StackableUSB™ I/O Device Carrier for Nano-ITX Form Factor CRR-NANO/HUB-NANO
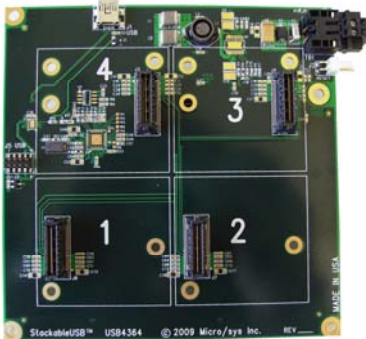
Features
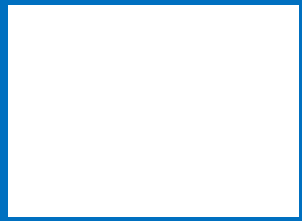
✓ Accommodates up to four (4) StackableUSB boards

✓ Top- or bottom-mount to Nano-ITX processor board

✓ USB root or hub versions

✓ No special software

✓ -40° to +85°C operation

The CRR-NANO and the HUB-NANO provide a bridge from off-the-shelf Nano-ITX single board computers to the increasingly popular ¼-size StackableUSB I/O devices. Removing the burden of assessing compatibility from the OEM, the CRR-NANO and HUB-NANO securely mount top or bottom to any Nano-ITX form factor to provide access to multiple StackableUSB I/O modules. OEMs simply plug on their Nano-ITX single board computer via the StackableUSB connector or cable to the CRR-NANO/HUB-NANO via USB 2.0. With access to the well-defined embedded standard for USB, I2C, 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.

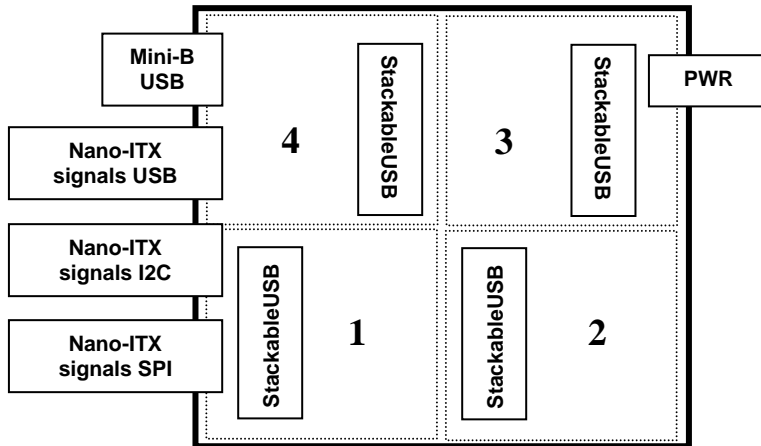| Software/Driver Support	Compatible Hardware	Mounting/Packaging
	Nano-ITX CPU motherboard PC Host desktops and laptops StackableUSB Client boards	Nano-ITX, full-size 104 Form Factor, ½-size 104 Form Factor, and ¼-size 104 Form Factor Standoffs, STDOFFUSB

Mini-B USB

Nano-ITX signals USB

Nano-ITX signals I2C

Nano-ITX signals SPI

4 StackableUSB **3** StackableUSB **PWR**

StackableUSB **1** StackableUSB **2**

Specifications:

Mechanical:
- ❑ Nano-ITX mounting holes
- ❑ Full-size 104™ Form Factor mounting holes
- ❑ ¼-size 104 Form Factor mounting holes
- ❑ ½-size 104 Form Factor mounting holes
- ❑ 4.7" (plus I/O region) x 4.7" x .6"

Power Requirements:
- ❑ +5v ±5% supplied by power header
- ❑ 200 mA (min)

(Current requirements dependent on USB devices plugged into HUB-NANO/CRR-NANO)

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

Interface:
- ❑ USB
- ❑ I^2C
- ❑ SPI

Connections*:
- ❑ Three (3) headers for Nano-ITX signals
- ❑ 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
- ❑ One (1) full-size 104 Form Factor StackableUSB

*Based on configuration

Development Kit:
- ❑ Base module
- ❑ Complete cable set
- ❑ Documentation, schematics

Ordering Information:

OEM Hub Carrier Module:

HUB-NANO-ST	Hub Carrier Board for four (4) top mounting ¼-size 104 Form Factor boards for StackableUSB Nano-ITX Host
HUB-NANO-PC	Hub Carrier Board for four (4) top mounting ¼-size 104 Form Factor boards for Nano-ITX Host or PC Host with Mini-B USB header
NANOOPT1T	One (1) top-mounting full-size 104 Form Factor board
NANOOPT1B	One (1) bottom-mounting full-size 104 Form Factor board
NANOOPT2T	Two (2) top-mounting ½-size 104 Form Factor boards
NANOOPT2B	Two (2) bottom-mounting ½-size 104 Form Factor boards
NANOOPT3T	Two (2) top-mounting ¼-size 104 Form Factor boards and one (1) top-mounting ½-size 104 Form Factor board
NANOOPT3B	Two (2) bottom-mounting ¼-size 104 Form Factor boards and one (1) bottom-mounting ½-size 104 Form Factor board
NANOOPT4B	Four (4) bottom-mounting ¼-size 104 Form Factor boards
CS-HUB-NANO	Complete Cable Set

OEM Carrier Module:

CRR-NANO-ST	Carrier Board for four (4) top mounting ¼-size 104 Form Factor boards for StackableUSB Nano-ITX Host
CRR-NANO-PC	Carrier Board for four (4) top mounting ¼-size 104 Form Factor boards for Nano-ITX Host or PC Host with Mini-B USB header

NANOOPT1T	One (1) top-mounting full-size 104 Form Factor board
NANOOPT1B	One (1) bottom-mounting full-size 104 Form Factor board
NANOOPT2T	Two (2) top-mounting ½-size 104 Form Factor boards
NANOOPT2B	Two (2) bottom-mounting ½-size 104 Form Factor boards
NANOOPT3T	Two (2) top-mounting ¼-size 104 Form Factor boards and one (1) top-mounting ½-size 104 Form Factor board
NANOOPT3B	Two (2) bottom-mounting ¼-size 104 Form Factor boards and one (1) bottom-mounting ½-size 104 Form Factor board
NANOOPT4B	Four (4) bottom-mounting ¼-size 104 Form Factor boards
CS-CRR-NANO	Complete Cable Set

Related Products:

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

Development Board Kits*

DK-HUB-NANO-ST	Hub Carrier Board for four (4) top-mounting ¼-size 104 Form Factor boards for StackableUSB Nano-ITX Host
DK-HUB-NANO-PC	Hub Carrier Board for four (4) top-mounting ¼-size 104 Form Factor boards for Nano-ITX Host or PC Host with Mini-B USB header
DK-CRR-NANO-ST	Carrier Board for four (4) top-mounting ¼-size 104 Form Factor boards for StackableUSB Nano-ITX Host
DK-CRR-NANO-PC	Carrier Board for four (4) top-mounting ¼-size 104 Form Factor boards for Nano-ITX Host or PC Host with Mini-B USB header

*See Development Kit Specifications
The above model is for U.S. operation.
Contact the factory for international models.