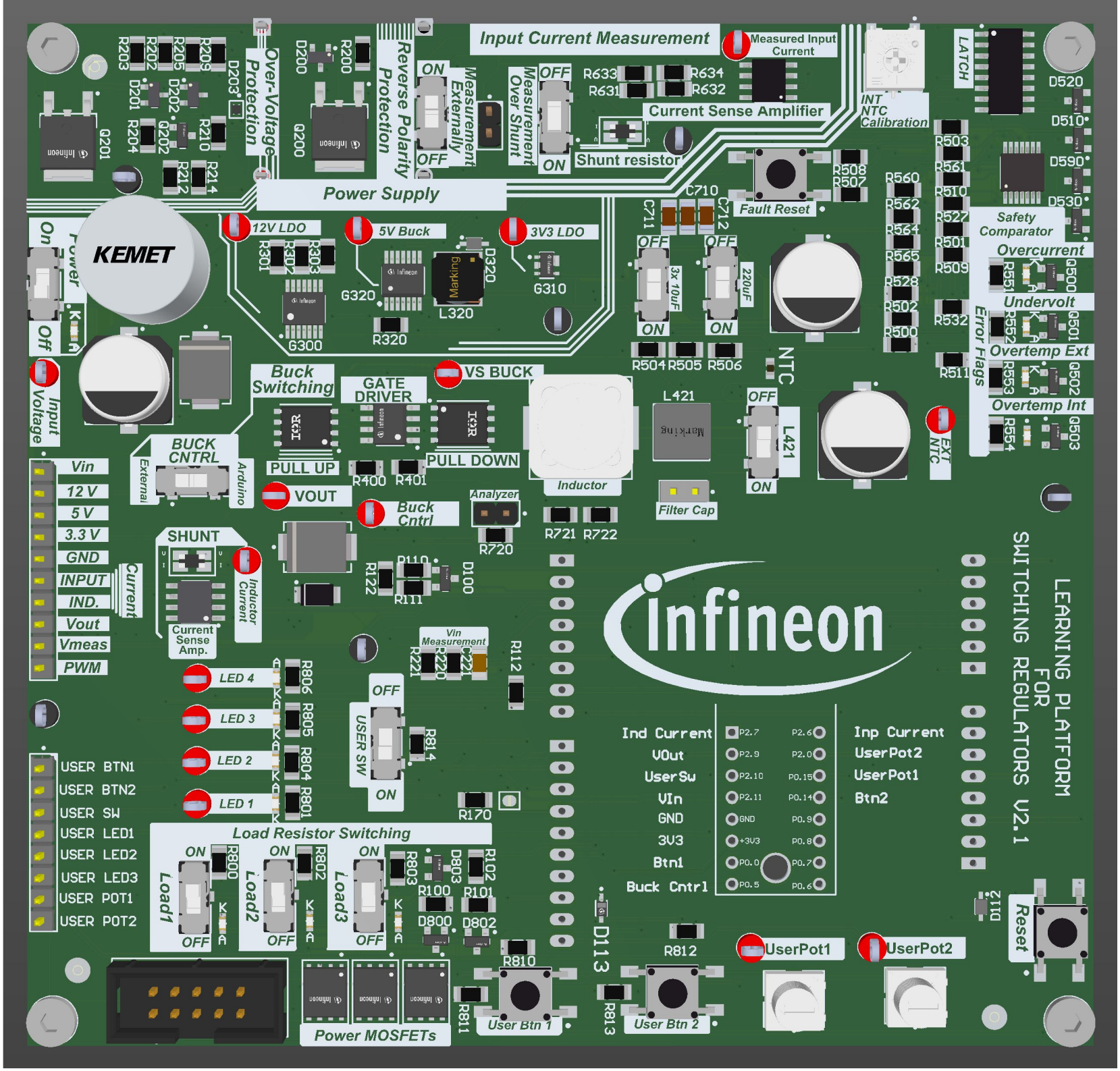
LEARNING PLATFORM
FOR
SWITCHING REGULATORS V2.1
Input Current Measurement
Measured Input Current
Current Sense Amplifier
Shunt resistor
Measurement Over Shunt
Measurement Externally
Reverse Polarity Protection
Over-Voltage Protection
Power Supply
INT NTC Calibration
LATCH
Fault Reset
Safety Comparator
Overcurrent
Undervolt
Overtemp Ext
Overtemp Int
Error Flags
EXT NTC
NTC
12V LDO
5V Buck
3V3 LDO
KEMET
Power
On
Off
Input Voltage
Buck Switching
GATE DRIVER
VS BUCK
PULL UP
PULL DOWN
BUCK CNTRL
External
Arduino
VOUT
Buck Cntrl
Analyzer
Inductor
L421
Filter Cap
SHUNT
Current Sense Amp.
Inductor Current
Current
Vin
12 V
5 V
3.3 V
GND
INPUT
IND.
Vout
Vmeas
PWM
Vin Measurement
LED 4
LED 3
LED 2
LED 1
USER SW
USER BTN1
USER BTN2
USER SW
USER LED1
USER LED2
USER LED3
USER POT1
USER POT2
Load Resistor Switching
Load1
Load2
Load3
Ind Current
VOut
UserSw
VIn
GND
3V3
Btn1
Buck Cntrl
Inp Current
UserPot2
UserPot1
Btn2
Infineon
Reset
UserPot1
UserPot2
User Btn 1
User Btn 2
Power MOSFETs