FCC: 2A673-SRTL-TCU IC: 30545-SRTLTCU

## **User Manual**

**Product name PMN: Tele-matic Control Unit** 

Model: SRTL-NA

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Manufacturer: SiRun (Wuxi) Technology Co., Ltd.

Address: Plant No. 5, Export Processing Zone, Xinwu District,

Wuxi City, Jiangsu Province

#### **Overview**

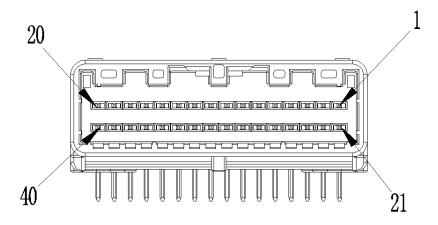
Note: This product is only provided to OEM (Car maker) and installed in OEM's factory as part of the vehicle, the driver or car owner is not supposed to operate this product by their own.

Operation can only be done by OEM's engineers with designated tools.

Part 1 Style figure



#### 1.1 Connection Pin Definition



| No. | Definition    | Remark                               | No. | Definition     | Remark                                |
|-----|---------------|--------------------------------------|-----|----------------|---------------------------------------|
| 1   | KL15          | ACC Ignition                         | 21  | RELAY_1_LOW    | Relay Out, valid when it's low        |
| 2   | INPUT1-IN1    | External Input, +12V Valid when High | 22  | RELAY_2_LOW    | Relay Out, valid when it's low        |
| 3   | GND           | GND                                  | 23  | RELAY_3_LOW    | Relay Out, valid when it's low        |
| 4   | MIC_IN_GND    | MIC Input Ground Shield              | 24  | RELAY_4_LOW    | Relay Out, valid when it's low        |
| 5   | MIC_IN        | MIC Input+                           | 25  | MIC_IN-        | MIC Out-                              |
| 6   | MIC_OUT_GND   | MIC Input-                           | 26  | MIC_OUT        | MIC Out+                              |
| 7   | AUDIO_OUT_GND | AUDIO Output Ground Shield           | 27  | INPUT5-B_CALL  | External Input, +12V Validl when High |
| 8   | AUDIO_OUT+    | AUDIO Out+                           | 28  | AUDIO_OUT-     | AUDIO Out-                            |
| 9   | SPK-          | Speaker Out-                         | 29  | BTN_GND        | Button GND                            |
| 10  | SPK+          | Speaker Out+                         | 30  | INPUT6-I_CALL  | External Input, +12V Valid when High  |
| 11  | INPUT2-IN4    | External Input, +12V Valid when High | 31  | INPUT7-E_CALL  | External Input, +12V Valid when High  |
| 12  | LED_GND       | LED ground                           | 32  | INPUT8-IN5     | External Input, +12V Valid when High  |
| 13  | INPUT3-IN2    | External Input, +12V Valid when High | 33  | LED_OUT        | Reading LED Output +4V                |
| 14  | INPUT4-IN3    | External Input, +12V Valid when High | 34  | B_CALL_LED_OUT | B_CALL LED output +4V                 |
| 15  | RELAY_7_LOW   | Relay Out, valid when it's low       | 35  | RELAY_5_LOW    | Relay Out, valid when it's low        |
| 16  | RELAY_8_LOW   | Relay Out, valid when it's low       | 36  | RELAY_6_LOW    | Relay Out, valid when it's low        |
| 17  | CAN2FD_H      | CAN2                                 | 37  | CAN2FD_L       | CAN2                                  |
| 18  | CAN1FD_L      | CAN1                                 | 38  | CAN1FD_H       | CAN1                                  |
| 19  | CANOFD_H      | CANO-FD                              | 39  | CANOFD_L       | CANO-FD                               |
| 20  | KL. 30        | Battery+                             | 40  | KL. 31         | Battery-                              |

#### **Part 2 Product information**

- 1. It is forbidden for users to change the device privately.
- 2. Operating Parameter:
  - 2.1 Security: Please pay attention to the power supply and priority.
  - 2.2 Frequency:

| Emission source    | Frequency |
|--------------------|-----------|
| CPU                | 1.2GHZ    |
| Crystal Oscillator | 8MHz      |

### 2.3 Specification:

| Electrical<br>Specification  | Parameters:           | Range:          |  |
|------------------------------|-----------------------|-----------------|--|
| Output Power                 | Max. Output           | 12V             |  |
| Town ereture Denge           | Operating Temperature | -30~+85℃        |  |
| Temperature Range            | Storage Temperature   | -40~+85℃        |  |
| Input Parameter              | Voltage/Current       | DC 6~36V        |  |
| input Farameter              | voitage/Current       | 5mA~500mA       |  |
| Charging Efficiency          | Rx Output Power VS Tx | ~2 CV//FV/~700/ |  |
| Charging Emolericy           | Input Power           | ≈3.6V/5V≈72%    |  |
| Charging operating Frequency | 1                     | 1               |  |
| NFC operating Frequency      | 1                     | 1               |  |

### 3. Working Frequency

### 3.1 WAN Frequency

| 3GPP        | Send      | Receive   | Unit |
|-------------|-----------|-----------|------|
| GSM850      | 824~849   | 869~894   | MHz  |
| PCS1900     | 1850~1910 | 1930~1990 | MHz  |
| WCDMA B2    | 1850~1910 | 1930~1990 | MHz  |
| WCDMA B4    | 1710~1755 | 2110~2155 | MHz  |
| WCDMA B5    | 824~849   | 869~894   | MHz  |
| LTE-FDD B2  | 1850~1910 | 1930~1990 | MHz  |
| LTE-FDD B4  | 1710~1755 | 2110~2155 | MHz  |
| LTE-FDD B5  | 824~849   | 869~894   | MHz  |
| LTE-FDD B7  | 2500~2570 | 2620~2690 | MHz  |
| LTE-FDD B12 | 699~716   | 729~746   | MHz  |
| LTE-FDD B13 | 777~787   | 746~756   | MHz  |
| LTE-FDD B17 | 704~716   | 734~746   | MHz  |

### 3.2.GNSS Frequency

| Туре    | Frequency      | Unit |
|---------|----------------|------|
| GPS     | 1575.42±1.023  | MHz  |
| GLONASS | 1597.5~1605.8  | MHz  |
| Galileo | 1575.42 ±2.046 | MHz  |
| BeiDou  | 1561.098±2.046 | MHz  |
| QZSS    | 1575.42        | MHZ  |

4. Manufactured Name/ address: Plant No. 5, Export Processing Zone, Xinwu District, Wuxi City, Jiangsu Province

#### **Part 3 Function List**

The main features of this system are described in following table.

| Function      | Model:          |
|---------------|-----------------|
| WAN           | QUECTEL_AG35-NA |
| CAN           | NXP TJA1044GT/3 |
| Ethernet IC   |                 |
| GPS(Reserved) | QUECTEL_AG35-NA |
|               |                 |

#### **Part 4 Statement**

#### FCC statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

- If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- —Reorient or relocate the receiving antenna.

- —Increase the separation between the equipment and receiver.
- —Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- —Consult the dealer or an experienced radio/TV technician for help.

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.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 35cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

CAUTION: Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

#### Warning

CAUTION RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.