DEFCON CHINA 2019 BADGE
SYSTEM BLOCK DIAGRAM

1/6/19
1/30/19

TARGET PRICE: $10/ea.
~2.5K quantity



TO HOST PC

USB MICRO B

~$0.07

FT231X USB-TO-SERIAL SSOP20

~$1.53

3

TXD RXD DTR

ARDUINO ATmega328PB TQFP32

~$1.08 + $0.26 programming

ICSP

SAO

I2C

FLEX CABLE UART

TXD RXD

I2C

ACCELEROMETER ST LIS3DHTR LGA16

~$0.69

LED DRIVER/ SHIFT REG. dimming + individual addressing

74HC595 $0.13 EACH

8× RED
4× ORANGE
4× YELLOW
16× GREEN
32× $0.14 = $4.48

POWER MGMT./ USB-BATTERY SWITCHOVER

VCC

MCP1700 LDO SOT89-3 $0.289

CR2032 ~$0.173 + HOLDER KEYSTONE 1060 ~$0.60

~$5 W/O LEDs, DISCRETES, PAD/ASSEMBLY