



STANDARD
MICROSYSTEMS
CORPORATION

LPC47N207

LPC Super I/O IrDA Hot Docking Chip with UART

Data Brief

Product Features

- 3.3 Volt Operation (5V tolerant)
- Programmable Wakeup Event Interface (IO_PME# Pin)
- SMI Support (IO_SMI# Pin)
- GPIOs (16)
 - Programmable internal pull-up resistors
- Two IRQ Input Pins
- XNOR Chain
- PC99a and ACPI 1.0 Compliant
- 64 PIN STQFP Package
- Intelligent Auto Power Management
- One Full Function Serial Port
 - High Speed 16C550A Compatible UARTs with Send/Receive 16-Byte FIFOs
 - Supports 230k and 460k Baud
 - Programmable Baud Rate Generator
 - Modem Control Circuitry
- Infrared Communications Controller
 - IrDA v1.2 (4Mbps), HPSIR, ASKIR, Consumer IR Support
 - 2 IR Ports
 - 96 Base I/O Address, 15 IRQ Options and 3 DMA Options
- LPC Bus Host Interface
 - Multiplexed Command, Address and Data Bus
 - 8-Bit I/O Transfers
 - 8-Bit DMA Transfers
 - 16-Bit Address Qualification
 - Serial IRQ Interface Compatible with Serialized IRQ Support for PCI Systems
 - PCI nCLKRUN Support
 - Power Management Event (IO_PME#) Interface Pin
- LPC PortSwitch™ Interface
 - Secondary Switchable LPC Interface (3.3V only)
 - Buffered 14 MHz Output
 - Switched PCI Clock output

ORDERING INFORMATION

Order Number(s):

LPC47N207-JN for 64 pin STQFP package

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80 Arkay Drive
Hauppauge, NY 11788
(631) 435-6000
FAX (631) 273-3123

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General Description

The SMSC LPC47N207-JN is a 3.3V PC 99 and ACPI 1.0 compliant Super I/O Controller. The LPC47N207-JN implements the LPC interface with the LPC PortSwitch™ Interface. The LPC PortSwitch™ Interface is a hot-switchable external Docking LPC interface. The LPC47N207-JN also features a full 16-bit internally decoded address bus, a Serial IRQ interface with PCI nCLKRUN support, relocatable configuration ports and three DMA channel options. The part also includes 16 GPIO pins.

The LPC47N207-JN incorporates an eight pin 16C550A compatible UART. In addition, the LPC47N207-JN provides a second UART to support a Serial Infrared Interface that complies with IrDA v1.2 (Fast IR), HPSIR, and ASKIR formats (used by Sharp and other PDAs), as well as Consumer IR.

The LPC47N207-JN incorporates sophisticated power control circuitry (PCC). The PCC supports multiple low power down modes. The LPC47N207-JN also features Software Configurable Logic (SCL) for ease of use. SCL allows programmable system configuration of key functions such as the UARTs.

The LPC47N207-JN supports the ISA Plug-and-Play Standard register set (Version 1.0a) and provides the recommended functionality to support Windows '9x, 2K, ME, XP and PC99. The I/O Address, DMA Channel and Hardware IRQ of each device in the LPC47N207-JN may be reprogrammed through the internal configuration registers. There are 192 I/O address location options, a Serialized IRQ interface, and three DMA channels.

SMSC LPC47N207-JN

Package Outline

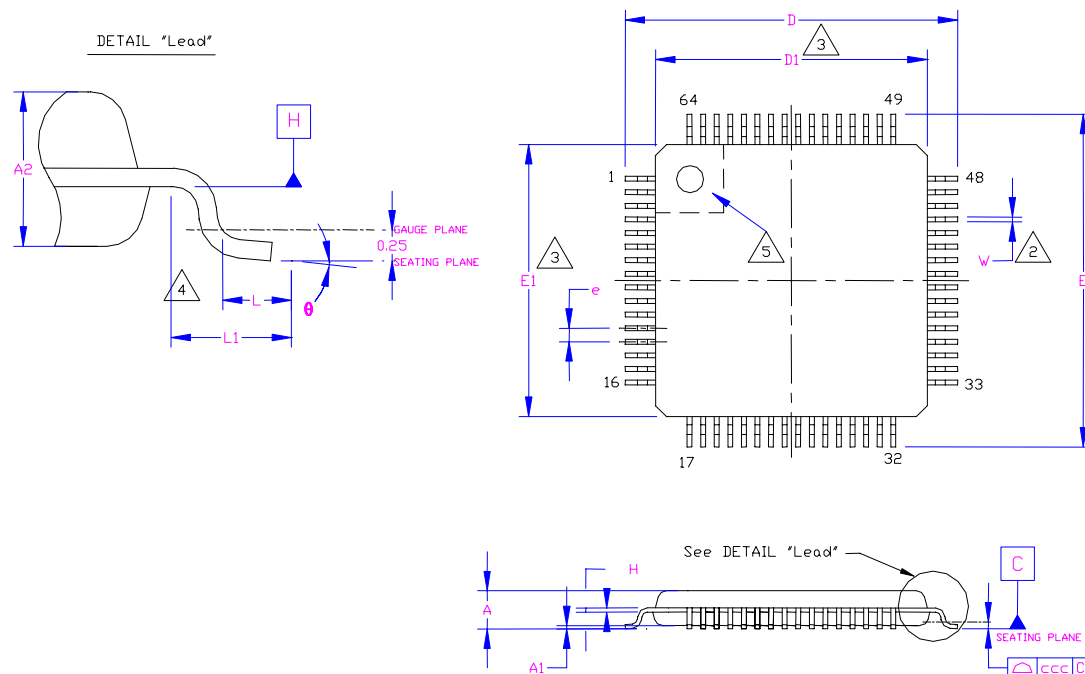


Figure 2 – 64-Pin STQFP Package Outline

Table 1 - 64-Pin STQFP Package Parameters

	MIN	NOMINAL	MAX	REMARKS
A	~	~	1.60	Overall Package Height
A1	0.05	~	0.15	Standoff
A2	1.35	1.40	1.45	Body Thickness
D	8.80	9.00	9.20	X Span
D1	6.80	7.00	7.20	X body Size
E	8.80	9.00	9.20	Y Span
E1	6.80	7.00	7.20	Y body Size
H	0.09	~	0.20	Lead Frame Thickness
L	0.45	0.60	0.75	Lead Foot Length
L1	~	1.00 REF.	~	Lead Length
e	0.40 Basic			Lead Pitch
θ	0°	~	7°	Lead Foot Angle
W	0.13	0.18	0.23	Lead Width
ccc	~	~	0.08	Coplanarity

Notes:

- Controlling Unit: millimeter.
- Tolerance on the true position of the leads is ± 0.035 mm maximum.
- Package body dimensions D1 and E1 do not include the mold protrusion. Maximum mold protrusion is 0.25 mm per side. D1 and E1 dimensions determined at datum plane H.
- Dimension for foot length L measured at the gauge plane 0.25 mm above the seating plane.
- Details of pin 1 identifier are optional but must be located within the zone indicated.