



# WEIGHT TRANSMITTER Y180 User Manual

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Value Each Gram



#### The applicable objects:

Anyone to install, debug or diagnose the Y180 Weighing Control Module. You should have basic knowledge of circuit and weighing. If not, then some training is advised before using the product.

#### The content of the manual:

This manual is the instruction of Y180 Weighing Control Module. It introduces the installation, connection and trouble diagnosis of the controller. This manual: *Explains how to install and connect the modules; Introduces the overview of Y180 Weighing Control Module.* 



*Cautions:* Only professionals can debug, examine and repair the system.



*Cautions:* Hot-line work is forbidden. Make sure the power has been cut before electrical work.



*Cautions:* This module is electrostatic-sensitive device. Take anti-static measures during the use and maintenance.

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## Contents

# Chapter 1 Introduction

Y180 is the weighing control module used in process weighing and it has powerful functions, friendly display interface, abundant information, easy operation and stable performance.

This chapter covers

- Overview
- Type
- Specifications
- Construction and

Dimensions

- Scale Base
- Display and keypad

# **1.1 Overview**

## 1.1.1 Performance

- Modular design, guide rail type installation
- Supports one analog scale base (up to six 350Ω load cell)
- 6 digits LED Segment Displays for clear readability in varying light conditions.
- 24VDC power supply input
- Zeroing, Taring, Clearing functions are accessible on the keypad.

# **1.2 Specifications**

#### Table 1-1 module specifications

Specifications	
Housing	Plastic, with display and operation panel.
Dimensions (w*h*d)	86.8mm×57.9mm×71.5mm
Safety	IP20
Working conditions	Temperature: $-10^\circ \sim 40^\circ C$ (14° $\sim 104^\circ F$ ) Relative humidity: 10% $\sim 95\%$ , no condensation
Power Supply	+24VDC (±10%), power<3W
Display Screen:	6 digits green LED Segment Displays, with the height of 0.32 "
Weight value display	Maximum displayed division: 100,000

Scale base type	One analog scale base	
Load cell quantity	1-6 350 $\Omega$ load cells (with the sensitivity of 2 or 3mV/V)	
A/D update rate	A/D conversion rate 200 Hz	
Load cell excitation voltage	5VDC	
Minimum input sensitivity	0.6µV/d	
Keypad	4 membrane keys	
Communication	Serial port: One RS-232, 4800 $\sim$ 115,200 baud rate One RS-485, 4800 $\sim$ 115,200 baud rate Supported protocol: Continuous output, MODBUS-RTU Analog output port: $0\sim$ 5V, $0\sim$ 10V, $-5V\sim$ +5V, $-10V\sim$ +10V, $0\sim$ 20mA, $4\sim$ 20mA, $0\sim$ 24mA	

## **1.3 Construction and Dimensions**

The following figures introduce the construction and dimensions of Y180 in mm.



#### 1.4 Scale Base

Y180 module supports analog scale base. It provides 5 V excitation voltage to drive six  $350\Omega$ 

analog load cells.

6-wire load cell ensures the accurate weighing even if the resistor of the load cell wires increases along with temperature.

# 1.5 Display and keypad

Y180 module display consists of 6 0.32" green LED segment displays. See the following figure.



The 4 keys on the front side of the display have the basic functions of zeroing, taring, selecting and confirming. They can also be used to enter the setting menu, select the options and input values.

# Chapter 2 Installation

This chapter introduces the installation of Y180. Please read the chapter carefully before the installation.

This chapter covers

- Installation module
- Wire connection

# 2.1 Module Installation

Y180 module goes with the standard guide rail type installation and can be installed onto the 35mm wide guide rail. Firstly, confirm that the fixed lock is unlocked.

Fix Y180 on the guide rail according to the direction of the red arrow below. And it is detached in the same way.



## **2.2 Wire connection**

Y180 module pin definition is as follow.



The following is the typical application diagram of Y180 module



## 2.1.1. Power Supply Connection

Y180 module is powered by 24V DC. 24V DC power supply must be directly connected to the mainboard terminal.

Pins	Signal	Instructions
24V DC	24V positive external power supply	
GND	24V negative external power supply	
	Ground wire	Connect here if there is protective ground wire in the user's place.

## 2.1.2. Load Cell Connection

Y180 module can connect 6 350  $\Omega$  (or the minimum 58  $\Omega$ ) analog load cell. Total scale resistance (TSR) of the scale must be calculated to know whether the connected load cell is within the allowed range.

TSR = 
$$\frac{\text{Load cell input resistance }(\Omega)}{\text{Load cell quantity}}$$

Before connecting the load cell, make sure that the TSR of load cell network connected to the terminal is above  $58\Omega$ . If lower, the terminal will fail to work normally.

Besides, the maximum wire distance should also be taken into consideration. Table A-2 is the max wire length recommended according to the TSR and the wire specifications.

TSR (Ω)	Wire 24 (m)	Wire 20 (m)	Wire 16 (m)
350	243	610	1219
58 (350Ω*6)	40	122	224

Table A-2	max wire	length	recommended
-----------	----------	--------	-------------

Load cell interface terminals definition:

Pins	Signal	Instructions
+EXC	Positive excitation	Short connected to the 4-wire
+SEN	Positive sense	load cell.
+SIG	Positive	

	Signal	
SHD	Shield ground	
-SIG	Negative Signal	
-SEN	Negative sense	Short connected to the 4-wire
-EXC	Negative excitation	load cell.



# 2.1.3 Serial port connection

Y180 module includes 2 independent serial ports, one being RS232 and the other RS485. Pin definition is as follow:

Pins	Signal	Instructions
TXD	RS232 sending	
RXD	RS232 reception	
СОМ	COM port ground (common ground of RS323 and RS485)	
485A	RS485 positive reception	
485B	RS485 negative reception	



## 2.1.4 DA Connection

Y180 module provides 0~5V, 0~10V, -5V~+5V, -10V~+10V, 0~20mA, 4~20mA, 0~24mA analog signal, input proportionally to the weight on scale.

Pins	Signal	Instructions
IOUT	Current output	Output resistance 350Ω (max)
GND	Analog output ground	
VOUT	Voltage output	Output resistance 1KΩ (min)



Current / Voltage output

# **Chapter 3 Operation**

This chapter introduces the basic operation and functions of Y180 module.

#### This chapter covers

- Display Screen
   operation
- Keypad operation
- Operation menu

## 3.1 Display Screen

In the weighing mode, display screen is for displaying the weight and other information related to weight with 6 digits 0.32" green LED display.

See the following figure:





After entering the operation menu or setting menu, display screen will display the menu, options and settings.

#### 3.2 Keypad operation

Y180 module can be operated by the front panel keys

See the following figure for the 4 keys on the Y180 front panel. The below table introduces the functions of the 4 keys in the normal operations



Keys of Y180 module

The keys in the main weighing interface are for:

Mark	Definition	Function
►0∢ ZERO	Zero	When Pushbutton Zero function is on in Settings and it is within the range, Pushing the button can capture a new gross weight zero reference point.
●Ŷ TARE	Tare	Tare weight is the weight of the empty container. Gross weight minus tare weight is net weight. Press Tare when the container is empty, it reads the net weight 0. When the container is loaded, it reads the net weight of the contained object. Activate the function of Tare in Settings before using this key.
SELECT	Select	No function
ر⊾ ENTER	Confirm	Long press this key for 3 seconds at the main weighing interface to enter the Settings page.

When the scale base is in motion, taring and zeroing functions can not be used.

# 3.3 Operation menu

Long press **ENTER** for 3 seconds at the weighing interface to enter the Operation menu. The display changes from weighing to Main menu.

After entering the Operation menu, the 4 buttons will do the guiding. The following are the functions of the keys when inputting in the Operation menu.

Mark	Weighing	Selecting	Editing
►0◄	Zero the scale	Poturn / Evit	Return without
ZERO			saving
◆⑦ TARE	Tare / Clear	Page down	Increase
		Paga up	Move the cursor /
SELECT	-	rage up	Increase
	Long press to enter	Move on to the	Poturn offer soving
ENTER	Settings	secondary menu	Return alter saving

# **Chapter 4 Parameters Settings**

This chapter introduces the settings and scale calibration of Y180

#### This chapter covers

- F1 Scale port parameters
- F2 Analog output port parameters
- F3 Communication port
   parameters
- F4 Maintenance menu

#### F1 Scale port

Parameter	Option	Instructions				
F1.1 Maximum	1≤Capacity≤60000	1. Input the maximum capacity value				
capacity	<u>Default: 6</u>	according to the actual need.				
F1.2 Decimal place	Range: 0~4					
	<u>Default: 3</u>					
F1.3 Division	1/2/5/10/20/50					
	<u>Default: 1</u>					
F1.4 Zero point	<u>0: Skip</u>	1. "E_SCAL" instructs to remove the				
calibration	1: Enter	loader on the scale.				
		2. Unload the scale and press ENTER				
		The module starts count down and read				
		the value of empty scale				
		3. Go to F1.5				
F1.5 Load point	<u>0: Skip</u>	1. "LOAD" instructs to load the				
calibration	1: Enter	counterweight.				
		2. Wait for the scale to be stable. Press				
		"ENTER" to enter the Counterweight				
		Weight interface.				
		3. Input the weight of the load and press				
		ENTER. Down count the module and				
		read the value.				
		4. Go to F1.6				
F1.6 Filter grade	Range: 0 $\sim$ 9	1. Press Select to select; press ENTER				
	<u>Default: 1</u>	to confirm.				
		2. The larger the value, the more wavy				
		the filter.				

F1.7 Motion range	OFF: No motion	1. Press "Select" to select
	detection	2. Off: No motion detection
	1d: 1d	
	2d: 2d	
	<u>3d:</u> <u>3d</u>	
	4d: 4d	
	5d: 5d	
F1.8 Overload range	9d: ±9d	
	5: Capacity×5%	
	10: Capacity×10%	
	20: Capacity×20%	
	100: ±(Capacity+9d)	
F1.9 Power up zero	OFF: Power up zero off	
range	5: Capacity×5%	
	10: Capacity×10%	
	20: Capacity×20%	
F1.10 Pushbutton Zero	OFF: Pushbutton Zero	
range	off	
	5: Capacity×2%	
	10: Capacity×10%	
	20: Capacity×20%	
F1.11 Zero track	OFF: Zero track off	
Range	1d: 1d	
	2d: 2d	
	<u>3d: 3d</u>	
	4d: 4d	
	5d: 5d	

# F2 Analog output port parameters

Parameter	Option	Instructions
F2.1 Analog mapping	0: 0 $\sim$ +5V output	0: 0∼Cap→ 0 ~+5V
object	<u>1: 0 <math>\sim</math> +10V output</u>	1: 0 $\sim$ Cap→ 0 $\sim$ +10V
	2: $-5V$ $\sim$ $+5V$	2: $-Cap \sim +Cap - \rightarrow -5V \sim +5V$
	output	3: –Cap $\sim$ +Cap $\rightarrow$ –10V $\sim$ +10V
	3: $-10V \sim +10V$	4: 0 $\sim$ Cap→ 4mA $\sim$ 20mA
	output	5: 0 $\sim$ Cap→ 0mA $\sim$ 20mA
	4: 4mA $\sim$ 20mA	6: 0 $\sim$ Cap→ 0mA $\sim$ 24mA
	output	
	5: 0mA $\sim$ 20mA	
	output	
	6: 0mA $\sim$ 24mA	
	output	

F2.2 Analog Zero	$0 \sim 65535$	Put the probe of multimeter onto the
Point Calibration		analog output terminal according to the
		settings of F2.1 object. Pay attention to
		the current and voltage and make sure
		the multimeter is in accordance. Observe
		whether the readings of multimeter is
		correct. If not, adjust the value. The larger
		the value is, the larger the multimeter
		reads.
F2.3 Analog Full Span	$0 \sim 65535$	Analog full span calibration, same as
Calibration	0 00000	F2.2.

# F3 Communication port parameters

Parameter	Option	Instructions
	0: No output	
E2.4 Carial Dart 4	1: Toledo continuous	
format	output mode	
Iomat	2: MODBUS-RTU	
	<u>mode</u>	
F3.2 Serial port 1	0: 8 digits without	
digital place	<u>check</u>	
	1: 7 digits without	
	check	
	2: 7 digits even check	
	3: 8 digits odd check	
	4: 8 digits even check	
F3.3 Serial Port 2	0: No output	
format	1: Toledo continuous	
	output mode	
	2: MODBUS-RTU	
	<u>mode</u>	
F3.4 Serial port 2	0: 8 digits without	
digital place	<u>check</u>	
	1: 7 digits without	
	check	
	2: 7 digits even check	
	3: 8 digits odd check	
	4: 8 digits even check	

F3.5 Serial port	0: 4800	
baud rate:	1: 9600	
	2: 19200	
	3: 38400	
	4: 115200	
F3.6 Node	Range: 1 $\sim$ 99	
Address	Default: 01	

#### F4 Maintenance menu

Parameter	Option	Instructions
F4.1 Load default	0: default without load.	
	1: default with load.	
F4.2 Display		
screen check		

# **Appendix A Menu**

#### This chapter covers

 Tree diagram of the menu

#### A Tree diagram of the menu

#### MENU TREE

- F1 Scale Parameters F2 Analog Output Port F3 Communication Port F4. Maintenance F1.1 Capacity F2.1 Mapping object F3.1 Com1 Format F4.1 Reset F1.2 Decimal Point F2.2 Analog Zero Calibration F3.2 Com1 Baud Rate F4.2 Display Check F1.3 Division F2.3 Analog Load Calibration F3.3 Com2 Format F1.4 Zero Calibration F3.4 Com2 Data Bit F1.5 Load Calibration F3.5 Baud Rate F3.6 Node Address F1.6 Filter Class F1.7 Motion Range F1.8 Overload Range
- F1.9 Initialization Zero
- F1.10 Manual Zero
- F1.11 Zero Track

# **Appendix B Data format**

This chapter introduces the communication of Y180.

#### This chapter covers

- Continuous output format
- MODBUS output
   format

## **B.1** Serial interface parameters

Y180 provides 2 standard serial interfaces, one is RS232 interface TXD, RXD and COM also used for downloading new Y180 software, and the other is RS485 interface 485A, 485B and COM.

Y180 provides 2 ways of data output, continuous and MODBUS.

## **B.2. Continuous Output format**

The continuous output template of Y180 can transmit the information of weighing capacity and scale to the remote devices such as PC or display.

Continuous output format																
STX	А	В	С	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	CR
1	2		3				4					5				

- 1. <STX>ASCII start character (02H)
- 2. Status word A, B, C.
- 3. Displays the weight, gross weight or net weight. 6 digits unsigned figure without decimal.
- 4. Tare weight, 6 digits unsigned figure without decimal.
- 5. <CR>ASCII carriage return (ODH).

	Status word A	Status word B	Status word C	
Bit0	010: no decimal 011: 1 decimal place	0 = gross weight 1 = net weight	1 = OUT0 effective	
Bit1	100: 2 decimal places	1 = weighs below 0	1 = OUT1 effective	
Bit2	101: 3 decimal places 110: 4 decimal places	1 = overranged	1 = OUT2 effective	
Bit3	Constant 0	0 = static, 1 = in motion	1 = OUT3 effective	
Bit4	Constant 0	Unit: 0 = kg , 1 = g	Reserved	
Bit5	Constant 1	Constant 1	Constant 1	
Bit6	Constant 0	Constant 0	1 = INO effective	
Bit7	Constant 0	Constant 0	1 = IN1 effecitive	

## **B.3 MODBUS output format**

Mapping Address		Definition and Remarks (read-only)					
		Weight value currently displayed					
		Signed integer: range from -32767 to 32767 without decimal.					
40	001	Unsigned integer: range from 0 to 65535 without decimal. See 40004 for the sign.					
		For beyond 65535, take the following floating-point number form.					
40	002						
40	003	Weight value currently displayed floating-point number form					
	Bit0	1 = net weight, 0 = gross weight					
	Bit1	1 = negative weight, 0 = positive weight					
40004	Bit2	1 = in motion					
40004	Bit3	1 = overloaded					
	Bit4	1 = underloaded					
	Bit5	1 = Failed to zero when turned on					
Mapping Address		Definition and Remarks (read and write)					
40006		Full Span Capacity (1 $\sim$ 60000)					
40	007	Decimal place (0-4)					
40	008	Division (1 / 2 / 5 / 10 / 20 / 50)					
40	009	Filter grade (1-9)					
40	010	Motion range (0-5)					
40	011	Overload display range (0-3)					
40	012	Power up zero range (0-3)					
40013		Pushbutton Zero range (0-3)					
40014		Zero track range (0-3)					
40015		Analog mapping object (0-6)					
		Calibration information. Clear this information before calibration. Read the information after calibration.					
40	016	0x01 : Zero point calibrated;					
	0x02 : Load point calibrated;						
		0x03 : Input weight too low in load point calibration					

	0x04 : Input weight too high in load point calibration				
	0x05 : Loaded weight too low in load point calibration				
	0x06 : Scale in motion during calibration				
Mapping Address	Definition and Remarks (write-only)				
	Scale calibration				
40020	Write 0: Calibration zero point				
40020	Write XXXXX: Load point calibration $1 \leq XXXXXX \leq Capacity$				
	Calibration information reads 40016.				
40021	Write 1: Load default value				
40022	Write 1: Zeroing				

# **Appendix C Prompts**

This chapter introduces the prompts of Y180.

#### This chapter covers

Prompts

No.	Prompts	Definition
1	(۲۰۰۰۰)	Overloaded
2	[L]	Underloaded
3	(Ad Err)	AD initialization error
4	(EP Err)	EEPROM check error
5	<b>∠</b> EEE 】	Failed to zero when turned on; underweight
6	r eee j	Failed to zero when turned on; overweight
7	[End]	Zero point and load point calibrated
8	(Err 03)	Input weight too low in communication load point calibration
9	(Enr. 05)	Input weight too high in communication load point calibration
10	[Err 06]	Loaded weight too low in communication load point calibration
11	(Err 07)	Scale in motion during calibration
12	(E_SCAL)	Instructs to empty the scale during calibration
13	CLOA9 3	Instructs to load the counterweight during calibration
14	(NO)	Invalid operation
15	[Ld ]	Loading default

# Appendix D Software update

This chapter introduces the software update of Y180.

#### This chapter covers

- Software update
- Wire connection
- Update steps

# D.1 Software update

It's convenient to update software of Y180 module with computer. The edition number changes every time after updating. (The new edition software is without notice.)

*Caution: After updating, the system settings may be changed. So please back up the parameters before updating.* 

## **D.2 Wire connection**

Y180 module is connected to the computer by their serial ports. If the computer has no serial port, use a USB adapter wire.

Controllor coviel next	Computer serial port							
Controller serial port	9 pins	25 pins						
TXD	2	3						
RXD	3	2						
СОМ	5	7						

Serial port connection is as follow:

#### D.3 Update steps

This module uses STC-ISP application software to update the Y180 software. This application software can be downloaded at the official site of STC: <u>http://www.mcu-memory.com</u>

Update steps:

1. Power off the Y180 module.

2. Open the STC-ISP software.



3. As follow, select the chip type, serial port number and hardware.

You can set as the following:

1 Single chip type: STC12C5A60S2

(2) Serial port number: Select according to your computer.

(3) Hardware: as shown in the red box.

● 片机型号 TC12C5A6052       ● 引時数 40       用口服 Kei1仿真设置 范例程序 透型/价格/样品 弦槽率计算器 定时器         中口号 通信演口 C0011)       ● 扫描         ● 片机型号 TC12C5A6052       ● 目前信演口 C0011)       ● 扫描         ● 小口号 通信演口 C0011)       ● 扫描         ● 小口号 通信演口 C0011)       ● 日本         ● 小口号 通信 ● 小口号 市场 ● 小日本       ● 小日本         ● 小口号 市场 ● 小日本       ● 日本         ● 小口号 市场 ● 小日本       ● 小日本         ● 小日本       ● 小日本 <th>x</th>	x
① 申日号通信端□ (COM1) ● 扫描 最低校特案 (2400 ● 最高校特案 115200 ● 起始地址 Dx0000 ◎ 清除在EPROM空中区 打开程序文件 Dx0000 ◎ 清除在EPROM空中区 打开程序文件 Dx0000 ◎ 清除在EPROM空中区 打开程序文件 使件法项 脱机下载/// 自动增量 自定://加密下 ▲ ● ■ 「存电压 40) 程序空间 ● SRAM EPROM 1/0 定时器 STC15F21X082 5.5-3.8 8K 2048 53K 42 6 STC15F21X082 5.5-3.8 16K 2048 45K 42 6 STC15F21X082 5.5-3.8 40K 2048 37K 42 6 STC15F21X082 5.5-3.8 40K 2048 21K 42 6 STC15F21X082 5.5-3.8 40K 2048 21K 42 6 STC15F21X082 5.5-3.8 40K 2048 13K 42 6 STC15F21X082 5.5-3.8 60K 2048 1X 42 6 STC15F21X082 5.5-3.8 60K 2048 5X 42 6 STC15F21X082 3.6-2.4 16K 2048 45K 42 6 STC15F21X082 3.6-2.4 16K 2048 45K 42 6 STC15F21X082 3.6-2.4 16K 2048 45K 42 6 STC151212082 3.6-2.4 16K 2048 35K 42 6 STC151212082 3.5-2.4 16K 2048 35K 42 6 STC151212082 3.5-2.4 16K 2048 35K 42 6 STC15121600 3.6-2.4 16K 2048 35K 42 6 STC1	4.2
金融资料率 2400         金融高波特率 115200           最高波特率 115200             达始地址           立0000         ○ 清除定野的爆中区           打开程序文件             Dx0000         ○ 清除定野的爆中区           打开程序文件           T作电压           P の部高精度的排           A 专用仿真芯片         #□             W件选项         W件选项         W小T 自动增量         自立火加密下           T作电压           P の部高精度的排           A 专用仿真芯片         #□             W件选项         W件选项         W小T 自动增量         自立火加密下           T作电压         (*         P の部高精度的排           A 专             W件选项         W小T酸///         W市荡器放大增益         (204)         Law以上違议法择         )           Trat//#           D 会           Trat//#           D 会             P の時期         作力         Struits           Trat//#         Struits           Trat//#         Struits           Trat//#           P の               Trat//#         Struits           Trat//#           Trat//#           Trat//#           Trat//#               Trat//#         Trat//#         Trat/#           Trat/#           Trat/#           Trat//# <t< th=""><th></th></t<>	
記価地址 0x0000       「有除定FP200%(学中区       打开程序文件         0x0000       「有除正式/11」       自动增量       自定:x/加密下 **         0x0000       「有除正式/11」       自动增量       自定:x/加密下 **         0x0000       「有除正式/11」       10       定时器         0x1011       「市家活動:大增益       11       11         0x1011       「市家活動:大增益       11       11       11       11         0x1011       「市家活動:大增益       11       11       11       11       11       11       11       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12       12	
2       17月22月2011         0x0000       清除注22月2001第中位         0x0000       清除注22月2001第中位         1月月22日       11月22月21         1月月22日       11月22月21         1月月22日       11月22月21         1月月22日       11月22月21         1月月22日       11月22月21         1月月22日       11月22月21         1日       1日	UC
3       STC15F2X0852       5.5-3.8       8K       2048       53K       42       6         第4位用内部IIECITHIQ       新塔(加口       自动增量       自定、加密下(*)       STC15F2K1652       5.5-3.8       16K       2048       45K       42       6         第指統用内部IIECITHIQ       新塔(加口)       建设均用作1/0口       STC15F2K1652       5.5-3.8       24K       2048       27K       42       6         第位均用作1/0口       建設位用市場では均定時       第位均用がたけ賃位       1       1       5       5.5-3.8       40K       2048       21K       42       6         STC15F2K1652       5.5-3.8       40K       2048       31K       42       6         STC15F2K1652       5.5-3.8       40K       2048       31K       42       6         STC15F2K1652       5.5-3.8       40K       2048       13K       42       6         STC15F2K1652       5.5-3.8       60K       2048       1K       42       6         STC15F2K1652       5.5-3.8       60K       2048       5K       42       6         STC15F2K1652       3.6-2.4       6K       2048       5K       42       6         STC15F2K1652       3.6-2.4       16K       2048       5K <th>1</th>	1
硬件选项	
法择使用内部IIXBI持体(不迭为外部目持)       「         「株務器放大増益(128以上違议选择)       「         夏位期用作I/0口       2015         夏位期用作I/0口       2015         2015       2015         夏位期用作I/0口       2015         2015       2015         2015       2015         2016       2015         2015       2015         2015       2015         2016       2015         2017       2015         2017       2015         2017       2015         2017       2015         2017       2016         2017       2016         2017       2016         2017       2016         2018       2016         2017       2016         2017       2016         2017       2016         2017       2016         2017       2016         2018       2016         2018       2016         2018       2016         2017       2016         2018       2016         2017       2016         2018       2017         2018       201	
⑦ 振荡器放大增益(12組以上建议选择) 重位期用作1/0口 取SET24期的电平低于1.33V时芯片复位 ② 止电复位使用校长延时 正电复位使用校长延时 正电复位时用校长延时 正电复位时用校长延时 正电复位时用被件自动启动着门狗 看门狗定时器分频系数 255 ● ② 空闲状态时停止看门狗计数 下次冷启动时, P1.0/P1.1为0/0才可下载程序. 下次次自动时, P1.0/P1.1为0/0才可下载程序. 下次下载用户程序时操练用户EEFROMIC	
第位期用作1/0口 RESET2期前电平低于1.33V时芯片复位 中电复位使用较长延时 中电复位使用较长延时 中电复位时由硬件自动启动着门狗 客门狗定时器分频系数 [255 ] 5-3.8 60K 2048 1X 42 6 STC15F2IX552 5.5-3.8 60K 2048 1X 42 6 STC15F2IX552 5.5-3.8 60K 2048 1AP 42 6 STC1512IX52 5.5-3.8 61K 2048 1AP 42 6 STC1512IX52 3.6-2.4 8K 2048 53K 42 6 STC1512IX532 3.6-2.4 16K 2048 45K 42 6	
Comparison	
T 14811484194-F 版 71.33913(2) / 夏12         中島夏位時日枝千取时         中島夏位時日枝千取时         中島夏位時日枝千取时         中島夏位時日枝千取时         中島夏位時日枝千取时         東山夏位時日枝千取时         東山夏位時日枝千取日         東山夏位時日枝千取日         東山夏位時日         東山夏位時日         東山夏行時日         東山夏台         東山夏台 <th></th>	
① 上电源位使用较大级时             ① 上电源位时由硬件自动启动着门狗             章门狗定时器分频系数             256             章门狗定时器分频系数             256             章门狗定时器分频系数             256             章 □利状态时停止着门狗计数             ○ 室闲状态时停止着门狗计数             下次念点动时, P1.0/P1.1为0/0才可下载程序             下放下载用户程序时指除用户EEPROM区             3	
日电复位时由硬件自动启动着门狗 有门狗完时器分频系数 256	
●门狗定时器分频系数 256     ● 「	
③ ③ ③ ③ ③ ⑤ ⑤ ⑤ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ ⑦ Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø	
3 ★ 1940-300 319 LL 個1 399 F 300 下次: 今晨は助け, P1. 0/P1. 1次0/0才可下载程序 下次: 下次下载用户程序时指除余用户EEPROM区 下式#: (#932	- T
3	
下部 // 會理 // 演算/演程	
INTERNET TO THE ACCOUNT OF A COUNTRY OF A CO	
☑ 每次下载前都重新装载目标文件	
■ □ 当目标文件变化时自动装载并发送下载命令 发布项目程序 发布项目帮助 读取本机硬盘号 ⑦ 提示音 成功计数 19	清零

6. Select the HEX file to be burned.

4 Open the program file. Open the program file according to the path of the program.

串口号 通信端口 (COM1) 最低波特率 2400 ▼ 最高波	<ul> <li>◆ 扫描</li> <li>特率 115200 ◆</li> </ul>	締迭 工作电压 *	▼ 程序空	间* •	sramt	<b>小</b> (∗	• I0;	故里 🔹	•
起始地址	17开程序文件	查找 *	内部高精度	度时钟 🖻	有专用	仿真芯片	串口	* •	ADC
		코号	工作电压 (V)	程序空间	SRAII	EEPROM	I/0	定时器	8 1
0x0000 Matter Kunig 4X	打开EEPROM文件	STC15F2K08S2	5.5-3.8	8K	2048	53K	42	6	
硬件选项 脱机下载/17 自动增量	自定义加密下,	STC15F2K16S2	5.5-3.8	16K	2048	45K	42	6	
		STC15F2K24S2	5.5-3.8	24K	2048	37K	42	6	
送择使用内部IRC时钟(不迭为外部	調神) 🔨	STC15F2K32S2	5.5-3.8	32K	2048	29K	42	6	
 ▼ 振荡器放大增益(128以上建议法)	(業)	STC15F2K40S2	5.5-3.8	40K	2048	21K	42	6	
■ 第位期用作T/0□	840	STC15F2K48S2	5.5-3.8	48K	2048	13K	42	6	
		STC15F2K56S2	5.5-3.8	S6K	2048	SK	42	6	
RESET2期的电平低于1.33V时芯片	夏位	STC15F2K60S2	5.5-3.8	60K	2048	1K	42	6	
☑ 上电复位使用较长延时		IAP15F2K81S2	5.5-3.8	61K	2048	IAP	42	6	
上电复位时由硬件自动自动看门。	狗	STC15L2108S2	3.6-2.4	8K	2048	53K	42	6	1
新门站向时驾从杨玄教 osa		STC15L2K16S2	3.6-2.4	16K	2048	45K	42	6	
		STC151282452	3 6-2 4	24K	2048	37K	42	ß	
□ 下次令启动时, P1.0/P1.1为9/14X □ 下次令启动时, P1.0/P1.1为9/0才 □ 下次下载用户程序时撤除用户EER	1可下载程序 280M区								
下载/编程 停止 [	重夏编程								
 LA mhunules T [state clent]	任何ZT0+ 2 私 -								

7. Program file loaded as follow:



#### 8. Download / programming

(5) Click Download / programming and start downloading.



	STC12C5A60S2	~ 引脚数	40 +	程序文件	EEPRO	M文件	串	口助	₹ I	Keil	仿真	设置	范	例程	家)	法型/	/价格	备/样品	1
串口号	通信端口 (COM1)		扫描	00000h	02	2C	BE E	4 FF	OF	EF	<b>B</b> 4	14	FB 2	2 02	35	76	59	31	
低波特率	2400 - 最高波	特率 11520	0 -	00010h	38	30	2E 3	0 31	00	00	FF	FF	FF F	F 02	2 30	52	FF	FF	80
<b>起始地址</b> 0x0000 ☑ 清除代码缓冲区 打开程序文件			00030h 00040h	09 C2	3E 03	90 0	01 0B	3 12 3 C2	78 11 74	58 01	12 11 00 00 F2 C	00 0	0 00	C2	01 E2	C2 FC	06 08	.> ??	
0000	JOOO J 清除EEPROM缓冲区 打开EEPROM文件		(件 00050h	E2	FC	08 E	2 FD	08	E2 E2	FF S	08	E2 F	F 78	BA	12	11	4C	他	
硬件选项	脱机下载/17 自动增量	自定义加速	<u>ا ا آ</u>	00070h 00080h	78 78	BA 95	E2 F	B 08 C 08	E2 E2	F9 FD	80 80	E2 E2	FA O	8 E2	CB D0	F8 00	C0 C3	00 9B	x符 x符
<ul> <li>□ 选择落位</li> <li>□ 法振荡位</li> <li>□ 上程</li> <li>□ 上</li> <li>□ 上</li> <li>1 全</li> <li>下次下</li> <li>□ 下次下</li> </ul>	使用內部IIIC的1转(不迭为外 翻於大增益(I281以上建议选 期件II/O口 24期的电平低于1.334时芯片 配位使用较长延时 配位用較长延时 配位用較长延时 256 大态时停止看门狗计数 多启动时,P1.0/P1.1为0/02 数用户程序时翻涂用户EE	部时钟) 择) 行夏位 狗 す可下載程序 PBOM区		00030h 00030h 00020h 00020h 00020h 00020h 00020h 00070h 00100h 代码长度	22 78 12 60 2A 89 80 A3 (357D)	2E 99 11 30 78 42 09 E0 {	E2 F1 E2 F1 40 7 24 0 CD 1 CB 0 78 C FD A	C 08 8 8F 4 70 2 11 0 00 D 12 3 E0	E2 E2 35 89 80 11 FE III 3858	FD FD 14 78 41 14 89 A3	20 60 CD 20 78 46 E0	50 E2 18 12 00 CD 1C FF	FE 0 14 6 11 8 00 8 12 1 40 0 EC 1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 FF 14 7 80 7 78 9 44 0 00 0 2D 2 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	90 60 00 CD 7A EA 78	00 28 00 12 00 E0 CD	E6 14 80 11 00 FC E2	x档 ·0 *x €. ►
下载/	编程 <b>停止</b>	重复编程	¥ )																
检测mcu选项 注意/帮助 重复延时 3 秒 -																			

8. Power on Y180 module, start downloading the program. It prompts "Operation succeeded" as follow after it's done.

斎 STC-ISP (V6.53) 官方网站:www.STCMCU.com (研发原	页问QQ:13922805190) STC: 全球最大的8051单片机设计公司 (姚 💻 💷 🛛 🗙										
单片机型号 STC12C5A60S2    → 引脚数 40	─ 程序文件 ZEPROM文件 串口助手 Keil仿真设置 范例程序 选型/价格/样品 ▲										
串口号 通信端口 (COM1) ▼ 扫描	00000h 02 2C BE E4 FF 0F EF B4 14 FB 22 02 35 76 59 31										
最低波特室 2400 ▼ 最高波特室 115200 ▼	00010h 38 30 2E 30 31 0A 00 FF FF FF FF 02 30 52 FF FF 80										
12+41+1+1	00020h FF FF FF 02 33 83 78 D1 12 11 89 00 00 00 00 30										
Dx0000 ▼ 清除代码缓冲区 打开程序文件	00040h C2 03 C2 05 78 C2 74 01 F2 C2 00 78 91 E2 FC 08 ??										
	00050h E2 FD 08 E2 FE 08 E2 FF 90 01 07 12 11 40 78 91 他										
OX0000 ▼ 利开EErKOM文件	00060h E2 FC 08 E2 FD 08 E2 FE 08 E2 FF 78 BA 12 11 4C 彻										
硬件选项 脱机下载/17 自动增量 自定义加密下 1 >	00080h 78 95 E2 FC 08 E2 FD 08 E2 FE 08 E2 D0 00 C3 9B xE										
□ 洗择使用内部TRC时轴(不洗为外部时轴)	00090h FF EE 9A FE ED 99 FD EC 98 FC 90 00 EA 12 11 40										
	000A0h 78 99 E2 FC 08 E2 FD 08 E2 FE 08 E2 FF 90 00 E6 x7										
	000B0h 12 11 40 78 8F E2 14 60 18 14 60 20 14 60 28 14										
	000D0h 2A 78 CD 12 11 89 41 20 00 00 80 1F 78 CD 12 11 *x										
RESEI2脚的电平低于1.330的心厅复位	000E0h 89 42 C8 00 00 80 14 78 CD 12 11 89 44 7A 00 00 塀										
☑ 上电复位使用较长延时	000F0h 80 09 78 CD 12 11 89 46 1C 40 00 90 00 EA EO FC €.										
□ 上电复位时由硬件自动启动者(1)狗	00100h A3 E0 FD A3 E0 FE A3 E0 FF EC 12 0D 2D 78 CD E2										
看门狗定时器分频系数 256 ▼	۰ m ۲										
✓ 空闲状态时停止看门狗计数 下次/今点カカオ P1 0/P1 1为0/0才可下载程序	代码长度 357DH 校验和 3862H 区域填充 清空区域 保存数据										
□ 下次下载用户程序时操作用户IEFROM区											
下载/编程 停止 重复编程	操作成功!										
检测MCU选项 注意/帮助 重复延时 3 秒 ▼	Ŧ										
	D:\Work\Y180\Software\Y180.hex										
<ul> <li>□ 当目标文件变化时自动装载并发送下载命令</li> </ul>	发布项目程序 发布项目帮助 读取本机硬盘号 🗹 提示音 成功计数 20 清零										

9. The module restarts and the update is done.











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