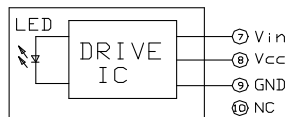
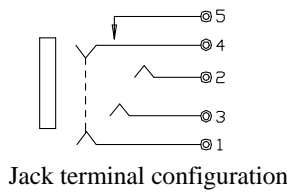
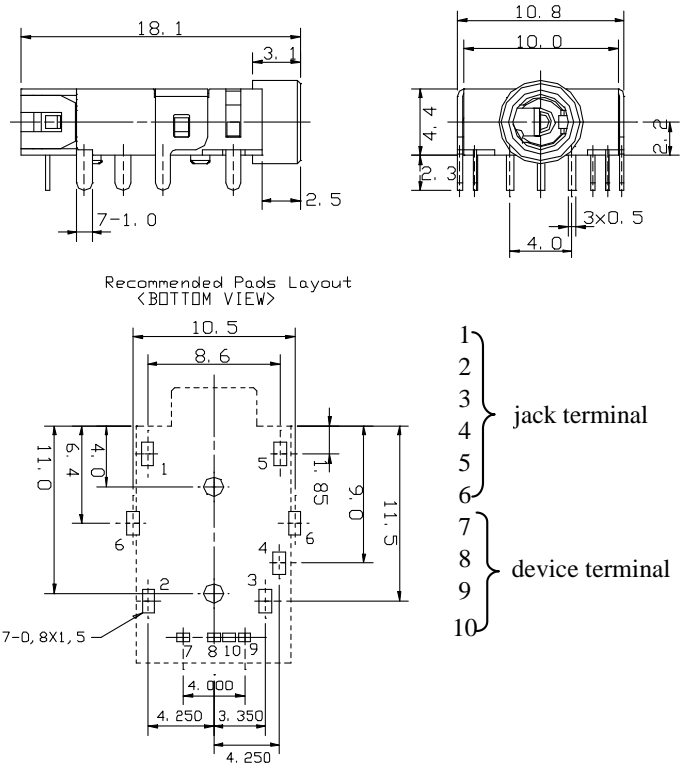


Features

1. Compact
(adoption of small jack for mini plug JIS C6560)
2. Thin type (4.4mm) transmitter unit.
3. Both optical and electrical signal can be distinguished and transmitted.
4. Signal transmission speed :
MAX. 8 Mbps (NRZ signal)
5. Operating voltage : 4.75 to 5.25 V
6. L/F pitch : 2.0 mm



Outline Dimensions



NOTES:
Tolerance is $\pm 0.3\text{mm}$ unless otherwise noted.

Absolute Maximum Ratings

(Photoelectric conversion element)

@TA=25°C

| Parameter | Symbol | Rating | Unit |
|-------------------------------------|------------------|------------------------------|------|
| Supply voltage | V _{cc} | -0.5 to + 7.0 | V |
| Input voltage | V _{in} | -0.5 to V _{cc} +0.5 | V |
| Operating temperature | T _{opr} | -20 to +70 | °C |
| Storage temperature | T _{stg} | -30 to +80 | °C |
| Soldering temperature ^{*1} | T _{sol} | 260 | °C |

*1 For 5s (2 times or less)

Absolute Maximum Rating(Jack)

| Parameter | Symbol | Rating | Unit |
|-------------------------------------|------------------|---------------|------|
| Total power dissipation | P _{tot} | D.C. 12V, 1A | - |
| Operating temperature | T _{opr} | -20 to +70 | °C |
| Storage temperature | T _{stg} | -30 to +80 | °C |
| Soldering temperature ^{*1} | T _{sol} | 260 | °C |
| Isolation voltage ^{*2} | Viso | A.C. 500V rms | - |

*1 For 5s (2 times or less)

*2 For 1 min

Recommended Operating Conditions

| Parameter | Symbol | MIN. | TYP. | MAX. | Unit |
|--------------------------|----------|------|------|------|------|
| Operating supply voltage | V_{cc} | 4.75 | 5.0 | 5.25 | V |
| Operating transfer rate | T | --- | --- | 8 | Mbps |

Electro-Optical Characteristics

| Parameter | Symbol | Conditions | MIN. | TYP. | MAX. | Unit |
|--|---------------|-----------------|------|------|----------|------|
| Peak emission wavelength | λ_p | | 630 | 660 | 690 | nm |
| Optical power output coupling with fiber | P_c | Refer to Fig. 1 | -21 | -18 | -15 | dBm |
| Dissipation current | I_{cc} | Refer to Fig. 2 | --- | 8 | 13 | mA |
| High level input voltage | V_{iH} | Refer to Fig. 2 | 2.1 | --- | V_{cc} | V |
| Low level input voltage | V_{iL} | Refer to Fig. 2 | --- | --- | 0.8 | V |
| Low to High delay time | t_{pLH} | Refer to Fig. 3 | --- | 120 | --- | ns |
| High to Low delay time | t_{pHL} | Refer to Fig. 3 | --- | 120 | --- | ns |
| Pulse width distortion | Δ_{tw} | Refer to Fig. 3 | -25 | --- | 25 | ns |

Fig. 1 Measuring Method of Optical Output Coupling with Fiber

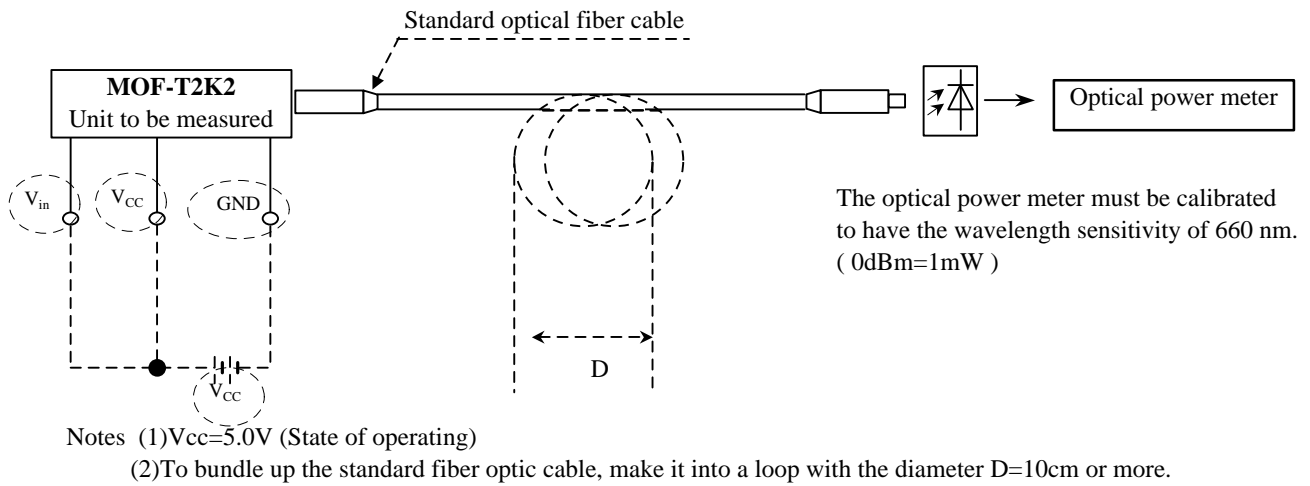
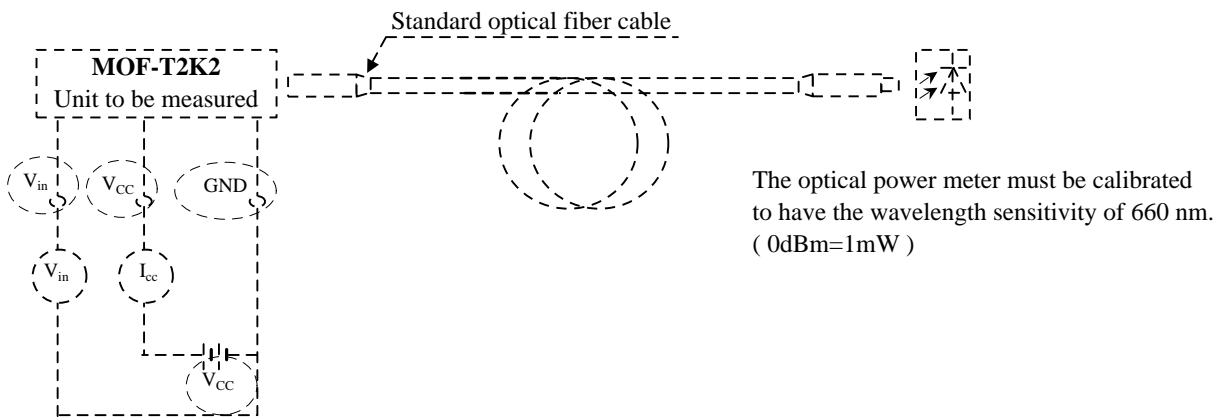


Fig. 2 Measuring Method of Input Voltage and Supply Current

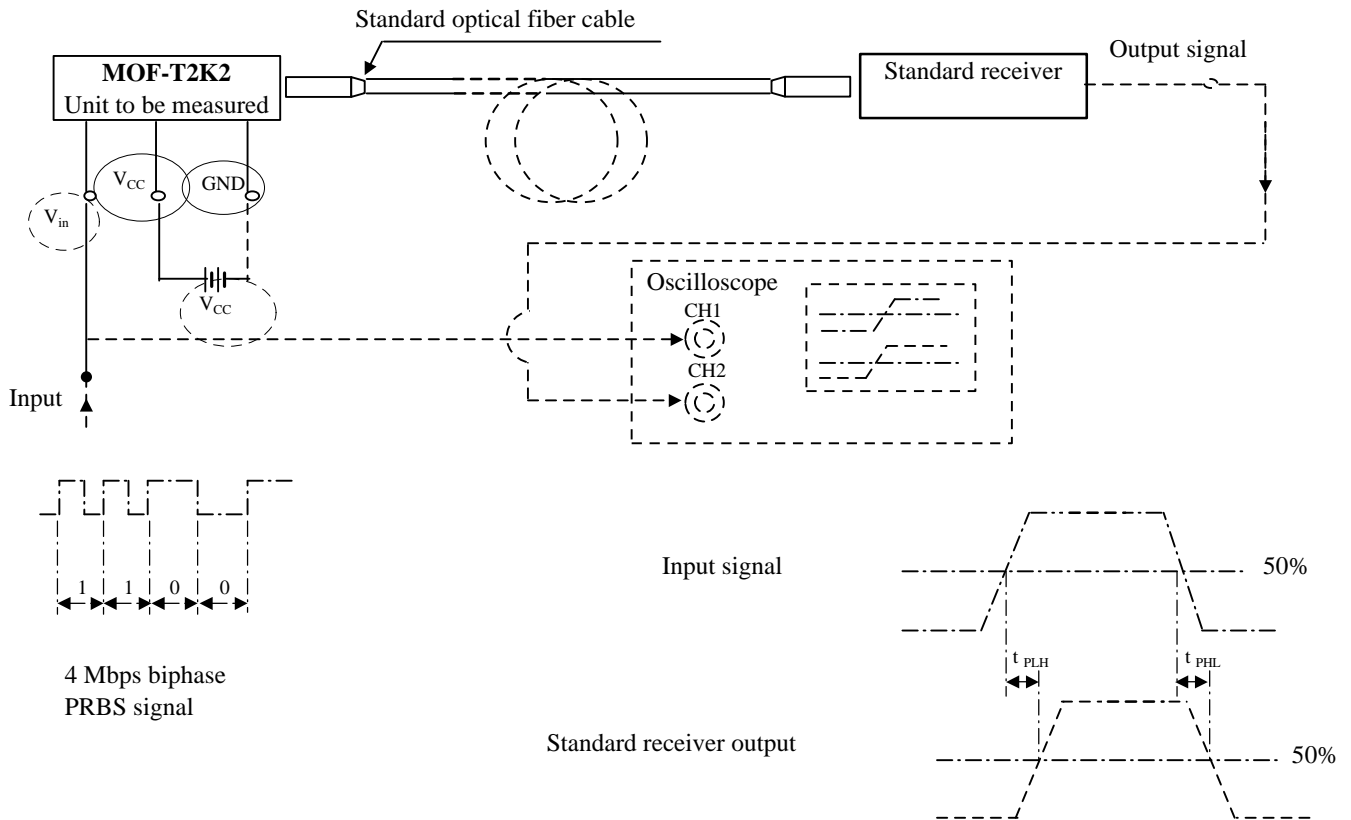


Input conditions and judgement method

| Conditions | Judgement method |
|-----------------------|---|
| $V_{in}=2.1V$ or more | $-21dBm \leq P_c \leq -15dBm$, $I_{cc}=13mA$ or less |
| $V_{in}=0.8V$ or less | $P_c \leq -36dBm$, $I_{cc}=13mA$ or less |

Note: $V_{cc}=5.0V$ (State of operating)

Fig.3 Measuring Method of Pulse Response



Test item

| Test item | Symbol | Test condition |
|------------------------------|-------------|----------------------------------|
| Low to High pulse delay time | t_{PLH} | Refer to the above prescriptions |
| High to Low pulse delay time | t_{PHL} | Refer to the above prescriptions |
| Pulse width distortion | Δtw | $\Delta tw = t_{PHL} - t_{PLH}$ |

- NOTES**
- (1) The waveform write time shall be 4 seconds. But do not allow the waveform to be distorted by increasing the brightness too much.
 - (2) $V_{cc} = 5.0\text{ V}$ (State of operating)
 - (3) The probe for the oscilloscope must be more than 1M and less than 10pF.