AT&T

**AT&T Cabling Systems**
***www.att.com/cabling***

# Newsletter

## AT&T Cabling Systems Category 8 S/FTP Horizontal Cable ETL Verified

Köln, 2 December 2016

*AT&T Cabling System Category 8*
*4-Pair 22AWG S/FTP Cable*
*P/N 11S08Hx004y ETL Verified*
*Available with LS0H jacket and*
*various flame tests*

AT&T Cabling Systems is proud to announce one of the first ETL Verified Category 8 cables in the marketplace.

The cable is ETL Verified according both TIA and IEC standards:

- Category 8 according to ANSI/TIA-568-C.2-1
- Category 8.1 and 8.2 according to IEC 61156-9
  (specified in ISO/IEC 11801 for Class I and Class II links and channels)

Catalog pages, detailed cable specs (two optional flame tests) and a copy of the ETL Certificate are attached to this newsletter and are also available for direct downloads from our website:

Catalog pages: http://cabling.att.com/Products/CopperLine/Category8/?pid=A911
CAT8 LS0H-1 Cable spec: http://cabling.att.com/Downloads/Specs/11S08HA004N-GY.pdf
CAT8 LS0H-3 Cable spec: http://cabling.att.com/Downloads/Specs/11S08HC004N-GY.pdf
ETL Certificate (ETL online directory): http://www.intertek.com/ETL-Verified-Directory/Cabling-Products/ATT-Cabling-Systems/Files/CoC-102833360CRT-001

Copies of the complete ETL test reports are available upon request.

AT&T Cabling CATEGORY 8 cables are available in the following flame test alternatives:
IEC 60332-1
IEC 60332-3-22
IEC 60332-3-24
EU CPR Class B2ca, Cca or Dca according to CENELEC EN 13501-6.

The outstanding performance of AT&T Cabling CATEGORY 8 cable has been verified by Intertek – ETL (USA) and a formal verification has been granted to this cable, which is now included in the ETL follow-up program, as done with all AT&T Cabling ETL verified products.

The full list of AT&T Cabling ETL verified products is available at http://www.intertek.com/ETL-Verified-Directory/Cabling-Products/ATT-Cabling-Systems/AT-T-Cabling-Systems/.



AT&T Cabling Systems EMEA  Hohenstaufenring 62  50674  Cologne  Germany
T:  +49.221.288.8337  F:  +49.221.288.8342  Sales & Customer Support: info_emea@cabling.att-mail.com

# AT&T CopperLine Category 8

## S/FTP 100 Ohm Horizontal Indoor LAN Cables

### Description

4 & 8 pair S/FTP cables

| | |
|---|---|
| Operation frequency range | 1-2000 MHz |
| Testing frequency range | 1-2000 MHz |
| Conductor | 22 AWG Solid bare copper |
| Insulation | PO |
| Color code | Modified ANSI/TIA-568-C.2 (solid colors) |
| Individual pair shield | Aluminum foil |
| Overall shield | Tin-coated copper braid |
| Drain wire | Per request |
| Jacket | LS0H |

### Standard & EU Directives Conformance

- Category 8.2 cable according to IEC 61156-9
- Category 8 according to ANSI/TIA-568-C.2-1
- IEC 60332-1, IEC 60332-3-24 or IEC 60332-3-25 flame tests
- IEC 60754 & IEC 61034
- EU Directive 2011/65/EU (RoHS-2)
- EN 13501-6 B2ca-s1,d0,a1 upon request

### Mechanical & Electrical Properties

| | |
|---|---|
| Pulling force | 50 N/mm$^2$ max. |
| Short term bend radius | 8xOD mm |
| Long term bend radius | 4xOD mm |
| Operating temperature | -20 to +60C |
| Installation temperature | 0 to +50C |
| DC resistance | 62 Ohm/km max. |
| Capacitance | 56 max. pF/m @ 1kHz |
| Voltage rating | 75 Vdc max. |
| Velocity of propagation (NVP) | 78% nom. |

### Ordering Information

| Description | OD mm | Weight kg/km | Packaging | P/N |
|---|---|---|---|---|
| 4-Pair 22 AWG S/FTP CAT8 LS0H IEC 60332-1 Cable Gray | 8.0 | 74 | 500m drum | 11S08HA004N-GY2K |
| 4-Pair 22 AWG S/FTP CAT8 LS0H IEC 60332-3-24 Cable Gray | 8.5 | 83 | 500m drum | 11S08HC004N-GY2K |
| 4-Pair 22 AWG S/FTP CAT8 LS0H IEC 60332-1 Cable Gray | 8.0 | 74 | 1000m drum | 11S08HA004N-GY2L |
| 4-Pair 22 AWG S/FTP CAT8 LS0H IEC 60332-3-24 Cable Gray | 8.5 | 83 | 1000m drum | 11S08HC004N-GY2L |
| 2x(4-Pair 22 AWG S/FTP) CAT8 LS0H IEC 60332-1 FIG-8 Cable Gray | 8.0x16.0 | 150 | 500m drum | 11S08HA008N-GY2K |
| 2x(4-Pair 22 AWG S/FTP) CAT8 LS0H IEC 60332-3-24 FIG-8 Cable Gray | 8.5x17.0 | 166 | 500m drum | 11S08HC008N-GY2K |

**AT&T CopperLine Technical Specification**
Cable Type: 4x2x22# S/FTP Category 8
100 Ohm LS0H Data Cable
**AT&T P/N: 11S08HA004N-GY**
Revision: 2 Date: 04 December 2016


Category 8 S/FTP indoor cable, conforming to ANSI/TIA-568-C.2-1 Category 8 and to IEC 61156-9 Category 8.1 and 8.2 horizontal cable limits. The cable contains 4 individually foil-shielded twisted pairs cabled together, overall braid shielded and jacketed with LS0H compound for indoor use. The cable conforms to EU Directive 2011/65/EU (RoHS-II), to IEC 60332-1 and it supports IEEE 802.3at (PoE+), UPoE and Class I and Class II permanent links & channels as specified in ISO/IEC 11801.

**Physical Description**

| | |
|---|---|
| Basic Conductor | Solid 22AWG (UL444) bare annealed copper. |
| Insulation | SFS-PO. |
| Insulated conductors | 8 |
| Twisted pairs | 4 |
| Color code | Blue x White, Orange x White, Green x White, Brown x White. |
| Individual pair shield | Aluminum foil, providing 100% coverage, foil face out. |
| Overall shield | Tin-coated copper braid. |
| Drain wire | Per request. |
| Outer jacket | Low-smoke, Zero-halogen, Flame-retardant compound for indoor use. |
| Outer jacket thickness | 0.6 mm nom. |
| Color | Light Gray RAL 9002. |
| Overall Diameter | 8.0 mm nom. |
| Surface Marking | AT&T CopperLine 4P 22AWG CAT8 S/FTP LS0H IEC 60332-1 ETL VERIFIED to ANSI/TIA-568-C.2-1 & IEC 61156-9 CAT 8.2 CE 2011/65/EU (RoHS) [Batch Number] [Meter Mark] METER --- P/N 11S08HA004N --- |

**Mechanical Properties**

| | |
|---|---|
| Bend Radius | Dynamic: 8xD mm min. Static: 4xD mm min |
| Storage Temperature | -20 to +60C |
| Temperature installation range | 0 to +50C |
| Temperature operating range | -20 to +60C |
| Flame Tests | IEC 60332-1 (Flame propagation), IEC 60754 (Acid gas) & IEC 61034 (Smoke density). |
| Pulling force | 150 N max. |
| Total Weight | 74 kg/km nom. |

**Electrical Properties @ 20C TIA-568-C.2-1 and IEC 61156-9 FDIS CAT 8.2 (Sample length: 30m.)**

| | |
|---|---|
| Characteristic Impedance | TIA: NS IEC: 100±5 Ohm @ 100MHz. |
| Vp | 75-77% nom. |
| Capacitance | NS |
| Capacitance unbalance to ground | 1.2 pF/m max. @ 1 kHz |
| Insulation Resistance | 0.5 GOhm•km min. |
| DC Resistance | TIA: 80 Ohm/km max. IEC: 70 Ohm/km max |
| TIA DC resistance unbalance | 4% max inside pairs. 5% max between pairs. |
| IEC DC resistance unbalance | 2% max inside pairs. 5% max between pairs |
| Voltage rating | 72Vdc max. |
| Insertion Loss | $1.8 \cdot f^{3/2} + 0.005 \cdot f + 0.25/f^{1/2}$ dB max. f=1-2000MHz dB/100m |
| NEXT | TIA: 45.3-15Log(f/100) dB min. f=1-2000MHz<br>IEC: 105.4-15Log(f) dB min. f=1-2000MHz 78 dB max. |
| PS-NEXT | TIA: 42.3-15Log(f/100) dB min. f=1-2000MHz<br>IEC: 102.4-15Log(f) dB min. f=1-2000MHz 75 dB max. |
| ACRF | TIA: 39.0-20Log(f/100) dB min. f=1-2000MHz<br>IEC: 100.6-20Log(f) dB min. f=1-2000MHz 78 dB max. |
| PS-ACRF | TIA: 36.0-20Log(f/100) dB min. f=1-2000MHz<br>IEC: 97.6-20Log(f) dB min. f=1-2000MHz 78 dB max. |
| *IEC 61156-9 note* | *If FEXT loss >90 dB up to 1 000 MHz and >80 dB up to 2 000 MHz, ACR-F loss may not be calculated.* |
| RL (TIA & IEC) | 20+5Log(f) dB min. f=1-10MHz<br>25 dB min. f=10-40MHz<br>25-7Log(f/40) dB min. f=40-2000MHz |
| Coupling attenuation | IEC Type I: 85dB min @ 30-100 MHz. 85-20Log(f/100) dB min. @ 100-2000 MHz. |
| Transfer impedance | IEC Grade 1: 10 mOhm/m max. @ 1-10MHz. 30 mOhm/m max. @ 30MHz. 100 mOhm/m max. @ 100MHz. |
| Phase delay | $534+36/f^{1/2}$ ns/100m max.@ f=1-2000 MHz. |
| Delay Skew | 25 ns/100m max. @ f= 1-2000MHz |
| TCL | 50-15Log(f) @ 1-2000MHz - 7dB min. 40dB max. |
| EL-TCTL | 40-20Log(f) min. @ 1-2000MHz 5dB min. |
| PS-ANEXT | 117.5-15Log(f/100) min. @ 1-2000MHz 80 dB max. |
| PS-AACRF | 102.2-20Log(f) min. @ 1-2000MHz 80 dB max. |

**AT&T CopperLine Technical Specification**
Cable Type: 4x2x22# S/FTP Category 8
100 Ohm LS0H Data Cable
**AT&T P/N: 11S08HA004N-GY**
Revision: 2 Date: 04 December 2016


**Transmission Properties @ 20C TIA-568-C.2-1 Category 8**

| FREQ. | Insertion Loss | NEXT | PS NEXT | ACR-F | PS ACR-F | RL | SKEW | Delay | TCL | EL-TCTL | PS ANEXT | PS AACRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | dB/100m | dB | dB | dB/100m | dB/100m | dB | nS/100m | nS/100m | dB | dB | dB | dB |
| | Max | Min | Min | Min | Min | Min | Max | Max | Min | Min | Min | Min |
| 1 | 2.06 | 75.30 | 72.30 | 75.00 | 75.00 | 20.00 | 25.00 | 570.00 | 50.00 | 40.00 | 80.00 | 80.00 |
| 4 | 3.75 | 66.27 | 63.27 | 66.96 | 63.96 | 23.01 | 25.00 | 552.00 | 40.97 | 27.96 | 80.00 | 80.00 |
| 10 | 5.82 | 60.30 | 57.30 | 59.00 | 56.00 | 25.00 | 25.00 | 545.38 | 35.00 | 20.00 | 80.00 | 80.00 |
| 25 | 9.18 | 54.33 | 51.33 | 51.04 | 48.04 | 25.00 | 25.00 | 541.20 | 29.03 | 12.04 | 80.00 | 74.24 |
| 31.25 | 10.26 | 52.88 | 49.88 | 49.10 | 46.10 | 25.00 | 25.00 | 540.44 | 27.58 | 10.10 | 80.00 | 72.30 |
| 62.5 | 14.57 | 48.36 | 45.36 | 43.08 | 40.08 | 23.64 | 25.00 | 538.55 | 23.06 | 5.00 | 80.00 | 66.28 |
| 100 | 18.53 | 45.30 | 42.30 | 39.00 | 36.00 | 22.21 | 25.00 | 537.60 | 20.00 | 5.00 | 80.00 | 62.20 |
| 250 | 29.73 | 39.33 | 36.33 | 31.04 | 28.04 | 19.43 | 25.00 | 536.28 | 14.03 | 5.00 | 80.00 | 54.24 |
| 500 | 42.76 | 34.82 | 31.82 | 25.02 | 22.02 | 17.32 | 25.00 | 535.61 | 9.52 | 5.00 | 77.02 | 48.22 |
| 1000 | 61.93 | 30.30 | 27.30 | 19.00 | 16.00 | 15.21 | 25.00 | 535.14 | 7.00 | 5.00 | 72.50 | 42.20 |
| 1500 | 77.22 | 27.66 | 24.66 | 15.48 | 12.48 | 13.98 | 25.00 | 534.93 | 7.00 | 5.00 | 69.86 | 38.68 |
| 2000 | 90.50 | 25.78 | 22.78 | 12.98 | 9.98 | 13.11 | 25.00 | 534.80 | 7.00 | 5.00 | 67.98 | 36.18 |

**Transmission Properties @ 20C Category 8.2 IEC 61156-9 (FDIS)**

| FREQ. | Insertion Loss | NEXT | PS NEXT | ACR-F | PS ACR-F | RL | SKEW | Delay | TCL | EL-TCTL | PS-ANEXT | PS-AACRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | dB/100m | dB | dB | dB/100m | dB/100m | dB | nS/100m | nS/100m | dB | dB | dB | dB |
| | Max | Min | Min | Min | Min | Min | Max | Max | Min | Min | Min | Min |
| 1 | 2.06 | 78.00 | 75.00 | 78.00 | 75.00 | 20.00 | 25.00 | 570.00 | 40.00 | 40.00 | 80.00 | 80.00 |
| 4 | 3.75 | 78.00 | 75.00 | 78.00 | 75.00 | 23.01 | 25.00 | 552.00 | 40.00 | 27.96 | 80.00 | 80.00 |
| 10 | 5.82 | 78.00 | 75.00 | 78.00 | 75.00 | 25.00 | 25.00 | 545.38 | 35.00 | 20.00 | 80.00 | 80.00 |
| 25 | 9.18 | 78.00 | 75.00 | 72.64 | 69.64 | 25.00 | 25.00 | 541.20 | 29.03 | 12.04 | 80.00 | 74.24 |
| 31.25 | 10.26 | 78.00 | 75.00 | 70.70 | 67.70 | 25.00 | 25.00 | 540.44 | 27.58 | 10.10 | 80.00 | 72.30 |
| 62.5 | 14.57 | 78.00 | 75.00 | 64.68 | 61.68 | 23.64 | 25.00 | 538.55 | 23.06 | 5.00 | 80.00 | 66.28 |
| 100 | 18.53 | 75.40 | 72.40 | 60.60 | 57.60 | 22.21 | 25.00 | 537.60 | 20.00 | 5.00 | 80.00 | 62.20 |
| 250 | 29.73 | 69.43 | 66.43 | 52.64 | 49.64 | 19.43 | 25.00 | 536.28 | 14.03 | 5.00 | 80.00 | 54.24 |
| 500 | 42.76 | 64.92 | 61.92 | 46.62 | 43.62 | 17.32 | 25.00 | 535.61 | 9.52 | 5.00 | 77.02 | 48.22 |
| 1000 | 61.93 | 60.40 | 57.40 | 40.60 | 37.60 | 15.21 | 25.00 | 535.14 | 7.00 | 5.00 | 72.50 | 42.20 |
| 1500 | 77.22 | 57.76 | 54.76 | 37.08 | 34.08 | 13.98 | 25.00 | 534.93 | 7.00 | 5.00 | 69.86 | 38.68 |
| 2000 | 90.50 | 55.88 | 52.88 | 34.58 | 31.58 | 13.11 | 25.00 | 534.80 | 7.00 | 5.00 | 67.98 | 36.18 |

**AT&T CopperLine Technical Specification**
Cable Type: 4x2x22# S/FTP Category 8
100 Ohm LS0H Data Cable
**AT&T P/N: 11S08HC004N-GY**
Revision: 2 Date: 04 December 2016


Category 8 S/FTP indoor cable, conforming to ANSI/TIA-568-C.2-1 Category 8 and to IEC 61156-9 Category 8.1 and 8.2 horizontal cable limits. The cable contains 4 individually foil-shielded twisted pairs cabled together, overall braid shielded and jacketed with LS0H compound for indoor use. The cable conforms to EU Directive 2011/65/EU (RoHS-II), to IEC 60332-3-24 and it supports IEEE 802.3at (PoE+), UPoE and Class I and Class II permanent links & channels as specified in ISO/IEC 11801.

| **Physical Description** | |
|---|---|
| Basic Conductor | Solid 22AWG (UL444) bare annealed copper. |
| Insulation | SFS-PO. |
| Insulated conductors | 8 |
| Twisted pairs | 4 |
| Color code | Blue x White, Orange x White, Green x White, Brown x White. |
| Individual pair shield | Aluminum foil, providing 100% coverage, foil face out. |
| Overall shield | Tin-coated copper braid. |
| Drain wire | Per request. |
| Outer jacket | Low-smoke, Zero-halogen, Flame-retardant compound for indoor use. |
| Outer jacket thickness | 0.75 mm nom. |
| Color | Light Gray RAL 9002. |
| Overall Diameter | 8.5 mm nom. |
| Surface Marking | AT&T CopperLine 4P 22AWG CAT8 S/FTP LS0H IEC 60332-3-24 ETL VERIFIED to ANSI/TIA-568-C.2-1 & IEC 61156-9 CAT 8.2 CE 2011/65/EU (RoHS) [Batch Number] [Meter Mark] METER --- P/N 11S08HC004N --- |

| **Mechanical Properties** | |
|---|---|
| Bend Radius | Dynamic: 8xD mm min. Static: 4xD mm min |
| Storage Temperature | -20 to +60C |
| Temperature installation range | 0 to +50C |
| Temperature operating range | -20 to +60C |
| Flame Tests | IEC 60332-3-24 (Flame propagation), IEC 60754 (Acid gas) & IEC 61034 (Smoke density). |
| Pulling force | 150 N max. |
| Total Weight | 83 kg/km nom. |

| **Electrical Properties @ 20C TIA-568-C.2-1 and IEC 61156-9 FDIS CAT 8.2 (Sample length: 30m.)** | |
|---|---|
| Characteristic Impedance | TIA: NS IEC: 100±5 Ohm @ 100MHz. |
| Vp | 75-77% nom. |
| Capacitance | NS |
| Capacitance unbalance to ground | 1.2 pF/m max. @ 1 kHz |
| Insulation Resistance | 0.5 GOhm•km min. |
| DC Resistance | TIA: 80 Ohm/km max. IEC: 70 Ohm/km max |
| TIA DC resistance unbalance | 4% max inside pairs. 5% max between pairs. |
| IEC DC resistance unbalance | 2% max inside pairs. 5% max between pairs |
| Voltage rating | 72Vdc max. |
| Insertion Loss | $1.8 \cdot f^{3/2} + 0.005 \cdot f + 0.25/f^{1/2}$ dB max. f=1-2000MHz dB/100m |
| NEXT | TIA: 45.3-15Log(f/100) dB min. f=1-2000MHz<br>IEC: 105.4-15Log(f) dB min. f=1-2000MHz 78 dB max. |
| PS-NEXT | TIA: 42.3-15Log(f/100) dB min. f=1-2000MHz<br>IEC: 102.4-15Log(f) dB min. f=1-2000MHz 75 dB max. |
| ACRF | TIA: 39.0-20Log(f/100) dB min. f=1-2000MHz<br>IEC: 100.6-20Log(f) dB min. f=1-2000MHz 78 dB max. |
| PS-ACRF | TIA: 36.0-20Log(f/100) dB min. f=1-2000MHz<br>IEC: 97.6-20Log(f) dB min. f=1-2000MHz 78 dB max. |
| *IEC 61156-9 note* | *If FEXT loss >90 dB up to 1 000 MHz and >80 dB up to 2 000 MHz, ACR-F loss may not be calculated.* |
| RL (TIA & IEC) | 20+5Log(f) dB min. f=1-10MHz<br>25 dB min. f=10-40MHz<br>25-7Log(f/40) dB min. f=40-2000MHz |
| Coupling attenuation | IEC Type I: 85dB min @ 30-100 MHz. 85-20Log(f/100) dB min. @ 100-2000 MHz. |
| Transfer impedance | IEC Grade 1: 10 mOhm/m max. @ 1-10MHz. 30 mOhm/m max. @ 30MHz. 100 mOhm/m max. @ 100MHz. |
| Phase delay | $534+36/f^{1/2}$ ns/100m max.@ f=1-2000 MHz. |
| Delay Skew | 25 ns/100m max. @ f= 1-2000MHz |
| TCL | 50-15Log(f) @ 1-2000MHz - 7dB min. 40dB max. |
| EL-TCTL | 40-20Log(f) min. @ 1-2000MHz 5dB min. |
| PS-ANEXT | 117.5-15Log(f/100) min. @ 1-2000MHz 80 dB max. |
| PS-AACRF | 102.2-20Log(f) min. @ 1-2000MHz 80 dB max. |

**AT&T CopperLine Technical Specification**
Cable Type: 4x2x22# S/FTP Category 8
100 Ohm LS0H Data Cable
**AT&T P/N: 11S08HC004N-GY**
Revision: 2 Date: 04 December 2016


**Transmission Properties @ 20C TIA-568-C.2-1 Category 8**

| FREQ. | Insertion Loss | NEXT | PS NEXT | ACR-F | PS ACR-F | RL | SKEW | Delay | TCL | EL-TCTL | PS ANEXT | PS AACRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | dB/100m | dB | dB | dB/100m | dB/100m | dB | nS/100m | nS/100m | dB | dB | dB | dB |
| | Max | Min | Min | Min | Min | Min | Max | Max | Min | Min | Min | Min |
| 1 | 2.06 | 75.30 | 72.30 | 75.00 | 75.00 | 20.00 | 25.00 | 570.00 | 50.00 | 40.00 | 80.00 | 80.00 |
| 4 | 3.75 | 66.27 | 63.27 | 66.96 | 63.96 | 23.01 | 25.00 | 552.00 | 40.97 | 27.96 | 80.00 | 80.00 |
| 10 | 5.82 | 60.30 | 57.30 | 59.00 | 56.00 | 25.00 | 25.00 | 545.38 | 35.00 | 20.00 | 80.00 | 80.00 |
| 25 | 9.18 | 54.33 | 51.33 | 51.04 | 48.04 | 25.00 | 25.00 | 541.20 | 29.03 | 12.04 | 80.00 | 74.24 |
| 31.25 | 10.26 | 52.88 | 49.88 | 49.10 | 46.10 | 25.00 | 25.00 | 540.44 | 27.58 | 10.10 | 80.00 | 72.30 |
| 62.5 | 14.57 | 48.36 | 45.36 | 43.08 | 40.08 | 23.64 | 25.00 | 538.55 | 23.06 | 5.00 | 80.00 | 66.28 |
| 100 | 18.53 | 45.30 | 42.30 | 39.00 | 36.00 | 22.21 | 25.00 | 537.60 | 20.00 | 5.00 | 80.00 | 62.20 |
| 250 | 29.73 | 39.33 | 36.33 | 31.04 | 28.04 | 19.43 | 25.00 | 536.28 | 14.03 | 5.00 | 80.00 | 54.24 |
| 500 | 42.76 | 34.82 | 31.82 | 25.02 | 22.02 | 17.32 | 25.00 | 535.61 | 9.52 | 5.00 | 77.02 | 48.22 |
| 1000 | 61.93 | 30.30 | 27.30 | 19.00 | 16.00 | 15.21 | 25.00 | 535.14 | 7.00 | 5.00 | 72.50 | 42.20 |
| 1500 | 77.22 | 27.66 | 24.66 | 15.48 | 12.48 | 13.98 | 25.00 | 534.93 | 7.00 | 5.00 | 69.86 | 38.68 |
| 2000 | 90.50 | 25.78 | 22.78 | 12.98 | 9.98 | 13.11 | 25.00 | 534.80 | 7.00 | 5.00 | 67.98 | 36.18 |

**Transmission Properties @ 20C Category 8.2 IEC 61156-9 (FDIS)**

| FREQ. | Insertion Loss | NEXT | PS NEXT | ACR-F | PS ACR-F | RL | SKEW | Delay | TCL | EL-TCTL | PS-ANEXT | PS-AACRF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | dB/100m | dB | dB | dB/100m | dB/100m | dB | nS/100m | nS/100m | dB | dB | dB | dB |
| | Max | Min | Min | Min | Min | Min | Max | Max | Min | Min | Min | Min |
| 1 | 2.06 | 78.00 | 75.00 | 78.00 | 75.00 | 20.00 | 25.00 | 570.00 | 40.00 | 40.00 | 80.00 | 80.00 |
| 4 | 3.75 | 78.00 | 75.00 | 78.00 | 75.00 | 23.01 | 25.00 | 552.00 | 40.00 | 27.96 | 80.00 | 80.00 |
| 10 | 5.82 | 78.00 | 75.00 | 78.00 | 75.00 | 25.00 | 25.00 | 545.38 | 35.00 | 20.00 | 80.00 | 80.00 |
| 25 | 9.18 | 78.00 | 75.00 | 72.64 | 69.64 | 25.00 | 25.00 | 541.20 | 29.03 | 12.04 | 80.00 | 74.24 |
| 31.25 | 10.26 | 78.00 | 75.00 | 70.70 | 67.70 | 25.00 | 25.00 | 540.44 | 27.58 | 10.10 | 80.00 | 72.30 |
| 62.5 | 14.57 | 78.00 | 75.00 | 64.68 | 61.68 | 23.64 | 25.00 | 538.55 | 23.06 | 5.00 | 80.00 | 66.28 |
| 100 | 18.53 | 75.40 | 72.40 | 60.60 | 57.60 | 22.21 | 25.00 | 537.60 | 20.00 | 5.00 | 80.00 | 62.20 |
| 250 | 29.73 | 69.43 | 66.43 | 52.64 | 49.64 | 19.43 | 25.00 | 536.28 | 14.03 | 5.00 | 80.00 | 54.24 |
| 500 | 42.76 | 64.92 | 61.92 | 46.62 | 43.62 | 17.32 | 25.00 | 535.61 | 9.52 | 5.00 | 77.02 | 48.22 |
| 1000 | 61.93 | 60.40 | 57.40 | 40.60 | 37.60 | 15.21 | 25.00 | 535.14 | 7.00 | 5.00 | 72.50 | 42.20 |
| 1500 | 77.22 | 57.76 | 54.76 | 37.08 | 34.08 | 13.98 | 25.00 | 534.93 | 7.00 | 5.00 | 69.86 | 38.68 |
| 2000 | 90.50 | 55.88 | 52.88 | 34.58 | 31.58 | 13.11 | 25.00 | 534.80 | 7.00 | 5.00 | 67.98 | 36.18 |

3933 US Route 11
Cortland, New York 13045 USA
Phone Number: (800) 345-3851
Fax Number: (607) 758-6637
Web: www.intertek.com

# ETL Verified Certificate of Conformance Number: 102833360CRT-001

On the basis of the tests undertaken, the sample(s) of the below product have been found to comply with the essential requirements of the referenced specifications at the time the tests were carried out.

Rendered to:
**AT&T Cabling Systems**
Hohenstaufenring 62
50674 Cologne
Germany
www.att.com/cabling

| | |
|---|---|
| **Product Tested:** | 4 pair, 22 AWG, S/FTP, LSOH, Non-Plenum, Horizontal (Solid) Cable. |
| **Model(s) and or Brand Name:** | 11S08Hx004y; Note: "x" and "y" may be replaced by A,B, C, D or E |
| **Standard(s)/Specification:** | ANSI/TIA-568-C.2-1 Category 8 and IEC 61156-9 Category 8.2 with the applicable electrical transmission characteristics |
| **Jacket marking shall include:** | ETL Verified to ANSI/TIA-568-C.2-1 Category 8 and IEC 61156-9 Category 8.2 |

Continuing compliance to this specification is monitored through production testing, ongoing inspections by Intertek at the production facility and random sample testing.

**Date Issued:** December 02, 2016

**Approved By:** Antoine Pelletier

Antoine Pelletier, Project Engineer

**This verification supersedes all previous verifications with the noted Verification/Report number(s) dated before this verification notice.**

**NOTE: This verification is part of the full test report(s) and should be read in conjunction with it.**