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General Description

The SMSC SIO1036 is a 3.3V PC 99, PC2001 compliant Super I/O Controller. The SIO1036 implements the LPC interface, a pin reduced ISA interface which provides the same or better performance as the ISA/X-bus with a substantial savings in pins used. The part also includes 1 GPIO pin.

The SIO1036 incorporates a Multi-Mode parallel port with ChiProtect™ circuitry plus EPP and ECP support. The parallel port is compatible with IBM PC/AT architectures, as well as IEEE 1284 EPP and ECP. The parallel port ChiProtect™ circuitry prevents damage caused by an attached powered printer when the SIO1036 is not powered.

The SIO1036 offers a full 16-bit internally decoded address bus, a Serial IRQ interface with PCI CLKRUN# support, relocatable configuration ports, and three DMA channel options.

There is a dedicated Serial Infrared interface UART, which complies with IrDA v1.2 (Fast IR), HPSIR, and ASKIR formats (used by Sharp and other PDAs), as well as Consumer IR. This can also be used as a 2 pin UART.

The SIO1036 features Software Configurable Logic (SCL) for ease of use. SCL allows programmable system configuration of key functions such as the parallel port and UART.

The SIO1036 supports the ISA Plug-and-Play Standard register set (Version 1.0a) and provides the recommended functionality to support Windows operating systems, PC99, and PC2001. The I/O Address, DMA Channel, and Hardware IRQ of each device in the SIO1036 may be reprogrammed through the internal configuration registers. There are multiple I/O address location options, a Serialized IRQ interface, and three DMA channels.

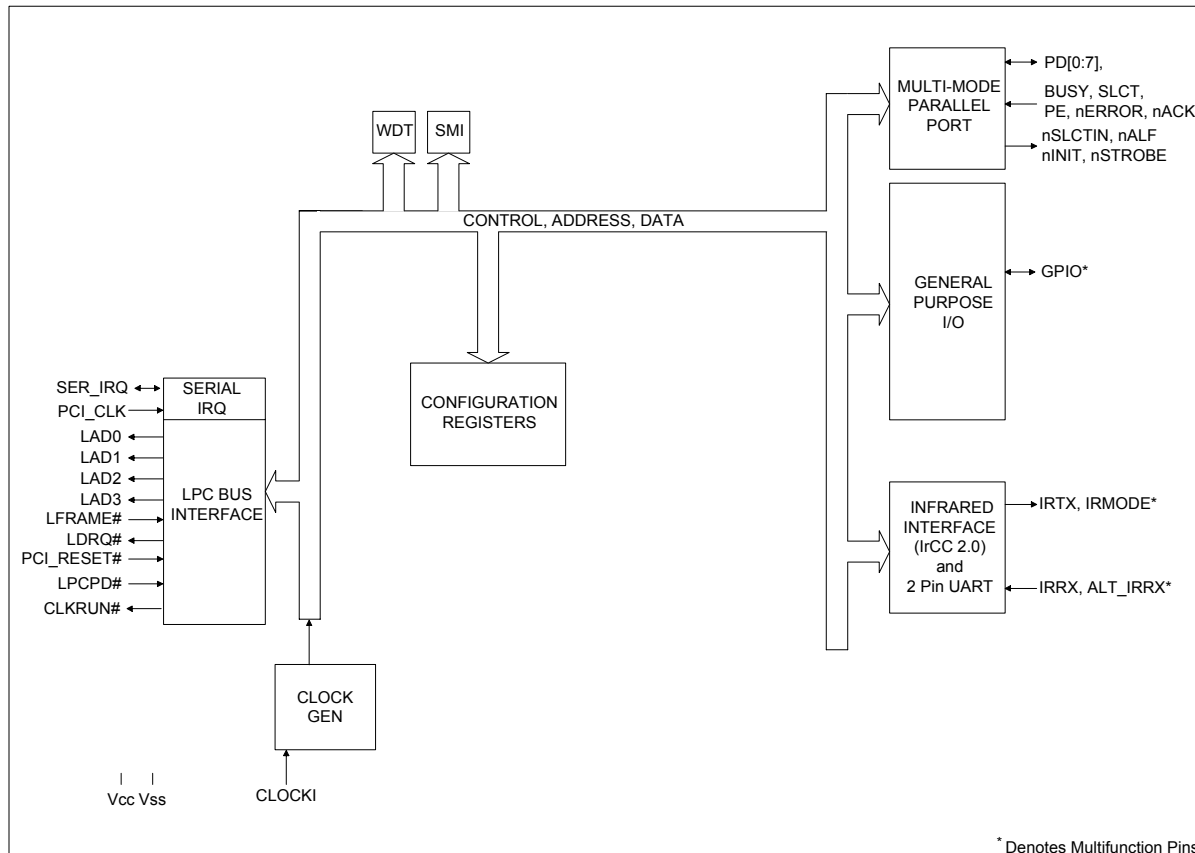


Figure 1 SIO1036 Block Diagram

TOP VIEW

CHAMFERED CORNERS ARE OPTIONAL 4X

TERMINAL #1 IDENTIFIER AREA (D/12 X E/12)

TERMINAL #1 IDENTIFIER AREA (D/2 X E/2)

36X 0.2 MIN

36X 0.2

36

1 2 3

D D1

E E1 E

0.6(MAX)

BOTTOM VIEW

TERMINAL #1 IDENTIFIER AREA (D/2 X E/2)

EXPOSED PAD

36X L

36X 0.2

36

1 2 3

D2

E2

36X 0.2 MIN

SIDE VIEW

4X 0°-12°

A A1 A2 A3

C C

3-D VIEWS

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETER
2. POSITION TOLERANCE OF EACH TERMINAL IS $\pm 0.05\text{mm}$ AT MAXIMUM MATERIAL CONDITION. DIMENSIONS "b" APPLIES TO PLATED TERMINALS AND IT IS MEASURED BETWEEN 0.15 AND 0.30 mm FROM THE TERMINAL TIP.
3. DETAILS OF TERMINAL #1 IDENTIFIER ARE OPTIONAL BUT MUST BE LOCATED WITHIN THE AREA INDICATED.
4. COPLANARITY ZONE APPLIES TO EXPOSED PAD AND TERMINALS.

REVISION HISTORY		DATE	RELEASED BY
REVISION	DESCRIPTION		
-	SEE SPEC FRONT PAGE FOR REVISION HISTORY	-	-

COMMON DIMENSIONS				REMARK
SYMBOL	MIN	NOM	MAX	NOTE
A	0.80	-	1.00	OVERALL PKG HEIGHT
A1	0	0.02	0.05	STANDOFF
A2	0.60	-	0.80	MOLD THICKNESS
A3	0.20 REF	-	-	LEAD FRAME THICKNESS
D/E	5.85	6.00	6.15	"X"/"Y" BODY SIZE
D1/E1	5.55	-	5.95	"X"/"Y" MOLD SIZE
D2/E2	SEE VARIATIONS			"X"/"Y" EXPOSED PAD SIZE
L	0.35	-	0.75	TERMINAL LENGTH
b	0.18	0.25	0.30	TERMINAL WIDTH
e	0.50 BSC			TERMINAL PITCH
ccc	-	-	0.08	COPLANARITY

D2 / E2 VARIATIONS			
MIN	NOM	MAX	NOTE
3.55	3.70	3.85	CATALOG PART
			USB3280, USB2502
			EMC6W201
			SI01036

80 ARWAY DRIVE
ROCKY HILL, CT 06067
USA

PACKAGE OUTLINE

36 TERMINAL QFN, 6x6mm BODY, 0.5mm PITCH

MO-36-QFN-6x6

JEDEC: MO-220

1 OF 1

THIRD ANGLE PROJECTION

DATE: 12/04

NAME: SK LIEV

DESIGNED: SK LIEV

CHECKED: SK LIEV

APPROVED: SK LIEV

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MILLIMETERS
DIM TOLERANCES ARE:
DECIMAL: 0.05
FRACTIONAL: 0.1
ANGULAR: 1°
X.XX: ±0.05
X.XXX: ±0.025

MATERIAL: -

FINISH: -

PROCESSING: -

DO NOT SCALE DRAWING