



# ICEPS Option Sheet

## How to use this Option Sheet:

1. Please fill-in this Option Sheet carefully. In case you have questions, we advise contacting ISISPACE prior to sending the Option Sheet at: [sales@isispace.nl](mailto:sales@isispace.nl). Note that you are responsible to make sure the inputs you make are correct, since ISISPACE will produce the product accordingly, and shall not be responsible to verify your inputs or liable to provide refunds, make alterations or send a new product in case your input does not reflect your needs correctly.
2. Fill in the form digitally. You will need to have Adobe Acrobat reader installed (free download available at <http://get.adobe.com/reader/>)
3. Press the check button at the end to verify if your Option Sheet is complete.
4. Once you are ready, press the Enable Read Only button to prevent accidental changes, save the changes and send the digitally filled-in Option Sheet by email to your Sales Representative.

## Customer Contact Information

Contact Name:	
Email Address:	
Phone Nr:	
Organization / Company / Institution	
Address:	
Address (Cont'd):	
Country:	

## Additional Information (Optional)

Intended use (EM/FM/QM)	
Mission name	


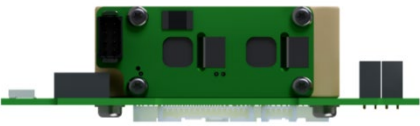
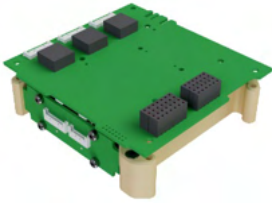
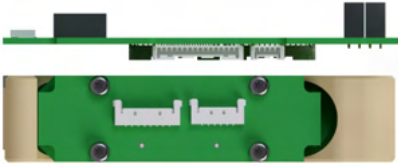
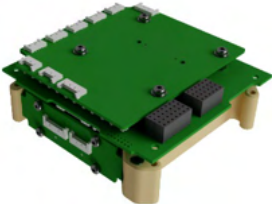
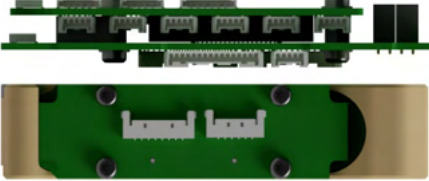
## For ISISPACE Use – Leave Blank –

Order Confirmation:	
Allocated WO:	
Sales responsible:	
Project/Ref.:	

## General Configuration

### Configuration of ICEPS

The ICEPS consist of IU (Integrated Unit) PCB and a PBP (Power battery pack). The PBP is available in 2C (two battery cells in series) and 4C (four battery cells in series).

Select	Type	Description	Configuration	
	A	IU with 2C PBP. 2C PBP is mounted on top of IU.		
	B	IU with 4C PBP. 4C PBP can be mounted anywhere in the stack, no daughterboard.		
	C	IU and daughterboard with 4C PBP. 4C PBP can be mounted anywhere in the stack.		

### Harness

Battery pack to main board; these options are only applicable to type B and C. Type A will always delivered with harness.

Select	Option	Description	Configuration
	H1	6-7 cm harness	This length will be applicable if the PBP is placed directly on top or underneath the IU.
	H2	Custom length	May have an additional cost and / or lead time.
	H3	None	No harness included

For custom length:

Item	Value
Custom length (cm)	

## Electrical Configuration

### Grounding scheme

The board is mechanically mounted in a CubeSat stack by means of four mounting holes which are normally isolated from the iEPS ground. If so required, these mounting holes can be connected to the board electrical ground. Four 0603 footprints are available with each mounting hole.

Select	Option	Description
	Grounded	One 0R resistor placed per mounting hole. Ground is connected directly to stack [default].
	None	Nothing placed

### I2C pin selection

Even though only one I2C bus is used, there are two alternative sets of pins on the CSKB that could be used to connect to the board.

Select	I <sup>2</sup> C Data (SDA)
	H1-41 (default)
	H1-23 (alternative)

Select	I <sup>2</sup> C Clock (SCL)
	H1-43 (default)
	H1-21 (alternative)

### ABF (Apply Before Flight) pin selection

ABF signal from ICEPS to OBC (On Board Computer)

Select	ABF	Remarks
	H2-51 & H2-50	Default
	H2-51 & H1-45	May have an additional cost and / or lead time.
	H2-50 & H1-45	May have an additional cost and / or lead time.
	Custom, please select one option: H2-51 only H2-50 only H1-45 only	May have an additional cost and / or lead time.
	None	May have an additional cost and / or lead time.

## Software Configuration

### I2C Address

Each board that is attached to the I<sup>2</sup>C bus requires a unique bus address. The users can specify any other address if the default is not compatible with their system. The address can be any 7-bit number with the exception of reserved addresses, specified in the I<sup>2</sup>C bus specification ([http://www.nxp.com/documents/user\\_manual/UM10204.pdf](http://www.nxp.com/documents/user_manual/UM10204.pdf)) and listed below:

Slave address (binary)	Slave address (hex)
0000 000	0x00
0000 001	0x01
0000 010	0x02
0000 011	0x03
0000 1XX	0x04 – 0x07
1111 XXX	0x78 – 0x7F

Select	Item	Value
	Default 7-bit I <sup>2</sup> C Address	0x20
	Alternative 7-bit I <sup>2</sup> C Address	

## Connector Type and Placement

### CSKB configuration

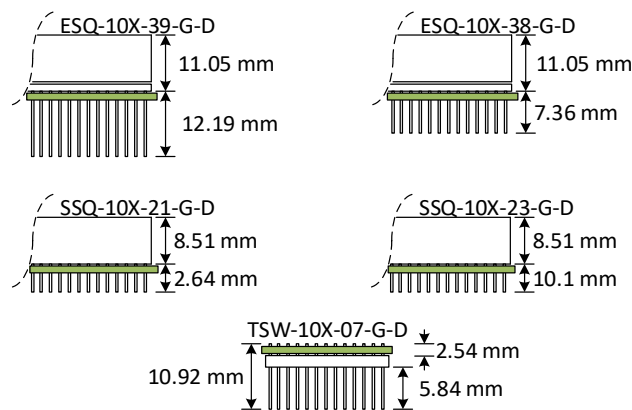


Figure 1: CSKB Configuration Layout

**Note:** The board location with respect to the connector is marked by the green line in the drawing above (the line represents the PCB).



Select	Connector name	H [mm]	P [mm]	Remarks
	SSQ-107-21-G-D & SSQ-106-21-G-D Stack termination bottom. No other CSKB components possible below the iEPS.	8.51	2.64	Additional cost and / or lead time may apply.
	ESQ-107-38-G-D & ESQ-106-38-G-D Standard stack through. Other CSKB components possible on top and bottom.	11.01	7.3	Additional cost and / or lead time may apply.
	ESQ-107-39-G-D & ESQ-106-39-G-D Standard stack through. Other CSKB components possible on top and bottom.	11.01	12.19	Additional cost and / or lead time may apply.
	TSW-107-07-G-D & TSW-106-07-G-D Stack termination top. No other CSKB components possible above the iEPS.	0.94	9.98	Additional cost and / or lead time may apply.
	Alternative Write full SAMTEC codes below:			This option must be approved by ISIS before order confirmation and may have an additional cost and / or lead time.

## Additional Comments