

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 共通 <sup>[a]</sup>	I.MX7D ピン名	リセット解除後の信号状態				マルチプレクス機能 (I.MX7Dの信号名で表記)																				
				機能	In/Out	Pull-Up/Pull-Down	GPIO	SD	UART1 <sup>[b]</sup>	UART2 <sup>[b]</sup>	UART3 <sup>[b]</sup>	UART4 <sup>[b]</sup>	CSP1	CSP2	CSP3	CSP4	I2C1	I2C2	I2C3	CAN1 <sup>[c]</sup>	CAN2 <sup>[c]</sup>	SAI2 <sup>[d]</sup>	SAI3 <sup>[d]</sup>	PWM <sup>[d]</sup>	SIM	KPP <sup>[d]</sup>	etc	
1	GND																											
2	GND																											
3	GPIO3_I00	○	LCD_CLK	GPIO	In	100kΩ Pull-Down	GPIO3_I00				UART2_RX_DATA					ECSP14_MISO												
4	GPIO3_I01	○	LCD_ENABLE	GPIO	In	100kΩ Pull-Down	GPIO3_I01				UART2_TX_DATA					ECSP14_MOSI												
5	GPIO3_I02	○	LCD_HSYNC	GPIO	In	100kΩ Pull-Down	GPIO3_I02				UART2_RTS_B					ECSP14_SCLK												
6	GPIO3_I03	○	LCD_VSYNC	GPIO	In	100kΩ Pull-Down	GPIO3_I03				UART2_CTS_B					ECSP14_SS0												
7	GPIO4_I02	○	UART2_RXD	GPIO	In	100kΩ Pull-Down	GPIO4_I02				UART2_RX_DATA			ECSP11_SS3				I2C2_SCL							SAI3_RX_BCLK			
8	GPIO4_I03	○	UART2_TXD	GPIO	In	100kΩ Pull-Down	GPIO4_I03				UART2_TX_DATA			ECSP11_RDY				I2C2_SDA							SAI3_RX_DATA0			
9	GPIO4_I04	○	UART3_RXD	GPIO	In	100kΩ Pull-Down	GPIO4_I04				UART3_RX_DATA			ECSP11_MISO											SAI3_RX_SYNC			
10	GPIO4_I05	○	UART3_TXD	GPIO	In	100kΩ Pull-Down	GPIO4_I05	SD2_LCTL			UART3_TX_DATA			ECSP11_MOSI											SAI3_TX_BCLK			
11	GPIO4_I06	○	UART3_RTS	GPIO	In	100kΩ Pull-Down	GPIO4_I06				UART3_RTS_B			ECSP11_SCLK											SAI3_TX_DATA0			
12	GPIO4_I07	○	UART3_CTS	GPIO	In	100kΩ Pull-Down	GPIO4_I07				UART3_CTS_B			ECSP11_SS0											SAI3_TX_SYNC			
13	GPIO4_I010	○	I2C2_SCL	GPIO	In	100kΩ Pull-Down	GPIO4_I010				UART4_RX_DATA					ECSP13_SCLK			I2C2_SCL									
14	GPIO4_I011	○	I2C2_SDA	GPIO	In	100kΩ Pull-Down	GPIO4_I011				UART4_TX_DATA					ECSP13_SS0			I2C2_SDA									
15	GPIO5_I011	○	SD2_RESET_B	GPIO	In	100kΩ Pull-Down	GPIO5_I011	SD2_RESET								ECSP13_RDY												USB_OTG2_ID
16	GPIO6_I019	○	SAI2_TXFS	GPIO	In	100kΩ Pull-Down	GPIO6_I019		UART1_CTS_B			UART4_RX_DATA				ECSP13_MISO									SAI2_TX_SYNC			
17	GPIO6_I020	○	SAI2_TXC	GPIO	In	100kΩ Pull-Down	GPIO6_I020		UART1_RTS_B			UART4_TX_DATA				ECSP13_MOSI									SAI2_TX_BCLK			
18	GPIO6_I022	○	SAI2_TXD	GPIO	In	100kΩ Pull-Down	GPIO6_I022			UART2_RTS_B		UART4_RTS_B				ECSP13_SS0									SAI2_TX_DATA0			KPP_ROW7
19	GPIO6_I021	○	SAI2_RXD	GPIO	In	100kΩ Pull-Down	GPIO6_I021			UART2_CTS_B		UART4_CTS_B				ECSP13_SCLK									SAI2_RX_DATA0			KPP_COL7
20	GPIO4_I08	○	I2C1_SCL	GPIO	In	100kΩ Pull-Down	GPIO4_I08					UART4_CTS_B				ECSP13_MISO		I2C1_SCL			FLEXCAN1_RX							
21	GPIO4_I09	○	I2C1_SDA	GPIO	In	100kΩ Pull-Down	GPIO4_I09					UART4_RTS_B				ECSP13_MOSI		I2C1_SDA			FLEXCAN1_TX							
22	GPIO4_I012	○	I2C3_SCL	GPIO	In	100kΩ Pull-Down	GPIO4_I012												I2C3_SCL			FLEXCAN2_RX						
23	GPIO4_I013	○	I2C3_SDA	GPIO	In	100kΩ Pull-Down	GPIO4_I013												I2C3_SDA			FLEXCAN2_TX						
24	GPIO3_I025		LCD_DATA20	GPIO	In	100kΩ Pull-Down	GPIO3_I025												I2C3_SCL									
25	GPIO3_I026		LCD_DATA21	GPIO	In	100kΩ Pull-Down	GPIO3_I026												I2C3_SDA									
26	GND																											
27	GND																											
28	VCC_3.3V_I0																											
29	VCC_3.3V																											
30	VCC_5V																											
31	DETECT_CON1				Out	1kΩ Pull-Down, 固定																						
32	GPIO7_I012		ENET1_TX_CLK	GPIO	In	100kΩ Pull-Down	GPIO7_I012																					COM_EXT_CLK1
33	GPIO7_I013		ENET1_RX_CLK	GPIO	In	100kΩ Pull-Down	GPIO7_I013																					COM_EXT_CLK2
34	GPIO7_I07		ENET1_TD1	GPIO	In	100kΩ Pull-Down	GPIO7_I07							ECSP12_RDY											PWM4_OUT		KPP_COL0	
35	GPIO7_I02		ENET1_RD2	GPIO	In	100kΩ Pull-Down	GPIO7_I02		UART1_RX_DATA					ECSP12_SCLK						FLEXCAN1_RX							KPP_ROW2	
36	GPIO7_I08		ENET1_TD2	GPIO	In	100kΩ Pull-Down	GPIO7_I08							ECSP12_MISO							FLEXCAN2_RX							
37	GPIO7_I03		ENET1_RD3	GPIO	In	100kΩ Pull-Down	GPIO7_I03		UART1_TX_DATA					ECSP12_MOSI							FLEXCAN1_TX						KPP_COL2	
38	GPIO7_I00		ENET1_RD0	GPIO	In	100kΩ Pull-Down	GPIO7_I00		UART1_CTS_B										I2C3_SCL						PWM1_OUT		KPP_ROW3	
39	GPIO7_I01		ENET1_RD1	GPIO	In	100kΩ Pull-Down	GPIO7_I01		UART1_RTS_B										I2C3_SDA						PWM2_OUT		KPP_COL3	
40	GPIO4_I01		UART1_TXD	GPIO	In	100kΩ Pull-Down	GPIO4_I01		UART1_TX_DATA					ECSP11_SS2				I2C1_SDA							SAI3_MCLK			
41	GPIO4_I00		UART1_RXD	GPIO	In	100kΩ Pull-Down	GPIO4_I00		UART1_RX_DATA					ECSP11_SS1				I2C1_SCL										
42	GPIO7_I04		ENET1_RX_CTL	GPIO	In	100kΩ Pull-Down	GPIO7_I04							ECSP12_SS1													KPP_ROW1	
43	GPIO7_I05		ENET1_RXC	GPIO	In	100kΩ Pull-Down	GPIO7_I05							ECSP12_SS2													KPP_COL1	
44	GPIO7_I06		ENET1_TD0	GPIO	In	100kΩ Pull-Down	GPIO7_I06							ECSP12_SS3											PWM3_OUT		KPP_ROW0	
45	GPIO7_I010		ENET1_TX_CTL	GPIO	In	100kΩ Pull-Down	GPIO7_I010																					
46	GPIO7_I011		ENET1_TXC	GPIO	In	100kΩ Pull-Down	GPIO7_I011																					
47	GPIO5_I012		SD2_CLK	GPIO	In	100kΩ Pull-Down	GPIO5_I012	SD2_CLK																	SAI2_RX_SYNC			
48	GPIO5_I013		SD2_CMD	GPIO	In	100kΩ Pull-Down	GPIO5_I013	SD2_CMD																	SAI2_RX_BCLK			SIM2_PORT1_TRXD
49	GPIO5_I014		SD2_DATA0	GPIO	In	100kΩ Pull-Down	GPIO5_I014	SD2_DATA0				UART4_RX_DATA													SAI2_RX_DATA0			SIM2_PORT1_CLK
50	GPIO7_I09		ENET1_TD3	GPIO	In	100kΩ Pull-Down	GPIO7_I09							ECSP12_SS0								FLEXCAN2_TX						
51	GPIO5_I015		SD2_DATA1	GPIO	In	100kΩ Pull-Down	GPIO5_I015	SD2_DATA1				UART4_TX_DATA													SAI2_TX_BCLK			SIM2_PORT1_RST_B
52	GPIO5_I016		SD2_DATA2	GPIO	In	100kΩ Pull-Down	GPIO5_I016	SD2_DATA2				UART4_CTS_B													SAI2_TX_SYNC			SIM2_PORT1_SVEN
53	GPIO5_I017		SD2_DATA3	GPIO	In	100kΩ Pull-Down	GPIO5_I017	SD2_DATA3				UART4_RTS_B													SAI2_TX_DATA0			SIM2_PORT1_PD
54	GND																											
55	PMIC_ONOFF				In	47kΩ Pull-Up (3V), 固定																						
56	CON1_USB_VBUS																											
57	CON1_USB_VBUS																											
58	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] DTE/DCEモードによらず、I.MX7DのUART信号の入出力方向は固定です。TX\_DATAとCTS\_Bは出力、RX\_DATA&RTS\_Bは入力としてご利用ください。  
[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。

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ピン番号	信号名	CON2 共通 <sup>[1]</sup>	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 <sup>[1]</sup>
				RS232C RS00	RS232C/422/485 RS01	RS485 RS02	BLE BT00	EnOcean EN00	Wi-SUN WS00	DIDOAD DA00	
1	GND			GND	GND	GND	GND	GND	GND	GND	GND
2	GND			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)	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)	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 (D01)	I2C_SCL/GPIO
25	GPIO3_IO26		LCD_DATA21							GPIO3_IO26 (D02)	I2C_SDA/GPIO
26	GND			GND	GND	GND	GND	GND	GND	GND	GND
27	GND			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	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	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 (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 (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 (TXD)	UART1_TX_DATA (UART_TXD)	UART1_TX_DATA (UART_RX)	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 (RXD)	UART1_RX_DATA (UART_RXD)	UART1_RX_DATA (UART_TX)	UART1_RX_DATA (AVD07/TXD)	UART1_RX_DATA (TXD)		UART_DTE_RXD(Input)/GPIO
42	GPIO7_IO4		ENET1_RX_CTL	GPIO7_IO4 (FORCEOFF*)	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 (RI)			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	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	GND
59	CON1_USB_HS_DP		USB_OTG2_DP								USB_DP
60	CON1_USB_HS_DM		USB_OTG2_DN								USB_DM