



# StackableUSB104™ I/O Device Carrier for 104 Factor™ CRR-104/HUB-104



## Features

- ✓ Accommodates up to four (4) StackableUSB boards
- ✓ Top- or bottom-mount to 104 Form Factor processor board
- ✓ USB Root or Hub versions
- ✓ No special software
- ✓ -40° to +85°C operation



The CRR-104 and the HUB-104 provide a bridge from off-the-shelf 104 Form Factor single board computers to the increasingly popular ¼-size StackableUSB I/O devices. Removing the burden of assessing compatibility from the OEM, the CRR-104 and HUB-104 securely mount top or bottom to any 104 Form Factor to provide access to multiple StackableUSB I/O modules. OEMs simply plug on their 104 Form Factor single

board computer via the StackableUSB connector or cable to the CRR-104/HUB-104 via USB 2.0. With access to the well-defined embedded standard for USB, I<sup>2</sup>C, and SPI, OEMs can add a wealth of intelligent peripheral functions from wireless to GPS to additional storage and more. Plus with the option to add a Hub, OEMs increase their USB capability by splitting one USB root port into 4 USB channels.

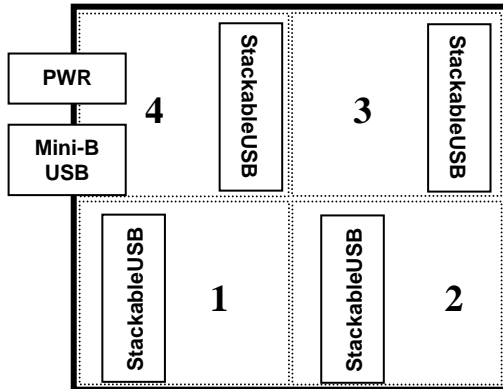
### Software/Driver Support

### Compatible Hardware

### Mounting/Packaging

*StackableUSB Host single board computers and microcontrollers  
PC Host desktops and laptops  
StackableUSB Client boards*

*Full-size 104 Form Factor, ½-size 104 Form Factor, and ¼-size 104 Form Factor  
Standoffs, STD0FFUSB*



## Specifications:

### Mechanical:

- Full-size 104™ Form Factor mounting holes
- ¼-size 104 Form Factor mounting holes
- ½-size 104 Form Factor mounting holes
- 3.55" (plus I/O region) x 3.775" x .6"

### Power Requirements:

- +5v ±5% supplied by power header
- 200 mA (min)

*(Current requirements dependent on devices plugged into the HUB-104)*

### Environmental:

- 40° to +85°C operating
- 40° to +85°C storage
- 5%-95% relative humidity, non-condensing

### Interface:

- StackableUSB
- I<sup>2</sup>C
- SPI

### Connections\*:

- One (1) StackableUSB Host
- Four (4) ¼-size 104 Form Factor StackableUSB
- Two (2) ½-size 104 Form Factor StackableUSB
- Two (2) ¼-size 104 Form Factor and one (1) ½-size 104 Form Factor StackableUSB

*\*Based on configuration*

### Development Kit:

- Base module
- Complete cable set
- Documentation, schematics

## Ordering Information:

### OEM Hub Carrier Module:

HUB-104-ST	Hub Carrier Board for four (4) top-mounting ¼-size 104 Form Factor boards for StackableUSB Host
HUB-104-PC	Hub Carrier Board for four (4) top-mounting ¼-size 104 Form Factor boards for PC Host
104OPT2T	Two (2) top-mounting ½-size 104 Form Factor boards
104OPT2B	Two (2) bottom-mounting ½-size 104 Form Factor boards
104OPT3T	Two (2) top-mounting ¼-size 104 Form Factor boards and one (1) top-mounting ½-size 104 Form Factor board
104OPT3B	Two (2) bottom-mounting ¼-size 104 Form Factor boards and one (1) bottom-mounting ½-size 104 Form Factor board
104OPT4B	Four (4) bottom-mounting ¼-size 104 Form Factor boards
CS-HUB-104	Complete Cable Set

### OEM Carrier Module:

CRR-104-ST	Carrier Board for four (4) top-mounting ¼-size 104 Form Factor boards for StackableUSB Host
CRR-104-PC	Carrier Board for four (4) top-mounting ¼-size 104 Form Factor boards for PC Host
104OPT2T	Two (2) top-mounting ½-size 104 Form Factor boards
104OPT2B	Two (2) bottom-mounting ½-size 104 Form Factor boards
104OPT3T	Two (2) top-mounting ¼-size 104 Form Factor boards and one (1) top-mounting ½-size 104 Form Factor board

104OPT3B	Two (2) bottom-mounting ¼-size 104 Form Factor boards and one (1) bottom-mounting ½-size 104 Form Factor board
104OPT4B	Four (4) bottom-mounting ¼-size 104 Form Factor boards
CS-CRR-104	Complete Cable Set

### Related Products:

STDOFFUSB	StackableUSB Standoff Kit
CA4136	A to Mini-B USB Cable

### Development Board Kits\*

DK-HUB-104-ST	Hub Carrier Board for four (4) top-mounting ¼-size 104 Form Factor boards for StackableUSB Host development kit
DK-HUB-104-PC	Hub Carrier Board for four (4) top-mounting ¼-size 104 Form Factor boards for PC Host development kit
DK-CRR-104-ST	Carrier Board for four (4) top-mounting ¼-size 104 Form Factor boards for StackableUSB Host development kit
DK-CRR-104-PC	Carrier Board for four (4) top-mounting ¼-size 104 Form Factor boards for PC Host development kit

\*See Development Kit Specifications

The above model is for U.S. operation. Contact the factory for international models.