



## Description

HCS DataLink 500A shielded copper RJ45 modular plugs series includes a range of high performance 8-position/8-contact (8P8C) plugs conforming to IEC 60603-7-51 (shielded 500 MHz connectors). The range of products includes plugs suitable for round cables with stranded or solid conductors, 22 to 26 AWG. HCS DataLink 500A modular plugs are designed to provide exceptional performance in high-speed communication applications, having electro-polished, 50-microinch gold-plated contacts for the most reliable, long-lasting performance. HCS DataLink 500A shielded copper RJ45 modular plugs are fully shielded with corrosion resistant tin-plated brass casing, providing excellent EMC, minimizing radiation and maximizing noise immunity. When tested in mated position with HCS DataLink 500A shielded copper RJ45 jacks, the HCS plugs fully conform to all Category 6A ANSI/TIA-568-C.2 and ISO/IEC-11801 (2nd Edition) requirements. The HCS Logo and the DataLink 500A Trademark ensure long lasting high-performance and full support of all present and emerging applications, including 10GBASE-T (10 Gigabit-Ethernet).

## Application

HCS DataLink 500A shielded RJ45 plugs are used for patch-cord termination, supporting the following protocols:

<input checked="" type="checkbox"/> 10GBASE-T 10 Gigabit Ethernet (IEEE 802.3an)	<input checked="" type="checkbox"/> 100BASE-T4	<input checked="" type="checkbox"/> Token Ring 4 Mbps and 16 Mbps
<input checked="" type="checkbox"/> 1000BASE-T Gigabit Ethernet	<input checked="" type="checkbox"/> 100BASE-TX	<input checked="" type="checkbox"/> Broadband and Baseband Video
<input checked="" type="checkbox"/> ATM 155	<input checked="" type="checkbox"/> Token Ring 100 Mbps	<input checked="" type="checkbox"/> ISDN Basic and Primary Access
<input checked="" type="checkbox"/> TP-PMD	<input checked="" type="checkbox"/> ATM 52	<input checked="" type="checkbox"/> 1BASE-5 Starlan
<input checked="" type="checkbox"/> 100BASE-T Fast Ethernet	<input checked="" type="checkbox"/> ATM 25	<input checked="" type="checkbox"/> ISALAN
<input checked="" type="checkbox"/> 100BASE-T2	<input checked="" type="checkbox"/> 10BASE-T Ethernet	<input checked="" type="checkbox"/> ITU V.21 and X.11

## Qualifications and Approvals

HCS DataLink 500A plugs are supported by the DoubleSafe™ QA program as a part of complete HCS cabling system.

HCS DataLink 500A plugs comply to IEC 60603-7-51 (shielded 500 MHz connectors) and to the following standards:

### TRANSMISSION

### EMC

### SAFETY

<input checked="" type="checkbox"/> ANSI/TIA/568-C.2	<input checked="" type="checkbox"/> EN-55022, Class B (Europe)	<input checked="" type="checkbox"/> UL94 V-0 rated plastic materials
<input checked="" type="checkbox"/> ISO/IEC-11801	<input checked="" type="checkbox"/> FCC Part 15, Subpart J, Class A (USA))	

## Benefits & Features

- Exceptional material properties and design - providing a most reliable termination.
- Available in many colors and shades - providing custom color selection.
- High quality overall shield - providing excellent EMC (Electro Magnetic Compatibility), minimizing radiation and maximizing noise immunity.
- Detailed installation manual in English and Turkish - providing clear and comprehensive instructions.
- Exceeding Category 6 performance - providing full support to 1GBASE-T.
- 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.
- Unique DoubleSafe™ Quality Assurance Program - providing lowest rejection rate available.

## GENERAL PROPERTIES

Plug Tolerances and Dimensions	Compliant with IEC-60603-7-5 and FCC requirements
Plug housing material	Polycarbonate, rated UL 94 V-0.
Plug contacts	50 micro-inch gold plating over copper alloy.
Shield construction	Overall.
Shield material	Tin-plated brass
Environmental conditions	-40 to +60C at 0-90% RH (Non condensing)
Packaging	100 units per bag.
Cable to Plug Tensile Strength	9 Kgf (90N) min.
Plug to jack contact force	100 gr min. (using HCS approved jacks).
Operating Temperature	-20 to +80C
Plug insertion durability	200 mating cycles
Color	Transparent. Other colors available upon request.

TRANSMISSION PROPERTIES AND ELECTRICAL SPECIFICATIONS (MATED)

FREQ. MHz	Insertion Loss dB/100m		NEXT dB		FEXT dB		RL dB	
	Nom	Max	Nom	Min	Nom	Min	Nom	Min
1.00	0.1	75.0	75.0	30.0	40.0	40.0	67.0	67.0
4.00	0.1	75.0	71.1	30.0	40.0	40.0	67.0	67.0
8.00	0.1	75.0	65.0	30.0	40.0	40.0	67.0	67.0
10.00	0.1	74.0	63.1	30.0	40.0	40.0	67.0	67.0
16.00	0.1	69.9	59.0	30.0	40.0	40.0	67.0	67.0
25.00	0.1	66.0	55.1	30.0	40.0	40.0	67.0	67.0
31.25	0.1	64.1	53.2	30.0	38.1	38.1	67.0	67.0
62.50	0.16	58.1	47.2	30.0	32.1	32.1	67.0	67.0
100.00	0.20	54.0	43.1	28.0	28.0	28.0	67.0	67.0
200.00	0.28	48.0	37.1	22.0	22.0	22.0	64.5	61.0
250.00	0.32	46.0	35.1	20.0	20.0	20.0	62.5	59.0
300.00	0.35	42.9	33.6	18.5	18.5	18.5	61.0	57.5
400.00	0.40	37.9	31.1	16.0	16.0	16.0	58.5	55.0
500.00	0.45	34.0	29.1	14.0	14.0	14.0	56.5	53.0

Propagation Delay	2.5 nS maks @ 1-500 MHz
Propagation Delay Skew	1.25 nS maks @ 1-500 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 maks.
Dielectric strength	1000 Volts rms for 1 minute
Insulation Resistance	500 MegaOhm min @ 500 Vdc
DC Resistance	0.1 Ohm maks @ 20C
Coupling attenuation	35 dB @ 30 - 100 MHz 35–20log(f/100) dB @ 100 - 1000 MHz
Transfer Impedance	0.1 Ohm @ 1 MHz, 0.2 Ohm @ 10 MHz, 1.6 Ohm @ 80 MHz max.

ORDERING INFORMATION

HCS P/N	Description	Conductor	Wire OD mm
J6A-00806	8P8C Shielded RJ45 CAT6A Plug for Round Cable	24-26 AWG Solid & Stranded	0.96-1.02
J6A-008L6	8P8C Shielded RJ45 CAT6A Plug for Round Cable	22-24 AWG Solid & Stranded	1.35-1.45