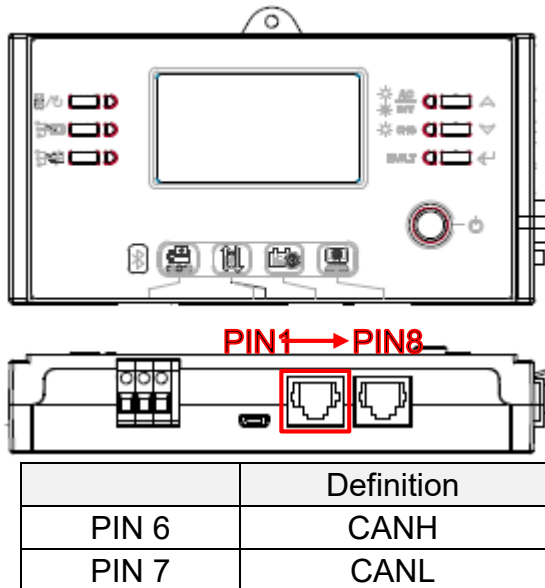


1. BMS Pin Definition

1.1 Remote Box



2. Communication parameter configuration

Baud rate	Frame Type	Period
500K	Extended Frame	250ms

3. Command lists

3.1 Version information

Inverter query command format

CAN ID: 0x0CF10100 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0~7	0	

BMS response format

CAN ID: 0x0CF20100 + Battery ID (range: 0~F)

Byte	Parameter	Parameter Unit
Byte0	Protocol type	
Byte1		
Byte2	Protocol version	
Byte3		
Byte4	Reserve	
Byte5	Reserve	
Byte6	Reserve	
Byte7	Reserve	

Inverter query command format

CAN ID: 0x0CF10110 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0~7	0	

BMS response format

CAN ID: 0x0CF20110 + Battery ID (range: 0~F)

Byte	Parameter	Parameter Unit
Byte0	BMS firmware version	
Byte1		
Byte2		
Byte3		
Byte4	BMS hardware version	
Byte5		
Byte6		
Byte7		

*If the parameter doesn't exist, return 0x0000.

3.2 BMS general status parameters inquiry

Inverter query command format

CAN ID: 0x0CF10200 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0~7	0	

BMS response format

CAN ID: 0x0CF20200 + Battery ID (range: 0~F)

Byte	Parameter	Parameter Unit
Byte0	Maximum cell voltage	0.1V
Byte1		
Byte2	Minimum cell voltage	
Byte3		
Byte4	Maximum temperature	0.1K (Kelvin temperature)
Byte5		
Byte6	Minimum temperature	
Byte7		

Inverter query command format

CAN ID: 0x0CF10210 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0~7	0	

BMS response format

CAN ID: 0x0CF20210 + Battery ID (range: 0~F)

Byte	Parameter	Parameter Unit
Byte0	Module charge current	0.1A
Byte1		
Byte2	Module discharge current	0.1A
Byte3		
Byte4	Module voltage	0.1V
Byte5		
Byte6	Reserve	
Byte7	Reserve	

Inverter query command format

CAN ID: 0x0CF10220 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0~7	0	

BMS response format

CAN ID: 0x0CF20220 + Battery ID (range: 0~F)

Byte	Parameter	Parameter Unit
Byte0	SOC	%
Byte1		
Byte2	Module total capacity	mAH
Byte3		
Byte4		
Byte5		
Byte6	Reserve	
Byte7	Reserve	

*If the parameter doesn't exist, return 0x0000.

3.3 BMS warning information inquiry

Inverter query command format

CAN ID: 0x0CF10300 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0~7	0	

BMS response format

CAN ID: 0x0CF20300 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0	Module charge voltage state	00H: normal 01H: below lower limit 02H: above higher limit F0H: other error
Byte1		
Byte2	Module discharge voltage state	
Byte3		
Byte4	Cell charge voltage state	
Byte5		
Byte6	Cell discharge voltage state	

Byte7		
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Inverter query command format

CAN ID: 0x0CF10310 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0~7	0	

BMS response format

CAN ID: 0x0CF20310 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0	Module charge current state	00H: normal 01H: below lower limit 02H: above higher limit F0H: other error
Byte1		
Byte2	Module discharge current state	
Byte3		
Byte4	Module charge temperature state	
Byte5		
Byte6	Module discharge temperature state	
Byte7		

Inverter query command format

CAN ID: 0x0CF10320 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0~7	0	

BMS response format

CAN ID: 0x0CF20320 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0	Cell charge temperature state	00H: normal 01H: below lower limit 02H: above higher limit F0H: other error
Byte1		
Byte2	Cell discharge temperature state	
Byte3		
Byte4	Reserve	
Byte5	Reserve	
Byte6	Reserve	
Byte7	Reserve	

*If the parameter doesn't exist, return 0x0000.

3.4 BMS charger and discharge information inquiry

Inverter query command format

CAN ID: 0x0CF10400 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0~7	0	

BMS response format

CAN ID: 0x0CF20400 + Battery ID (range: 0~F)

Byte	Parameter	Parameter Unit
Byte0	Charge voltage limit	0.1V
Byte1		
Byte2	Discharge voltage limit	0.1V
Byte3		
Byte4	Charge current limit	0.1A
Byte5		
Byte6	Discharge current limit	0.1A
Byte7		

Inverter query command format

CAN ID: 0x0CF10410 + Battery ID (range: 0~F)

Byte	Parameter	Note
Byte0~7	0	

BMS response format

CAN ID: 0x0CF20410 + Battery ID (range: 0~F)

Byte	Parameter	Parameter Unit
Byte0	Reserve	
Byte1	Charge, discharge status	
Byte2		
Byte3	Reserve	
Byte4	Reserve	
Byte5	Reserve	
Byte6	Reserve	
Byte7	Reserve	

Charge, discharge status:

Bit	Content	Note
7	Charge enable	1: yes 0: request stop charge
6	Discharge enable	1: yes 0: request stop discharge
5	Charge immediately	1: request: 0: no request
4	Charge immediately2	1: request: 0: no request
3	Full charge request	1: request: 0: no request
2		
1		
0		

*Bit 5: Set when SOC is very low, like 5~9%, device need charge immediately until this flag disappear.

*Bit 4: Set when SOC is low, like 10~14%, it will be better that device charge immediately until this flag disappear.

*Bit 3: Set when BMS need device fully charged.