

Electrical Performance

CAT5E UTP LAN CABLE	For details, please see Attachment 1
RG6 Quad Shield Coaxial Cable	For details, please see Attachment 2

Description

One 4 Pair Cat5E UTP Cable
Complies to TIA 568-C.2
 24 Awg Solid Bare Copper Conductor / PE Insulation

One rg6 Quad Shield Coaxial Cable
Complies to SCTE ISP-IP-001
 18 Awg Copper Clad Steel (CCS)
 Al foil / 60% Al-Mg alloy Braid Shield +
 Al foil / 40% Al-Mg alloy Braid Shield

Electrical Characteristics

CAT5E UTP LAN CABLE	For details, please see Attachment 1
RG6 Quad Shield Coaxial Cable	For details, please see Attachment 2

Applicable Standards

For use in Home Network Systems
Reference Standard
 SCTE IPS-SP-001, TIA-568-C.2

Mechanical Characteristics

Test Object		Outer Jacket	
	Test Material	PVC	
Before	Tensile Strength (Mpa)	>=1.034	
Aging	Elongation (%)	>=200	
	Aging Condition (°C x hrs)	113.0 ± 1.0 x 168	
After	Tensile Strength (Mpa)	>=85% unaged	
Aging	Elongation (%)	>=50% unaged	
	Cold Bend (-20 ± 2°C x 4 hrs)	No crack	

Physical Characteristics

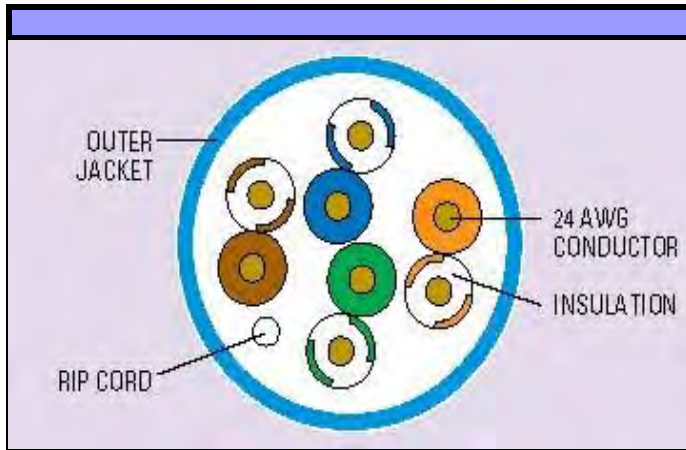
CAT5E TUP LAN CABLE	For details, please see Attachment 1
RG6 Quad Shield Coaxial Cable	For details, please see Attachment 2
Nominal Weight	32 lbs.

Cable Marking

CMR CAT5E 350 MHZ 4PR 24 AWG AND RG6 QUAD TYPE CMR FT4 18 AWG C(ETL)US XXXXXX SWEPT TO 3.0 GHZ RM A B C D E F 1 2 3 4 5 6 7 8****FT

Part Numbers

Part Number	Color	Put-up	
H15E16QMBL2-500	Blue	500'	Reel



Description

24 AWG Cat5E CMR, High-Performance Data Cable

Applicable Standards

- ETL Listed Type CMR
- C(ETL) listed CMG FT4
- ETL Verified to TIA - 568-C.2, and ISO/IEC 11801
- ROHS Compliant
- ATM 155 Mbps
- Ethernet 10BASE-T, 100BASE-TX, 100BASE-VG, 100BASE-T4,
- 1000 Mbps 1000BASE-T Gigabit Ethernet™ (IEEE 802.3)
- 16 Mbps Token Ring™ (IEEE 802.5)

Physical Characteristics

Number of Conductor Pairs	4
Size	24 AWG
Stranding	Solid
Conductor Material	Solid Annealed Bare Copper
Shield Material	Unshielded
Rip Cord	Yes
Insulation Material	Polyethylene
Insulation Overall Diameter	0.035 in. ± 0.0002 in.
Insulation Average Thickness	0.0081 in.
Jacket	Flame Retardant PVC
Outer Jacket Average Wall Thickness	0.023 in.
Outer Jacket Nominal O.D.	0.200 in. ± 0.008 in.

Mechanical Characteristics

Temperature Rating	Installation	0 to + 60°C
	Operating	-20°C to + 75°C
Tensile Strength	Before	> = 13.8 Mpa
	Aging	> = 100%
Aging Condition		100°C x 240 hours
	After Aging	> = 85% of unaged > = 50% of unaged

Color Code

Pair 1	White / Blue	Blue
Pair 2	White / Orange	Orange
Pair 3	White / Green	Green
Pair 4	White / Brown	Brown

Electrical Performance

Frequency (MHz)	Attenuation (dB/100m)		Return loss (dB)		NEXT (dB)		PS-NEXT (dB)	
	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
0.772	1.8	1.5	23.0	33.0	72.0	81.1	70.0	78.7
1	2.0	1.8	23.0	38.6	70.3	79.4	68.3	76.9
4	4.1	3.6	23.0	39.8	61.2	69.9	59.3	67.4
8	5.8	5.1	24.5	38.2	56.8	61.9	54.8	59.4
10	6.5	5.8	25.0	38.0	55.3	62.4	53.5	59.9
16	8.2	7.4	25.0	37.4	52.3	57.8	50.3	55.2
20	9.3	8.2	25.0	36.8	50.8	56.4	48.8	53.8
25	10.4	9.3	24.3	35.2	49.3	56.3	47.3	53.6
31.25	11.7	10.5	23.6	33.3	47.9	53.8	45.9	51.1
62.5	17.0	14.9	21.5	32.2	43.4	49.8	41.4	47.4
100	22.0	19.2	20.1	31.3	40.3	47.5	38.3	45.0
155	28.1	24.2	18.8	29.8	37.4	45.1	35.4	42.6
200	32.4	27.3	18.0	28.5	35.7	43.3	33.7	40.2
250	38.9	30.9	17.5	27.3	34.8	41.4	32.5	39.0
300	41.0	34.1	16.8	25.6	33.1	40.2	31.1	37.7
350	44.9	37.8	16.3	23.2	32.1	39.0	30.1	36.5

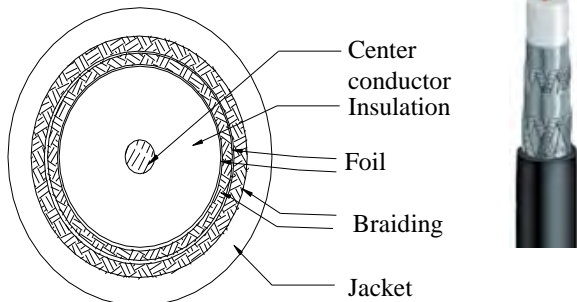
Electrical Characteristics

Frequency (MHz)	ELFEXT (dB)		PS-ELFEXT (dB)		ACR (dB)		PS-ACR (dB)	
	Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.
0.772	66.0	73.3	63.0	72.7	70.2	79.2	68.2	77.0
1	63.8	71.3	60.8	70.6	68.2	77.6	66.3	75.0
4	51.7	59.4	48.7	58.7	57.2	66.3	55.2	63.5
8	45.7	53.2	42.7	51.1	51.0	59.8	49.0	56.9
10	43.8	50.5	40.8	49.7	48.8	56.6	47.0	53.7
16	39.7	47.0	36.7	45.1	43.0	53.0	42.1	47.4
20	39.7	45.0	34.7	43.6	41.5	50.5	39.5	45.0
25	35.8	43.3	32.8	42.0	38.9	47.0	36.9	43.7
31.25	33.9	41.3	30.9	40.5	36.5	43.3	34.2	40.0
62.5	27.8	35.8	24.8	34.5	26.4	35.0	24.4	31.2
100	23.8	31.3	20.8	30.3	18.3	26.2	16.3	24.2
155	19.9	27.5	16.9	26.9	10.0	20.9	7.3	15.9
200	17.7	24.7	14.7	24.5	5.0	16.0	2.0	10.0
250	17.1	22.2	14.0	22.5	0.0	10.6	-	4.0
300	16.7	20.5	13.5	20.7	-	6.1	-	-1.3
350	16.0	19.4	12.8	19.6	-	1.2	-	-6.4

* Values above 100MHz are information only

Electrical Characteristics

Maximum Conductor DC Resistance @ 20°C	9.38 Ω / 100 Meters
Maximum DC Resistance Unbalanced @ 20°C	5%
Maximum Pair-to-Pair Ground Capacitance Unbalanced	330 pF / 100 Meters
Characteristic Impedance (1 ~ 350 MHz)	100 ± 15 Ω
Mutual Capacitance	5.6 nF / 100 Meters
Maximum Delay Skew	40 nS / 100 Meters



Electrical Performance			
Frequency (MHz)	Attenuation (dB/100m)	Frequency (MHz)	Attenuation (dB/100m)
1	0.89		
10	2.66	1000	21.61
50	4.79	1200	23.67
100	6.72	1450	26.03
200	9.28	1800	28.98
400	13.28	2200	32.03
700	18.36	2400	32.83
900	20.43	3000	37.88

Description

RG-6/U QUAD CATV 75 Ω Coaxial Cable

Applicable Standards

Reference Standard

SCTE IPS-SP-001
UL 1655, UL 13, UL 444, ROHS

Physical Characteristics

Conductor		C.C.S.
AWG		18
Diameter	(mm)	1.02
Insulation		FOAM FEP
Nom. Thickness		(mm) 1.78
Insulation Diameter	(± 0.08mm)	4.57
First Braid Shield		Aluminum Wire
First Al-maylar Shield (Overlapping, %)		>=25
Construction	(mm)	16 / 4 / 0.16
Coverage Area	(%)	>=60
Second Braid Shield		Aluminum Wire
Second Al-maylar Shield (Overlapping, %)		>=25
Construction	(mm)	16 / 3 / 0.16
Coverage Area	(%)	>=40
Jacket		PVC
Nom. Thickness		(mm) 0.65
Min. Thickness		(mm) 0.50
Cable Diameter	(± 0.20mm)	7.30

Electrical Characteristics

Dielectric Strength	(kV/min)	1.0
Impedence	(± 3.0 Ohms)	75.0
SRL	(dB, 5-1,000 MHz)	>=20
Capacitance	(pF/m)	53.1
Conductor DCR@20° C	(ohms/km)	<=21.4
Velocity of Propagation	(%)	>=82

Mechanical Characteristics

Test Object			Jacket
Test Material			PVC
Before	Tensile Strength	(Mpa)	>=1.034
Aging	Elongation	(%)	>=200
Aging Condition			(°C x hrs) 113.0 ± 1.0 x 168
After	Tensile Strength	(Mpa)	>=85% unaged
Aging	Elongation	(%)	>=50% unaged
Cold Bend			(-20 ± 2°C x 4 hrs) No crack
Jacket impact test			(-15°C) No crack
Jacket Longitudinal Shrinkage			(%) <=5
Center Conductor Break Strength			(N) >=641
Center Conductor Bond to dielectric			(N) >=2.3