| Module I/O | Type | 7312 | 7409 | 9312 |
|---|---|---|---|---|
| **AUDIO** | | | | |
| Chip Reset | Output | PE0 | PE0 (GPIO3) | PE0 (EGPIO6) |
| Pop Mute | Output | PB1 | PB1 (GPIO6) | PB1 (SLA1) |
| SCL | Output | SCL (PD5) | SCL (EECLK) | SCL (EECLK) |
| SDA | I/O | SDA (PD4) | SDA (EEDAT) | SDA (EEDAT) |
| BUZ | Output | BUZ | BUZ (DAIMCLK) | BUZ (nARST) |
| EXTCLK | Input | EXTCLK (SSIRXFR) | X | X |
| SCLK | Output | SCLK (SSILK) | SCLK (DAISCLK) | SCLK (SCLK0) |
| SDTX | Output | SDTX (SSITXDA) | SDTX (DAIRX) | SDTX (SSPTX) |
| SDRX | Input | SDRX (SSIRXDA) | SDRX (DAIRX) | SDRX (SSPRX) |
| SYNC | Output | SYNC (SSITXFR) | SYNC (DAILRCK) | SYNC (SFRM0) |
| TXD2 | Output | TXD2 | X | TXD2 |
| RXD2 | Input | RXD2 | X | RXD2 |
| PWMR | Output | X | PWMR | X |
| PWML | Output | X | PWML | X |
| PWMRVDD | Supply | X | PWMRVDD | X |
| PWMLVDD | Supply | X | PWMLVDD | X |
| PWMRGND | Ground | X | PWMRGND | X |
| PWMLGND | Ground | X | PWMLGND | X |
| | | | | |
| **Ethernet** | | | | |
| Chip Select | Output | nCS1 | X | X |
| Interrupt | Input | EINT3 | X | X |
| Expansion Ready | Input | EXPRDY | X | X |
| Data Bus | I/O | BF_D[0:15] | X | X |
| Address Bus | Output | BF_A[0:3] | X | X |
| Write Enable | Output | BF_MWE | X | X |
| Read Enable | Output | BF_MOE | X | X |
| Reset | | nURESET | X | X |
| MDIO | I/O | X | X | MDIO |
| MDC | Output | X | X | MDC |
| MIIRXD3 | Input | X | X | MIIRXD3 |
| MIIRXD2 | Input | X | X | MIIRXD2 |
| MIIRXD1 | Input | X | X | MIIRXD1 |
| MIIRXD0 | Input | X | X | MIIRXD0 |
| MIITXD3 | Output | X | X | MIITXD3 |
| MIITXD2 | Output | X | X | MIITXD2 |
| MIITXD1 | Output | X | X | MIITXD1 |
| MIITXD0 | Output | X | X | MIITXD0 |
| TXERR | Output | X | X | TXERR |
| TXEN | Output | X | X | TXEN |
| TXCLK | Input | X | X | TXCLK |
| RXERR | Input | X | X | RXERR |
| RXDVAL | Input | X | X | RXDVAL |
| RXCLK | Input | X | X | RXCLK |
| CLD | Input | X | X | CLD |
| CRS | Input | X | X | CRS |
| | | | | |
| **USB** | | | | |
| Suspend | Input?? | PE1 | X | X |

| Module I/O | Type | 7312 | 7409 | 9312 |
|---|---|---|---|---|
| Chip Select | Output | nCS4 | X | X |
| Interrupt | Input | nEINT1 | X | X |
| Data Bus | I/O | BF_D[0:7] | X | X |
| Address Bus | Output | BF_A[0:4] | X | X |
| Write Enable | Output | BF_MWE | X | X |
| Read Enable | Output | BF_MOE | X | X |
| Reset | | nURESET | X | X |
| USB_Sense | Input | X | VIN0 | X |
| USBp2 | I/O | X | X | USBp2 |
| USBm2 | I/O | X | X | USBm2 |
| USBp0 | I/O | X | USBp0 (USBp) | USBp0 |
| USBm0 | I/O | X | USBm0 (USBn) | USBm0 |
| USBp1 | I/O | X | X | USBp1 |
| USBm1 | I/O | X | X | USBm1 |
| | | | | |
| **Memory** | | | | |
| Interrupt (1)<br>[Media Change for Compact Flash] | Input | nEINT1 | nEINT1 (GPIO5) | nEINT1 |
| Interrupt (2)<br>[Card Generated for Compact Flash]<br>{Media Change for MMC} | Input | EINT3 | EINT3 (GPIO4) | EINT3 |
| Card Detect (J600) {MMC} | Input | MMI_11 | MMI_11 | MMI_11 |
| CMD(J600) {MMC} | I/O | PD1 | PD1 (GPIO1) | PD1 (EGPIO12) |
| CLK(J600) {MMC} | Output | PD0 | PD0 (GPIO0) | PD0 (EGPIO11) |
| DAT(J600) {MMC}<br>Card Detect [CF] | I/O | PD2 | PD2 (GPIO2) | PD2 (EGPIO13) |
| Card Detect (J605) {MMC} | Input | MMI_12 | MMI_12 | MMI_12 |
| CLK(J605) {MMC}<br>RESET [CF] | Output | PB4 | PB4 (SPICLK) | PB4 (EGPIO8) |
| CMD(J605) {MMC}<br>VCC Control [CF] | I/O | PB5 | PB5 (SPITXD) | PB5 (EGPIO9) |
| DAT(J605) {MMC} | I/O | PB6 | PB6 (SPIRXD) | PB6 (EGPIO10) |
| VCC_MCC Enable {MMC} | Output | MMO_0 | MMO_0 | MMO_0 |
| Chip Select {MMC} & [CF] | Output | nCS2 | nCS2 | nCS2 |
| Expansion Ready [CF] | Input | EXPRDY | SPIFRM (JP219) | EXPRDY |
| Data Bus | I/O | BF_D[0:15] | BF_D[0:15] | BF_D[0:15] |
| Write Enable | Output | BF_MWE | BF_MWE | BF_MWE |
| Read Enable | Output | BF_MOE | BF_MOE | BF_MOE |
| | | | | |

| Module I/O | Type | 7312 | 7409 | 9312 |
|---|---|---|---|---|
| **9312 LCD Connectors** | | | | |
| SCL | Output | SCL (P) | SCL (EECLK) | SCL (EECLK) |
| SDA | I/O | SDA (EEDAT) | SDA (EEDAT) | SDA (EEDAT) |
| SPCLK | I/O | X | X | SPCLK |
| HSYYNC | Output | X | X | HSYYNC |
| V/CSYNC | Output | X | X | V/CSYNC |
| BLANK | Output | X | X | BLANK |
| BRIGHT | Output | X | X | BRIGHT |
| (touch screen) Xp | Output | X | X | Xp |
| (touch screen) Xm | Output | X | X | Xm |
| (touch screen) Yp | Output | X | X | Yp |
| (touch screen) Ym | Output | X | X | Ym |
| (touch screen) sXp | Input | X | X | sXp |
| (touch screen) sXm | Input | X | X | sXm |
| (touch screen) sYp | Input | X | X | sYp |
| (touch screen) sYm | Input | X | X | sYm |
| (touch screen) CDACO | Output | X | X | CDACO |
| nURESET | | X | X | |
| Pixel Data Bus | Output | X | X | P[0:17] |
| ROW Bus | Output | X | X | Row[0:7] |
| COL Bus | Input | X | X | Col[0:7] |
| | | | | |
| **7312 LCD Connector** | | | | |
| Chip Select | Output | nCS3 | X | X |
| Address Bus | Output | BF_A4 | X | X |
| Data Bus | I/O | BF_D[0:7] | X | X |
| Interrupt | Input | nEINT2 | X | X |
| Undefined I/O | I/O | PE2 | X | X |
| Undefined I/O | I/O | PA6 | X | X |
| Undefined I/O | I/O | PA7 | X | X |
| Undefined I/O | Output | MMO_4 | X | X |
| Undefined I/O | Output | MMO_5 | X | X |
| Reset | | nURESET | X | X |
| AC Bias Drive | Output | M | X | X |
| Frame Sync | Output | FRM | X | X |
| Line Clock | Output | CL1 | X | X |
| Pixel Clock | Output | CL2 | X | X |
| LCD Data Bus | I/O | LCDD[0:3] | X | X |
| PWM Feedback | Input | FB1 | X | X |
| PWM Drive | Output | DRIVE1 | X | X |
| RXD2 | Input | RXD2 | X | X |
| TXD2 | Output | TXD2 | X | X |
| ADC Chip Select | Output | nADCCS | X | X |
| ADC Serial Data In | Input | ADCIN | X | X |
| ADC Serial Clock | Output | ADCCLK | X | X |
| ADC Serial Data Out | Output | ADCOUT | X | X |
| | | | | |

| Module I/O | Type | 7312 | 7409 | 9312 |
|---|---|---|---|---|
| **PCMCIA** | | | | |
| SCL | Output | PD5 | X | PD5 (EECLK) |
| SDA | I/O | PD4 | X | PD4 (EEDAT) |
| SLA0 | Output | PB2 | X | PB2 (SLA0) |
| 8_16_SELECT | Output | MMO_2 | X | MMO_2 |
| CARD_DETECT | Input | MMI_4 | X | MMI_4 |
| VS1 | Input | MMI_0 | X | MMI_0 |
| VS2 | Input | MMI_1 | X | MMI_1 |
| IOIS16 | Input | MMI_2 | X | MMI_2 |
| REG | Output | MMO_1 | X | MMO_1 |
| RESET | Output | PB0 | X | PB0 (EGPIO14) |
| INPACK | Input | MMI_3 | X | MMI_3 |
| EXPRDY | Input | EXPRDY | X | EXPRDY |
| Interrupt(1) (not used) | Input | nEINT2 | X | nEINT2 |
| nIO_SELECT | Output | MMO_3 | X | MMO_3 |
| Chip Select | Output | nCS3(A25) | X | nCS3(A25) |
| READY | Input | MMI_5 | X | MMI_5 |
| Interrupt(2) (I/O Mode) | Input | nXINT0 | nXINT0 | nXINT0 |
| Address Bus | Output | BF_A[0:25] | BF_A[0:19] | BF_A[0:25] |
| Data Bus | I/O | BF_D[0:15] | BF_D[0:15] | BF_D[0:15] |
| Write Enable | Output | BF_MWE | BF_MWE | BF_MWE |
| Read Enable | Output | BF_MOE | BF_MOE | BF_MOE |
| Interrupt(3) | | X | X | X |
| Memory Read Strobe | Output | X | X | nCOE (nMCRD) |
| Memory Write Strobe | Output | X | X | nCWE (nMCWR) |
| Lower Byte Select | Output | X | X | nCCE1 |
| Card Detect (1) | Input | X | X | nCCD1 (MCD1) |
| Upper Byte Select | Output | X | X | nCCE2 |
| Ready/Interrupt Input | Input | X | X | CRDY (READY) |
| I/O Write Strobe | Output | X | X | nCIOWR (nIOWR) |
| I/O Read Strobe | Output | X | X | nCIORD (nIORD) |
| Battery Voltage (2) | Input | X | X | BVD2 (MCBVD2) |
| Battery Voltage (1) | Input | X | X | BVD1 (MCBVD2) |
| Card Detect (2) | Input | X | X | nCCD2 (MCD2) |
| Voltage Sense (2) | Input | X | X | CCVS2 (VS2) |
| Extend Bus Cycle | Input | X | X | nMCWAIT |
| Voltage Sense (1) | Input | X | X | CCVS1 (VS1) |
| WriteProtect / Bus Size | Input | X | X | nCWP (WP) |
| Data Direction Control | Output | X | X | MCDIR |
| Data Buffer Enable | Output | X | X | nMCDAEN |
| Address Buffer Enable | Output | X | X | nMCADEN |
| Card Reset | Output | X | X | CRESET |
| Register Select | Output | X | X | nCREG |
| nCS4RD | Output | X | nCS4RD | X |
| nCS4WR | Output | X | nCS4WR | X |
| | | | | |
| **"AA" Battery Supply** | | | | |
| 2.0V Detect | Input | MMI_6 | MMI_6 | MMI_6 |
| 2.5V Detect | Input | MMI_7 | MMI_7 | MMI_7 |
| | | | | |

| Module I/O | Type | 7312 | 7409 | 9312 |
|---|---|---|---|---|
| **Li-Ion Battery Supply** | | | | |
| 3.6V Detect | Input | MMI_9 | MMI_9 | MMI_9 |
| 3.8V Detect | Input | MMI_8 | MMI_8 | MMI_8 |
| Charge Status | Input | MMI_10 | MMI_10 | MMI_10 |
| | | | | |
| **IDE** | | | | |
| Chip Select | Output | nCS5 | X | |
| Interrupt | Input | nEINT2 | X | |
| Expansion Clock | Output | EXPCLK | X | |
| Reset | | nURESET | X | |
| Address Bus | Output | BF_A[0:3] | X | |
| Data Bus | I/O | BF_D[0:15] | X | |
| Write Enable | Output | BF_MWE | X | |
| Read Enable | Output | BF_MOE | X | |
| Extend Bus Cycle | Input | EXPRDY | X | |
| | | | | |
| **Sieko LCD** | | | | |
| VLCD Enable | Output | MMO_4 | MMO_4 | MMO_4 |
| Display Enable | Output | MMO_5 | MMO_5 | MMO_5 |
| AC Bias Drive | Output | M | X | X |
| Frame Sync | Output | FRM | X | X |
| Line Clock | Output | CL1 | X | X |
| Pixel Clock | Output | CL2 | X | X |
| LCD Data Bus | I/O | LCDD[0:3] | X | X |
| | | | | |
| **Keypad** | | | | |
| ROW0 | Input | PA0 | | ROW0 |
| ROW1 | Input | PA1 | | ROW1 |
| ROW2 | Input | PA2 | | ROW2 |
| ROW3 | Input | PA3 | | ROW3 |
| ROW4 | Input | PA4 | | ROW4 |
| ROW5 | Input | PA5 | | ROW5 |
| ROW6 | Input | X | | X |
| ROW7 | Input | X | | X |
| COL0 | Output | COL0 | Tied to Vcc | COL0 |
| COL1 | Output | COL1 | Tied to Vcc | COL1 |
| COL2 | Output | COL2 | Tied to Vcc | COL2 |
| | | | | |
| **I/O Expansion** | | | | |
| Chip Select | | nCS3(A22,A23) | nCS3(A17,A18) | nCS3(A22,A23) |
| | | | | |
| **Interrupt Expansion** | | | | |
| Chip Select | | nCS3(A24) | nCS3(A19) | nCS3(A24) |
| Latch Enable | | PB3 | PB3 (GPIO6) | PB3 (GPIO0) |
| | | | | |
| **IR Receiver** | | | | |
| Data Out | Input | CTS | CTS | CTS |