

# Ultra-compact, Ultra-thin Top View FIR-compatible IrDA Module with Built-in Remote Control Transmission Function

## RPM973-H16

### ●Outline

The RPM973-H16 is a high performance IrDA module that integrates an infrared remote control transmission function and a high-speed (4Mbps) FIR-compatible IrDA module into the world's smallest\* package, resulting in substantial space savings.

### ●Applications

All types of data communication, including, image data and music transmission data in mobile phones, digital still cameras, and printers

### ●Features

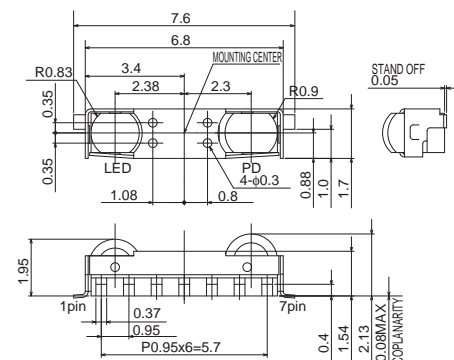
- 1) Equipped with a remote control function
- 2) Smallest package (7.6x1.7x2.13mm)
- 3) 4Mbps FIR-compatible (faster speeds possible with Ir Simple)

### ●Absolute maximum ratings (Ta = 25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	Vcc / VLEDA / VIO	6.5 *1	V
Input voltage	Vin(3,4,5pin)	-0.3 to VIO+0.3	V
Operation temperature	Topr	-25 to +85	°C
Storage temperature	Tstg	-40 to +100	°C

\*1) This applies to all pins basis ground pin (7pin).

### ●Dimensions (Unit : mm)



## Photo Link Module

## ●Electrical Optical characteristics (Ta = 25°C)

Recommended operating conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply voltage	Vcc	2.4	3.0	3.6	V
	VLEDA	2.7	3.0	5.5	V
	VIO	1.7	3.0	Vcc	V

Electrical Optical Characteristics(Unless otherwise noted, Vcc=3V, VLEDVCC=3V, VIO=3V, Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Consumption Current1(SIR/MIR Mode)	Icc1	400	800	1600	μA	PWDOWN=0V, At no input light
Consumption Current2(FIR Mode)	Icc2	400	1000	1600	μA	PWDOWN=0V, At no input light
Consumption Current3(at PWDOWN)	Icc3	–	0.01	0.2	μA	PWDOWN=VIO, At no input light
LED anode current	I <sub>LED</sub>	180	250	300	mA	
Receiver latency time	t <sub>RT</sub>	–	100	200	μs	
Peak wavelength	λ <sub>P</sub>	880		900	nm	
Intensity	I <sub>E</sub>	25	65	–	mW/Sr	–15deg ≤ θ <sub>L</sub> ≤ 15deg
Half-angle	θ <sub>L/2</sub>	±15	–	–	deg	
Minimum irradiance in augular1	E <sub>emin1</sub>	–	–	8.1	μW/cm <sup>2</sup>	–15deg ≤ θ <sub>L</sub> ≤ 15deg, ≤115.2kbps
Minimum irradiance in augular2	E <sub>emin2</sub>	–	–	20	μW/cm <sup>2</sup>	–15deg ≤ θ <sub>L</sub> ≤ 15deg, >115.2kbps
Input half-angle	θ <sub>D/2</sub>	±15	–	–	deg	

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