

3.6.1 PCB Details

3.6.1.1 CAN-HMI-MSC

3.6.1.1.1 Functions

The CAN-HMI-MSC board is used as the basic Human Machine Interface (HMI) for the MSC-L. The board supports various communication interfaces, Ex-i interfaces, and the display interface control.

Following are the functions of the CAN-HMI-MSC board.

Function	Description
Display interface control	Displays a 8" WVGA color display in the MSC-L lid.
RTC with battery backup	Is used for the date and time stamping of the transaction data. External backup battery is connected to the RTC to retain the real-time information, even when the main power of the MSC-L is turned off.
Transaction storage memory	Is the external, non-volatile memory for storage of the transaction details.
Display image memory	Stores video data and it is interfaced to the Field Programmable Gate Array (FPGA).
Power failure memory management	Is the non-volatile memory for storage of measured values as a protection against the power failure.
HHC IR interface	Is the HHC IR interface for the Fusion4 IR Controller.
Ambient light sensor	Is the device used for sensing the ambient light condition. It is sensitive to visible light and has peak sensitivity at 570 nm.
RS-COM (2-wire or 4-wire)	The RS-485 serial communication block is used by the FlexConn microprocessor to communicate with external devices using an RS-485 compliant physical layer. It can be configured for a 2-wire half-duplex or a 4-wire full-duplex RS-485 communication.
ETHERNET	The Ethernet communication block is used for allowing the FlexConn microprocessor to communicate with the external devices using an Ethernet-compliant physical layer.