RAM Audio® DENEB Series

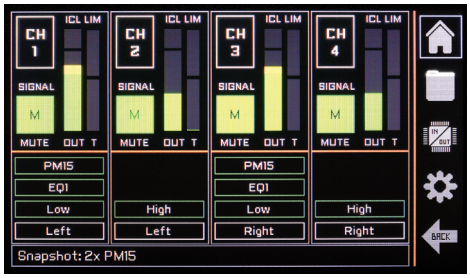


- Large IPS display, capacitive touch panel user interface
- 64 bit double-precision 96kHz DSP process
- Optional AES67 (ATMOS and RAVENNA compatible), Dante™ and AES3 Digital inputs
- Two ports Ethernet and USB port for DSP control
- Optional GPIO for third party interface
- High efficiency class D topology
- Universal power supply with PFC
- Up to 10000 W in 4 channels
- 8, 4 and 2 Ohm low impedance operation
- 100, 70, 50 and 35 V high impedance modes
- RAM Audio Power Control Management (PCM™)
- Phoenix style connectors for inputs and outputs
- Up-side-down design to avoid fan dust accumulation
- Temperature controlled, front to back cooling

DSP management: RAM OCS and amplifier display:

Two general working modes: User and Advanced (manufacturer)

- User functionalities:
  - Input Routing/Matrix (basic or advanced)
  - Input EQ section with 7 filters and 20 memories
  - Input EQ Mode section, predefined by the manufacturer
  - Speaker Preset selection predefined by the manufacturer
  - Snapshot library management (up to 20 snapshots)
  - Advanced Control Groups
- Advanced functionalities (manufacturer):
  - Input EQ Mode section creation (10 filters, 20 Modes)
  - Way routing section (Locked/Unlocked)
  - IIR EQ section: XOver, Gain, Delay, and 12 EQ filters
  - FIR EQ section: 22 linear phase XOver and EQ filters, 20 Phase filters or custom file up to 1000 taps
  - RMS and Peak Dynamic control
  - Snapshot library management up to 20 presets (Locked/Unlocked)
  - Speaker Preset library management (up to 100 presets)
  - 5 Security levels definition to limit final user functionality





OUTPUT POWER	DENEB-2.5Q	DENEB-5Q	DENEB-10Q
2 ohms	4x 625 W	4x 1250 W	4x 2500 W
4 ohms	4x 625 W	4x 1250 W	4x 2500 W
8 ohms	4x 625 W	4x 1250 W	4x 1250 W
Hi-Z 100V	4x 625 W 1x 1770 W	4x 1250 W 1x 2500 W	4x 2500 W 1x 2500W
Hi-Z 70V	4x 625 W 1x 1250 W	4x 1250 W 1x 1800 W	4x 2500 W 1x 2500W

DSP Specifications - RAM_OCS Control

Overall:
- High performance 96kHz/24 bits AD/DA converters
- 64 bit double-precision 96kHz DSP process
- 0.85 ms minimum process latency time
- Custom FIR process up to 1000 taps
- AES67, Dante and AES3 input versions

Input Section (x4):
- Gain, Mute and Phase inversion
- Delay: in In A: 333ms (114m), In B/C/D: 90ms (31m)
- Input EQ: 36 filters (Param., Shelving, LP, HP, BP, SB, AP)

Output Section (x4):
- Crossover Filters: FIR and IIR (up to 48dB/oct, Butterw./LR/Bessel)
- Output Delay: 0 to 31 meters (90ms) per channel
- Output IIR EQ: 12 filters per channel (Param., Shel, LP, HP, BP, SB, AP)
- Output FIR EQ: 22 filters per channel (Parametric, Shelving, LP, HP, BP, SB, AP), or Custom. Up to 1000 taps
- RMS and Peak limiter per channel

Communications:
- Two ports Ethernet switch for daisy chain connection
- USB 2.0 Type B port

Miscellaneous:
- 100 Manufacturer Speaker Preset library
- 20 User Preset memories library
- 20 User Snapshot memories library
- Manufacturer/Tech/User passwords
- User control groups for virtual Equalization, Gain and Delay
- Zones definition for library management and alerts information
- Smaart® analysis software integration

DENEB Technical Specifications

	DENEB-2.5Q	DENEB-5Q	DENEB-10Q
Number of channels	4	4	4
Total output power	2500 W	5000 W	10000 W
Output Power* (All ch driven/single ch)			
2 ohm	4x 625 / 1x 625 W	4x 1250 / 1x 1250 W	4x 2500 / 1x 2500 W
2.67 ohm	4x 625 / 1x 850 W	4x 1250 / 1x 1700 W	4x 2500 / 1x 3300 W
4 ohm	4x 625 / 1x 1250 W	4x 1250 / 1x 2500 W	4x 2500 / 1x 2500 W
8 ohm	4x 625 / 1x 1250 W	4x 1250 / 1x 1250 W	4x 1250 / 1x 1300 W
4 ohm Bridged	2x 1250 W	2x 2500 W	2x 5000 W
8 ohm Bridged	2x 1250 W	2x 2500 W	2x 5000 W
Hi-Z 100V	4x 625 / 1x 1770 W	4x 1250 / 1x 2500 W	4x 2500 / 1x 2500 W
Hi-Z 70V	4x 625 / 1x 1250 W	4x 1250 / 1x 1800 W	4x 2500 / 1x 2500 W
Max output voltage	150 V_{peak}	150 V_{peak}	150 V_{peak}
Max output current	25 A_{peak}	36 A_{peak}	50 A_{peak}
Total Harmonic Distortion		<0.05%	
Crosstalk (20Hz-1kHz), typical		>70dB	
Voltage Gain		26dB to 44dB	
SNR	111 dBA	111 dBA	111 dBA
Nominal Mains Voltage		100V-240V AC, 50Hz-60Hz (Operating: 90V-265V AC)	
Consumption			
230V AC - 1/8 rated power (4 ohm)	2.1 A / 500 W	3.7 A / 900 W	7.3 A / 1634 W
120V AC - 1/8 rated power (4 ohm)	4 A / 500 W	7.2 A / 900 W	14 A / 1634 W
Idle	0.7 A / 85 W	0.7 A / 85 W	0.7 A / 85 W
Thermal Dissipation (1/8 rated power 4ohm)	328 BTU/h	655 BTU/h	1310 BTU/h
Dimensions W x H x D		483x89x330 mm / 19x3.5x13 in	
Weight Net		7 kg / 15.4 lb	

Protections: Soft-start, Turn-on Turn-off transients, Muting at turn-on, Over-heating, DC, RF, Short-circuit, Open or mismatched loads, Overloaded power supply, ICL™, PCM™

* IEC filtered pink noise signal (40Hz-5kHz, 12dB crest factor)

Dante™ AES67

RAM Audio®

©2022 by C.E. Studio-2 s.l. Pol.Ind. La Figuera - C/Rosa de Luxemburgo nº34 - 46970 Alaquas - Valencia - SPAIN
Phone:+34 96 127 30 54 - ramaudio.com - e-mail: info@ramaudio.com
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