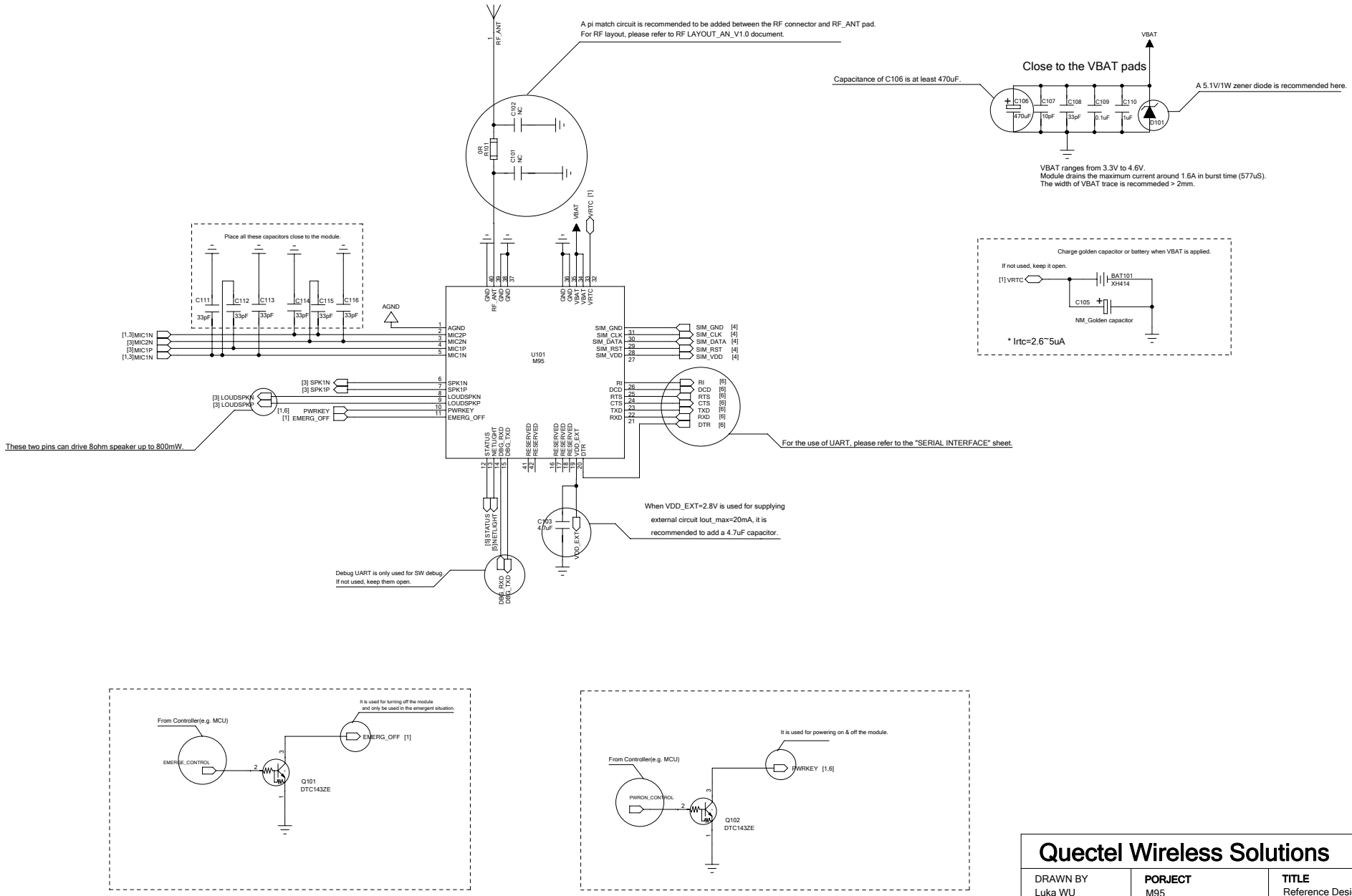


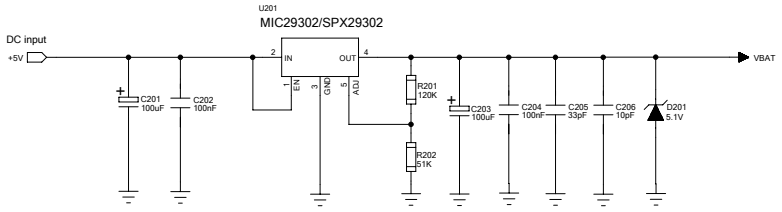
Quectel Wireless Solutions

DRAWN BY Luka WU	**PORJECT** M95	**TITLE** Reference Design
CHECKED BY Baly BAO	SIZE A2	VER 1.02
	SHEET 1 of 6	2012.04.24

LDO APPLICATION

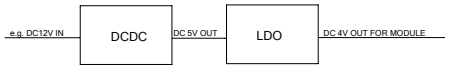
* The voltage converter should provide current at least 1.6A.

It is used when the DC input voltage is below 7V.



DC-DC APPLICATION

1. It is used when the input voltage is above 9V in vehicle application.
2. Use DCDC to convert High input voltage to 5V and LDO will generate 4V typical voltage for the module.

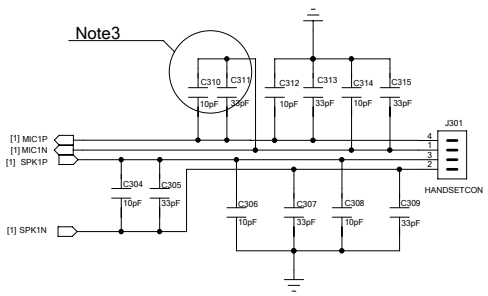


Quectel Wireless Solutions		
DRAWN BY Luka WU	**PORJECT** M95	**TITLE** Reference Design
CHECKED BY Baly BAO	SIZE A2	VER 1.02
	SHEET 2 of 6	2012.04.24

NOTES

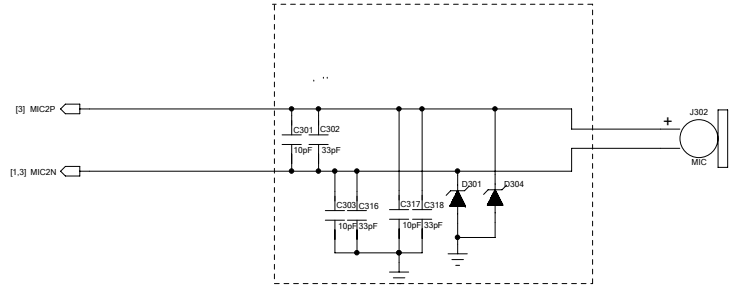
1. This is the typical audio application. For more details, please refer to the GSM_AUDIO_UDG.pdf.
2. AGND is reommended to be routed separately.
3. 10P&33P capacitors are used for filtering TDD noise.
4. Both AIN1 and AIN2 have bias voltage of micphone inside module.
5. AOUT1 is capable of driving 32ohm load.
6. AOUT2 is capable of driving 8ohm load and Earphone.

HANDSETS APPLICATION of AIN1/AOUT1

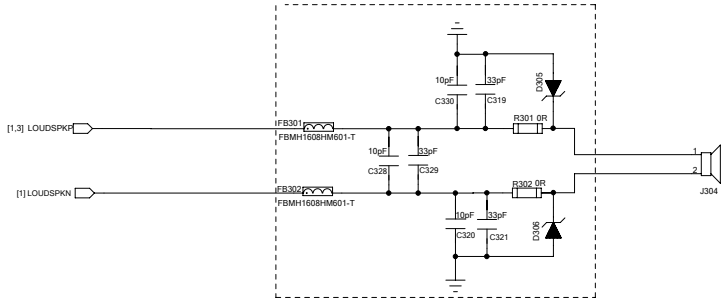


Close to handset connector

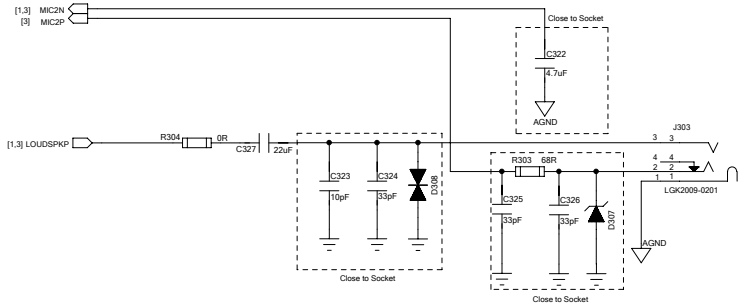
HANDS-FREE APPLICATION of AIN2/AOUT2



Close to Mic



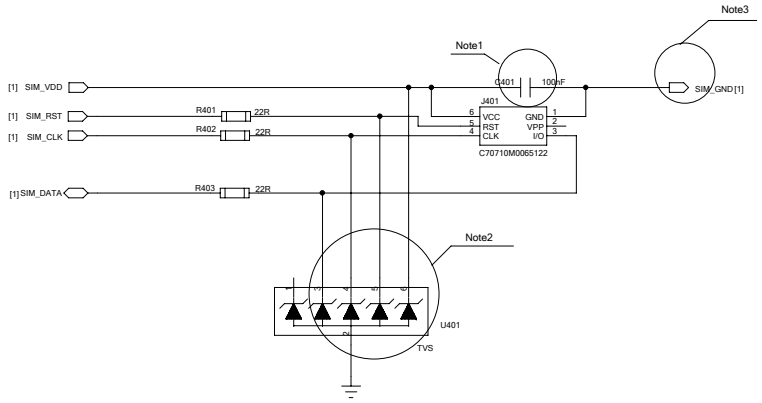
Close to Speaker



* Ringing function for incoming call is only supported by AOUT2 channal.

Quectel Wireless Solutions		
DRAWN BY Luka WU	**PORJECT** M95	**TITLE** Reference Design
CHECKED BY Baly BAO	SIZE A2	VER 1.02
	SHEET 3 of 6	2012.04.24

SIM CARD INTERFACE

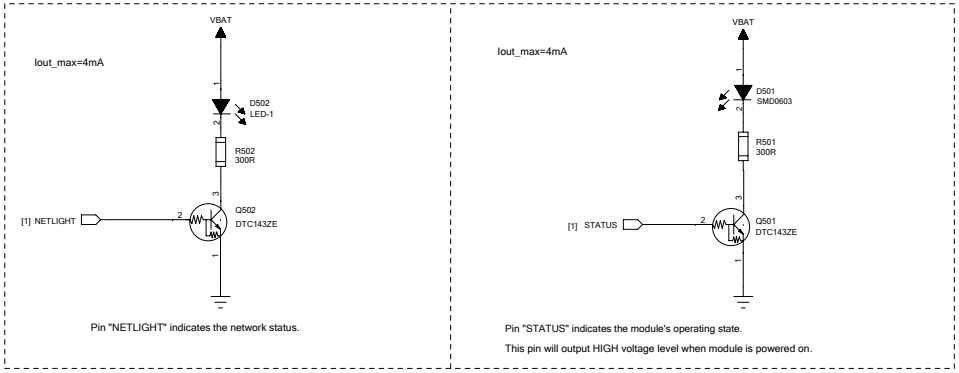


NOTES

1. The value of C401 should be chosen less than 1uF.
2. U401 is used for protecting SIM card against ESD, and the junction capacitance should be less than 50pF. It should be placed nearby SIM card holder J401.
3. For M95 Module, Ground of SIM card is recommended to be routed to the Pin 31("SIM_GND") of the module separately.

Quectel Wireless Solutions		
DRAWN BY Luka WU	**PORJECT** M95	**TITLE** Reference Design
CHECKED BY Baly BAO	SIZE A2	VER 1.02
	SHEET 4 of 6	2012.04.24

LED INDICATION

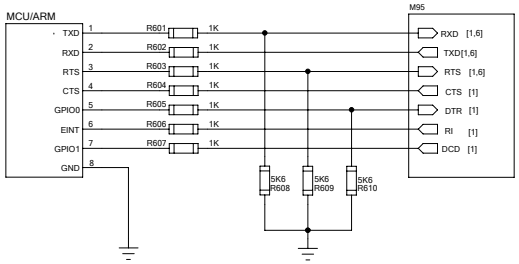


Quectel Wireless Solutions		
DRAWN BY Luka WU	**PORJECT** M95	**TITLE** Reference Design
CHECKED BY Baly BAO	SIZE A2	VER 1.02
	SHEET 5 of 6	2012.04.24

Electric characteristics of module's input or output port

VOHmix=0.85*VDD_EXT
VOLmax=0.15*VDD_EXT
VILmax=0.25*VDD_EXT
VIHmin=0.75*VDD_EXT
VIHmax=VDD_EXT+0.3V
VDD_EXT=2.8V typical value

Connection of all functional UART port for 3.3V system



* When using 3V system, the resistance value of R608, R609 and R610 should be changed to 15K ohm.

NOTES

1. CTS&RTS is used for HW flow control when mass data will be sent.

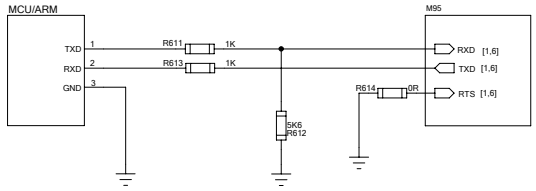
2. When AT+QSCLK=1 is set to the module, customer application can control the module to enter or exit from the SLEEP mode through pin DTR. When DTR is set to high level, and there is no on-air or hardware interrupt, such as GPIO interrupt or data on serial port, the module will enter SLEEP mode automatically.

3. RI will output a indication signal when there are activites such as voice calling, data calling,SMS.

4. DCD is mainly applied in modem communication (PPP), the active status represents the communication link is set up.

5. Please pay attention to the level match of UART in product application.

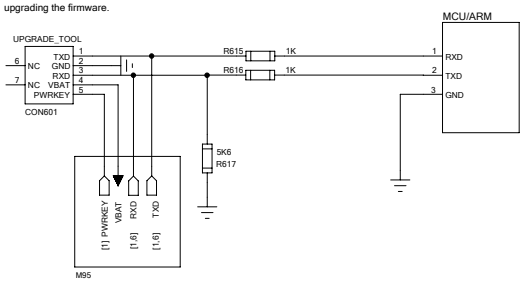
Connection of three lines UART port for 3.3V system



* Please pay attention to the level match of UART in product application.

Connection of upgrade tool for 3.3V system

It is recommended to reserve the points for upgrading the firmware.



* Please pay attention to the level match of UART in product application.

Quectel Wireless Solutions		
DRAWN BY Luka WU	**PORJECT** M95	**TITLE** Reference Design
CHECKED BY Baly BAO	SIZE A2	VER 1.02
	SHEET 6 of 6	2012.04.24