

# Weltron®

## Specification for Approval

### Product Part Number

- DB2404L6

### Product Description

- U/UTP, 23AWG solid bare copper, CAT.6, CMX outdoor
- With cross filler
- Sunlight resistant
- With water-blocking tape

### Product Features

- High performance of transmission.
- High quality of safety property.
- Sweep frequency up to 600 MHz.

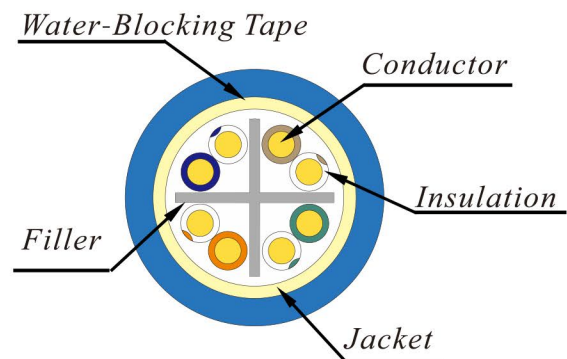
### Application

- Transmission of digital and analogue for data, video and audio applications.
- 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 2.1)
- Flame Test
  - UL 2556 (CMX)
- Material and Construction
  - UL 444
  - CSA 22.2 NO.214
- EU Directive 2011/65/EU (RoHS2)
- EU Directive 2006/95/EC (LVD)

### Sectional Drawing



**All Material According To SS-00259**

### Material and Construction

Establish Date	2014.03.01	Edition	1.1	Revised Date	2014.10.13
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Conductor	Material	23AWG solid bare copper	
Insulation	Material	Polyolefin (PO)	
	Color code & diameter	Blue & white/blue Stripe	0.97 ± 0.02 mm
		Orange & white/orange stripe	0.93 ± 0.02 mm
		Green & white/green stripe	0.96 ± 0.02 mm
Brown & white/brown stripe		0.93 ± 0.02 mm	
Twisted	Description	Left hand direction	
Filler	Material	Polyolefin (PO)	
Assembly	Description	Left hand direction	
Shield	Material	Water-blocking tape	
Jacket	Material	Polyethylene (PE)	
	Diameter	6.7 ± 0.2 mm	
	Thickness	0.50 ± 0.05 mm	
	Color	Per customer's request	
Marking	<p>WELTRON CAT 6E GIGASYSTEM TESTED TO 600MHz --- E142890 UTP 4PR 23AWG 75 °C C(UL)US CMX OUTDOOR UV RESISTANT --- ETL VERIFIED TO TIA-568-C.2 mmyy<sup>1</sup>            RoHS COMPLIANT XXXXFT</p> <p>Note 1: mmyy is date code</p>		

### 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	

### Physical & Electrical Characteristics (at 20°C)

Temperature rating	75°C
Spark test	2.5 KV DC

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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 · km
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	74.30	72.30	72.28	70.28	67.80	64.80	20.00	570.00	45.00
4	3.78	65.27	63.27	61.49	59.49	55.76	52.76	23.01	552.00	
8	5.32	60.75	58.75	55.43	53.43	49.74	46.74	24.52	546.73	
10	5.95	59.30	57.30	53.35	51.35	47.80	44.80	25.00	545.38	
16	7.55	56.24	54.24	48.68	46.68	43.72	40.72	25.00	543.00	
20	8.47	54.78	52.78	46.31	44.31	41.78	38.78	25.00	542.05	
25	9.51	53.33	51.33	43.83	41.83	39.84	36.84	24.32	541.20	
31.25	10.67	51.88	49.88	41.20	39.20	37.90	34.90	23.64	540.44	
62.5	15.38	47.36	45.36	31.98	29.98	31.88	28.88	21.54	538.55	
100	19.80	44.30	42.30	24.50	22.50	27.80	24.80	20.11	537.60	
150	24.71	41.66	39.66	16.95	14.95	24.28	21.28	18.87	536.94	
200	28.98	39.78	37.78	10.80	8.80	21.78	18.78	18.00	536.55	
250	32.85	38.33	36.33	5.48	3.48	19.84	16.84	17.32	536.28	
300	36.43	37.14	35.14	0.72	N.A.	18.26	15.26	16.77	536.08	
350	39.79	36.14	34.14	N.A.	N.A.	16.92	13.92	16.30	535.92	
400	42.97	35.27	33.27	N.A.	N.A.	15.76	12.76	15.89	535.80	
450	46.01	34.50	32.50	N.A.	N.A.	14.74	11.74	15.53	535.70	
500	48.94	33.82	31.82	N.A.	N.A.	13.82	10.82	15.21	535.61	
550	51.76	33.19	31.19	N.A.	N.A.	12.99	9.99	14.92	535.54	
600	54.49	32.63	30.63	N.A.	N.A.	12.24	9.24	14.66	535.47	

Values above 250MHz are for information only.

### Shipping Information

Item	Dimension	Nominal net weight
Cable	305 m	PE 11.22 kg (24.73 lb)
Plywood reel	D350 x d150 x H250 x h230 mm	1.40 kg
Pallet	1150 x1150 x120 mm	14.1 kg