

SKYMODULE NOVA INTERFACE BOARD DATASHEET

VERSION 031615



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Version 031615

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1 Revision History

Revision	Author	Change
031615	Steve Schneider	Initial release.

Table 1-1: Revision History

2 Ordering Information

2.1 Nova Interface Board Standard Part Numbers

Part Number	Description
SP-IB-NV	Nova Interface board, 24-pin connector NOT included
SP-IB-NH	Nova Interface board, 24-pin connector SOLDERED to board
SP-IB-NV-KIT	Nova Interface board, 24-pin connector INCLUDED SEPARATELY

Table 2-1: Nova Interface Board Standard Part Numbers

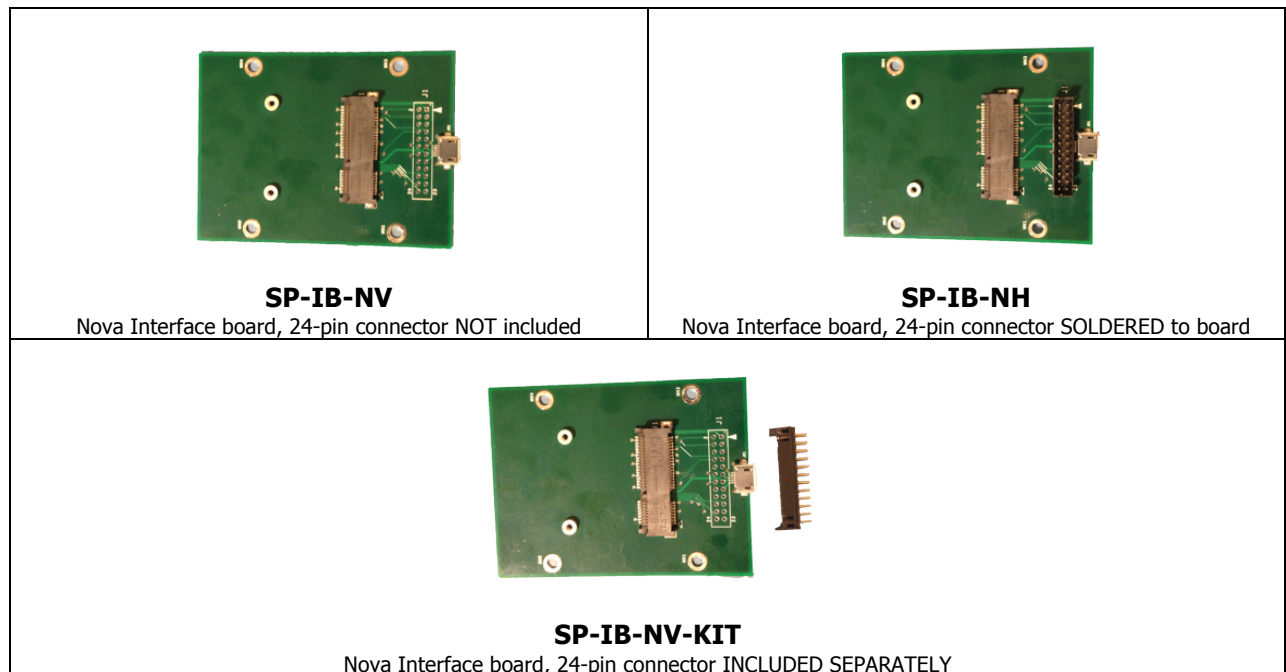
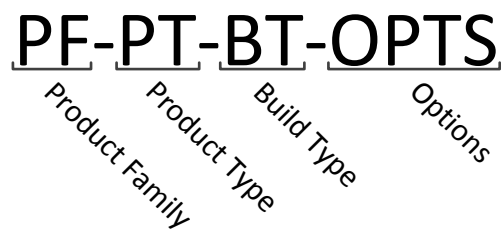


Table 2-2: Pictures of Nova IB Options

NOTE – The Nova will always communicate via USB, when a USB host is connected (i.e., if you connect to the USB connector on the Nova Interface Board, the Nova will not respond to communications sent to other pins.)

2.2 Part Number Details

The Nova Interface Board part number is constructed according to the SkyeTek part number specification below:

**Figure 2-1: SkyeTek Part Number Format**

Code	Options	Description
Product Family	SP = SkyePlus	Highest level product family code.
Product Type	IB = Interface Board	Specifies the specific part type.
Build Type	NV = Nova Interface board NH = Nova Interface board + 24-pin "MH" connector	Specifies hardware form factor.
Options	Blank = Standard KIT = Includes 24-pin "MH" connector, disconnected from board	This field specifies additional options (such as "kit") and can be further customized for special customer part numbers. Consult the SkyeTek sales team for custom orders.

Table 2-3: Part Number Details

2.3 How to Buy

SkyeTek products are distributed through a worldwide distribution network as well as directly through SkyeTek. For more information on how to purchase SkyeTek products in your area, please visit the [How To Buy](#) page on the SkyeTek website at SkyeTek.com/HowToBuy or email sales@skyyetek.com.



3 Nova Interface Board Overview

3.1 Description

The SkyeModule Nova Interface board was designed with two goals in mind:

1. To provide a simple interface for new customers to test the SkyeModule Nova via various communication protocols and for various uses.
2. To provide a drop-in-compatible alternative to SkyeTek's previous flagship UHF module, the M9-MH. The Nova Interface Board is the same form factor as the SkyeModule M9-MH.

3.2 Agency Approvals

- RoHS 2
- Manufactured according to ISO9001 and ISO13485

4 Mechanical Specifications

Outside dimensions: 2.09 x 2.75 inches (53.0 mm x 70.0 mm)

Mounting holes:

- 3.0 mm diameter 45.0 mm center-to-center (width)
- 40.0 mm center-to-center (length)

Clearance: Approx 2.5 mm between edge of mounting hole and edge of printed circuit board (PCB) (width/side-to-side direction)



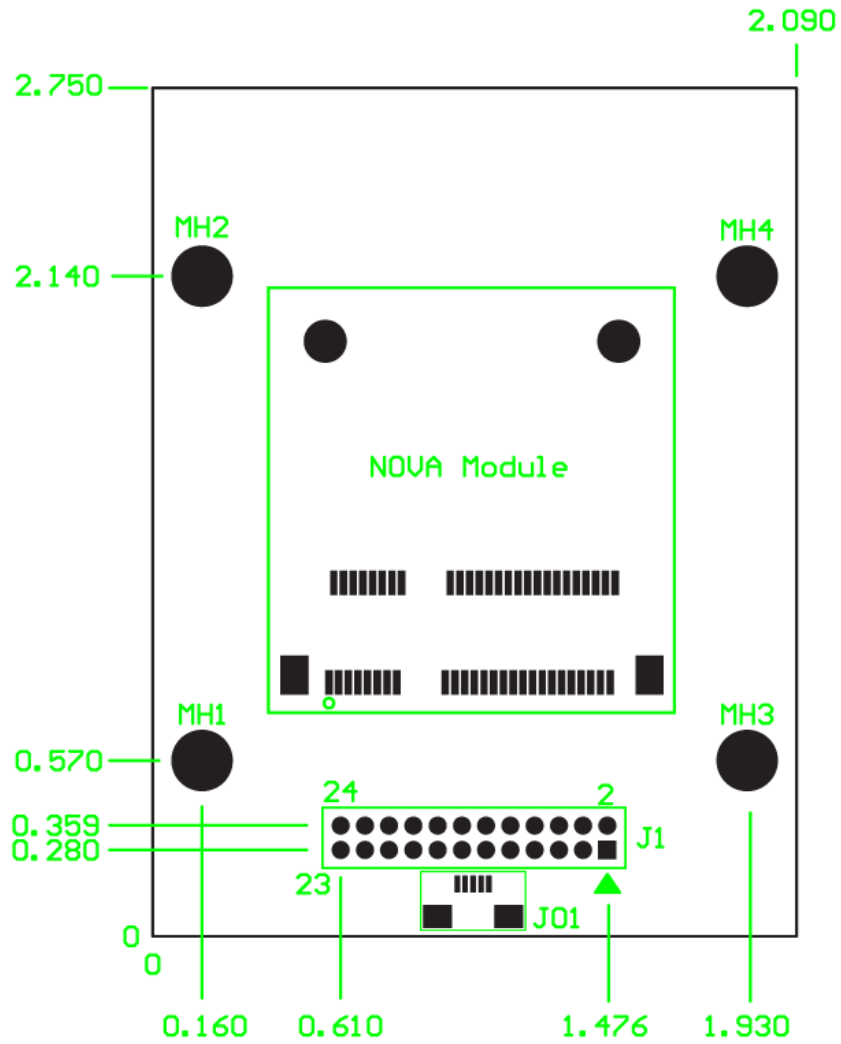


Figure 4-1: SP-IB-NV Mechanical Drawing (dimensions in inches)

5 Pinning Information

5.1 Connector Descriptions

The SP-IB-NV is the standard version of the Nova Interface Board and has only the USB micro connector populated. The pins for the Hirose 24-pin connector are left un-populated for easier prototyping.

The Nova Interface Board has one optional

Connector Type	Description	Ref Des	Man.	Man. P/N	Mating Connector
Through hole 2mm, 12x2	24-pin Host interface connector	J1	Hirose	DF11-24DP-2DSA(24)	DF11Z-24DS-2V
USB Micro AB Receptacle	USB host interface connector	J01	FCI	10104111-0001LF	USB Micro Plug
52 pin Mini PCIe	Nova Module to Nova Interface Board Connector	U1	Molex	67910-1002	NA

Table 5-1: Nova Interface Board Connector Specification

For more information on how to purchase SkyeTek products in your area, please visit the [How To Buy](#) page on the SkyeTek website at SkyeTek.com/HowToBuy.



5.2 Host Interface Connector Pin Mapping

The Nova Interface Board host connector is a 24-pin through-hole 2mm pitch part. As explained in the previous section, no connector is populated in location J1 in the standard version SP-IB-NV. The pin numbers are located as illustrated in Figure 5-1 below. The pin mappings and descriptions are shown in Table 5-2. Note that all unconnected pins should be left floating.

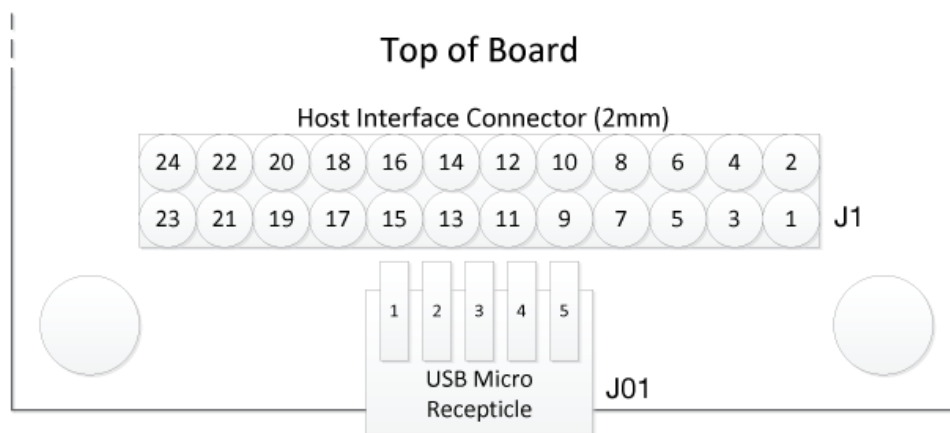


Figure 5-1: Host Interface Connector Pin Numbering

Pin	Name	Description	I/O	Pin	Name	Description	I/O
1	GPIO0	User configurable GPIO	I/O	2	RXD	UART receive	Input
3	GPIO1	User configurable GPIO	I/O	4	TXD	UART transmit	Output
5	GPIO2	User configurable GPIO	I/O	6	NC	Not Connected	N/A
7	GPIO3_DR	User configurable GPIO, Data Ready (see SPI and I2C modes)	I/O	8	N_DEEP_SLEEP	Active low deep sleep. Internally pulled high when unconnected (inactive).	Input
9	VIN	Input power supply pin	Input	10	GND	Ground	Input
11	USB_DP	USB positive	I/O	12	SCL	I ² C Clock	Input
13	USB_DN	USB negative	I/O	14	SDA	I ² C Data	I/O
15	VIN	Input power supply pin	Input	16	GND	Ground	Input
17	3V3_OUT	3.3V supply output pin	Output	18	MISO	SPI master in, slave out	Output
19	N_RESET	Active low reset. Pulled high when unconnected (inactive).	Input	20	MOSI	SPI master out, slave in	Input
21	NC	Not Connected	N/A	22	SCK	SPI clock in	Input
23	NC	Not Connected	N/A	24	SSEL	SPI slave select	Input

Table 5-2: Nova Interface Board Pin Descriptions