

VAR3 Digital Recorder and Override Controller

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MODEL: VAR3-options (see table below)

DESCRIPTION:

DIGITAL AUDIO RECORDER/PLAYBACK AND MULTI-ZONE REBROADCAST CONTROLLER

SUMMARY

The VAR3 is a fully computerized multi-channel digital recorder/playback and controller system developed on a standard high-end Personal Computer (PC) platform, used to control several of the CANAM's AM & FM Rebroadcast Equipment Rebroadcast Systems and playback the public safety & service messages that could override ("break-in") the normal radio stations being rebroadcast in highway and mass transit tunnels.

The VAR3 is also suitable for Public Announcement Systems (PA), Highway Advisory Radio (HAR), Radio Station Automation, and other applications where multiple flexible and programmable audio sources are required.

OPTIONS SUMMARY:

Model number= VAR3-xC-options-#IO

Option	Option's brief description
x	Number of audio channels
#	Number of Input/Output signals
T	Touch-screen interface
F	Solid-state memory removable storage cartridge
R	Rack-mount Chassis
RDH	Computer configuration with redundancy components

Features:

- Outputs: from 4 up to 16 audio outputs (monaural), independent or simultaneous playbacks of the same audio file.
- Audio quality: FM broadcast hi-fidelity (20 to 15.000 Hz typical bandwidth).
- Storage capacity: limited only by the PC data storage media size. A typical 40 Gigabytes hard disk drive can store up to 640 hours of Hi-Fi compressed audio. One CD-ROM can store more than 10 hours.
- Locally and/or Remote Controlled using standard networking Internet Protocol TCP/IP, serial connection or modem connection.
- Scheduling Agent to setup & edit play lists for automatic execution. Ideal for scheduling regular public service & safety messages to be broadcasted.
- Microphone feed-through and "line-level" inputs for live broadcast capability.
- Balanced or un-balanced configurable inputs & outputs.
- Fully graphic and intuitive screen interfaces, language configurable. Touch-screen option is available for increased ease of operation.
- Advanced software management features for access control and activity log.
- Local speaker monitor, channel selectable.
- Manual Input (Rx) Threshold and Output Power Level

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VAR3 Datasheet

Digital Recorder/Playback module

ELECTRONICS-hardware

**Number of audio channels
(multiple of 4)**

Add suffix "xC" to model number, where x is the number of required audio channels.

Configurable from 4 up to 16 independent audio inputs and outputs.

Audio Inputs

- **Balanced lines (differential)**

Recording level

+4 dBu nominal, +24 dBu max.

Input (load) impedance

24 Kohms, balanced

- **Un-balanced lines (single-ended)**

Recording level

-10 dBV nominal, +10 dBV max.

Input (load) impedance

12 Kohms, un-balanced

- **Connectors**

Professional 3-wire XLR type

Audio Outputs

- **Balanced lines (differential)**

Drive level

+4 dBu nominal, +24 dBu max.

Output (internal) impedance

100 ohms, balanced

Load impedance capacity

600 ohms or greater

- **Un-balanced lines (single-ended)**

Drive level

-10 dBV nominal, +10 dBV max.

Output (internal) impedance

50 ohms, un-balanced

Load impedance capacity

600 ohms or greater

- **Connectors**

Professional 3-wire XLR type

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Analog Signal Quality	
Audio bandwidth/ Freq. response (+/- 1 dB)	20 to 15.000 Hz typical (*)
* Depending on sampling rate and compression	
Sample rate	Variable from 6.25 KHz to 48 KHz
Dynamic range (SNR)	>80 dB
Total Harmonic Distortion + Noise (THD+N)	<1% @ 1KHz
Computer platform	
Internal Memory (RAM)	256 Mbytes minimum
Central Microprocessor unit	Pentium® IV @2.4 GHz
Internal Hard Disk (magnetic)	40 Gbytes minimum (IDE)
Removable storage media (standard)	CD-ROM/DVD-ROM, 3.5" floppy
USB 2.0 Ports	2 Ports
RS-232 COM Ports	1 Port
Screen Monitor (standard)	15 inches LCD, desktop.
Internal Network interface	Ethernet port 10/100 Mbps typ.
Internal MODEM	V.90 56 Kbps or better typ.
External Standard PC Speakers	
Optional Rack-mount Chassis	4U Rack-mount chassis 10.4"x19"x20" (WxHxD). Additional 4" depth must be available for cables and connectors.
Optional Rack-mount integrated Screen Monitor, Trackball pointer and Keyboard	1U Rack LCD monitor w/ Keyboard and Trackball. KVM switch optional.
Optional Redundancy Features	<ul style="list-style-type: none"> • Dual Cooling Fans • Dual Redundant 400W Power Supply • IDE /ATA133 RAID hard-disks (RAID 0/1) • SCSI 36.4 GB hard-disk (RAID 0/1)
Optional Storage Media	<ul style="list-style-type: none"> • Solid state memory media adapter • CD-ROM/DVD Burner (DVD±R/DVD±RW/CD-R/CD-RW)

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Rebroadcast Equipment controller module

ELECTRONICS-hardware

Number of Input/Output Signals

Each zone requires one form C “dry contact” for the override command signal to the rebroadcast equipment and one opto-isolated input for its acknowledgement.

All other unused signals may be configured by the user to monitor or control the equipment, and assign them by Zones or for General Aux I/O use.

Add suffix “#IO” to model number, where # is the quantity of I/O required. The VAR3 provides Digital opto-isolated Input Signals and form C “dry contact” relay Output Signals rated 0.5A/24VDC max.

Available in 16 I/O or 32 I/O configurations.

Acknowledgment input feedback

The controller does monitor the effective Override Command signal recognition or acknowledgment by the “recipient” equipment. Otherwise, it will trigger a screen alarm message/notification to Operator.

AUX I/O (“wildcard”) input/outputs:

Digital Inputs and “dry contact” relay Outputs may be associated to any zone.

The digital inputs provide a way to monitor the status of additional equipment. These inputs may be configured to trigger alarms that respond to a logic 0 or 1.

The “dry contact” relay outputs may be used to control other equipment, such as alarms reset, etc.

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APPLICATION-software

Core system features

- Number of messages
- Single zone or simultaneous multi-zone playback & control mode.
- Supervisor and multi-user level controlled access.
- Complete activity log.
- Customer configurable background screen images and main labels.
- Language configurable.

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Audio file types supported

WAV

Software Operating System compatibility

Windows2000®, Windows XP Pro®