

# ABA Industry, Inc.

## Specification for Approval

### Product Part Number---TUP2404N70XX-S

U/UTP, 23AWG solid bare copper, CAT.6, CMP, 600MHz

#### APPLICATION

- Structure cabling for horizontal and building backbone cable.
- Transmission of digital and analogue for data, video, and audio applications.
- IEEE 802.3ab 1000BASE-T, 1000BASE-TX and legacy speeds.
- CDDI / ATM / Token Ring
- IEEE 802.3af (PoE) / IEEE 802.3at (PoE+)

#### STANDARD COMPLIANCES

- ANSI/TIA-568.2-D (2018)
- ISO/IEC 11801-1
- IEC 61156-5 (Edition 2.1)
- NFPA 262 (CMP)
- UL 444
- CSA 22.2 NO.214
- EU Directive 2011/65/EU & 2015/863/EU
- EU Directive 2006/95/EC (LVD)

#### CONSTRUCTION

##### Conductors

- 23 AWG solid bare annealed copper

##### Insulation

- CMP: FEP

##### Color Code

- Pair 1: Blue-White 0.95 ± 0.02 mm
- Pair 2: Orange-White 0.92 ± 0.02 mm
- Pair 3: Green-White 0.94 ± 0.02 mm
- Pair 4: Brown-White 0.92 ± 0.02 mm

##### Filler

- Polyolefin (PO)

##### Rip cord

- Polyester multi-yarn

##### Jacket

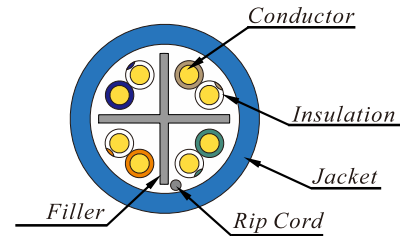
- CMP: LSFR-PVC

##### Marking

ELITE 1000X CAT 6E GIGASYSTEM TESTED TO 600MHz---E142890 UTP 4PR 23AWG 105°C C(UL)US CMP-LP(0.6A)(PCC-FT6)---ETL & 3P VERIFIED TO TIA-568.2-D ISO/IEC 11801-1 mmyy<sup>1</sup> RoHS COMPLIANT XXXXFT

Note 1: mmyy is date code.

#### CROSS-SECTION



#### ELECTRICAL CHARACTERISTICS

DC Resistance Ohms/100 m (328 ft) @ 20°C	9.38
DC Resistance Unbalanced Individual Pair %	5.00
Delay Skew (Max) ns/100 m	45
Nom. Velocity of Propagation % Speed of Light	70
Characteristic Impedance Frequency (f):	Ohms 100 ± 15

#### PHYSICAL CHARACTERISTICS

Nominal Cable Diameter (mm)	5.6
Nominal Cable Weight (kg/1000 ft)	11.91
Minimum Bend Radius	≥ 4 times O.D.
Maximum Pulling Force	≤ 110 N
Temperature Rating (°C)	
Storage & shipping:	-20°C to 105°C
Installation:	0 to +60
Operation:	-20 to +60

### Transmission Performance (at 20°C)

Frequency (MHz)	IL (Max.)	NEXT (Min.)	PS. NEXT (Min.)	ACR (Min.)	PS. ACR (Min.)	ACRF (Min.)	PS. ACRF (Min.)	RL (Min.)	Propagation Delay (Max.)
	dB/100m	dB/100m	dB/100m	dB/100m	dB/100m	dB/100m	dB/100m	dB/100m	ns/100m
1	2.03	74.30	72.30	72.28	70.28	67.80	64.80	20.00	570.00
4	3.78	65.27	63.27	61.49	59.49	55.76	52.76	23.01	552.00
8	5.32	60.75	58.75	55.43	53.43	49.74	46.74	24.52	546.73
10	5.95	59.30	57.30	53.35	51.35	47.80	44.80	25.00	545.38
16	7.55	56.24	54.24	48.68	46.68	43.72	40.72	25.00	543.00
20	8.47	54.78	52.78	46.31	44.31	41.78	38.78	25.00	542.05
25	9.51	53.33	51.33	43.83	41.83	39.84	36.84	24.32	541.20
31.25	10.67	51.88	49.88	41.20	39.20	37.90	34.90	23.64	540.44
62.5	15.38	47.36	45.36	31.98	29.98	31.88	28.88	21.54	538.55
100	19.80	44.30	42.30	24.50	22.50	27.80	24.80	20.11	537.60
150	24.71	41.66	39.66	16.95	14.95	24.28	21.28	18.87	536.94
200	28.98	39.78	37.78	10.80	8.80	21.78	18.78	18.00	536.55
250	32.85	38.33	36.33	5.48	3.48	19.84	16.84	17.32	536.28
300	36.43	37.14	35.14	0.72	N.A.	18.26	15.26	16.77	536.08
350	39.79	36.14	34.14	N.A.	N.A.	16.92	13.92	16.30	535.92
400	42.97	35.27	33.27	N.A.	N.A.	15.76	12.76	15.89	535.80
450	46.01	34.50	32.50	N.A.	N.A.	14.74	11.74	15.53	535.70
500	48.94	33.82	31.82	N.A.	N.A.	13.82	10.82	15.21	535.61
550	51.76	33.19	31.19	N.A.	N.A.	12.99	9.99	14.92	535.54
600	54.49	32.63	30.63	N.A.	N.A.	12.24	9.24	14.66	535.47

Values above 250MHz are for information only.