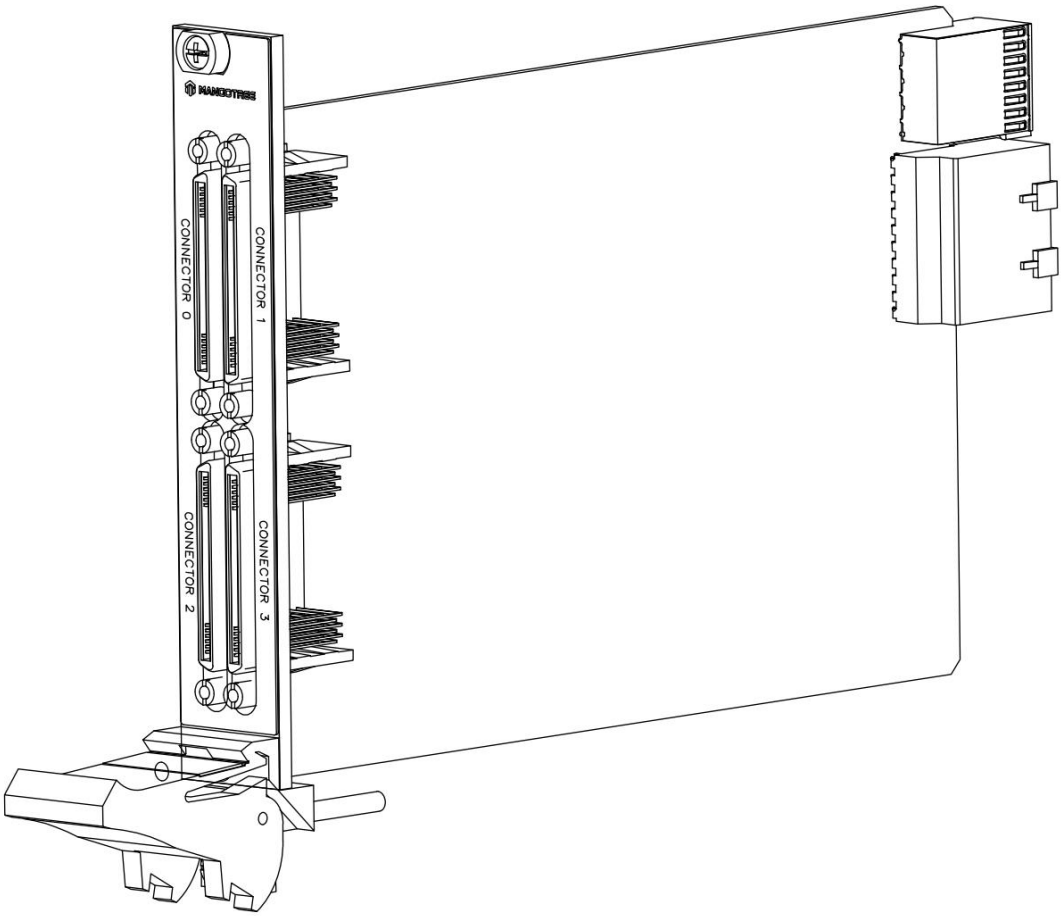
DataSheet

MT-X578

128 DO, 5V/TTL

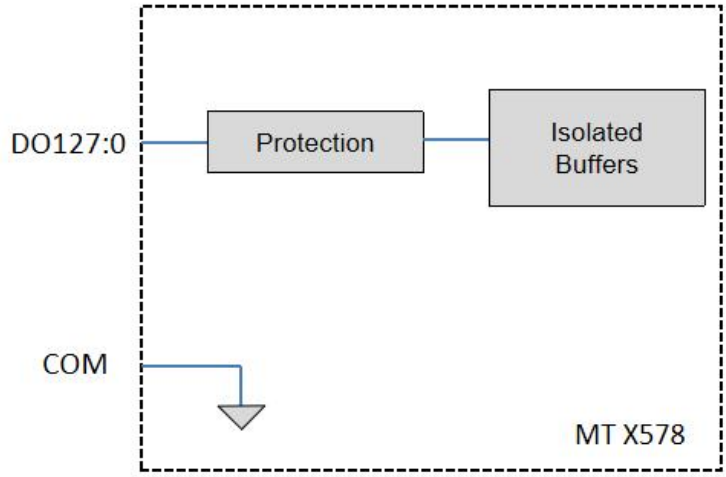
This document contains the specifications for MT-X578.Specifications are typical at 25°C unless otherwise noted.

Caution Using the MT-X578 in a manner not described in this document may impair the protection the MT-X578 provides.



MANGOTREE

Input/Output Circuitry



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

MT-X578 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	128 DO channels
Input/output type	TTL,single-ended
Digital logic levels	
Output	
Voltage	5.23V maximum
High,VOH	4.83V minimum
LOW,VOL	0.12V maximum
Update/transfer time	1ms maximum
I/O propagation delay	250 ns maximum
Input current per channel	±1uA
Input capacitance	10pF
Overvoltage protection	±30 V

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 CE

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)
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：

https://server.mangotree.cn:9900/WebFile/Downloads/上手指南/MT-DAQ/

DAQ上手指南

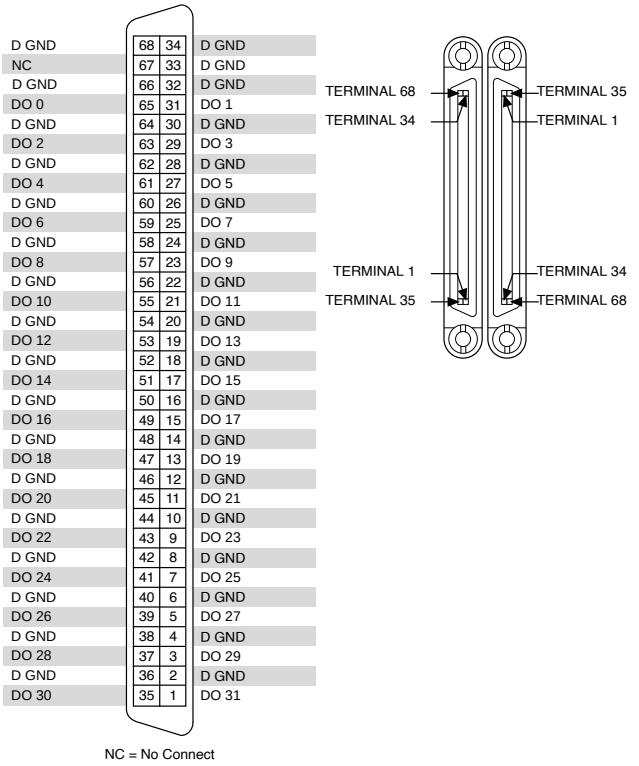
MT-DAQ视频教程：

https://server.mangotree.cn:9900/WebFile/Downloads/视频教程/MT-DAQ/

DAQ视频教程

MT-X578 Pinout

CONNECTOR 0



D GND	68	34	D GND
NC	67	33	D GND
D GND	66	32	D GND
DO 0	65	31	DO 1
D GND	64	30	D GND
DO 2	63	29	DO 3
D GND	62	28	D GND
DO 4	61	27	DO 5
D GND	60	26	D GND
DO 6	59	25	DO 7
D GND	58	24	D GND
DO 8	57	23	DO 9
D GND	56	22	D GND
DO 10	55	21	DO 11
D GND	54	20	D GND
DO 12	53	19	DO 13
D GND	52	18	D GND
DO 14	51	17	DO 15
D GND	50	16	D GND
DO 16	49	15	DO 17
D GND	48	14	D GND
DO 18	47	13	DO 19
D GND	46	12	D GND
DO 20	45	11	DO 21
D GND	44	10	D GND
DO 22	43	9	DO 23
D GND	42	8	D GND
DO 24	41	7	DO 25
D GND	40	6	D GND
DO 26	39	5	DO 27
D GND	38	4	D GND
DO 28	37	3	DO 29
D GND	36	2	D GND
DO 30	35	1	DO 31

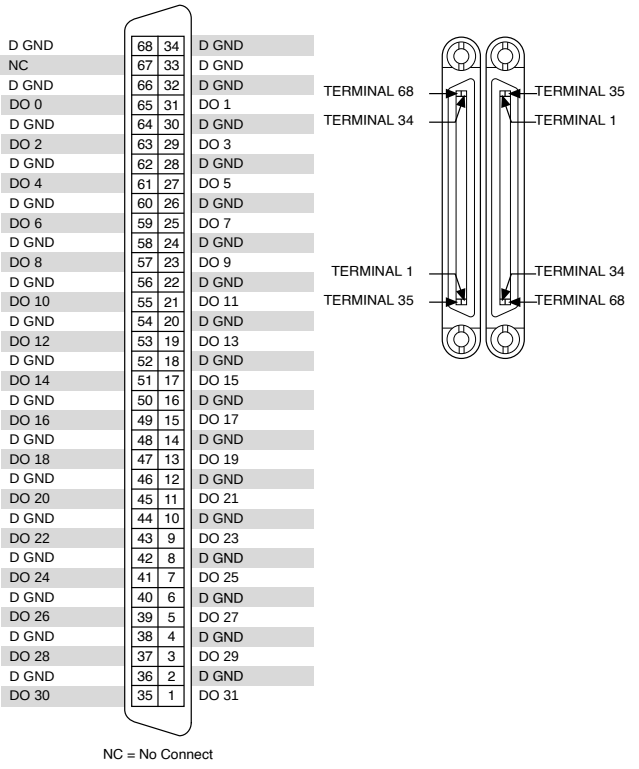
NC = No Connect

CONNECTOR 1

DO 31	1	35	DO 30
D GND	2	36	D GND
DO 29	3	37	DO 28
D GND	4	38	D GND
DO 27	5	39	DO 26
D GND	6	40	D GND
DO 25	7	41	DO 24
D GND	8	42	D GND
DO 23	9	43	DO 22
D GND	10	44	D GND
DO 21	11	45	DO 20
D GND	12	46	D GND
DO 19	13	47	DO 18
D GND	14	48	D GND
DO 17	15	49	DO 16
D GND	16	50	D GND
DO 15	17	51	DO 14
D GND	18	52	D GND
DO 13	19	53	DO 12
D GND	20	54	D GND
DO 11	21	55	DO 10
D GND	22	56	D GND
DO 9	23	57	DO 8
D GND	24	58	D GND
DO 7	25	59	DO 6
D GND	26	60	D GND
DO 5	27	61	DO 4
D GND	28	62	D GND
DO 3	29	63	DO 2
D GND	30	64	D GND
DO 1	31	65	DO 0
D GND	32	66	D GND
D GND	33	67	NC
D GND	34	68	D GND

NC = No Connect

CONNECTOR 2



D GND	68	34	D GND
NC	67	33	D GND
D GND	66	32	D GND
DO 0	65	31	DO 1
D GND	64	30	D GND
DO 2	63	29	DO 3
D GND	62	28	D GND
DO 4	61	27	DO 5
D GND	60	26	D GND
DO 6	59	25	DO 7
D GND	58	24	D GND
DO 8	57	23	DO 9
D GND	56	22	D GND
DO 10	55	21	DO 11
D GND	54	20	D GND
DO 12	53	19	DO 13
D GND	52	18	D GND
DO 14	51	17	DO 15
D GND	50	16	D GND
DO 16	49	15	DO 17
D GND	48	14	D GND
DO 18	47	13	DO 19
D GND	46	12	D GND
DO 20	45	11	DO 21
D GND	44	10	D GND
DO 22	43	9	DO 23
D GND	42	8	D GND
DO 24	41	7	DO 25
D GND	40	6	D GND
DO 26	39	5	DO 27
D GND	38	4	D GND
DO 28	37	3	DO 29
D GND	36	2	D GND
DO 30	35	1	DO 31

NC = No Connect

CONNECTOR 3

DO 31	1	35	DO 30
D GND	2	36	D GND
DO 29	3	37	DO 28
D GND	4	38	D GND
DO 27	5	39	DO 26
D GND	6	40	D GND
DO 25	7	41	DO 24
D GND	8	42	D GND
DO 23	9	43	DO 22
D GND	10	44	D GND
DO 21	11	45	DO 20
D GND	12	46	D GND
DO 19	13	47	DO 18
D GND	14	48	D GND
DO 17	15	49	DO 16
D GND	16	50	D GND
DO 15	17	51	DO 14
D GND	18	52	D GND
DO 13	19	53	DO 12
D GND	20	54	D GND
DO 11	21	55	DO 10
D GND	22	56	D GND
DO 9	23	57	DO 8
D GND	24	58	D GND
DO 7	25	59	DO 6
D GND	26	60	D GND
DO 5	27	61	DO 4
D GND	28	62	D GND
DO 3	29	63	DO 2
D GND	30	64	D GND
DO 1	31	65	DO 0
D GND	32	66	D GND
D GND	33	67	NC
D GND	34	68	D GND

NC = No Connect