

## Model 3080/Rapid Deployment Voice Switch (RDVS)



Denro is the world's leading supplier of fully integrated Voice Communication Systems (VCS) to Air Traffic Control (ATC) and Command, Control and Communications (C<sup>3</sup>) applications.

Denro's fully digital Model 3080/RDVS has logged hundreds of thousands of hours of highly reliable service in towers, terminal approach controls, automated flight service stations, and command and control applications throughout the world. The system provides control of air-to-ground and ground-to-ground communications, including access to radios and public and private telephone networks.

This all digital microprocessor-based system combines distributed processing with redundancy to maximize performance and reliability.

Denro engineers combine the latest in display and switch technology to ensure the optimum "human

factors" to increase efficiency while reducing controller fatigue and error through the use of the right technology for the situation.

Evolving system architecture is designed to meet customer needs. New applications, functions, and features are easily added, and the system is easily reconfigurable as requirements change. The Model 3080/RDVS has been adapted and delivered for shipboard ATC, and command and control Air Defense Ground Equipment (ADGE) applications. Recent system variants with enhanced capabilities include: a ruggedized system for aircraft carriers; an expanded system for up to 200 positions; a system with E1 digital interfaces for trunks and radios; and multiple systems connected in a digital network.

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### PRODUCT SPECIFICATIONS

System Functions:	Integrated intercom, telephone and radio communications
System Availability:	>0.99999
Classes of Service:	Non-blocking, programmable through a Configuration Control Terminal
System Architecture:	TDM method using 64 KB PCM digitized voice switching
Switching Control Scheme:	Distributed processors under digital communications control via a LAN
Blocking:	100% non-blocking
Call Setup:	<200 ms
PTT Delay:	<50 ms
Recorder Output:	All position, telephone and radio interfaces are 600 ohms
Frequency Response:	300 Hz to 3000 Hz, $\pm 1$ dB, 600 ohms, balanced to ground, >6 dB/octave rolloff below 300 Hz and above 3000 Hz
Impulse Noise:	0 hits above 40 dB <sub>BrnCO</sub> in a 3-minute period
Idle Channel Noise:	<20 dB <sub>BrnCO</sub> at any transmit output; < 25 dB <sub>BrnCO</sub> at receive headset jack
Crosstalk Isolation:	Better than 70 dB
Trunk Circuits:	600 or 900 ohms selectable impedance
Radio Circuits:	600 ohms impedance
Microphone Jack Input:	50 ohms impedance
Headset Jack Output:	600 ohms impedance
Headset Hearing Protection:	Amplitude Limiting to -12 dBm max, tone notching filter (DSP)
Receive Signal Level Regulation:	$\pm 1.0$ dB of nominal receive level over a range of $\pm 8$ dB with AGC enabled; AGC on/off selection
Transmit Signal Level Regulation:	$\pm 1$ dB for 15 dB of compression, $\pm 15$ dB AGC optional
Radio/Trunk Channel Receive Level:	+30 dBm to -30 dBm (1 dB step adjustments)
Radio/Trunk Channel Transmit Level:	+30 dBm to -30 dBm (1 dB step adjustments)
Radio Channel Push-to-Talk:	Dry connect, ground, -48V, external voltage, or simplex arrangement. Relays meet FCC Part 68.302 and FCC Part 68.304 requirements
Information Tones:	Dial, Busy, Reorder (Fast Busy), Ringback, Unauthorized, Zip, Chime, Guard, and Conference Notification
DTMF Signaling:	Per ANSI/EIA/TIA 464A
Interface Options:	Radio best signal selection options, E1, T1 or ISDN interfaces for positions, trunks, and radios; European MFC-R2 interface options
Digital Interface:	T1, DS1, and fractional T1 services. and E1 services in accordance with CEPT
Telecommunications Interfaces:	Public Switched Telephone Network (PSTN), Federal Telecommunication System 2000, PBX w/DTMF and Pulse Dial signaling, Tie trunk 4-wire E+M, Analog w/loop start and ground start, National ISDN PRI/BRI, AT&T 5ESS and Northern Telecom DMS 100
Voice Data:	Meets ITU H.320 (p 64), H.324 (modem), and H.120 standards
Radio Communications Interfaces:	Plain or secure signaling, cipher mode indicate, cipher mode select, PTT preemption
System Power:	-48 Vdc operation
AC-CD Supply:	92 Vac to 264 Vac, 47 Hz to 63 Hz, Single Phase
Battery System:	Sealed, Maintenance-Free, Non-venting battery set
Temperature:	40 -104°F (4 - 40°C)
Relative Humidity:	10-95% non-condensing
Altitude:	Up to 10,000 feet (3048 meters)
Operator Instruments:	Headset with PTT, Handset with PTT, Footswitch with PTT, Hand Microphone with PTT, Combined Speaker or separated A/G and G/G Speakers

For more information, please contact:

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