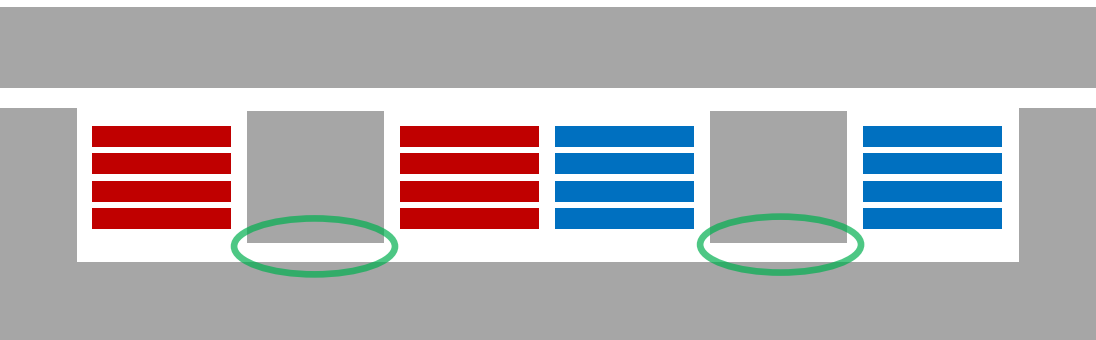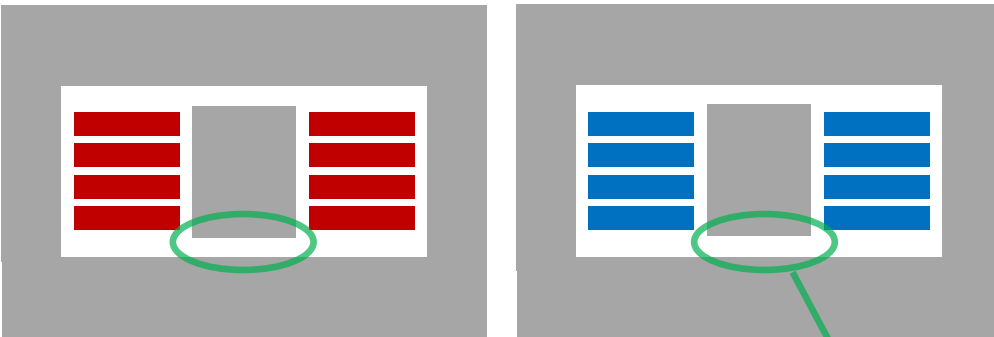(a) Double-PQ with Dual Air Gap
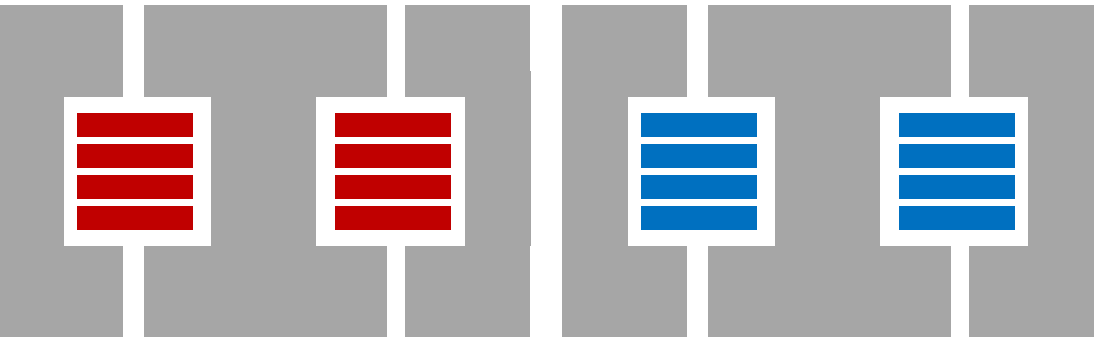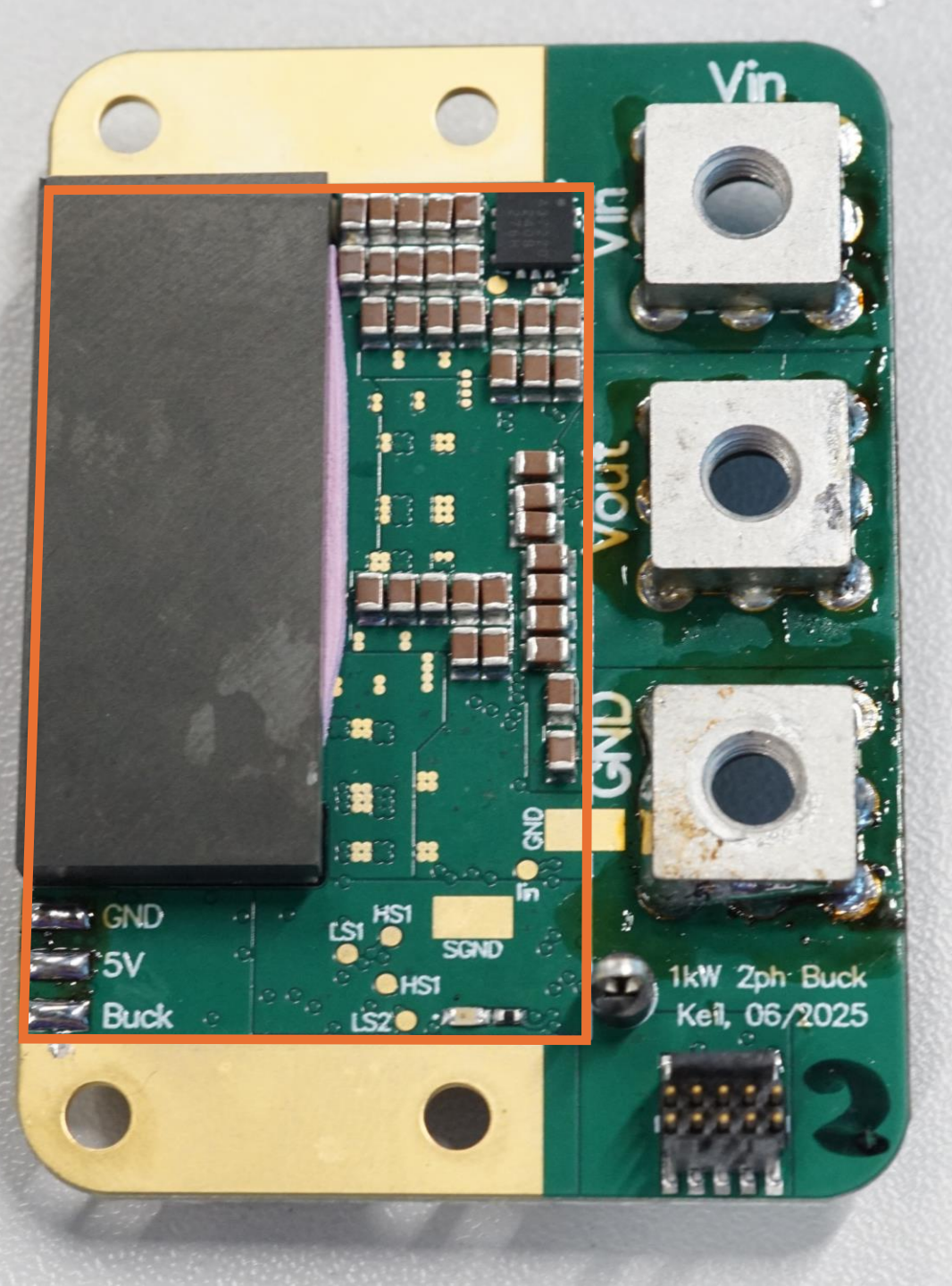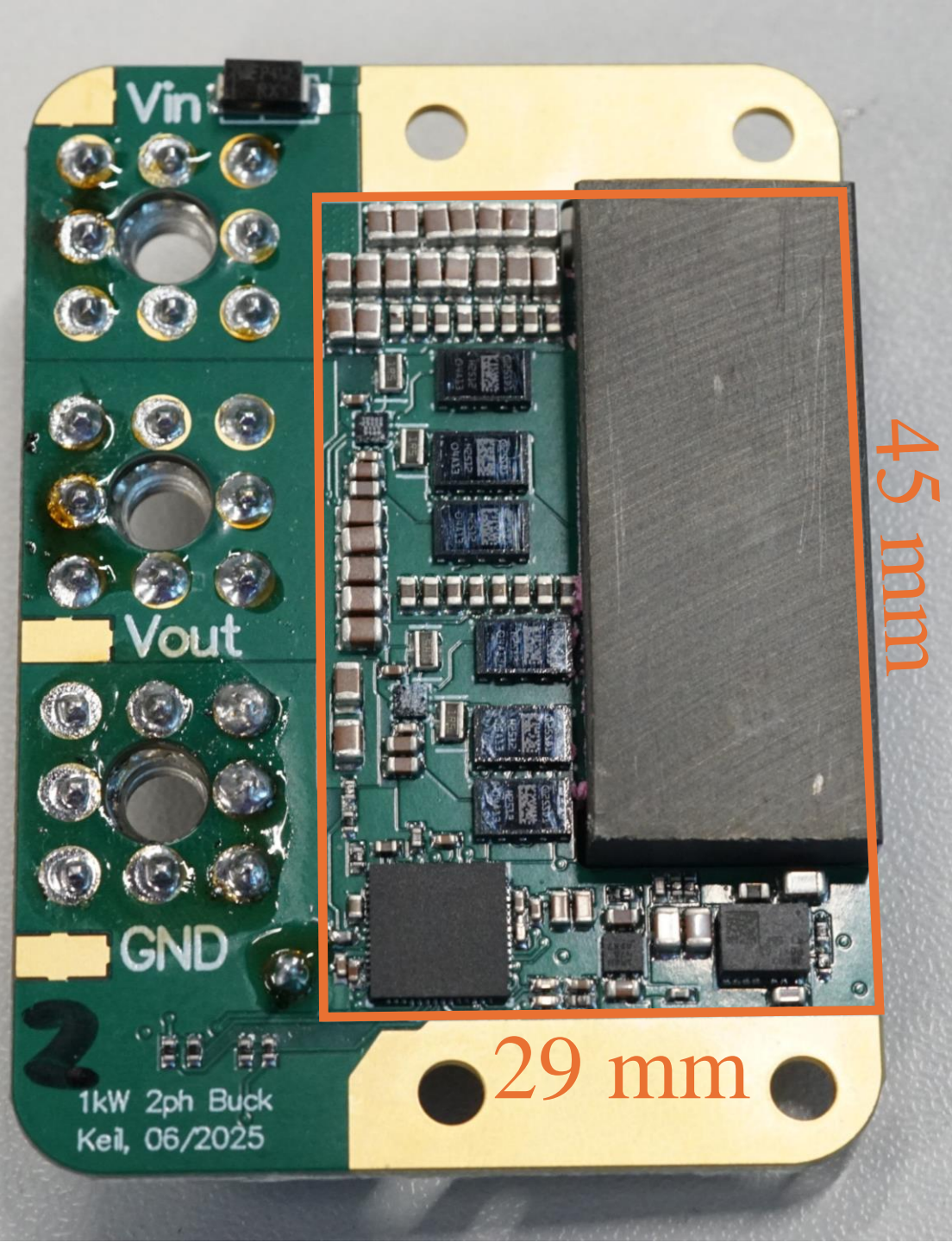
(b) Four-Pole with Dual Air Gap

(c) Modified EE
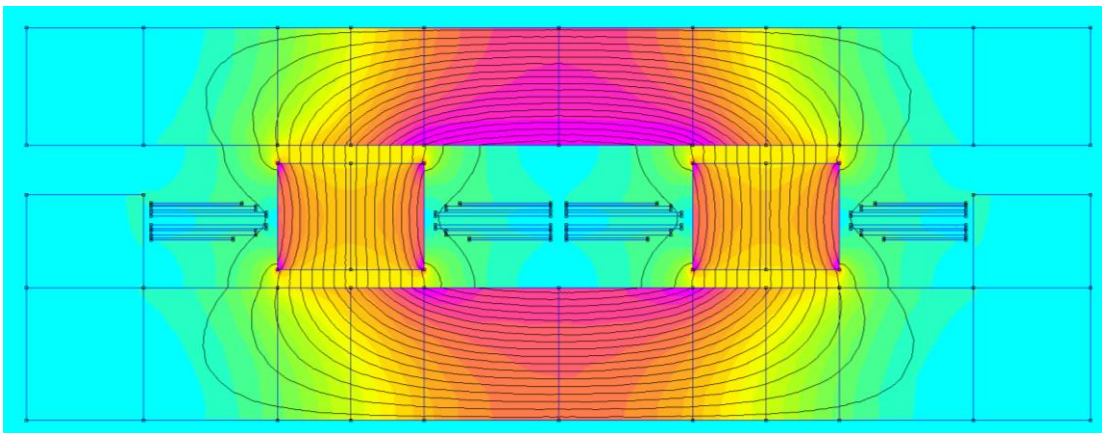
Additional Air Gap

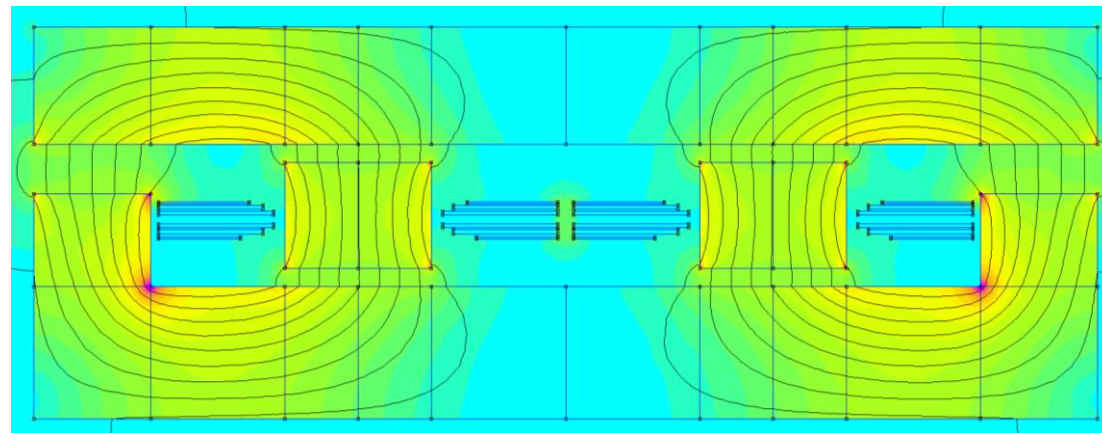(d) Vertical Gap

Vin

Vout

GND

2

1kW 2ph Buck
Keil, 06/2025

45 mm

29 mm

Vin

Vin

Vout

GND

GND

5V

Buck
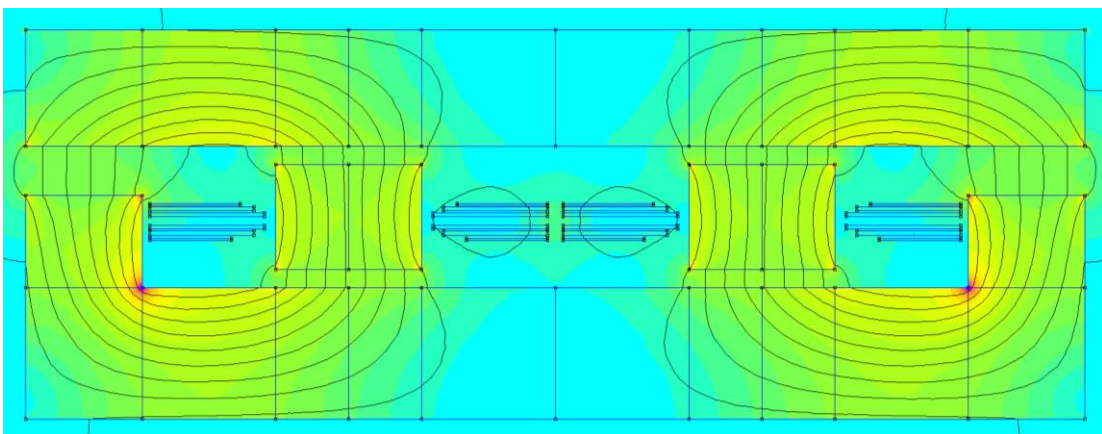
LS1

HS1

SGND

HS1

LS2
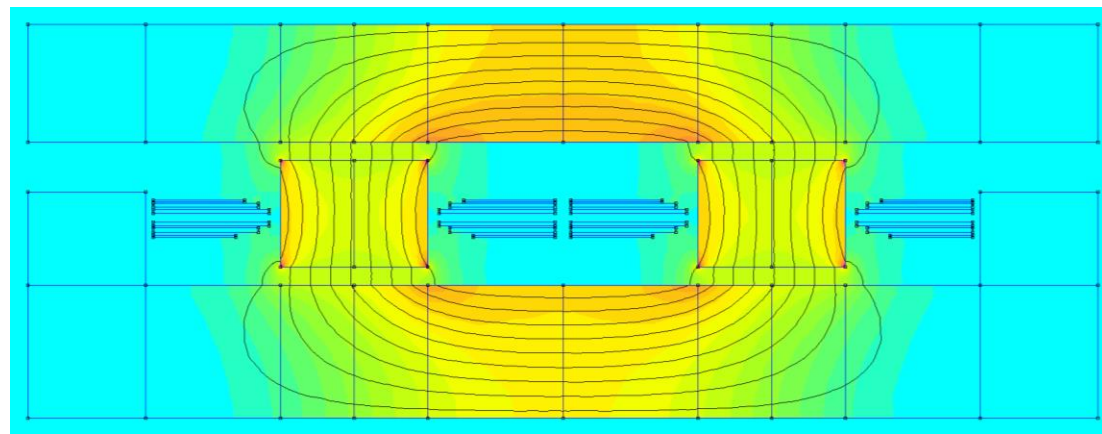
in

2

1kW 2ph Buck
Keil, 06/2025

(a) Pos. Coupling DC

(b) Pos. Coupling Fundamental
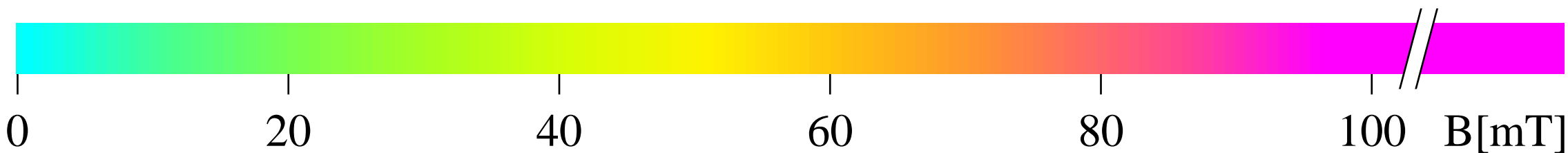
(c) Neg. Coupling DC

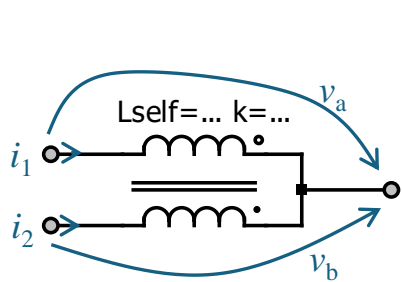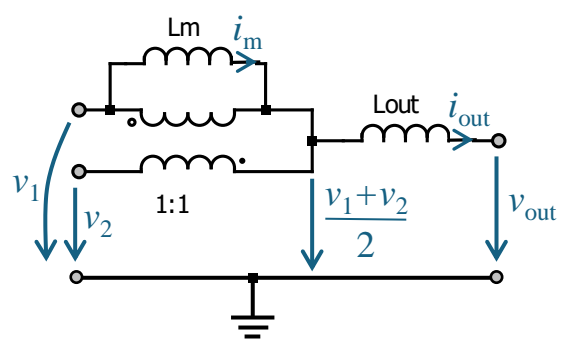(d) Neg. Coupling Fundamental

0   20   40   60   80   100   B[mT]

(a) Coupled Inductor   (b) Transformer Model