## MCUD Board Description

The MCUD board is a mini control unit board. It is the core of the system control and service switching and aggregation. The MCUD board can also function as the management and control core of the integrated network management system (NMS). It communicates with service boards about the key management and control information through the master/slave serial port and inband GE/10GE channel. In this manner, the MCUD board configures, manages, and controls the device, and also implements the simple route protocol functions.

Working Principle

Working principle of the H801MCUD board
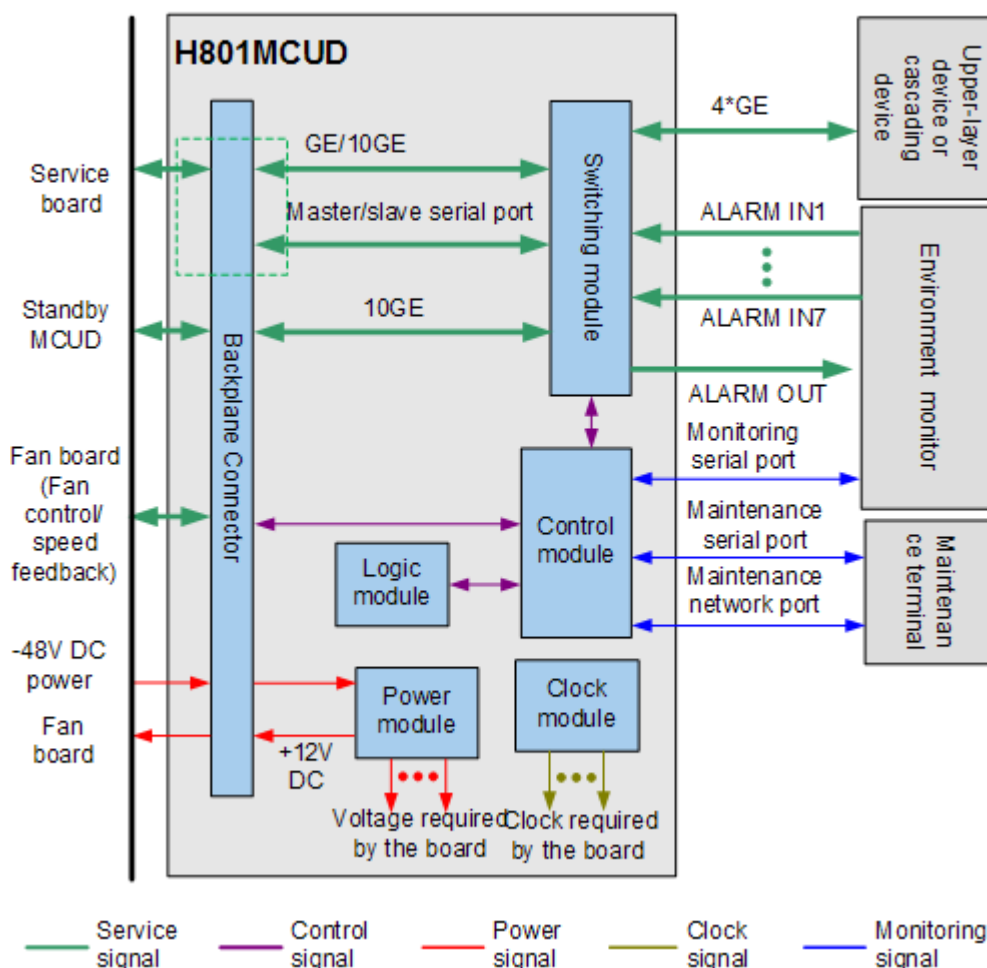
The basic working principle of the H801MCUD board is as follows:

- The control module manages the entire board and the service boards.
- The logic module implements logic control.
- The power module supplies power to other functional modules of the board.
- The clock module provides clock signals for other functional modules of the board.
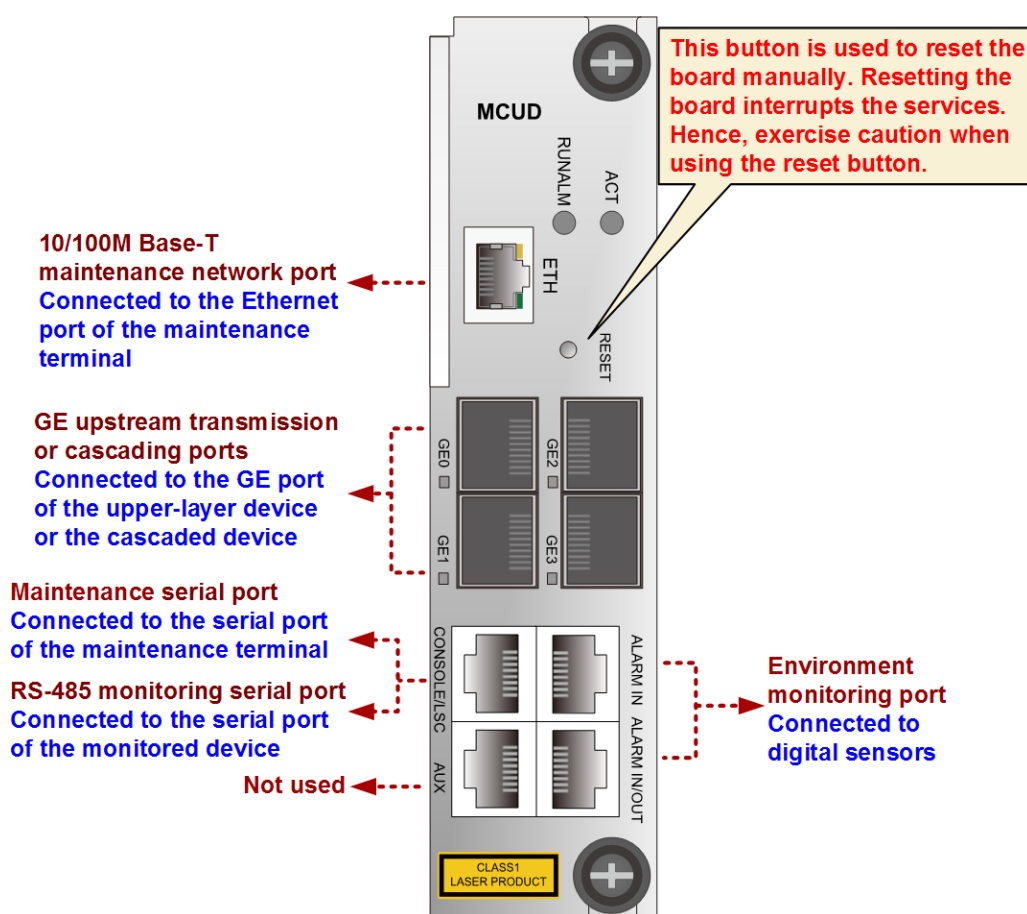
- The switching module provides the GE port and the 10GE port to switch and aggregate services at Layer 2 or Layer 3.

  - Providing four GE ports for transmitting traffic upstream

  - Providing 2 GE/10GE ports for implementing GE/10GE switching on each service board

  - Providing one 10GE port for load sharing with the standby control board

Front Panel Port

This button is used to reset the board manually. Resetting the board interrupts the services. Hence, exercise caution when using the reset button.

10/100M Base-T maintenance network port Connected to the Ethernet port of the maintenance terminal

GE upstream transmission or cascading ports Connected to the GE port of the upper-layer device or the cascaded device

Maintenance serial port Connected to the serial port of the maintenance terminal

RS-485 monitoring serial port Connected to the serial port of the monitored device

Not used

Environment monitoring port Connected to digital sensors

Indicator

Indicator	Name	Color	Status	Meaning
RUN ALM	Running status indicator	Green	Blinking	The board functions properly
		Red	Blinking	The board is starting up
		Orange	Blinking	A high-temperature alarm is generated
		Red	On	The board is faulty

Indicator	Name	Color	Status	Meaning
ACT	Active indicator	Green	On	In active/standby mode or load-sharing mode, the board is active
		Green	Blinking	In load-sharing mode, the board is standby
		-	Off	In active/standby mode, the board is standby
GE0-GE3	Link and Data status indicator	Green	On	A link is set up on the port
		Green	Blinking	Data is being transmitted on the port
		-	Off	No link is set up on the port, or no data is being transmitted on the port

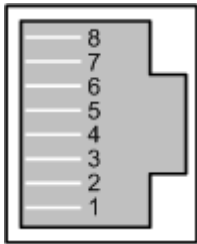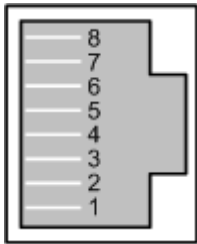## Meaning of Port Signals

Meaning of ALARM IN Port Signals

Port	Pin	Signal	Meaning
	1	ALM_RTN	Alarm digital parameter RTN
	2	ALM_IN0	Signal of channel 0 alarm digital parameter
	3	ALM_RTN	Alarm digital parameter RTN
	4	ALM_IN1	Signal of channel 1 alarm digital parameter
	5	ALM_RTN	Alarm digital parameter RTN
	6	ALM_IN2	Signal of channel 2 alarm digital parameter
	7	ALM_RTN	Alarm digital parameter RTN
	8	ALM_IN3	Signal of channel 3 alarm digital parameter

Table 3-13 Meaning of ALARM IN/OUT Port Signals

Port	Pin	Signal	Meaning
	1	ALM_RTN	Alarm digital parameter RTN

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Port	Pin	Signal	Meaning
	2	ALM_IN4	Signal of channel 4 alarm digital parameter
	3	ALM_RTN	Alarm digital parameter RTN
	4	ALM_IN5	Signal of channel 5 alarm digital parameter
	5	ALM_RTN	Alarm digital parameter RTN
	6	ALM_IN6	Signal of channel 6 alarm digital parameter
	7	ALM_RTN	Alarm digital parameter RTN
	8	ALM_OUT	Alarm DO

Power:

Static: 24 W

Maximum: 26 W