

Product: **4346A**

4 Pair 23 AWG UTP Cat 6A 10G CMR Small OD

**Applications:** Premise Horizontal Cable, Ethernet 10G Base-T, Wi-Fi 6, Wi-Fi 5, In Building Wireless, In Building Small Cells, Mobile RAN, PoE++, PoE+, PoE, HD-Base-T



CONDUCTOR PARAMETERS	
Number of Pairs	4
AWG Size	23
Conductor Stranding	Solid
Conductor Type	Bare Copper
Nominal DCR	21 $\Omega$ /1000 ft
INSULATION PARAMETERS	
Insulation Type	Polyolefin
Insulation Color Code	1. White & Blue 2. White & Orange 3. White & Green 4. White & Brown
SHIELDING PARAMETERS	
Shield Type	Unshielded Twisted Pairs UTP
ELECTRICAL CHARACTERISTICS	
Nominal Impedance	100 $\Omega$
Nominal Capacitance Between Conductors	16 pF/ft

OVERALL CONSTRUCTION PARAMETERS	
Total No. of Conductors	8
Jacket Type	PVC
Separator	Center Member (Patented X-Spline <sup>®</sup> ), EquiBlock <sup>™</sup> Barrier Technology
Nominal Cable O.D.	.260 in
Plenum	No
NEC UL Rating	CMR, CMR-LP
ANSI Standards	ANSI/TIA-568.2-D Category 6A
TIA Testing	Category 6A
RoHS Compliant	Yes
Bend Radius	1.25 in
Pull Tension	25 lbs
Cable Weight	37 lbs

OVERALL ELECTRICAL/OPTICAL CHARACTERISTICS	
Nominal Velocity of Propagation (VP)	69%
Delay Skew	45ns/100m
UL Flammability	NFPA 262 Plenum
Operating Range	-20 to 75°C
UL Voltage Rating	300

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## Electrical Performance

Frequency (Mhz)	Max. Insertion Loss	Min. NEXT	Min. PSNEXT	Min. PSACR	Min. ACR	Min. PSACRF (PSELF-EXT)	Min. ACRF (ELF-EXT)	Min. PSAACRF	Min. RL (Return Loss)	Min. TCL	Min. ELTCTL	Max/Min Input Imp. Unfit	Max/Min Fitted Imp.
1 MHz	2.1 db/100m	75.3 dB	73.3 dB	71.2 dB	65 dB	68.8 dB	68 dB	67 dB	20 dB	40 dB	35 dB	100 ± 15 Ω	100 ± 15 Ω
4 MHz	3.8 db/100m	66.3 dB	64.3 dB	60.5 dB	53 dB	56.8 dB	56 dB	67 dB	23 dB	40 dB	23 dB	100 ± 15 Ω	100 ± 15 Ω
8 MHz	5.3 db/100m	60.8 dB	59.6 dB	54.4 dB	46.7 dB	50.7 dB	49.7 dB	61.1 dB	24.5 dB	40 dB	17 dB	100 ± 15 Ω	100 ± 15 Ω
10 MHz	5.9 db/100m	60.3 dB	58.3 dB	52.4 dB	45 dB	48.8 dB	48 dB	59.2 dB	25 dB	40 dB	15 dB	100 ± 15 Ω	100 ± 15 Ω
16 MHz	7.5 db/100m	57.2 dB	55.2 dB	47.8 dB	41 dB	44.7 dB	43.9 dB	55.1 dB	25 dB	40 dB	10.9 dB	100 ± 15 Ω	100 ± 15 Ω
20 MHz	8.4 db/100m	54.8 dB	53.8 dB	45.4 dB	38.8 dB	42.8 dB	41.8 dB	53.2 dB	25 dB	38 dB	9 dB	100 ± 15 Ω	100 ± 15 Ω
25 MHz	9.4 db/100m	53.3 dB	52.3 dB	43 dB	36.8 dB	40.8 dB	39.8 dB	51.2 dB	24.3 dB	38 dB	7.1 dB	100 ± 15 Ω	100 ± 15 Ω
31.25 MHz	10.5 db/100m	52.9 dB	50.9 dB	40.4 dB	35.1 dB	38.9 dB	38.1 dB	49.3 dB	23.6 dB	35.1 dB	5.1 dB	100 ± 15 Ω	100 ± 15 Ω
62.5 MHz	15 db/100m	48.4 dB	46.4 dB	31.4 dB	29.1 dB	32.9 dB	32.1 dB	43.3 dB	21.5 dB	32 dB	-	100 ± 15 Ω	100 ± 15 Ω
100 MHz	19.1 db/100m	45.3 dB	43.3 dB	24.2 dB	25 dB	28.8 dB	28 dB	39.2 dB	20.1 dB	30 dB	-	100 ± 15 Ω	100 ± 15 Ω
155 MHz	24.1 db/100m	41.4 dB	39.4 dB	18.9 dB	22.1 dB	27.1 dB	25.6 dB	37.1 dB	19.2 dB	29 dB	-	100 ± 15 Ω	100 ± 15 Ω
200 MHz	27.6 db/100m	40.8 dB	38.8 dB	11.2 dB	19 dB	22.8 dB	22 dB	33.2 dB	18 dB	27 dB	-	100 ± 15 Ω	100 ± 15 Ω
250 MHz	31.1 db/100m	39.3 dB	37.3 dB	6.3 dB	17 dB	20.8 dB	20 dB	31.2 dB	17.3 dB	26 dB	-	100 ± 15 Ω	100 ± 15 Ω
300 MHz	34.3 db/100m	38.1 dB	36.1 dB	1.9 dB	15.5 dB	19.3 dB	18.5 dB	29.7 dB	16.8 dB	25.2 dB	-	100 ± 15 Ω	100 ± 15 Ω
350 MHz	37.2 db/100m	36.1 dB	35.1 dB	-	13.9 dB	17.9 dB	16.9 dB	28.3 dB	16.3 dB	24.6 dB	-	100 ± 15 Ω	100 ± 15 Ω
400 MHz	40.1 db/100m	35.3 dB	34.3 dB	-	12.8 dB	16.8 dB	15.8 dB	27.2 dB	15.9 dB	24 dB	-	100 ± 15 Ω	100 ± 15 Ω
450 MHz	43.3 db/100m	34.8 dB	35.5 dB	-	12.1 dB	15.7 dB	14.8 dB	26.1 dB	15.5 dB	23.5 dB	-	100 ± 15 Ω	100 ± 15 Ω
500 MHz	45.3 db/100m	34.8 dB	32.8 dB	-	11 dB	14.8 dB	14 dB	25.2 dB	15.2 dB	23 dB	-	100 ± 15 Ω	100 ± 15 Ω
550 MHz	48.2 db/100m	34.1 dB	32.2 dB	-	10.5 dB	14 dB	13.2 dB	24.4 dB	14.9 dB	-	-	100 ± 15 Ω	100 ± 15 Ω

## Channel Reach - PoE

POE	10-BASE-T	100-BASE-T	1000-BASE-T	2.5G/5G-BASE-T	10G-BASE-T
15W PoE (Type 1)	140m (459 ft)	140m (459 ft)	100m (328 ft)	100m (328 ft)	100m (328 ft)
30W PoE (Type 2)	130m (426 ft)	130m (426 ft)	100m (328 ft)	100m (328 ft)	100m (328 ft)
60W PoE (Type 3)	130m (426 ft)	130m (426 ft)	100m (328 ft)	100m (328 ft)	100m (328 ft)
100W PoE (Type 4)	120m (394 ft)	120m (394 ft)	100m (328 ft)	100m (328 ft)	100m (328 ft)

### RELATED PRODUCTS

Plenum	254346A
Shielded Product	4346AF
Connector: Jack	KJ458MT-C6AC-xx
Modular Plug	CN-CAPFMUL-S1
Alternate Modular Plug	32-EZEX48 - Use Tool: TL-EXOCRIMP