

LZ8520X

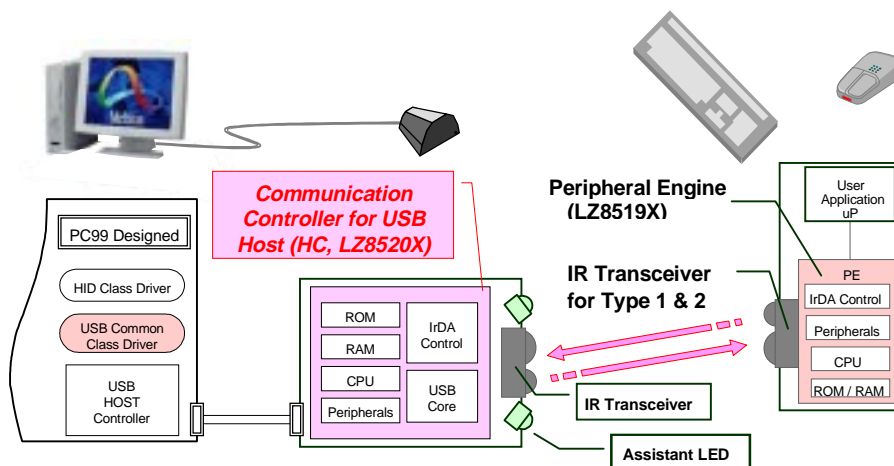
IrDA-Control Single-Chip Host Controller (HC)

IrDA-Control - A New IrDA® Standard for Wireless Command & Control Devices

GENERAL DESCRIPTION:

The Sharp IrDA-Control Host Controller (HC) is a single-chip communication LSI with built-in USB protocol and IrDA-Control protocol (MAC Layer and HID LLC Layer) services. When combined with a Sharp IrDA-Control transceiver (Sharp P/N: GP2W2001YK), an IrDA-Control Host device can be easily implemented. The PC will immediately perform as an IrDA-Control Host device by connecting the implemented Host to the PC by a USB interface. The IrDA-Control Host device is able to maintain

simultaneous multiple wireless links with up to 8 IrDA-Control Peripheral devices. In combination with BIOS that supports USB keyboards in the market place, the Sharp HC will enable wireless links between IrDA-Control mouse and keyboard under DOS mode. For the IrDA-Control Peripheral implementation, Sharp also offers the IrDA-Control Peripheral Engine (PE, Sharp P/N: LZ8519X) as well as transceivers (Sharp P/N: GP2W2001YK/2002YK) as a complete solution for this technology.



FEATURES:

- ❑ All-in-One Single-Chip Communication LSI (Encoder/Decoder, IrDA-Control MAC layer, HID LLC Layer, USB protocol) that implements functions required for compliant IrDA-Control Host devices.
- ❑ Optimized interface to Sharp IrDA-Control Infrared Transceiver (Sharp P/N: GP2W2001YK).
- ❑ Optimized Direct Interface to External Serial EEPROM for address maintenance
- ❑ 12 MHz Single Phase Clock (Built-in Oscillation Circuit)
- ❑ Manual Host Address configuration by DIP switch (recommended)
- ❑ Pinouts provided for various LED indicators - NumLock / Caps Lock / Scroll Lock
- ❑ Single Power Supply (5.0V)

APPLICATIONS

Consumer Home Entertainment

- 👉 Set-top Box for Cable / Satellite / Digital Terrestrial Broadcasting
- 👉 Internet TV / Interactive TV
- 👉 Home Video Games

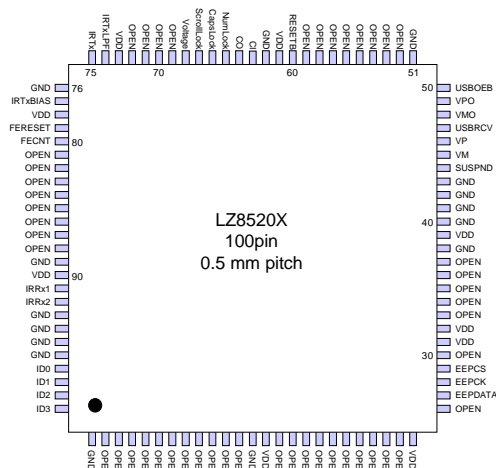
Computing

- 👉 Entertainment / Multimedia Desktop PC
- 👉 Notebook PC
- 👉 External IR Adapter ("Dongle")

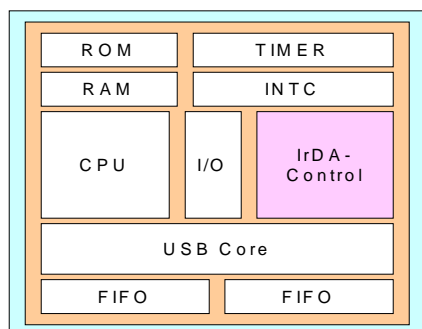
PRELIMINARY INFORMATION DISCLAIMER

This document is a Preliminary Product Information of Sharp IrDA-Control Host Controller for Host Devices. This product is currently under development, and any of information in this document are applicable only for reference. SHARP holds the right to change any of the information, specifications and alter prices at any time without notice.

PACKAGE SPECIFICATIONS:



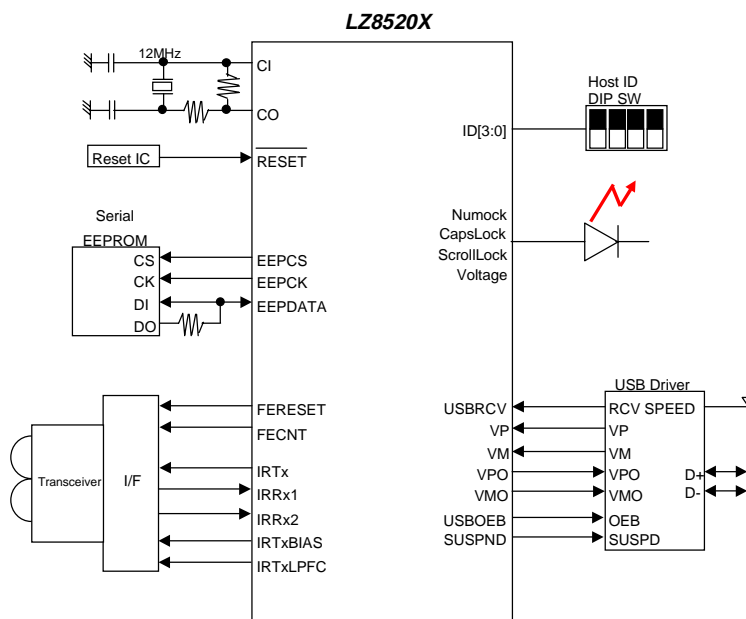
BLOCK DIAGRAM:



PIN DESCRIPTION:

Pinout	I/O	Function
USB related		
USBRCV	I	USB data receive
VP	I	USB received data D+
VM	I	USB received data D-
VPO	O	USB transmission data D+
VMO	O	USB transmission data D-
USBOEB	O	USB data transmission enable
SUSPND	O	USB driver suspend signal
Transceiver I/F		
IRTx	O	Infrared transmission data
IRTxBIAS	O	Infrared transmission BIAS signal
IRTxLPFC	O	Infrared transmission filter signal
FERESET	O	Infrared transceiver RESET signal
FECNT	O	Infrared transceiver control signal
IRRx1	I	Infrared received signal input 1
IRRx2	I	Infrared received signal input 2
Others		
EEPCS	O	Chip select for serial EEPROM
EEPCK	O	Clock for serial EEPROM
EEPDATA	I/O	Data for serial EEPROM
ID0 ~ ID3	I	IOP input signal
CI	I	System clock oscillation pinout
CO	O	System clock oscillation pinout
NumLock	O	LED indicator output
CapsLock	O	LED indicator output
ScrollLock	O	LED indicator output
VDD	-	Power Supply
GND	-	Power Supply

IRDA-CONTROL HOST IMPLEMENTATION EXAMPLE



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