

IrDA PROTOCOL IC COMPARISON TABLE (v1.31, 2005/01/31)

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(ACTiSYS ACT-IR8250P/IR82x0D/IR8200LX, and Microchip MCP2150/2155)

		ACTIR8250P	MCP2150	ACTIR8210D	ACTIR8200D	ACTIR8200L	IR8200LM	IR8200LT
		(Upgraded to programmable, 3-in-1 IC, IR82x0D)						
Compatibility	Windows98SE/ME/2000/XP	All Compatible	Yes	All Compatible	All Compatible	All Compatible	All Compatible	All Compatible
	Palm O.S.	All Compatible	Not All	All Compatible	All Compatible	All Compatible	All Compatible	All Compatible
	Windows CE & Pocket PC	All Compatible	Not All	All Compatible	All Compatible	All Compatible	All Compatible	All Compatible
	Symbian O.S.	IrComm Compatible	Not Sure?	Compatible	Compatible	Compatible	Compatible	Compatible
Certificat.	*IrDA-IrReady Certified	Yes, in Embedded RS232 Adapter	No	Yes, in Embedded RS232 Adapter	Yes, in Embedded RS232 Adapter	Yes, in Embedded RS232 Adapter	Yes, in Embedded RS232 Adapter	Yes, in Embedded RS232 Adapter
	*Your Product To Pass Certification	Yes, Quickly	No	Yes, Quickly	Yes, Quickly	Yes, Quickly	Yes, Quickly	Yes, Quickly
IrDA Protocol Stack	IrDA Protocol Lower Layers	Same	Same	Same	Same	Same	Same	Same
	IrDA Protocol Upper Layers	IrComm, IrLPT, IrObex Transport	IrComm only	IrComm, IrLPT, IrObex Transport	IrComm, IrLPT, IrObex Transport, Obex, IrFM	IrComm, IrLPT, IrObex Transport	IrComm, IrLPT, IrObexTspt, IrFM	IrComm, IrLPT, IrObexTspt, IrFM
	Primary-mode; Secondary-mode	Secondary only	2ndary only	Primary, 2ndary; or Primary+2ndry	Primary, 2ndary; or Primary+2ndry	Secondary only	Primary, 2ndary; or Primary+2ndry	Primary, 2ndary; or Primary+2ndry
	IrDA Baud Rate	9.6k – 115.2k bps	Same	Same	Same	Same	Same	Same
	Data Size/Package Protocol & Host Parameters Select	64 bytes Customer Selectable	64 bytes Not Selectable	512 bytes Customer Selectable by Software	2,048 bytes Customer Selectable by Software	128 bytes Software or Jumper Selectable	128 bytes Software or Jumper Selectable	2,048 bytes Software or Jumper Selectable
Host Interface	Host Interface Select Data Format	Customer Selectable: 8n1, 8e1, 8o1, 7e1, 7o1, 8n2, 7e2, 7o2	Not Selectable. 8n1 only??	Customer Selectable by Software: 8n1, 8e1, 8o1, 7e1, 7o1	Customer Selectable by Software: 8n1, 8e1, 8o1, 7e1, 7o1	Factory Set: 8n1, 8e1, 8o1, 7e1, or 7o1	Factory Set: 8n1, 8e1, 8o1, 7e1, 7o1	Factory Set: 8n1, 8e1, 8o1, 7e1, 7o1
	UART Rate	300~115.2kbps	1.2k~115.2k	1.2k~115.2kbps	1.2k~115.2kbps	1.2k~115.2kbps	1.2k~115.2kbps	1.2k~115.2kbps
	Flow-control	Hardware, extra 4 bytes tolerance	Hardware	Hardware, extra 4 bytes tolerance	Hardware, extra 4 bytes tolerance	Hardware, extra 4 bytes tolerance	Hardware, extra 4 bytes tolerance	Hardware, extra 4 bytes tolerance

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		ACT-IR8250P	MCP2150	ACT-IR8210D	ACT-IR8200D	ACT-IR8200L	IR8200LM	IR8200LT
		(Upgraded to programmable, 3-in-1 IC, IR82x0D)						
	Throughput	Average	Very Slow	Medium	Fast	Medium Fast	Medium Fast	Fast
	DCE, DTE	Same chip	MCP2155:DTE	Same chip	Same chip	Same chip	Same chip	Same chip
Special Feature	Firmware Customization	Yes, Special Order	No	Yes, Special Order	Yes, Special Order	No	No	No
	AES Encryption	Special Order	No	No	No	No	No	No
	Firmware Field Programmable	Yes	No	Yes, Special order	Yes, Special order	No	No	No
Electrical Spec.	Operating Vcc	3V-3.6V	3V-5V	3V-3.6V	3V-3.6V	3.3V, 5.0V	3.3V, 5.0V	3.3V, 5.0V
	Active Pwr	2 mA@ 3.3V	4 mA @5V	15mA@ 3.3V	15mA@ 3.3V	10 mA@ 3.3V 40 mA@ 5V	10 mA@ 3.3V 40 mA@ 5V	10 mA@ 3.3V 40 mA@ 5V
	Standby Pwr	2 µA	<1mA@5V	2mA	2mA	10mA@ 5V	10 mA@ 5V	10 mA@ 5V
	Crystal Freq.	7.3728MHz	11.0592MHz	22.1184MHz	22.1184MHz	22.1184MHz	22.1184MHz	22.1184MHz
	Endec Xstal Freq.	No Need	No Need	No Need	No Need	3.6864MHz	3.6864MHz	3.6864MHz
	On-Chip SRAM	256 bytes	256 bytes?	2,048 bytes/4 blocks	8,192 bytes/4 blocks	1,024 bytes	1,024 bytes	1,024+ 32Kbytes
	IrDA Xsmit Pwr	<100 mA	<100 mA	<100 mA	<100 mA	<100 mA	<100 mA	<100 mA
	Programming SW	Free IR8250SW	No	Free ComSET	Free ComSET	Free Com/IrSET	Free Com/IrSET	Supports Extra External SRAM
Package	Form Factor	IC & PCB Module	IC only	IC & PCB Module	IC & PCB Module	IC & PCB module	IC & PCB module	IC & PCB module
	Chip Set	Single IC	Single IC	Single IC	Single IC	1 IC + 1 Endec IC	1 IC + 1 Endec IC	1 IC + 1 Endec IC
	Package	28 Pin TSSOP	20 Pin	52 Pin QFP	52 Pin QFP	44Pin PLCC,TQFP	44PinPLCC,TQFP	44PinPLCC,TQFP
\$	Price	Low	Low	Medium	Medium High	Medium High	Medium High	Medium High
	Adapter & Voltage	IR8250PEK;3/5/12V	Eval. kit	IR100SD; 5/12/30V	IR100SD; 5/12/30V	IR100SL;5/12/30V	IR100SLM;5/12/30V	IR100SLT;5/12/30V

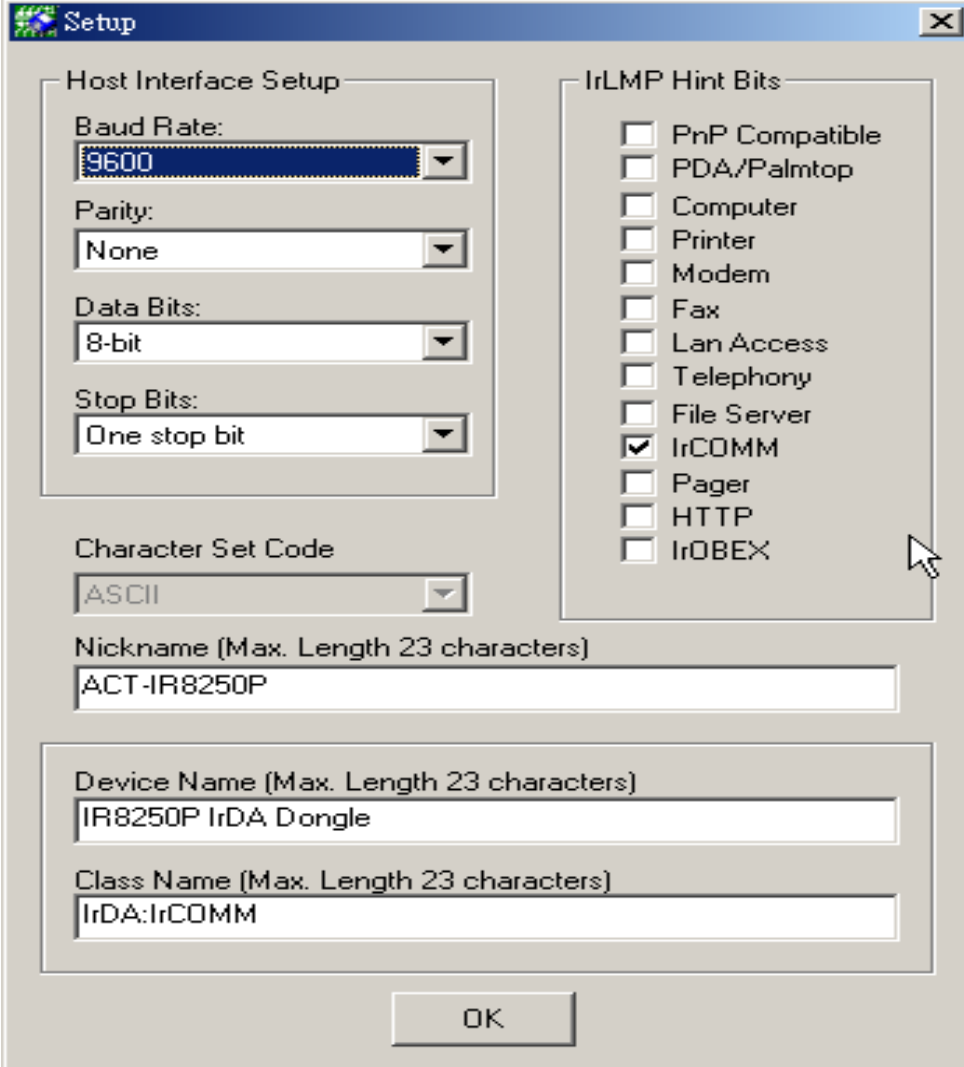
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*IrReady Certification assures: a) reliable error-free IR data transfer, b) solid compatibility with other IrReady certified IrDA devices, c) strong immunity to interference. "IrReady Certified Products" are listed at <http://www.irda.org/displaycommon.cfm?an=1&subarticlenbr=22>. IrReady Certification requires passing: a) IrPHY (Bit Error Rate, Intensity, Sensitivity, Timing), b) IrDA Protocol and Inter-Operability (IrDA Application Profiles) tough tests.

ACTiSYS IrDA Protocol IC, IR8250P In-System Programming Software, IR8250SW

User Programmable Config. Parameters:

- Host data rate
(1.2K ~ 115.2K bps)
- Host data format
(8n1, 7o1, etc.)
- IrLMP Bits (PDA,
Printer, Modem,)
- Nick & Device names
- Class name
(IrComm,)



The Setup dialog box is divided into several sections:

- Host Interface Setup:** Contains dropdown menus for Baud Rate (9600), Parity (None), Data Bits (8-bit), and Stop Bits (One stop bit).
- Character Set Code:** A dropdown menu set to ASCII.
- Nickname:** A text field containing "ACT-IR8250P".
- Device Name:** A text field containing "IR8250P IrDA Dongle".
- Class Name:** A text field containing "IrDA:IrCOMM".
- IrLMP Hint Bits:** A list of checkboxes for various device types: PnP Compatible, PDA/Palmtop, Computer, Printer, Modem, Fax, Lan Access, Telephony, File Server, IrCOMM (checked), Pager, HTTP, and IrOBEX.

An OK button is located at the bottom center of the dialog box.

ACTiSYS IrDA Protocol IC, IR8250P In-System Programming Software, IR8250SW

Field Programmable, User Downloadable Firmware:

- Configuration set-up parameters
- IrDA protocol stack choices (IrComm, IrLPT, IrSocket, IrObex Transport)
- Other customization
- Final Config. list and firmware ID are automatically stored in a log file, for volume production

