



芯高科技
HIGH TECH
TECHNOLOGY LIMITED

Low-voltage High-current HT7228P combined mode DC-DC Demo Board

Date: 13 May 2025

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Demo setup

Configuration	
Inductor	22uH
Frequency	500kHz
Vin	12V
Vout	3V

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Switching waveform



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Current load = 1A
Duty cycle ≈ 27.3%



Current load = 5A
Duty cycle ≈ 28.6%

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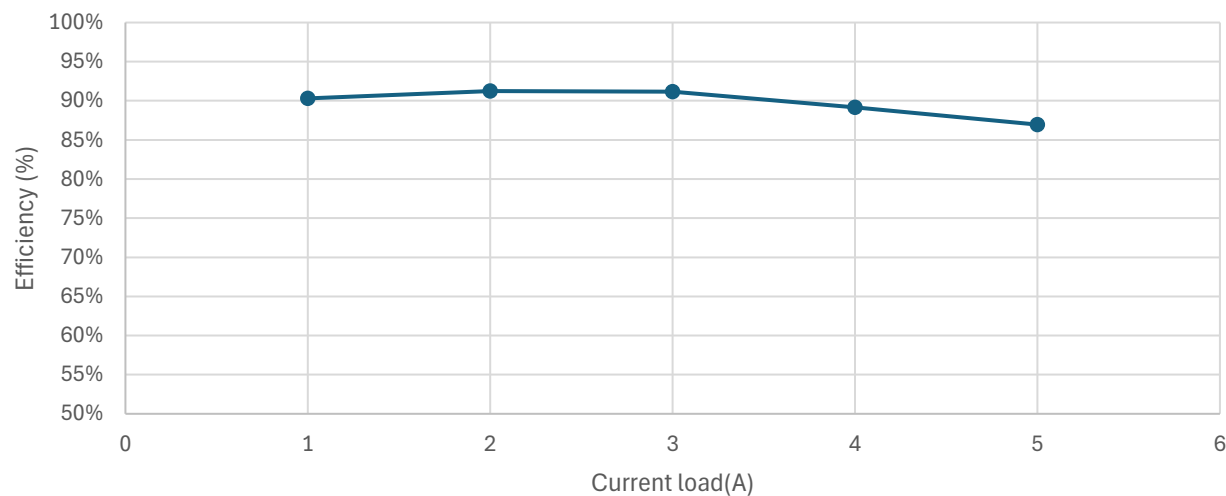
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Efficiency @ Vin = 12V

Vin	Input current (A)	Current load (A)	Efficiency
12	0.2684	1	90%
12	0.531	2	91%
12	0.7953	3	91%
12	1.081	4	89%
12	1.38	5	87%

Efficiency vs Current Load

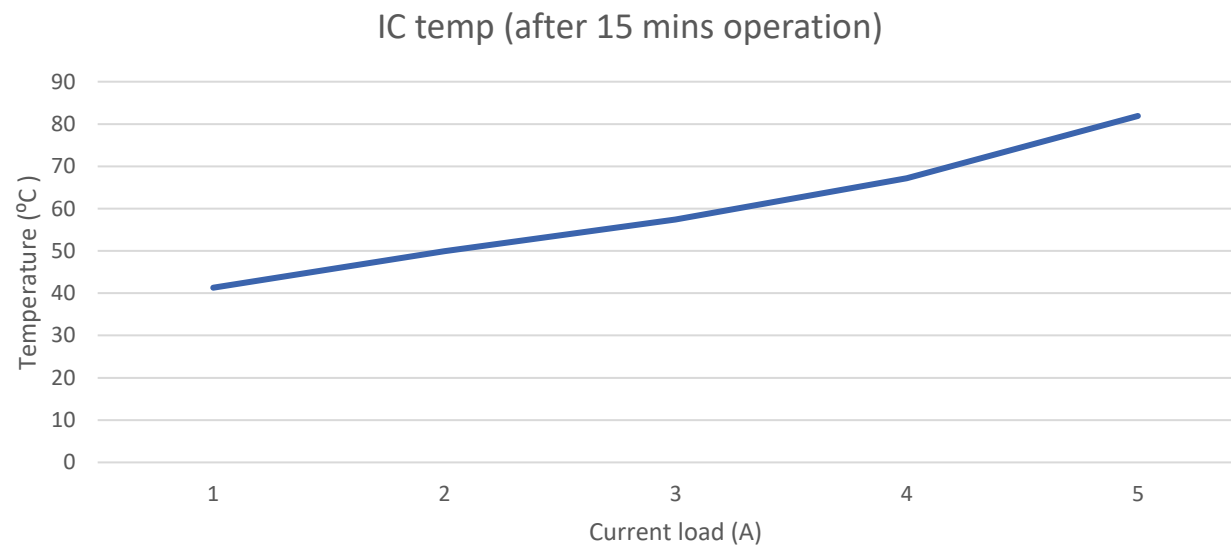


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HT7228P Thermal Characteristics

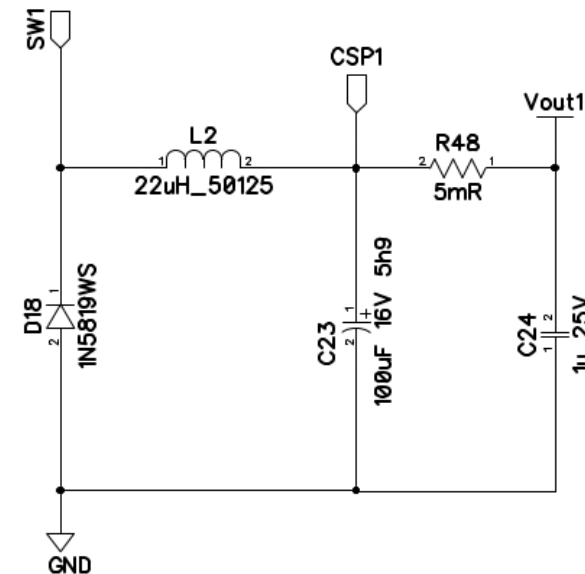
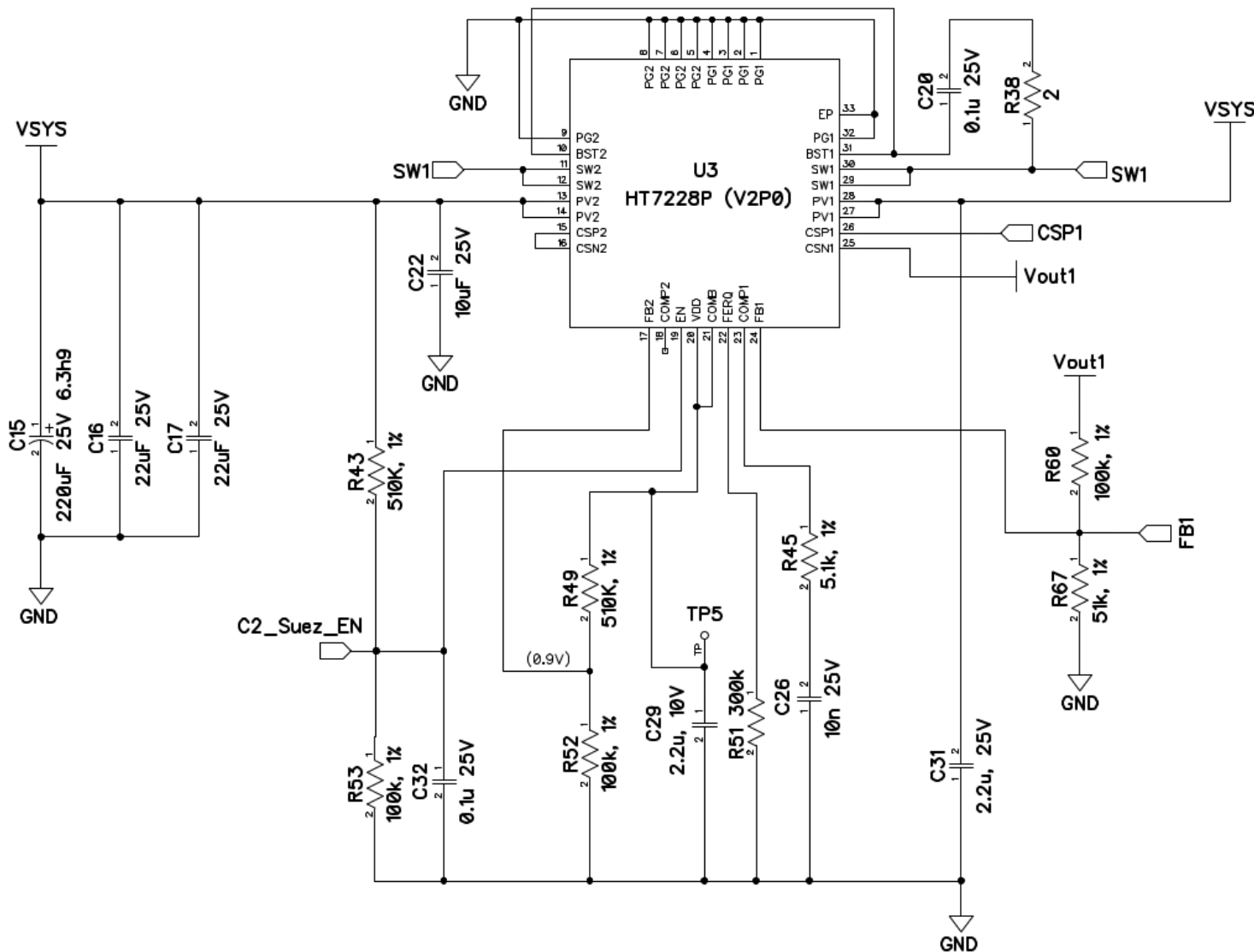
Current load (A)	IC temperature (°C) (operated after 15mins)
1	41.3
2	49.9
3	57.4
4	67.2
5	81.9



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Schematic diagram



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