

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

Transmission USB 3.2 Gen 1x1
Speed rating: 5Gbps @ 20V, 3A max

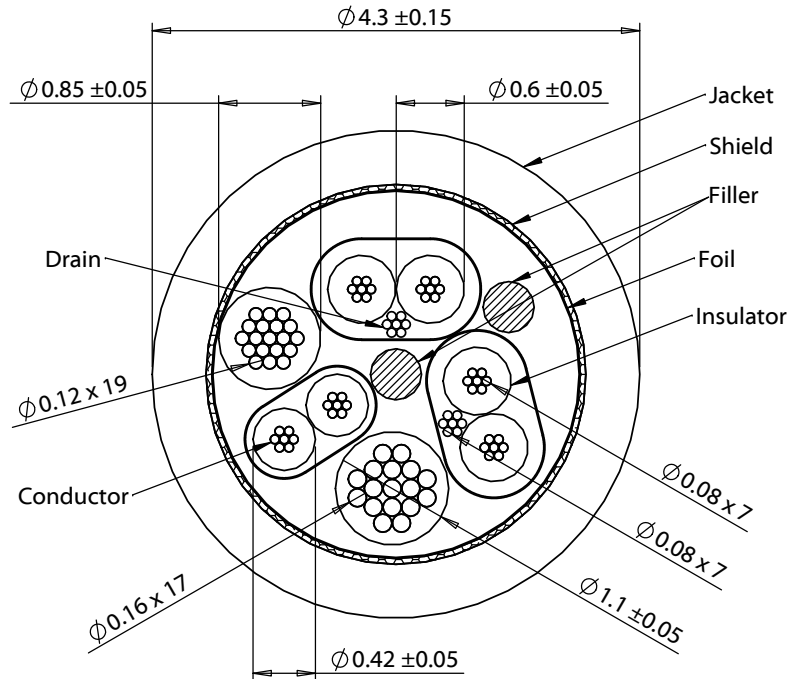
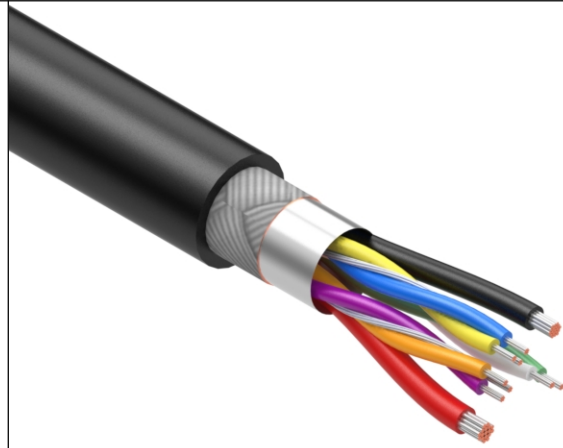
Type-A to Type-C ratings at 3m long wire:
Differential impedance: $90\Omega \pm 7\Omega$
Differential to common mode: $-20\text{dB}/\text{max}@2.5\sim 7.5\text{GHz}$
Intra-pair skew: 15ps/m

Attenuation @ 3.0M	
GHz	dB
0.1	1.5
1.25	5
2.5	7.5
7.5	25

Type-A to Type-C ratings at 2m long wire:
Differential impedance: $90\Omega \pm 13.5\Omega$
Common mode impedance: $30\Omega \pm 30\%$
Delay: 26ns (5.2ns/m for captive cable)
Intra-pair skew: 100ps

Attenuation @ 2.0M	
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: 1.4 kgf/mm²
PP: 2.1 kgf/mm²
After aging at $113 \pm 2^\circ\text{C}$ for 7 days:
Minimum jacket tensile strength 75 % 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	06/20/2024	Initial release	Verified:	RoHS compliant Function test: no open, no short circuit, no intermittent		
			Dimensions are in millimeters. Tolerances: X: $\pm 0.5\text{ mm}$ X.X: $\pm 0.3\text{ mm}$ X.XX: $\pm 0.05\text{ mm}$	Description: Wire, 8C TS, 3PR + 2C, 32 to 22 AWG, UL21104, 30 V, 80C, 4.30 mm, braidfoil, VW-1, TPE, USB 3.2	Size: A	Part number: 30-03506
					Scale: 15:1	Sheet 1 of 2

Contraction Item			Contraction Item A	Contraction Item B	Contraction Item C	Contraction Item D
Conductor	Guage	32 AWG	32 AWG	22 AWG	24 AWG	
	Material	Tinned copper	Tinned copper	Tinned copper	Tinned copper	
	Strand size	7/0.08	7/0.08	17/0.16	19/0.12	
	Resistance at 20 °C	588 Ω/km max	588 Ω/km max	55 Ω/km max	86 Ω/km max	
Insulator	Material	LLD-PE+HD-PE	PP	PP	PP	
	Diameter	0.6±0.05 mm	0.42±0.05 mm	1.1±0.05 mm	0.85±0.05 mm	
	Average thickness	0.18 mm	0.1 mm	0.17 mm	0.12 mm	
	Color	See color code	See color code	See color code	See color code	
Twist pair	Resistance at 20 °C	100 MΩ/km min	100 MΩ/km min	100 MΩ/km min	100 MΩ/km min	
	Direction	Left (Z)	Left (Z)	-	-	
Drain wire	Diameter	1.20 mm	1.10 mm	-	-	
	Guage	32 AWG	-	-	-	
Inside-Tape Wrap (1)	Material	Tinned copper	-	-	-	
	Material	Aluminum mylar	-	-	-	
Inside-Tape Wrap (2)	Conductive Side	facing inside	-	-	-	
	Overlap	25% min	-	-	-	
Layer	Material	Hot melting-Mylar	-	-	-	
	Overlap	25% min	-	-	-	
Outside-Tape Wrap	Direction	Left (Z)				
	Filler	Cotton				
Outside-Shield	Material	Aluminum mylar				
	Conductive Side	Facing Outside				
Outside-Jacket	Overlap	25% min				
	Type	Braid				
Wire Marking	Material	Tinned copper				
	Coverage	65% min				
Revision:	Material	TPE				
	Diameter	4.3±0.15 mm				
Date:	Average thickness	0.5 mm				
Description:	Color	White				
Prepared:	Color	Black				
Verified:	Marking	E339579 UL AWM STYLE 21104 80°C 30V VW-1 USB 3.2 CABLE TENSILITY				
Notes:			RoHS compliant			
Function test: no open, no short circuit, no intermittent			Description:			
Wire, 8C TS, 3PR + 2C, 32 to 22 AWG, UL21104, 30 V, 80C, 4.30 mm, braidfoil, VW-1, TPE, USB 3.2			Size: A			
Part number: 30-03506			Scale: 15:1			
Sheet 2 of 2			Insulation			
Jacket			Conductor			
Foil			Filler			
Shield						