

# KUWES WIRE & CABLE

## DATA SHEET & TEST REPORT

1-2

**Specification for Category 6 A U/UTP Solid Lan Cable**  
**Spec. No. KS-U/UTP-C6A Version: D Date: MAR. 09, 2020**

**UL 444 & CSA-C22.2 No.214: Type CM, 23AWG x 4P**

**ANSI/TIA-568.2-D and ISO/IEC 11801-1 : Horizontal Cable (Solid Conductor)**

**1.Conductor: Material / Size     Bare copper / 23AWG**

**2.Insulation : HDPE**

Min. Avg. Thickness: 0.208 mm;

Min. Thickness: 0.195 mm

**3.Color Code:**

Pair 1: Blue     & White/Blue;

Pair 2: Orange   & White/Orange

Pair 3: Green    & White/Green;

Pair 4: Brown    & White/Brown

**4.Jacket:** 75°C PVC Compound

Min. Avg. Thickness: 0.685 mm;

Min. Thickness: 0.558 mm

Approximate O.D.: 7.8 mm +/- 0.3mm

**5.Electric Requirements:** (Cable length: 100M)

Characteristic Impedance( $Z_0$ ): 85~115 $\Omega$  (1~800 MHz)

DC. Resistance Capacitance Unbalance: 5%

Pair-to-Ground Capacitance Unbalance: 330 pF/100M Max

Conductor Resistance: 7.32 $\Omega$ / 100M 20°C Max

Mutual Capacitance: 5600 pF/100m Max

Spark Test: **Outer Jacket: 2.5KV**

**Insulation: 1.75KV**

**Dielectric Strength: 1.5KV AC/2secs**

Nominal Velocity of Propagation (NVP): 68 %

**6.Temperature Range :** Installation Temperature 0 to 50°C

Storage Temperature -20 to 70°C

Operation Temperature -10 to 60°C

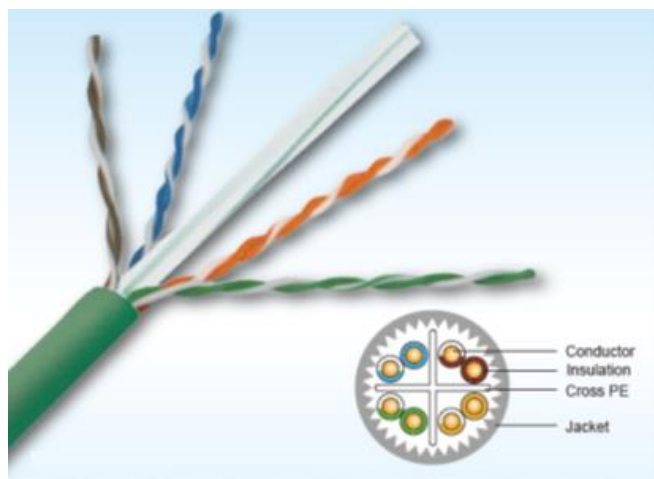
**ROHS Compliant**

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2-2

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Category 6A							
Frequency MHz	Insertion loss (Solid)	Return Loss	NEXT	ACRF	Prop. Delay	PS NEXT	PS ACRF
1	2.1	20.0	74.3	67.8	570	72.3	64.8
4	3.8	23.0	65.3	55.8	552	63.3	52.8
8	5.6	24.5	60.8	49.7	547	58.8	46.7
10	5.9	25.0	59.3	47.8	545	57.3	44.8
16	7.5	25.0	56.2	43.7	543	54.2	40.7
20	8.4	25.0	54.8	41.8	542	52.8	38.8
25	9.4	24.3	53.3	39.8	541	51.3	36.8
31.25	10.5	23.6	51.9	37.9	540	49.9	34.9
62.5	15.0	21.5	47.4	37.9	539	45.4	28.9
100	19.1	20.1	44.3	27.8	538	42.3	24.8
200	27.6	18.0	39.8	21.8	538	37.8	18.8
250	31.1	17.3	38.3	19.8	536	36.3	16.8
300	34.3	16.8	37.1	18.3	536	35.1	15.3
400	40.1	15.9	35.3	15.8	536	33.3	12.8
500	45.3	15.2	33.8	13.8	536	31.8	10.8
600	52.1	11.8	31.2	12.3	534	28.1	8.7
700	55.2	9.5	29.5	11.5	531	25.1	7.6
800	61.2	8.2	28.1	10.2	529	23.5	5.5

ROHS Compliant