

Модуль SFP+, 10GBase-T, RJ45

Особенности:

- Support 10GBASE-T Operation in Host Systems
- Support RX_LOS as Link indication function
- Hot-Pluggable SFP Footprint
- Compact RJ-45 Connector Assembly
- Compliant with SFP MSA

Области применения:

- 10G BASE-T IEEE 802.3an
- 1000BASE-T IEEE 802.3ab
- 100BASE-TX IEEE 802.3u
- 5G MGBASE-T
- 2.5G MGBASE-T

| Part No. | Data Rate | Media type | Distance | Connector | Temperature |
|-----------|-----------|-------------|----------|-----------|-------------|
| SFP+-RJ45 | 10G | CAT6A/C AT7 | 30m | RJ45 | 0°C~70°C |

Absolute Maximum Ratings*

| Parameter | Symbol | Min | Typ | Max | Units |
|------------------------|----------------|------|-----|-----|-------|
| Maximum Supply Voltage | Vcc | -0.5 | | 4.0 | V |
| Storage Temperature | T _s | -40 | | 85 | °C |

*Exceeding any one of these values may destroy the device permanently.

Normal operating condition

| Parameter | Symbol | Min | Typ | Max | Units |
|----------------------------|----------------|-----------|-----|------|-------|
| Operating Case Temperature | T _c | SFP+-RJ45 | 0 | 70 | °C |
| Supply Voltage | Vcc | 3.14 | 3.3 | 3.46 | V |

Electrical Characteristics

| Parameter | Symbol | Min | Typ | Max | Units | Notes/Conditions |
|--|-----------------|------|-----|------|-------|------------------|
| +3.3 Volt Electrical Power Interface | | | | | | |
| Supply Current | I _{cc} | | | 800 | mA | |
| Input Voltage | V _{cc} | 3.13 | 3.3 | 3.47 | V | |
| Low-Speed Signals, Electronic Characteristics | | | | | | |

| | | | | | | |
|---|-----------|----------------|-----|----------------|------|---|
| SFP Output LOW | V_{OL} | 0 | | 0.5 | V | 4.7k to 10k pull-up to host_Vcc, measured at host side of connector |
| SFP Output HIGH | V_{OH} | host_Vcc – 0.5 | | host_Vcc + 0.3 | V | 4.7k to 10k pull-up to host_Vcc, measured at host side of connector |
| SFP Input LOW | V_{IL} | 0 | | 0.8 | V | 4.7k to 10k pull-up to Vcc, measured at SFP side of connector |
| SFP Input HIGH | V_{IH} | 2 | | $V_{CC} + 0.3$ | V | 4.7k to 10k pull-up to Vcc, measured at SFP side of connector |
| High-Speed Electrical Interface, Transmission Line-SFP | | | | | | |
| Tx Output impedance | Zout,TX | | 100 | | Ohm | Differential, for all frequencies between 1MHz and 125MHz |
| Rx Input Impedance | Zin,RX | | 100 | | Ohm | Differential, for all frequencies between 1MHz and 125MHz |
| High-Speed Electrical Interface, Host-SFP | | | | | | |
| Single ended data input swing | V_{IN} | 250 | | 1200 | mV | Single ended |
| Single ended data output swing | V_{OUT} | 350 | | 800 | mV | Single ended |
| Rise/Fall Time | Tr,Tf | | 20 | | psec | 20%-80% |
| Tx Input Impedance | Zin | | 50 | | Ohm | Single ended |
| Rx Output Impedance | Zout | | 50 | | Ohm | Single ended |

Pin Descriptions

| | | | |
|----|-------------|------|----|
| | | VeeT | 20 |
| 1 | VeeT | TD- | 19 |
| 2 | Tx_Fault | TD+ | 18 |
| 3 | Tx_Disable | VeeT | 17 |
| 4 | MOD_DEF(2) | VccT | 16 |
| 5 | MOD_DEF(1) | VccR | 15 |
| 6 | MOD_DEF(0) | VeeR | 14 |
| 7 | Rate Select | RD+ | 13 |
| 8 | LOS | RD- | 12 |
| 9 | VeeR | VeeR | 11 |
| 10 | VeeR | | |

Towards Bezel ← → Towards ASIC

Serial Communication Protocol

Copper SFP support the 2-wire serial communication protocol outlined in the SFP MSA. These SFP use a 128 byte EEPROM with an address of A0H. Accessing Serial ID Memory uses the 2 wire address 1010000X (A0H)

Mechanical Specifications