HH E d ge Ef i h df d

FGD E E D BF A

BB F A E

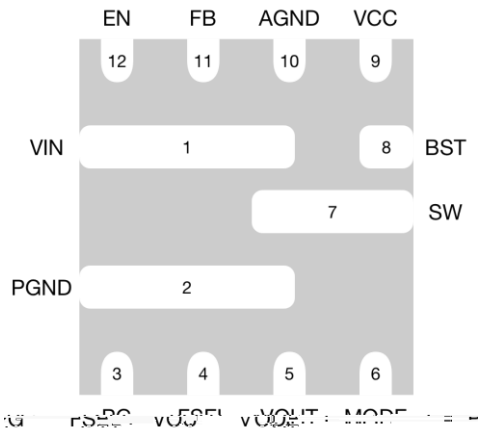
D H E A EF ADK

H AD D AD F A

1)

EA GF G D F E

B A GD F A

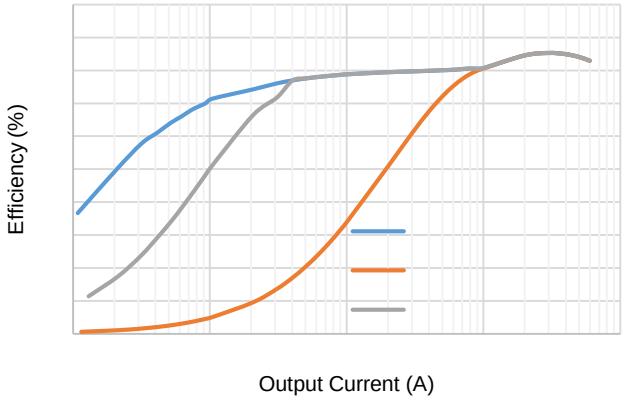


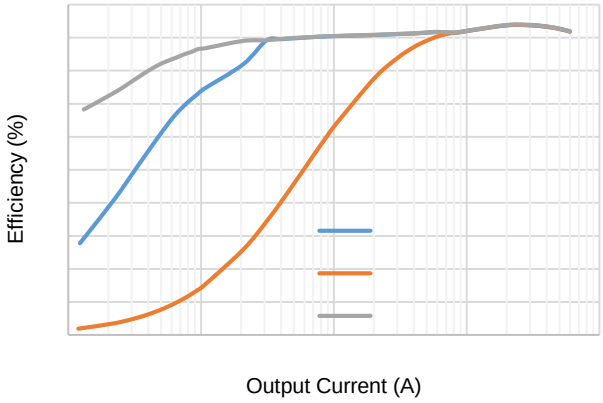
(1)

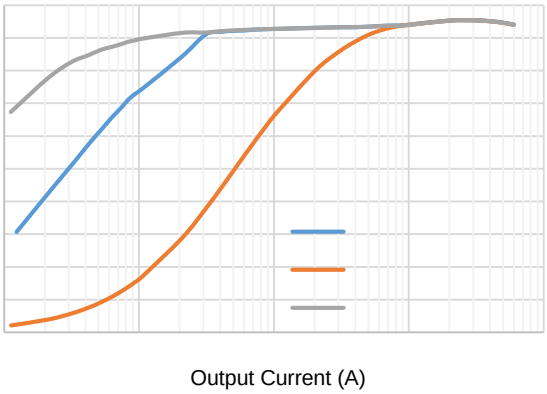
(2)

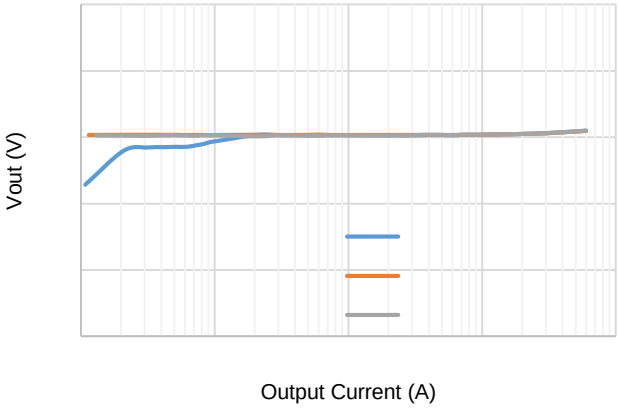
B G F A E

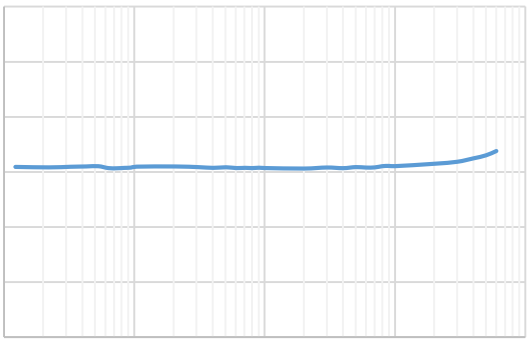
FKB D F D EF E


Efficiency (%)
Output Current (A)


Efficiency (%)
Output Current (A)


Output Current (A)

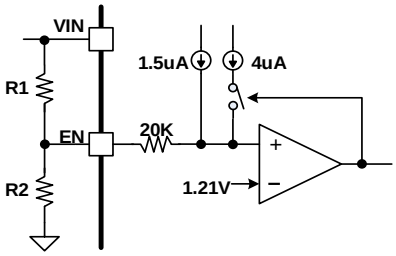

Vout (V)
Output Current (A)



AB D F A

$$V_{rise} = 1.18 * \left(1 + \frac{R1}{R2}\right) - 1.5uA * R1$$

$$V_{fall} = 1.1 * \left(1 + \frac{R1}{R2}\right) - 5.5uA * R1$$

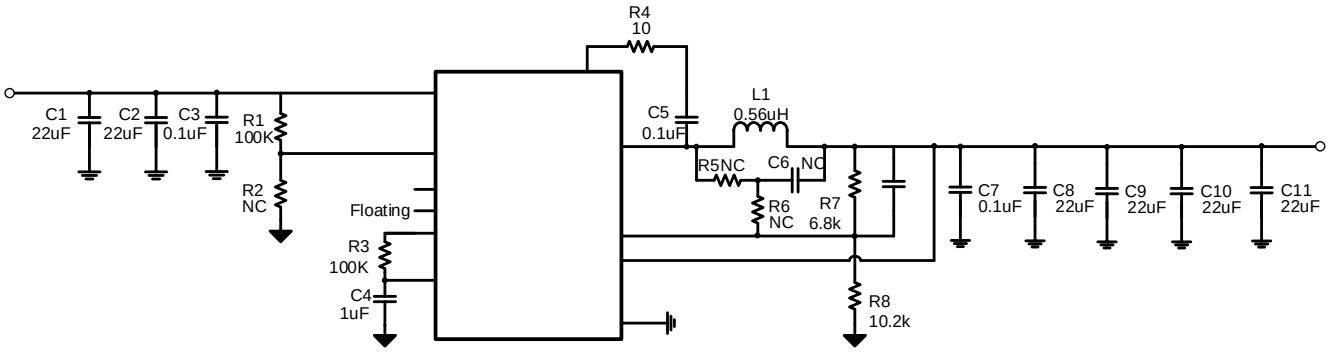


1% tolerance

$$R_{FB\_TOP} = \left(\frac{V_{OUT}}{V_{REF}} - 1\right) * R_{FB\_BOT}$$

V

BB F A AD F A


R4
10
C1
22uF
C2
22uF
C3
0.1uF
R1
100K
R2
NC
Floating
R3
100K
C4
1uF
C5
0.1uF
L1
0.56uH
R5NC
C6 NC
R6
NC
R7
6.8k
R8
10.2k
C7
0.1uF
C8
22uF
C9
22uF
C10
22uF
C11
22uF

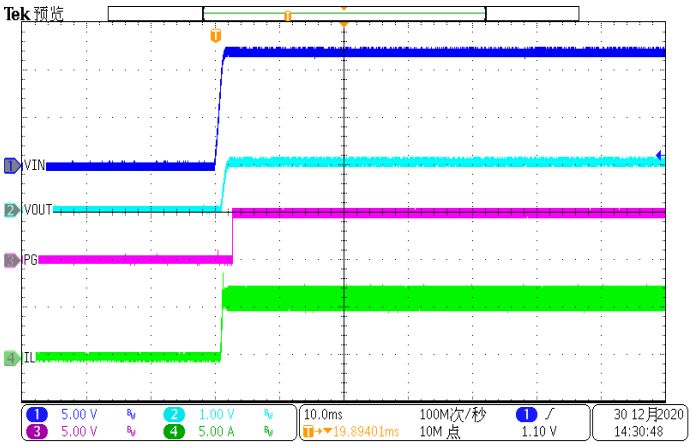
$$\Delta V_{IN} = \frac{I_{OUT}}{C_{IN} \times f_{SW}} \times \frac{\mathrm{V_{OUT}}}{\mathrm{V_{IN}}} \times (1 - \frac{V_{OUT}}{V_{IN}})$$

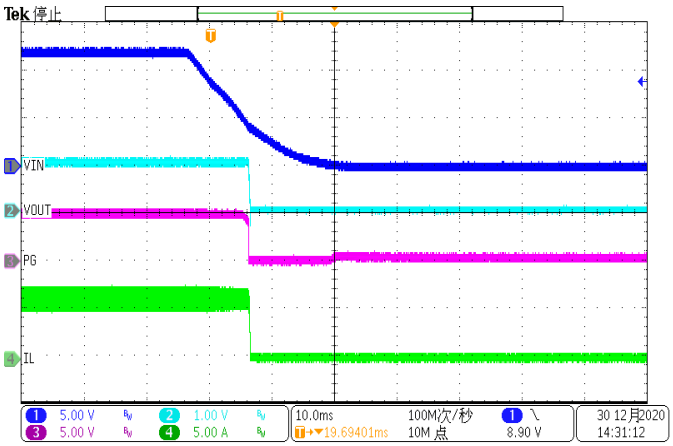
$$L_{INDMIN} = \frac{V_{OUT} \times (V_{INMAX} - V_{OUT})}{V_{INMAX} \times K_{IND} \times I_{OUT} \times f_{SW}}$$

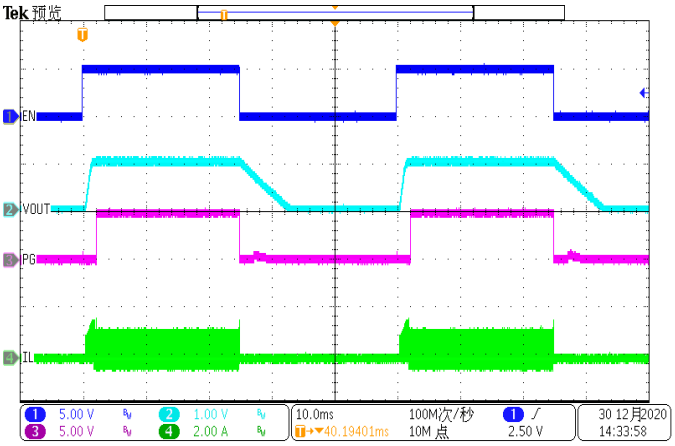
$$I_{LPEAK} = I_{OUT} + K_{IND}$$

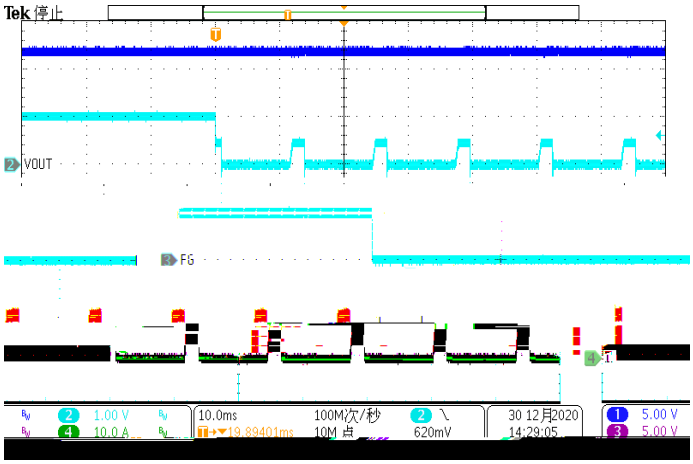
$$\Delta V_{OUT} = \frac{V_{OUT} * (V_{IN} - V_{OUT})}{8 * {f_{SW}}^2 * L * C_{OUT} * V_{IN}}$$

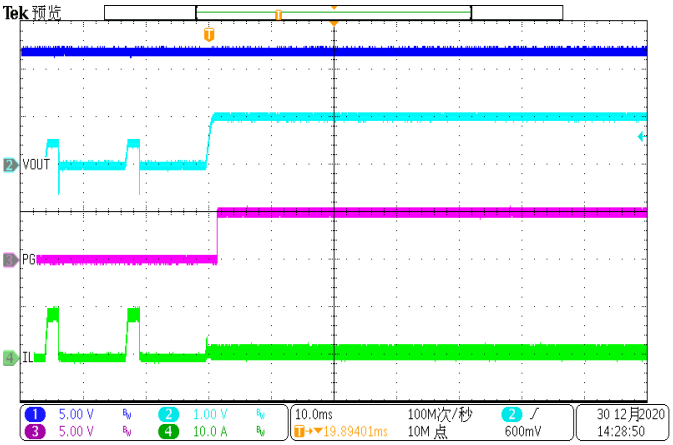
V_{OUT}

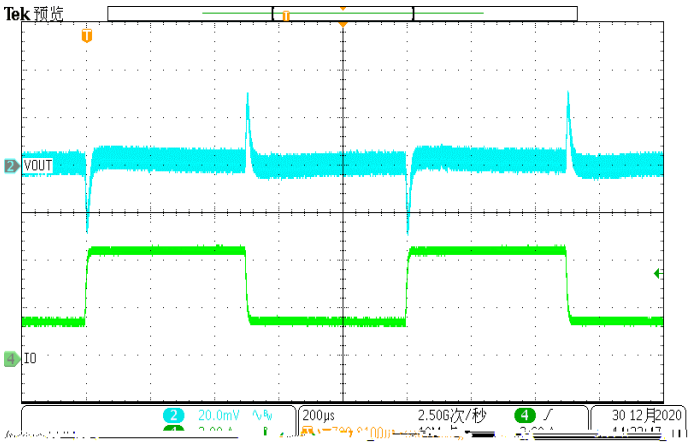

Tek 预览
VIN
VOUT
PG
IL
5.00 V
1.00 V
5.00 V
5.00 A
10.0ms
100M次/秒
10M 点
1.10 V
30 12月2020
14:30:48

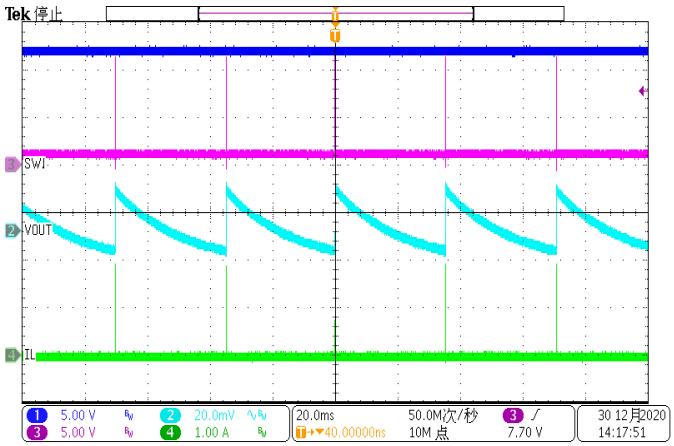

Tek 停止
VIN
VOUT
PG
IL
5.00 V
1.00 V
5.00 V
5.00 A
10.0ms
100M次/秒
10M 点
8.90 V
30 12月2020
14:31:12

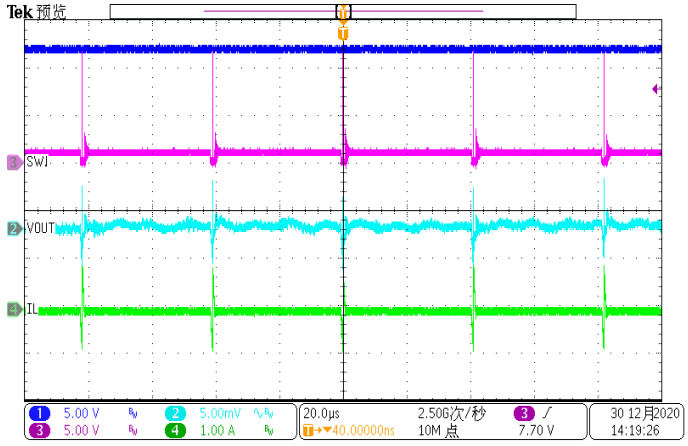

Tek 预览
EN
VOUT
PG
IL
5.00 V
1.00 V
5.00 V
2.00 A
10.0ms
100M次/秒
10M 点
2.50 V
30 12月2020
14:33:58

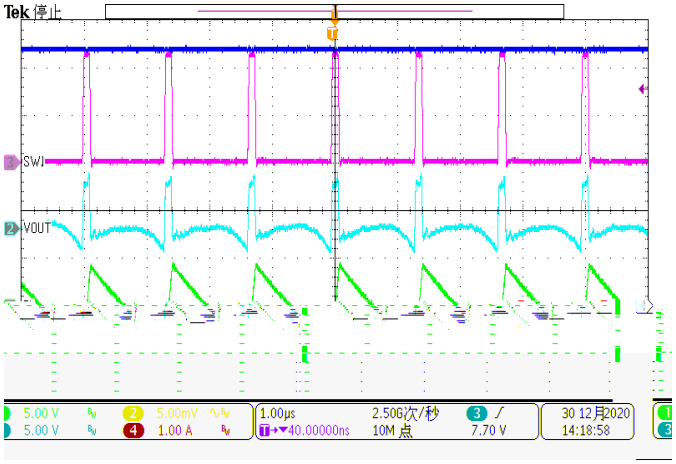

Tek 停止
VOUT
FG
1.00 V
10.0 A
10.0ms
100M次/秒
10M 点
620mV
30 12月2020
14:29:05
5.00 V
5.00 V

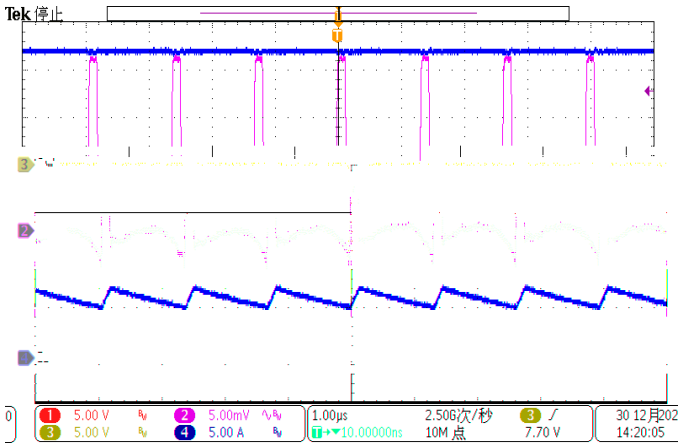

Tek 预览
VOUT
PG
IL
5.00 V
1.00 V
5.00 V
10.0 A
10.0ms
100M次/秒
10M 点
600mV
30 12月2020
14:28:50

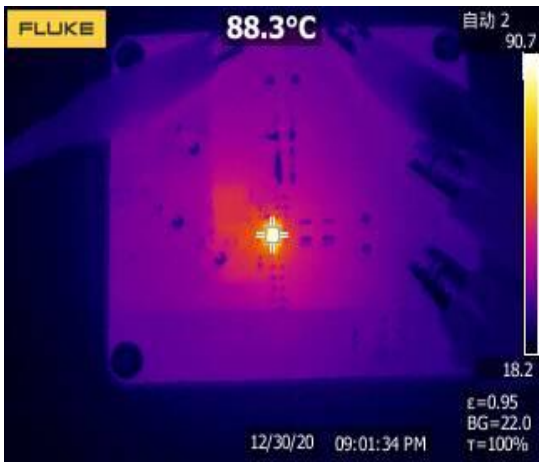

Tek 预览
VOUT
IO
20.0mV
200µs
2.50G次/秒
30 12月2020


Tek 停止
SW1
VOUT
IL
5.00 V
20.0mV
20.0ms
50.0M次/秒
1.00 A
10M 点
7.70 V
30 12月2020
14:17:51


Tek 预览
SW1
VOUT
IL
5.00 V
5.00mV
20.0µs
2.50G次/秒
1.00 A
10M 点
7.70 V
30 12月2020
14:19:26

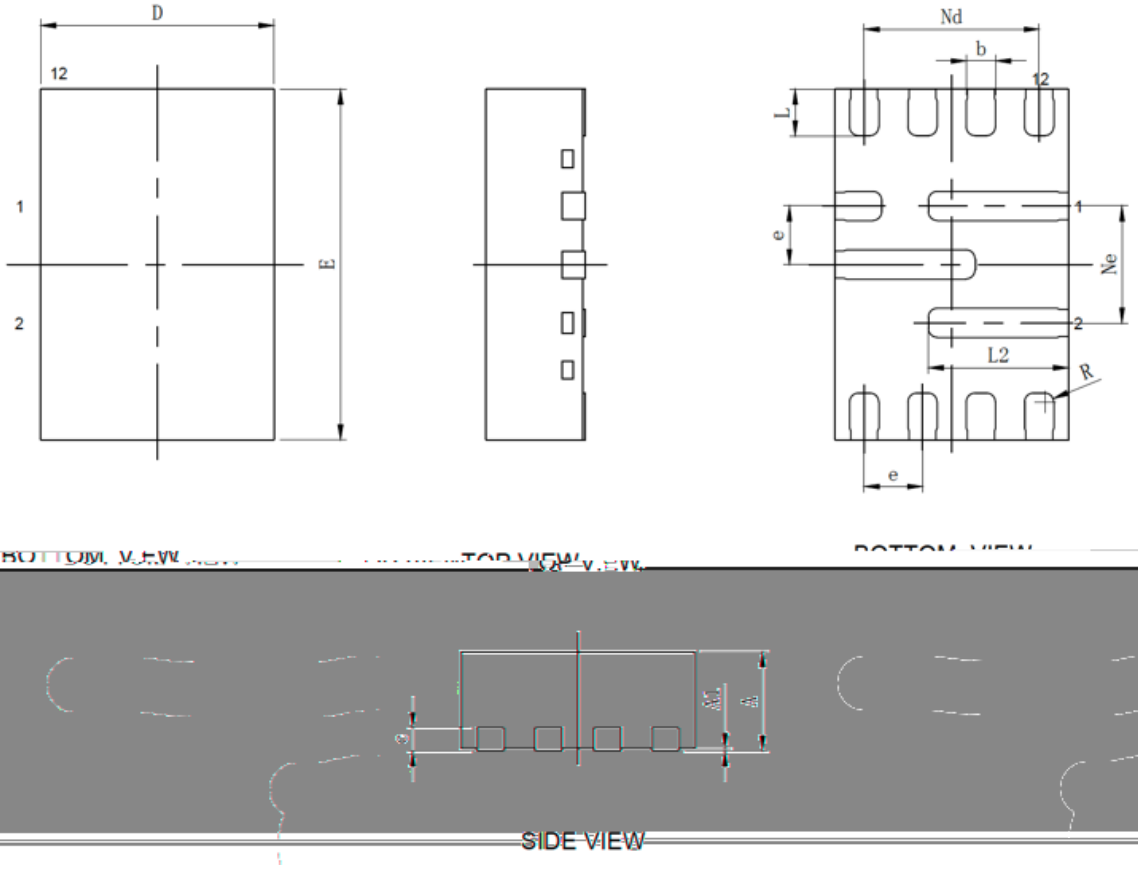

Tek 停止
SW1
VOUT
5.00 V
5.00mV
1.00µs
2.50G次/秒
1.00 A
10M 点
7.70 V
30 12月2020
14:18:58


Tek 停止
5.00 V
5.00mV
1.00µs
2.50G次/秒
5.00 A
10M 点
7.70 V
30 12月202
14:20:05


FLUKE
88.3°C
自动 2
90.7
18.2
ε=0.95
BG=22.0
T=100%
12/30/20
09:01:34 PM

1.
2.
3.
4.
5.
6.

B AD F A



1.
2.
3.
4.
5.

F B D AD F A