

ABA Industry, Inc.

Specification for Approval

SPECIFICATION

STYLE S/FTP 23AWG x 4P (SOLID)
CAT.7A CMR

P/N TFR2204TXX

DATE 2024/05/09

EDITION 1.7

CUSTOMER APPROVE *Jimmy Chang*

TM

DATE 2024/05/15

APPROVAL	CONFIRM	MAKER
<i>Glen Lin</i>	<i>W.J. Wang</i>	<i>Benson Li</i>

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ISSUE AND REVISION RECORD

REV. No.	DESCRIPTION	DATE
1.7	Modify plywood reel size.	2024/05/09



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Product Part Number

- TFR2204TXX

Product Description

- S/FTP, 23AWG solid bare copper, CAT.7A, CMR
- Each pair twist with metal foil screen
- With braid wire

Product Features

- High performance of transmission.
- High quality of safety property.
- Sweep frequency up to 1000 MHz.

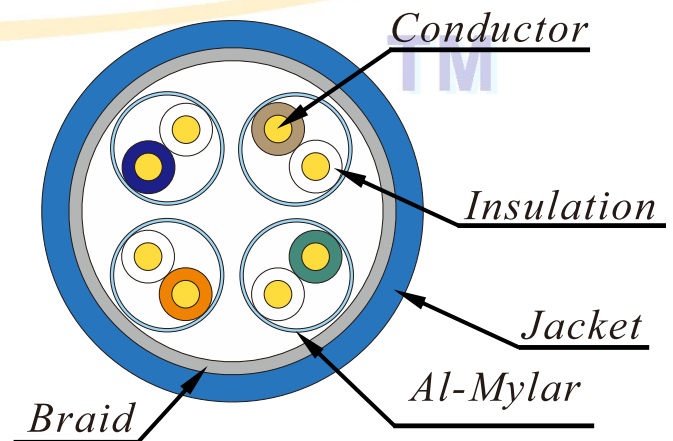
Application

- Structure cabling for horizontal and building backbone cable.
- Transmission of digital and analogue for data, video and audio applications.
- Metal shielded and braided providing good protection from EMI noise.
- Beyond IEEE 802.3an 10GBASE-T and legacy speeds.
- CDDI / ATM / Token Ring
- IEEE 802.3af (PoE) / IEEE 802.3at (PoE+) / IEEE 802.3bt (PoE++)

Applicable Standard

- Electrical Transmission
 - ISO/IEC 11801-1
 - IEC 61156-5 (Edition 2.1)
- Flame Test
 - UL 1666 (CMR)
- Material and Construction
 - UL 444
 - CSA 22.2 NO.214
- EU Directive 2011/65/EU & 2015/863/EU
- EU Directive 2006/95/EC (LVD)

Sectional Drawing



All Material According To SS-00259

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Material and Construction

Conductor	Material	23AWG solid bare copper	
Insulation	Material	Foam Polyolefin (PO)	
	Color code & diameter	Blue & white	1.45 ± 0.02 mm
		Orange & white	1.45 ± 0.02 mm
		Green & white	1.45 ± 0.02 mm
		Brown & white	1.45 ± 0.02 mm
Twisted	Description	Left hand direction	
Pair shield	Material	Al Mylar tape	
	Description	100 % coverage and aluminum side facing out	
Assembly	Description	Left hand direction	
Braid	Material	Tinned copper	
	Description	> 40 % coverage	
Jacket	Material	Flame retardant polyvinyl chloride (FRPVC)	
	Diameter	8.0 ± 0.3 mm	
	Thickness	0.50 ± 0.05 mm	
	Color	Per customer's request	
Marking	ELITE CAT. 7A / CLASS F _A --- E142890 S/FTP 23AWG 4PR 75C C(UL)US CMR --- FT4 ETL VERIFIED TO ISO/IEC 11801 mmyy ¹ XXXXFT		
	Note 1: mmyy is date code.		

Usage & Environmental Condition

Temperature range	Storage & shipping	-20°C to 75°C
	Installation	0°C to 60°C
	Operation	-20°C to 75°C
Minimum bending radius		≥ 8 times of overall diameter
Maximum pulling tension		≤ 110 N

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Physical & Electrical Characteristics (at 20°C)

Voltage rating	300V
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	≤ 9.5 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	≤ 160 pF/100m

Transmission Performance (at 20°C)

Frequency	IL	NEXT	PS.NEXT	ACRF	PS.ACRF	RL	Propagation Delay	Delay Skew
(MHz)	Max. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Min. dB/100m	Max. ns/100m	Max. ns/100m
4	3.75	78.00	75.00	78.00	75.00	23.01	552.00	25.00
8	5.22	78.00	75.00	77.24	74.24	24.52	546.73	
10	5.82	78.00	75.00	75.30	72.30	25.00	545.38	
16	7.34	78.00	75.00	71.22	68.22	25.00	543.00	
20	8.21	78.00	75.00	69.28	66.28	25.00	542.05	
25	9.18	78.00	75.00	67.34	64.34	24.32	541.20	
31.25	10.26	78.00	75.00	65.40	62.40	23.64	540.44	
62.5	14.57	78.00	75.00	59.38	56.38	21.54	538.55	
100	18.53	75.40	72.40	55.30	52.30	20.11	537.60	
150	22.82	72.76	69.76	51.78	48.78	18.87	536.94	
200	26.47	70.88	67.88	49.28	46.28	18.00	536.55	
250	29.73	69.43	66.43	47.34	44.34	17.32	536.28	
300	32.69	68.24	65.24	45.76	42.76	17.30	536.08	
350	35.44	67.24	64.24	44.42	41.42	17.30	535.92	
400	38.01	66.37	63.37	43.26	40.26	17.30	535.80	
450	40.45	65.60	62.60	42.24	39.24	17.30	535.70	
500	42.76	64.92	61.92	41.32	38.32	17.30	535.61	
600	47.10	63.73	60.73	39.74	36.74	17.30	535.47	
700	51.13	62.72	59.72	38.40	35.40	16.63	535.36	
800	54.92	61.85	58.85	37.24	34.24	16.05	535.27	
900	58.51	61.09	58.09	36.22	33.22	15.54	535.20	
1000	61.93	60.40	57.40	35.30	32.30	15.08	535.14	

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Shipping Information

Item	Dimension	Nominal net weight
Cable	305 m	19.89 kg (43.85 lb)
Plywood reel	D380 x d220 x H334 x h310 mm	2.78 kg
Pallet	1100 x1150 x110 mm	15.0 kg

Container type	Capacity of pallet	Pallet of reel	Capacity of reel
20 feet	20	24/24	480
40 feet	34	24/24	816
40 feet HQ	34	24/24	816

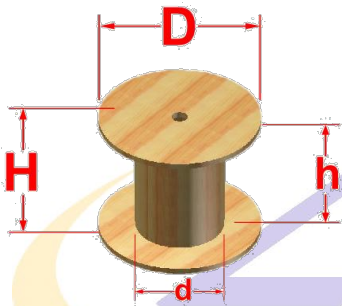
Shipping could use standard delivery form or per customer's request.

Package information above is calculated by maximum container capacity, and for reference only.

All shipments must follow your local transportation regulation for gross weight limit.

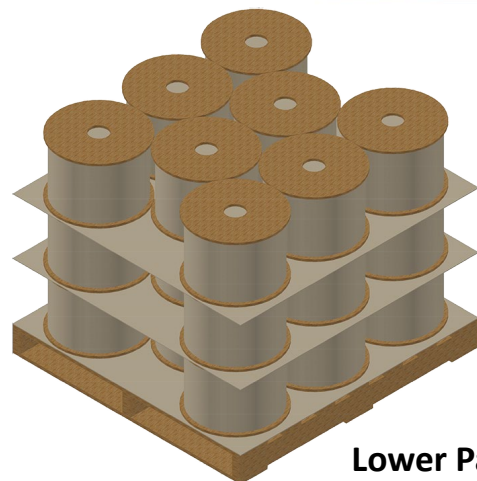
Schematic Drawing of Reel & Package

Fumigated plywood reel.

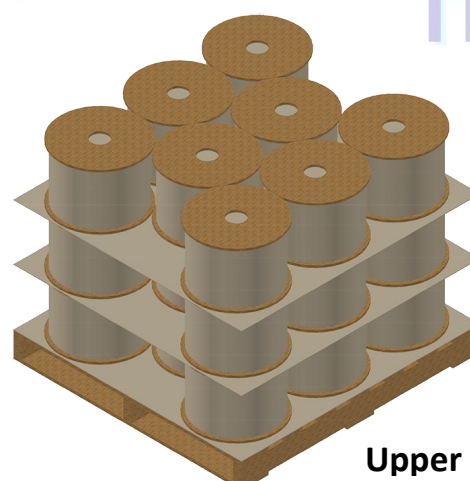


Schematic Drawing of Package

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



Lower Pallet



Upper Pallet

AK001 / 210×297 / 1.1