Fast Ethernet

CentreCOM Fast Ethernet Hubs

Fast Ethernet 12-Port Hub

AT-MR912TX 100BASE-TX TWELVE-PORT FAST ETHERNET HUB

AT-MR902 100BASE-FX FIBER-OPTIC UPLINK MODULE FOR FAST ETHERNET HUB

- Complies with IEEE 802.3u 100Base-TX Fast Ethernet Class I & II repeater specification
- Provides 12 100Base-TX Fast Ethernet ports
- Supports Cat. 5 UTP and Type 1 STP cabling
- Hub stacking and cascading supports up to 142 total ports
- Available with or without stacking module
- Optional fiber optic up-link for backbone connection
- Cascade between hubs through MDI/MDI-X port
- Per port LEDs for link/activity and Error
- Hub LEDs provide status for utilization, power, fiber optic module on and collisions
- Steel chassis for desktop or rack mounting
- FCC Class A, CSA, TUV, CE and UL approvals
- Internal universal power supply
- Lifetime warranty*

*Two years on power supply and fans

The Allied Telesyn AT-MR912TX is a twelve-port 100Base-TX Fast Ethernet hub which supports data rates of up to 100Mbps. By strictly adhering to the IEEE 802.3u specification for 100Base-TX Ethernet, this hub supports 12 RJ45 connections using either Category 5 unshielded twisted-pair cable (UTP) or Type 1 shielded twisted-pair (STP) cable. To connect more than 12 Fast Ethernet devices, simply cascade a second hub from the built-in MDI/MDI-X port or stack up to five additional AT-MR912TX or AT-MR908TX hubs by using the optional AT-MR901 Stacking Module. Through the combination of cascading and stacking, up to 142 users can be connected into a single workgroup.

The AT-MR912TX was designed for simplicity of installation and ease of use. All workstation connections are provided on the front of the hub while the power, stacking and up-link connections are located on the rear. The result is a simple and neat connection of LAN nodes, power and additional hubs. Each of the 12 RJ45 ports has two LEDs; the Link/Activity LED provides visual status that the port has a valid link and that there is data activity with the connected node. The Error LED indicates when excessive errors have been received from the node and the hub has partitioned the port off-line. The hub also includes LED status indicators for Power, Collision, Fiber-optic Module On and network Utilization.

The five Utilization LEDs progressively indicate the percentage of hub bandwidth utilization. The AT-MR912TX has a steel chassis and includes rack-mount handles for installation in a standard nineteen-inch rack. The hub is backed by a lifetime warranty.*

To enable the cascade feature for connecting a second Fast Ethernet hub, the LAN administrator simply repositions the MDI/MDI-X slide switch and attaches a crossover cable from the first port on the AT-MR912TX to any Fast Ethernet port on the second hub. When cascaded, the AT-MR912TX functions as a Class II repeater.

With the installation of the optional AT-MR902 Fiber-optic Uplink Module, the AT-MR912TX can be connected with a LAN backbone or other fiber-optic-ready Ethernet device. The AT-MR902 is available with either Straight Tip (ST) or Subscriber Channel (SC) connectors. Like the Stacking Module, the Fiber-optic Up-link is easily field installed using just four screws.

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Specifications

STATUS INDICATORS (LEDS)

System:	
Power	Green indicates unit power is on
Collision	Amber indicates there is a collisions detected within the hub
FX/ON	Green indicates 100Base-FX module on
Utilization	Green indicate percent bandwidth utilization (1%, 8%, 16%, 32%, 64%)
Per port:	
Link/Activity	Green indicates valid port link/ data activity
Error	Yellow indicates excessive collisions and port partitioning

TWISTED PAIR CONNECTOR,(RJ45)

Pin No.	Function	Pin No.	Function
1	TD+	5	unused
2	TD-	6	RD-
3	RD+	7	unused
4	unused	8	unused

TWISTED PAIR INTERFACE

Transmitter:	Typical	Range
Peak Differential Signal Amplitude	1 V	950 mV to 1.05 V
Transmitter Jitter	1.4 ns p-p max	
Silence Voltage	±50 mV	
Duration	16 ms	8–130 ms
Link Test Pulse	2 ms	
Output Impedance	100 Ω	
Receiver:		
Receiver Threshold	1V for Assert, <200 mV for Deassert	
Input Impedance	100 Ω	
Differential Noise Rejection	>750 mV for Assert, <200 mV for Deassert	

FIBER OPTIC INTERFACE, AT-MR902 FIBER OPTIC UPLINK MODULE

Optical:	Typical	Worst
Wavelength	830 nm	30 nm
Sensitivity	-30 dbm	
Saturation	170 µw	150 µw
	(-7.6 dbm)	(-8.2 dbm)
Transmitter:		
Output Power		
62.6/125mM	- 12.0 dbm	- 15.0 dbm
100/140mM	- 6.5 dbm	- 9.5 dbm
50/125mM	- 16.5 dbm	- 19.5 dbm

POWER CHARACTERISTICS

Power Supply Input	100 to 240 VAC, 50/60 Hz
Power Consumption	40 W Maximum

PHYSICAL CHARACTERISTICS

Dimensions:	
AT-MR912TX	43.94 cm x 25.40 cm x 4.57 cm (17.3 in x 10.0 in x 1.8 in)
AT-MR901	9.0 cm x 9.0 cm x 3.5 cm (3.5 in x 3.5 in x 1.4 in)
AT-MR902	9.0 cm x 9.0 cm x 3.4 cm (3.5 in x 3.5 in x 1.4 in)
Shipping Weight:	
AT-MR912TX	4082 g (144 oz)
AT-MR901 (with cable)	249 g (8.8 oz)
AT-MR902	363 g (12.8 oz)
Temperature:	
Operating	0° to 50° C
Storage	-10° to 70° C
Relative Humidity:	5% to 80% noncondensing

REGULATORY AGENCY APPROVALS

EMC:	
Emissions	FCC Part 15B, Class A; EN 55022 Class A; CE Class B
Immunity	EN 50082-1, IEC 801-2 level 2 EFT /Burst Immunity IEC 801-41, 1988 level 2

CE:
Meets the directives for low voltage and EMC
Safety:
UL, CSA, TUV-GS, IEC 825-1

ORDERING INFORMATION

Part Number	Description
Hub	
AT-MR912TX-10A	12 port fast ethernet hub
AT-MR912TX-19A	12 port fast ethernet hub with pre-installed Stacking module and cable
Options	
AT-MR901	Stacking module and cable for AT-MR908TX and AT-MR912TX
AT-MR902-02	Fiber optic up link module for AT-MR912TX, SC connector
AT-MR902-03	Fiber optic uplink module for AT-MR912TX, ST connector

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