WONDERFUL

Elite 10GX LAN

UTP Augmented Cat.6

PRODUCTS FEATURE

- ELITE 10GS LAN SUPPORTS IEEE 802.3an 10G BASE-T STANDARD, AND TIA 568-C.2
- ALL MATERIALS COMPLY WITH ROHS STANDARD
- TEST RANGE FROM 1 TO 750 MHZ
- GREAT PERFORMANCE WITH HEADROOM OF UP to 6dB
- PHYSICAL PROPERTIES

DESCRIPTION	CABLE O.D.	CABLE WEIGHT	MIN. BEND RADIUS
ELITE 10GS LAN LSOH/RISER	8.5 mm	20.5KG/KFT	38mm
ELITE 10GS LAN PLENUM	8.5 mm	23.2KG/KFT	38mm

CONSTRUCTION LSOH / RISER / PLENUM

Conductor

●23 AWG Solid bare copper

Insulation

●Non-Plenum: Polyolefin(PE)

●Plenum: Fluoropolymer(FEP)

Color Code

●Pair1:Blue-White/ Blue

●Pair2:Orange-White/ Orange

●Pair3:Green-White/ Green

●Pair4:Brown-White/ Brown

Crossweb

●Non-Plenum: Polyolefin(PE)

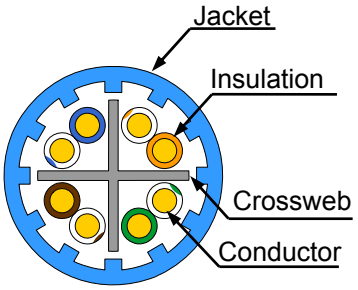
●Plenum: Fluoropolymer(FEP)

Jacket

●Low-smoke, flame-retardant LSOH/PVC

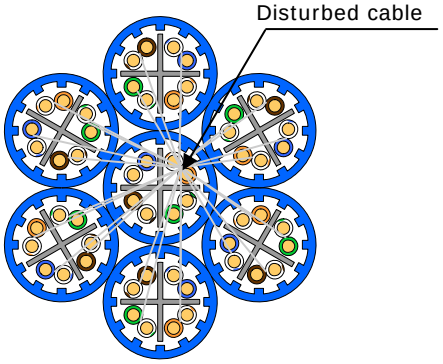
Cable assembly

●4 pairs cabled together with a crossweb core separator.



6-around-1 cable test configuration:

This test is for measuring alien crosstalk loss between pairs of adjacent cables in a 7-cable assembly consisting of the same design. Measure the ANEXT loss and AFEXT loss between each of the pairs of the disturbed cable and each pair of every disturbing cable. This will result in 96 measurements each for ANEXT loss and AFEXT loss.



Elite 10GS family-cables are under the 6-around-1 cable test.

ELECTRICAL PROPERTIES FOR BOTH RISER AND PLENUM

CONDUCTOR DCR: 9.38 /100M @20C
DCR UNBALANCE: 3%MAX
CAPACITANCE UNBALANCE
PAIR/GROUND: 330?F/100M MAX
CHARACTERISTIC
IMPEDANCE 100 ±10%(10-550MHz)
INPUT 100 ±12%(1-100MHz)
IMPEDANCE: 100 ±15%(>100-350MHz)
100 ±22%(>350MHz)
RETURN LOSS: 20+7log(f) dB MIN (1-10MHz)
27 dB MIN(10-20MHz)
27-7log(f/20)dB MIN(>20MHz)
INSERTION LOSS: $1.82\sqrt{f}+0.0091f+0.25/\sqrt{f}$ dB/100M MAX
(ATTENUATION)
NEAR END(NEXT)
CROSSTALK: 48.3– 15 log(f/100) dB/100M MIN

POWER SUM NEAR END
CROSSTALK (PS NEXT): 46.3- 15log(f/100) dB/100M MIN
ATTENUATION TO CROSSTALK
RATIO FAR END(ACRF): 31.8- 20log(f/100) dB/100M MIN
POWER SUM ATTENUATION TO CROSSTALK
RATIO FAR END (PS ACRF): 28.8- 20 log(f/100) dB/100M MIN
POWER SUM ALIEN NEAR END
CROSSTALK (PS ANEXT): 62.5- 15 log(f/100) dB/100M MIN
67 dB MIN
POWER SUM ALIEN ATTENUATION TO CROSSTALK RATIO
FAR END (PS AACRF): 38.2- 20 log(f/100) dB/100M MIN
67dB MIN
PROPAGATION DELAY: $534 + 36/\sqrt{f}$ ns/100m MAX
PROPAGATION DELAY SKEW: 35 ns/100m MAX
NOMINAL VELOCITY OF 70% PLENUM
PROPAGATION (NVP): 66% NON-PENUM
NOTE: Attenuation To Crosstalk Ratio Far End (ACRF) was previously referred to as Equal Level Far End Crosstalk (ELFEXT)
WHERE f = FREQUENCY IN MHz from 1 to 500 MHz

REFERENCE ELECTRICAL CHARACTERISTICS

FREQ	INS LOSS	RETURN LOSS	NEXT	PS NEXT	ACRF	PS ACRF	PROP DELAY	ALIEN CROSSTALK	
								PS ANEXT	PS AACRF
(MHz)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)	(dB/100m)
	max	min	Min	min	min	min	max	min	min
1.0	2.1	20.0	78.3	76.3	71.8	68.8	570.0	67.0	67.0
4.0	3.8	24.2	69.3	67.3	59.8	56.8	552.0	67.0	66.2
8.0	5.3	26.3	64.8	62.8	53.7	50.7	546.7	67.0	60.1
10.0	5.9	27.0	63.3	61.3	51.8	48.8	545.4	67.0	58.2
16.0	7.5	27.0	60.2	58.2	47.7	44.7	543.0	67.0	54.1
20.0	8.4	27.0	58.8	56.8	45.8	42.8	542.0	67.0	52.2
25.0	9.4	26.3	57.3	55.3	43.8	40.8	541.2	67.0	50.2
31.25	10.5	25.6	55.9	53.9	41.9	38.9	540.4	67.0	48.3
62.5	15.0	23.5	51.4	49.4	35.9	32.9	538.6	65.6	42.3
100.0	19.1	22.1	48.3	46.3	31.8	28.8	537.6	62.5	38.2
155.0	24.1	20.8	45.4	43.4	28.0	25.0	536.9	59.6	34.4
200.0	27.6	20.0	43.8	41.8	25.8	22.8	536.5	58.0	32.2
250.0	31.1	19.3	42.3	40.3	23.8	20.8	536.3	56.5	30.2
300.0	34.3	18.8	41.1	39.3	22.3	19.3	536.1	55.3	28.7
350.0	37.2	18.3	40.1	38.1	20.9	17.9	535.9	54.3	27.3
400.0	40.1	17.9	39.3	37.3	19.8	16.8	535.8	53.5	26.2
500.0	45.3	17.5	37.8	35.8	17.8	14.8	535.6	52.0	24.2
550.0	47.7	17.2	37.2	35.2	-	-	-	-	-
600.0	50.1	16.9	36.6	34.6	-	-	-	-	-
650.0	52.3	16.7	36.1	34.1	-	-	-	-	-
750	56.8	16.0	35.2	33.2	-	-	-	-	