

AQUAVISION®
television evolved
Integrating Aquavision
with Exterity



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Introduction

Summary

This document is a summary of discussions between Exterity and Aquavision regarding Aquavision integrating the Exterity IPTV receiver (STB) avply-r9300-brd PCB into the Aquavision Bathroom TV. The avply-r9300-brd is the PCB from the avply-r9300, without its regular enclosure. It has all the software and hardware features of the regular avply-r9300.

Documentation

The full feature set of the regular avply-9300 can be found in the latest datasheet available on the Exterity website at <https://www.exterity.com/products/avedioplayer/receivers>.

Usage instructions for the regular avply-r9300 can be found in the latest Administrator's Guide on the Exterity website at <https://www.exterity.com/support/documentation>

Definitions

The Exterity avply-r9300-brd will be referred to as the "STB".

The Aquavision Bathroom TV will be referred to as the "TV".

Project Pre-requisites

For any new projects, Exterity recommends:

- Compatibility with any third party head-end devices is verified (see later)
- The STB user interface requirements are discussed and agreed (see later)

Physical Integration

General

As per the letter of agreement from Exterity on 23/3/17, It is the responsibility of Aquavision to integrate the STB PCB into the TV, to meet the necessary safety and EMC standards and gain the relevant approvals for the integrated solution.

Power

The STB has a 24V power jack input which can be used to enable the TV to power the STB. The maximum power usage of the STB is 8W.

HDMI

The STB has an HDMI output which can connect directly to the HDMI input of the TV.

Infra-Red

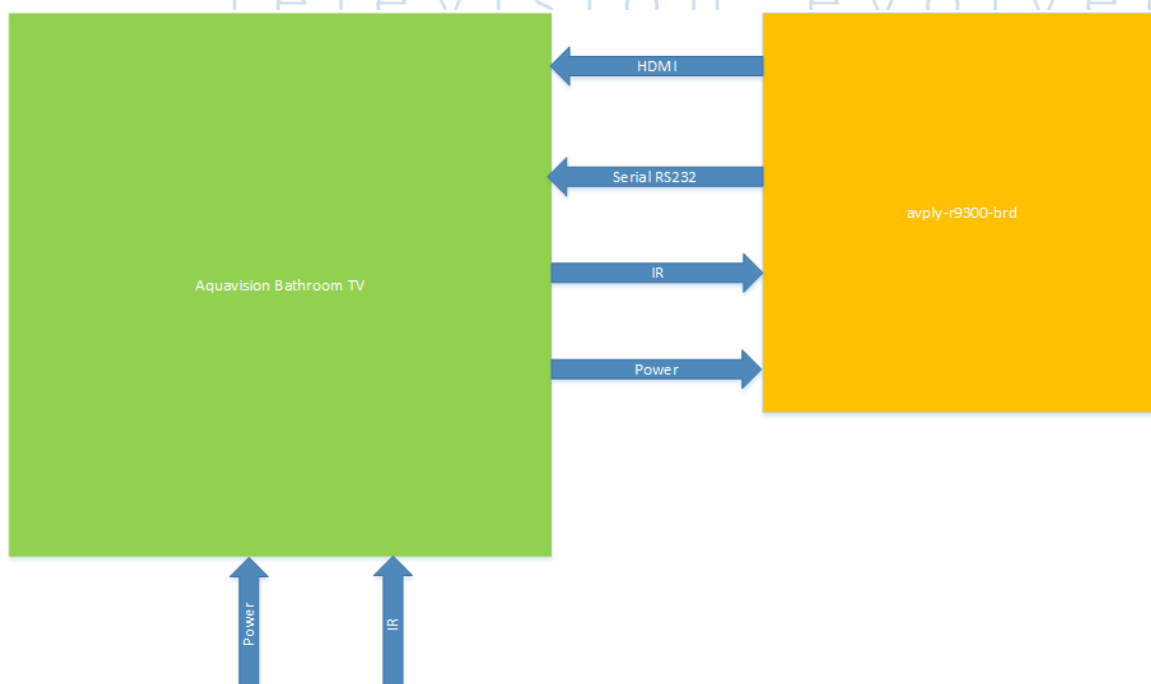
The STB has an IR jack, which can receive a connection from the TV IR input in order to get infra-red remote control to the STB.

Serial

The STB has a serial RS232 interface which can be connected to the serial RS232 interface on the TV in order to enable control of the TV from the STB.

Block Diagram

A simple block diagram of the physical integration is shown below.



Feature Integration

Infra-Red Control

The Aquavision remote control handset will be used to control the solution. An IR configuration file for the STB to recognise the Aquavision IR codes has been generated and tested. This is available at the link below:

<https://support.exterity.com/hc/en-gb/articles/217743658-IR-Configuration-File-for-Aquavision-remote-control>

TV Serial Control

The STB requires to turn the TV on and off (standby) when the user presses power on the remote control handset. This will be done using the STB's normal TV serial control capability via the RS232 connection referenced above. A serial control file for the STB to send the appropriate serial control codes to the TV has been generated and tested. This is available at the link below:

<https://support.exterity.com/hc/en-gb/articles/217743548-Serial-Control-of-Aquavision-TVs>



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User Interface

This section discusses the user interface options available for the STB.

Built-in UI

The STB has a simple built-in user interface which enables the following:

- Channel selection
- Volume control
- Standby
- Subtitles
- Audio language selection

The image below shows an example of how this looks.



ArtioPortal UI (Optional)

ArtioPortal is Exterity's Middleware product, enabling a customisable/brandable user interface to be designed for a particular customer.

ArtioPortal requires the purchase of the Exterity AvediaServer (chassis or VM) and the AvediaServer Producer (m7200) or Creator (m7300) module.

It is important that if ArtioPortal is required for a particular project, that the design and features of the user interface are agreed in advance between Exterity, Aquavision, the customer and any resellers involved.

Further information on ArtioPortal is available at the link below:

<https://www.exterity.com/products/artio/artioportal>

An example of an ArtioPortal user interface is shown below.



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Third Party Middleware (Optional)

The STB has an integrated web browser with a Javascript API. This enables third parties to integrate their middleware user interface onto the STB.

The RDK (Receiver Development Kit) documents this integration capability and can be supplied to third parties under NDA.

If third party middleware is used in a project, it is important to find out which STB firmware version this middleware was developed against, and note this on the PO when ordering STBs from Exterity.

Head-end Compatibility

The STB can play back IPTV channels from Exterity AvediaStream devices and from compatible devices from third party companies. The full playback capabilities of the STB are listed in the datasheet, but it is important to check compatibility with any third party products being used in a particular project.