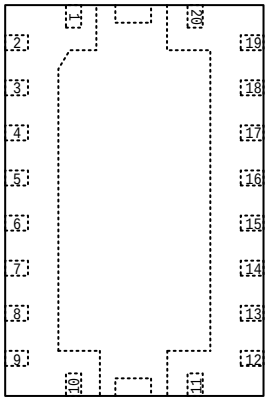
# 5.5V-100V Wide Input Voltage Range Synchronous Buck Controller

T

| ORDERABLE DEVICE | PACKAGING TYPE | STANDARD PACK QTY | PACKAGE MARKING | PINS | PACKAGE DESCRIPTION |
|---|---|---|---|---|---|
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| DESCRIPTION | MIN | MAX | UNIT |
|---|---|---|---|
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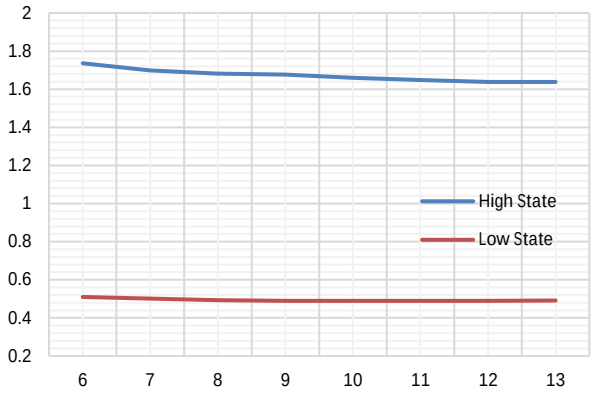
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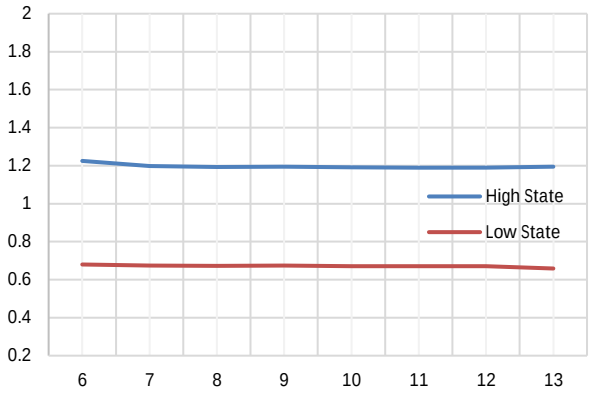
| PARAMETER | THERMAL METRIC | DFN3.5X4.5-20L | UNIT |
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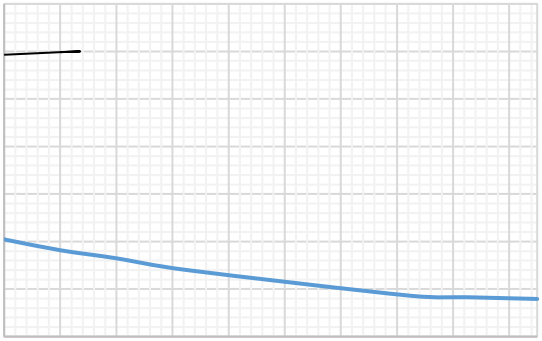
| SYMBOL | PARAMETER | TEST CONDITION | MIN | TYP | MAX | UNIT |
|---|---|---|---|---|---|---|
| | | | | | | |

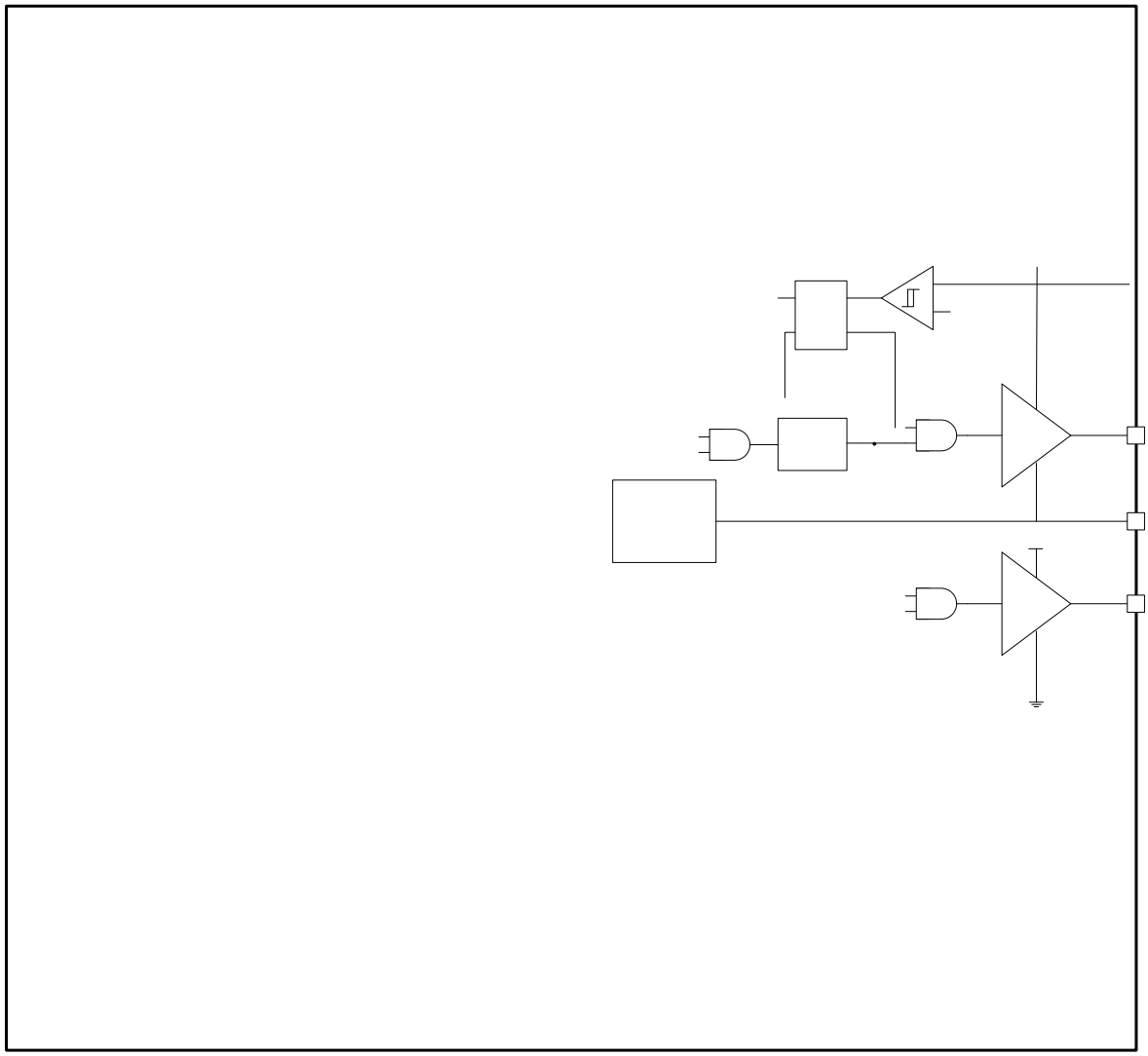
**Soft-**

**SYMBOL**


2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
6
7
8
9
10
11
12
13
High State
Low State


2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
6
7
8
9
10
11
12
13
High State
Low State





**Voltage Mode Control**

**Gate Drivers**

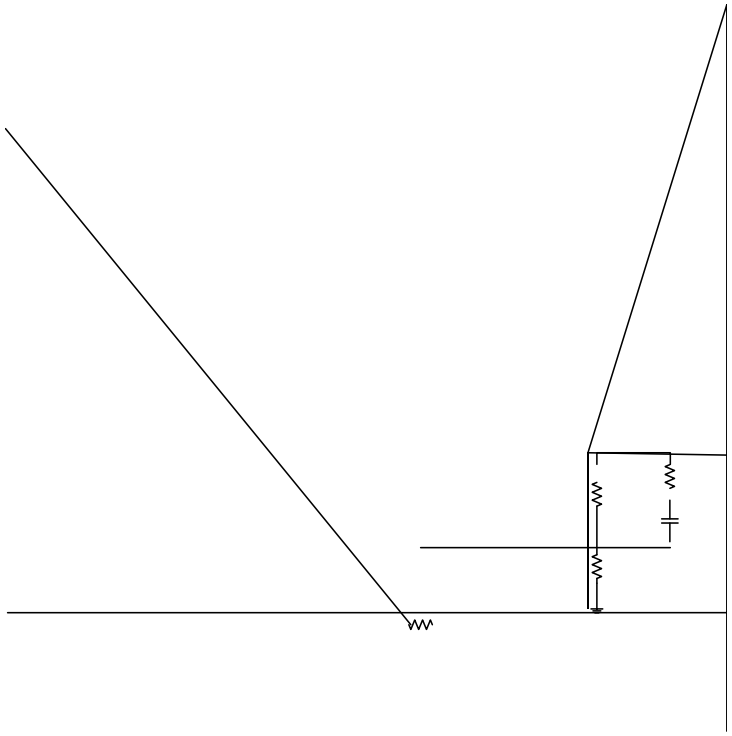
## Device Functional Modes

### Shutdown Mode

### Standby Mode

### Active Mode

**Control loop compensation**



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**Application Waveforms(continued)**

## Typical Application

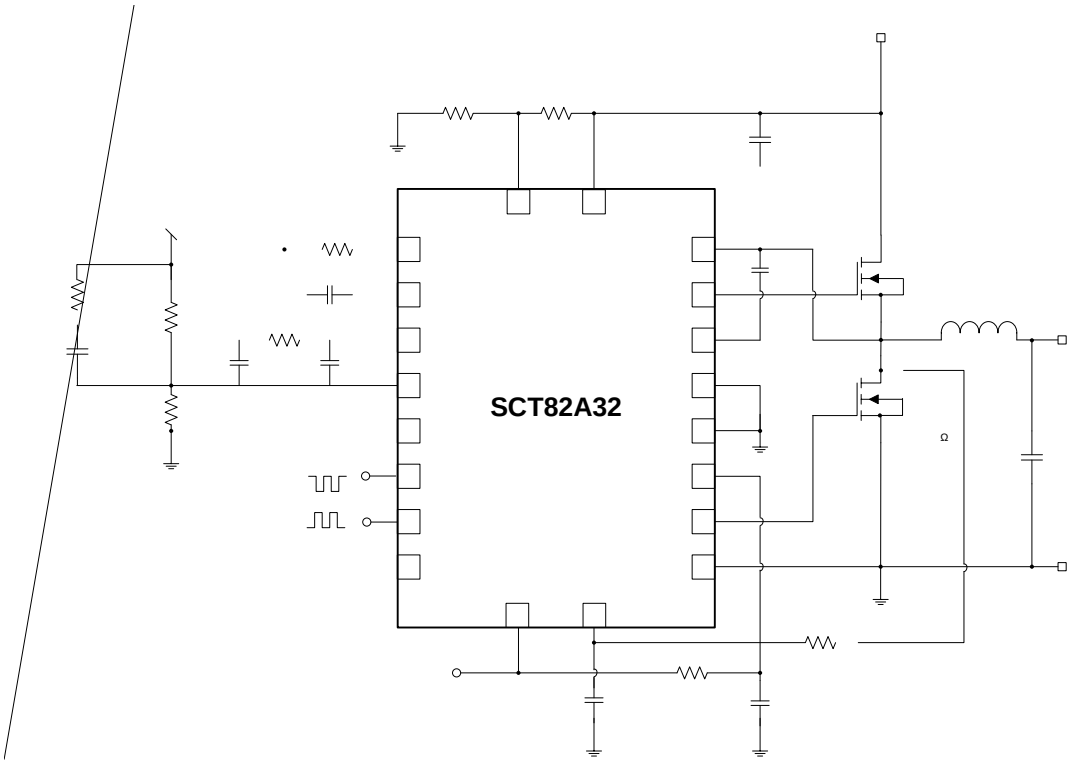


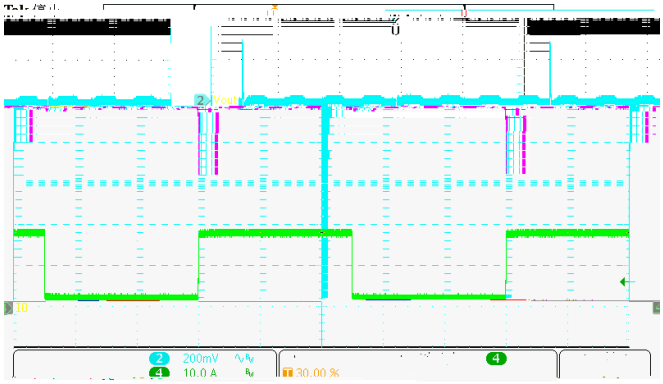

**Figure 41. Application Schematic, 48V to 5V, 20A Buck Regulator at 400kHz**

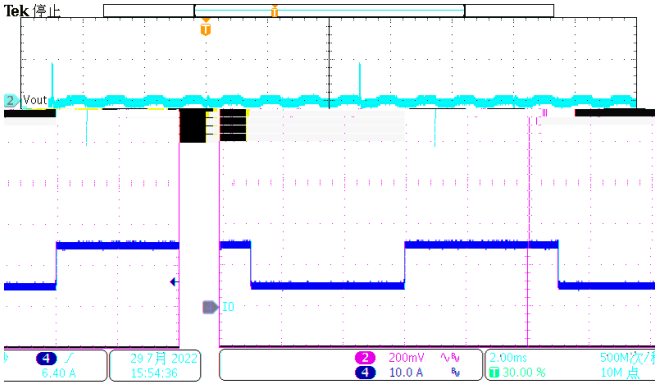
**Design Parameters**

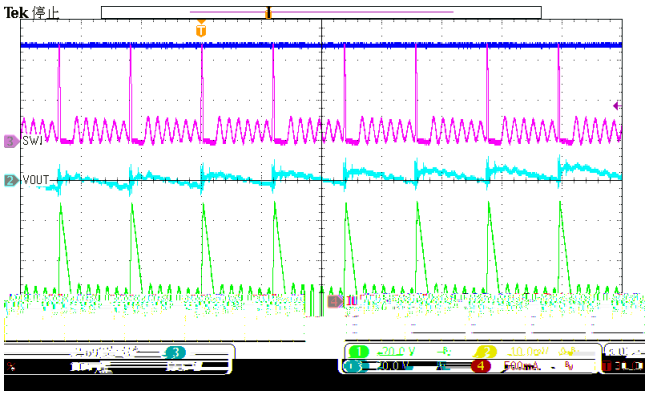
| Design Parameters | Example Value |
|---|---|
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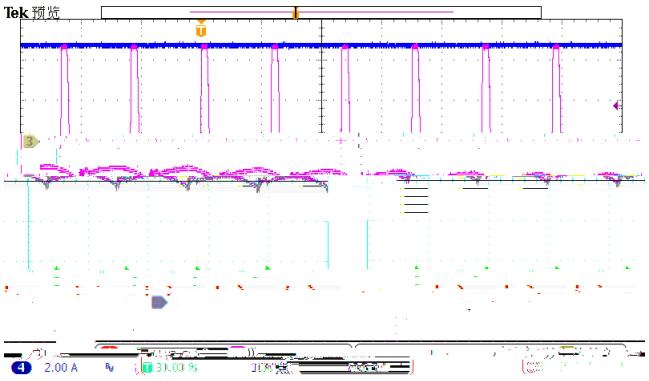
**Application Waveforms**

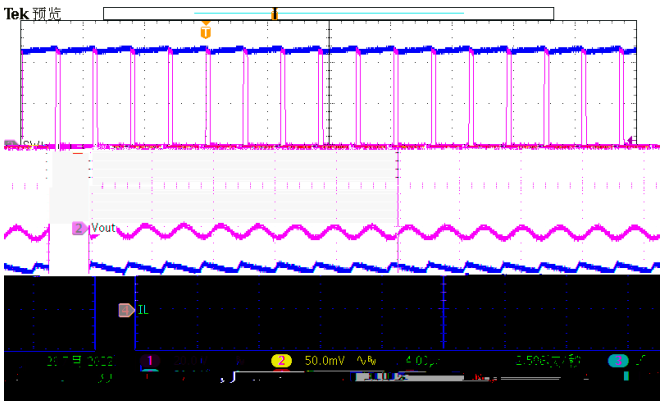
## Application Waveforms(continued)

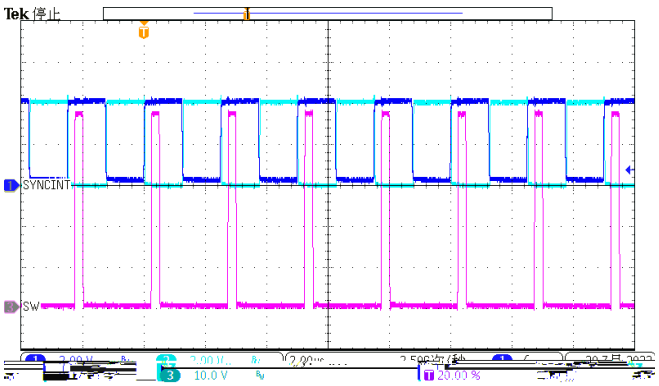


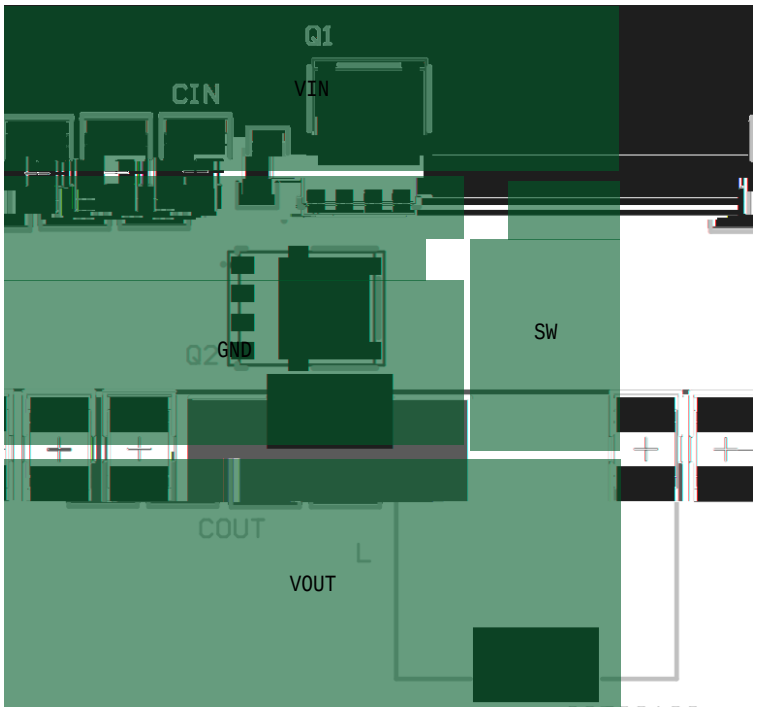



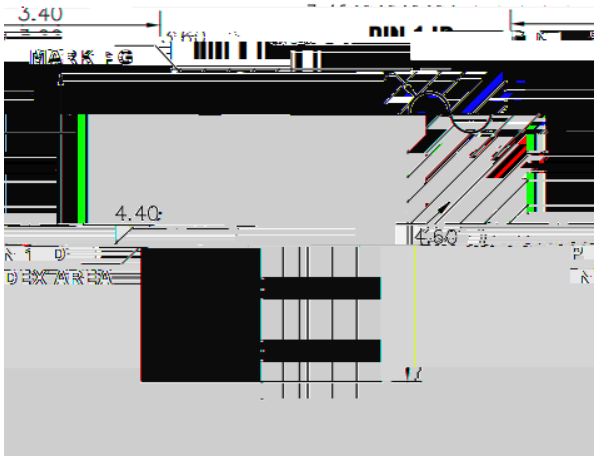



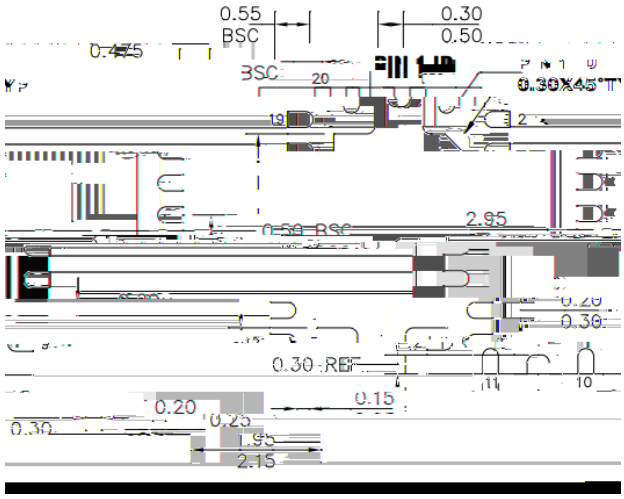



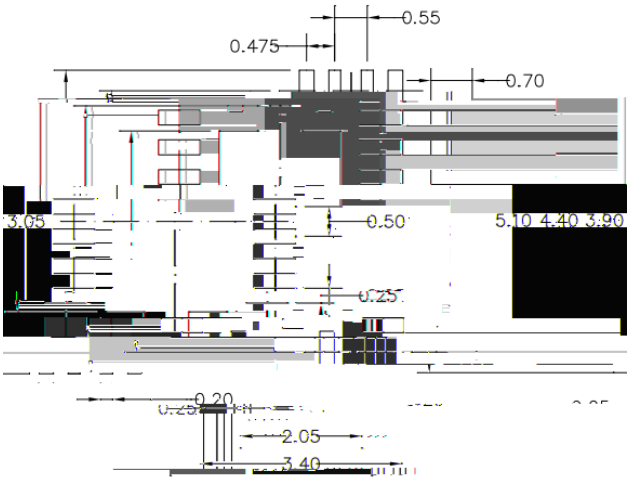
**Layout Guideline**




3.40
4.40
4.50


0.55
BSC
0.30
0.50
0.475
BSC
20
19
2
0.30X45°
2.95
0.30 REF
11
10
0.20
0.15
0.30
0.25
1.95
2.15


0.80
0.90


0.55
0.475
0.70
0.50
5.10 4.40 3.90
0.25
0.20
2.05
3.40

**NOTE:**

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