SmartAX MA5800 Multi-service Access Module

Hardware Description

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H902PISB Board Description

The H902PISB board is an AC power board, consisting of an AC power unit and a monitoring unit. The board supplies power to the other boards in the service subrack of MA5800-X2 and supports the lead-acid or iron lithium battery for power backup. The AC power unit provides overcurrent, output overvoltage, short circuit, and over-temperature protection. The monitoring unit provides comprehensive management for the power system and storage battery, and also provides environment monitoring functions.

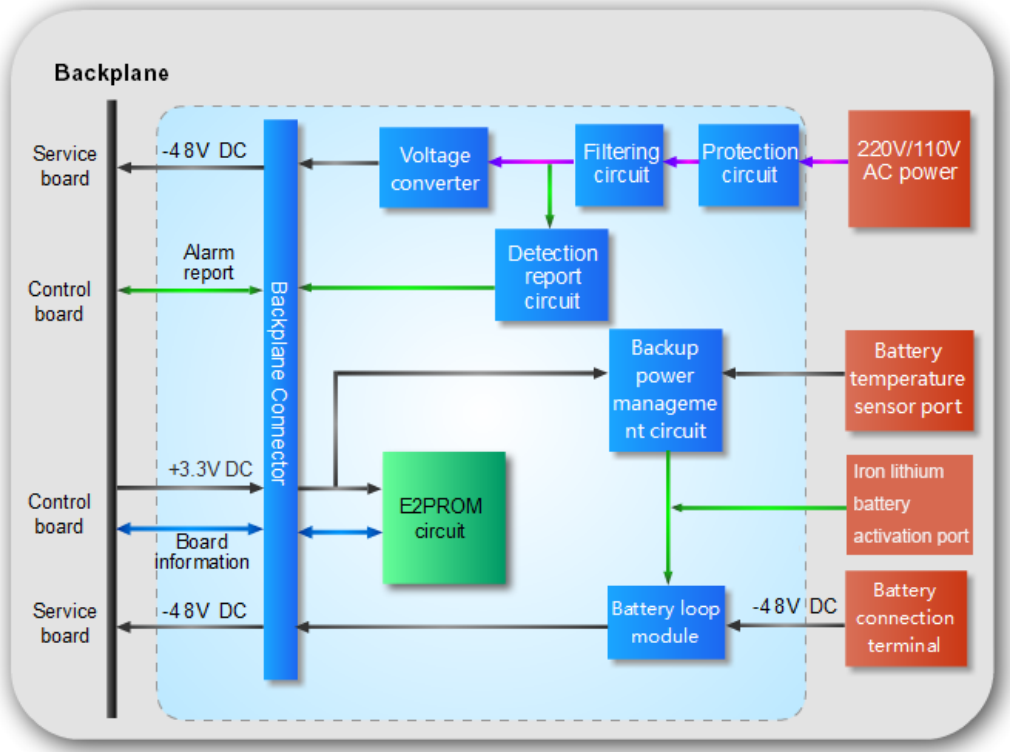
Functional Specifications

The H902PISB board supports the following features and specifications:

- 1 channel of 220 V AC or 110 V AC input
- Rated output power: 600 W
- 1 lead-acid or iron lithium battery for backup power
- Input overcurrent protection
- Input power monitoring
- Temperature query and high-temperature alarm

Working Principle

Figure 8-25 Working principle of the H902PISB board



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	Indicates the monitoring signal channel.		Indicates the alarm signal channel.
	• 220 V/110 V AC power • Battery connection terminal • Battery temperature sensor port • Iron lithium battery activation port		• Battery loop module: detects battery current. • Protection circuit: protects the components in the circuit. • Filtering circuit: filters the DC power in the circuit. • Voltage converter: converts high-voltage DC current to 48 V DC current. • Detection report circuit: checks whether the protection fuse is faulty or whether the power input or board is detected, and reports the results to the control board through the backplane. • Backup power management circuit: manages battery charge and discharge.
	DC power		E2PROM circuit: stores the vendor information of the board.
	AC power		

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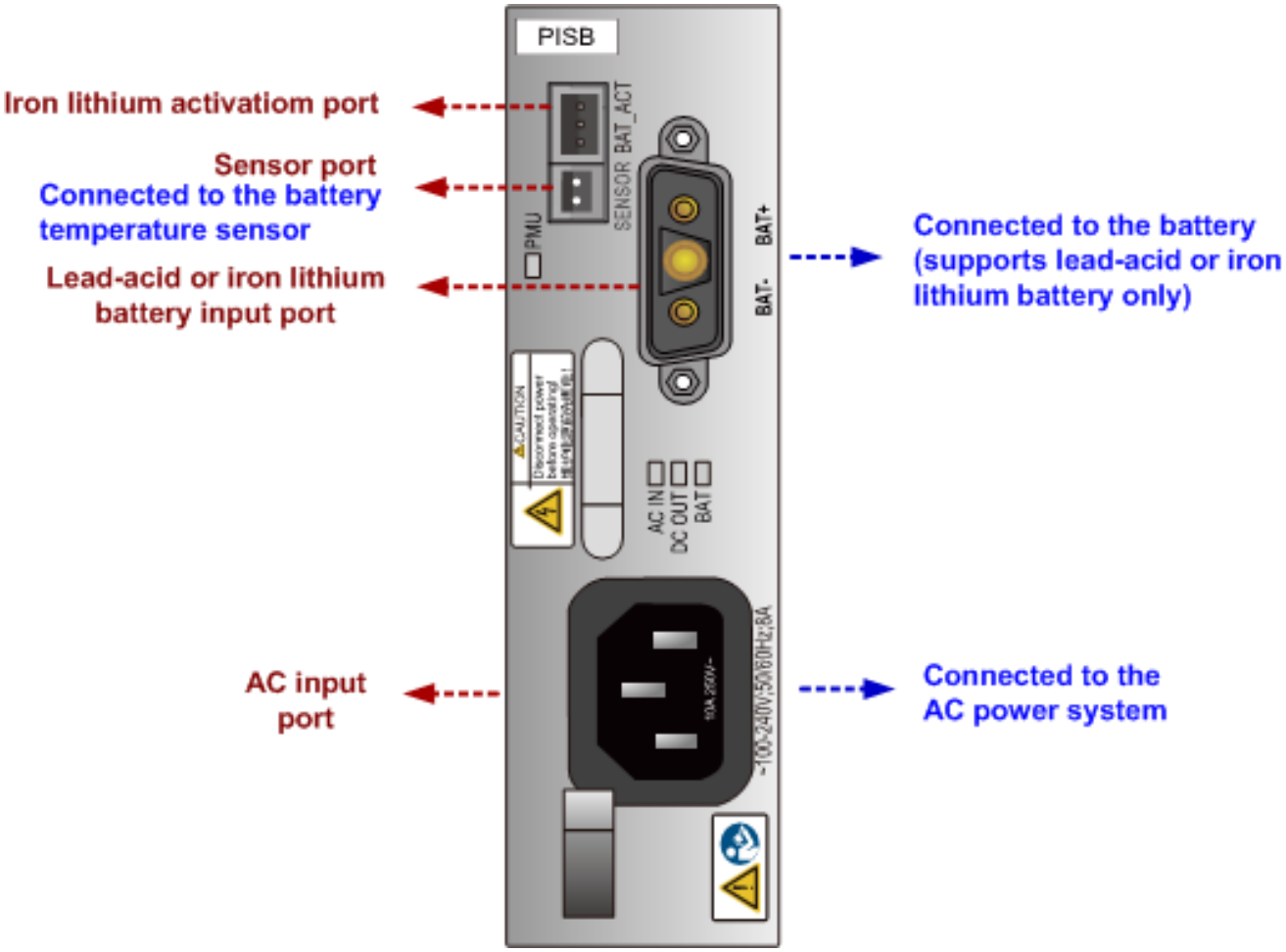
Front Panel Port



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Indicator

Indicator	Name	Color	Status	Operation Description
AC IN	AC input indicator	Green	On	Indicates that the AC input power is normal
		-	Off	Indicates that the AC input power is abnormal
DC OUT	DC output indicator	Green	On	Indicates that the DC output power is normal
		-	Off	Indicates that the DC output power is abnormal
BAT	Power board battery connection indicator	Green	On	Indicates that battery connection is normal
		-	Off	Indicates that battery connection is abnormal
PMU	Monitoring board running status indicator	Green	Blinking quickly (on for 0.25 s and off for 0.25 s repeatedly)	Indicates that program loading is in progress (in this process, board insertion or removal is prohibited)
		Green	Blinking slowly (on for 1 s and off for 1 s repeatedly)	Indicates that the board runs normally
		Red	Blinking	Indicating that the board is starting up
		Red	On	Indicates that a critical alarm is reported
		Orange	Blinking	Indicates that a minor alarm (such as the high temperature alarm) is reported

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