AMIC

General Description

A9240-A-001-485 consists of 6 major blocks: I/O Interface, Micro-Controller, Protocol ASIC, RF front-end, Antenna, and DC power.   System clock is provided by a crystal oscillator operates at 13.56MHz.
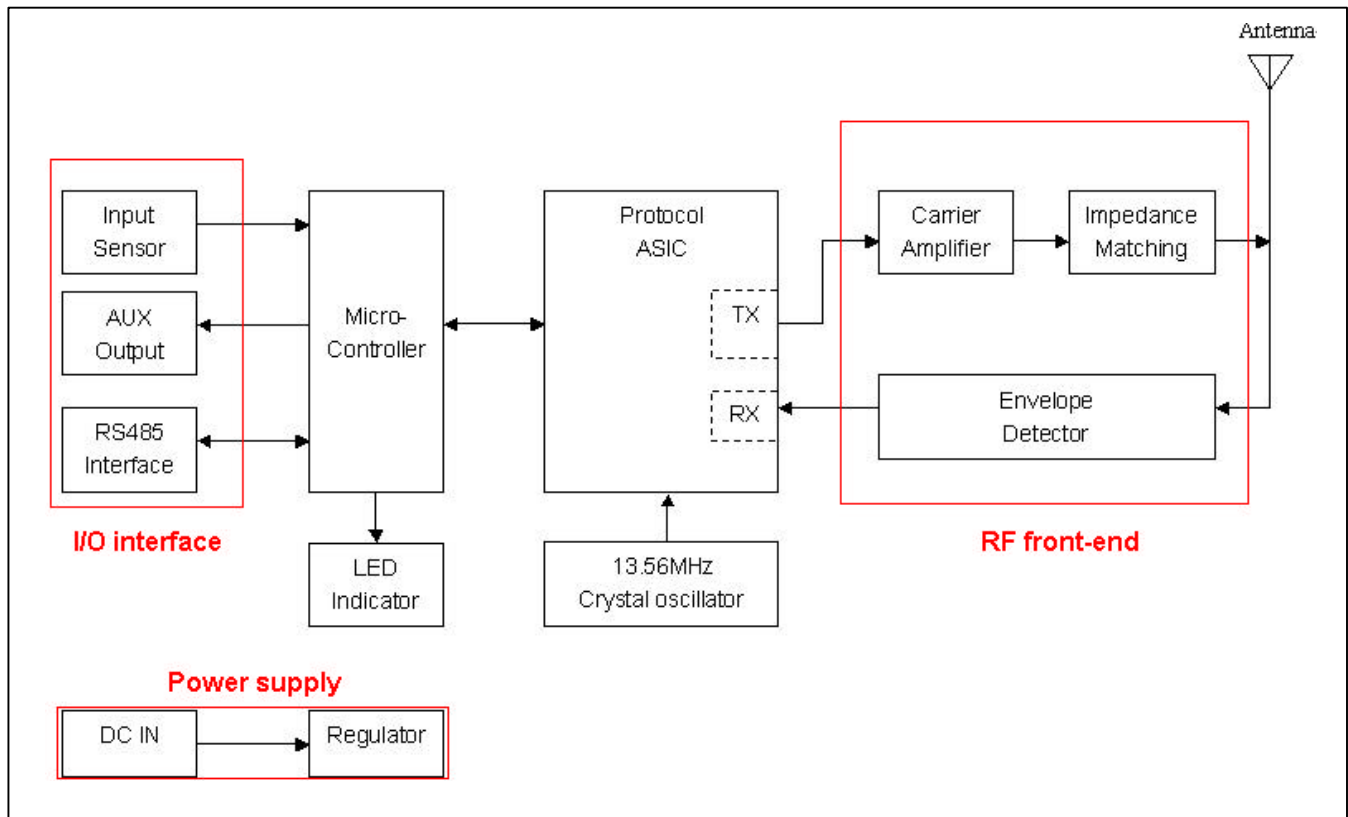

Figure 1 is the block diagram for AMIC A9240-A-001-485 RFID Reader

Building Block Description

1. I/O Interface:

   a. Up to two sensor inputs and four opto-coupled auxiliary outputs are available for external device usage.

   b. RS-485 Interface is used to communicate with remote host controller.

2. Micro-Controller:

   The embedded micro-controller processes ISO15693 standard and special function commands.

3. Protocol ASIC:

   It performs the necessary modulation and demodulation according to ISO-15693 standard format.

4. RF front-end:

   The RF front-end is designed to amplify the 13.56MHz carrier signal, provide the necessary antenna impedance matching, and detect the returned signal.

5. Antenna:

   Antenna is the physical layer that emits radio frequency signal at 13.56MHz. It is used to transmit signals to RFID tags and receive signals from RFID tag.

6. Power supply:

   Supply various DC power to system by regulator from DC IN.