

ALTO

AVIATION

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

DX-140

Aircraft 4 Channel Power Amplifier
with 5 Headphone Outputs

The ALTO Acapella Series DX-140 is a TSO-C139a certified combination amplifier for aircraft cabin loudspeakers and headphones. The unit has 4 channels with 3 stereo inputs with discrete source selection, volume control and speaker on/off and a PA override feature. The amplifier has 4 independent audio power amplifier outputs supporting loudspeaker loads down to 4 ohms. The amplifier consists of a 4 X 40W / channel Class D audio amplifier stage. The integrated Digital Signal Processor contours the sound for perfect matching to the loudspeakers. Additionally, the unit provides outputs that can be configured for 5 stereo headphones. For control purposes there are 13 opto-isolated discrete logic inputs. These can be configured as volume/select controls for the speakers and headphones. The unit is fully configurable via a custom software interface to support numerous combinations of loudspeaker, headphone, and PA override functions.



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 3 inputs with selection, volume control and speaker on/off via discrete logic
- Supports up to 5 headphones
- PA Override feature
- Operates on 28VDC power supply
- Weighs under 2.2 Lbs.
- Small enclosure with forced air cooling for flexible mounting

SPECIFICATIONS

Product Code	106570-0140
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	3 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 Headphones: 32 ohm load recommended
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 1.7"H x 9.8"D (135mmW x 42mmH x 249mmD)
Weight	< 2.2 lbs / 1.0 kg
DO-160G Env. Cat.	[A2X]CAB[(SC)(HR)]EXXXXXZ[Z(XX)]AZ[AC][TT]M[XXE3XX][XXXX]XAX

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DX-140 Digital Amplifier with 5 Headphone Outputs

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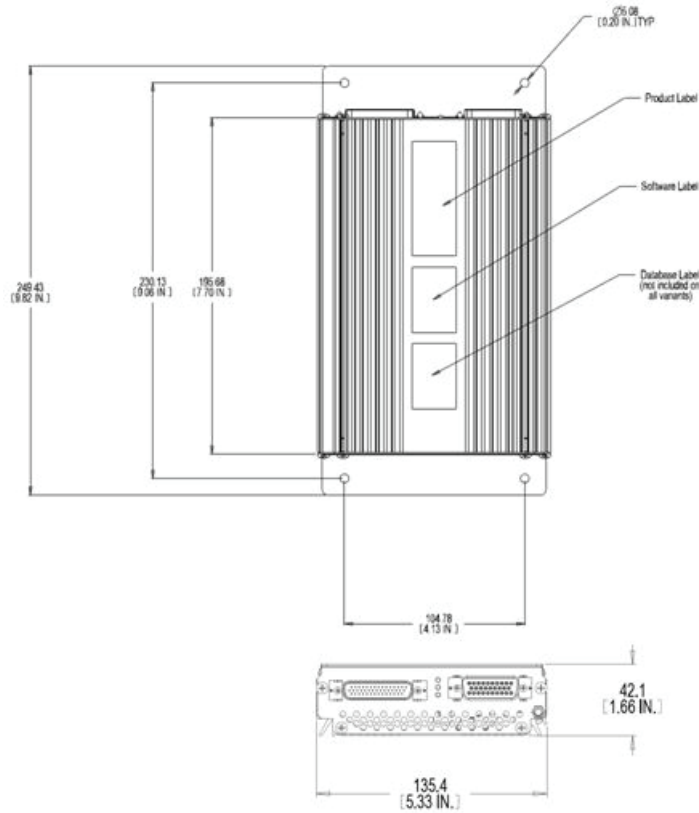
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DIMENSIONS

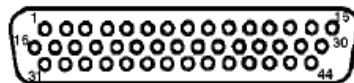


DX-140 Digital Amplifier with 5 Headphone Outputs

CONNECTOR PINOUTS

Signal Connector J4

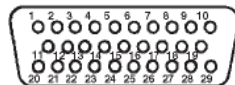
44 pin Male Hi-Density
Mating connector



D-Sub Positronic # ODD44M5B100V5X
Positronic # ODD44F10JV LX

Power Connector J5

29 pin Male Std-Density
Mating connector



D-Sub Positronic # MD29M5B100V5X
Positronic # RD29F10JV LX