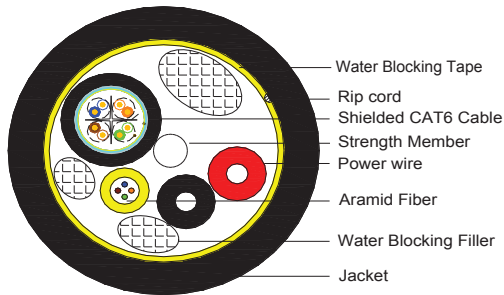




### Cross Section



### Electrical Characteristics(20 °C)

Test Item	Units	Spec
<b>Power</b>		
Max. DCR	Ω/km	5.6
Capacitance of Con. To Con.	pF/m	148
Operation Voltage	V RMS	300
<b>SM. Fiber</b>		
Bandwidth	850nm	Units MHz.km
Attenuation	1310nm	Spec ≥ 750
Fiber optical index		dB/km ≤ 0.40
Cable optical index	1550nm	dB/km ≤ 0.30
Numerical Aperture		0.14
Effective Group Index of Refraction	1310nm	1.4676
	1440nm	1.4682

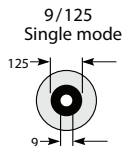
### Cable Description

#### Power Wire - 2C x (12 AWG)

Center Conductor	Bare Copper Stranded Wire
Conductor Dia.(+/-0.015mm)	2.36 (65/0.254)
Insulation	PVC
Color	Red / Black
Centricity (%)	≥ 90
Dia.(+/-0.20mm)	3.50

#### 4C Singlemode Tight Buffered Optical Fiber

Fiber Count	4
Fiber Dia.(+/-0.03um)	0.245
Buffering Dia. (+/-0.10um)	0.6
Color	BL/OR/GN/BN
Tensile Strength Element	Kevlar
Jacket	PVC
Thickness (+/-0.10mm)	0.6
Outer Dia (+/-0.20mm)	3.80
Jacket Color	Yellow



#### CAT6 FTP 4 Pairs x 23AWG

1) Conductor :	
Material	Bare Copper
Stranding	Solid
Wire Gage	23AWG
Dia.(+/-0.02mm)	0.570
2) Insulation :	
Material	HDPE
Dia.(+/-0.05mm)	1.10
Color Code	WH/BL&BL,WH/OR&OR WH/GN&GN,WH/BR&BR
3)Shielding:	
Vertical Wrap	Al-Mylar Tape
Coverage %	100%
Drain Wire(+/-0.02mm)	0.4 Solid Tinned Copper
4) Outer Sheath :	
Material	PVC
Rip Cord	200D*3
Thickness(+/-0.05mm)	0.54
Dia.(+/-0.2mm)	7.00
Jacket Color	Black

#### Total Composite Cable

Jacket	LDPE
Thickness (+/-0.15mm)	1.00
Dia. (+/-0.80mm)	14.00
Ripcord	500D*3
Waterblocking Tape and Filler	

#### DATA Cable

1.Max. Conductor DC Resistance	Ω/km	93.8
2.Max.Unbalance of Pair DC Resistance	%	2.5
3.Dielectric Strength between Pairs	kV/min	DC1.0
4.Min.Insulation Resistance	MΩ.km	5000
5.Max.Pair Mutual Capacitance	nF/100m	5.6
6.Max.Pair Capacitance Unbalance	pF/100m	330
7.Impedance (1 to 250MHz)	Ω	100±15
	(250 to 550MHz)	Ω 100±25

Frequency (MHz)	Min.RL (dB)	Max.IL (dB/100m)	Min.NEXT (dB)	Min.PSNEXT (dB)
1	20.0	2.0	74.3	72.3
4	23.0	3.8	65.3	63.3
8	24.5	5.3	60.8	58.8
10	25.0	6.0	59.3	57.3
16	25.0	7.6	56.2	54.2
20	25.0	8.5	54.8	52.8
25	24.3	9.5	53.3	51.3
31.25	23.6	10.7	51.9	49.9
62.5	21.5	15.4	47.4	45.4
100	20.1	19.8	44.3	42.3
200	18.0	29.0	39.8	37.8
250	17.3	32.8	38.3	36.3
300	16.8	36.4	37.1	35.1
400	15.9	43.0	35.3	33.3
550	14.9	51.8	33.2	31.2

Frequency (MHz)	Min.ELFEXT (dB)	Min.PSELFEXT (dB)	Max.Delay (ns/100m)	Max.Delay skew(ns/100m)
1	67.8	64.8	570	45
4	55.8	52.8	552	45
8	49.7	46.7	547	45
10	47.8	44.8	545	45
16	43.7	40.7	543	45
20	41.8	38.8	542	45
25	39.8	36.8	541	45
31.25	37.9	34.9	540	45
62.5	31.9	28.9	539	45
100	27.8	24.8	538	45
200	21.8	18.8	537	45
250	19.8	16.8	536	45
300	18.3	15.3	536	45
400	15.8	12.8	536	45
550	13.0	10.0	536	45