

SIMATIC S7-1500 6ES7550-1AA01-0AB0计数器模块

产品名称	SIMATIC S7-1500 6ES7550-1AA01-0AB0计数器模块
公司名称	浔之漫智控技术（上海）有限公司
价格	88.00/台
规格参数	西门子:西门子代理商 西门子CPU:西门子plc 德国:全新原装
公司地址	上海市松江区石湖荡镇塔汇路755弄29号1幢一层 A区213室
联系电话	195****8569 195****8569

产品详情

6ES7550-1AA01-0AB0

相似图像

SIMATIC S7-1500， TM count 2x24V 计数器模块，双通道 用于 24V 增量编码器或 脉冲编码器，3 DI，2 个数字输出/每个通道

必须使用的附加产品

附件

服务

6ES7590-1AJ30-0AA0

SIMATIC S7-1500，异型导轨 830 mm（大约 32.7 英寸）；包括接地螺栓，集成 DIN 导轨 用于安装小型物料 如端子之类，断路器和继电器

6ES7592-1BM00-0XB0

SIMATIC S7-1500，前连接器以 Push-In 技术包装，40针，针对 35mm 宽模块 包括 4 个电位桥接 和束线带

6ES7590-1AF30-0AA0

SIMATIC S7-1500，异型导轨 530 mm（大约 20.9 英寸）；包括接地螺栓，集成 DIN 导轨用于安装小型物料如端子之类，断路器和继电器

6ES7590-1AB60-0AA0

SIMATIC S7-1500，异型导轨 160 mm（大约 6.3 英寸）；包括接地螺栓，集成 DIN 导轨

附件服务 0" https://mall.industry.siemens.com/mall/collaterals/files/151/jpg/P_ST70_XX_08584t.jpg/>6ES7590-0BL00-0AA0SIMATIC S7-1500 / ET 200MP；有源背板总线 12 个插槽用于插接 S7-1500 外设模块用于热插拔；用于 ET 200MP 带 IM 155-5 PN HF（固件版本自 V4.4.1 起）；S7-1500 安装导轨和插槽盖请单独订货6ES7592-2AX00-0AA0SIMATIC S7-1500，标签纸针对 35mm 宽 S7-1500 模块 颜色：AL GREY 材料：薄膜，打孔；适合利用市售常见激光打印机进行打印；10 个装订页每页含 10 个条带 每个包装单位 足够用于 100 个模块6ES7590-0BH00-0AA0SIMATIC S7-1500 / ET 200MP 有源背板总线 8 个插槽用于插接 S7-1500 外设模块用于热插拔用于 ET 200MP 带 IM 155-5 PN HF（固件版本自 V4.4.1 起）；S7-1500 安装导轨和插槽盖请单独订货6ES7590-0BD00-0AA0SIMATIC S7-1500 / ET 200MP 有源背板总线 4 个插槽用于插接 S7-1500 外设模块用于热插拔用于 ET 200MP 带 IM 155-5 PN HF（固件版本自 V4.4.1 起）；S7-1500 安装导轨和插槽盖请单独订货

产品商品编号(市售编号)6ES7550-1AA01-0AB0产品说明SIMATIC S7-1500，TM count 2x24V 计数器模块，双通道用于 24V 增量编码器或脉冲编码器，3 DI，2 个数字输出/每个通道产品家族TM 2x24V 计数器模块产品生命周期 (PLM)PM300:有效产品价格数据价格组 / 总部价格组SP / 219列表价（不含税）显示价格您的单价（不含税）显示价格金属系数无交付信息出口管制规定AL : N / ECCN : 9N9999工厂生产时间5 天净重 (Kg)0.359 Kg包装尺寸16.10 x 19.40 x 4.70包装尺寸单位的测量CM数量单位1 件包装数量1其他产品信息EAN4047623411260UPC195125170131商品代码85389091LKZ_FDB/CatalogIDST73产品组4502组代码R151原产地德国Compliance with the substance restrictions according to RoHS directiveRoHS 合规开始日期: 2021.01.31产品类别A: 问题无关，即刻重复使用电气和电子设备使用后的回收义务类别-REACH Art. 33 责任信息Lead CAS 号 7439-92-1 > 0,1 % (w / w)Lead monoxide (lead ... CAS-No. 1317-36-8 > 0,1 % (w / w)分类版本分类eClass1227-24-22-05eClass627-24-22-05eClass7.127-24-22-05eClass827-24-22-05eClass927-24-22-05eClass9.127-24-22-05ETIM 7EC001422ETIM8EC001422ETIM9EC001422IDEA43567UNSPSC1532-15-17-05TM FAST user-programmable high-speed module概述

User-programmable technology module with extremely short internal cycle time and very fast digital input and output signals

The following are available:

8 x digital input 24 V DC

8 x digital output 24 V DC

4 x digital input/output 24 V DC

8 x RS485/RS422, usable as digital input or output with differential signal or as TTL asymmetrically

Programming the application with the Intel Quartus Prime software

Cycle time of the application typ. 20 ns (nanoseconds); Thus a response time terminal – terminal from the application of a signal change at the input to a reaction at the output of significantly less than 1 s can be achieved.

应用

With the SIMATIC S7-1500 TM FAST user-programmable technology module, the S7-1500 automation system enters new realms of processing speed, cycle time, and response time. This opens up completely new areas of application.

It is now possible to generate almost arbitrary pulse patterns at the outputs, which can be very finely resolved in time. These pulse patterns can be calculated online as a function of other signals, such as meter reading or speed, if required.

Due to the very fast internal processing of input signals and the direct control of output signals, extremely short response times can be achieved.

There are almost no limits to the variety of possibilities, e.g.

Position-dependent output cams

Very fast responses to digital events

Counting of signals up to 5 MHz

Precise control of lasers

Precise dosing tasks

Pixel-perfect dot patterns on several parallel tracks

Control of lasers for various tasks

With a freely programmable application, the individual functions can be flexibly combined and linked with each other.

TM FAST is suitable for all tasks for which a PLC with standard I/O modules is not fast enough and which cannot be realized by a technology module either. These are often tasks that were previously covered by special in-house solutions.

设计

Mechanical design

Module in the S7-1500 design

S7-1500 front connector with 38 terminals, plus 4 terminals for power supply

TM FAST Debug Connector for direct connection to the FPGA for development and service independent of front connector wiring

Miscellaneous digital inputs and outputs:

8 x DI 24 V DC

8 x DQ 24 V DC, 0.1 A

4 x DIQ 24 V DC 0.3 A, to be used either as input or output

8 x RS485/RS422 differential signal, input or output selectable, optionally also usable as TTL asymmetric, limit frequency 5 MHz

System integration

32 bytes input data for feedback to the PLC, can be defined by the user

32 bytes output data for controlling the function by the PLC, can be defined by the user

Definable data record, reading and writing, between 4 and 128 bytes long

Can be used centrally in S7-1500 or distributed in the ET 200MP system

Supports isochronous mode

FW download and application download can be performed independently of each other

Module replacement without PG

Configuration/library

A library for S7-1500 and S7-1200 CPU is available to support the handling of the TM FAST application. It is helpful in various cases, but not necessary for operation, so other controls can also be used. It offers the following functions:

Reading the status, version and name of the TM FAST application

Management of applications in TM FAST

Download of the TM FAST application from the SIMATIC Memory Card into TM FAST (only possible with S7-1500), e.g. for a module exchange without PG/PC

Possibilities to download the TM FAST application (the MultiFieldbus Configuration Tool (MFCT) is used to prepare the application):

During development with Intel Quartus Prime SW and Intel Download Cable. The TM FAST Debug Connector is required for this purpose.

From the PG/PC by means of FW update tools, e.g. TIA Portal, SIMATIC Automation Tool SAT or MFCT.

From the S7-1500 CPU during runtime with the TM FAST library

TM FAST Debug Connector

A TM FAST Debug Connector is available as an accessory for the development and commissioning phase. It enables a direct connection from Intel Quartus Prime SW to the FPGA without CPU involvement.

The TM FAST Debug Connector must be ordered separately.

Additionally required external components

The Intel Quartus Prime software is required to create the TM FAST application. This package provides a powerful tool chain for programming, simulation, tracing and debugging of the TM FAST application. VHDL is used as the programming language. Can be purchased directly from Intel.

The Intel FPGA Download Cable is required to connect the Intel Quartus Prime SW with the TM FAST for download and debugging. It can be purchased from specialist dealers.

System characteristics S7-1500

Standardized 40-pole front connector with screw-type or push-in system

Connectable core cross-sections: 0.25 mm² to 1.5 mm² (AWG 24 to 16)

Prewiring position of the front connector

Front flap with expandable cable compartment, even if fully wired

The 1:1 allocation of channel status or diagnostics LED, terminal and inscription; permits the fast locating and elimination of errors. Assistance is provided by the wiring diagram printed on the inside of the front door.

Integrated shielding concept

Included in the scope of delivery:

One labeling strip for manual labeling

One U connector

Printed front door

Infeed element, shield clamp, and shield terminal

功能

The S7-1500 TM FAST user-programmable technology module offers the user the possibility to program the function of the module application-specifically. For this purpose, an application is created using the Intel Quartus Prime engineering tool chain from Intel, which is loaded into the TM FAST. There, the program is processed in an FPGA (Field Programmable Gate Array). The user has direct access to the digital inputs and outputs.

SIMATIC S7-1500 TM FAST enables a wide range of functions for this purpose. The individual functions can be

linked together as desired. This list can therefore only represent an excerpt of possible functions that can be implemented with TM FAST:

Short, adjustable and reproducible responses, e.g. for

Ejection of faulty parts

Sorting systems

Quick shutdown to protect the machine

Position detection using

Incremental encoders

Absolute encoders

Output of precise pulses and pulse patterns, e.g. for

Outputs of pulse or pixel patterns via multiple parallel digital outputs

Output of pulse patterns with freely defined pulses and pauses

Output of pulse width modulated signals

Output of pulses with precisely defined length

Acquisition of fast signals, e.g. for

Counting events

Measuring a frequency

Measuring a pulse duration

Starting an output sequence without delay

Cycle times: The cycle time of the internal logic can be set in steps, a typical value is 20 ns (50 MHz). Taking into account the HW runtimes, response times from input terminal to output terminal of less than 1 s can thus be achieved.

西门子PLC程序结构的介绍

使用西门子PLC设计程序时我们需要对程序结构有一定了解，西门子S7-200 CPU的控制程序由主程序、子程序和中断程序组成，每一个模块对应的功能都不一样，下面我们一起来详细了解一下。

1.主程序

主程序(OBI)是程序的主体，每一个项目都必须并且只能有一个主程序。在主程序中可以调用子程序和中断程序。

主程序通过指令控制整个应用程序的执行，每次CPU扫描都要执行一次主程序。STEP7-Micro/Win的程序编辑器窗口下部的标签用来选择不同的程序。因为程序已被分开，各程序结束时不需要加入无条件结束指令，如END、RET或RETI等。

2.子程序

子程序是一个可选的指令的集合，仅在被其他程序调用时执行。同一子程序可以在不同的地方被多次调用，使用子程序可以简化程序代码和减少扫描时间。设计得好的子程序容易移植到别的项目中去。

3.中断程序

中断程序是指令的一个可选集合。中断程序不是被主程序调用，它们在中断事件发生时由可编程序控制器的操作系统调用。中断程序用来处理预先规定的中断事件，因为不能预知何时会出现中断事件，所以不允许中断程序改写可能其他程序中使用的存储器。