

## Category 5e Unshielded RJ-45 Keystone Jacks



### Description

HCS DataLink 100e patented unshielded copper RJ-45 keystone jack series includes high performance Category 5e snap-in 8-position/8-contact (8P8C) jacks conforming to IEC 60603-7-2 (unshielded 100 MHz connectors).

HCS DataLink 100e jacks are designed for fast and easy snap-in and out of wall plates, patch panels and surface box outlets.

All HCS DataLink 100e jacks are designed in a 90° formation and are available with back interconnection of 110 IDC blocks or special LSA-Plus/110 IDC combination blocks in T568A, T568B or Universal pin/pair assignment.

All jacks fully conform to ANSI/TIA/EIA-568-B.2 Category 5e, CENELEC EN 50173 and ISO/IEC-11801 (2nd Edition) requirements.

The HCS Logo and the DataLink 100e Trademark ensure long lasting high-performance and full support of all present and emerging applications, including 1000BASE-T (Gigabit-Ethernet).

### Applications

HCS DataLink 100e unshielded copper RJ-45 keystone jacks are used in wall plates, patch panels and surface box outlets and they fully support all presently available LAN applications, including the following protocols:

- 1000BASE-T Gigabit Ethernet
- ATM 155
- TP-PMD
- 100BASE-T Fast Ethernet
- 100BASE-T2
- 100BASE-T4
- 100BASE-TX
- Token Ring 100 Mbps
- ATM 52
- ATM 25
- 10BASE-T Ethernet
- Token Ring 4 Mbps and 16 Mbps
- Broadband and Baseband Video
- ISDN Basic and Primary Access
- 1BASE-5 Starlan
- ISALAN
- ITU V.21 and X.11

### Qualifications and Approvals

HCS DataLink 100e jacks are supported by the Century™ Lifetime Warranty and by the DoubleSafe™ QA program as a part of complete HCS cabling system. HCS DataLink 100e jacks comply to IEC 60603-7-2 (unshielded 100 MHz connectors) and to the following standards:

Transmission:	EMC:	Safety:
<ul style="list-style-type: none"> <li>❑ ANSI/TIA/EIA-568-B.2</li> <li>❑ ISO/IEC-11801</li> </ul>	<ul style="list-style-type: none"> <li>❑ EN-55022, Class B (Europe)</li> <li>❑ FCC Part 68</li> </ul>	<ul style="list-style-type: none"> <li>❑ UL94 V-0 plastic materials</li> <li>❑ Zero-halogen in LSOH constructions</li> </ul>

### Benefits & Features

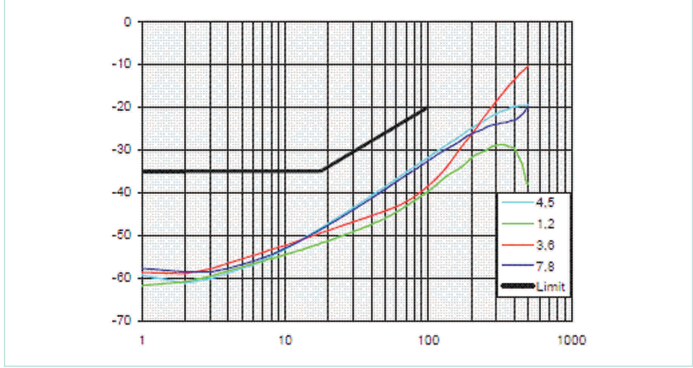
- ✓ Exceptional material properties and design - providing a unique Century™ Lifetime Warranty.
- ✓ Patented 90° design - providing easier access, better and faster wire connection.
- ✓ Detailed installation manual in English and Turkish - providing clear and comprehensive instructions.
- ✓ Exceeding Category 5e performance - providing full support to Gigabit Ethernet.
- ✓ Robust and installer-friendly design - providing reduced installation and operating costs
- ✓ Compatible with 22-26 AWG solid or stranded conductors - providing support to a wider range of cabling types.
- ✓ Available in T568A, T568B or Universal pin/pair assignment - providing a wider product range.
- ✓ Unique DoubleSafe™ Quality Assurance Program - providing lowest rejection rate available.

### General Properties

Housing Material	High impact, Flame-retardant plastic compound, UL 94 V-0.
Jack Contacts Material	50 micro-inches gold plating over 100 micro-inches nickel plated copper alloy.
Environmental conditions	-40 to +60C at 0-90% RH (Non condensing)
Packaging	50 or 100 Units per box.
Plug Retention Force	14 Kgf (140N) min.
Plug to jack contact force	100 gr min. (using HCS approved plug).
Storage Temperature	-20 to +80C
Plug insertion durability	750 mating cycles
Conductor compatibility range	22 to 26 AWG, solid or stranded
Standard Color	White RAL 1013. Other colors available upon request.

## Category 5e Unshielded RJ-45 Keystone Jacks

Transmission and Electrical Specifications										Typical Return Loss (Forward, Component Level)
Frequency MHz	Insertion Loss		NEXT		FEXT		RL			
	dB		dB		dB		dB			
	Nom	Max	Nom	Min	Nom	Min	Nom	Min		
0.00	0.02	0.10	85.0	65.0	77.0	65.0	55.0	30.0		
4.00	0.03	0.10	75.0	65.0	65.0	63.1	50.0	30.0		
8.00	0.04	0.11	70.0	64.9	60.0	57.0	48.0	30.0		
10.00	0.04	0.13	68.0	63.0	58.0	55.1	42.0	30.0		
16.00	0.05	0.16	64.0	58.9	54.0	51.0	40.0	30.0		
25.00	0.06	0.20	60.0	55.0	50.0	47.1	35.0	30.0		
31.25	0.07	0.22	58.0	53.1	48.0	45.2	33.0	30.0		
62.50	0.11	0.32	52.0	47.1	42.0	39.1	28.1	24.1		
100.00	0.15	0.40	45.0	43.0	38.0	35.1	24.0	20.0		



Propagation Delay	2.5 nS max @ 1-100 MHz
Propagation Delay Skew	1.25 nS max @ 1-100 MHz
Current rating	1.5 A max.
Contact resistance	20 mOhm max (per contact)
Input/Output resistance	200 mOhm max
Input/Output resistance Unbalance	50 mOhm max
Voltage rating	72 Vdc max
Dielectric strength	1000 Volts rms for 1 minute
Insulation Resistance	500 MegaOhm min @ 500 Vdc
DC Resistance	0.1 Ohm max @ 20C
TCL	28-20-Log(f/100) dB min @ 1-100 MHz
Transfer Impedance	N/A

Typical Test Results at the Component Level	
Worst PS-NEXT	Typical Insertion Loss
<p>The graph plots Next Pair NEXT (PS-NEXT) in dB on the y-axis (from -110 to -10) against Frequency in MHz on the x-axis (log scale from 1 to 1000). Four curves represent different cable lengths: 4.5m (blue), 1.2m (green), 3.6m (red), and 7.8m (purple). A black line represents the Limit. The curves show a decrease in PS-NEXT (more negative) as frequency increases.</p>	<p>The graph plots Insertion Loss in dB on the y-axis (from -1.3 to 0.1) against Frequency in MHz on the x-axis (log scale from 1 to 1000). Four curves represent different cable lengths: 4.5m (blue), 1.2m (green), 3.6m (red), and 7.8m (purple). A black line represents the Limit. The curves show a decrease in Insertion Loss (more negative) as frequency increases.</p>

### Ordering Information

HCS P/N	Description	Termination Blocks	Punch-Down Tool	T568
J5E-00811	8P8C RJ-45 Unshielded Keystone Jack CAT 5e	110 IDC	110	B
J5E-00812	8P8C RJ-45 Unshielded Keystone Jack CAT 5e	110 IDC	110	A
J5E-00813	8P8C RJ-45 Unshielded Keystone Jack CAT 5e	110 IDC	110	UNI
J5E-00814	8P8C RJ-45 Unshielded Keystone Jack CAT 5e	110 IDC	LSA Plus & 110	B
J5E-00815	8P8C RJ-45 Unshielded Keystone Jack CAT 5e	110 IDC	LSA Plus & 110	A
J5E-00816	8P8C RJ-45 Unshielded Keystone Jack CAT 5e	110 IDC	LSA Plus & 110	UNI