



FULL SPEED 12 Mbs CABLE ASSEMBLY

Pin	Circuit	Wire Color
1	VBus	Red
2	D-	White
3	D+	Green
4	Gnd	Black
Shell	Chassis Ground	Drain Wire / Shield

Tolerances		
< 2m	±30mm	
≥ 2m ≤ 5m	±50mm	
> 5m	±100mm	

mat'l code				tolerances unless otherwise specified			CUSTOMER COPY		FCI Electronics www.fciconnect.com		
ltr	ecn no	dr	date	linear	angles	projection		title	FULL SPEED USB CABLE ASSEMBLY SERIES A TO SERIES B		
A	V70000	DR	3/19/97								
B	V81235	RGD	6/18/98					product family	USB		code
C	V81349	RGD	7/24/98						size	dwg no	
D	V81708	RGD	9/9/98	dr	R.G. Dragoo	3/19/97	scale	A	72380		sheet 1 of 3
E	V81777	RGD	10/5/98	engr	R.Macmillan	6/15/98					
F	00-12	P.P	9/28/00	chr	R.Macmillan	5/18/98	N.T.S				
				appd	R.Macmillan	8/15/98					
sheet index	revision	sheet									

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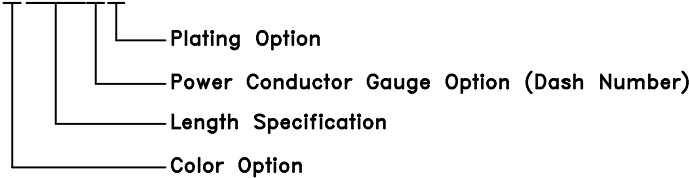
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PRODUCT NUMBER

72380-YVWXZN

72380-YVWXZN



Y Color: Jacket and Overmolding Option

B Black
W White

VWX, Length specification (Note: See the power conductor gauge requirements for specific lengths Z Table).

V Length in Meters

W Length in 1/10 Meters

X Length in 1/100 of Meters

Example a length of 1.85 Meters, VWX would be 185

N Plating Option (Mating Area)

C 30 Micro Inches GXT
D 30 Micro Inches Gold

Z- Power Conductor Wire Gauge Table Option

Dash No.	A	B	C	D	E
Conductor	28	26	24	22	20
Resistance	0.232 Ohm/m	0.145 Ohm/m	0.091 Ohm/m	0.057 Ohm/m	0.036 Ohm/m
Length					
0 Thru 0.81m	✓	✓	✓	✓	✓
0.82 Thru 1.31m		✓	✓	✓	✓
1.32 Thru 2.08m			✓	✓	✓
2.09 Thru 3.33m				✓	✓
3.34 Thru 5.00m					✓

Boxes marked with ✓ are in accordance with USB spec. gauge vs. length

Plug & Cable Construction and Performance Specification

Cable Assembly Performance

Cable Pull Out-40 Newtons (8.99 Pounds)

Frequency (MHz)	Attenuation (maximum) dB/cable	Frequency (MHz)	Attenuation (maximum) dB/cable
0.064	0.08	4.000	0.39
0.256	0.11	8.000	0.57
0.512	0.13	12.000	0.67
0.772	0.15	24.000	0.95
1.000	0.20	48.000	1.35
		96.000	1.9

Plug Performance

Voltage Rating	30 Vac (rms)
Current Rating	1 Amp
Temperature Rating	
Storage Temperature	-40°C to 60°C
Operating Temperature	0°C to 40°C
Durability	1500 Cycles
Insulation Resistance	1000 Mohms
Dielectric Withstanding Voltage	500 Vac
Insertion Force	35 Newtons (7.9 Pounds) Maximum
Withdrawal Force	10 Newtons (2.3 Pounds) Minimum
	35 Newtons (7.9 Pounds) Maximum

Electric Test:

-100% Continuity

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linear			projection	title FULL SPEED USB CABLE ASSEMBLY SERIES A TO SERIES B		
angles						
dr	R.G. Draggoo	7/31/98	METRIC	product family	USB	code
engr	R.Macmullin	7/31/98		size	dwg no	213
chr	R.Macmullin	7/31/98	scale	A 72380		sheet
appd	R.Macmullin	7/31/98	N.T.S			2 of 3

1

2

3

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PRODUCT	NUMBER
72380	YVWXZN

Cable/Plug Over mold

Bulk Cable Construction Materials

Signal Conductors, Copper, Twisted Pair
 Power Conductors, Copper

Wrap (Full Speed Only)

Braid, Copper (Full Speed Only)

Power Conductor Insulators

Outer Jacket

Signal Conductor Insulators

High Density Polyvinyl Chloride

28 AWG Stranded Tinned (7x0.127)
 28 AWG Stranded Tinned (7x0.127)
 26 AWG Stranded Tinned (7x0.163)
 24 AWG Stranded Tinned (7x0.203)
 22 AWG Stranded Tinned (7x0.254)
 20 AWG Stranded Tinned (10x0.254)

Aluminum/Mylar, 25" Minimum
 Aluminum exterior

Interwoven Tinned 65" Minimum
 Coverage

Semirigid-Polyvinyl Chloride, Red and
 Black

Polyvinyl Chloride

Foamed Polyethylene, Green and White

Plug and Cable Assembly Materials

Plastic Housing

Terminals

Shields

High Temperature Thermoplastic
 Oxygen Index (LOI) > 21% UL 94V-0 RATING
 High Strength Copper Alloy
 (Phosphor Bronze)
 High Strength Copper Alloy
 (Phosphor Bronze)

Plating Terminals




Underplate: 1.25 Micro Meters
 (50 Micro Inches) Nickel Minimum
-C Mating Area: 30 GXT
 .05 Micro Meters (2 Micro Inches) of Gold
 Minimum Over 0.70 Micro Meters
 (30 Micro Inches) of Palladium Nickel
 Minimum]
-D Mating Area: 30 Gold
 0.70 Micro Meters Gold (30 Micro Inches)
Tail Area: 2.54 Micro Meters
 (100 Micro Inches) Tin Lead

Plating Shell

Underplate: 1.25 Micro Meters
 (50 Micro Inches) Nickel Minimum
Overall: 2.5 Micro Meters
 (100 Micro Inches) Bright Tin Minimum

NOTES:

1. Product Compliant With USB Specification.

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A
B