

| Num | Pin Name     | BGA289 Ball | Pin Multiplexer          |         | Power Rail | Comment                     |
|-----|--------------|-------------|--------------------------|---------|------------|-----------------------------|
|     |              |             | Signal Name              | Mode    |            |                             |
| 1   | ONOFF        | R8          | ONOFF                    | Default | 3.3V       | if not use,let it floating  |
| 2   | POR_B        | P8          | POR_B                    | Default | 3.3V       | 10K pull up to 3.3V on SOM  |
| 3   | PMIC_ON_REQ  | T9          | PMIC_ON_REQ              | Default | 3.3V       | if not use,let it floating  |
| 4   | BOOT_MODE0   | T10         | src.BOOT_MODE[0]         | Default | 3.3V       | 10K pull up to 3.3V on SOM  |
|     |              |             | src.BOOT_MODE[0]         | ALT0    |            |                             |
|     |              |             | gpio5.IO10               | ALT5    |            |                             |
| 5   | BOOT_MODE1   | U10         | src.BOOT_MODE[1]         | Default | 3.3V       | 10K pull up to 3.3V on SOM  |
|     |              |             | src.BOOT_MODE[1]         | ALT0    |            |                             |
|     |              |             | gpio5.IO11               | ALT5    |            |                             |
| 6   | GND          |             |                          |         |            |                             |
| 7   | SNVS_TAMPER8 | N9          | snvs_lp_wrapper.SNVS_TD1 | Default | 3.3V       |                             |
|     |              |             | snvs_lp_wrapper.TAMPER8  | ALT0    |            |                             |
|     |              |             | gpio5.IO8                | ALT5    |            |                             |
| 8   | SNVS_TAMPER7 | N10         | snvs_lp_wrapper.SNVS_TD1 | Default | 3.3V       |                             |
|     |              |             | snvs_lp_wrapper.TAMPER7  | ALT0    |            |                             |
|     |              |             | gpio5.IO7                | ALT5    |            |                             |
| 9   | SNVS_TAMPER6 | N11         | snvs_lp_wrapper.SNVS_TD1 | Default | 3.3V       |                             |
|     |              |             | snvs_lp_wrapper.TAMPER6  | ALT0    |            |                             |
|     |              |             | gpio5.IO6                | ALT5    |            |                             |
| 10  | SNVS_TAMPER5 | N8          | snvs_lp_wrapper.SNVS_TD1 | Default | 3.3V       |                             |
|     |              |             | snvs_lp_wrapper.TAMPER5  | ALT0    |            |                             |
|     |              |             | gpio5.IO5                | ALT5    |            |                             |
| 11  | SNVS_TAMPER4 | P9          | snvs_lp_wrapper.SNVS_TD1 | Default | 3.3V       |                             |
|     |              |             | snvs_lp_wrapper.TAMPER4  | ALT0    |            |                             |
|     |              |             | gpio5.IO4                | ALT5    |            |                             |
| 12  | SNVS_TAMPER3 | P10         | snvs_lp_wrapper.SNVS_TD1 | Default | 3.3V       |                             |
|     |              |             | snvs_lp_wrapper.TAMPER3  | ALT0    |            |                             |
|     |              |             | gpio5.IO3                | ALT5    |            |                             |
| 13  | SNVS_TAMPER2 | P11         | snvs_lp_wrapper.SNVS_TD1 | Default | 3.3V       |                             |
|     |              |             | snvs_lp_wrapper.TAMPER2  | ALT0    |            |                             |
|     |              |             | gpio5.IO2                | ALT5    |            |                             |
| 14  | SNVS_TAMPER1 | R9          | snvs_lp_wrapper.SNVS_TD1 | Default | 3.3V       |                             |
|     |              |             | snvs_lp_wrapper.TAMPER1  | ALT0    |            |                             |
|     |              |             | gpio5.IO1                | ALT5    |            |                             |
| 15  | SNVS_TAMPER0 | R10         | snvs_lp_wrapper.SNVS_TD1 | Default | 3.3V       |                             |
|     |              |             | snvs_lp_wrapper.TAMPER0  | ALT0    |            |                             |
|     |              |             | gpio5.IO0                | ALT5    |            |                             |
| 16  | GND          |             |                          |         |            |                             |
| 17  | JTAG_TCK     | M14         | sjc.TCK                  | Default | 3.3V       | 10K pull down to gnd on SOM |
|     |              |             | sjc.TCK                  | ALT0    |            |                             |
|     |              |             | gpt2.COMPARE2            | ALT1    |            |                             |
|     |              |             | sai2.RX_DATA             | ALT2    |            |                             |
|     |              |             | ccm.OUT1                 | ALT3    |            |                             |
|     |              |             | pwm7.OUT                 | ALT4    |            |                             |
|     |              |             | gpio1.IO[14]             | ALT5    |            |                             |
| 18  | JTAG_TDI     | N16         | osc32k.32K_OUT           | ALT6    | 3.3V       |                             |
|     |              |             | sjc.TDI                  | Default |            |                             |
|     |              |             | sjc.TDI                  | ALT0    |            |                             |
|     |              |             | gpt2.COMPARE1            | ALT1    |            |                             |
|     |              |             | sai2.TX_BCLK             | ALT2    |            |                             |
|     |              |             | ccm.OUT0                 | ALT3    |            |                             |
|     |              |             | pwm6.OUT                 | ALT4    |            |                             |
| 19  | JTAG_NTRST   | N14         | gpio1.IO[13]             | ALT5    | 3.3V       |                             |
|     |              |             | mqs.LEFT                 | ALT6    |            |                             |
|     |              |             | sjc.TRSTB                | Default |            |                             |
|     |              |             | sjc.TRSTB                | ALT0    |            |                             |
|     |              |             | gpt2.COMPARE3            | ALT1    |            |                             |
|     |              |             | sai2.TX_DATA             | ALT2    |            |                             |
|     |              |             | ccm.OUT2                 | ALT3    |            |                             |
| 20  | JTAG_TMS     | P14         | pwm8.OUT                 | ALT4    | 3.3V       |                             |
|     |              |             | gpio1.IO[15]             | ALT5    |            |                             |
|     |              |             | anatop.24M_OUT           | ALT6    |            |                             |
|     |              |             | sjc.TMS                  | Default |            |                             |
|     |              |             | sjc.TMS                  | ALT0    |            |                             |
|     |              |             | gpt2.CAPTURE1            | ALT1    |            |                             |
|     |              |             | sai2.MCLK                | ALT2    |            |                             |
|     |              |             | ccm.CLK01                | ALT3    | 3.3V       |                             |
|     |              |             | ccm.WAIT                 | ALT4    |            |                             |
|     |              |             | gpio1.IO[11]             | ALT5    |            |                             |
|     |              |             | sdma.EXT_EVENT[1]        | ALT6    |            |                             |
|     |              |             | epit1.OUT                | ALT8    |            |                             |
|     |              |             | sjc.TDO                  | Default |            |                             |
|     |              |             | sjc.TDO                  | ALT0    |            |                             |
|     |              |             | gpt2.CAPTURE2            | ALT1    |            |                             |
|     |              |             | sai2.TX_SYNC             | ALT2    |            |                             |

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|-----|---------------|-------------|-------------------------|---------|------------|----------------------------------------------------------------------------|
|     |               |             | Signal Name             | Mode    |            |                                                                            |
| 21  | JTAG_TDO      | N15         | ccm.CLK02               | ALT3    | 3.3V       |                                                                            |
|     |               |             | ccm.STOP                | ALT4    |            |                                                                            |
|     |               |             | gpio1.IO[12]            | ALT5    |            |                                                                            |
|     |               |             | mqs.RIGHT               | ALT6    |            |                                                                            |
|     |               |             | epit2.OUT               | ALT8    |            |                                                                            |
| 22  | JTAG_MOD      | P15         | sjc.MOD                 | Default | 3.3V       | 10K pull down to gnd on SOM                                                |
|     |               |             | sjc.MOD                 | ALT0    |            |                                                                            |
|     |               |             | gpt2.CLK                | ALT1    |            |                                                                            |
|     |               |             | spdif.OUT               | ALT2    |            |                                                                            |
|     |               |             | anatop.ENET_REF_CLK_25M | ALT3    |            |                                                                            |
|     |               |             | ccm.PMIC_RDY            | ALT4    |            |                                                                            |
|     |               |             | gpio1.IO[10]            | ALT5    |            |                                                                            |
|     |               |             | sdma.EXT_EVENT[0]       | ALT6    |            |                                                                            |
| 23  | GND           |             |                         |         |            |                                                                            |
| 24  | USB_OTG2_VBUS | U12         |                         |         |            |                                                                            |
| 25  | USB_OTG1_VBUS | T12         |                         |         |            |                                                                            |
| 26  | GND           |             |                         |         |            |                                                                            |
| 27  | USB_OTG2_DP   | U13         |                         |         |            |                                                                            |
| 28  | USB_OTG2_DN   | T13         |                         |         |            |                                                                            |
| 29  | GND           |             |                         |         |            |                                                                            |
| 30  | USB_OTG1_DN   | T15         |                         |         |            |                                                                            |
| 31  | USB_OTG1_DP   | U15         |                         |         |            |                                                                            |
| 32  | GND           |             |                         |         |            |                                                                            |
| 33  | CLK1_N        | P16         |                         |         |            |                                                                            |
| 34  | CLK1_P        | P17         |                         |         |            |                                                                            |
| 35  | GND           |             |                         |         |            |                                                                            |
| 36  | GND           |             |                         |         |            |                                                                            |
| 37  | VDD_3V3       |             |                         |         |            | 3.3V input                                                                 |
| 38  | VDD_3V3       |             |                         |         |            | 3.3V input                                                                 |
| 39  | VDD_BAT       |             |                         |         |            | if not use,let it floating                                                 |
| 40  | GPIO1_IO00    | K13         | gpio1.IO[0]             | Default | 3.3V       | Can be used as analog input, refer to i.mx6ul/6ull user manual for detail. |
|     |               |             | i2c2.SCL                | ALT0    |            |                                                                            |
|     |               |             | gpt1.CAPTURE1           | ALT1    |            |                                                                            |
|     |               |             | anatop.OTG1_ID          | ALT2    |            |                                                                            |
|     |               |             | anatop.ENET_REF_CLK1    | ALT3    |            |                                                                            |
|     |               |             | mqs.RIGHT               | ALT4    |            |                                                                            |
|     |               |             | gpio1.IO[0]             | ALT5    |            |                                                                            |
|     |               |             | enet1.1588_EVENT0_IN    | ALT6    |            |                                                                            |
|     |               |             | src.SYSTEM_RESET        | ALT7    |            |                                                                            |
|     |               |             | wdog3.WDOG_B            | ALT8    |            |                                                                            |
| 41  | GPIO1_IO01    | L15         | gpio1.IO[1]             | Default | 3.3V       | Can be used as analog input, refer to i.mx6ul/6ull user manual for detail. |
|     |               |             | i2c2.SDA                | ALT0    |            |                                                                            |
|     |               |             | gpt1.COMPARE1           | ALT1    |            |                                                                            |
|     |               |             | usb.OTG1_OC             | ALT2    |            |                                                                            |
|     |               |             | anatop.ENET_REF_CLK2    | ALT3    |            |                                                                            |
|     |               |             | mqs.LEFT                | ALT4    |            |                                                                            |
|     |               |             | gpio1.IO[1]             | ALT5    |            |                                                                            |
|     |               |             | enet1.1588_EVENT0_OUT   | ALT6    |            |                                                                            |
|     |               |             | src.EARLY_RESET         | ALT7    |            |                                                                            |
|     |               |             | wdog1.WDOG_B            | ALT8    |            |                                                                            |
| 42  | GPIO1_IO02    | L14         | gpio1.IO[2]             | Default | 3.3V       | Can be used as analog input, refer to i.mx6ul/6ull user manual for detail. |
|     |               |             | i2c1.SCL                | ALT0    |            |                                                                            |
|     |               |             | gpt1.COMPARE2           | ALT1    |            |                                                                            |
|     |               |             | usb.OTG2_PWR            | ALT2    |            |                                                                            |
|     |               |             | anatop.ENET_REF_CLK_25M | ALT3    |            |                                                                            |
|     |               |             | usdhc1.WP               | ALT4    |            |                                                                            |
|     |               |             | gpio1.IO[2]             | ALT5    |            |                                                                            |
|     |               |             | sdma.EXT_EVENT[0]       | ALT6    |            |                                                                            |
|     |               |             | src.ANY_PU_RESET        | ALT7    |            |                                                                            |
|     |               |             | uart1.TX                | ALT8    |            |                                                                            |
| 43  | GPIO1_IO03    | L17         | gpio1.IO[3]             | Default | 3.3V       | Can be used as analog input, refer to i.mx6ul/6ull user manual for detail. |
|     |               |             | i2c1.SDA                | ALT0    |            |                                                                            |
|     |               |             | gpt1.COMPARE3           | ALT1    |            |                                                                            |
|     |               |             | usb.OTG2_OC             | ALT2    |            |                                                                            |
|     |               |             | osc32k.32K_OUT          | ALT3    |            |                                                                            |
|     |               |             | usdhc1.CD_B             | ALT4    |            |                                                                            |
|     |               |             | gpio1.IO[3]             | ALT5    |            |                                                                            |
|     |               |             | ccm.DIO_EXT_CLK         | ALT6    |            |                                                                            |
|     |               |             | src.TESTER_ACK          | ALT7    |            |                                                                            |
|     |               |             | uart1.RX                | ALT8    |            |                                                                            |
| 44  | GPIO1_IO04    | M16         | gpio1.IO[4]             | Default | 3.3V       | Can be used as analog input, refer to i.mx6ul/6ull user manual for detail. |
|     |               |             | anatop.ENET_REF_CLK1    | ALT0    |            |                                                                            |
|     |               |             | pwm3.OUT                | ALT1    |            |                                                                            |
|     |               |             | usb.OTG1_PWR            | ALT2    |            |                                                                            |
|     |               |             | anatop.24M_OUT          | ALT3    |            |                                                                            |

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|-----|------------|-------------|--------------------------------|---------|------------|----------------------------------------------------------------------------|
|     |            |             | Signal Name                    | Mode    |            |                                                                            |
| 44  | GPIO1_IO04 | M16         | usdhc1.RESET_B                 | ALT4    | 3.3V       | Refer to i.mx6ul/6ull user manual for detail.                              |
|     |            |             | gpio1.IO[4]                    | ALT5    |            |                                                                            |
|     |            |             | enet2.1588_EVENT0_IN           | ALT6    |            |                                                                            |
|     |            |             | ccm.PLL2_BYP                   | ALT7    |            |                                                                            |
|     |            |             | uart5.TX                       | ALT8    |            |                                                                            |
| 45  | GPIO1_IO05 | M17         | gpio1.IO[5]                    | Default | 3.3V       | Can be used as analog input, refer to i.mx6ul/6ull user manual for detail. |
|     |            |             | anatop.ENET_REF_CLK2           | ALT0    |            |                                                                            |
|     |            |             | pwm4.OUT                       | ALT1    |            |                                                                            |
|     |            |             | anatop.OTG2_ID                 | ALT2    |            |                                                                            |
|     |            |             | csi.FIELD                      | ALT3    |            |                                                                            |
|     |            |             | usdhc1.VSELECT                 | ALT4    |            |                                                                            |
|     |            |             | gpio1.IO[5]                    | ALT5    |            |                                                                            |
|     |            |             | enet2.1588_EVENT0_OUT          | ALT6    |            |                                                                            |
|     |            |             | ccm.PLL3_BYP                   | ALT7    |            |                                                                            |
|     |            |             | uart5.RX                       | ALT8    |            |                                                                            |
| 46  | MDIO       | K17         | enet1.MDIO                     | ALT0    | 3.3V       | Can only be used for ENET                                                  |
|     |            |             | enet2.MDIO                     | ALT1    |            |                                                                            |
| 47  | MDC        | L16         | enet1.MDC                      | ALT0    | 3.3V       | Can only be used for ENET                                                  |
|     |            |             | enet2.MDC                      | ALT1    |            |                                                                            |
| 48  | GPIO1_IO08 | N17         | gpio1.IO[8]                    | Default | 3.3V       | Can be used as analog input, refer to i.mx6ul/6ull user manual for detail. |
|     |            |             | pwm1.OUT                       | ALT0    |            |                                                                            |
|     |            |             | wdog1.WDOG_B                   | ALT1    |            |                                                                            |
|     |            |             | spdif.OUT                      | ALT2    |            |                                                                            |
|     |            |             | csi.VSYNC                      | ALT3    |            |                                                                            |
|     |            |             | usdhc2.VSELECT                 | ALT4    |            |                                                                            |
|     |            |             | gpio1.IO[8]                    | ALT5    |            |                                                                            |
|     |            |             | ccm.PMIC_RDY                   | ALT6    |            |                                                                            |
|     |            |             | ecspi2.TESTER_TRIGGER          | ALT7    |            |                                                                            |
|     |            |             | uart5.RTS_B                    | ALT8    |            |                                                                            |
| 49  | GPIO1_IO09 | M15         | gpio1.IO[9]                    | Default | 3.3V       | Can be used as analog input, refer to i.mx6ul/6ull user manual for detail. |
|     |            |             | pwm2.OUT                       | ALT0    |            |                                                                            |
|     |            |             | global wdog                    | ALT1    |            |                                                                            |
|     |            |             | spdif.IN                       | ALT2    |            |                                                                            |
|     |            |             | csi.HSYNC                      | ALT3    |            |                                                                            |
|     |            |             | usdhc2.RESET_B                 | ALT4    |            |                                                                            |
|     |            |             | gpio1.IO[9]                    | ALT5    |            |                                                                            |
|     |            |             | usdhc1.RESET_B                 | ALT6    |            |                                                                            |
|     |            |             | ecspi3.TESTER_TRIGGER          | ALT7    |            |                                                                            |
|     |            |             | uart5.CTS_B                    | ALT8    |            |                                                                            |
| 50  | GND        |             |                                |         |            |                                                                            |
| 51  | UART1_TXD  | K14         | gpio1.IO[16]                   | Default | 3.3V       | Debug UART                                                                 |
|     |            |             | uart1.TX                       | ALT0    |            |                                                                            |
|     |            |             | enet1.RDATA[2]                 | ALT1    |            |                                                                            |
|     |            |             | i2c3.SCL                       | ALT2    |            |                                                                            |
|     |            |             | csi.DATA[2]                    | ALT3    |            |                                                                            |
|     |            |             | gpt1.COMPARE1                  | ALT4    |            |                                                                            |
|     |            |             | gpio1.IO[16]                   | ALT5    |            |                                                                            |
|     |            |             | anatop.USBPHY1_TSTI_TX_LS_MODE | ALT6    |            |                                                                            |
|     |            |             | ecspi4.TESTER_TRIGGER          | ALT7    |            |                                                                            |
|     |            |             | spdif.OUT                      | ALT8    |            |                                                                            |
|     |            |             | uart5.TX                       | ALT9    |            |                                                                            |
| 52  | UART1_RXD  | K16         | gpio1.IO[17]                   | Default | 3.3V       | Debug UART                                                                 |
|     |            |             | uart1.RX                       | ALT0    |            |                                                                            |
|     |            |             | enet1.RDATA[3]                 | ALT1    |            |                                                                            |
|     |            |             | i2c3.SDA                       | ALT2    |            |                                                                            |
|     |            |             | csi.DATA[3]                    | ALT3    |            |                                                                            |
|     |            |             | gpt1.CLK                       | ALT4    |            |                                                                            |
|     |            |             | gpio1.IO[17]                   | ALT5    |            |                                                                            |
|     |            |             | anatop.USBPHY1_TSTI_TX_HS_MODE | ALT6    |            |                                                                            |
|     |            |             | usdhc1.TESTER_TRIGGER          | ALT7    |            |                                                                            |
|     |            |             | spdif.IN                       | ALT8    |            |                                                                            |
|     |            |             | uart5.RX                       | ALT9    |            |                                                                            |
| 53  | UART1_RTS  | J14         | gpio1.IO[19]                   | Default | 3.3V       |                                                                            |
|     |            |             | uart1.RTS_B                    | ALT0    |            |                                                                            |
|     |            |             | enet1.TX_ER                    | ALT1    |            |                                                                            |
|     |            |             | usdhc1.CD_B                    | ALT2    |            |                                                                            |
|     |            |             | csi.DATA[5]                    | ALT3    |            |                                                                            |
|     |            |             | enet2.1588_EVENT1_OUT          | ALT4    |            |                                                                            |
|     |            |             | gpio1.IO[19]                   | ALT5    |            |                                                                            |
|     |            |             | anatop.USBPHY1_TSTO_RX_SQUELCH | ALT6    |            |                                                                            |
|     |            |             | qspi.TESTER_TRIGGER            | ALT7    |            |                                                                            |
|     |            |             | usdhc2.CD_B                    | ALT8    |            |                                                                            |
|     |            |             | uart5.RTS_B                    | ALT9    |            |                                                                            |
|     |            |             | gpio1.IO[18]                   | Default |            |                                                                            |
|     |            |             | uart1.CTS_B                    | ALT0    |            |                                                                            |

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|-----|-----------|-------------|-----------------------------------|---------|------------|---------|
|     |           |             | Signal Name                       | Mode    |            |         |
| 54  | UART1_CTS | K15         | enet1.RX_CLK                      | ALT1    | 3.3V       |         |
|     |           |             | usdhc1.WP                         | ALT2    |            |         |
|     |           |             | csi.DATA[4]                       | ALT3    |            |         |
|     |           |             | enet2.1588_EVENT1_IN              | ALT4    |            |         |
|     |           |             | gpio1.IO[18]                      | ALT5    |            |         |
|     |           |             | anatop.USBPHY1_TSTI_TX_DN         | ALT6    |            |         |
|     |           |             | usdhc2.TESTER_TRIGGER             | ALT7    |            |         |
|     |           |             | usdhc2.WP                         | ALT8    |            |         |
|     |           |             | uart5.CTS_B                       | ALT9    |            |         |
| 55  | UART2_TXD | J17         | gpio1.IO[20]                      | Default | 3.3V       |         |
|     |           |             | uart2.TX                          | ALT0    |            |         |
|     |           |             | enet1.TDATA[2]                    | ALT1    |            |         |
|     |           |             | i2c4.SCL                          | ALT2    |            |         |
|     |           |             | csi.DATA[6]                       | ALT3    |            |         |
|     |           |             | gpt1.CAPTURE1                     | ALT4    |            |         |
|     |           |             | gpio1.IO[20]                      | ALT5    |            |         |
|     |           |             | anatop.USBPHY1_TSTO_RX_DISCON_DET | ALT6    |            |         |
|     |           |             | rawnand.TESTER_TRIGGER            | ALT7    |            |         |
| 56  | UART2_RXD | J16         | ecspi3.SS0                        | ALT8    | 3.3V       |         |
|     |           |             | gpio1.IO[21]                      | Default |            |         |
|     |           |             | uart2.RX                          | ALT0    |            |         |
|     |           |             | enet1.TDATA[3]                    | ALT1    |            |         |
|     |           |             | i2c4.SDA                          | ALT2    |            |         |
|     |           |             | csi.DATA[7]                       | ALT3    |            |         |
|     |           |             | gpt1.CAPTURE2                     | ALT4    |            |         |
|     |           |             | gpio1.IO[21]                      | ALT5    |            |         |
|     |           |             | anatop.USBPHY1_TSTO_RX_HS_RXD     | ALT6    |            |         |
| 57  | UART2_RTS | H14         | sjc.DONE                          | ALT7    | 3.3V       |         |
|     |           |             | ecspi3.SCLK                       | ALT8    |            |         |
|     |           |             | gpio1.IO[23]                      | Default |            |         |
|     |           |             | uart2.RTS_B                       | ALT0    |            |         |
|     |           |             | enet1.COL                         | ALT1    |            |         |
|     |           |             | can2.RX                           | ALT2    |            |         |
|     |           |             | csi.DATA[9]                       | ALT3    |            |         |
|     |           |             | gpt1.COMPARE3                     | ALT4    |            |         |
|     |           |             | gpio1.IO[23]                      | ALT5    |            |         |
| 58  | UART2_CTS | J15         | anatop.USBPHY1_TSTO_RX_FS_RXD     | ALT6    | 3.3V       |         |
|     |           |             | sjc.FAIL                          | ALT7    |            |         |
|     |           |             | ecspi3.MISO                       | ALT8    |            |         |
|     |           |             | gpio1.IO[22]                      | Default |            |         |
|     |           |             | uart2.CTS_B                       | ALT0    |            |         |
|     |           |             | enet1.CRS                         | ALT1    |            |         |
|     |           |             | can2.TX                           | ALT2    |            |         |
|     |           |             | csi.DATA[8]                       | ALT3    |            |         |
|     |           |             | gpt1.COMPARE2                     | ALT4    |            |         |
| 59  | GND       |             | gpio1.IO[22]                      | ALT5    | 3.3V       |         |
|     |           |             | anatop.USBPHY2_TSTO_RX_FS_RXD     | ALT6    |            |         |
|     |           |             | sjc.DE_B                          | ALT7    |            |         |
|     |           |             | ecspi3.MOSI                       | ALT8    |            |         |
|     |           |             | gpio1.IO[24]                      | Default |            |         |
|     |           |             | uart3.TX                          | ALT0    |            |         |
|     |           |             | enet2.RDATA[2]                    | ALT1    |            |         |
|     |           |             | csi.DATA[1]                       | ALT3    |            |         |
|     |           |             | uart2.CTS_B                       | ALT4    |            |         |
| 60  | UART3_TXD | H17         | gpio1.IO[24]                      | ALT5    | 3.3V       |         |
|     |           |             | anatop.USBPHY1_TSTI_TX_DP         | ALT6    |            |         |
|     |           |             | sjc.JTAG_ACT                      | ALT7    |            |         |
|     |           |             | anatop.OTG1_ID                    | ALT8    |            |         |
|     |           |             | gpio1.IO[25]                      | Default |            |         |
|     |           |             | uart3.RX                          | ALT0    |            |         |
|     |           |             | enet2.RDATA[3]                    | ALT1    |            |         |
|     |           |             | csi.DATA[0]                       | ALT3    |            |         |
|     |           |             | uart2.RTS_B                       | ALT4    |            |         |
| 61  | UART3_RXD | H16         | gpio1.IO[25]                      | ALT5    | 3.3V       |         |
|     |           |             | anatop.USBPHY1_TSTI_TX_EN         | ALT6    |            |         |
|     |           |             | sim_m.HADDR[0]                    | ALT7    |            |         |
|     |           |             | epit1.OUT                         | ALT8    |            |         |
|     |           |             | gpio1.IO[27]                      | Default |            |         |
|     |           |             | uart3.RTS_B                       | ALT0    |            |         |
|     |           |             | enet2.TX_ER                       | ALT1    |            |         |
|     |           |             | can1.RX                           | ALT2    |            |         |
|     |           |             | csi.DATA[11]                      | ALT3    |            |         |
| 62  | UART3_RTS | G14         | enet1.1588_EVENT1_OUT             | ALT4    | 3.3V       |         |
|     |           |             | gpio1.IO[27]                      | ALT5    |            |         |
|     |           |             |                                   |         |            |         |

| Num | Pin Name     | BGA289 Ball | Pin Multiplexer                   |         | Power Rail | Comment                                  |
|-----|--------------|-------------|-----------------------------------|---------|------------|------------------------------------------|
|     |              |             | Signal Name                       | Mode    |            |                                          |
| 63  | UART3_CTS    | H15         | anatop.USBPHY2_TSTO_RX_HS_RXD     | ALT6    | 3.3V       |                                          |
|     |              |             | sim_m.HADDR[2]                    | ALT7    |            |                                          |
|     |              |             | wdog1.WDOG_B                      | ALT8    |            |                                          |
|     |              |             | gpio1.IO[26]                      | Default |            |                                          |
|     |              |             | uart3.CTS_B                       | ALT0    |            |                                          |
|     |              |             | enet2.RX_CLK                      | ALT1    |            |                                          |
|     |              |             | can1.TX                           | ALT2    |            |                                          |
|     |              |             | csi.DATA[10]                      | ALT3    |            |                                          |
|     |              |             | enet1.1588_EVENT1_IN              | ALT4    |            |                                          |
|     |              |             | gpio1.IO[26]                      | ALT5    |            |                                          |
| 64  | UART4_TXD    | G17         | anatop.USBPHY1_TSTI_TX_HIZ        | ALT6    | 3.3V       |                                          |
|     |              |             | sim_m.HADDR[1]                    | ALT7    |            |                                          |
|     |              |             | epit2.OUT                         | ALT8    |            |                                          |
|     |              |             | gpio1.IO[28]                      | Default |            |                                          |
|     |              |             | uart4.TX                          | ALT0    |            |                                          |
|     |              |             | enet2.TDATA[2]                    | ALT1    |            |                                          |
|     |              |             | i2c1.SCL                          | ALT2    |            |                                          |
|     |              |             | csi.DATA[12]                      | ALT3    |            |                                          |
|     |              |             | csu.CSU_ALARM_AUT[2]              | ALT4    |            |                                          |
|     |              |             | gpio1.IO[28]                      | ALT5    |            |                                          |
| 65  | UART4_RXD    | G16         | anatop.USBPHY1_TSTO_PLL_CLK20DIV  | ALT6    | 3.3V       |                                          |
|     |              |             | sim_m.HADDR[3]                    | ALT7    |            |                                          |
|     |              |             | ecspi2.SCLK                       | ALT8    |            |                                          |
|     |              |             | gpio1.IO[29]                      | Default |            |                                          |
|     |              |             | uart4.RX                          | ALT0    |            |                                          |
|     |              |             | enet2.TDATA[3]                    | ALT1    |            |                                          |
|     |              |             | i2c1.SDA                          | ALT2    |            |                                          |
|     |              |             | csi.DATA[13]                      | ALT3    |            |                                          |
|     |              |             | csu.CSU_ALARM_AUT[1]              | ALT4    |            |                                          |
|     |              |             | gpio1.IO[29]                      | ALT5    |            |                                          |
| 66  | UART5_TXD    | F17         | anatop.USBPHY2_TSTO_PLL_CLK20DIV  | ALT6    | 3.3V       |                                          |
|     |              |             | sim_m.HADDR[4]                    | ALT7    |            |                                          |
|     |              |             | ecspi2.SS0                        | ALT8    |            |                                          |
|     |              |             | epdc.PWRCTRL[1]                   | ALT9    |            |                                          |
|     |              |             | gpio1.IO[30]                      | Default |            |                                          |
|     |              |             | uart5.TX                          | ALT0    |            |                                          |
|     |              |             | enet2.CRS                         | ALT1    |            |                                          |
|     |              |             | i2c2.SCL                          | ALT2    |            |                                          |
|     |              |             | csi.DATA[14]                      | ALT3    |            |                                          |
|     |              |             | csu.CSU_ALARM_AUT[0]              | ALT4    |            |                                          |
| 67  | UART5_RXD    | G13         | gpio1.IO[30]                      | ALT5    | 3.3V       |                                          |
|     |              |             | anatop.USBPHY2_TSTO_RX_SQUELCH    | ALT6    |            |                                          |
|     |              |             | sim_m.HADDR[5]                    | ALT7    |            |                                          |
|     |              |             | ecspi2.MOSI                       | ALT8    |            |                                          |
|     |              |             | epdc.PWRCTRL[2]                   | ALT9    |            |                                          |
|     |              |             | gpio1.IO[31]                      | Default |            |                                          |
|     |              |             | uart5.RX                          | ALT0    |            |                                          |
|     |              |             | enet2.COL                         | ALT1    |            |                                          |
|     |              |             | i2c2.SDA                          | ALT2    |            |                                          |
|     |              |             | csi.DATA[15]                      | ALT3    |            |                                          |
| 78  | ENET2_TX_CLK | D17         | csu.CSU_INT_DEB                   | ALT4    | 3.3V       |                                          |
|     |              |             | gpio1.IO[31]                      | ALT5    |            |                                          |
|     |              |             | anatop.USBPHY2_TSTO_RX_DISCON_DET | ALT6    |            |                                          |
|     |              |             | sim_m.HADDR[6]                    | ALT7    |            |                                          |
|     |              |             | ecspi2.MISO                       | ALT8    |            |                                          |
|     |              |             | epdc.PWRCTRL[3]                   | ALT9    |            |                                          |
|     |              |             | gpio2.IO[14]                      | Default |            |                                          |
|     |              |             | enet2.TX_CLK                      | ALT0    |            |                                          |
|     |              |             | uart8.CTS_B                       | ALT1    |            |                                          |
|     |              |             | ecspi4.MISO                       | ALT3    |            |                                          |
| 78  | ENET2_TX_CLK | D17         | anatop.ENET_REF_CLK2              | ALT4    | 3.3V       |                                          |
|     |              |             | gpio2.IO[14]                      | ALT5    |            |                                          |
|     |              |             | kpp.ROW[7]                        | ALT6    |            |                                          |
|     |              |             | sim_m.HADDR[21]                   | ALT7    |            |                                          |
|     |              |             | anatop.OTG2_ID                    | ALT8    |            |                                          |
| 68  | GND          |             |                                   |         |            |                                          |
| 69  | ETH1_LED1    |             |                                   |         | 3.3V       | Built in Ethernet PHY chip(LAN8720A) pin |
| 70  | ETH1_LED2    |             |                                   |         | 3.3V       | Built in Ethernet PHY chip(LAN8720A) pin |
| 71  | GND          |             |                                   |         |            |                                          |
| 72  | ETH1_TXN     |             |                                   |         | A          | Built in Ethernet PHY chip(LAN8720A) pin |
| 73  | ETH1_TXP     |             |                                   |         | A          | Built in Ethernet PHY chip(LAN8720A) pin |
| 74  | GND          |             |                                   |         |            |                                          |
| 75  | ETH1_RXN     |             |                                   |         | A          | Built in Ethernet PHY chip(LAN8720A) pin |
| 76  | ETH1_RXP     |             |                                   |         | A          | Built in Ethernet PHY chip(LAN8720A) pin |
| 77  | GND          |             |                                   |         |            |                                          |

| Num | Pin Name     | BGA289 Ball | Pin Multiplexer         |         | Power Rail | Comment |
|-----|--------------|-------------|-------------------------|---------|------------|---------|
|     |              |             | Signal Name             | Mode    |            |         |
| 79  | ENET2_RXD0   | C17         | epdc.SDDO[14]           | ALT9    | 3.3V       |         |
|     |              |             | gpio2.IO[8]             | Default |            |         |
|     |              |             | enet2.RDATA[0]          | ALT0    |            |         |
|     |              |             | uart6.TX                | ALT1    |            |         |
|     |              |             | i2c3.SCL                | ALT3    |            |         |
|     |              |             | enet1.MDIO              | ALT4    |            |         |
|     |              |             | gpio2.IO[8]             | ALT5    |            |         |
|     |              |             | kpp.ROW[4]              | ALT6    |            |         |
|     |              |             | sim_m.HADDR[15]         | ALT7    |            |         |
|     |              |             | usb.OTG1_PWR            | ALT8    |            |         |
|     |              |             | epdc.SDDO[8]            | ALT9    |            |         |
| 80  | ENET2_CRS_DV | B17         | gpio2.IO[10]            | Default | 3.3V       |         |
|     |              |             | enet2.RX_EN             | ALT0    |            |         |
|     |              |             | uart7.TX                | ALT1    |            |         |
|     |              |             | i2c4.SCL                | ALT3    |            |         |
|     |              |             | weim.ADDR[26]           | ALT4    |            |         |
|     |              |             | gpio2.IO[10]            | ALT5    |            |         |
|     |              |             | kpp.ROW[5]              | ALT6    |            |         |
|     |              |             | sim_m.HADDR[17]         | ALT7    |            |         |
|     |              |             | anatop.ENET_REF_CLK_25M | ALT8    |            |         |
|     |              |             | epdc.SDDO[10]           | ALT9    |            |         |
| 81  | ENET2_RXER   | D16         | gpio2.IO[15]            | Default | 3.3V       |         |
|     |              |             | enet2.RX_ER             | ALT0    |            |         |
|     |              |             | uart8.RTS_B             | ALT1    |            |         |
|     |              |             | ecspi4.SS0              | ALT3    |            |         |
|     |              |             | weim.ADDR[25]           | ALT4    |            |         |
|     |              |             | gpio2.IO[15]            | ALT5    |            |         |
|     |              |             | kpp.COL[7]              | ALT6    |            |         |
|     |              |             | sim_m.HADDR[22]         | ALT7    |            |         |
|     |              |             | global wdog             | ALT8    |            |         |
| 82  | ENET2_RXD1   | C16         | epdc.SDDO[15]           | ALT9    | 3.3V       |         |
|     |              |             | gpio2.IO[9]             | Default |            |         |
|     |              |             | enet2.RDATA[1]          | ALT0    |            |         |
|     |              |             | uart6.RX                | ALT1    |            |         |
|     |              |             | i2c3.SDA                | ALT3    |            |         |
|     |              |             | enet1.MDC               | ALT4    |            |         |
|     |              |             | gpio2.IO[9]             | ALT5    |            |         |
|     |              |             | kpp.COL[4]              | ALT6    |            |         |
|     |              |             | sim_m.HADDR[16]         | ALT7    |            |         |
|     |              |             | usb.OTG1_OC             | ALT8    |            |         |
| 83  | ENET2_TXEN   | B15         | epdc.SDDO[9]            | ALT9    | 3.3V       |         |
|     |              |             | gpio2.IO[13]            | Default |            |         |
|     |              |             | enet2.TX_EN             | ALT0    |            |         |
|     |              |             | uart8.RX                | ALT1    |            |         |
|     |              |             | ecspi4.MOSI             | ALT3    |            |         |
|     |              |             | weim.ACLK_FREERUN       | ALT4    |            |         |
|     |              |             | gpio2.IO[13]            | ALT5    |            |         |
|     |              |             | kpp.COL[6]              | ALT6    |            |         |
|     |              |             | sim_m.HADDR[20]         | ALT7    |            |         |
|     |              |             | usb.OTG2_OC             | ALT8    |            |         |
| 84  | ENET2_TXD1   | A16         | epdc.SDDO[13]           | ALT9    | 3.3V       |         |
|     |              |             | gpio2.IO[12]            | Default |            |         |
|     |              |             | enet2.TDATA[1]          | ALT0    |            |         |
|     |              |             | uart8.TX                | ALT1    |            |         |
|     |              |             | ecspi4.SCLK             | ALT3    |            |         |
|     |              |             | weim.EB_B[3]            | ALT4    |            |         |
|     |              |             | gpio2.IO[12]            | ALT5    |            |         |
|     |              |             | kpp.ROW[6]              | ALT6    |            |         |
|     |              |             | sim_m.HADDR[19]         | ALT7    |            |         |
|     |              |             | usb.OTG2_PWR            | ALT8    |            |         |
| 85  | ENET2_TXD0   | A15         | epdc.SDDO[12]           | ALT9    | 3.3V       |         |
|     |              |             | gpio2.IO[11]            | Default |            |         |
|     |              |             | enet2.TDATA[0]          | ALT0    |            |         |
|     |              |             | uart7.RX                | ALT1    |            |         |
|     |              |             | i2c4.SDA                | ALT3    |            |         |
|     |              |             | weim.EB_B[2]            | ALT4    |            |         |
|     |              |             | gpio2.IO[11]            | ALT5    |            |         |
|     |              |             | kpp.COL[5]              | ALT6    |            |         |
|     |              |             | sim_m.HADDR[18]         | ALT7    |            |         |
|     |              |             | anatop.24M_OUT          | ALT8    |            |         |
| 86  | GND          |             | epdc.SDDO[11]           | ALT9    |            |         |
|     |              |             | gpio3.IO[5]             | Default |            |         |
|     |              |             | lcdif.DATA[0]           | ALT0    |            |         |
|     |              |             | pwm1.OUT                | ALT1    |            |         |
|     |              |             |                         |         |            |         |

| Num | Pin Name  | BGA289 Ball | Pin Multiplexer       |         | Power Rail | Comment                                                             |
|-----|-----------|-------------|-----------------------|---------|------------|---------------------------------------------------------------------|
|     |           |             | Signal Name           | Mode    |            |                                                                     |
| 87  | LCD_DATA0 | B9          | ca7_platform.TRACE[0] | ALT2    | 3.3V       | 47K pull down to gnd on SOM                                         |
|     |           |             | enet1.1588_EVENT2_IN  | ALT3    |            |                                                                     |
|     |           |             | i2c3.SDA              | ALT4    |            |                                                                     |
|     |           |             | gpio3.IO[5]           | ALT5    |            |                                                                     |
|     |           |             | src.BT_CFG[0]         | ALT6    |            |                                                                     |
|     |           |             | sim_m.HADDR[28]       | ALT7    |            |                                                                     |
|     |           |             | sai1.MCLK             | ALT8    |            |                                                                     |
|     |           |             | epdc.SDDO[0]          | ALT9    |            |                                                                     |
| 88  | LCD_DATA1 | A9          | gpio3.IO[6]           | Default | 3.3V       | 47K pull down to gnd on SOM                                         |
|     |           |             | lcdif.DATA[1]         | ALT0    |            |                                                                     |
|     |           |             | pwm2.OUT              | ALT1    |            |                                                                     |
|     |           |             | ca7_platform.TRACE[1] | ALT2    |            |                                                                     |
|     |           |             | enet1.1588_EVENT2_OUT | ALT3    |            |                                                                     |
|     |           |             | i2c3.SCL              | ALT4    |            |                                                                     |
|     |           |             | gpio3.IO[6]           | ALT5    |            |                                                                     |
|     |           |             | src.BT_CFG[1]         | ALT6    |            |                                                                     |
|     |           |             | sim_m.HADDR[29]       | ALT7    |            |                                                                     |
|     |           |             | sai1.TX_SYNC          | ALT8    |            |                                                                     |
| 89  | LCD_DATA2 | E10         | epdc.SDDO[1]          | ALT9    | 3.3V       | 47K pull down to gnd on SOM                                         |
|     |           |             | gpio3.IO[7]           | Default |            |                                                                     |
|     |           |             | lcdif.DATA[2]         | ALT0    |            |                                                                     |
|     |           |             | pwm3.OUT              | ALT1    |            |                                                                     |
|     |           |             | ca7_platform.TRACE[2] | ALT2    |            |                                                                     |
|     |           |             | enet1.1588_EVENT3_IN  | ALT3    |            |                                                                     |
|     |           |             | i2c4.SDA              | ALT4    |            |                                                                     |
|     |           |             | gpio3.IO[7]           | ALT5    |            |                                                                     |
|     |           |             | src.BT_CFG[2]         | ALT6    |            |                                                                     |
|     |           |             | sim_m.HADDR[30]       | ALT7    |            |                                                                     |
| 90  | LCD_DATA3 | D10         | sai1.TX_BCLK          | ALT8    | 3.3V       | 47K pull down to gnd on SOM                                         |
|     |           |             | epdc.SDDO[2]          | ALT9    |            |                                                                     |
|     |           |             | gpio3.IO[8]           | Default |            |                                                                     |
|     |           |             | lcdif.DATA[3]         | ALT0    |            |                                                                     |
|     |           |             | pwm4.OUT              | ALT1    |            |                                                                     |
|     |           |             | ca7_platform.TRACE[3] | ALT2    |            |                                                                     |
|     |           |             | enet1.1588_EVENT3_OUT | ALT3    |            |                                                                     |
|     |           |             | i2c4.SCL              | ALT4    |            |                                                                     |
|     |           |             | gpio3.IO[8]           | ALT5    |            |                                                                     |
|     |           |             | src.BT_CFG[3]         | ALT6    |            |                                                                     |
| 91  | LCD_DATA4 | C10         | sim_m.HADDR[31]       | ALT7    | 3.3V       | 10K pull up to 3.3v on SOM                                          |
|     |           |             | sai1.RX_DATA          | ALT8    |            |                                                                     |
|     |           |             | epdc.SDDO[3]          | ALT9    |            |                                                                     |
|     |           |             | gpio3.IO[9]           | Default |            |                                                                     |
|     |           |             | lcdif.DATA[4]         | ALT0    |            |                                                                     |
|     |           |             | uart8.CTS_B           | ALT1    |            |                                                                     |
|     |           |             | ca7_platform.TRACE[4] | ALT2    |            |                                                                     |
|     |           |             | enet2.1588_EVENT2_IN  | ALT3    |            |                                                                     |
|     |           |             | spdif.SR_CLK          | ALT4    |            |                                                                     |
|     |           |             | gpio3.IO[9]           | ALT5    |            |                                                                     |
| 92  | LCD_DATA5 | B10         | src.BT_CFG[4]         | ALT6    | 3.3V       | NAND:10K pull down to gnd on SOM<br>EMMC: 10K pull up to VCC on SOM |
|     |           |             | sim_m.HBURST[0]       | ALT7    |            |                                                                     |
|     |           |             | sai1.TX_DATA          | ALT8    |            |                                                                     |
|     |           |             | epdc.SDDO[4]          | ALT9    |            |                                                                     |
|     |           |             | gpio3.IO[10]          | Default |            |                                                                     |
|     |           |             | lcdif.DATA[5]         | ALT0    |            |                                                                     |
|     |           |             | uart8.RTS_B           | ALT1    |            |                                                                     |
|     |           |             | ca7_platform.TRACE[5] | ALT2    |            |                                                                     |
|     |           |             | enet2.1588_EVENT2_OUT | ALT3    |            |                                                                     |
|     |           |             | spdif.OUT             | ALT4    |            |                                                                     |
| 93  | LCD_DATA6 | A10         | gpio3.IO[10]          | ALT5    | 3.3V       | 10K pull up to 3.3v on SOM                                          |
|     |           |             | src.BT_CFG[5]         | ALT6    |            |                                                                     |
|     |           |             | sim_m.HBURST[1]       | ALT7    |            |                                                                     |
|     |           |             | ecspi1.SS1            | ALT8    |            |                                                                     |
|     |           |             | epdc.SDDO[5]          | ALT9    |            |                                                                     |
|     |           |             | gpio3.IO[11]          | Default |            |                                                                     |
|     |           |             | lcdif.DATA[6]         | ALT0    |            |                                                                     |
|     |           |             | uart7.CTS_B           | ALT1    |            |                                                                     |
|     |           |             | ca7_platform.TRACE[6] | ALT2    |            |                                                                     |
|     |           |             | enet2.1588_EVENT3_IN  | ALT3    |            |                                                                     |
|     |           |             | spdif.LOCK            | ALT4    |            |                                                                     |
|     |           |             | gpio3.IO[11]          | ALT5    |            |                                                                     |
|     |           |             | src.BT_CFG[6]         | ALT6    | 3.3V       | 10K pull up to 3.3v on SOM                                          |
|     |           |             | sim_m.HBURST[2]       | ALT7    |            |                                                                     |
|     |           |             | ecspi1.SS2            | ALT8    |            |                                                                     |
|     |           |             | epdc.SDDO[6]          | ALT9    |            |                                                                     |
|     |           |             | gpio3.IO[12]          | Default |            |                                                                     |

| Num | Pin Name   | BGA289 Ball | Pin Multiplexer        |         | Power Rail | Comment                                                              |
|-----|------------|-------------|------------------------|---------|------------|----------------------------------------------------------------------|
|     |            |             | Signal Name            | Mode    |            |                                                                      |
| 94  | LCD_DATA7  | D11         | lcdif.DATA[7]          | ALT0    | 3.3V       | NAND: 10K pull up to VCC on SOM<br>EMMC: 10K pull down to gnd on SOM |
|     |            |             | uart7.RTS_B            | ALT1    |            |                                                                      |
|     |            |             | ca7_platform.TRACE[7]  | ALT2    |            |                                                                      |
|     |            |             | enet2.1588_EVENT3_OUT  | ALT3    |            |                                                                      |
|     |            |             | spdif.EXT_CLK          | ALT4    |            |                                                                      |
|     |            |             | gpio3.IO[12]           | ALT5    |            |                                                                      |
|     |            |             | src.BT_CFG[7]          | ALT6    |            |                                                                      |
|     |            |             | sim_m.HMASTLOCK        | ALT7    |            |                                                                      |
|     |            |             | ecspi1.SS3             | ALT8    |            |                                                                      |
|     |            |             | epdc.SDDO[7]           | ALT9    |            |                                                                      |
| 95  | GND        |             |                        |         |            |                                                                      |
| 96  | LCD_DATA8  | B11         | gpio3.IO[13]           | Default | 3.3V       | 10K pull down to gnd on SOM                                          |
|     |            |             | lcdif.DATA[8]          | ALT0    |            |                                                                      |
|     |            |             | spdif.IN               | ALT1    |            |                                                                      |
|     |            |             | ca7_platform.TRACE[8]  | ALT2    |            |                                                                      |
|     |            |             | csi.DATA[16]           | ALT3    |            |                                                                      |
|     |            |             | weim.DATA[0]           | ALT4    |            |                                                                      |
|     |            |             | gpio3.IO[13]           | ALT5    |            |                                                                      |
|     |            |             | src.BT_CFG[8]          | ALT6    |            |                                                                      |
|     |            |             | sim_m.HPROT[0]         | ALT7    |            |                                                                      |
|     |            |             | can1.TX                | ALT8    |            |                                                                      |
|     |            |             | epdc.PWRIRQ            | ALT9    |            |                                                                      |
| 97  | LCD_DATA9  | A11         | gpio3.IO[14]           | Default | 3.3V       | 10K pull down to gnd on SOM                                          |
|     |            |             | lcdif.DATA[9]          | ALT0    |            |                                                                      |
|     |            |             | sai3.MCLK              | ALT1    |            |                                                                      |
|     |            |             | ca7_platform.TRACE[9]  | ALT2    |            |                                                                      |
|     |            |             | csi.DATA[17]           | ALT3    |            |                                                                      |
|     |            |             | weim.DATA[1]           | ALT4    |            |                                                                      |
|     |            |             | gpio3.IO[14]           | ALT5    |            |                                                                      |
|     |            |             | src.BT_CFG[9]          | ALT6    |            |                                                                      |
|     |            |             | sim_m.HPROT[1]         | ALT7    |            |                                                                      |
|     |            |             | can1.RX                | ALT8    |            |                                                                      |
|     |            |             | epdc.PWRWAKE           | ALT9    |            |                                                                      |
| 98  | LCD_DATA10 | E12         | gpio3.IO[15]           | Default | 3.3V       | 10K pull down to gnd on SOM                                          |
|     |            |             | lcdif.DATA[10]         | ALT0    |            |                                                                      |
|     |            |             | sai3.RX_SYNC           | ALT1    |            |                                                                      |
|     |            |             | ca7_platform.TRACE[10] | ALT2    |            |                                                                      |
|     |            |             | csi.DATA[18]           | ALT3    |            |                                                                      |
|     |            |             | weim.DATA[2]           | ALT4    |            |                                                                      |
|     |            |             | gpio3.IO[15]           | ALT5    |            |                                                                      |
|     |            |             | src.BT_CFG[10]         | ALT6    |            |                                                                      |
|     |            |             | sim_m.HPROT[2]         | ALT7    |            |                                                                      |
|     |            |             | can2.TX                | ALT8    |            |                                                                      |
|     |            |             | epdc.PWRCOM            | ALT9    |            |                                                                      |
| 99  | LCD_DATA11 | D12         | gpio3.IO[16]           | Default | 3.3V       | NAND: 10K pull down to gnd on SOM<br>EMMC: 10K pull up to VCC on SOM |
|     |            |             | lcdif.DATA[11]         | ALT0    |            |                                                                      |
|     |            |             | sai3.RX_BCLK           | ALT1    |            |                                                                      |
|     |            |             | ca7_platform.TRACE[11] | ALT2    |            |                                                                      |
|     |            |             | csi.DATA[19]           | ALT3    |            |                                                                      |
|     |            |             | weim.DATA[3]           | ALT4    |            |                                                                      |
|     |            |             | gpio3.IO[16]           | ALT5    |            |                                                                      |
|     |            |             | src.BT_CFG[11]         | ALT6    |            |                                                                      |
|     |            |             | sim_m.HPROT[3]         | ALT7    |            |                                                                      |
|     |            |             | can2.RX                | ALT8    |            |                                                                      |
|     |            |             | epdc.PWRSTAT           | ALT9    |            |                                                                      |
| 100 | LCD_DATA12 | C12         | gpio3.IO[17]           | Default | 3.3V       | 47K pull down to gnd on SOM                                          |
|     |            |             | lcdif.DATA[12]         | ALT0    |            |                                                                      |
|     |            |             | sai3.TX_SYNC           | ALT1    |            |                                                                      |
|     |            |             | ca7_platform.TRACE[12] | ALT2    |            |                                                                      |
|     |            |             | csi.DATA[20]           | ALT3    |            |                                                                      |
|     |            |             | weim.DATA[4]           | ALT4    |            |                                                                      |
|     |            |             | gpio3.IO[17]           | ALT5    |            |                                                                      |
|     |            |             | src.BT_CFG[12]         | ALT6    |            |                                                                      |
|     |            |             | sim_m.HREADYOUT        | ALT7    |            |                                                                      |
|     |            |             | ecspi1.RDY             | ALT8    |            |                                                                      |
|     |            |             | epdc.PWRCTRL[0]        | ALT9    |            |                                                                      |
| 101 | LCD_DATA13 | B12         | gpio3.IO[18]           | Default | 3.3V       | 47K pull down to gnd on SOM                                          |
|     |            |             | lcdif.DATA[13]         | ALT0    |            |                                                                      |
|     |            |             | sai3.TX_BCLK           | ALT1    |            |                                                                      |
|     |            |             | ca7_platform.TRACE[13] | ALT2    |            |                                                                      |
|     |            |             | csi.DATA[21]           | ALT3    |            |                                                                      |
|     |            |             | weim.DATA[5]           | ALT4    |            |                                                                      |
|     |            |             | gpio3.IO[18]           | ALT5    |            |                                                                      |
|     |            |             | src.BT_CFG[13]         | ALT6    |            |                                                                      |
|     |            |             | sim_m.HRESP            | ALT7    |            |                                                                      |

| Num | Pin Name   | BGA289 Ball | Pin Multiplexer        |         | Power Rail | Comment                     |
|-----|------------|-------------|------------------------|---------|------------|-----------------------------|
|     |            |             | Signal Name            | Mode    |            |                             |
|     |            |             | usdhc2.RESET_B         | ALT8    |            |                             |
|     |            |             | epdc.BDR[0]            | ALT9    |            |                             |
| 102 | LCD_DATA14 | A12         | gpio3.IO[19]           | Default | 3.3V       | 47K pull down to gnd on SOM |
|     |            |             | lcdif.DATA[14]         | ALT0    |            |                             |
|     |            |             | sai3.RX_DATA           | ALT1    |            |                             |
|     |            |             | ca7_platform.TRACE[14] | ALT2    |            |                             |
|     |            |             | csi.DATA[22]           | ALT3    |            |                             |
|     |            |             | weim.DATA[6]           | ALT4    |            |                             |
|     |            |             | gpio3.IO[19]           | ALT5    |            |                             |
|     |            |             | src.BT_CFG[14]         | ALT6    |            |                             |
|     |            |             | sim_m.HSIZE[0]         | ALT7    |            |                             |
|     |            |             | usdhc2.DATA4           | ALT8    |            |                             |
|     |            |             | epdc.SDSHR             | ALT9    |            |                             |
| 103 | LCD_DATA15 | D13         | gpio3.IO[20]           | Default | 3.3V       | 47K pull down to gnd on SOM |
|     |            |             | lcdif.DATA[15]         | ALT0    |            |                             |
|     |            |             | sai3.TX_DATA           | ALT1    |            |                             |
|     |            |             | ca7_platform.TRACE[15] | ALT2    |            |                             |
|     |            |             | csi.DATA[23]           | ALT3    |            |                             |
|     |            |             | weim.DATA[7]           | ALT4    |            |                             |
|     |            |             | gpio3.IO[20]           | ALT5    |            |                             |
|     |            |             | src.BT_CFG[15]         | ALT6    |            |                             |
|     |            |             | sim_m.HSIZE[1]         | ALT7    |            |                             |
|     |            |             | usdhc2.DATA5           | ALT8    |            |                             |
| 104 | GND        |             | epdc.GDRL              | ALT9    |            |                             |
| 105 | LCD_DATA16 | C13         | gpio3.IO[21]           | Default | 3.3V       | 47K pull down to gnd on SOM |
|     |            |             | lcdif.DATA[16]         | ALT0    |            |                             |
|     |            |             | uart7.TX               | ALT1    |            |                             |
|     |            |             | ca7_platform.TRACE_CLK | ALT2    |            |                             |
|     |            |             | csi.DATA[1]            | ALT3    |            |                             |
|     |            |             | weim.DATA[8]           | ALT4    |            |                             |
|     |            |             | gpio3.IO[21]           | ALT5    |            |                             |
|     |            |             | src.BT_CFG[24]         | ALT6    |            |                             |
|     |            |             | sim_m.HSIZE[2]         | ALT7    |            |                             |
|     |            |             | usdhc2.DATA6           | ALT8    |            |                             |
|     |            |             | epdc.GDCLK             | ALT9    |            |                             |
| 106 | LCD_DATA17 | B13         | gpio3.IO[22]           | Default | 3.3V       | 47K pull down to gnd on SOM |
|     |            |             | lcdif.DATA[17]         | ALT0    |            |                             |
|     |            |             | uart7.RX               | ALT1    |            |                             |
|     |            |             | ca7_platform.TRACE_CTL | ALT2    |            |                             |
|     |            |             | csi.DATA[0]            | ALT3    |            |                             |
|     |            |             | weim.DATA[9]           | ALT4    |            |                             |
|     |            |             | gpio3.IO[22]           | ALT5    |            |                             |
|     |            |             | src.BT_CFG[25]         | ALT6    |            |                             |
|     |            |             | sim_m.HWRITE           | ALT7    |            |                             |
|     |            |             | usdhc2.DATA7           | ALT8    |            |                             |
|     |            |             | epdc.GDSP              | ALT9    |            |                             |
| 107 | LCD_DATA18 | A13         | gpio3.IO[23]           | Default | 3.3V       | 47K pull down to gnd on SOM |
|     |            |             | lcdif.DATA[18]         | ALT0    |            |                             |
|     |            |             | pwm5.OUT               | ALT1    |            |                             |
|     |            |             | ca7_platform.EVENTO    | ALT2    |            |                             |
|     |            |             | csi.DATA[10]           | ALT3    |            |                             |
|     |            |             | weim.DATA[10]          | ALT4    |            |                             |
|     |            |             | gpio3.IO[23]           | ALT5    |            |                             |
|     |            |             | src.BT_CFG[26]         | ALT6    |            |                             |
|     |            |             | tpsmp.CLK              | ALT7    |            |                             |
|     |            |             | usdhc2.CMD             | ALT8    |            |                             |
|     |            |             | epdc.BDR[1]            | ALT9    |            |                             |
| 108 | LCD_DATA19 | D14         | gpio3.IO[24]           | Default | 3.3V       | 47K pull down to gnd on SOM |
|     |            |             | lcdif.DATA[19]         | ALT0    |            |                             |
|     |            |             | pwm6.OUT               | ALT1    |            |                             |
|     |            |             | global wdog            | ALT2    |            |                             |
|     |            |             | csi.DATA[11]           | ALT3    |            |                             |
|     |            |             | weim.DATA[11]          | ALT4    |            |                             |
|     |            |             | gpio3.IO[24]           | ALT5    |            |                             |
|     |            |             | src.BT_CFG[27]         | ALT6    |            |                             |
|     |            |             | tpsmp.HDATA_DIR        | ALT7    |            |                             |
|     |            |             | usdhc2.CLK             | ALT8    |            |                             |
|     |            |             | epdc.VCOM[0]           | ALT9    |            |                             |
| 109 | LCD_DATA20 | C14         | gpio3.IO[25]           | Default | 3.3V       | 47K pull down to gnd on SOM |
|     |            |             | lcdif.DATA[20]         | ALT0    |            |                             |
|     |            |             | uart8.TX               | ALT1    |            |                             |
|     |            |             | ecspi1.SCLK            | ALT2    |            |                             |
|     |            |             | csi.DATA[12]           | ALT3    |            |                             |
|     |            |             | weim.DATA[12]          | ALT4    |            |                             |

| Num | Pin Name   | BGA289 Ball | Pin Multiplexer      |         | Power Rail | Comment                     |
|-----|------------|-------------|----------------------|---------|------------|-----------------------------|
|     |            |             | Signal Name          | Mode    |            |                             |
|     |            |             | gpio3.IO[25]         | ALT5    |            |                             |
|     |            |             | src.BT_CFG[28]       | ALT6    |            |                             |
|     |            |             | tpsmpt.HTRANS[0]     | ALT7    |            |                             |
|     |            |             | usdhc2.DATA0         | ALT8    |            |                             |
|     |            |             | epdc.VCOM[1]         | ALT9    |            |                             |
| 110 | LCD_DATA21 | B14         | gpio3.IO[26]         | Default | 3.3V       | 47K pull down to gnd on SOM |
|     |            |             | lcdif.DATA[21]       | ALT0    |            |                             |
|     |            |             | uart8.RX             | ALT1    |            |                             |
|     |            |             | ecspi1.SS0           | ALT2    |            |                             |
|     |            |             | csi.DATA[13]         | ALT3    |            |                             |
|     |            |             | weim.DATA[13]        | ALT4    |            |                             |
|     |            |             | gpio3.IO[26]         | ALT5    |            |                             |
|     |            |             | src.BT_CFG[29]       | ALT6    |            |                             |
|     |            |             | tpsmpt.HTRANS[1]     | ALT7    |            |                             |
|     |            |             | usdhc2.DATA1         | ALT8    |            |                             |
| 111 | LCD_DATA22 | A14         | gpio3.IO[27]         | Default | 3.3V       | 47K pull down to gnd on SOM |
|     |            |             | lcdif.DATA[22]       | ALT0    |            |                             |
|     |            |             | mqs.RIGHT            | ALT1    |            |                             |
|     |            |             | ecspi1.MOSI          | ALT2    |            |                             |
|     |            |             | csi.DATA[14]         | ALT3    |            |                             |
|     |            |             | weim.DATA[14]        | ALT4    |            |                             |
|     |            |             | gpio3.IO[27]         | ALT5    |            |                             |
|     |            |             | src.BT_CFG[30]       | ALT6    |            |                             |
|     |            |             | tpsmpt.HDATA[0]      | ALT7    |            |                             |
|     |            |             | usdhc2.DATA2         | ALT8    |            |                             |
| 112 | LCD_DATA23 | B16         | gpio3.IO[28]         | Default | 3.3V       | 47K pull down to gnd on SOM |
|     |            |             | lcdif.DATA[23]       | ALT0    |            |                             |
|     |            |             | mqs.LEFT             | ALT1    |            |                             |
|     |            |             | ecspi1.MISO          | ALT2    |            |                             |
|     |            |             | csi.DATA[15]         | ALT3    |            |                             |
|     |            |             | weim.DATA[15]        | ALT4    |            |                             |
|     |            |             | gpio3.IO[28]         | ALT5    |            |                             |
|     |            |             | src.BT_CFG[31]       | ALT6    |            |                             |
|     |            |             | tpsmpt.HDATA[1]      | ALT7    |            |                             |
|     |            |             | usdhc2.DATA3         | ALT8    |            |                             |
| 113 | GND        |             | epdc.SDCE[3]         | ALT9    |            |                             |
| 114 | LCD_RESET  | E9          | gpio3.IO[4]          | Default | 3.3V       |                             |
|     |            |             | lcdif.RESET          | ALT0    |            |                             |
|     |            |             | lcdif.CS             | ALT1    |            |                             |
|     |            |             | ca7_platform.EVENTI  | ALT2    |            |                             |
|     |            |             | sai3.TX_DATA         | ALT3    |            |                             |
|     |            |             | global wdog          | ALT4    |            |                             |
|     |            |             | gpio3.IO[4]          | ALT5    |            |                             |
|     |            |             | anatop.TESTI[3]      | ALT6    |            |                             |
|     |            |             | sim_m.HADDR[27]      | ALT7    |            |                             |
|     |            |             | ecspi2.SS3           | ALT8    |            |                             |
| 115 | LCD_VSYNC  | C9          | epdc.GDOE            | ALT9    | 3.3V       |                             |
|     |            |             | gpio3.IO[3]          | Default |            |                             |
|     |            |             | lcdif.VSYNC          | ALT0    |            |                             |
|     |            |             | lcdif.BUSY           | ALT1    |            |                             |
|     |            |             | uart4.RTS_B          | ALT2    |            |                             |
|     |            |             | sai3.RX_DATA         | ALT3    |            |                             |
|     |            |             | wdog2.WDOG_B         | ALT4    |            |                             |
|     |            |             | gpio3.IO[3]          | ALT5    |            |                             |
|     |            |             | anatop.TESTI[2]      | ALT6    |            |                             |
|     |            |             | sim_m.HADDR[26]      | ALT7    |            |                             |
| 116 | LCD_HSYNC  | D9          | ecspi2.SS2           | ALT8    | 3.3V       |                             |
|     |            |             | epdc.SDCE[0]         | ALT9    |            |                             |
|     |            |             | gpio3.IO[2]          | Default |            |                             |
|     |            |             | lcdif.HSYNC          | ALT0    |            |                             |
|     |            |             | lcdif.RS             | ALT1    |            |                             |
|     |            |             | uart4.CTS_B          | ALT2    |            |                             |
|     |            |             | sai3.TX_BCLK         | ALT3    |            |                             |
|     |            |             | wdog3.WDOG_RST_B_DEB | ALT4    |            |                             |
|     |            |             | gpio3.IO[2]          | ALT5    |            |                             |
|     |            |             | anatop.TESTI[1]      | ALT6    |            |                             |
|     |            |             | sim_m.HADDR[25]      | ALT7    |            |                             |
|     |            |             | ecspi2.SS1           | ALT8    |            |                             |
|     |            |             | epdc.SDOE            | ALT9    |            |                             |
|     |            |             | gpio3.IO[1]          | Default |            |                             |
|     |            |             | lcdif.ENABLE         | ALT0    |            |                             |
|     |            |             | lcdif.RD_E           | ALT1    |            |                             |

| Num | Pin Name  | BGA289 Ball | Pin Multiplexer                 |         | Power Rail | Comment |
|-----|-----------|-------------|---------------------------------|---------|------------|---------|
|     |           |             | Signal Name                     | Mode    |            |         |
| 117 | LCD_DE    | B8          | uart4.RX                        | ALT2    | 3.3V       |         |
|     |           |             | sai3.TX_SYNC                    | ALT3    |            |         |
|     |           |             | weim.CS3_B                      | ALT4    |            |         |
|     |           |             | gpio3.IO[1]                     | ALT5    |            |         |
|     |           |             | anatop.TESTI[0]                 | ALT6    |            |         |
|     |           |             | sim_m.HADDR[24]                 | ALT7    |            |         |
|     |           |             | ecspi2.RDY                      | ALT8    |            |         |
|     |           |             | epdc.SDLE                       | ALT9    |            |         |
| 118 | LCD_PCLK  | A8          | gpio3.IO[0]                     | Default | 3.3V       |         |
|     |           |             | lcdif.CLK                       | ALT0    |            |         |
|     |           |             | lcdif.WR_RWN                    | ALT1    |            |         |
|     |           |             | uart4.TX                        | ALT2    |            |         |
|     |           |             | sai3.MCLK                       | ALT3    |            |         |
|     |           |             | weim.CS2_B                      | ALT4    |            |         |
|     |           |             | gpio3.IO[0]                     | ALT5    |            |         |
|     |           |             | ocotp_ctrl_wrapper.FUSE_LATCHED | ALT6    |            |         |
|     |           |             | sim_m.HADDR[23]                 | ALT7    |            |         |
|     |           |             | wdog1.WDOG_RST_B_DEB            | ALT8    |            |         |
| 119 | NAND_DQS  | E6          | epdc.SDCLK                      | ALT9    | 3.3V       |         |
|     |           |             | gpio4.IO[16]                    | Default |            |         |
|     |           |             | rawnand.DQS                     | ALT0    |            |         |
|     |           |             | csi.FIELD                       | ALT1    |            |         |
|     |           |             | qspiA_SS0_B                     | ALT2    |            |         |
|     |           |             | pwm5.OUT                        | ALT3    |            |         |
|     |           |             | weim.WAIT                       | ALT4    |            |         |
|     |           |             | gpio4.IO[16]                    | ALT5    |            |         |
|     |           |             | sdma.EXT_EVENT[1]               | ALT6    |            |         |
|     |           |             | tpsmf.HDATA[17]                 | ALT7    |            |         |
| 120 | NAND_CE1  | B5          | spdif.EXT_CLK                   | ALT8    | 3.3V       |         |
|     |           |             | gpio4.IO[14]                    | Default |            |         |
|     |           |             | rawnand.CE1_B                   | ALT0    |            |         |
|     |           |             | usdhc1.DATA6                    | ALT1    |            |         |
|     |           |             | qspiA_DATA[2]                   | ALT2    |            |         |
|     |           |             | ecspi3.MOSI                     | ALT3    |            |         |
|     |           |             | weim.ADDR[18]                   | ALT4    |            |         |
|     |           |             | gpio4.IO[14]                    | ALT5    |            |         |
|     |           |             | anatop.TESTO[14]                | ALT6    |            |         |
| 122 | SD1_DATA3 | A2          | tpsmf.HDATA[16]                 | ALT7    | 3.3V       |         |
|     |           |             | uart3.CTS_B                     | ALT8    |            |         |
|     |           |             | gpio2.IO[21]                    | Default |            |         |
|     |           |             | usdhc1.DATA3                    | ALT0    |            |         |
|     |           |             | gpt2.CAPTURE2                   | ALT1    |            |         |
|     |           |             | sai2.TX_DATA                    | ALT2    |            |         |
|     |           |             | can2.RX                         | ALT3    |            |         |
|     |           |             | weim.ADDR[24]                   | ALT4    |            |         |
|     |           |             | gpio2.IO[21]                    | ALT5    |            |         |
|     |           |             | ccm.CLK02                       | ALT6    |            |         |
| 123 | SD1_DATA2 | B1          | observe_mux.OUT[4]              | ALT7    | 3.3V       |         |
|     |           |             | anatop.OTG2_ID                  | ALT8    |            |         |
|     |           |             | gpio2.IO[20]                    | Default |            |         |
|     |           |             | usdhc1.DATA2                    | ALT0    |            |         |
|     |           |             | gpt2.CAPTURE1                   | ALT1    |            |         |
|     |           |             | sai2.RX_DATA                    | ALT2    |            |         |
|     |           |             | can2.TX                         | ALT3    |            |         |
|     |           |             | weim.ADDR[23]                   | ALT4    |            |         |
|     |           |             | gpio2.IO[20]                    | ALT5    |            |         |
|     |           |             | ccm.CLK01                       | ALT6    |            |         |
| 124 | SD1_DATA1 | B2          | observe_mux.OUT[3]              | ALT7    | 3.3V       |         |
|     |           |             | usb.OTG2_OC                     | ALT8    |            |         |
|     |           |             | gpio2.IO[19]                    | Default |            |         |
|     |           |             | usdhc1.DATA1                    | ALT0    |            |         |
|     |           |             | gpt2.CLK                        | ALT1    |            |         |
|     |           |             | sai2.TX_BCLK                    | ALT2    |            |         |
|     |           |             | can1.RX                         | ALT3    |            |         |
|     |           |             | weim.ADDR[22]                   | ALT4    |            |         |
|     |           |             | gpio2.IO[19]                    | ALT5    |            |         |
|     |           |             | ccm.OUT2                        | ALT6    |            |         |
| 125 | SD1_DATA0 | B3          | observe_mux.OUT[2]              | ALT7    | 3.3V       |         |
|     |           |             | usb.OTG2_PWR                    | ALT8    |            |         |
|     |           |             | gpio2.IO[18]                    | Default |            |         |
|     |           |             | usdhc1.DATA0                    | ALT0    |            |         |
|     |           |             | gpt2.COMPARE3                   | ALT1    |            |         |
|     |           |             | sai2.TX_SYNC                    | ALT2    |            |         |
|     |           |             | can1.TX                         | ALT3    |            |         |

| Num | Pin Name  | BGA289 Ball | Pin Multiplexer    |         | Power Rail | Comment |
|-----|-----------|-------------|--------------------|---------|------------|---------|
|     |           |             | Signal Name        | Mode    |            |         |
| 125 | SD1_DATA0 | B3          | weim.ADDR[21]      | ALT4    | 3.3V       |         |
|     |           |             | gpio2.IO[18]       | ALT5    |            |         |
|     |           |             | ccm.OUT1           | ALT6    |            |         |
|     |           |             | observe_mux.OUT[1] | ALT7    |            |         |
|     |           |             | anatop.OTG1_ID     | ALT8    |            |         |
| 126 | SD1_CMD   | C2          | gpio2.IO[16]       | Default | 3.3V       |         |
|     |           |             | usdhc1.CMD         | ALT0    |            |         |
|     |           |             | gpt2.COMPARE1      | ALT1    |            |         |
|     |           |             | sai2.RX_SYNC       | ALT2    |            |         |
|     |           |             | spdif.OUT          | ALT3    |            |         |
|     |           |             | weim.ADDR[19]      | ALT4    |            |         |
|     |           |             | gpio2.IO[16]       | ALT5    |            |         |
|     |           |             | sdma.EXT_EVENT[0]  | ALT6    |            |         |
| 127 | SD1_CLK   | C1          | tpsmpr.HDATA[18]   | ALT7    | 3.3V       |         |
|     |           |             | usb.OTG1_PWR       | ALT8    |            |         |
|     |           |             | gpio2.IO[17]       | Default |            |         |
|     |           |             | usdhc1.CLK         | ALT0    |            |         |
|     |           |             | gpt2.COMPARE2      | ALT1    |            |         |
|     |           |             | sai2.MCLK          | ALT2    |            |         |
|     |           |             | spdif.IN           | ALT3    |            |         |
|     |           |             | weim.ADDR[20]      | ALT4    |            |         |
| 128 | GND       |             | gpio2.IO[17]       | ALT5    | 3.3V       |         |
|     |           |             | ccm.OUT0           | ALT6    |            |         |
|     |           |             | observe_mux.OUT[0] | ALT7    |            |         |
|     |           |             | usb.OTG1_OC        | ALT8    |            |         |
|     |           |             | gpio4.IO[28]       | Default |            |         |
|     |           |             | csi.DATA[9]        | ALT0    |            |         |
|     |           |             | usdhc2.DATA7       | ALT1    |            |         |
|     |           |             | ecspi1.MISO        | ALT3    |            |         |
| 129 | CSI_DATA7 | D1          | weim.AD[7]         | ALT4    | 3.3V       |         |
|     |           |             | gpio4.IO[28]       | ALT5    |            |         |
|     |           |             | sai1.TX_DATA       | ALT6    |            |         |
|     |           |             | tpsmpr.HDATA[31]   | ALT7    |            |         |
|     |           |             | usdhc1.VSELECT     | ALT8    |            |         |
|     |           |             | esai.TX0           | ALT9    |            |         |
|     |           |             | gpio4.IO[27]       | Default |            |         |
|     |           |             | csi.DATA[8]        | ALT0    |            |         |
| 130 | CSI_DATA6 | D2          | usdhc2.DATA6       | ALT1    | 3.3V       |         |
|     |           |             | ecspi1.MOSI        | ALT3    |            |         |
|     |           |             | weim.AD[6]         | ALT4    |            |         |
|     |           |             | gpio4.IO[27]       | ALT5    |            |         |
|     |           |             | sai1.RX_DATA       | ALT6    |            |         |
|     |           |             | tpsmpr.HDATA[30]   | ALT7    |            |         |
|     |           |             | usdhc1.RESET_B     | ALT8    |            |         |
|     |           |             | esai.TX5_RX0       | ALT9    |            |         |
| 131 | CSI_DATA5 | D3          | gpio4.IO[26]       | Default | 3.3V       |         |
|     |           |             | csi.DATA[7]        | ALT0    |            |         |
|     |           |             | usdhc2.DATA5       | ALT1    |            |         |
|     |           |             | ecspi1.SS0         | ALT3    |            |         |
|     |           |             | weim.AD[5]         | ALT4    |            |         |
|     |           |             | gpio4.IO[26]       | ALT5    |            |         |
|     |           |             | sai1.TX_BCLK       | ALT6    |            |         |
|     |           |             | tpsmpr.HDATA[29]   | ALT7    |            |         |
| 132 | CSI_DATA4 | D4          | usdhc1.CD_B        | ALT8    | 3.3V       |         |
|     |           |             | esai.TX_CLK        | ALT9    |            |         |
|     |           |             | gpio4.IO[25]       | Default |            |         |
|     |           |             | csi.DATA[6]        | ALT0    |            |         |
|     |           |             | usdhc2.DATA4       | ALT1    |            |         |
|     |           |             | ecspi1.SCLK        | ALT3    |            |         |
|     |           |             | weim.AD[4]         | ALT4    |            |         |
|     |           |             | gpio4.IO[25]       | ALT5    |            |         |
| 133 | CSI_DATA3 | E1          | sai1.TX_SYNC       | ALT6    | 3.3V       |         |
|     |           |             | tpsmpr.HDATA[28]   | ALT7    |            |         |
|     |           |             | usdhc1.WP          | ALT8    |            |         |
|     |           |             | esai.TX_FS         | ALT9    |            |         |
|     |           |             | gpio4.IO[24]       | Default |            |         |
|     |           |             | csi.DATA[5]        | ALT0    |            |         |
|     |           |             | usdhc2.DATA3       | ALT1    |            |         |
|     |           |             | ecspi2.MISO        | ALT3    |            |         |
|     |           |             | weim.AD[3]         | ALT4    | 3.3V       |         |
|     |           |             | gpio4.IO[24]       | ALT5    |            |         |
|     |           |             | sai1.RX_BCLK       | ALT6    |            |         |
|     |           |             | tpsmpr.HDATA[27]   | ALT7    | 3.3V       |         |
|     |           |             | uart5.CTS_B        | ALT8    |            |         |

| Num | Pin Name   | BGA289 Ball | Pin Multiplexer           |         | Power Rail | Comment |
|-----|------------|-------------|---------------------------|---------|------------|---------|
|     |            |             | Signal Name               | Mode    |            |         |
| 134 | CSI_DATA2  | E2          | esai.RX_CLK               | ALT9    | 3.3V       |         |
|     |            |             | gpio4.IO[23]              | Default |            |         |
|     |            |             | csi.DATA[4]               | ALT0    |            |         |
|     |            |             | usdhc2.DATA2              | ALT1    |            |         |
|     |            |             | ecspi2.MOSI               | ALT3    |            |         |
|     |            |             | weim.AD[2]                | ALT4    |            |         |
|     |            |             | gpio4.IO[23]              | ALT5    |            |         |
|     |            |             | sai1.RX_SYNC              | ALT6    |            |         |
|     |            |             | tpsmpr.HDATA[26]          | ALT7    |            |         |
|     |            |             | uart5.RTS_B               | ALT8    |            |         |
|     |            |             | esai.RX_FS                | ALT9    |            |         |
| 135 | CSI_DATA1  | E3          | gpio4.IO[22]              | Default | 3.3V       |         |
|     |            |             | csi.DATA[3]               | ALT0    |            |         |
|     |            |             | usdhc2.DATA1              | ALT1    |            |         |
|     |            |             | ecspi2.SS0                | ALT3    |            |         |
|     |            |             | weim.AD[1]                | ALT4    |            |         |
|     |            |             | gpio4.IO[22]              | ALT5    |            |         |
|     |            |             | sai1.MCLK                 | ALT6    |            |         |
|     |            |             | tpsmpr.HDATA[25]          | ALT7    |            |         |
|     |            |             | uart5.RX                  | ALT8    |            |         |
|     |            |             | esai.RX_HF_CLK            | ALT9    |            |         |
| 136 | CSI_DATA0  | E4          | gpio4.IO[21]              | Default | 3.3V       |         |
|     |            |             | csi.DATA[2]               | ALT0    |            |         |
|     |            |             | usdhc2.DATA0              | ALT1    |            |         |
|     |            |             | ecspi2.SCLK               | ALT3    |            |         |
|     |            |             | weim.AD[0]                | ALT4    |            |         |
|     |            |             | gpio4.IO[21]              | ALT5    |            |         |
|     |            |             | src.INT_BOOT              | ALT6    |            |         |
|     |            |             | tpsmpr.HDATA[24]          | ALT7    |            |         |
|     |            |             | uart5.TX                  | ALT8    |            |         |
|     |            |             | esai.TX_HF_CLK            | ALT9    |            |         |
| 137 | CSI_VSYNC  | F2          | gpio4.IO[19]              | Default | 3.3V       |         |
|     |            |             | csi.VSYNC                 | ALT0    |            |         |
|     |            |             | usdhc2.CLK                | ALT1    |            |         |
|     |            |             | i2c2.SDA                  | ALT3    |            |         |
|     |            |             | weim.RW                   | ALT4    |            |         |
|     |            |             | gpio4.IO[19]              | ALT5    |            |         |
|     |            |             | pwm7.OUT                  | ALT6    |            |         |
|     |            |             | tpsmpr.HDATA[22]          | ALT7    |            |         |
|     |            |             | uart6.RTS_B               | ALT8    |            |         |
|     |            |             | esai.TX4_RX1              | ALT9    |            |         |
| 138 | CSI_HSYNC  | F3          | gpio4.IO[20]              | Default | 3.3V       |         |
|     |            |             | csi.HSYNC                 | ALT0    |            |         |
|     |            |             | usdhc2.CMD                | ALT1    |            |         |
|     |            |             | i2c2.SCL                  | ALT3    |            |         |
|     |            |             | weim.LBA_B                | ALT4    |            |         |
|     |            |             | gpio4.IO[20]              | ALT5    |            |         |
|     |            |             | pwm8.OUT                  | ALT6    |            |         |
|     |            |             | tpsmpr.HDATA[23]          | ALT7    |            |         |
|     |            |             | uart6.CTS_B               | ALT8    |            |         |
|     |            |             | esai.TX1                  | ALT9    |            |         |
| 139 | CSI_PIXCLK | E5          | gpio4.IO[18]              | Default | 3.3V       |         |
|     |            |             | csi.PIXCLK                | ALT0    |            |         |
|     |            |             | usdhc2.WP                 | ALT1    |            |         |
|     |            |             | rawnand.CE3_B             | ALT2    |            |         |
|     |            |             | i2c1.SCL                  | ALT3    |            |         |
|     |            |             | weim.OE                   | ALT4    |            |         |
|     |            |             | gpio4.IO[18]              | ALT5    |            |         |
|     |            |             | snvs_hp_wrapper.VIO_5     | ALT6    |            |         |
|     |            |             | tpsmpr.HDATA[21]          | ALT7    |            |         |
|     |            |             | uart6.RX                  | ALT8    |            |         |
| 140 | CSI_MCLK   | F5          | gpio4.IO[17]              | Default | 3.3V       |         |
|     |            |             | csi.MCLK                  | ALT0    |            |         |
|     |            |             | usdhc2.CD_B               | ALT1    |            |         |
|     |            |             | rawnand.CE2_B             | ALT2    |            |         |
|     |            |             | i2c1.SDA                  | ALT3    |            |         |
|     |            |             | weim.CS0_B                | ALT4    |            |         |
|     |            |             | gpio4.IO[17]              | ALT5    |            |         |
|     |            |             | snvs_hp_wrapper.VIO_5_CTL | ALT6    |            |         |
|     |            |             | tpsmpr.HDATA[20]          | ALT7    |            |         |
|     |            |             | uart6.TX                  | ALT8    |            |         |
|     |            |             | esai.TX3_RX2              | ALT9    |            |         |