

Interface module



MIM-B12

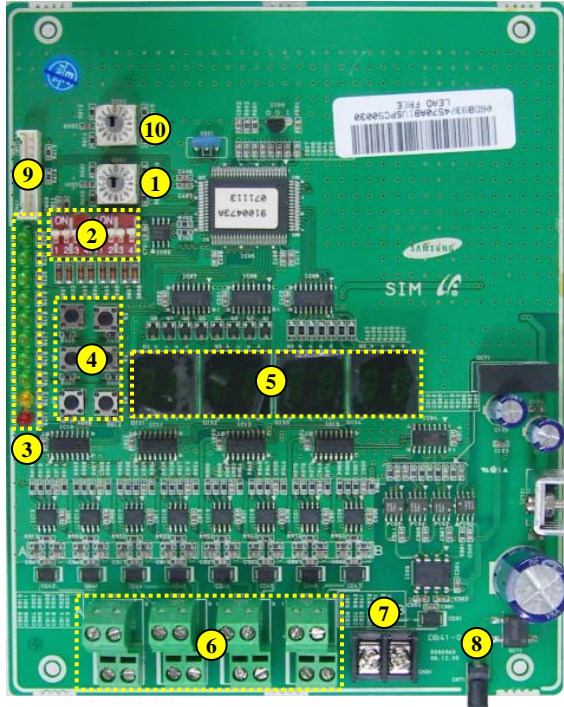
- MIM-B12



- Watt-hour meter interface unit
- 8-channel real-time watt-hour consumption display
- Automatic watt-hour meter tracking
- Current communication state indication
- Transfers watt-hour values to the DMS for power distribution

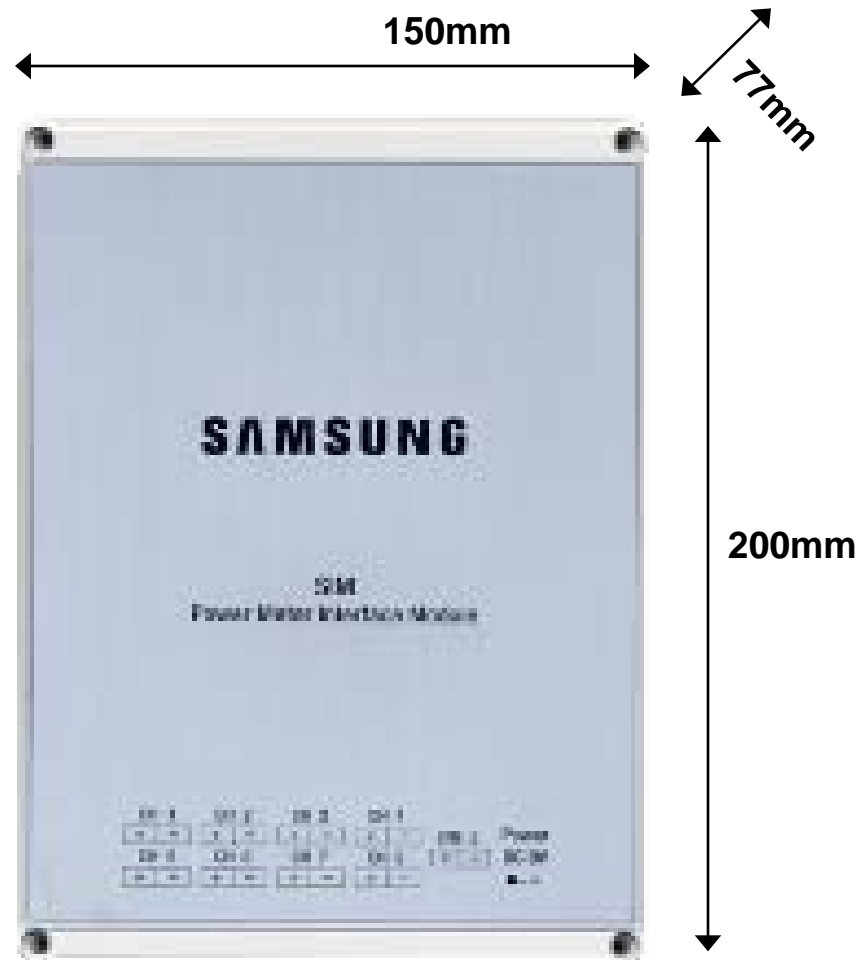
Power supply	9VDC ~ 12VDC, 500mA
Maximum communication length	RS485 : Maximum 1000m
Communication connection	Lower-layer device : Specified watt-hour meters Upper-layer device : DMS
Maximum number of interface	8 watt-hour meters for one MIM-B12 8 MIM-B12s for one DMS
Operating humidity range	0%RH ~ 90%RH

- Parts description

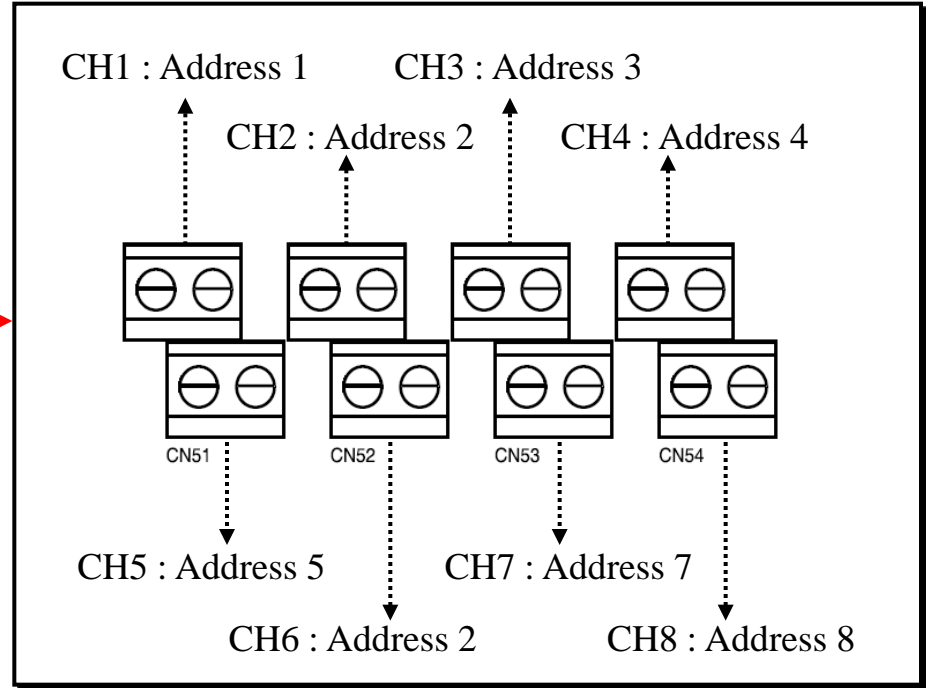
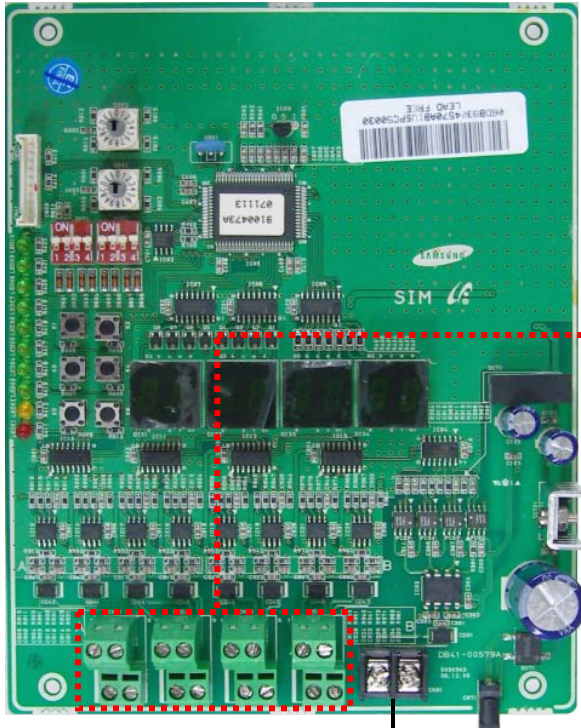


No	Name	Description
1	Address setting switch	SiM address setting for DMS registration
2	Option switch	No function
3	LED display	Power supply, DMS communication and watt-hour communication display
4	Push button switch	Push buttons are used to display power consumption for the different watt-hour meters, reset SiM software and carry out self-diagnosis for communication channels.
5	Watt-hour reading display	Power consumption values from the watt-hour meters are displayed in the first decimal place.
6	Watt-hour meter connection	RS45 connection with non-polarity to designated watt-hour meters.
7	DMS connection	DMS communication lines are connected with C1-C2 polarity.
8	Power supply	9VDC~12VDC, 500mA. Non-polarity
9	Upgrade connector	Connector for software upgrade
10	Rotary switch	No function

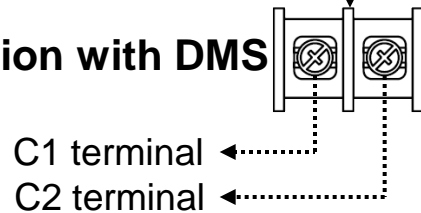
- Dimensions



- WHM/DMS interface



Connection with DMS



- All connections with watt-hour meter : RS485 communication, no polarity
- Automatic detection of 5 designated watt-hour meters.
- Interface with DMS : Polarized RS485 communication

- MIM-B12 address

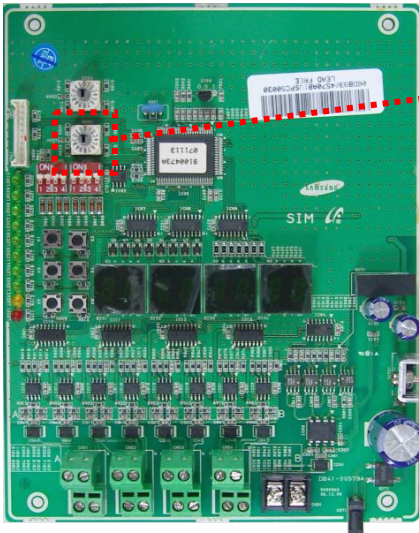


MIM-B12 address SW	On the DMS
0	16
1	17
2	18
3	19
4	20
5	21
6	22
7	23
8~15	Not recognized

- WHM address mapping

If MIM-B12 address is set to 1 and one WHM is connected to CH2, DMS then recognizes the WHM address as 17.2 after completing tracking process.

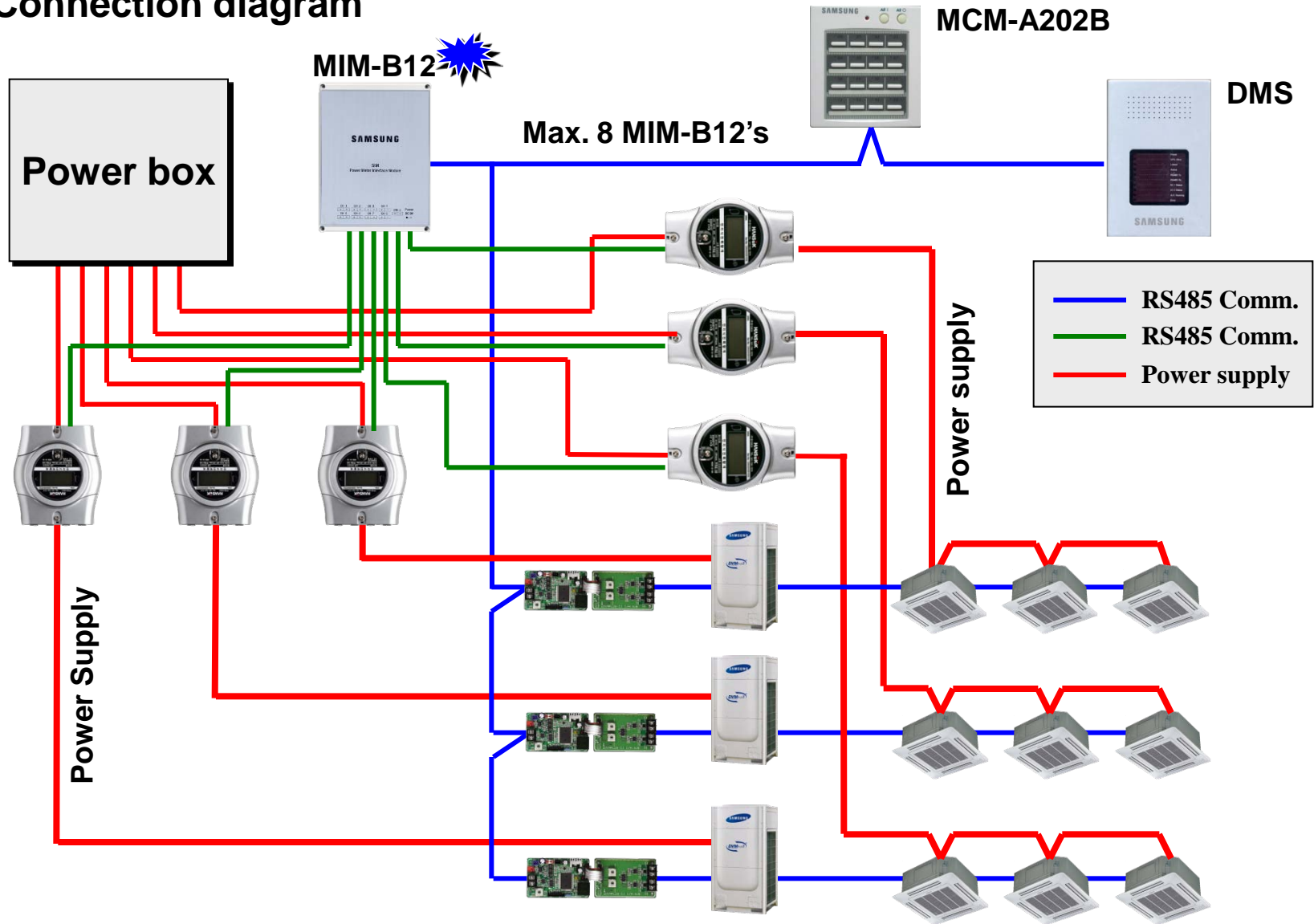
WHM address assignment table



MIM-B12 address	SiM Channel							
	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
0	16.01	16.02	16.03	16.04	16.05	16.06	16.07	16.08
1	17.01	17.02	17.03	17.04	17.05	17.06	17.07	17.08
2	18.01	18.02	18.03	18.04	18.05	18.06	18.07	18.08
3	19.01	19.02	19.03	19.04	19.05	19.06	19.07	19.08
4	20.01	20.02	20.03	20.04	20.05	20.06	20.07	20.08
5	21.01	21.02	21.03	21.04	21.05	21.06	21.07	21.08
6	22.01	22.02	22.03	22.04	22.05	22.06	22.07	22.08
7	23.01	23.02	23.03	23.04	23.05	23.06	23.07	23.08
8~15	Not recognized							

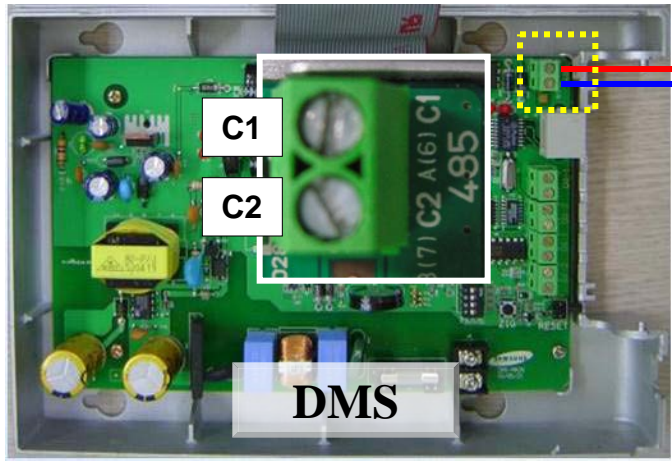
WHM interface module – MIM-B12

- Connection diagram

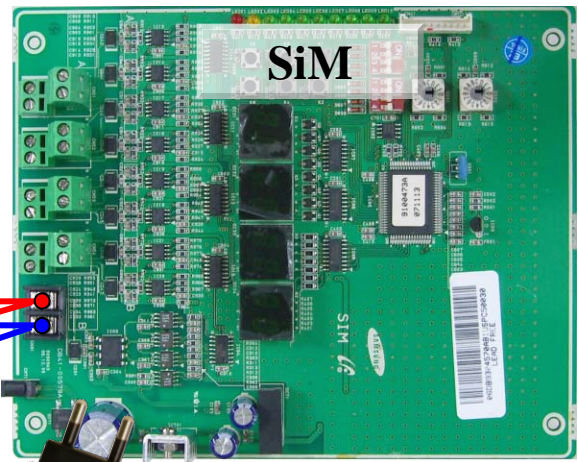


WHM interface module – MIM-B12

- Wiring to upper level device (C1/C2)

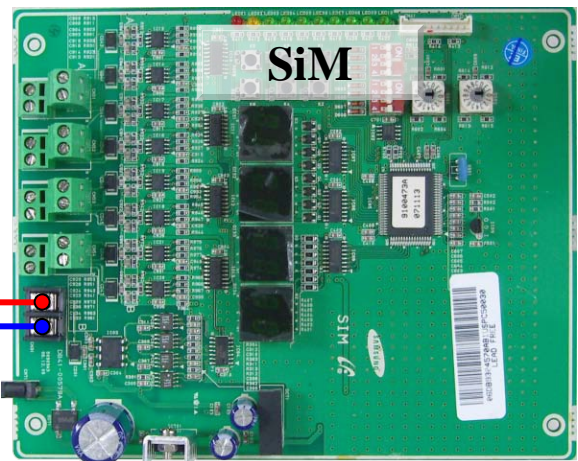


C1
C2



Power adapter
9~12VDC, 500mA
Purchase from market

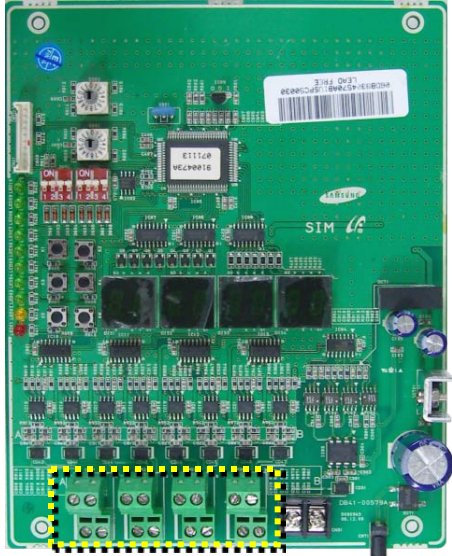
Max. 8 MIM-B12s



Power supply (9~12VDC, 500mA) →

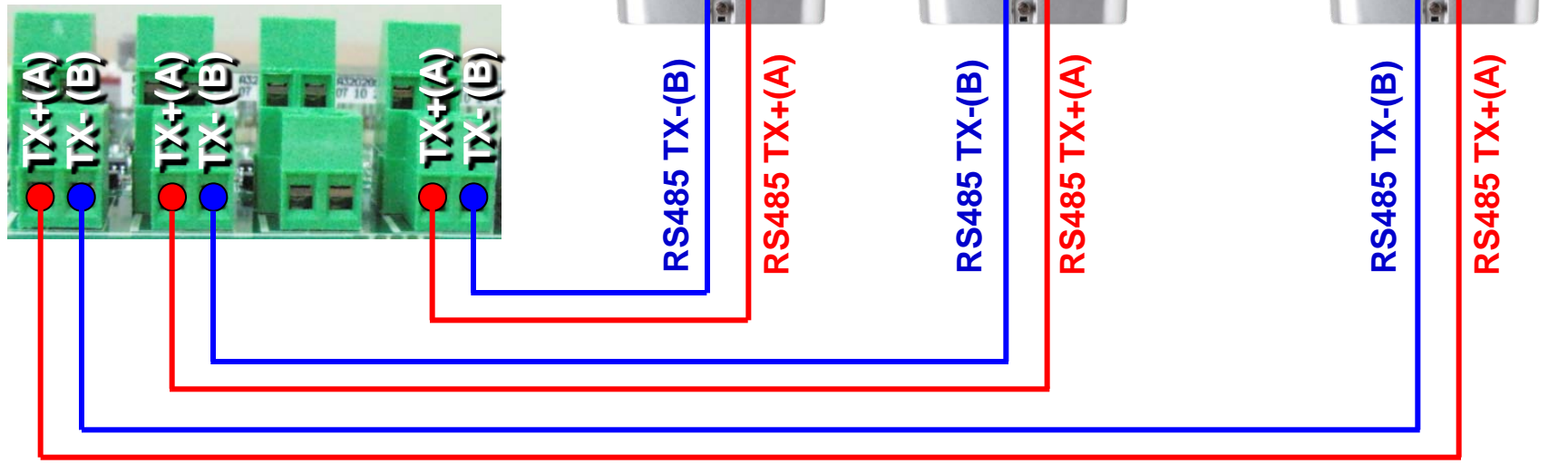
- Max. wiring length
- 1000m
(0.75~1.5mm², unshielded VCTF/CVV 2P or equivalent)
- Non-polarity

- Connection with watt-hour meters

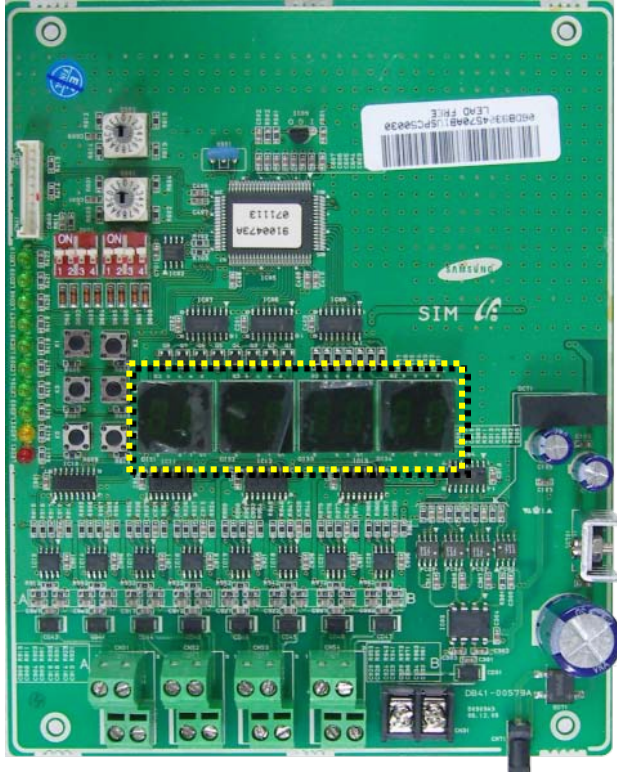


- Max. wiring length
 - 1000m (0.75~1.5mm², unshielded VCTF/CVV 2P or equivalent)
 - Non-polarity

Max. 8 Hansuk WHMs



- Display sequence



Ad dr 00

MIM-B12 address display

Ver 123

MIM-B12 software version display
(Ex : v12.3)

Ch 1

CH1 Watt-hour tracking

1 38621

CH1 watt-hour display
(Ex : 3862.1 kWh)

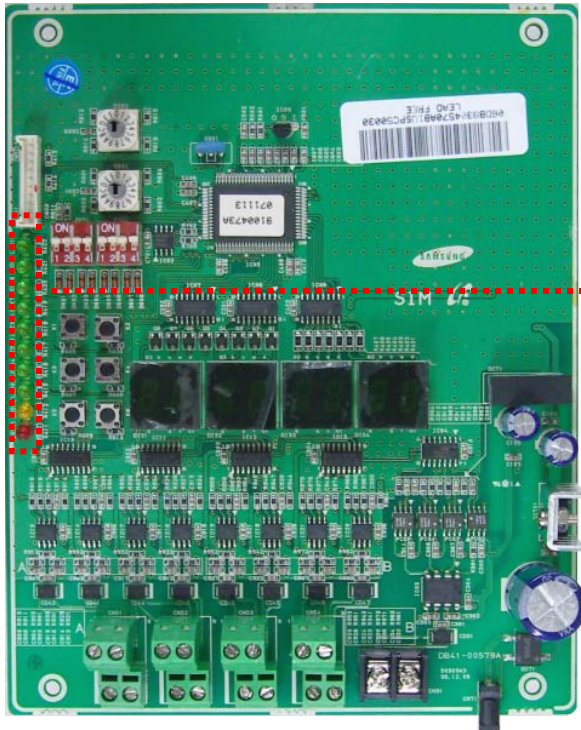
Blinking

1 38621

All blinking

CH1 communication error

- LED display

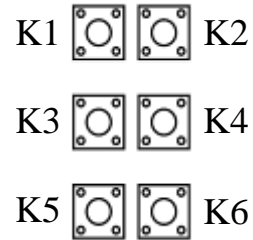
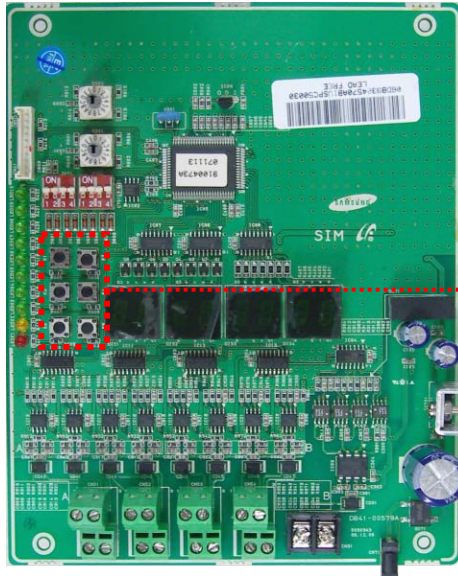


LED10	Green	Communication with CH8 watt-hour meter
LED9	Green	Communication with CH7 watt-hour meter
LED8	Green	Communication with CH6 watt-hour meter
LED7	Green	Communication with CH5 watt-hour meter
LED6	Green	Communication with CH4 watt-hour meter
LED5	Green	Communication with CH3 watt-hour meter
LED4	Green	Communication with CH2 watt-hour meter
LED3	Green	Communication with CH1 watt-hour meter
LED2	Yellow	Communication with DMS
LED1	RED	Power supply

Note : 2 short consecutive LED blinkings indicate SiM request and WHM response respectively, which means normal communication state. Communication block indicates 1-time LED blinking.

	Normal communication between SiM and watt-hour meters
	Communication error (No response from the watt-hour meter)

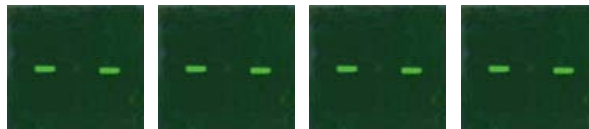
- Push button switch



Button	Function
K1	Next channel selection
K2	Previous channel selection
K3	Reset
K4	Channel loop-back test (Self-diagnosis)
K5	Reserved
K6	Reserved

If switch K4 is pressed, the SiM enters self-diagnosis test mode to check the hardware interface of each channel with loop-back test.

7-segment LED display is as follows during the self-diagnosis.



Self-diagnosis test start (blinking)



Channel 1,2,3 - Normal
Channel 4,5,6,7,8 - Error