# Multi-channel Amplifiers

CX-A6, CX-A4 & CX-A200



The CX-A6 shown here fitted with three optional peak limiter/VCA modules which can be operated with three remote level plates for three channel stereo operation; alternatively, six level plates can also be used for individual control of each channel. The input routing switches simplify wiring arrangements; each of the six channels can operate independently, as three stereo pairs from one stereo signal or all six channels driven from one mono source. The CX-A4 is similarly equipped in a four channel format.



The CX-A200 shown here can be fitted with one or two plug-in VCA modules and each remote level control can operate individual channels or a stereo pair. Pre-set gain controls are provided adjacent to the respective input connector and input signal routing is by way of PCB mounted circuit jumpers; all four channels can operate independently, as two stereo pairs from a common stereo source or with a single mono source driving all four channels. The optional four channel line distribution transformer module can be fitted internally.

The Cloud CX-A6, CX-A4 and CX-A200 are versatile and innovative multi-channel power amplifiers; all models exhibit very low levels of noise and distortion and utilise the highest quality components; they offer outstanding sound quality and rugged durability. The six channel CX-A6 provides 120 watts per channel, as does the CX-A4, a four channel variant; the CX-A200 has four channels each rated at 50 watts.

Plug-in modules are available for applications where remote level control is required and a combined VCA and peak limiter module is available for the CX-A6 and CX-A4. Line distribution systems of both 70V and 100V are also catered for with the optional high performance transformer modules.

#### APPLICATIONS

Applications for the Cloud range of multi-channel amplifiers are as many and varied as the units are versatile. They were primarily developed to complement the range of Cloud Zone Mixers which have been extremely successful in multi-zone leisure and retail venues but all three amplifiers can be used in any application where a combination of different programmes and volume levels are required in different areas. The optional VCA modules and line output transformers enhance the flexibility and provide the sound system designer with innovative products capable of solving frequently encountered system design problems. All models have fan cooled power devices and power supplies and can comfortably deliver their full output over long periods without any adverse effect; when the amplifiers are operating at low power levels, the fan operates silently at a low speed, increasing to a high speed only when operating at high output levels.

#### INPUT FACILITIES

All inputs are balanced for good interference rejection and use 3 pin XLR type connectors. Full input routing options are provided, simplifying the installation cabling requirements. Each channel can accept its own independent input signal or one shared from another source. The flexibility afforded by this arrangement can allow all channels to be driven from one mono signal source or perhaps a single stereo source driving a number of stereo pairs. Each input offers level adjustment, adjacent to the respective XLR type connector to enable perfect matching and control.

#### OUTPUTS

Outputs are terminated on the rear panel by robust binding posts which can accept cables up to 2.5mm². Any two channels can be wired to operate in bridge mode providing twice the power output of a single channel into a load impedance of 8 ohms. Transformers are available for 100V and 70V line installations and distributed sound systems (see 'Accessories').

#### STATUS INDICATORS

The front panel of the multi-channel amplifiers carry an array of LED's showing the status of each channel. Separate LED's indicate signal presence, peak level and protect mode, allowing system status to be reviewed at a glance.

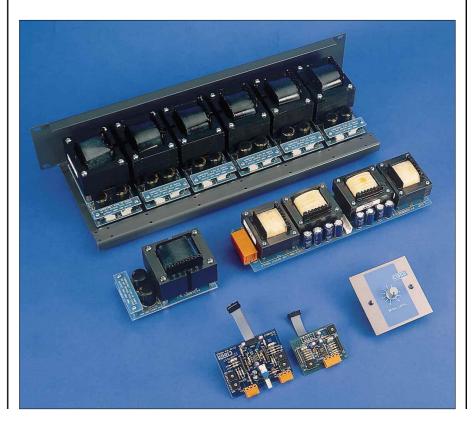
#### **ACCESSORIES**

Two channel VCA modules are available for all three multi-channel amplifiers. Each module can operate two channels independently using two RL-1 remote level plates or can be configured to operate two channels as a stereo pair with one remote level plate. The CX-A6 can accommodate up to three VCA modules and both the CX-A4 and CX-A200 can be fitted with two modules. A further option is available for the CX-A6 and CX-A4; a two channel Peak Limiter/VCA module performing the same functions as the standard VCA module with the added benefit of a Peak Limiter which is factory set to prevent clipping. The peak limit on/off switch is located on the rear panel but can be overridden internally.

A high quality line transformer module is available for the CX-A6 and CX-A4. The CXL-100 has a power rating of 100 watts and has both 100V and 70V outputs. The sectionally wound transformer has an extended frequency response making it ideal for high quality music systems; the module can be used on any number of channels and the CXL-600 rack mounting panel (2U)can house up to six CXL-100 modules.

A four channel 40W line transformer module, the CXL-400, is available for the CX-A200; this unit also features sectionally wound transformers suitable for high quality music applications and the module is housed inside the CX-A200 chassis. Both 100V and 70V versions are available.

(Below) Accessories: VCA modules shown in foreground with (clockwise) CXL-100, CXL-600 rack panel fitted with six CXL-100's, CXL-400 and remote level control RL-1.



## **Technical Specifications**

#### **CX-A6 General Specifications**

Inputs	Balanced via 3 pin XLR type connector.
Outputs	Binding Posts for flexible cables up to 2.5mm <sup>2</sup>
Protection	VI limiting, DC offset, Thermal and Switch-on Delay
Status	LED indicators on each channel for Signal, Peak & Protect.
Cooling	Force cooled using two speed DC fan.
Dimensions	482.6mm x 88mm (2U) x 325mm deep (+ connectors)
Weight	10kg net

#### **CX-A6 Technical Specifications**

Rated Output	120 watts/4 ohm load 85 watts/8 ohm load
Bridged Output	240 watts/8 ohm load
Frequency Response	±1dB 10Hz to 50kHz
THD	<0.005% 1kHz <0.05% 20Hz/20kHz 8Ω 1dB below rated output
VCA Module THD	<0.03% 20Hz/20kHz
Input Sensitivity	0dBu (775mV)
Input Impedance	$10k\Omega$ balanced / $5k\Omega$ unbalanced
Noise	>90dB below rated output
Slew Rate	35V/μS (power amplifier)
Power Input	230V ±5% (115V ±5% available)
Fuse rating	230V - T5A 115V - T10A

#### **CX-A200 General Specifications**

Inputs	Balanced via 3 pin XLR type connector
Outputs	Binding Posts for flexible cables up to 2.5mm <sup>2</sup>
Protection	VI limiting, DC offset, Thermal and Switch-on Delay
Status	LED indicators on each channel for Signal, Peak & Protect
Cooling	Force cooled using three speed DC fan
Dimensions	482.6mm x 88mm (2U) x 300mm deep (+ connectors)
Weight	6kg net

#### **CX-A200 Technical Specifications**

Rated Output	50 watts/4 ohm load 35 watts/8 ohm load
Bridged Output	100 watts/8 ohm load
Frequency Response	±1dB 10Hz to 50kHz
THD	$<\!0.05\%$ 20kHz/20kHz $8\Omega$ 1dB below rated output
VCA Module THD	<0.03% 20Hz/20kHz
Input Sensitivity	0dBu (775mV)
Input Impedance	$10$ k $\Omega$ balanced / $5$ k $\Omega$ unbalanced
Noise	>90dB below rated output
Slew Rate	10V/μS (power amplifier)
Power Input	230V ±5% (115V ±5% available)
Fuse rating	230V - T3.15A 115V - T6.3A

#### Technical Specification for CXL-100 Optional line output transformer (for CX-A6 & CX-A4)

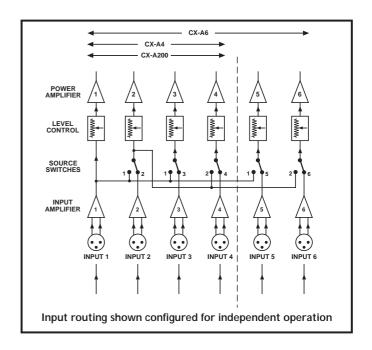
Maximum input voltage	25V rms
Output voltage	100V and 70V
Input impedance	<4 ohms (with 100 ohm secondary load)
Output power rating	100W rms
Minimum load impedance	100Ω at 100V or 50Ω at 70V
Frequency response	40Hz to 20kHz ±3dB (with 100Ω load)
Distortion	<0.2% 70Hz to 20kHz <0.05% 200Hz to 20kHz

#### **CX-A4 General Specifications**

Inputs	Balanced via 3 pin XLR type connector.
Outputs	Binding Posts for flexible cables up to 2.5mm <sup>2</sup>
Protection	VI limiting, DC offset, Thermal and Switch-on Delay
Status	LED indicators on each channel for Signal, Peak & Protect.
Cooling	Force cooled using two speed DC fan.
Dimensions	482.6mm x 88mm (2U) x 325mm deep (+ connectors)
Weight	9kg net

#### **CX-A4 Technical Specifications**

Rated Output	120 watts/4 ohm load 85 watts/8 ohm load
Bridged Output	240 watts/8 ohm load
Frequency Response	±1dB 10Hz to 50kHz
THD	$<\!0.005\%$ 1kHz $<\!0.05\%$ 20Hz/20kHz $8\Omega$ 1dB below rated output
VCA Module THD	<0.03% 20Hz/20kHz
Input Sensitivity	0dBu (775mV)
Input Impedance	$10$ k $\Omega$ balanced / $5$ k $\Omega$ unbalanced
Noise	>90dB below rated output
Slew Rate	35V/μS (power amplifier)
Power Input	230V ±5% (115V ±5% available)
Fuse rating	230V - T4A 115V - T8A



### Technical Specification for CXL-400 & CXL-50 Optional 4 channel line output transformer module (for CX-A200)

Maximum input voltage	15V rms
Output voltage	100V or 70V (please specify requirements)
Input impedance	<4 ohms (with 200 ohm secondary load)
Output power rating	40W rms
Minimum load impedance	$200\Omega$ at $100V$ or $100\Omega$ at $70V$
Frequency response	40Hz to 20kHz ±3dB (with 250Ω load)
Distortion	<0.2% 70Hz to 20kHz <0.05% 200Hz to 20kHz

