



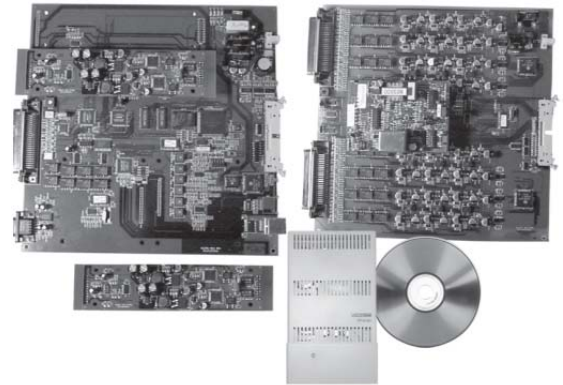
# MultiPath™ TALKBACK INTERCOM SYSTEM

## Technical Specification

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### FEATURES:

- INTERFACES TO LEGACY AND IP PHONE SYSTEMS
- EXPANDABLE UP TO 360 CLASSROOMS
- CAT 3/5 TELCOM/DATA WIRE INSTALLATION
- INTEGRAL ONE-WAY AND HANDSFREE AMPLIFIERS
- EMERGENCY VOICE ANNOUNCE OVER SPEAKERS
- INTEGRATED WAV FILE SUPPORT
- OFF-SITE PROGRAMMING AND DIAGNOSTICS
- SERIAL PORT USED TO DISPLAY SYSTEM ACTIVITY
- 6 INTERNAL SOFTWARE PROGRAMMABLE TONES
- 8 SOFTWARE CONTROLLED OUTPUT RELAYS
- 6 SOFTWARE CONTROLLED SWITCH INPUTS
- U.L. 813 LISTED, FCC PART 15 CLASS B
- CALENDAR BASED SCHEDULES
- INTEGRATED WAV FILE SUPPORT
- ENHANCED CALLER ID
- HANDSFREE TALKBACK
- 3 AUXILLARY AUDIO INPUTS
- ALL CALL PAGING
- ADVANCED EMERGENCY FUNCTIONS
- WALL OR RACK MOUNT
- UNLIMITED TIME SCHEDULES
- MICROPHONE INPUT
- EMERGENCY ALL CALL PAGING
- EASY WINDOWS® PROGRAMMING
- ARCHITECTURAL ROOM NUMBERING
- CLOCK SYNCHRONIZATION



### DESCRIPTION:

The MultiPath™ Communications System is a high-performance microprocessor controlled communications system designed specifically for the needs of schools. It combines the features of an electronic telephone system with the capabilities of a sound and program distribution system, and includes emergency all call paging and alarm functions.

The system supports up to four administrative ports for communications between the office and classrooms. Each administrative port can be connected to a single line telephone, key system, or PBX as required for unlimited answering positions. The system also includes eight audio paths to simultaneously allow any combination of administrative phone and classroom communications, paging, class change tones, and distribution of program material.

The classroom is equipped with a loudspeaker to receive class change tones, program material, such as background music, emergency tones, page announcements and intercom. The system may also be equipped with call in switches, and supports one-way speakers and horns to provide audio to hallways, outside locations, or other large areas that do not require handsfree talkback. The system can be configured to utilize category 3 or 5 telcom/data wiring to reduce installation cost. A built-in Ethernet Port allows LAN/WAN administration access for system changes.

Since most features are controlled by software, system configuration is easily changed or upgraded. A Windows® based programming tool is provided for system setup.

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Valcom, Inc. 5614 Hollins Road Roanoke, Virginia 24019 Phone: 540-563-2000 Fax: 540-362-9800  
E-Mail: info@valcom.com www.valcom.com



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### Specifications:

#### NOMINAL SPECIFICATIONS

Tip and Ring Input Impedance: 600 W Nominal  
Line Voltage: H -50 VDC  
Line Current: H 30mA  
Ring Voltage: H 65V Peak 20 Hz

#### DTMF

Input: H -29 dBm  
Detect time: H 40 mSec

#### DATA PORTS

Program: 2400 Baud 8 Bits 1 Stop No Parity  
SMDR: Selectable 300, 600, 1200, 2400 Baud  
8 Bit 1 Stop No Parity

#### MAIN UNIT CONTROLS

Tone level for internally generated tones  
Phone to speaker/speaker to phone levels

#### TONES PROVIDED

Hi/Lo Tone  
Warble  
High  
Low  
High Chime  
Low Chime

#### PAGE AMPLIFIERS

Amp Output: 1 Watt Per Station  
Distortion: 900 mw out @ 1.0 kHz H

#### AUX 1, 2, 3 INPUTS (AUDIO)

Impedance: 10k  $\wedge$  Nominal  
Input Level: -10 dBm Nominal

#### RELAY CONTACTS: 2 FORM C

30 Vdc, 2 Amp  
125 Vac, .5 Amp

#### POWER REQUIREMENTS

V-CPU4: 24 Vdc, 2 Amp  
V-TCM: 24 Vdc, 2 Amp  
XP-TCM12: 24Vdc, 2 Amp

#### ENVIRONMENT

Temperature: 0 to 40 °C  
Humidity: 0-85% Non-precipitating

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### ARCHITECTS' AND ENGINEERS

The MultiPath system shall provide up to 360 (three hundred and sixty) classroom stations of intercom, paging, emergency paging, emergency tones, time tones, group paging and music distribution. The system shall allow access from multiple telephone stations i.e., classrooms, teacher's lounges, offices and administrative areas. The MultiPath shall interface with 45 ohm or 25-Volt speakers, and shall be accessed via single line phones, an E-Key C.O. line port, or loop start trunk port of PBX.

The system shall have enhanced caller ID to visually announce intercom classroom information including normal, emergency and urgent calls. The system shall provide up to 4 (four) intercom links to the phone system or single line phones if used as stand-alone. The system shall have voice announce on the intercom links to audibly announce intercom classroom call in information. Integral hands-free amplifiers for individual station calls, integral one way amplifiers for group paging, all call paging, emergency paging, background music and tones shall be standard. The system shall offer 1, 2, 3, or 4 digit flexible architectural numbering, dial tone, ring-back tone, alert tones, repeated alert tones, door strike contacts, evacuation tones, night ring tones, enhanced caller ID, and SMDR printer port as standard equipment.

The MultiPath system shall provide up to 48 software programmable output contact closures to be used for activating cameras, unlocking/locking doors, and shall also be programmable to follow schedules to control speed limit signs, outdoor lighting, etc. The system shall also provide up to 366 switch inputs to be used for activating schedules, holiday schedules, night ringing, door ringing, activate fire tone, activate tornado tone, crisis mode, night mode, force a schedule, system time sync, activate music and program material and activate all clear tone.

The MultiPath system shall have 8 time schedules, up to 1024 events that may run simultaneously. The system shall have 72 audio and time groups for distribution of time tones, music, program material and emergency tones. The system shall have 72 audio page groups for distribution of announcements. These page groups shall also have emergency level dialing access to override normal page groups. The system shall provide a microphone input to be activated for all page announcements.

The MultiPath system shall have a Windows® Program that allows the administrative personnel to distribute music/program material and change time schedules as needed. The programming shall be accomplished from one PC or through the network for multiple access.

The MultiPath system speakers shall feature the capability to be installed utilizing standard category 3 or 5 telecom/data wiring. The system shall be rack or wall mountable, UL Listed 813 and FCC Part 15, Class B.

### LIMITED WARRANTY

Valcom, Inc. warrants its products to be free from defects in materials and workmanship under conditions of normal use and service for a period of one year from the date of shipment. The obligation under this warranty shall be limited to the replacement, repair or refund of any such defective device within the warranty period, provided that:

1. inspection by Valcom, Inc. indicates the validity of the claim,
2. the defect is not the result of damage, misuse, or negligence after the original shipment,
3. the product has not been in any way repaired by others and that factory sealed units are unopened (A service charge plus parts and labor will be applied to units defaced or physically damaged).
4. freight charges for the return of products to Valcom, Inc. are prepaid,
5. all units "out of warranty" are subject to a service charge. The service charge will cover minor repairs (major repairs will be subject to additional charges for parts and labor)

**This warranty is in lieu of and excludes all other warranties expressed or implied, and in no event shall Valcom, Inc. be liable for any anticipated profits, consequential damages, loss of time or other losses incurred by the buyer in connection with the purchase, operation or use of the product.**

This warranty specifically excludes damage incurred in shipment. In the event a product is received in damaged condition, the carrier should be notified immediately. Claims for such damage should be filed with the carrier involved in accordance with the F.O.B. point.

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