Product: 9L28310

Shielded Flat Ribbon Cable .050" Pitch, 9L283XX Series, #28-10c, PVC Ins, O/A Foil Tape, PVC Jacket

Product Description

Shielded Flat Ribbon Cable .050" Pitch, 9L283XX Series, 10 Conductor, 28 AWG (7x36) Tinned Copper, Gray PVC Insulation, Beldfoil® Tape, Black PVC Jacket

Technical Specifications

Product Overview

Suitable Applications:	Internal interconnection, internal wiring of electronic equipment, reliable mass-termination to standard IDC connectors, noisy evnvironments

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material
28	7x36	TC - Tinned Copper

Conductor Count:	10

Insulation

Material	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.010 in

Color Chart

Color
Gray

Table Notes:	First Conductor has Red Stripe

Outer Shield

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Bi-Laminate (Alum+Poly)	Beldfoil®	100%	TC - Tinned Copper	28	7x36

Outer Jacket

Material	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.038 in

Construction and Dimensions

Conductor Spacing Center-Center:	.050 +/- .002 in
Conductor Spacing Center-Center Outside:	.450 +/- .008 in
OuterJacket1, Nominal Width:	.570 in
OuterJacket1, Nom Thick Flat Section:	0.115 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR
68.2 Ohm/1000ft

Capacitance

Element	Nom. Capacitance Conductor to Conductor
@ 1 kHz (GSG) with shield grounded	70 pF/ft
@ 1 MHz (GSG) with shield grounded	50 pF/ft

Min Insulation Resistance:	10,000 MOhm

Inductance

Element	Nominal Inductance
@ 1 MHz (GSG) with shield grounded	0.11 µH/ft

Impedance

Nominal Balanced Characteristic Impedance Description	Nominal Characteristic Impedance	Nominal Characteristic Impedance Description
(GSG) with shield grounded	45 Ohm	(GSG) with shield grounded

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
10 MHz	6 dB/100ft
20 MHz	9.5 dB/100ft
30 MHz	12.5 dB/100ft
40 MHz	14.9 dB/100ft
50 MHz	17.2 dB/100ft
60 MHz	19 dB/100ft
70 MHz	21.5 dB/100ft
80 MHz	23 dB/100ft
90 MHz	24.5 dB/100ft
100 MHz	26 dB/100ft

Table Notes:	GSG=Ground-Signal-Ground Mode

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.7 ns/ft	60%

Unbalanced Crosstalk

Element	Typical Unbalanced NEXT %	Typical Unbalanced FEXT %	Typical Cross Talk Pulse Rise Time (ns)
10 ft. sample length with ground connected to shield	1.5	2	3 ns
10 ft. sample length with ground connected to shield	0.9	1.5	5 ns
10 ft. sample length with ground connected to shield	0.7	1.2	7 ns

Current

Max. Recommended Current [A]
1 Amp per Conductor at 20ºC

Voltage

Dielectric Withstand Voltage	UL Voltage Rating
2000 V	300 V

Temperature Range

Operating Temperature Range:	-20°C to +105°C

Mechanical Characteristics

Bulk Cable Weight:	47 lbs/1000ft
Min. Bend Radius During Installation:	1.75 in
Min. Bend Radius/Minor Axis:	0.75 in

Standards

UL AWM Style Compliance:	AWM 20081
CSA AWM Compliance:	II A

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes

EU Directive Compliance:	Yes
EU CE Mark:	Yes
CA Prop 65 (CJ for Wire and Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	VW-1
UL voltage rating:	300 V

Plenum/Non-Plenum

Plenum (Y/N):	No

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	UPC
9L28310 010100	Black	Reel	100 ft	612825221739

Footnote:	E - MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'.

History

Update and Revision:	Revision Number: 0.306 Revision Date: 05-05-2023