5404DZM

GLOBALCOM® 5400 Series Digital Zone Manager

General Description

The 5404DZM Digital Zone Manager provides processing and management of four (4) paging zones assigned from an IED 5400 Announcement Control System. It also provides line level audio outputs to a paired four-channel amplifier unit. Digital Signal Processing (DSP) is provided on each of the four (4) output channels. This includes: input level controls, paging routing, automatic ducking of background music, equalization (high pass filters, low pass filters, up to 40 milliseconds of delay, plus up to 7 parametric bands per amplifier channel). IED's patented ambient analysis and control provides automatic level adjustment with two (2) Sensor Input Channels per amp channel. The 5404DZM provides backup amplifier switching by switching up to four (4) loudspeaker loads from a primary power amplifier to a backup when a failure is detected. It also contains integrated supervision that monitors each signal path and reports any failures to the 5400ACS. The mainframe requires one (1) rack unit (1.75") of vertical space in a 19" equipment rack/cabinet. All cooling is front to back.

Features

- Management of 4 individual output channels.
- 4 Audio inputs via Dante audio networking (high quality over Ethernet).
- Redundant Ethernet ports.
- Provides backup amplifier switching.
- Fully supervises amplifier and speaker lines.
- Provides ambient analysis and compensation with 8 sensor input channels.
- DSP processing for 4 amplifier channels:
- – Low and high pass filters.
- – 7-Band parametric EQ filters.
- – Up to 40 milliseconds of delay

Front Panel Features

- Frame Status Indicators:
- – Fault (yellow)
- – Ground Fault (yellow)
- – Power (green)
- – Power Save Mode (yellow)
- – Announce / Alarm (green / red)
- Lamp Test Button
- Indicators for each Amp Channel:
- – Amp Status: Power (green), Fault (yellow) or Alarm Active (red)
- – Speaker Line Fault (yellow triangle)
- – Backup Amp Engaged (green square)

Mechanical / Electrical Microphone

- Low-power processor for high reliability and long life with minimal cooling requirements
- Powered from 12-24 VDC power input, such as an EN54-4 power supply
- Requires 1 rack unit of 19" rack space

Specifications

Electrical

Supply Voltage	9-36 VDC @ 15 Watts
Recommended Operating Conditions	24 VDC @ 0.62 Amps
Rated Input Current	2 Amps Max (24W)
Fault Relay Contact Rating	2 Amps @ 110 VDC Max
Backup Amplifier Inputs	500 Watts Max / Channel
Main Amplifier Inputs	500 Watts Max / Channel
Speaker Outputs	500 Watts Max / Channel

Ambient Sensor Channels

Sensor Supply Voltage	27 VDC Max @ 1W for 8 total sensors
Channel Sensor Input Voltage	0 – 24 VDC @1 mA for each input

Battery Logic Input

OFF BATTERY	0.8 VDC Max
ON BATTERY	2 VDC – 3 VDC Max or Open

24V Fault Logic Input

24 VDC FAULT	0.8 VDC Max
24 VDC GOOD	2 VDC – 3 VDC Max or Open

Amp On/Off Pulse Output

AMP OFF	-12 VDC @ 0.08 Amps for 0.02 Secs.
AMP ON	+12 VDC @ 0.08 Amps for 0.02 Secs.

Amp Channel Fault Logic Input

AMP FAULT	0.8 VDC Max
AMP GOOD	2 VDC – 3 VDC Max or Open

Mechanical

Height	1.75", 1 rack unit (4.4 cm)
Width (without rack mount ears)	17.2" (43.7 cm)
Depth	12.25" (31.1 cm)
Recommended Mounting Depth	18" (45.7 cm)
Weight	10.15 lbs (4.60 kg)

Environmental

Operating Temperature Range	+32˚F – +104 ˚F (0˚C – +40˚C)
Storage Temperature Range	-4˚F – +158 ˚F (-20˚C – +70˚C)

Connectors

Power	2-pin Phoenix, 3.81 mm spacing with locking screws
Redundant Ethernet (2)	Control and Digital Audio (100 Mbps) RJ-45
Ambient Sensors (8)	3-pin Phoenix, 3.81mm spacing
Form C Fault Relay	3-pin Phoenix, 3.81mm spacing
Amplifier Audio Outputs (4)	3-pin Phoenix, 3.81mm spacing
Amplifier Channel Faults (4)	3-pin Phoenix, 3.81mm spacing
Main Amplifier Inputs (4)	2-pin Phoenix, 5.08mm spacing
Backup Amplifier Inputs (4)	2-pin Phoenix, 5.08mm spacing
Speaker Outputs (4)	2-pin Phoenix, 5.08mm spacing