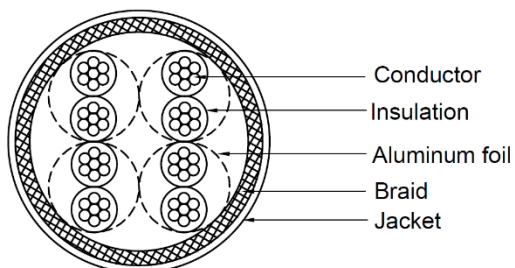


Schema



Product Description

①	Inner Conductor
②	Insulation
③	Aluminum foil
④	Braid
⑤	Jacket

Construction Item Description

Cable Type	Category	CAT7
	Structure	S/FTP (PiMF)
	Application	Primary (Campus), Secondary (Riser), Tertiary (Horizontally)
Conductor	Construction	23AWG/1 0.55mm (+/-0.008mm)
	Material	Bare Copper (Solid)
Insulation	Material	Foam-PE
	Outside Diameter	1.3mm +/- 0.05mm
	Color	Pair 1: Orange, Orange-White
		Pair 2: Blue, Blue-White
		Pair 3: Green, Green-White
		Pair 4: Brown, Brown-White
Pair shielding	Material	Aluminum foil
Outside shield	Material	AL-MG wire braiding ≥ 50% coverage
Jacket	Material	LSZH
	Outer diameter	7.3mm +/- 0.3mm
	Average thickness	0.6mm (nominal)
	Color	Grey
	Marking Color	Black
Fire Resistance	CPR	CPR Eca according to EN 50575 NB 0598
Tensile loading		150 N (max)
Bending radius	Dynamic	8 x OD
	Static	4x OD
Temperature	Operating	-20 °C up to +50 °C
	Installation	0 °C up to +50 °C
Marking	Jacket	ATZ S/FTP CAT7 23AWGX4P PiMF Twist-Pair Installation Cable LSZH ISO/IEC 11801 & EN50173 CPR Eca NB 0598 RoHS atz.com.sg

Electrical Properties	
Impedance	100 ± 15 Ohm @ 4-100 MHz; 100 ± 25 Ohm @ 100-600 MHz
Capacitance	45 pF/m nominal @ 1 KHz
Capacitance unbalance (pair-ground)	1.6 pF/m max. @ 1 KHz
Insulation resistance	5 GΩ x km min.
DC resistance	95 Ohm/km max. (2% max. resistance unbalance)
DC loop resistance	190 Ohm/km max. (2% max. resistance unbalance)
Voltage resistance	72 Vdc max.
Coupling attenuation	CA-Type 1b
Signal propagation delay	450 nS/100 m max.
Propagation delay	10 nS/100 m max.
Separating class	Class d according to EN 50174-2
NVP	78%
PoE	IEEE802.3af (PoE) / IEEE802.3at (PoE+) / IEEE802.3bt (4PPoE)

Transmission Properties								
FREQ.	ATT	NEXT	PS-NEXT	ACR	PS-ACR	EL-FEXT	PS-ELFEXT	RL
MHz	dB	dB	dB	dB	dB	dB	dB	dB
1	2	78	75	76	73	78	75	20
10	5.9	78	75	72.1	69.1	74	71	25
100	19.1	72.4	69.4	53.3	50.3	54	51	20.1
250	31	66.5	63.5	35.5	32.5	46	43	17.3
500	45.3	61.9	58.9	16.6	13.6	40	37	17.3
600	50.1	60.8	57.8	10.7	7.7	38.4	35.4	17.3

Dimensional Table					
Nb pairs	Section	Diameter of	Diameter of insulated conductor (mm)	Nominal thickness of jacket (mm)	Diameter of outer jacket (mm)
	(AWG)	inner conductor (mm)			
4	23	0.55	1.3 ± 0.05	0.60	7.3 ± 0.3

Designed in order to reach the electrical and transmission properties of CAT7