

# USB 3.0 & USB 3.1 Type #: 1

SPEC No.:	(7/0.127TA*1PR+EAM)*2+(7/0.127TA*1PR+A)+7/0.16TA*2C+AB 85% USB 3.0						
Customer		Customer NO.		8 Code:	0	Sample NO.:	Y161015007
UL File NO.	E101344	UL Style:	UL 2725	Date:	10/21/16	Spec NO.:	0
CSA File NO.		CSA Style:		Edition:	Original edition	Operation NO.:	
Structure		Structure A		Structure B		Structure C	
Conductors	Structure AWG	AWG	28# (7/36)	28# (7/36)	28# (7/36)	26# (7/34)	
	Material	--	Tinned Copper	Tinned Copper	Tinned Copper	Tinned Copper	
	O.D.	mm	0.38 Ref	0.38 Ref	0.38 Ref	0.471 Ref	
Insulation	Material	--	FOAM-SKIN-PE	FOAM-PE	FOAM-PE	SR-PVC	
	Diameter	mm	0.89±0.07	0.84±0.05	0.84±0.05	1±0.07	
	Average Thickness	mm	0.255	0.230	0.230	0.265	
	Color	--	AS Color Code	AS Color Code	AS Color Code	AS Color Code	
Twist	Direction	--	Left (Z)	Left (Z)	Left (Z)	--	
	Diameter	mm	1.78 Ref	1.4 Ref	1.4 Ref	--	
Drain wire	Structure AWG	AWG	28# (7/36)				
	Material	--	Tinned Copper				
Shielding 1	Material	--	AL-foil/mylar	AL-foil/mylar	AL-foil/mylar	--	
	Conductive Side	--	Inside	Inside	Inside	--	
	Overlap Rate	%	25 MIN	25 Ref	25 Ref	--	
Separator 2	Material	--	Hot-melt-Mylar	--	--	--	
	Conductive Side	--	--	--	--	--	
	Overlap Rate	%	25 MIN	--	--	--	
Layer	Direction	--	Left (Z)				
	Pitch	mm	75 Ref				
	Diameter	mm	3.9 Ref				
Shielding 3	Material	--	--	AL-foil/mylar	AL-foil/mylar	--	
	Conductive Side	--	--	Outside	Outside	--	
	Overlap Rate	%	--	25 MIN	25 MIN	--	
Shielding 4	Shield	--	Braid				
	Material	--	Tinned Copper				
	Coverage Rate	%	85 MIN				
Jacket	Material	--	PVC				
	Diameter	mm	5.5 ± 0.19				
	Min Thickness	mm	0.50				
	Extrusion	--	Semi substantiate				
	Externals	--	Plane				
	Color	--	Z001 (BLACK)				

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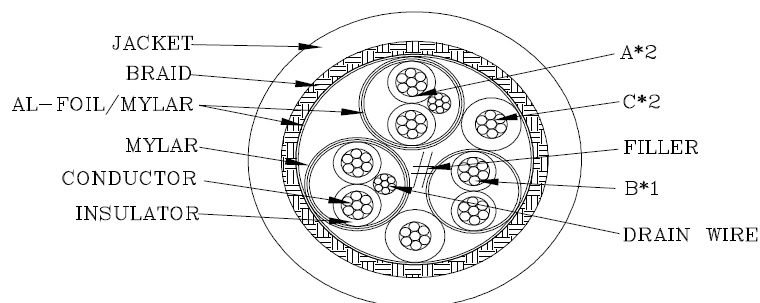


**COMPONENTS EXPRESS, INC.**

10330 Argonne Woods Drive, Ste 100  
Woodridge, IL 60517

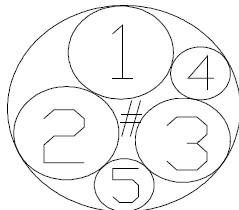
**Y161015007 (E0894)**

Rev. A, 10/26/2016, 8/12/19



COLOR CODE

1. YELLOW\*BLUE
2. ORANGE\*VIOLET
3. WHITE\*GREEN
4. BLACK (P570)
5. RED (P572)



**MINIMUM BEND RADIUS: 10X O.D.**

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## Electric Characters

- Voltage rating :30V
- Temperature rating : 80°C
- Spark test: AC- 500V / 0.15 sec MIN.
- Dielectric strength : AC- 750V/1sec MIN.
- Insulation resistance :FOAM-SKIN-PE, FOAM-PE: DC- 500V 100 MΩ/KM MIN. at 20°C  
SR-PVC:DC-500V 10MΩ/KM MIN. at 20°C
- Conductor resistance : 28AWG-244 Ω/KM MAX. at 25°C  
26AWG-153 Ω/KM MAX. at 25°C

## Transmission Characters

- Differential impedance: 90±7Ω (1PR+EAM)\*2
- Attenuation : (1PR+EAM)\*2

Frequency ( MHz)	100	625	1250	2500	5000	7500
Insertion Loss (MAX) dB/cable	-1.5	-3.1	-5	-7.5	-16.25	-25

- Intra-pair skew:15PS/M
- Differential to Common Mode Conversion: -20 dB@(2.0m)
- Conductor resistance unbalance : 5%(1PR:GREEN\*WHITE)
- Attenuation:(1PR:GREEN\*WHITE)

Frequency(MHz)	0.512	0.772	1.00	4.00	8.00	12.0	24.0	48.0	96.0	200.0	400.0
Attenuation(MAX)dB/cable	0.130	0.150	0.20	0.390	0.570	0.760	0.950	1.350	1.90	3.20	5.80

- Impedance(1PR:GREEN\*WHITE) : 90Ω±15% @ TDR (differential)
- Propagation Delay(1PR:GREEN\*WHITE) : 5.2ns/M MAX
- Propagation Delay skew(1PR:GREEN\*WHITE): 100PS MAX

## Physical Characters

- Flame test of cable:
  - VW-1
- Tensile strength test ( before aging) :
  - Sheath : > 1.05kg/mm2
  - Insulation : > 1.12kg/mm2
- Tensile strength test ( after aging):
  - Sheath: >70%
  - Insulation:>70%
- Elongation( before aging):
  - Sheath : >100%
  - Insulation : >100%
- Elongation( after aging):
  - Sheath : >65%
  - Insulation : >70%
- Requirements for green environment protection:Accord with RoHS



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