Caledonian

Data Cable

Addison

ISO 9001
REGISTERED FIRM

Registration Certificate

This document certifies that the administration systems of

Caledonian Cables Limited / Addison Technology Limited

Marchants Industrial Centre, Mill Lane, Laughton, Lewes, Sussex, BN8 6AJ, United Kingdom

have been assessed and approved by QAS International to the following management systems, standards and guidelines:

ISO 9001 : 2008

With the permitted exclusion of clauses 7.3 Design and Development

The approved administration systems apply to the following:

The manufacture and supply of electrical cables and ancillary power equipment to customers internationally.

Original Approval 6th September 1997
Current Certificate 7th February 2013
Certificate Expiry 7th February 2014
Certificate Number A6211

On behalf of QAS International

www.qas-international.com

This certificate remains valid while the holder maintains their quality administration systems in accordance with the standards and guidelines stated above, which will be audited annually by QAS International. The holder is entitled to display the above registration mark for the duration of this certificate. This certificate must be returned to QAS International on reasonable request.

Issuing Office: QAS International, 304 Oxford Street, Malmesbury, Wiltshire, SN16 9AX

Caledonian, established in 1978,offers one of the most complete lines of fiber and copper cabling system solutions with over hundreds of different cabling system products, . Our superior products provide leading edge within every cable series and for every application.

Among the national and international standards with which our cables could comply are: BS - British Standard; LPCB Fire Performance Standard, ISO Standard etc. Caledonian Cables offers a comprehensive stock of cables and cabling products through its nationwide network of resellers and distributors. Caledonian Cables has continually expanded its global presence in Europe and Asia.

Company Profile >>>

Caledonian & Addison, produces a wide range of cables for communication, power and electronics in its primary plants in UK, Italy and Spain. To stay in front, we continually keep expanding our manufacturing capabilities in more low cost region such as Romania, Taiwan, Malaysia etc. This low-cost manufacturing facilities enable us provide a flexible, scalable global system that delivers superior operational performance and optimal results for our customers.

Our extensive global network of manufacturing facilities gives us significant scale and the flexibility to fulfill our customer requirements. This global presence provides design and consultancy solutions that are combined with core cable manufacturing, logistic services, and vertically integrated with our E commerce technologies, to optimize customer operations by lowering costs and reducing time to market.

Caledonian & Addison has been respected for its high standards of quality, excellent service level, competitive pricing and a unique and innovative spirit. With our latest technologies, we are both inspired and well-positioned to meet the changing needs of our customers. We have the resources to diversify and to enhance our product lines and services. We understand the need for change and with our accurate planning, we are ready for the future and the promise of new marketing opportunities. Our tradition of growth through excellence is assured.

Our Design Centers work closely with customers to constantly improve its standard range of products and technologies and to develop customized, country and industry-specific solutions. Caledonian & Addison has established an extensive network of design, manufacturing, and logistics facilities in the world's major markets to serve the growing outsourcing needs of both multinational and regional customers.

Table of Contents

Enhanced Category 5 Cables

□ Applications:

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

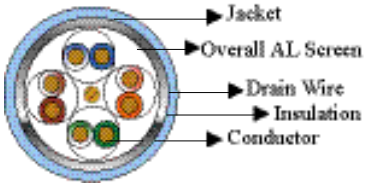
□ Standards:

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

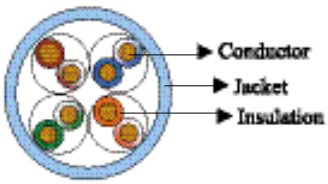
□ Product Construction Matrix:

	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



Cat5e F/UTP



Cat5e U/UTP

Cat5e SF/UTP

□ Working Frequency:

1-100MHz

□ Technical Parameters:

☆ Characteristic Impedance: 100±15Ω (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: 9.38Ω/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℃ ~+50℃
☆ Storage Temperature: -20℃ ~+60℃
☆ 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)

□ 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

Category 6 Cables

□ Applications:

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

□ Standards:

ISO / IEC 11801, EN50173, TIA / EIA 568-B

□ Product Construction Matrix:

	U/UTP	F/UTP	U/FTP	SF/UTP	S/FTP
Conductor	23AWG Solid Plain Copper	23AWG Solid Plain Copper	23AWG Solid Plain Copper	23AWG Solid Plain Copper	23AWG Solid Plain Copper
Insulation	PE	PE	PE	PE	PE
Screen	Nil	Overall Aluminum Tape Screen	Individual Aluminum Tape Screen	Overall Aluminum Tape Screen & Copper Wire Braid	Individual Aluminum Tape Screen & Overall Copper Wire Braid
Drain Wire	Nil	1/0.5 mm	1/0.5 mm	Nil	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 classified as CMX, CM, CMR and CMP

□ Working Frequency:

1-250MHz

□ Technical Parameters:

☆ Characteristic Impedance: 100±15Ω (1-250MHz)
☆ 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: 7.5Ω/100m
☆ Maximum Resistance Unbalance: 3%
☆ Maximum Propagation Delay Skew: 30ns/100m (1-125MHz)
☆ Maximum Propagation Delay: 536ns/100m@100MHz
☆ Minimum Bending radius: 10 x Overall Diameter
☆ Maximum Pulling load: 80N
☆ Working Temperature: -20℃ ~ +60℃
☆ Storage Temperature: -5℃ ~ +50℃
☆ Flame Retardancy:
UL 1581 (CM Jacket); UL 1666 (CMR Jacket)
UL 910 (CMP Jacket); IEC 60332-1 (FRPVC & LSZH Jacket)
IEC 60332-1 & IEC 60332-3C (LSFROH Jacket)

□ Product Certification:

E222756

□ Product Categories:

Construction	Conductor Diameter (mm)	Diameter Over Insulation (mm)	Pairs	Screen	Overall Diameter (mm)	Jacket
U/UTP	0.57/0.58	1.02	4	Nil	6.0	PVC/LSZH
U/UTP	0.57/0.58	1.02	4	Nil	6.5	LSFROH
U/UTP	0.57/0.58	1.02	4	Nil	6.2	PE
F/UTP	0.57/0.58	1.02	4	Overall Aluminum Tape Screen	6.3	PVC/LSZH
F/UTP	0.57/0.58	1.02	4	Overall Aluminum Tape Screen	6.5	PE
U/FTP	0.57/0.58	1.02	4	Individual Aluminum Tape Screen	7.5	PVC/LSZH
SF/UTP	0.57/0.58	1.02	4	Overall Aluminum Tape Screen & Copper Wire Braid	6.6	PVC/LSZH
SF/UTP	0.57/0.58	1.02	4	Overall Aluminum Tape Screen & Copper Wire Braid	7.1	LSFROH
S/FTP	0.57/0.58	1.02	4	Individual Aluminum Tape Screen & Overall Copper Wire Braid	8.0	PVC/LSZH
S/FTP	0.57/0.58	1.02	4	Individual Aluminum Tape Screen & Overall Copper Wire Braid	8.4	LSFROH

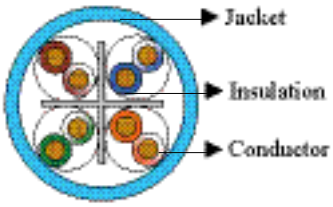
□ Product Highlights:

☆ Provide excellent bandwidth beyond 250 MHz.
☆ Support 10 Gigabit Ethernet application.
☆ Meet the strict flame retardancy and environmental requirements in Europe and US.
☆ Different jacket materials available for choice.
☆ Guaranteed ACR Value > 0dB @ 250MHz.
☆ Special purpose cables can be offered according to customer request.
☆ Different jacket color options available for choice.

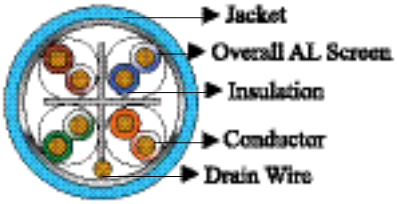
□ Transmission Properties:

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	77.3/87.0/74.3	2.0	20.0/21.5/20.0	75.2/85.0/72.2	68.8/80.0/67.8	75.3/85.0/72.3	73.2/83.0/70.2	65.8/70.0/64.8
4	68.3/77.0/65.3	3.8	23.0/24.7/23.0	64.4/73.0/61.4	56.8/66.0/55.8	66.3/74.0/63.3	62.5/71.0/59.5	53.8/63.0/52.8
8	63.8/72.0/60.8	5.3	24.5/25.5/24.5	58.4/67.0/55.4	50.7/61.0/49.7	61.8/70.0/58.8	56.5/65.0/53.5	47.7/58.0/46.7
10	62.3/70.0/59.3	6.0	25.0/28.0/25.0	56.3/64.0/53.3	48.8/57.0/47.8	60.3/68.0/57.3	54.3/62.0/51.3	45.8/54.0/44.8
16	59.2/66.0/56.2	7.6	25.0/28.0/25.0	51.6/59.0/48.6	44.7/52.0/43.7	57.2/64.0/54.2	49.6/57.0/46.6	41.7/49.0/40.7
20	57.8/65.0/54.8	8.5	25.0/28.0/25.0	49.3/57.0/46.3	42.8/50.0/41.8	55.8/63.0/52.8	47.3/55.0/44.3	39.8/47.0/38.8
25	56.3/63.0/53.3	9.5	24.3/27.0/24.3	46.8/5 4.0/43.8	40.8/47.0/39.8	54.3/61.0/51.3	44.8/52.0/41.8	37.8/44.0/36.8
31.25	54.9/61.0/51.9	10.7	23.6/26.5/23.6	44.1/51.0/41.1	38.9/45.0/37.9	52.9/59.0/49.9	42.1/49.0/39.1	35.9/42.0/34.9
62.5	50.4/57.0/47.4	15.4	21.5/24.6/21.5	34.9/42.0/31.9	32.9/38.0/31.9	48.4/55.0/45.4	32.9/40.0/29.9	29.9/35.0/28.9
100	47.3/53.0/44.3	19.8	20.1/23.7/20.1	27.4/33.0/24.4	28.8/34.0/27.8	45.3/51.0/42.3	25.4/31.0/22.4	25.8/31.0/24.8
200	42.8/48.0/39.8	29.0	18.0/22.2/18.0	13.6/21.0/10.6	22.8/27.0/21.8	40.8/46.0/37.8	11.6/19.0/8.6	19.8/24.0/18.8
250	41.3/46.0/38.3	32.8	17.3/21.6/17.3	8.3/14.0/5.3	20.8/24.0/19.8	39.3/44.0/36.3	6.3/12.0/3.3	17.8/21.0/16.8
300	37.1/45.0/37.1	36.4	16.8/20.7/16.8	0.5/11.0/0.5	18.3/23.0/18.3	35.1/43.0/35.1	-1.5/9.0/-1.5	15.3/20.0/15.3
350	36.1/44.0/36.1	39.8	16.3/20.3/16.3	-3.8/6.6/-3.8	16.9/21.0/16.9	34.1/42.0/34.1	-5.8/4.6/-5.8	13.9/18.0/13.9
400	35.3/43.0/35.3	43.0	15.9/16.8/15.9	-7.9/2.6/-7.9	15.8/20.0/15.8	33.3/41.0/33.3	-9.9/0.6/-9.9	12.8/17.0/12.8
450	34.5/42.0/34.5	46.3	15.5/16.5/15.5	-10.5/-1.1/-10.5	14.7/18.0/14.7	32.5/40.0/32.5	-12.5/-3.1/-12.5	11.7/15.0/11.7
500	33.8/41.0/33.8	48.9	15.2/16.1/15.2	-15.3/-6.2/-15.3	13.8/18.0/13.8	31.8/39.0/31.8	-17.3/-8.2/-17.3	10.8/15.0/10.8
550	33.2/41.0/33.2	51.8	14.9/15.7/14.9	-18.6/-12.0/-18.6	12.9/17.0/12.9	31.2/39.0/31.2	-20.6/-14.0/-20.6	9.9/13.0/9.9
600	32.4/33.0/32.4	54.5	14.7/15.0/14.7	-21.9/-21.0/-21.9	12.2/14.0/12.2	30.6/31.0/30.6	-23.9/-23.0/-23.9	9.2/11.0/9.2

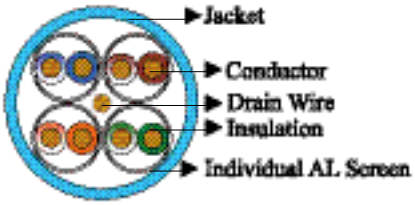
*Data for 250MHz above are for reference only



Cat6 U/UTP



Cat6 F/UTP



Cat6 U/FTP

Cat6 S/FTP

Cat6 SF/UTP

Augmented Category 6 Cables

□ Applications:

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

□ Standards:

ISO / IEC 11801, EN50173, TIA / EIA 568-B

□ Product Construction Matrix:

	U/UTP	F/UTP	U/FTP	SF/UTP	S/FTP
Conductor	23AWG Solid Plain Copper	23AWG Solid Plain Copper	23AWG Solid Plain Copper	23AWG Solid Plain Copper	23AWG Solid Plain Copper
Insulation	PE	PE	PE	PE	PE
Screen	Nil	Overall Aluminum Tape Screen	Individual Aluminum Tape Screen	Overall Aluminum Tape Screen & Copper Wire Braid	Individual Aluminum Tape Screen & Copper Wire Braid
Drain Wire	Nil	1/0.5 mm	1/0.5 mm	Nil	Nil
Jacket	PE/PVC/LSF/LSZH/LFLSFROH	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 classified as CMX, CM, CMR and CMP

□ Working Frequency:

1-500MHz

□ Technical Parameters:

☆ Characteristic Impedance: 100±15Ω (1-250MHz); 100±22Ω (100-500Mhz)
☆ 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: 7.5Ω/100m
☆ Maximum Resistance Unbalance: 3%
☆ Maximum Propagation Delay Skew: 30ns/100m (1-125MHz)
☆ Maximum Propagation Delay: 536 ns/100m @ 100MHz
☆ Minimum Bending radius: 10 x Overall Diameter
☆ Maximum Pulling load: 80N
☆ Working Temperature: -20℃ ~+ 60℃
☆ Storage Temperature: -5℃ ~ +50℃
☆ Flame Retardancy:
UL 1581 (CM Jacket); UL 1666 (CMR Jacket);
UL 910 (CMP Jacket); IEC 60332-1 (FRPVC & LSZH Jacket);
IEC 60332-1 & IEC 60332-3C (LSFROH Jacket)

□ Product Certification:

E222756

□ Product Categories:

Construction	Conductor Diameter (mm)	Diameter Over Insulation (mm)	Pairs	Screen	Overall Diameter (mm)	Jacket
U/UTP	0.57/0.58	1.02	4	Nil	8.5	PVC/LSZH
U/UTP	0.57/0.58	1.02	4	Nil	8.9	LSFROH
U/UTP	0.57/0.58	1.02	4	Nil	8.7	PE
F/UTP	0.57/0.58	1.02	4	Overall Aluminum Tape Screen	6.3	PVC/LSZH
F/UTP	0.57/0.58	1.02	4	Overall Aluminum Tape Screen	6.5	PE
U/FTP	0.57/0.58	1.02	4	Individual Aluminum Tape Screen	7.5	PVC/LSZH
SF/UTP	0.57/0.58	1.02	4	Overall Aluminum Tape Screen & Copper Wire Braid	6.6	PVC/LSZH
SF/UTP	0.57/0.58	1.02	4	Overall Aluminum Tape Screen & Copper Wire Braid	7.2	LSFROH
S/FTP	0.57/0.58	1.02	4	Individual Aluminum Tape Screen & Overall Copper Wire Braid	8.0	PVC/LSZH
S/FTP	0.57/0.58	1.02	4	Individual Aluminum Tape Screen & Overall Copper Wire Braid	8.4	LSFROH

□ Product Highlights:

☆ Provide excellent NEXT and attenuation performance beyond 500 MHz.
☆ Support 10 Gigabit Ethernet application.
☆ Meet the strict flame retardancy and environmental requirements in Europe and US.
☆ Different jacket materials available for choice.
☆ Special purpose cables can be offered according to customer request.
☆ Different jacket color options available for choice.

□ UTP Cat 6A 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	74.3/95.0/74.3	2.0	20.0/28.0/20.0	72.2/94.0/72.2	67.8/92.0/67.8	72.3/92.0/72.3	70.2/90.0/70.2	64.8/85.0/64.8
4	65.3/88.0/65.3	3.7	23.0/30.0/23.0	61.4/88.0/61.4	55.8/80.0/55.8	63.3/83.0/63.3	59.5/80.0/59.5	52.8/73.0/52.8
8	60.8/85.0/60.8	5.3	24.5/33.0/24.5	55.4/83.0/55.4	49.7/75.0/49.7	58.8/80.0/58.8	53.5/76.0/53.5	46.7/70.0/46.7
10	59.3/83.0/59.3	5.9	25.0/36.0/25.0	53.3/78.0/53.3	47.8/72.0/47.8	57.3/77.0/57.3	51.3/72.0/51.3	44.8/65.0/44.8
16	56.2/80.0/56.2	7.6	25.0/36.0/25.0	48.6/74.0/48.6	43.7/68.0/43.7	54.2/74.0/54.2	46.6/68.0/46.6	40.7/61.0/40.7
20	54.8/78.0/54.8	8.3	25.0/36.0/25.0	46.3/71.0/46.3	41.8/65.0/41.8	52.8/73.0/52.8	44.3/66.0/44.3	38.8/59.0/38.8
25	53.3/77.0/53.3	9.5	24.3/35.0/24.3	43.8/69.0/43.8	39.8/63.0/39.8	51.3/71.0/51.3	41.8/63.0/41.8	36.8/57.0/36.8
31.25	51.9/76.0/51.9	10.4	23.6/34.0/23.6	41.1/67.0/41.1	37.9/62.0/37.9	49.9/70.0/49.9	39.1/60.0/39.1	34.9/55.0/34.9
62.5	47.4/70.0/47.4	14.9	21.5/33.5/21.5	31.9/57.0/31.9	31.9/56.0/31.9	45.4/65.0/45.4	29.9/51.0/29.9	28.9/49.0/28.9
100	44.3/68.0/44.3	19.0	20.1/33.0/20.1	24.4/50.0/24.4	27.8/52.0/27.8	42.3/62.0/42.3	22.4/44.0/22.4	24.8/45.0/24.8
200	39.8/65.0/39.8	27.4	18.0/31.0/18.0	10.6/38.0/10.6	21.8/46.0/21.8	37.8/58.0/37.8	8.6/32.0/8.6	18.8/39.0/18.8
250	38.3/62.0/38.3	31.0	17.3/30.5/17.3	5.3/33.0/5.3	19.8/44.0/19.8	36.3/56.0/36.3	3.3/27.0/3.3	16.8/37.0/16.8
300	37.1/61.0/37.1	34.2	16.8/29.0/16.8	0.5/29.0/0.5	18.3/42.0/18.3	35.1/55.0/35.1	-1.5/24.0/-1.5	15.3/35.0/15.3
350	36.1/60.0/36.1	37.1.	16.3/28.0/16.3	-3.8/26.0/-3.8	16.9/41.0/16.9	34.1/54.0/34.1	-5.8/20.0/-5.8	13.9/34.0/13.9
400	35.3/59.0/35.3	40.0	15.9/27.0/15.9	-7.9/21.0/-7.9	15.8/40.0/15.8	33.3/53.0/33.3	-9.9/15.0/-9.9	12.8/33.0/12.8
450	34.5/58.0/34.5	46.3	15.5/26.5/15.5	-10.5/18.0/-10.5	14.7/40.5.0/14.7	32.5/52.0/32.5	-12.5/11.0/-12.5	11.7/32.5/11.7
500	33.8/57.0/33.8	45.3	15.2/26.0/15.2	-15.3/15.0/-15.3	13.8/39.0/13.8	31.8/51.0/31.8	-17.3/9.0/-17.3	10.8/32.0/10.8
625	32.4/53.0/32.4	51.1	14.5/25.0/14.5	-23.1/31.0/-23.1	11.8/36.0/11.8	30.4/50.0/30.4	-25.1/5.0/-25.1	8.8/29.0/8.8

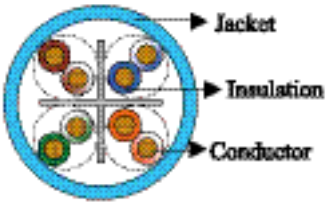
* Data for 250MHz above are for reference only

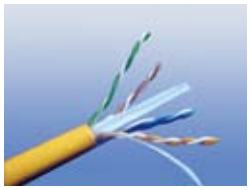
□ F/UTP & SF/UTP Cat 6A Transmission Properties:

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	74.3/86.0/74.3	2.0	20.0/33.0/20.0	72.2/84.0/72.2	67.8/91.0/67.8	72.3/81.0/72.3	70.2/80.5/70.2	64.8/84.0/64.8
4	65.3/77.0/65.3	3.7	23.0/35.5/23.0	61.4/73.0/61.4	55.8/79.0/55.8	63.3/72.0/63.3	59.5/70.0/59.5	52.8/72.0/52.8
8	60.8/75.0/60.8	5.3	24.5/36.0/24.5	55.4/70.0/55.4	49.7/74.0/49.7	58.8/69.0/58.8	53.5/66.0/53.5	46.7/69.0/46.7
10	59.3/71.0/59.3	5.9	25.0/38.0/25.0	53.3/66.0/53.3	47.8/71.0/47.8	57.3/65.0/57.3	51.3/62.0/51.3	44.8/64.0/44.8
16	56.2/68.0/56.2	7.6	25.0/35.2/25.0	48.6/61.0/48.6	43.7/67.0/43.7	54.2/62.0/54.2	46.6/58.0/46.6	40.7/60.0/40.7
20	54.8/67.0/54.8	8.3	25.0/35.0/25.0	46.3/59.0/46.3	41.8/65.0/41.8	52.8/61.0/52.8	44.3/55.0/44.3	38.8/59.0/38.8
25	53.3/65.0/53.3	9.5	24.3/34.0/24.3	43.8/57.0/43.8	39.8/63.0/39.8	51.3/60.0/51.3	41.8/53.0/41.8	36.8/57.0/36.8
31.25	51.9/64.0/51.9	10.4	23.6/33.1/23.6	41.1/54.0/41.1	37.9/61.0/37.9	49.9/54.0/49.9	39.1/50.0/39.1	34.9/54.0/34.9
62.5	47.4/59.0/47.4	14.9	21.5/32.2/21.5	31.9/44.0/31.9	31.9/55.0/31.9	45.4/58.0/45.4	29.9/41.0/29.9	28.9/48.0/28.9
100	44.3/56.0/44.3	19.0	20.1/31.6/20.1	24.4/38.0/24.4	27.8/51.0/27.8	42.3/50.0/42.3	22.4/34.0/22.4	24.8/44.0/24.8
200	39.8/52.0/39.8	27.4	18.0/29.8/18.0	10.6/25.0/10.6	21.8/45.0/21.8	37.8/45.0/37.8	8.6/20.5/8.6	18.8/38.0/18.8
250	38.3/50.0/38.3	31.0	17.3/28.7/17.3	5.3/19.0/5.3	19.8/43.0/19.8	36.3/44.0/36.3	3.3/15.0/3.3	16.8/36.0/16.8
300	37.1/49.0/37.1	34.2	16.8/28.0/16.8	0.5/14.0/0.5	18.3/38.0/18.3	35.1/43.0/35.1	-1.5/10.0/-1.5	15.3/31.0/15.3
350	36.1/48.0/36.1	37.1	16.3/27.5/16.3	-3.8/9.0/-3.8	16.9/37.0/16.9	34.1/41.0/34.1	-5.8/7.0/-5.8	13.9/30.0/13.9
400	35.3/47.0/35.3	40.0	15.9/27.0/15.9	-7.9/7.0/-7.9	15.8/36.0/15.8	33.3/40.0/33.3	-9.9/3.0/-9.9	12.8/29.0/12.8
450	34.5/47.0/34.5	46.3	15.5/26.5/15.5	-10.5/6.0/-10.5	14.7/35.0/14.7	32.5/39.0/32.5	-12.5/2.0/-12.5	11.7/27.5/11.7
500	33.8/47.0/33.8	45.3	15.2/26.0/15.2	-15.3/5.0/-15.3	13.8/34.0/13.8	31.8/38.0/31.8	-17.3/0.0/-17.3	10.8/27.0/10.8
625	32.4/45.0/32.4	51.1	14.5/25.0/14.5	-23.1/1.0/-23.1	11.8/33.0/11.8	30.4/37.0/30.4	-25.1/-3.9/-25.1	8.8/26.0/8.8

□ U/FTP & S/FTP Cat 6A Transmission Properties:

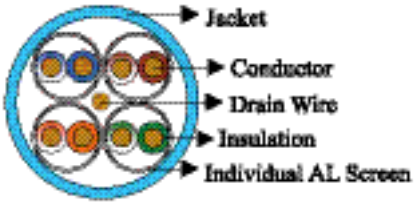
FREQ (MHz)	NEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value	IL (dB/100m)	RL (dB/100m) Minimum Value/ Typical Value/ Standard Value	ACR (dB/100m) Minimum Value/ Typical Value/ Standard Value	ELFEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value	PSNEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value	PSACR (dB/100m) Minimum Value/ Typical Value/ Standard Value	PSELFEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value
1	87.0/90.0/74.3	2.0	20.0/28.0/20.0	85.0/88.0/72.2	73.8/75.0/67.8	85.0/88.0/72.3	83.0/86.0/70.2	70.8/72.0/64.8
4	80.0/90.0/65.3	3.7	23.0/30.0/23.0	76.0/86.0/61.4	61.8/75.0/55.8	78.0/88.0/63.3	74.0/84.0/59.5	58.0/72.0/52.8
8	80.0/90.0/60.8	5.3	24.5/33.0/24.5	74.7/84.0/55.4	55.7/75.0/49.7	78.0/88.0/58.8	72.7/82.0/53.5	52.7/72.0/46.7
10	80.0/90.0/59.3	5.9	25.0/36.0/25.0	74.0/84.0/53.3	53.8/74.0/47.8	78.0/88.0/57.3	72.0/82.0/51.3	50.8/71.0/44.8
16	80.0/90.0/56.2	7.6	25.0/36.0/25.0	72.4/82.0/48.6	49.7/70.0/43.7	78.0/88.0/54.2	70.4/80.0/46.6	46.7/67.0/40.7
20	80.0/90.0/54.8	8.3	25.0/36.0/25.0	71.5/81.0/46.3	47.8/68.0/41.8	78.0/88.0/52.8	69.5/79.0/44.3	44.8/65.0/38.8
25	80.0/90.0/53.3	9.5	24.3/35.0/24.3	70.5/80.0/43.8	45.8/68.0/39.8	78.0/88.0/51.3	68.5/78.0/41.8	42.8/65.0/36.8
31.25	80.0/90.0/51.9	10.4	23.6/34.0/23.6	69.3/79.0/41.1	43.9/64.0/37.9	78.0/88.0/49.9	67.3/77.0/39.1	40.9/61.0/34.9
62.5	75.3/90.0/47.4	14.9	21.5/33.5/21.5	59.9/74.0/31.9	37.9/58.0/31.9	69.1/83.0/45.4	57.9/72.0/29.9	34.9/55.0/28.9
100	71.1/85.0/44.3	19.0	20.1/33.0/20.1	51.3/65.0/24.4	33.8/54.0/27.8	69.1/83.0/42.3	49.3/63.0/22.4	30.8/51.0/24.8
200	71.1/85.0/39.8	27.4	18.0/31.0/18.0	42.1/56.0/10.6	27.8/51.0/21.8	69.1/83.0/37.8	40.1/54.0/8.6	24.8/48.0/18.8
250	71.1/85.0/38.3	31.0	17.3/30.5/17.3	38.2/52.0/5.3	25.8/48.0/19.8	61.7/78.0/36.3	36.2/50.0/3.3	22.8/45.0/16.8
300	63.7/80.0/37.1	34.2	16.8/29.0/16.8	27.3/43.0/0.5	24.3/45.0/18.3	61.7/78.0/35.1	25.3/41.0/-1.5	21.2/42.0/15.3
350	63.7/80.0/36.1	37.1	16.3/28.0/16.3	23.9/40.0/-3.8	23.9/45.0/16.9	61.7/78.0/34.1	21.9/38.0/-5.8	19.9/42.0/13.9
400	63.7/80.0/35.3	40.0	15.9/27.0/15.9	20.7/37.0/-7.9	21.8/45.0/15.8	61.7/78.0/33.3	18.7/35.0/-9.9	19.7/42.0/12.8
450	63.7/80.0/34.5	46.3	15.5/26.5/15.5	17.4/33.0/-10.5	20.5/42.0/14.7	61.7/78.0/32.5	15.4/31.0/-12.5	17.5/39.0/11.7
500	63.7/80.0/33.8	45.3	15.2/26.0/15.2	14.8/31.0/-15.3	19.8/42.0/13.8	61.7/78.0/31.8	12.8/29.0/-17.3	16.8/39.0/10.8
625	60.0/70.0/32.4	51.1	14.5/25.0/14.5	5.5/15.5/-23.1	18.8/42.0/11.8	58.0/68.0/30.4	9.9/26.0/-25.1	16.0/39.0/8.8





Cat6A U/UTP

Cat6A F/UTP



Cat6A U/FTP

Cat6A S/FTP

Cat6A SF/UTP

Category 7 Cables

Applications:

155MbpsATM, 622MbpsATM, 1000Base-T, 10GBase-T

Standards:

IEC61156-5 CAT7, EN 50288-4-1

Product Construction Matrix:

	U/FTP	S/FTP
Conductor	22/23AWG Solid Plain Copper	22/23AWG Solid Plain Copper
Insulation	PE	PE
Screen	Individual Aluminum Tape Screen	Individual Aluminum Tape Screen & Overall Copper Wire Braid
Drain Wire	7/0.2 mm	Nil
Jacket	PE/PVC/LSF/LSZH/LSFROH	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 classified as CMX, CM, CMR and CMP

Working Frequency:

1-600MHz

Technical Parameters:

☆ Characteristic Impedance: 100±15Ω (1-250MHz); 100±22Ω (100-500Mhz)
☆ Nominal Velocity of Propagation (NVP): 79%
☆ Maximum Mutual Capacitance:5.6nF/100m
☆ Maximum DC Resistance: 5.9Ω/100m (22AWG); 7.5Ω/100m (23AWG)
☆ Maximum Resistance Unbalance:5%
☆ Maximum Propagation Delay Skew: 30ns/100m (1-125MHz)
☆ Maximum Propagation Delay: 536 ns/100m@100MHz
☆ Minimum Bending radius: 10 x Overall Diameter
☆ Voltage Rating: 60V rms
☆ Maximum Pulling load: 80N
☆ Working Temperature: -20℃ ~ +60℃
☆ Storage Temperature: -5℃ ~ +50℃
☆ Flame Retardancy: UL 1581 (CM Jacket); UL 1666 (CMR Jacket); UL 910 (CMP Jacket); IEC 60332-1 (FRPVC & LSZH Jacket); IEC 60332-1and IEC 60332-3C (LSFROH Jacket)

Product Categories:

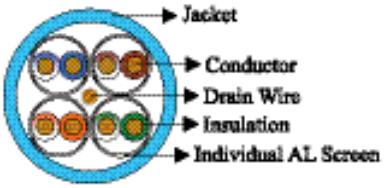
Construction	Conductor Diameter (mm)	Diameter Over Insulation (mm)	Pairs	Screen	Overall Diameter (mm)	Jacket
S/FTP	0.57/0.64	1.02	4	Individual Aluminum Tape Screen & Overall Copper Wire Braid	8.4/9.1	PVC/LSZH
S/FTP	0.57/0.64	1.02	4	Individual Aluminum Tape Screen & Overall Copper Wire Braid	8.4/9.1	LSFROH
U/FTP	0.57/0.64	1.02	4	Individual Aluminum Tape Screen	7.5/8.5	PVC/LSZH
U/FTP	0.57/0.64	1.02	4	Individual Aluminum Tape Screen	7.5/8.5	LSFROH

□ Product Highlights:

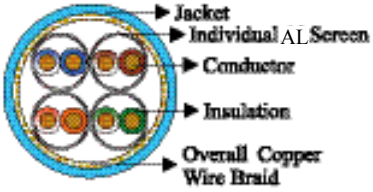
☆ Provide excellent bandwidth beyond 600 MHz.
☆ Support 10 Gigabit Ethernet application.
☆ Meet the strict flame retardancy and environmental requirements in Europe and US.
☆ Different jacket materials available for choice.

□ Tranmission 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	PP 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	90.0/100.0/80.0	2.0	20.0/23.0/20.0	88.0/98.0/78.0	85.0/90.0/80.0	87.0/97.0/77.0	85.0/95.0/75.0	82.0/87.0/77.0
4	90.0/100.0/80.0	3.6	23.0/26.0/23.0	86.4/96.0/76.4	85.0/90.0/80.0	87.0/97.0/77.0	83.4/93.0/73.4	82.0/87.0/77.0
10	90.0/100.0/80.0	5.7	25.0/28.0/25.0	84.3/94.0/74.3	79.0/90.0/74.0	87.0/97.0/77.0	81.3/91.0/71.3	76.0/87.0/71.0
16	90.0/100.0/80.0	7.2	25.0/28.0/25.0	83.3/92.0/72.8	74.9/90.0/69.9	87.0/97.0/77.0	80.3/89.0/69.8	71.9/87.0/66.9
20	90.0/100.0/80.0	8.1	25.0/28.0/25.0	82.5/91.0/71.9	73.0/90.0/68.0	87.0/97.0/77.0	79.5/88.0/68.9	70.0/87.0/65.0
31.25	90.0/100.0/80.0	10.1	23.6/26.0/23.6	80.0/90.0/69.9	69.1/90.0/64.1	87.0/97.0/77.0	77.0/87.0/66.9	66.1/87.0/61.1
62.5	90.0/100.0/75.5	14.5	21.5/24.0/21.5	76.0/85.0/61.0	63.1/85.0/58.1	80.0/97.0/72.5	73.0/82.0/58.0	60.1/82.0/55.1
100	90.0/100.0/72.4	18.5	20.1/23.0/20.1	72.5/75.0/53.9	59.0/80.0/54.0	87.0/97.0/69.4	69.5/72.0/50.9	56.0/77.0/51.0
200	90.0/100.0/67.9	26.8	18.0/23.0/18.0	65.0/70.0/41.1	53.0/75.0/78.0	87.0/97.0/64.9	62.0/67.0/38.1	50.0/72.0/45.0
250	95.0/90.0/66.5	30.2	17.3/23.0/17.3	50.0/58.0/36.3	51.0/70.0/46.0	92.0/87.0/63.5	47.0/55.0/33.3	48.0/67.0/43.0
300	95.0/90.0/65.3	33.3	17.3/23.0/17.3	59.0/55.0/32.0	49.5/66.0/44.5	92.0/87.0/63.3	56.0/52.0/29.0	46.5/63.0/41.5
600	80.0/90.0/60.8	48.9	17.3/20.0/17.3	32.0/50.0/11.9	43.4/60.0/38.4	77.0/87.0/57.8	29.0/47.0/8.9	40.4/57.0/35.4



Cat7 U/FTP



Cat7 S/FTP

Category 3 Multipair Cables

□ Applications:

10Base-T, 100Base-T4

□ Standards:

ISO/IEC11801, ANSI/TIA/EIA-568-B

□ Product Construction Matrix:

		U/UTP	F/UTP
Conductor	Material	Solid Plain Copper	Solid Plain Copper
	Stranding(No./mm)	1/0.5	1/0.5
	Gauge	24AWG	24AWG
Insulation	Material	PE	PE
	Diameter	0.86 mm	0.86 mm
Screen	Material	Nil	Aluminum /Polyester Tape
Drain Wire	Material	Nil	1/0.5 mm
Assembly	No of Pairs	25/50/100	25/50/100
Jacket	Material	PE/PVC/LSF/LSZH	PE/PVC/LSF/LSZH

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 classified as CMX, CM, CMR and CMP

□ Working Frequency:

1-16MHz

□ Product Certification:

E222756

□ Technical Parameters:

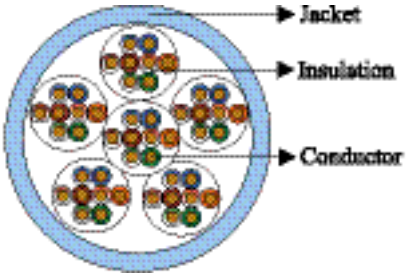
☆ Characteristic Impedance: 100±15Ω
☆ Nominal Velocity of Propagation (NVP): 69%
☆ Maximum DC Resistance: 9.38Ω/100m
☆ Maximum Resistance Unbalance: 5%
☆ Maximum Propagation Delay Skew: 30 ns/100m
☆ Maximum Propagation Delay: 536 ns/100m@100 MHz
☆ Minimum Bending radius: 10 x Overall Diameter
☆ Voltage Rating: 60V rms
☆ Maximum Pulling load: 80N
☆ Working Temperature: -20℃ ~ +60℃
☆ Storage Temperature: -5℃ ~ +50℃
☆ 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)

□ Product Categories:

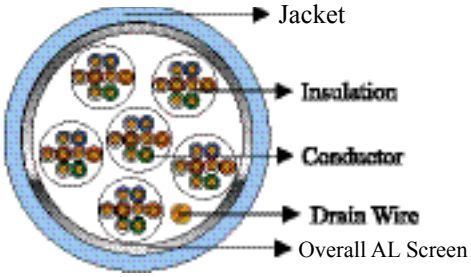
FREQ (MHz)	NEXT(dB/100m) Minmum Value/Typical Value/Standard Value	IL (dB/100m)	SRL(dB/100m) Minmum Value/Typical Value/Standard Value
1	43.0/48.0/41.0	2.6	13.0/16.0/12.0
4	34.0/38.0/32.0	5.6	13.0/16.0/12.0
8	29.0/33.0/26.0	8.5	13.0/16.0/12.0
10	28.0/33.0/26.0	9.8	13.0/16.0/12.0
16	25.0/30.0/23.0	13.1	11.0/14.0/10.0

Product Highlights:

☆ Provide excellent bandwidth beyond 600 MHz.
☆ Support 10 Gigabit Ethernet application.
☆ Meet the strict flame retardancy and environmental requirements in Europe and US.
☆ Different jacket materials available for choice.



Cat3 U/UTP



Cat3 F/UTP

Category 5 Multipair Cables

□ Applications:

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

□ Standards:

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

□ Product Construction Matrix:

		U/UTP	F/UTP	SF/UTP
Conductor	Material	Solid Plain Copper	Solid Plain Copper	Solid Plain Copper
	Stranding(No./mm)	1/0.5	1/0.5	1/0.5
	Gauge	24AWG	24AWG	24AWG
Insulation	Material	PE	PE	PE
	Diameter	0.86 mm	0.86 mm	0.86 mm
Screen	Material	Nil	Overall Aluminum Tape Screen	Overall Aluminum Tape Screen & Copper Wire Braid
Drain Wire	Material	Nil	1/0.5 mm	1/0.5 mm
Assembly	No of Pairs	25/50/100	25/50/100	25/50/100
Jacket	Material	PE/PVC/LSF/LSZH	PE/PVC/LSF/LSZH	PE/PVC/LSF/LSZH

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 classified as CMX, CM, CMR and CMP

□Working Frequency:

1-100MHz

□ Product Certification:

E222756

□Technical Parameters:

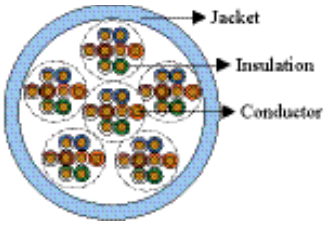
☆ Characteristic Impedance: 100±15Ω
☆ Nominal Velocity of Propagation(NVP): 69%
☆ Maximum DC Resistance: 9.38Ω/100m
☆ Maximum Mutual Capacitance: 5.6 nF/100m
☆ Maximum Capacitance Unbalance: 330 pF/100m
☆ Maximum Resistance Unbalance: 5%
☆ Maximum Propagation Delay Skew: 30 ns/100m
☆ Maximum Propagation Delay: 536 ns/100m@100 MHz
☆ Minimum Bending radius: 10 x Overall Diameter
☆ Voltage Rating: 60V rms
☆ Maximum Pulling load: 80N
☆ Working Temperature: -20 ℃ ~ +60℃
☆ Storage Temperature: -5℃ ~ + 50℃
☆ Flame Retardancy: UL 1581 (CM Jacket); UL 1666 (CMR Jacket); UL 910 (CMP Jacket); IEC 60332-1 (FRPVC & LSZH Jacket); IEC 60332-1 & IEC 60332-3C (LSFROH Jacket)

Product Highlights:

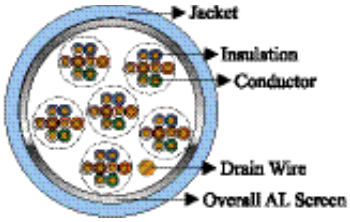
☆ Provide excellent bandwidth beyond 100 MHz.
☆ Designed for use in data and voice backbone application.
☆ Meet the strict flame retardancy and environmental requirements in Europe and US.
☆ Easily identifiable color code for ease of installation.

Transmission Properties:

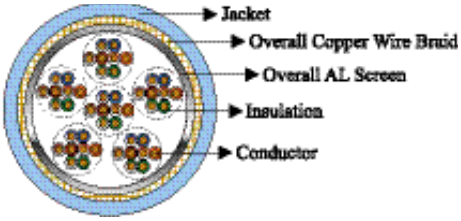
FREQ (MHz)	NEXT(dB/100m) Minimum Value/Typical Value/Standard Value	IL (dB/100m)	SRL (dB/100m) Minimum Value/Typical Value/Standard Value
1	64.0/71.0/62.0	2.0	24.5/26.0/23.0
4	55.0/62.0/53.0	4.0	24.5/26.0/23.0
8	49.5/57.0/48.0	5.7	24.5/26.0/23.0
10	49.0/56.0/47.0	6.4	24.5/26.0/23.0
16	44.9/52.0/44.0	8.2	24.5/26.0/23.0
20	42.5/48.0/42.0	9.2	24.5/26.0/23.0
25	42.0/48.0/41.0	10.3	24.5/26.0/23.0
31.25	40.6/48.0/39.0	11.6	22.5/24.0/21.0
62.5	36.1/43.0/35.0	16.9	19.5/22.0/18.0
100	34.0/40.0/32.0	21.8	17.5/20.0/16.0



Cat5 U/UTP



Cat5 F/UTP



Cat5 SF/UTP

Enhanced Category 5 Multipair 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	Material	Solid Plain Copper	Solid Plain Copper	Solid Plain Copper
	Stranding(No./mm)	1/0.5	1/0.5	1/0.5
	Gauge	24AWG	24AWG	24AWG
Insulation	Material	PE	PE	PE
	Diameter	0.86 mm	0.86 mm	0.86 mm
Screen	Material	Nil	Overall Aluminum Tape Screen	Overall Aluminum Tape Screen & Copper Wire Braid
Drain Wire	Material	Nil	1/0.5 mm	1/0.5 mm
Assembly	No of Pairs	25/50/100	25/50/100	25/50/100
Jacket	Material	PE/PVC/LSF/LSZH		

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 classified as CMX, CM, CMR and CMP

□ Working Frequency:

1-100MHz

□ Product Certification:

E222756

□ Technical Parameters:

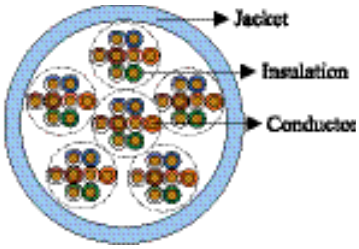
☆ Characteristic Impedance: 100±15Ω
☆ Nominal Velocity of Propagation(NVP): 69%
☆ Maximum DC Resistance: 9.38Ω/100m
☆ Maximum Mutual Capacitance: 5.6nF/100m
☆ Maximum Capacitance Unbalance: 330pF/100m
☆ Maximum Resistance Unbalance: 5%
☆ Maximum Propagation Delay Skew: 30 ns/100m
☆ Maximum Propagation Delay: 536ns/100m@100MHz
☆ Minimum Bending radius: 10 x Overall Diameter
☆ Voltage Rating: 60V rms
☆ Maximum Pulling load: 80N
☆ Working Temperature: -20℃ ~ +60℃
☆ Storage Temperature: -5℃ ~+50℃
☆ Flame Retardancy: UL 1581 (CM Jacket); UL 1666 (CMR Jacket); UL 910 (CMPJacket); IEC 60332-1 (FRPVC & LSZH Jacket); IEC 60332-1 & IEC 60332-3C (LSFROH Jacket)

□ Product Highlights:

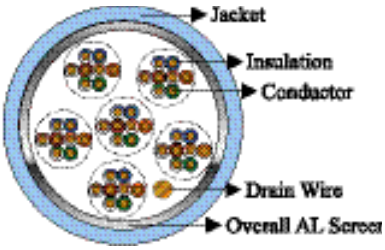
☆ Provide excellent bandwidth beyond 200 MHz.
☆ Designed for use in data and voice backbone application.
☆ Meet the strict flame retardancy and environmental requirements in Europe and US.
☆ Easily identifiable color code for ease of installation.
☆ Different jacket options available for choice.

□ Transmission Properties:

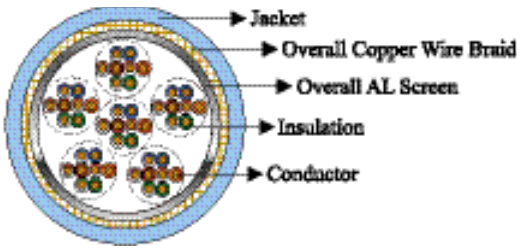
FREQ (MHz)	NEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value	IL (dB/100m)	RL (dB/100m) Minimum Value/ Typical Value/ Standard Value	ACR (dB/100m) Minimum Value/ Typical Value/ Standard Value	ELFEXT (dB/100m) Minimum Value/ Typical Value/ Standard Value	PSNEXT (dB/100m) Minimum Value/ Typical 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	65.3/71.0/62.3	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	11.4	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



Cat5e U/UTP



Cat5e F/UTP



Cat5e SF/UTP