

# ABA Industry, Inc.

## Specification for Approval

### Product Part Number---TFR2204TXX

S/FTP, 22AWG solid bare copper, CAT 8, CMR, 2000MHz

#### APPLICATION

- Transmission of digital and analogue for data, video, voice, and audio applications.
- Metal shielded and braided providing good protection from EMI noise.
- Beyond IEEE Std 802.3bq-2016 25G/40GBASE-T and legacy speeds.
- Top-of-Rack (ToR), End-of-Row (EoR), Middle-of Row (MoR) and for data center cabling.
- CDDI / ATM / Token Ring
- IEEE 802.3af (PoE) / IEEE 802.3at (PoE+)

#### STANDARD COMPLIANCES

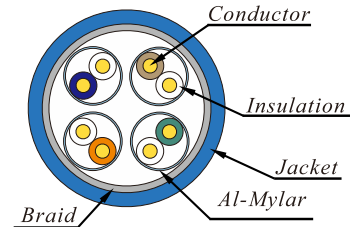
- IEC 61156-9 Category 8.2
- ISO/IEC 11801-1
- ANSI/TIA-568.2-D
- UL 1666 (CMR)
- UL 444
- CSA 22.2 NO.214
- EU Directive 2011/65/EU (RoHS2)
- EU Directive 2006/95/EC (LVD)

#### CONSTRUCTION

- Conductors**
- 22 AWG solid bare annealed copper
- Insulation**
- CMR: Foam Polyolefin (PO)
- Color Code**
- Pair 1: Blue-White 1.58 ± 0.02 mm
  - Pair 2: Orange-White 1.58 ± 0.02 mm
  - Pair 3: Green-White 1.58 ± 0.02 mm
  - Pair 4: Brown-White 1.58 ± 0.02 mm
- Pair shield**
- Polyester-backed aluminum foil (aluminum side out)
- Braid**
- Tinned copper > 40 % coverage
- Jacket**
- CMR: Flame retardant PVC
- Marking**  
**ELITE 40GS CAT 8---E142890 S/FTP**  
**22AWG 4PR 75C C(UL)US CMR---FT4 ETL**  
**VERIFIED IEC 61156-9 & TIA-568.2-D**  
**mmyy<sup>1</sup> XXXXM**

Note 1: mmyy is date code.

#### CROSS-SECTION



#### ELECTRICAL CHARACTERISTICS

DC Resistance Ohms/30 m @ 20°C	≤ 2.1 Ω
DC Resistance Unbalanced Individual Pair %	2.0
Delay Skew (Max) ns/30 m	7.5
Nom. Velocity of Propagation % Speed of Light	73
Characteristic Impedance Frequency (f):	Ohms 100 ± 15

#### PHYSICAL CHARACTERISTICS

Nominal Cable Diameter (mm)	8.6
Nominal Cable Weight (kg/1000 ft)	22.80
Minimum Bend Radius	≥ 8 times O.D.
Maximum Pulling Force	≤ 110 N
Temperature Rating (°C)	
Storage & shipping:	-20°C to 75°C
Installation:	0 to +60
Operation:	-20 to +60

Frequency (MHz)	IL (Max.)	NEXT (Min.)	PS. NEXT (Min.)	ACRF (Min.)	PS. ACRF (Min.)	RL (Min.)	Propagation Delay (Max.)	PS. ANEXT (Min.)	PS. AACRF (Min.)
	dB/30m	dB/30m	dB/30m	dB/30m	dB/30m	dB/30m	dB/30m	dB/30m	dB/30m
4	1.12	78	75	78	75	23.0	165.6	80.0	80.0
8	1.57	78	75	78	75	24.5	164.0	80.0	80.0
10	1.75	78	75	78	75	25.0	163.6	80.0	80.0
16	2.20	78	75	76.5	73.5	25.0	162.9	80.0	78.1
20	2.46	78	75	74.6	71.6	25.0	162.6	80.0	76.2
25	2.75	78	75	72.6	69.6	25.0	162.4	80.0	74.2
31.25	3.08	78	75	70.7	67.7	25.0	162.1	80.0	72.3
62.5	4.37	78	75	64.7	61.7	23.6	161.6	80.0	66.3
100	5.56	75.4	72.4	60.6	57.6	22.2	161.3	80.0	62.2
200	7.94	70.9	67.9	54.6	51.6	20.1	161.0	80.0	56.2
250	8.92	69.4	66.4	52.6	49.6	19.4	160.9	80.0	54.2
300	9.81	68.2	65.2	51.1	48.1	18.9	160.8	80.0	52.7
400	11.40	66.4	63.4	48.6	45.6	18.0	160.7	78.5	50.2
500	12.83	64.9	61.9	46.6	43.6	17.3	160.7	77.0	48.2
600	14.13	63.7	60.7	45.0	42.0	16.8	160.6	75.8	46.6
1000	18.56	60.4	57.4	40.6	37.6	15.2	160.5	72.5	42.2
1500	23.17	57.8	54.8	37.1	34.1	14.0	160.5	69.9	38.7
2000	27.15	55.9	52.9	34.6	31.6	13.1	160.4	68.0	36.2