## SHARP

Under development New product

# GP2W0112YP

### **IrDA Transceiver Module**

#### IrDA Transceiver Module (for IrDA 1.2 Low Power Use Only)

#### Feature

- (1) Exclusive for use in IrDA 1.2 Low Power standard
- (2) Low voltage operation type (Operating voltage: 1.7 to 2.5 V)
- (3) Compact package with integrated transmitter and receiver (7.9 x 2.85 x 2.15h mm)
- (4) 3-state output type
- (5) Separate power supplies for optical receiver(Vcc) and transmitter(VLEDA)
- ( 6 ) Low dissipation current (Dissipation current: TYP. 90µA)
- (7) Dissipation current is low due to a shutdown function
  (Dissipation current at shut-down: TYP:0.001µA)
- (8) Built-in constant-current LED circuit (TYP. 32mA)

#### Applications

- (1) Cellular phone, PHS
- (2) Personal information tools

#### Specifications

Outl	ine Dimensions	(Unit : mm)
(2.15)		(2.85) (2.85) (2) NC (2) NC (3) Vcc (6) GND (6) RXD (7) TXD (8) LEDA
Bloc	ck Diagram CX 3.3µF $\frac{1}{m}$ V <sub>cc</sub> (3)	8 LEDA
Receiver	PD GND 4 SD 5 RXD 6	Constant current circuit TXD 7

IrDA 1.2 Low Power:

With this standard, the delay time has been reduced from 10ms to 0.5ms in order to decrease the transmission distance for IrDA 1.0 from 1m to 20cm and to transmit audio signals.

IrDA: Stands for Infrared Data Association. Industrial group name for standardizing infrared communication specifications.

Parameter	Symbol	Specifications			ا ا ما ا	
Falameter		MIN.	TYP.	MAX.	Unit	Conditions
Maximum communication distance	L	0.2	-	-	m	*1
Operating supply voltage	Vcc	1.7	-	2.5	V	-
Operating suppry voltage	VLEDA	2.0	-	6.0	V	-
Dissipation current	Icc	-	90	120	μΑ	Vcc=1.8V
Dissipation current at shut-down	Icc-s	-	0.001	0.1	μΑ	Vcc=1.8V
High level output voltage	Voh1	Vcc-0.4	-	-	V	-
Low level output voltage	Vol1	-	-	0.4	V	-
Delay time	-	-	-	0.5	ms	-
Radiant intensity	IE	3.6	-	-	mW/sr	Vcc=1.8V
LED peak current	ILED	-	32	-	mA	-
Peak wavelength	λρ	850	870	900	nm	-
Operating temperature	Topr	-20	-	85	°C	-

\*1 : Using standard transceiver (Light-emission intensity: 3.6mW/sr,Light-detection sensitivity 9µW/cm<sup>2</sup>)

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(Internet)

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  - Office automation equipment
  - Telecommunication equipment [terminal]
  - Test and measurement equipment
  - Industrial control
  - Audio visual equipment
  - Consumer electronics

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- Transportation control and safety equipment (i.e., aircraft, trains, automobiles, etc.)
- Traffic signals
- Gas leakage sensor breakers
- Alarm equipment
- Various safety devices, etc.

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