

Description

The KOI-6211A 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 (7.0L x 2.7W 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	5.0	V
LED Supply Voltage	V _{LED}	-	-0.5	5.0	V
Operating Temperature	Topr.	-	-20	60	°C
Storage Temperature	Tstg.	-	-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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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 _{stpw}	tpw(RxD)=1.65μs 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 _{srpw}	tpw(RxD)=1.63 μsat 115.2kbit/s	1.0	2.2	4.0	μs
		T _{srpw}	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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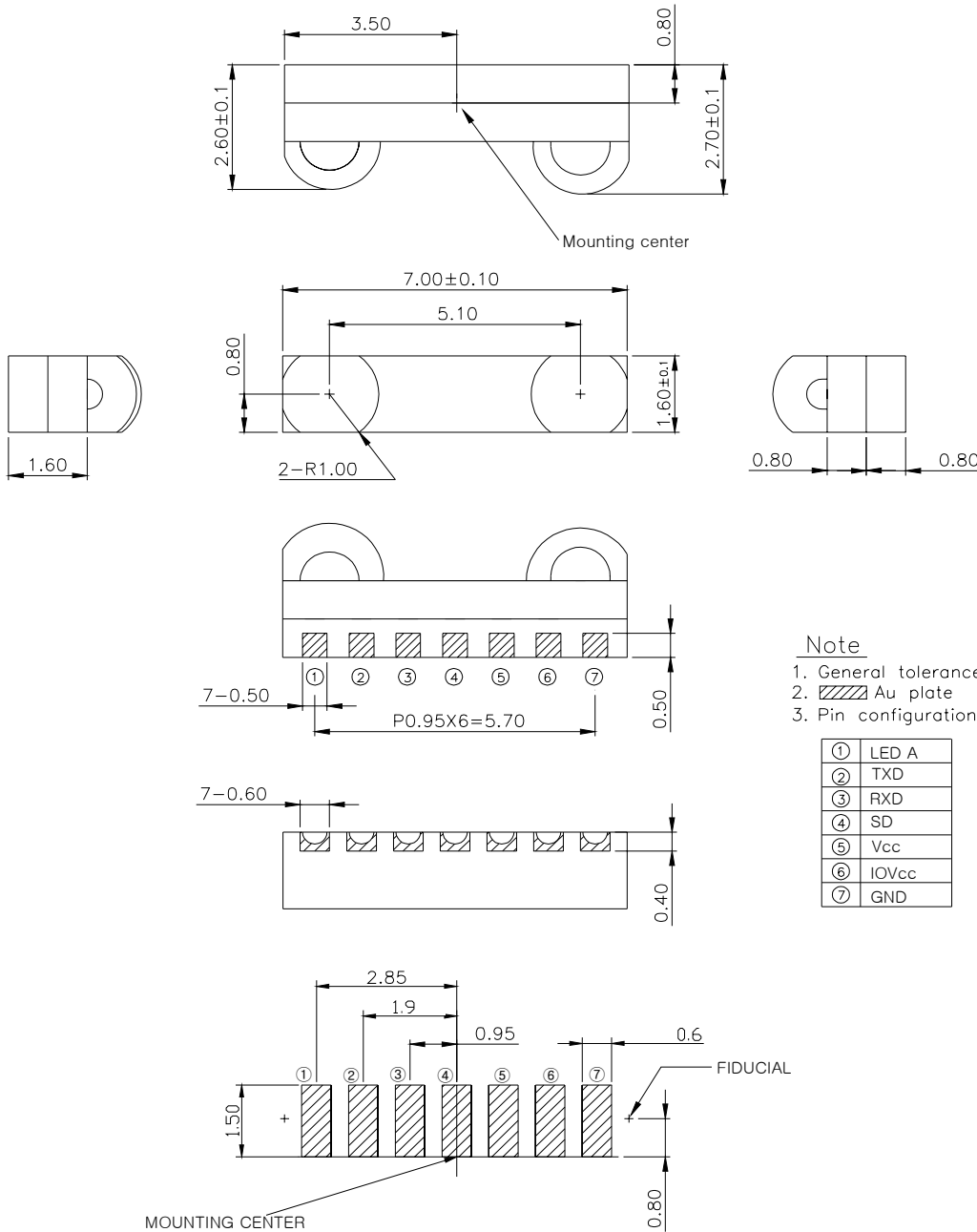
KOI-6211A

Ordering Information

Part Number	Packaging Type	Quantity
KOI-6211A	Tape and Reel	2,500

Package Outline Dimensions

(Unit : mm)



Note

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

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

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