



# PRODUCT SPECIFICATIONS

CONVERGENT  
CONNECTIVITY  
TECHNOLOGY

## CAT6ESP4

- Description:** 23AWG Plenum, Shielded four twisted pairs, Category 6 Horizontal Cable. Extended testing to 550 MHz
- Ratings/Approvals:** NEC Article 800, UL 444 Type CMP Rating FT6, ETL Electrically Verified to ANSI/TIA/EIA 568C.2 Category 6, C(ETL)US, RoHs Compliant
- Applications:** Supports all category 6 applications including Ethernet 1BASE-TX, 100BASE-VG and 155 ATM. Particularly suited for high bandwidth application such as 622 ATM, Wideband, Ethernet 1000BASE-T and emerging applications with anticipated data rates to 3.2 Gbps.

### CONSTRUCTION

<b>Conductor:</b>	23 AWG Solid Bare Copper
<b>Number of Conductors or Pairs:</b>	4 Pair
<b>Construction:</b>	4 Pairs cabled around a pair separator (spline)
<b>Tape:</b>	Clear Mylar Tape
<b>Drain:</b>	Solid Tin Copper
<b>Shield:</b>	Aluminum/Polyester Tape (100% Coverage)
<b>Jacket Material:</b>	Flame Retardant Polyvinyl Chloride
<b>Nominal Overall Cable Diameter:</b>	0.305 in. (7.747 mm)
<b>Approximate Cable Weight:</b>	49 lb/1,000 ft.

### ELECTRICAL & PHYSICAL PROPERTIES

<b>Temperature Rating:</b>	Installation: 0°C to 50°C Operation: -2°C to 60°C
<b>Velocity of Propagation:</b>	72%
<b>Mutual Capacitance:</b>	14 pF/ft Nominal
<b>Capacitance Unbalance:</b>	330 pF/ft maximum
<b>Maximum Conductor D.C.R.:</b>	28.6Ω/1,000 ft
<b>Maximum D.C.R. Unbalance:</b>	5%
<b>Maximum Delay Skew:</b>	45 ns/100m
<b>Characteristic Impedance:</b>	From 0.772 MHz - 100 MHz      100 ± 15% From 100 MHz - 250 MHz      100 ± 22% From 251 MHz - 550 MHz      100 ± 32%
<b>Insulation Colors:</b>	Blue paired with White/Blue Orange paired with White/Orange Green paired with White/Green Brown paired with White/Brown



Issue Date: June '15      Revision: 2

*THE STRONGEST LINK IN YOUR SUPPLY CHAIN*

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Page 1 of 2

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### ELECTRICAL CHARACTERISTICS

Frequency	Return Loss	Attenuation	NEXT	PS-NEXT	ELFEXT	PS-ELFEXT	ACR	PS-ACR
MHz	dB	dB(100m)	dB	dB	dB	dB	dB	dB
	Minimum	Maximum	Minimum	Minimum	Minimum	Minimum	Minimum	Minimum
1	20.0	2.0	80.3	78.3	73.8	70.8	78.3	76.3
4	23.0	3.8	71.3	69.3	61.8	58.8	67.5	65.5
10	25.0	6.0	65.3	63.3	53.8	50.8	59.3	57.3
16	25.0	7.6	62.2	60.2	49.7	46.7	54.6	52.6
20	25.0	8.5	60.8	58.8	47.8	44.8	52.3	50.3
31.25	23.6	10.7	57.9	55.9	43.9	40.9	47.2	45.2
62.5	21.5	15.4	53.4	51.4	37.9	34.9	38.0	36.0
100	20.1	19.8	50.3	48.3	33.8	30.8	30.5	28.5
200	18.0	29.0	45.8	43.8	27.8	24.8	16.8	14.9
250	17.3	32.8	44.3	42.3	25.8	22.8	11.5	9.5
300	16.8	36.4	43.1	41.1	24.3	21.3	---	---
350	16.3	39.8	42.1	40.1	22.9	19.9	---	---
400	15.9	43.0	41.3	39.3	21.8	18.8	---	---
500	14.8	49.5	40.2	38.2	20.0	17.0	---	---
550	14.4	53.1	39.5	37.5	18.9	15.9	---	---

\*Values above 250 MHz are for engineering information only

**Note:** While Convergent Connectivity Technology has made every reasonable effort to ensure the accuracy of the information in this document, Convergent Connectivity Technology does not guarantee that it is error-free, nor does Convergent Connectivity Technology make any other representation, warranty, or guarantee that the information is accurate, correct, reliable or current. Convergent Connectivity Technology reserves the right to make any adjustments to the information contained herein at any time without notice. Convergent Connectivity Technology expressly disclaims all implied warranties regarding the information contained herein, including but not limited to, any implied warranties of merchantability or fitness for particular purpose. The dimensions in this document are for reference purposes only and are subject to change without notice.

Your signature constitutes that you have read and agreed to this specification sheet and upon confirmation of your order; this item may be non-cancelable and non-returnable.

Signature: \_\_\_\_\_

Company: \_\_\_\_\_

Date: \_\_\_\_\_

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