



# ***QCM03H-2***

## ***Tech Transfer Slides***

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***CM BU***  
***Quanta Computer Inc. QRI***



**Quanta Computer Inc.**

***www.vinafix.vn***

# Outline

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- **SMT standard Flow**
- **Testing**
- **Schematic Introduction**



# Outline

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- **SMT standard Flow**
  - **Before** pass through the solder pot
  - **After** pass through the solder pot



# SMT standard Flow

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- **Before pass through the solder pot**
  - **Prepare components (BOM)**
    - Check Vendor P/N
    - Lack of the component
    - Pre-bake
  - **Check solder paste**
  - **Check location of the components**
    - Wrong place
    - Wrong pin-1 direction
    - Component missing
    - Open / short



# SMT standard Flow (cont'd)

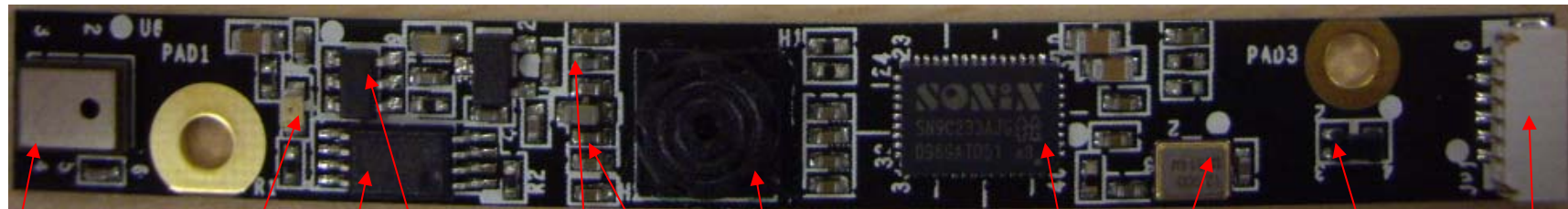
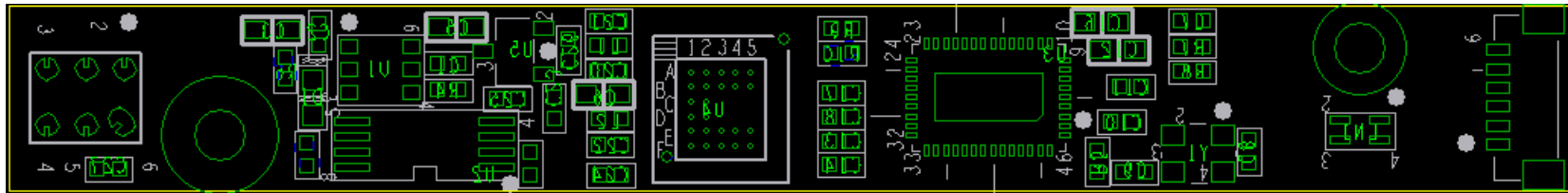
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- After pass through the solder pot
  - Short check
  - Soldering miss
  - Check the fault and recovery



# Module QCM-03H-2

- Major components should be at the right position

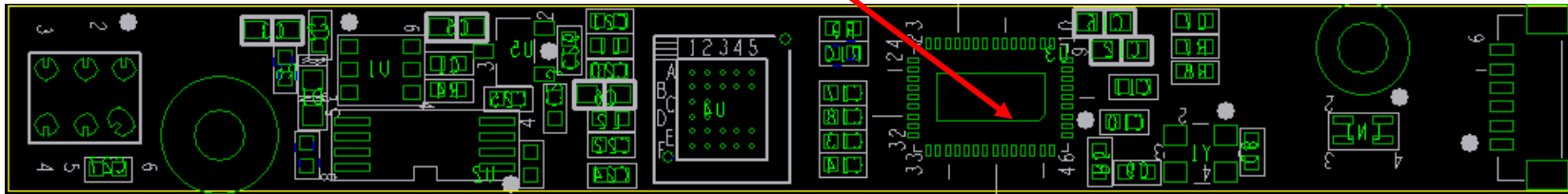


Inductance  
Not capacitance

Pin 1

# SMT Notice

- **Stencil mask (suggestion only)**
  - The aperture of Sn hole for U3 should not exceed  $\frac{1}{2}$



- **Do NOT cut the joint board off**
  - Keep the joint board through the SMT and inspection processes
- **Location of pin 1 (marked as grey)**



# Outline

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- **Testing**
  - Power
  - Sonix
  - Flash
  - Sensor
  - LED
  - Mic

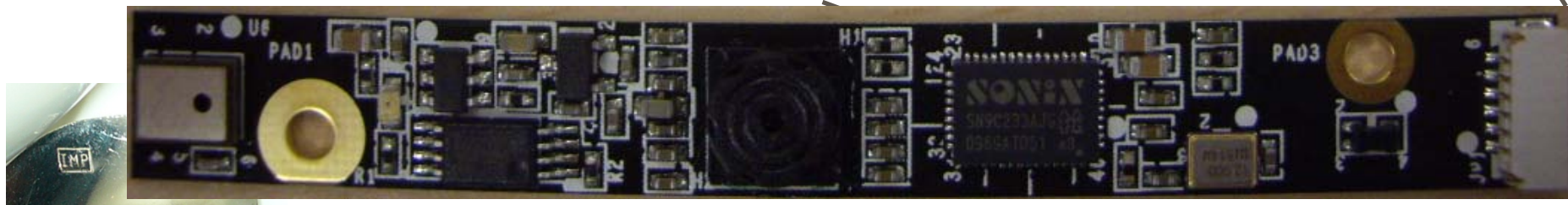
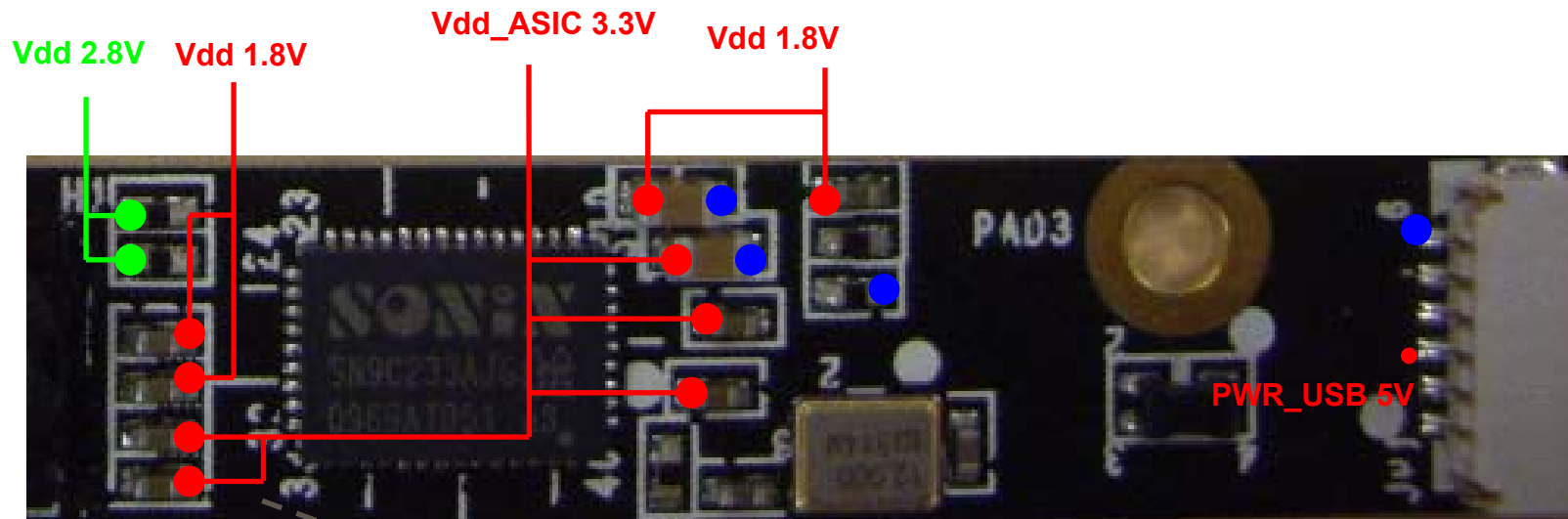




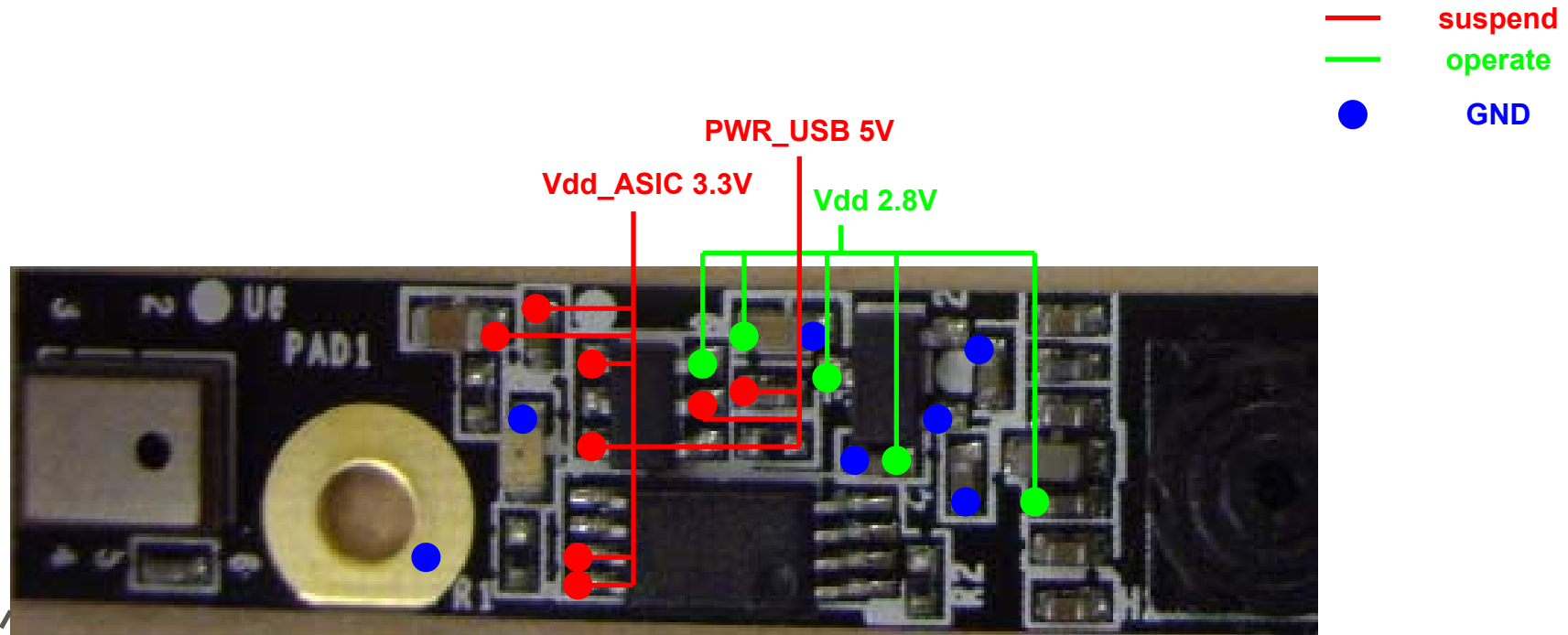
# 03H-2-Power Testing

- Plug the QCM module into host USB slot

— suspend  
— operate  
● GND

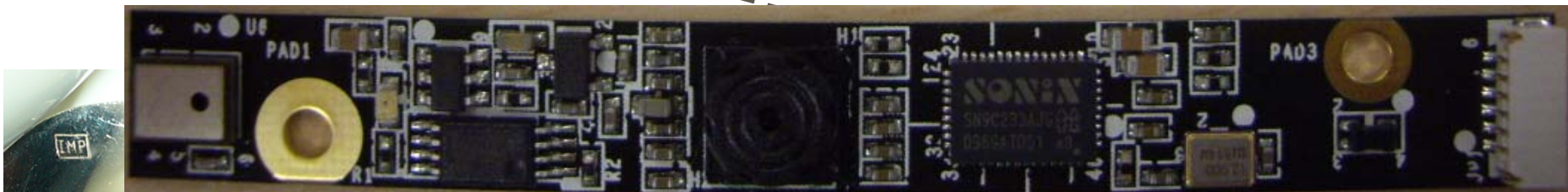
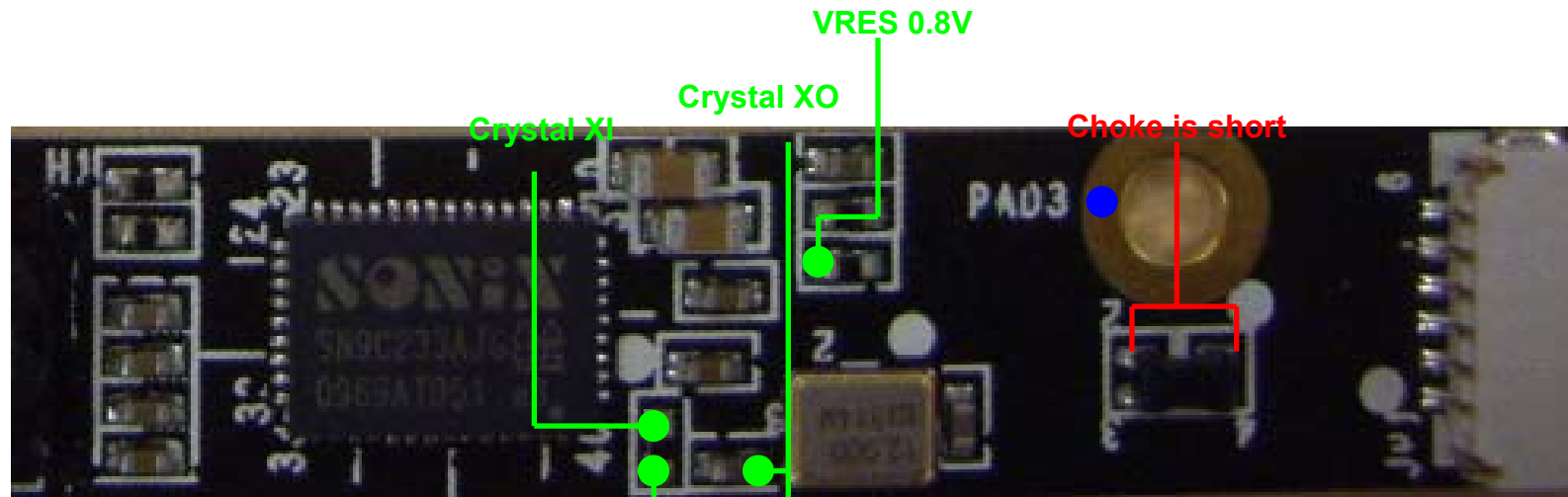


# 03H-2-Power Testing

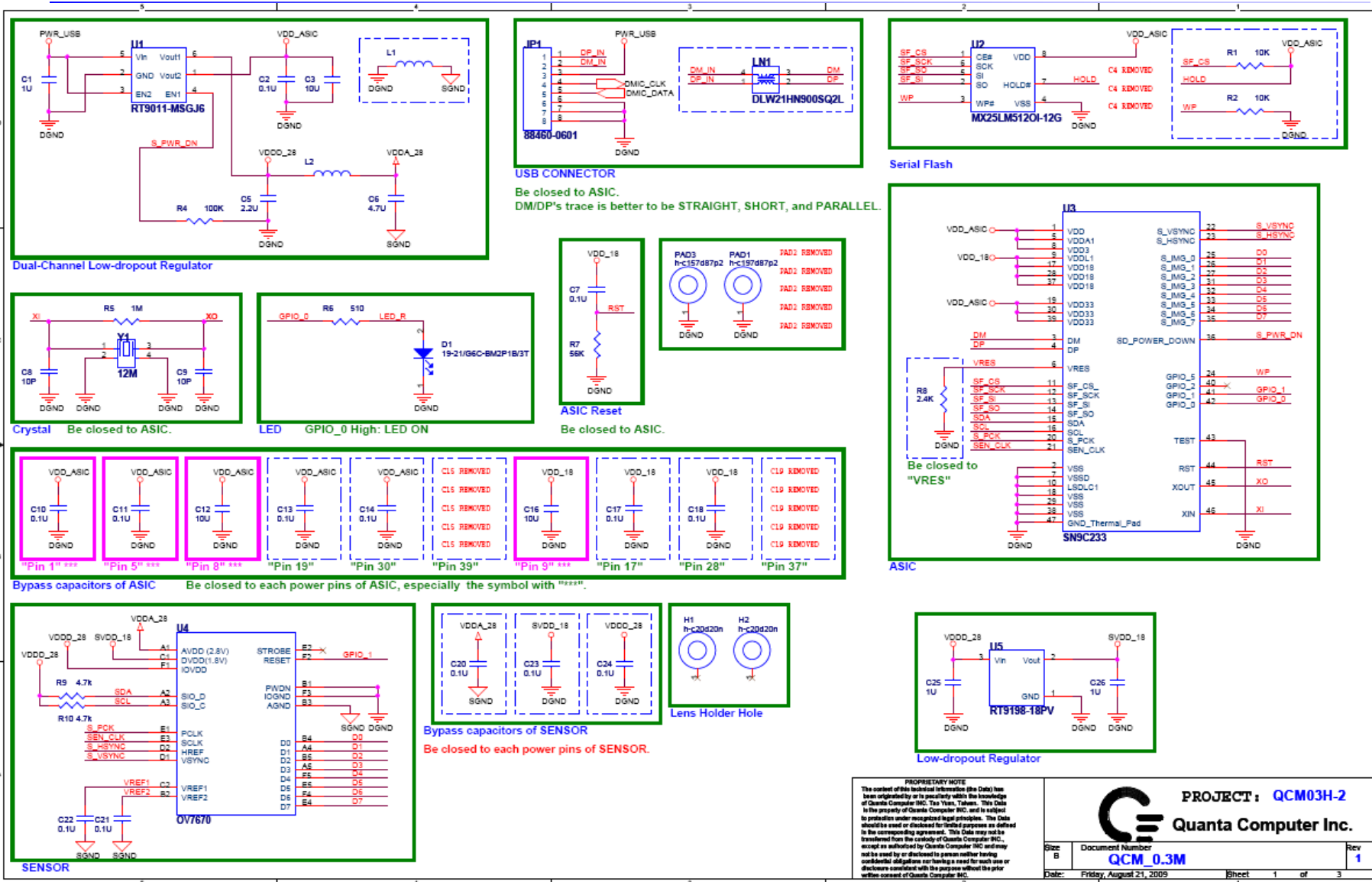


# 03H-2-USB Line work on

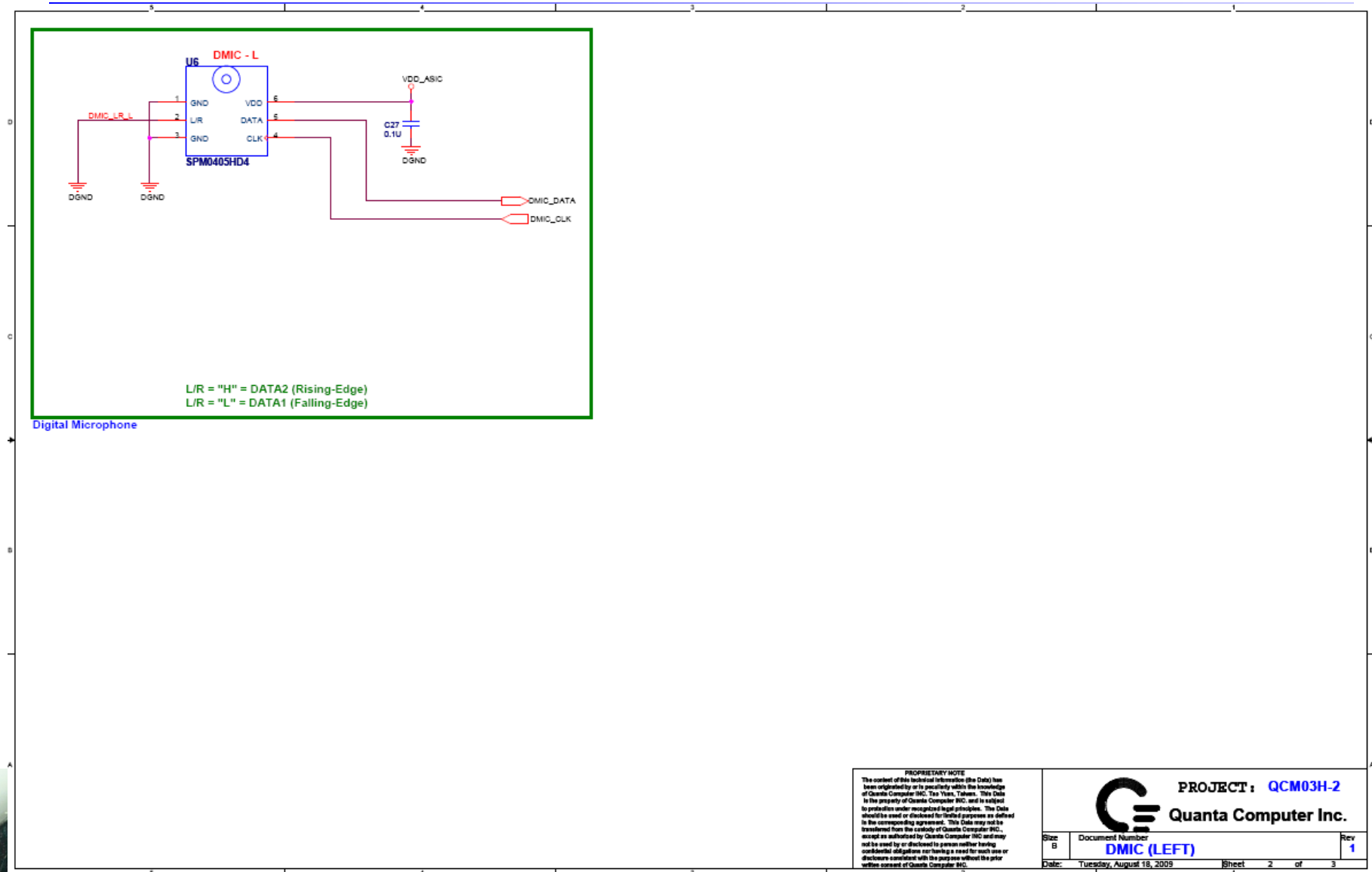
— operate  
● GND



# QCM03H-2 Schematic overview - 1



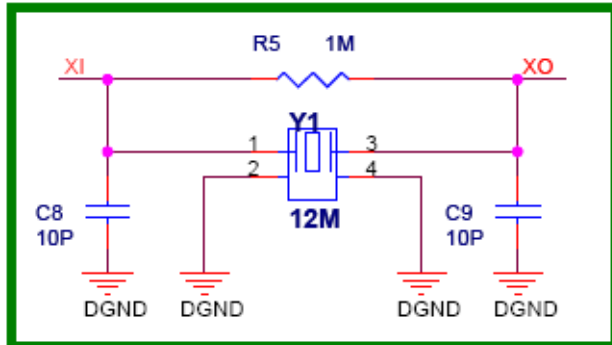
# QCM03H-2 Schematic overview - 2



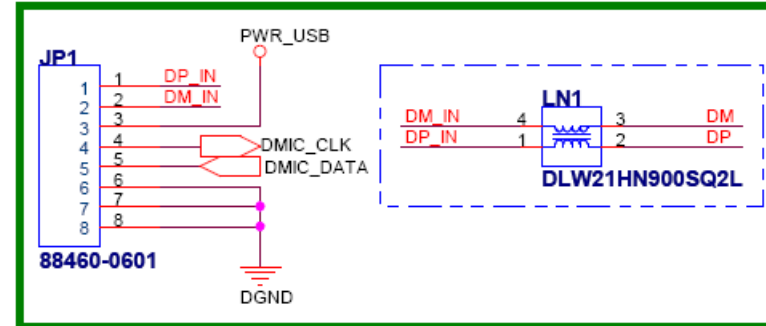




# QCM03H-2 Connect, Choke & Crystal



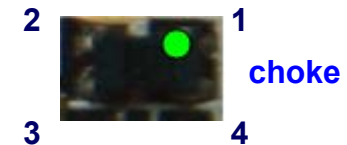
**Crystal** Be closed to ASIC.



**USB CONNECTOR**

Be closed to ASIC.

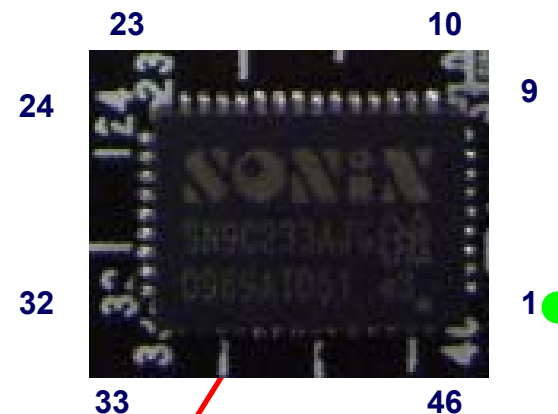
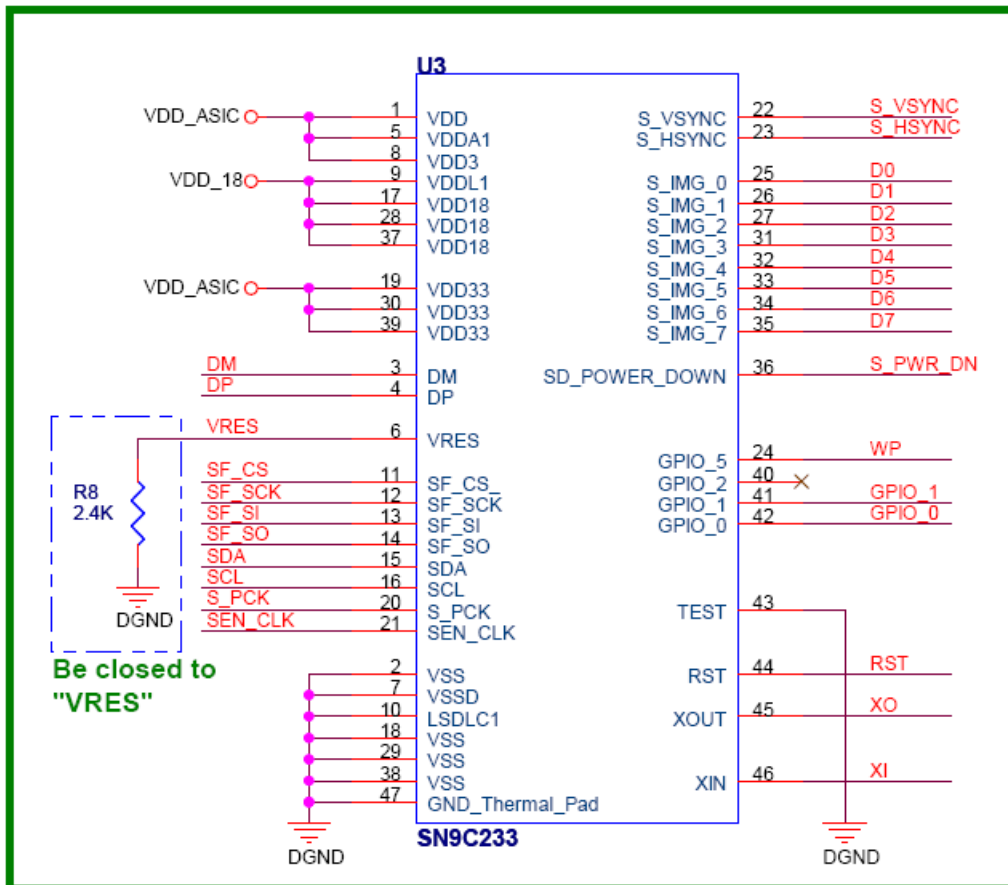
DM/DP's trace is better to be STRAIGHT, SHORT, and PARALLEL



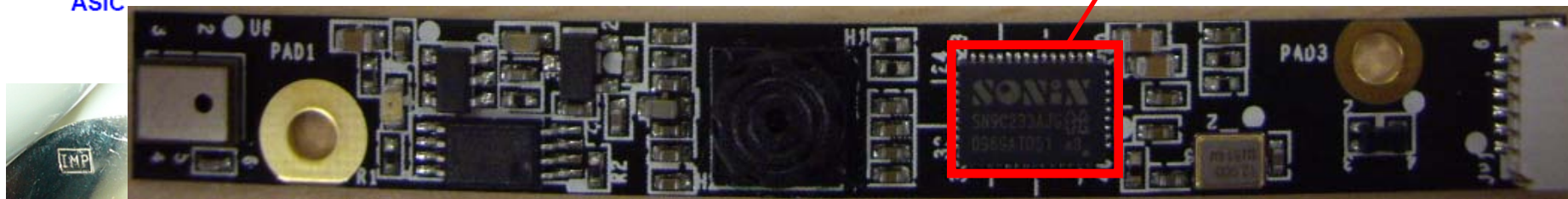
**choke**



# QCM03H-2 Sonix

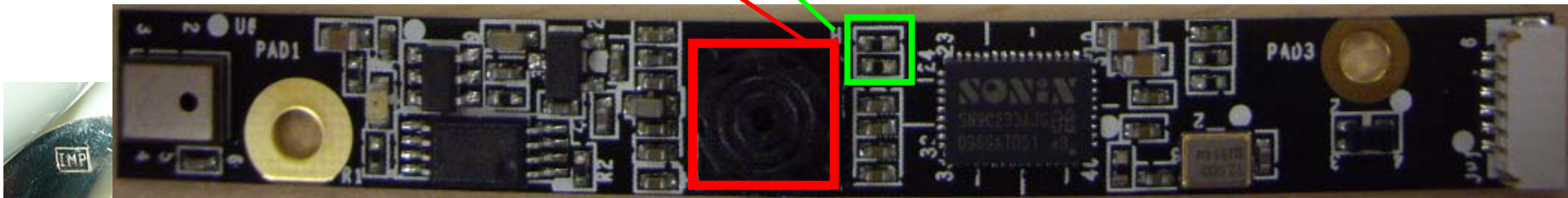
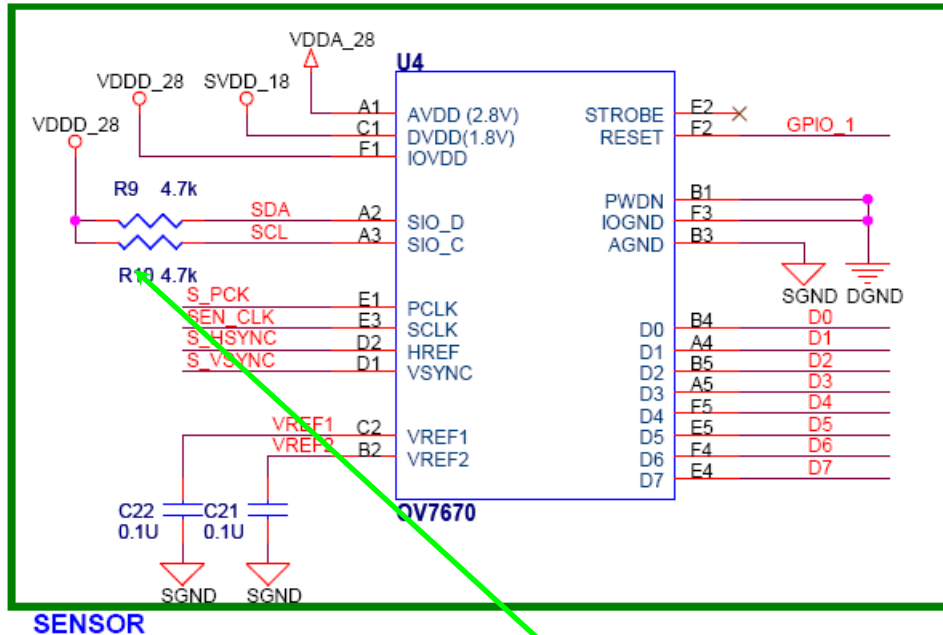


ASIC

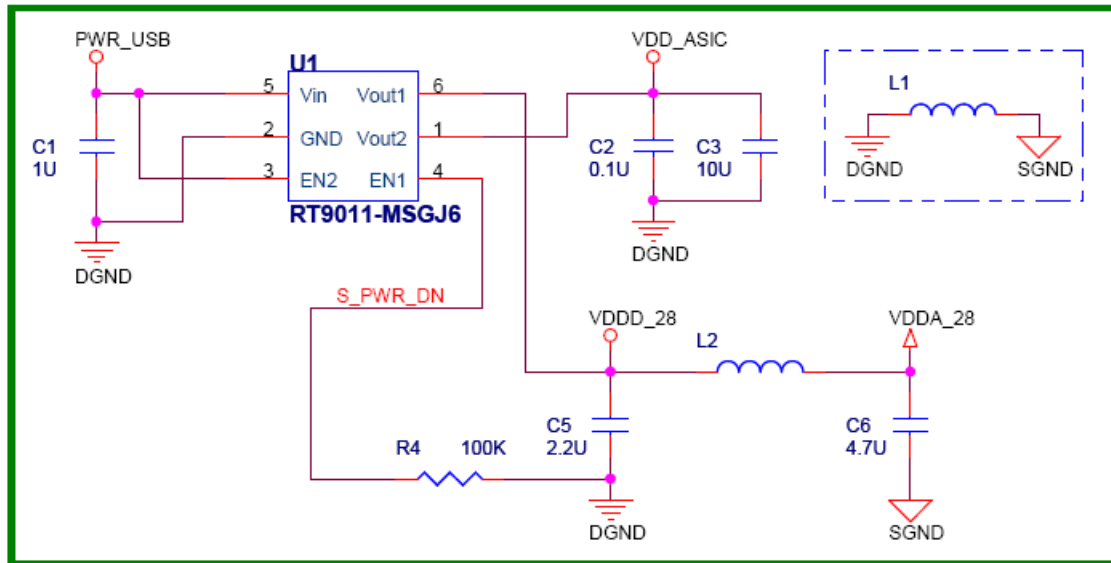




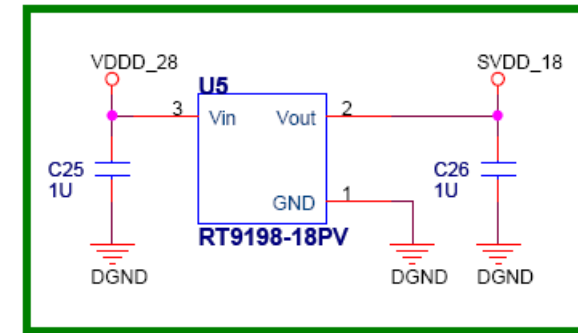
# QCM03H-2 Sensor



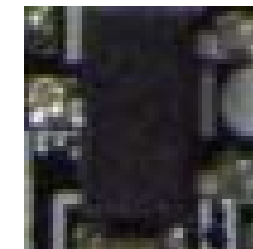
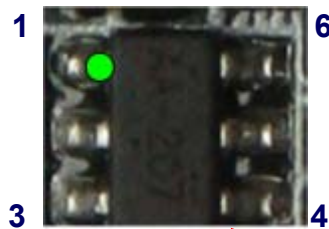
# QCM03H-2 LDO



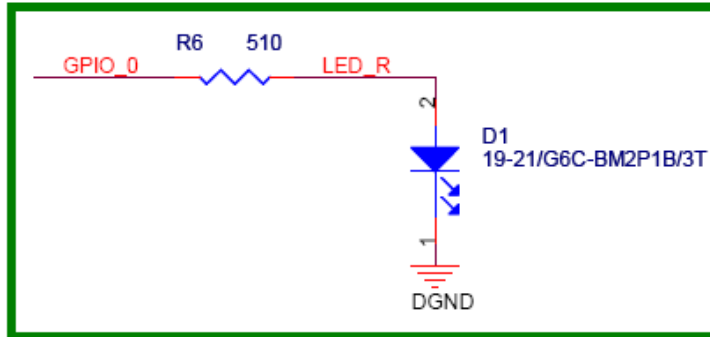
Dual-Channel Low-dropout Regulator



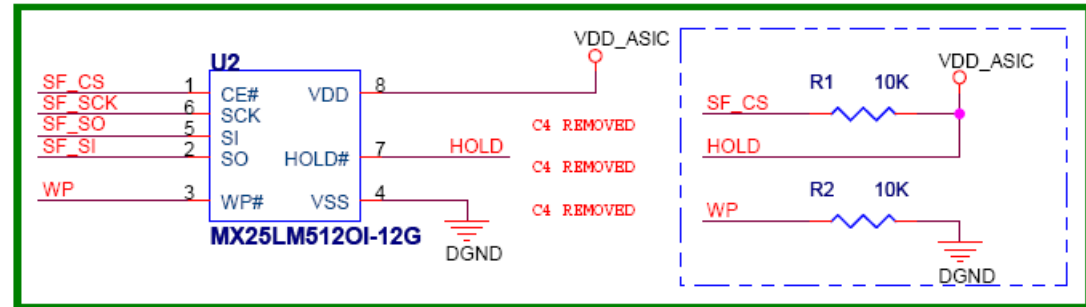
Low-dropout Regulator



# QCM03H-2 LED & Flash



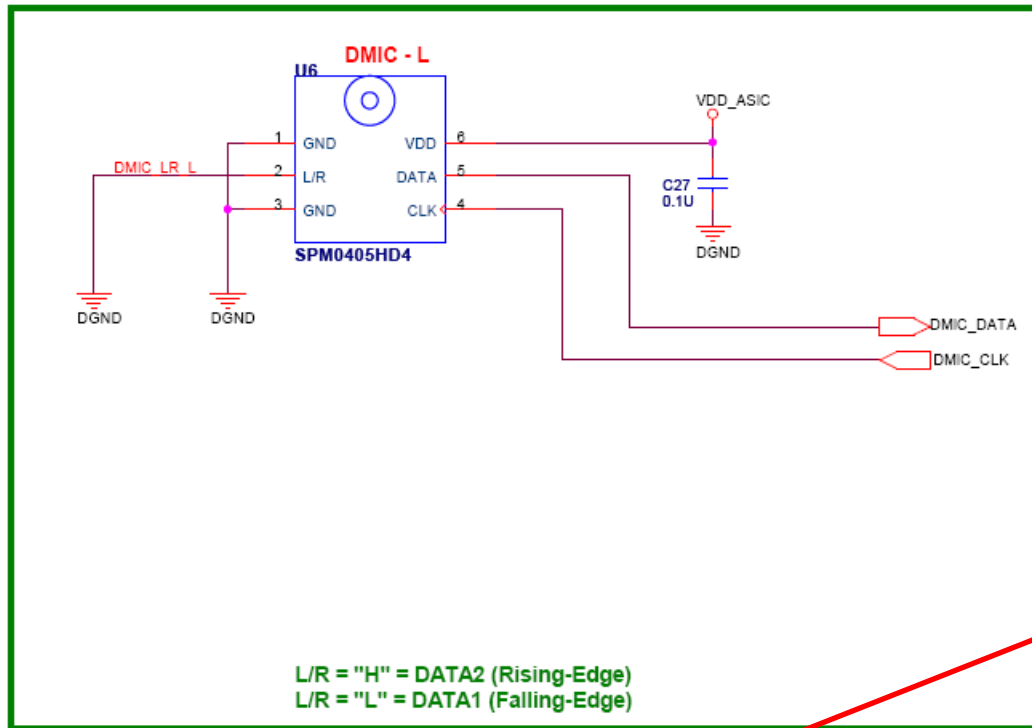
LED GPIO\_0 High: LED ON



Serial Flash



# QCM03H-2 D-MIC



Digital Microphone

