

# Intelligent Multiroom Amplifier Module for Crestron™

(Version 1.2.3)



## Revision History

Version	Date	Notes
1.0	6/1/07	Initial Version
1.2.0	10/1/07	Updated to include info for new v1.2.0 of the module
1.2.3	10/18/07	Added Mute Toggle input to module

## Hardware Requirements

- ReQuest Intelligent Multiroom Amplifier (IMA)
- Crestron 2-Series Processor
- Straight-through Male-Female serial cable

## Serial Settings

The IMA communicates at 1200bps, and requires a straight-through (not null-modem) serial cable (male-female), with no hardware or software flow control.

## Module Inputs

*In the table below, 'X' indicates the Zone number (1-8)*

Input	Description
RX\$	Receive serial data from IMA. Should be connected to RX on com port
[REFRESH-STATUS-ALL]	Polls the amplifier for the status of all Zones. Amp returns the Volume, Balance, and Source mappings
[POWER_ON]	Discrete power on
[POWER_OFF]	Discrete power off
[ALL_ZONES_OFF]	Disconnects all Zones from any source
[ALL_ZONES_SOURCE_1]	Sets all Zones to source 1
[ALL_ZONES_SOURCE_2]	Sets all Zones to source 2
[ALL_ZONES_SOURCE_3]	Sets all Zones to source 3
[ALL_ZONES_SOURCE_4]	Sets all Zones to source 4
[ALL_ZONES_SOURCE_5]	Sets all Zones to source 5
[ALL_ZONES_SOURCE_6]	Sets all Zones to source 6
[ALL_ZONES_SOURCE_7]	Sets all Zones to source 7
[ALL_ZONES_SOURCE_8]	Sets all Zones to source 8
[ZONE_X_OFF]	Disconnects Zone X from any source
[ZONE_X_SOURCE_1]	Sets Zone X to source 1
[ZONE_X_SOURCE_2]	Sets Zone X to source 2
[ZONE_X_SOURCE_3]	Sets Zone X to source 3
[ZONE_X_SOURCE_4]	Sets Zone X to source 4



[ZONE_X_SOURCE_5]	Sets Zone X to source 5
[ZONE_X_SOURCE_6]	Sets Zone X to source 6
[ZONE_X_SOURCE_7]	Sets Zone X to source 7
[ZONE_X_SOURCE_8]	Sets Zone X to source 8
[ALL_ZONES_MUTE]	Mute all zones
[ALL_ZONES_UNMUTE]	Unmute all zones
[ZONE_X_MUTE]	Mutes Zone X
[ZONE_X_UNMUTE]	Unmute Zone X
[ZONE_X_MUTE_TOG]	Toggle Mute for Zone X
[ZONE_X_VOLUME_UP]	Increase volume for Zone X
[ZONE_X_VOLUME_DOWN]	Decrease volume for Zone X
[ZONE_X_VOLUME_DIRECT]	Set volume level for Zone X (0-100%)
[ZONE_X_TREBLE_UP]	Increase treble level for Zone X
[ZONE_X_TREBLE_DOWN]	Decrease treble level for Zone X
[ZONE_X_TREBLE_DIRECT]	Set treble level for Zone X (0-100%)
[ZONE_X_BASS_UP]	Increase bass level for Zone X
[ZONE_X_BASS_DOWN]	Decrease bass level for Zone X
[ZONE_X_BASS_DIRECT]	Set bass level for Zone X (0-100%)
[ZONE_X_BALANCE_LEFT]	Adjust balance Left for Zone X
[ZONE_X_BALANCE_RIGHT]	Adjust balance Right for Zone X
[ZONE_X_BALANCE_DIRECT]	Set balance for Zone X (L:0, C:50%, R:100%, )
[ZONE_X_EQ1_UP]	Increase EQ Band 1 for Zone X
[ZONE_X_EQ1_DOWN]	Decrease EQ Band 1 for Zone X
[ZONE_X_EQ1_DIRECT]	Set EQ band 1 for Zone X (0-100%)
[ZONE_X_EQ2_UP]	Increase EQ Band 1 for Zone X
[ZONE_X_EQ2_DOWN]	Decrease EQ Band 1 for Zone X
[ZONE_X_EQ2_DIRECT]	Set EQ band 2 for Zone X (0-100%)
[ZONE_X_EQ3_UP]	Increase EQ Band 1 for Zone X
[ZONE_X_EQ3_DOWN]	Decrease EQ Band 1 for Zone X
[ZONE_X_EQ3_DIRECT]	Set EQ band 3 for Zone X (0-100%)

## Module Outputs

In the table below, 'X' indicates the Zone number (1-8)

Output	Description
TX-ARG\$	Transmits serial data to IMA. Should be connected to TX on com port
[ZONE_X_OFF_FB]	Zone X is OFF
[ZONE_X_SOURCE_1_FB]	Zone X is connected to Source 1
[ZONE_X_SOURCE_2_FB]	Zone X is connected to Source 2
[ZONE_X_SOURCE_3_FB]	Zone X is connected to Source 3
[ZONE_X_SOURCE_4_FB]	Zone X is connected to Source 4
[ZONE_X_SOURCE_5_FB]	Zone X is connected to Source 5
[ZONE_X_SOURCE_6_FB]	Zone X is connected to Source 6
[ZONE_X_SOURCE_7_FB]	Zone X is connected to Source 7
[ZONE_X_SOURCE_8_FB]	Zone X is connected to Source 8
[ZONE_X_VOLUME_LEVEL_FB]	Current volume level for Zone X
[ZONE_X_MUTED]	Zone X Mute Flag
[ZONE_X_TREBLE_LEVEL_FB]	Current treble level for Zone X
[ZONE_X_BASS_LEVEL_FB]	Current bass level for Zone X
[ZONE_X_BALANCE_LEVEL_FB]	Current left/right balance for Zone X
[ZONE_X_EQ1_LEVEL_FB]	Current EQ (band 1) level for Zone X
[ZONE_X_EQ2_LEVEL_FB]	Current EQ (band 2) level for Zone X
[ZONE_X_EQ3_LEVEL_FB]	Current EQ (band 3) level for Zone X

## Module Parameters

In the table below, 'X' indicates the Zone number (1-8)

Parameter	Default Value	Description
ZONE_X_STARTUP_VOLUME	50%	Startup volume for Zone X
ZONE_X_STARTUP_BALANCE	50%	Startup balance for Zone X (L: 0%, C:50%, R:100%)
ZONE_X_STARTUP_TREBLE	80%	Startup treble for Zone X
ZONE_X_STARTUP_BASS	50%	Startup bass for Zone X
ZONE_X_STARTUP_EQ1	60%	Startup EQ1 for Zone X
ZONE_X_STARTUP_EQ2	30%	Startup EQ2 for Zone X
ZONE_X_STARTUP_EQ3	60%	Startup EQ3 for Zone X