



**Product:** <u>9860</u> ☑

Twinax 124 $\Omega$ , 1 Pr #16 Sol BC, PO Ins, OA DF+TC Brd, PVC Jkt, CMX

Request Sample

### **Product Description**

Twinax 124Ω, 1 Pair 16AWG (Solid) Bare Copper, PO Insulation, Overall Duofoil®+Tinned Copper Braid(90%) Shield, PVC Outer Jacket, CMX

### **Technical Specifications**

#### **Product Overview**

Suitable Applications:	harsh environment, IIoT, factory or process automation, video, audio, data communication, etc.

#### **Physical Characteristics (Overall)**

#### Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Pairs
16	Solid	BC - Bare Copper	0.051 in	1
Condu	ictor Count:		2	

### Insulation

Material	Nominal Diameter	
PE - Polyethylene (Foam)	0.161 in	

### Color Chart

Number	Color
1	Blue & Clear

#### **Outer Shield**

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Tri-Laminate (Alum+Poly+Alum)	Duofoil®	100%
Braid	2	Tinned Copper (TC)		90%

#### **Outer Jacket**

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.44 in	0.045 in

### **Construction and Dimensions**

### Stranding

Diameter 0.322 mm

### **Electrical Characteristics**

### Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR	
4.2 Ohm/1000ft	1.3 Ohm/1000ft	1.3 Ohm/1000ft	

#### Capacitance

10.9 pF/ft	19.3 pF/ft	10.9 pF/ft
10.9 pr/1t	19.3 pr/1t	10.9 pr/1t

#### Inductance

Element	Nominal Inductance
(Loop)	(Loop) 0.24 µH/ft

### Impedance

Nominal Characteristic Impedance
124 Ohm

### High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.2 dB/100m
10 MHz	0.7 dB/100m
50 MHz	1.8 dB/100m
100 MHz	2.9 dB/100m
200 MHz	4.1 dB/100m
400 MHz	6.2 dB/100m

### Delay

Max. Delay Skew	Nominal Delay	Nominal Velocity of Propagation (VP) [%]
78 ns/100m	1.3 ns/ft	78%

#### High Frequency

Frequency [MHz]
1 MHz
10 MHz
50 MHz
100 MHz
200 MHz
400 MHz

### Voltage

UL Voltage Rating	Voltage Rating [V]
300 V RMS (CM)	AWM style 2448: 30 V RMS
300 V RMS (CMX)	

# **Temperature Range**

UL Temp Rating:	60°C
Operating Temperature Range:	-20°C To +60°C

## **Mechanical Characteristics**

Bulk Cable Weight:	98 lbs/1000ft
Max. Pull Tension:	73 lbs
Min. Bend Radius/Minor Axis:	4.5 in

## **Standards**

NEC Articles:	Article 800
NEC/(UL) Compliance:	CMX
CEC/C(UL) Compliance:	CMX
UL AWM Style Compliance:	AWM 2448
CPR Euroclass:	Eca

# **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:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
MII Order #39 (China RoHS):	Yes

#### Flammability, LS0H, Toxicity Testing

UL Flammability:	WW-1
UL voltage rating:	300 V RMS (CM)

### Plenum/Non-Plenum

Plenum (Y/N):	No

#### **Related Part Numbers**

#### Variants

Item #	Color	Put-Up Type	Length	UPC
9860 010500	Black	Reel	500 ft	612825259725
9860 0101000	Black	Reel	1,000 ft	612825259701
9860 0102000	Black	Reel	2,000 ft	612825259718

Footnote:	C - CRATE REEL PUT-UP.

#### History

Update and Revision:	Revision Number: 0.484 Revision Date: 05-05-2023

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