1.1 Block diagram(s) of equipment

1.2 Clock list of Universal laundry Reading Station product

Crystal: 14.7456 MHz
27.12 MHz
32.768 kHz

1.3 Block diagram

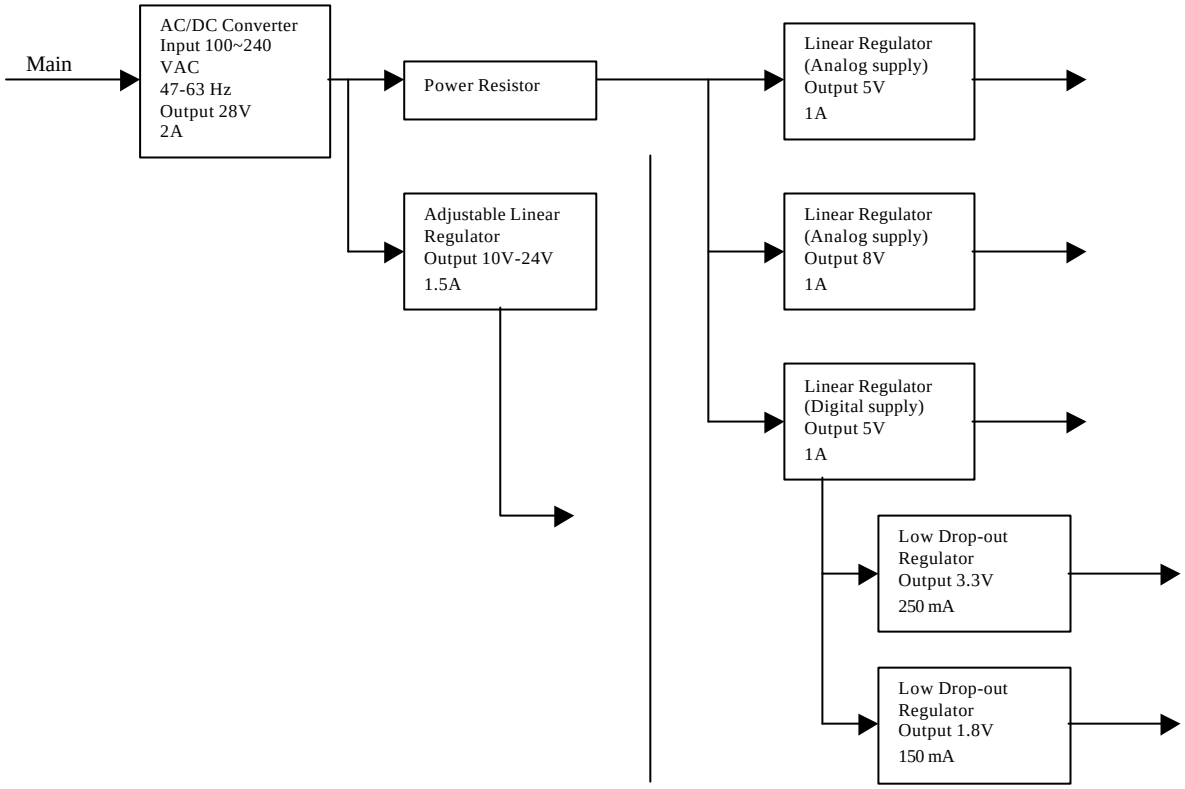
Objectif: This document describes the architecture of Universal Laundry Reading Station and Medio L200 and the associated block diagrams.

The Medio L200 is made of the following functional parts:
power supply
power amplifier
radiofrequency receiver
digital part with signal processing capability (Radio Processing Unit)
CPU application part holding Gemcore for embedded program and I/O (Data Processing Unit)

Each part will be described below separately.

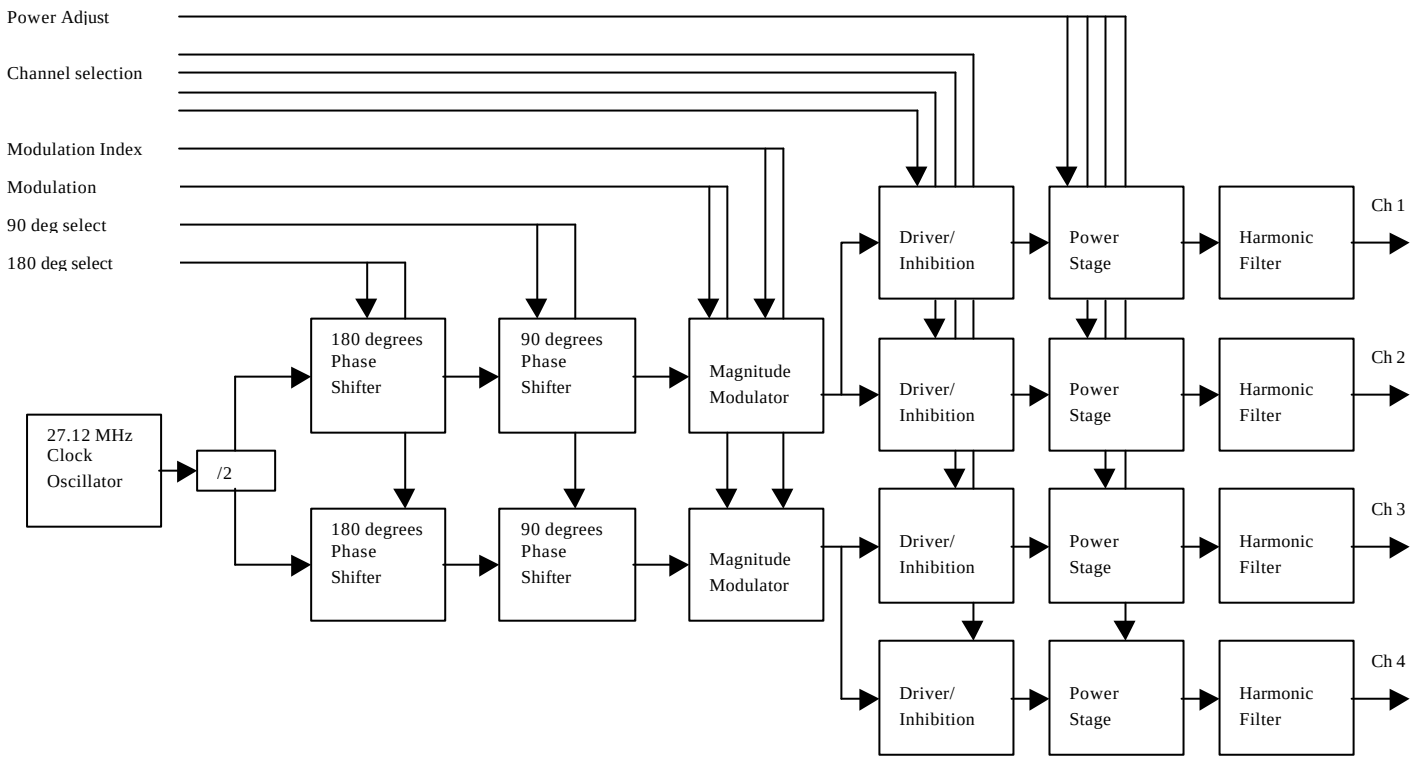
1.3.1 Power supply description

The power supply is based on a switched type, because of the high efficiency then low heat generated.



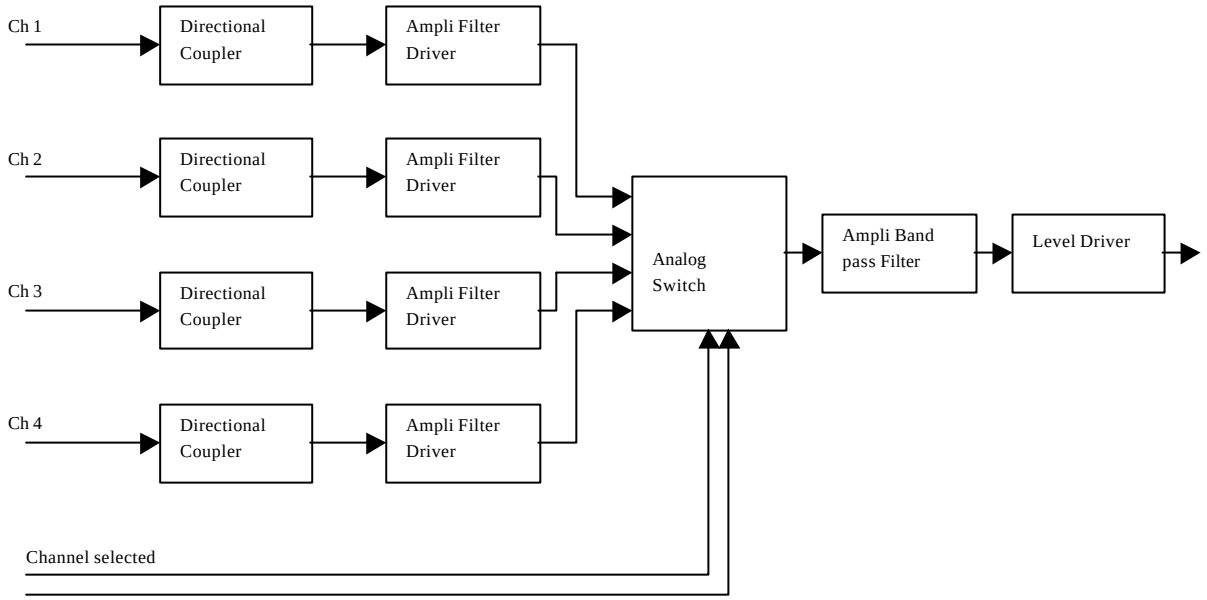
1.3.2 Power Amplifier description

This power amplifier is able to deliver 2x7 watts continuously. It has the specificity to control the phase between two channels, in order to create a field rotation. A multiplexing controlled by the Radio Processing unit allows to use only 1 channel, or 2 channels, or switched 2 by 2 channels.
The technology proposed here is a switched type power transistor, offering a high efficiency and reliability.



1.3.3 Receiver Description

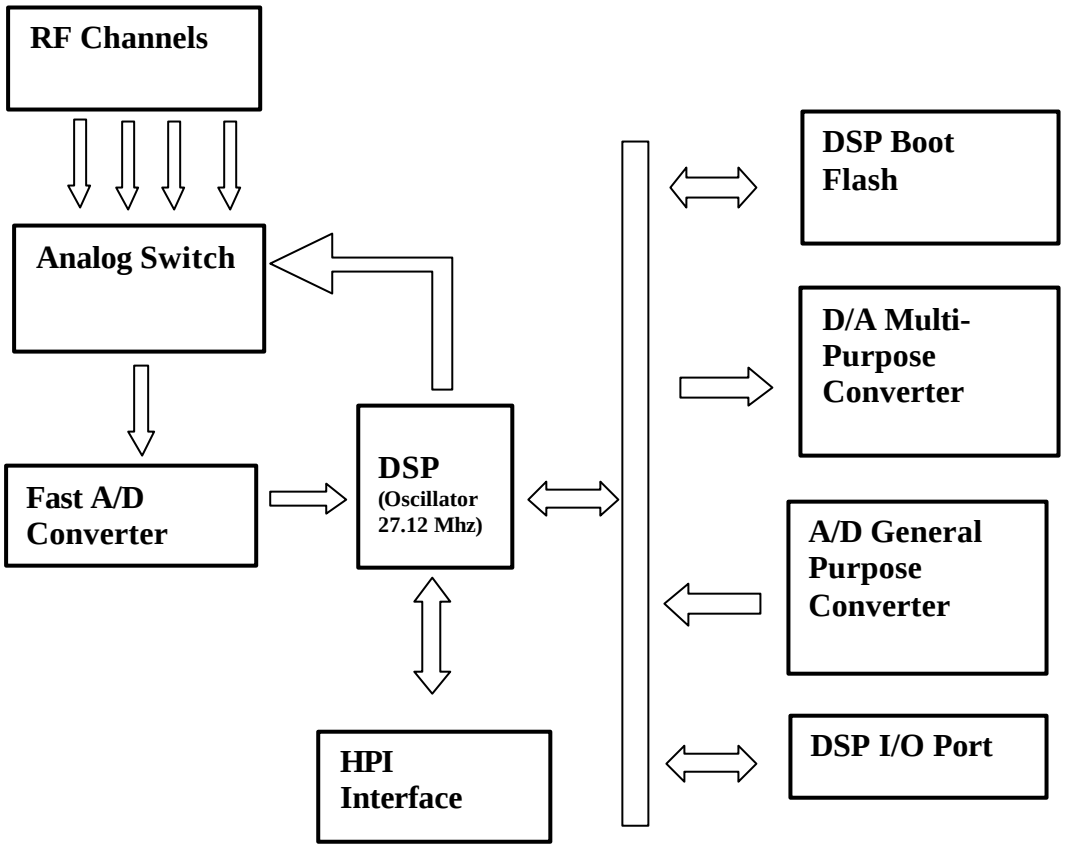
The receiver has to handle possibly 4 antennas, so, the detection part is dupplicated 4 times, then a switched controlled by the Radio Processing Unit directs the signal into the filter and level adapter for the analog to digital converter.



1.3.4 Radio Processing Unit

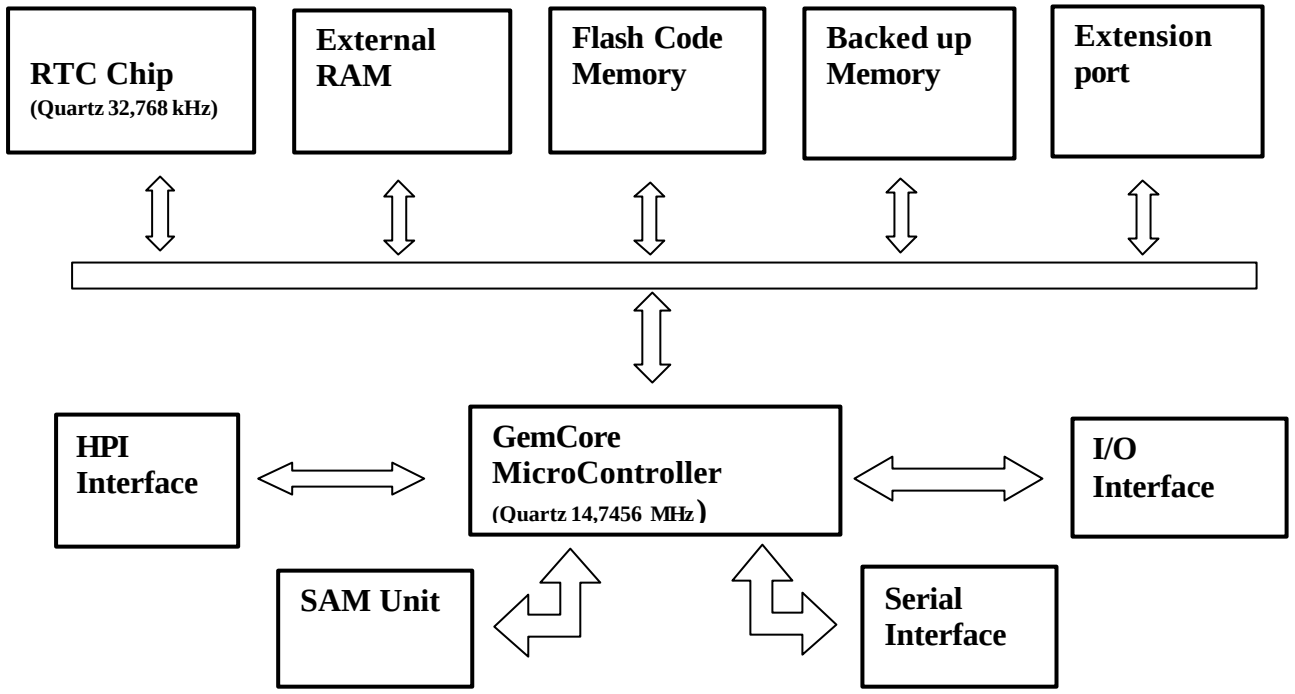
This part is based on a DSP processor.

The interfacing of the DSP is done through the HPI, Host Port Interface. This parallel port allows very fast communication with the host that can be a PC, or the Data processing Unit.
A low speed 8 bit flash is used to download the code in the DSP.



1.3.5 Data Processing Unit

This part is based on existing Gemcore components, only the necessary parts will be included to simplify the design.
A specific driver will be developped to communicate with the HPI available from the DSP



1.3.6 Mechanical Design