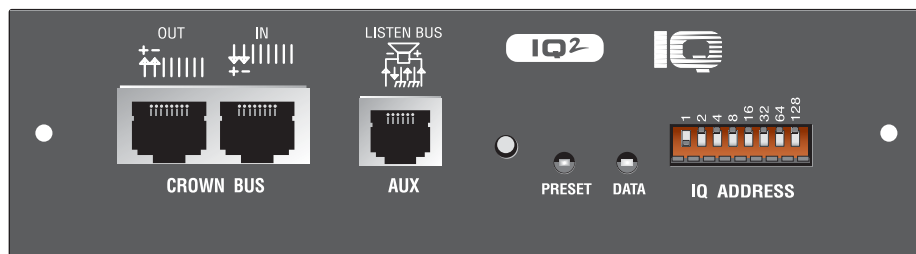# IQ-MC4A
IQ-MC8

CTS MULTICHANNEL AMPLIFIER ACCESSORIES

IQ-MC8

The Crown® IQ-MC4A and IQ-MC8 are optional IQ control modules for the Crown CTs multichannel power amplifiers. The IQ-MC4A is the IQ module for the CTs 4200, and the IQ-MC8 is the IQ module for the CTs 8200.

A single IQ-MC module provides IQ control and monitoring capability to all channels of the amplifier. Features include basic IQ amplifier control and monitoring, including attenuation, mute, polarity, input level, output level, power supply temperature, and thermal level meters. Advanced features include IOC, Thermal and Fault error reporting, Load Supervision, output limiting, Listen Bus, AUX control port, 10 presets, and real-time "read-only" software indication of amplifier hardware indicator, level control, and mode switch status.

Crown CTs 4200 and 8200 amplifiers can be supplied with an IQ-MC module already factory-installed, or your choice of MC modules can be easily added to the amplifier by any authorized Crown Service Center.

For more details about the Crown IQ-MC4A and IQ-MC8, contact Crown Technical Support at 800-342-6939 or 574-294-8200. Also, visit the Crown Audio website at www.crownaudio.com. Software is at www.iqaudiosystems.com. The IQ-MC4A or IQ-MC8 require version 5.1.2 or higher.

Specifications

General

External Controls: An 8-segment DIP switch sets the IQ address (decimal range: 1–250). If address "0" is selected, the IQ-MC will operate in stand-alone mode. In this mode, the Crown bus port is deactivated.

A **Reset/Preset switch** is accessible with a straightened paper clip through the module's front panel. The switch operates like this:

• Press < 2 seconds: Select the next user preset.

• Press > 2 seconds: Reset user settings to factory default.

• Press while applying power: Rewrite from firmware to flash memory, restoring all settings to factory default.

Features

Basic IQ amplifier control and monitoring, including:

• **Attenuation**

• **Mute**

• **Polarity**

• **Input level**

• **Output level**

• **Power supply temperature**

• **Thermal level meters**

Advanced Features

• **IOC error reporting**

• **Thermal and Fault error reporting**

• **Load Supervision error reporting**

• **Output limiting**

• **Listen Bus**

• **AUX control port**

• **10 presets**

• **Real-time "read-only" software indication of amplifier hardware indicator, level control, and mode switch status**

• **Error reporting for level control or mode switch position change**

Connectors:

IQ BUS IN: RJ-45 connector.
IQ BUS OUT: RJ-45 connector for daisy-chain output.
AUX: Aux In/Aux Out/Listen Bus on RJ-11 connector.

Indicators: A yellow DATA indicator flashes when a valid IQ command is received from the IQ System via the IQ Bus. The DATA indicator can be forced on to facilitate rapid trouble-shooting of IQ Bus wiring. A green PRESET indicator flashes to indicate the user preset number currently selected in memory. If the PRESET indicator does not flash the preset number when selected, this indicates the preset has been modified by the user.

Memory Backup: 8 Kbyte EEPROM for backup of run-time parameters, presets, and program storage. Capable of 80,000 writes minimum.

IQ Bus Data CommunicationProtection: If communication is lost, the unit will continue to function with the last commands received.

Data Rate: 38.4 K BAUD.

Data Format: Serial, binary, asynchronous, 1 start bit, 1 stop bit, 8 data bits, no parity.

IQ Bus Interface Type: Optically isolated 20 milliamp serial loop.

Operation: Half duplex.

Transmission Distance: Variable from 200 to 3000 feet (61 to 914 m), depending upon wire capacitance. Typically 1000 feet (305 M) using shielded twisted-pair wire, #26 AWG or larger. Can be extended with an IQ Repeater.

Audio

Audio specifications are referenced to 0.775 V (0 dBu). Measurements were made at the output of the IQ-MC module itself.

Maximum Input Level: +20 dBu.

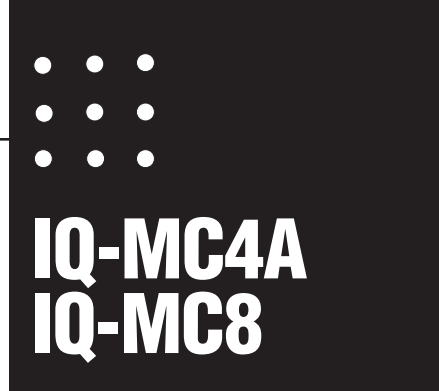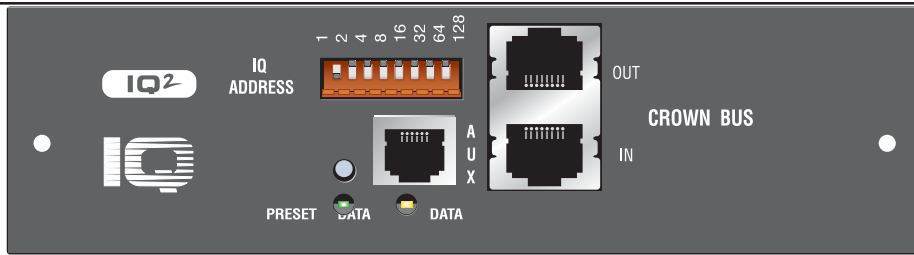**Dynamic Range:** > 100 dB (A-weighted, 20 Hz to 20 kHz).

Frequency Response: ± 1 dB from 20 Hz to 20 kHz.

Common Mode Rejection (CMR): 50 dB (typical).

Total Harmonic Distortion + Noise (THD+N): < 0.05% (1 kHz, 0dBu).

Maximum Output Level: +20 dBu.

IQ System Data Acquisition: Multi-channel, 14-bit Analog to Digital Converter.
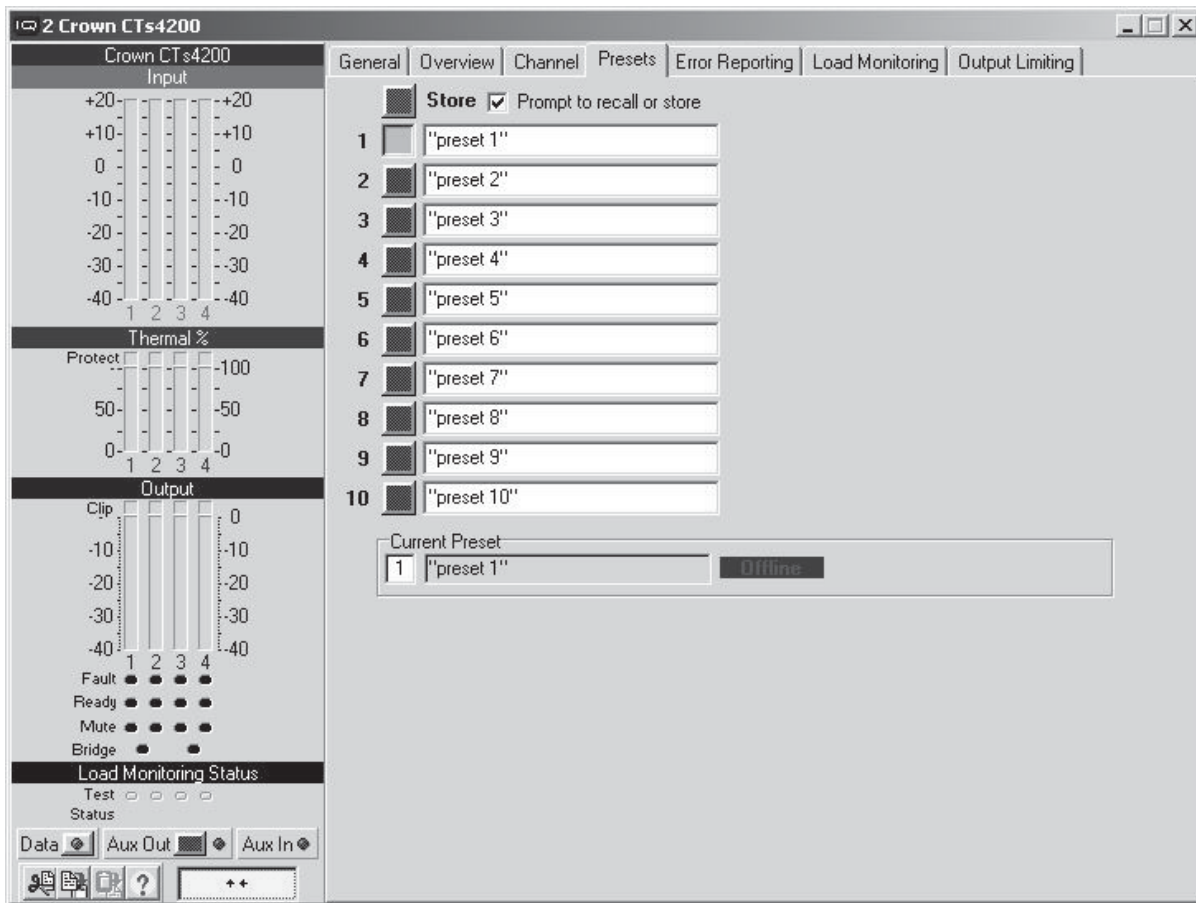
IQ-MC4A

IQ-MC4A
IQ-MC8

Figure 1. Sample screen capture of IQ software used with IQ-MC4A and IQ-MC8

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