

## 9688 Paired - Type 1A





For more information please call 1-800-Belden1

See Put-ups and Colors

#### **Description:**

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

#### SUITABLE APPLICATIONS:

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

#### PHYSICAL CHARACTERISTICS:

#### **CONDUCTOR:**

Number of Pairs	2	
Total Number of Conductors	4	
AWG	22	
Stranding	Solid	
Conductor Material	BC - Bare Copper	

#### **INSULATION:**

Insulation Material	FRFPE - Flame Retardant Foam Polyethylene
Insulation Resistance	> 16000 Megaohms

#### Pair Color Code Chart:

Number	Color	Number	Color
1	Black & Orange	2	Red & Green

#### **INNER SHIELD:**

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

#### **OUTER SHIELD:**

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

#### **OUTER JACKET:**

Outer Jacket Material	PVC - Polyvinyl Chloride
Outer Jacket Ripcord	Yes

## Detailed Specifications & Technical Data



# 9688 Paired - Type 1A

#### **OVERALL NOMINAL DIAMETER:**

Overall Nominal Diameter	.296 x .431 in.
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#### **MECHANICAL CHARACTERISTICS:**

Operating Temperature Range	-40°C To +75°C
Bulk Cable Weight	48 lbs/1000 ft.
Max. Recommended Pulling Tension	83 lbs.
Min. Bend Radius (Install)	4.5 in.

#### APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

#### APPLICABLE STANDARDS:

NEC/(UL) Specification	MPG, CMG
CEC/C(UL) Specification	CMG
IEEE Specification	IEEE802.5 Token Ring
EU CE Mark (Y/N)	Yes
EU RoHS Compliant (Y/N)	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
TIA/EIA Specification	TIA/EIA-568-A
Other Specification	ETL Verified
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)	N
Plenum Number	82688

#### **ELECTRICAL CHARACTERISTICS:**

Nom. Characteristic Impedance	150 Ohms
Nom. Capacitance Conductor to Conductor @ 1 KHz	8.5 pF/ft
Maximum Capacitance Unbalance (pF/100 m)	100 pF/100 m
Nominal Velocity of Propagation	78 %
Nom. Conductor DC Resistance @ 20 Deg. C	16.7 Ohms/1000 ft
Minimum NEXT:	

## Detailed Specifications & Technical Data



# 9688 Paired - Type 1A

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Minimum 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

#### Max. Attenuation (dB/100 m):

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Max. 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

#### Common Mode Attenuation:

Description	Frequency (MHz)	Start Frequency (MHz)	Stop Frequency (MHz)	Common Mode 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

Max. Operating Voltage - UL

Max. Recommended Current

300 V RMS

2.3 Amps per conductor @ 25°C

#### NOTES:

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	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
9688 0101000	2PR#22FRFPE FRPE BRD PVC	1000	50	BLACK	CZ
9688 0102000	2PR#22FRFPE FRPE BRD PVC	2000	102	BLACK	CZ
9688 0103600	2PR#22FRFPE FRPE BRD PVC	3600	190.8	BLACK	CZ
9688 010500	2PR#22FRFPE FRPE BRD PVC	500	26.5	BLACK	CZ

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

Revision Number: 1 Revision Date: 05-30-2006

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