



energysquare
Power & Connectivity by Contact

DEMO KIT - USER MANUAL

Hands-on guide for PbC demonstration kit

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DEMO KIT - User manual overview

Features

- Seamless cableless charging experience
 - Quick and easy installation
 - Free positioning
 - Small form factor
- 65W USB-C Power Delivery input/output
 - 5-9-12-15-20 V input/output
 - VBUS and CC lines over voltage protections
 - System-level ESD protection
 - Integrated discharge on VBUS
- Over temperature protection
- Foreign object protection

Application

Designed for you to **experience** Power by **Contact**® technology with any USB-C Power Delivery device, especially notebooks.

Description

The demo kit is specifically created to enable a quick setup and includes all the necessary items for charging your USB-C PD devices.

The package includes:

- Demo Transmitter (TX)
- Demo Receiver (RX), with two height adapters
- USB-C PD adapter



DEMO KIT overview

Table of contents

Disclaimer.....	1
DEMO KIT - User manual overview.....	2
Introduction.....	4
Quick start guide.....	4
Height adapters.....	4
Kit contents.....	5
Box dimensions.....	5
Demo transmitter.....	5
Features.....	5
Dimensions.....	5
Demo receiver.....	6
Features.....	6
Dimensions.....	6
Height adapters.....	6
Power supply adapter.....	7
Features.....	7
Dimensions.....	7
Application examples.....	8
Version control chart.....	9

Introduction

This document provides all necessary information to handle our DEMO-KIT, which includes a Demo Transmitter, a Demo Receiver with two height extenders and a USB-PD power supply.

The DEMO-KIT allows the user to experience Power by **Contact**® technology in a direct and quick manner. It has been optimized for the cableless charge of notebooks, but it can charge any USB-C PD device if it fits with our Demo Receiver.

For more information, please go to energysquare.co/support/

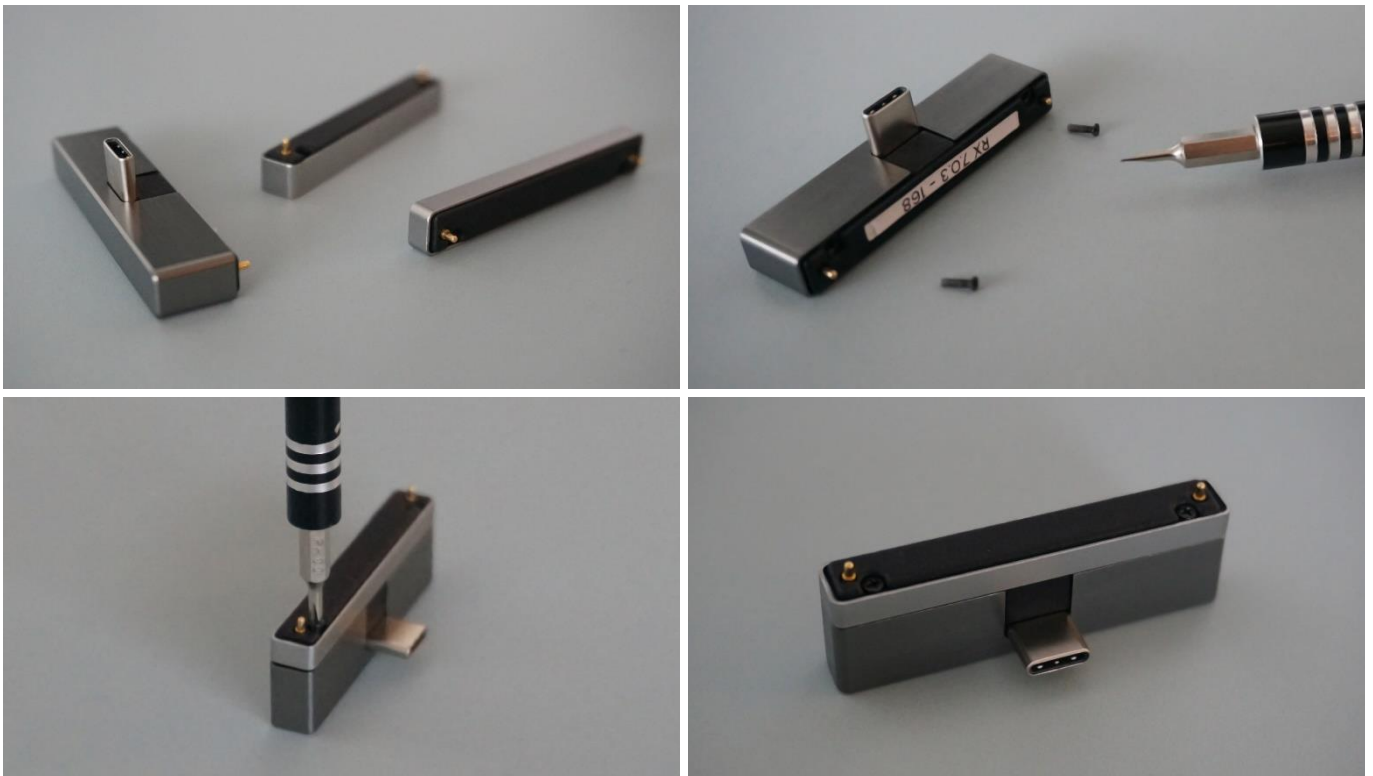
Quick start guide

1. Plug the provided USB PD power supply to the main AC.
2. Plug the USB PD output to the Demo TX USB-C port. The LED lights on in green.
3. Plug the Demo RX output to the USB-C PD input on the device you wish to charge.
4. Place the device with the attached RX on TX tiles and make sure there is direct contact between the tiles and the RX electrodes (if the contact is not possible, please see *Height adapters* section).
5. LED turns white during device identification process.
6. LED turns blue and the device starts charging.

Height adapters

On some occasions, the RX USB-C adapter will not be high enough to fit with your device. The height adapters are meant to solve this issue. Two of them are provided, one of 6mm, and one of 4mm. How to use it:

1. Unscrew the two screws under the RX,
2. Maintain the appropriate height adapter for your use case under the RX. Make sure the screw wholes are aligned.
3. Screw the height adapter to the RX with the provided longer screws.
4. You can now use the RX for higher devices.



For obvious mechanical reasons, the DEMO-KIT will not fit with every device on the market, but it should work with most USB-C PD notebooks, tablets, or smartphones.

Kit contents

- one **Demo transmitter** (TX), also named charging pad,
- one **Demo receiver** (RX), also named side-dongle, which is made to retrofit USB-C devices,
- one 4mm **Height adapters** for the side-dongle,
- one 6mm **Height adapters** for the side-dongle,
- one USB-C PD **Power supply adapter**.

Box dimensions

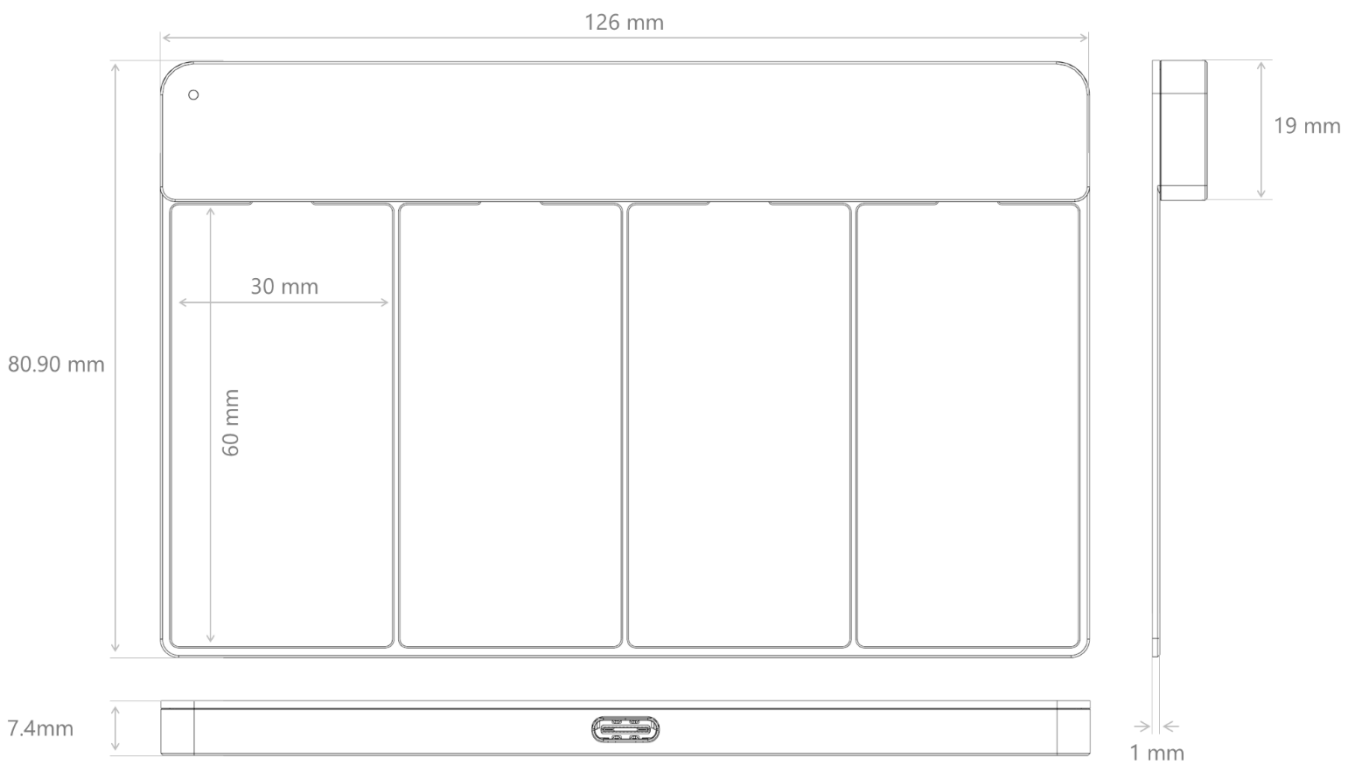
181 mm x 128 mm x 51 mm

Box weight

310g

Demo transmitter

Our Demo Transmitter is a compact charging mat with 4 tile outputs. It can power only one receiver at a time, within the whole USB-C voltage range, up to 65W.



Features

- 4 outputs (tiles)
- a status LED
- 5-9-12-15-20 V input/output*
- 65W max*.

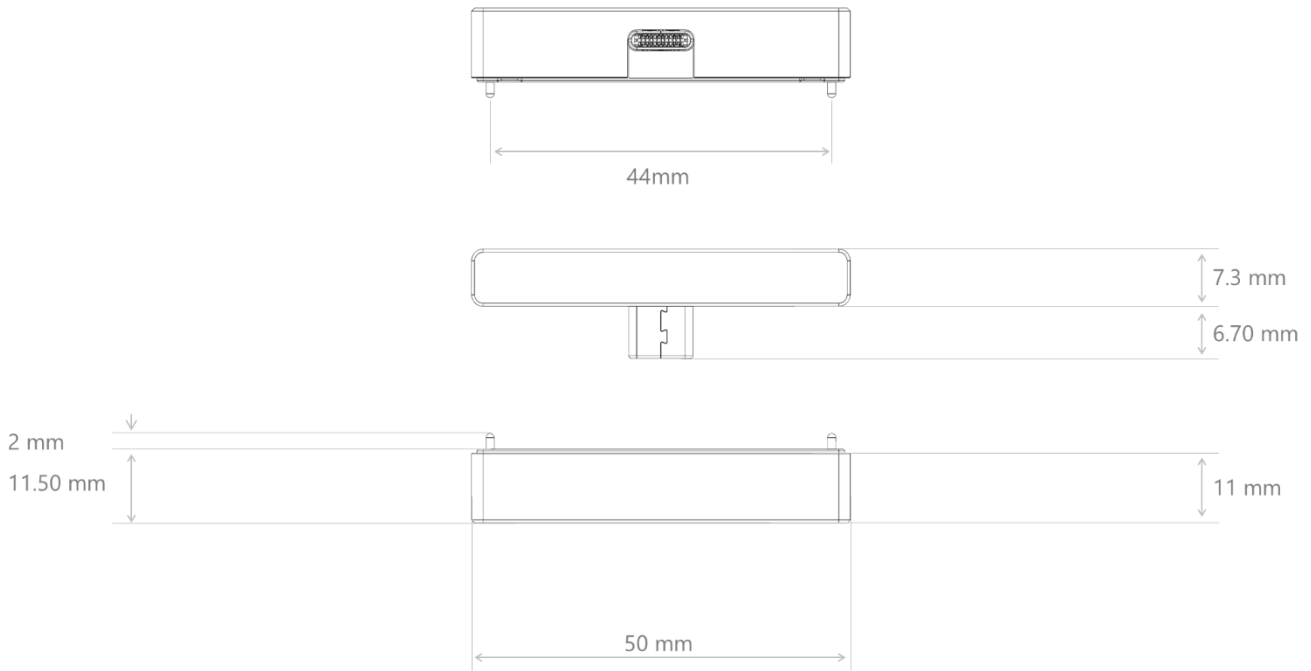
*Voltages and power correspond to the provided USB-C PD adapter on the package. The voltage and power input/output will vary depending on the USB-C PD adapter used.

Dimensions

126 mm x 81 mm x 7.4 mm

Demo receiver

Our Demo Receiver is a USB-C dongle-type adapter designed to be attached directly to your device's USB-C PD port. It fits almost every notebook, tablets, or smartphone. In some cases, it may require adding one height adapter to it to fit too high devices.



Features

- 5-9-12-15-20 V input/output*
- 65W max.*

*Voltages and power correspond to the provided USB-C PD adapter on the package. The voltage and power input/output will vary depending on the USB-C PD adapter used.

Dimensions

50 mm x 7.3mm x 11.5mm

Height adapters

We provide two of them, one of 6mm and one of 4mm. It needs to be screwed to the bottom of the receiver in case you need to increase its height.

Power supply adapter

Standard AC to USB-C Power Delivery PPS GaN power supply with 1.8m USB-C cable.

Features

Input: AC 100V-240V

USB-C output:

5V 3A, 9V 3A, 12V 3A, 15V 3A, 20V 3.25A

65W max. (45W max when USB-A in use)

USB-A output:

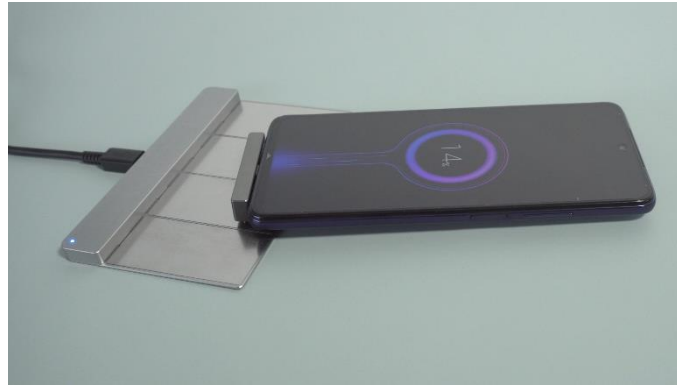
5V 3A, 5V 9A, 5V 2A, 12V 1.5A

18W max.

Dimensions

29 mm x 91 mm x 54 mm

Application examples





Version control chart

Version	Purpose/Change	Author	Date
1.0	First Version	Alexis Polti	2023/11/30
1.1	Release version	Matthieu Poidatz	2023/12/14