



勢流科技

SIEMENS

# What's New in Simcenter Micred T3ster SI Control Software 2301



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# Overview of the Key Change

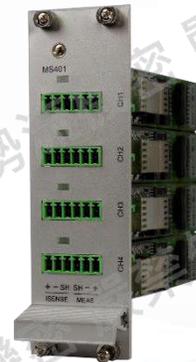
1. New Option to Delay Switch – 新增不同延遲切換之功能
2. HW Support – 新增支援多種溫控平台
3. Merge Customer Specific Branches – 新增多種溫控平台之通訊協定方式
4. Documentation Improvements – 開放使用Python編輯T3ster SI 作動，可客製化測試方案



Hardware - T3ster SI



Frame



MS401



LP220



TH800



# What is new in T3ster SI 2301

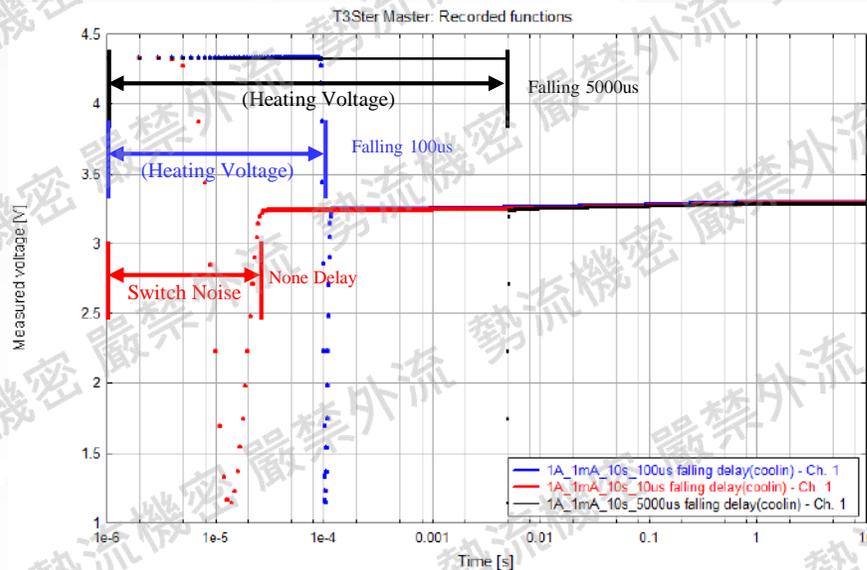
## 1. New Option to Delay Switch – 新增多種延遲切換之功能

- Switching voltage peaks can be moderated
- The effect of slow heating turn off can be corrected by changing the time point of the heating current switching

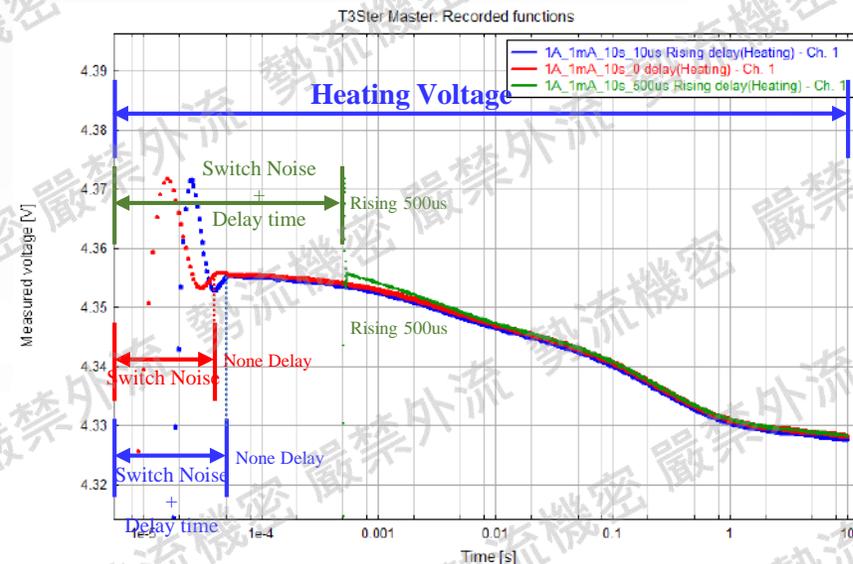
### A. Heating Source Switching delay (Falling / Rising)

Falling – 將量測電壓表現時間提前，如下圖 **Falling** 所示

Rising – 延遲開始加熱時間，如下圖 **Rising** 所示



**Falling – Heating Voltage vs Time**



**Rising – Cooling Voltage vs Time**



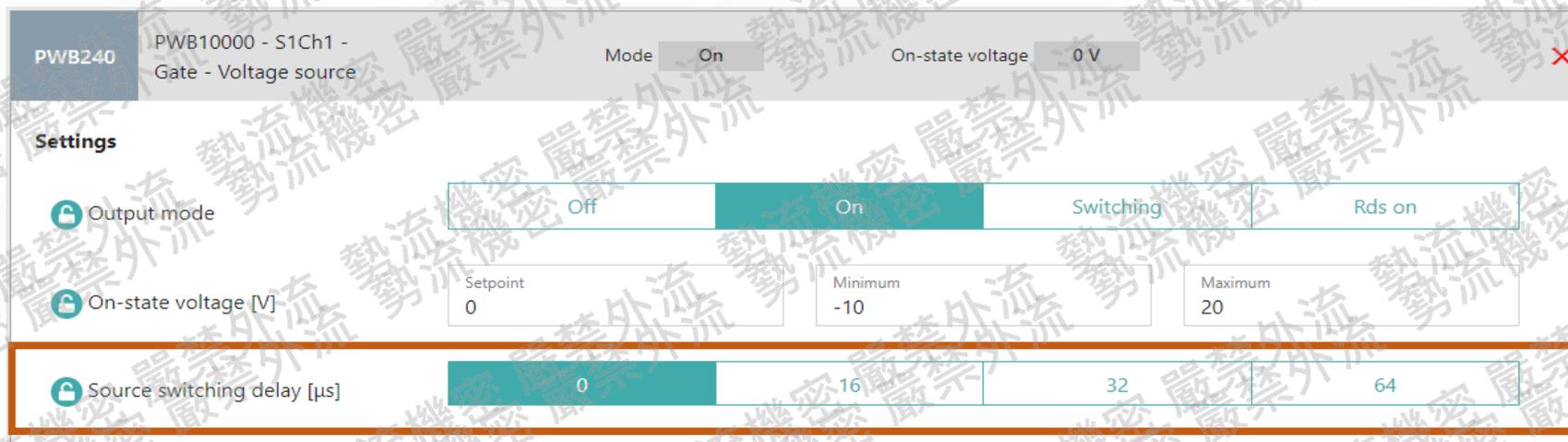
# What is new in T3ster SI 2301

## 1. New Option to Delay Switch – 新增多種延遲切換之功能

- Switching voltage peaks can be moderated
- The effect of slow heating turn off can be corrected by changing the time point of the heating current switching

### B. Switching Delay for Gate Voltage, $V_{GS(E)}$ from 240A Booster

將 $V_{GS(E)}$  開 or 關進行延遲，可適用於碳化矽元件通道加熱 / 寄生二極體 (Reverse Function) 量測之方式

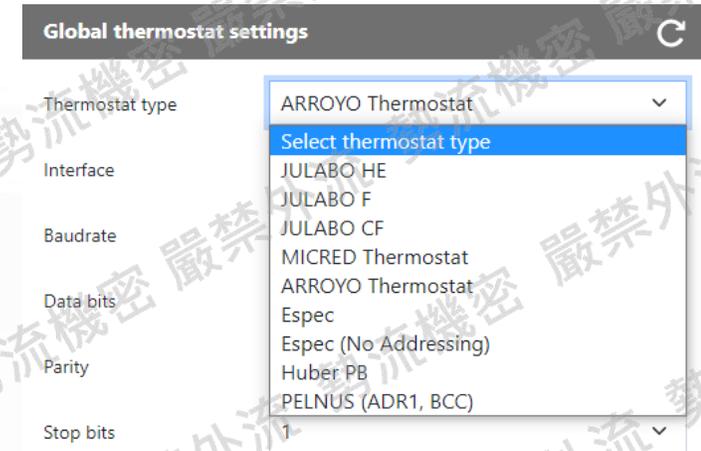


# What is new in T3ster SI 2301

## 2. HW Support – 新增支援多種溫控平台

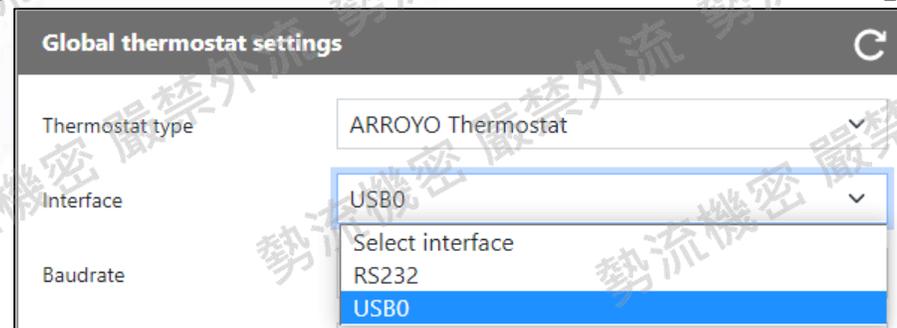
- T3ster SI 2301 can be applied to all customized T3ster SI systems

	Available for All Users	T3ster 2301 Applicable
Keenus Pelnus Chiller	Yes	Yes
Arroyo Chiller	Yes	Yes
Power Booster with one Power Supply Unit	No	Yes



## 2. Merge Customer Specific Branches – 新增多種溫控平台之通訊協定方式

- T3ster SI 2301 supports USB port thermostat connection beside the RS232 option



# What is new in T3ster SI 2301

## 4. Documentation Improvements – 開放使用Python編輯T3ster SI 作動，可客製化測試方案

- The script helps to get started with API programming
- It describes a single diode thermal transient measurement
- The code can also be customized by the user's specific needs
- Script sample can be downloaded from the T3ster SI 2301 UI
- IP address needs to be filled out
- The thermal transient measurement results will be saved in the same folder

Channel	Device	Mode	Current	Voltage limit
LP220	S1Ch1 - Current source	Mode: Switching	Current: 0 A	Voltage limit: 0 V
MS401	S3Ch1 - Current source	Mode: On	Current: 0 A	Range: 10 V
MS401	S3Ch1 - Meas. ch.	Sensitivity: 2 mV/K	Range: 20 V (±10 V)	

**Measurement settings**

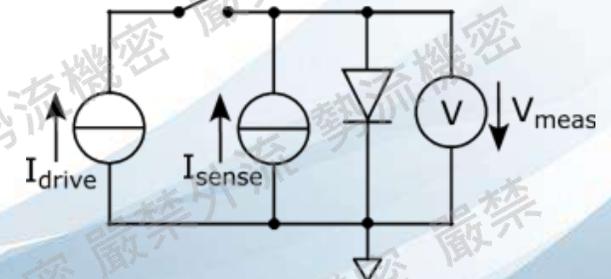
Heating time [s]  
 Setpoint: 30, Minimum: 0, Maximum: 4000

Cooling time [s]  
 Setpoint: 30, Minimum: 0, Maximum: 4000

**Power Steps**

Edit Power Steps

Meas. ch.	Method
S3Ch1	Diode



# T3ster SI 2301 New Feature - Summary

## 1. New Option to Delay Switching

- Source switching delay (falling/rising) for the trigger helps to correct instrumental delay
- Source switching delay for the gate voltage allows the user to moderate switching voltage peaks

## 2. HW Support

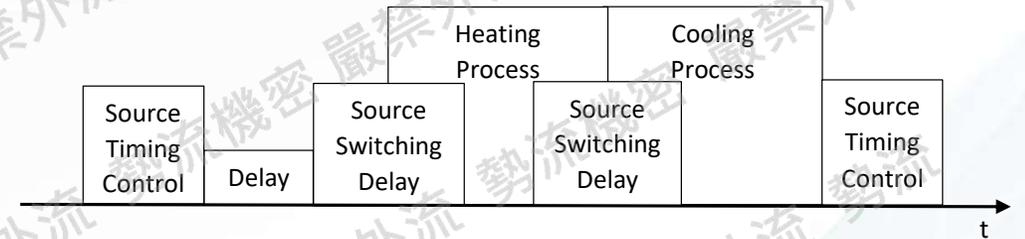
- Additional chillers supported (Arroyo, Keenus Pelnus)

## 3. Merge Customer Specific Branches

- USB thermostat connection

## 4. Documentation Improvements

- Measurement example added to API documentation

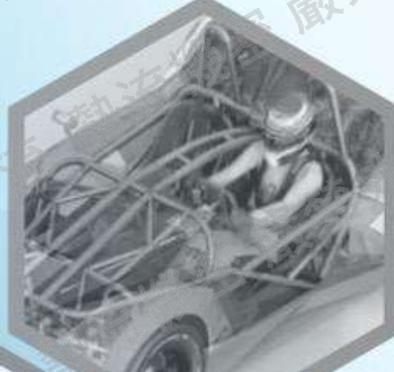




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# Thank You For Attending

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