molex

USB HUB AND CHARGER SOLUTIONS

The full USB-C integration of mobile devices into the car

A smart integration of mobile devices into the car is represented by the USB Hub, which enables not only power delivery but also high speed USB 3.1 data transfer from the smart device to the car's infotainment system. Molex USB Hub and Charger solutions are unobtrusive, solid designed and built according to automotive standards with respect to consumer adapters.

Key Features

Multiple active USB-C ports

Simultaneous data transfer and battery charging or dedicated charger

Supports Apple CarPlay/Andriod Auto/Baidu CarLife

3 A Type-C Fast Charging

Apple Charging up to 2.4 A

Battery Charging BC1.2

Power Delivery up to 100 W

Line Compensation

USB 3.1 (USB 2.0 compatible)

Suitable for Automotive

Alternate Mode (e.g. Audio, Video, HDMI, SD Card)

Port illumination (optional)

Apple Authentication Coprocessor (optional) Molex is Apple MFi licensee since 2008

Compatible with Apple and Android charging cables

CONSUMER DEVICE INTEGRATION

What is the value proposition?

Molex Usb Hub and Charger Solutions support all current smartphones and tablets, notebooks and flash drives. They simultaneously guarantee full performance and safety.

How it works?

Besides the possibility to charge mobile devices with power delivery, data is transferred in USB 3.1 speed (USB 2.0 compatible) to the infotainment system of the vehicle. Several challenges are solved by Molex USB Hub. Hardly any mobile device follows the general USB specifications. Therefore, very complex tests of compatibility are required. Device-specific adapter cable (e.g. USB to iPad/iPhone) must also be approved for use. The tolerance limits for voltage and power supply are quickly reached in the automotive field. Longer cable lengths can drastically reduce the transmission of both data and charging capacity. Users want to have Apple CarPlay, Android, Baidu CarLife support to use their smartphones during the journey. The new, smaller USB-C connector is reversible to plug in.

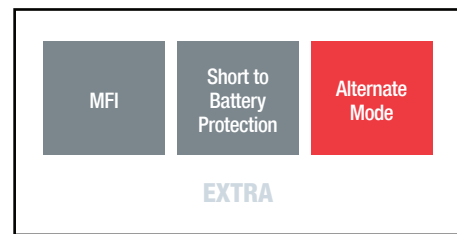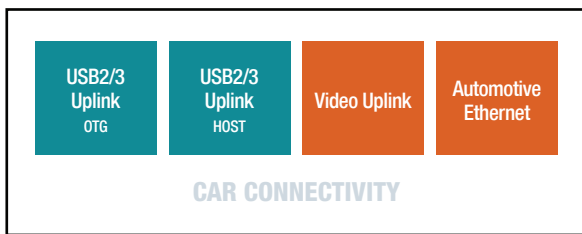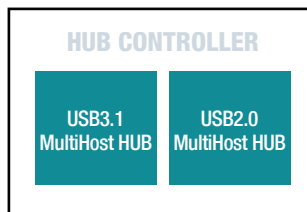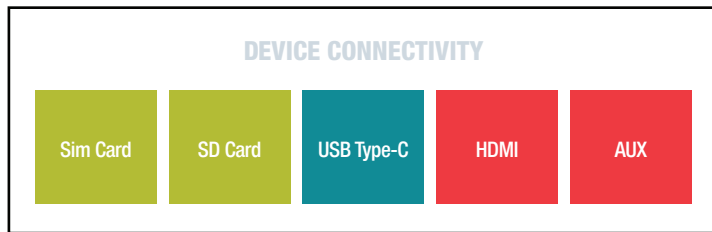Molex's USB Hubs and Chargers supporting Fast Charging according Power Delivery (PD) standard.
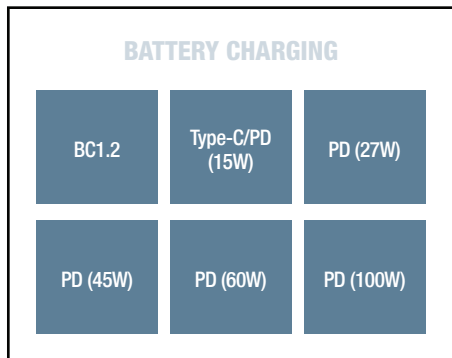
Why it matters?

This is the easiest way to integrate the customer's mobile device into the car. Robustness and compatibility are guaranteed. As well as safety and performance.

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BATTERY CHARGING

BC1.2	Type-C/PD (15W)	PD (27W)
PD (45W)	PD (60W)	PD (100W)

DEVICE CONNECTIVITY

Sim Card	SD Card	USB Type-C	HDMI	AUX

HUB CONTROLLER

USB3.1 MultiHost HUB	USB2.0 MultiHost HUB

CAR CONNECTIVITY

USB2/3 Uplink OTG	USB2/3 Uplink HOST	Video Uplink	Automotive Ethernet

EXTRA

MFI	Short to Battery Protection	Alternate Mode

COMPLETE SOLUTIONS TO ACHIEVE YOUR VISION

Our capabilities are constantly evolving to meet the demanding requirements for autonomous driving, infotainment and connectivity. We take an holistic solution mentality to achieve end-to-end connectivity and optimal performance.

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www.molex.com