

SPECIFICATIONS

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.

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

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
Number of USB 2.0	1

RS-232 Serial Port

Number of Ports	2
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Maximum band rate	115,200 bps
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Display Port

Supported Port	HDMI
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Memory

Processor memory	2 GB DDR3L
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Solid-state drive	16 GB Emmc
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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
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Dimensions	97mm*108mm
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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.