# Nucleo144 H7 SMPS with STLINK V3

**MB1363**

**H745ZIQ**

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## Legend

- **General comment such as function title, configuration, ...**
- **Text to be added to silkscreen.**
- **Warning text.**
- **Notes to generate the board layout.**

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SMPS MCU Supply Config

Supply Config 1: LDO only (SMPS OFF, LDO ON)
- Disconnect 3V3_SMPS_IN from 3V3_MCU
- Connect VDD_SMPS_IND_OUT to GND
- Connect VDD_SMPS_IND_OUT to 3V3_MCU
- 2 x 2.2uF near VCAP pins/plans

Supply Config 2: Internal SMPS only (SMPS ON, LDO OFF)
- Default config
- Connect VDD_SMPS_IN to VDD_LDO
- Connect VDD_SMPS_IND_OUT to VCAP/1/2/3

Supply Config 3: SMPS & LDO cascaded (SMPS & LDO ON)
- Compared to config 2:
  - Disconnect VDD_SMPS_IND_OUT from VCAP
  - Connect VDD_SMPS_IND_OUT to VDD_LDO
  - Add 2x100nF near VDDLDO pins/plans
  - Add 2x2.2uF near VCAP pins/plans (see config 1)

Supply Config 5: external SMPS
- Disconnect 1V2_MC from VDD_SMPS_IND_OUT
- Connect 1V2_MC to 1V2_VOUTCORE (Connectors page)

MCU DECAPS
- Ceramic capacitor (Low ESR, ESR<1ohm)

vcap near balls
Put the IO in BOTTOM side

Arduino Uno compatible

Put the IO in BOTTOM side

Arduino Uno compatible