

Integrated Magnetic Connectors from Cambridge Connectors

Cambridge Connectors is a distributor for Superworld Electronics' range of RJ45 Integrated Magnetics Connectors in the UK. Superworld has a world wide reputation for the design and manufacture of high technology magnetic products. Integrated magnetics not only create space efficiency on printed circuit boards but also improve overall electrical performance and reliability. Constructed using a patented honeycomb design, these RJ45 Integrated Magnetics Connectors are offered in single port, multiple port and stacked multiple ports for 10/100-Tx and 10/100/1000- Tx Gigabit applications.



SUPERWORLD ELECTRONICS
INTEGRATED MAGNETIC CONNECTORS

2006/2007

RJ 45 Integrated Magnetic Connectors









Features

- Patented honeycomb design provides PCB space efficiency
- Eliminates EMI noise and improves high speed transmissions
- For 10/100 Base Tx and 1000 Gigabit Ethernet Applications
- Single, multiple and stacked multiple ports

Available with or without LEDs

Applications

These RJ45 integrated magnetic connectors are widely used in devices that require network connectivity. In addition to computer and data networks, applications include industrial instrumentation, process control and broadcast networks.

10/100 Base Tx					10/100 /1000 GigaBit Ethernet				
Technical Information					Technical Information				
<ul style="list-style-type: none"> • Meets or exceeds IEEE 802.3 standard • 350 uH minimum OCL with 8mA bias current • Minimum 1500Vrms isolation per IEEE802.3 requirement • Operating temperature 0°C to +70°C • Storage temperature -40°C to +85°C 					<ul style="list-style-type: none"> • Meets or exceeds IEEE 802.3 standard • 350 uH minimum OCL with 8mA bias current • Suitable for CAT 5 & 6 Fast Ethernet Cable • Minimum 1500Vrms isolation per IEEE802.3 requirement • Operating temperature 0°C to +70°C • Storage temperature -40°C to +85°C 				
	Series	No of Ports	Tab Up/Down	EMI Finger		Series	No of Ports	Tab Up/Down	EMI Finger
	M22DS	Single	Down	Yes		G26US	Single	Up	Yes
	M22DX	Single	Down	No		G33US			
	Series	No of Ports	Tab Up/Down	EMI Finger		Series	No of Ports	Tab Up/Down	EMI Finger
	M26US	Single	Up	Yes		G26US	1x2,1x4	Up	Yes
	M26UX	Single	Up	No			1x6,1x8		
	Series	No of Ports	Tab Up/Down	EMI Finger		Series	No of Ports	Tab Up/Down	EMI Finger
	M22DS	1x2,1x4	Down	Yes		G29TS	2x1,2x4	Up/Down	Yes
		1x6,1x8					G31TS		
	Series	No of Ports	Tab Up/Down	EMI Finger		Series	No of Ports	Tab Up/Down	EMI Finger
	M29TS	2x1,2x4	Up/Down	Yes		G27US	Single +	Up	Yes
		2x6,2x8					G27USX		
							Single +		
							Dual USB A	Up	No

RJ 45 Integrated Magnetic Connectors

Transformer Electrical Specifications at 25° C (10/100 Base Tx)		
Turns Ratio		1CT:1CT
Insertion Loss (dB max)	1-100 MHz	-1.0
Return Loss 100 Ω \pm 15 Ω (dB min)	1-30 MHz	-18
	30-60 MHz	-16
	60-80 MHz	-12
	80-100 MHz	-10
Cross Talk (dB min)	1-30 MHz	-40
	30-60 MHz	-35
	60-100 MHz	-30
C. M. R. (dB min)	1-30 MHz	-40
	60-100 MHz	-30
Hi – Pot (Vrms)	60 Hz/1min	1500

Transformer Electrical Specifications at 25° C (Gigabit Ethernet)		
Turns Ratio		1CT:1CT
Insertion Loss (dB max) Single Port	1-125 MHz	-1.2
Insertion Loss (dB max) Multiple Ports	1-100 MHz	-1.0
	100-125 MHz	-1.2
Return Loss 100 Ω \pm 15 Ω (dB min)	1-30 MHz	-18
	30-60 MHz	-16
	60-80 MHz	-12
	80-100 MHz	-10
Cross Talk (dB min)	1-30 MHz	-40
	30-60 MHz	-35
	60-100 MHz	-30
C. M. R. (dB min)	1-30 MHz	-40
	60-100 MHz	-30
Hi – Pot (Vrms)	60 Hz/1min	1500

Transformer Electrical Specifications at 25° C (Gigabit Ethernet) – Dual USB A Combo. (As above except the following)		
Turns Ratio		1CT:1
Insertion Loss (dB max)	1-125 MHz	-1.2