

# efusA7UL GPIO Reference Card

# V1.5

# 11.04.2018

## Pin layout for Board Rev. 1.2x

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	efus-SINTF V1.20
1	V5					
2	V5					
3	V5					
4	V5					
5	V5					
6	V5					
7	GND					
8	GND					
9	VBAT					
10	V33_OUT					
11	USBD_CHD	USB DEVICE	-		-	J22_9
12	/RESET_IN	RESET	-		-	(J22_10)
13	-					
14	/RESET_OUT	GPIO	-	-	-	J22_8
15	UART_C_RXD <sup>(2)</sup>	UART5	GPIO4_IO22	IO	118	(J16_5 / J16_6)
16	SD_A_WP <sup>(3)</sup>	SD1	GPIO1_IO18	IO	18	-
17	UART_C_TXD <sup>(2)</sup>	UART5	GPIO4_IO21	IO	117	(J16_5 / J16_6)
18	SD_A_CD <sup>(3)</sup>	SD1	GPIO1_IO19	IO	19	Micro-SD J24
19	UART_C_RTS <sup>(2)</sup>	UART5	GPIO4_IO24	IO	120	(J16_5 / J16_6)
20	SD_A_DAT2 <sup>(3)</sup>	SD1	GPIO2_IO20	IO	52	Micro-SD J24_1
21	UART_C_CTS <sup>(2)</sup>	UART5	GPIO4_IO23	IO	119	-
22	SD_A_DAT3 <sup>(3)</sup>	SD1	GPIO2_IO21	IO	53	Micro-SD J24_2
23	-					
24	SD_A_CMD <sup>(3)</sup>	SD1	GPIO2_IO16	IO	48	Micro-SD J24_3
25	PWM_A	PWM4	GPIO1_IO05	IO	5	J22_32
26	SD_A_VCC	V33	-	O	-	Micro-SD J24_4
27	GND					
28	SD_A_CLK <sup>(3)</sup>	SD1	GPIO2_IO17	IO	49	Micro-SD J24_5
29	CAN_A_TX	FLEXCAN1	GPIO1_IO26	IO	26	(J13_3 / J13_4)
30	GND					
31	CAN_A_RX	FLEXCAN1	GPIO1_IO27	IO	27	(J13_3 / J13_4)
32	SD_A_DAT0 <sup>(3)</sup>	SD1	GPIO2_IO18	IO	50	Micro-SD J24_7
33	GND					
34	SD_A_DAT1 <sup>(3)</sup>	SD1	GPIO2_IO19	IO	51	Micro-SD J24_8
35	CAN_B_TX	FLEXCAN2	GPIO1_IO22	IO	22	J13_55 / (J13_56)
36	-					
37	CAN_B_RX	FLEXCAN2	GPIO1_IO23	IO	23	J13_56 / (J13_55)
38	-					
39	GND					
40	-					
41	-					
42	-					

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	efus-SINTF V1.20
43	-					
44	-					
45	GND		-			
46	GND		-			
47	-					
48	/EXT_PROG	BOOT_MODE0	-	-	-	J22_57
49	-					
50	SPI_B_MISO	SPI2	GPIO1_IO31	IO	31	J22_23
51	GND					
52	SPI_B_MOSI	SPI2	GPIO1_IO30	IO	30	J22_24
53	-					
54	SPI_B_CLK	SPI2	GPIO1_IO28	IO	28	J22_25
55	-					
56	SPI_B_CS1	SPI2	GPIO1_IO29	IO	29	J22_26
57	GND					
58	-					
59	-					
60	SPI_B_IRQ1	GPIO	GPIO5_IO07	IO	135	J22_28
61	-					
62	-					
63	GND					
64	GND					
65	SD_B_DAT2 <sup>(4)</sup>	SD2	GPIO3_IO27	IO	91	SD J23_9
66	SPI_A_MISO	SPI1	GPIO4_IO28	IO	124	J22_33
67	SD_B_DAT3 <sup>(4)</sup>	SD2	GPIO3_IO28	IO	92	SD J23_1
68	SPI_A_MOSI	SPI1	GPIO4_IO27	IO	123	J22_34
69	SD_B_CMD <sup>(4)</sup>	SD2	GPIO3_IO23	IO	87	SD J23_2
70	SPI_A_CLK	SPI1	GPIO4_IO25	IO	121	J22_35
71	SD_B_VCC	V33	-	-	-	SD J23_4
72	SPI_A_CS1	SPI1	GPIO4_IO26	IO	122	J22_36
73	SD_B_CLK <sup>(4)</sup>	SD2	GPIO3_IO24	IO	88	SD J23_5
74	-					
75	GND					
76	SPI_A_IRQ1	GPIO	GPIO5_IO06	IO	134	J22_38
77	SD_B_DAT0 <sup>(4)</sup>	SD2	GPIO3_IO25	IO	89	SD J23_7
78	-					
79	SD_B_DAT1 <sup>(4)</sup>	SD2	GPIO3_IO26	IO	90	SD J23_8
80	GND					
81	SD_B_WP <sup>(5)</sup>	SD1	GPIO1_IO18	IO	18	SD J23_11
82	I2C_B_SDA	I2C2	GPIO4_IO19	IO	115	J22_45
83	SD_B_CD <sup>(5)</sup>	SD1	GPIO1_IO19	IO	19	SD J23_12
84	I2C_B_SCL	I2C2	GPIO4_IO20	IO	116	J22_46
85	GND					

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J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	efus-SINTF V1.20
86	I2C_B_IRQ	GPIO	GPIO5_IO01	IO	129	J22_48
87	BL_CTRL	PWM1	GPIO1_IO08	IO	8	J3_10
88	/I2C_B_RST	GPIO	GPIO5_IO03	IO	131	J22_47
89	BL_VBL_ON	GPIO	GPIO5_IO05	IO	133	J3_9 / (J3_7 / J3_8)
90	GND		-			
91	GND		-			
92	UART_A_RXD	UART1	GPIO1_IO17	IO	17	(J14_3)
93	LCD_CLK	LCDIF	GPIO3_IO00	IO	64	J2X_4
94	UART_A_TXD	UART1	GPIO1_IO16	IO	16	(J14_5)
95	GND		-			
96	UART_D_RXD	UART6	GPIO4_IO18	IO	114	J22_14
97	LCD_HSYNC	LCDIF	GPIO3_IO02	IO	66	J2X_5
98	UART_D_TXD	UART6	GPIO4_IO17	IO	113	J22_16
99	LCD_VSYNC	LCDIF	GPIO3_IO03	IO	67	J2X_6
100	GND		-			
101	GND		-			
102	UART_B_RXD	UART2	GPIO1_IO21	IO	21	(J15_3)
103	LCD_R2	LCDIF	GPIO3_IO05	IO	69	J2X_8
104	UART_B_TXD	UART2	GPIO1_IO20	IO	20	(J15_5)
105	LCD_R3	LCDIF	GPIO3_IO06	IO	70	J2X_9
106	UART_B_RTS	UART2	GPIO1_IO24	IO	24	(J15_4)
107	LCD_R4	LCDIF	GPIO3_IO07	IO	71	J2X_10
108	UART_B_CTS	UART2	GPIO1_IO25	IO	25	(J15_6)
109	LCD_R5	LCDIF	GPIO3_IO08	IO	72	J2X_11
110	GND		-			
111	LCD_R6	LCDIF	GPIO3_IO09	IO	73	J2X_12
112	I2S_MCLK	SAI2	GPIO1_IO11	-	11	-
113	LCD_R7	LCDIF	GPIO3_IO10	IO	74	J2X_13
114	GND		-			
115	GND		-			
116	I2S_LRCLK	SAI2	GPIO1_IO12	IO	12	-
117	LCD_G2	LCDIF	GPIO3_IO11	IO	75	J2X_15
118	GND		-			
119	LCD_G3	LCDIF	GPIO3_IO12	IO	76	J2X_16
120	I2S_SCLK	SAI2	GPIO1_IO13	IO	13	-
121	LCD_G4	LCDIF	GPIO3_IO13	IO	77	J2X_17
122	GND		-			
123	LCD_G5	LCDIF	GPIO3_IO14	IO	78	J2X_18
124	I2S_DOUT	SAI2	GPIO1_IO14	IO	14	-
125	LCD_G6	LCDIF	GPIO3_IO15	IO	79	J2X_19
126	I2S_DIN	SAI2	GPIO1_IO15	IO	15	-
127	LCD_G7	LCDIF	GPIO3_IO16	IO	80	J2X_20
128	GND		-			

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	efus-SINTF V1.20
129	GND		-			
130	I2C_C_SDA	GPIO	GPIO05_IO08	IO	136	J18_3 / J20_14
131	LCD_B2	LCDIF	GPIO3_IO17	IO	81	J2X_22
132	I2C_C_SCL	GPIO	GPIO05_IO09	IO	137	J18_5 / J20_13
133	LCD_B3	LCDIF	GPIO3_IO18	IO	82	J2X_23
134	DVI_DDC_VOUT	V33	-	-	-	-
135	LCD_B4	LCDIF	GPIO3_IO19	IO	83	J2X_24
136	GND		-			
137	LCD_B5	LCDIF	GPIO3_IO20	IO	84	J2X_25
138	LVDS_DATA2_P(1)	LVDS	-	-	-	-
139	LCD_B6	LCDIF	GPIO3_IO21	IO	85	J2X_26
140	LVDS_DATA2_N(1)	LVDS	-	-	-	-
141	LCD_B7	LCDIF	GPIO3_IO22	IO	86	J2X_27
142	LVDS_DATA1_P(1)	LVDS	-	-	-	-
143	GND		-			
144	LVDS_DATA1_N(1)	LVDS	-	-	-	-
145	LCD_DE	LCDIF	GPIO3_IO01	IO	65	J2X_29
146	LVDS_DATA0_P(1)	LVDS	-	-	-	-
147	GND		-			
148	LVDS_DATA0_N(1)	LVDS	-	-	-	-
149	LCD_VLCD_ON	GPIO	GPIO5_IO04	IO	132	J2X_30 / J2X_31
150	LVDS_CLK_P(1)	LVDS	-	-	-	-
151	I2C_A_SDA	I2C1	GPIO1_IO03	IO	3	J22_41 / J2X_32
152	LVDS_CLK_N(1)	LVDS	-	-	-	-
153	I2C_A_IRQ	GPIO	GPIO5_IO00	IO	128	J22_44 / J2X_33
154	-		-			
155	I2C_A_SCL	I2C1	GPIO1_IO02	IO	2	J22_42 / J2X_34
156	-		-			
157	/I2C_A_RST	GPIO	GPIO5_IO02	IO	130	J22_43
158	-		-			
159	GND		-			
160	GND		-			
161	-		-			
162	-		-			
163	-		-			
164	-		-			
165	-		-			
166	ETH_B_LED_ACT	RMII2	-	-	-	(J10_LED2)
167	-		-			
168	-		-			
169	-		-			
170	-		-			
171	-		-			

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J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	efus-SINTF V1.20
172	GND		-			
173	-					
174	ETH_B_D2-	RMII2	-	-	-	J10A_5
175	-MIPL_CSI_D3_P (1)					
176	ETH_B_D2+	RMII2	-	-	-	J10A_4
177	-					
178	-					
179	-					
180	ETH_B_D1-	RMII2	-	-	-	J10A_3
181	GND		-			
182	ETH_B_D1+	RMII2	-	-	-	J10A_2
183	-					
184	GND		-			
185	GND		-			
186	-					
187	-					
188	-					
189	-					
190	-					
191	-					
192	ETH_A_LED_ACT	RMII1	-	-	-	(J11_LED2)
193	-					
194	-					
195	-					
196	-					
197	-					
198	ETH_VLED_OUT	V33	-	O	-	-
199	GND		-			
200	ETH_A_D2-	RMII1	-	-	-	J11A_5
201	-					
202	ETH_A_D2+	RMII1	-	-	-	J11A_4
203	-					
204	-					
205	-					
206	ETH_A_D1-	RMII1	-	-	-	J11A_3
207	-					
208	ETH_A_D1+	RMII1	-	-	-	J11A_2
209	GND		-			
210	GND		-			
211	-					
212	USBH_A_PWR	V33	-	-	-	(USB J7_1)
213	-					
214	USBH_A_DN	USB_OTG2	-	-	-	(USB J7_2)

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	efus-SINTF V1.20
215	GND		-			
216	USBH_A_DP	USB_OTG2	-	-	-	(USB J7_3)
217	USBD_VBUS	USB_OTG1	-	-	-	Mini-USB J9_1
218	GND		-	-	-	
219	USBD_PWR	USB_OTG1	GPIO1_IO04	IO	4	(Mini-USB J9_1)
220	-					
221	USBD_OC	USB_OTG1	GPIO1_IO01	IO	1	-
222	-					
223	USBD_ID	USB_OTG1	GPIO1_IO00	IO	0	Mini-USB J9_4
224	GND		-			
225	USBD_DN	USB_OTG1	-	-	-	Mini-USB J9_2
226	-					
227	USBD_DP	USB_OTG1	-	-	-	Mini-USB J9_3
228	-					
229	GND		-			
230	GND		-			

- (1) LVDS is available on the goldfinger connector only as a hardware option.
- (2) UART\_C is not available if WLAN/Bluetooth is equipped
- (3) SD\_A is not available if WLAN/Bluetooth is equipped
- (4) SD\_B is not available if eMMC is equipped
- (5) SD\_B\_WP and SD\_B\_CD are only available, if WLAN/Bluetooth is equipped and eMMC is not equipped

### Remark

The GPIO Reference Card is a software development tool. It lists the numbers needed for accessing GPIO ports in Linux under `/sys/class/gpio`. Pin names are given from the software point of view. For example the names of the LCD color signals indicate that the least significant two bits 0 and 1 are missing and only bits 2 to 7 are available. This differs from the Hardware Documentation where the bits are numbered from 0 to 5. Please refer to the efusA7UL Hardware Documentation for hardware development.

# efusA7UL GPIO Reference Card

# V1.5

# 11.04.2018

## Pin layout for Board Rev. 1.1x

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	efus-SINTF V1.20
1	V5					
2	V5					
3	V5					
4	V5					
5	V5					
6	V5					
7	GND					
8	GND					
9	VBAT					
10	V33_OUT					
11	USBD_CHD	USB DEVICE	-		-	J22_9
12	/RESET_IN	RESET	-		-	(J22_10)
13	-					
14	/RESET_OUT	GPIO	GPIO5_IO11	IO	139	J22_8
15	UART_C_RXD <sup>(2)</sup>	UART5	GPIO4_IO22	IO	118	(J16_5 / J16_6)
16	SD_A_WP <sup>(3)</sup>	SD1	GPIO1_IO18	IO	18	-
17	UART_C_TXD <sup>(2)</sup>	UART5	GPIO4_IO21	IO	117	(J16_5 / J16_6)
18	SD_A_CD <sup>(3)</sup>	SD1	GPIO1_IO19	IO	19	Micro-SD J24
19	UART_C_RTS <sup>(1)(2)</sup>	UART5	GPIO4_IO23	IO	123	(J16_5 / J16_6)
20	SD_A_DAT2 <sup>(3)</sup>	SD1	GPIO2_IO20	IO	52	Micro-SD J24_1
21	UART_C_CTS <sup>(1)(2)</sup>	UART5	GPIO4_IO24	IO	124	-
22	SD_A_DAT3 <sup>(3)</sup>	SD1	GPIO2_IO21	IO	53	Micro-SD J24_2
23	-					
24	SD_A_CMD <sup>(3)</sup>	SD1	GPIO2_IO16	IO	48	Micro-SD J24_3
25	PWM_A	PWM4	GPIO1_IO05	IO	5	J22_32
26	SD_A_VCC	V33	-	O	-	Micro-SD J24_4
27	GND					
28	SD_A_CLK <sup>(3)</sup>	SD1	GPIO2_IO17	IO	49	Micro-SD J24_5
29	CAN_A_TX	FLEXCAN1	GPIO1_IO26	IO	26	(J13_3 / J13_4)
30	GND					
31	CAN_A_RX	FLEXCAN1	GPIO1_IO27	IO	27	(J13_3 / J13_4)
32	SD_A_DAT0 <sup>(3)</sup>	SD1	GPIO2_IO18	IO	50	Micro-SD J24_7
33	GND					
34	SD_A_DAT1 <sup>(3)</sup>	SD1	GPIO2_IO19	IO	51	Micro-SD J24_8
35	CAN_B_TX	FLEXCAN2	GPIO1_IO22	IO	22	J13_55 / (J13_56)
36	-					
37	CAN_B_RX	FLEXCAN2	GPIO1_IO23	IO	23	J13_56 / (J13_55)
38	-					
39	GND					
40	-					
41	-					
42	-					

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	efus-SINTF V1.20
43	-					
44	-					
45	GND					
46	GND					
47	-					
48	/EXT_PROG	BOOT_MODE0	-	-	-	J22_57
49	-					
50	SPI_B_MISO	SPI2	GPIO1_IO31	IO	31	J22_23
51	GND					
52	SPI_B_MOSI	SPI2	GPIO1_IO30	IO	30	J22_24
53	-					
54	SPI_B_CLK	SPI2	GPIO1_IO28	IO	28	J22_25
55	-					
56	SPI_B_CS1	SPI2	GPIO1_IO29	IO	29	J22_26
57	GND					
58	-					
59	-					
60	SPI_B_IRQ1	GPIO	GPIO5_IO07	IO	135	J22_28
61	-					
62	-					
63	GND					
64	GND					
65	SD_B_DAT2 <sup>(4)</sup>	SD2	GPIO3_IO27	IO	91	SD J23_9
66	SPI_A_MISO	SPI1	GPIO4_IO28	IO	124	J22_33
67	SD_B_DAT3 <sup>(4)</sup>	SD2	GPIO3_IO28	IO	92	SD J23_1
68	SPI_A_MOSI	SPI1	GPIO4_IO27	IO	123	J22_34
69	SD_B_CMD <sup>(4)</sup>	SD2	GPIO3_IO23	IO	87	SD J23_2
70	SPI_A_CLK	SPI1	GPIO4_IO25	IO	121	J22_35
71	SD_B_VCC	V33	-	-	-	SD J23_4
72	SPI_A_CS1	SPI1	GPIO4_IO26	IO	122	J22_36
73	SD_B_CLK <sup>(4)</sup>	SD2	GPIO3_IO24	IO	88	SD J23_5
74	-					
75	GND					
76	SPI_A_IRQ1	GPIO	GPIO5_IO06	IO	134	J22_38
77	SD_B_DAT0 <sup>(4)</sup>	SD2	GPIO3_IO25	IO	89	SD J23_7
78	-					
79	SD_B_DAT1 <sup>(4)</sup>	SD2	GPIO3_IO26	IO	90	SD J23_8
80	GND					
81	SD_B_WP <sup>(5)</sup>	SD1	GPIO1_IO18	IO	18	SD J23_11
82	I2C_B_SDA	I2C2	GPIO4_IO19	IO	115	J22_45
83	SD_B_CD <sup>(5)</sup>	SD1	GPIO1_IO19	IO	19	SD J23_12
84	I2C_B_SCL	I2C2	GPIO4_IO20	IO	116	J22_46
85	GND					

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J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	efus-SINTF V1.20
86	I2C_B_IRQ	GPIO	GPIO5_IO01	IO	129	J22_48
87	BL_CTRL	PWM1	GPIO1_IO08	IO	8	J3_10
88	/I2C_B_RST	GPIO	GPIO5_IO03	IO	131	J22_47
89	BL_VBL_ON	GPIO	GPIO5_IO05	IO	133	J3_9 / (J3_7 / J3_8)
90	GND		-			
91	GND		-			
92	UART_A_RXD	UART1	GPIO1_IO17	IO	17	(J14_3)
93	LCD_CLK	LCDIF	GPIO3_IO00	IO	64	J2X_4
94	UART_A_TXD	UART1	GPIO1_IO16	IO	16	(J14_5)
95	GND		-			
96	UART_D_RXD	UART6	GPIO4_IO18	IO	114	J22_14
97	LCD_HSYNC	LCDIF	GPIO3_IO02	IO	66	J2X_5
98	UART_D_TXD	UART6	GPIO4_IO17	IO	113	J22_16
99	LCD_VSYNC	LCDIF	GPIO3_IO03	IO	67	J2X_6
100	GND		-			
101	GND		-			
102	UART_B_RXD	UART2	GPIO1_IO21	IO	21	(J15_3)
103	LCD_R2	LCDIF	GPIO3_IO05	IO	69	J2X_8
104	UART_B_TXD	UART2	GPIO1_IO20	IO	20	(J15_5)
105	LCD_R3	LCDIF	GPIO3_IO06	IO	70	J2X_9
106	UART_B_RTS(1)	UART2	GPIO1_IO25	IO	25	(J15_4)
107	LCD_R4	LCDIF	GPIO3_IO07	IO	71	J2X_10
108	UART_B_CTS(1)	UART2	GPIO1_IO24	IO	24	(J15_6)
109	LCD_R5	LCDIF	GPIO3_IO08	IO	72	J2X_11
110	GND		-			
111	LCD_R6	LCDIF	GPIO3_IO09	IO	73	J2X_12
112	I2S_MCLK	SAI2	GPIO1_IO11	IO	11	-
113	LCD_R7	LCDIF	GPIO3_IO10	IO	74	J2X_13
114	GND		-			
115	GND		-			
116	I2S_LRCLK	SAI2	GPIO1_IO12	IO	12	-
117	LCD_G2	LCDIF	GPIO3_IO11	IO	75	J2X_15
118	GND		-			
119	LCD_G3	LCDIF	GPIO3_IO12	IO	76	J2X_16
120	I2S_SCLK	SAI2	GPIO1_IO13	IO	13	-
121	LCD_G4	LCDIF	GPIO3_IO13	IO	77	J2X_17
122	GND		-			
123	LCD_G5	LCDIF	GPIO3_IO14	IO	78	J2X_18
124	I2S_DOUT	SAI2	GPIO1_IO14	IO	14	-
125	LCD_G6	LCDIF	GPIO3_IO15	IO	79	J2X_19
126	I2S_DIN	SAI2	GPIO1_IO15	IO	15	-
127	LCD_G7	LCDIF	GPIO3_IO16	IO	80	J2X_20
128	GND		-			

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	efus-SINTF V1.20
129	GND		-			
130	I2C_C_SDA	GPIO	GPIO05_IO08	IO	136	J18_3 / J20_14
131	LCD_B2	LCDIF	GPIO3_IO17	IO	81	J2X_22
132	I2C_C_SCL	GPIO	GPIO05_IO09	IO	137	J18_5 / J20_13
133	LCD_B3	LCDIF	GPIO3_IO18	IO	82	J2X_23
134	-		-			
135	LCD_B4	LCDIF	GPIO3_IO19	IO	83	J2X_24
136	GND		-			
137	LCD_B5	LCDIF	GPIO3_IO20	IO	84	J2X_25
138	-		-			
139	LCD_B6	LCDIF	GPIO3_IO21	IO	85	J2X_26
140	-		-			
141	LCD_B7	LCDIF	GPIO3_IO22	IO	86	J2X_27
142	-		-			
143	GND		-			
144	-		-			
145	LCD_DE	LCDIF	GPIO3_IO01	IO	65	J2X_29
146	-		-			
147	GND		-			
148	-		-			
149	LCD_VLCD_ON	GPIO	GPIO5_IO04	IO	132	J2X_30 / J2X_31
150	-		-			
151	I2C_A_SDA	I2C1	GPIO1_IO03	IO	3	J22_41 / J2X_32
152	-		-			
153	I2C_A_IRQ	GPIO	GPIO5_IO00	IO	128	J22_44 / J2X_33
154	-		-			
155	I2C_A_SCL	I2C1	GPIO1_IO02	IO	2	J22_42 / J2X_34
156	-		-			
157	/I2C_A_RST	GPIO	GPIO5_IO02	IO	130	J22_43
158	-		-			
159	GND		-			
160	GND		-			
161	-		-			
162	-		-			
163	-		-			
164	-		-			
165	-		-			
166	ETH_B_LED_ACT	RMI2	-	-	-	(J10_LED2)
167	-		-			
168	-		-			
169	-		-			
170	-		-			
171	-		-			

# efusA7UL GPIO Reference Card

# V1.5

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J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	efus-SINTF V1.20
172	GND		-			
173	-					
174	ETH_B_D2-	RMII2	-	-	-	J10A_5
175	-					
176	ETH_B_D2+	RMII2	-	-	-	J10A_4
177	-					
178	-					
179	-					
180	ETH_B_D1-	RMII2	-	-	-	J10A_3
181	GND		-			
182	ETH_B_D1+	RMII2	-	-	-	J10A_2
183	-					
184	GND		-			
185	GND		-			
186	-					
187	-					
188	-					
189	-					
190	-					
191	-					
192	ETH_A_LED_ACT	RMII1	-	-	-	(J11_LED2)
193	-					
194	-					
195	-					
196	-					
197	-					
198	ETH_VLED_OUT	V33	-	O	-	-
199	GND		-			
200	ETH_A_D2-	RMII1	-	-	-	J11A_5
201	-					
202	ETH_A_D2+	RMII1	-	-	-	J11A_4
203	-					
204	-					
205	-					
206	ETH_A_D1-	RMII1	-	-	-	J11A_3
207	-					
208	ETH_A_D1+	RMII1	-	-	-	J11A_2
209	GND		-			
210	GND		-			
211	-					
212	USBH_A_PWR	V33	-	-	-	(USB J7_1)
213	-					
214	USBH_A_DN	USB_OTG2	-	-	-	(USB J7_2)

J1	Function	Device	GPIO	Mode	/sys/class/gpio/gpio#	efus-SINTF V1.20
215	GND		-			
216	USBH_A_DP	USB_OTG2	-	-	-	(USB J7_3)
217	USBD_VBUS	USB_OTG1	-	-	-	Mini-USB J9_1
218	GND		-	-	-	
219	USBD_PWR	USB_OTG1	GPIO1_IO04	IO	4	(Mini-USB J9_1)
220	-					
221	USBD_OC	USB_OTG1	GPIO1_IO01	IO	1	-
222	-					
223	USBD_ID	USB_OTG1	GPIO1_IO00	IO	0	Mini-USB J9_4
224	GND		-			
225	USBD_DN	USB_OTG1	-	-	-	Mini-USB J9_2
226	-					
227	USBD_DP	USB_OTG1	-	-	-	Mini-USB J9_3
228	-					
229	GND		-			
230	GND		-			

- (1) GPIO was changed in the next board revision.
- (2) UART\_C is not available if WLAN/Bluetooth is equipped
- (3) SD\_A is not available if WLAN/Bluetooth is equipped
- (4) SD\_B is not available if eMMC is equipped
- (5) SD\_B\_WP and SD\_B\_CD are only available, if WLAN/Bluetooth is equipped and eMMC is not equipped

### Remark

The GPIO Reference Card is a software development tool. It lists the numbers needed for accessing GPIO ports in Linux under `/sys/class/gpio`. Pin names are given from the software point of view. For example the names of the LCD color signals indicate that the least significant two bits 0 and 1 are missing and only bits 2 to 7 are available. This differs from the Hardware Documentation where the bits are numbered from 0 to 5. Please refer to the efusA7UL Hardware Documentation for hardware development.