CAT5E

PART NUMBER

NWT-CAT5E-OFAS-A

PRODUCT DESCRIPTION

Industrial CAT5E Ethernet, 4 Bonded-Pair 24AWG (7x32) Stranded Copper, Polyolefin Insulation, Overall Foil Shield, 24AWG Stranded TC Drain Wire, UV Sunlight and Oil Resistant PVC Outer Jacket, CMX-Outdoor CMR. An Overall Aluminum Interlocked Armor with UV Sunlight and Oil Resistant PVC Outer Jacket are applied over the CAT5E Inner core.

PRODUCT OVERVIEW

Industrial Armored Ethernet cable, Harsh Environments, Flexible Applications, 200Mhz Category 5e, Industrial Patch Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 1000BaseT, 2.5GBase-T, 5GBase-T, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, CMX – Outdoor, RJ45 Compatible

AWG	Stranding	Material	No of Pairs
24	7x32	BC – Bare Copper	4

Conductor Count	8
Total Number of Pairs	4
Conductor Size	24 AWG
Insulation Material	PO - Polyolefin
Bonded-Pair	Yes

COLOR CHART

1	White / Blue Stripe and Blue
2	White / Orange Stripe and Orange
3	White / Green Stripe and Green
4	White / Brown Stripe and Brown

OUTER SHIELD MATERIAL

Type	Material	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction (n x D)
Tape	Aluminum/Mylar	100	Tinned Copper	24	7x32mm

INNER JACKET MATERIAL

Material	Nominal Diameter	Nominal Wall Thickness	Ripcord	Separator Material
Industrial Grade PVC – Polyvinyl Chloride	0.295 in	0.03 in	No	Polyester

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ELECTRICAL CHARACTERISTICS

Max. Conductor DCR	4.5V-6.5V DC
Max. DCR Unbalance	60mA typical, 100mA max
Max Capacitance Unbalance	Universal Serial Bus 2.0
Nom. Mutual Capacitance	72-channel u-blox M8 engineGPS/QZSS L1 C/A, GLONASS L10FBeiDou B1, Galileo E1B/CSBAS L1 C/A: WAAS, EGNOS, MSAS, GAGAN
Max. Delay	1.023 Mhz chip rate
Max. Delay Skew	-167dBm Tracking & Nav, -160dBM Reaquisition-148dBm cold start
Nominal Velocity of Propagation (VP) [%]	2.0M CEP
Typical Delay Skew	8sec avg hot start, 26sec cold start, 1sec hot start
UL Voltage Rating	M8 Male USB IP67 Watertight Assembly

HIGH FREQUENCY CHARACTERISTICS

Frequency [MHz]	Max. Insertion Loss (Attenuation) /100m	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Min. SRL (Structural Return Loss)	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
1 MHz	2.5 dB	65.3	62.8	62.8	59.8	63.8	60.8	20	23	100 ± 15 Ohm	100 ± 15 Ohm
4 MHz	4.9 dB	56.3	51.4	51.4	48.4	51.7	48.7	23	23	100 ± 15 Ohm	100 ± 15 Ohm
8 MHz	6.9 dB	51.8	44.9	44.9	41.9	45.7	42.7	24.5	24.5	100 ± 15 Ohm	100 ± 15 Ohm
10 MHz	7.8 dB	50.3	42.5	42.5	39.5	43.8	40.8	25	25	100 ± 15 Ohm	100 ± 15 Ohm
16 MHz	9.9 dB	47.3	37.4	37.4	34.4	39.7	36.7	25	25	100 ± 15 Ohm	100 ± 15 Ohm
20 MHz	11.1 dB	45.8	34.7	34.7	31.7	37.7	34.7	25	25	100 ± 15 Ohm	100 ± 15 Ohm
25 MHz	12.5 dB	44.3	21.8	21.8	28.8	35.8	32.8	24.3	24.3	100 ± 15 Ohm	100 ± 15 Ohm
31.25 MHz	14.1 dB	42.9	28.8	28.8	25.8	33.9	30.9	23.6	23.6	100 ± 15 Ohm	100 ± 15 Ohm
62.5 MHz	20.4 dB	38.4	18	18	15	27.8	24.8	21.5	21.5	100 ± 15 Ohm	100 ± 15 Ohm
100 MHz	26.4 dB	35.3	8.9	8.9	5.9	23.8	20.8	20.1	20.1	100 ± 15 Ohm	100 ± 15 Ohm

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TEMPERATURE RANGE

Installation Temp Range	-25°C To +75°C
UL Temp Rating	60° C
Operating Temp Range	-40°C To +75°C

MECHANICAL CHARACTERISTICS (INNER CAT5E)

Bulk Cable Weight	35 lbs/1000ft
Recommended Pulling Tension	40lbs
Minimum Bend Radius/Minor Axis	0.6in

MECHANICAL CHARACTERISTICS (OUTER ARMOR)

Armor Outside Diameter	0.515in
Jacket Outside Diameter	0.615in
Minimum Bend Radius/Minor Axis	7.4in

STANDARDS

NEC/(UL), CEC/C(UL) Specification	CMR,CMX-Outdoor, UL 444 / CMG
ISO/IEC Compliance	ISO/IEC 11801 CAT5e Patch
CPR Euroclass	ECA
ANSI Compliance	IECA 661
Telecommunications Standards	TIA-568.C.2 Category 5e Patch, NEMA WC-63.1
UL / CSA / ISO IEC Flamability	UL1666 Riser / FT4 / IEC60332-1-2
EU Directive 2000/53/EC (ELV)	Yes
EU Directive 2003/11/EC (BFR)	Yes
EU Directive 2011/65/EU (ROHS II)	Yes
EU Directive 2012/19/EU (WEEE)	Yes
EU Directive 2015/863/EU	Yes
EU Directive Compliance	EU Directive 2003/11/EC (BFR)
EU CE Mark	Yes

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EU RoHS Compliance Date (yyyy-mm-dd)	2004-01-04
CA Prop 65 (CJ for Wire & Cable)	Yes
MII Order #39 (China RoHS)	Yes
Derating	Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581

SUITABILITY

Indoor	Yes
Oil Resistance	Yes
Outdoor / Sunlight Exposure (UV)	Yes
Plenum	No
Direct Burial	No

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