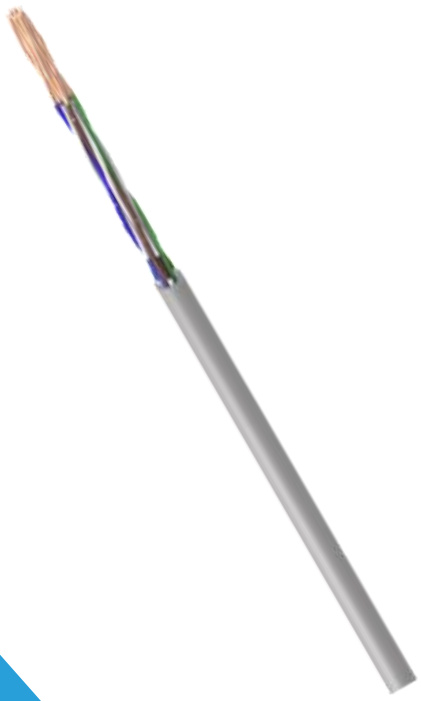
Opternet
LAN CABLE



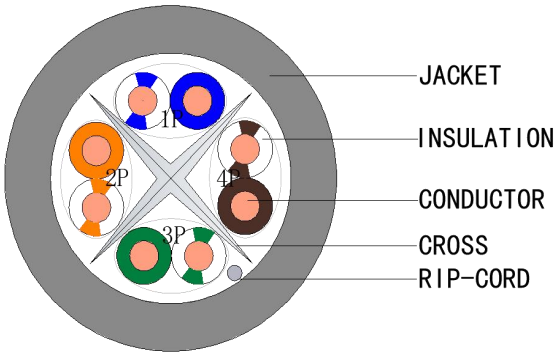
OPTERNET CABLES & WIRES

WWW.OPTERNETCABLES.COM

Category 6 Unscreened Twisted Pair Cables（UTP CAT.6）

Model number: CAT6PVC23AWGUTPBC55-3902G

Opternet cables are the best twisted-pair cables in the market for transmitting data over local area networks (LANs). As streaming videos and multimedia over LAN are gaining CAT 6 UTP SERIES popularity, users demand faster data transmission and reduce waiting time. Opternet cables are ideal for simple, cost effective and high speed transmission performance. They support a higher signal- to-noise ratio, providing better reliability for current applications and higher data rates for future applications.



CAT6 cables reduce crosstalk and system noise. The superior insulation around the 23AWG copper wires at tributes to the increase performance. They cable transmit data at 1000Mbps (1Gigabit per second) with a frequency of 500MHz and suitable for 10BASE -T, 100BASETX fast ethernet and 1000BASE-T / 1000BASE-TX (10 GBase - T).

Construction

Conductor	Size	23AWG
	Material	Bare Copper
	Nom. O.D	0.550 ± 0.01mm
Insulation	Material	HDPE
	Nom. O.D	0.97± 0.1 mm
	Average Thickness	0.21mm
	Color	1P. White & Blue / Blue
		2P. White & Green / Green
		3P. White & Orange/ Orange
		4P. White &Brown / Brown
Filler	Material	RIP-CORD
	construction	3*250D
Central Element	O.D	4.7mm+CROSS（REF）
Inside-Tape Wrap	Material	/
Drain Wire	Material	/
	Nom. O.D	/
Outside Tape Wrap	Material	/
Braid Material	Material	/
	Nom. O.D	/
Jacket	Outer Sheath	PVC
	Average Thickness	0.60 ± 0.05mm
	Overall Diameter	6.00 ± 0.40 mm
	Color	Grey
Sheath Printing	Color	Black
	Marking	/

Mechanical Characteristics

Mechanical Characters	Sheath Normal Temp Tensile Strength（Mpa）	≥13.5
	Sheath Normal Temp Elongation（%）	≥150
	Insulation Normal Temp Tensile Strength（Mpa）	≥16.0
	Insulation Normal Temp Elongation（%）	≥300
	Aging Condition（℃×Hrs）	100℃±2℃，24h，7d
	Sheath After Aging Tensile Strength（Mpa）	≥12.5
	Sheath After Aging Elongation（%）	≥125
	Temperature Rating（℃）	-20℃— + 75℃
	Cold Bend(- 20±2℃×4h)	8×Cable O.D.，No visible cracks

Transfer Characteristics

MHZ	RL ≥dB	ATT ≤dB	NEXT ≥dB	ACRF ≥dB	PS NEXT dB	PS ACRF dB
1	19.1	3.0	65.0	64.2	62.0	61.2
4	21.0	3.5	64.1	52.1	61.8	49.1
8	21.0	5.0	59.4	46.1	57.0	43.1
10	21.0	5.5	57.8	44.2	55.5	41.2
16	20.0	7.0	54.6	40.1	52.2	37.1
20	19.5	7.9	53.1	38.2	50.7	35.2
25	19.0	8.9	51.5	36.2	49.1	33.2
31.25	18.5	10.0	50.0	34.3	47.5	31.3
62.5	16.0	14.4	45.1	28.3	42.7	25.3
100	14.0	18.6	41.8	24.2	39.3	21.2
200	11.0	27.4	36. 9	18.2	34.3	15.2
250	10.0	31.1	35.3	16.2	32.7	13.2

DATE	2026-01-31	EDITION	A	SPEC NO	TX-023A013101
CHECK		APPROVER		DESIGNER	LFZ