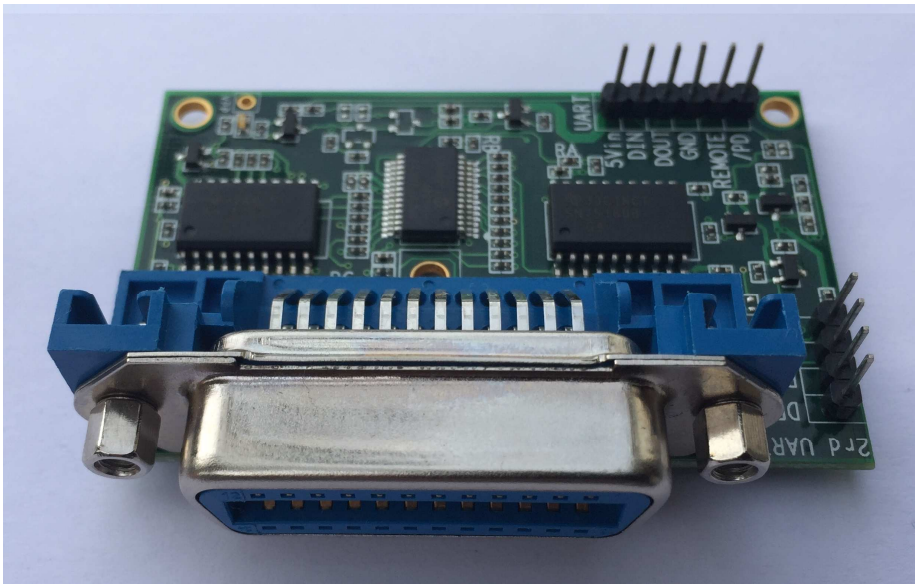
# GU01 GPIB TO UART MODULE DATASHEET

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LQ Electronics Corp

# GU01 GPIB TO UART MODULE DATASHEET
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# 1.0 GENERAL INFORMATION

## 1.1 GU01 GPIB to UART Module Introduction

**GU01 GPIB to UART Module** is powerful, friendly and low cost GPIB device interface adapter module. It is designed for equipment which lacks access by GPIB controller. The module GPIB device interface can be a Listener and Talker. The UART side is a standard UART interface and has data speed from 300bit to 115.2 kbit. The GPIB interface is compatible with IEEE488.1 and 488.2. It is compatible with the required GPIB common commands. If you have a UART (serial port), it can take over your UART port since it has two UART ports on the module.

## 1.2 Mechanical Details

Fig.1 shows the module mechanical details (top view). Fig.2 shows the module dimension side view. The module has a small size and easily fits into equipment such as oscilloscope, power supply, etc.

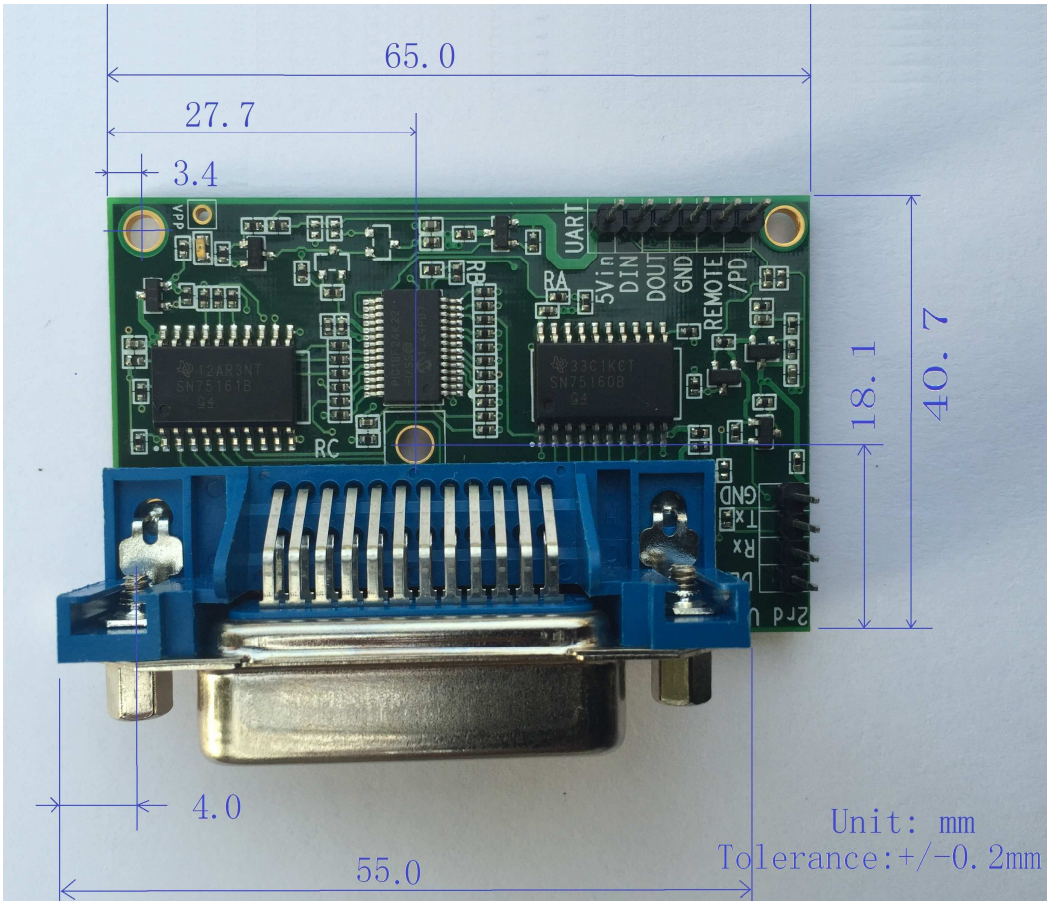


Fig. 1 GPIB to UART Module Mechanic Size (top view)

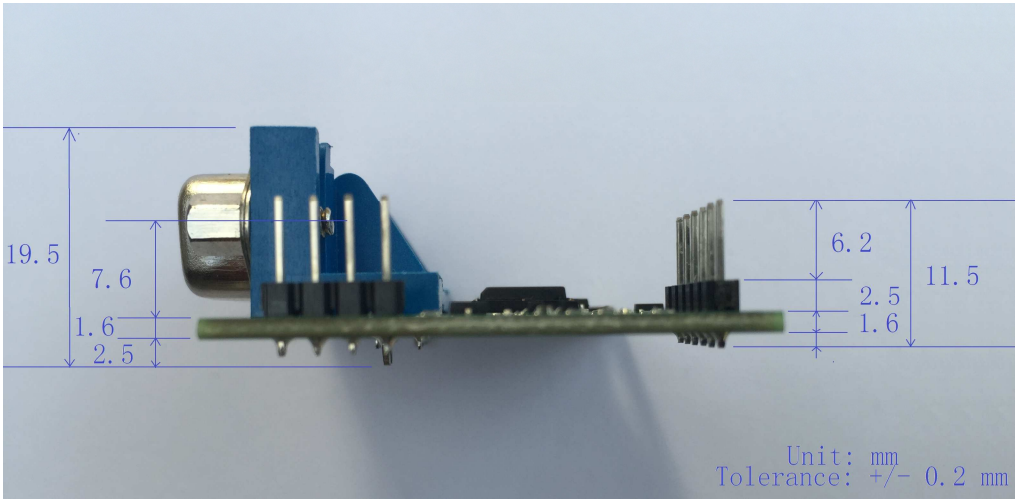


Fig. 2 GPIB to UART Module Mechanic Size (side view)

## 1.3 Connections

The module can be connected as a GPIB device interface to UART direct conversion adapter, and also as a GPIB device interface with UART to UART adapter. If you have a UART port, you will be added GPIB feature on your equipment. If you have a serial port by UART already, you can add a GPIB device interface and you still have your serial port.

### 1.3.1 GPIB Device Interface to UART Adapter

Fig. 3 illustrates GPIB device interface to UART adapter connection. If you have a UART interface on your microcontroller or other UART device, you could have a GPIB device interface by installing GU01 GPIB device interface to UART adapter, connecting the two UART ports by regular jumping wires.

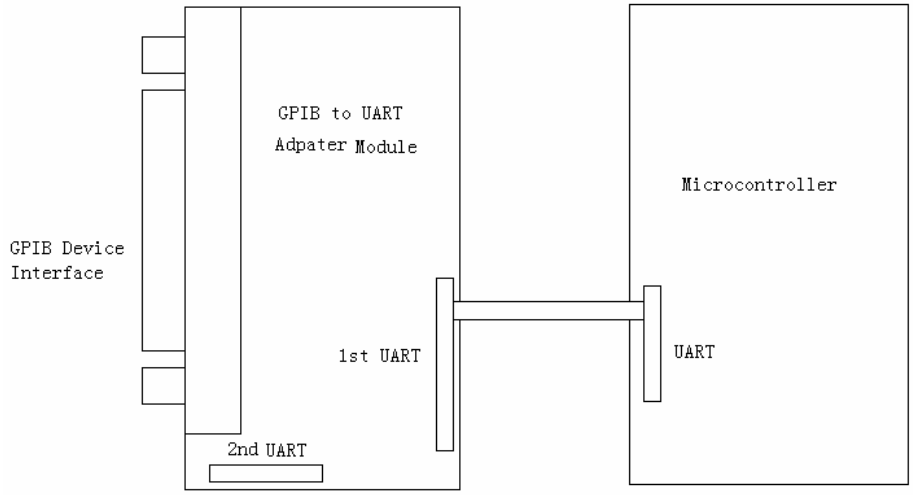


Fig.3 GPIB Device Interface to UART adapter connection

### 1.3.2 GPIB Device Interface with UART to UART Adapter

Fig. 4 illustrates GPIB device interface to UART adapter connections with a serial port. If you have a UART serial port connected already, you still could add a GPIB device interface by installing the GU01 module between your UART port and UART transceiver. The GU01 module can take over your serial port.

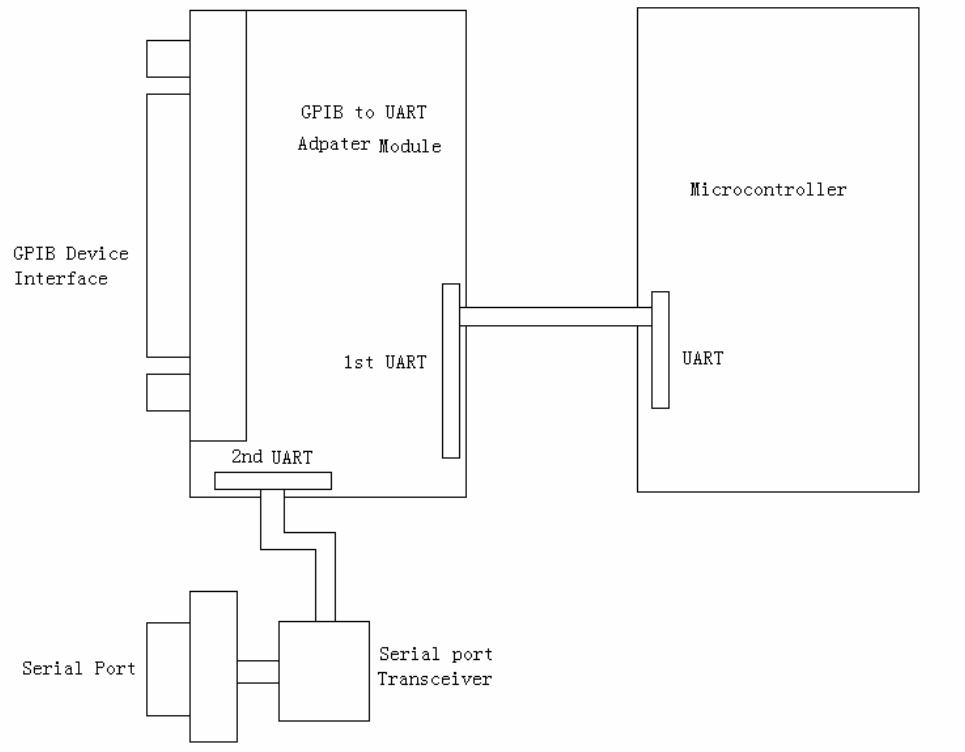


Fig. 4 GPIB Device interface to UART Adapter with UART serial port

# 2.0 GU01 GPIB DEVICE INTERFACE MODULE SPECIFICATIONS

## 2.1 Absolute Maximum Rating

1. DC Power Supply Voltage 6.5V
2. Storage temperature -40~150$^0$C
3. Maximum power consumption 0.8W
4. Operating temperature 0~70$^0$C

## 2.2 The Module Recommended Specifications

Recommendation operating conditions

| Port | Parameter | | Min | Typ. | Max | Unit |
|---|---|---|---|---|---|---|
| Module | DC supply voltage | | 4.75 | 5 | 5.25 | V |
| | Temperature | | 0 | | 70 | 0C |
| | Power consumption (1) | GPIB transceiver On | 0.6 | | 0.78 | W |
| | DC= 5V | GPIB transceiver Off | 0.1 | | 0.12 | |
| GPIB Interface | High level input voltage | | 2 | | 5 | V |
| | Low level input voltage | | 0 | | 0.8 | V |
| | High level output current | Drive current | | | -5.2 | mA |
| | Low level output current | Sink current | | | 48 | mA |
| UART interface | High level input voltage | | 2.5 | | 5 | V |
| | Low level input voltage | | 0 | | 1.5 | V |
| | High level output current (2) | 5V UART | | | -3 | mA |
| | Low level output current (2) | 5V UART | | | 5 | mA |

Note:

1. When no GPIB controller is connected to the module, the GPIB transceiver is always powered off so as to save power. If a GPIB controller is plugged in the GPIB device interface module, the GPIB transceiver will be powered on automatically.
2. If $R_A$ and $R_B$ are changed to be 5kohm so as to make 3.3V UART interface, high level output current will become 0.3mA.

UART data speed
UART 1 data speed is fixed since it is control port for the module. The default data speed is 9600bit. Data speed at UART 1 can be customized to followings upon request,
300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200.

UART2 data speed can be set to any following speed by module user,
300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200.

GPIB address can be set from 0 ~ 30 by module user.

# 3.0 GU01 GPIB Device Interface to UART Module operation

## 3.1 GPIB Device Interface to UART Module

If you use one of our standard modules for product development, please follow the instructions in the "GU01 GPIB to UART Module User Manual".

The module is for company product development. The company who is interested in the module, please contact LQ Electronics Corp.
Email: sales@lqelectronics.com or Tel: 1-408-6343078

**Non-Disclosure Agreement is required to sign by the purchaser or user when request/purchase the module sample and the User's manual.**

**LQ Electronics Corp**

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