

# **Technical Notes**

Application of LUC-CE series module and Mitsubishi FX5U series PLC connection keyword: CC-LINK IE FB, LUC-CE , FX5U, ES-02MB-232



Revision record

Changes:

2024-11-12 Create this document.

Establishment: 刘小锋	Examine:	
2024 - 11 - 12		2024 - 11 - 12

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# 1. Module parameters and IP address configuration

1.1 LAEConfigSoftware interface introduction



This software interface includes: toolbar, module information tree directory, parameter setting area, module information display area, etc.



1.2 Scan hardware in the network

click .Set the IP address range to be scanned (in the display area), and ensure that the computer's network IP parameters are in the same network segment as the set one. Click 'Start' to enter the scanning phase. The scanned modules will be displayed within the set IP range.

C LA Config			
E = <a href="#">€</a> E = <a href="#">€</a> E = <a href="#">€</a>			English 👻
> LUC-CE(192.168.0.3) 产品示图		Type:	LUC-CE
0 1 2 2 4	·	MAC:	7C-BA-CC-15-E1-4E
LUC-CE ES02HC ES3088A ES216XD ES1160D		IP:	192.168.0.3
		Submodules:	4for
		Firnware:	V1.01 Jan 29 202414:41:32
		InterFiravar	NONE
		38	6 121
	Scanning module	Submodule :	Information
		Type:	ES02HC
	• Net	Firmware:	
	4	Description:	: 1 通道高速计数模块
	Local IF 192. 168. 0. 1	Res	et Default Parameter
	TP Range: 192, 168, 0, 1 192, 168, 0, 100		
General Static IP			
	O IISB		
Saie Mode			
	004		
	Scan stop		
	0		
	3		

1.3 Modify the IP address of the module

click . Click on Global Scan, select the IP address for modification, and click on Modify IP Address. Entering the process of assigning IP addresses, whether the assignment was successful can be displayed in the status column at the end.

LA_Config		
28 28 28 4 28 4 28 4 28 4 28 4 28 4 28		English -
> LUC-CE(192.168.0.3) Froduct is:          UCCCE Same	Scanning module ×	Type:         LUC-CE         Mac:           TP:         192 168 0.3         [foff];           Subnobules:         f           Firmware         V/101 Jun 29 202414.41.32           InterFirmware/NONE
	IP Range 192.108.0.3 192.108.0.5 USB COURS (wch.cn.USB-SERIAL CH340) V Coupler Modele)	Type: Firware: Description: Reset Default Parameter
日本社会 法社会 法社会 Safe Node	St 100% Er 4 Rescan stop	

1.4 Modify the parameters of the module

Modify ES-02MB parameters: Click the Scan Module button, select USB, choose the corresponding USB to TYPEC serial port, and click Scan Start.

LA_Config		
ð 🖁 👑 🔀	⊍ 🇞 ? 🛃 📾	
> LUC-CE(192.168.0.2)	Product img 0 1 LUC-CE FS02MBA	Scanning module         X           Net         Image: 192.168.0.200         Image: 192.168.0.200         Image: 192.168.0.5         Image: 192.168.0.5         Image: 192.168.0.5         Image: 192.168.0.2         Image: 192.168.0.5         Image: 192.168.0.5         Image: 192.168.0.2         Image: 192.168.0.5         Image: 192.168.0.5         Image: 192.168.0.2         Image: 192.168.0.5         Image: 192.168.0.5<

According to the following communication parameter settings, the key is to be

consistent with the slave station parameter settings

Set the communication speed to 9600bps; Set 8 data bits, no checksum, and 1 stop bit;

	0	
0 ESO2MB		
Settings	COM1 BAUD	9600 ~
Settings 通讯配置 Wessage	COM1 BAUD COM1 parameters	9600 ~ 8 Data, None Parity, 1 ~
Settings 通讯配置 Message monitor	COM1 BAUD COM1 parameters COM1 Interval time	9600
Settings 通讯配置 Message monitor 监控表	COM1 BAUD COM1 parameters COM1 Interval time COM1 Terminator	9600 ~ 8 Data, None Parity, J ~ 0 € Disable ~
Settings 通讯配置 Message monitor 监控表	COM1 BAUD COM1 parameters COM1 Interval time COM1 Terminator COM1 Status	9600 ∨ 8 Data, None Parity, J ∨ 0 ÷ Disable ∨ Communication stopped ∨
Settings 通讯配置 Message monitor 监控表	COM1 BAUD COM1 parameters COM1 Interval time COM1 Terminator COM1 Status COM2 BAUD	9600     ∨       8 Data, None Parity, J ∨       0       ①       ①       ①       ②       Disable       ∨       Ocommunication stopped       9600
Settings 通讯配置 Message monitor 监控表	COM1 BAUD COM1 parameters COM1 Interval time COM1 Terminator COM1 Status COM2 BAUD COM2 parameters	9600       ~         8 Data, None Parity, 1 ~         0       ‡         Disable       ~         Communication stopped ~         9600       ~         8 Data, None Parity, 1 ~
Settings 通讯配置 Message monitor 监控表	COM1 BAUD COM1 parameters COM1 Interval time COM1 Terminator COM1 Status COM2 BAUD COM2 parameters COM2 Interval time	9600       ∨         8 Data, None Parity, 1 ∨       0         0       ↓         Disable       ∨         Communication stopped       ∨         9600       ∨         8 Data, None Parity, 1 ∨       ∨         0       ↓
Settines 通讯配置 Message monitor 监控表	COM1 BAUD COM1 parameters COM1 Interval time COM1 Terminator COM1 Status COM2 BAUD COM2 parameters COM2 Interval time COM2 Terminator	9600       ∨         8 Data, None Parity, 1 ∨       0         0       ↓         Disable       ∨         0600       ∨         9600       ∨         8 Data, None Parity, 1 ∨       ∨         0       ↓         0       ↓         Disable       ∨         0       ↓         Disable       ∨

The specific communication is as follows:

Function code 1, set port 1, free protocol, input data length of 10 bytes, output data length of 10 bytes.

Set module parameters in the parameter setting area. After the setup is completed,

click C

Download module parameters.

Æq	4 <b>G</b>	?		<b>a</b>														Engli	sh 🕶
	Product im:	8													<u> </u>	Type: MAC: IP: Submodules: Firmware: InterFirmware: 0 Submodule Type: Firmware:	00-00-00-00-0 0.0.0.0 0 (V1.01 Oct 28 NONE 0_Size (byte 0 Information	0-00 todf 202413:26:04 ) C_Size(byte) 0	Module Information
1	Basic Ganica 通訊記述 Nessage nonitor 监控表	- I 1 ∫端□	Port ₃ve ⊐1 ▼ 0	e Addre ji	Fun Code Free Message	Reg Addre	ss Swap	ut Date	10	igger Mor Change ▼	Poll Time 300	neout Tin 100	I.Address 110	Q.Address 110	Descrip	tion	et Default Pa	arameter sate new Import Ex Status Control	Exc cel wor

# 2. ES-02MB Overview

The Mitsubishi FX5U series PLC can be connected to remote IO modules through cc link iefb communication. By adding LUC-CEB couplers and ES-02MB expansion modules, remote IO control can be achieved through simple connections.

The module supports 2-channel Modbus RTU 232 slave communication. The module supports TYPC-USB parameter download.

Terminal	ES-02MB-232	
number	symbol	describe
1	TX_1	RS232-A
2	TX_2	RS232-B
3	GND1	grounding
4	Y_1	reserve
5	Z_1	reserve
6	GND1	grounding
7	TX_1	RS232-A
8	TX_2	RS232-B
9	GND2	grounding
10	Y_2	reserve
11	Z_2	reserve
12	GND2	grounding

# 2.1 Definition of wiring terminals

# 2.2 Wiring diagram



3. Debugging environment

-GX-WORKS3

-LAE-config

# 4. technical realization

4.1 Hardware connection

1. Connect the Mitsubishi FX5U series PLC and remote IO module power supply correctly.

2. Connect the RJ45 interface of the test object PLC to the Ethernet port of the remote IO module through a dedicated Ethernet cable.

3. Use LAE config software to scan and download parameters through the type-c interface.

4. Connect the A\_1 of ES-02MB-232 to the A+of the slave station, connect the B\_1 of ES-02MB-485 to the B - of the slave station, and connect the GND of ES-02MB-232 to the GND of the slave



# 4.2 New construction project

Open GX Words 3 software, select "Project" and "New" from the menu bar, choose the PLC series based on the CPU model, and take the 5U series CPU as an example, as shown in the figure.

Project Edit Find/Replace	Convert View Online Debug Recording Diagnostics Tool Window Help	
DI 380 (9) (0)	▼. 法电话的名 \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P\$ \$P	
1299 8 35 45 2		
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	Type 👺 PXSU 🗸	
		nput the Configurat # ×
	Made 🗸	
	Program Language 🔄 Ladoer	
	OK Cancel	
	2	

# 4.3 CC-Link IE Feild Basic Parameter settings

Select parameters/FX5UCPU/module parameters/Ethernet port in the left navigation window, as shown in the figure.

MELSOFT GX Works3 C:\Use	ers\latcos\Documents\FX5U\DIDQ308802HC.gx3 - [Module P	'arameter Ethernet Port]		- 0 ×
Project Edit Find/Replace	Convert View Online Debug Recording Diagnostic	s Tool Window Help		_ # ×
10 <b>29</b> 3900		🐘 🖓 🗱 🔜 🕄 🕀 🔾 🕂 🗾 🖉	Max.: 👻	
		-		
Navigation # ×	🍓 ProgPou [PRG] [Local 🛛 🚇 ProgPou [PRG] [LD] 15	😭 1 [Device/Buffer Mem 🛛 🛱 2 [Device/Buffer Mem		4 ▷ - Element Selection # ×
🖳 🗠 🏟 Ali 🔹	Setting Item List	Setting Item		(Find POU)
Project Module Configuratic	Input the Setting Item to Search	Iten OwnHode Settings UP Address	Setting	(1994年) 1997年) 1997年) 1997年) 1997年)
<ul> <li>■ Cogram</li> <li>■ Cogram</li> <li>■ ErF(UN)</li> <li>■ Label</li> <li>■ Device</li> <li>■ Convice</li> <li>■ Convice</li> <li>■ System Parameter</li> <li>■ Memory Card Pa</li> <li>■ Module Information</li> <li>■ Remote Password</li> </ul>	Te BY Basic Settings	IP Address         IP Address         Submet Mask         Default Gateway         Communication Data Code         CC-Link IEF Fasic Settings         To Use or Not to Use CO-Link IEF Basic Setting         Herberb Settings         BOBBIS/ICF Settings         To Use or Not to Use COOLINK IEF Basic Setting         Device Areignment         External Device Configuration         External Device Configuration         Set the information of the own node such as IP address         Check       Refrore the persuat         Settings	192.188.0.10 255.255.0 192.188.0.200 Binary Use (Detailed Setting) (Detailed Setting) Rot Used (Detailed Setting) (Detailed Setting) ress.	Apply
Connectio ** Navigation	Progress Output Progress			
			FX5U Host	

Set the IP address and sub mask of the PLC master station as shown in the figure.

MELSOFT GX Works3 C:\Use	ers\latcos\Documents\FX5U\DIDQ308802HC.gx3 - [Module F	Parameter Ethernet Port]		- 0 ×
Project Edit Find/Replace	Convert View Online Debug Recording Diagnostic	s Tool Window Help		-8>
P 🖻 💾 😂 😭 🔞			Max:	
		_		
Navigation # ×	🚡 ProgPou [PRG] [Local 😐 ProgPou [PRG] [LD] 1S	穿 1 [Device/Buffer Mem 🛛 😨 2 [Device/Buffer Mem	n 🕺 🖧 Module Parameter Eth 🗙	💶 🔍 🗾 Element Selection
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Project	Innut the Setting Item to Search	Ttos	Setting	
Module Configuratic		Own Node Settings		
🛚 🔙 Program	· · · · · · · · · · · · · · · · · · ·	E IP Address	9	Display Target: ~
🚳 FB/FUN	🖶 🙋 Basic Settings	- IP Address	192.168.0.10	Sopoy raiget
🛚 🕼 Label	- OUvn Node Settings	Subnet Hask	255 . 255 . 255 . 0	
🛚 🕌 Device	- MODBUS/TCP Settings	— Default Cateway	192.168.0.200	
🔳 🚱 Parameter	External Device Configuration	Communication Data Code	Binary	
💕 System Parameter	H Application Settings	CU-Link IEF Basic Settings		
🖿 🚱 FX5UCPU	1	- To Use or Not to Use UC-Link IEF Basic Setting	Use	
🔮 CPU Parameter		Metwork Configuration Settings	(Detailed Setting)	
🔳 🕼 Module Paramet		WODBUS / TCP Settings	(Detailed Setting)	
🔒 Ethernet Port		T Warm Wat to War Worpever (Ter Gassalan	West West 1	P F H M Li
🔮 485 Serial Port		- To use or Not to use MUDBUS/ICF Setting	Not Used	Input the Configurat 7 >
💕 High Speed I/C		Fyternal Device Configuration	(Detailed Setting)	
🛃 Input Response		External Device Configuration	(Detailed Setting)	
a Analog Input		External Device contributation	Contract Deretagy	
Analog Output		Explanation		
Expansion Boar		Set to determine how many bits of the IP address a Wasked hit has been specified from ton between the	are used as the network address, which is used to identify the network.	^
Memory Card Pa		For example, set '255.255.255.0' to assign the upp	per 24 bits of IP address to the subnet mask.	
Ramota Password		- Eapty		
A Remote Password		- 0.0.0.1 to 255.255.255.255 (in decimal)		
		RECTORE THE HETENILT		
	Item List Find Result	Check Settings		

After setting the main station address and sub mask, select "USE" CC Link IE Field Basic in the CC Link IE Field Basic settings window to set the network configuration settings, as shown in the figure.



Manually add the module. In the CC Link IE Field Basic configuration window, drag the right IO module directly to the CPU configuration below, change the CC Link IE Field Basic IP address to match the module address, and then click "Reflect Settings and Close".



### 4.4 IO mapping configuration

In the CC Link IE Field Basic configuration window, set the starting point of the remote IO module's input and output, as shown in the figure.

Setting Item				
Iten	Setting			
Own Node Settings				
- IP Address				
- IP Address	192.168.0.10			
Subnet Mask	255 . 255 . 255 . 0			
Default Gateway	192.168.0.200			
Communication Data Code	Binary			
CC-Link IEF Basic Settings				
To Use or Not to Use CC-Link IEF Basic Setting	Use			
Network Configuration Settings	<detailed setting=""></detailed>			
Refresh Settings	<detailed setting=""></detailed>			
IODBUS/TCP Settings				
- To Use or Not to Use MODBUS/TCP Setting	Not Used			
Device Assignment	<detailed setting=""></detailed>			
External Device Configuration				
External Device Configuration	<detailed setting=""></detailed>			
xplanation let the Refresh. he setting is necessary to transfer data automati "He register, and refresh data register). To set the CC-Link IE Field Network Basic, it is r	cally between the link device (RX/RY/RWr/RWw) and CPU device (user device,			
Check Restore the perault Settings	Anniv			

CC Link IE Field Basic output point mapping method: Each slave occupies 64 points, namely 64DI, 64DO, 32AI, and 32AO. The input and output points set here correspond to starting points X100 and Y100, while the register input and output points correspond to starting addresses D500 and D600.

Points         Start           64         00000           64         00000           32         00000           32         00000	tart End 00000 0003F ( 00000 0003F ( 00000 0001F ( 00000 0001F (	Specify Devi ~ X Specify Devi ~ Y Specify Devi ~ D Specify Devi ~ D	<ul> <li>✓ 64</li> <li>✓ 64</li> <li>✓ 64</li> <li>✓ 32</li> <li>✓ 32</li> </ul>	100 177 100 177 500 531 600 631	)	
64         00000           64         00000           32         00000           32         00000	00000 0003F ( 00000 0003F ( 00000 0001F ( 00000 0001F (	Specify Devi ~ X Specify Devi ~ Y Specify Devi ~ D Specify Devi ~ D	<ul> <li>✓ 64</li> <li>✓ 64</li> <li>✓ 32</li> <li>✓ 32</li> </ul>	100         177           100         177           500         531           600         631	J	
64 00000 32 00000 32 00000	00000 0003F ( 00000 0001F ( 00000 0001F (	Specify Devi ~ Y Specify Devi ~ D Specify Devi ~ D	<ul> <li>✓ 64</li> <li>✓ 32</li> <li>✓ 32</li> </ul>	100 177 500 531 600 631	J	
32 00000 32 00000	00000 0001F 🗍	Specify Devi v D Specify Devi v D	<ul> <li>✓ 32</li> <li>✓ 32</li> </ul>	500 531 600 631	J	
32 00000	00000 0001F 🖨	Specify Devi ~ D	✓ 32	600 631	)	
h. necessary to tr and refresh dat Link IE Field Ne	to transfer dat h data register ld Network Basi	a automatically between , , it is required to se	the link device (	(RX/RY/RWr/RWw) figuration Setti	and CPU device (user dev ings and Refresh Setting,	ice,
	h. necessary and refres	h. necessary to transfer dat and refresh data register)	h. necessary to transfer data automatically between and refiresh data register).	h. necessary to transfer data automatically between the link device and refresh data register).	h. necessary to transfer data automatically between the link device (RI/RY/RW/RW/RW/	h. necessary to transfer data automatically between the link device (RX/RY/RW/RWw) and CPU device (user dev and refresh data register).

### 4.5 PLC connection test

Click online, connect to PLC, select direct connection, choose the network card of this computer, and click connect test.

MELSOFT GX Works3 C:\Use	ers\latcos\Documents\	FX5U\DIDQ308802HC.gx3 - [Module Par	rameter Ethernet Port]
Project Edit Find/Replace	Convert View On	Ine Debug Recording Diagnostics Current Connection Destination Read from PLC Write to PLC Verify with PLC after PLC Operation(S) Safety PLC Operation Redundant PLC Operation(G) CPU Memory Operation Delete PLC Data User Data Set Clock Monitor FB Property Management (Online)	Tool Window Help         Connection Destination Simple Setting Connection         * Orrect Coupled Setting         Please select the direct connection method with CPU module.         • Ethernet         2         Ethernet Board         • Ethernet Board         • Ethernet         • Ethernet         • Ethernet         • 00         • 00
<ul> <li>Module Paramet</li> <li>Ethernet Port</li> <li>485 Serial Port</li> <li>High Speed I/C</li> <li>Input Response</li> <li>Analog Input</li> <li>Analog Output</li> <li>Analog Output</li> <li>Expansion Boar</li> <li>Memory Card Pa</li> <li>Module Informatio</li> <li>Remote Password</li> </ul>		Watch User Authentication	Prectly communicate with the CPU module without using a hub. It is not required to specify the IP address of CPU module.     * This setting is appled to al Ethernet port direct coupled settings.     Adapte     * This setting is appled to al Ethernet Family Adapter     * The Address of     192.168.0.1     Communication Test     Ce (RX/RY/RWr/RWw) and CPU device (use     Configuration Settings and Refresh Set     Other Connection Method     CPU module with a connect to method other     CPU module with a connect to method other
	Item List Find Rea	ult	than the dred coupled setting.

## 4.6 Diagnostic communication status

After completing the parameter configuration, the project can be downloaded to the PLC and the communication status can be detected through online diagnosis. Select "Diagnosis" from the menu bar and view the status of the slave IO module in the CC Link IE Field Basic diagnostic window, as shown in the figure.

	ínk IE	F ield Basic	Change	IP Address Display C O HEX	Monitor Sta	Atus Monitoring	Start Monitoring	Stop Monitoring
Specify CPU	Target Module	lule						
Master S	Station Statu	15						
(Paramet Total Slav	er) ve Stations	1 IP A	ddress 192.168.0.1	LO Error Co	No Error			Error Details
Network	k Status							
- Rough	Diagnostics —							
Link Sca	in Time/Error	Stations						
Gro	oup No.1	Present	3 ms Maximum	4 ms	Minimum	1 ms	Error Stns: 0 Un	fixed Stns: 0
Gro	oup No.2	Present	ms 4aximum	ms	Minimum	ms		
Gro	oup No.3	Present	ms •1aximum	ms	Minimum	ms		-
Gro	oup No.4	Present	- ms 4aximum	ms	Minimum	ms		
Diagnosti								
Station	Occord Stos	Group No.1	V IP Address	Transmission Sta	Disconnections	Time-out Co	The Latest Frror	Error Details
Station	CCCCPd Stris	Group No.1 Reserved Station	V IP Address 192.168.0.3	Transmission Sta	Disconnections	Time-out Co	The Latest Error	Error Details
Station	Occpd Stns	Reserved Station No Setting	V IP Address 192.168.0.3	Transmission Sta Transmitting	Disconnections 0	Time-out Co 0	The Latest Error No Error	Error Details Error Detail
Station 1	Occpd Stns  	Group No.1 Reserved Station No Setting	IP Address 192.168.0.3 	Transmission Sta Transmitting	Disconnections 0 	Time-out Co 0 	The Latest Error No Error 	Error Details ^ Error Detail
Station 1 	Occpd Stns    	Reserved Station No Setting	V IP Address 192.168.0.3	Transmission Sta Transmitting 	Disconnections 0 	Time-out Co 0  	The Latest Error No Error	Error Details ^ Error Detail
Station 1  	Occpd Stns 1	Reserved Station No Setting	V IP Address 192.168.0.3	Transmission Sta Transmitting   	Disconnections 0  	Time-out Co           0	The Latest Error No Error  	Error Details ^ Error Detail
Station 1  	Occpd Stns           1	Reserved Station No Setting	V IP Address 192.168.0.3	Transmission Sta Transmitting   	Disconnections 0  	Time-out Co 0   	The Latest Error No Error	Error Details
Station 1	Occpd Stns           1	Reserved Station No Setting	IP Address           192.168.0.3	Transmission Sta Transmitting     	Disconnections 0   	Time-out Co 0     	The Latest Error No Error    	Error Details Error Detail
Station 1	Coccpd Stns	Reserved Station No Setting	IP Address           192.168.0.3	Transmission Sta Transmitting     	Disconnections 0       	Time-out Co           0	The Latest Error No Error      	Error Details
Station 1	Coccpd Stns 1  	Reserved Station No Setting	V IP Address 192.168.0.3	Transmission Sta Transmitting        -	Disconnections 0       	Time-out Co           0	The Latest Error No Error       	Error Details. Error Detail 
Station 1        	Coccpd Stns 1   	Reserved Station No Setting	V IP Address 192.168.0.3	Transmission Sta Transmitting        -	Disconnections 0 	Time-out Co           0	The Latest Error No Error       	Error Detail Error Detail
Station            1	Coccpd Stns	Reserved Station No Setting	V IP Address 192.168.0.3	Transmission Sta Transmitting        -	Disconnections 0 	Time-out Co           0	The Latest Error No Error       	Error Details Error Detail  

# 5. Open the debugging assistant software

Select a suitable serial port and set the communication speed to 9600bps; Set 8 data bits, no checksum, and 1 stop bit;

Serial Port Utility	—	×
File Edit View Tools Help		
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Serial Port Setting		
Port USB Se (COM12) -		
Baudrate 9600 💌		
Data Bits 8		
Parity None 🔹		
Stop Bits 1		
Flow Type None		
Receive Setting		
🔿 Text 💿 Hex		
🗹 Auto Feed Line		
🗹 Display Send		
☑ Display Time		
Send Setting		Send
○ Text		
Loop 1000 Treffererererererererererererererererere		-
COM12 OPENED. 9600. 8. NONE. 1. OFF Rx: 0 Bvtes Tx: 0 Bvtes		

# 6.Monitoring table

● 软元	件名(N) D500	🗸 🗺 Serial Port Utility	- 🗆 X
_ // J		File Edit View Tools Help	
○泼冲	存储器(M) 智能模块 号(U)	— i 🔒 🔜 📊 🔤 🕂 — 🕽	III III V III V
航元件名 D800	F E D C B A 9 8 7 8 5 4 3 2 1 0	and Somial Part Satting	13:52:00:40354 41 00 00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00 54 41 00
0501		Serial fort Setting	
D502		Port USB Se (COM12) -	54 41 68 68 69 69 69 69 69 69 69 69 69 69 69 69 69
D503		TOTE USD SE (COMIZ)	
D504	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Baudrate 9600	
D505	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Dada avo	
D506	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Data Bits 8 🔹	
D507	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		54 41 00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00 00
D508	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Parity None 🔹	13:52:12:69954 41 00 00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00 54 41 00
D509	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00 00
D510	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Stop Bits 1	54 41 00 00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00 00
D511	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		13:52:14:79354 41 00 00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00 54 41 00
D512	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Flow Type None 🔻	00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00
D513	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
D514	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
D515	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Receive Setting	
D516	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00
D517		🔾 Text 🔘 Hex	54 41 00 00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00 00 FF FF FF FF FF
D518			FF FF FF
D519		Auto Feed Line	13:52:18:99954 41 00 00 00 00 00 00 00 54 41 00 00 00 00 00 00 00 00 54 41 00
D520		Dignlaw Sond	08 88 88 88 88 88 88 89 54 41 88 88 88 88 88 88 88 88 88 84 41 88 88 88 88 88 $\sim$
D521		C Disbray Selle	
D522		Display Time	FFFFFFFFFFFFFFFFFFFFF
D523	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Fibpray fime	
D524	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		Cond
0625	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Send Setting	Sena
D526	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
052/		U lext U Hex	
0.028		Loon 1000	
0629		was	• <b>TATATATATATATATATATATATATATATATATATATA</b>
0.630			
0001		COM12 OPENED, 9600, 8, NONE, 1,	UFF KX: 15,810 Bytes IX: 70 Bytes

				55 5 7			
1 [软元作	牛/缓冲存储器	批 × 🔛 2 [软元件/缓冲存/	储器批 🔛 3 [软元	🥙 Serial Port Utility	_		×
● 软元(	半名(N)	D500	→ 打开	File Edit View Tools Help			
() 1A/GI	ПЦСиу	2000					
○ 缓冲1	<b>存储器(M)</b>	智能模块	~ (16进制)				
		북(U)		Serial Port Setting	13-56-34-30454 41 88 88 88 88 88 88 88 88 54 41 88 88 88 88 88 88 88	54 4	1 88 1
¢⊕#a	FEDCE	8 A 9 8 7 6 5 4 3 2 1 0	<b>治疗</b> 律	1	AG AG AG AG AG AG 54 41 AG AG AG AG AG AG AG AG AG 54 41 AG AG AG AG AG AG AG	1 88 8	A
1500	0 0 0 0			Port USB Se (COM12) -	13:56:35:79300 00 00 00 00 00 00 00 00		-
501	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	D 1 1 0000	13:56:35:88954 41 88 88 88 88 88 88 88 88 88 54 41 88 88 88 88 88 88 88 88	54 4	1 88 1
502	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	a	Baudrate 9000	00 00 00 00 00 00 54 41 00 00 00 00 00 00 00 00 54 41 00 00 00 00 00 00		6
503	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	Data Bito R		00 0.	•
504	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0	Data Dits 0			
505	0 0 0 0 0			Parity None 🔹			
505	0 0 0 0 0						
507	0 0 0 0 0			Stop Bits 1			
809	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0				
510	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	Flow Type None 🔻			
511	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0				
512	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	٥	Receive Setting			
513	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	Accerte betting			
514	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0	Text 🔘 Hex			
515	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	8				
10	0 0 0 0 0		0	🖞 🗹 Auto Feed Line			
518	0 0 0 0 0			Dianlass Sand			
19	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	9	Disbia 2600			
520	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	🗸 🖂 Display Time	000000000000000000		
521	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0				
522	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	a			4	Send
523	0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	0	Send Setting		-	Juna
524	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0	Text 🖲 Hex			
625	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	a			1	
620	0 0 0 0 0			Loop 1000 🗘 ns	0000000000000000		
528	0 0 0 0 0		0				
529	0 0 0 0			COM12 OPENED, 9600, 8, NONE, 1, 0	OFF Rx: 100 Bytes Tx: 10 Bytes		

D600 indicates that the slave station receives data sent by the master station and sends

#### received data is

#### FFFFFFFFFFFFFFFFFFFFFF.

● 软元件名	Z(N)	D600	Serial Port Utility				×
		<u>.</u>	File Edit View Tools Help				
○缓冲存储	者器(M)	智能模块 号(U)	💊 💫 🔚 🚥 🕂 — 🕨 📘	I 🔤 🍾 ∓ 🌣			
<b>航元件</b> 名	FEDCB	A 9 8 7 6 5 4 3 2 1 0					FF
D600	1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1	Serial Fort Setting			EE EE	
D601	1 1 1 1 1	1 1 1 1 1 1 1 1 1 1	Pant UCP Ca (CON12) * FF			EE EE	EE .
D602	1 1 1 1 1		Fort USB Se (COMIZ) *	TT FF F	- FF FF	FF FF	rr rr
D603			Raudrato 9600	FF	F FF FF	FF FF	FF
0604			FF FF	FF	F FF FF	FF FF	FF
DADA			Data Bits 8	FF	F FF FF	FF FF	FF
D607	0 0 0 0 0		FF	FF	F FF FF	FF FF	FF
Dece	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	Parity None - FF	FF	F FF FF	FF FF	FF
D609	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	FF	FF	F FF FF	FF FF	FF
D610	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	Stop Bits 1 🔹 🔻 FF	FF	F FF FF	FF FF	FF
D611	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	FF	FF	F FF FF	FF FF	FF
D612	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	Flow Type None 🔹 F	FF			1202
D613	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	14:	87:34:823FF FF	F FF FF		
D614	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	Proving Conting 14:	07.34-585FF FF	F FF FF		
D615	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	Receive Setting	87.95.409EE EE	E EE EE		
D616	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	O Taut 9 Van 11.	A7.95.70NEE EE			
D617	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	Jiext Jiex	07.03.704FF FF			
D618	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	V Auto Feed Line	87:30:392FF FF	F FF FF		
D619	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	14:	07:30:982FF FF	F FF FF		
D620	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	✓ Display Send 14:	07:37:591FF FF	F FF FF		$\sim$
0621	0 0 0 0 0						
0622	0 0 0 0 0		🗹 Display Time				
0623	00000					-	
0024	0 0 0 0 0		Sond Satting			Ser	nd
0.000	0 0 0 0 0		Send Secting				2552/6
D827	0 0 0 0 0		O Text 🔘 Hex				
D628	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0					
D629	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	Loop 1000 🗣 ns 000	00000000000000			*
D630	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0		~~~~~~~~~~~			
D631	0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	COM12 OPENED, 9600, 8, NONE, 1, OFF	Rx: 40.600 Bytes Tx: 0 Bytes			
0490	0 0 0 0		ni ni			_	1.000

◉ 软元件名(N)	D600	Serial Port Utility	
○缓冲存储器(M)	智能模块 号(U)	File Edit View Tools Help	
RER-MA         F         F           D000         0         0         0         0           D001         0 <t< th=""><th></th><th>Serial Port Setting       00 00 0F FF FF FF 00 00 00 00 0F FF FF F</th><th>FF 00 60 00</th></t<>		Serial Port Setting       00 00 0F FF FF FF 00 00 00 00 0F FF FF F	FF 00 60 00
D822         0         0         0           D623         0         0         0         0           D624         0         0         0         0           D626         0         0         0         0           D626         0         0         0         0           D627         0         0         0         0           D628         0         0         0         0           D629         0         0         0         0           D629         0         0         0         0		✓ Display Time           Send Setting           ○ Text           ● Hex           □ Loop 1000           ○ 000000000000000000000000000000000000	Send







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