

Electrical
Voltage: 30 V
Temperature: 80 °C
Flammability: VW-1

Transmission (USB 2.0)

Speed rating: 480Mbps @ 20V, 3A max

Type-A to Type-C ratings at 3m long wire:

Differential impedance: $90\Omega \pm 15\%$
Common mode impedance: $30\Omega \pm 30\%$
Propagation delay: 5.2ns/m max
Propagation delay skew: 100ps
Conductor resistance unbalance: 5%

Attenuation @3.0M	
MHz	dB
0.512	0.13
0.772	0.15
1	0.2
4	0.39
8	0.57
12	0.76
24	0.95
48	1.35
96	1.9
200	3.2
400	5.8

Tests

Dielectric test: 750Vac/s for 1 minute without breakdown

Spark test: 0.5kV (500Vac)

Tensile strength

Jacket: 1.05 kgf/mm²

HD-PE: 1.45 kgf/mm²

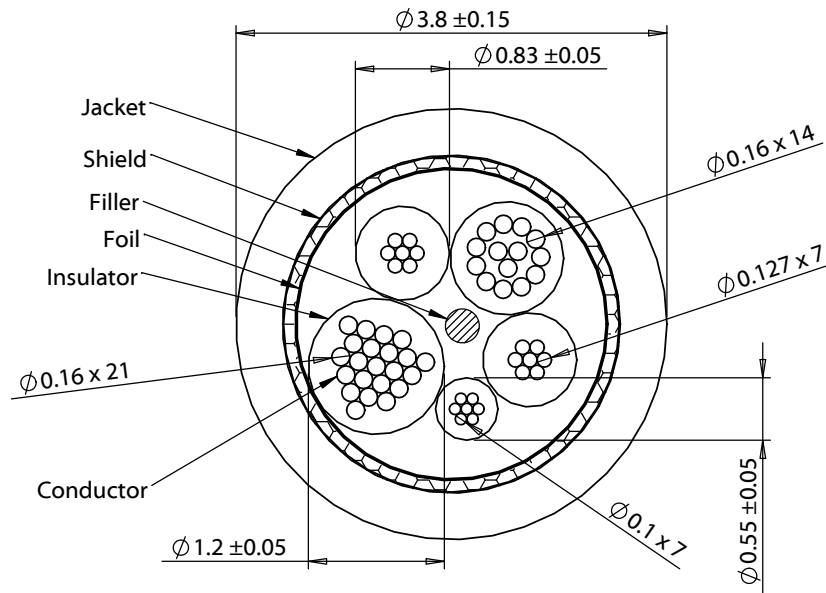
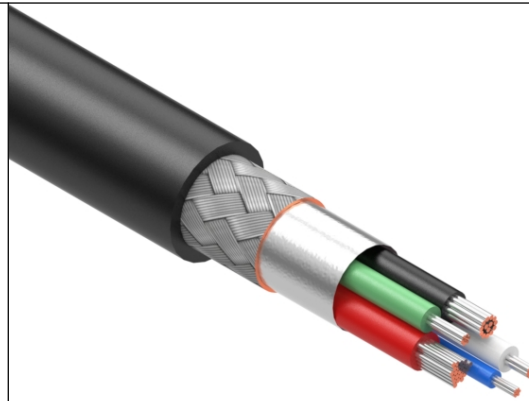
PP: 2.1 kgf/mm²

After aging at 113 ±2 °C for 7 days:

Minimum jacket tensile strength 65 % original

Minimum insulation tensile strength 70 % original (HD-PE, PP)

Minimum elongation 70 % original (jacket and insulation)



Revision:	Date:	Description:	Prepared:	Notes:	TENSILITY tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com	
A	06/19/2024	Initial release	Verified:	RoHS compliant Function test: no open, no short circuit, no intermittent		
			Dimensions are in millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.05 mm	Description: Wire, 5C TS, 30 AWG to 21 AWG, UL21104, 30 V, 80C, 3.80 mm, shielded, VW-1, TPE, USB 2.0	Size: A	Part number: 30-03504
					Scale: 15:1	Sheet 1 of 2

Contraction Item		Contraction Item A	Contraction Item B	Contraction Item C	Contraction Item D
Conductor	Gauge	28 AWG	21 AWG	23 AWG	30 AWG
	Material	Tinned copper	Tinned copper	Tinned copper	Tinned copper
	Strand size	7/0.127	21/0.16	14/0.16	7/0.1
	Resistance at 20 °C	237 Ω/km max	43 Ω/km max	68 Ω/km max	376 Ω/km max
Insulator	Material	HD-PE	PP	PP	PP
	Diameter	0.83±0.05 mm	1.2±0.05 mm	1.0±0.05 mm	0.55±0.05 mm
	Average thickness	0.22 mm	0.17 mm	0.16 mm	0.12 mm
	Color	green, white	red	black	blue
	Resistance at 20 °C	100 MΩ/km min	100 MΩ/km min	100 MΩ/km min	100 MΩ/km min
Layer	Direction	Left (Z)			
	Filler	Cotton			
Outside-Tape Wrap	Material	Aluminum mylar			
	Conductive Side	Facing Outside			
	Overlap	25% min			
Outside-Shield	Type	Braid			
	Material	Tinned copper			
	Coverage	90% min			
Outside-Jacket	Material	TPE			
	Diameter	3.8±0.15 mm			
	Average thickness	0.56 mm			
	Color	Black			
Wire Marking	Color	White			
	Marking	E339579 UL AWM STYLE 21104 80°C 30V VW-1 USB 2.0 CABLE TENSILITY			

The diagram illustrates the internal structure of the cable. It features a central conductor with multiple strands, surrounded by a layer of insulator. This is followed by a filler material, a shield layer, a foil layer, and an outer jacket. Labels with arrows point to each of these components.

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