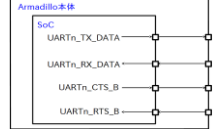


Armadillo-IoT ゲートウェイ G3
CON1(アドオンインターフェース1) マルチプレクス表

ピン番号	信号名	CON2 向き	I.MX7D ピン名	リモット駆動時の信号状態			マルチプレクス機能 (I.MX7Dの番号名で表記)																								RS232C RS00
				機能	In/Out	Pull-Up/Pull-Down	GPIO	SD	UART1 ^[a]	UART2 ^[a]	UART3 ^[a]	UART4 ^[a]	CSP11	CSP12	CSP13	CSP14	I2C1	I2C2	I2C3	CAN1 ^[c]	CAN2 ^[c]	SAI2 ^[d]	SAI3 ^[d]	PWM ^[d]	SIM	KPP ^[d]	etc				
1	GND																													GND	
2	GND																													GND	
3	GPIO3_IO0	○	LCD_CLK	GPIO	In	100kΩ Pull-Down	GPIO3_IO0			UART2_RX_DATA						ECSP14_MISO															
4	GPIO3_IO1	○	LCD_ENABLE	GPIO	In	100kΩ Pull-Down	GPIO3_IO1			UART2_TX_DATA						ECSP14_MOSI															
5	GPIO3_IO2	○	LCD_HSYNC	GPIO	In	100kΩ Pull-Down	GPIO3_IO2			UART2_RTS_B						ECSP14_SCLK															
6	GPIO3_IO3	○	LCD_VSYNC	GPIO	In	100kΩ Pull-Down	GPIO3_IO3			UART2_CTS_B						ECSP14_SSD															
7	GPIO4_IO2	○	UART2_RXD	GPIO	In	100kΩ Pull-Down	GPIO4_IO2			UART2_RX_DATA			ECSP11_SS3										SAI3_RX_BCLK								
8	GPIO4_IO3	○	UART2_TXD	GPIO	In	100kΩ Pull-Down	GPIO4_IO3			UART2_TX_DATA			ECSP11_RDY										SAI3_RX_DATA0								
9	GPIO4_IO4	○	UART3_RXD	GPIO	In	100kΩ Pull-Down	GPIO4_IO4			UART3_RX_DATA			ECSP11_MISO										SAI3_RX_SYNC								
10	GPIO4_IO5	○	UART3_TXD	GPIO	In	100kΩ Pull-Down	GPIO4_IO5	SD2_LCTL		UART3_TX_DATA			ECSP11_MOSI										SAI3_TX_BCLK								
11	GPIO4_IO6	○	UART3_RTS	GPIO	In	100kΩ Pull-Down	GPIO4_IO6			UART3_RTS_B			ECSP11_SCLK										SAI3_TX_DATA0								
12	GPIO4_IO7	○	UART3_CTS	GPIO	In	100kΩ Pull-Down	GPIO4_IO7			UART3_CTS_B			ECSP11_SSD										SAI3_TX_SYNC								
13	GPIO4_IO10	○	I2C2_SCL	GPIO	In	100kΩ Pull-Down	GPIO4_IO10					UART4_RX_DATA				ECSP13_SCLK															
14	GPIO4_IO11	○	I2C2_SDA	GPIO	In	100kΩ Pull-Down	GPIO4_IO11					UART4_TX_DATA				ECSP13_SSD															
15	GPIO5_IO11	○	SD2_RESET_B	GPIO	In	100kΩ Pull-Down	GPIO5_IO11	SD2_RESET								ECSP13_RDY							SAI2_MCLK						USB_OTG2_ID		
16	GPIO6_IO19	○	SAI2_TXFS	GPIO	In	100kΩ Pull-Down	GPIO6_IO19		UART1_CTS_B			UART4_RX_DATA				ECSP13_MISO							SAI2_TX_SYNC								
17	GPIO6_IO20	○	SAI2_TXC	GPIO	In	100kΩ Pull-Down	GPIO6_IO20		UART1_RTS_B			UART4_TX_DATA				ECSP13_MOSI							SAI2_TX_BCLK								
18	GPIO6_IO22	○	SAI2_TXD	GPIO	In	100kΩ Pull-Down	GPIO6_IO22			UART2_RTS_B		UART4_RTS_B				ECSP13_SSD							SAI2_TX_DATA0				KPP_ROW7				
19	GPIO6_IO21	○	SAI2_RXD	GPIO	In	100kΩ Pull-Down	GPIO6_IO21			UART2_CTS_B		UART4_CTS_B				ECSP13_SCLK							SAI2_RX_DATA0				KPP_COL7				
20	GPIO4_IO8	○	I2C1_SCL	GPIO	In	100kΩ Pull-Down	GPIO4_IO8					UART4_CTS_B				ECSP13_MISO		I2C1_SCL			FLEXCAN1_RX									I2C1_SCL (EEPROM_SCL)	
21	GPIO4_IO9	○	I2C1_SDA	GPIO	In	100kΩ Pull-Down	GPIO4_IO9					UART4_RTS_B				ECSP13_MOSI		I2C1_SDA			FLEXCAN1_TX									I2C1_SDA (EEPROM_SDA)	
22	GPIO4_IO12	○	I2C3_SCL	GPIO	In	100kΩ Pull-Down	GPIO4_IO12															FLEXCAN2_RX									
23	GPIO4_IO13	○	I2C3_SDA	GPIO	In	100kΩ Pull-Down	GPIO4_IO13															FLEXCAN2_TX									
24	GPIO3_IO25		LCD_DATA20	GPIO	In	100kΩ Pull-Down	GPIO3_IO25																								
25	GPIO3_IO26		LCD_DATA21	GPIO	In	100kΩ Pull-Down	GPIO3_IO26																								
26	GND																													GND	
27	GND																													GND	
28	VCC_3.3V_IO																													VCC_3.3V_IO	
29	VCC_3.3V																														
30	VCC_5V																														
31	DETECT_CON1				Out	1kΩ Pull-Down, 固定																									EEPROM_E0
32	GPIO7_IO12		ENET1_TX_CLK	GPIO	In	100kΩ Pull-Down	GPIO7_IO12																								CCM_EXT_CLK1
33	GPIO7_IO13		ENET1_RX_CLK	GPIO	In	100kΩ Pull-Down	GPIO7_IO13																								CCM_EXT_CLK2
34	GPIO7_IO7		ENET1_TD1	GPIO	In	100kΩ Pull-Down	GPIO7_IO7						ECSP12_RDY												PWM4_OUT		KPP_COL0				
35	GPIO7_IO2		ENET1_RD2	GPIO	In	100kΩ Pull-Down	GPIO7_IO2		UART1_RX_DATA				ECSP12_SCLK								FLEXCAN1_RX						KPP_ROW2				
36	GPIO7_IO8		ENET1_TD2	GPIO	In	100kΩ Pull-Down	GPIO7_IO8						ECSP12_MISO									FLEXCAN2_RX									
37	GPIO7_IO3		ENET1_RD3	GPIO	In	100kΩ Pull-Down	GPIO7_IO3		UART1_TX_DATA				ECSP12_MOSI								FLEXCAN1_TX						KPP_COL2				
38	GPIO7_IO0		ENET1_RD0	GPIO	In	100kΩ Pull-Down	GPIO7_IO0		UART1_CTS_B																PWM1_OUT		KPP_ROW3			UART1_CTS_B (RTS)	
39	GPIO7_IO1		ENET1_RD1	GPIO	In	100kΩ Pull-Down	GPIO7_IO1		UART1_RTS_B																PWM2_OUT		KPP_COL3			UART1_RTS_B (CTS)	
40	GPIO4_IO1		UART1_TXD	GPIO	In	100kΩ Pull-Down	GPIO4_IO1					ECSP11_SS2						I2C1_SDA					SAI3_MCLK							UART1_TX_DATA (TXD)	
41	GPIO4_IO0		UART1_RXD	GPIO	In	100kΩ Pull-Down	GPIO4_IO0		UART1_RX_DATA			ECSP11_SS1						I2C1_SCL												UART1_RX_DATA (RXD)	
42	GPIO7_IO4		ENET1_RX_CTL	GPIO	In	100kΩ Pull-Down	GPIO7_IO4						ECSP12_SS1																	GPIO7_IO4 (FORCEOFF*)	
43	GPIO7_IO5		ENET1_RXC	GPIO	In	100kΩ Pull-Down	GPIO7_IO5						ECSP12_SS2																		
44	GPIO7_IO6		ENET1_TD0	GPIO	In	100kΩ Pull-Down	GPIO7_IO6						ECSP12_SS3																		
45	GPIO7_IO10		ENET1_TX_CTL	GPIO	In	100kΩ Pull-Down	GPIO7_IO10																		PWM3_OUT		KPP_ROW0				
46	GPIO7_IO11		ENET1_TXC	GPIO	In	100kΩ Pull-Down	GPIO7_IO11																								
47	GPIO5_IO12		SD2_CLK	GPIO	In	100kΩ Pull-Down	GPIO5_IO12	SD2_CLK															SAI2_RX_SYNC							GPIO7_IO11 (RI)	
48	GPIO5_IO13		SD2_CMD	GPIO	In	100kΩ Pull-Down	GPIO5_IO13	SD2_CMD															SAI2_RX_BCLK							GPIO5_IO12 (DCD)	
49	GPIO5_IO14		SD2_DATA0	GPIO	In	100kΩ Pull-Down	GPIO5_IO14	SD2_DATA0			UART4_RX_DATA												SAI2_RX_DATA0			SIM2_PORT1_TRXD				GPIO5_IO13 (DSR)	
50	GPIO7_IO9		ENET1_TD3	GPIO	In	100kΩ Pull-Down	GPIO7_IO9						ECSP12_SSD									FLEXCAN2_TX								GPIO5_IO14 (DTR)	
51	GPIO5_IO15		SD2_DATA1	GPIO	In	100kΩ Pull-Down	GPIO5_IO15	SD2_DATA1			UART4_TX_DATA												SAI2_TX_BCLK				SIM2_PORT1_RST_B				
52	GPIO5_IO16		SD2_DATA2	GPIO	In	100kΩ Pull-Down	GPIO5_IO16	SD2_DATA2			UART4_CTS_B												SAI2_TX_SYNC				SIM2_PORT1_SVEN				
53	GPIO5_IO17		SD2_DATA3	GPIO	In	100kΩ Pull-Down	GPIO5_IO17	SD2_DATA3			UART4_RTS_B												SAI2_TX_DATA0				SIM2_PORT1_PD				
54	GND																													GND	
55	PMIC_ONOFF				In	47kΩ Pull-Up (3V), 固定																									
56	CON1_USB_VBUS																														
57	CON1_USB_VBUS																														
58	GND																													GND	
59	CON1_USB_HS_DP		USB_OTG2_DP	USB																											
60	CON1_USB_HS_DM		USB_OTG2_DN	USB																											

[a] CON2と信号が共有されています。拡張基板の設計の際は、信号の衝突にご注意ください。

[b] 出力状態の2/2ソフトウェアでの入出力方向は次の通りです。



[c] ソフトウェア未対応 (2016年6月現在)

[d] アットマークテクノ/製アドオンモジュールで想定している機能設定です。CON1とCON2が同一ピン配置になるように、使用するピンと機能を制限しています。

Armadillo-IoT ゲートウェイ G3
CON1(アドオンインターフェース1) マルチプレクス表

ピン番号	信号名	CON2 向き	I.MX7D ピン名	Armadillo-IoT アドオンモジュールの使用機能 (I.MX7Dの信号名で表記)						CON1, CON2共通機能※
				RS232C/422/485 RS01	RS485 RS02	BLE BT00	EnOcean EH00	Wi-SUN WS00	DIDOAD DA00	
1	GND			GND	GND	GND	GND	GND	GND	GND
2	GND			GND	GND	GND	GND	GND	GND	GND
3	GPIO3_IO0	○	LCD_CLK							NC
4	GPIO3_IO1	○	LCD_ENABLE							NC
5	GPIO3_IO2	○	LCD_HSYNC							NC
6	GPIO3_IO3	○	LCD_VSYNC							NC
7	GPIO4_IO2	○	UART2_RXD							NC
8	GPIO4_IO3	○	UART2_TXD							NC
9	GPIO4_IO4	○	UART3_RXD							NC
10	GPIO4_IO5	○	UART3_TXD							NC
11	GPIO4_IO6	○	UART3_RTS							NC
12	GPIO4_IO7	○	UART3_CTS							NC
13	GPIO4_IO10	○	I2C2_SCL							NC
14	GPIO4_IO11	○	I2C2_SDA							NC
15	GPIO5_IO11	○	SD2_RESET_B							NC
16	GPIO6_IO19	○	SAI2_TXFS							NC
17	GPIO6_IO20	○	SAI2_TXC							NC
18	GPIO6_IO22	○	SAI2_TXD							NC
19	GPIO6_IO21	○	SAI2_RXD							NC
20	GPIO4_IO8	○	I2C1_SCL	I2C1_SCL (EEPROM_SCL)	I2C1_SCL (EEPROM_SCL)	I2C1_SCL (EEPROM_SCL)	I2C1_SCL (EEPROM_SCL)	I2C1_SCL (EEPROM_SCL)	I2C1_SCL (EEPROM_SCL)	EEPROM_SCL
21	GPIO4_IO9	○	I2C1_SDA	I2C1_SDA (EEPROM_SDA)	I2C1_SDA (EEPROM_SDA)	I2C1_SDA (EEPROM_SDA)	I2C1_SDA (EEPROM_SDA)	I2C1_SDA (EEPROM_SDA)	I2C1_SDA (EEPROM_SDA)	EEPROM_SDA
22	GPIO4_IO12	○	I2C3_SCL							NC
23	GPIO4_IO13	○	I2C3_SDA							NC
24	GPIO3_IO25		LCD_DATA20						GPIO3_IO25 (DO1)	I2C_SCL/GPIO
25	GPIO3_IO26		LCD_DATA21						GPIO3_IO26 (DO2)	I2C_SDA/GPIO
26	GND			GND	GND	GND	GND	GND	GND	GND
27	GND			GND	GND	GND	GND	GND	GND	GND
28	VCC_3.3V_IO			VCC_3.3V_IO	VCC_3.3V_IO	VCC_3.3V_IO	VCC_3.3V_IO	VCC_3.3V_IO	VCC_3.3V_IO	VCC_3.3V_IO
29	VCC_3.3V									VCC_3.3V
30	VCC_5V									VCC_5V
31	DETECT_CON1			EEPROM_E0	EEPROM_E0	EEPROM_E0	EEPROM_E0	EEPROM_E0	EEPROM_E0	EEPROM_E0
32	GPIO7_IO12		ENET1_TX_CLK	GPIO7_IO12 (HALF/FULL)	GPIO7_IO12 (RS485_DE)		GPIO7_IO12 (PROG_EN)			GPIO0
33	GPIO7_IO13		ENET1_RX_CLK		GPIO7_IO13 (RS485_RE)					GPIO1
34	GPIO7_IO7		ENET1_TD1							SPI_RDY/GPIO
35	GPIO7_IO2		ENET1_RD2				ECSPi2_SCLK (SCLKDIO1)		ECSPi2_SCLK (ADC_CLK)	SPI_SCLK/GPIO
36	GPIO7_IO8		ENET1_TD2				ECSPi2_MISO (RSDADIO3)		ECSPi2_MISO (ADC_DOUT)	SPI_MISO/GPIO
37	GPIO7_IO3		ENET1_RD3				ECSPi2_MOSI (WSDADIO2)		ECSPi2_MOSI (ADC_DIN)	SPI_MOSI/GPIO
38	GPIO7_IO0		ENET1_RD0	UART1_CTS_B (RTS)		UART1_CTS_B (CTS/PIO5)		UART1_CTS_B (CTS)		UART_DTE_RTS(Output)/GPIO
39	GPIO7_IO1		ENET1_RD1	UART1_RTS_B (CTS)		UART1_RTS_B (RTS/PIO6)		UART1_RTS_B (RTS)		UART_DTE_CTS(Input)/GPIO
40	GPIO4_IO1		UART1_TXD	UART1_TX_DATA (TXD)	UART1_TX_DATA (UART_RXD)	UART1_TX_DATA (AVD06/RXD)	UART1_TX_DATA (RXD)			UART_DTE_TXD(Output)/GPIO
41	GPIO4_IO0		UART1_RXD	UART1_RX_DATA (RXD)	UART1_RX_DATA (UART_RXD)	UART1_RX_DATA (AVD07/TXD)	UART1_RX_DATA (TXD)			UART_DTE_RXD(Input)/GPIO
42	GPIO7_IO4		ENET1_RX_CTL	GPIO7_IO4 (RS485/RS232*)		GPIO7_IO4 (WAKE_HW)	GPIO7_IO4 (RESET)	GPIO7_IO4 (RESET)		GPIO2
43	GPIO7_IO5		ENET1_RXC	GPIO7_IO5 (ISOLATOR_VE1)		GPIO7_IO5 (WAKE_SW)		GPIO7_IO5 (NMIX)	GPIO7_IO5 (ISOLATOR_VE1)	GPIO3
44	GPIO7_IO6		ENET1_TD0							NC
45	GPIO7_IO10		ENET1_TX_CTL							NC
46	GPIO7_IO11		ENET1_TXC			GPIO7_IO11 (CMD/MLDP)				GPIO4
47	GPIO5_IO12		SD2_CLK						GPIO5_IO12 (DI2)	GPIO5
48	GPIO5_IO13		SD2_CMD						GPIO5_IO13 (DI1)	GPIO6
49	GPIO5_IO14		SD2_DATA0							GPIO7
50	GPIO7_IO9		ENET1_TD3				ECSPi2_SS0 (SCSEDIO0)		GPIO7_IO9 (CS*/SHDN)	SPI_SS/GPIO
51	GPIO5_IO15		SD2_DATA1							NC
52	GPIO5_IO16		SD2_DATA2							NC
53	GPIO5_IO17		SD2_DATA3							NC
54	GND			GND	GND	GND	GND	GND	GND	GND
55	PMIC_ONOFF									PMIC_ONOFF
56	CON1_USB_VBUS									USB_VBUS
57	CON1_USB_VBUS									USB_VBUS
58	GND			GND	GND	GND	GND	GND	GND	GND
59	CON1_USB_HS_DP		USB_OTG2_DP							USB_DP
60	CON1_USB_HS_DM		USB_OTG2_DN							USB_DM