MOXA®

UPort™ 400 Series
Quick Installation Guide

First Edition, January 2009

1. Overview

The UPort™ 400 series industrial grade USB 2.0 hubs expand 1 USB port to 4 or 7 ports. The hubs are designed to provide true USB 2.0 Hi-Speed 480 Mbps data transmission through each port, even for heavy-load applications. As USB-IF certified products, the UPort™ 404 and 407 have passed high speed compliance testing and are eligible to bear the USB logo. In addition to providing ESD level 4 protection from static damage, the UPort™ 400 series offers a power jack and terminal block dual power input solution for industrial environments. All these features ensure that Moxa provides highly reliable USB hubs.

Features:

- Hi-Speed USB 2.0 for up to 480 Mbps USB transmission
- USB-IF certification
- Dual power input supply (power jack and terminal block)
- 15KV ESD Level 4 protection for all USB ports
- Rugged metal housing
- DIN-rail and wall mountable
- Comprehensive diagnostic LEDs
- Bus power or external power options (UPort™ 404)

2. Package Checklist

The UPort™ 400 series package should contain the following items. If any of these items is missing or damaged, please contact Moxa for replacement.

- UPort™ 404 or UPort™ 407: 4- or 7-port industrial-grade USB hub
- Power adaptor*
- UPort™ 400 series Quick Installation Guide (Printed)
- USB-IF certified USB cable
- Warranty card

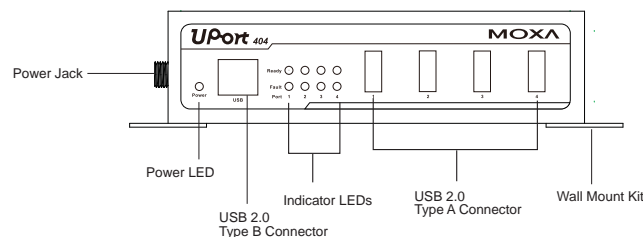*The UPort™ 404/407 may only be used with the POWERTRON ELECTRONICS CORP, Type PA1030-2I power adaptor.

Optional Accessories (can be purchased separately)
- DK-35A   Mounting kit for 35-mm DIN-rail
- Wall mount kit   Metal plates package for wall mount
- DIN-rail kit   DIN-rail kit for UPort™ 400 series

3. Hardware Introduction

Front View

An example of the UPort™ 404 front panel:

Power Jack, Power LED, USB 2.0 Type B Connector, Indicator LEDs, USB 2.0 Type A Connector, Wall Mount Kit

LED Indicators

The LED indicators on the front panel are used to display status as follows:

| Type	Color	Meaning
Ready	Green	Steady on: Power is on and UPort™ is functioning normally
	Off	1. No device connected 2. Device cannot be detected
Fault	Red	Steady on: Device overcurrent is detected
Power	Yellow	Bus power
	Green	External power

Power Input Supply
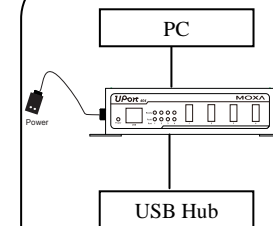
The following table shows power input supply.

	UPort™ 404	UPort™ 407
Bus Power	V	--
Self Power	V	V

Scenario 1

PC → UPort → Device
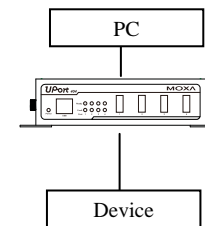
Note: When only connecting devices to the UPort™ 404, we recommend a direct power bus connection between the UPort™ 404 and host.
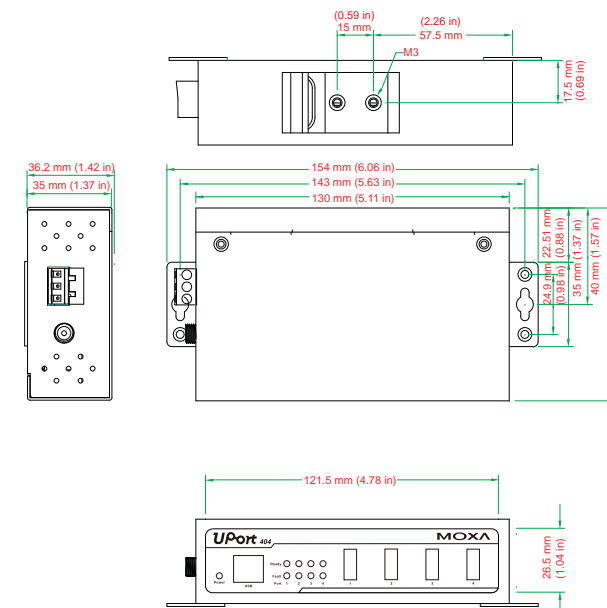
Scenario 2

PC → UPort → USB Hub

Note: When connecting the UPort™ 404 to a USB hub, we recommend using an external power connection.

4. Dimensions

UPort™ 404

(0.59 in) 15 mm   (2.26 in) 57.5 mm   M3   17.5 mm (0.69 in)

36.2 mm (1.42 in)   35 mm (1.37 in)

154 mm (6.06 in)   143 mm (5.63 in)   130 mm (5.11 in)

22.51 mm (0.88 in)   35 mm (1.37 in)   24.9 mm (0.98 in)   40 mm (1.57 in)   80 mm (3.15 in)

121.5 mm (4.78 in)   26.5 mm (1.04 in)

UPort™ 407

(0.59 in)
15 mm
(3.48 in)
88.5 mm
M3
17.5 mm
(0.69 in)

36.2 mm
(1.42 in)
35 mm
(1.37 in)

216 mm (8.50 in)
205 mm (8.07 in)
192 mm (7.55 in)

32.5 mm
(1.27 in)

35 mm
(1.37 in)
24 mm
(0.98 in)

100 mm (3.93 in)

183.5 mm (7.22 in)

26.5 mm
(1.04 in)
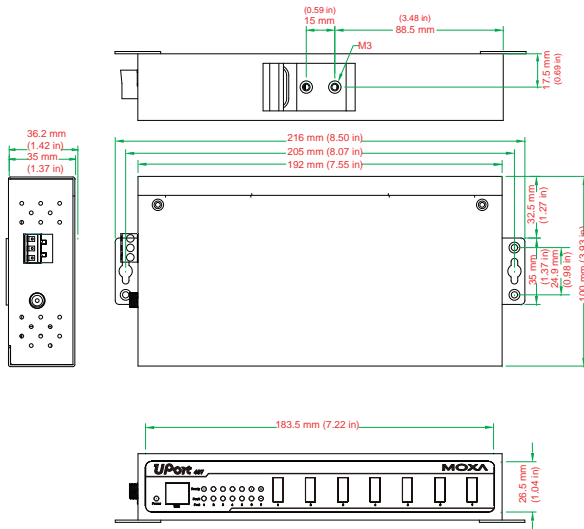
5. Environmental Specifications

USB Interface

Compliance: USB 1.1/2.0 compliant

Upstream: 1 USB port, Type B connector

Downstream:
UPort™ 404: 4 USB ports, Type A connectors
UPort™ 407: 7 USB ports, Type A connectors

Speed: 480 Mbps (Hi-Speed USB) and 12 Mbps (Full-Speed USB)

Physical Characteristics

Housing: Aluminum

Dimensions:
UPort™ 404: 80 x 35 x 130 mm (3.15 x 1.38 x 5.12 in)
UPort™ 407: 100 x 35 x 192 mm (3.94 x 1.38 x 7.55 in)

Environmental Limits

Operating Temperature:
Standard Models: 0 to 60°C (32 to 140°F)

Operating Humidity: 5 to 95% RH
(For use in Pollution Degree 2 environments)

Storage Temperature:
Standard Models: -20 to 75°C (-4 to 167°F)

Power Requirements

Input Voltage: 12 to 40 VDC (external power)

Power Consumption:
UPort™ 404:
1300mA@ 12 VDC, 690mA@24 VDC, 470mA@36 VDC
UPort™ 407:
2300mA@ 12 VDC, 1130mA@24 VDC, 790mA@36 VDC

Regulatory Approvals:
EN61000-3-2, EN61000-3-3,
EN61000-4-2,EN61000-4-3,EN61000-4-4,EN61000-4-5,
EN61000-4-6,EN61000-4-8, EN61000-4-11,EN61000-6-2,
EN61000-6-4, FCC Part 15 Class A, UL508, LVD

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

6. Compliance Notice

This product complies with Chinese RoHS (Restriction of Hazardous Substances) regulations for Electronic Information Products.

CF Warning

This is a class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take appropriate measures.

Federal Communications Commission Statement

FCC - This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.