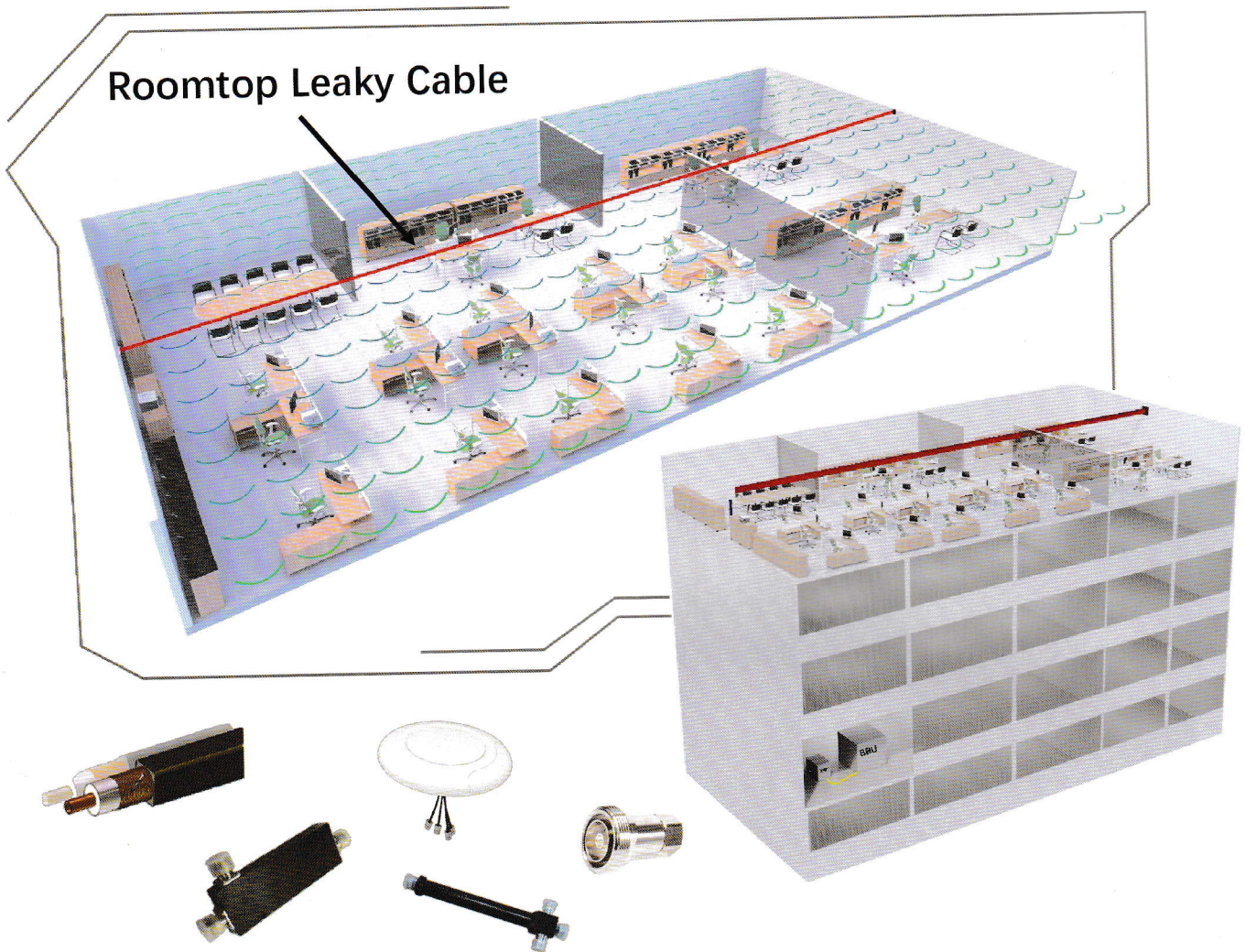


Roomtop Leaky Cable



Type	HLRWUCYZ-50-12GT			HLRWUCYZ-50-22GT		
Inner conductor (mm)	4.8±0.3			9±0.3		
Outer copper conductor (mm)	13.0±0.3			23.0±0.3		
Jacket (mm)	15.6±0.25			25.8±0.3		
Min. static bending radius (mm)	80(Single bend)			250mm (Single bend)		
Min. Dynamic bending radius (mm)	125 (Multiple bend)			350 (Multiple bend)		
Radiation angle (mm)	≥170°			≥170°		
Operation temperature (°C)	-40~+80			-40~+80°C		
Operation frequency band (MHz)	698~2200, 2300~3800			700~1000, 1700~2050 2100~2700, 3300~3800		
Stop band (MHz)	1350-1550, 2800-3000, 2200~2300			2200-2300		
VSWR	<1.35			<1.25		
Frequency	Attenuation	Coupling loss(0°)	Coupling loss (±85°Wide angle migration)	Attenuation	Coupling loss(0°)	Coupling loss (±85°Wide angle migration)
MHz	dB/100m, 20°C	95%,2m,dB	95%, 2m, dB	dB/100m, 20°C	95%, 2m, dB	95%, 2m, dB
700	7	80	82	3.6	87	89
800	7.52	74	77	3.92	81	83
900	8.24	72	75	4.15	82	85
1800	13.39	67	70	6.81	76	79
2000	14.63	67	70	7.66	75	77
2400	16.92	68	71	8.75	75	77
3500	28.77	67	70	13.91	71	73
3600	30.39	67	70	14.55	73	75
3800	33.74	70	73	15.90	73	76

Note: The tolerance of attenuation shall be ± 5% , the tolerance of VSWR shall be ± 5%and the tolerance of coupling loss shall be ± 5dB; simultaneously, other type leaky cables of tunnels is available ,etc.



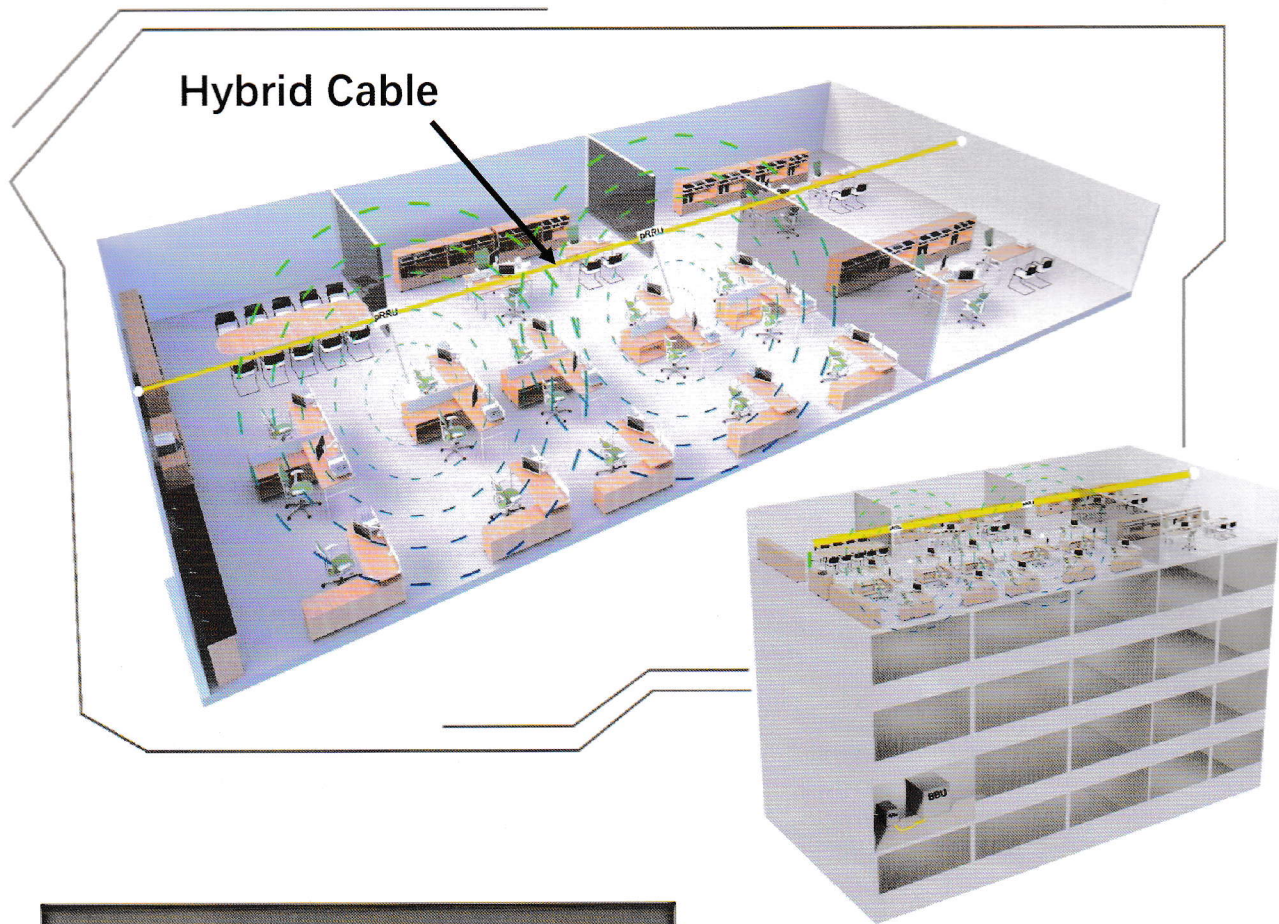
Product List	
Product Name	Configuration
RF Cable	☐
Roomtop Leaky Cable	☒
Hybrid Cable	☐
Jumper	☐
Connector	☐
Clamp	☐
Antenna	☐
Passive device	☐

- For Roomtop solution, ZTT is available to provide the following services:
 - ☒ System design
 - ☒ Package solution
 - ☒ Installation instruction
 - ☒ Turnkey is available in selected scenario

Typical Indoor Hybrid Cable



Item		GDHH-2B6a2+2*1.5mm ²	GDHH-2B6a2+2*2.5mm ²	GDVV-2G657A2+2*1.5mm ²
Optical Unit	Outer diameter	2.1±0.1*1.6±0.1mm		
	Fiber color	1*G657A2 (Red)		
	Cable quantity	2		
	Strength member material	Steel wire		
	Steel wire	Blue、Yellow		
	Sheath material	LSZH		
Power Unit	Sub-power unit quantity	2×1.5mm ²	2×2.5mm ²	2×1.5mm ²
	Insulation material	XLPE	XLPE	XLPE
	Insulation thickness	Nominal 0.7mm,Min 0.53mm	Nominal 0.8mm,Min 0.62mm	Nominal 0.7mm,
	Insulation diameter	3.1±0.3mm	3.6±0.3mm	3.1±0.1mm
	Insulation color	Blue,Red		
Wrap tape		PET tape		
Filling		PP		
Outer sheath material		LSZH (Black)	LSZH (Black)	PVC(Black)
Nominal thickness of outer jacket		1.0mm		
Outer sheath diameter		9.0±0.3mm	10.2±0.5mm	9.0±0.3mm
Optical Unit	Attenuation coefficient	≤0.4dB/km@1310nm, 0.3dB/km@1550nm		
Power Unit	DC resistance at 20℃	≤13.3 (Ω/km)	≤7.98 (Ω/km)	≤13.3 (Ω/km)
	Dielectric strength	2.5kV AC,5min,no break		
	Rating Voltage	300V/500V		
Hybrid cable	Tensile strength	Long term 300N/10min; short term 600N/1min;	Long term 500N/10min; short term 1000N/1min;	Long term 200N/10min; short term 600N/1min;
	Crush(Hybrid cable)	Long term 500N /100mm; short term 1000N/100m	Long term 1100N /100mm; short term 2200N/100m	Long term 300N /100mm; short term 1000N/100m;
	Min.Bend radius	45mm	51mm	Installation:150mm; Operation:120mm
	Flame retardant performance	IEC 60332-1		
	Safety performance	CE certification		



Product List	
Product Name	Configuration
RF Cable	○
Leaky Cable	—
Hybrid Cable	●
Jumper	○
Connector	○
Clamp	○
Antenna	○
Passive device	○

- 5G active IBS includes BBU, RHUB/P-bridge, pRRU and hybrid jumper, also consisting of optical & power connector.

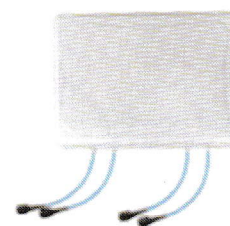
- ZTT is Expert in cable manufacturing, moreover, which has built an annual capacity of 55,000 km hybrid cable, also becoming a leading manufacturing enterprise in this field.

Typical Antenna

698-4000MHz



Indoor Wide band
Omni Antenna



Indoor Wide band Panel Antenna
4×4 MIMO

Electrical Specifications	Frequency Range		MHz	698-806	806-960	1427-17100	1710-2700	3400-3800
	Gain		dBi	1.8±0.5	2.0±0.5	3.0±1.0	3.0±1.0	4.5±1.0
	Polarization			Vertical				
	Beam width	Horizontal	deg	360				
		Vertical		90	70	40	35	30
	VSWR			≤1.8	≤1.5	≤1.5	≤1.5	≤1.8
	PIM, 3rd Order, 2 x 20 W,		dBc	≤-153				
	Input Power, maximum		watts	50				
	Impedance		ohm	50				
	Connector Type			4310-female				
Mechanical Specification	Dimensions		mm	Φ203×115				
	Weight		kg	0.37				
	Mounting Kit			Ceiling, via hole (standard)				
	Radome Material and Color			ABS, White, RAL9003				
	Operational Temperature		oC	-40 ~ 55				
	Operational Humidity		%	< 95				

Electrical Specifications	Frequency Range		MHz	698-960	1710-2700	3300-4000
	Gain		dBi	6.0±1	6.5±1	6.5±1
	Polarization			2x±45°	2x±45°	2x±45°
	Beam width	Horizontal	deg	75	70	68
		Vertical		70	70	60
	VSWR			≤1.8	≤1.8	≤1.8
	Isolation		dBc	>15	>20	>23
	PIM, 3rd Order, 2 x 20 W,		watts	≤-153		
	Input Power per Port, maximum		ohm	50		
	Dimensions, HxWxD		mm	308x420x82		
Mechanical Specification	Weight, without Mounting Kit		kg	2.8		
	Radome Material and Color			ABS, White, RAL9003		
	Mounting Kit			On-wall		
	Connector Type and Location			N-Female×4		
	Operational Temperature		oC	-55 to +60		
	Operational Humidity		%	< 95		