

DS-QVGA-01

Development set for GW-QVGA-01A

Brief User's Manual

DS-QVGA-01 is a development set for visual control panel GW-QVGA-01A. GW-QVGA-01A is a generic equipment, i.e. the hardware is fixed and the user can realize specific functionality by software only. DS-QVGA-01 is intended for development and GW-QVGA-01A for final production. This set contains complete hardware, demo software with source codes, libraries and documentation including schematics.

<i>Electrical specifications</i>	<i>(typical values unless otherwise stated)</i>
Power supply	5.0 ± 0.35 V DC (micro USB) 7–24V DC (clamp connector)
Accumulator	LI14500-700-1L, 3.7 V, 700 mAh, Li-Ion, AA
Display	TFT LCD 3.2", 320 x 240 pixels, 256 K colors Used type: DI-QVGA-3.2-03 in GW-QVGA-01A(1) version

Absolute maximum ratings

Stresses above those values may cause permanent damage to the device. Exposure to maximum rating conditions for extended periods may affect device reliability.

Supply voltage (VCC):	5.5 V
Storage temperature:	-30 °C to +80 °C

Hardware

Power supply

GW-QVGA-01A is intended to be supplied from external stabilized 7 V – 24 V DC connected to clamp or to micro USB connector. Accumulator serves as a backup for external power source and should be charged from it. Use only the proper power source and keep proper polarity according to the PCB print for the clamp connector.

Reset

GW reset (initialization/starting-up) can be invoked by the Reset pushbutton on the side of the case. **Use this pushbutton to switch the GW on.**

Sleep mode

This standby mode is intended for current consumption minimizing, especially in idle or while supplied from the accumulator. It can be invoked by the program and terminated by the reset pushbutton. GW power is not switched off, the Sleep mode is used instead.

QVGA display

Display/touchscreen 3.2", 320x240 pixels RGB, 262144 colors, QVGA TFT LCD, transmissive, with LED backlight and 16b data bus. Used type: DI-QVGA-3.2-03 in GW-QVGA-01A(1) version. Proper display functionality requires a **calibration**. See the User's guide.

EEPROM memory

64 kb, serial interface SPI, 1 000 000 erase/write cycles (typ.).

RS-485 interface

The RS-485 circuitry is supplied directly from external source. Thus, it works with external supply only.

TR module and antenna

The TR-52BA or higher wireless IQRF transceiver module in SIM card format with integrated PCB antenna can be used.

User pushbutton

Functionality of the pushbutton on the front panel is fully depended on the user application.

Connectors

connector	pins	type
External power	2	Micro USB
	2	Clamp connector
USB	4	Micro USB
TR module	8 + 1	SIM connector + through hole soldering for possible mechanical fixation
RS-485	2	Clamp connector
SD card	8	DM3AT-SF-PEJ (Hirose). Delivered separately on request.
Accumulator	2	Soldering stripes

The cable to the clamp connector can be connected after breaking the molded cover at the bottom of the case.

For detailed information about the DS-QVGA-01 functionality refer to User's guide and included CD.

Pack list

- GW-QVGA-01A equipped with SD card connector, with Demo application programmed, in Sleep mode
- No TR module included
- Accumulator (soldered)
- Power source TY-A6-microUSB (5V DC, 500 mA, stabilized, with micro USB connector)
- Programming / debugging cable
- Micro USB cable CABUSBABMICRO-100
- CD with documentation and software

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