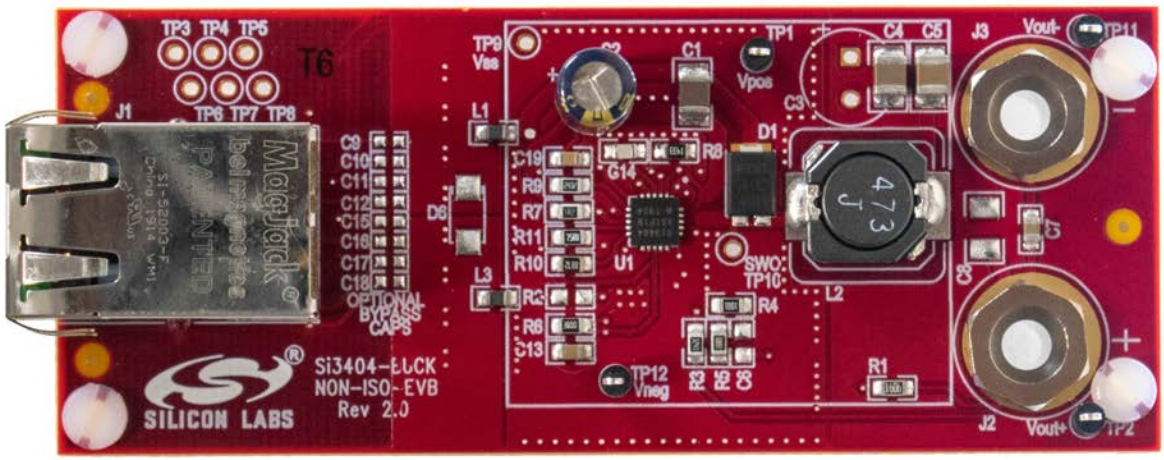
4. Si3404-Buck EVB: 5 V, Class 2 Configuration



4.1 Si3404-Buck EVB Schematic: 5V, Class 2, 7 W

In the figure below, the schematic of the Si3404-Buck 5V, Class 2 EVB is shown. The parts in red on the schematic represent the BOM differences compared to the core design.

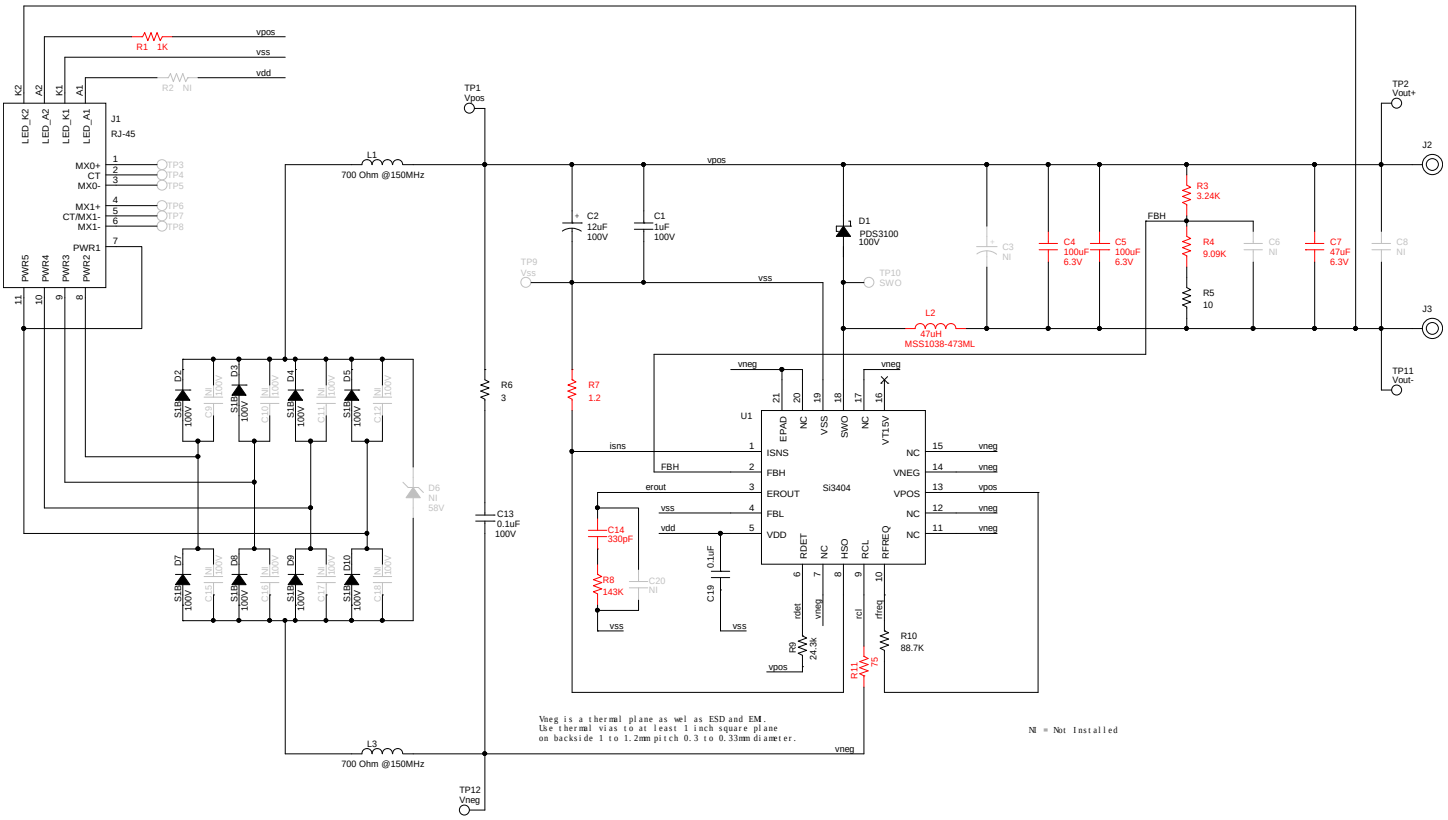


Figure 4.1. Si3404 Buck Non-Isolated EVB Schematic: 5 V, Class 2 PD, 7 W

4.15 Bill of Materials

The following table is the BOM listing for the standard 5 V output evaluation board with option PoE Class 2.

Table 4.3. Si3404-Buck 5 V Bill of Materials

Designator	Quantity	Description	Manufacturer	Manufacturer Part Number
C1	1	CAP, 1 µF, 100 V, ±10%, X7R, 1210	Venkel	C1210X7R101-105K
C13	1	CAP, 0.1 µF, 100 V, ±10%, X7R, 0805	Venkel	C0805X7R101-104K
C14	1	CAP, 330 pF, 50 V, ±1%, C0G, 0805	Venkel	C0805C0G500-331F
C19	1	CAP, 0.1 µF, 16 V, ±10%, X7R, 0805	Venkel	C0805X7R160-104K
C2	1	CAP, 12 µF, 100 V, ±20%, AL, 6.3 x 11.2 mm	Panasonic	EEUFC2A120
C4, C5	2	CAP, 100 µF, 6.3 V, ±10%, X5R, 1210	Venkel	C1210X5R6R3-107K
C7	1	CAP, 47 µF, 6.3 V, ±20%, X5R, 0805	Venkel	C0805X5R6R3-476M
D1	1	DIO, Schottky, 100 V, 3 A, PowerDI-5	Diodes Inc.	PDS3100-13
D2, D3, D4, D5, D7, D8, D9, D10	8	DIO, Single, 100 V, 1.0 A, SMA	Fairchild	S1B
J1	1	CONN, RJ-45, MAGJACK, 1 Port PoE	Bel	SI-52003-F
J2, J3	2	CONN, Banana Jack, Threaded Uninsulated	ABBATRON HH SMITH	101
L1, L3	2	Ferrite Bead, 700 Ω @150 MHZ, 0805	Wurth	742792040
L2	1	Inductor, Power, Shielded, 47 µH, ±20%, 1.6 A, SMD	Coilcraft	MSS1038-473ML
R1	1	RES, 1 kΩ, 1/10 W, ±1%, ThickFilm, 0805	Venkel	CR0805-10W-1001F
R10	1	RES, 88.7 kΩ, 1/8 W, ±1%, ThickFilm, 0805	Vishay	CRCW080588K7FKEA
R11	1	RES, 75 Ω, 1/10 W, ±1%, ThickFilm, 0805	Venkel	CR0805-10W-75R0F
R3	1	RES, 3.24 kΩ, 1/8 W, ±1%, ThickFilm, 0805	Vishay	CRCW08053K24FKEA
R4	1	RES, 9.09 kΩ, 1/10 W, ±25 PPM, ±0.5%, ThinFilm, 0805	Susumu	RR1220P-9091-D-M
R5	1	RES, 10 Ω, 1/10 W, ±1%, ThickFilm, 0805	Venkel	CR0805-10W-10R0F
R6	1	RES, 3 Ω, 1/8 W, ±1%, ThickFilm, 0805	Venkel	CR0805-8W-3R00FT
R7	1	RES, 1.2 Ω, 1/10 W, ±5%, ThickFilm, 0805	Venkel	CR0805-10W-1R2J
R8	1	RES, 143 kΩ, 1/10 W, ±1%, ThickFilm, 0805	Venkel	CR0805-10W-1433F
R9	1	RES, 24.3 kΩ, 1/8 W, ±1%, ThickFilm, 0805	vishay	CRCW080524K3FKEA
TP1, TP2, TP11, TP12	4	Testpoint, Black, 0.050" Loop, PTH	Keystone	5001