

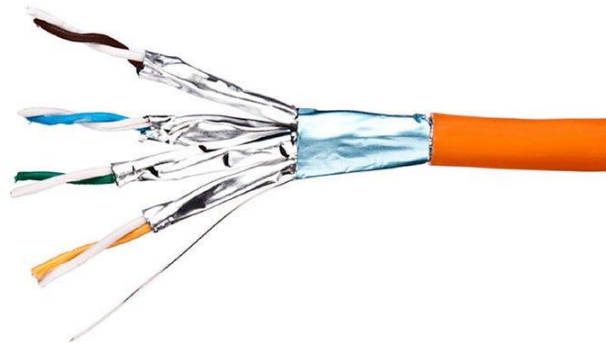


Cat.7 F/FTP AWG23/1



LAN cable with 4 pairs,
category 7 , with pair and
cable core screen

Standards: ISO/IEC 11801, IEC 61156-5
EN 50173-1, EN 50288-11-1; EIA/TIA 568-B



Ambient installation T°
C range
0 + 50 °C



Operating temp.
-20 + 60 °C



Storage temperature
range
-20 + 70 °C



Flame retardant
IEC 60332-1



Smoke density

CAT 7 F/FTP (Foiled/Foiled Twisted Pair) cable is designed for high-speed, 10-Gigabit Ethernet networks, supporting data frequencies up to 600 MHz. Its primary use is in structured cabling, particularly in data centers, server rooms, and industrial environments where high EMI shielding is required. Used as a robust cable for patching, interconnecting servers, and connecting switches to storage area networks (SAN). The shielded, individual pair-foil structure (F/FTP) protects data integrity from high electromagnetic interference (EMI) near heavy machinery. Used in corporate offices, universities, and hospitals for connecting Gigabit and 10-Gigabit Ethernet devices over long runs. Ideal for specialized, high-performance home networking setups requiring low latency and high reliability. Suitable for high-power demanding devices, such as IP cameras, Wi-Fi access points, and VoIP phones. It is suitable for transmitting broadband and baseband video signals.

It is commonly used as a replacement for Category 6A in sensitive environments to provide better signal-to-noise ratios and to ensure future-proofing for network infrastructure. According to, while it is a higher grade, it is not typical for standard home or small office networks

Temperature limit conditions:

- Ambient installation temperature, range: from 0°C to +50°C
- Operating temperature, range: from -20 °C to +60°C

Mechanical properties:

Minimum internal bending radius:

(D = cable outer diameter)

- No load 4xD
- during installation (under load): 8xD
- packaging: 305m in box, 500m on wooden reel

Flame resistance:

- the cable is self-extinguishing according to IEC 60332-1 / EN 60332-1
- LSHF version additionally:
 - halogen-free according to IEC 60754-2; IEC 60332-1
 - non-corrosive combustion gases according to IEC 60754-2
 - minimal smoke emission according to IEC 61034-2

Cable construction

Conductor category class:	1 = solid conductor
Conductor material	Pure copper
AWG size	23/1
Insulation material	Skin-Foam-Skin PE
Nominal diameter through insulation	1.32 mm
Twisting:	2 cores in a pair
Pair screen	Aluminum Polyester Tape
Cable lay up:	4 pairs to the core
Screen over stranding	Aluminum Polyester Tape
Sheath:	LSHF (LSZH,FRNC)
Outer diameter:	7.4-7.8 mm
Sheath color:	Orange (RAL 2003)

Conductor color marking:

- 1st suit: blue/white with blue line
- 2nd suit: orange/white with orange line
- 3rd suit: green/white with green line
- 4th suit: brown/white with brown line

Electrical characteristics at 20°C ± 5°C

Main characteristic impedance at 100 MHz	100±5 Ω
Resistance unbalance , max.	% 2
Loop resistance at 20°C , max.	(Ω/km) ≤ 154
Test voltage (DC,1min)	v 1000
Operating voltage, max.	v 125
Capacitance unbalance	(pF/km) ≤ 1500
Capacitance at 800 Hz	nF/km 43

Transmission characteristics

Propagation delay (max. 100MHz)	(ns/100m) ≤427
Delay skew	(ns/100m) ≤ 12
Nominal velocity of propagation	approx. 79 %

Technical data

Cable type	Number of pairs (23AWG)	insulation diameter mm	Outer diameter mm	weight kg/km	Tensile force N
Cat 7 F/FTP LSZH	4	1.32	7.4-7.8	58-61	100

Electrical performance

f (MHz)	Attenuation (dB/100 m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ELFEXT (dB/100m)	PS-ELFEXT (dB/100m)	Return loss (dB)
1	2	100	97	98	95	105	102	-
4	3.6	100	97	97	94	105	102	27
10	5.6	100	97	95	92	97	94	30
20	7.9	100	97	92	89	91	88	30
30	9.7	100	97	90	87	87	84	30
100	18.0	100	97	83	80	77	74	30
150	22.4	94	91	72	69	73	70	26
200	26.0	92	89	67	64	71	68	25
250	29.4	90	87	62	59	69	66	24
300	32.5	89	86	58	55	67	64	24
400	38.0	88	85	52	49	65	62	23
500	43.0	86	83	46	43	63	60	22
600	47.6	85	82	40	37	61	58	22



The information contained within this datasheet is for guidance only and is subject to change without notice or liability. All the information is provided in good faith and is believed to be correct at the time of publication. When selecting cable accessories, please note that actual cable dimensions may vary due to manufacturing tolerances.