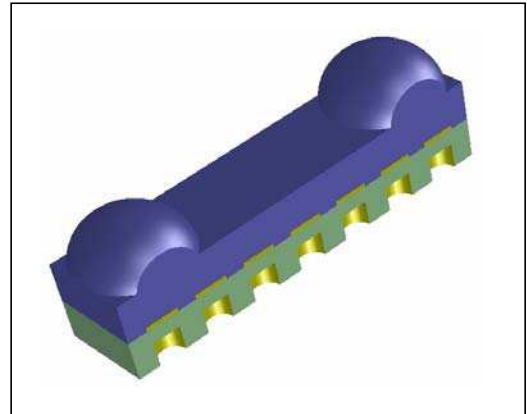


Description

The KOI-6002AL is a small form package Infrared transceiver(IR) module manufactured by AUK CORP and it's ideal for various kinds of wireless mobile communications such as cellular phones, PDAs, and even POS terminals including IrFM dongles. Fully compliant to IrDA DATA 1.4 Physical Layer Specifications and it supports the data rate from 9.6kbps to 115.2kbps.



Features

- Compliant to IrDA 1.4 Low Power Standard
- Wide Voltage Operation : 2.7 ~ 5.0V
- Compact Package Integrated Transmitter and Receiver (7.0L x 2.75W x 1.6T)
- Complete Power Down Mode for the Current Consumption.
- LED Stuck-high Protection
- Lead-free & High reliability package

Applications

- Cellular Phone
- Personal Computer(Desk-top PC, Lap-top PC)
- Printers, Vending Machine, ATM
- Personal Digital Assistants.(PDA)

Absolute Maximum Ratings

[T_A = 25°C]

Parameter	Symbol	Conditions	Min.	Max.	Unit
Supply Voltage	V _{CC}	-	0	5.0	V
LED Supply Voltage	V _{LED}	-	0	5.0	V
Operating Temperature	T _{opr.}	-	-20	60	°C
Storage Temperature	T _{stg.}	-	-20	75	°C
DC LED Transmit Current	I _{LED} (DC)	-	-	50	mA
Peak LED Transmit Current	I _{LED} (PK)	<9μs pulse width, <20% duty cycle	-	200	mA
Receiver Data Output Voltage	V _{RXD}	-	-0.5	V _{CC} +0.5	V
Transmitter Data Input Voltage	V _{TXD}	-	-0.5	V _{CC} +0.5	V

The contents of this data sheet are subject to change without advance notice for the purpose of improvement. When using this product, would you please refer to the latest specifications.

KOI-6002AL

Electrical Characteristics

[TA = 2°C , V_{CC}=3.3V]

Parameter		Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply Current		I _{cc1}	Shutdown	-	0.01	1.0	μA
		I _{cc2}	Idle	-	100	200	μA
Transmitter	T _{XD} Wakeup Time	T _{tw}		-	30	200	μs
	Viewing Angle	2θ _{1/2}	-	30	-	60	deg.
	Data Output Pulse Width	T _{stp} w	t _{pw} (RxD)=1.63μs at 115.2kbit/s	1.5	1.7	1.9	μs
	Rise Time	t _r	BR=115.2kbit/s	-	100	600	ns
	Fall Time	t _f	BR=115.2kbit/s	-	100	600	ns
	Peak Emission Wavelength	λ _p	-	-	875	-	nm
	Spectral Bandwidth	Δλ	-	-	45	-	nm
Receiver	Viewing Angle	2θ _{1/2}	-	30	-	-	deg.
	Peak Sensitivity Wavelength	λ _p	-	-	880	-	nm
	High Level Output Voltage	V _{OH}	I _{OH} =-20 μA	2/3 V _{CC}	-	V _{CC}	V
	Low Level Output Voltage	V _{OL}	I _{OL} =1mA	-	-	1/3 V _{CC}	V
	Rx SIR Pulse Width	T _{srp} w	t _{pw} (RxD)=1.63 μs at 115.2kbit/s	1.0	2.2	4.0	μs
	Rise Time	t _r	BR=115.2kbit/s	-	100	600	ns
	Fall Time	t _f	BR=115.2kbit/s	-	100	600	ns
	Communication Distance	D		30	60	-	cm
	Receiver Latency Time	TL		-	100	150	μs
Receiver Wakeup Time	T _{rw}		-	150	200	μs	

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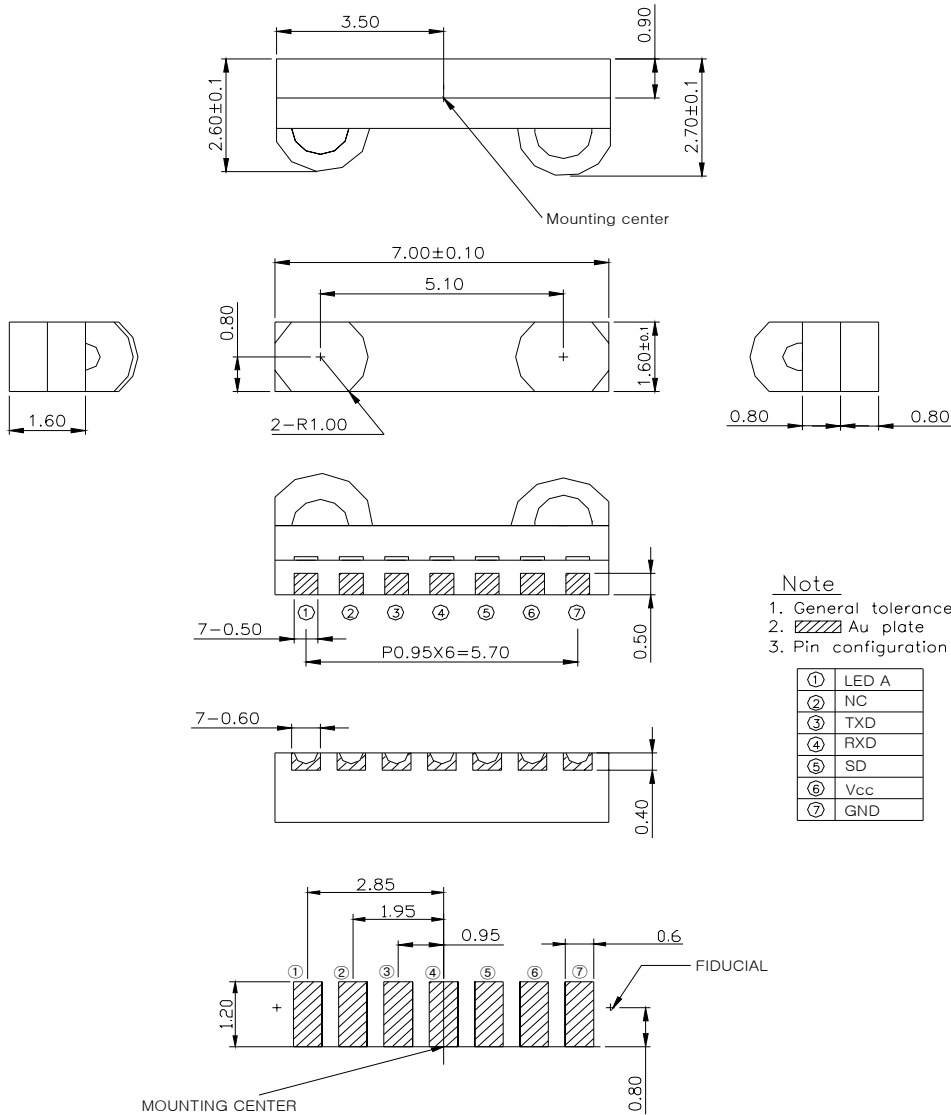
KOI-6002AL

Ordering Information


Part Number	Packaging Type	Quantity
KOI-6002AL	Tape and Reel	2,500

Package Outline Dimensions

(Unit : mm)



Note

- General tolerance : ±0.1mm
-  Au plate
- Pin configuration

①	LED A
②	NC
③	TXD
④	RXD
⑤	SD
⑥	Vcc
⑦	GND

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