1 2 3 4 5 6

XFRMR detils :

Primary - Secondary Ration 1-4:5-8 =1:15 Primary Peak Current = 2A

Primary RMS current = 0.5A Secondary Peak Current= 0.130

A Secondary RMS= 0.50mA A

Primary Inductance=5uH ER9.5S Core (N87/CF139)

PWRGND

C1 2200pF

2000V

BAT+

C2 2200pF

2000V

GND

GND

3.3V-5V

PWRGND

B

575-4

575-4

BAT-

220uF @6.3V electrolytic Cap was added at the input terminal for all the

C4 22µF

C5 0.47µF

PWRGND

R2 41.2k

R1

24k 0.125W

C6 0.22µF

D2

ES3AB-13-F

Q1

5,6,

7,8

T1 5

PRI

8

750315627

2

SEC

3

D1

ES1G-13-F

C11 100pF

C7 10µF

C10 0.1µF

120V @ 10mA

VOUT

575-4

B

testing on the board

U1 LM3481MM

R5 45.3k

PWRGND

 R4 4

4.7

R6 1.30k

C12 100pF

CSD18504Q5A 40V

R9 0.05

1,2,3

R3 200

250V

GND

R7 42.2k

575-4

ISO\_GND

R8 0

R7 - Two 85K resistances were put in parallel for better thermal perfomenace during testing

C14

1. 1000pF

R12 5.62k

C15 0.1µF

R13 162k

R10

4.70k

C16 0.22µF

1. COMP
2. FB

6 FA/SYNC/SD

9 VCC

7 PGND

UVLO 2

VIN 10

DR 8

ISEN 1

AGND 5

PWRGND

R14 1.00k

R11 10.0k

C17

D4

BAS16W-7-F

D5

BAS16W-7-F

R15 5.62k

C13 0.01µF

GND

D3 1SMB5932BT3G

20V

C

PWRGND

U2

4 1 GND

3 2

0.47µF

R17

C18 100pF

C19

R16 127k

LTV-817S

56.2k

0.1µF

PWRGND

U3 TL431AIDBZ **PRE**

 3 1

 2

R18 2.74k

GND

1. D

Designed for: Public Release Mod. Date: 8/12/2015

Number: PMP10712

Rev: E1

Project Title: Low Vin FLyback Small form factor design for APD Sheet Title:

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Not in version control

Assembly Variant: [No Variations]

Sheet: 1 of 1

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Drawn By:

Engineer: Ambreesh Tripathi

File: PMP10712\_Sch REV1.SchDoc Contact: <http://www.ti.com/support>

Size: B

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1 2 3 4 5 6

1 2 3 4 5 6

H1

NY PMS 440 0025 PH

H2

NY PMS 440 0025 PH

H3

NY PMS 440 0025 PH

H4

NY PMS 440 0025 PH

H5 H6 H7 H8

A

1902C

1902C

1902C

A

1902C

FID1

FID2

FID3

# PCB LOGO

PCB Number: PMP10712 PCB Rev: E1

Texas Instruments

# PCB LOGO

Pb-Free Symbol

# PCB LOGO

FCC disclaimer

You should delete the nylon screws/standoffs and/or the bumpons as needed for your design (or substitute other parts from Hardware.IntLib). Bumpons are cheaper, but provide less clearance.

Deleting anything else from this page may result in your EVM submission being rejected (until you add them back).

Update the Label Text in the Label Table as needed for each Assembly Variant.

You can delete this note too.

1. B

LBL1

PCB Label

|  |
| --- |
| Label Table |
| Variant | Label Text |
| 001 | ChangeMe! |
| 002 | ChangeMe! |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

PMP10712 ZZ1

Label Assembly Note

This Assembly Note is for PCB labels only

1. ZZ2 C

Assembly Note

These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ3

Assembly Note

These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ4

Assembly Note

These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

1. D

Designed for: Public Release Mod. Date: 6/25/2015

Number: PMP10712

Rev: E1

Project Title: Low Vin FLyback Small form factor design for APD Sheet Title:

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Not in version control

Assembly Variant: [No Variations]

Sheet: 1 of 1

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Drawn By:

Engineer: Ambreesh Tripathi

File: PMP10712\_Hardware.SchDoc Contact: <http://www.ti.com/support>

Size: B

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1 2 3 4 5 6

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