# **Detailed Specifications & Technical Data**

### **METRIC MEASUREMENT VERSION**



# 9688 Multi-Conductor - Type 1A



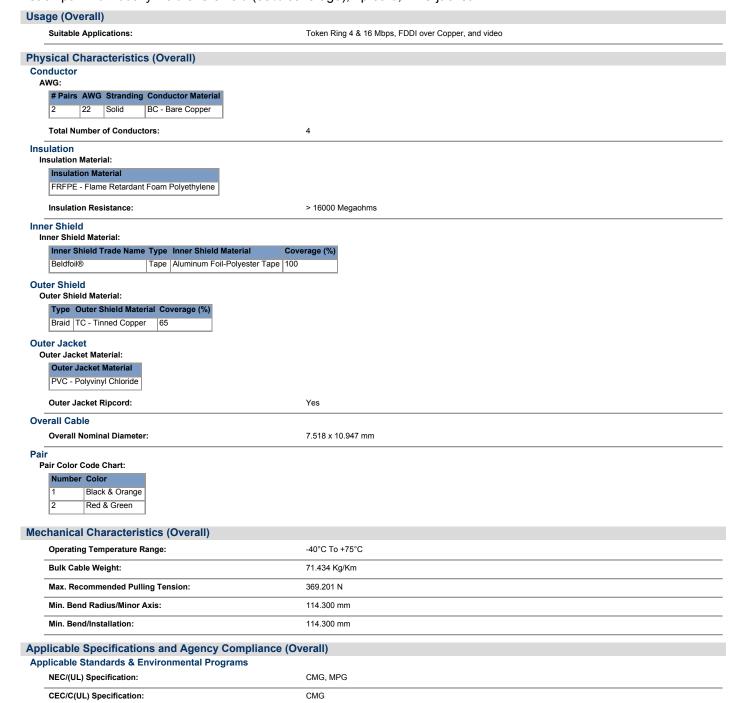
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### **General Description:**

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.



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	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		
Fla	me Test			
	UL Flame Test:	UL1685 FT4 Loading		
	CSA Flame Test:	FT4		
Ple	num/Non-Plenum			
	Plenum (Y/N):	No		
	Plenum Number:	82688		

## Surface Printing (Overall)

# **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:

Impedance (Ohm)
150

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/m) 27.8885

Maximum Capacitance Unbalance (pF/100 m): 100

Nominal Velocity of Propagation:

**VP (%)** 78

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 54.7927

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

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## **Electrical Characteristics-Premise (Overall)**

### Minimum NEXT:

Freq. (MHZ)	NEXT (GB)
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	CZ	2PR#22FRFPE FRPE BRD PVC
9688 0102000	2,000 FT	100.000 LB	BLACK	CZ	2PR#22FRFPE FRPE BRD PVC
9688 0103600	3,600 FT	190.800 LB	BLACK	CZ	2PR#22FRFPE FRPE BRD PVC
9688 010500	500 FT	26.500 LB	BLACK	CZ	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.

Revision Number: 2 Revision Date: 01-18-2013

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