MAXFOR Technology
48, Banjeong-ro, Yangji-myeon, Cheoin-gu,
Yongin-si, Gyeonggi-do, Korea

Smart Gateway

(MFG-G300)

User's Manual

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MAXFOR Technology Inc.

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1. Symbol Description and Definition

⚠ WARNING

Warning messages address situations that could result in injury or critical damage to the Gateway.

⚠ CAUTION

Caution messages address situations that could result in damage to the Gateway.

NOTE

Notes relate helpful information.

⎓ DC Symbol

Indicates the DC power.

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2. Notice

Important matter

▷The following document is not contractually binding. MAXFOR Technology Inc. reserves the rights to revise the document at any point, following the any potential successful upgrade of the product;

▷First-time user, or whomever responsible for the repairing of the product, must read this manual thoroughly before operation.

▷For the product to perform at its best, repairing or maintenance must be under the directives of personnel of, or those appointed by MAXFOR Technology Inc.

Limitation of Liability

▷MAXFOR Technology Inc. will not be held responsible for any damages such as physical damages occurred on users, if the cause is the inappropriate use of the product against the manual description.

▷MAXFOR Technology Inc. does not appoint any agency or men, the legal rights to represent the company regarding our business.

▷ MAXFOR Technology Inc. will not be held responsible for damages or legal prosecution, caused by sales or se of products not approved by us.

WARNING	Use provided adaptor. When using other adaptors, make sure to use proper rating and standard product. It may causes damage the equipment.

CAUTION	Equipment listed in the data sheet allowed range of temperature, humidity and air pressure in use. When used in an environment that exceeds the tolerance of the device can cause malfunction or failure.

CAUTION	This equipment is indoor use and all the communication wirings are limited to inside of the building.

3. Introduction

The MFA-300 is functions as a gateway to transmit data to server without going through PC being collected data from wireless sensor network.

4. Features

- Ubiquitous Sensor Network Gateway
- SAMAUNG S3C6410 (ARM core) 633MHz chip.
- Linux Kernel 2.6.x support.
- Ethernet, Serial, JTAG, USB, GPIO Connectors.
- USN to BcN Wireless interface.

5. Specification

Item	Specification		Remark
MAIN			
Process	SAMSUNG S3C6410- 667MHz		ARM11 Core
Memory	SDRAM	128 Mbytes	DDR2 533MHz
	NAND Flash	64 M bytes	
	Boot Flash	4 Megabit	
OS	Linux Kernel 2.6.x		
Interface	Parallel	GPIO 4 Ports	
	Serial	USB HOST 1 Port	
		Console 1 Port	
		RS232 2 Port	
LAN	RJ-45 1 Port		100Mbps Only
Debug	On-Board JTAG Converter		
LED	Debugging 5 Bits		POWER, STATE, LINK, Tx, Rx
Support Device	CDMA, WLAN		Option
Alarm	Light & Sound		Option
RF			
Freq. band	2.405G -2.475GHz		IEEE 802.15.4

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RF power	-55dBm - 8dBm		Boost mode
Sensitivity	-102dBm		Receive sensitivity
Antenna	Dipole Antenna		
System Operation			
Temperature Range	Operating	-20°C - 50°C	
	Storage	-20°C - 50°C	
Humidity Range	0~95% RH, non-condensing		
Power In	12V ⎓DC		
Power Out	USB Port: 5V⎓, 500mA Alarm Port: 12V⎓, 200mA Buzzer Port: 12V⎓, 200mA		
Consumption	2.0A		
Dimension	185(W) X 130(D) X 45(H)mm		
IP Code	IPXX		
Power source			
AC power adapter	Input: 100-240VAC, 50/60Hz, 1200mA Output: 12VDC, 3.33A		Model NO: GC99D040012

NOTE	Specifications are subject to change without notice.

6. Designation

NO.	Description
1	LED (Power, STATE, LINK, Tx, Rx)
2	ANTENNA(Dipole antenna)
3	DC Jack & Power On Switch
4	Ethernet
5	RS-232
6	USB HOST 2.0
7	Expansion Port

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7. Remote access method to MFG-G300

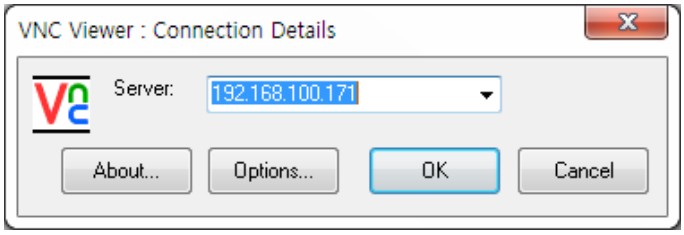
- Remote access is used to confirm only sensor data and Set values is used to Default values.

CAUTION	If you change the setting, remote VNC connection and data linkage can be a problem.

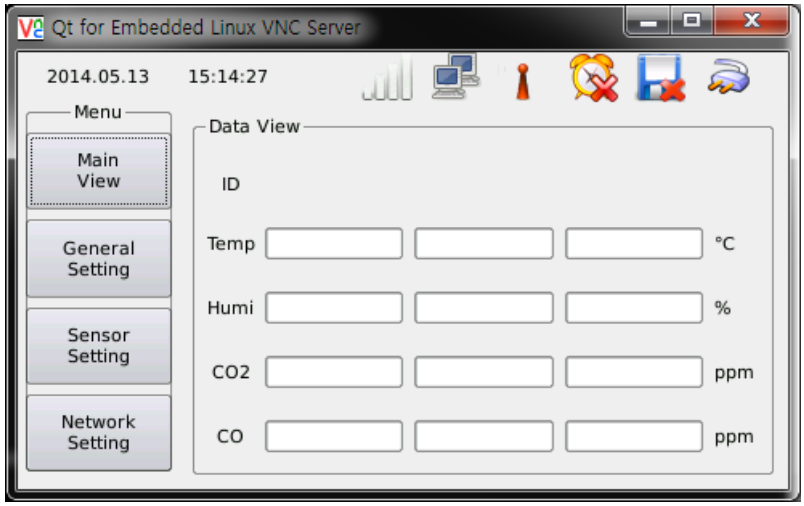
7.1 Access method to VNC Viewer

① VNC Viewer Program Installation

② Run VNC Viewer and Connect Server



③ VNC connection screen



8. Installation

- Locate the Gateway in an area easily accessible by a technician.
- Avoid locations in which the Gateway will be subjected to vibration or rapid temperature fluctuations.
- Follow local regulations and site requirements.

9. Maintenance

Cleaning

- Use a soft cloth and mild detergent to clean the device. Do not use paint thinner, benzene, solvent or strong detergent.
- Be sure to turn the power key off before cleaning the device.
- Only authorized service personnel should remove the cover of the unit.

Storage

- Store the equipment in an area with moderate temperature and humidity.
- If the equipment is not to be used for a long time, it is recommended to protect it from dust, dirt or humidity.
- Keep it away from any heating source, direct sunlight, water vapor, or such environment as poor ventilation, excessive shock or vibration.

10. Contact information

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FCC Part 15.105 statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Part 15.21 statement

Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

FCC Part 15.19 statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Body-worn Operation

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum 20 cm between the radiator and your body. This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter unless authorized to do so by the FCC.