

HLK-TX510 Module Interface Pin Definition

NO.	Pin name	Default function	Type	Pull up and down	Power domain	Interface
1	DPU_DPI_PCLK		I/O	NA	3.3V	DPU RGB interface
2	DPU_DPI_DE		I/O	NA	3.3V	
3	DPU_DPI_CM		I/O	NA	3.3V	
4	DPU_DPI_CSYNCR		I/O	NA	3.3V	
5	DPU_DPI_D0		I/O	NA	3.3V	
6	DPU_DPI_D1		I/O	NA	3.3V	
7	DPU_DPI_D2		I/O	NA	3.3V	
8	DPU_DPI_D3		I/O	NA	3.3V	
9	DPU_DPI_D4		I/O	NA	3.3V	
10	DPU_DPI_D5		I/O	NA	3.3V	
11	DPU_DPI_D6		I/O	NA	3.3V	
12	DPU_DPI_D7		I/O	NA	3.3V	
13	DPU_DPI_D8		I/O	NA	3.3V	
14	DPU_DPI_D9		I/O	NA	3.3V	
15	DPU_DPI_D10		I/O	NA	3.3V	
16	DPU_DPI_D11		I/O	NA	3.3V	
17	DPU_DPI_D12		I/O	NA	3.3V	
18	DPU_DPI_D13		I/O	NA	3.3V	
19	DPU_DPI_D14		I/O	NA	3.3V	
20	DPU_DPI_D15		I/O	NA	3.3V	
21	DPU_DPI_D16		I/O	NA	3.3V	
22	DPU_DPI_D17		I/O	NA	3.3V	
23	DPU_DPI_D18		I/O	NA	3.3V	
24	DPU_DPI_D19		I/O	NA	3.3V	
25	DPU_DPI_D20		I/O	NA	3.3V	
26	DPU_DPI_D21		I/O	NA	3.3V	
27	DPU_DPI_D22		I/O	NA	3.3V	
28	DPU_DPI_D23		I/O	NA	3.3V	
29	CLK_24MHz_1		O	NA	3.3V	Synchronous clock output
30	CK805_JTG_TCK		I/O	down	3.3V	CK805 JTAG interface
31	CK805_JTG_TMS		I/O	up	3.3V	
32	CK805_UART_RXD		I/O	NA	3.3V	CK805 UART interface
33	CK805_UART_TXD		I/O	NA	3.3V	
34	I2C3_SDA		I/O	up	3.3V	I2C interface
35	I2C3_SCL		I/O	up	3.3V	
36	USH1_SD0	USH1_UART_TXD	I/O	NA	3.3V	USI interface
37	USH1_SCLK	USH1_UART_RXD	I/O	NA	3.3V	
38	UART1_TXD		I/O	NA	3.3V	UART interface
39	UART1_RXD		I/O	NA	3.3V	
40	USI0_SD0	USI0_UART_TXD	I/O	NA	3.3V	USI interface
41	USI0_SCLK	USI0_UART_RXD	I/O	NA	3.3V	
42	PWM_CH0		I/O	NA	3.3V	PWM interface
43	PWM_CH2		I/O	NA	3.3V	
44	UART0_TXD		I/O	NA	3.3V	UART interface
45	UART0_RXD		I/O	NA	3.3V	
46	I2C0_SCL		I/O	up	1.8V	

47	I2C0_SDA		I/O	up	1.8V	I2C interface
48	I2C1_SCL		I/O	up	1.8V	
49	I2C1_SDA		I/O	up	1.8V	
50	GND					
51	MIPI3_DATAP3		A	NA		MIPI TX bus
52	MIPI3_DATAN3		A	NA		
53	MIPI3_DATAP0		A	NA		
54	MIPI3_DATAN0		A	NA		
55	MIPI3_CLKP		A	NA		
56	MIPI3_CLKN		A	NA		
57	MIPI3_DATAP1		A	NA		
58	MIPI3_DATAN1		A	NA		
59	MIPI3_DATAP2		A	NA		
60	MIPI3_DATAN2		A	NA		
61	GND					
62	VBUS_HOST		A	NA		USB interface
63	DRVVBUS		O	NA	3.3V	
64	USB_ID		A	NA		
65	DM0		A	NA		
66	DP0		A	NA		
67	ADC_CH1		A	NA		ADC interface
68	ADC_CH2		A	NA		
69	MIPI2_DATAP1		A	NA		MIPI RX bus
70	MIPI2_DATAN1		A	NA		
71	MIPI2_CLKP		A	NA		
72	MIPI2_CLKN		A	NA		
73	MIPI2_DATAP0		A	NA		
74	MIPI2_DATAN0		A	NA		
75	GND					
76	MIPI1_DATAP1		A	NA		MIPI RX bus
77	MIPI1_DATAN1		A	NA		
78	MIPI1_CLKP		A	NA		
79	MIPI1_CLKN		A	NA		
80	MIPI1_DATAP0		A	NA		
81	MIPI1_DATAN0		A	NA		
82	GND					
83	MIPI0_DATAP1		A	NA		MIPI RX bus
84	MIPI0_DATAN1		A	NA		
85	MIPI0_CLKP		A	NA		
86	MIPI0_CLKN		A	NA		
87	MIPI0_DATAP0		A	NA		
88	MIPI0_DATAN0		A	NA		
89	GND					
90	CLK_24MHz_3		O	NA	3.3V	Synchronous clock output
91	GND					
92	AOGPIO11		I/O	NA	1.8V	
93	AOGPIO0		I/O	NA	1.8V	
94	AOGPIO1		I/O	NA	1.8V	

95	AOGPIO4		I/O	NA	1.8V	AOGPIO interface
96	AOGPIO5		I/O	NA	1.8V	
97	AOGPIO7		I/O	NA	1.8V	
98	AOGPIO9		I/O	NA	1.8V	
99	AOGPIO2		I/O	NA	1.8V	
100	AOGPIO3		I/O	NA	1.8V	
101	AOGPIO8		I/O	NA	1.8V	
102	GND					
103	1V8_VDD_VOUT		P			1.8V power output
104	VDD_5V0		P			5V power input
105	VDD_5V0		P			
106	GND					
107	JTAG_NRST		I	NA	1.8V	Module hardware reset
108	CK804_JTG_TMS		I/O	up	3.3V	CK804 JTAG interface
109	CK804_JTG_TCK		I/O	down	3.3V	
110	DPU_DPI_SD		I/O	NA	3.3V	DPU RGB interface
111	DPU_DPI_HSYNC		I/O	NA	3.3V	
112	DPU_DPI_VSYNC		I/O	NA	3.3V	

Description: Type: I = input, O = output, I/O = input/output (bidirectional), A = analogue, P = power

NA- Indicates indeterminate state, external pull-down resistors are available if the state needs to be determined.

UP/DOWN-Indicates there is an internal pull-up/down resistor.

103	1V8_VDD_VOUT		P			1.8V power output
104	VDD_5V0		P			5V power input
105	VDD_5V0		P			
50	GND					
61	GND					
75	GND					
82	GND					
89	GND					
91	GND					
102	GND					
106	GND					
1	DPU_DPI_PCLK		I/O	NA	3.3V	
2	DPU_DPI_DE		I/O	NA	3.3V	
3	DPU_DPI_CM		I/O	NA	3.3V	
4	DPU_DPI_CSYNC		I/O	NA	3.3V	
5	DPU_DPI_D0		I/O	NA	3.3V	
6	DPU_DPI_D1		I/O	NA	3.3V	
7	DPU_DPI_D2		I/O	NA	3.3V	
8	DPU_DPI_D3		I/O	NA	3.3V	
9	DPU_DPI_D4		I/O	NA	3.3V	
10	DPU_DPI_D5		I/O	NA	3.3V	
11	DPU_DPI_D6		I/O	NA	3.3V	
12	DPU_DPI_D7		I/O	NA	3.3V	
13	DPU_DPI_D8		I/O	NA	3.3V	
14	DPU_DPI_D9		I/O	NA	3.3V	
15	DPU_DPI_D10		I/O	NA	3.3V	

16	DPU_DPI_D11		I/O	NA	3.3V	DPU RGB interface
17	DPU_DPI_D12		I/O	NA	3.3V	
18	DPU_DPI_D13		I/O	NA	3.3V	
19	DPU_DPI_D14		I/O	NA	3.3V	
20	DPU_DPI_D15		I/O	NA	3.3V	
21	DPU_DPI_D16		I/O	NA	3.3V	
22	DPU_DPI_D17		I/O	NA	3.3V	
23	DPU_DPI_D18		I/O	NA	3.3V	
24	DPU_DPI_D19		I/O	NA	3.3V	
25	DPU_DPI_D20		I/O	NA	3.3V	
26	DPU_DPI_D21		I/O	NA	3.3V	
27	DPU_DPI_D22		I/O	NA	3.3V	
28	DPU_DPI_D23		I/O	NA	3.3V	
110	DPU_DPI_SD		I/O	NA	3.3V	
111	DPU_DPI_HSYNC		I/O	NA	3.3V	
112	DPU_DPI_VSYNC		I/O	NA	3.3V	
51	MIPI3_DATAP3		A	NA		MIPI TX bus
52	MIPI3_DATAN3		A	NA		
53	MIPI3_DATAP0		A	NA		
54	MIPI3_DATAN0		A	NA		
55	MIPI3_CLKP		A	NA		
56	MIPI3_CLKN		A	NA		
57	MIPI3_DATAP1		A	NA		
58	MIPI3_DATAN1		A	NA		
59	MIPI3_DATAP2		A	NA		
60	MIPI3_DATAN2		A	NA		
69	MIPI2_DATAP1		A	NA		MIPI RX bus
70	MIPI2_DATAN1		A	NA		
71	MIPI2_CLKP		A	NA		
72	MIPI2_CLKN		A	NA		
73	MIPI2_DATAP0		A	NA		
74	MIPI2_DATAN0		A	NA		
76	MIPI1_DATAP1		A	NA		MIPI RX bus
77	MIPI1_DATAN1		A	NA		
78	MIPI1_CLKP		A	NA		
79	MIPI1_CLKN		A	NA		
80	MIPI1_DATAP0		A	NA		
81	MIPI1_DATAN0		A	NA		
83	MIPI0_DATAP1		A	NA		MIPI RX bus
84	MIPI0_DATAN1		A	NA		
85	MIPI0_CLKP		A	NA		
86	MIPI0_CLKN		A	NA		
87	MIPI0_DATAP0		A	NA		
88	MIPI0_DATAN0		A	NA		
92	AOGPIO11		I/O	NA	1.8V	
93	AOGPIO0		I/O	NA	1.8V	
94	AOGPIO1		I/O	NA	1.8V	
95	AOGPIO4		I/O	NA	1.8V	

96	AOGPIO5		I/O	NA	1.8V	AOGPIO interface
97	AOGPIO7		I/O	NA	1.8V	
98	AOGPIO9		I/O	NA	1.8V	
99	AOGPIO2		I/O	NA	1.8V	
100	AOGPIO3		I/O	NA	1.8V	
101	AOGPIO8		I/O	NA	1.8V	
46	I2C0_SCL		I/O	up	1.8V	I2C interface
47	I2C0_SDA		I/O	up	1.8V	
48	I2C1_SCL		I/O	up	1.8V	
49	I2C1_SDA		I/O	up	1.8V	
34	I2C3_SDA		I/O	up	3.3V	
35	I2C3_SCL		I/O	up	3.3V	
107	JTAG_NRST		I	NA	1.8V	Module hardware reset
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32	CK805_UART_RXD		I/O	NA	3.3V	CK805 UART interface
33	CK805_UART_TXD		I/O	NA	3.3V	
38	UART1_TXD		I/O	NA	3.3V	UART interface
39	UART1_RXD		I/O	NA	3.3V	
44	UART0_TXD		I/O	NA	3.3V	
45	UART0_RXD		I/O	NA	3.3V	
40	USI0_SD0	USI0_UART_TXD	I/O	NA	3.3V	USI interface
41	USI0_SCLK	USI0_UART_RXD	I/O	NA	3.3V	
36	USI1_SD0	USI1_UART_TXD	I/O	NA	3.3V	
37	USI1_SCLK	USI1_UART_RXD	I/O	NA	3.3V	
42	PWM_CH0		I/O	NA	3.3V	PWM interface
43	PWM_CH2		I/O	NA	3.3V	
62	VBUS_HOST		A	NA		USB interface
63	DRVVBUS		O	NA	3.3V	
64	USB_ID		A	NA		
65	DM0		A	NA		
66	DP0		A	NA		
67	ADC_CH1		A	NA		ADC interface
68	ADC_CH2		A	NA		
29	CLK_24MHz_1		O	NA	3.3V	Synchronous clock output
90	CLK_24MHz_3		O	NA	3.3V	