

# ALTO

## AVIATION

Premium Cabin Audio/Entertainment Solutions  
for all aircraft in Business Aviation™



### DZ-290

4-Input Digital Amplifier  
with High Level Interface

The ALTO DZ-290 is a TSO-C139a certified 4 X 40W / channel Class D audio amplifier for aircraft cabin loudspeakers. This amp is specifically designed to interface with existing PA/Entertainment amplifiers having high level speaker outputs. Entertainment audio sources can be wired directly to the line inputs of the DZ-290 thereby bypassing the legacy PA/Ent amplifier, substantially improving audio quality and reducing noise and interference.

The amplifier supports discrete logic control and is compatible with the ALTO line of keypads, or any discrete control switches.

A PA Bypass feature allows the legacy PA system to override the entertainment during PA or Page/Chime events, making use of the same loudspeakers for PA and entertainment.

### FEATURES

- Unit certified to TSO-C139a
- 4 channels, 40 Watts RMS per channel Class D for very high efficiency with low heat output
- Integral EQ customized for each aircraft interior
- Advanced DSP including dynamic bass management, signal compression, spatial enhancement, Sinewatch™ distortion elimination
- Supports up to 4 inputs with selection, volume control and speaker on/off via discrete logic
- PA Override feature (via PA Key or Ordinance Chimes)
- Operates on 28VDC power supply
- Weighs less than 3.2 lbs. (1.4 kg)
- Small enclosure with forced air cooling for flexible mounting
- Failsafe to PA/High Level input mode

### SPECIFICATIONS

Product Code	106450-0290
Frequency Response	20Hz - 20KHz custom contoured to specific aircraft cabin
Power Supply	28VDC
Operating Current	500 mA idle, 1 A nominal, 6 A maximum
Audio Input	4 stereo analog inputs, diff 44kohm input plus one Mic configurable as Ground biased All inputs accept line signal between 600mV and 4V RMS nominal
Output Power	40 Watts RMS/channel (160W) total
Output Load	Loudspeaker: 4 - 8 Ohm recommended Average impedance of all 4 channels must be >3.5 ohms
Distortion	<0.1% THD @ 50% rated power, maximum 3% (distortion limiter active)
Equalizers	Custom designed EQ/crossovers matched to aircraft cabin utilizing loudspeakers from the ALTO Aviation Entertainment System (AES) catalog
Dimensions	5.3"W x 2.65"H x 9.8"D (135mmW x 67mmH x 249mmD)
Weight	< 3.2 lbs / 1.4 kg
DO-160G Env. Cat.	[A2X]CAB[(SC)(HR)]EXXXXXZ[Z(XX)]AZ[AC][TT]M[XXE3XX][XXXX]XAX

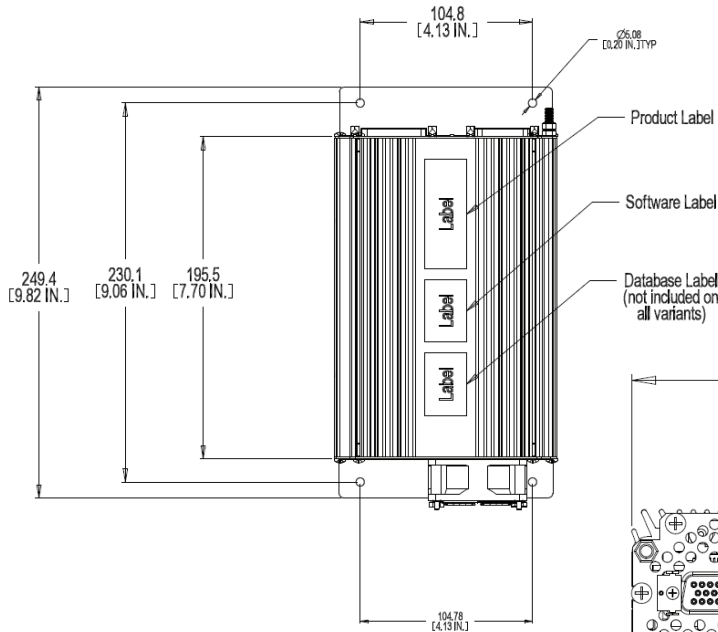
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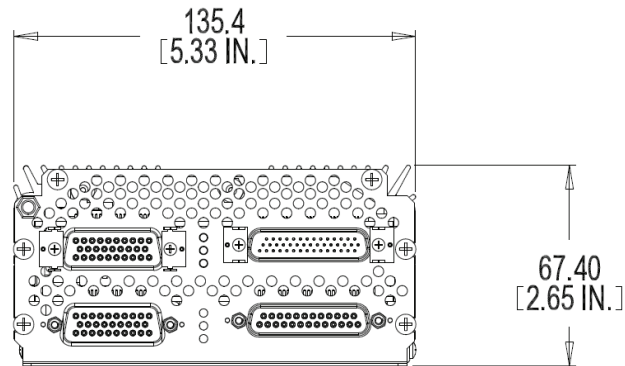
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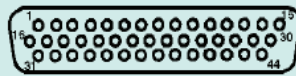
### DIMENSIONS



### CONNECTORS

#### Signal Connector J1

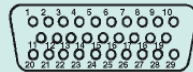
44 pin Male Hi-Density D-Sub  
Mating connector



Positronic # ODD44M5B100V5X  
Positronic # ODD44F10JVLX

#### Power Connector J2

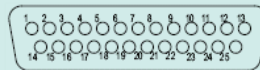
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Mating connector



Positronic # MD29M5B100V5X  
Positronic # RD29F10JVLX

#### Interface Connector J4

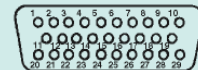
25 pin Male Standard Density D-Sub  
Mating connector



Positronic # MD25M5B10T2X  
Positronic # RD25S10JEX

#### Interface Connector J5

29 pin Male Standard Density D-Sub  
Mating connector



Positronic # MD29M5B100T2X  
Positronic # RD29S10JEX