

# ABA Industry, Inc.

## Specification for Approval

### Product Part Number

- TSP2404N70XX

### Product Description

- F/UTP, 23AWG solid bare copper, CAT.6, CMP
- With cross filler
- Overall metal foil screen with drain wire

### Product Features

- High performance of transmission.
- High quality of safety property.
- Sweep frequency up to 550 MHz.

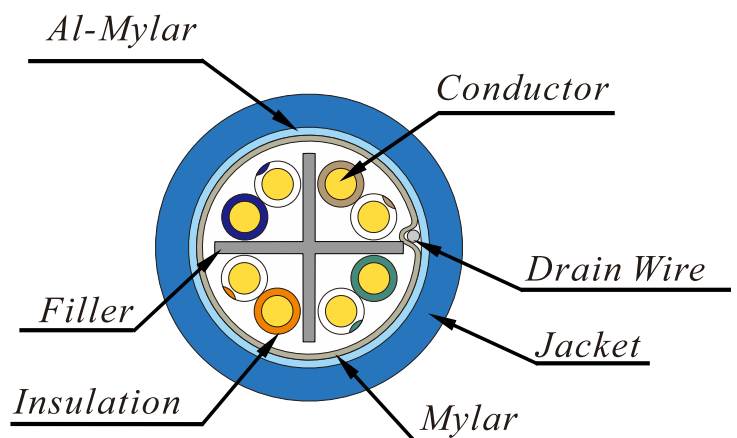
### Application

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

### Applicable Standard

- Electrical Transmission
  - ANSI/TIA-568-C.2 (2009)
  - ISO/IEC 11801 (Edition 2.2)
  - IEC 61156-5 (Edition 2.0)
- Flame Test
  - NFPA 262 (CMP)
- Material and Construction
  - UL 444
  - UL 444 LP-Rating 0.5A&0.6A
  - CSA 22.2 NO.214
- EU Directive 2011/65/EC (RoHS2)
- EU Directive 2006/95/EC (LVD)
- CE compliance date: 2010.01.01

### Sectional Drawing



Establish Date	2010.06.10	Edition	2.5	Revised Date	
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### Material and Construction

Conductor	Material	23AWG solid bare copper	
Insulation	Material	Fluorinated Ethylene Propylene (FEP)	
	Color code & diameter	Blue & white/blue Stripe	1.06 ± 0.02 mm
		Orange & white/orange stripe	1.01 ± 0.02 mm
		Green & white/green stripe	1.05 ± 0.02 mm
Brown & white/brown stripe		1.01 ± 0.02 mm	
Twisted	Description	Left hand direction	
Filler	Material	Fluorinated Ethylene Propylene (FEP)	
Assembly	Description	Left hand direction	
Shield	Material	Mylar tape	
Drain wire	Material	24AWG solid tinned copper	
Shield	Material	Al Mylar tape	
	Description	100 % coverage and mylar side facing out	
Jacket	Material	Low smoke flame retardant polyvinyl chloride (LSFRPVC)	
	Diameter	6.80 ± 0.2 mm	
	Thickness	0.43 ± 0.03 mm	
	Color	Per customer's request	
Marking	<p>ELITE 1000X CAT 6 GIGASYSTEM TESTED TO 550MHz---E142890 FTP 4PR 23AWG 90°C C(UL)US            CMP-LP (0.6A)---ETL VERIFIED TO TIA-568-C.2 ISO/IEC 11801 mmyy<sup>1</sup> RoHS COMPLIANT XXXXFT</p> <p>Note 1: mmyy is date code.</p>		

### Usage & Environmental Condition

Temperature range	Storage & shipping	-20°C to 75°C
	Installation	0°C to 60°C
	Operation	-20°C to 60°C
Minimum bending radius	≥ 4 times of overall diameter	
Maximum pulling tension	≤ 110 N	

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### Physical & Electrical Characteristics (at 20°C)

Temperature rating	90°C
Spark test	2.5 KV DC
AC leakage current through overall jacket	≤ 10mA (1.5KV AC)
Cable cold bend	-20°C for 4 hr
Conductor DC resistance	≤ 9.38 Ω /100m
Resistance unbalance	≤ 5%
Dielectric strength	1.5 KV ac for 2 s
Insulation resistance	≥ 5000 MΩ · km
Mutual capacitance	≤ 5.6 nF/100m
Capacitance unbalance pair-to-ground	≤ 330 pF/100m

### Transmission Performance (at 20°C)

Frequency (MHz)	IL	NEXT	PS.NEXT	ACR	PS.ACR	ACRF	PS.ACRF	RL	Propagation Delay	Delay Skew
	Max. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Max. ns/100m	Max. ns/100m
1	2.03	74.30	72.30	72.28	70.28	67.80	64.80	20.00	570.00	45.00
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	

Values above 250MHz are for information only.

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### Shipping Information

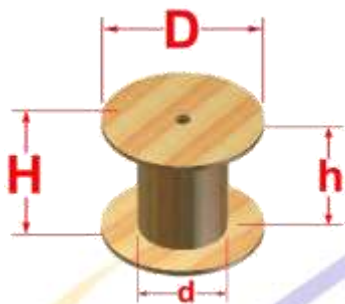
Item	Dimension	Nominal net weight
Cable	305 m	17.52 kg (38.62 lb)
Plywood reel	D400 x d220 x H270 x h250 mm	2.0 kg
Pallet	1150 x1100 x120 mm	14.1 kg

Container type	Capacity of pallet	Pallet of reel	Capacity of reel
20 feet	20	18/18	360
40 feet	40	18/18	720

Shipping could use standard delivery form or per customer`s request.

### Schematic Drawing of Reel & Package

Fumigated plywood reel.



### Schematic Drawing of Package

Each package of pallet delivered with plastic wrap and packing strap.

