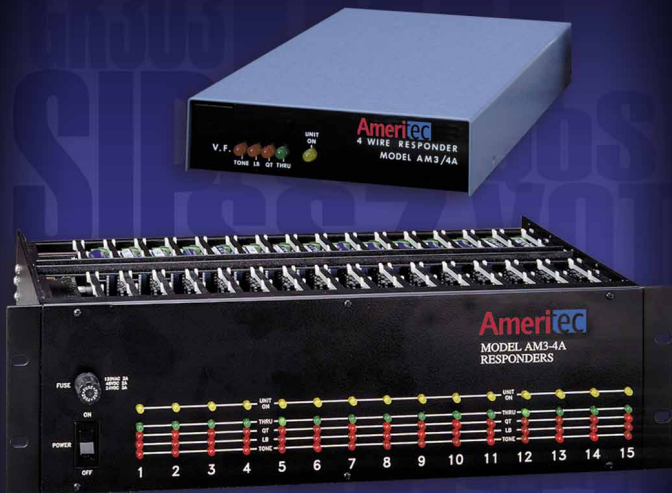


Model AM3-4A

4-Wire Responders



Centralized, Low Cost Responders for
Voice and Data Transmission Line Testing

Ameritec

Ameritec Corporation is an ISO 9001:2000 Certified Company

General Description

The Ameritec Model AM3 Series Responders provide users the capability of centrally testing their voice and modem data lines without need for dispatch of a technician to the remote end of the line.

Depending on the Responder, control can be accomplished by simply sending DTMF digits from the central location, over the line under test, to the Responder. The Responder will then respond to the command by sending a known signal or sequence of test tones or by quiet terminating the line.

Applications

A bank introduces automated teller machines, an insurance company adds a major branch office to its data network, a utility centralizes its record keeping system, a fast-food chain networks its point of sale terminals. These are but a few of the business applications involving the use of telecommunications networks to move data or allow machines to communicate with each other. Ameritec Responders are designed for use in these environments to assure quick trouble shooting and isolation of problems without the need for dispatch of a technician.

General Responder Information

- 4-Wire Responders allow for testing telecom transmission lines without the need of dispatching a person and expensive test equipment to the other end of the line.
- Responders may be either temporarily or permanently placed in a network.
- Responders are used to quickly identify whether the problem lies with the line between two points, or with the terminal equipment at the other end of the line.
- Responders are used to disconnect a streaming modem or terminal on multi-drop circuits without dispatch of a repair technician.
- Responders are used in unmanned or inaccessible locations such as remote switching offices and mountain-top microwave towers.

A transmission test set, such as the Ameritec

Model AM4x, AM40x or AM5x Series, is used at the central location to command the Responders and to perform the measurements sent from the Responder.

4-Wire Responders

The AM3-4 series of Responders are designed for use in 4-Wire, dedicated, environments.

AM3-4A

The AM3-4A Responder is a DTMF commandable, addressable, 4-Wire Responder. It connects in series with a dedicated 4-Wire data line, normally on the line side of the modem. However, it can be placed anywhere in the line, including at bridges. It is transparent to data passing through it until it receives a specific sequence of five DTMF digits. These five digits include the preset address of the Responder and a command instruction.

The AM3-4A can be commanded into the following states:

1. Loopback
2. Quiet Termination
3. Send 1004Hz @ 0dBm
4. Send Non-Linear Distortion 4-Tone signal
5. Send Non-Linear Distortion 2-Tone signal
6. Send Slope Tones (404Hz, 1004Hz, 2804Hz)
7. Reset
8. Amputate (quiet termination without timeout reset)

The Responder will automatically disconnect (return on hook) two minutes after completion of any commanded state unless a new command is issued.

Model 86-0003 Card File

The AM3-4A Responders, can be purchased in a single PC card version for use in mounting them in the AM3 Model 86-0003 Card File.

This is desirable when multiple circuits are in the same location, as it minimizes the amount of space and power outlets required.

AM3-4A Technical Specifications

DTMF RECEIVER

Sensitivity: 0 to -30dBm or -16 to -46dBm, switch selectable

Frequency Tolerance: $\pm 2\%$

Twist: 12dB maximum

Command Sequence

V.F. Commands: #abcN

Digital Commands: #abc*N

abc = preset three digit
numeric responder
address
N = Command

V.F. Commands

Loopback: Loopback gain switch selectable to 0dB, +16dB or variable (0 to -20dB)

Quiet Termination: 600 ohm Termination

Milliwatt: Send 1004Hz @ 0dBm

4 Tone: Send composite 857Hz, 863Hz, 1372Hz, 1388Hz @ 0dBm

2 Tone: Send composite 1372Hz, 1388Hz, @ 0dBm

Slope Tones: Send 404Hz, 1004Hz, 2804Hz @ 0dBm for ten seconds each, one second between tones

Typical 4-Wire Responder Application

Reset: Return V.F. facility to transparent (through data) condition

Amputate: 600 ohm Termination (no timeout)

Note: All commands except "Reset" and "Amputate" reset automatically after 16 minutes

MISCELLANEOUS

Frequency Accuracy: $\pm 1\%$

Level Accuracy: ± 1 dB

Bridging Loss: .3dB

Address: Any number 000-999

Power: 18VAC C.T. (Wall Transformer)

Dimensions: Single Unit: 5.1"W x 1.3H x 8.9"L

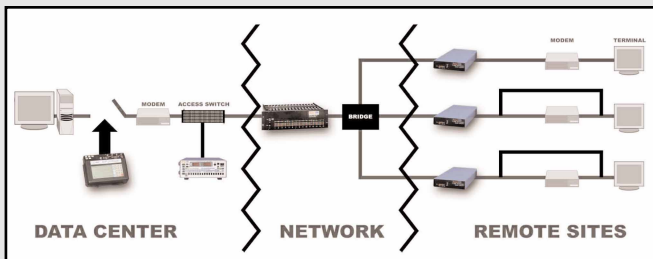
Card File: 5.25"W x 10"H x 19"L

Connections: Power: Screw Terminal Strip

In (Line): RJ11 Modular Telephone Jack

Out (Drop): RJ11 Modular Telephone Jack

All specifications are subject to change without notice.



Ameritec Corporation

Ameritec has been an industry leader and pioneer in the field of network call generation since 1980. We have call generation products that address various network interfaces, applications and call volume requirements that include Analog, Primary rate ISDN, SS7, SIP, DS3, OC3, STM-1 Channel Associated and Signaling interfaces. The company offers sales and support throughout the world and prides itself on providing the most comprehensive suite of testing functionality found on any call generation product.



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