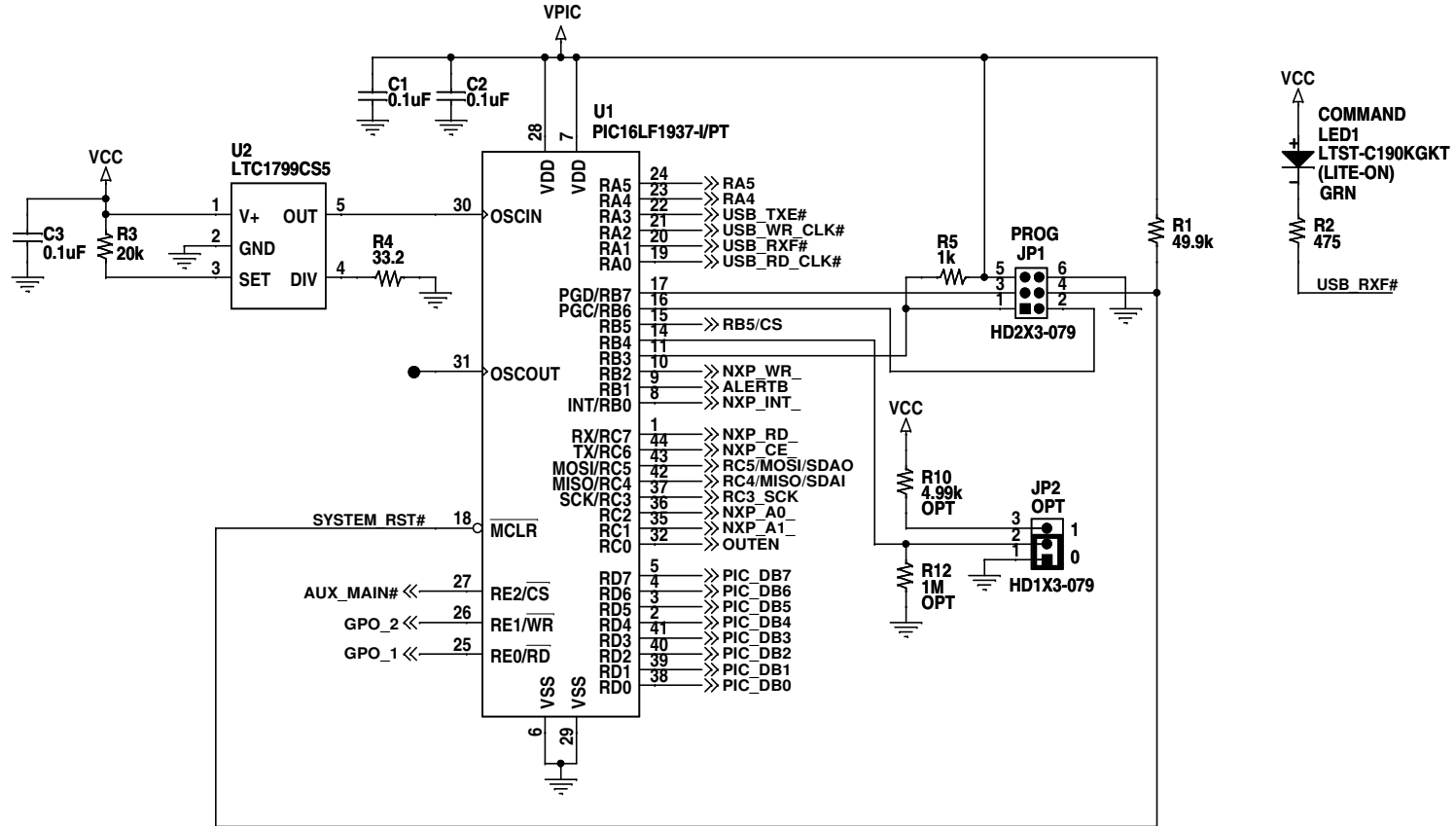



REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE
-	2	PRODUCTION	LEO C.	04-19-10

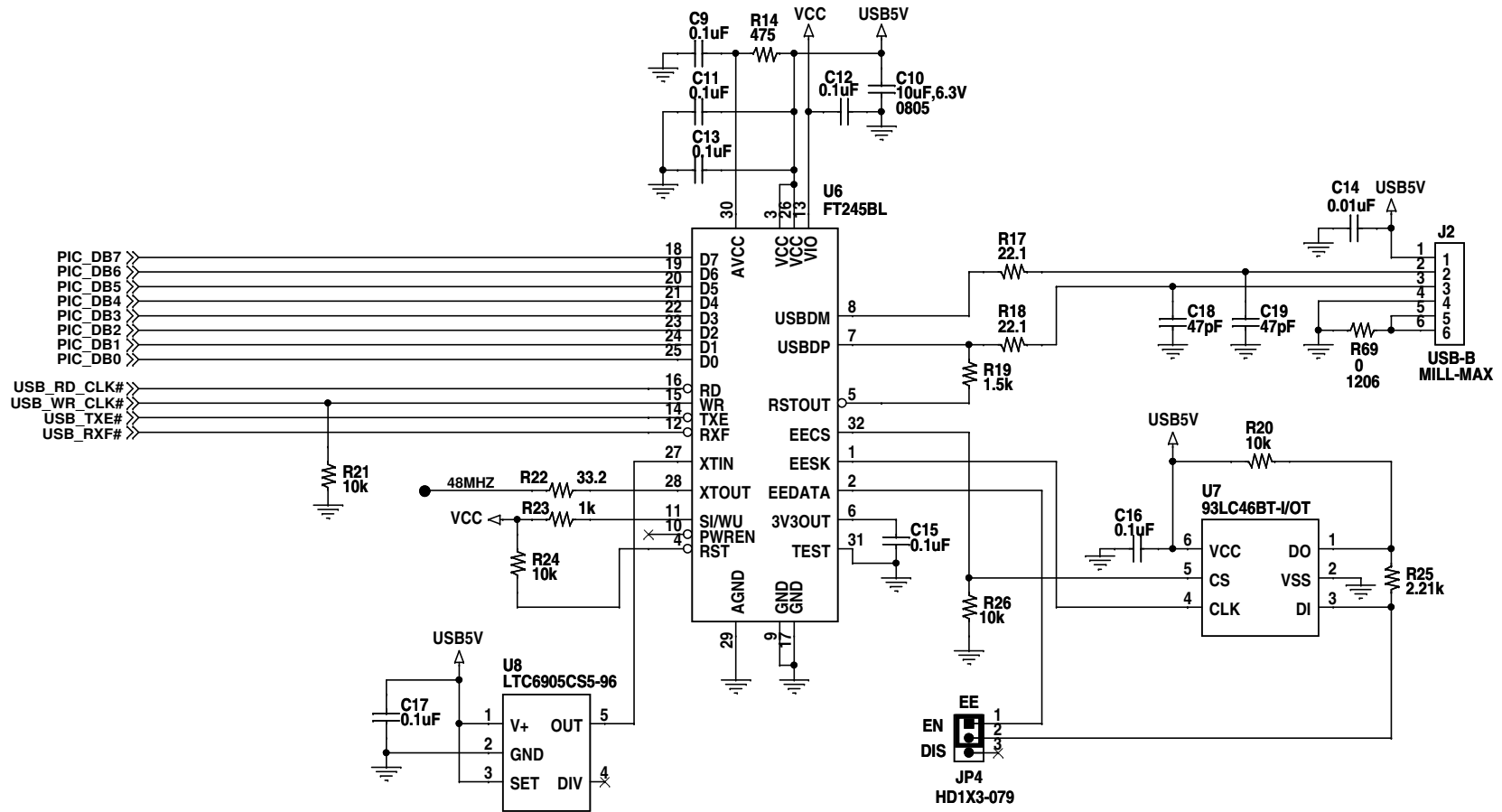


ASSY	R63	R64	R65	R66	R67	R68	Q6	Q7
-A	OPT	0	0	OPT	0	OPT	OPT	OPT
-B	0	OPT	OPT	1k	OPT	1k	2N7002	2N7002

**NOTES: UNLESS OTHERWISE SPECIFIED**

- ALL RESISTORS ARE IN OHMS, 0402.  
ALL CAPACITORS ARE IN MICROFARADS, 0402.
- INSTALL SHUNTS ON JUMPERS AS SHOWN.

CUSTOMER NOTICE		APPROVALS		LINEAR TECHNOLOGY			
LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMER'S RESPONSIBILITY TO VERIFY PROPER AND RELIABLE OPERATION IN THE ACTUAL APPLICATION. COMPONENT SUBSTITUTION AND PRINTED CIRCUIT BOARD LAYOUT MAY SIGNIFICANTLY AFFECT CIRCUIT PERFORMANCE OR RELIABILITY. CONTACT LINEAR TECHNOLOGY APPLICATIONS ENGINEERING FOR ASSISTANCE.		PCB DES.	KT	 1630 McCarthy Blvd. Milpitas, CA 95035 Phone: (408)432-1900 www.linear.com Fax: (408)434-0507 LTC Confidential-For Customer Use Only			
THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.		APP ENG.	LEO C.				TITLE: SCHEMATIC
		SCALE = NONE					SIZE N/A
				<b>I2C / SMBUS / PMBUS CONTROLLER</b> <b>DEMO CIRCUIT 1613A</b>			
				DATE: Monday, April 19, 2010	REV. 2		
				SHEET 1 OF 4			



### CUSTOMER NOTICE

LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMER'S RESPONSIBILITY TO VERIFY PROPER AND RELIABLE OPERATION IN THE ACTUAL APPLICATION. COMPONENT SUBSTITUTION AND PRINTED CIRCUIT BOARD LAYOUT MAY SIGNIFICANTLY AFFECT CIRCUIT PERFORMANCE OR RELIABILITY. CONTACT LINEAR TECHNOLOGY APPLICATIONS ENGINEERING FOR ASSISTANCE.

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### APPROVALS

PCB DES.	KT
APP ENG.	LEO C.

SCALE = NONE



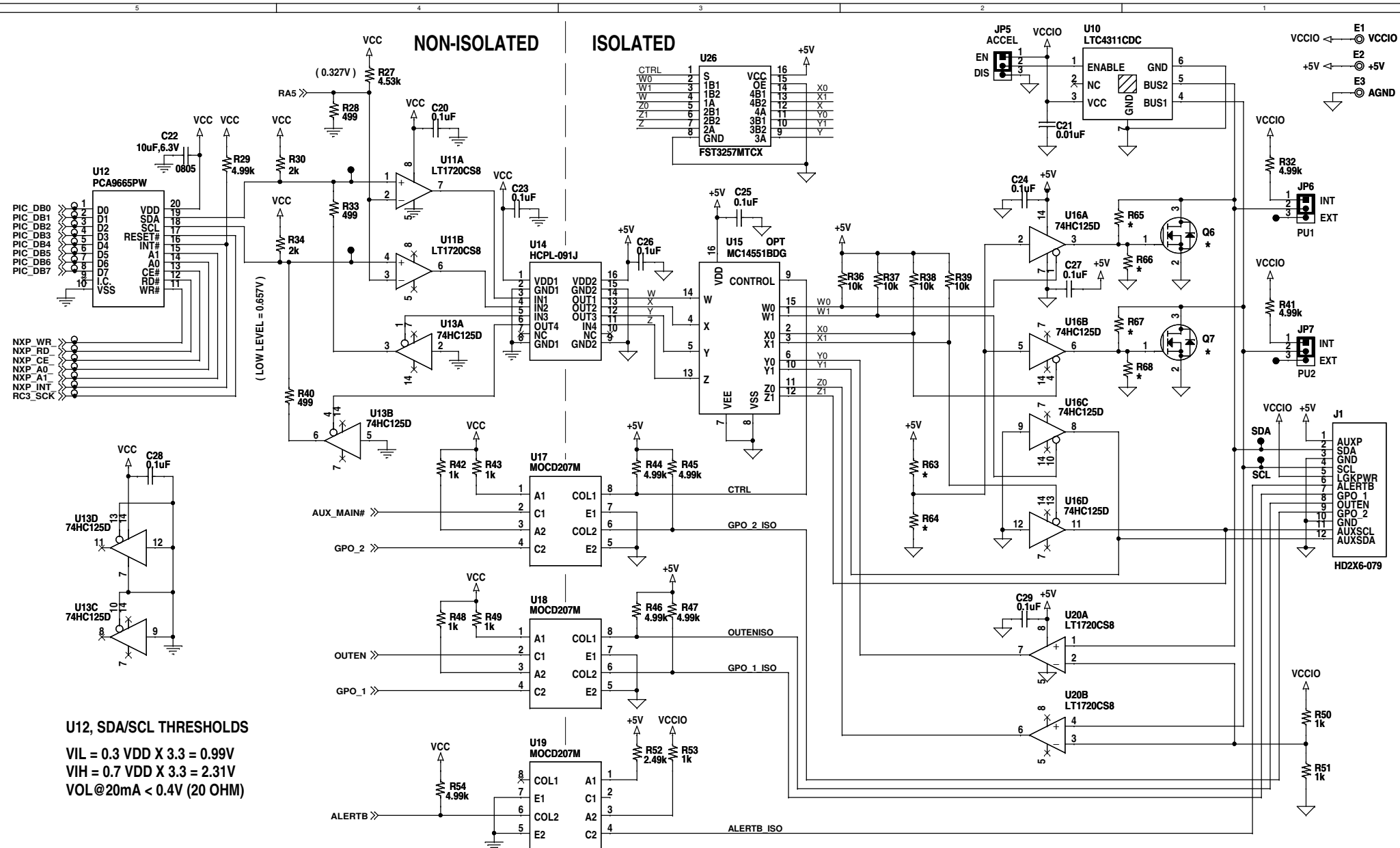
1630 McCarthy Blvd.  
Milpitas, CA 95035  
Phone: (408)432-1900 www.linear.com  
Fax: (408)434-0507  
LTC Confidential-For Customer Use Only

TITLE: SCHEMATIC

## I2C / SMBUS / PMBUS CONTROLLER

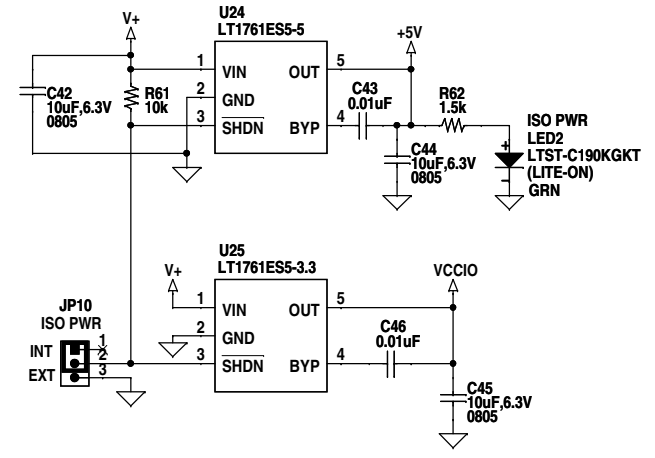
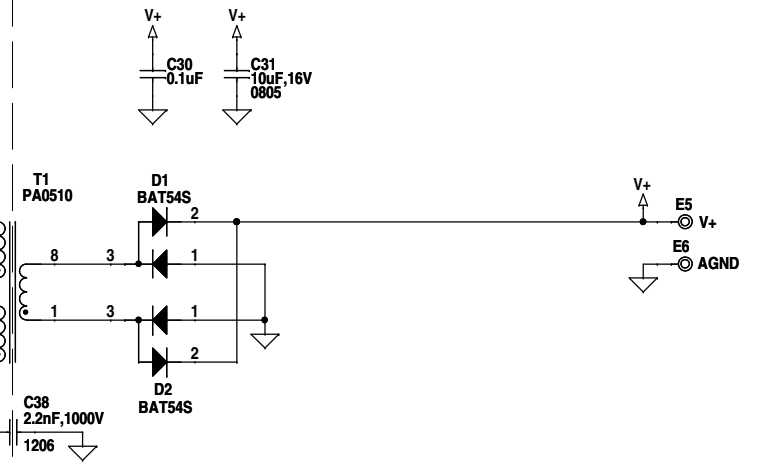
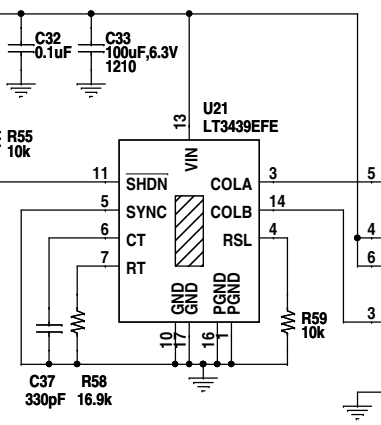
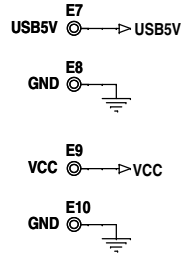
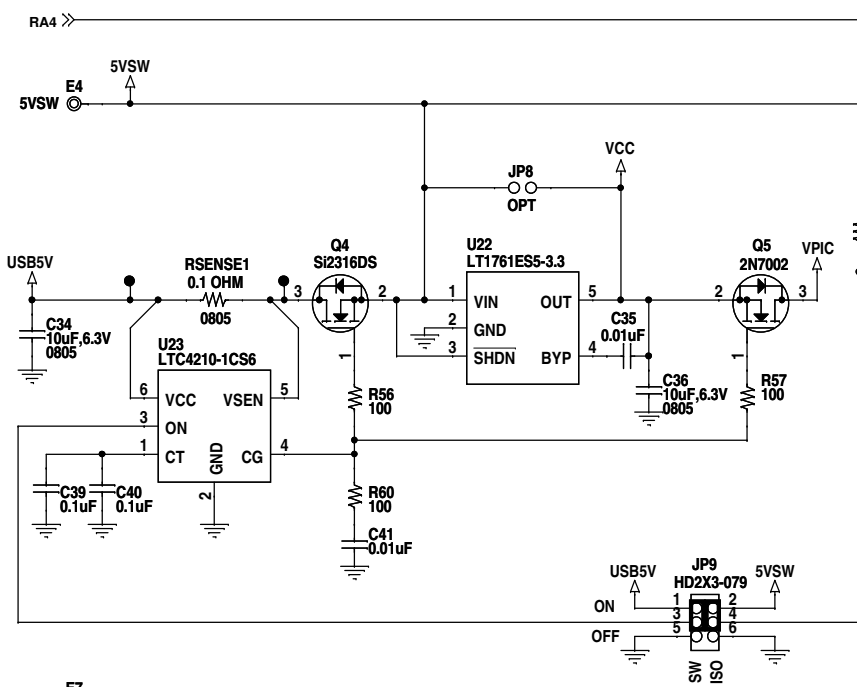
SIZE	IC NO.	REV.
N/A	DEMO CIRCUIT 1613A	2

DATE: Monday, April 19, 2010 SHEET 2 OF 4



**U12, SDA/SCL THRESHOLDS**  
 $VIL = 0.3 VDD \times 3.3 = 0.99V$   
 $VIH = 0.7 VDD \times 3.3 = 2.31V$   
 $VOL @ 20mA < 0.4V (20 OHM)$

<b>CUSTOMER NOTICE</b> LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMER'S RESPONSIBILITY TO VERIFY PROPER AND RELIABLE OPERATION IN THE ACTUAL APPLICATION. COMPONENT SUBSTITUTION AND PRINTED CIRCUIT BOARD LAYOUT MAY SIGNIFICANTLY AFFECT CIRCUIT PERFORMANCE OR RELIABILITY. CONTACT LINEAR TECHNOLOGY APPLICATIONS ENGINEERING FOR ASSISTANCE.		<b>APPROVALS</b> PCB DES.    KT APP ENG.    LEO C.			1630 McCarthy Blvd. Milpitas, CA 95035 Phone: (408)432-1900 www.linear.com Fax: (408)434-0507 LTC Confidential-For Customer Use Only	
		<b>TITLE: SCHEMATIC</b> <b>I2C / SMBUS / PMBUS CONTROLLER</b>			SIZE    IC NO. N/A    DEMO CIRCUIT 1613A	REV. 2
THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.		SCALE = NONE		DATE:    Monday, April 19, 2010		SHEET 3 OF 4



NON-ISOLATED

ISOLATED

**CUSTOMER NOTICE**

LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMER'S RESPONSIBILITY TO VERIFY PROPER AND RELIABLE OPERATION IN THE ACTUAL APPLICATION. COMPONENT SUBSTITUTION AND PRINTED CIRCUIT BOARD LAYOUT MAY SIGNIFICANTLY AFFECT CIRCUIT PERFORMANCE OR RELIABILITY. CONTACT LINEAR TECHNOLOGY APPLICATIONS ENGINEERING FOR ASSISTANCE.

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**APPROVALS**

PCB DES.	KT
APP ENG.	LEO C.

SCALE = NONE

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TITLE: SCHEMATIC  
**I2C / SMBUS / PMBUS CONTROLLER**

SIZE N/A IC NO. **DEMO CIRCUIT 1613A** REV. 2

DATE: Monday, April 19, 2010 SHEET 4 OF 4