (MHz)	Attenuation (dB/100m, 20°C)	Coupling Loss (50% / 95%, 2m, dB)
150	1.10	81/87
450	1.81	82/89
800	2.80	67/71
900	2.96	65/71
1800	5.82	57/62
2200	6.14	61/68
2400	7.67	61/68

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %

Notes:

Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.



HLRCTCMYZ-50-32 (1-1/4")

Advantages

- The product characterized long electromagnetic radiation distance and is suitable for the coverage of enclosed areas, such as rail tunnels, high speed railway tunnels, underground parking and so on. It has strong radiation performance and uniform fluctuation in narrow band.
- Best working frequency range: 1800-2700MHz, 3300~3600MHz.

Performances

• Structure

Cable type	Radiating
Size	1-1/4"
Inner conductor material / OD	Copper tube
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Overlapping corrugated copper foil/33.6mm
Jacket material	LSZH flame retardant polyolefin
Diameter over Jacket / color	38.0mm / black

• Mechanical characteristics

Tensile force	>2300 N
Minimum bending radius, single bend	500 mm
Installation temperature	-25~+60°C
Operation temperature	-40~+85°C
Storage temperature	-70~+85°C

• Electrical characteristics

Cut-off frequency	1300~1400MHz,2700~2800MHz
Polarization	Vertical
VSWR	1.3
Impedance	50±2 Ω
Encircle DC resistance	3.5Ω/km
Insulation dielectric strength	15000 V (DC, 1min)
Minimum insulation resistance	5000 MΩ km
Jacket spark test voltage	8000 V (AC)
Peak power	200kW
Velocity	89%

Frequency (MHz)	Attenuation (dB/100m, 20°C)	Coupling Loss (50% / 95%, 2m, dB)
800	2.6	82/89
900	2.8	75/81
1800	4.5	69/73
1900	4.8	70/76
2000	5.1	64/67
2100	5.4	67/76
2200	5.5	67/77
2400	6.0	66/73
2600	6.6	66/73
2700	6.9	66/74
3300	10.6	61/70
3400	12.1	62/70
3500	13.7	61/70
3600	18.6	66/73

Notes:

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %
Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.

HLRHTSMYZ-50-42 (1-5/8")

Advantages

- The product characterized long electromagnetic radiation distance and is suitable for the coverage of enclosed areas, such as rail tunnels, high speed railway tunnels, underground parking and so on. It has strong radiation performance and uniform fluctuation in narrow band.
- Best working frequency range: 300~900 MHz

Performances

• Structure

Cable type	Radiating
Size	1-5/8"
Inner conductor material / OD	Helical copper tube / 17.3 mm
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Overlapping copper foil / 43.5 mm
Jacket material	LSOH polyolefin
Diameter over Jacket / color	48.0 mm / black
Weight	1000 kg/km

• Mechanical characteristics

Tensile force	>3000 N
Minimum bending radius, single bend	700 mm
Indication of slot alignment	Guides opposite to slots
Minimum distance to wall	100 mm
Recommended clamp spacing	1~1.5 m
Installation temperature	-25~+60°C
Operation temperature	-40~+85°C
Storage temperature	-70~+85°C

• Electrical characteristics

Cut-off frequency	510~530MHz & Its multiples
Polarization	Vertical
VSWR	1.3
Impedance	50±2 Ω
Encircle DC resistance	3 Ω/km
Insulation dielectric strength	15000 V (DC, 1min)
Minimum insulation resistance	5000 MΩ·km
Jacket spark test voltage	8000 V (AC)
Peak power	310 kW
Velocity	89 %

Frequency (MHz)	Attenuation (dB/100m, 20°C)	Coupling Loss (50% / 95%, 2m, dB)
150	0.88	75/84
350	1.45	69/76
450	1.71	70/75
800	2.45	68/72
900	2.70	69/73

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %

Notes:

Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.



HLRHTCHYZ-50-42 (1-5/8")

Advantages

- The product characterized long electromagnetic radiation distance and is suitable for the coverage of enclosed areas, such as rail tunnels, high speed railway tunnels, underground parking and so on. It has strong radiation performance and uniform fluctuation in narrow band.
- Best working frequency range: 800~1000 & 1700~2700MHz

Performances

Structure

Cable type	Radiating
Size	1-5/8"
Inner conductor material / OD	Helical copper tube / 17.3 mm
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Overlapping corrugated copper foil / 43.5 mm
Jacket material	LSOH polyolefin
Diameter over Jacket / color	48.0 mm / black
Weight	1000 kg/km

Mechanical characteristics

Tensile force	>3000 N
Minimum bending radius, single bend	700 mm
Indication of slot alignment	Guides opposite to slots
Minimum distance to wall	100 mm
Recommended clamp spacing	1~1.5 m
Installation temperature	-25~+60°C
Operation temperature	-40~+85°C
Storage temperature	-70~+85°C

Electrical characteristics

Cut-off frequency	1100~1500 MHz
Polarization	Vertical
VSWR	1.3
Impedance	50±2 Ω
Encircle DC resistance	3 Ω/km
Insulation dielectric strength	15000 V (DC, 1min)
Minimum insulation resistance	5000 MΩ·km
Jacket spark test voltage	8000 V (AC)
Peak power	310 kW
Velocity	89 %

Frequency (MHz)	Attenuation (dB/100m, 20°C)	Coupling Loss (50% / 95%, 2m, dB)
150	0.92	80/90
450	1.70	84/91
800	2.30	66/70
900	2.51	66/68
1800	4.30	65/70
2200	5.45	62/66
2400	6.25	61/66

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %

Notes:

Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.

HLCTAYZ-50-22-C1 (7/8")



Advantages

- The product is applicable for the coverage of density in long, narrow and enclosed areas, such as mines, buildings and elevators etc. It has little fluctuation of electromagnetic density and uniform coverage in broadband.
- Best working frequency range: 50~3000 MHz

Performances

Structure

Cable type	Coupling
Size	7/8"
Inner conductor material / OD	Copper tube / 9.0 mm
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Annular corrugated copper tube milled / single slots
Jacket material	LSOH polyolefin
Diameter over Jacket / color	27.5 mm / black
Weight	510 kg/km

Mechanical characteristics

Tensile force	>1500 N
Minimum bending radius, single bend	300 mm
Indication of slot alignment	Guides opposite to slots
Minimum distance to wall	100 mm
Recommended clamp spacing	0.9 m
Installation temperature	-25~+60°C
Operation temperature	-40~+85°C
Storage temperature	-70~+85°C

Electrical characteristics

Operating frequency	50~3000 MHz
Polarization	Vertical
VSWR	1.3
Impedance	50±2 Ω
Encircle DC resistance	3 Ω/km
Insulation dielectric strength	6000 V (DC, 1min)
Minimum insulation resistance	5000 MΩ·km
Jacket spark test voltage	8000 V (AC)
Peak power	91 kW
Velocity	88 %

Frequency (MHz)	Attenuation (dB/100m, 20°C)	Coupling Loss (50% / 95%, 2m, dB)
150	1.60	68/78
450	2.75	68/79
800	3.73	69/79
900	4.21	69/79
1800	6.36	68/78
2200	7.23	69/79
2400	7.56	70/80

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %

Notes:

Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.

HLCTAYZ-50-22-C2 (7/8")

Advantages

- The product is applicable for the coverage of density in long, narrow and enclosed areas, such as mines, buildings and elevators etc. It has little fluctuation of electromagnetic density and uniform coverage in broadband.
- Best working frequency range: 50~3000 MHz

Performances

• Structure

Cable type	Coupling
Size	7/8"
Inner conductor material / OD	Copper tube / 9.0 mm
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Annular corrugated copper tube milled / single slots
Jacket material	LSOH polyolefin
Diameter over Jacket / color	27.5 mm / black
Weight	510 kg/km

• Mechanical characteristics

Tensile force	>1500 N
Minimum bending radius , single bend	300 mm
Indication of slot alignment	Guides opposite to slots
Minimum distance to wall	100 mm
Recommended clamp spacing	0.9 m
Installation temperature	-25~+60℃
Operation temperature	-40~+85℃
Storage temperature	-70~+85℃

• Electrical characteristics

Operating frequency	50~3000 MHz
Polarization	Vertical
VSWR	1.3
Impedance	50±2 Ω
Encircle DC resistance	3 Ω/km
Insulation dielectric strength	6000 V (DC, 1min)
Minimum insulation resistance	5000 MΩ·km
Jacket spark test voltage	8000 V (AC)
Peak power	91 kW
Velocity	88 %

Frequency (MHz)	Attenuation (dB/100m, 20℃)	Coupling Loss (50% / 95%, 2m, dB)
150	1.80	64/74
450	3.30	70/80
800	4.80	78/80
900	4.90	77/79
1800	7.95	71/79
2200	8.75	72/78
2400	9.20	71/80

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %

Notes:

Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.

HLCTAYZ-50-32-C1 (1-1/4")

Advantages

- The product is applicable for the coverage of density in long, narrow and enclosed areas, such as mines, buildings and elevators etc. It has little fluctuation of electromagnetic density and uniform coverage in broadband.
- Best working frequency range: 50~3000 MHz

Performances

• Structure

Cable type	Coupling
Size	1-1/4"
Inner conductor material / OD	Copper tube / 13.1 mm
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Annular corrugated copper tube milled / single slots
Jacket material	LSOH polyolefin
Diameter over Jacket / color	38.4 mm / black
Weight	850 kg/km

• Mechanical characteristics

Tensile force	>2600 N
Minimum bending radius , single bend	500 mm
Indication of slot alignment	Guides opposite to slots
Minimum distance to wall	100 mm
Recommended clamp spacing	1~1.2 m
Installation temperature	-25~+60℃
Operation temperature	-40~+85℃
Storage temperature	-70~+85℃

• Electrical characteristics

Operating frequency	50~3000 MHz
Polarization	Vertical
VSWR	1.3
Impedance	50±2 Ω
Encircle DC resistance	3 Ω/km
Insulation dielectric strength	10000 V (DC, 1min)
Minimum insulation resistance	5000 MΩ·km
Jacket spark test voltage	8000 V (AC)
Peak power	200 kW
Velocity	88 %

Frequency (MHz)	Attenuation (dB/100m, 20℃)	Coupling Loss (50% / 95%, 2m, dB)
150	1.20	67/75
450	2.30	73/83
800	3.25	75/85
900	3.60	76/86
1800	6.00	77/88
2200	6.20	78/87
2400	6.90	80/88

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %

Notes:

Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.

HLCTAYZ-50-32-C2 (1-1/4")

Advantages

- The product is applicable for the coverage of density in long, narrow and enclosed areas, such as mines, buildings and elevators etc. It has little fluctuation of electromagnetic density and uniform coverage in broadband.
- Best working frequency range: 50~3000 MHz

Performances

Structure

Cable type	Coupling
Size	1-1/4"
Inner conductor material / OD	Copper tube / 13.1 mm
Insulating material	Physical foamed polyethylene dielectric
Outer conductor material / OD	Annular corrugated copper tube milled / single slots
Jacket material	LSOH polyolefin
Diameter over Jacket / color	38.4 mm / black
Weight	850 kg/km

Mechanical characteristics

Tensile force	>2600 N
Minimum bending radius , single bend	500 mm
Indication of slot alignment	Guides opposite to slots
Minimum distance to wall	100 mm
Recommended clamp spacing	1~1.2 m
Installation temperature	-25~+60℃
Operation temperature	-40~+85℃
Storage temperature	-70~+85℃

Electrical characteristics

Operating frequency	50~3000 MHz
Polarization	Vertical
VSWR	1.3
Impedance	50±2 Ω
Encircle DC resistance	3 Ω/km
Insulation dielectric strength	10000 V (DC, 1min)
Minimum insulation resistance	5000 MΩ·km
Jacket spark test voltage	8000 V (AC)
Peak power	200 kW
Velocity	88 %

Frequency (MHz)	Attenuation (dB/100m, 20℃)	Coupling Loss (50% / 95%, 2m, dB)
150	1.25	61/71
450	2.55	67/78
800	3.69	67/78
900	3.87	68/77
1800	6.68	70/79
2200	9.63	66/76
2400	9.85	68/79

Range: Coupling Loss: ±5 dB, Attenuation: ±10 %

Notes:

Coupling Loss & Attenuation is tested by the free-space method according to IEC 61196-4 Standards.

Matched high-speed railway



Product name		High-speed railway LCX special clamps			
Product model		LNTCS-42H			
The real legend					
Project		Q/CR 12-2014 Railway standard requirements		ZTT Measured value	
1	Stretching resistance	≥2000N		2216N	
2	Shear resistance	≥1000N		2277N	
3	Axial pull out force	≥150N		329N	
4	Burning performance	GB/T 2408-2008 Horizontal Burning		GB/T 2408-2008 Vertical Burning	
5	Fatigue resistance	Vibration frequency 12.6Hz 15.4Hz	Accelerated velocity 3.14m/s ² 4.71m/s ²	Amplitude 0.25mm~0.5mm	Fatigue load times 10 ⁶ +10 ⁶
6	Plastic parts for solar radiation aging properties	Ultraviolet band Radiation intensity (1120±112) W/m ² Temperature (55±2)°C Total time 240h;			
7	Plastic high and low temperature performance	-40°C ~+150°C			
8	Hot and humid	25~80°C , 93%RH, 240h			
9	Corrosion resistance of metal parts	(35±2)°C ,5% NaCl, 240h		Matched fire-resistant Type : LUTCS-42H	
10	Toxic and harmful substances	SJ/T 11365			
11	Recommended operating temperature	-40~+85°C			
12	Maximum angle of support	120°			
13	Support minimum distance	10cm			
14	Patent	National invention patent			

Matched medium-speed railway

Product name		High-speed railway LCX special clamps			
Product model		LNTCS-42M			
The real legend					
Project		Q/CR 12-2014 Railway standard requirements		ZTT Measured value	
1	Stretching resistance	≥2000N		2216N	
2	Shear resistance	≥1000N		2277N	
3	Axial pull out force	≥150N		329N	
4	Burning performance	GB/T 2408-2008 Horizontal Burning		GB/T 2408-2008 Vertical Burning	
5	Fatigue resistance	Vibration frequency 12.6Hz 15.4Hz	Accelerated velocity 3.14m/s ² 4.71m/s ²	Amplitude 0.25mm~0.5mm	Fatigue load times 10 ⁶ +10 ⁶
6	Plastic parts for solar radiation aging properties	Ultraviolet band Radiation intensity (1120±112) W/m ² Temperature (55±2)°C Total time 240h;			
7	Plastic high and low temperature performance	-40°C ~+150°C			
8	Hot and humid	25~80°C , 93%RH, 240h			
9	Corrosion resistance of metal parts	(35±2)°C ,5% NaCl, 240h		Matched fire-resistant Type : LUTCS-42H	
10	Toxic and harmful substances	SJ/T 11365			
11	Recommended operating temperature	-40~+85°C			
12	Maximum angle of support	120°			
13	Support minimum distance	10cm			
14	Patent	National invention patent			

Matched high-speed railway



Product name		High-speed railway LCX special clamps			
Product model		LNTCS-42H			
The real legend					
Project		Q/CR 12-2014 Railway standard requirements		ZTT Measured value	
1	Stretching resistance	≥1200N		1994N	
2	Shear resistance	≥800N		1647N	
3	Axial pull out force	≥150N		182N	
4	Burning performance	GB/T 2408-2008 Horizontal Burning		GB/T 2408-2008 Vertical Burning	
5	Fatigue resistance	Vibration frequency 12.6Hz 15.4Hz	Accelerated velocity 3.14m/s ² 4.71m/s ²	Amplitude 0.25mm~0.5mm	Fatigue load times 10 ⁶ +10 ⁶
6	Plastic parts for solar radiation aging properties	Ultraviolet band Radiation intensity (1120±112) W/m ² Temperature (55±2)°C Total time 240h;			
7	Plastic high and low temperature performance	-40°C ~+150°C			
8	Hot and humid	25~80°C , 93%RH, 240h			
9	Corrosion resistance of metal parts	(35±2)°C, 5% NaCl, 240h		Matched fire-resistant Type: LSTCS-42M	
10	Toxic and harmful substances	SJ/T 11365			
11	Recommended operating temperature	-40~+85°C			
12	Maximum angle of support	120°			
13	Support minimum distance	10cm			

Matched metro



Product name		Metro LCX special clamps			
Product model		LNZMN-42L			
The real legend					
Project		Q/CR 12-2014 Railway standard requirements		ZTT Measured value	
1	Stretching resistance	≥1200N		1600N	
2	Shear resistance	≥800N		1200N	
3	Axial pull out force	≥150N		170N	
4	Burning performance	GB/T 2408-2008 Horizontal Burning		GB/T 2408-2008 Vertical Burning	
5	Fatigue resistance	Vibration frequency 12.6Hz 15.4Hz	Accelerated velocity 3.14m/s ² 4.71m/s ²	Amplitude 0.25mm~0.5mm	Fatigue load times 10 ⁶ +10 ⁶
6	Plastic parts for solar radiation aging properties	Ultraviolet band Radiation intensity (1120±112) W/m ² Temperature (55±2)°C Total time 240h;			
7	Plastic high and low temperature performance	-40°C ~+150°C			
8	Hot and humid	25~80°C , 93%RH, 240h			
9	Corrosion resistance of metal parts	(35±2)°C ,5% NaCl, 240h		Matched fire-resistant Type: LSZIK-42L	
10	Toxic and harmful substances	SJ/T 11365			
11	Recommended operating temperature	-40~+85			
12	Maximum angle of support	120°			
13	Support minimum distance	10cm			
14	Patent	National invention patent			

ISO Certificates



ZTT establishes quality control system strictly according to ISO9001:2008, ISO14001:2004 international standards and takes the quality control department as the core, in order to create ZTT brand and make efforts to contribute the mobile communications.

Excellent Test Facilities



All the test instruments for manufacturing are advanced equipment which adopted from home and abroad, and they are including Network analyzer, Digital LCR meter, Digital multimeter, High resistance meter, Milliohm meter, Dielectricity tester, Project profile analyzer, Spectrum Analyzer and Signal generator, Anechoic chamber. The leaky coaxial cable test system is established according to IEC 61196.4-2004, which assures the accuracy of quality control.



ZTT GROUP

With decades of experience and a strong positioning in high-tech market segments, ZTT is active in the development, design, production, supply and installation of wide application ranges in telecom, power, renewable energy and oil & gas.

ZTT was listed on the Shanghai Stock Exchange (Stock Code: 600522) on Oct 24, 2002. ZTT has broken through the \$5.01 billion mark in revenue in 2016, and is becoming a truly global company which products supplied in 144 countries, with overseas branch offices in 48 countries, registered subsidiaries in 6 countries, 50 subsidiaries, 7 research & development centers and over 12,000 employees. Product quality and innovation are the hallmarks of ZTT approach, in order to implement its global marketing strategy, ZTT has established strong relationships with the major global partners in all industries it operates in, realizing projects often customized according to customer specification for hundreds of global power utilities and telecom operators.

ZTT is committed to better your life. Therefore, ZTT has always paid great strategic attention to research & development with a view to providing with innovative solutions. ZTT will try efforts to be your best partner to realize your dreams, and achieve common values together with you.

