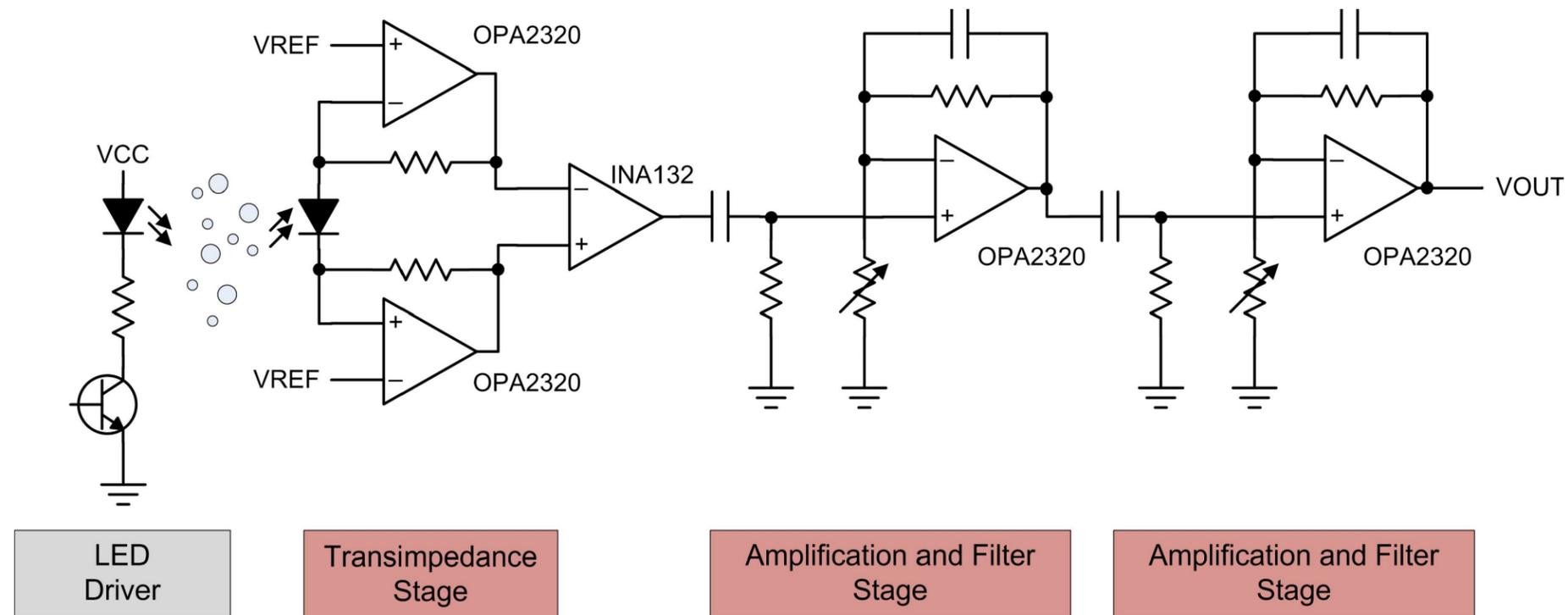


TIDA-00378 PM2.5/PM10 Particle Sensor Design

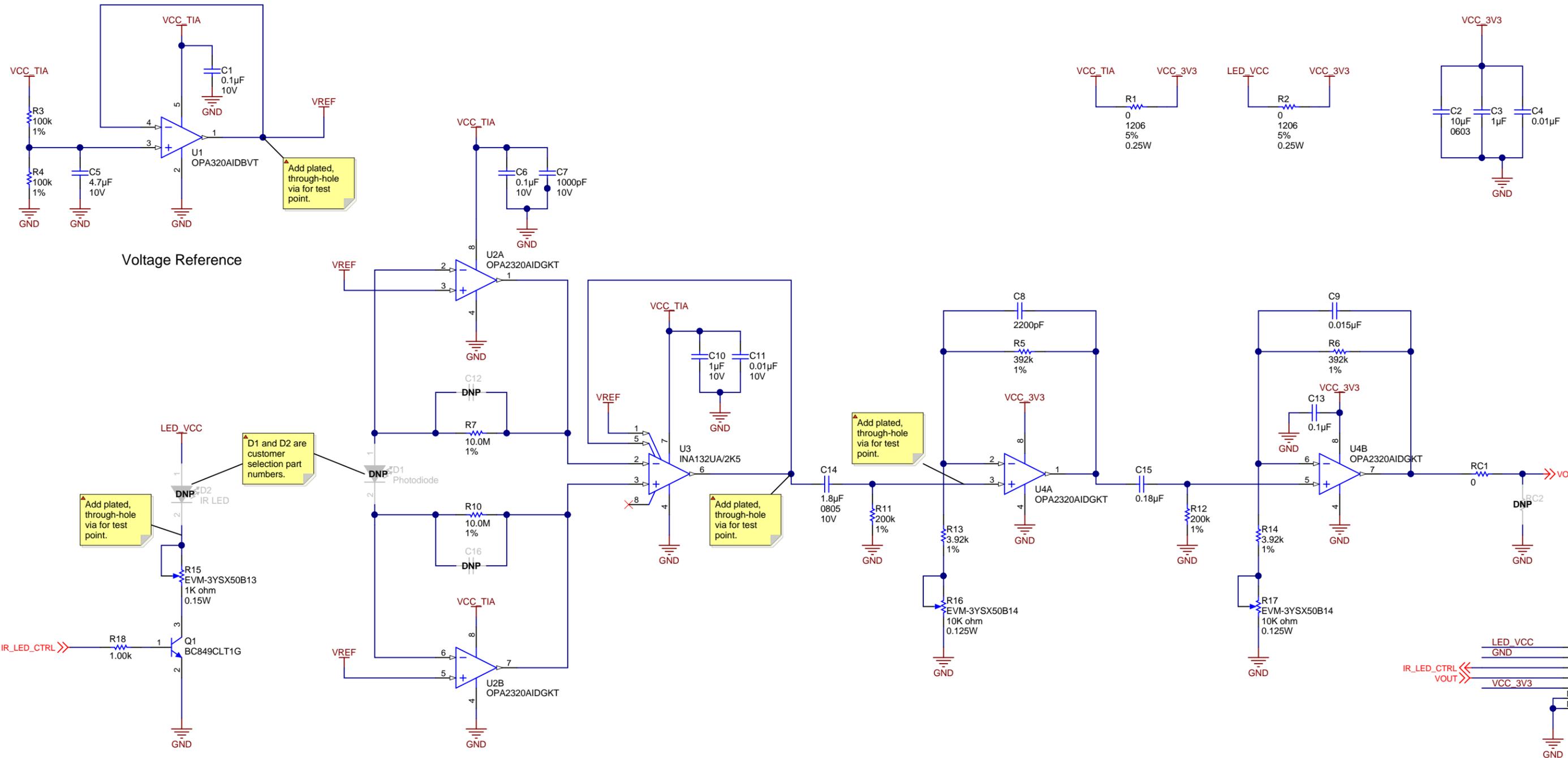
Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
E1	N/A	09/02/2015	Gustavo Martinez	Initial release.

System Block Diagram



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Orderable: N/A	Designed for: Public Release	Mod. Date: 12/1/2015	
TID #: TIDA-00378	Project Title: PM2.5/PM10 Particle Sensor Design	Sheet: 1 of 3	
Number: ISE4043	Rev: E2	File: ISE4043E2_CoverSheet.SchDoc	Size: B
SVN Rev: Version control disabled	Engineer: Gustavo Martinez	Contact: http://www.ti.com/support	http://www.ti.com © Texas Instruments 2015



Voltage Reference

LED Driver

Transimpedance Stage

Amplification and Filter Stage

Notes:

- All SMT resistors 0402 package & 0.063W-rated unless otherwise specified.
- All SMT capacitors 0402 package, X5R temp coeff. & minimum 6.3V-rated unless otherwise specified.

D1 and D2 are customer selection part numbers.

Add plated, through-hole via for test point.

Connector Pin Out:

1. LED_VCC
2. GND
3. IR_LED_CTRL
4. VOUT
5. VCC_3V3

Connector Header:
S5B-ZR-SM4A-TF (DK: 455-1610-2-ND)

Mating Products:
ZHR-5 (DK: 455-1201-ND)

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Orderable: N/A	Designed for: Public Release	Mod. Date: 3/16/2016
TID #: TIDA-00378	Project Title: PM2.5/PM10 Particle Sensor Design	
Number: ISE4043	Rev: E2	Sheet Title:
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 2 of 3
Drawn By:	File: ISE4043E2_Main.SchDoc	Size: B
Engineer: Gustavo Martinez	Contact: http://www.ti.com/support	



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DNP FID1 DNP FID2 DNP FID3

PCB Number: ISE4043
PCB Rev: E2

PCB LOGO
Texas Instruments

PCB LOGO
Pb-Free Symbol

ZZ1
Assembly Note
These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ2
Assembly Note
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

ZZ3
Assembly Note
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

Orderable: N/A	Designed for: Public Release	Mod. Date: 9/16/2015	 http://www.ti.com © Texas Instruments 2015
TID #: TIDA-00378	Project Title: PM2.5/PM10 Particle Sensor Design		
Number: ISE4043	Rev: E2	Sheet Title:	
SVN Rev: Version control disabled	Assembly Variant: 001	Sheet: 3 of 3	
Drawn By:	File: ISE4043E2_Hardware.SchDoc	Size: B	
Engineer: Gustavo Martinez	Contact: http://www.ti.com/support		

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