

DataSheet

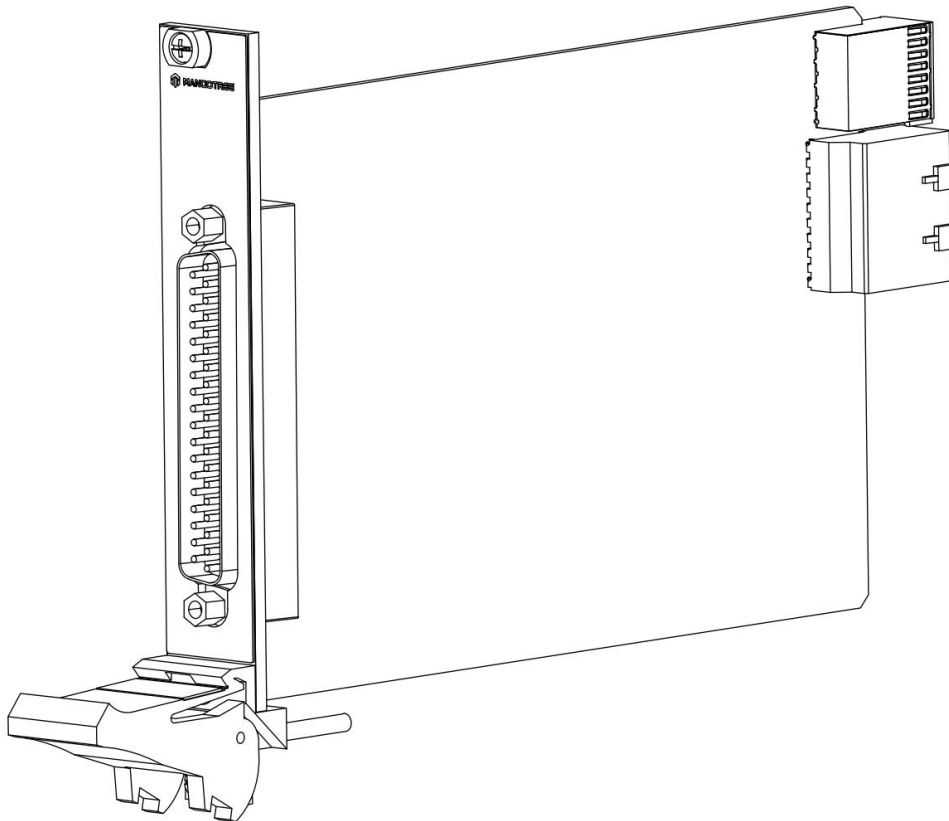
MT-X570

16 DI, 16DO, 3.3V/TTL

This document contains the specifications for MT-X570. Specifications are typical at 25°C unless otherwise noted.



Caution Using the MT-X570 in a manner not described in this document may impair the protection the MT-X570 provides.

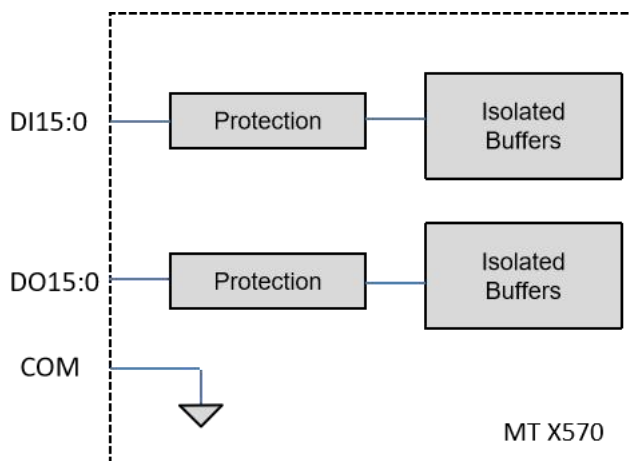


MT-X570 Connectivity

Pin definition of DSUB connector.

DO0	20	1	DI0
DO1	21	2	DI1
DO2	22	3	DI2
DO3	23	4	DI3
DO4	24	5	DI4
DO5	25	6	DI5
DO6	26	7	DI6
DO7	27	8	DI7
COM	28	9	COM
COM	29	10	COM
DO8	30	11	DI8
DO9	31	12	DI9
DO10	32	13	DI10
DO11	33	14	DI11
DO12	34	15	DI12
DO13	35	16	DI13
DO14	36	17	DI14
DO15	37	18	DI15
		19	NC

Input/Output Circuitry



There are sixteen digital input channels and sixteen digital output channels. All channels are internally referenced to COM.

MT-X570 Specifications

The following specifications are typical for the range -40 °C to 70 °C unless otherwise noted. All voltages are relative to COM unless otherwise noted.

Input/Output Characteristics

Number of channels	16 DI channels,16 DO channels
Input/output type	TTL,single-ended
Logic family	Fixed
Voltage level	3.3V
Update/transfer time	
Input	10us maximum
Output	20us maximum
I/O propagation delay	250 ns maximum
Overvoltage protection	± 30 V

Table 1. Digital Output Logic Levels

Logic Family	Current	Output Low Voltage(VoL) Maximum	Output High Voltage(VoH) Maximum
3.3V	100uA	0.20 V	3.00 V
	4mA	0.40 V	2.40 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

Table 2. Digital Input Logic Levels

Logic Family	Input Low Voltage(VIL) Maximum	Input High Voltage(VIH) Maximum
3.3V	0.80 V	2.00 V

Minimum input	-0.3 V
Maximum input	3.6V
Input current per channel	± 1 uA

Input capacitance	10pF
Input leakage current	± 15uA maximum
Input impedance	10kΩ typical, pull-down

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)	30 g, 11 ms half sine; 50 g, 3 ms half sine; 18 shocks at 6 orientations

Environmental

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

Operating temperature	-40 °C to 70 °C (IEC 60068-2-1, IEC 60068-2-2)
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Storage temperature	-40 °C to 85 °C (IEC 60068-2-1, IEC 60068-2-2)
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.

Config文本

MT-DAQ设备的开发和使用时依赖于Config配置文本，只有正确配置该文本，才能保证设备的正常运行。不同型号的设备或板卡对应的配置参数是不同的。Python、LabVIEW和C#三种编程语言的Config配置文本完全相同。

通用Config配置文本通过MT-Master软件主页导出获得，用户可以根据实际设备或板卡的参数对配置文本进行修改配置，或者按照文本默认参数配置运行。

Config配置文本中的各项参数含义及其具体配置可以参考MT-DAQ上手指南，指南链接附于下文Support板块。

使用MT产品过程中如有任何疑问，可以通过访问官网：<http://www.mangotree.cn>联系专业客服咨询。



Support

MT-Master上手指南:

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



Master上手指南

MT-Master视频教程:

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



Master视频教程

MT-DAQ上手指南:

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DAQ视频教程