23 AWG 4-Pair Shielded Cable

F/UTP CAT6 CMR, Solid

710648SGN

1.0 Scope

F/UTP, 23 AWG solid bare copper, four-pair Category 6 CMR cable with an overall Al/Mylar foil screen and drain wire, with a cross filler.

Application	Structured horizontal and building backbone cabling; data, video and audio; IEEE 802.3ab 1000BASE-T; PoE/PoE+/PoE++

2.0 Construction

2.1 Conductor

Material	23 AWG solid bare copper

2.2 Insulation

Material	Polyolefin (PO)
Color Code	Blue & white/blue, 1.08 ± 0.02 mm Orange & white/orange, 1.05 ± 0.02 mm Green & white/green, 1.08 ± 0.02 mm Brown & white/brown, 1.05 ± 0.02 mm
Twist	Left-hand direction

2.3 Filler and Assembly

Filler	Polyolefin (PO), cross filler
Assembly	Left-hand direction

2.4 Shield

Overall Shield	Al/Mylar tape, 100% coverage, mylar side facing out
Mylar Tape	Mylar tape
Drain Wire	26 AWG solid tinned copper

2.5 Jacket

Material	Flame-retardant PVC (FRPVC)
Diameter	7.2 ± 0.2 mm
Thickness	0.45 ± 0.05 mm
Color	Per customer request

2.6 Marking

Print	ELITE 1000X CAT 6 GIGASYSTEM TESTED TO 550MHz---E142890 FTP 4PR 23AWG 75°C C(UL)US CMR-LP (0.5A)---FT4 ETL & 3P VERIFIED TO TIA-568.2-D ISO/IEC 11801-1 mmyy RoHS COMPLIANT XXXXFT

3.0 Usage and Environment

Storage/Shipping	-20°C to 75°C
Installation	0°C to 60°C
Operation	-20°C to 75°C
Min. Bend Radius	8 × overall diameter
Max. Pull Tension	110 N
Reel	305 m, 15.14 kg (33.38 lb)

4.0 Electrical Characteristics (20°C)

Spark Test	2.5 kV DC
Dielectric	1.5 kV AC for 2 s
AC Leakage	≤ 10 mA (1.5 kV AC)
Conductor DCR	≤ 9.38 Ω/100 m
Resistance Unbal.	≤ 5%
Insulation Res.	≥ 5000 MΩ·km
Mutual Cap.	≤ 5.6 nF/100 m
Cap. Unbalance	≤ 330 pF/100 m
NVP	68%
Cold Bend	-20°C for 4 hr

5.0 Transmission Performance (20°C, selected)

MHz	IL max	NEXT min	ACR min	RL min
1	2.03	74.30	72.28	20.00
10	5.95	59.30	53.35	25.00
31.25	10.67	51.88	41.20	23.64
100	19.80	44.30	24.50	20.11
250	32.85	38.33	5.48	17.32
500	48.94	33.82	N.A.	15.21

IL max; NEXT, ACR, RL min (dB/100 m). Prop. delay 570 ns/100 m max. Delay skew 45 ns/100 m max. >250 MHz for information only.

6.0 Standards and Approvals

Transmission	ANSI/TIA-568.2-D; ISO/IEC 11801-1
Flame	UL 1666 (CMR); C(UL)US CMR-LP
Material/Constr.	UL 444; CSA 22.2 No. 214
RoHS	2011/65/EU, 2015/863/EU
CPR	Class Eca

REVISIONS

ECO	REV	DATE	BY	DESCRIPTION
	1.6	05/09/2024		Modify plywood reel size

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200 Sheffield St, Suite 302, Mountainside, NJ 07092

Tel: 888.423.8947 gamechanger@paigeelectric.com

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