



UNSCREENED CABLE

This cable is suitable for Structured wiring systems compliant to ISO11801, TIA/EIA 568A and EN 50173. This range of cables perform to Enhanced Category 5 levels

CORE

Conductor: 24 AWG solid bare copper.

Insulation: Polyolefin.

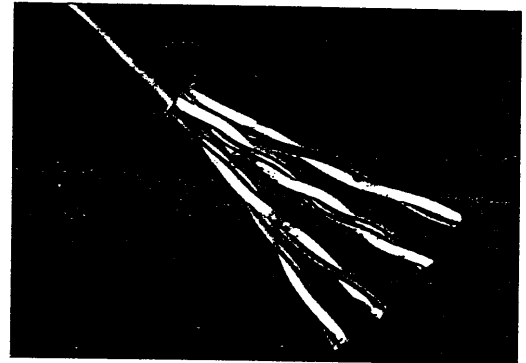
Diameter: 0.94mm nominal.

CABLE CONSTRUCTION: 4 twisted pairs of cores.

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

Standard Sheath Colour: RAL 7037 GREY.

Standard Packing: 305m and 500m boxes.
500m and 1,000m reels.



UTP

REFERENCE	GPU	GPU-HF1	GPU-HF3
Sheath Material	PVC	Halogen Free	Halogen Free
Fire Safety rating	IEC 332-1	IEC 332-1	IEC 332-3C
Outside Diameter (mm) nominal	4.85	4.85	5.80
Smoke Index	-	IEC 1034	IEC 1034
Acid Gas Emissions	-	IEC 754	IEC 754
Calorific Values (kWh/m)	0.11	0.09	0.14
Minimum bend radius	8 x OD (Installation) 4 x OD (Installed)		
Temperature range	0°C to + 50°C (Installation) -20°C to + 75°C (Operational)		
Weight (kg/km)	30.1	30.5	42.9

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ELECTRICAL CHARACTERISTICS @ 20°C

DC Resistance	93.8 Ohms/km maximum
Resistance Unbalance	2% maximum
Mutual Capacitance @ 1 kHz	55.8nF/km maximum
Capacitance Unbalance	1600 pF/km maximum pair to ground
Skew	450nsec/km
Velocity of Propagation	0.69c typical
Characteristic Impedance	100 Ohms ±15% @1.0MHz - 125 MHz

GigaPlus cables and components have been designed to work together, configured as a channel. Contact a MillenniumM partner or BICC Brand-Rex for details of how to obtain a GigaPlus system warranty.



BICC Brand-Rex

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The following table shows the secondary electrical characteristics given in the standard for Enhanced Category 5e, and those given in ISO 11801 for Category 5.

STANDARDS

Frequency MHz	Attenuation dB/100m		NEXT dB		PS NEXT dB	PSELFEXT dB
	Cat 5	Cat 5e	Cat5	Cat 5e	Cat 5e	Cat 5e
1	2.1	2.1	62.3	65.3	62.3	60.8
4	4.3	4.3	53.3	56.3	53.3	48.7
10	6.6	6.6	47.3	50.3	47.3	40.8
16	8.2	8.2	44.3	47.3	44.3	36.7
20	9.2	9.2	42.8	45.8	42.8	34.7
31.25	11.8	11.8	39.9	42.9	39.9	30.9
62.5	17.1	17.1	35.4	38.4	35.4	24.8
100	22.0	22.0	32.3	35.3	32.3	20.8

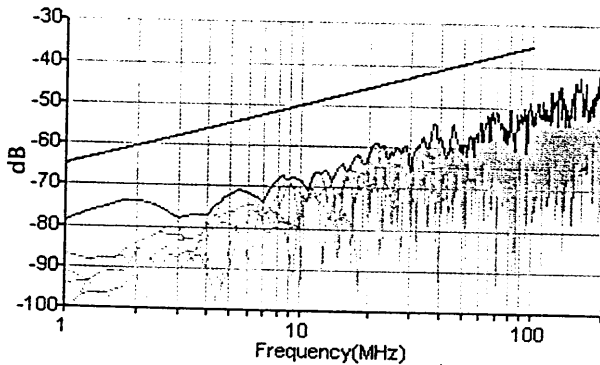
GigaPlus cables perform beyond both of the standards detailed above.
The typical performance of unscreened GigaPlus cables is therefore given below.

TYPICAL GigaPlus PERFORMANCE

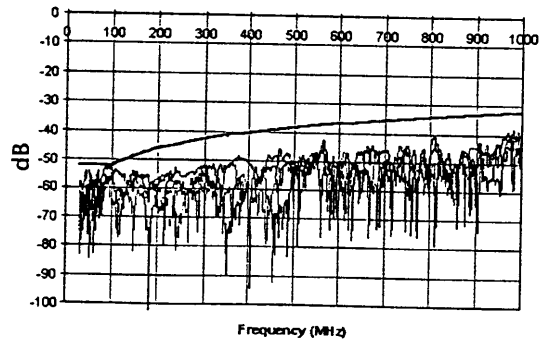
Frequency MHz	Attenuation dB/100m	NEXT dB	PS NEXT dB	PSELFEXT dB	ACR dB	PSACR dB
1	1.9	73.3	71.3	78.3	71.4	69.4
4	3.7	64.3	62.3	66.3	60.6	58.6
10	5.9	58.3	56.3	58.3	52.4	50.4
16	7.6	55.2	53.2	54.2	47.7	45.7
20	8.5	53.8	51.8	52.3	45.3	43.3
31.25	10.8	50.9	48.9	48.4	40.1	38.1
62.5	15.7	46.4	44.4	42.4	30.7	28.7
100	20.3	43.3	41.3	38.3	23.0	21.0
<i>125</i>	<i>23.0</i>	<i>41.8</i>	<i>39.8</i>	<i>36.4</i>	<i>18.8</i>	<i>16.8</i>
<i>155</i>	<i>26.0</i>	<i>40.4</i>	<i>38.4</i>	<i>34.5</i>	<i>14.5</i>	<i>12.5</i>
200	30.1	38.8	36.8	32.3	8.7	6.7

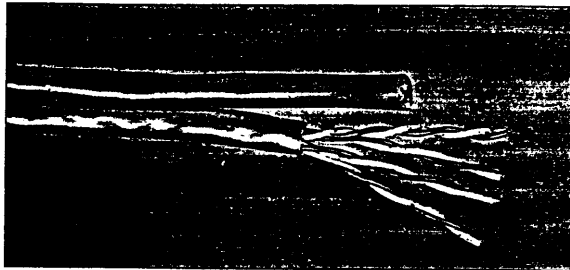
Figures in Italics are for information only

Typical Worst Case
NEXT

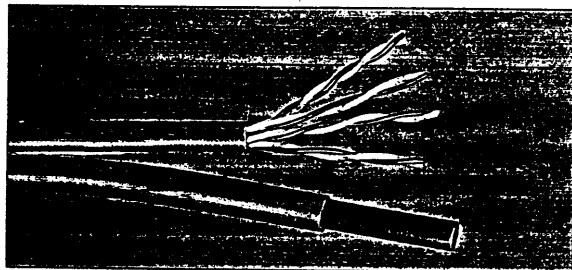


Typical Coupling Attenuation
Near end measurements

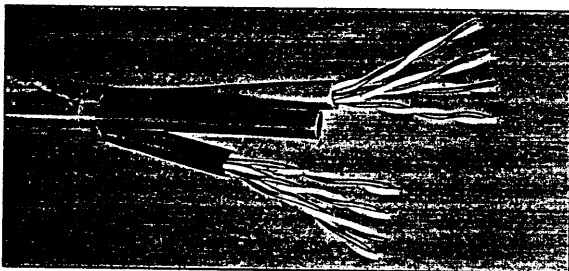




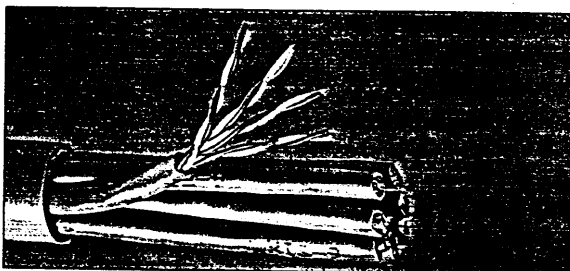
BICC Brand-Rex PART No	Outside Diameter (mm)	Weight (kg/km)
Shotgun cables with 2 x 4 pair units sheathed in PVC to a shotgun cross section		
GPU-D	4.85 x 9.96	62.4



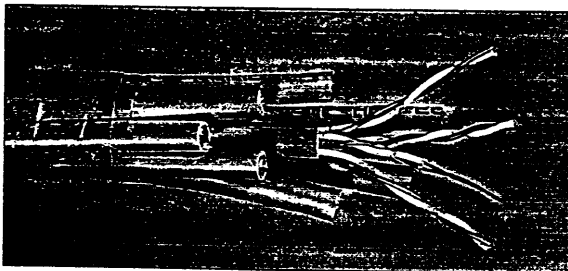
Shotgun cables with a 4 pair unit and a 5mm microduct, sheathed in PVC to a shotgun cross section		
GPU-BLO	4.85 x 11.1	58.0



Multiway cables with PVC sheathed 4 pair units cabled together with a 5mm microduct and overall cross lapped with polyester tapes		
GPU-2WL-BLO	10.7	77.2
GPU-3WL-BLO	11.2	114.1



Multiway cables with PVC sheathed 4 pair units cabled together, overall sheathed in PVC		
GPU-4W	13.7	179.3
GPU-6W	17.1	273.3
GPU-8W	18.8	354.3



Multiway cables with PVC sheathed 4 pair units cabled together, with overall cross lapped polyester tapes		
GPU-4WL	11.8	128.6
GPU-6WL	14.6	191.7
GPU-8WL	15.9	245.8

The above cable types are also available with HF1 and HF3 4 pair units. Dimensions for HF1 composite cables are the same as the PVC versions detailed above. Dimensions for HF3 composite cables are available on request.