DATA SHEET VOCIA® VA-8600c AMPLIFIER



The Vocia VA-8600c is a digital networked multi-channel amplifier for use in Vocia® systems. The VA-8600c is CobraNet® enabled and can support up to eight modular AM-600c amplifier cards. These are individually software configurable from 100-600 Watts per channel up to a maximum of 2400 Watts of power per chassis. 70V, 100V and low-impedance outputs are software selectable per card. The amplifiers can be configured for channel to-channel or device-to-device failover. The amplifier uses comprehensive fixed-chain digital-signal processing within the device, including volume control, ducking, equalization, compressor/limiter, speaker crossover, delay, and output gain. Emergency messages for life-safety compliant systems are stored in non-volatile memory within the VA-8600c. Intuitive software provides audio system design via PC. Two RJ-45 connectors on the rear panel of the VA-8600c provide redundant connectivity to control data and audio over a single Ethernet cable and caters for an optional page active relay or dual 3:1 / 7:1 failover module. As part of the Vocia system, the VA-8600c used with the AM-600c compliant amplifier modules meets EN 54-16 certification for facilities of all sizes.

FEATURES

- Modular based design
- Amplification modules have software configurable power levels/load options
 - 8 amplification modules per frame with 100 to 600 Watts per module
 - o 70V or 100V with direct drive capability, or low-impedance (4 or 8Ω) operation
 - o Maximum of 2400 Watts of power in a device
- Failover capability between channels and amplifiers
 Device to Device
 - o Device-to-Device
 - o 1:1
 - o Dual 3:1 (VFOM-1 module required)
 - o 7:1 (VFOM-1 module required)
- LED Indication:
 - o Amplifier failure
 - o Clip present
 - o Fan stuck-rotor
 - o Heat sink temperature fault
 - o Signal peak
 - o Signal present

- Local non-volatile storage of emergency messages
- Software Monitoring Features:
 - o Amplifier failure
 - o Excessive clipping
 - o Fan stuck rotor
 - o Heat sink temperature fault
 - o Peak present
 - o Short circuit on output
- Software-configurable signal processing including volume control, filters, compressor/limiting, delay, speaker equalization, and output sensitivity
- CobraNet audio and control data over a single Ethernet cable
- Dual Ethernet ports for redundancy
- Rotary switches for unit identification
- Rack mountable (3RU)
- EN 54-16 certified, CE marked, and RoHS compliant
- Covered by Biamp Systems' 5-year warranty

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ARCHITECTS & ENGINEERS SPECIFICATION

The modular amplifier shall be designed exclusively for use with Biamp[®] Vocia[®] systems. The amplifier shall be modular and support software configurable power levels/load options of 8 amplification modules per frame with 100 to 600 Watts per module (maximum of 2400W per chassis) and 70V or 100V with direct drive capability, or low-impedance (4 or 8Ω) operation. The amplifier shall provide control data and digital audio over CobraNet[®]. The amplifier shall provide dual Ethernet ports for redundant network connection. The amplifier shall provide front-panel LED indication of amplifier chassis and channel status. Additionally software monitoring features will include per channel ground fault detection, short circuit and output fault monitoring. The amplifier shall be rack mountable (3RU) and feature software-configurable signal processing including volume control, filters, compressor/limiting, delay, speaker equalization, and output sensitivity. The amplifier shall support channel-to-channel and chassis-to-chassis failover. The amplifier shall be EN 54-16 certified and shall be compliant with the RoHS directive. Warranty shall be five years. The amplifier shall be a Vocia VA-8600c.

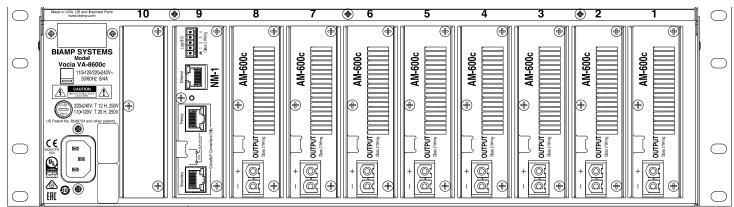
VOCIA VA-8600c SPECIFICATIONS

Network Connection:	RJ-45 with shielded Ethernet	Power:	100-240VAC; 50/60Hz
	(CAT5, CAT5e, CAT6 or CAT7	Overall Dimensions:	
Memory:	5.625 MB	Height:	5.25 inches (133 mm)
Inputs:	20 bits, 48 kHz, 5-1/3 ms (fixed)	Width:	19.0 inches (483 mm)
		Depth:	17.25 inches (438 mm)
Output Power:	2400W maximum per chassis	Weight:	
	(Burst Mode only. Protective	Chassis:	50 lbs. (22.68 kg)
	thermal limiting will reduce	AM-600/AM-600c card	1.25 lbs. (0.57 kg)
	long-term power output.)	Compliance:	
Environment:		compliance.	EN 54-16 certified
Ambient Operating			
			FCC Part 15B (USA)
Temperature Range:	23-104° F (-5 - 40° C)		CE marked (Europe)
Humidity:	0 – 95% non-condensing		RCM (Australia)
Altitude:	0-10,000 Feet (0-3000 Meters) MSL		EAC (Eurasian Customs Union) RoHS
			Directive (Europe)
			RINA (Italy)
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AM-600c CARD SPECIFICATIONS

Supported Loads:	4Ω, 6Ω, 8Ω, 70-Volt or	Intermodulation distortion (SMPTE):				<0.2%
	100-Volt Line direct drive	DC offset:				<10mV
Continuous operation: (in chassis with fans running	600W: 1kHz continuous sine wave indefinitely	Signal-to-Noise Ratio (unweighted over 22Hz - 20kHz):				
normally and unrestricted intake and exhaust)			Low- impedance	70V	100V	
Frequency response (20Hz - 20kHz):	± 1dB	100W	>95 dB	>100 dB	>101 dB	
THD+N (20Hz - 20kHz):		200W	>98 dB	>101 dB	>102 dB	
	≤0.3%	300W	>99 dB	>101 dB	>102 dB	
All loads and power levels:		400W	>101 dB	>102 dB	>103 dB	
Inter-channel Isolation:	>75 dB	500W	>102 dB	>102 dB	>103 dB	
(20Hz-20kHz, full power out)		600W	>102 dB	>103 dB	>104 dB	

VOCIA VA-8600c BACK PANEL



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