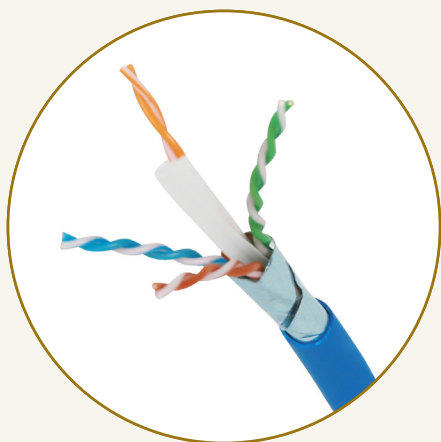


# Category 6A 650MHz UTP Small O.D.

U6A650N-004-xxxx



## Description

- Meets or exceeds ANSI/TIA-568.2-D performance requirements
- Supports high-speed data transmission up to 10GB Ethernet
- Tested to 650 MHz to ensure consistent, high-bandwidth performance
- Smaller cable diameter improves pathway fill capacity and reduces installation costs
- Fully compliant with UL 444 requirements for unshielded twisted pair (UTP) cable
- Available with sustainability certifications including HPD, EPD, and GreenCircle

## Application

- 10BASE-T through 10GBASE-T Ethernet
- Power over Ethernet (PoE), IEEE 802.3bt Types 1 through 4
- Horizontal distribution and backbone cabling
- Compatible with legacy systems and applications

## Certifications



## Part Numbers

JACKET COLOR	DESCRIPTION	
	Category 6A UTP Cable, 4-Pair, Riser Rated	Category 6A UTP Cable, 4-Pair, Plenum Rated
Blue	U6A650N-004-RBL4	U6A650N-004-PBL4
White	U6A650N-004-RWH4	U6A650N-004-PWH4
Grey	U6A650N-004-RGY4	U6A650N-004-PGY4
Black	U6A650N-004-RBK4	U6A650N-004-PBK4
Yellow	U6A650N-004-RYL4	U6A650N-004-PYL4
Green	U6A650N-004-RGN4	U6A650N-004-PGN4
Red	U6A650N-004-RRD4	U6A650N-004-PRD4
Orange	U6A650N-004-ROR4	U6A650N-004-POR4
Violet	U6A650N-004-RV14	U6A650N-004-PV14

## Performance Characteristics

FREQUENCY <sup>1</sup> (MHZ)	INSERTION LOSS @ 20°C MAXIMUM dB/100 m		NEXT MINIMUM dB/100 m		ACRO MINIMUM dB/100 m		PSNEXT MINIMUM dB/100 m		PSACR MINIMUM dB/100 m	
	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical
1	2.1	2.0	74.3	78.3	72.2	77.3	72.3	77.3	70.2	76.3
4	3.8	3.7	65.3	69.3	61.5	66.6	63.3	68.3	59.5	65.6
8	5.3	5.1	60.8	64.8	55.4	60.6	58.8	63.8	53.4	59.6
10	5.9	5.7	59.3	63.3	53.4	58.6	57.3	62.3	51.4	57.6
16	7.5	7.3	56.2	60.2	48.8	54.0	54.2	59.2	46.8	53.0
20	8.4	8.1	54.8	58.8	46.4	51.7	52.8	57.8	44.4	51.2
25	9.4	9.1	53.3	57.3	44.0	49.7	51.3	56.3	42.0	49.0
31.25	10.5	10.2	51.9	55.9	41.4	47.2	49.9	54.9	39.4	46.7
62.5	15.0	14.4	47.4	51.4	32.4	39.0	45.4	50.4	30.4	38.4
100	19.1	18.4	44.3	48.3	25.2	32.4	42.3	47.3	23.2	31.7
200	27.6	26.5	39.8	43.8	12.2	20.1	37.8	42.8	10.2	19.5
250	31.1	29.8	38.3	42.3	7.3	15.5	36.3	41.3	5.3	15.1
300	34.3	32.9	37.1	41.1	2.9	11.4	35.1	40.1	0.9	10.8
400	40.1	38.3	35.3	39.3		4.6	33.3	38.3		3.6
500	45.3	43.0	33.8	37.8			31.8	36.8		
600		47.5		36.4				35.6		
650		49.7		36.4				35.1		
700		51.4		35.5				34.6		
750		53.3		35.1				34.2		

FREQUENCY <sup>1</sup> (MHZ)	RETURN LOSS MINIMUM dB/100 m		ACRF MINIMUM dB/100 m		PSACRF MINIMUM dB/100 m		PSANEXT MINIMUM dB/100 m		PSAACRF MINIMUM dB/100 m	
	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical	Guaranteed	Typical
1	20.0	22.0	67.8	73.8	64.8	70.8	68.0	96.5	68.0	80.0
4	23.0	25.0	55.8	61.8	52.8	58.8	68.8	87.5	67.2	79.2
8	24.5	26.5	49.7	55.7	46.7	52.7	68.8	83.0	61.1	73.1
10	25.0	27.0	47.8	53.8	44.8	50.8	68.0	81.5	59.2	71.2
16	25.0	27.0	43.7	49.7	40.7	46.7	68.0	80.0	55.1	67.1
20	25.0	27.0	41.8	47.8	38.8	44.8	68.0	80.0	53.2	65.2
25	24.3	26.3	39.8	45.8	36.8	42.8	68.0	80.0	51.2	63.2
31.25	23.6	25.6	37.9	43.9	34.9	40.9	68.0	80.0	49.3	61.3
62.5	21.5	23.5	31.9	37.9	28.9	34.9	66.6	78.6	43.3	55.3
100	20.1	22.1	27.8	33.8	24.8	30.8	63.5	75.5	39.2	51.2
200	18.0	20.0	21.8	27.8	18.8	24.8	59.0	71.0	33.2	45.2
250	17.3	19.3	19.8	25.8	16.8	22.8	57.5	69.5	31.2	43.2
300	16.8	18.8	18.3	24.3	15.3	21.3	56.3	68.3	29.7	41.7
400	15.9	17.9	15.8	21.8	12.8	18.8	55.3	66.5	28.2	39.2
500	15.2	17.2	19.8	19.8	10.8	16.8	54.0	65.0	27.2	37.2
600		16.7		18.2		15.2	51.0	63.8	25.2	35.6
650		16.4		17.5		14.5		63.3		34.9
700		16.2		16.9		13.9				
750		16.0		16.3		13.3				

<sup>1</sup>Value above 550Mhz are for informational purposes only

## Technical Details

ITEM	UNIT	CMR (RISER)	CMP (PLENUM)
Pair Count		4	4
Mutual Capacitance	Max. nF/100 m	5.6	5.6
Capacitance Unbalance	Max. pF/100 m	330	330
Delay Skew	Max. ns	45	45
Nominal Velocity of Propagation	%	66	71
Jacket		Flame retardant PVC	Low smoke PVC (Plenum Rated)
Bending Radius		4 x Cable diameter	4 x Cable diameter
Packaging:	Type	1,000 ft (305 m) Reel or Box	1,000 ft (305 m) Reel or Box
	Weight	lb/kft (kg/km)	
		31 (47)	34 (50)
	Packages Per Pallet	12 (Box) / 20 (Reel)	12 (Box) / 20 (Reel)
Materials:	Conductors	23 AWG, Solid annealed copper	23 AWG, Solid annealed copper
	Insulation	Thermoplastic (HDPE)	Thermoplastic (HDPE)
	Jacket	in (mm)	
		0.285 (7.24)	0.275 (6.99)
Approvals:	Safety	UL 444, UL 1666, CSA C22.2 No. 214-08	UL444, NFPA 262, CSA C22.2 No. 214-08
	Performance		ANSI/TIA-562.2-D