

## IrDA<sup>®</sup> Standard Encoder/Decoder Product Brief

### Features

- Pinout compatible with HSDL-7000
- Compliant with IrDA<sup>®</sup> Physical Layer Specification (Version 1.3)
- UART to IrDA Standard Encoder/Decoder
  - Interfaces with IrDA Compliant Transceiver
- Baud Rates:
  - Up to IrDA Standard 115.2 Kbaud Operation
- Transmit/Receive Formats (Bit Width) Supported:
  - 1.63  $\mu$ s
- Low-power Mode: 2  $\mu$ A at 1.8V, +125°C

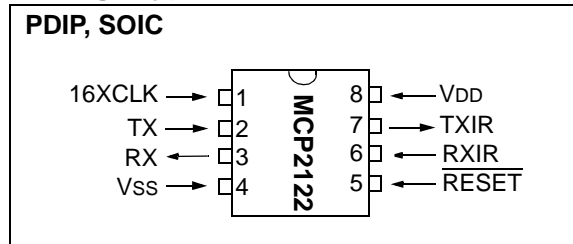
### CMOS Technology

- Low-voltage operation: 1.8V to 5.5V
- Extended temperature range
- Low-power consumption

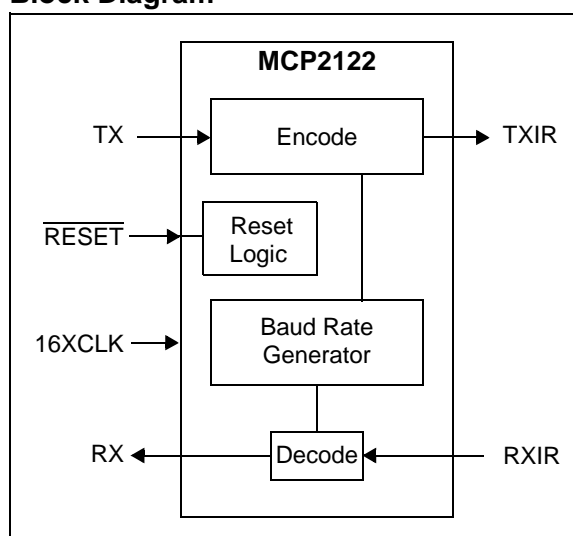
### Overview

The MCP2122 is an IrDA standard encoder/decoder device. The MCP2122 device is pin compatible with the Agilent<sup>™</sup> HSDL-7000 encoder/decoder and interfaces to standard optical transceivers.

### Package Type



### Block Diagram



### IrDA Family Selection

Device	Baud Rate		Encoder/Decoder	Protocol Layer Handler	Clock Source	Host UART Baud Rate Selection	Comment
	Host UART	IR					
<b>MCP2120</b>	2400 - 312,500 <sup>(1)</sup>	2400 - 312,500 <sup>(1)</sup>	Yes	No	XTAL	HW/SW	
<b>MCP2122</b>	2400 - 115,200 <sup>(1)</sup>	2400 - 115,200 <sup>(1)</sup>	Yes	No	16XCLK	By 16XCLK	Extended Temperature Range (-40°C to +125°C)
<b>MCP2140</b>	9600	9600	Yes	IrCOMM <sup>(3)</sup>	XTAL	None -Fixed	
<b>MCP2150</b>	9600 - 115,200 <sup>(2)</sup>	9600 - 115,200 <sup>(2)</sup>	Yes	IrCOMM <sup>(3)</sup>	XTAL	HW	Host UART easily interfaces to a PC's serial port (DTE)
<b>MCP2155</b>	9600 - 115,200 <sup>(2)</sup>	9600 - 115,200 <sup>(2)</sup>	Yes	IrCOMM <sup>(3)</sup>	XTAL	HW	Host UART easily interfaces to a modem's serial port (DCE)

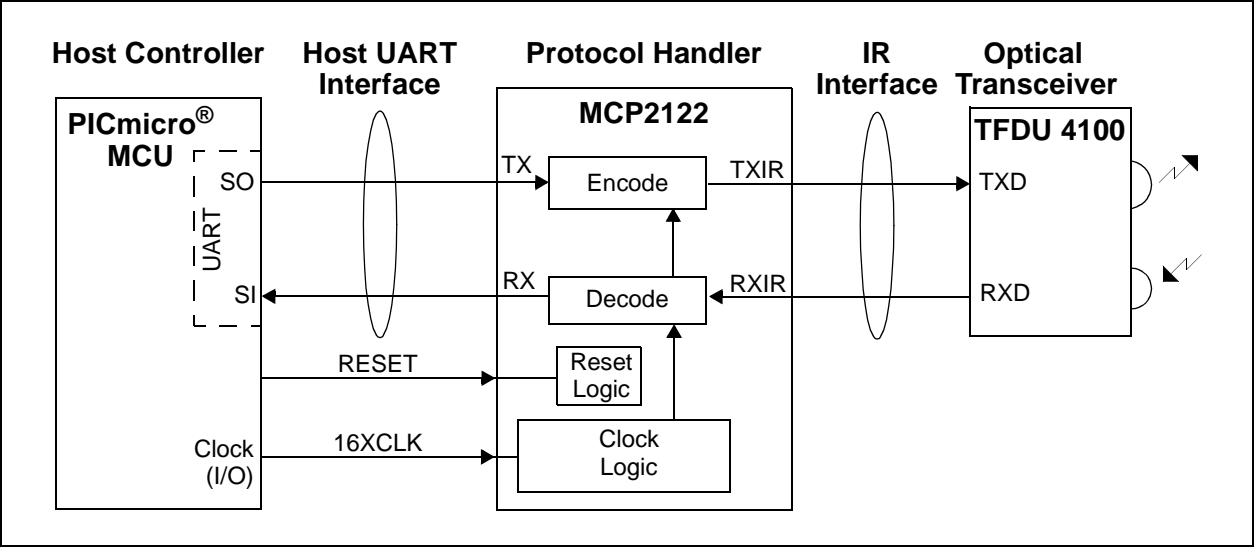
**Note 1:** The host UART and the IR operate at the same baud rates.

**2:** The host UART baud rate and the IR baud rates operate independent of each other.

**3:** Supports the 9-wire "cooked" service class of the IrCOMM application layer protocol.

# MCP2122

MCP2122 System Block Diagram



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