

Description

The KOI-6210A 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 4.0Mbps



Features

- Compliant to IrDA 1.4 Low Power Standard
- Wide Voltage Operation : 2.4 ~ 3.6V
- Compact Package Integrated Transmitter and Receiver (8.0L x 2.75W x 2.5T)
- Complete Power Down Mode for the Current Consumption.
- Shielded Package for Preventing EMI
- 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	5.0	V
LED Supply Voltage	V _{LED}	-	-0.5	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)	<9(μs pulse width, <20% duty cycle	-	300	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

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KOI-6210A

Electrical Characteristics

[TA = 2°C , V_{CC}=3.3V]

Parameter		Symbol	Conditions	Min.	Typ.	Max.	Unit
Supply Current		I _{cc1}	Shutdown	-	0.5	1	μA
		I _{cc2}	Idle	-	2.0	3.0	mA
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	tpw(RxD)=1.63μs at 115.2kbit/s	1.6	1.7	1.9	μs
			tpw(TxD)=125ns at 4Mbit/s	105	125	145	ns
	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	-	-	875	-	nm
	High Level Output Voltage	V _{OH}	I _{OH} =-200 μA	2/3 V _{CC}	-	-	V
	Low Level Output Voltage	V _{OL}	I _{OL} =200 μA	-	-	1/3 V _{CC}	V
	Rx SIR Pulse Width	T _{srp} w	tpw(RxD)=1.63 μs at 115.2kbit/s	1.0	2.2	4.0	μs
		T _{srp} w	tpw(RxD)=125ns 4Mbit/s	80	130	175	ns
	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		-	50	100	μs
Receiver Wakeup Time	T _{rw}		-	70	200	μs	

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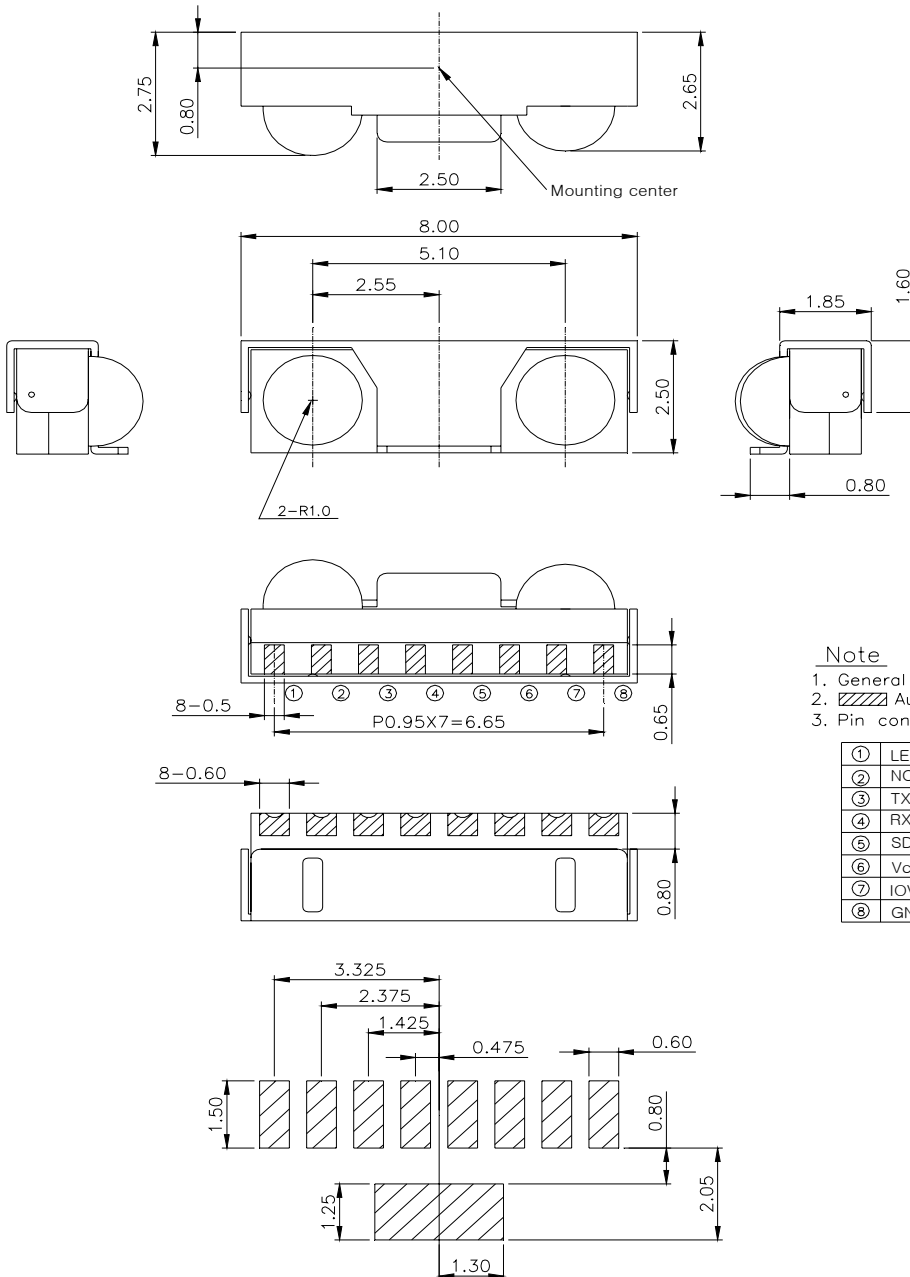
KOI-6210A

Ordering Information

Part Number	Packaging Type	Quantity
KOI-6210A	Tape and Reel	2,500

Package Outline Dimensions

(Unit : mm)



Note

- General tolerance : $\pm 0.2\text{mm}$
- ▨ Au plate
- Pin configuration

①	LEDA
②	NC
③	TXD
④	RXD
⑤	SD
⑥	Vcc
⑦	IOVcc
⑧	GND

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