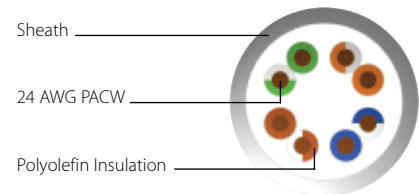
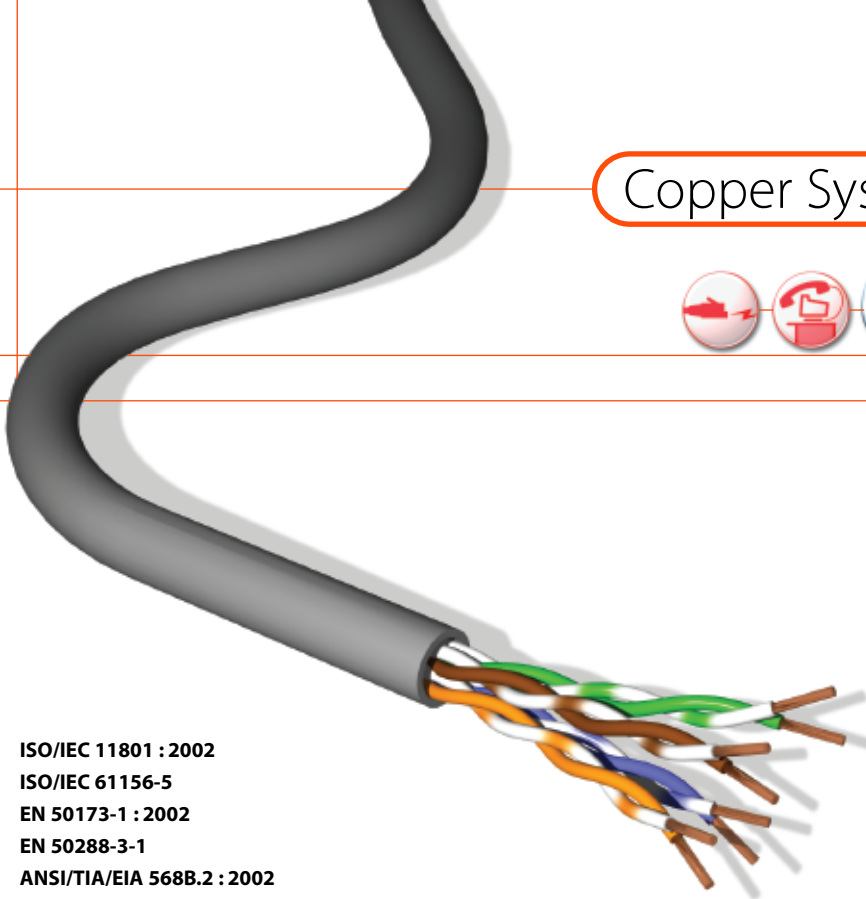


Copper Systems

GigaPlus



ISO/IEC 11801 : 2002
 ISO/IEC 61156-5
 EN 50173-1 : 2002
 EN 50288-3-1
 ANSI/TIA/EIA 568B.2 : 2002

Independent 3rd Party Certification (3P)

PRODUCT DESCRIPTION:

GigaPlus U/UTP 100 Ω 4x2xAWG 24/1
 Premium grade Class D/Cat 5e cable to support Gigabit ethernet protocol for installation in horizontal and backbone areas.

Millennium Copper Cables - GigaPlus

Communication Cable, U/UTP, 100 Ω, 4x2xAWG24/1

Electrical Characteristics @ 20°C	Specification	Typical Performance
Conductor Loop Resistance	Max 19 Ω / 100m	16 Ω / 100m
Conductor Resistance Unbalance	Max 2%	0.5%
Dielectric Strength	1.0kV dc or 0.7kV ac for 1 min	100% in process test
Insulation Resistance	>500MΩ.km @ 100-500 V test voltage	>5 GΩ.km
Capacitance Unbalance to Earth	Max 1600 pF/km	40 pF/km
Velocity of Propagation	<534 nsec/100m @ 100MHz	496 nsec/100m @ 100 MHz (NVP for hand held testers = 0.69)
Skew	Max 40 nsec/100m @ 100MHz	25 nsec/100m @ 100MHz
Mean Characteristic Impedance	100 Ω +/- 5 Ω @ 100MHz	100 Ω +/- 3 Ω @ 100MHz
Coupling Attenuation up to 1Ghz	Min 40 dB	50dB

PRODUCT PERFORMANCE:

Core:

Conductor: 24 AWG Plain Annealed Copper Wire

Insulation: Polyolefin

Diameter: 0.94mm Nominal

Pair: 2 of the above cores

Pair Colour: Blue-White, Orange-White, Green-White, Brown-White

Final Assembly:

Cable: 4 of the above pairs

Sheath: PVC or LSZH compound

Temp - Installation:

0°C to +50°C

Temp - Operation:

-20°C to +75°C

Max Tensile Load:

10kg per simplex cable (installation)

Minimum Bending Radius:

8 x Outer Diameter (installation)

4 x Outer Diameter (operation)

Packaging:

RLX 305m Reelex Box

WRL 500m Wooden Reel

1000m Wooden Reel

Frequency (MHz)		1	4	10	16	20	31.25	62.5	100	155	200
Insertion Loss (dB/100m)	Spec	2.1	4.0	6.3	8.0	9.0	11.4	16.5	21.4	na	na
	Typical	2.0	3.8	6.0	7.6	8.6	10.8	15.8	20.4	26.1	30.3
NEXT (dB)	Spec	65.3	56.3	50.3	47.2	45.8	42.9	38.4	35.3	na	na
	Typical	73.3	64.3	58.3	55.2	53.8	50.9	46.4	43.3	40.4	38.3
PSNEXT (dB)	Spec	62.3	53.3	47.3	44.2	42.8	39.9	35.4	32.3	na	na
	Typical	70.3	61.3	55.3	52.2	50.8	47.9	43.4	40.3	37.4	35.8
ELFEXT (dB/100m)	Spec	63.8	51.8	43.8	39.7	37.8	33.9	27.9	23.8	na	na
	Typical	78.8	66.8	58.8	54.7	52.8	48.9	42.9	38.8	35.0	32.8
PSELFEXT (dB/100m)	Spec	60.8	48.8	40.8	36.7	34.8	30.9	24.9	20.8	na	na
	Typical	76.8	64.8	56.8	52.7	50.8	46.9	40.9	36.8	33.0	30.8
Return Loss (dB/100m)	Spec	na	23.0	25.0	25.0	25.0	23.6	21.5	20.1	na	na
	Typical	25.0	28.0	30.0	30.0	30.0	28.6	26.5	25.1	23.8	23.0
ACR (dB/100m)	Typical	71.3	60.5	52.3	47.6	45.2	40.0	30.6	22.9	8.5	2.9
PSACR (dB/100m)	Typical	68.3	57.5	49.3	44.6	42.2	37.0	27.6	19.9	5.5	-0.1

Product Part Numbering

Part Number	GPU	GPU-D	GPU-HF1	GPU-HF1-D	GPU-HF3	GPU-HF3-D
Outer Sheath	PVC	PVC	LSZH	LSZH	LSZH	LSZH
Construction	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex
Cable Weight	31.0 kg/km	62.0 kg/km	32.5kg/km	65.0 kg/km	44.0 kg/km	88.0 kg/km
Calorific Value	0.11 k Wh/m	0.22 k Wh/m	0.11 k Wh/m	0.22 k Wh/m	0.18 k Wh/m	0.36 k Wh/m
Outer Diameter (nom)	4.85mm	9.8 x 4.85mm	5.0mm	10.1 x 5.0mm	5.8mm	17.5 x 5.8mm
Sheath Colour	Grey RAL 7037	Grey RAL 7037	Violet RAL 4005	Violet RAL 4005	Blue RAL 5015	Blue RAL 5015
Fire Safety Rating	IEC 60332 Part 1	IEC 60332 Part 1	IEC 60332 Part 1	IEC 60332 Part 1	IEC 60332 Part 3c	IEC 60332 Part 3c
Acid Gas Emissions	na	na	IEC 60754-1	IEC 60754-1	IEC 60754-1	IEC 60754-1
Smoke Index	na	na	IEC 61034	IEC 61034	IEC 61034	IEC 61034
Packaging	RLX	-	RLX	-	-	-
Packaging	WRL	WRL	WRL	WRL	WRL	WRL