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1-800-Belden1



## General Description:

IBM Type 1A, 22 AWG solid BC conductors, non-plenum, flame-retardant foam polyethylene insulation, each pair individually Beldfoil® shield (65% coverage), rip cord, PVC jacket.

## Usage (Overall)

Suitable Applications: Token Ring 4 & 16 Mbps, FDDI over Copper, and video

## Physical Characteristics (Overall)

### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
2	22	Solid	BC - Bare Copper

Total Number of Conductors: 4

### Insulation

Insulation Material:

Insulation Material
FRFPE - Flame Retardant Foam Polyethylene

Insulation Resistance: > 16000 Megaohms

### Inner Shield

Inner Shield Material:

Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100

### Outer Shield

Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	TC - Tinned Copper	65

### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Outer Jacket Ripcord: Yes

## Overall Cable

Overall Nominal Diameter: 0.296 x 0.431 in.

## Pair

Pair Color Code Chart:

Number	Color
1	Black & Orange
2	Red & Green

## Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +75°C

Bulk Cable Weight: 48 lbs/1000 ft.

Max. Recommended Pulling Tension: 83 lbs.

Min. Bend Radius/Minor Axis: 4.500 in.

Min. Bend/Installation: 4.500 in.

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMG, MPG

CEC/C(UL) Specification: CMG

EU Directive 2011/65/EU (ROHS II):	Yes
IEEE Specification:	IEEE802.5 Token Ring
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Other Specification:	Verified IBM Type 1A
Customer Part Number Reference Specification:	IBM P/N: 4716748, 33G2772

### Flame Test

UL Flame Test:	UL1685 FT4 Loading
CSA Flame Test:	FT4

### Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	82688

### Surface Printing (Overall)

Surface Printing:	BELDEN 9688 CMG 75C 2PR22 SHIELDED (UL) E108998 C(UL)---ETL VERIFIED TO IBM-A SPECIFICATION 33G2772 AND IBM SPECIFICATION 4716748
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### Electrical Characteristics (Overall)

#### Nom. Characteristic Impedance:

Impedance (Ohm)
150

#### Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
8.5

Maximum Capacitance Unbalance (pF/100 m): 100

#### Nominal Velocity of Propagation:

VP (%)
78

#### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
16.7

#### Max. Attenuation:

Freq. (MHz)	Attenuation (dB/100 m)
4	2.2
16	4.4
31.25	6.9
62.5	9.8
100	12.3
200	17.4
300	21.4

#### Max. Operating Voltage - UL:

Voltage
300 V RMS

#### Max. Recommended Current:

Current
2.3 Amps per conductor @ 25°C

#### Common Mode Attenuation:

Freq. (MHz)	Attenuation (dB/100 m)
62.5	10.6
100	13.4
200	19.0
300	23.3
400	26.9

550	31.5
600	32.9

## Electrical Characteristics-Premise (Overall)

### Premise

Minimum NEXT:

Freq. (MHz)	NEXT (dB)
4	58.0
16	50.4
31.25	46.1
62.5	41.5
100	38.5
200	34.0
300	31.3

## Notes (Overall)

**Notes:** IBM qualified Type 1A media cable for use in IBM cabling system. For non-suffix "A" type IBM product, see 1634A

## Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9688 0101000	1,000 FT	50.000 LB	BLACK	C Z	2PR#22FRFPE FRPE BRD PVC
9688 0102000	2,000 FT	100.000 LB	BLACK	C Z	2PR#22FRFPE FRPE BRD PVC
9688 0103600	3,600 FT	190.800 LB	BLACK	C Z	2PR#22FRFPE FRPE BRD PVC
9688 0105000	500 FT	26.500 LB	BLACK	C Z	2PR#22FRFPE FRPE BRD PVC

### Notes:

C = CRATE REEL PUT-UP.

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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