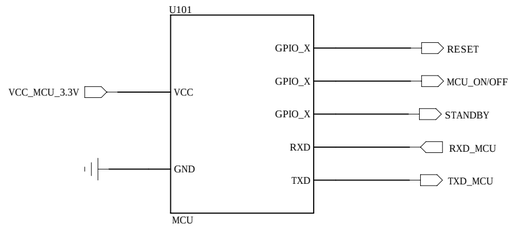
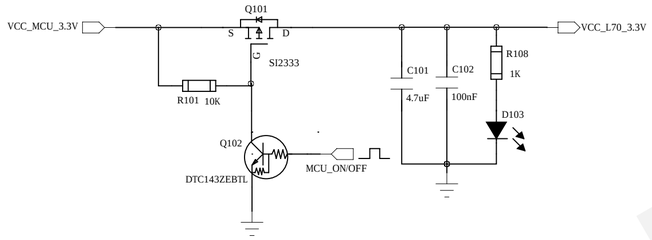
Power Suppply and UART Circuit

To 3.3V MCU

Customer MCU

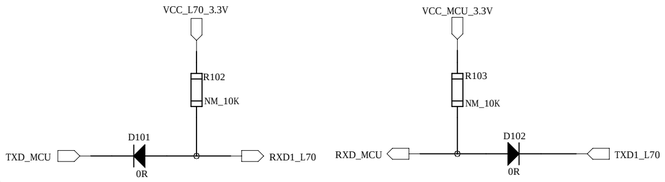


Power On/Off Control



Please guarantee the voltage and current which supply for L70 module are in the range of L70 operating condition.
The normal supply current should be not less than 100mA.

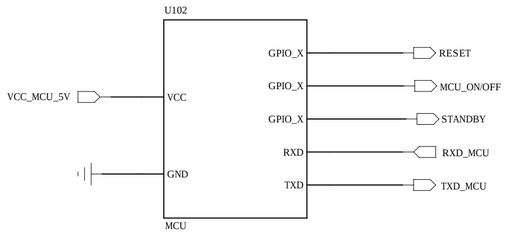
UART Circuit



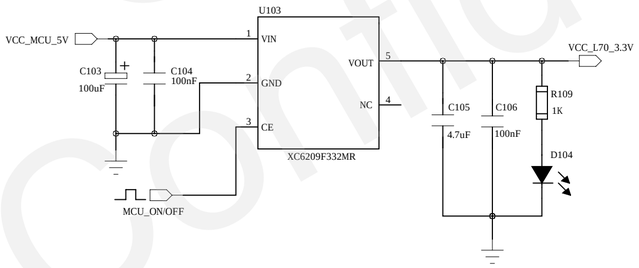
The UART circuit is reserved for blocking the leakage current from one power-on device to another power-off device.
Generally, choose 0R to replace D101, D102 and keep R102, R103 unmounted.

To 5V MCU

Customer MCU

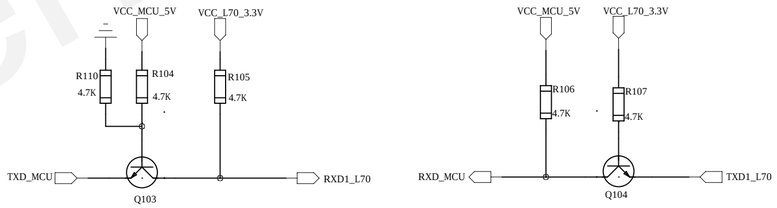


LDO Circuit



Please guarantee the voltage and current which supply for L70 module are in the range of L70 operating condition.
The normal supply current should be not less than 100mA.

Level shifting for UART



The transistor circuit will realize the voltage level shifting between VCC_MCU_5V and VCC_L70_3.3V, and block the leakage current from one power-on device to another power-off device.

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CHECKED BY <Ray.XU>	SIZE A2	VER <1.02>
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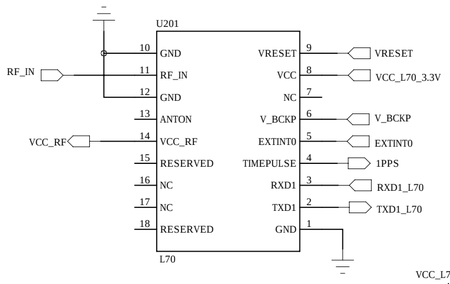
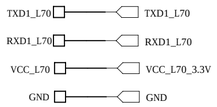
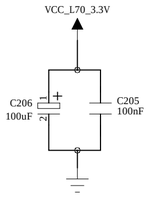
Module Interface

Module Interface



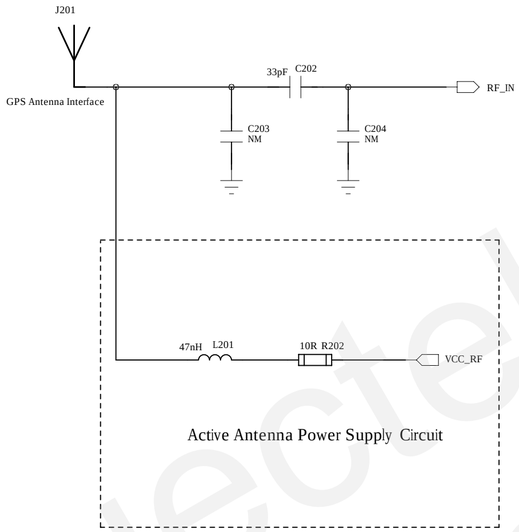
Test points





UART1 can be used to output NMEA message as well as to upgrade firmware.

Please keep all RESERVED and NC pins open .

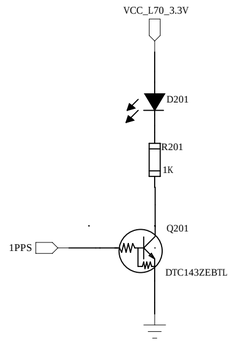


Antenna Type	Active Antenna Power Supply Circuit
Active	Need
Passive	No need

1. Pi circuit(C202,C203,C204) is reserved for impedance matching for antenna. By default, C203 and C204 are not mounted, C202 is 33pF.
2. VCC_RF can be used as power supply for active antenna, its typical value is 3.3V, the voltage range is 2.8V-4.3V.
3. If choosing passive antenna, the active antenna power supply circuit should be removed, and the total sensitivity will be decreased by 2 or 3dB. TTFF will become longer in weak signal condition.
4. Impedance of RF trace should be controlled by 50 ohm and the length should be kept as short as possible.

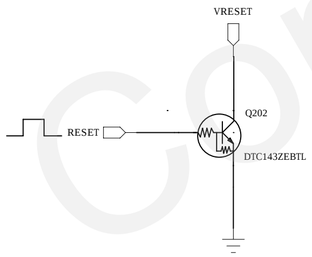
For more details, please refer to L70_HD document.

Indicating Circuit



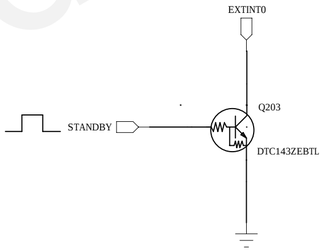
The 1PPS indicator will blink at 1Hz frequency after fixing the position.

Reset Circuit



1. If the reset function is unused,the VRESET pin can be connected to the VCC directly.
2. VRESET has been pulled up internally.

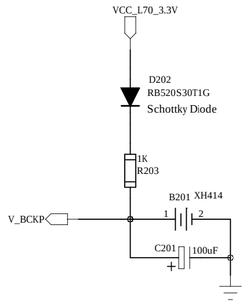
Standby Circuit



1. EXTINT0 has been pulled up internally.
2. Enter standby mode: change the EXTINT0 pin from high to low level.
3. Exit from standby mode: change the EXTINT0 pin from low to high level.

For more details,please refer to L70_HD document.

Charge Circuit for RTC logic



1. V_BCKP is designed to supply power for L70. RTC logic circuit when VCC_L70_3.3V is powered off.
2. The supply current for RTC logic circuit is about 7uA.

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