

# SOMDIMM-LPC3250

## Users Manual

For use with  
Touch Screen LCD Kit

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# 1. Introduction

The SOMDIMM-LPC3250 provides a quick and easy solution for implementing an ARM926EJ-S based design by providing the basic functions necessary for a product on an easy to use SOMDIMM . The SOMDIMM uses an industry standard 200 pin SO-DIMM interface. These sockets are utilized by virtually every laptop on the market.

This SOMDIMM is compatible with FDI’s Family of Touch Screen LCD Kits but can also be used for custom platform development or customer applications.

# 2. LPC3250 SOMDIMM Block Diagram

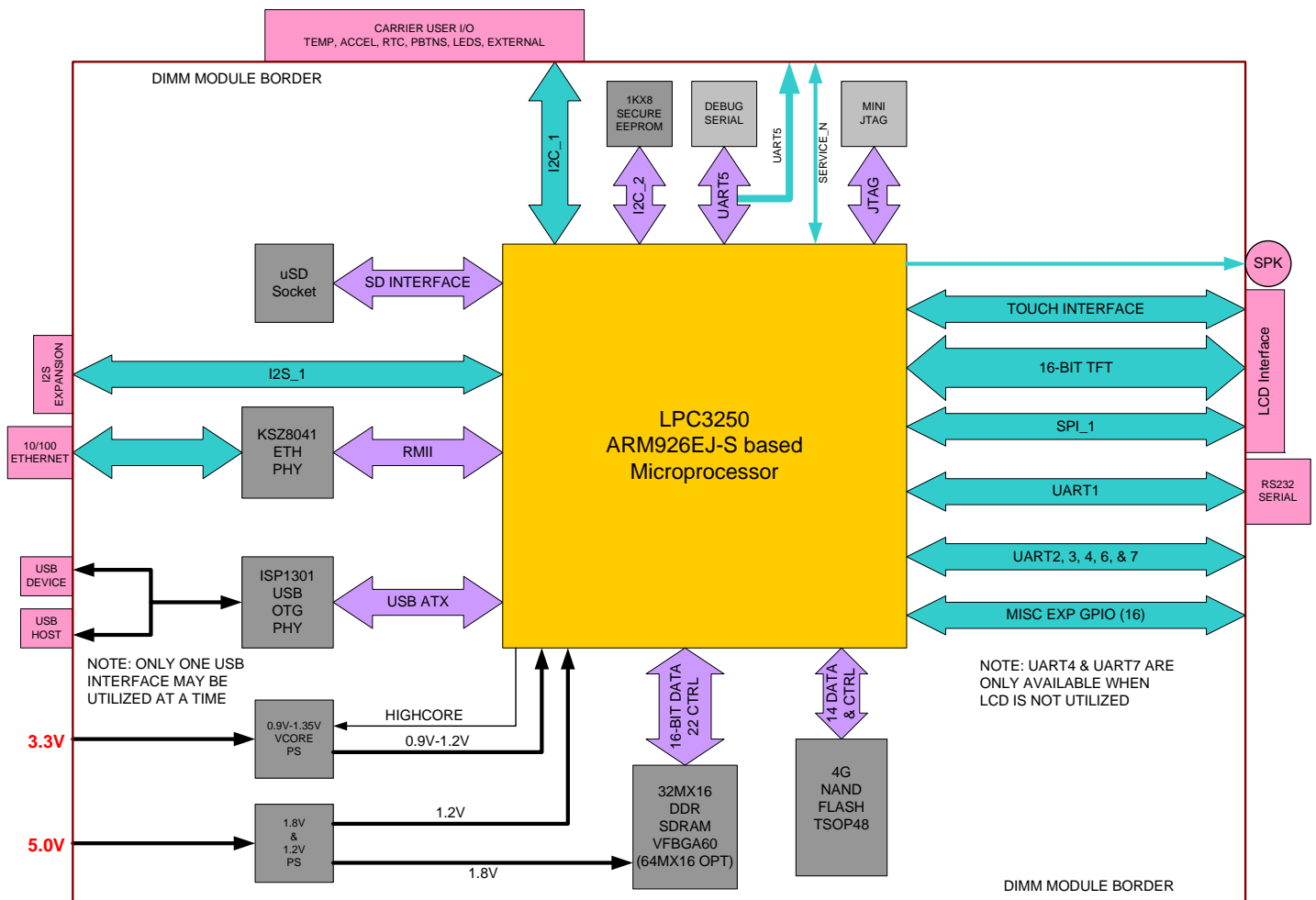


Figure 1 – LPC3250 SOMDIMM Block Diagram

### 3. Functional Description

#### SOMDIMM-LPC3250

- LPC3250 ARM926EJ-S based microprocessor
- 64MB\* DDR SDRAM (64 mega-bytes, optional up to 128MB)
- 512MB\* NAND FLASH (512 mega-bytes)
- 1KB I2C-Serial EEPROM with Access Protection
- 10/100 Ethernet PHY
- Micro SD Card Socket (both SD and SDHC modes supported)
- JTAG
- Debug serial connector (OPTIONAL)
- Power-on Reset Generator

\* Rev 2 board and later

### 4. ESD Warning

The DK-TS-KIT shipped in a protective anti-static package. The kit must not be subjected to high electrostatic potentials. Damage may occur to the boards that will not be covered under warranty. General practice for working with static sensitive devices should be followed when working with the DK-TS-KIT.

### 5. Requirements

The SOMDIMM-LPC3250 requires a carrier board with a 200-pin SO-DIMM socket. The socket should have the key at the 1.8V location (the SOMDIMM-LPC3250 generates 1.8V on the ). The CARRIER Board from Future Designs provides this socket and should be utilized to develop your application for initial verification.

Example SO-DIMM Socket Manufacturer and Part Number: TYCO 1473005-4

Please refer to section 10 for the pin out details of the SOMDIMM Edge Finger.

### 6. SOMDIMM-LPC3250 Power Requirements

The SOMDIMM-LPC3250 typical power consumption was measured at room temperature, 266MHz core clock rate.

Voltage	Power On, booting	Linux booted, login prompt	Observed Max
3.3V	148mA	185mA	333mA
5V	17mA	2mA	25mA

## 7. Setting up the Hardware

The following are step by step instructions for setting up the hardware.

- 1) Make sure you have an SOMDIMM-LPC3250 board plugged into the CARRIER board at J1.
- 2) Verify the LCD Interface ribbon cable connects the CARRIER board to the LCD CARRIER (J7) board.
- 3) With the power off, plug the 5V center-positive Power Supply into 5V (P5) of the CARRIER board.
- 4) Connect an RJ-45 Ethernet cable to the ETHERNET (J5) interface of the CARRIER board.
- 5) Plug in a female-to-female DB9 serial cable (included in the DK-TS-KIT) between PC and RS232 (P4)
- 6) Open a serial program on the PC (such as HyperTerminal or PUTTY) and set the serial connection to 115200 baud, 8 bits, 1 stop bit, no parity.
- 7) Insert a flash media drive with the demonstration files (included) into USB HOST (P1).
- 8) Turn on the power. The boot screen will appear showing the board information and FDI logo. After a short time, Tux the Penguin will appear in the upper left as Linux continues to boot.
- 9) If you have a current version of the software, the program will then automatically show a slideshow loaded from the previously inserted flash drive.
- 10) If not, the slideshow can be started by doing the following steps:
  - a. When the login screen appears, enter "root" as the login and "root" as the password.
  - b. At the command prompt type the command, `./usbslides`
  - c. The slideshow should start after a few seconds.





## 9. DK-TS-KIT Functional Block Diagram

The DK-TS-KIT Block Diagram is illustrated below.

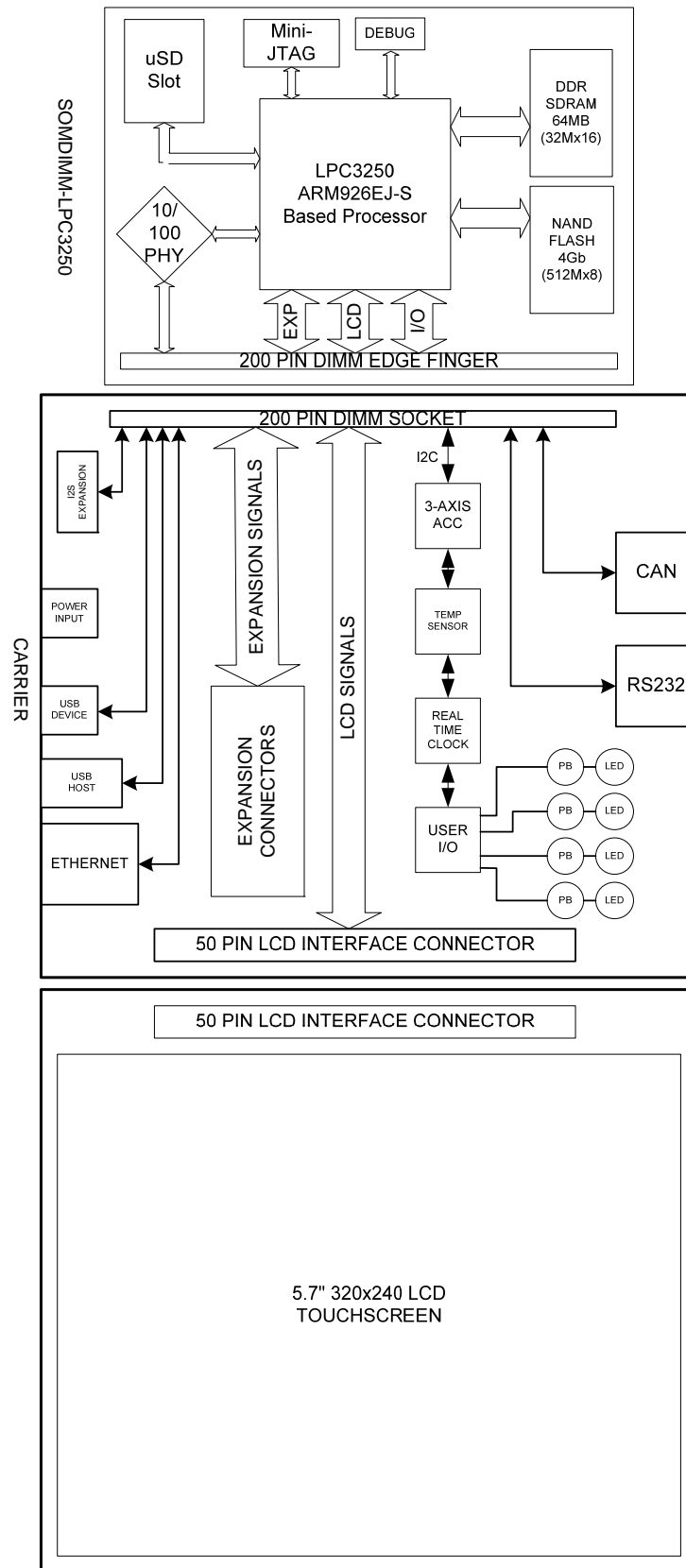


Figure 4 – DK-TS-KIT System Block Diagram

## 10. I/O Connector Descriptions

### JTAG Connector – P6

The SOMDIMM-LPC3250 utilizes a new, reduced size JTAG connector based on a 2mm Header. This smaller connector provides 100% of the functionality of the standard 20-pin large JTAG connector, but utilizes 70% less board space. The connector is a standard part available from most major vendors.

Pin Number	Description
1	3.3V
2	TRSTn
3	TDI
4	TMS
5	TCK
6	RTCK
7	TDO
8	Reset
9	Ground
10	5.0V

For users that may have existing JTAG debuggers, an adapter may be fabricated using the following wiring diagram: (part numbers for the connectors are included from both the manufacturer and Digi-key)

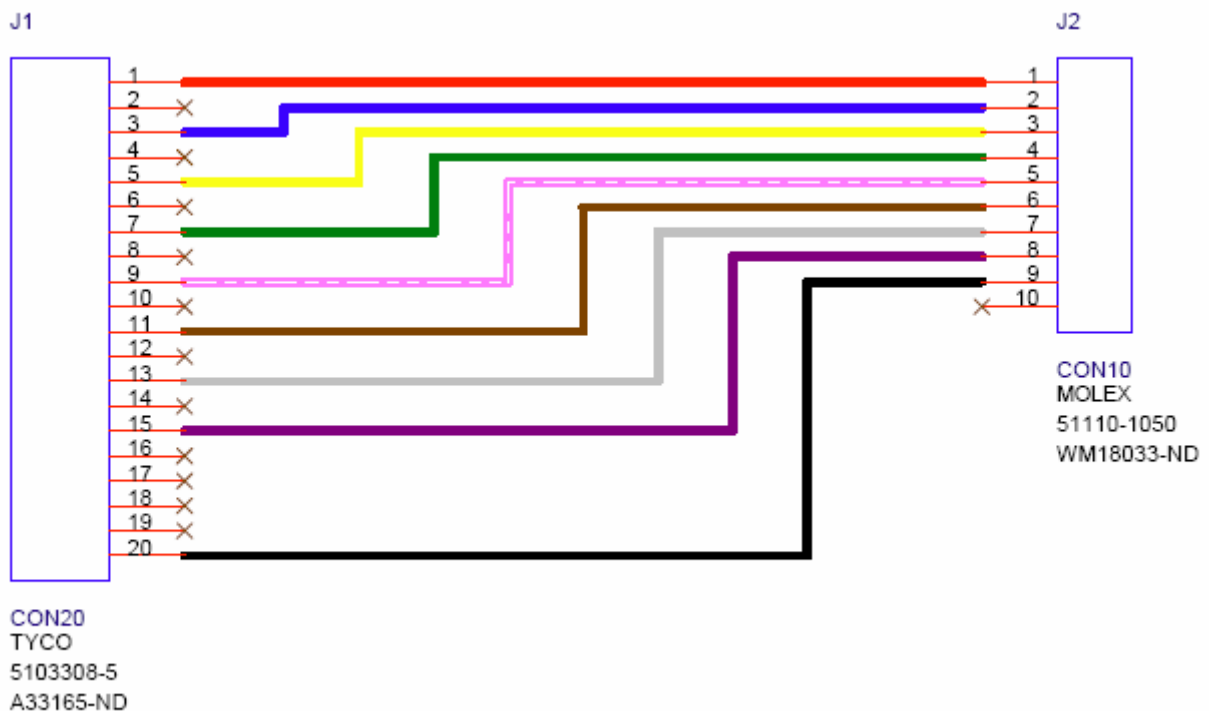


Figure 5 – Mini JTAG Adapter Wiring Diagram

## MicroSD Connector – P1

The SOMDIMM-LPC3250 utilizes a MicroSD Socket for flexible mass storage capability. MicroSD Flash Cards are utilized by almost every cell phone on the market and are very cost effective, providing as much as 16GB of user-changeable memory storage. Adapter cards are available (and are usually included with the MicroSD) to facilitate installation of the MicroSD card into a standard SD reader. microSD cards are available in capacities from 64 MB to 16 GB but most cards with sizes over 2GB are only available as SDHC cards. The SOMDIMM-LPC3250 supports both microSD and SDHC formats.

Pin Number	Description
1	MS Data I/O 2
2	MS Data I/O 3
3	MS BS
4	3.3V
5	MS SCLK
6	Ground
7	MS Data I/O 0
8	MS Data I/O 1

## Debug Connector – J5

The SOMDIMM-LPC3250 includes an optional debug header that is designed to be utilized as an optional console port. This connector is a 1.5mm JST Male, shrouded connector. The JST Part Number is: SM06B-SHLS-TF.

Pin Number	Description
1	3.3V
2	Reset Input
3	NC
4	Ground
5	UART5 RXD (Input)
6	UART5 TXD (Output)

Note: On SOMDIMM-LPC3250 Rev 2.0 and later, the UART5 signals (RXD & TXD) are also connected to the SOMDIMM edge connector. See the SOMDIMM Connector pinout section for specific details.

## 11. On Board Functions

### Ethernet PHY – U8

The SOMDIMM-LPC3250 provides an Ethernet PHY from Micrel, KSZ8041NL. The KSZ8041NL is a single chip solution for a 100BASE-TX/10BASE-T physical layer transceiver. It has support for media independent interface (MII), reduced MII (RMII), and HP MDI/MDI-X auto crossover. This allows for any standard Ethernet cable to be used, even a crossover cable. The KSZ8041NL is fully compliant to IEEE 802.3u with support for auto-negotiation and manual selection of 10/100Mbps speed as well as full and half-duplex modes.

For detailed information, please refer to the specific data sheet for this device available from the manufacturer.

### MicroSD – J2

The SOMDIMM-LPC3250 provides a MicroSD interface for access to a removable Flash memory. Micro Secure Digital cards are one of the lowest prices per capacity memory cards available. They allow the LPC3250 to have access to a much larger amount of Flash memory in a very small form factor. When using a MicroSD card it can be accessed via the SD controller of the LPC3250.

### Reset Generator – U3

The SOMDIMM-LPC3250 utilizes a TPS3801 power-on reset supervisor and voltage monitor. The TPS3801 includes an external reset input that is connected to the reset button on the CARRIER Board.

For detailed information, please refer to the specific data sheet for this device available from the manufacturer.

### Serial EEPROM – U2

The SOMDIMM-LPC3250 includes a serial EEPROM, NXP PCA24S08. This device provides 1K-Byte of serial electrically erasable and programmable Read-only memory (EEPROM). Data is received and transmitted via the serial I2C bus. Access permissions limiting reads or writes can be set via the I2C-bus to isolate blocks of memory from improper access.

**PCA24S08 Device I2C Bus 2 Address = 0xA8**

For detailed information, please refer to the specific data sheet for this device available from the manufacturer.

## 12. 200-pin SOMDIMM Connector Details – J4

Pin	SOMDIMM Signal Name	Application Details	I/O	SOMDIMM Connection Details
1	ETH_TXP	Ethernet Transmit Positive	O	Output from KSZ8041 Ethernet PHY
2	ETH_RXP	Ethernet Receive Positive	I	Output from KSZ8041 Ethernet PHY
3	ETH_TXN	Ethernet Transmit Negative	O	Input to KSZ8041 Ethernet PHY
4	ETH_RXN	Ethernet Receive Negative	I	Input to KSZ8041 Ethernet PHY
5	3V3A	3.3V Analog	P	Analog 3.3V Output from PHY Circuit
6	GND	Ground	P	
7	ETH_LED0	Ethernet LED0	O	Ethernet LED0 output from KSZ8041
8	ETH_LED1	Ethernet LED1	O	Ethernet LED1 output from KSZ8041
9	VBAT_IN	Vdd Battery Input	P	Vdd for battery backup of internal RTC
10	ALARM	Alarm Signal From Micro	O	
11	RESET_IN	Reset Input	I	Reset input to POR IC TPS3801
12	RESET_OUT	Reset Output from POR	O	Reset output from POR circuit
13	NC	Not connected	U	
14	NC	Not connected	U	
15	NC	Not connected	U	
16	NC	Not connected	U	
17	NC	Not connected	U	
18	NC	Not connected	U	
19	NC	Not connected	U	
20	NC	Not connected	U	
21	VDDA	Vdd Analog	I	ADC Power Supply
22	VREF	Reference Voltage	I	ADC Reference Voltage Input
23	VSSA	Vss Analog	I	ADC Ground
24	GND	Ground	P	
25	GPIO25_LCDPWR	LCD Power Enable	O	Connected to LPC3250 Pin E11
26	GPIO26_LCDLE	LCD Latch Enable	O	Connected to LPC3250 Pin B12
27	GPIO27_LCDCLK	LCD Clock	O	Connected to LPC3250 Pin B13
28	GPIO28_LCDFP		O	Connected to LPC3250 Pin A14
29	GPIO29_LCDENAB		O	Connected to LPC3250 Pin D10
30	GPIO30_LCDLP		O	Connected to LPC3250 Pin D11
31	GPIO31_LCDVD4	LCD Data Bit 4	O	Connected to LPC3250 Pin M17
32	GPIO32_LCDVD5	LCD Data Bit 5	O	Connected to LPC3250 Pin M18
33	GPIO33_LCDVD6	LCD Data Bit 6	O	Connected to LPC3250 Pin L15
34	GPIO34_LCDVD7	LCD Data Bit 7	O	Connected to LPC3250 Pin L16
35	GPIO35	GPIO Unused	U	Connected to LPC3250 Pin C2 (GPO_19)
36	GPIO36		U	Connected to LPC3250 Pin N18 (GPO_17)
37	3.3V	3.3V Power	P	
38	GND	Ground	P	
39	3.3V	3.3V Power	P	
40	GND	Ground	P	
41	USBH_DP	USB Host Data Positive	B	Connected to ISP1301 Pin 16
42	USBD_DP	USB Device Data Positive	B	Connected to ISP1301 Pin 16
43	USBH_DM	USB Host Data Negative	B	Connected to ISP1301 Pin 15
44	USBD_DM	USB Device Data Negative	B	Connected to ISP1301 Pin 15
45	GPIO45_LCDVD18	LCD Data Bit 18	O	Connected to LPC3250 Pin A16
46	GPIO46_LCDVD19	LCD Data Bit 19	O	Connected to LPC3250 Pin D15
47	GPIO47_RD	GPIO / CAN Receive Data	I	Connected to LPC3250 Pin A12 (GPIO_00)
48	GPIO48_TD	GPIO / CAN Transmit Data	O	Connected to LPC3250 Pin B2 (GPO_20)
49	GPIO49	GPIO	B	Connected to LPC3250 Pin D3 (GPO_14)
50	GPIO50	GPIO	B	Connected to LPC3250 Pin E8 (GPIO11)
51	GPIO51_I2SRX_CLK	GPIO / I2S Receive Clock	O	Connected to LPC3250 Pin B5 (PO_0)
52	GPIO52_I2SRX_WS	GPIO / I2S Receive Write Sel	O	Connected to LPC3250 Pin D7 (PO_1)
53	GPIO53_I2SRX_SDA	GPIO / I2S Receive Data	I	Connected to LPC3250 Pin C16 (GPI_00)
54	GPIO54_I2STX_CLK	GPIO / I2S Transmit Clock	O	Connected to LPC3250 Pin A4 (MAT3_0)
55	GPIO55_I2STX_WS	GPIO / I2S Transmit Write Sel	O	Connected to LPC3250 Pin B4 (CAP3_0)
56	GPIO56_I2STX_SDA	GPIO / I2S Transmit Data	B	Connected to LPC3250 Pin E7 (MAT3_1)
57	GPIO57_TXD	GPIO / Serial Transmit Data	O	Connected to LPC3250 Pin K16
58	GPIO58_RXD	GPIO / Serial Receive Data	I	Connected to LPC3250 Pin K15 (GPI_15)
59	GPIO59_USBH_PWRD	GPIO / USB Host Power Detect	I	Connected to LPC3250 Pin B16 (GPI_08)
60	GPIO60_USBD_UPLD	GPIO / USB Device Up LED	O	Connected to LPC3250 Pin D4 (GPO_01)
61	GPIO61_USBD_CON	GPIO / USB Device Connect	O	Connected to LPC3250 Pin D8 (GPO_04)
62	GPIO62_SCK	GPIO / SPI Clock	O	Connected to LPC3250 Pin C9
63	GPIO63_TPCS	GPIO / Touch IC Chip Sel	O	Connected to LPC3250 Pin E9 (GPIO_05)

64	GPIO64_MISO	GPIO / SPI MISO	I	Connected to LPC3250 Pin C10
65	GPIO65_MOSI	GPIO / SPI MOSI	O	Connected to LPC3250 Pin B9
66	GPIO66_ESDA	GPIO / External I2C SDA	B	Connected to LPC3250 Pin B6 (I2C1_SDA)
67	GPIO67_ESCL	GPIO / External I2C SCL	I	Connected to LPC3250 Pin A5 (I2C1_SCL)
68	GPIO68_USBH_OVC	GPIO / USB Host Over Current	I	Connected to LPC3250 Pin C7 (GPI_06)
69	GPIO69_TPIRQ	GPIO / Touch IC IRQ Input	I	Connected to LPC3250 Pin E13 (GPI_04)
70	GPIO70_AD0.0	GPIO / AD0 Bit 0	I	Connected to LPC3250 Pin T14
71	GPIO71_AD0.1	GPIO / AD0 Bit 1	I	Connected to LPC3250 Pin U15
72	GPIO72_AD0.2	GPIO / AD0 Bit 2	I	Connected to LPC3250 Pin R13
73	GPIO73_AD0.3	GPIO / AD0 Bit 3	I	Connected to LPC3250 Pin U16
74	GPIO74_SDA	GPIO / User IO I2C Bus SDA	B	Connected to LPC3250 Pin B6 (I2C1_SDA)
75	GPIO75_SCL	GPIO / User IO I2C Bus SCL	O	Connected to LPC3250 Pin A5 (I2C1_SCL)
76	GND	Ground	P	
77	GND	Ground	P	
78	GPIO78_ACC_IRQ	GPIO / Accelerometer IRQ	I	Connected to LPC3250 Pin F4 (GPI_03)
79	GPIO79_SERVICEN <sup>(1)</sup>	GPI_01 Bit / Service_N Select	I	Connected to LPC3250 Pin C15 (GPI_01)
80	GPIO80_RTC_IRQ	GPIO / RTC IRQ Input	I	Connected to LPC3250 Pin D13 (GPI_07)
81	NC	Not connected	U	
82	NC	Not connected	U	
83	NC	Not connected	U	
84	NC	Not connected	U	
85	NC	Not connected	U	
86	GPIO86_LED_BR	GPIO / LED Backlight Bright	O	Connected to LPC3250 Pin D14 (PWM_OUT1)
87	GPIO87_USBH_PPWR	GPIO / USB Host Power Ctl	O	Connected to ISP1301 Pin 1 (ADR/PSW)
88	GPIO88_LCDVD10	LCD Data Bit 10	O	Connected to LPC3250 Pin E17
89	GPIO89_LCDVD11	LCD Data Bit 11	O	Connected to LPC3250 Pin E18
90	GPIO90_LCDVD12	LCD Data Bit 12	O	Connected to LPC3250 Pin L17
91	GPIO91_LCDVD13	LCD Data Bit 13	O	Connected to LPC3250 Pin L18
92	GPIO92_LCDVD14	LCD Data Bit 14	O	Connected to LPC3250 Pin E10
93	GPIO93_LCDVD15	LCD Data Bit 15	O	Connected to LPC3250 Pin G17
94	GPIO94_LCDVD20	LCD Data Bit 16	O	Connected to LPC3250 Pin A9
95	GPIO95_LCDVD21	LCD Data Bit 17	O	Connected to LPC3250 Pin A10
96	GPIO96_LCDVD22	LCD Data Bit 22	O	Connected to LPC3250 Pin B11
97	GPIO97_LCDVD23	LCD Data Bit 23	O	Connected to LPC3250 Pin B10
98	GPIO98_USBD_VBUS	USB Device VBus Sense Input	I	Connected to LPC3250 Pin C14 (GPI_02)
99	GPIO99_AD0.5	Not connected	I	
100	GPIO100	GPIO	B	Connected to LPC3250 Pin J4 (P1_23)
101	GND	Ground	P	
102	GND	Ground	P	
103	NC	Not connected	U	
104	NC	Not connected	U	
105	NC	Not connected	U	
106	NC	Not connected	U	
107	NC	Not connected	U	
108	NC	Not connected	U	
109	NC	Not connected	U	
110	NC	Not connected	U	
111	NC	Not connected	U	
112	NC	Not connected	U	
113	5V0	5.0V Power	P	
114	5V0	5.0V Power	P	
115	NC	Not connected	U	
116	GPIO116	GPIO	B	Connected to LPC3250 Pin J3 (P1_22)
117	GPIO117	GPIO	B	Connected to LPC3250 Pin J2 (P1_21)
118	GPIO118	GPIO	B	Connected to LPC3250 Pin J1 (P1_20)
119	GPIO119	GPIO	B	Connected to LPC3250 Pin K1 (P1_19)
120	GPIO120	GPIO	B	Connected to LPC3250 Pin K2 (P1_18)
121	GPIO121	GPIO	B	Connected to LPC3250 Pin K4 (P1_17)
122	GPIO122	GPIO	B	Connected to LPC3250 Pin K3 (P1_16)
123	GPIO123_SPKR	GPIO	O	Connected to LPC3250 Pin B14 (GPO_02/MAT1_0)
124	GPIO124	GPIO	B	Connected to LPC3250 Pin L1 (P1_15)
125	NC	Not connected	U	
126	NC	Not connected	U	
127	GPIO127_LCDVD2	LCD Data Bit 2	O	Connected to LPC3250 Pin A15
128	GPIO128_LCDVD3	LCD Data Bit 3	O	Connected to LPC3250 Pin A13
129	GND	Ground	P	
130	GND	Ground	P	

131	NC	Not connected	U	Unused
132	NC	Not connected	U	Unused
133	NC	Not connected	U	Unused
134	NC	Not connected	U	Unused
135	NC	Not connected	U	Unused
136	NC	Not connected	U	Unused
137	NC	Not connected	U	Unused
138	GPIO138_U6_RX <sup>(1)</sup>	UART6 Receive Data	I	Connected to LPC3250 Pin F17
139	GPIO139_U6_TX <sup>(1)</sup>	UART6 Transmit Data	O	Connected to LPC3250 Pin G16
140	NC	Not connected	U	Unused
141	NC	Not connected	U	Unused
142	GPIO142_U4_RX <sup>(1),(2)</sup>	UART4 Receive Data	I	Connected to LPC3250 Pin B15
143	NC	Not connected	U	Unused
144	NC	Not connected	U	Unused
145	GPIO145_U3_RX <sup>(1)</sup>	UART3 Receive Data	I	Connected to LPC3250 Pin J14
146	GPIO146_U3_TX <sup>(1)</sup>	UART3 Transmit Data	O	Connected to LPC3250 Pin J17
147	NC	Not connected	U	Unused
148	NC	Not connected	U	Unused
149	GPIO149_U2_RX <sup>(1)</sup>	UART2 Receive Data	I	Connected to LPC3250 Pin K18
150	GPIO150_U2_TX <sup>(1)</sup>	UART2 Transmit Data	O	Connected to LPC3250 Pin K17
151	GPIO151_U5_RX <sup>(1),(3)</sup>	UART5 Receive Data	I	Connected to LPC3250 Pin F18
152	GPIO152_U5_TX <sup>(1),(3)</sup>	UART5 Transmit Data	O	Connected to LPC3250 Pin H15
153	NC	Not connected	U	Unused
154	NC	Not connected	U	Unused
155	NC	Not connected	U	Unused
156	NC	Not connected	U	Unused
157	NC	Not connected	U	Unused
158	NC	Not connected	U	Unused
159	NC	Not connected	U	Unused
160	NC	Not connected	U	Unused
161	NC	Not connected	U	Unused
162	NC	Not connected	U	
163	GND	Ground	P	
164	GND	Ground	P	
165	3.3V	3.3V Power	P	
166	GND	Ground	P	
167	NC	Not connected	U	Unused
168	NC	Not connected	U	Unused
169	NC	Not connected	U	Unused
170	NC	Not connected	U	Unused
171	NC	Not connected	U	Unused
172	NC	Not connected	U	Unused
173	NC	Not connected	U	Unused
174	NC	Not connected	U	Unused
175	NC	Not connected	U	Unused
176	NC	Not connected	U	Unused
177	NC	Not connected	U	Unused
178	NC	Not connected	U	Unused
179	NC	Not connected	U	Unused
180	NC	Not connected	U	Unused
181	NC	Not connected	U	Unused
182	NC	Not connected	U	Unused
183	NC	Not connected	U	Unused
184	NC	Not connected	U	Unused
185	NC	Not connected	U	Unused
186	NC	Not connected	U	Unused
187	NC	Not connected	U	Unused
188	NC	Not connected	U	Unused
189	NC	Not connected	U	Unused
190	NC	Not connected	U	Unused
191	NC	Not connected	U	Unused
192	NC	Not connected	U	Unused
193	NC	Not connected	U	Unused
194	NC	Not connected	U	Unused
195	NC	Not connected	U	Unused
196	NC	Not connected	U	Unused
197	NC	Not connected	U	Unused

198	NC	Not connected	U	Unused
199	3.3V	3.3V Power	P	
200	GND	Ground	P	

Notes:

- (1) Revision 2.0 s and later only
- (2) UART4 TX is located on multi-use pin GPIO128\_LCDVD3 and is only available when an LCD is not utilized.
- (3) UART5 is also connected to the Debug Connector, J1

### 13. SOMDIMM Installation

The SOMDIMM-LPC3250 should be inserted into the SOMDIMM Socket as shown below and then locked into place by pushing down to the Carrier Board. Ensure the SOMDIMM is inserted completely into the socket prior to locking. The socket utilized on the CARRIER Board is rated for a minimum of 25 insertions.

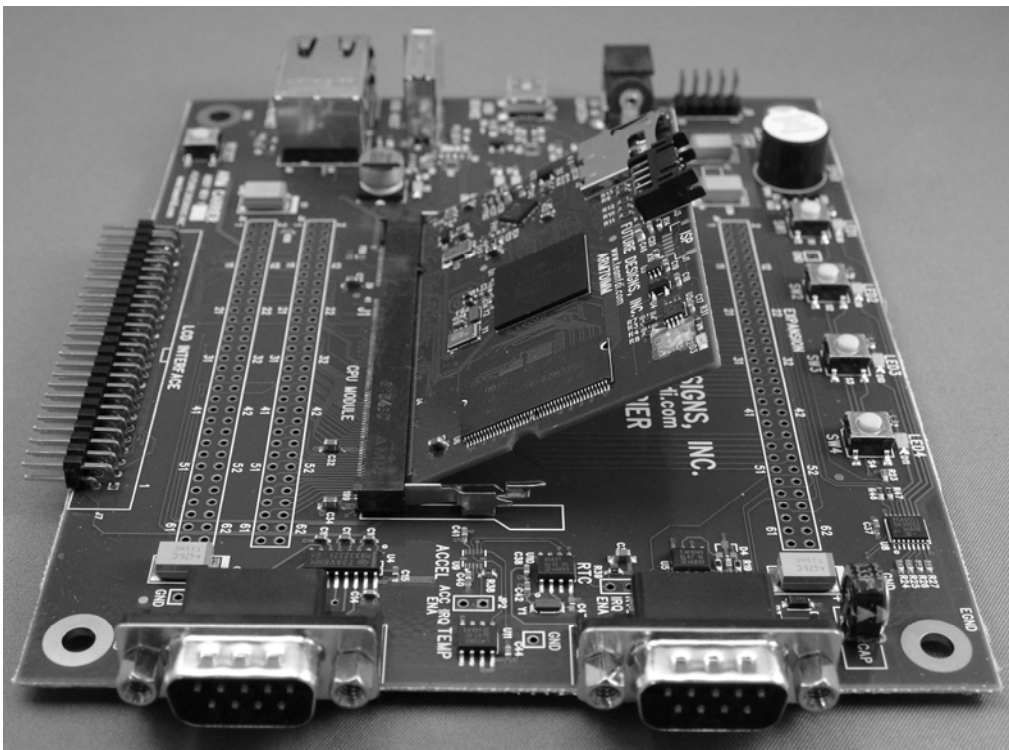


Figure 6 – SOMDIMM Insertion

### 14. SOMDIMM Socket Details

The SOMDIMM-LPC3250 is designed to be used with a standard 200-pin DDR2 SO-DIMM Socket connector. An example connector part is as follows: Mfg: Tyco (AMP), Part Number: 1473005-5.



## 16. Software

Below is a list of the software included with the SOMDIMM-LPC3250 or DK-TS-KIT.

- Primary Bootloader (brings up system, configures memory and system clocks, loads U-boot)
  - 266 MHz
  - SDRAM configuration
  - NAND configuration
- U-Boot (Loads Linux, provides TFTP, upgrades Linux)
  - Serial EEPROM with configuration
- Linux Kernel
  - LPC3250 Processor (w/VFP support, enabled caches)
  - QVGA TFT LCD (320x240) w/frame buffer
  - Touch Screen
  - 10/100 Ethernet (TCP/IP)
  - Serial Port (both high speed port and optional debug UART)
  - MicroSD Support via SD Interface (Both SD & SDHC modes supported)
  - USB Host (Mass Storage, HID, etc.)
  - USB Device (via OTG and USB Linux Gadgets)
  - I2C Bus and Peripherals
    - GPIO for buttons and LEDs
    - RTC with SuperCap backup
    - 3-axis Digital Accelerometer
    - Temperature Sensor
  - GPIO library
  - Speaker (piezo for beeps and tones)
  - JFFS2 (using unused MTD NAND memory, approx 16MB)
  - File Systems (FAT16, VFAT, EXT2)
  - WDT
- Release format
  - Patch files for Linux and U-Boot
  - LTIB compatible release (via Bitshrine.org)

Detailed software information may be included in a separate document or you can download the latest details from our website at [www.teamfdi.com/DK-TS-KIT](http://www.teamfdi.com/DK-TS-KIT)

## 17. Schematics

Please see the website at:

<http://www.teamfdi.com/SOMDIMM-LPC3250/index.html>

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