

7987P Multi-Conductor - 4-Pair UTP Cable for RGB Video



Description:

NanoSkew™ 24 AWG twisted pairs solid bare copper conductors, FEP insulation, rip cord, Flamarrest® jacket.

Usage (Overall)

Suitable Applications:

UTP Based Video Applications, Not for data transmission requiring TIA/EIA Category qualifications, RGB

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
4	24	Solid	BC - Bare Copper

Insulation

Insulation Material:

Insulation Material
FEP - Fluorinated Ethylene Propylene

Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride

Outer Jacket Ripcord:

Yes

Overall Cabling

Overall Nominal Diameter:

0.201 in.

Pair

Pair Color Code Chart:

Number	Color
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

Mechanical Characteristics (Overall)

Operating Temperature Range:

-20°C To +75°C

Bulk Cable Weight:

35 lbs/1000 ft.

Max. Recommended Pulling Tension:

40 lbs.

Min. Bend Radius (Install)/Minor Axis:

0.200 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Flame Test

UL Flame Test:	NFPA 262
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Plenum/Non-Plenum

Plenum (Y/N):	Yes
Non-Plenum Number:	7987R

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

100

Nominal Velocity of Propagation:

VP (%)

70

Typical Delay Skew:

Delay Skew (ns/ft)

2.2

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

9

Max. Operating Voltage - UL:

Voltage

300 V RMS

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance
1	100 ± 15	100 ± 15
4	100 ± 15	100 ± 15
8	100 ± 15	100 ± 15
10	100 ± 15	100 ± 15
16	100 ± 15	100 ± 15
20	100 ± 15	100 ± 15
25	100 ± 15	100 ± 15
31.25	100 ± 15	100 ± 15
62.5	100 ± 15	100 ± 15
100	100 ± 15	100 ± 15

Notes (Overall)

Notes: Jacket sequentially marked at 2 ft. intervals.

7987P Multi-Conductor - 4-Pair UTP Cable for RGB Video

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7987P 1NDU1000	1,000 FT	22.000 LB	MAROON 1ND		4 PR #24 FEP FLRST
7987P 1NDU1640	1,640 FT	36.080 LB	MAROON 1ND		4 PR #24 FEP FLRST

RJ-45 Cables for Audio and Video Applications

4-Pair UTP Cables for RGB Video

NanoSkew™ Non-Data and Brilliance VideoTwist® Low-Skew Data Rated Types



For economy, some system designers seek to use UTP (unshielded twisted pair) cable for video applications. However, Digital Video and Digital Data are processed and viewed differently. Digital Video contains much more information, requiring more bandwidth than Ethernet data. In addition, video has to be streaming — viewable live and continuously — whereas data can be sent in packets, resent as necessary, and given time to recompile. Such delays are unacceptable in video. Be cautious, digital signals are not all the same thing!

Delay Skew should be kept to a minimum for component video and RGB applications for better picture quality and the ability to transmit over longer distances. Delay skew is the difference in the time of arrival of the components transmitted over different cable components — pairs in the case of UTP. Skew is inherent in all cables, but especially in UTP cables because the pairs are normally

twisted to differing degrees for Ethernet data purposes, specifically to reduce crosstalk. Obviously picture clarity is lost when the red, green, and blue components arrive out of time with each other, and varying twist rates cause exactly that to occur.

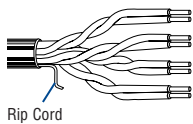
Cables in this section are NanoSkew, a UTP cable with no Ethernet data rating (all pairs have the same twist rate), and Brilliance VideoTwist Cat 5e and Cat 6 rated cables with lower, carefully monitored skew relative to standard data cables. Cables designed only for data applications meet their own skew requirements, but those are too high for better video transmission, and may be varied by manufacturers without notice. For guaranteed low and consistent skew performance from UTP cables, only NanoSkew or VideoTwist should be used. The Cat 5e and Cat 6 rated versions are ideal for KVM and blade-edge computer applications.

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Max. DCR (Ω/100m)	Nom. Imped. (Ω)	Min. RL (dB)	Freq. (MHz)	Max. Atten. (dB/100m)
				Ft.	m	Lbs.	kg	Inch	mm					

Nanoskew™ 24 AWG Solid BC Conductors • Twisted Pairs • Skew 2.2ns/100m nom. • Rip cord • See Color Code Chart (below)

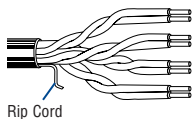
Non-Plenum • Polyolefin Insulation • Maroon PVC Jacket

300V RMS	7987R <small>new</small>	NEC: CMR CEC: CMG	4	U-1000 U-1640	U-304.8 U-500.0	20.0 32.8	9.1 14.9	.195	4.95	9.0	100	15.0	1	2.0
													4	4.1
													8	5.8
													10	6.5
													16	8.2
													20	9.3
													25	10.4
													31.25	11.7
													62.5	17.0
													100	22.0
													155	28.1
													200	32.0
													250*	36.4
													350*	44.8



Plenum • FEP Insulation • Maroon Flamarrest® PVC Jacket

300V RMS	7987P <small>new</small>	NEC: CMP CEC: CMP	4	U-1000 U-1640	U-304.8 U-500.0	22.0 36.1	10.0 16.4	.200	5.08	9.0	100	15.0	(same as above)	
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Third party verified to TIA/EIA-568-B.2, Category 5e

BC = Bare Copper • DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • RL = Return Loss • UTP = Unshielded Twisted Pair(s)

*Values provided for information only.

Color Codes: DataTwist 5e

Pair No.	Color Combination
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown