

# Chameleon Audio Visual Notification Module (AVN-1)

## High-Performance Programmable Controllers for Extreme Environments



### KEY FEATURES

- Audio and Visual Notification of alarm/hazard conditions
- Event triggered audio file playback and light/strobe activation
- Speaker can be driven by local files or external audio input
- Fully Sealed Enclosure (NEMA 4X, 6, 13 Protection)
- -40°C to +65°C (-40°F to +149°F) Operating Range
- MIL-STD-901D for High Impact Shock (Pending)
- MIL-STD-167B for Vibration (Pending)
- MIL-STD-461E for Electro-Magnetic Interference (Pending)
- Supports Hot Swapping

The Chameleon Audio Visual Notification Module (AVN-1) produces audible and/or visual indication of user-defined system alarm conditions. The module can play soundtracks stored in its onboard non-volatile memory or amplify a signal from an external audio input in response to internal or external alarm triggers. A high-intensity LED also provides visual indication of the alarm condition. The visual alarm can be configured to remain steady on or flash on and off at a user-configured frequency. The high-brightness LED can be factory ordered in several colors, including white, red, or green.

The AVN-1 can store up to three 30-second audio soundtracks. The playback of each soundtrack can be individually triggered via its discrete inputs or via backplane commands from a neighboring module. Audio tracks are stored in standard Waveform file format (.wav) and can be downloaded to the device over its wireless infra-red interface. When the AVN-1 is combined with the Chameleon Alarm Switchboard Module (ASM-1), they form an ideal replacement for legacy Navy IC/SM alarm panels. The standard IC/SM alarm sound is one of the default soundtracks stored on the unit.

Both the audible volume and LED intensity can be adjusted with pushbuttons on the front face of the device. The current volume and intensity settings are indicated on a pair of ten-element bargraphs. The pushbutton controls can be disabled and the brightness and volume settings can be pre-configured to fixed levels.

The AVN-1 contains sync input and sync output channels that allow coordinated alarming between daisy-chained units (i.e., coordinated soundtrack playback and light flashing).

As with all Chameleon modules, the AVN-1 offers unequalled ruggedness. It is specifically designed for sustained operation in severe environments, including those characterized by extreme shock, vibration, electro-magnetic interference, temperature, and/or humidity. Its fully-sealed enclosure (sealing end-caps not pictured) ensures long-lasting operation in the grimmest settings.

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### ENVIRONMENTAL CHARACTERISTICS

Operating Ambient Temperature Range	-40°C to 65°C
Storage/Transport Ambient Temperature Range	-40°C to 85°C
High Impact Shock	MIL-STD-901D (Grade A - Pending)
Mechanical Vibration	MIL-STD-167B (Pending)
Electro-Magnetic Interference	MIL-STD-461E (Pending)
Facial/Housing Protection	NEMA 1,2,4,4X,5,6,12,12K,13

### LOUDSPEAKER / HORN ALARM

Frequency	300 to 9000 Hz
Nominal Sound Pressure	80 dB

### AUDIO FILES

Number of Tracks	3 Files at 640KB max per file
Maximum Playing Time per File	Approx. 30 seconds
Audio File Format	WAV
No. of Channels	1
Sample Rate	22.05 KHz
Bits / Sample	8
Audio Format	1 (PCM Codec)

### AUDIO INPUT CHANNEL

Frequency Response	300 Hz – 9000 Hz
Maximum Pk-to-Pk Voltage Input	7.5 VDC

### AC/DC DIGITAL INPUTS

Quantity	3
Maximum Allowable Continuous Input Voltage	200 VDC or 140 VAC RMS
Logic High Voltage Range	5-200 VDC or 24-130 VAC RMS 55-500 Hz
Minimum Input Duration for Logic High Detection	4 ms
Logic Low Voltage Range	0-1 VDC or 0-0.5 VAC RMS 55-500 Hz
Minimum Input Duration For Logic Low Detection	56 ms
Minimum Input Current Required (AC and DC inputs)	5mA RMS
Electrical Isolation: Any input to control circuitry or chassis ground	1240 VRMS for 1 minute

### ELECTRICAL CHARACTERISTICS

Maximum Power Consumption	15W
Supported Cable Diameters / Supported Wire Gauges	Two glands 0.24"-0.47"; six glands 0.16"-0.31" / 16-28AWG

### OPERATOR INTERFACE

Audio Alarm Indication	80 dB Loudspeaker
Volume Control	UP/DOWN buttons: 11 settings from Mute to Max
Volume Indication	Ten Element Bargraph
Visual Alarm Indication	Ultra-Bright LED (available in red / white, or green)
Visual Alarm Brightness Control	UP/DOWN buttons: 11 settings from Min to Max
Visual Alarm Brightness Indication	Ten Element Bargraph
Other Readouts	One three-color (red/yellow/green) LED Status Indicator
IrDA Wireless Interface	115KBPS SIR

### PHYSICAL CHARACTERISTICS

Weight	2.85 pounds
Front Panel Dimensions	2.5" W x 6" L
Enclosure Height	3" H