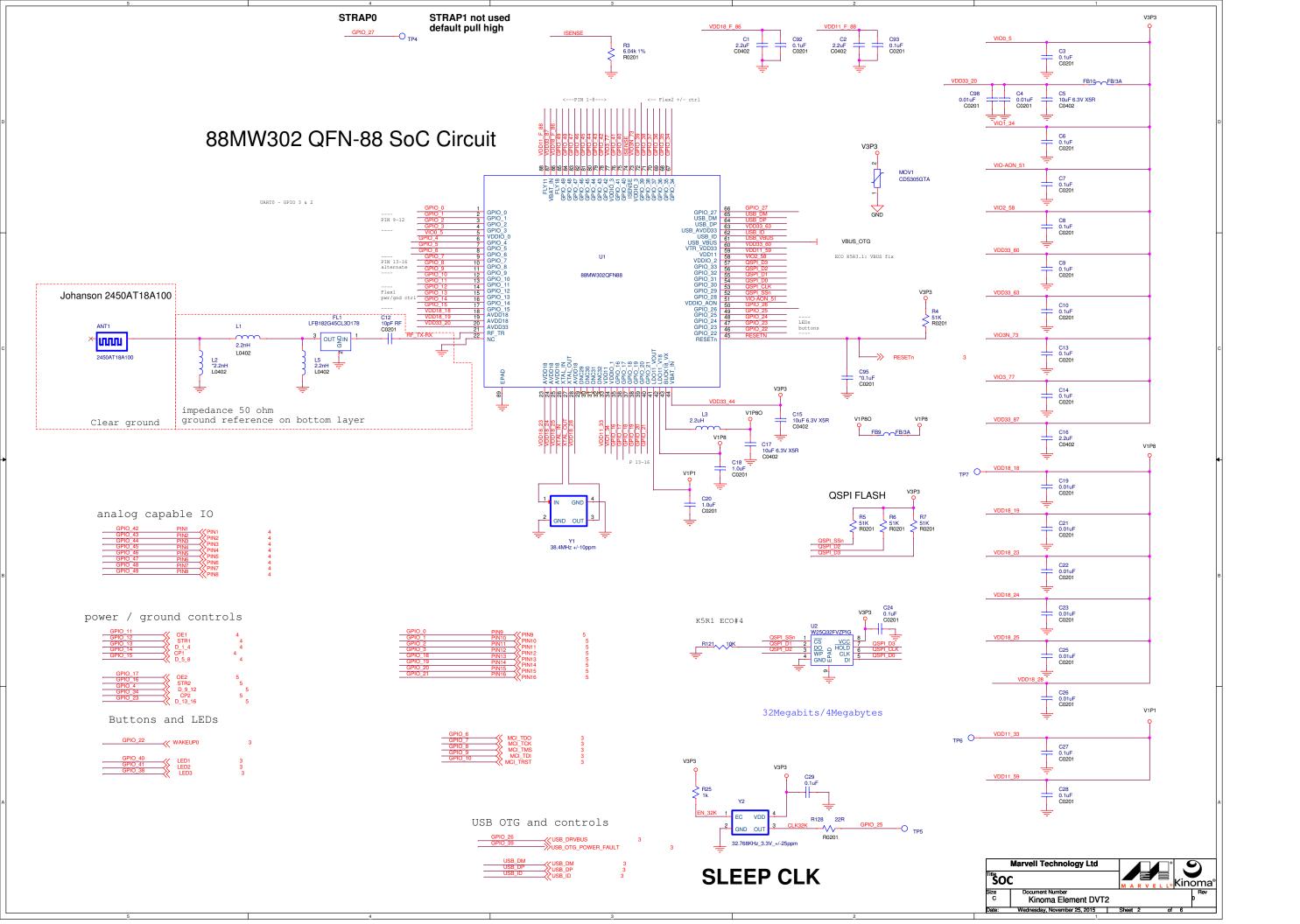
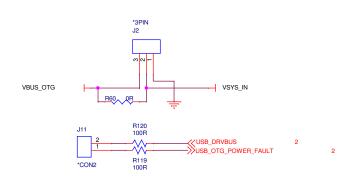
Element DVT2 Schematics 3.3 Volt 2.4GHz Wifi Antenna Wifi section Power/ MCU section Power 1.8V switching 1.8 V LDO User IO 1.1 V LDO 1.1 V LDO ∞ GPIO/ANALOG GPIO OI Power/Ground PWM /Ground PWM 01 circuitry UART/SPI/I2C UART/SPI/I2C User 9 MW302 88 pin QFN Marvell Wifi Microcontroller 38.4MHz 32.768KHz Oscillator Crystal User Button 3.3 Volt RGB LED 5.0 Volt 5V to 3.3V switching supply System Reset Button MIcro USB OTG connector Table of Contents P1 - Block Diagram P2 - MW300 SOC, antenna, Flash, sleep clock P3 - system power, USB OTG, buttons, LED, connector to dongle P5 - Flex connector #1 analog capable port Optional Features P6 - Flex connector #2 digital only JTAG access is provided for Development use P99 - Change History Marvell Technology Ltd hookup points for battery power and USB power switch Kinoma Element Document Number Kinoma Element DVT2 Wednesday, November 25, 2015 She



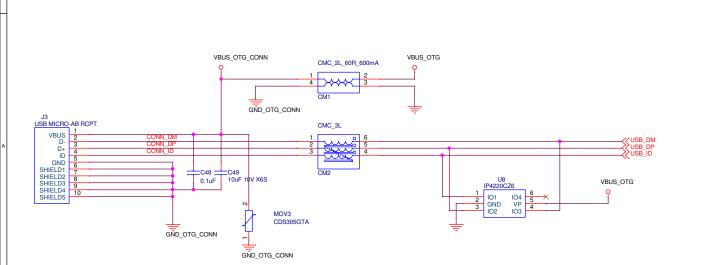
FTDI, USB OTG JTAG on dongle for development

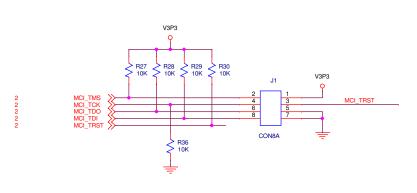
Battery Hookup



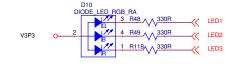
ECO K5R3.4: depopulate two pin connector

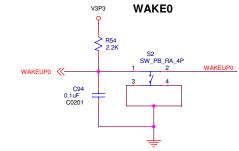
USB power switch moved to battery board

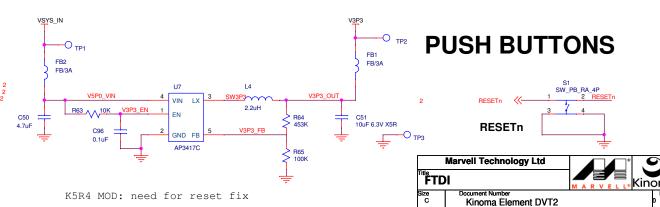


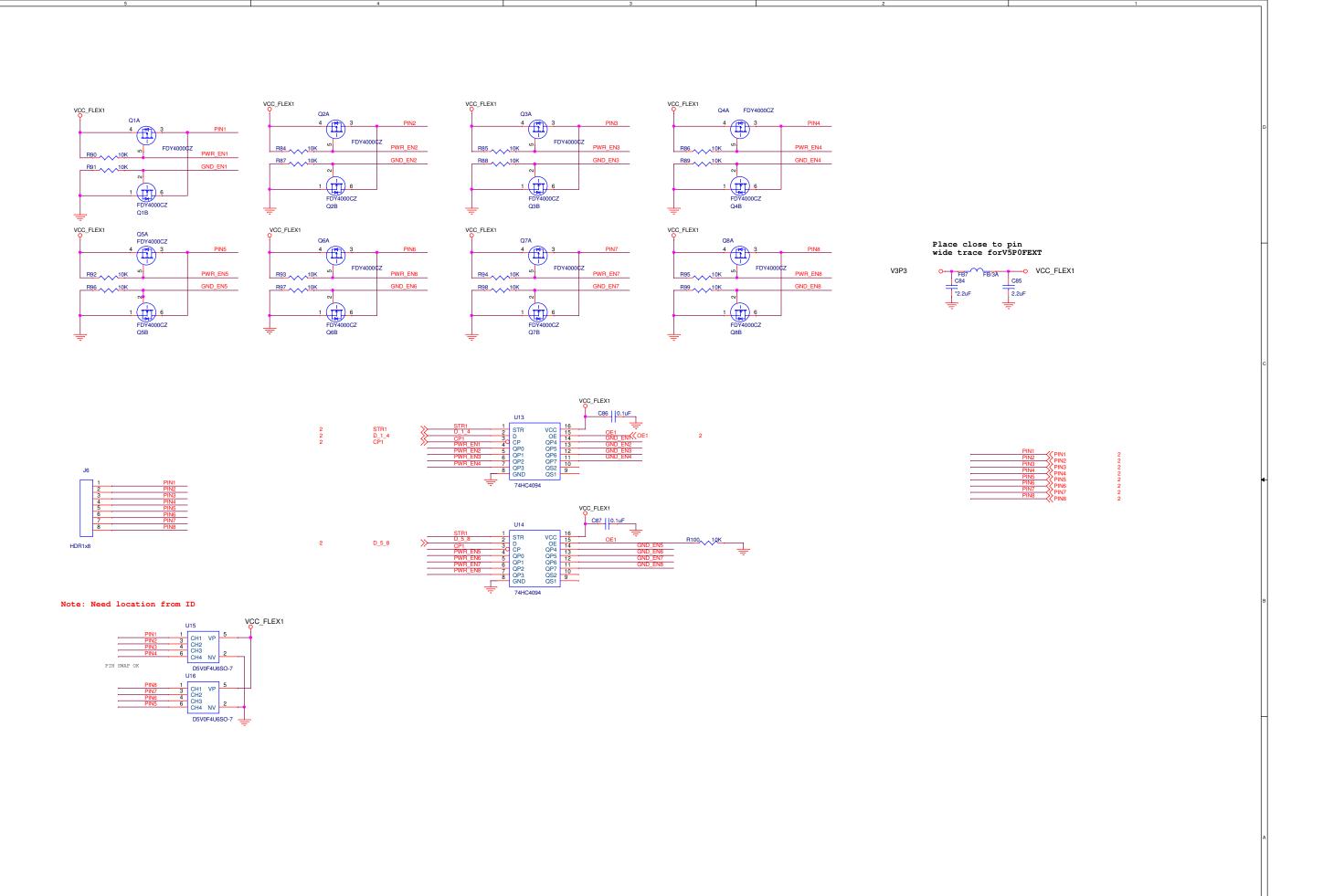


APPLICATION RGB LED







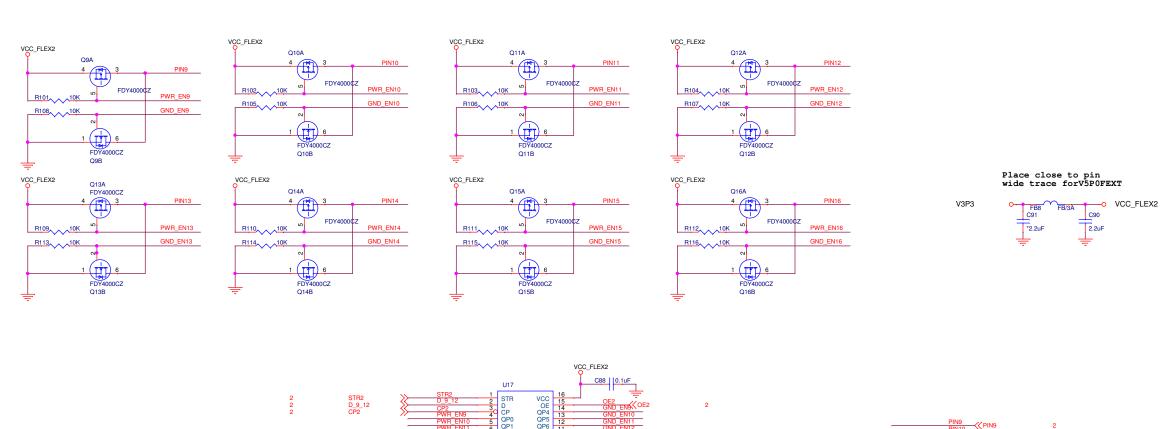


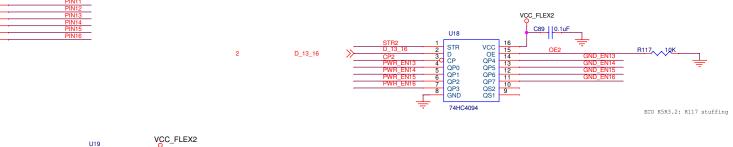
Marvell Technology Ltd

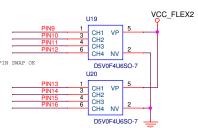
Flex conenctor 1

Size Document Number Kinoma Element DVT2
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HDR1x8



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Revision History

K5R0 First Prototype

- four layer with FPGA for crossbar

K5R1 EVT1

- 2 layer design 2in x 2in for EMI prescan

K5R3 EVT2

- 2 layer shrink to 1.6in x 1.6 in
- new push button
- new MOV
- replace strap0 resistor with TP
- remove strap1 resistor
- added ground TP
- use surface mount connectors
- removed USB power switch

K5R4 DVT1 bug fix from K5R3

- USB_VBUS fix
- new mosfets
- stuff R117
- murata band pass filter
- beefed up vias near tx pin and GNDimprove decoupling of V3Pv and GND near tx pin
- improve high current loop near switcher
- added RC delay on 3.3v switcher enable to improve power up booting

Element DVT2

- remove adaptor board

