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1-800-Belden1

### General Description:

Twinax, 24 AWG stranded (19x36) .024" silver-coated high-strength copper alloy conductor, TFE Teflon® insulation, SC high strength CA braid shield (93% coverage), PFA jacket.

### Physical Characteristics (Overall)

#### Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material                                | Dia. (in.) |
|---------|-----|-----------|---------------------------------------------------|------------|
| 1       | 24  | 19x36     | SCHSCA - Silver Coated High Strength Copper Alloy | .024       |

Total Number of Conductors: 2

#### Insulation

Insulation Material:

| Insulation Trade Name | Insulation Material       | Wall Thickness (in.) |
|-----------------------|---------------------------|----------------------|
| Teflon®               | TFE - Tetrafluoroethylene | 0.009                |

#### Outer Shield

Outer Shield Material:

| Type  | Outer Shield Material                             | Coverage (%) |
|-------|---------------------------------------------------|--------------|
| Braid | SCHSCA - Silver-Coated High Strength Copper Alloy | 93           |

#### Outer Jacket

Outer Jacket Material:

| Outer Jacket Material | Nom. Wall Thickness (in.) |
|-----------------------|---------------------------|
| PFA                   | 0.014                     |

#### Overall Cable

Overall Nominal Diameter: 0.129 in.

### Mechanical Characteristics (Overall)

Operating Temperature Range: -55°C To +200°C

UL Temperature Rating: 200°C

Bulk Cable Weight: 15 lbs/1000 ft.

Max. Recommended Pulling Tension: 12 lbs.

Min. Bend Radius/Minor Axis: 1.500 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC(UL) Specification: CL2P

EU Directive 2002/95/EC (RoHS): No

Military Specification: MIL-C-17, M17/176-00002, MIL-STD-1553 DATA BUS CABLE

#### Flame Test

UL Flame Test: NFPA 262

#### Plenum/Non-Plenum

Plenum (Y/N): Yes

### Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

| Impedance (Ohm) |
|-----------------|
| 77              |

Nom. Inductance:

| Inductance (µH/ft) |
|--------------------|
| .118               |

Max. Mutual Capacitance:

| Capacitance (pF/ft) |
|---------------------|
| 24.0                |

Maximum Capacitance Unbalance:

| Description | Capacitance (pF/ft) |
|-------------|---------------------|
|-------------|---------------------|

# Detailed Specifications & Technical Data



ENGLISH MEASUREMENT VERSION

81553 Twinax - Twinax

|  |   |
|--|---|
|  | 5 |
|--|---|

Nominal Velocity of Propagation:

|        |
|--------|
| VP (%) |
| 70     |

Nominal Delay:

|               |
|---------------|
| Delay (ns/ft) |
| 1.62          |

Nominal Outer Shield DC Resistance:

|                          |
|--------------------------|
| DCR @ 20°C (Ohm/1000 ft) |
| 7.3                      |

Nom. Attenuation:

| Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|--------------------------|
| 1           | 1.2                      |
| 10          | 4.0                      |
| 50          | 9.2                      |
| 100         | 13.0                     |
| 200         | 18.4                     |
| 400         | 26.1                     |
| 700         | 34.6                     |
| 900         | 39.3                     |
| 1000        | 41.4                     |

Max. Attenuation:

| Description | Freq. (MHz) | Start Freq. (MHz) | Stop Freq. (MHz) | Attenuation (dB/100 ft.) |
|-------------|-------------|-------------------|------------------|--------------------------|
|             | 1           |                   |                  | 1.4                      |

Max. Operating Voltage - UL:

|           |
|-----------|
| Voltage   |
| 150 V RMS |

## Notes (Overall)

Notes: Teflon® is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc.

## Put Ups and Colors:

| Item #        | Putup    | Ship Weight | Color       | Notes | Item Desc        |
|---------------|----------|-------------|-------------|-------|------------------|
| 81553 0061000 | 1,000 FT | 18.000 LB   | BLUE, LIGHT | F Z   | 2#24 TFE BRD PFA |
| 81553 006500  | 500 FT   | 9.000 LB    | BLUE, LIGHT | F Z   | 2#24 TFE BRD PFA |

Notes:

F = MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 50'

Z = FINAL PUT-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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