

**PRODUCT
KNOWLEDGE
EDAC
MAGNETIC JACK
CONNECTORS**

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EDAC MAGNETIC JACKS PROGRAM

Why Magnetic Jack?

Drivers supporting Magnetic Jacks

Popular Versions

EDAC Offering

EDAC Order Guide

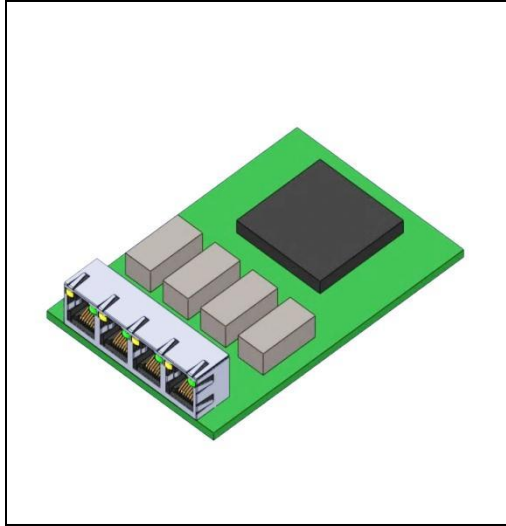
EDAC Part Numbers

Applications

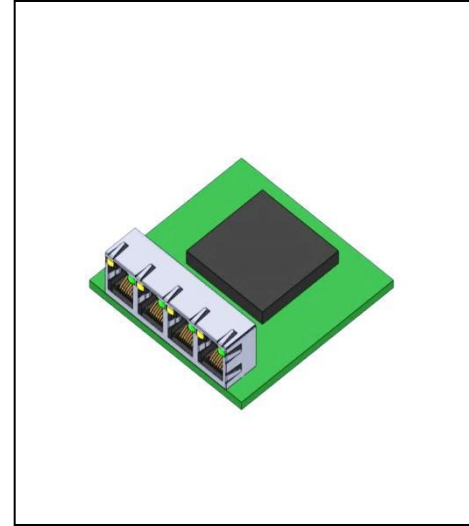
Competition



WHY MAGNETIC JACK?



Separate Magnetics & Components



Integrated Solution

A MagJack is a combination of up to 10 discrete components

They include the RJ45 connector, the impedance matching transformers, 2 LED's, 4 termination resistors, 1 high voltage capacitor and often common mode chokes as well

DRIVERS SUPPORTING CHOOSING A MAGNETIC JACK SOLUTION

Maximise Available PCB Space

By combining the components into one housing you can cut the real estate by around 50%

Maximise Efficiency

In engineering, purchasing, inventory management and manufacturing

Reliability

Magnetics are often the least reliable components on a PCB, so inside the RJ45 housing along with the other components, they are protected from heat and other environmental exposure which can accelerate untimely and unexpected field failures

Noise Reduction

System noise manifests itself in any number of forms, such as EMI, RFI, cross talk and jitter, with all the components inside the housing there are no exposed components, so reducing the signal path, with reduced exposed traces, all which reduce system noise, further enhanced by using shielded housings

Availability

Manufacturer stock into Distributor stock

WHAT WILL BE THE MOST POPULAR MAGNETIC JACKS?

10/100 Base T

10/100 Base T (with POE)

1000 Base T

1000 Base T (with POE)

EDAC MAGNETIC JACK OFFERING

Single or dual stack multiport options

10/100 and 1000 Base T options
fully 802.3 compliant

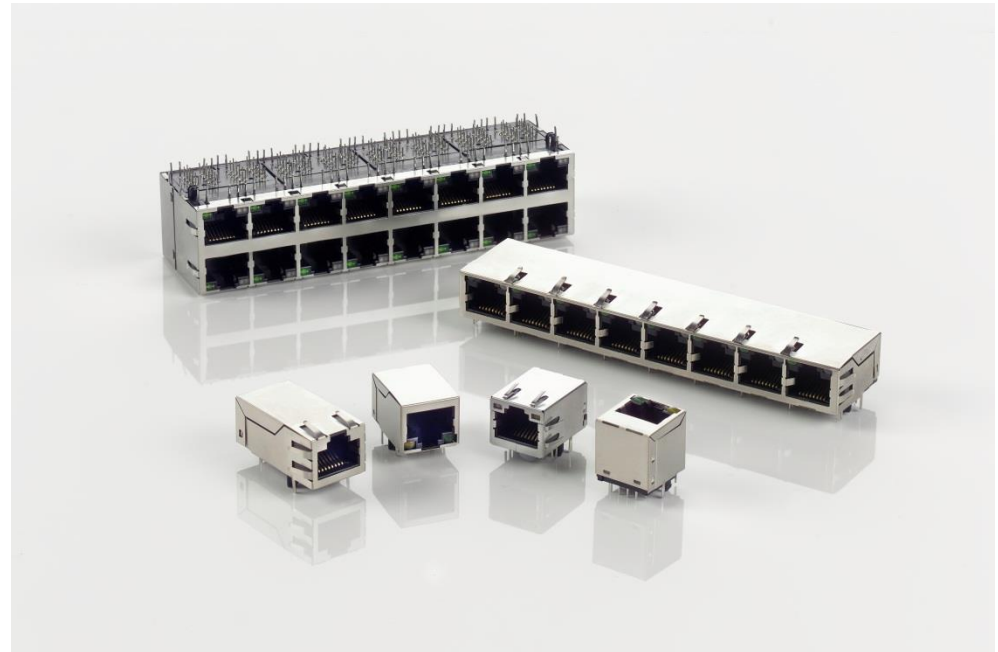
With or without POE / VOIP capability

Shielded or Unshielded


Spring fingers for better EMI

LED options for visual indication of
port status and activity information

Tab up and Tab down options for board
and unit design compatibility

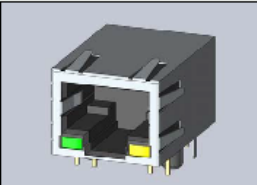


EDAC MAGNETIC JACK ORDERING GUIDE



STANDARD RJ45 MAGNETIC JACKS

SERIES A60



Description:

- Magnetic jacks are integrated connectors that combine network magnetics with RJ 45 modular jack connectors. Magnetic jacks combine connectivity with signal conditioning, electro magnetic interference suppression and signal isolation. These parameters were previously performed by separate and discrete magnetic components mounted on the PCB board.
- Available as single or stacked multiport options they are used in Data, Telecom, Networking and Home Entertainment markets for applications such as Servers, Hubs, Routers, Printers, Computers, Set Top Boxes and Digital TVs.
- MATE WITH MODULAR PLUG CONFORMING TO FCC PART 68, SUBPART F.

Features:

- 10/100 or 1000 Base T options - Full IEEE 802.3 compliance
- Integrated Magnetics - Provides signal integrity, DC isolation and protection for PHY chip
- Integrated Design - Reduces component inventory and process costs
- Spring fingers on shells - Guaranteed advanced EMI/RFI suppression
- LED options available - Visual indication of port status and activity information for user
- Tab Up or Down options - Complete design for board and unit compatibility

Example Part Number: **A60-142-200P431**

| | |
|---|---|
| <p>SERIES:</p> <p>A60 - 10/100/1000 BASE T, 8 CORE A61 - 10/100/1000 BASE T, 12 CORE A62 - 10/100 BASE T, 2 CORE A63 - 10/100 BASE T, 4 CORE A64 - 10/100 BASE T, 5 CORE A65 - 10 BASE T, 2 CORE A66 - 10 BASE T, 4 CORE A67 - 10/100 BASE T, POE A68 - 10/100 BASE T WITH LED TYPE A</p> <p>NO. OF PORTS: 4 STACK: 11 - 1 PORT PER STACK 12 - 10/100 2 PORTS, 21 - 2511 2 PORTS 14 - 10/100 4 PORTS, 22 - 2K2 4 PORTS 16 - 10/100 8 PORTS, 25 - 2K2 8 PORTS</p> <p>CONTACT FINISH:</p> <p>2 - GOLD FLASH 4 - 18 MICRONS THICKNESS OF GOLD 6 - 30 MICRONS THICKNESS OF GOLD</p> <p>CONNECTOR TYPE:</p> <p>2 - RIGHT ANGLE WITH TAB-UP 3 - RIGHT ANGLE WITH TAB-DOWN 4 - VERTICAL WITH TAB-UP 5 - VERTICAL WITH TAB-DOWN 6 - SMT WITH TAB-UP 7 - SMT WITH TAB-DOWN 8 - RIGHT ANGLE WITH TAB-UP AND PANEL STOP 9 - RIGHT ANGLE WITH TAB-DOWN AND PANEL STOP A - VERTICAL WITH TAB-UP AND PANEL STOP</p> | <p>STANDARD CIRCUIT TYPE: (SEE CIRCUIT TYPE PAGE FOR DETAILS)</p> <p>SHIELD TYPE:</p> <p>0 - NO SHIELD 1 - SHIELDED, NO EMI FINGER 2 - SHIELDED, WITH EMI FINGER ON TOP 3 - SHIELDED, WITH EMI FINGER BOTH EDGES 4 - SHIELDED, WITH EMI FINGER ON THREE SIDES 5 - SHIELDED, WITH EMI FINGER ON FOUR SIDES</p> <p>SHELLING MATERIAL:</p> <p>P - PBT POLYESTER H - NYLON POLYESTER</p> <p>SHIELD LEG COLOR:</p> <p>0 - NO LEG 1 - YELLOW 2 - RED 3 - GREEN 4 - ORANGE 5 - GREEN/YELLOW BI-COLOR 6 - RED/GREEN BI-COLOR 7 - GREEN/ORANGE BI-COLOR 8 - RED/YELLOW BI-COLOR 9 - ORANGE/YELLOW BI-COLOR A -</p> <p>LEFT LEG COLOR:</p> <p>0 - NO LEG 1 - YELLOW 2 - RED 3 - GREEN 4 - ORANGE 5 - GREEN/YELLOW BI-COLOR 6 - RED/GREEN BI-COLOR 7 - GREEN/ORANGE BI-COLOR 8 - RED/YELLOW BI-COLOR 9 - ORANGE/YELLOW BI-COLOR A -</p> |
|---|---|

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EDAC MAGNETIC JACK CONNECTOR PART NUMBERS

Series

A60

-

11

2

-

3

1

3

P

1

31

No. of Ports

Connector Type

Right LED
Colour

Shield Type

Contact Plating

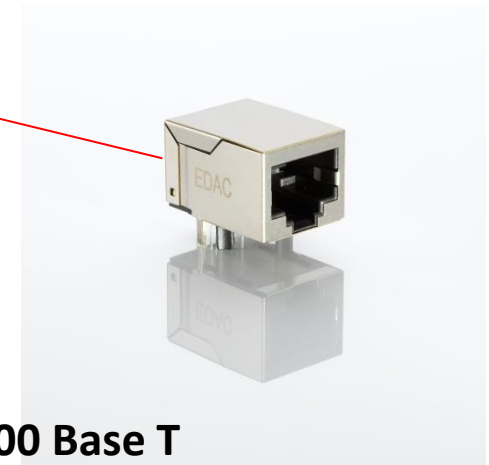
Left LED
Colour

Housing Material

Circuit Type



EDAC MAGNETIC JACK APPLICATIONS



Mother Boards

**10/100 Base T
(1000 Base T planned)**

EDAC MAGNETIC JACK APPLICATIONS

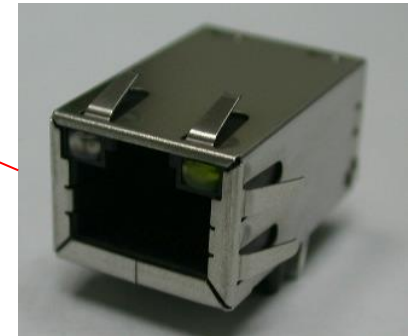


10/100 Base T



Laser Printer

EDAC MAGNETIC JACK APPLICATIONS



10/100 Base T
1000 Base T

Home Entertainment

EDAC MAGNETIC JACK APPLICATIONS



10/100 Base T
1000 Base T

Business Networks

EDAC MAGNETIC JACK APPLICATIONS



10/100 Base T
1000 Base T



Enterprise Networking

SOME COMPETITORS

ADAM TECH

PULSE

FCI

BEL STEWART

HALO

TE

MOLEX

XMULTIPLE