MCS7780

USB to IrDa Port

MOSCHIP
SEMICONDUCTOR

Features

- Single 3.3V – 5.0V operation
- Low power
- Full compliance with the USB V1.1 specification and IrDa 1.3
- IrDa data rates from 2.4Kbps to 4 Mbps
- Uses standard IrDa Transceivers
- Microsoft compatible
- Internal power-on reset
- On-chip oscillator
- Available in 28-pin SSOP package

Applications

- High-speed IrDa Communications
- Cell phone interface cable

Application Note

- AN-7780

Evaluation Board

- MCS7780-EVB

General Description

The MCS7780 controller provides bridging between the Universal Serial Bus (USB) input and an IrDa wireless data communication port. This device contains all the necessary logic to communicate with the host computer via the USB bus.

In addition, the MCS7780 contains a 3.3V regulator and operates in bus-powered mode.

The MCS7780 has a reduced frequency (12MHz) crystal oscillator. This combination of features allows significant cost savings in system design along with straight forward implementation of IrDa port functionality into PC peripherals using the host's USB port.

Ordering Information

Commercial Grade (0° C to +70° C)		
MCS7780CS	28-SSOP	Standard
MCS7780CS-GR	28-SSOP	RoHS

MCS7780 Pin assignment

TXDIODEG	1		28	N.C.
TXDIODE	2		27	N.C.
N.C.	3		26	XTAL2
N.C.	4		25	XTAL1
RXFAST	5	MCS7780CS	24	DGND
TX	6		23	nRESET
RXSLOW	7		22	N.C.
SD/MODE	8		21	N.C.
DGND	9		20	N.C.
3.3V	10		19	N.C.
AGND	11		18	3.3VA
DM	12		17	DP
N.C.	13		16	N.C.
N.C.	14		15	N.C.