

Filter Module FIL-USB-3.1-A-MSB

MTS-No.: 26898-01

Short description

The Filter Module USB 3.1 is designed to be built in at MTS Shielding Boxes series MSB. It supports “SuperSpeed and Hi-Speed” and is designed for testing mobiles, tablets or similar devices with high data rates under shielded conditions.

The shielding efficiency is more than 80 dB¹⁾ up to 6000 MHz. Passive and active filter elements are included.

The connectors are USB 3.0 type A socket. Very low power consumption with no V_{bus} tapping.



Technical data:

1 USB specifications:

| | | |
|--|------------------------------------|--------------|
| 1.1 Supported standards | USB 1.x, USB 2.0, USB 3.1 Gen 1 | |
| 1.2 Gross data rates | | |
| @ USB 1.0 | 12 Mbit/s typ. (1.5 MB/s) | |
| @ USB 2.0 | 480 Mbit/s typ. (60 MB/s) | |
| @ USB 3.1 | 5 Gbit/s typ. (625 MB/s) | |
| 1.3 Shielding efficiency ¹⁾ | | |
| @ Supply pins | 80 dBm min. | |
| @ USB interface | 80 dBm min. | |
| 1.4 Supported current rating on the USB interfaces | 1.5 A typ. | |
| 1.5 Electrostatic protection USB interfaces | 2 kV max.. | |
| 1.6 Pinning USB interface | | |
| @ Pin 1 | Vbus | 5 V DC |
| @ Pin 2 | D- | Data USB 2.0 |
| @ Pin 3 | D+ | Data USB 2.0 |
| @ Pin 4 | GND | Ground |
| @ Pin 5 | USB3_RX- | Data USB 3.1 |
| @ Pin 6 | USB3_RX+ | Data USB 3.1 |
| @ Pin 7 | GND | Ground |
| @ Pin 8 | USB3_TX- | Data USB 3.1 |
| @ Pin 9 | USB3_TX+ | Data USB 3.1 |
| 1.7 Supply | No Vbus tapping | |

2 Connections:

| | |
|-----------------------|--|
| 2.1 USB-interface | USB 3.0 type A female / to type A female |
| 2.2 Supply connectors | Feed through filter and ground pin |

3 General specifications:

| | |
|--|------------------------------------|
| 3.1 Supply voltage | +4.0 V DC - +5.5 V DC |
| 3.2 Supply voltage without damage | -0.3 V DC - +6 V DC max. |
| 3.3 Operating temperature | -20 °C - +50 °C |
| 3.4 Storage temperature | -30 °C - +70 °C |
| 3.5 Reference temperature for specifications | +25 °C |
| 3.6 Dimensions (without connections) | 71 mm x 27.3 mm x 31 mm (LxWxH) |
| 3.7 Case style | Milled aluminium enclosure |
| 3.8 Colour | SurTec650 (chromit Al) |
| 3.9 Weight | 80 grams |

4 Delivered parts:

Filter Module FIL-USB-3.1-A-MSB
Datasheet

5 Comments:

| | |
|----------------|-----------|
| Warranty | 12 months |
| RoHS-compliant | Yes |

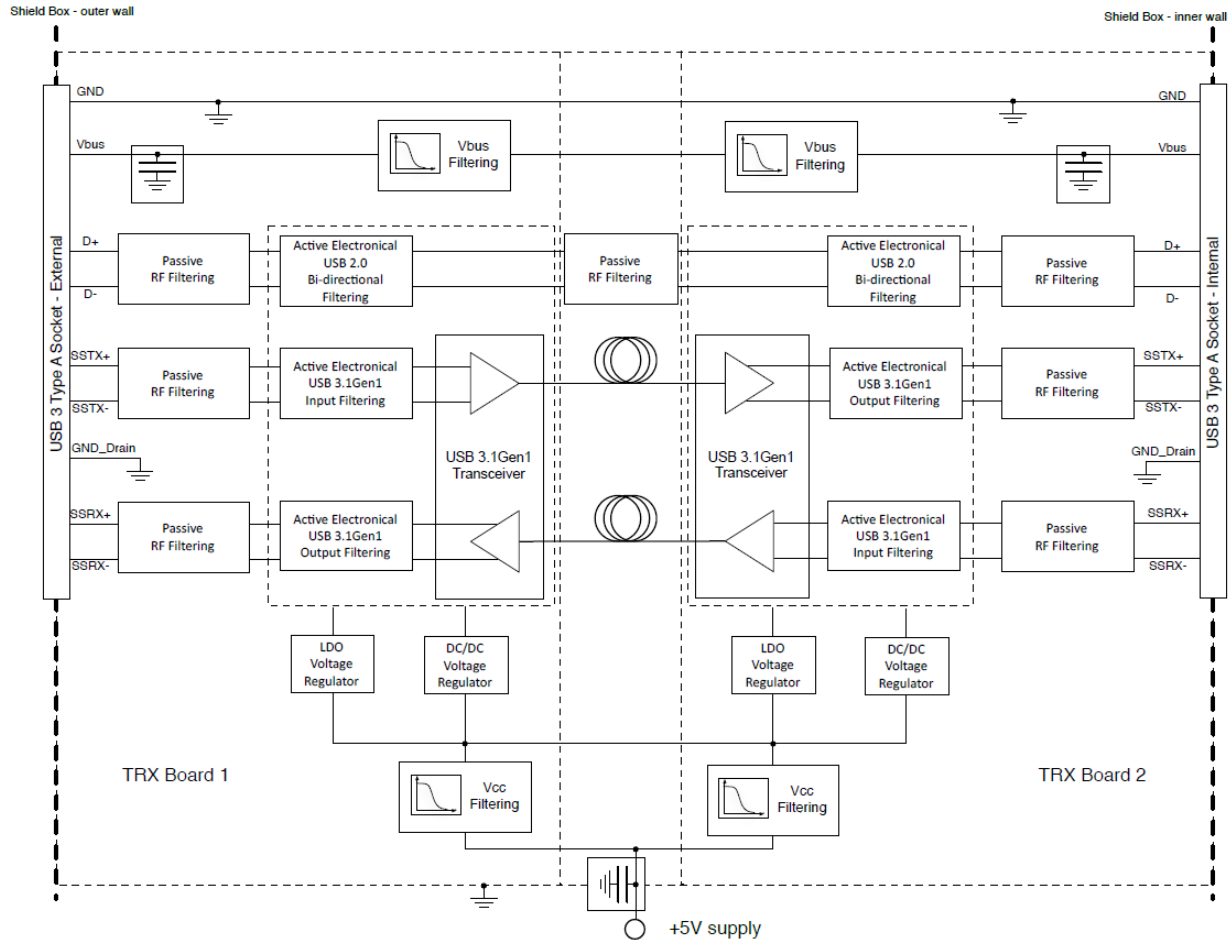
6 Recommended accessories:

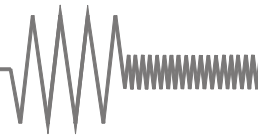
USB 3.0 cables type A / type A

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Block diagram:





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Views:

