

ReQuest Intelligent Multiroom Amplifier

AMX Module

(Version 1.0)



Hardware Requirements

- AMX Netlinx processor (with available serial port)
- ReQuest Intelligent Multiroom Amplifier (IMA)
- Male-Female (Straight Through) Serial cable

The Module

The module takes 10 parameters. The first parameter is the device for IMA, and the second is the baud rate. The other eight are arrays which contain integers representing the states of each zone.

```
DEFINE_MODULE 'ReQuest IMA COM 1_0' IMA1(dvIMA,
    IMA_BAUD_RATE,
    IMA_ZONE_1_VALUES,
    IMA_ZONE_2_VALUES,
    IMA_ZONE_3_VALUES,
    IMA_ZONE_4_VALUES,
    IMA_ZONE_5_VALUES,
    IMA_ZONE_6_VALUES,
    IMA_ZONE_7_VALUES,
    IMA_ZONE_8_VALUES);
```

The baud rate for the IMA is **1200bps**

The “ReQuest IMA Interface 1_0” file contains global variables that should be used for initialization and feedback.

Channels on the IMA Device

All Zones

Channel	Description
1	Initialize IMA with the initial values of the parameters passed into the module
2	Power on the IMA, Zones set to last state
3	Power on the IMA, Zones set to off
4	Power off the IMA
5	Mute all Zones
6	Un-Mute all Zones
11	All Zones set to Source 1
12	All Zones set to Source 2
13	All Zones set to Source 3
14	All Zones set to Source 4
15	All Zones set to Source 5
16	All Zones set to Source 6
17	All Zones set to Source 7
18	All Zones set to Source 8

Zone Functions

Channel	Description
101	Set Zone 1 to Source 1
102	Set Zone 1 to Source 2
103	Set Zone 1 to Source 3
104	Set Zone 1 to Source 4
105	Set Zone 1 to Source 5
106	Set Zone 1 to Source 6
107	Set Zone 1 to Source 7
108	Set Zone 1 to Source 8
109	Zone 1 Volume Up
110	Zone 1 Volume Down
111	Zone 1 Mute
112	Zone 1 Un-Mute
113	Zone 1 Bass Up
114	Zone 1 Bass Down
115	Zone 1 Treble Up
116	Zone 1 Treble Down
117	Zone 1 EQ Band 1 Up
118	Zone 1 EQ Band 1 Down
119	Zone 1 EQ Band 2 Up
120	Zone 1 EQ Band 2 Down
121	Zone 1 EQ Band 3 Up
122	Zone 1 EQ Band 3 Down
123	Zone 1 Add Balance Left
124	Zone 1 Add Balance Right

All other Zones follow the same format, where Zone X channels are X01-X24.

Initialization/Feedback Variables

The initialization/feedback variables used are in the "ReQuest IMA Interface 1_0.axi" file. The format is as follows:

```
INTEGER IMA_ZONE_1_VALUES[] = {
    1, // Source for this Zone (1-8)
    40, // Volume level (0-79)
    4, // Bass level (0-10, even values only)
    4, // Treble level (0-10, even values only)
    2, // EQ Band 1 (0-10, even values only)
    4, // EQ Band 2 (0-10, even values only)
    2, // EQ Band 3 (0-10, even values only)
    15, // Balance (0-30,0=left,15=center,30=right)
    0}; // Status(0=on, 1=off, 2=muted, 15=fault)
```