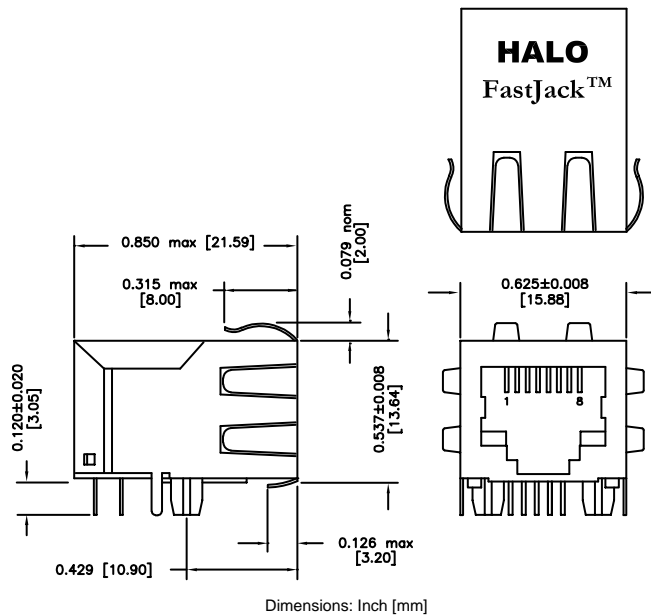


FastJack™ Single Port 10BASE-T RJ-45 Connectors

HALO is pleased to offer this complete range of single port Integrated RJ-45 connectors. The FastJack™ series integrates the high performance of HALO magnetics into industry standard connector designs. These single port Fastjacks are available in either tab up or tab down designs, and with or without LEDs. The result is an extremely robust, IEEE802.3 compliant solution. The complete FastJack series is UL60950 and EN60950 compliant.

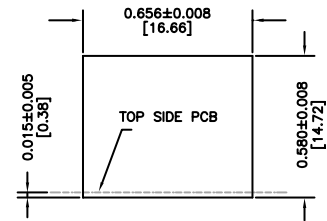


Tab Down Mechanical Drawing

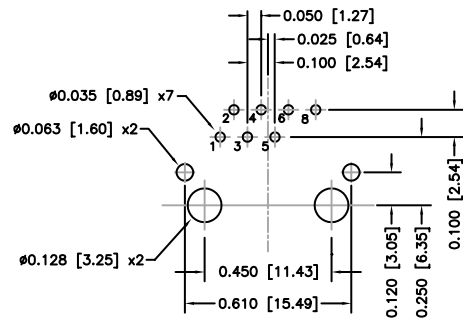


Housing Material: Black thermoplastic, UL94V-0
Contacts: Phosphor Bronze, selective plating 30 µin Gold over Nickel
Terminal Finish: Matte Tin over Nickel
Shield: Copper alloy with Nickel finish
Durability: 1000 mating cycles

Recommended Panel Cut-out

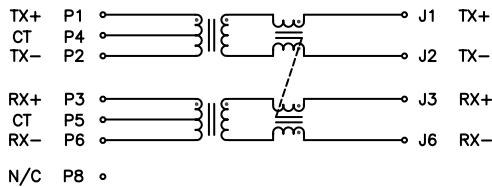


Recommended PCB Layout



Pin 7 Omitted (If No LEDs)
Please see page 3 for LED options.

Circuit A



| FastJack™ P/N | Turns Ratio | | Pri Inductance (µH) | | Cw/w |
|---------------|-------------|-----|---------------------|---------|----------|
| Circuit A | TX | RX | TX | RX | (pF Max) |
| HFJ11-1041ERL | 1:2.5 | 1:1 | 35 Min | 200 Min | 15 |
| HFJ11-1043ERL | 1:1.41 | 1:1 | 140 Typ | 140 Typ | 15 |
| HFJ11-1066ERL | 2:1 | 1:1 | 150 Min | 150 Min | 10 |
| HFJ11-1075ERL | 1:2 | 1:1 | 25 Typ | 140 Typ | 15 |
| HFJ11-1081ERL | 1:1 | 1:1 | 100 Typ | 100 Typ | 9 |
| HFJ11-1086ERL | 1:2 | 1:1 | 50 Min | 200 Min | 11 |

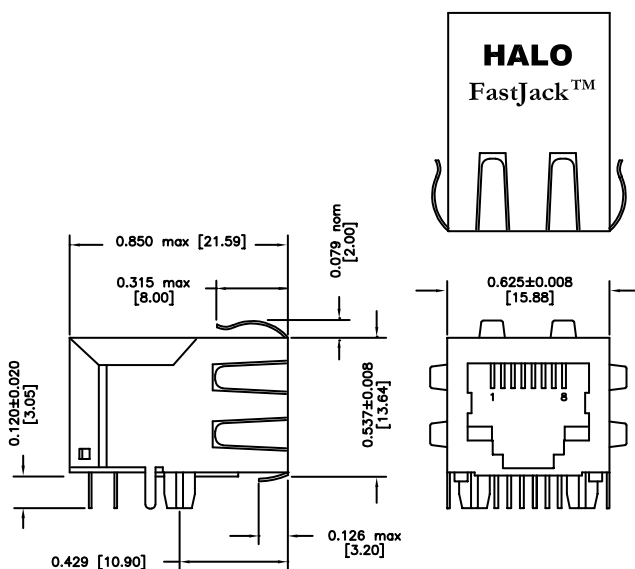
Isolation Voltage: 1,500 Vrms

Please see individual data sheets for complete electrical specifications.

HALO is pleased to offer this series of small footprint 10BASE-T FastJacks™, with integrated filters. This series is ideal for low cost Ethernet Controller chip applications requiring signal filtering. IEEE 802.3 compliant and real estate effective. Check the HALO 10BASE-T selector guide for the FastJack™ that is correct for your design. The complete FastJack series is UL60950 and EN60950 compliant.



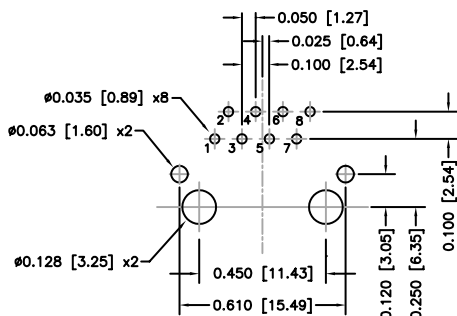
Tab Down Mechanical Drawing



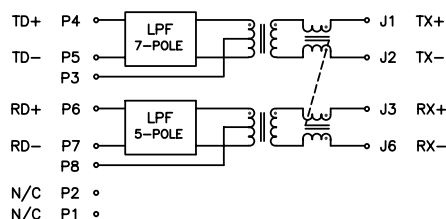
Dimensions: Inch [mm]

Housing Material: Black thermoplastic, UL94V-0
Contacts: Phosphor Bronze, selective plating 30 µin Gold over Nickel
Terminal Finish: Matte Tin over Nickel
Shield: Copper alloy with Nickel finish
Durability: 1000 mating cycles

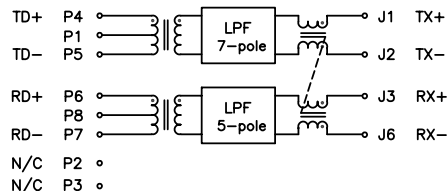
Recommended PCB Layout



Filter Circuit A



Filter Circuit B



Please see page 1 for
recommended panel cut-out

Please see page 3 for LED options.

Electrical Specifications @ 25°C

| | |
|---------------------------|------------|
| Operating Temp: | 0 to +70°C |
| Isolation Voltage: | 1,500 Vrms |
| Insertion Loss (5-10MHz): | -1dB max |
| Return Loss (5-10MHz): | -15dB min |
| Attenuation @ 30MHz | |
| Transmit: | -30dB min |
| Receive: | -18dB min |
| Cut Off Freq. | 17MHz typ |
| Crosstalk (1-10MHz): | -30dB min |

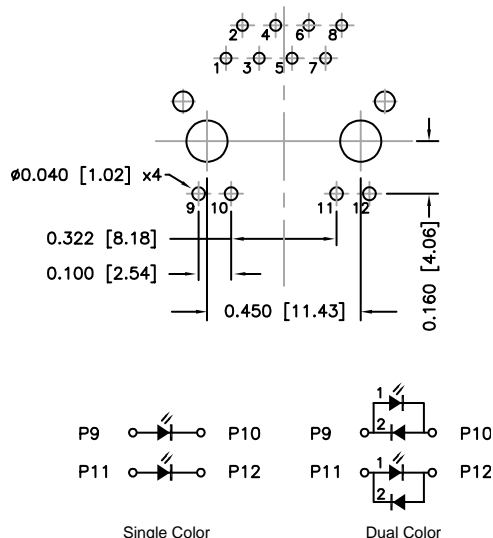


| HALO Part Number | Circuit | Turns Ratio | | Pri Impedance | |
|---------------------|---------|-------------|-------|---------------|------|
| | | TX | RX | TX | RX |
| HFJ11-S101ERL | A | 1CT:1 | 1CT:1 | 100Ω | 100Ω |
| HFJ11-S114ERL | B | 1CT:1.41 | 1CT:1 | 50Ω | 100Ω |

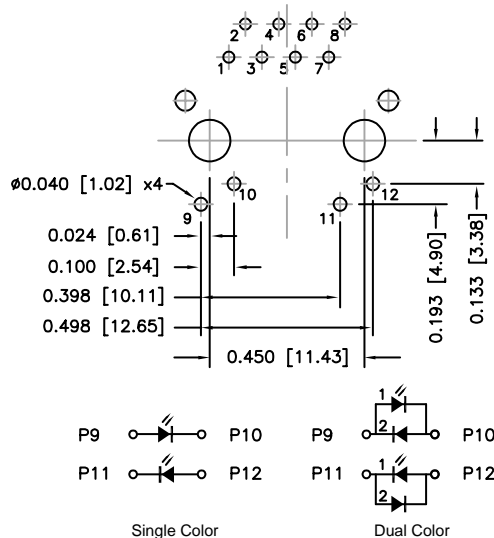
HALO is pleased to offer our complete line of single port Integrated RJ-45 connectors with integrated LED's. All HFJ11 and HFJT1 single port HALO FastJacks, are available with several LED options. To specify the LED function simply add the corresponding suffix "-Lxx" to any HALO HFJ11 or HFJT1 part number, ie HFJ11-2450E-L11. Options include two standard footprints, color variations and current limiting function.



Inline Footprint



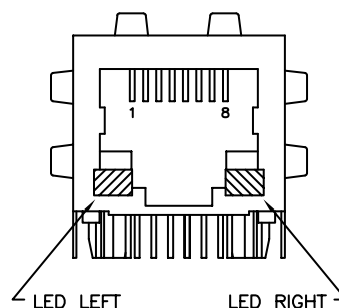
Staggered Footprint



LED Ordering Options

| Left LED Color | Right LED Color | Inline Footprint | Staggered Footprint |
|---------------------------|---------------------------|------------------|---------------------|
| Green | Green | L11 | LS11 |
| Green | Yellow | L12 | LS12 |
| Yellow | Green | L21 | LS21 |
| Green/Yellow ² | Green/Yellow ² | L55 | LS55 |
| Green/Yellow ² | Yellow/Green ² | L56 | LS56 |
| Green/Orange ² | Green/Orange ² | L77 | LS77 |
| Green/Orange ² | Orange/Green ² | L78 | LS78 |

Front View



1. Typical LED forward voltage: 2.1Vdc @ 10mA.
2. The first color corresponds to LED1 in dual color option.
3. Current limiting LEDs are available. When using the V3 or V5 current limiting versions, external resistors are not required. Choose the proper voltage according to the application. Please contact the factory for specifications.
4. Dimensions: Inch [mm]

10BASE-T

| Vendor | Silicon P / N | FastJack™ Part Number Tab Down |
|--------------|----------------------------------|-----------------------------------|
| AMD | Am79C984A, 985, 988A, 989 | HFJ11-1081ERL |
| Cirrus Logic | CS8900-CQ/IQ, CS8920, CS8904-CM5 | HFJ11-1043ERL |
| Cirrus Logic | CS8900-CQ3/IQ3, CS8904-CM3 | HFJ11-1041ERL |
| Intel | LXT901/1A, 907/7A, LXT914/915 | HFJ11-1043ERL |
| Intel | LXT905, LXT908 | HFJ11-1075ERL |
| LSI | 80C24/25 | HFJ11-1066ERL |
| NSC | DP83907, DP83953 | HFJ11-1086ERL |
| RealTek | RTL8019 | HFJ11-S101ERL |
| SMSC | LAN91C95/96 (5V) | HFJ11-S101ERL |
| SMSC | LAN91C96 (3.3V) | HFJ11-S114ERL |
| Uicom | IP2022 | HFJ11-S114ERL |