

产品概况

USB TYPE-C PLUG连接器符合USB Type-C Specification。C型连接器是USB系列最新的连接介面，支持视频、音频、数据充电功能；兼容USB3.1协议，数据速率传输高达10 Gb/s；实现一线多功能，双向传输，向下兼容转换其他USB接口；支持PD协议后可实现100W（20V/5A）功率电力传输。Type-C接口尺寸为8.25x2.40mm，相较其他多数接口更纤薄。连接介面各触点为对称结构，支持正反插，插拔耐久可达到10000次，并功能还能正常使用。

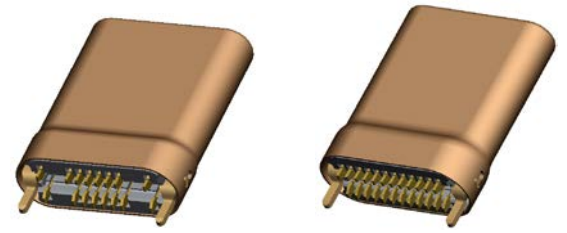
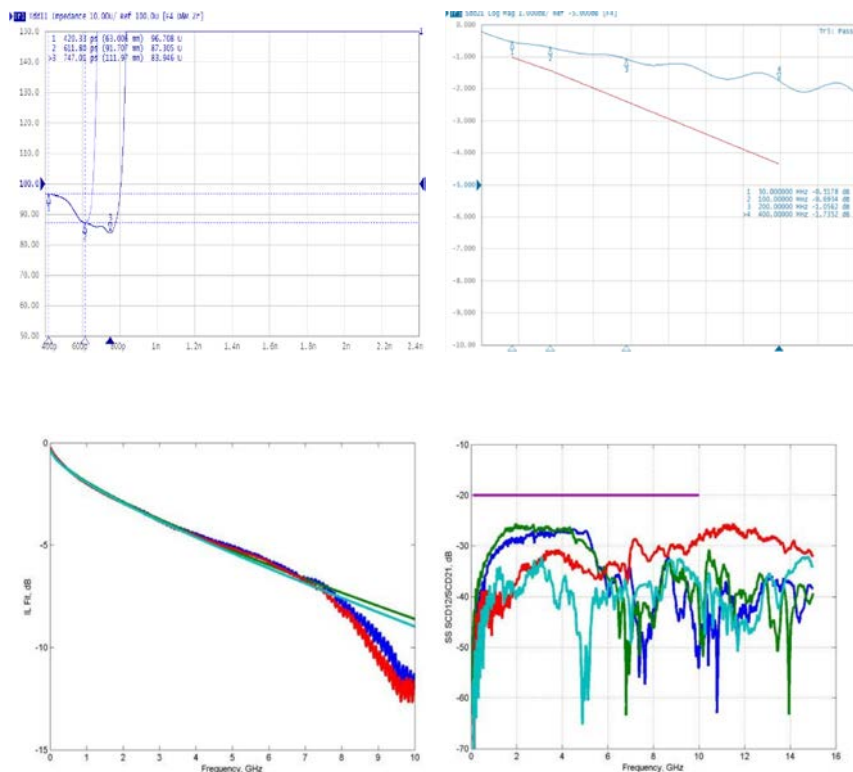
产品应用

- 智能手机
- 笔记本
- 平板电脑
- 穿戴设备

技术信息

- 通过互换PCBA的方式，实现各种功能，很方便的满足客户需求。
- 端子设计强度佳，降低挤压变形风险，利于自动机生产、包装运输、电镀。
- 端子正向力大、接触性能稳定，对比折弯端子可增加50%接触力，确保有45g以上正向力。
- 端子之间间隙相比较于折弯端子大，横向相邻端子防止发生短路效果更佳。
- 数据传输速率高达10 Gb/s；
- 相邻端子间的差分阻抗 $85 \pm 9\Omega$ ，上升时间40ps（20%~80%）；
- 回流焊温度260°C；
- 产品高度有3.20mm、3.60mm两种规格。

高频信号完整性



高度3.2mm PLUG

高度3.6mm PLUG



USB2.0

USB3.0

带板PLUG

机械性能

- 插入力:5N~20N
- 拔出力:8N~20N(初始), 6N~20N(耐久后)。
- 耐久性:10000次。

电气性能

- 低电平接触电阻:40mΩ最大(初始), 50mΩ最大(测试后)
- 绝缘电阻:100MΩ最小。
- 介电耐压:100V/AC。
- 额定电流:5A（所有电源端子）

环境性能

- 阻燃性:UL 94 V-0
- 低卤素:氯元素最大1000ppm, 溴元素最大1000ppm
- 符合RoHS指令2011/65/EU
- 工作温度:-55°C~+85°C

产品规范

- 协会规范: 2.2版本
- 得润产品规范: DR-PS-0060

GENERAL PROFILE

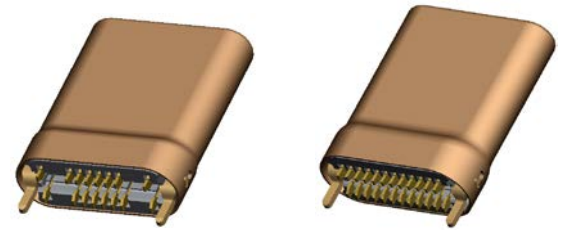
Type-c PLUG connector conforms to the USB type-c Specification. Type C connector is the latest interface of USB series, which supports video , audio and data charging , and compatible with USB3.1 protocol, data rate transmission up to 10 Gb/s, achieved one line with multi-function, two-way transmission, compatible with conversion of other USB interface. After supporting PD protocol , 100W (20V/5A) power transmission can be realized. The type-c interface size is 8.25x2.40mm, which is thinner than most other interfaces. The contact points of the connection interface are symmetrical structure, support forward and backward insertion, insertion and extraction durability up to 10000 times.

TARGET MARKET

- Smart phone
- Notebook computer
- Tablet PC
- Wearable device

TECHNICAL INFORMATION

- By the way of exchanging PCBA, to achieve a variety of functions, very convenient to meet customer demands.
- Terminal strength is good, reduced the risk of extrusion deformation, and conducive to the production of automata, packaging transportation, electroplating.
- Terminal normal force is large and the contact performance is stable. Compared with the bending terminal, the contact force can be increased by 50% to ensure that there is more than 45g normal force.
- The gap between terminals is larger than that between bending terminals, and the effect of preventing short circuit is better for adjacent terminals.
- Data transfer rate is up to 10 Gb/s
- Differential impedance : $85 \pm 9\Omega$, Rise Time: 40ps (20%~80%)
- Right angle SMT type connector, capable to 260°C peak temperature reflow process.
- Product has two height specifications 3.20mm, 3.60mm.



3.2H PLUG

3.6H PLUG

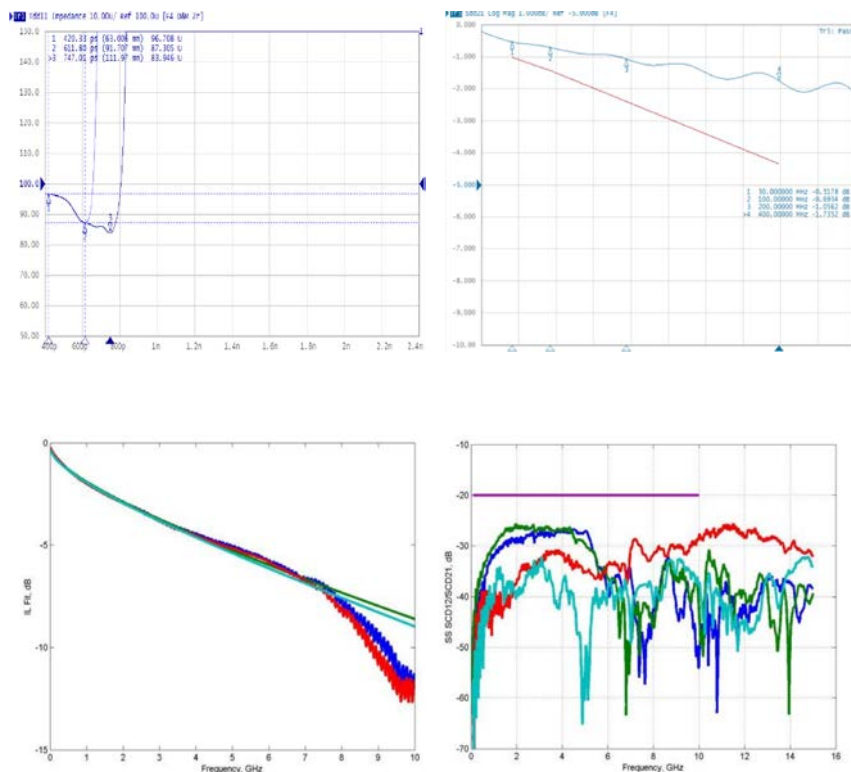


USB2.0

USB3.0

PLUG WITH PCBA

SI PERFORMANCE



MECHANICAL PERFORMANCE

- Insertion force: 5 N to 20 N
- Extraction Force: 8 N to 20 N (initial)
6 N to 20 N (after Durability 10,000 cycles).
- Durability: 10000cycles.

ELECTRICAL PERFORMANCE

- Low level contact resistance: 40mΩ Max (initial)
50mΩ Max (after environmental stresses)
- Insulation resistance: 100MΩ min.
- Dielectric withstanding voltage: 100V/AC.
- Current rating: 5 A (applied collectively to VBUS)

ENVIRONMENTAL

- Flammability: UL 94 V-0
- Low halogen: 1000ppm max. Cl, 1000ppm max Br.
- Compliant with RoHS directive 2011/65/EU
- Operating Temperature: -55° C to +85° C

SPECIFICATION

- USB-IF SPEC: Release 2.2
- DEREN PRODUCT SPEC: DR-PS-0060