

# Example of capacitor placement U2B10FCC BGA292

r01an5856ej0110-rh850u2b

# Decoupling capacitors

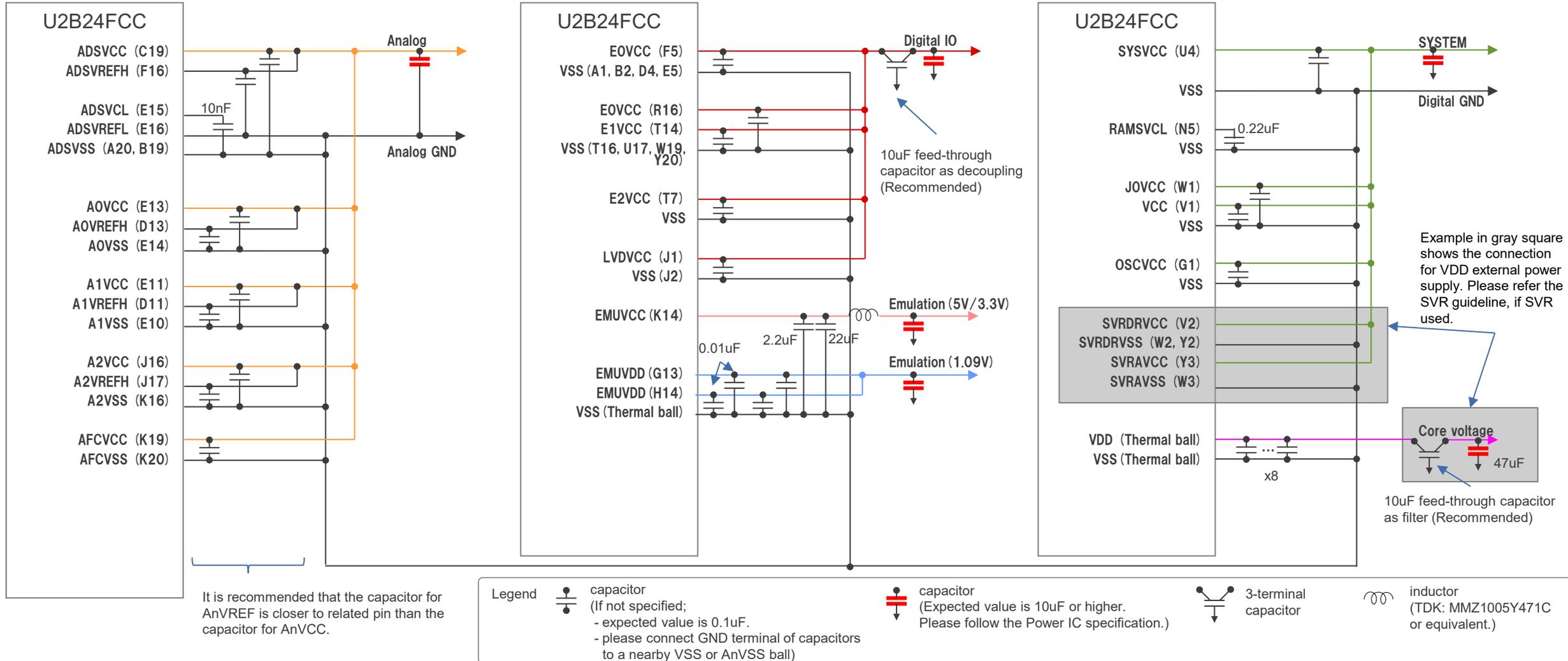
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- Capacitor placement and number of capacitors: Please refer page 3 to 4.
  - Capacitors has been kept as close as feasible to the related supply pin.
  
- Types of capacitors:
  - 0.1uF, 0.22uF, 10uF or higher\*1 ceramic capacitor (Low ESR/ESL is required)
    - \*1: This is expected value. Please follow the Power IC specification.
  - 10uF 3-terminal ceramic capacitor (Very low ESR/ESL is required)
  
- 3-terminal capacitor
  - 3-terminal capacitor is recommended for reduction of radiation noise.

# Example of capacitor placement

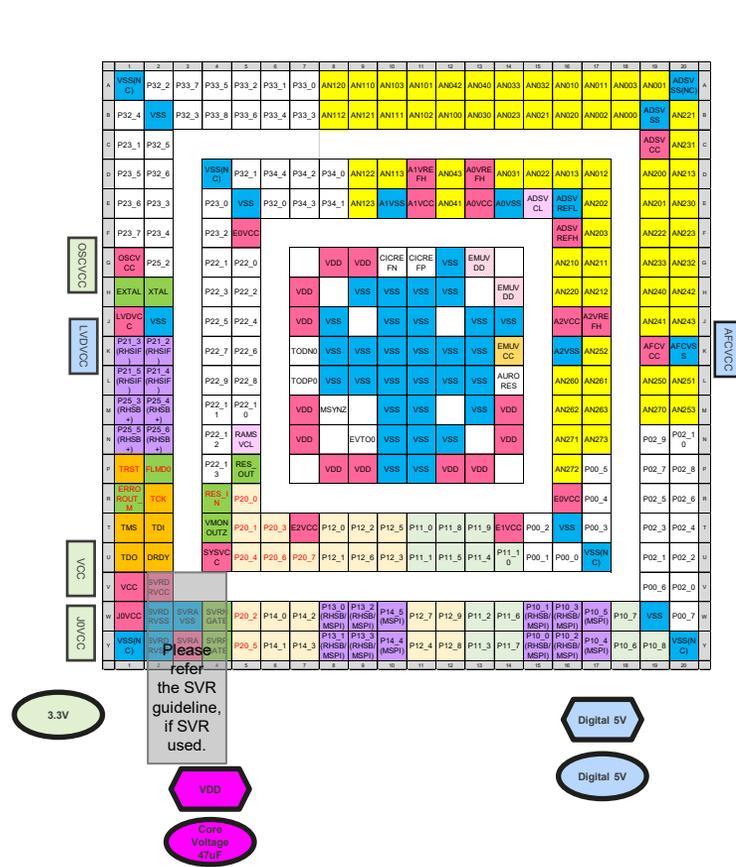
## U2B10FCC BGA292

Example capacitor connection for BGA292 package.

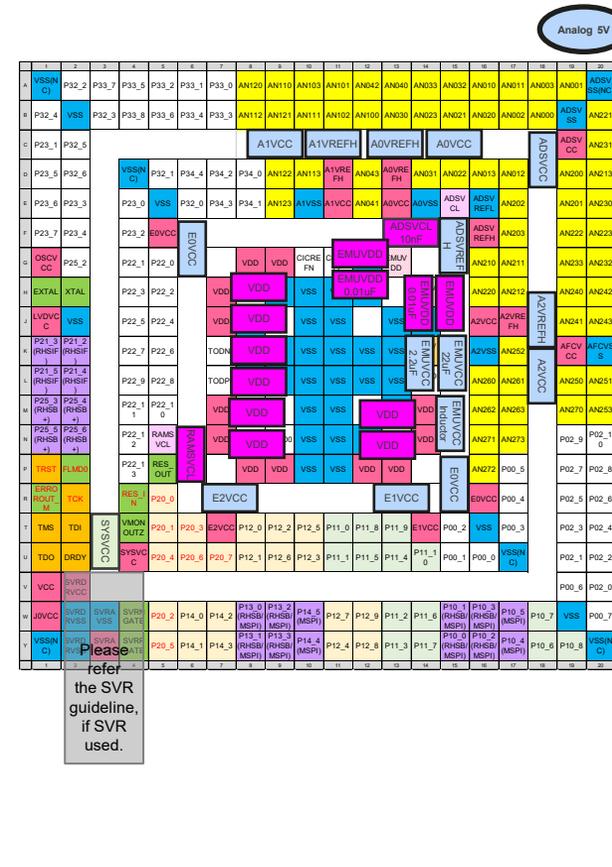


# PCB layout guidelines -Top layer / Bottom layer- U2B10FCC BGA292

Example capacitor placement for BGA292 package



Top Layer



Bottom Layer

**Legend**

- capacitor (analog, Digital IO) (The capacitance is 0.1uF if not specified.)
- capacitor (system) (The capacitance is 0.1uF if not specified.)
- capacitor (Core voltage) (The capacitance is 0.1uF if not specified.)
- capacitor (analog, Digital IO) (Expected value is 10uF or higher. Please follow the Power IC specification.)
- capacitor (system) (Expected value is 10uF or higher. Please follow the Power IC specification.)
- capacitor (Core voltage) (Expected value is 10uF or higher. Please follow the Power IC specification.)
- 3-terminal capacitor (analog, Digital IO)
- 3-terminal capacitor (Core voltage)

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