



**Product:** [89207](#) 

100Ω Twinax, #20-1c TC/1c BC, FEP, Duofoil® TC Braid, FEP Jkt, CMP

## Product Description

100 Ohm Twinax, 20 AWG stranded (7x28) one tinned, one bare copper conductor, FEP insulation, overall FEP dielectric, Duofoil® + tinned copper braid shield 85%, FEP jacket.

## Technical Specifications

### Physical Characteristics (Overall)

#### Conductor

AWG	Stranding	Material	Construction n x D	Nominal Diameter	No. of Pairs
20	7x28	TC - Tinned Copper	Stranded	0.037 in	1
	7x28	BC - Bare Copper	Stranded	0.037 in	

Conductor Count:	2
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#### Insulation

Material	Material Trade Name	Nominal Diameter
FEP - Fluorinated Ethylene Propylene	Teflon®	0.072 in

#### Color Chart

Number	Color
1	Natural (bare conductor)
2	Natural (tinned conductor)

#### Inner Jacket Material

Material	Material Trade Name	Nominal Diameter
FEP - Fluorinated Ethylene Propylene	Teflon®	0.201 in

#### Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Alum / Poly / Alum	Duofoil®	100 %
Braid	2	TC - Tinned Copper		85 %

#### Outer Jacket Material

Material	Material Trade Name	Nominal Diameter
FEP - Fluorinated Ethylene Propylene	Teflon®	0.259 in

### Electrical Characteristics

#### Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
9.5 Ohm/1000ft	2.5 Ohm/1000ft

#### Capacitance

Nom. Capacitance Conductor to Conductor	Nom. Capacitance Conductor to Other Conductor to Shield	Nom. Capacitance Conductor to Shield
14 pF/ft	23 pF/ft	14 pF/ft

#### Inductance

Nominal Inductance
0.155 µH/ft

Impedance

Nominal Characteristic Impedance
100 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.3 dB/100m
10 MHz	1.2 dB/100m
50 MHz	2.8 dB/100m
100 MHz	4.1 dB/100m
200 MHz	6.4 dB/100m
300 MHz	8.4 dB/100m
400 MHz	10.2 dB/100m

Delay

Max. Delay Skew	Nominal Delay	Nominal Velocity of Propagation (VP) [%]
69.5 ns/100m	1.46 ns/ft	69.50 %

Voltage

UL Voltage Rating
300 V RMS

Temperature Range

Operating Temp Range:	-70°C To +200°C
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Mechanical Characteristics

UV Resistance:	Yes - Black only
Bulk Cable Weight:	52 lbs/1000ft
Max Recommended Pulling Tension:	88 lbs
Min Bend Radius/Minor Axis:	2.75 in

Standards

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
CPR Euroclass:	Eca

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2011/65/EU (ROHS II)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2001-01-01

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:	NFPA 262
CSA Flammability:	FT6
ISO/IEC Flammability:	IEC 60332-1-2

UL voltage rating:	300 V RMS
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Plenum/Non-Plenum

Plenum (Y/N):	Yes
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Part Number

Non-Plenum Number:	9207
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Variants

Item #	Color	Putup Type	Length	UPC
89207 010100	Black	Reel	100 ft	612825220756
89207 010500	Black	Reel	500 ft	612825220770
89207 0101000	Black	Reel	1,000 ft	612825220763

Footnote:	C - CRATE REEL PUT-UP.
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Product Notes

Notes:	Teflon® is a registered trademark of Chemours and is used under license by Belden, Inc.
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History

Update and Revision:	Revision Number: 0.250 Revision Date: 04-28-2020
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