



**Product:** <u>9L30050</u> ☑

Flat Gray Ribbon Cable .025" Pitch, 9L300XX Series, #30-50c, PVC Ins

# **Product Description**

Miniaturized Flat Gray Ribbon Cable .025" Pitch, 9L300XX Series, 50 Conductor, 30 AWG (7x38) Tinned Copper, PVC Insulation

# **Technical Specifications**

#### **Product Overview**

Suitable Applications: Internal interconnection, internal wiring of electronic equipment, higher signal density, design flexibility, reliable mass-termination to standard IDC connectors

# **Physical Characteristics (Overall)**

#### Conductor

#### Insulation

Material	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.008 in

#### **Color Chart**



Table Notes: First Conductor has Red Stripe

# **Construction and Dimensions**

Conductor Spacing Center-Center:	.025 +/002 in
Conductor Spacing Center-Center Outside:	1.225 +/007 in
OuterJacket1, Nominal Width:	1.250 +/007 in
OuterJacket1, Nom Thick Flat Section:	0.027 in

# **Electrical Characteristics**

# Conductor DCR

Nominal Conductor DCR 108 Ohm/1000ft

# Capacitance

Element	Nom. Capacitance Conductor	to Conductor
@ 1 kHz (GS)	18 pF/ft	
@ 1 kHz (GSG)	32 pF/ft	
@ 1 MHz (GS)	14 pF/ft	
@ 1 MHz (GSG)	24 pF/ft	
Min Insulation Resistance:		10,000 MOhm

#### Inductance

Element Nominal Inductance

@ 1 MHz (GS)	0.21 µH/ft
@ 1 MHz (GSG)	0.14 μH/ft

# Impedance

N	ominal Balanced Characteristic Impedance Description	Nominal Characteristic Impedance	Nominal Characteristic Impedance Description
(0	GS)	105 Ohm	(GS)
(0	GSG)	70 Ohm	(GSG)

# High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
10 MHz	5.4 dB/100ft
20 MHz	9.5 dB/100ft
30 MHz	14.1 dB/100ft
40 MHz	18 dB/100ft
50 MHz	20.1 dB/100ft
60 MHz	24.9 dB/100ft
70 MHz	26.5 dB/100ft
80 MHz	30 dB/100ft
90 MHz	30.6 dB/100ft
100 MHz	33 dB/100ft

Table Notes: GSG=Ground-Signal-Ground Mode

#### Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.52 ns/ft	66%

#### **Unbalanced Crosstalk**

Element	Typical Unbalanced NEXT %	Typical Unbalanced FEXT %	Typical Cross Talk Pulse Rise Time (ns)
10 ft. sample length	6	7.1	3 ns
10 ft. sample length	5.4	7	5 ns
10 ft. sample length	5	6.6	7 ns

#### Current

Max. Recommended Current [A]
0.5 Amps per Conductor at 20°C

# Voltage

Dielectric Withstand Voltage	UL Voltage Rating
2000 V	150 V

# **Temperature Range**

Operating Temp Range:	-40°C to +105°C

# **Mechanical Characteristics**

Bulk Cable Weight:	33 lbs/1000ft
Min. Bend Radius/Minor Axis:	0.5 in

## **Standards**

UL AWM Style Compliance:	2678
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
MII Order #39 (China RoHS):	Yes

# Suitability

Suitability - Indoor:	Yes
tability indoor.	. 55

#### Flammability, LS0H, Toxicity Testing

UL Flammability:	VW-1
CSA Flammability:	FT1
UL voltage rating:	150 V

### Plenum/Non-Plenum

Plenum (Y/N):	No

#### **Part Number**

#### Variants

Item #	Color	Length	UPC
9L30050 008H100	Gray	100 ft	612825221777

#### History

Update and Revision:	Revision Number: 0.318 Revision Date: 12-15-2021

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