



UTD-MC-57

- Optical converter dedicated for an optical to balanced and unbalanced electrical signal conversion
- DIN rail mount chassis
- Up to 100kbit (100k PPS) rate of conversion
- Multi-mode (820/850nm or 1310nm) high efficient and low delay receiver
- Up to 2km link distance over OM2 or OM3 multimode fiber
- -40 to +70°C operating temperature,
- Port status LED signalization
- Wide range of power supply **80 – 350 V DC, 70 – 250 V AC**

Description of the device

Application

UTD-MC-57 optical receiver has been designed for conversion of optical signal generated by **UTD-MC-157** distribution device into TTL electrical signal. Optical interface is realized by built-in 820/850nm or optional 1310nm multi-mode optical interface with ST/PC connectors. Electrical TTL interface is realized by built-in BNC connector for unbalanced signal or screw connector for balanced one. The **UTD-MC-57** receivers in pair with **UTD-MC-157** distribution device are suitable to spread signals like IRIG DCLS, PPS over distances up to 2km with using multimode OM2 or OM3 multimode fiber optic.

The **UTD-MC-57** is supplied with direct current source, with rated voltage value within the range of 80 to 300V

DC or from 70 – 250 V AC power supply unit . Device can be mounted directly on the DIN rail.

Environmental limits

UTD-MC-57 was designed to operate in temperature range from -40 to 70° C.

Solid **IP-30** metal enclosures ensures stable operation in heavy environment. **UTD-MC-57** can be mounted on a standard DIN rail.

Technical specifications

Transmission

- **Bit rate:** From 1PPS to 100k PPS (pulse per second)
- **Rise/Fall Time:** < 50ns,
- **Output Impedance:** Balanced - 100 Ohm, Unbalanced - 50Ohm
- **Output signal levels:** Low (0-0,8V), High (3-5V)
- **Output drive current:** 30mA maximum
- **Receiver Delay:** <40ns,

Optical interface

- Operating Wavelengths: 820, 850, 1310nm
- **Sensitivity:** > -21dBm@BER10E-9
- **Fiber type: OM2/OM3:** 50 / 125um, 62,5 / 125um
- **Optical connectors:** ST/PC

Connectors

- **Unbalanced signal connector:** BNC
- **Balanced signal connector:** Screw terminals

- **Power supply connector:** Screw terminals

- **MTBF:** > 200 000 hours
- **Warranty:** 5 years

Others

- **Power supply range:** 80 – 350 V DC, 70 – 250 V AC
- **Power consumption:** < 4W
- **Mounting:** DIN rail
- **Mechanical dimensions:** See pictures below

Environment

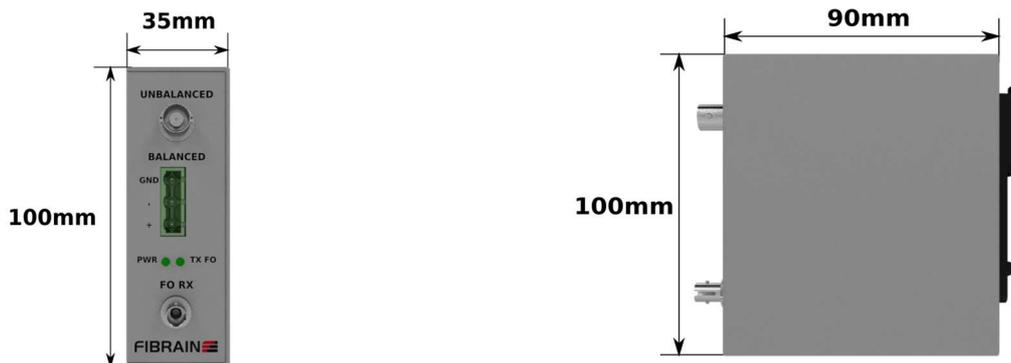
- **Operating temperature:** -30 to 70°C,
- **Operating humidity (non condensing):** 5%-95%.

Supported standards, recommendations and directives

- EN 55011:2012
- EN 55024:2011/A1:2015-08
- EN 60950-1:2007/A2:2014-05
- IEC 61000-4-2 Electromagnetic compatibility (EMC)- Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test
- IEC 61000-4-3 Electromagnetic compatibility (EMC)- Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test
- IEC 61000-4-4 Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test
- IEC 61000-4-5 Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test
- IEC 61000-4-6 Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields

Mechanical drawing

* - list of supported standards may vary with the development of the device



Code

UTD-MC-57-Y-(Z)

Option of optical interface:

1 – 820/850nm MM

2 – 1310nm MM

Option of power input:

E – 80-360 V DC, 75-270 V AC