LS Industrial Systems Co., Ltd. GLOFA-GM(CPUC Type) Series CNET Driver

Support version OS

V4.0 and over



XDesignerPlus 4.0.0.0 and over

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Thank you for using TOP series of M2I corporation.

Please read this manual carefully to know connection methods and procedures of "TOP to External device".

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A section for selecting a Top model and the external device.

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Select the correct example in your case according to "1. System configuration".

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A section for Communication setting.

The setting should be the same with the external device.

5. Cable diagram

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A section for cable to connect to external device. Select a suitable cable diagram for your system.

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A section for usable address to communicate with external device.



1. System configuration

System configuration of TOP and "LS Industrial System Co., Ltd. - GLOFA-GM(CPUC Type) Series CNET".

Series	CPU	Link I/F	Comm. Type	System setting	Cable
			RS-232C	3.1 setting ex 1	5.1 cable diagram 1
			K3-232C	<u>(5 Page)</u>	<u>(40 Page)</u>
GMR	GMR-CPUA	G3L-CUEA(K7F-CUEA) *1)	RS-422 (4 wire)	3.2 setting ex 2	5.2 cable diagram 2
Givin	GMR-CPUB		1(3 +22 (+ Wile)	<u>(7 Page)</u>	<u>(41 Page)</u>
			RS-485 (2 wire)	3.3 setting ex 3	5.3 cable diagram 3
				<u>(9 Page)</u>	<u>(42 Page)</u>
			RS-232C	3.1 setting ex 1	5.1 cable diagram 1
				<u>(5 Page)</u>	<u>(40 Page)</u>
GM1	GM1-CPUA	G3L-CUEA(K7F-CUEA) *1)	RS-422 (4 wire)	3.2 setting ex 2	5.2 cable diagram 2
	GM1-CPUB			<u>(7 Page)</u>	<u>(41 Page)</u>
			RS-485(2 wire)	3.3 setting ex 3	5.3 cable diagram 3
				<u>(9 Page)</u>	(42 Page)
			RS-232C	3.1 setting ex 1	5.1 cable diagram 1
				<u>(5 Page)</u>	(40 Page)
GM2	GM2-CPUA GM2-CPUB	G3L-CUEA(K7F-CUEA) *1)	RS-422 (4 wire)	3.2 setting ex 2	5.2 cable diagram 2
				(7 Page)	(41 Page)
			RS-485 (2 wire)	3.3 setting ex 3 (9 Page)	5.3 cable diagram 3 (42 Page)
			RS-232C	3.1 setting ex 1 (5 Page)	5.1 cable diagram 1 (40 Page)
				3.2 setting ex 2	5.2 cable diagram 2
GM3	GM3-CPUA	G3L-CUEA(K7F-CUEA) *1)	RS-422 (4 wire)	(7 Page)	(41 Page)
				3.3 setting ex 3	5.3 cable diagram 3
			RS-485 (2 wire)	(9 Page)	(42 Page)
				3.1 setting ex 1	5.1 cable diagram 1
			RS-232C	(5 Page)	(40 Page)
	GM4-CPUA			3.2 setting ex 2	5.2 cable diagram 2
GM4	GM4-CPUB GM4-CPUC	G4L-CUEA(K4F-CUEA) *1)	RS-422 (4 wire)	<u>(7 Page)</u>	<u>(41 Page)</u>
				3.3 setting ex 3	5.3 cable diagram 3
			RS-485 (2 wire)	<u>(9 Page)</u>	<u>(42 Page)</u>
		CPU with a built in Cnet	RS-232C	3.4 setting ex 4	5.4 cable diagram 4
		CPU with a built in Chet	K3-232C	<u>(11 Page)</u>	<u>(43 Page)</u>
			RS-422 (4 wire)	3.5 setting ex 5	5.2 cable diagram 2
		CPU with a built in Cnet	N3-422 (4 Wile)	<u>(13 Page)</u>	<u>(41 Page)</u>
	GM6-CPUA *2)	ci o with a built in chet	RS-485 (2 wire)	3.6 setting ex 6	5.3 cable diagram 3
GM6			103 103 (2 Wile)	<u>(15 Page)</u>	<u>(42 Page)</u>
0.010	GM6-CPUB *3)	G6L-CUEB(K3F-CU2A) *1)	RS-232C	3.7 setting ex 7	5.1 cable diagram 1
	GM6-CPUC *2)		K3-232C	<u>(17 Page)</u>	<u>(40 Page)</u>
		G6L-CUEC(K3F-CU4A) *1)	RS-422 (4 wire)	3.8 setting ex 8	5.2 cable diagram 2
			113-422 (4 WIIC)	<u>(19 Page)</u>	<u>(41 Page)</u>
			RS-485 (2 wire)	3.9 setting ex 9	5.3 cable diagram 3
				<u>(21 Page)</u>	<u>(42 Page)</u>

***1)** Name of module in brackets is name of old type.

*2) GM6-CPU A/C type only has a built in RS-232C Cnet in CPU module.

*3) GM6-CPU B type only has a built in RS-422 Cnet in CPU module.



					배한민국대표 터치패널 ouch Operation Panel
Series	CPU	Link I/F	Comm. Type	System setting	Cable
	G7M-D_20U *4) G7M-D_30U *4) G7M-D_40U *4) G7M-D_60U *4)	CPU with a built in Cnet, Ch0	RS-232C	<u>3.10 setting ex 10</u> (23 Page)	5.4 cable diagram 4 (43 Page)
		CPU with a built in Cnet, Ch1	RS-485	<u>3.11 setting ex 11</u> (25 Page)	5.5 cable diagram 5 (44 Page)
GM7U		G7L-CUEB	RS-232C	<u>3.12 setting ex 12</u> (27 Page)	5.1 cable diagram 1 (40 Page)
			RS-422 (4 wire)	<u>3.13 setting ex 13</u> (29 Page)	5.2 cable diagram 2 (41 Page)
		G7L-CUEC	RS-485 (2 wire)	<u>3.14 setting ex 14</u> (<u>31 Page)</u>	5.3 cable diagram 3 (42 Page)
			RS-232C	<u>3.15 setting ex 15</u> (<u>33 Page)</u>	5.4 cable diagram 4 (43 Page)
	G7M-D_10A *5) G7M-D_20A *6) G7M-D_30A *6) G7M-D_40A *6) G7M-D_60A *6)	CPU with a built in Cnet, Ch0	RS-485	<u>3.16 setting ex 16</u> (35 Page)	5.5 cable diagram 5 (44 Page)
GM7		G7L-CUEB	RS-232C	<u>3.12 setting ex 12</u> (27 Page)	5.1 cable diagram 1 (40 Page)
		G7L-CUEC	RS-422 (4 wire)	<u>3.13 setting ex 13</u> (29 Page)	5.2 cable diagram 2 (41 Page)
			G/L-CUEC	RS-485 (2 wire)	<u>3.14 setting ex 14</u> (<u>31 Page)</u>

*4) If you don't use an extension communication module, use both CH0 and CH1. If you use an extension communication module (Dip switch of built-in Cnet is Off : It is set to use an extension communication module), can't use built-in RS-232C of Ch0 and can use built-in RS-485 Cnet of Ch1.

*5) "G7M-D□10A" type can use only one built-in Cnet. If dip switch of built-in Cnet is On, It is built-in RS-232C channel. If dip switch of built-in Cnet is Off, It is built-in RS-422 channel. And it can't use an extension module.

*6) "G7M D 20A ~ D 60A" CPU economical type can use only "built in Cnet Ch0(RS-232C) of PC connection loader port".

If you don't use an extension communication module(Dip switch of built-in Cnet is Off : It is set to use an extension communication module), can't use built-in Cnet.

Connection configuration

• 1 : 1(TOP 1 unit to External device 1 unit) connection – It is available with RS232C/422/485.



• 1 : N(TOP 1 unit to External device N unit) connection - It is available with RS422/485.





2. Selection of TOP, External device

Select a external device which is communicated to the TOP.

		HMI / PLC Uint			
Series	XTOP Series	Vendor	LS Industrial Systems		
Model	XTOP15TX-SA/SD	PLC Model	GLOFA-GM(CPUC Type) Series CNET		
		PLC			
	Vendor		Model		
M2I Corporatio	on 🔺	GLOFA-GM Series CNET			
MITSUBISHI B	Electric Corporation	GLOFA-GM Series CPU Direct			
OMRON Indus	strial Automation	GLOFA-GM Series FENET			
LS Industrial :	Systems	GLOFA-GM(CPUC Type) Series CN	ET		
MODBUS Org	anization	MASTER-K(10S/30S/60S/100S) Se	ries Computer Link		
SIEMENS AG		MASTER-K(10S/30S/60S/100S) Se	ries LOADER		
Rockwell Auto	omation (AB)	MASTER-K(10S1) Series Computer	r Link		
GE Fanuc Aut	tomation	MASTER-K(10S1) Series LOADER			
PANASONIC I	Electric Works	MASTER-K(200S/300S/1000S) Ser	ies FENET		
YASKAWA EI	ectric Corporation	MASTER-K(500H/1000H) Series Computer Link			
YOKOGAWA	Electric Corporation	MASTER-K(500H/1000H) Series LOADER			
Schneider Ele	actric Industries	MASTER-K(50H/200H) Series LOADER			
KDT Systems		MASTER-K(80S/120S/200S/300S/1000S) Series CNET			
RS Automatio	n(SAMSUNG)	MASTER-K(80S/120S/200S/300S/	1000S) Series CPU Direct		
HITACHI IES		STARVERT Inverter Series LSBus			
FATEK Autom	nation Corporation	XCODE RFID HF Reader Series IH-1306/1307			
DELTA Electro	onics	XGT Series(XGI/XGR), XGB Series	(XEC) CNET		
KOYO Electro	nic Industries	XGT Series(XGI/XGR), XGB Series	(XEC) CPU Direct		
VIGOR Electri	ic Corporation	XGT Series(XGI/XGR), XGB Series	(XEC) FENET		
Comfile Tech	nology	XGT Series(XGK), XGB Series(XBC/XBM) CNET			
Dongbu(DASA	AROBOT)	XGT Series(XGK), XGB Series(XBC/XBM) CPU Direct			
ROBOSTAR		XGT Series(XGK), XGB Series(XBC/XBM) FENET			
Bosch Rexroth	h AG	25 June 1997 1997 1997 1997 1997 1997 1997 199			
LS MECAPIO	N (Metronix)				

Setting	g Items		Description	
TOP	Series	Select a TOP series which is com Install an OS file v3.1 as diagram	ct file you have made.	
		Series	OS Version	
		XTOP / HTOP	V4.0	
	Name	Select a TOP model which is cor	nmunicated with external device.	
External Device	Vendor	Select vendor of the external de Select " <u>LS INDUSTRIAL SYSTEMS</u>	vice which is communicated with <u>CO., LTD</u> ".	TOP.
	PLC	Select a model name of the external device which is communicated with TOP. Select "GLOFA-GM(CPUC Type) Series CNET". Check whether the external device you want to use is connectable or not in "1. System configuration".		





3. Example of system setting

Set Communication interface of TOP and external device as below.

3.1 Example 1

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (port/channel)		RS-232 (COM2)	RS-232	User set
Station number (PLC	C Address)	—	0	User set
Serial Baud rate	[BPS]	3	38400	
Serial Data bit	[Bit]		8	User set
Serial Stop bit	[Bit]		1	User set
Serial Parity bit	[Bit]	٢	NONE	User set
Run Mode		priva	ate mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.

TOP05MQ-ED(-E)	Set communication in			LINAT Cotting using	Device mana	acri
PLC Setting	-Right Window : [HM]	setting > Ch		Communication Port		geij
	+ COM 1			+ COM 2		
PLC1 : Glofa GM CPUC COM1 (0)	- Boud Rate :	38400	-	- Boud Rate :	38400	•
Ethernet (0)	- Data Bit :	8	•	- Data Bit :	8	1.
- FieldBus (0)	- Stop Bit :	1		- Stop Bit :	1	
	- Parity Bit :	None	-	- Parity Bit :	None	*
····· USB Device (0)				runty Dr.		
USB Device (0) ⊡- CF Card Setting CFCard	 External device set 	qu		- Signal Level :	RS-232C	
CF Card Setting	■ External device set	•	CNE	- Signal Level :	RS-232C	
⊟ CF Card Setting		•		- Signal Level :	RS-232C	
∃ CF Card Setting	■ External device set	•		- Signal Level :	RS-232C	
CF Card Setting	■ External device set	•		- Signal Level :	RS-232C	
CF Card Setting	External device set	Type) Series		- Signal Level :	RS-232C	

-WordxBlock : Input WordxBlock size of GLOFA-GM.

대한민국대표 터치패널

GM(9pin)

signal

RD

SD

¢C

pin

2

3

5

PC (9pin)

pin

2

3

5

signal

RD

SD

(2) External device setup - Link type

Run "Cnet Frame Editor" program of communication system setting tool of GLOFA-GM series for communication setting and set as below. If you want to change communication interface, modify refer to PLC manual. [GLOFA GM loader cable]

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].

2. MODE Rotary switch of Cnet communication module set "3" (private communication mode) and reset power of PLC.

3. Run "Cnet Frame Editor".

7.

- ¢۲ 4. Run [Option > Select communication port] and select PC connection port and PLC"only" on Dialog Box and push "OK" button.
- 5. Run [Online > Connect] and connect to PC and external device.
- 6. Set communication setting at "Cnet Frame Editor".

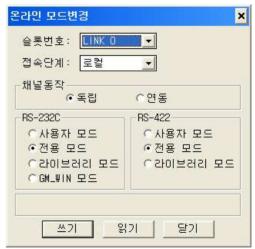
🤹 프레임 편집기 (untitled.frm) 📃 🗖 🗙
파일 온라인 옵션 모니터 도움말
· RS232 side · RS422 side
기본 파라메터 국변 00 ▼ 통신방식 널 모뎀 ▼ 초기화 명령 ATZ
통신속도 38400 ▼ 데이타 비트 8 ▼ 모니터등록 크기 패리티 None ▼ 정지 비트 1 ▼ 16x20
Select [Online > Write].

Set as below on Dialog Box and click write.



8. Select [Online > Online mode change]. Set as below on Dialog Box and click write.

Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
Comm. option	Default parameter	Write contents



9. Select [Online > Change operation]. Set communication card setup slot and RS-232C and click "communication run" on Dialog Box.

Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
Comm. type	RS-232C	
Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
CH operation	independence	
RS-232C	Privation mode	

XDesignerPlus Ver2.0 Communication Manual





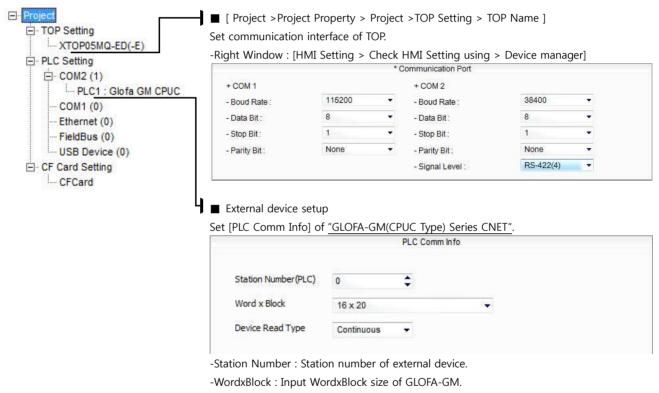
3.2 Example 2

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (p	oort/channel)	RS-422 (4 wire, COM2)	RS-422	User set
Station number (PLC	C Address)	—	0	User set
Serial Baud rate	[BPS]	38	3400	User set
Serial Data bit	[Bit]		8	User set
Serial Stop bit	[Bit]		1	User set
Serial Parity bit	[Bit]	N	ONE	User set
Run Mode		privat	e mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.





GM(9pin)

signal

RD

SD

¢۲

pin

2

3

5

PC (9pin)

pin

2

E

signal

RD

SD

ŝ

(2) External device setup - link type

Run "Cnet Frame Editor" program of communication system setting tool of GLOFA-GM series for communication setting and set as below. If you want to change communication interface, modify refer to PLC manual.
[GLOFA GM loader cable]

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].

2. MODE Rotary switch of Cnet communication module set <u>"3"(private communication</u> mode) and reset power of PLC.

3. Run "Cnet Frame Editor".

7.

- 4. Run [Option > Select communication port] and select PC connection port and PLC"only" on Dialog Box and push "OK" button.
- 5. Run [Online > Connect] and connect to PC and external device.
- 6. Set communication setting at "Cnet Frame Editor".

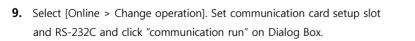
😹 프레임 편집기 (untitled.frm) 📃 🗆 🗙
파일 온라인 옵션 모니터 도움말
RS422 side · RS422 side
-기본 파라메터 국번 00 ✔ 통신방식 RS 422 ✔ 초기화 명령 ATZ
통신속도 38400 ▼ 데이타 비트 8 ▼ 모니터등록 크기 패리티 None ▼ 정지 비트 1 ▼
Select [Online > Write].

Set as below on Dialog Box and click write.



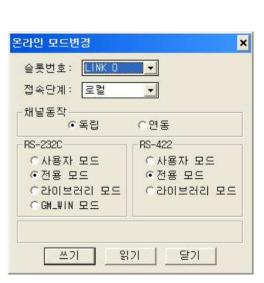
Select [Online > Online mode change].
 Set as below on Dialog Box and click write.

Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
Comm. option	Default parameter	Write contents



Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
CH operation	independence	
RS-422	Privation mode	

XDesignerPlus Ver2.0 Communication Manual





Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
Comm. type	RS_422	



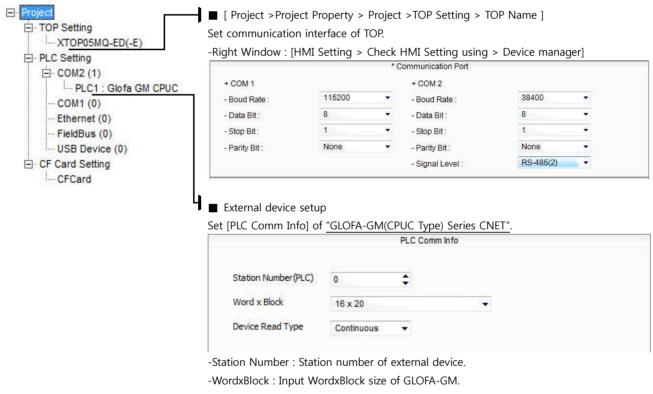
3.3 Example 3

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (p	oort/channel)	RS-485 (2 wire, COM2)	RS-485	User set
Station number (PLC	C Address)	—	0	User set
Serial Baud rate	[BPS]	38	3400	User set
Serial Data bit	[Bit]		8	User set
Serial Stop bit	[Bit]		1	User set
Serial Parity bit	[Bit]	Ν	NONE	
Run Mode		privat	te mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.





GM(9pin)

signal

RD

SD

¢۲

pin

2

3

5

PC (9pin)

pin

2

3

5

signal

RD

SD

¢۲

(2) External device setup - link type

Run "Cnet Frame Editor" program of communication system setting tool of GLOFA-GM series for communication setting and set as below. If you want to change communication interface, modify refer to PLC manual.
[GLOFA GM loader cable]

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].

 MODE Rotary switch of Cnet communication module set <u>"3"(private communication</u> mode) and reset power of PLC.

3. Run "Cnet Frame Editor".

7.

- 4. Run [Option > Select communication port] and select PC connection port and PLC"only" on Dialog Box and push "OK" button.
- 5. Run [Online > Connect] and connect to PC and external device.
- 6. Set communication setting at "Cnet Frame Editor".

🧸 프레임 편집기 (untitled.frm)	- 🗆 🗙
파일 온라인 옵션 모니터 도움말	
RS232 side · RS422	2 side
-기본 파라메터 국변 00 ✔ 통신방식 RS 485 ✔ 초기화	명령 ATZ
통신속도 38400 👤 데이타 비트 8 👤	-모니터등록 크기
페리티 None ▼ 정지비트 1 ▼ Select [Online > Write].	▲2] (untitled.frm)
Set as below on Dialog Box and click write.	스루버호 : [여러 이



Select [Online > Online mode change].
 Set as below on Dialog Box and click write.

Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
Comm. option	Default parameter	Write contents

슬롯번호: LINK D 접속단계: 로컬	
채널동작 ⓒ독립	C연동
RS-232C	RS-422
이사용자 모드	이사용자 모드
⊙전용 모드	⊙전용 모드
이라이브러리 모드	이라이브러리 모드
⊂GM_WIN 모드	

9. Select [Online > Change operation]. Set communication card setup slot and RS-422 and click "communication run" on Dialog Box.

Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
CH operation	independence	
RS-422	Privation mode	

XDesignerPlus Ver2.0 Communication Manual



Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
Comm. type	RS_422	



3.4 Example 4

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (p	port/channel)	RS-232 (COM2)	RS-232	User set
Station number (PLC	C Address)	—	0	User set
Serial Baud rate	[BPS]	38	8400	User set
Serial Data bit	[Bit]		8	User set
Serial Stop bit	[Bit]		1	User set
Serial Parity bit	[Bit]	Ν	ONE	User set
Run Mode		priva	te mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.

C Setting	-Right Window : [HMI	Setting > Che			> Device mana	ger]
COM2 (1)			* Communic			
PLC1 : Glofa GM CPUC	+ COM 1		+ CON		12 The entrance	- 6
COM1 (0)	- Boud Rate :	38400	 Boud 	Rate :	38400	1.5
Ethernet (0)	- Data Bit :	8	 Data 	Bit :	8	s ≭ á
FieldBus (0)	- Stop Bit :	1	 Stop 	Bit :	1	
USB Device (0)	- Parity Bit :	None	 Parity 	/ Bit :	None	•
Card Setting			- Signa	al Level :	RS-232C	
	I ■ External device set Set [PLC Comm Info] of	•	(CPUC Typ	e) Series CN	<u>NET"</u> .	
	•	•	I(CPUC Typ PLC Con		NET".	
	•	•			<u>NET"</u> .	
	•	•			J <u>ET"</u> .	
CFCard	Set [PLC Comm Info]	of <u>"GLOFA-GN</u>			<u>JET"</u> .	

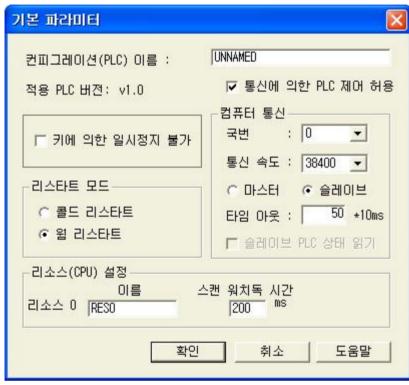


(2) External device setup - Built in Cnet type

Run GLOFA GM series Ladder Software "GM_WIN" and set as below.

If you want to change communication interface, modify refer to PLC manual.

- 1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].
- 2. Run GM_WIN program, and create new project about [GM6].
- 3. Double click [Parameter > Default parameter] on project dialog and set as below.



4. Run [Online > Connect] and connect to PC and external device.

5. Select [Write] menu and download communication setting to external device.

[GLOFA GM loader cable]

PC (9p	oin)	GN	l(9pin)
signal	pin	pin	signal
RD	2	2	RD
SD	3	3	SD
<u>ر</u> م	Ę	Ę	<u>در</u>



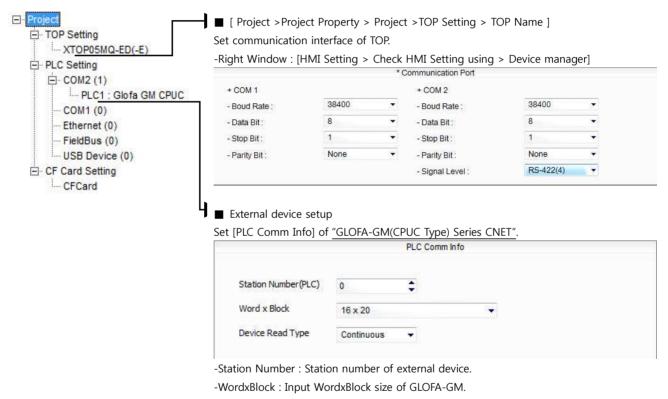
3.5 Example 5

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (p	oort/channel)	RS-422 (4 wire, COM2)	RS-422	User set
Station number (PLC	C Address)	—	0	User set
Serial Baud rate	[BPS]	38	8400	User set
Serial Data bit	[Bit]		8	User set
Serial Stop bit	[Bit]		1	User set
Serial Parity bit	[Bit]	Ν	ONE	User set
Run Mode		privat	te mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.



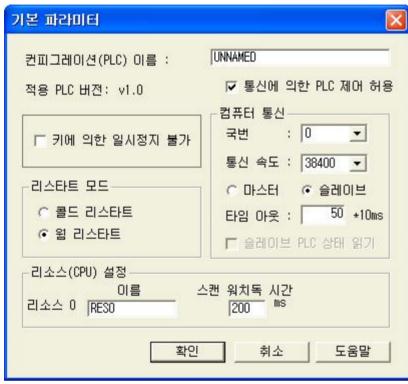


(2) External device setup - Built in Cnet type

Run GLOFA GM series Ladder Software "GM_WIN" and set as below.

If you want to change communication interface, modify refer to PLC manual.

- 1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].
- 2. Run GM_WIN program, and create new project about [GM6].
- 3. Double click [Parameter > Default parameter] on project dialog and set as below.





5. Select [Write] menu and download communication setting to external device.

[GLOFA GM loader cable]

PC (9p	oin)	GN	l(9pin)
signal	pin	pin	signal
RD	2	2	RD
SD	3	3	SD
<u>ر</u> م	Ę	Ę	<u>در</u>



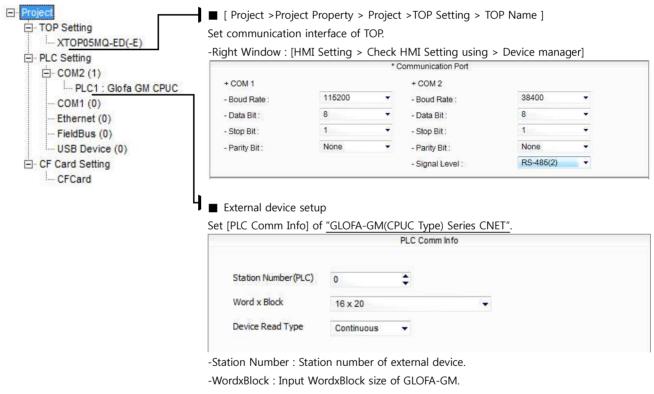
3.6 Example 6

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (port/channel)		RS-485 (2 wire, COM2)	RS-485	User set
Station number (PLC Address) Serial Baud rate [BPS]		—	0	User set
		38400		User set
Serial Data bit	[Bit]	8		User set
Serial Stop bit	[Bit]			User set
Serial Parity bit [Bit]		NONE		User set
Run Mode		private mode		User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.



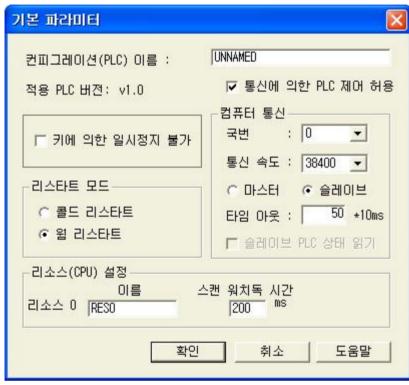


(2) External device setup - Built in Cnet type

Run GLOFA GM series Ladder Software "GM_WIN" and set as below.

If you want to change communication interface, modify refer to PLC manual.

- 1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].
- 2. Run GM_WIN program, and create new project about [GM6].
- 3. Double click [Parameter > Default parameter] on project dialog and set as below.



4. Run [Online > Connect] and connect to PC and external device.

5. Select [Write] menu and download communication setting to external device.

[GLOFA GM loader cable]

PC (9p	oin)	GN	l(9pin)
signal	pin	pin	signal
RD	2	2	RD
SD	3	3	SD
<u>ر</u> م	Ę	Ę	<u>در</u>



3.7 Example 7

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (port/channel)		RS-232 (COM2)	RS-232	User set
Station number (PLC Address)		—	0	User set
Serial Baud rate	[BPS]	38	8400	User set
Serial Data bit [Bit]		8		User set
Serial Stop bit	[Bit]	1		User set
Serial Parity bit	[Bit]	Ν	ONE	User set
Run Mode		priva	te mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.

C Setting	-Right Window : [HMI Setting > Check HMI Setting using > Device manager] *Communication Port					
COM2 (1)			107217324299			
PLC1 : Glofa GM CPUC	+ COM 1	38400		COM 2	38400	-
COM1 (0)	- Boud Rate :	8		Boud Rate :	8	6.0
Ethernet (0)	- Data Bit :			Data Bit :	8	
FieldBus (0)	- Stop Bit :	1		Stop Bit :		
USB Device (0)	- Parity Bit :	None		Parity Bit :	None	-
	■ External device set Set IPLC Comm Infol	•		Signal Level : Type) Series (RS-232C	
Card Setting CFCard	■ External device set Set [PLC Comm Info]	•	1(CPUC			
State of the second		of <u>"GLOFA-GN</u>	1(CPUC	Type) Series (
	Set [PLC Comm Info] Station Number(PLC)	of <u>"GLOFA-GN</u>	1(CPUC PLC	Type) Series (
	Set [PLC Comm Info]	of <u>"GLOFA-GN</u>	1(CPUC PLC	Type) Series (Comm Info		
State of the second	Set [PLC Comm Info] Station Number(PLC)	of <u>"GLOFA-GN</u>	1(CPUC PLC	Type) Series (Comm Info	<u>INET"</u> .	



GM(9pin)

signal

RD

SD

¢۲

pin

2

3

5

PC (9pin)

pin

2

E

signal

RD

SD

ŝ

(2) External device setup - link type

Run "Cnet Frame Editor" program of communication system setting tool of GLOFA-GM series for communication setting and set as below. If you want to change communication interface, modify refer to PLC manual.
[GLOFA GM loader cable]

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].

 MODE Rotary switch of Cnet communication module set <u>"1"(private communication</u> mode) and reset power of PLC.

- 3. Run "Cnet Frame Editor".
- 4. Run [Option > Select communication port] and select PC connection port and PLC"only" on Dialog Box and push "OK" button.
- 5. Run [Online > Connect] and connect to PC and external device.
- 6. Set communication setting at "Cnet Frame Editor".

😹 프레임 편집기 (untitled.frm) 📃 🗖 🗙
파일 온라인 옵션 모니터 도움말
통신채널 • RS232 side
- 기본 파라메터 국번 00 ✔ 통신방식 널 모뎀 ✔ 초기화 명령 ATZ
통신속도 38400 ▼ 데이타 비트 8 ▼ 모니터등록 크기 패리티 None ▼ 정지 비트 1 ▼ 16x20
Select [Online > Write]. 쓰기 (untitled.frm)

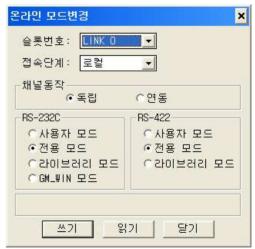
Set as below on Dialog Box and click write.

7.



Select [Online > Online mode change].
 Set as below on Dialog Box and click write.

Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
Comm. option	Default parameter	Write contents



9. Select [Online > Change operation]. Set communication card setup slot and RS-232C and click "communication run" on Dialog Box.

Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
Comm. type	RS-232C	
Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
CH operation	independence	
RS-232C	Privation mode	

XDesignerPlus Ver2.0 Communication Manual





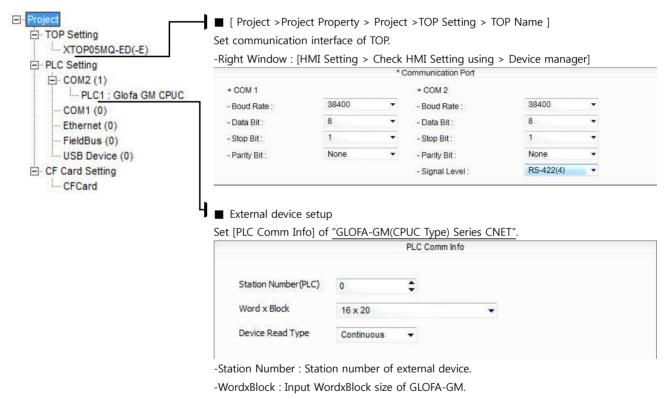
3.8 Example 8

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (port/channel)Station number (PLC Address)Serial Baud rateSerial Data bit[Bit]		RS-422 (4 wire, COM2)	RS-422	User set
		—	0	User set
		38400 8		User set
				User set
Serial Stop bit	[Bit]	1		User set
Serial Parity bit [Bit]		NONE		User set
Run Mode		private mode		User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.





GM(9pin)

signal

RD

SD

¢۲

pin

2

3

5

PC (9pin)

pin

2

E

signal

RD

SD

ŝ

(2) External device setup - link type

Run "Cnet Frame Editor" program of communication system setting tool of GLOFA-GM series for communication setting and set as below. If you want to change communication interface, modify refer to PLC manual.
[GLOFA GM loader cable]

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].

 MODE Rotary switch of Cnet communication module set <u>"1"(private communication</u> mode) and reset power of PLC.

3. Run "Cnet Frame Editor".

7.

- 4. Run [Option > Select communication port] and select PC connection port and PLC"only" on Dialog Box and push "OK" button.
- 5. Run [Online > Connect] and connect to PC and external device.
- 6. Set communication setting at "Cnet Frame Editor".

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파일 온라인 옵션 모니터 도움말
RS232 side RS422 side
기본 파라메터 국번 00 ▼ 통신방식 RS 422 ▼ 초기화 명령 ATZ
통신속도 38400 ▼ 데이타비트 8 ▼ 모니터등록 크기 패리티 None ▼ 정지비트 1 ▼ 16x20
Select [Online > Write].

Set as below on Dialog Box and click write.



Select [Online > Online mode change].
 Set as below on Dialog Box and click write.

Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
Comm. option	Default parameter	Write contents



9. Select [Online > Change operation]. Set communication card setup slot and RS-422 and click "communication run" on Dialog Box.

Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
CH operation	independence	
RS-422	Privation mode	

XDesignerPlus Ver2.0 Communication Manual



Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
Comm. type	RS_422	



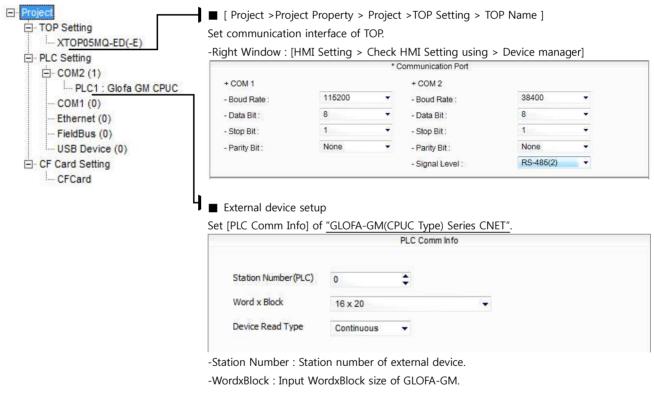
3.9 Example 9

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (p	oort/channel)	RS-485 (2 wire, COM2)	RS-485	User set
Station number (PLC	C Address)	—	0	User set
Serial Baud rate	[BPS]	38	38400	
Serial Data bit	[Bit]		8	User set
Serial Stop bit	[Bit]		1	User set
Serial Parity bit	[Bit]	Ν	ONE	User set
Run Mode		privat	te mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.





(2) External device setup - link type

Run "Cnet Frame Editor" program of communication system setting tool of GLOFA-GM series for communication setting and set as below. If you want to change communication interface, modify refer to PLC manual.
[GLOFA GM loader cable]

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].

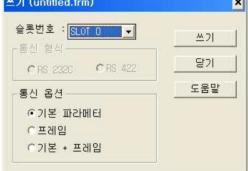
 MODE Rotary switch of Cnet communication module set <u>"1"(private communication</u> mode) and reset power of PLC.

3. Run "Cnet Frame Editor".

7.

- 4. Run [Option > Select communication port] and select PC connection port and PLC"only" on Dialog Box and push "OK" button.
- 5. Run [Online > Connect] and connect to PC and external device.
- 6. Set communication setting at "Cnet Frame Editor".

🧱 프레임 편집기 (untitled.frm)	- 🗆 🗙
파일 온라인 옵션 모니터 도움말	
·통신채널 · RS232 side · RS422 side	
-기본 파라메터 국변 00 ▼ 통신방식 RS 485 ▼ 초기화 명령	ATZ
통신속도 38400 ▼ 데이타 비트 8 ▼	-모니터등록 크기
패리티 None 🚽 정지 비트 1 👤	
Select [Online > Write].	쓰기 (untitled.frm)
Set as below on Dialog Box and click write.	슬롯번호 : SINGR



Select [Online > Online mode change].
 Set as below on Dialog Box and click write.

Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
Comm. option	Default parameter	Write contents

• 독립	C 연동
RS-232C	RS-422
이사용자 모드	이사용자 모드
⊙전용 모드	⊙전용 모드
이라이브러리 모드	이라이브러리 5
CGM_WIN 모드	

온라인 모드변경

9. Select [Online > Change operation]. Set communication card setup slot and RS-232C and click "communication run" on Dialog Box.

Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
CH operation	independence	
RS-422	Privation mode	

XDesignerPlus Ver2.0 Communication Manual

×



Item	Setting ex	contents
Slot number	SLOT 0	Slot of Cnet module
Comm. type	RS_422	



3.10 Example 10

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (p	port/channel)	RS-232 (COM2)	RS-232	User set
Station number (PLC	C Address)	—	0	User set
Serial Baud rate	[BPS]	38	38400	
Serial Data bit	[Bit]		8	User set
Serial Stop bit	[Bit]		1	User set
Serial Parity bit	[Bit]	Ν	ONE	User set
Run Mode		priva	te mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.

LC Setting	-Right Window : [HMI	Setting > C			> Device mana	ger]
- COM2 (1)			*(Communication Port		
PLC1 : Glofa GM CPUC	+ COM 1			+ COM 2		
COM1 (0)	- Boud Rate :	38400		- Boud Rate :	38400	
Ethernet (0)	- Data Bit :	8		- Data Bit :	8	
···· FieldBus (0)	- Stop Bit :	1		- Stop Bit :	1	
USB Device (0)	- Parity Bit ;	None	•	- Parity Bit :	None	
					The second second second	100.53
	■ External device set Set IPLC Comm Infold	•		- Signal Level :	RS-232C	
	■ External device set Set [PLC Comm Info]	•		PUC Type) Series Cl		
	•	•				
	•	•		PUC Type) Series Cl		
F Card Setting CFCard	Set [PLC Comm Info]	of <u>"GLOFA-G</u>		PUC Type) Series C PLC Comm Info		



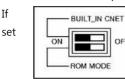
(2) External device setup - Built in Cnet Type

OFF

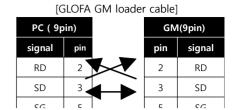
Run Ladder Software "GM_WIN" of GLOFA-GM series for communication setting and set as below.

If you want to change communication interface, modify refer to PLC manual.

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].



you use built in Cnet(RS-232C), "BUILT IN CNET" DIP switch to "ON'.



2.

Run GM_WIN and create new project about [GM7U].

3. Double click [Parameter > Default parameter] on project dialog and select CH0 and set as below.

통신 채널 0 🛛 🛛 🔀
통신 방식 자국번 :
프로토콜 및 전송 모드 마스터설정시 타임아웃 : 500 ms
전용 C 마스터 IT 슬레이브 상태읽기 등록목록 C 실레이브 C LG 인버터
Modbus
사용자 정의
이 마스터 등록목록 등록목록
닫기

4. Run [Online > Connect] and connect to PC and external device.

5. Select [Write] menu and download communication setting to external device.



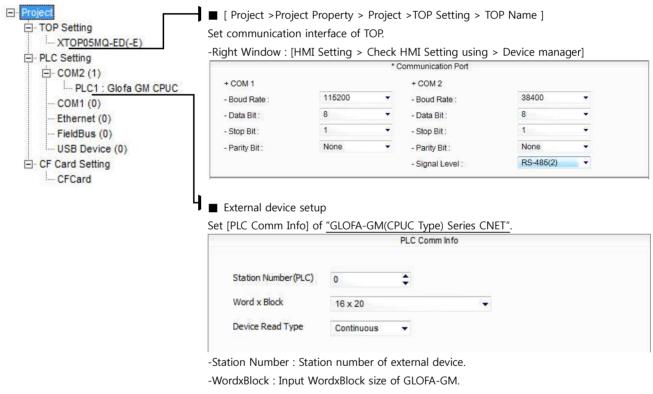
3.11 Example 11

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (p	oort/channel)	RS-485 (2 wire, COM2)	RS-485	User set
Station number (PLC	C Address)	—	0	User set
Serial Baud rate	[BPS]	38	38400	
Serial Data bit	[Bit]		8	User set
Serial Stop bit	[Bit]		1	User set
Serial Parity bit	[Bit]	Ν	ONE	User set
Run Mode		privat	te mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.





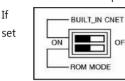
(2) External device setup - Built in Cnet Type

OFF

Run Ladder Software "GM_WIN" of GLOFA-GM series for communication setting and set as below.

If you want to change communication interface, modify refer to PLC manual.

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].



2.

you use built in Cnet(RS-232C), "BUILT IN CNET" DIP switch to "ON'.

[GLOFA GM loader cable] PC (9pin) GM(9pin) signal pin signal pin RD 2 2 RD

3

с

SD

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SD

sc

3

Run GM_WIN and create new project about [GM7U].

3. Double click [Parameter > Default parameter] on project dialog and select CH1 and set as below.

통신 채널 1	
통신 방식 자국번 : 0 통신 속도 : 38400 패리티 비트 : 없음 통신 채널 ⓒ RS485	 ■ 데이터 비트: 8 ■ ■ 정지 비트: 1 ■ 초기화 명령: ATZ
- 프로토콜 및 전송 모드	마스터설정시 타임아웃 : 500 ms
전용 이 마스터 이 슬레이브 이 LG 인버터	┏ 슬레미브 상태읽기 _ 등록목록 _
Modbus 이 마스터 이 슬레이브 사용자 정의	전송 모드 : 🛛 💌
이 마스터 이 슬레이브 이 무수순 통신	등록목록
	닫기

4. Run [Online > Connect] and connect to PC and external device.

5. Select [Write] menu and download communication setting to external device.



3.12 Example 12

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note	
Serial Signal Level (port/channel)		RS-232 (COM2)	RS-232	User set	
Station number (PLC Address)		— 0		User set	
Serial Baud rate	[BPS]	3	User set		
Serial Data bit	[Bit]		User set		
Serial Stop bit	[Bit]		User set		
Serial Parity bit	[Bit]	Ν	User set		
Run Mode		priva	User set		

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.

C Setting	-Right Window : [HMI Setting > Check HMI Setting using > Device manager]					
- COM2 (1)			* C	communication Port		
PLC1 : Glofa GM CPUC	+ COM 1		-	+ COM 2	12 1750 montos	-
- COM1 (0)	- Boud Rate :	38400		- Boud Rate :	38400	
- Ethernet (0)	- Data Bit :	8		- Data Bit :	8	1
···FieldBus (0)	- Stop Bit :	1	•	- Stop Bit :	1	
- USB Device (0)	- Parity Bit :	None	•	- Parity Bit :	None	
					RS-232C	
	I ■ External device set Set [PLC Comm Info] 0	•	M(CP	- Signal Level : UC Type) Series CI		
	•	•				
Card Setting CFCard	•	•		UC Type) Series Cl		
	•	•		UC Type) Series Cl		
	Set [PLC Comm Info]	of <u>"GLOFA-GI</u>		UC Type) Series CI PLC Comm Info		



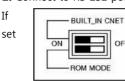
(2) External device setup - Built in Cnet Type

OFF

Run Ladder Software "GM_WIN" of GLOFA-GM series for communication setting and set as below.

If you want to change communication interface, modify refer to PLC manual.

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].



2.

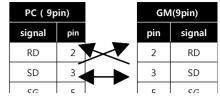
you use built in Cnet(RS-232C), "BUILT IN CNET" DIP switch to "ON'.

Run GM_WIN and create new project about [GM7U].

3. Double click [Parameter > Default parameter] on project dialog and set as below. (In case of GM7U series, select [CH 0] at "communication parameter" dialog box.)

통신파라미터 🛛 🛛 🔀
통신 방식 자국번 : 통신 속도 : 38400 ▼ 데이터 비트 : 8 ▼ 패리티 비트 : 없음 ▼ 정지 비트 : 1 ▼ 통신 채널 ⓒ RS232C 널모뎀 또는 RS422/485 ⓒ RS232C 전용모뎀 초기화 명령 : ⓒ RS232C 다이얼업 모뎀 ATZ
프로토콜 및 전송 모드 마스터설정시 타임아웃 : 500 ms
전용
Modbus 이 마스터 전송 모드 : [ASC1] 이 슬레이브
사용자 정의 이 마스터 등록목록 등록목록 등록목록 등 등 등록목록 등 등 등 등
FIELDBUS 이 마스터 등록목록 이 슬레이브
닫기

[GLOFA GM loader cable]



4. Run [Online > Connect] and connect to PC and external device.

5. Select [Write] menu and download communication setting to external device.



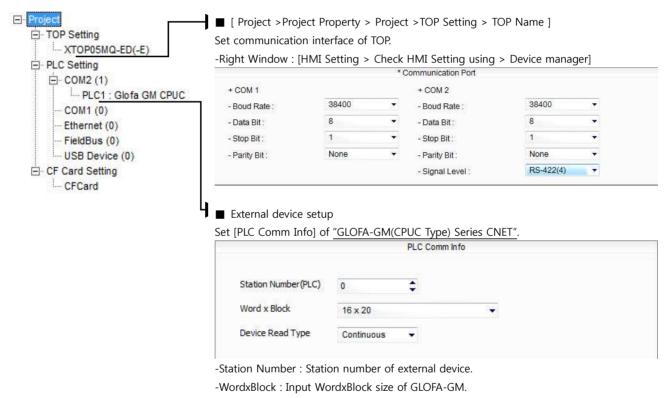
3.13 Example 13

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (port/channel)		RS-422 (4 wire, COM2)	RS-422	User set
Station number (PLC	C Address)	—	0	User set
Serial Baud rate	[BPS]	38	8400	User set
Serial Data bit	[Bit]	8		User set
Serial Stop bit	[Bit]	1		User set
Serial Parity bit	[Bit]	NONE		User set
Run Mode		privat	te mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.



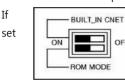


OFF

Run Ladder Software "GM_WIN" of GLOFA-GM series for communication setting and set as below.

If you want to change communication interface, modify refer to PLC manual.

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].



2.

you use built in Cnet(RS-232C), "BUILT IN CNET" DIP switch to "ON'.

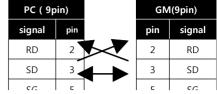
Run GM_WIN and create new project about [GM7U].

3. Double click [Parameter > Default parameter] on project dialog and set as below.

통신파라미터	
┌통신 방식	
자국번 : 0	
	이터 비트 : 8 💌
	지 비트 : 1 🔹
·····································	
☞ RS232C 널모뎀 또는 RS422/485	
	초기화 명령 :
○ RS2320 다이얼업 모뎀	TZ
프로토콜 및 전송 모드	
	바임아웃 : 500 ms
전용	
C 마스터 F 슐레이브	. 상태읽기 _ 등록목록 _
④ 슬레이브 Modbus	
C 슬레이브 전송 모드 1	ASCII
사용자 정의	
이 마스터	등록목록
○ 슬레이브	
FIELDBUS	
이 마스터 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이	등록목록
○ 슬레이브	
	달기

4. Run [Online > Connect] and connect to PC and external device.

5. Select [Write] menu and download communication setting to external device.





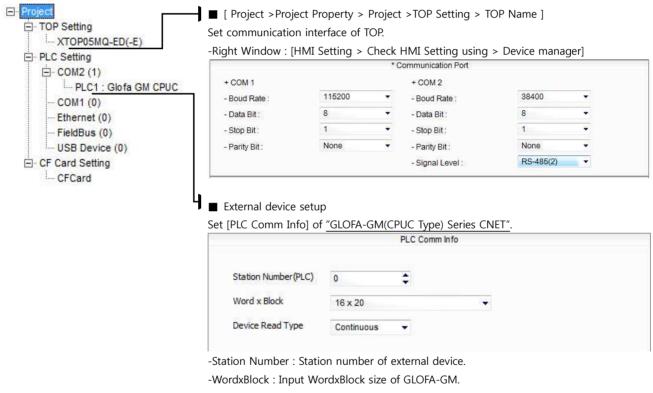
3.14 Example 14

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (port/channel)		RS-485 (2 wire, COM2)	RS-485	User set
Station number (PLC	C Address)	—	0	User set
Serial Baud rate	[BPS]	38	8400	User set
Serial Data bit	[Bit]	8		User set
Serial Stop bit	[Bit]	1		User set
Serial Parity bit	[Bit]	NONE		User set
Run Mode		privat	te mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.



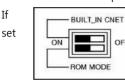


OFF

Run Ladder Software "GM_WIN" of GLOFA-GM series for communication setting and set as below.

If you want to change communication interface, modify refer to PLC manual.

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].



2.

you use built in Cnet(RS-232C), "BUILT IN CNET" DIP switch to "ON'.

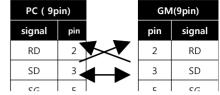
Run GM_WIN and create new project about [GM7U].

3. Double click [Parameter > Default parameter] on project dialog and set as below.

통신파라미터	
┌통신 방식	
자국번 : 0	
	이터 비트 : 8 💌
	지 비트 : 1 🔹
·····································	
☞ RS232C 널모뎀 또는 RS422/485	
	초기화 명령 :
○ RS2320 다이얼업 모뎀	TZ
프로토콜 및 전송 모드	
	바임아웃 : 500 ms
전용	
C 마스터 F 슐레이브	. 상태읽기 _ 등록목록 _
④ 슬레이브 Modbus	
C 슬레이브 전송 모드 1	ASCII
사용자 정의	
이 마스터	등록목록
○ 슬레이브	
FIELDBUS	
이 마스터 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이 이	등록목록
○ 슬레이브	
	달기

4. Run [Online > Connect] and connect to PC and external device.

5. Select [Write] menu and download communication setting to external device.





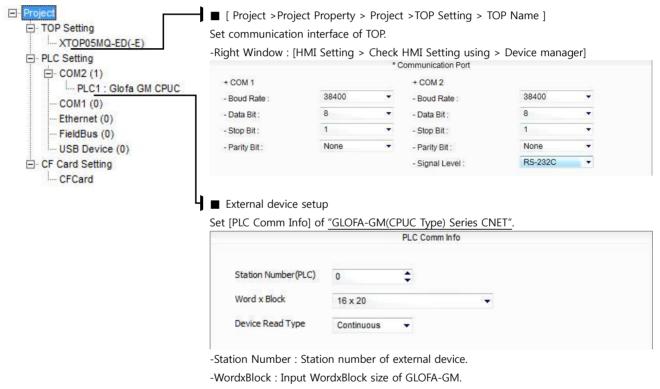
3.15 Example 15

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (port/channel)		RS-232 (COM2)	RS-232	User set
Station number (PLC	C Address)	—	0	User set
Serial Baud rate	[BPS]	38	8400	User set
Serial Data bit	[Bit]	8		User set
Serial Stop bit	[Bit]	1		User set
Serial Parity bit	[Bit]	NONE		User set
Run Mode		privat	te mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.



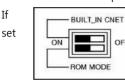


OFF

Run Ladder Software "GM_WIN" of GLOFA-GM series for communication setting and set as below.

If you want to change communication interface, modify refer to PLC manual.

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].



2.

you use built in Cnet(RS-232C), "BUILT IN CNET" DIP switch to "ON'.

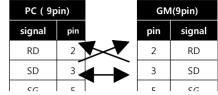
Run GM_WIN and create new project about [GM7U].

3. Double click [Parameter > Default parameter] on project dialog and set as below.

통신파라미터 🛛 🛛 🔀
통신 방식 자국번 : 통신 속도 : 38400 ▼ 데이터 비트 : 8 ▼ 패리티 비트 : 없음 ▼ 통신 채널 ⓒ RS232C 널모뎀 또는 RS422/485
C RS232C 전용모뎀 초기화 명령 : C RS232C 다이얼업 모뎀 ATZ
마스터설정시 타임아웃 : 500 ms
전용 C 마스터 IT 슬레이브 상태읽기 등록목록 C 슬레이브
Modbus 이 마스터 전송 모드 : ASCII / 기 이 슬레이브
사용자 정의
C 마스터 등록목록
달기

4. Run [Online > Connect] and connect to PC and external device.

5. Select [Write] menu and download communication setting to external device.





3.16 Example 16

'M-D
10A model of GM7 Series is only supported RS-485 communication.

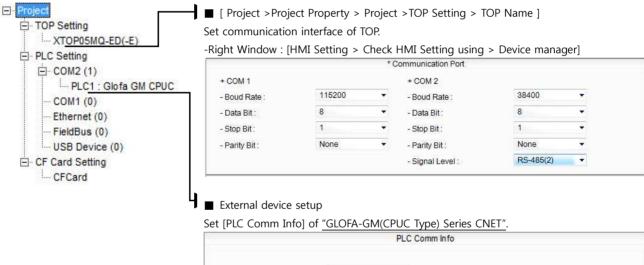
 Δ 'M-D \Box 10A model of GM7 Series can use one of the RS-485 and RS-232C communication of CH 0.

Set your system as below.

Item		ТОР	GLOFA-GM Series	Note
Serial Signal Level (port/channel)		RS-485 (2 wire, COM2)	RS-485	User set
Station number (PLC	C Address)	—	0	User set
Serial Baud rate	[BPS]	38	8400	User set
Serial Data bit	[Bit]	8		User set
Serial Stop bit	[Bit]	1		User set
Serial Parity bit	[Bit]	NONE		User set
Run Mode		priva	te mode	User set

(1) XDesignerPlus Setting

Set [Project >Project property] of XDesignerPlus as below and download it to TOP machine.



Station Number(PLC)	0	\$	
Word x Block	16 x 20		
Device Read Type	Continuous	*	

-Station Number : Station number of external device. -WordxBlock : Input WordxBlock size of GLOFA-GM.

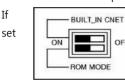


OFF

Run Ladder Software "GM_WIN" of GLOFA-GM series for communication setting and set as below.

If you want to change communication interface, modify refer to PLC manual.

1. Connect to RS-232 port of CPU unit and PC with [GLOFA GM loader cable].



2.

you use built in Cnet(RS-232C), "BUILT IN CNET" DIP switch to "ON'.

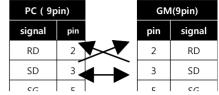
Run GM_WIN and create new project about [GM7U].

3. Double click [Parameter > Default parameter] on project dialog and set as below.

통신파라미터 🛛 🛛 🔀
통신 방식 자국번 : 통신 속도 : 38400 ▼ 데이터 비트 : 8 ▼ 패리티 비트 : 없음 ▼ 통신 채널 ⓒ RS232C 널모뎀 또는 RS422/485
C RS232C 전용모뎀 초기화 명령 : C RS232C 다이얼업 모뎀 ATZ
마스터설정시 타임아웃 : 500 ms
전용 C 마스터 IT 슬레이브 상태읽기 등록목록 C 슬레이브
Modbus 이 마스터 전송 모드 : ASCII / 기 이 슬레이브
사용자 정의
C 마스터 등록목록
달기

4. Run [Online > Connect] and connect to PC and external device.

5. Select [Write] menu and download communication setting to external device.





4. Communication setting

Communication setup can be set on XDesignerPlus or TOP Main Menu. The setting should be the same with the external device.

4.1 XDesignerPlus setting

Select [Project >Project property] of XDesignerPlus.

Project TOP Setting TOPO5MQ-ED(-E) PLC Setting		operty > Project >TOP Set	tting > TOP Name]
	Set communication inte		
		* Communication Port	ng using > Device manager]
⊡- COM2 (1) PLC1 : Glofa GM CPUC	+ COM 1 - Boud Rate : 384	+ COM 2 00 - Boud Rate :	38400 🔻
COM1 (0) Ethernet (0)	- Data Bit : 8	- Data Bit :	8 -
···· FieldBus (0)	- Stop Bit : 1 - Parity Bit : Nor	Stop Srt.	None -
USB Device (0)		- Signal Level :	RS-232C +
CFCard	-Right Window : [HMI S	etting > Check HMI Settir	ng using > PLC Setting]
	HMI Setup Sepcial Buff	er Sync	
	Vse HMI Setup		
	System Setup PLC Se	3	
		(PLC3) GLOFA-GN	(CPUC Type) Series CNET
	PLC Station Number :	0 🗘	
	Time Out :	1000 \$ msec.	
	Wait before send :	0 \$ msec.	
	External device setup Set [PLC Comm Info] of	o <u>"GLOFA-GM(CPUC Type) S</u> PLC Comm In	
	Station Number(PLC)	0	
	Word x Block	16 x 20	
	Device Read Type	Continuous 👻	

■ Setting communication Interface

Item	Description		
Serial Signal Level	Setup signal level(RS-232C/422/485) of PLC connected with COM2/1 port. (COM1 only RS-232C)		
Serial Baud Rate	Setup [communications Baud rate] of PLC connected with COM2/1 port.		
Serial Data Bit	Setup [Data Bit] of PLC connected with COM2/1 port.		
Serial Stop Bit	Setup [Stop Bit] of PLC connected with COM2/1 port.		
Serial Parity Bit	Setup [Parity Bit] of PLC connected with COM2/1 port.		
Time Out [x100 mSec]	Setup [Time Out] of PLC connected with COM2/1 port. (Timeout: waiting time for answer of PLC)		
Send Wait [x10 mSec]	Setup [Send Wait] of PLC connected with COM2/1 port.		
	(Send Wait: communicate after waiting setting time when touch screen requires communications.)		
Station Num. in Diag.[0~31]	Setup [Station Num.(0~31)] using "4.3 Communication Diagnosis"		

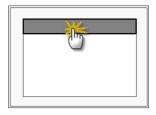




4.2 Set TOP Main Menu

- When a buzzer is on during the power reset, touch 1 spot at the upper LCD to move to "TOP Management Main" display.

- Set up driver interface at TOP according to below Step1 \rightarrow Step2 .	
(Press "TOP COM 2/1 setup" in Step 1 to change setup at Step 2 .)	



Step 1. [PLC setup] - Setup driver interface.

PLC setup						
PLC Address : 00	PLC Address : 00 Communication					
Timeout : 1000 [mSec]		Interface Settings				
Delay time of transmission : 0 [ms	ec]					
	TOP COM 2/1 : RS - 232C , 38400 , 8 , 1 , NONE TOP COM 2/1 setup communication test					
Step 1-Reference.			_			
Details Contents						
PLC address [0~65535]	Address of other device. Select between [0 - 65535].					
Timeout [x1 mSec] Set up TOP's response waiting time from external device at [0 - 5000] x 1 mSec.						

Delay time of transmission [Set up TOP's waiting time between response receiving - next command request transmission
x1 mSec]	from external device at [0 – 5000] x 1 mSec.
TOP COM 2/1	TOP's Interface setup to external device.

Step 2. [PLC setup] > [TOP COM2/COM1 Setting] – Setup relevant port's serial parameter.

Port Settings	
* Serial communication	COM 1 Port
+ COM-1 Port	Communication
- Baud rate : 38400 [BPS]	Interface Settings
- Data bit : 8 [BIT]	
- Stop bit : 1 [BIT]	
- Parity bit : NONE [BIT]	
- Signal level : RS – 232C	
+ COM-2 Port	COM-2 Port
- Baud rate : 38400 [BPS]	Communication
- Data bit : 8 [BIT]	Interface Settings
- Stop bit : 1 [BIT]	
- Parity bit : NONE [BIT]	
- Signal level : RS – 232C	
Step 2-Reference.	·

 Details
 Contents

 Baud rate
 External device – select serial communication speed between TOPs.

 Data bit
 External device – select serial communication data bit between TOPs.

 Stop bit
 External device – select serial communication stop bit between TOPs.

 Parity bit
 External device – select serial communication parity bit check method between TOPs.

 Signal level
 External device – select serial communication method between TOPs.



4.3 Communication Diagnosis

■ TOP - Confirming interface setting condition between external devices

- Move to Menu by clicking the top side of LCD screen as resetting the power of TOP.

- Confirms if Port [COM 2 or COM 1] setting that is willing to use in [Communication Settings] matches with the setting of external devices.

Port Communication Issue Diagnosis

- PLC Setting > TOP [COM 2 or COM 1] click "Communication Diagnosis" button.

- Diagnosis dialog box will pop up on the screen, you can judge by following information that is shown on box no. 3 section.

OK!	Communication setting normal
Time Out Error!	Abnormal Communication setting.
	- Error in the setting situation of Cable and TOP / External device (reference
	: Communication Diagnosis sheet)

■ Communication Diagnosis Sheet

- Please refer to the information below if you have a problem between external devices and communication connection.

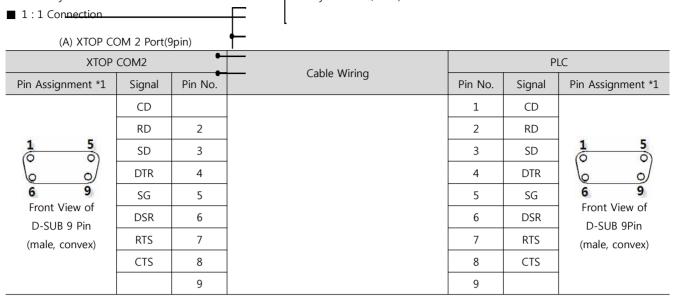
Designer Versio	O.S Versio	n				
Details	Contents				Cor	nfirm
System	Name of CPU				ОК	NG
configuration	Name of confront port that is communicating		ОК	NG		
	System Connection Method	1:1	1:1	N N:1	ОК	NG
Connection Cable	Name of Cable				ОК	NG
PLC setup	Setup address				OK	NG
	Serial baud rate			[BPS]	OK	NG
	Serial data bit			[BIT]	ОК	NG
	Serial Stop bit			[BIT]	ОК	NG
	Serial parity bit		[BIT]			NG
	Assigned Address Limit				ОК	NG
TOP setup	Setup port	COM 1		COM 2	ОК	NG
	Name of Driver				ОК	NG
	Confront Address	Project Property	Setup		ОК	NG
		When D Communication	iagnosin	9	ОК	NG
	Serial baud rate			[BPS]	ОК	NG
	Serial data bit			[BIT]	ОК	NG
	Serial Stop bit			[BIT]	ОК	NG
	Serial parity bit			[BIT]	ОК	NG





5. Cable diagram 11

This Chapter introduces cable wiring guidance for communication between TOP and PLC concerned. (The cable diagrams in this section may differ from the recommendations of "LS Industrial Systems Co., Ltd.")

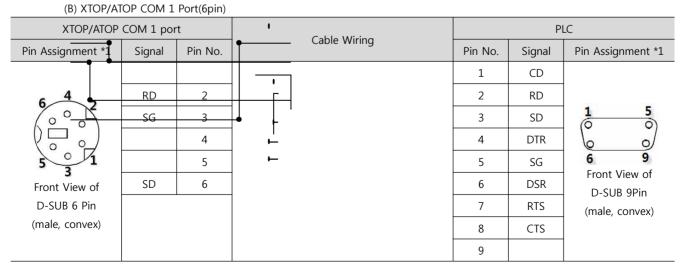


*1) Pin assignment of the cable connector is seen on the face of Front View.

(B) XTOP COM 2 Port(15pin)							
XTOP COM2			Coble Wiving	PLC			
Pin Assignment *1	Signal	Pin No.	Cable Wiring	Pin No.	Signal	Pin Assignment *1	
	CD			1	CD		
	RD	2		2	RD		
	SD	3		3	SD	1 5	
	DTR	4		4	DTR		
9 15	SG	5		5	SG	6 9	
Front View of D-SUB 15 Pin	DSR	6		6	DSR	Front View of D-SUB 9Pin	
(male, convex)	RTS	7		7	RTS	(male, convex)	
	CTS	8		8	CTS		
		9		9			

(B) XTOP COM 2 Port(15pin)

*1) Pin assignment of the cable connector is seen on the face of Front View.



 $\mathbf{1}^{*1}$) Pin assignment of the cable connector is seen on the face of Front View.



■ 1:1 Connection

(A) XTOP COM 2 Port(9pin)

XTOP	XTOP COM2		Calala Mürina	PLC		
Pin Assignment *1	Signal	Pin No.	Cable Wiring	Signal	Pin Assignment	
1 5 0 0 6 9	RDA	2		SDA SDB	RDA RDB SDA	
Front View of D-SUB 9 Pin		3		RDA	SDB - (D)	
(male, convex)	RDB	4		RDB		
	SG	5		SG	FG - C	
	SDA	6				
		7				
		8				
	SDB	9				

*1) Pin assignment of the cable connector is seen on the face of Front View.

(B) XTOP COM 2 Port(15pin)

ХТОР	СОМ2		Cable Wiring	PLC	
Pin Assignment *1	Signal	Pin No.		Signal	Pin Assignment
1 8 0 0 9 15 Front View of D-SUB 15 Pin (male, convex)	_	1		SDA	RDA RDA RDB SDA SDB SG FG RDB RDB RDB RDB RDB RDB RDB RDB
	(omis	ssion)		SDB RDA	
	_	10		RDB	
	RDA	11		SG	
	RDB	12			
	SDA	13			
	SDB	14			
	SG	15			

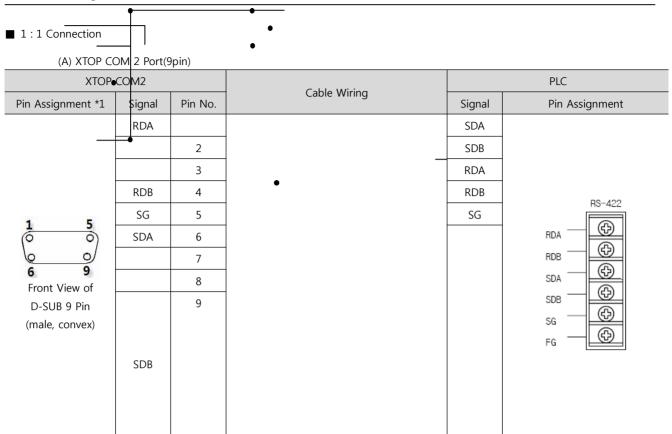
*1) Pin assignment of the cable connector is seen on the face of Front View.

■ 1 : N connection – Connect as below refer to 1:1 connection.

			TOP 대한민 Touch	국대표 터치패널 Operation Panel
TOP	Cable Wiring	PLC	Cable Wiring	PLC
Signal	Cable Winnig	Signal		Signal
RDA		SDA		SDA
RDB		SDB		SDB
SDA		RDA		RDA
SDB		RDB		RDB
SG		SG		SG



5.3 Cable Diagram Table 3 1



*1) Pin assignment of the cable connector is seen on the face of Front View.

(B) XTOP COM 2 Port(15pin)

XTOP COM2		•	Cable Wiring		PLC
Pin Assignment *1	Signal	Pin No.		Signal	Pin Assignment
100	Ι	1	_	SDA	RS-422
	(omission)			SDB	RDA
9 15				RDA	RDB -
Front View of	-	10		RDB	SDA - CD
D-SUB 15 Pin (male, convex)	RDA	11		SG	SDB - D
(male, convex)	RDB	12			sg 🚽 🕀
	SDA	13			FG - C
	SDB	14			
	SG	15			

*1) Pin assignment of the cable connector is seen on the face of Front View.

RDA • 1: N • N : 1 con	nnection Connect as below refer to 1:	1 connection.		
T€P	Cable Wiring	- PLC	Cable Wiring	PLC
Signal		Signal		Signal
		SDA		SDA
RDB		SDB		SDB
SDA		RDA		RDA
SDB		RDB		RDB
SG		SG		SG



5.4 Cable Diagram Table 4

■ 1:1 Connection

(A) XTOP COM 2 Port(9pin)

XTOP COM2		• ·		PLC			
Pin Assignment *1	Signal	Pin No.	Cable Wiring	Pin No.	Signal	Pin Assignment *1	
1 5 0 0 6 9 Front View of D-SUB 9 Pin (male, convex)	CD	1 2		1 2	RD1	1 5 0 0 6 9 Front View of D-SUB 9Pin (male, convex)	
	SD	3		3	SD1	-	
	DTR	4		4	RD2]	
	SG	5		5	SG		
	DSR	6		6			
	RTS	7		7	SD2		
	CTS	8		8			
		9		9			

*1) Pin assignment of the cable connector is seen on the face of Front View.

(B) XTOP COM 2 Port(15pin)

(B) XTOP COM 2 Port(ISpin)						
XTOP COM2			Cable Wiring	PLC		
Pin Assignment *1	Signal	Pin No.	Cable Wiring	Pin No.	Signal	Pin Assignment *1
	CD	1		1		
	RD	2		2	RD1	100
	SD	3		3	SD1	1 5
	DTR	4		4	RD2	
9 15	SG	5		5	SG	6 9
Front View of D-SUB 15 Pin	DSR	6		6	6 Front View of D-SUB 9Pin	
(male, convex)	RTS	7		7	SD2	(male, convex)
· · /	CTS	8		8		
		9		9		

*1) Pin assignment of the cable connector is seen on the face of Front View.



1 (B) XTOP(A)	TOP COM 1	Port(6pin)				
ΧΤΟΡ/ΑΤΟΡ	COM 1 por	rt		PLC		
Pin Assign ment *1	Signal	Pin No.	Cable Wiring	Pin No.	Signal	Pin Assignment *1
		1		1		
		2		2		
	RD		•		RD1	$ \begin{array}{cccc} 1 & 5 \\ 0 & 0 \\ 0 & 0 \end{array} $
5 0 1	SG	3		3	SD1	6 9
5 Front View of		4		4	RD2	Front View of D-SUB 9Pin
D-SUB 6 Pin		5		5	SG	(male, convex)
(male, convex)	SD	6		6		(
				7	SD2	
				8		
				9		

*1) Pin assignment of the cable connector is seen on the face of Front View.



■ 1:1 Connection

(A) XTOP COM 2 Port(9pin)

XTOP COM2			Calify Without	PLC		
Pin Assignment *1	Signal	Pin No.	Cable Wiring	Signal	Pin Assignment	
	RDA			+		
		2		-		
1 5		3				
	RDB	4	•			
6 9	SG	5				
Front View of D-SUB 9 Pin (male, convex)	SDA	6			- +	
		7			RS485	
		8				
	SDB	9				

*1) Pin assignment of the cable connector is seen on the face of Front View.

(B) XTOP CO	(B) XTOP COM 2 Port(15pin)					
ятор	СОМ2		Cable Wiring	PLC		
Pin Assignment *1	Signal	Pin No.		Signal	Pin Assignment	
1 8	_			+		
	(omis	ssion)		-		
9 15	-	10				
Front View of	RDA	11			- + DC 495	
D-SUB 15 Pin (male, convex)	RDB	12			K3400	
	SDA	13				
	SDB	14				
	SG	15				

1*1) Pin assignment of the cable connector is seen on the face of Front View.

■ 1 : N / N : 1 N connection – Connect as below refer to 1:1 connection.

ТОР	Direction of	PLC
Signal	cable connection and signal	Signal
RDA	•	+
RDB		-
SDA		
SDB		
SG		

PLC			
Signal			
+			
-			

Direction of cable connection and signal

XDesignerPlus Ver2.0 Communication Manual



6. Available Address

The available address of device are as below.

Device(address) range might be different according to series/type of CPU. TOP Series are capable of supporting maximum address range which is available in external Device.

Be careful get out of address range.

model	WORD	Address range		
GM1	%I(input)	%IW00.0.0 ~ %IW63.7.3		
	%Q(output)	%QW00.0.0 ~ %QW63.7.3		
	%M(inner memory)	%MW00000 ~ %MW65535		
GM2	%I(input)	%IW00.0.0 ~ %IW31.7.3		
	%Q(output)	%QW00.0.0 ~ %QW31.7.3		
	%M(inner memory)	%MW00000 ~ %MW65535		
GM3, GM4	%I(input)	%IW00.0.0 ~ %IW07.7.3		
	%Q(output)	%QW00.0.0 ~ %QW07.7.3		
	%M(inner memory)	%MW00000 ~ %MW32767		
GM6, GM7	%I(input)	%IW00.0.0 ~ %IW07.7.3		
	%Q(output)	%QW00.0.0 ~ %QW07.7.3		
	%M(inner memory)	%MW00000 ~ %MW16383		

Jot number(slot number next CPU is 0)

Base number(start number is 0)

 \approx card number explanation - Card number of 16 point card is 0. If it is 32 point card, card number of 0~15 bit is 0, card number of 16~31 bit is 1. If it is 64 point card, card number of 0~15 bit is 0, card number of 16~31 bit is 1, card number of 32~47 bit is 2, card number of 48~63 bit is 3.