CentreCOM Single-Port Transceivers

AT-200 MAU WITH ENHANCED LEDS

IEEE 802.3 COMPLIANT/ETHERNET COMPATIBLE

- IEEE 802.3 compliant, Ethernet Version 1.0 and 2.0 compatible
- Interchangeable taps for thinnet (10Base-2)
- Jabber timer
- Switch-selectable SQE/ Heartbeat test
- Power/Heartbeat two-colored LED
- Status and diagnostic LEDs
- Five-year warranty

This CentreCOM Single-Port Transceiver is a highly reliable compact transceiver for users of Ethernet Local Area Networks (LANs.) This transceiver provides the electronic and physical interface between the Ethernet coaxial cable and the Ethernet/IEEE 802.3 station Data Terminal Equipment (DTE.)

The CentreCOM Single-Port Transceivers are available in a variety of configurations, all of which meet the transceiver compliance requirements of IEEE 802.3 and are compatible with Ethernet Version 1.0 and 2.0. The use of industry-standard connectors ensures plug compatibility with all existing cable connectors used in thinnet (10Base-2) installations.

This transceiver is compact and offers superior quality and performance characteristics. The use of Surface Mount Technology (SMT) results in increased reliability and ruggedness. Plus, this transceiver is simply and rapidly installed. The compact design permits "pull-through" cable installations along narrow raceways. Sturdy metal construction ensures long-term, reliable operation in both commercial and industrial environments.

This CentreCOM Single Port Transceiver is U.L. Listed for use in environmental air spaces in accordance with Article 300-22(c) of the U.S.A. National Electrical Code.

A user-selectable switch is provided, permitting the network manager to choose between enabling or disabling the Signal Quality Error (SQE)/Heartbeat test function. This feature ensures compliance with standards and permits the transceiver to be used with repeaters that cannot support the Heartbeat function.

The AT-200 transceiver features five LED indicators. These LEDs include "Power/Heartbeat" (two-color), packet "Transmit," packet "Receive," "SQE/Heartbeat" test function and packet "Collision" detection.

S INDICATORS

Indicates packet is being
transmitted to the media
Indicates packet is being received
from the media
Indicates SQE test signal
is present
Indicates a collision is detected

RICAL CHARACTERISTICS

10 Mbps/CSMA/CD

Cable Interface:

Impedance	78 Ω ±1%	
Impedance	78 Ω ±5 Ω	
Output Voltage	700 mV (Typical)	

Cable Interface:

	>100K Ω
	<2 pF
Output Voltage	
Offset	-0.9 to 1.1 V
	±870 mV (Typical)

	Typical	Worst
Time	25 ns	±5 ns
Delay	30 ns	
	2 bit	
Time	26 ms	
Time	419 ms	
Time		

/ Collision:

Delay	50 ns
	5 bit
Detection	
	900 ns
Test	
Time	600 to 1000 ns
	600 to 1000 ns

POWER CHARACTERISTICS (FROM DTE)

Supply Voltage(Station side):

11.4 to 15.75 V

Power:

Consumption	400 mA (Maximum) at 12 V ±5%

Isolation:
Impedance	250K Ω (Minimum)
Breakdown Voltage	2000 V

PHYSICAL CHARACTERISTICS

Dimensions:

11.2 cm x 5.1 cm x 3.1 cm
(4.4 in x 2.0 in x 1.2 in)

Weight (less connector):

369 g (13.0 oz)

Temperature:

Operating	0° to 50° C
Storage	-20° to 60° C

Relative Humidity: 5% to 80% noncondensing

Transceiver Cable Interface:
15-pin male subminiature-D connector with locking posts

Electrical/Mechanical Approvals:

EMI	FCC Class A, TUV, Vfg-B
Safety	UL, CSA, TUV-GS

ORDERING INFORMATION

Part Number	Cable Type	Connector Type
AT-204	Thin Coax	One BNC backbone connector
AT-205		No backbone connector
AT-206	Thick Coax	One thick coaxial stinger-type connector
AT-207	Thin Coax	One BNC-T connector
AT-208	Thick Coax	One thick coaxial N-Series connector
AT-209		Internally terminated transceiver with cover plate

Accessories

AT-04	10Base-2 BNC connector
AT-06	10Base-5 vampire connector
AT-07	10Base-2 BNC-T connector
AT-08	10Base-5 N-Series connector
AT-1220-K	Vampire connector installation tool kit
AT-BRKT0A	Mounting bracket with strain relief
AT-BRKT0B	Mounting bracket without strain relief

Allied Telesyn

CentreCOM Multiport Transceivers

- IEEE 802.3 compliant and Ethernet Version 1.0 and 2.0 compatible
- Interchangeable taps for thick (10Base-5) and thin (10Base-2)
- Switch-selectable Signal Quality Error (SQE)/Heartbeat test with LED
- Status and diagnostic LEDs
- Five-year warranty

AT-270 2-PORT TRANSCEIVER
AT-440 4-PORT TRANSCEIVER
AT-470 4-PORT TRANSCEIVER

IEEE 802.3 COMPLIANT/ETHERNET COMPATIBLE

The CentreCOM Multiport Transceivers are compact, highly reliable two-and four-port transceivers for users of Ethernet Local Area Networks (LANs.) These transceivers provide the electronic and physical interface between the Ethernet coaxial cable and the Ethernet/IEEE 802.3 station Data Terminal Equipment (DTE.)

The circuit designs of the AT-270 and AT-440 support two and four Attachment Unit Interfaces (AUIs) respectively, with a single circuit board and coaxial interface. The AT-470 transceiver incorporates the same circuit design but uses two independent boards to support four AUIs to the LAN media. These multiport transceivers offer superior quality and performance. They are easily and rapidly installed, while their compact design supports "pull-through" cable installations along narrow raceways.

The CentreCOM Multiport Transceivers use Surface Mount Technology (SMT) for reliability. Their sturdy metal construction ensures long-term, reliable operation in both commercial and industrial environments. These transceivers are compliant with the IEEE 802.3 specifications and are plug-compatible with existing Ethernet networks.

These transceivers provide a user-selectable switch permitting the network manager a choice between enabling or disabling the SQE test. This choice ensures compliance with the IEEE specifications as well as extending the transceivers' functionality for use with repeaters. The AT-470 provides two user-selectable SQE switches, one for each circuit board, so that both device types can be supported simultaneously from one transceiver.

The CentreCOM Multiport Transceivers feature six, five and twelve LED indicators, respectively. These LEDs facilitate installation and assist in fault isolation.

AT-270, 440, 470

STATUS INDICATORS

Power	Indicates power for the transceiver circuit from an attached station
Transmit	Indicates packets from the station (AUI) are being transmitted on the Ethernet coaxial cable
Receive	Indicates packets are being received from the Ethernet coaxial cable
Collision	Indicates collisions are present on the network
SQE Test	Indicates SQE/Heartbeat test function has been enabled

ELECTRICAL CHARACTERISTICS

Data Rate   10 Mbps/CSMA/CD

Transceiver Cable Interface:
Impedance
Input   78 W ±1%
Output   78 W ±5W
Input/Output Voltage
    700 mV (Typical)

Coaxial Cable Interface:
Input Impedance   >100K W
Capacitance   <2 pF
Input / Output Voltage
DC Offset   -0.9 to -1.1 V
AC Offset   ±870 mV (Typical)

Transmit:	Typical	Worst
Transmit		
Rise/Fall Time	25 ns	±5 ns
Static Delay	26 ns	
Bit Loss	2 bits	
Jabber		
Control Time		29 ms
Reset Time	413 ms	
Recovery Time		1 ms
Receive / Collision:		
Static Delay		50 ns
Bit Loss	5 bits	
Collision Detection Time		900 ns
SQE Test		
Delay Time	860 ns	
Length	752 ns	

POWER CHARACTERISTICS

Isolation:
Impedance   250K W (Minimum) at 60 Hz
Breakdown Voltage
    2000 V
Supply Voltage(Station side)
    11.4 to 15.75 V
Consumption   500 mA (Maximum) at 12 V ±5%

PHYSICAL CHARACTERISTICS

Dimensions:
AT-270   16.3 cm x 6.9 cm x 3.3 cm
    (6.4 in x 2.7 in x 1.3 in)
AT-440/AT-470   16.3 cm x 6.9 cm x 5.6 cm
    (6.4 in x 2.7 in x 2.2 in)

Weight (less tap): 284 g (10.0 oz)

Temperature:
Operating   0° to 50° C
Storage   -20° to 60° C

Relative Humidity: 5% to 80% noncondensing

Transceiver Cable Interface:
15 pin male subminiature D-connector with locking posts

Electrical / Mechanical Approvals:
EMI   FCC Class A
Safety   UL, CSA, TUV-GS

ORDERING INFORMATION

Part Number	Media	Network Type
AT-274/444/474	Thin Coax	10Base-2 (BNC)
AT-275/445/475		Transceiver only, no tap
AT-276/446/476	Thick Coax	10Base-5 (Stinger type)
AT-277/447/477	Thin Coax	10Base-2 (BNC-T)
AT-278/448/478	Thick Coax	10Base-5 (N series)
AT-279/449/479		Direct-connect

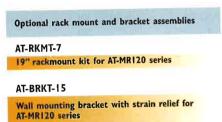| Part Number	Accessories
AT-04	10Base-2 BNC connector
AT-06	10Base-5 Vampire connector
AT-07	10Base-2 BNC-T connector
AT-08	10Base-5 N-Series connector
AT-09	"Direct-Connect" internal termination and cover lid
AT-060-K	Vampire repair kit
AT-1220-K	Vampire connector installation tool kit
AT-BRKT-7A	Mounting bracket with strain relief
AT-BRKT-7B	Mounting bracket without strain relief

Micro Repeaters

Allied Telesyn
Simply connecting the world

10Mbps micro repeaters with internal power supply

AT-MR120 Series

TAA

| Int Pwr | LED | Polarity | Jabber |
| Partition | Terminator | 19" |

Physical specs: 210mm x 112mm x 31mm,
480g 8.3" x 4.4" x 1.2", 1.1lb

AT-MR121T-X5
AUI/F ←→ T

AT-MR122T-X0
2 ←→ T

AT-MR123-X5
AUI/F ←→ AUI/F

AT-MR124-X5
AUI/F ←→ 2

AT-MR125-X0
2 ←→ 2

AT-MR126F-X3
FL (ST) ←→ AUI/F

AT-MR127F-X3
FL (ST) ←→ 2

AT-MR128FT-X3
FL (ST) ←→ T

Optional rack mount and bracket assemblies

AT-RKMT-7
19" rackmount kit for AT-MR120 series

AT-BRKT-15
Wall mounting bracket with strain relief for AT-MR120 series

Transceiver taps and other accessories for Allied Telesyn transceivers and fanouts

AT-04
10Base2 BNC connector

AT-06
10Base5 vampire connector

AT-07
10Base2 BNC T-connector

AT-08
10Base5 N-series connector

AT-01220-K
Vampire connector installlation tool kit

AT-RKMT-5
Rackmount kit for AT-810SL

AT-BRKT-0A
Mounting bracket with AUI strain relief and service loop for AT-200

AT-BRKT-0B
Mounting bracket with service loop for AT-200

AT-BRKT-7A
Mounting bracket with AUI strain relief and service loop for AT-270/280/440/470/480

AT-BRKT-7B
Mounting bracket with service loop for AT-270/280/440/470/480