

DataSheet

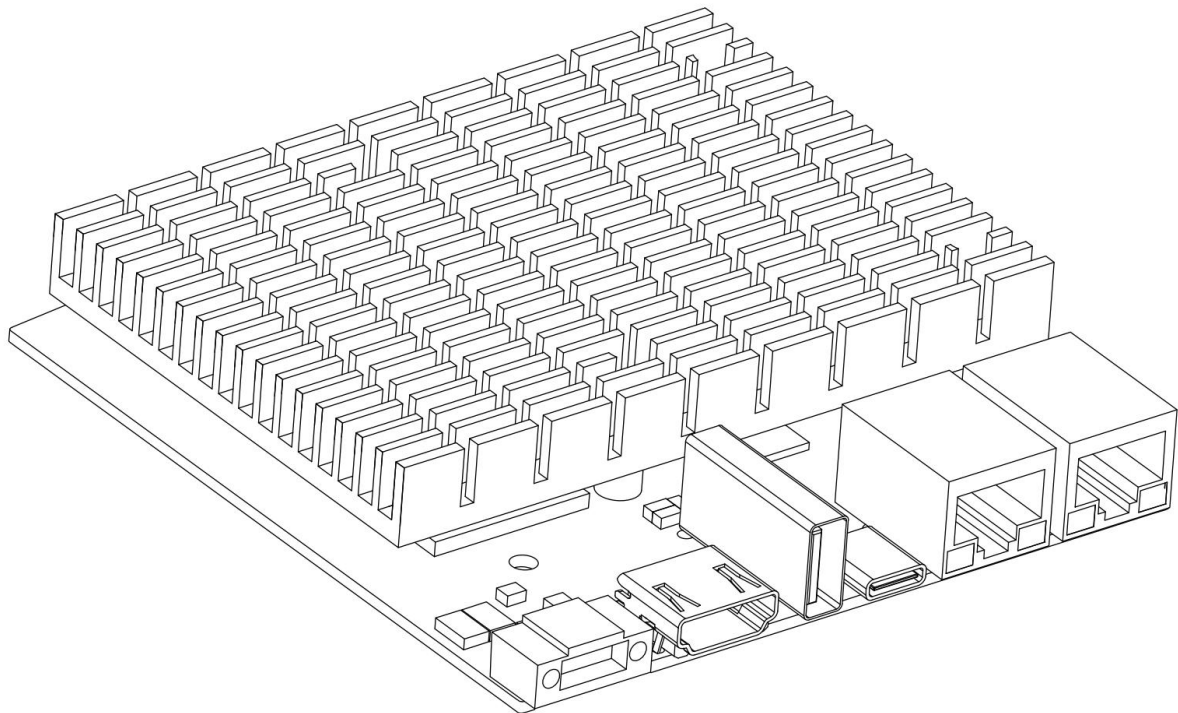
MT-P811

80 DIO Singal-Board Controller Device

This document contains the specifications for MT-P811. Specifications are typical at 25°C unless otherwise noted.



Caution Using the MT-P811 in a manner not described in this document may impair the protection the MT-P811 provides.



MANGOTREE

Digital I/O

Table 1. Channel Frequency

Connector	Number of Channels	Voltage Level
Connector J1	80	3.3V

Compatibility LVTTTL, LVCMOS

Logic family Fixed

Voltage level 3.3V

Table 2. Digital Output Logic Levels

Logic Family	Output Low Voltage(VoL)	Output High Voltage(VoH)
	Maximum	Minimum
3.3V	0.3 V	2.4 V

Maximum DC output current per channel

Source 4.0 mA

Sink 4.0 mA

Output impedance 50 Ω

Direction control of digital I/O channels Per Channel

Minimum I/O pulse width 12.5 ns

Minimum sampling period 12.5 ns

Table 3. Digital Input Logic Levels

Logic Family	Input Low Voltage(VIL)	Input High Voltage(VIH)
	Maximum	Minimum
3.3V	0.8 V	2.0 V

Reconfigurable FPGA

FPGA type Spartan-6 Lx75

Number of flip-flops 93,296

Number of LUTs 46,648

Embedded Block RAM 3,096 kbits

Number of DSP48 slices	132
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Processor

CPU	Intel Z8350
Number of cores	4
CPU frequency	1.92 GHz max
L2 cache	2 MB

Operating System

Supported operating system	Linux RT
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Ethernet Port

Numbers of ports	2
Network interface	10Base-T, 100Base-TX

USB Ports

Number of USB 3.0	1
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RS-232 Serial Port

Number of Ports	2
Maximum band rate	115,200 bps

Display Port

Supported Port	HDMI
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Memory

Processor memory	2 GB DDR3L
Solid-state drive	16 GB Emmc

Maximum Power Requirements

Power requirements are dependent on the digital output loads and configuration of the LabVIEW FPGA VI used in your application.

+12 V	1.2 A
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Physical Characteristics

Weight	150 g
Dimensions	97mm*108mm

Safety Voltages

This product is designed to meet the requirements of the following electrical equipment safety standards for measurement, control, and laboratory use:

- IEC 61010-1, EN 61010-1
- UL 61010-1, CSA C22.2 No. 61010-1

CE Compliance

This product meets the essential requirements of applicable European Directives, as follows:

- 2014/35/EU; Low-Voltage Directive (safety)
- 2014/30/EU; Electromagnetic Compatibility Directive (EMC)
- 2014/34/EU; Potentially Explosive Atmospheres (ATEX)

Shock and Vibration

To meet these specifications, you must panel mount the system.

Operating vibration

Random (IEC 60068-2-64)	5 g _{rms} , 10 Hz to 500 Hz
Sinusoidal (IEC 60068-2-6)	5 g, 10 Hz to 500 Hz
Operating shock (IEC 60068-2-27) 18 shocks at 6 orientations	30 g, 11 ms half sine; 50 g, 3 ms half sine;

Environmental

Refer to the manual for the chassis you are using for more information about meeting these specifications.

Operating temperature (IEC 60068-2-1, IEC 60068-2-2)	-40 °C to 70 °C
Storage temperature (IEC 60068-2-1, IEC 60068-2-2)	-40 °C to 85 °C
Ingress protection	IP40
Operating humidity (IEC 60068-2-78)	10% RH to 90% RH, noncondensing Storage
humidity (IEC 60068-2-78)	5% RH to 95% RH, noncondensing Pollution
Degree	2
Maximum altitude	4,000 m

Indoor use only.

Support

MT-Master上手指南:

<https://server.mangotree.cn:9900/WebFile/Downloads/上手指南/MT-Master/>

MT-Master视频教程:

<https://server.mangotree.cn:9900/WebFile/Downloads/视频教程/MT-Master/>



Master上手指南



Master视频教程

MT-RIO上手指南:

<https://server.mangotree.cn:9900/WebFile/Downloads/上手指南/MT-RIO/>

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RIO上手指南



RIO视频教程

MT-Veristand上手指南:

<https://server.mangotree.cn:9900/WebFile/Downloads/上手指南/MT-VeriStand/>

MT-Veristand视频教程:

<https://server.mangotree.cn:9900/WebFile/Downloads/视频教程/MT-VeriStand/>



VeriStand上手指南



VeriStand视频教程

MT-P811 UART Connectivity

UART	Pin	Signal	Pin	Signal
	1	TXD	2	RXD
	3	NC	4	NC
	5	COM	6	COM
	7	NC	8	NC
	9	COM	10	COM

MT-P811 背面 100Pin 连接器引脚定义:

PCB RIO-80 IO引脚定义			
功能	引脚		功能
3V	1	2	3V
DIO00	3	4	DIO10
DIO01	5	6	DIO11
DIO02	7	8	DIO12
DIO03	9	10	DIO13
DIO04	11	12	DIO14
NC	13	14	NC
DIO05	15	16	DIO15
DIO06	17	18	DIO16
DIO07	19	20	DIO17
DIO08	21	22	DIO18
DIO09	23	24	DIO19
DGND	25	26	DGND
DIO20	27	28	DIO30
DIO21	29	30	DIO31
DIO22	31	32	DIO32
DIO23	33	34	DIO33
DIO24	35	36	DIO34
NC	37	38	NC
DIO25	39	40	DIO35
DIO26	41	42	DIO36
DIO27	43	44	DIO37
DIO28	45	46	DIO38
DIO29	47	48	DIO39
DGND	49	50	DGND
DIO40	51	52	DIO50
DIO41	53	54	DIO51
DIO42	55	56	DIO52
DIO43	57	58	DIO53
DIO44	59	60	DIO54
NC	61	62	NC
DIO45	63	64	DIO55
DIO46	65	66	DIO56
DIO47	67	68	DIO57
DIO48	69	70	DIO58
DIO49	71	72	DIO59
DGND	73	74	DGND
DIO60	75	76	DIO70
DIO61	77	78	DIO71
DIO62	79	80	DIO72
DIO63	81	82	DIO73
DIO64	83	84	DIO74
NC	85	86	NC
DIO65	87	88	DIO75
DIO66	89	90	DIO76
DIO67	91	92	DIO77
DIO68	93	94	DIO78
DIO69	95	96	DIO79
5V	97	98	5V
5V	99	100	5V

3.3V DIO

Dimensions:(mm)

