ReQuest iQ Protocol

Version 1.0

REVISION HISTORY

VERSION	DATE	NOTES
1.0	12/05/07	Initial Version

INTRODUCTION

This document outlines the protocol for controlling the ReQuest iQ Intelligent Multi-room Audio Distribution line of products. Specifically, it discusses how to communicate with the iQ Server (known as the 'IMS'). The IMS, in turn, controls the iQ Amplifier (known as the 'IMA'). For information on controlling the IMA directly, please visit www.request.com and download the appropriate files.

HARDWARE REQUIREMENTS

- ReQuest iQ Server (IMS)
- Female-Female Null Modem serial cable

SERIAL SETTINGS

The IMS communicates at 19200bps, and requires a null-modem serial cable (female -female), with no hardware or software flow control.

COMMANDS

Below is a table of commands for controlling the iQ IMS. Some commands require further description. This will be denoted by an asterisk (*****) after the command name. A more detailed description can be found below the table. For all transport commands (Play, Stop, Pause, etc), if no source is selected for a room, the command is ignored.

All commands are suffixed by a 3-byte footer. This footer has the following structure:

| REMOTE_ID | FF*h* | FC*h* |

The *REMOTE_ID* is the hexadecimal representation of the Remote ID, which can be found in the iQ Webserver under the Rooms section. The *REMOTE_ID* is the number in parenthesis next to the panel name (**Figure 1**) This example shows a *REMOTE_ID* of **3**, which would be 03*h* in Hex. Therefore, the footer would be 03*h*, FF*h*, FC*h*.

Figure 1

CMD NAME	BYTES	DESCRIPTION
Source Selection*	4F*h*, 34*h*, XX*h*, {*footer*}	Selects a source for a particular room
Room Off	4F*h*, 34*h*, {*footer*}	Disconnects a particular room from any source
Play	4F*h*, 33*h*, {*footer*}	Begins playback in a particular room
Pause	30*h*, 0F*h*, {*footer*}	Pauses playback in a particular room
Stop	30*h*, 0E*h*, {*footer*}	Stops playback in a particular room
Next Track	30*h*, 89*h*, {*footer*}	Skips to the next track in the Now Playing queue
Previous Track	30*h*, 87*h*, {*footer*}	Restarts current song or skips to previous song
Fast Forward	30*h*, 88*h*, {*footer*}	Skips ahead 5 seconds in the current track
Rewind	30*h*, 8A*h*, {*footer*}	Rewinds 5 seconds in the current track
Play Playlist 1	43*h*, 01*h*, {*footer*}	Plays the playlist assigned to number 1**

Play Playlist 2	43*h*, 02*h*, {*footer*}	Plays the playlist assigned to number 2**
…	…	…
Play Playlist 10	43*h*, 0A*h*, {*footer*}	Plays the playlist assigned to number 10**
…	…	…
Play Playlist 255	43*h*, FF*h*, {*footer*}	Plays the playlist assigned to number 255**
Volume Up	30*h*, 1A*h*, {*footer*}	Increases the volume for a particular room
Volume Down	30*h*, 1B*h*, {*footer*}	Decreases the volume for a particular room
Mute	49*h*, FD*h*, {*footer*}	Mutes the output for a particular room
Unmute	49*h*, FE*h*, {*footer*}	Unmutes the output for a particular room

*   *See below for more detailed description.*
** *Playlist numbers are assigned in the iQ Webserver.*

SOURCE SELECTION

4F*h*	34*h*	XX*h*	*footer*

All source selection commands start with 4F*h,* 34*h* and end with the same 3-byte footer used for all commands. The 3rd byte (XX*h* in the example above) indicates which source input this room should be connected to. This number corresponds to the input on the back of the iQ Amplifier. These numbers are in ASCII, starting with '1' (31*h* in HEX).

Example:
To connect the Kitchen, which has Remote #2, to Source #1, you would send the following:
      4F*h*, 34*h*, 31*h*, 02*h*, FF*h*, FC*h*

To connect the Living Room, which has Remote #4, to Source #5, you would send the following:
      4F*h*, 34*h*, 35*h*, 04*h*, FF*h*, FC*h*

To disconnect the Master Bedroom, which has Remote #3, from any source, you would send the following:
      4F*h*, 34*h*, 03*h*, FF*h*, FC*h*