



Product: [9272](#)

78Ω Twinax, #20 TC, PO, TC Braid, PVC Jkt, CM

Product Description

78 Ohm Twinax, 20 AWG stranded (7x28) .038" tinned copper conductors, polyethylene insulation, tinned copper braid shield (93% Coverage), PVC jacket.

Technical Specifications

Product Overview

Suitable Applications:	RF
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Construction n x D	Nominal Diameter	No. of Conductors
20	7x28	TC - Tinned Copper	Stranded	0.038 in	1
20	7x28	TC - Tinned Copper	Stranded	0.038 in	

Conductor Count:	2
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Insulation

Material	Nominal Diameter
PE - Polyethylene	0.0755 in
PE - Polyethylene	0.0755 in

Color Chart

Number	Color
1	Blue
	Natural

Outer Shield

Type	Layer	Material	Coverage [%]
Braid	1	Tinned Copper (TC)	93%

Outer Jacket

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.244 in

Construction and Dimensions

Stranding

Diameter
0.156 mm

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Conductor DCR	Conductor Resistance	Nominal Outer Shield DCR	Outer Conductor DCR
9.5 Ohm/1000ft	9.5 Ohm/1000ft		3.4 Ohm/1000ft	3.4 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Shield
19.7 pF/ft	19.7 pF/ft

Inductance

Nominal Inductance
0.020 µH/ft

Impedance

Nominal Characteristic Impedance
78 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.6 dB/100ft
10 MHz	2.1 dB/100ft
50 MHz	5.0 dB/100ft
100 MHz	7.5 dB/100ft
200 MHz	11 dB/100ft
400 MHz	16 dB/100ft

Delay

Max. Delay Skew	Nominal Delay	Nominal Velocity of Propagation (VP) [%]
66 ns/100m	1.54 ns/ft	66%

Voltage

UL Voltage Rating
300 V RMS

Temperature Range

UL Temp Rating:	60°C (UL AWM Style 2092)
Operating Temperature Range:	-30°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	38 lbs/1000ft
Max. Pull Tension:	55 lbs
Min. Bend Radius/Minor Axis:	2.5 in

Standards

NEC/(UL) Compliance:	CM
CEC/C(UL) Compliance:	CM
UL AWM Style Compliance:	AWM 2092 (300 V 60°C)
CPR Euroclass:	Eca

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2011/65/EU (RoHS 2):	No
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive Compliance:	Yes
EU CE Mark:	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	Yes - Black only, when supported by messenger wire
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes - Black only

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL 1685 UL Loading
IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	89272

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	UPC
9272 006100	Blue	Reel	100 ft	612825226246
9272 006500	Blue	Reel	500 ft	612825226260
9272 006U500	Blue	UnReel	500 ft	612825226239
9272 0061000	Blue	Reel	1,000 ft	612825226253
9272 006U1000	Blue	UnReel	1,000 ft	612825226222

Footnote:	C - CRATE REEL PUT-UP.
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History

Update and Revision:	Revision Number: 0.419 Revision Date: 04-29-2024
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