



**Product:** [9L28050](#)

Flat Gray Ribbon Cable .050" Pitch, 9L280XX Series, #28-50c, PVC Ins

**Product Description**

Flat Gray Ribbon Cable .050" Pitch, 9L280XX Series, 50 Conductor, 28 AWG (7x36) Tinned Copper, PVC Insulation

**Technical Specifications**

**Product Overview**

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

**Construction Details**

| Element      | No. of Elements | Size   | Stranding | Material           |
|--------------|-----------------|--------|-----------|--------------------|
| Conductor(s) | 50              | 28 AWG | 7x36      | TC - Tinned Copper |

| Element      | Material                 | Nom. Thickness     | Nom. Insulation Diameter | Color Code | Notes                                 |
|--------------|--------------------------|--------------------|--------------------------|------------|---------------------------------------|
| Conductor(s) | PVC - Polyvinyl Chloride | 0.010 in (0.25 mm) | 0.035 in (0.89 mm)       | Gray       | A Red Stripe over the first conductor |

|                                          |                   |
|------------------------------------------|-------------------|
| Conductor Spacing Center-Center:         | .050 +/- .002 in  |
| Conductor Spacing Center-Center Outside: | 2.450 +/- .011 in |

**Electrical Characteristics**

| Nom. Conductor DCR | Nom. Capacitance Cond-to-Cond | Nom. Characteristic Impedence | Nom. Delay           | Nom. Inductance        | Nom. Velocity of Prop. | Max. Current                |
|--------------------|-------------------------------|-------------------------------|----------------------|------------------------|------------------------|-----------------------------|
| 68.2 Ohm/1000ft    | 18 pF/ft (59 pF/m)            | 150 Ohm                       | 1.4 ns/ft (4.6 ns/m) | 0.29 µH/ft (0.95 µH/m) | 72%                    | 1 Amp per Conductor at 20°C |
|                    | 10 pF/ft (33 pF/m)            | 105 Ohm                       |                      | 0.2 µH/ft (0.66 µH/m)  |                        |                             |
|                    | 15 pF/ft (49 pF/m)            |                               |                      |                        |                        |                             |

| Element              | Typical Unbalanced NEXT % | Typical Unbalanced FEXT % | Typical Cross Talk Pulse Rise Time |
|----------------------|---------------------------|---------------------------|------------------------------------|
| 10 ft. sample length | 4.8                       | 7                         | 3 ns                               |
| 10 ft. sample length | 3.5                       | 4.7                       | 5 ns                               |
| 10 ft. sample length | 3                         | 3                         | 7 ns                               |

| Frequency [MHz] | Nom. Insertion Loss (Attenuation) |
|-----------------|-----------------------------------|
| 10              | 2.8 dB/100ft                      |
| 20              | 4.8 dB/100ft                      |
| 30              | 6.5 dB/100ft                      |
| 40              | 8.3 dB/100ft                      |
| 50              | 9.8 dB/100ft                      |
| 60              | 12 dB/100ft                       |
| 70              | 13 dB/100ft                       |
| 80              | 14 dB/100ft                       |
| 90              | 15.8 dB/100ft                     |

|              |                                                      |
|--------------|------------------------------------------------------|
| 100          | 17 dB/100ft                                          |
| Table Notes: | GS=Ground-Signal Mode; GSG=Ground-Signal-Ground Mode |

Voltage

| UL Voltage Rating |
|-------------------|
| 300 V             |

Mechanical Characteristics

Temperature

| UL Temperature | Operating       |
|----------------|-----------------|
| 105°C          | -40°C to +105°C |

Bend Radius

| Installation Min. |
|-------------------|
| 0.5 in (13 mm)    |

|                    |               |
|--------------------|---------------|
| Bulk Cable Weight: | 65 lbs/1000ft |
|--------------------|---------------|

Standards and Compliance

|                                  |                                                                                                                           |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Environmental Suitability:       | Indoor                                                                                                                    |
| Flammability / Reaction to Fire: | VW-1                                                                                                                      |
| AWM Compliance:                  | AWM 2651, AWM 1/11, A                                                                                                     |
| European Directive Compliance:   | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| APAC Compliance:                 | China RoHS II (GB/T 26572-2011)                                                                                           |

History

|                      |                                                  |
|----------------------|--------------------------------------------------|
| Update and Revision: | Revision Number: 0.499 Revision Date: 01-20-2023 |
|----------------------|--------------------------------------------------|

Part Numbers

Variants

| Item #          | Color | Length | UPC          |
|-----------------|-------|--------|--------------|
| 9L28050 008H100 | Gray  | 100 ft | 612825221708 |

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