Ochno Power Conference

One socket. For everything. Smart!

Installation & User Guide

Ochno Power Conference 3 is a unique product that provides robust USB-C connectivity between laptops and video conference equipment. With 4 switchable USB-C inputs, a wide range of accessories and the possibility for cloud management, Ochno Power Conference can cover the majority of requirements for any video conference room in regards to charging, video and USB-connectivity.

More in-depth documentation available on www.ochno.com/opc3 and www.ochno.com/support

This guide covers both versions of Ochno Power Conference 3:

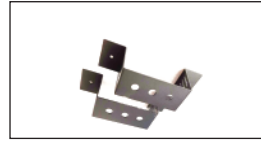| Part Number	Product	Comment
O-PC-3	Ochno Power Conference 3	Full-featured
O-PC-3-Single	Ochno Power Conference 3 - Single	Limited to one active USB-C port

In The Box

Main unit

Power Supply Unit (PSU)

PSU Mounting Brackets

WIFI-Antenna

AC-Cord

This manual

Functional Description

1 USB-C Input. Provides up to 100W charging, 4k video, USB 2 and USB 3 pass-trough. Active port is indicated by LED on the back-side, see #7 below.

2 Connector for including 20V power supply.

3 Button. Short-click to change which USB-C is active for pass-trough. Each click cycle through: Port 1, Port 2, Port 3, Port 4 and No Port Active.

4 USB Pass-through: USB 3 ports used for connecting the USB-devices that should be exposed to the device connecting via USB-C. For instance USB camera, speaker, microphone, mouse, keyboard or Ethernet-adapter. If more USB ports are needed an additional USB-hub can be connected.
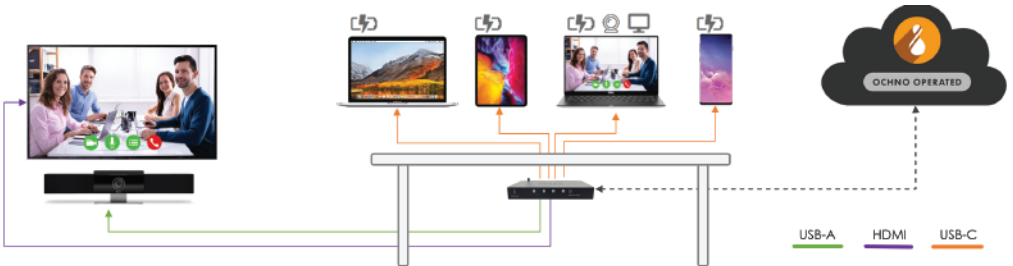
5 HDMI Output. Connect to external TV or projector using HDMI cable supporting 18 Gbps to ensure full 4k at 60hz.

6 IO Devices. Ports for connecting different accessories and expansion modules for OPC3, such as LED button switch and daisy-chain adapter. Note: Do not use for connecting USB-devices that should be accessible by the laptops via USB-C.

7 LED indicator for which port is active. LED 1 = Port 1, LED 2 = Port 2, LED 3 = Port 3, LED1+2+3 = Port 4, No LED = No active port.

8 Ethernet port for establish connection to Ochno Operated.

9 External WIFI-antenna for establish connection to Ochno Operated.

Usage

When TV, USB-devices, power supply and USB-C cables are connecting, the system is operational. Any device connected to a USB-C will start charging. The red LED-indicator on the back indicates which USB-C port is active and connects to the TV and USB-devices. Toggle through the active ports by short-press the console-button on the back.

Please see www.ochno.com for more usage examples.

Installation

Since regular USB-C cables can not be longer than 2m it is usally best to mount the main unit below the table surface together with the power supply. O-PC-3 has integrated mounting brackets and the power supply comes with seperate mounting brackets. Use suitable screws (not included) for the material of the table.

HDMI and USB-A cables for connecting TV/projector and USB devices are not included and depending on the length between the table and TV/USB-devices carefull consideration in this selection is needed to ensure robust functionality. Some guidelines:
- Passive HDMI cable should not be over 6m. For longer distances, use active HDMI-cable with integrated repeater (up to 10m), or Ethernet-repeater (e.g. HDBase-T) or active optical cable (for distances over 10m).
- Passive USB 3.0 cable can not be longer 3m. For distances

between 3m-7m, active cable with integrated repeater can be used. For longer distances, use active optical cable (ensure both USB 2.0 and USB 3.0 support). Note that Ethernet-based repeater usually only supports USB 2.0

If Ochno LED Socket or LED-switch are use, the adapter for these are connected to the USB-port marked IO Devices.

For O-PC-3-Single only the Port 1 is active for video and USB pass-through. Port 2-4 only provides charging.

Please see www.ochno.com for more installation examples.

Configuration

The default configuration is normally sufficient when O-PC-3 is used for only BYOD-mode (Bring-your-own-device) and when using Ochnos LED-switches. If the unit needs to be re-configured, please download Ochno Management Console at www.ochno.com/support.

Examples when custom configuration is needed:
- Use of auto-switching when inserting USB-C cable
- Switching between fixed video conference (BYOD / MTR-switch)
- Setting up connection to Ochno Operated
- If fine-tuning is needed to deal with a special TV or USB-device

To configure the system, please follow these steps:
1. Download, install and start Ochno Management Console (www.ochno.com/support)
2. Connect your laptop to Port 4 using a USB-C or USB-C to USB-A cable.
3. Long-press the button on the back of O-PC-3 for 5-7 seconds or until the Ochno Management console detects the unit.
4. Make the changes needed and press Apply.
5. Disconnect. Unit is now updated.

Ochno Operated

Ochno Operated is a global cloud service that provides remote management of any Ochno product. The service provides services like firmware updates, settings management and usage analysis.

Follow these steps to connect the unit to Ochno Operated
1. A fixed (100 Mbit/s) Ethernet-connection or a wireless WIFI (2.4 Ghz) connection is needed. The network needs to provide DHCP and outgoing Internet traffic on ports 443, 188x.
2. Connect to the device with Ochno Management Console as described previously.
3. Select Ethernet (default) or WIFI-connection
4. If WIFI is selected, enter SSID and PSK / password.
5. If you have not logged in to Ochno Operated, do that.
6. In the Ochno Operated dialog, enter hub name and select an existing Space to connect to.
7. Press Apply.

The device will reboot automatically and it should be marked as Connected now.

More information ans upport about Ochno Operated is available at www.ochno.com/operated

Safety & Specifications

CAUTION! Do not insert objects through the venting holes. This may damage the product. Should this still happen, there is no risk to cause injury due to the low voltages inside and the over current protection.

CAUTION! Do not insert objects other than applicable cable contacts into the terminals. This may damage the product. Should this still happen, there is no risk to cause injury due to the low voltages inside and the over current protection.

The product is intended for indoor use in a ventilated area with normal temperatures and humidity (max+48 °C, min +0°C, max 90% RH). Avoid dripping water, condense water etc. Avoid direct sunlight. The product is to be mounted by an instructed person. No serviceable parts inside. Only to be opened by skilled service technician

CE   FC   conforme RoHS

FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna
• Increase the separation between the equipment and receiver
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
• Consult the dealer or an experienced radio/TV technician for help

General

Product name: Ochno Power Conference 3
Part number: O-PC-3
Contents: Main unit. power adapter, mounting brackets, AC-cord
Warranty: 3 years
Dimensions: 215 x 130 x 33 mm,
Weight: 680g
Max output power: 4 x USB-A + 4 x USB-C = 180W
Certifications: CE-EMC EN55032: 2015, EN 61000-3-2: 2014, EN55035:2017, EN61000-3-3: 2013, CE-LVD EN62368-1:2014, FCC SDOC FCC PART15B:2020, CE-ROHS 10

Power Supply

Input: 85 - 264 V AC, 2.4A max, 1 meter AC-cord included
Output: 20V, 10A. 4-Pin DIN med locking mechanism
Size: L 161 x W 54 x H 33 mm
Weight: 560g
Certifications: CB / UL / cUL / FCC / GS / CE / PSE / BSMI / CCC

Environment

Safety class: IP20, 90% RH
Ambient temperature: 5° – 40°C.
Protection: Over-current, over-voltage, over-temperature

Connections

Docking: 4 x USB Type-C sockets, with single locking screw (M2).
USB Devices: 2 x USB-A 3.0 sockets for connecting video conferencing devices such as camera and speakers.
Accessories: 2 x USB-A 2.0 sockets for connecting special accessories such as LED-buttons and RS232 adapter.
HDMI: HDMI 2.0 for connection to TV or projector.
Ethernet: RJ45, 100Mbit/s, Full-duplex, management only
WIFI: External antenna. 2.4Ghz (not 5Ghz), management only

Functionality

USB-C video-in: Alt-Mode DisplayPort 1.1 to 1.4. 2 or 4 lanes (configurable). Max bandwidth 32 Gbit/s. Up to HDR3.
HDMI video-out: HDMI 2.0b. HDCP 1.4 och 2.3. 6 Gbit/s
- 2 DP Lane mode: DP 1.2 = 4k30Hz, DP 1.4 = 4k60Hz
- 4 DP Lane mode: DP 1.2 = 4k60Hz
USB Pass-through:
- 2 DP Lane mode: USB 2.0 LS/FS/HS & USB 3.1, SS/5 Gbit/s
- 4 DP Lane mode: USB 2.0 LS/FS/HS
Charging USB-C: 5V / 3A, 9V / 3A, 12V / 3A, 15V / 3A, 19.5V / 5A, 20V / 5A.

Innovated and designed in Sweden

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