

# Spectra-Zip® TPE .025" center 193-3X0X series



## description

Spectra-Strip® TPE .025" center zip cable accommodates interconnect miniaturization, with the added benefit of improved electrical performance characteristics. Applications include any system requiring higher and faster signal density. Standard put-up is 100' coils. Longer lengths are available upon request.

## benefits

- TPE insulation - lower dielectric constant, higher impedance, and faster signal speeds than PVC cable
- High density center-to-center spacing allows increased miniaturization
- Precise spacing for controlled electrical characteristics
- Easy, fast mass-termination
- Easy identification of # 1 conductor with edge mark
- Double contour allows termination from either side of cable
- UL recognized 

## characteristics

### physical

Conductors: copper, see chart below

Insulation: .0075" (0,19mm) wall TPE

Pitch: 0.025"±0.002" (0,64±0,05mm)

centers

Color: gray (one edge red)

Temperature rating: -20°C to +105°C

(-4°F to +221°F)

### electrical

Voltage: 150 V

Current rating: 0.8 amps nominal @ 10°C

rise above ambient

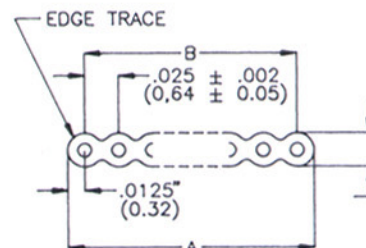
Propagation delay: 1.45 ns/ft

(4,76 ns/m) nominal

Insulation resistance: 10<sup>10</sup> ohms. - 10'  
(3 m) min.

Crosstalk: 10' (3 m) sample,  
5 ns rise time with 2 lines driven,  
unbalanced mode (see chart below)

UL style: #20647, rated 105°C  
(+221°F)



| Part Number            | 193-3003                       | 193-3005                       | 193-3203                       | 193-3205                       |
|------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Conductors             | 30-1 solid bare                | 30-7/38 tinned                 | 32-1 solid bare                | 32-7/40 tinned                 |
| Thickness              | .025"±.002"                    | .027"±.002"                    | .023"±.002"                    | .024"±.002"                    |
| Impedance              | 88 ohms                        | 80 ohms                        | 105 ohms                       | 95 ohms                        |
| Capacitance (nominal)  | 16.5 pf/ft (54,1 pf/m) @ 1 MHz | 19.0 pf/ft (62,3 pf/m) @ 1 MHz | 14.0 pf/ft (45,9 pf/m) @ 1 MHz | 17.0 pf/ft (55,8 pf/m) @ 1 MHz |
| Inductance (nominal)   | .15 µh/ft (.49 µh/m) @ 1.0 MHz | .14 µh/ft (.46 µh/m) @ 1.0 MHz | .17 µh/ft (.56 µh/m) @ 1.0 MHz | .15 µh/ft (.49 µh/m) @ 1.0 MHz |
| Crosstalk              |                                |                                |                                |                                |
| * ground-signal-ground | near end: * 2.7%               | near end: * 3.1%               | near end: * 3.0%               | near end: * 3.1%               |
|                        | far end: * 3.3%                | far end: * 3.6%                | far end: * 3.6%                | far end: * 3.4%                |
| **ground-ground-signal | near end: ** 1.0%              | near end: ** 1.0%              | near end: ** 1.2%              | near end: ** 1.0%              |
| -ground-ground         | far end: ** 1.6%               | far end: ** 1.9%               | far end: ** 2.2%               | far end: ** 2.0%               |

## order information

| 30-1<br>BARE SOLID | 30-7/38<br>TINNED | 32-1<br>BARE SOLID | 32-7/40<br>TINNED | #<br>COND | WIDTH A |         | SPAN B     |              |
|--------------------|-------------------|--------------------|-------------------|-----------|---------|---------|------------|--------------|
| PART #             | PART #            | PART #             | PART #            |           | INCHES  | (mm)    | INCHES     | (mm)         |
| 193-3003-010       | 193-3005-010      | 193-3203-010       | 193-3205-010      | 10        | .250    | (6,35)  | .225±.005  | (5,72±0,13)  |
| 193-3003-016       | 193-3005-016      | 193-3203-016       | 193-3205-016      | 16        | .400    | (10,16) | .375±.005  | (9,53±0,13)  |
| 193-3003-020       | 193-3005-020      | 193-3203-020       | 193-3205-020      | 20        | .500    | (12,70) | .475±.005  | (12,07±0,13) |
| 193-3003-026       | 193-3005-026      | 193-3203-026       | 193-3205-026      | 26        | .650    | (16,51) | .625±.005  | (15,88±0,13) |
| 193-3003-034       | 193-3005-034      | 193-3203-034       | 193-3205-034      | 34        | .850    | (21,59) | .825±.006  | (20,96±0,15) |
| 193-3003-040       | 193-3005-040      | 193-3203-040       | 193-3205-040      | 40        | 1.000   | (25,40) | .975±.006  | (24,77±0,15) |
| 193-3003-050       | 193-3005-050      | 193-3203-050       | 193-3205-050      | 50        | 1.250   | (31,75) | 1.225±.006 | (31,12±0,15) |
| 193-3003-060       | 193-3005-060      | 193-3203-060       | 193-3205-060      | 60        | 1.500   | (38,10) | 1.475±.006 | (37,47±0,15) |
| 193-3003-064       | 193-3005-064      | 193-3203-064       | 193-3205-064      | 64        | 1.600   | (40,64) | 1.575±.006 | (40,01±0,15) |
| 193-3003-068       | 193-3005-068      | 193-3203-068       | 193-3205-068      | 68        | 1.700   | (43,18) | 1.675±.007 | (42,55±0,18) |
| 193-3003-080       | 193-3005-080      | 193-3203-080       | 193-3205-080      | 80        | 2.000   | (50,80) | 1.975±.007 | (50,17±0,18) |
| 193-3003-100       | 193-3005-100      | 193-3203-100       | 193-3205-100      | 100       | 2.500   | (63,50) | 2.475±.007 | (62,87±0,18) |