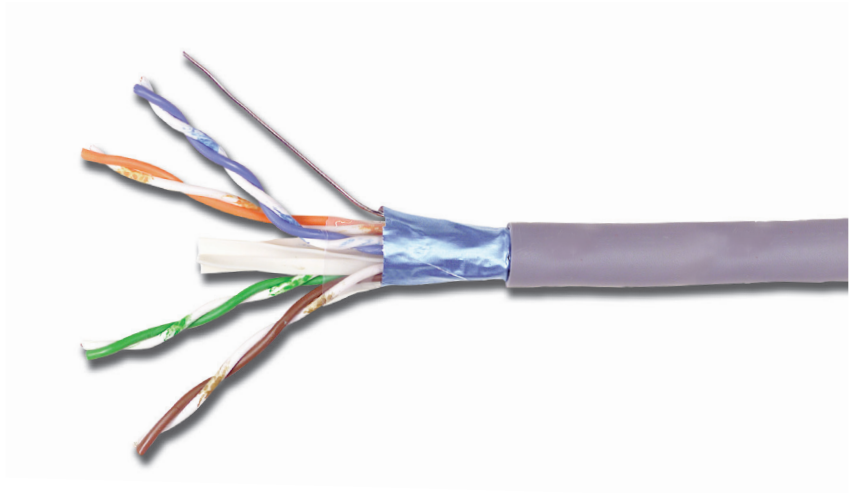


# Category 6A F/UTP 4-Pair Cable - International

Simon's Category 6A F/UTP cable supports channel performance exceeding ANSI/TIA-568.2-D and ISO/IEC 11801 Class E<sub>A</sub> requirements. When combined with our screened Category 6A series connectivity, the result is a channel capable of supporting 10GBASE-T operation over 100-metre, 4-connector topologies. In addition the screened construction ensures virtually zero alien crosstalk. The Category 6A F/UTP cabling system supports emerging and converging IP applications like Voice Over IP (VoIP), IP video and future 10 gigabit applications.



Simon's **PowerGUARD** technology with a 75°C operating temperature improves heat dissipation for reduced length derating and bundling requirements in remote powering applications, including PoE and power over HDBaseT (POH).



## CABLE FEATURES

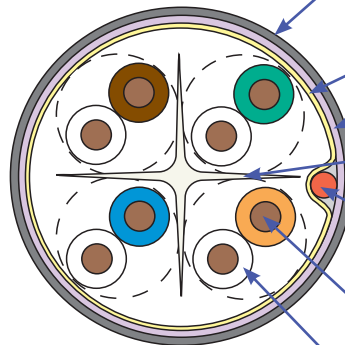
- FUTP
- Nominal jacket OD: 6.8mm (0.27 in.)
- 23 AWG 0.57mm (0.022 in.) solid (non-tinned) copper
- Central isolation member
- Shield is an aluminum foil tape enclosing a 0.51mm (24AWG) tinned copper drain wire
- 75° C temperature rating

## STANDARDS COMPLIANCE

- ISO/IEC 11801-1 Ed.1.0
- ANSI/TIA 568.2-D
- IEC 61156-5 Ed 2.0 (Category 6A)
- UL CMR and CSA FT4
- UL CM, IEC 60332-1, Class E<sub>ca</sub>
- LSOH: IEC 60332-1, IEC 60332-3-22, IEC 60754, IEC 61034, and EN 50575 Class D<sub>ca</sub>S1d1a1

## APPLICATIONS SUPPORT

- 10GBASE-T
- 1000BASE-T
- 100BASE-T
- 10BASE-T
- IEEE 802.3af (Type 1 PoE)
- IEEE 802.3at (Type 2 PoE)
- IEEE 802.3bt (Type 3 PoE)
- IEEE 802.3bt (Type 4 PoE)
- Power over HDBaseT (PoH)



### Jacket

- Nominal Cable O.D.: 6.8mm ± 0.6 (0.27 in. ± 0.02)
- Jacket Material: CM, LSOH and CMR options available

### Mylar Tape

### Aluminum Foil Tape

- Shield enclosing drain wire

### Isolation Member

- Maintains pair geometry before, during and after installation for optimal NEXT Loss performance

### Drain Wire

- Applied longitudinally under cable jacket
- 7-Strand 0.05mm (0.002 in.) tinned copper drain wire

### Conductor

- 0.57mm (23 AWG) solid bare copper

### Insulation

- Conductor Insulation: HDPE 1.18mm (0.046 in.) max conductor insulation diameter

# Product Information

## ELECTRICAL SPECIFICATIONS

DC Resistance	<8.5Ω/100m
DC Resistance Unbalance	5%
Mutual Capacitance	5.6 nF/100m
Capacitance Unbalance	<160 pF/100m
NVP	1 - 100 MHz: 100 ± 15% 100 - 750 MHz: 100 ± 22%
NVP	67%
TCL	30-10 log(f/100) dB
Delay Skew	≤45ns
PoE	Suitable for PoE Type 1,2,3,4 and PoE

## PHYSICAL PROPERTIES

	LSOH	CM/CMR
Pulling Tension (max)	110N (25 lbf)	110N (25 lbf)
Bend Radius (min)	50mm (2 in.)	50mm (2 in.)
Installation Temperature	0 to 60°C (+32 to 140°F)	0 to 60°C (+32 to 140°F)
Storage Temperature	-20 to 75°C (-4 to 167°F)	-20 to 75°C (-4 to 167°F)
Operating Temperature	-20 to 75°C (-4 to 167°F)	-20 to 75°C (-4 to 167°F)

## TRANSMISSION PERFORMANCE



GUARANTEED WORST CASE



SIEMON TYPICAL

Frequency (MHz)	Insertion Loss (dB/100)		NEXT (dB)		PS NEXT (dB)		ACR (dB)		PSACR (dB)		ACR-F (dB)		PS ACR-F (dB)		Return Loss (dB)		Propagation Delay (ns)	
1.0*	2.1	1.8	75.3	86.0	73.3	82.3	73.2	84.2	71.2	80.5	73.3	91.0	71.3	85.0	20.0	33.0	570	570
4.0	3.8	3.4	66.3	77.0	64.3	73.3	62.5	73.6	60.5	69.9	61.3	79.0	59.3	73.0	23.0	35.5	545	545
10.0	5.9	5.4	60.3	71.0	58.3	67.3	54.4	65.6	52.4	61.9	53.3	71.0	51.3	65.0	25.0	38.0	543	543
16.0	7.5	6.9	57.2	68.0	55.2	64.2	49.8	61.1	47.8	57.3	49.2	67.0	47.2	61.0	25.0	35.2	542	542
20.0	8.4	7.7	55.8	67.0	53.8	62.8	47.4	59.3	45.4	55.1	47.3	65.0	45.3	59.0	25.0	35.0	540	540.4
31.25	10.5	9.9	52.9	64.0	50.9	59.9	42.4	54.1	40.4	50.0	43.4	61.0	41.4	55.0	23.6	33.1	539	538.6
62.5	15.0	14.3	48.4	59.0	46.4	55.4	33.4	44.7	31.4	41.1	37.4	55.0	35.4	49.0	21.5	32.2	538	537.6
100.0	19.1	18.1	45.3	56.0	43.3	52.0	26.2	37.9	24.2	33.9	33.3	51.0	31.3	45.0	20.1	31.6	537	536.5
200.0	27.6	27.3	40.8	52.0	38.8	47.8	13.2	24.7	11.2	20.5	27.3	45.0	25.3	39.0	18.0	29.8	536	536.3
250.0	31.1	31.1	39.3	50.0	37.3	46.0	8.3	18.9	6.3	14.9	25.3	43.0	23.3	37.0	17.3	28.7	536	536.1
300.0	34.3	35.0	38.1	49.0	36.1	45.0	3.9	14.0	-1.9	10.0	23.8	38.0	21.8	35.0	17.3	28.0	536	535.8
400.0	40.1	40.0	36.3	47.0	34.3	43.0	-3.8	7.0	-5.8	3.0	21.3	36.0	19.3	33.0	17.3	27.1	536	535.6
500.0	45.3	42.0	34.8	47.0	32.8	42.0	-10.4	5.0	-12.4	0.0	19.3	34.0	17.3	32.0	17.3	26.0	536	510
550.0*	-	43.0	-	46.0	-	42.0	-	3.0	-	-1.0	-	33.0	-	31.0	-	26.0	536	-
625.0*	-	44.9	-	46.0	-	41.0	-	1.1	-	-3.9	-	33.0	-	29.0	-	25.0	535	-
750.0*	-	49.0	-	45.0	-	41.0	-	-4.0	-	-8.0	-	32.0	-	27.0	-	25.0	535	-

\*Values for frequencies above industry requirements are for information only.

All performance based on 100 meters (328 ft.).

## Ordering Information

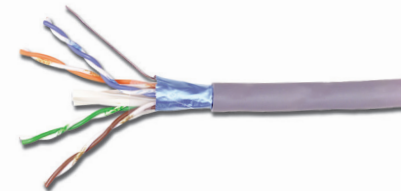
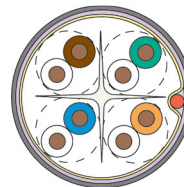
9A6(X)4-A5 ----- 305m (1000 ft.) Reel

### Jacket Material

**M** = PVC (CM, IEC 60332-1), Grey Jacket, Class E<sub>co</sub>

**R** = Riser (CMR, CSA FT4), Blue Jacket

**L** = LSOH (IEC 60332-1, IEC 60332-3-22), Violet Jacket, Class E<sub>co</sub>, D<sub>co</sub>



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