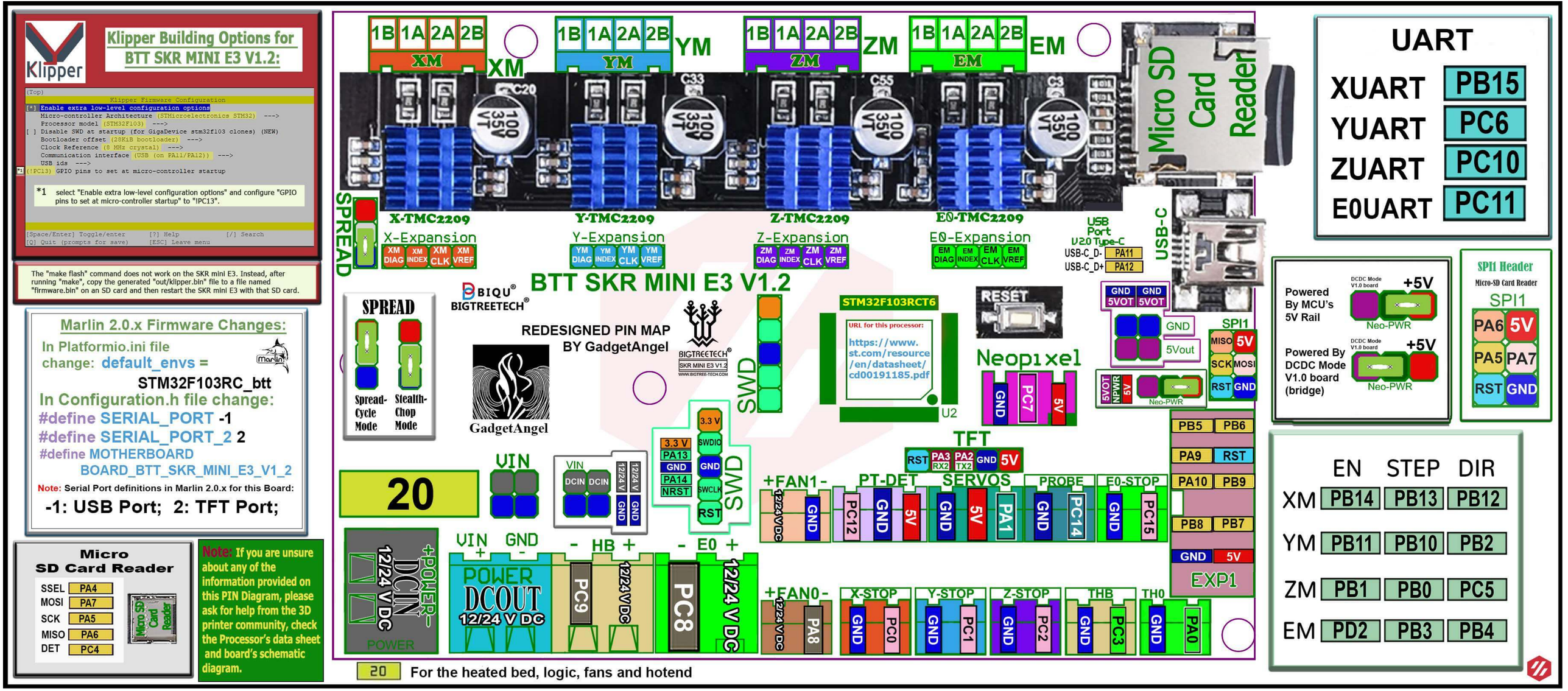
Klipper Building Options for BTT SKR MINI E3 V1.2:
(Top)
Klipper Firmware Configuration
[*] Enable extra low-level configuration options
Micro-controller Architecture (STMicroelectronics STM32) --->
Processor model (STM32F103) --->
[ ] Disable SWD at startup (for GigaDevice stm32f103 clones) (NEW)
Bootloader offset (28KiB bootloader) --->
Clock Reference (8 MHz crystal) --->
Communication interface (USB (on PA11/PA12)) --->
USB ids --->
*1 (!PC13) GPIO pins to set at micro-controller startup
*1 select "Enable extra low-level configuration options" and configure "GPIO pins to set at micro-controller startup" to "!PC13".
[Space/Enter] Toggle/enter [?] Help [/] Search
[Q] Quit (prompts for save) [ESC] Leave menu
The "make flash" command does not work on the SKR mini E3. Instead, after running "make", copy the generated "out/klipper.bin" file to a file named "firmware.bin" on an SD card and then restart the SKR mini E3 with that SD card.
Marlin 2.0.x Firmware Changes:
In Platformio.ini file change: default_envs =
STM32F103RC_btt
In Configuration.h file change:
#define SERIAL_PORT -1
#define SERIAL_PORT_2 2
#define MOTHERBOARD BOARD_BTT_SKR_MINI_E3_V1_2
Note: Serial Port definitions in Marlin 2.0.x for this Board:
-1: USB Port; 2: TFT Port;
Micro SD Card Reader
SSEL PA4
MOSI PA7
SCK PA5
MISO PA6
DET PC4
Micro SD Card Reader
Note: If you are unsure about any of the information provided on this PIN Diagram, please ask for help from the 3D printer community, check the Processor's data sheet and board's schematic diagram.
1B 1A 2A 2B XM
1B 1A 2A 2B YM
1B 1A 2A 2B ZM
1B 1A 2A 2B EM
Micro SD Card Reader
SPREAD
X-TMC2209
X-Expansion
XM DIAG XM INDEX XM CLK XM VREF
Y-TMC2209
Y-Expansion
YM DIAG YM INDEX YM CLK YM VREF
Z-TMC2209
Z-Expansion
ZM DIAG ZM INDEX ZM CLK ZM VREF
E0-TMC2209
E0-Expansion
EM DIAG EM INDEX EM CLK EM VREF
USB Port V2.0 Type-C
USB-C_D- PA11
USB-C_D+ PA12
USB-C
BTT SKR MINI E3 V1.2
BIQU BIGTREETECH
REDESIGNED PIN MAP BY GadgetAngel
GadgetAngel
SPREAD
Spread-Cycle Mode
Stealth-Chop Mode
SWD
STM32F103RCT6
URL for this processor:
https://www.st.com/resource/en/datasheet/cd00191185.pdf
U2
RESET
GND 5VOT GND 5VOT
GND
5Vout
SPI1
MISO 5V
SCK MOSI
RST GND
Neopixel
GND PC7 5V
5VOT NMPWR A5
Neo-PWR
3.3 V SWDIO GND SWCLK RST
SWD
3.3 V PA13 GND PA14 NRST
20
VIN
VIN DCIN DCIN 12/24 V GND 12/24 V GND
TFT
RST PA3 RX2 PA2 TX2 GND 5V
PB5 PB6
PA9 RST
PA10 PB9
PB8 PB7
GND 5V
EXP1
+FAN1- 12/24 V DC GND
PT-DET PC12 GND 5V
SERVOS GND 5V PA1
PROBE GND PC14
E0-STOP GND PC15
+POWER- DCIN 12/24 V DC POWER
VIN + GND - POWER DCOUT 12/24 V DC
- HB + PC9 12/24 V DC
- E0 + PC8 12/24 V DC
+FAN0- 12/24 V DC PA8
X-STOP GND PC0
Y-STOP GND PC1
Z-STOP GND PC2
THB GND PC3
TH0 GND PA0
20 For the heated bed, logic, fans and hotend
UART
XUART PB15
YUART PC6
ZUART PC10
E0UART PC11
Powered By MCU's 5V Rail
DCDC Mode V1.0 board
+5V
Neo-PWR
Powered By DCDC Mode V1.0 board (bridge)
DCDC Mode V1.0 board
+5V
Neo-PWR
SPI1 Header
Micro-SD Card Reader
SPI1
PA6 5V
PA5 PA7
RST GND
EN STEP DIR
XM PB14 PB13 PB12
YM PB11 PB10 PB2
ZM PB1 PB0 PC5
EM PD2 PB3 PB4