Migration from EG-SR-7100A to WIZ100SR

This documentation describes what designers and programmers should consider when migrating from the EG-SR-7100A to the WIZ100SR. Since both of them are firmware-ready modules, designers only need to focus on the H/W differences and the differences on operation. For additional information about the WIZ100SR, refer to the *WIZ100SR User Manual.*

This document contains the following topics:

Topic
Section 1. "Comparison"
Section 2. "Hardware Considerations"
Section 3. "Software Considerations"
Section 4. "References"

1 Comparison

1.1 Advantages and Challenges of Migration

This section highlights the various advantages and challenges involved when migrating from the EG-SR-7100A to the WIZ100SR.

The WIZ100SR provides a higher level of performance while maintaining many characteristics of the EG-SR-7100A's architecture. Following is a list of the advantages of migrating to the WIZ100SR:

- Supports PPPoE and DNS protocol
- Supports S/W trigger code - More flexibly implement serial configuration
- Supports auto MDIX – automatically detects the cable type(direct or cross)

Following is a list of differences that may present challenges in migrating from the EG-SR-7100A to the WIZ100SR.

- H/W is not 100% compatible
- Different operation for serial configuration - Host device of our module has to do some adjustments

1.2 Summary and Feature Comparison Tables

Table 1 includes information comparing some of the features of the EG-SR-7100A and the WIZ100SR.

Table 1. EG-SR-7100A and WIZ100SR Comparison

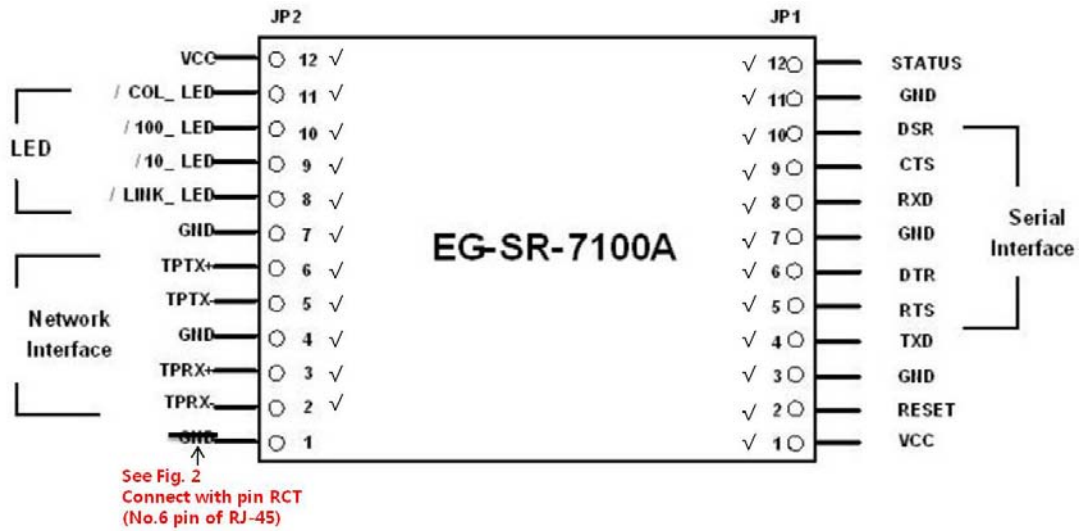|		EG-SR-7100	WIZ100SR
Voltage		3.3v	
Function		Serial-to-Ethernet	
Configuration		Configuration Tool/Serial port	
F/W uploading		Configuration Tool	
MCU		8051	
H/W TCP/IP stack		W3100	W5100
PHY		RTL8201BL	
Protocol		TCP, UDP ,IP, ARP, ICMP, DHCP,	TCP, UDP ,IP, ARP, ICMP, DHCP, PPPoE, DNS
Serial	**Port**	1	
	Signals	TXD,RXD,RTS,CTS,GND	
	Speed	Up to 230Kbps	
	RS 232 Transceiver	N/A	
Connector Type		2×12 2mm pin header	
Dimension (mm)		50×30×12	

2 Hardware Considerations
- **Pin Assignment**

Fig 1. Pin Assignment Considerations when migrate from the EG-SR-7100A to WIZ100SR

- ◆ "—" means "removed function"
- ◆ "√" means "no change",
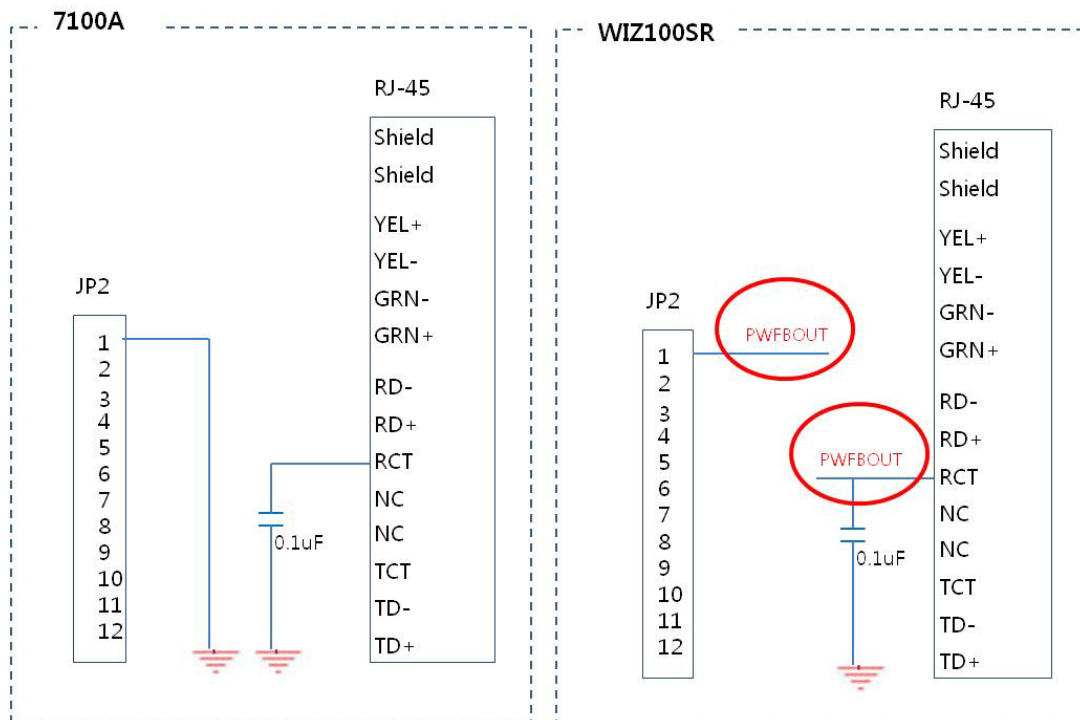- ◆ "←+comments" means "the changed part"

Fig 2. The only one part needs to be changed in H/W design when migrate EG-SR-7100A to WIZ100SR

2

Table 2. Pin Assignment comparison of EG-SR-7100A to WIZ100SR

PIN NAME		Functions		I/O		
EG-SR-7100A	WIZ100SR					
JP2 No.1 pin :GND	JP2 No.1 pin: PWFBOUT	GND	Power Feedback Out	---	O	
RESET		Reset (Active High)		I		
TXD		RS-232 Data Output		O		
RTS		RS-232 Request To Send		O		
DTR		RS-232 Data Terminal Ready		O		Optional
RXD		RS-232 Data Input		I		
CTS		RS-232 Clear To Send		I		
DSR		RS-232 Data Set Ready		I		Optional
TPRX-		Ethernet Differential Input-		I		
TPRX+		Ethernet Differential Input+		I		
TPTX-		Ethernet Differential Output-		O		
TPTX+		Ethernet Differential Output+		O		
/LINK_LED		Link LED		O		
/10_LED		10 Mbps LED		O		
/100_LED		100 Mbps LED		O		
/COL_LED		Collision LED		O		
Status		High: not connected Low: connected		I/O		Input when booting time for configuration
VCC		3.3V Power		I		

WIZ100SR Reference Schematic:
http://www.wiznet.co.kr/UpLoad_Files/ReferenceFiles/schematic.zip

3 Software Considerations
3.1 ConfigTool
EG-SR-7100A and WIZ100SR have their own ConfigTool.

EG-SR-7100A:
http://www.wiznet.co.kr/UpLoad_Files/ReferenceFiles/EG-SR-7100A_Configuration_Tool_3.1.8.zip

WIZ100SR:
http://www.wiznet.co.kr/UpLoad_Files/ReferenceFiles/WIZ1x0SR_config_v3.0.2.zip

3.2 Serial configuration
EG-SR-7100A and WIZ100SR has different operation procedures for serial configuration. Table 3 shows us the differences of serial configuration procedures.
For additional information, please see Chapter *4 Serial Configuration* of *WIZ100SR user manual*

Table 3. Comparison of Serial configuration procedures

	EG-SR-7100A	WIZ100SR
Enable Function	Need Reboot	Need Reboot(Hardware Trigger) / Any time(Software Trigger)
Method for Enabling	JP1.12 go HIGH when rebooting	JP1.12 go HIGH when rebooting or 3-byte Software trigger code (default trigger code is '+''+''+')
Method for Configuring	94-byte special text file	Escape sequence & Command set (45 commands)
Configuration items	Serial settings Network settings Data packing settings f/w uploading	Serial settings Network settings Data packing settings

4 References

To download User manual and Configtool, refer to below links:

- EG-SR-7100A:

ConfigTool:
http://www.wiznet.co.kr/UpLoad_Files/ReferenceFiles/EG-SR-7100A_Configuration_Tool_3.1.8.zip
User manual:
http://www.wiznet.co.kr/UpLoad_Files/ReferenceFiles/EG_SR_7100A_Users_Manual_v4_1.pdf

- WIZ100SR:

ConfigTool:
http://www.wiznet.co.kr/UpLoad_Files/ReferenceFiles/WIZ1x0SR_config_v3.0.2.zip
User manual:
http://www.wiznet.co.kr/UpLoad_Files/ReferenceFiles/WIZ100SR_User_Manual_V2_0.pdf