Lucent Technologies
Bell Labs Innovations

# 1061 and 2061 High Performance LAN Cables

## High Performance LAN Cables for Use with SYSTIMAX® Structured Connectivity Solutions (SCS)

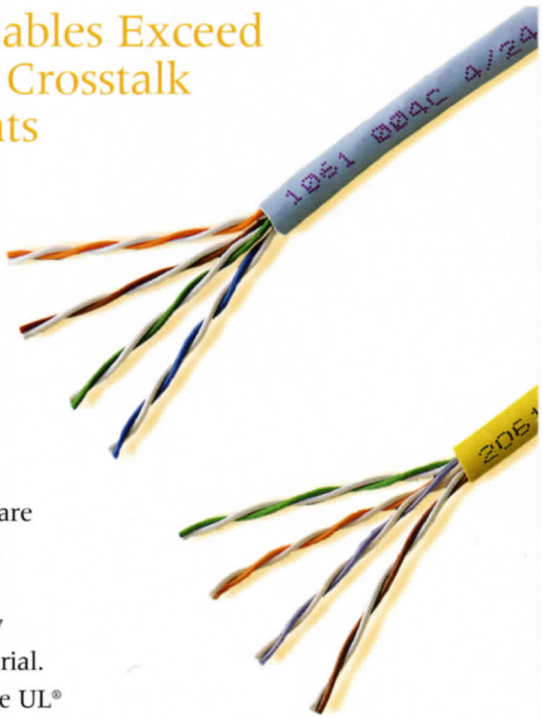
The 1061B + and C+ and 2061B+ cables are high-speed, 100 Ohm, high performance cables for use in the SYSTIMAX Structured Connectivity Solutions (SCS) wiring plan.

These cables are capable of carrying high bit rate signalling for extended distances in building distribution systems. They can transmit IBM® 3270, IEEE[1] 802.3, 10BASE-T, 100BASE-TX, 100BASE-T4, IEEE 802.5, 4 & 16 Mbps Token Ring , IEEE 802.12, 100VG-AnyLAN, ANSI® X3T9.5, 100 Mbps TP-PMD and ATM Forum requirements: 155.5 Mbps ATM.

Supports 622 Mbps ATM using emerging parallel transmission scheme technology over these cables in conjunction with other SYSTIMAX SCS components. The 1061B+ and C+ and 2061B+ cables are also useful for coaxial replacement for single channel and broadband video. Both types can be used in all SYSTIMAX SCS Approved unshielded twisted pair applications.

### Enhanced Cables Exceed Power Sum Crosstalk Requirements

The 1061B+ and C+ cables are composed of 24 AWG, bare, solid copper conductors insulated with high density polyolefin. The insulated conductors are twisted into pairs and jacketed with Lucent Technologies specially formulated PVC material. The 1061C+ cables are UL® Listed Type CM for general purpose use. The 1061B+ and 25-pair 1061C+ cables are UL Listed Type CMR, c(UL) CMG.



**Swept Frequency Margin (EIA/TIA 568A Requirement)**

| Units | Category 5 Spec | Pair/Pair NEXT Margin (AVG) | Power Sum NEXT Margin (AVG) | SRL Margin (AVG) |
|---|---|---|---|---|
| db100m | ≥0 | 7.1 | 5.2 | 4.7 |

*Typical worst pair margin represents the typical average margin of the worst performing pair in a cable when measured against the EIA/TIA 568A swept frequency requirement indicating the true cable performance across the frequency range*

The 2061B+ 4-pair cable consists of 24 AWG, bare solid copper conductors insulated with FEP (Fluorinated Ethylene Propylene). The insulated conductors are twisted into pairs and jacketed with low smoke PVC (LSPVC). The 2061B+ cable is UL Verified Category 5, UL and c(UL) Listed Type CMP for use in air return handling spaces.

Both the 1061B+ and C+ and 2061B+ cables have enhanced electrical performance exceeding Pair-to-Pair and Power Sum NEXT measurements, SRL and cable balance. The improved Power Sum cables are measured in accordance with ASTM[2] D4566.

## Features

- EIA/TIA 568A Category 5 Compliant; UL Verified Category 5
- UL Listed Type CM (1061C+ 4-pair); UL and c(UL) Listed Type CMP (2061B+)
- Meets IEC 11801 standard (1061C+)
- UL Listed Type CMR and c(UL) CMG for 1061B+ and 1061C+ (25-pair)
- Excellent Pair-to-Pair NEXT measurements
- Meets Power Sum specifications of EIA/TIA 568A imposed for backbone cables
- Typical channel ACR greater than 10db at 130 MHz
- Supports parallel transmission schemes
- Enhanced SRL, ACR and cable balance performance
- 2061B+ is available in several packaging options including REEL-TOTE.

## Advantages

- Excellent high-speed and error free transmission up to at least 155 Mbps
- Supports 622 Mbps ATM to the desktop via 4-pair parallel transmission
- SYSTIMAX SCS Certified Product
- Meets ANSI X3T9.5 requirements for UTP at 100 Mbps (TP-PMD) and ATM Forum requirements: 155.5 Mbps ATM
- Supports Broadband and Baseband video applications (77 channels supported at 550 MHz)
- Supports all current IEEE 802.3, IEEE 802.5 and 802. 12 Standards applications (Ethernet, Token Ring, TP-PMD)
- Compatible with Lucent Technologies 110 Cross-Connect System.

## Representative Electrical Transmission Characteristics

**Mutual Capacitance - Nom.:** 14pF/ft. (46pF/m)
**Characteristic Impedance:** 100 (± 15) Ohms 1-100 MHz
**DC Resistance - Max.:** 28.6 Ohms/1000 ft. (9.4 Ohms/100m)

| Frequency MHz | Attentuation dB/100m | | Power Sum Near End Crosstalk dB | | Pair-to-Pair Near End Crosstalk | | Attenuation to Crosstalk Ratio dB/90m | | Structural Return Loss dB | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Lucent Cable | Cat 5 Spec | Lucent Cable | Cat 5 Spec | Lucent Cable | Cat 5 Spec | Lucent Cable | Cat 5 Spec | Lucent Cable | Cat 5 Spec |
| 0.772 | 1.7 | ≤1.18 | 74 | ≥64 | 76 | ≥64 | 74.0 | ≤ 62.4 | TBD | ≥ 23 |
| 1 | 1.9 | ≤2.0 | 72 | ≥62 | 74 | ≥62 | 72.6 | ≤ 60.5 | 44 | ≥ 23 |
| 4 | 3.9 | ≤4.1 | 64 | ≥53 | 66 | ≥53 | 62.1 | ≤ 49.6 | 40 | ≥ 23 |
| 8 | 5.4 | ≤5.8 | 60 | ≥48 | 62 | ≥48 | 56.7 | ≤ 43.6 | 38 | ≥ 23 |
| 10 | 6.1 | ≤6.5 | 58 | ≥47 | 60 | ≥47 | 54.7 | ≤ 41.5 | 37 | ≥ 23 |
| 16 | 7.8 | ≤8.2 | 56 | ≥44 | 59 | ≥44 | 50.7 | ≤ 36.8 | 36 | ≥ 23 |
| 20 | 8.7 | ≤9.3 | 54 | ≥42 | 56 | ≥42 | 48.3 | ≤ 34.4 | 35 | ≥ 23 |
| 25 | 9.8 | ≤10.4 | 53 | ≥41 | 55 | ≥41 | 46.1 | ≤ 32.0 | 35 | ≥ 22 |
| 31.25 | 11.0 | ≤11.7 | 51 | ≥39 | 53 | ≥39 | 43.5 | ≤ 29.3 | 34 | ≥ 21 |
| 62.5 | 15.9 | ≤17.0 | 47 | ≥35 | 49 | ≥35 | 34.7 | ≤ 20.1 | 32 | ≥ 18 |
| 100 | 20.5 | ≤22.0 | 44 | ≥32 | 46 | ≥32 | 27.6 | ≤ 12.5 | 30 | ≥ 16 |

** These values are based on worst pair measurements (averaged) from sample population of over 1000 reels.*
*† Although not specified by EIA/TIA 568A, Lucent Technologies 4-pair cables meet Power Sum NEXT requirement of the backbone specification.*

## Ordering Information for the 1061C+ Cable

**No. of Pairs:** 4
**Weight:** 20.8 lbs/1000 ft (31.0 kg/km)
**Insulation thickness:** 0.008 inches (0.20 mm)
**Jacket thickness:** 0.024 inches (0.61 mm)
**Outside diameter:** 0.210 inches (5.4 mm)

| Product Code | Package | Comcode |
|---|---|---|
| 1061 004 BBL | W1000 | 107 251 696 |
| 1061 004 BBL | R1000 | 107 323 636 |
| 1061 004 BGN | W1000 | 108 189 663 |
| 1061 004 BGN | R1000 | 108 189 671 |
| 1061 004 BOR | W1000 | 108 173 840 |
| 1061 004 BOR | R4000 | 108 179 359 |
| 1061 004 BSL | R1000 | 106 657 653 |
| 1061 004 BSL | W1000 | 107 091 936 |
| 1061 004 BRE | R1000 | 108 189 689 |
| 1061 004 BRE | W1000 | 108 189 697 |
| 1061 004 BWH | W1000 | 107 819 575 |
| 1061 004 BWH | R4000 | 108 179 367 |
| 1061 004CSL | R1000 | 106 836 943 |
| 1061 004CSL | R5000 | 107 014 078 |
| 1061 004CSL | W1000 | 106 836 950 |
| 1061 004CSL | R4000 | 106 836 968 |
| 1061 004CSL | CUSTL | 106 836 976 |
| 1061 004CBL | W1000 | 106 871 809 |
| 1061 004CBL | R1000 | 107 057 853 |
| 1061 004CBL | CUSTL | 107 288 243 |
| 1061 004CIV | W1000 | 106 871 817 |
| 1061 004CIV | R1000 | 107 076 192 |
| 1061 004CIV | CUSTL | 107 257 289 |
| 1061 004CYL | W1000 | 107 001 687 |
| 1061 004CYL | R1000 | 106 999 071 |
| 1061 004CYL | CUSTL | 107 388 035 |
| 1061 004CRD | W1000 | 106 926 363 |
| 1061 004CRD | R1000 | 107 244 055 |
| 1061 004CBR | CUSTL | 107 288 227 |
| 1061 004CBR | R1000 | 107 328 858 |
| 1061 004CWH | W1000 | 107 147 787 |
| 1061 004CWH | CUSTL | 107 288 235 |
| 1061 004CLL | R1000 | 107 244 022 |
| 1061 004CLL | W1000 | 107 244 030 |
| 1061 004CGN | R1000 | 107 244 048 |
| 1061 004COR | R1000 | 107 193 435 |
| **25-Pair** | | |
| 1061 025CSL | R1000 | 107 287 484 |
| 1061 025CSL | R4000 | 107 479 313 |

*CUSTL = Custom Length Per Customer Order (0% + 10%)*
*R = Reel*
*W = WE TOTE® Dispenser*

## Ordering Information for the 2061B+ Cable

| | |
|---|---|
| **No. of Pairs:** | **4** |
| **Weight:** | **21.6 lbs/1000 ft (32.2 kg/km)** |
| **Insulation thickness:** | **0.007 inches (0.16 mm) Average** |
| **Jacket thickness:** | **0.020 inches (0.51 mm)** |
| **Outside diameter:** | **0.210 inches (5.4 mm)** |

| Product Code | Package | Comcode |
|---|---|---|
| 2061 004BWH | W1000 | 106 939 325 |
| 2061 004BWH | R1000 | 106 939 317 |
| 2061 004BWH | CUSTL | 106 946 833 |
| 2061 004BWH | R5000 | 107 014 052 |
| 2061 004BWH | T1000 | 108 079 401 |
| 2061 004BWH | R3000 | 108 077 850 |
| 2061 004BBL | W1000 | 108 946 825 |
| 2061 004BBL | R1000 | 106 946 809 |
| 2061 004BBL | CUSTL | 106 946 817 |
| 2061 004BBL | T1000 | 108 079 369 |
| 2061 004BBL | R3000 | 108 077 827 |
| 2061 004BYL | W1000 | 106 965 379 |
| 2061 004BYL | R1000 | 106 965 387 |
| 2061 004BYL | CUSTL | 106 965 395 |
| 2061 004BYL | T1000 | 108 077 868 |
| 2061 004BRE | W1000 | 107 261 711 |
| 2061 004BRE | R1000 | 107 261 703 |
| 2061 004BGN | W1000 | 107 272 809 |
| 2061 004BGN | R1000 | 107 272 841 |
| 2061 004BLL | W1000 | 107 273 278 |
| 2061 004BLL | R1000 | 107 273 286 |
| 2061 004BOR | CUSTL | 107 078 891 |
| 2061 004BOR | R1000 | 106 974 348 |
| 2061 004BOR | W1000 | 108 052 879 |
| 2061 004BOR | T1000 | 108 077 835 |
| 2061 004BSL | R1000 | 107 193 468 |
| 2061 004BBK | T1000 | 108 077 819 |
| 2061 004BBK | R1000 | 107 383 705 |
| 2061 004BBK | W1000 | 107 509 036 |
| 2061 004BBK | CUSTL | 108 052 887 |
| **25-Pair** | | |
| 2061 025AWH | R1000 | 107 369 845 |
| 2061 025AWH | RVAR | 107 369 852 |
| 2061 025ABL | R1000 | 107 871 477 |
| 2061 025AGN | R1000 | 107 871 485 |

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*R = Reel*
*W = WE TOTE Dispenser*
*T = REEL-TOTE Dispenser*

**SYSTIMAX® SCS**
**Certified Products**

For additional information about this and other Lucent Technologies products and services, please contact your Lucent Technologies Sales Representative.

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[1]IEEE is an abbreviation for The Institute of Electrical and Electronic Engineers

[2]ASTM is an abbreviation for American Society for Testing Materials



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