

# SoM Pinout: AM261 SOM (Rev E1)

MCU SoM Standard Revision: 0.81

## Connector J1

MCU Function	MCU Pin	SoM Standard	Pin	Pin	SoM Standard	MCU Pin	MCU Function
EPWM3_B	EPWM3_B	PWMB	1	2	PWMB	EPWM7_B	EPWM7_B
EPWM3_A	EPWM3_A	PWMA	3	4	PWMA	EPWM7_A	EPWM7_A
EPWM2_B	EPWM2_B	PWM3B (b,d)	5	6	PWMB	EPWM6_B	EPWM6_B
EPWM2_A	EPWM2_A	PWM3A (b,d)	7	8	PWMA	EPWM6_A	EPWM6_A
EPWM1_B	EPWM1_B	PWM2B (b,d)	9	10	PWMB	EPWM5_B	EPWM5_B
EPWM1_A	EPWM1_A	PWM2A (b,d)	11	12	PWMA	EPWM5_A	EPWM5_A
EPWM0_B	EPWM0_B	PWM1B (b,d)	13	14	PWMB	EPWM4_B	EPWM4_B
EPWM0_A	EPWM0_A	PWM1A (b,d)	15	16	PWMA	EPWM4_A	EPWM4_A
-	GND	GND	17	18	SVD_IN (b)	SVD0	-
TDI	TDI	JTAG-TDI (a,b)	19	20	SVD_IN (b)	SVD0	-
TDO	TDO	JTAG-TDO (a,b)	21	22	JTAG-TCK (a,b)	TCK	TCK
I2CD_SCL	I2CD_SCL	JTAG_I2CSCL (a,b)	23	24	JTAG-TMS (a,b)	TMS	TMS
I2CD_SDA	I2CD_SDA	JTAG_I2CSDA (a,b)	25	26	15W_PD (b,e)	15W_PD	TUSB320 15W detection enable
-	-	LPM_WAKE	27	28	3V3_OUT/SOM_DETECT (a,b)	VDD_3V3_LDO2	VDD_3V3_LDO2
PORz	PORz	XRSn	29	30	PMIC_WAKE1	PMIC_WKUP2	INH signal from CAN transceiver
UART0_TXD	UART0_TXD	UARTTX (a,b)	31	32	ERRORSTS/PMIC_SAFE_OUT1	PMIC_SAFE_OUT1	PMIC_SAFE_OUT1
UART0_RXD	UART0_RXD	UARTRX (a,b)	33	34	SVD_OUT_CAN	VDD_SVD0_LDO3	VDD_SVD0_LDO3
LIN1_TXD	LIN1_TXD	CANTX/LINTX	35	36	MMCO_CMD	MMCO_CMD	MCAN0_TX
LIN1_RXD	LIN1_RXD	CANRX/LINRX	37	38	CANRX	MMCO_CLK	MCAN0_RX
SPI3_CS0	I2C1_SCL	SPIPTE	39	40	ENCODER4/QEPH	-	-
SPI3_CLK	I2C1_SDA	SPICLK (c)	41	42	ENCODER3/QEPS	-	-
SPI3_D1	UART0_CTSN	SPIPOCI (c)	43	44	ENCODER2/QEPB	-	-
SPI3_D0	UART0_RTSN	SPIPICO (c)	45	46	ENCODER1/QEPA	-	-
-	-	Rsv	47	48	SD2-C	GPIO82	GPIO82
FSITX0_CLK	SPIO_CLK	FSITX-CLK	49	50	SD2-D	SDFM0_D3	SDFM0_D3
FSITX0_DATA1	SPIO_D1	FSITX-D1	51	52	SD2-D	GPIO1	GPIO1
FSITX0_DATA0	SPIO_D0	FSITX-D0	53	54	SD1-C	SDFM0_CLK0	SDFM0_CLK0
FSIRX0_CLK	SPI1_CLK	FSIRX-CLK	55	56	SD1-D	SDFM0_D2	SDFM0_D2
FSIRX0_DATA1	SPI1_D1	FSIRX-D1	57	58	SD1-D	SDFM0_D1	SDFM0_D1
FSIRX0_DATA0	SPI1_D0	FSIRX-D0	59	60	SD1-D	SDFM0_D0	SDFM0_D0
J1_GND				J1_GND			
I2C2_SCL	MMCO_WP	I2CSCL	61	62	SENT/PMBUS_SDA (e)	-	-
I2C2_SDA	MMCO_CD	I2CSDA	63	64	SENT/PMBUS_SCL (e)	-	-
EQEP0_INDEX	EQEP0_INDEX	ENCODER4/QEPI	65	66	SENT/PMBUS_ALERT (e)	-	-
EQEP0_STROBE	EQEP0_STROBE	ENCODER3/QEPS	67	68	PMBUS_CTL	-	-
EQEP0_B	EQEP0_B	ENCODER2/QEPB	69	70	GPIO	EXT_REFCLK0	GPIO121
EQEP0_A	EQEP0_A	ENCODER1/QEPA	71	72	GPIO	SDFM0_CLK1	GPIO124
GPIO126	SDFM0_CLK2	GPIO	73	74	GPIO	GPIO138	GPIO138
GPIO73	GPIO73	GPIO	75	76	GPIO	-	-
-	GND	GND	77	78	GND	GND	-
-	-	Rsv	79	80	Rsv	-	-
-	-	Rsv	81	82	Rsv	-	-
-	-	VREFHI2	83	84	Rsv	-	-
ADC_VREFHI_G0_G1	ADC_VREFHI_G0_G1	VREFHI1	85	86	Rsv	-	-
ADC_VREFLO	ADC_VREFLO_G0_G1	VREFLO	87	88	Rsv	-	-
-	-	ADC	89	90	ADCIN15	-	-
-	-	ADC	91	92	ADCIN14	ADC_CAL0	Analog
-	-	ADC	93	94	ADC	-	-
-	-	ADC	95	96	ADC	-	-
-	-	ADC4	97	98	ADC4	-	-
-	-	ADC4	99	100	ADC4	-	-
Analog	ADC2_AIN5	ADC3	101	102	ADC4	-	-
Analog	ADC2_AIN4	ADC3	103	104	ADC4	-	-
Analog	ADC2_AIN1	ADC3	105	106	ADC3	ADC2_AIN3	Analog
Analog	ADC2_AIN0	ADC3	107	108	ADC3	ADC2_AIN2	Analog
Analog	ADC1_AIN3	ADC2	109	110	ADC2	ADC1_AIN5	Analog
Analog	ADC1_AIN2	ADC2	111	112	ADC2	ADC1_AIN4	Analog
Analog	ADC0_AIN5	ADC1	113	114	ADC2	ADC1_AIN1	Analog
Analog	ADC0_AIN4	ADC1	115	116	ADC2	ADC1_AIN0	Analog
Analog	ADC0_AIN1	ADC1 (and/or DACB) (b,d)	117	118	ADC1 (b,d)	ADC0_AIN3	Analog
Analog	ADC0_AIN0 / DAC_OUT	ADC1 (and/or DACA) (b,d)	119	120	ADC1 (b,d)	ADC0_AIN2	Analog

### Standard Notes:

- Pin also connects to XDS110ISO-EVM through emulator header.
- Pin also connects to XDS110ISO-EVM through J1.
- Pin also connects to DAC on XDS110ISO-EVM through emulator header.
- Pin also connects to debug header on XDS110ISO-EVM through J1.
- 5V tolerant input pin.

AM261 SOM (Rev E1) Notes

## Connector J2

MCU Function	MCU Pin	SoM Standard	Pin	Pin	SoM Standard	MCU Pin	MCU Function
Clk Buffer	RGMI11_ETH1_CLK	ETH_PHY_CLK	1	2	ETH_TXD3	RGMI11_TD3	RGMI11_TD3
RGMI11_TX_CTL	RGMI11_TX_CTL	ETH_TX_EN	3	4	ETH_TXD2	RGMI11_TD2	RGMI11_TD2
IO Expander GPIO output	IOEXP_OUT_P6	ETH_TX_ERR	5	6	ETH_TXD1	RGMI11_TD1	RGMI11_TD1
RGMI11_INTn	PR1_PRU1_GPO0	ETH_INT	7	8	ETH_TXD0	RGMI11_TD0	RGMI11_TD0
IO Expander GPIO output	IOEXP_OUT_P7	ETH_COL	9	10	ETH_TX_CLK	RGMI11_TXC	RGMI11_TXC
RGMI11_RST	RGMI11_RST (IO Expander)	ETH_CRS	11	12	ETH_RMII_CLK	-	-
RGMI11_RX_CTL	RGMI11_RX_CTL	ETH_RX_DV	13	14	ETH_RXD3	RGMI11_RD3	RGMI11_RD3
MII1_RX_ER	MII1_RX_ER	ETH_RX_ERR	15	16	ETH_RXD2	RGMI11_RD2	RGMI11_RD2
MDIO_MDC	GPIO42	ETH_MDIO_CLK	17	18	ETH_RXD1	RGMI11_RD1	RGMI11_RD1
MDIO0_MDIO	MDIO0_MDIO	ETH_MDIO_DATA	19	20	ETH_RXD0	RGMI11_RD0	RGMI11_RD0
GPIO137	GPIO137	CANRX	21	22	ETH_RX_CLK	RGMI11_RXC	RGMI11_RXC
GPIO136	GPIO136	CANTX	23	24	Rsv	-	-
GPIO74	GPIO74	SD-D	25	26	UARTTX	LIN2_RXD	UART2_RXD
-	-	SD-C	27	28	UARTTX	LIN2_TXD	UART2_TXD
-	-	SD-D	29	30	SPIPCO	SPI0_D1	SPI0_D1
-	-	SD-C	31	32	SPIPOCI	SPI0_D0	SPI0_D0
-	-	SD-D	33	34	SPICLK	SPI0_CLK	SPI0_CLK
-	-	SD-C	35	36	SPIPTE	SPI0_CS0	SPI0_CS0
-	-	Rsv	37	38	USB_DP	USB0_DP	USB0_DP
-	-	Rsv	39	40	USB_DM	USB0_DM	USB0_DM
-	-	Rsv	41	42	Rsv	-	-
-	-	Rsv	43	44	Rsv	-	-
-	-	PWMB	45	46	PWMB	-	-
-	-	PWMA	47	48	PWMA	-	-
-	-	PWMB	49	50	PWMB	GPIO64	GPIO64
-	-	PWMA	51	52	PWMA	GPIO63	GPIO63
GPIO70	GPIO70	PWMB	53	54	PWMB	EPWM9_B	EPWM9_B
GPIO69	GPIO69	PWMA	55	56	PWMA	EPWM9_A	EPWM9_A
GPIO68	GPIO68	PWMB	57	58	PWMB	EPWM8_B	EPWM8_B
GPIO67	GPIO67	PWMA	59	60	PWMA	EPWM8_A	EPWM8_A
J2_GND				J2_GND			
-	-	Rsv	61	62	Rsv	-	-
-	-	Rsv	63	64	Rsv	-	-
-	-	Rsv	65	66	Rsv	-	-
-	-	Rsv	67	68	Rsv	-	-
-	-	Rsv	69	70	Rsv	-	-
-	-	Rsv	71	72	Rsv	-	-
-	-	ADC	73	74	ADC	-	-
-	-	ADC	75	76	ADC	-	-
-	-	ADC	77	78	ADC	-	-
-	-	ADC	79	80	ADC	-	-
-	-	ADC	81	82	ADC	-	-
-	-	ADC	83	84	ADC	-	-
-	-	ADC	85	86	ADC	-	-
-	-	ADC	87	88	ADC	-	-
-	-	ADC	89	90	ADC	-	-
-	-	ADC	91	92	ADC	-	-
-	-	ADC	93	94	ADC	-	-
-	-	ADC	95	96	ADC	-	-
-	-	ADC	97	98	ADC	-	-
-	-	ADC	99	100	ADC	-	-
-	-	ADC	101	102	ADC	-	-
-	-	ADC	103	104	ADC	-	-
-	-	ADC	105	106	ADC	-	-
-	-	ADC	107	108	ADC	-	-
-	-	ADC	109	110	ADC	-	-
-	-	ADC	111	112	ADC	-	-
-	-	ADC/R1_A3	113	114	ADC/R1_A1	-	-
-	-	ADC/R1_A2	115	116	ADC/R1_A0	-	-
-	-	ADC/R0_A3	117	118	ADC/R0_A1	-	-
-	-	ADC/R0_A2	119	120	ADC/R0_A0	-	-

### Standard Notes:

- Pin also connects to XDS110ISO-EVM through emulator header.
- Pin also connects to XDS110ISO-EVM through J1.
- Pin also connects to DAC on XDS110ISO-EVM through emulator header.
- Pin also connects to debug header on XDS110ISO-EVM through J1.
- 5V tolerant input pin.

## Connector J3

MCU Function	MCU Pin	SoM Standard	Pin	Pin	SoM Standard	MCU Pin	MCU Function
-	-	Rsv	1	2	PWMA	-	-
-	-	Rsv	3	4	PWMB	-	-
-	-	Rsv	5	6	PWMA	-	-
-	-	Rsv	7	8	PWMB	-	-
-	-	Rsv	9	10	PWMA	-	-
-	-	Rsv	11	12	PWMB	-	-
-	-	Rsv	13	14	PWMA	-	-
-	-	Rsv	15	16	PWMB	-	-
-	-	Rsv	17	18	PWMA	-	-
-	-	Rsv	19	20	PWMB	-	-
-	-	Rsv	21	22	PWMA	-	-
-	-	Rsv	23	24	PWMB	-	-
-	-	Rsv	25	26	PWMA	-	-
SV0	SV0	Rsv	27	28	PWMB	-	-
PMIC_SAFE_OUT2	PMIC_SAFE_OUT2	PMIC_SAFE_OUT2	29	30	PWMA	-	-
PMIC_COMP2_IN-	PMIC_COMP2_IN-	PMIC_COMP2_IN-	31	32	PWMB	-	-
PMIC_COMP2_IN+	PMIC_COMP2_IN+	PMIC_COMP2_IN+	33	34	PWMA	-	-
PMIC_COMP1_IN-	PMIC_COMP1_IN-	PMIC_COMP1_IN-	35	36	PWMB	-	-
PMIC_COMP1_IN+	PMIC_COMP1_IN+	PMIC_COMP1_IN+	37	38	PWMA	-	-
-	-	PMIC_WAKE2	39	40	PWMB	-	-
-	-	Rsv	41	42	PWMA	-	-
-	-	Rsv	43	44	PWMB	-	-
-	-	Rsv	45	46	PWMA	-	-
-	-	Rsv	47	48	PWMB	-	-
-	-	Rsv	49	50	Rsv	-	-
-	-	Rsv	51	52	Rsv	-	-
-	-	Rsv	53	54	CANTX	MMCO_D1	MCAN1_TX
-	-	Rsv	55	56	CANRX	MMCO_D0	MCAN1_RX
GPIO15	GPIO15	GPIO	57	58	UARTTX	-	-
EXT_VMON2	EXT_VMON2	GPIO	59	60	UARTRX	-	-
-	-	FSIRX-D0	61	62	SPIPTE	-	-
-	-	FSIRX-D1	63	64	SPICLK	-	-
-	-	FSIRX-CLK	65	66	SPIPOCI	PRO_PRU1_GPIO19	GPIO119
-	-	FSITX-D0	67	68	SPIPICO	PRO_PRU1_GPIO18	GPIO120
-	-	FSITX-D1	69	70	I2CSCL	MMCO_D0	I2C1_SCL
-	-	FSITX-CLK	71	72	I2CSDA	MMCO_D2	I2C1_SDA
-	-	Rsv	73	74	Rsv	-	-
-	-	Rsv	75	76	ECAT_RX1_CLK/CANRX	PRO_PRU1_GPIO6	ICSSM_MII1_RXCLK
-	-	Rsv	77	78	ECAT_RX1_DATA0/CANTX	PRO_PRU1_GPIO0	ICSSM_MII1_RXD0
-	-	Rsv	79	80	ECAT_RX1_DATA1/CANRX	PRO_PRU1_GPIO1	ICSSM_MII1_RXD1
-	-	Rsv	81	82	ECAT_RX1_DATA2/CANTX	PRO_PRU1_GPIO2	ICSSM_MII1_RXD2
ICSSM_MII1_CRS	PRO_PRU1_GPIO10	ECAT_LED_LINK0_ACTIVE	83	84	ECAT_RX1_DATA3/CANRX	PRO_PRU1_GPIO3	ICSSM_MII1_RXD3
ICSSM_MII1_COL	PRO_PRU1_GPIO9	ECAT_LED_LINK1_ACTIVE/LINRX	85	86	Rsv	-	-
ICSSM_MII0_RXLINK	PRO_PRU0_GPIO8	ECAT_PHY0_LINKSTATUS/LINTX	87	88	ECAT_TX1_CLK/CANTX	PRO_PRU1_GPIO16	ICSSM_MII1_TXCLK
ICSSM_MII1_RXLINK	PRO_PRU1_GPIO8	ECAT_PHY1_LINKSTATUS/LINRX	89	90	ECAT_TX1_DATA0/CANRX	PRO_PRU1_GPIO11	ICSSM_MII1_TXD0
ICSSM_MII1_TXEN	PRO_PRU1_GPIO15	ECAT_TX1_EN/LINTX	91	92	ECAT_TX1_DATA1/CANTX	PRO_PRU1_GPIO12	ICSSM_MII1_TXD1
ICSSM_MII1_RXDV	PRO_PRU1_GPIO4	ECAT_RX1_DV/LINRX	93	94	ECAT_TX1_DATA2/CANRX	PRO_PRU1_GPIO13	ICSSM_MII1_TXD2
ICSSM_MII1_RXER	PRO_PRU1_GPIO5	ECAT_RX1_ERR/LINTX	95	96	ECAT_TX1_DATA3/CANTX	PRO_PRU1_GPIO14	ICSSM_MII1_TXD3
PRO_MDIO0_MDC(GPIO86)	PRO_MDIO0_MDC	ECAT_MDIO_CLK/LINRX	97	98	Rsv	-	-
PRO_MDIO0_MDIO(GPIO85)	PRO_MDIO0_MDIO	ECAT_MDIO_DATA/LINTX	99	100	ECAT_RX0_CLK/ETH_RX_CLK	PRO_PRU0_GPIO6	ICSSM_MII0_RXCLK
IO Expander on SOM	MII_RST#	ECAT_PHY_RST/ETH_MDIO_DATA	101	102	ECAT_RX0_DATA0/ETH_RXD0	PRO_PRU0_GPIO0	ICSSM_MII0_RXD0
-	-	ECAT_LED_RUN/ETH_MDIO_CLK	103	104	ECAT_RX0_DATA1/ETH_RXD1	PRO_PRU0_GPIO1	ICSSM_MII0_RXD1
ICSSM_MII0_COL	PRO_PRU0_GPIO9	ECAT_LED_ERR/ETH_RX_ERR	105	106	ECAT_RX0_DATA2/ETH_RXD2	PRO_PRU0_GPIO2	ICSSM_MII0_RXD2
-	-	ECAT_I2C_SDA/ETH_RX_DV	107	108	ECAT_RX0_DATA3/ETH_RXD3	PRO_PRU0_GPIO3	ICSSM_MII0_RXD3
ICSSM_MII0_CRS	PRO_PRU0_GPIO10	ECAT_I2C_SCL/ETH_CRS	109	110	ETH_RMII_CLK	-	-
ICSSM_MII0_RXER	PRO_PRU0_GPIO5	ECAT_RX0_ERR/ETH_COL	111	112	ECAT_TX0_CLK/ETH_TX_CLK	PRO_PRU0_GPIO16	ICSSM_MII0_TXCLK
ICSSM_MII0_RXDV	PRO_PRU0_GPIO4	ECAT_RX0_DV/ETH_INT	113	114	ECAT_TX0_DATA0/ETH_TXD0	PRO_PRU0_GPIO11	ICSSM_MII0_TXD0
ICSSM_MII0_TXEN	PRO_PRU0_GPIO15	ECAT_TX0_ENA/ETH_TX_ERR	115	116	ECAT_TX0_DATA1/ETH_TXD1	PRO_PRU0_GPIO12	ICSSM_MII0_TXD1
Clock buffer	PRO_PRU0_REF_CLK	ECAT_PHY0_CLK/ETH_TX_EN	117	118	ECAT_TX0_DATA2/ETH_TXD2	PRO_PRU0_GPIO13	ICSSM_MII0_TXD2
Clock buffer	PRO_PRU1_REF_CLK	ECAT_PHY1_CLK/ETH_PHY_CLK	119	120	ECAT_TX0_DATA3/ETH_TXD3	PRO_PRU0_GPIO14	ICSSM_MII0_TXD3

### Standard Notes:

- Pin also connects to XDS110ISO-EVM through emulator header.
- Pin also connects to XDS110ISO-EVM through J1.
- Pin also connects to DAC on XDS110ISO-EVM through emulator header.
- Pin also connects to debug header on XDS110ISO-EVM through J1.
- 5V tolerant input pin.

AM261 SOM (Rev E1) Notes

Connector J4

MCU Function	MCU Pin	SoM Standard	Pin	Pin	SoM Standard	MCU Pin	MCU Function
0	0		Rsv 1	2	Rsv	0	0
0	0		Rsv 3	4	Rsv	0	0
0	0		Rsv 5	6	Rsv	0	0
0	0		Rsv 7	8	Rsv	0	0
0	0		Rsv 9	10	Rsv	0	0
0	0		Rsv 11	12	Rsv	0	0
0	0		Rsv 13	14	Rsv	0	0
0	0		Rsv 15	16	Rsv	0	0
0	0		Rsv 17	18	Rsv	0	0
0	0		Rsv 19	20	Rsv	0	0
0	0		Rsv 21	22	Rsv	0	0
0	0		Rsv 23	24	Rsv	0	0
0	0		Rsv 25	26	Rsv	0	0
0	0		Rsv 27	28	Rsv	0	0
0	0		Rsv 29	30	Rsv	0	0
0	0		Rsv 31	32	Rsv	0	0
0	0		Rsv 33	34	Rsv	0	0
0	0		Rsv 35	36	Rsv	0	0
0	0		Rsv 37	38	Rsv	0	0
0	0		Rsv 39	40	Rsv	0	0
0	0		Rsv 41	42	Rsv	0	0
0	0		Rsv 43	44	Rsv	0	0
0	0		Rsv 45	46	Rsv	0	0
0	0		Rsv 47	48	Rsv	0	0
0	0		Rsv 49	50	Rsv	0	0
0	0		Rsv 51	52	Rsv	0	0
0	0		Rsv 53	54	Rsv	0	0
0	0		Rsv 55	56	Rsv	0	0
0	0		Rsv 57	58	Rsv	0	0
0	0		Rsv 59	60	Rsv	0	0
0	0		Rsv 61	62	Rsv	0	0
0	0		Rsv 63	64	Rsv	0	0
0	0		Rsv 65	66	Rsv	0	0
0	0		Rsv 67	68	Rsv	0	0
0	0		Rsv 69	70	Rsv	0	0
0	0		Rsv 71	72	Rsv	0	0
0	0		Rsv 73	74	Rsv	0	0
0	0		Rsv 75	76	Rsv	0	0
0	0		Rsv 77	78	Rsv	0	0
0	0		Rsv 79	80	Rsv	0	0
0	0		Rsv 81	82	Rsv	0	0
0	0		Rsv 83	84	Rsv	0	0
0	0		Rsv 85	86	Rsv	0	0
0	0		Rsv 87	88	Rsv	0	0
0	0		Rsv 89	90	Rsv	0	0
0	0		Rsv 91	92	Rsv	0	0
0	0		Rsv 93	94	Rsv	0	0
0	0		Rsv 95	96	Rsv	0	0
0	0		Rsv 97	98	Rsv	0	0
0	0		Rsv 99	100	Rsv	0	0
0	0		Rsv 101	102	Rsv	0	0
0	0		Rsv 103	104	Rsv	0	0
0	0		Rsv 105	106	Rsv	0	0
0	0		Rsv 107	108	Rsv	0	0
0	0		Rsv 109	110	Rsv	0	0
0	0		Rsv 111	112	Rsv	0	0
0	0		Rsv 113	114	Rsv	0	0
0	0		Rsv 115	116	Rsv	0	0
0	0		Rsv 117	118	Rsv	0	0
0	0		Rsv 119	120	Rsv	0	0

Standard Notes:  
a. Pin also connects to XDS110ISO-EVM through emulator header.  
b. Pin also connects to XDS110ISO-EVM through J1.  
c. Pin also connects to DAC on XDS110ISO-EVM through emulator header.  
d. Pin also connects to debug header on XDS110ISO-EVM through J1.  
e. 5V tolerant input pin.