



# INFRARED REMOTE CONTROL RECEIVER MODULES

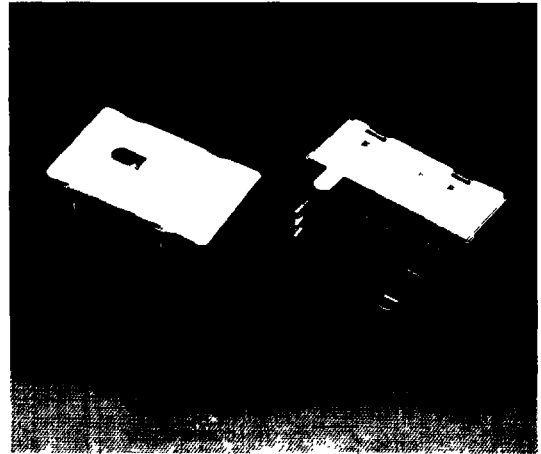
## LTM-9341 SERIES SIDE VIEWING

### FEATURES

- EASY TO HANDLE SMALL TYPE MODULE
- EXCELLENT MECHANICALLY STRENGTH AND ELECTRICAL STABILITY
- CAN BE INSTALLED DIRECTLY TO EQUIPMENT
- RECEIVE INFRARED FLASH PULSES

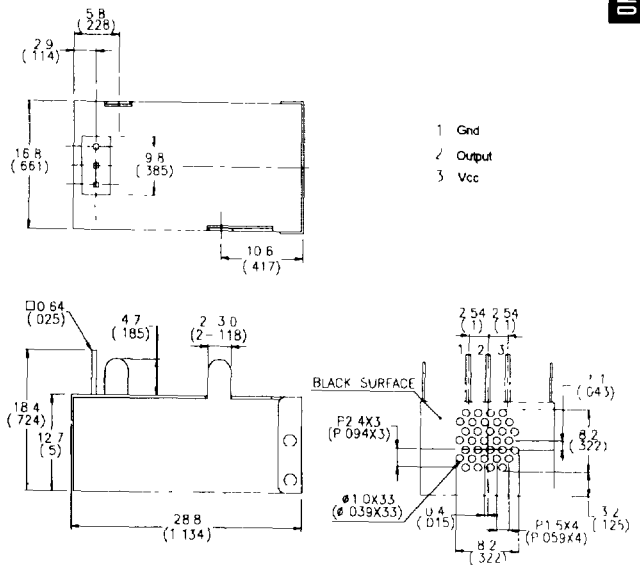
### DESCRIPTION

- The module is a small type infrared remote control system receiver which has been developed and designed by utilizing the latest hybrid technology
- It is a single unit type module which incorporates a PIN diode and a receiving preamplifier IC
- It can be used for TVs, VTRs, audio equipment, air conditioners, car stereo radio, toys, home computers and all other equipments requiring remote control



OPTIC RECEIVER MODULES

### PACKAGE DIMENSIONS



### NOTES:

1. All dimensions are in millimeters (inches)
2. Tolerance is  $\pm 0.25\text{mm}$  ( $.010''$ ) unless otherwise noted.

## TECHNICAL INFORMATION

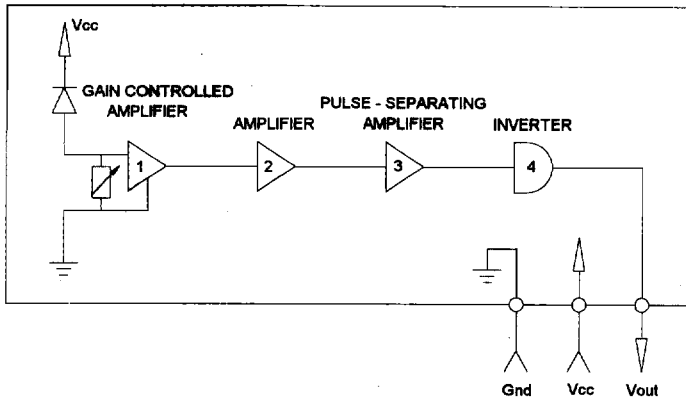
### 1. ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

• Supply voltage	Vcc	6.3	V
• Storage temperature	Tstg	-20 to +60	°C
• Operating temperature	Topr	-10 to +60	°C

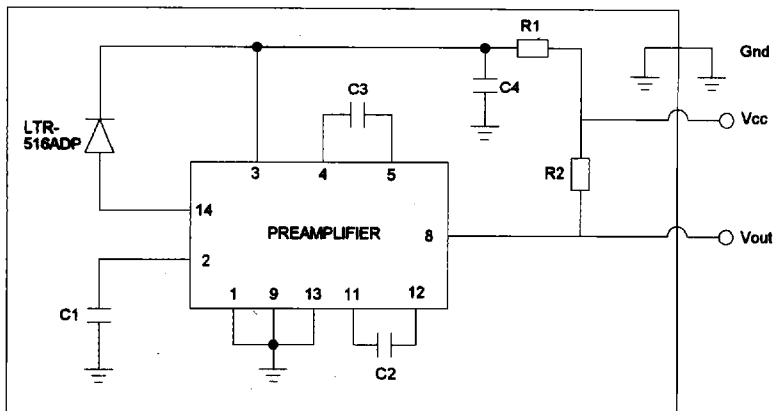
### 2. RECOMMENDED OPERATING CONDITION

• Supply voltage	Vcc	4.7 to 5.3	V
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### 3. MODULE SCHEMATIC



### 4. EQUIVALENT CIRCUIT



## 5. MEASURING METHOD

### A. Standard transmitter

The transmitter whose output is adjusted up become  $V_o=800$  mVp-p by the output waveform as shown in Fig.1 and using the measuring method as shown in Fig 2 is specified as the standard transmitter. However, the infrared diode to be used for the transmitter should be  $\lambda_{\text{peak}}=940\text{nm}$ ,  $\Delta\lambda=50\text{nm}$ .

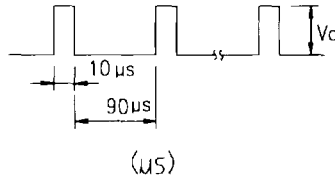


Fig 1 Output waveform

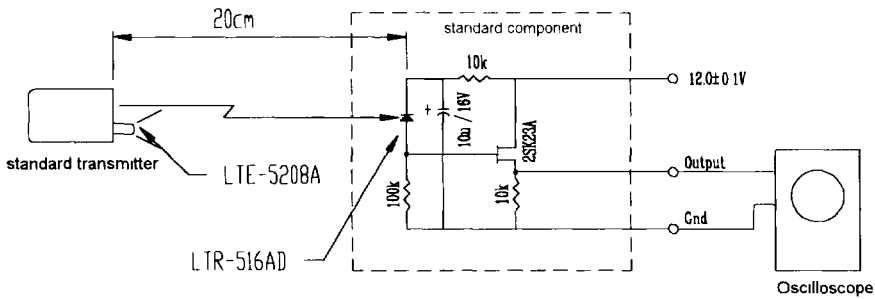


Fig 2 Measuring method

### B. Arrival distance measuring condition as shown in Fig.3

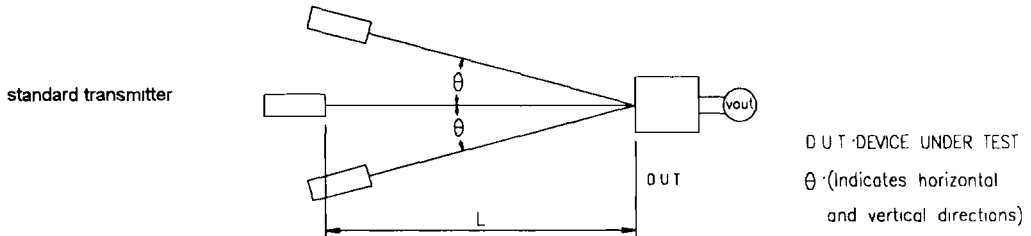


Fig.3 Arrival distance L measuring condition

### C. Pulse width measuring condition

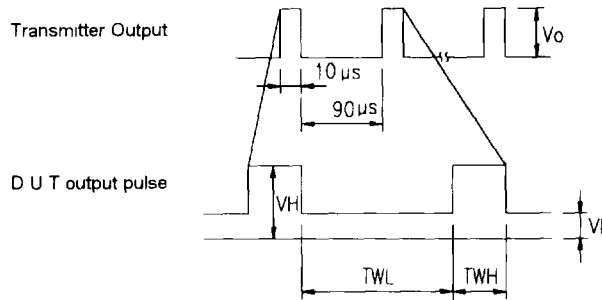


Fig.4 Output pulse

## 6. ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	CONDITION	RATING			UNIT
			MIN.	TYP.	MAX.	
Current consumption	$I_{CC}$	Non-signal input		1.0	2.5	mA
Arrival distance	L	At the ray axis	8			m
		The ray receiving surface at a vertex and in relation to the ray axis: a. In the range of 30° cone b. In the range of 45° cone	7 5			
Low level output voltage	VL	30 cm over the ray axis			0.5	V
High level output voltage	VH	30 cm over the ray axis	4.5			V
Low level pulse width	TWL	Specified by the output TWL period within a range from 5cm to the arrival distance (Average value of 50 pulses)	—	90	—	μS
High level pulse width	TWH	Specified by the output TWH period within a range from 5cm to the arrival distance (Average value of 50 pulses)	—	10	—	μS

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