



## Enhanced Category 5 Cables

### Applications:

10Base-T, 100Base-T4, 100Base-TX, 100Base-VG-ANYLAN, 155Mbps ATM, 622Mbps ATM, 1000Base-T

### Standards:

ISO/IEC 11801, ANSI/TIA/EIA-568-B

### Product Construction Matrix:

	U/UTP	F/UTP	SF/UTP
Conductor	24AWG Solid Plain Copper	24AWG Solid Plain Copper	24AWG Solid Plain Copper
Insulation	PE	PE	PE
Screen	Nil	Overall Aluminum Tape Screen	Overall Aluminum Tape Screen & Copper Wire Braid
Drain Wire	Nil	1/0.5 mm	Nil
Jacket	PE/PVC/LSF/LSZH/LSFROH	PE/PVC/LSF/LSZH	PE/PVC/LSF/LSZH/LSFROH

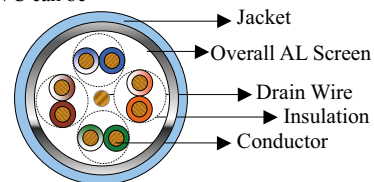
Remark: PE- Polyethylene; PVC- Polyvinyl Chloride; LSF- Low Smoke & Fume; LSZH- Low Smoke Zero Halogen; LSFROH-Low Smoke Flame Retardant Zero Halogen (to IEC60332-3C); PVC can be offered in CMX, CM, CMR and CMP grade

### Working Frequency:

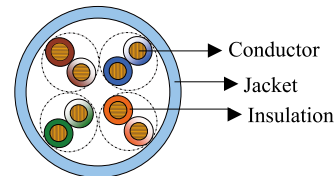
1-100MHz

### Technical Parameters:

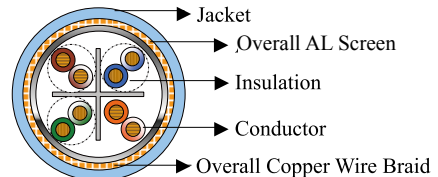
- ☆ Characteristic Impedance:  $100 \pm 15\Omega$  (1-100MHz)
- ☆ Nominal Velocity of Propagation(NVP): CMX, CM, CMR, LSZH 69%; CMP 72%
- ☆ Maximum Mutual Capacitance: 5.6nF/100m
- ☆ Maximum Capacitance Unbalance: 330pF/100m
- ☆ Maximum DC Resistance:  $9.38\Omega/100m$
- ☆ Maximum Resistance Unbalance: 5%
- ☆ Maximum Propagation Delay Skew: 30ns/100m
- ☆ Maximum Propagation Delay: 536ns/100m@100MHz
- ☆ Minimum Bending radius: 10 x Overall Diameter
- ☆ Voltage Rating: 80V rms
- ☆ Maximum Pulling Load: 80N
- ☆ Working Temperature:  $-5^{\circ}\text{C} \sim +50^{\circ}\text{C}$
- ☆ Storage Temperature:  $-20^{\circ}\text{C} \sim +60^{\circ}\text{C}$
- ☆ Flame Retardancy: UL 1581 (CM Jacket); UL 1666 (CMR Jacket); UL 910 (CMP Jacket); IEC 60332-1(FRPVC & LSZH Jacket); IEC 60332-1 and IEC 60332-3C (LSFROH Jacket)



Cat5e F/UTP




Cat5e U/UTP



Cat5e SF/UTP

### Product Certification:

E222756 



### □ Cable Parameters:

Construction	Conductor Diameter (mm)	Diameter Over Insulation (mm)	Pairs	Screen	Overall Diameter (mm)	Jacket
U/UTP	0.5/0.51	0.91	4	Nil	5.1	PVC/LSZH
U/UTP	0.5/0.51	0.91	4	Nil	5.5	LSFROH
U/UTP	0.5/0.51	0.91	4	Nil	5.3	PE
F/UTP	0.53	1.00	4	Overall Aluminum Tape Screen	6.3	PVC/LSZH
F/UTP	0.53	1.00	4	Overall Aluminum Tape Screen	6.5	PE
SF/UTP	0.53	1.00	4	Overall Aluminum Tape Screen & Copper Wire Braid	6.6	PVC /LSZH
SF/UTP	0.53	1.00	4	Overall Aluminum Tape Screen & Copper Wire Braid	7.0	LSFROH
SF/UTP	0.53	1.00	4	Overall Aluminum Tape Screen & Copper Wire Braid	6.8	PE

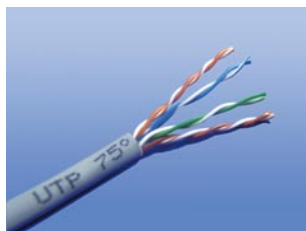
### □ Product Highlights:

- ☆ Provide excellent bandwidth beyond 100 MHz.
- ☆ Meet the strict flame retardancy and environmental requirements in Europe and US.
- ☆ Different jacket materials available for choice.
- ☆ Guaranteed ACR Value > 0 dB @ 200 MHz.
- ☆ Special purpose cables can be offered according to customer request.
- ☆ Different jacket color options available for choice.

### □ Transmission Properties:

FREQ (MHz)	NEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value	IL (dB/100m)	RL (dB/100m) Minimum Value/ Typical Value/ Standard Value	ACR (dB/100m) Minimum Value/ Typical Value/ Standard Value	ELFEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value	PSNEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value	PSACR (dB/100m) Minimum Value/ Typical Value/ Standard Value	PSELFEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value
1	68.3/74.0/65.3	2.0	20.2/26.0/20.2	66.3/72.0/63.3	64.8/69.0/63.8	65.0/71.0/62.3	63.3/69.0/60.3	61.8/66.0/60.8
4	59.3/65.0/56.3	4.1	23.0/29.0/23.0	55.2/60.9/52.2	52.7/57.0/51.7	56.3/62.0/53.3	52.2/57.9/49.2	49.7/54.0/48.7
8	54.8/61.0/51.8	5.8	24.5/30.5/24.5	49.0/55.2/46.0	46.7/51.0/45.7	51.8/58.0/48.8	46.0/52.2/43.0	43.7/48.0/42.7
10	53.3/59.0/50.3	6.5	25.0/31.0/25.0	46.8/52.5/43.8	44.8/49.0/43.8	50.3/56.0/47.3	43.8/49.5/40.8	41.8/46.0/40.8
16	50.3/56.0/47.3	8.2	25.0/31.0/25.0	42.1/47.8/39.1	40.7/45.0/39.7	47.4/53.0/44.3	39.1/44.8/36.1	37.7/42.0/36.7
20	48.8/55.0/45.8	9.3	25.0/31.0/25.0	39.5/45.7/36.5	38.7/43.0/37.7	45.8/52.0/42.8	36.5/42.7/33.5	35.7/40.0/34.7
25	47.3/53.0/44.3	10.4	24.3/30.3/24.3	36.9/42.6/33.9	36.8/41.0/35.8	44.3/50.0/41.3	33.9/39.6/30.9	33.8/38.0/32.8
31.25	45.9/52.0/42.9	11.7	23.6/29.6/23.6	34.2/40.3/31.2	34.9/39.0/33.9	42.9/49.0/39.9	31.2/37.3/28.2	31.9/36.0/30.9
62.5	41.4/47.0/38.4	17.0	21.5/27.5/21.5	24.4/30.0/21.4	28.8/33.0/27.8	38.4/44.0/35.4	21.4/27.0/18.4	25.8/30.0/24.8
100	38.3/44.0/35.3	22.0	20.1/26.1/20.1	16.3/22.0/13.3	24.8/29.0/23.8	35.3/41.0/32.3	13.3/19.0/10.3	21.8/26.0/20.8
155	35.5/41.0/32.5	28.1	18.8/24.8/18.8	7.4/12.9/4.4	20.9/25.0/19.9	32.5/38.0/29.5	4.4/9.9/-1.4	17.9/22.0/16.9
200	33.7/40.0/30.7	32.4	18.0/24.0/18.0	1.3/7.6/-1.7	19.7/24.0/18.7	30.0/37.0/27.7	-1.7/4.6/-4.7	16.7/21.0/15.7
310	32.3/38.0/29.3	41.8	17.3/23.3/17.3	N/A	11.0/15.0/10.0	29.3/35.0/26.3	N/A	14.0/18.0/13.0
350	30.1/36.0/27.1	44.9	17.3/23.3/17.3	N/A	8.1/12.0/7.1	27.1/33.0/24.1	N/A	11.1/15.0/10.1

\* Data for 100MHz above are for reference only



Cat5e U/UTP



Cat5e F/UTP



Cat5e SF/UTP