

**IrDA PROTOCOL IC COMPARISON TABLE (v1.30, 2005/01/18)**

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(ACTiSYS ACT-IR8250P/IR8200D/IR8200LX, and Microchip MCP2150/2155)

		ACTIR8250P	MCP2150	ACTIR8200D	ACTIR8200L	IR8200LM	IR8200LT
		(Upgraded to programmable 3-in-1 IC, IR8200D)					
<b>Compatibility</b>	<b>Windows98SE/ME/2000/XP</b>	All Compatible	Yes	All Compatible	All Compatible	All Compatible	All Compatible
	<b>Palm O.S.</b>	All Compatible	Not All	All Compatible	All Compatible	All Compatible	All Compatible
	<b>Windows CE &amp; Pocket PC</b>	All Compatible	Not All	All Compatible	All Compatible	All Compatible	All Compatible
	<b>Symbian O.S.</b>	Not Sure?	Not Sure?	Compatible	Compatible	Compatible	Compatible
<b>Certificat.</b>	<b>*IrDA-IrReady Certified</b>	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
	<b>*Your Product To Pass Certification</b>	Yes, Quickly	No	Yes, Quickly	Yes, Quickly	Yes, Quickly	Yes, Quickly
<b>IrDA Protocol Stack</b>	<b>IrDA Protocol Lower Layers</b>	Same	Same	Same	Same	Same	Same
	<b>IrDA Protocol Upper Layers</b>	IrComm, IrLPT, IrObex Transport	IrComm only	IrComm, IrLPT, IrObex Transport	IrComm, IrLPT, IrObex Transport	IrComm, IrLPT, IrObexTspt, <u>IrFM</u>	IrComm, IrLPT, IrObexTspt, <u>IrFM</u>
	<b>Primary-mode; Secondary-mode</b>	Secondary only	2ndary only	Primary, 2ndary; or Primary+2ndry	Secondary only	Primary, 2ndary; or Primary+2ndry	Primary, 2ndary; or Primary+2ndry
	<b>IrDA Baud Rate</b>	9.6k – 115.2k bps	Same	Same	Same	Same	Same
	<b>Data Size/Packet</b>	64 bytes	64 bytes	2,048 bytes	128 bytes	128 bytes	2,048 bytes
	<b>Protocol &amp; Host Parameters Select</b>	Customer Selectable	Not Selectable	Software Customer/ Factory Selectable	Software or Jumper Selectable	Software or Jumper Selectable	Software or Jumper Selectable
<b>Host Interface</b>	<b>Host Interface Data Format</b>	Customer Selectable: 8n1, 8e1, 8o1, 7e1, 7o1 8n2, 7e2, 7o2	8n1 only??	SW Customer/Factory Set: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
	<b>UART Rate</b>	300~115.2kbps	1.2k~115.2k	1.2k~115.2kbps	1.2k~115.2kbps	1.2k~115.2kbps	1.2k~115.2kbps
	<b>Flow-control</b>	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

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		ACT-IR8250P	MCP2150	ACT-IR8200D	ACT-IR8200L	ACT-IR8200LM	ACT-IR8200LT
		(Upgraded to programmable 3-in-1 IC, IR8200D)					
	<b>Throughput</b>	Average	Very Slow	Medium	Medium Fast	Medium Fast	Fast
	<b>DCE, DTE</b>	Same chip	MCP2155:DTE				
<b>Special Feature</b>	<b>Firmware Customization</b>	Yes, Special Order	No	Yes, Special Order	No	No	No
	<b>AES Encryption</b>	Special Order	No	No	No	No	No
	<b>Firmware Field Programmable</b>	Yes	No	Yes, Special Order	No	No	No
<b>Electrical Spec.</b>	<b>Operating Vcc</b>	3V-3.6V	3V-5V	3V-3.6V	3.3V, 5.0V	3.3V, 5.0V	3.3V, 5.0V
	<b>Active Pwr</b>	2 mA@ 3.3V	4 mA @5V	15mA@ 3.3V	10 mA@ 3.3V 40 mA@ 5V	10 mA@ 3.3V 40 mA@ 5V	10 mA@ 3.3V 40 mA@ 5V
	<b>Standby Pwr</b>	2 $\mu$ A	<1mA@5V	2mA	10mA@ 5V	10 mA@ 5V	10 mA@ 5V
	<b>Crystal Freq.</b>	7.3728MHz	11.0592MHz	22.1184MHz	22.1184MHz	22.1184MHz	22.1184MHz
	<b>Endec Xstal Freq.</b>	No Need	No Need	No Need	3.6864MHz	3.6864MHz	3.6864MHz
	<b>IrDA Xsmit Pwr</b>	<100 mA	<100 mA	<100 mA	<100 mA	<100 mA	<100 mA
<b>Extra Function</b>	<b>Extra Function</b>	Shutdown and Standby modes with Automatic Wakeup by Incoming IR	No	No	No	No	Extra External SRAM Support
<b>Package</b>	<b>Form Factor</b>	IC & Small PCB Module	IC only	IC & Small PCB Module	IC & PCB module	IC & PCB module	IC & PCB module
	<b>Chip Set</b>	Single IC	Single IC	Single IC	1 IC + 1 Endec IC	1 IC + 1 Endec IC	1 IC + 1 Endec IC
	<b>Package</b>	28 Pin TSSOP	20 Pin	52 Pin QFP	44Pin PLCC,TQFP	44PinPLCC, TQFP	44PinPLCC, TQFP
<b>\$</b>	<b>Price</b>	Low	Low	Medium High	Medium High	Medium High	Medium High
	<b>Adapter &amp; Voltage</b>	IR8250PEK,DB;3/5/12V	Eval.kit Only	IR100SD, DB; 5/12V	IR100SL;5/12/30V	IR100SLM;5/12/30V	IR100SLT;5/12/30V

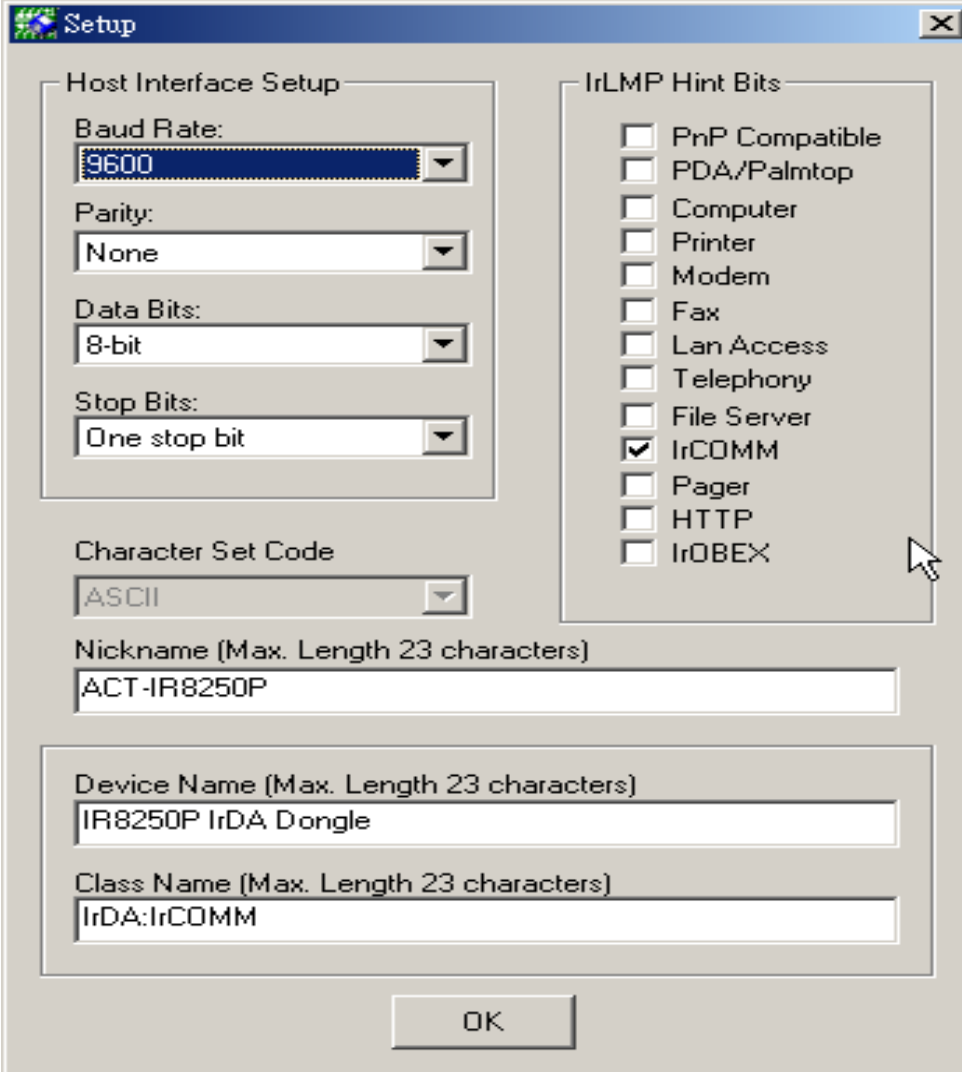
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\*IrReady Certification assures: a) reliable error-free IR data transfer, b) solid compatibility with other IrReady certified IrDA devices, c) strong immunity to interference. "IrReady Certified Products" are listed at <http://www.irda.org/displaycommon.cfm?an=1&subarticlenbr=22>. 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 screenshot shows a Windows-style dialog box titled "Setup". It is divided into several sections:

- Host Interface Setup:** Contains four dropdown menus: "Baud Rate" (set to 9600), "Parity" (set to None), "Data Bits" (set to 8-bit), and "Stop Bits" (set to One stop bit).
- Character Set Code:** A dropdown menu set to "ASCII".
- Nickname (Max. Length 23 characters):** A text input field containing "ACT-IR8250P".
- Device Name (Max. Length 23 characters):** A text input field containing "IR8250P IrDA Dongle".
- Class Name (Max. Length 23 characters):** A text input field containing "IrDA:IrCOMM".
- IrLMP Hint Bits:** A list of checkboxes: "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

