

139-877

OPTIC REMOTE CONTROL RECEIVER MODULE SPECIFICATION

1. Application

This specification is applied to optic remote control receiver module PIC-26043SM which will be delivered to PAVER COMPONENTS Plc .

2. Dimentions

As per attached drawing (KCTS-626043-3).

3. Ratings and characteristics

3-1. Maximum ratings

| Item | Symbol | Ratings | Unit | Remarks |
|-----------------------|--------|---------|------|----------------------------------|
| Supply voltage | Vcc | 5.8 | V | |
| Operating temperature | Topr | -10~+60 | °C | No dewfall |
| Storage temperature | Tstg | -20~+75 | °C | |
| Soldering temperature | Tsd | 260 | °C | t ≤ 5s, 2mm from lead foundation |

3-2. Electro-optical characteristics

(Ta=25°C, Vcc=5V)

| Item | Symbol | Min. | Typ. | Max. | Unit | Remarks |
|-------------------------------------|---------------------------|------|------|------|---------|----------------------|
| Current consumption | Icc | | | 5.0 | mA | Under no signal |
| Peak wavelength | λ_p | | 940 | | nm | Note 1 |
| Tuning frequency | fo | | 37.9 | | kHz | Note 1 |
| Output form | --- active low output --- | | | | | |
| H level output voltage | Voh | 4.2 | | | V | Note 1 |
| L level output voltage | Vol | | | 0.5 | V | Note 1 |
| H level output pulse width | Twh | 400 | | 800 | μ s | Note 1 |
| L level output pulse width | Twl | 400 | | 800 | μ s | Note 1 |
| Distance between emitter & detector | l | 10.0 | | | m | Note 1 |
| Half angle | $\Delta \theta$ | | ± 45 | | deg | Horizontal direction |

3-3. Recommendable operating supply voltage

Supply voltage 4.5~5.5V

Note 1. Distance between emitter & detector specifies maximum distance that output wave form satisfies the standard (3-2) under the conditions below against the standard transmitter.

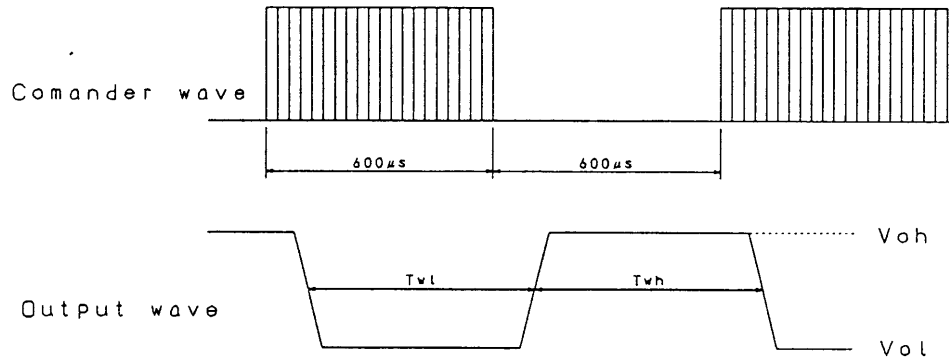
(1) measuring place.....Indoor without extreme reflection of light.

(2) Ambient light source...Detecting surface illumination shall be 200 ± 50 Lux under ordinary white fluorescence lamp of no high frequency lightning.

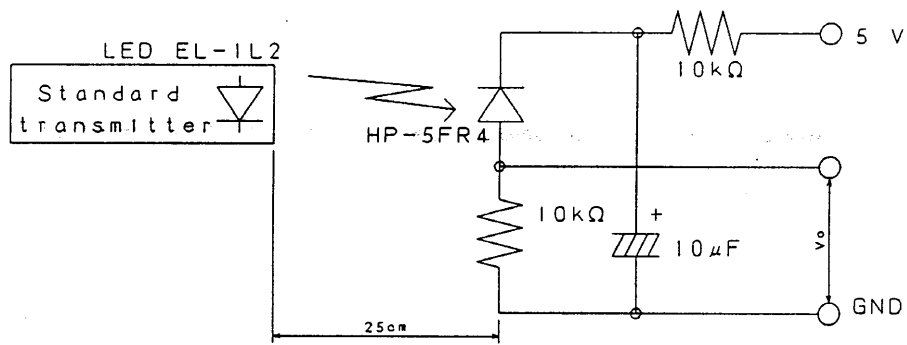
(3) Standard transmitter...Burst wave indicated in drawing 3-1 of Standard transmitter shall be arranged to 50mVp-p under the measuring circuit specified in drawing 3-2.

Carrier $f_0=37.9$ KHz

Duty 50%



drawing 3-1 Burst wave, Output wave



drawing 3-2 Po measurement circuit

4. Reliability

| Test item | Test condition | Standard |
|-----------------------|---|----------|
| High temperature | $T_a=+60^{\circ}\text{C}$ $V_{cc}=5.0\text{V}$ $t=240$ H | Note 2. |
| High temp. & high hum | $T_a=+40^{\circ}\text{C}$ 90%RH $V_{cc}=5.0\text{V}$ $t=240$ H | Note 2. |
| Low temperature | $T_a=-10^{\circ}\text{C}$ $V_{cc}=5.0\text{V}$ $t=240$ H | Note 2. |
| Heat cycle | -20°C (0.5H) \sim $+75^{\circ}\text{C}$ (0.5H) 20cycle | Note 2. |
| Dropping | Test devices shall be dropped 3 times naturally onto hard wooden board from a 75cm height position. | Note 3. |

Note 2.3-2 (electro-optical characteristics) shall be satisfied after leaving 2 hours in the normal temperature.

Note 3.3-2 (electro-optical characteristics) shall be satisfied and no conspicuous deforms and destructions of appearance, (excepting deforms of terminals)

5. Inspection standard

5-1. Among electrical characteristics, total number shall be inspected on items blow.

1. front distance between emitter & detector
2. Current consumption
3. H level output voltage
4. L level output voltage

5-2. Items except above mentioned are not inspected particularly, but shall fully stisfy

6. Caution (When use and storage of this device)

6-1. Store and use where there is no force causing transformation or change in quality.

6-2. Store and use where there is no corrosive gas or sea(salt) breeze.

6-3. Store and use where there is no extreme humidity.

6-4. Solder the lead-pin within the condition of ratings. After soldering do not add extsrios force .

6-5. Do not wash this device. Wipe the stains of diode side with a soft cloth. you can use the solvent, ethylalcohol or methylalcohol or isupropylene only.

6-6. To prevent static electricity damage to the Pre-AMP make sure that the human body ,the soldering iron is connected to ground before using.

6-7. Put decoupling device between Vcc and GND for reduse the noise from power supply line.

6-8. The performance of remote-control system depends on environments condition and ability of periferal parts. Customer should evaluate the performance as total system in those conditions after system up with components such as commander, micon and this receiver module.

7. Guarantee period and scope

7-1. Guarantee period

One year after delivery to desired place.

7-2. Guarantee scope

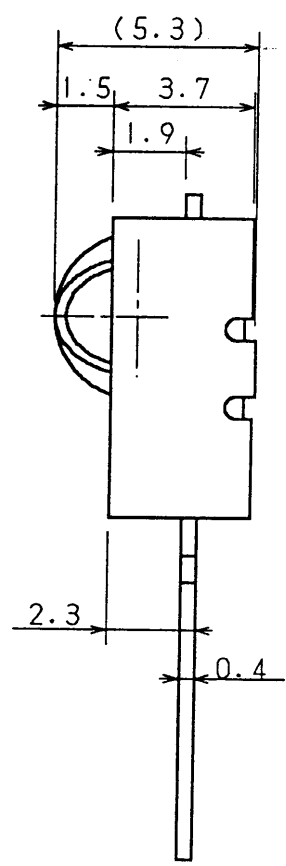
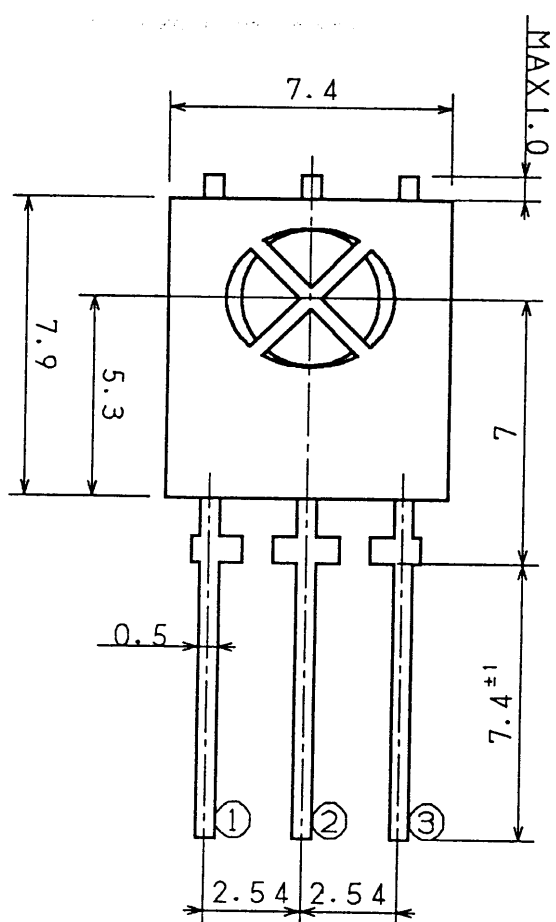
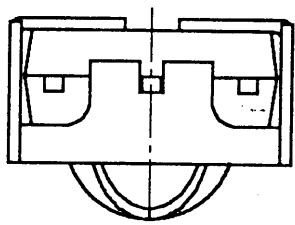
A re-delivery of goods will be carried out if the cause of malfunction lies in our device. However no responsibilities will be taken for the inconveniences caused by the malfunction of our devices.

8. Others

8-1. This device is not design to endure radiative rays and heavily charged particles.

8-2. In case where any trouble or questions arise, both parties agree to make ful discussion covering the said problem.

| 指定外ノ寸法 角ヲハサム短イ 方ノ一辺ノ長さ 指定外ノ寸法ニ対スル寸法差(±) | 等 級 | | | 指定外ノ寸法ニ対スル寸法差(±) | | | | | | |
|--|-----|-----|------|------------------|--------|------|------|------|------|-----|
| | A | B | C | ヨビ寸法 | 等級 | 1級 | 2級 | 3級 | 4級 | 5級 |
| 10以下 | 1度 | 2度 | 5度 | 4ヲコエ | 16マテ | 0.10 | 0.10 | 0.20 | 0.30 | 0.5 |
| 10ヲコエ 50以下 | 30分 | 5度 | 3度 | 16ヲコエ | 63マテ | 0.10 | 0.10 | 0.20 | 0.30 | 0.8 |
| 50ヲコエ 100以下 | 20分 | 1度 | 1.5度 | 63ヲコエ | 250マテ | 0.20 | 0.30 | 0.50 | 0.8 | 1.2 |
| 100ヲコエ | 10分 | 30分 | 4.5分 | 250ヲコエ | 1000マテ | 0.30 | 0.50 | 0.80 | 1.2 | 3.0 |



- ① Vout
- ② GND
- ③ Vcc

| No. | 名 称 | 材 質 | 個数 | 備 考 |
|-----|--------------------------------|-----|------|-----------------|
| 品名 | REMOTE CONTROL RECEIVER MODULE | | 5/1 | 作成日 97.04.01 |
| 品番 | PIC-26043SM | | 表面処理 | ----- |
| 承認 | 検閲 | 製図 | mm | (株)光電子工業研究所 |
| | | 増成 | 三角法 | KCTS-626043-3 |

| 日付 | 改訂事項 | 担当 |
|----|------|----|
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