

Specification for Approval

Product Part Number

- DB2404L6SH

Product Description

- F/UTP, 23AWG solid bare copper, CAT.6, CMX outdoor
- With cross filler
- Overall metal foil screen with drain wire
- Sunlight resistant
- With water-blocking tape

Product Features

- High performance of transmission.
- High quality of safety property.
- Sweep frequency up to 400 MHz.

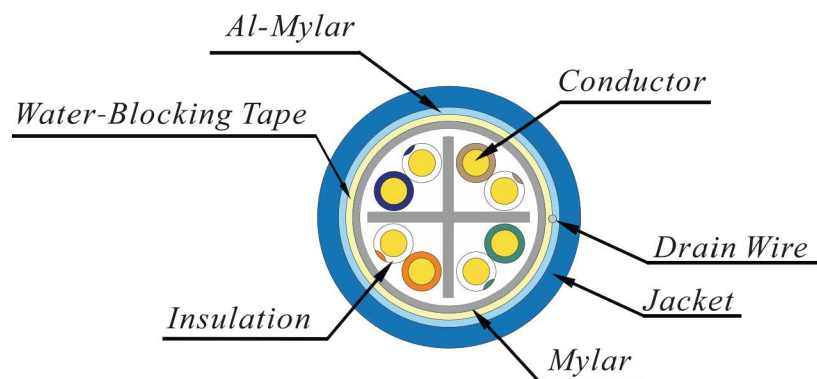
Application

- For outdoor and direct burial use.
- Transmission of digital and analogue for data, video and audio applications.
- Overall metal shielded providing good protection from EMI noise.
- IEEE 802.3ab 1000BASE-T, 1000BASE-TX and legacy speeds.
- CDDI / ATM / Token Ring
- IEEE 802.3af (PoE) / IEEE 802.3at (PoE+)

Applicable Standard

- Electrical Transmission
 - ANSI/TIA-568-C.2 (2009)
 - ISO/IEC 11801 (Edition 2.2)
 - IEC 61156-5 (Edition 2.0)
- Flame Test
 - UL 2556 (CMX)
- Material and Construction
 - UL 444
 - CSA 22.2 NO.214
- EU Directive 2011/65/EC (RoHS2)
- EU Directive 2006/95/EC (LVD)
- CE compliance date: 2010.01.01

Sectional Drawing



Establish Date	2014.03.01	Edition	1.1	Revised Date	2014.10.17
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Material and Construction

Conductor	Material	23AWG solid bare copper	
Insulation	Material	Polyolefin (PO)	
	Color code & diameter	Blue & white/blue Stripe	1.08 ± 0.02 mm
		Orange & white/orange stripe	1.03 ± 0.02 mm
		Green & white/green stripe	1.06 ± 0.02 mm
		Brown & white/brown stripe	1.03 ± 0.02 mm
Twisted	Description	Left hand direction	
Filler	Material	Polyolefin (PO)	
Assembly	Description	Left hand direction	
Shield	Material	Mylar tape	
Shield	Material	Water-blocking tape	
Drain wire	Material	24AWG solid tinned copper	
Shield	Material	Al Mylar tape	
	Description	100 % coverage and mylar side facing out	
Jacket	Material	Flame retardant polyvinyl chloride (FRPVC) or Polyethylene (PE)	
	Diameter	7.65 ± 0.2 mm	
	Thickness	0.50 ± 0.05 mm	
	Color	Per customer's request	
Marking	WELTRON CAT 6 GIGASYSTEM TESTED TO 400MHz---E465248-001 FTP 4PR 23AWG 75°C (UL) CMX OUTDOOR UV RESISTANT DIRECT BURIAL---ETL VERIFIED TO TIA-568-C. 2 mmyy ¹ RoHS COMPLIANT XXXXFT Note 1: mmyy is date code.		

Usage & Environmental Condition

Temperature range	Storage & shipping	-20°C to 75°C
	Installation	0°C to 60°C
	Operation	-20°C to 60°C
Minimum bending radius	≥ 4 times of overall diameter	
Maximum pulling tension	≤ 110 N	

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Physical & Electrical Characteristics (at 20°C)

Temperature & voltage rating	75°C / 300V
Spark test	2.5 KV DC
AC leakage current through overall jacket	≤ 10mA (1.5KV AC)
Cable cold bend	-20°C for 4 hr
Conductor DC resistance	≤ 9.38 Ω/100m
Resistance unbalance	≤ 5%
Dielectric strength	1.5 KV ac for 2 s
Insulation resistance	≥ 5000 MΩ · m
Mutual capacitance	≤ 5.6 nF/100m
Capacitance unbalance pair-to-ground	≤ 330 pF/100m

Transmission Performance (at 20°C)

Frequency (MHz)	IL	NEXT	PS.NEXT	ACR	PS.ACR	ACRF	PS.ACRF	RL	Propagation Delay	Delay Skew
	Max. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Max. ns/100m	Max. ns/100m
1	2.03	77.30	75.30	75.28	73.28	70.80	67.80	20.00	570.00	45.00
4	3.78	68.27	66.27	64.49	62.49	58.76	55.76	23.01	552.00	
8	5.32	63.75	61.75	58.43	56.43	52.74	49.74	24.52	546.73	
10	5.95	62.30	60.30	56.35	54.35	50.80	47.80	25.00	545.38	
16	7.55	59.24	57.24	51.68	49.68	46.72	43.72	25.00	543.00	
20	8.47	57.78	55.78	49.31	47.31	44.78	41.78	25.00	542.05	
25	9.51	56.33	54.33	46.83	44.83	42.84	39.84	24.32	541.20	
31.25	10.67	54.88	52.88	44.20	42.20	40.90	37.90	23.64	540.44	
62.5	15.38	50.36	48.36	34.98	32.98	34.88	31.88	21.54	538.55	
100	19.80	47.30	45.30	27.50	25.50	30.80	27.80	20.11	537.60	
150	24.71	44.66	42.66	19.95	17.95	27.28	24.28	18.87	536.94	
200	28.98	42.78	40.78	13.80	11.80	24.78	21.78	18.00	536.55	
250	32.85	41.33	39.33	8.48	6.48	22.84	19.84	17.32	536.28	
300	36.43	40.14	38.14	3.72	1.72	21.26	18.26	16.77	536.08	
350	39.79	39.14	37.14	N.A.	N.A.	19.92	16.92	16.30	535.92	
400	42.97	38.27	36.27	N.A.	N.A.	18.76	15.76	15.89	535.80	

Values above 250MHz are for information only.