SHARP®

IrDA Components Group

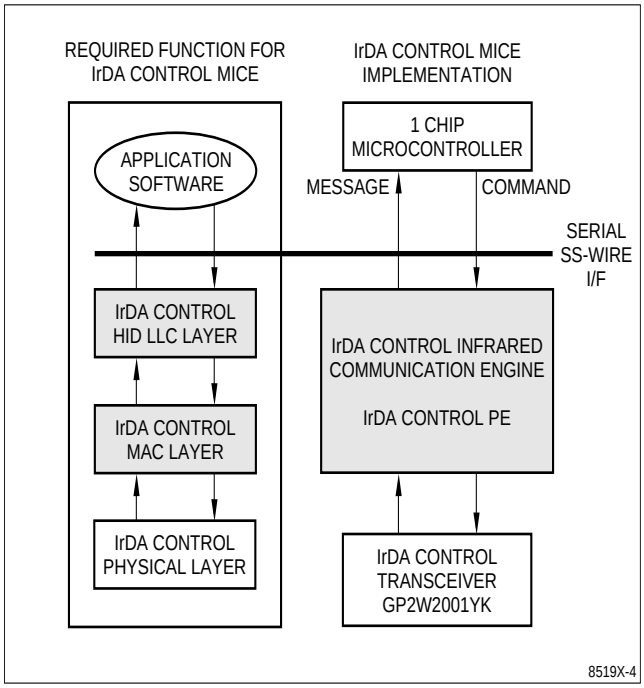
APPLICATIONS:
- Network Computer

LZ8519X IrDA Control Peripheral Engine (PE)

FEATURES

- All-in-One Embedded Communication Controller (Encoder/ Decoder, IrDA, IrDA Control MAC Layer, HID LLC Layer)
- Simple Command given by an ordinary µP enables PE to operate every protocol required for IrDA Control Infrared Wireless Communication
- Optimized interface to SHARP IrDA Control Infrared Transceiver (SHARP P/N: GP2W2001YK)
- Serial interface (Synchronous Serial Wire) is prepared for the interface between µP and PE.
- Low current consumption: I_{CC} = 3 mA (at operation)
- Supply Voltage: V_{DD} = 2.7 V - 3.3 V

SYSTEM BLOCK DIAGRAM



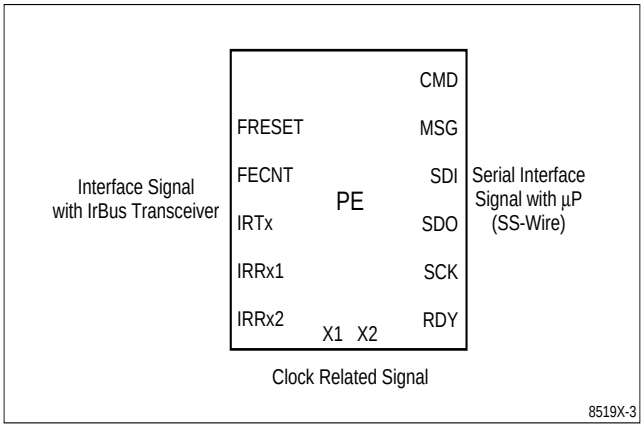
DESCRIPTION

SHARP IrDA Control Peripheral Engine will exchange the information with µP through this serial interface (SS-Wire). Only two attributes, 'Command' and 'Message', a simple software will be used for information transaction. Other protocol stacks are supported by PE and users can simply minimize design effort and time.

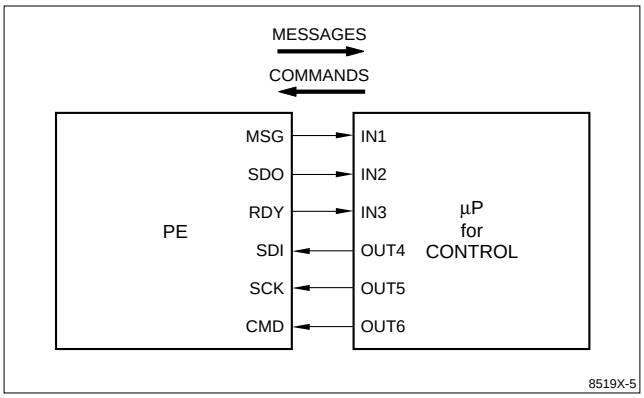
The SHARP IrDA Control Peripheral Engine (PE) is an embedded Communication controller, designed to fully support IrDA Control MAC Layer and HID LLC Layer services. It has an optimized interface to SHARP IrDA Control transceiver, and the Serial Interface (Synchronous Serial Wire) for µP.

Since IrDA Control MAC layer and HID LLC layer protocol stacks are already built-into PE, one can easily implement IrDA Control Peripherals with SHARP IrDA Control transceiver and PE.

GENERAL CHARACTERISTICS



SYSTEM DATA FLOW



This Product Information is from Prelimary Product Information Issue Date: April 15, 1998.

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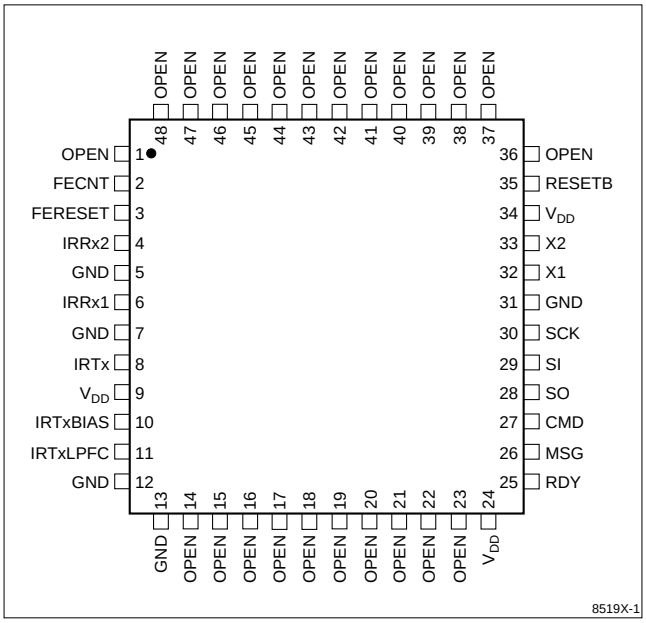
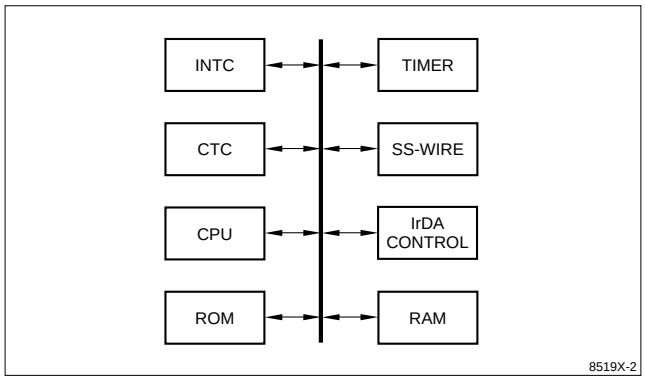
48-PIN SOP



BLOCK DIAGRAM



PIN DESCRIPTION

PIN NAME	I/O	DESCRIPTION
SI	Input	Serial data input
SO	Output	Serial data output
SCK	Input	Clock signal for serial data
MSG	Output	MSG = H indicates the PE holds messages. µP must issue Get_Message command and read in the message. When PE no longer holds messages, PE outputs MSG = L
RDY	Output	Signal for flow control
CMD	Input	Timing signal for command ID
IRTx	Output	Connected to TXD pinout of Infrared Transceiver (P/N: GP2W2001YK)
IRTxBIAS	Output	N/C
IRTxLPFC	Output	N/C
IRRx1	Input	Connected to V_O pinout of Infrared Transceiver (P/N: GP2W2001YK)
IRRx2	Input	N/C
FECNT	Output	Connected to SD pinout of Infrared Transceiver (P/N: GP2W2001YK)
FERESET	Output	Connected to RESET pinout of Infrared Transceiver (P/N: GP2W2001YK)
RESETB	Input	Hardware reset signal
X1	Input	Clock input. Clock of 6 MHz must be input
X2	Output	NC