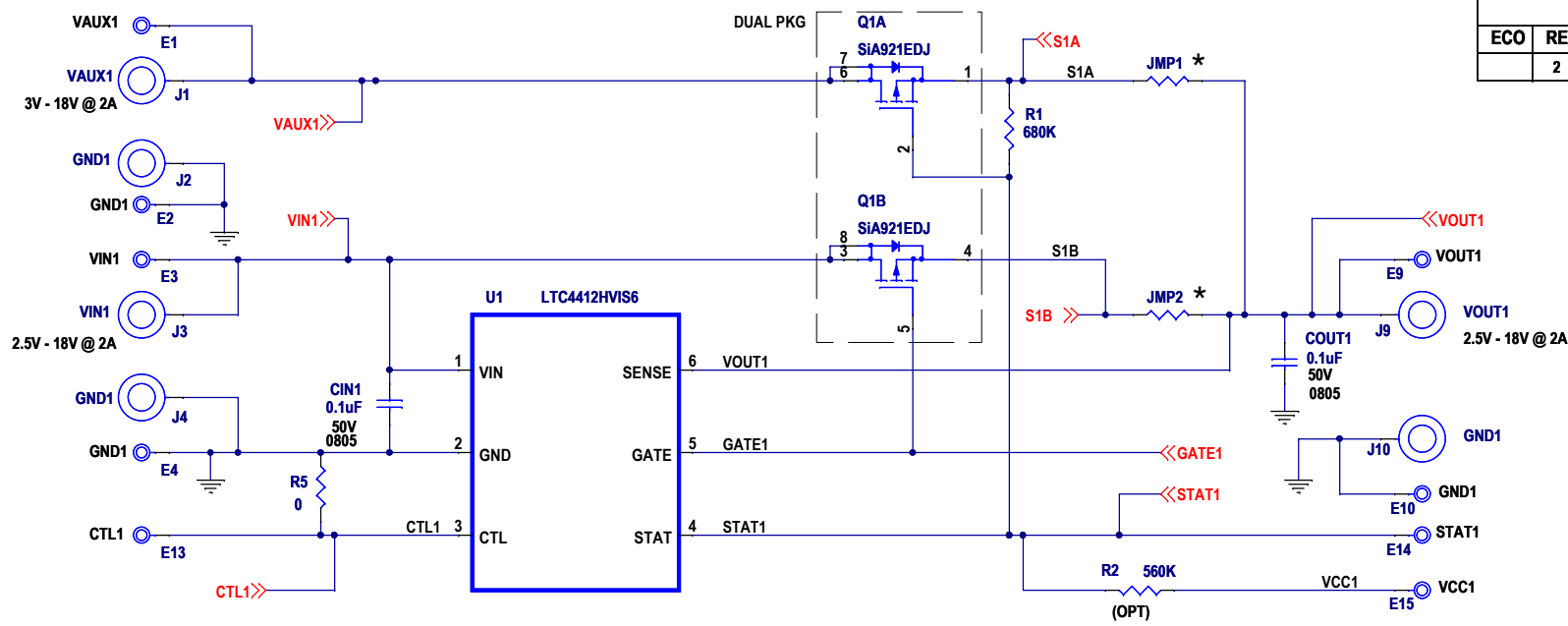
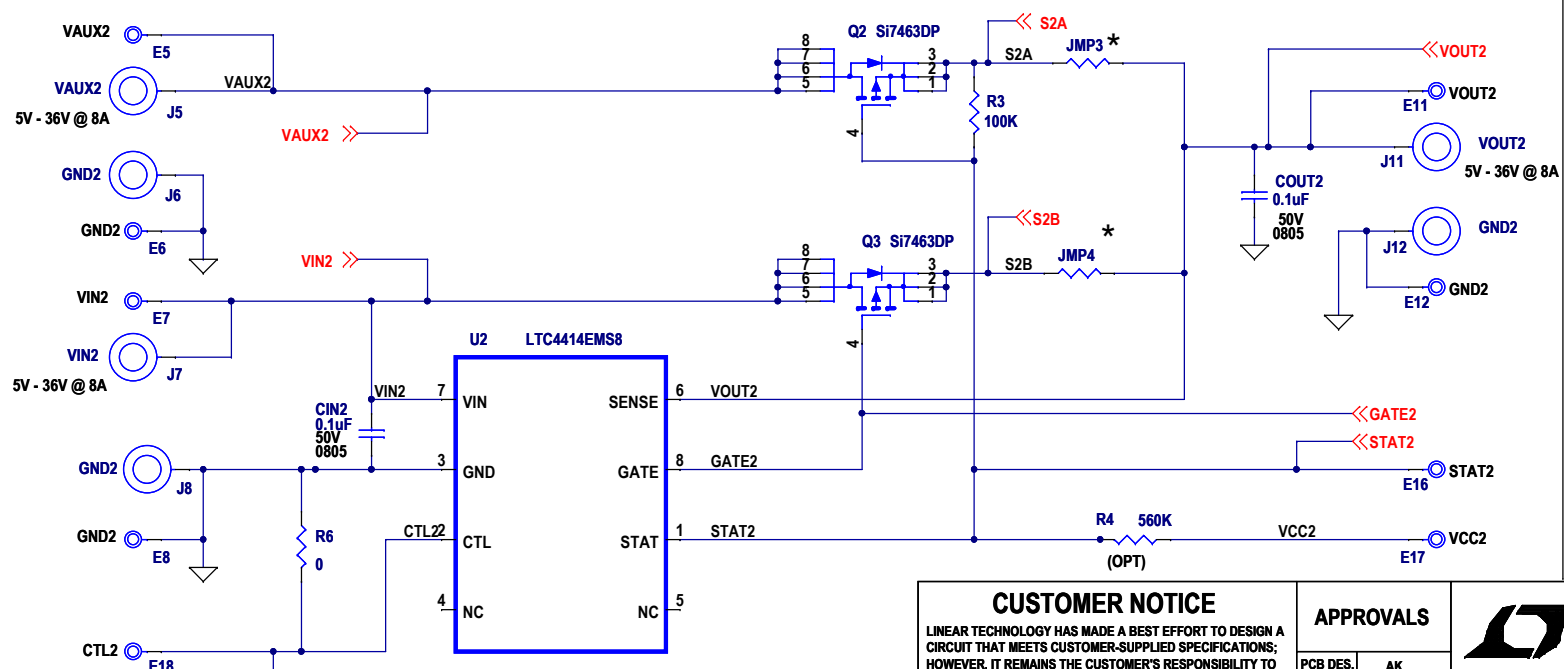


REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE
	2	2ND PROTOTYPE	JOSH Y.	11-9-10



ISOLATED



**NOTE FOR THIS PAGE:**

TOP LAYER CIRCUITS FOR U1 AND U2 ARE ELECTRICALLY ISOLATED FROM EACH OTHER. THEY DO NOT SHARE GND, VIN, VAUX, OR VOUT. JUMPERS CAN BE USED TO PARALLEL THE TWO CIRCUITS AS NECESSARY.

\*CLARIFICATION: SHOWN HERE AS CONNECTED FOR TOP LAYER CIRCUIT, BUT STUFFED ON BOTTOM LAYER.

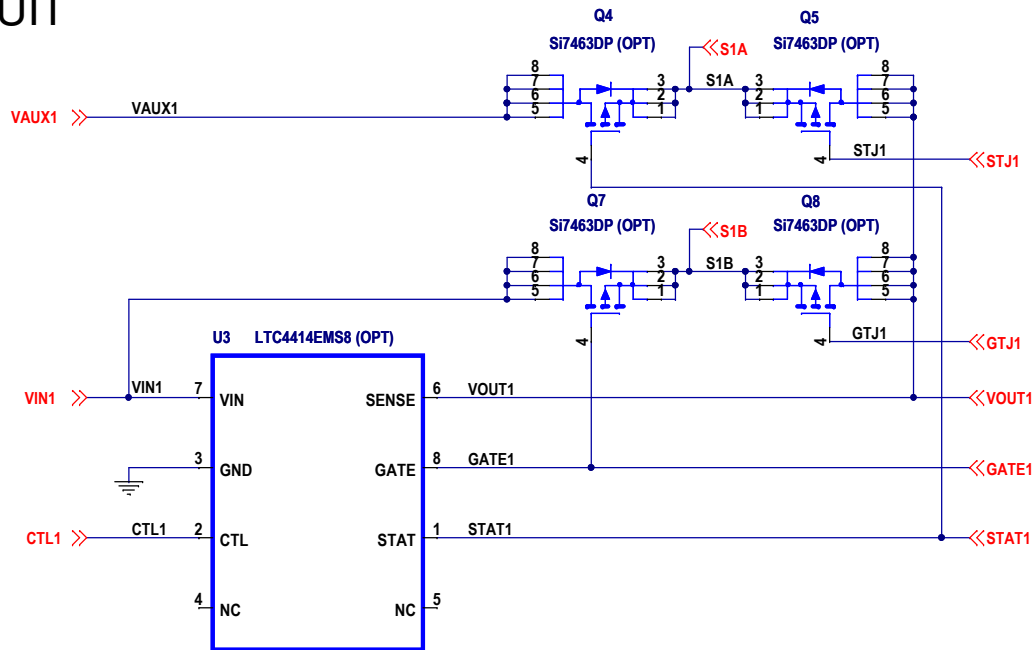
# IF THE CTL PIN OF THE LTC4412 AND/OR LTC4414 IS NOT USED, IT IS RECOMMENDED THAT CTL BE CONNECTED TO GND IN THE FINAL DESIGN.

**NOTE: UNLESS OTHERWISE SPECIFIED**

1. ALL RESISTORS ARE IN OHMS, 0603.  
ALL CAPACITORS ARE IN MICROFARADS, 0603.

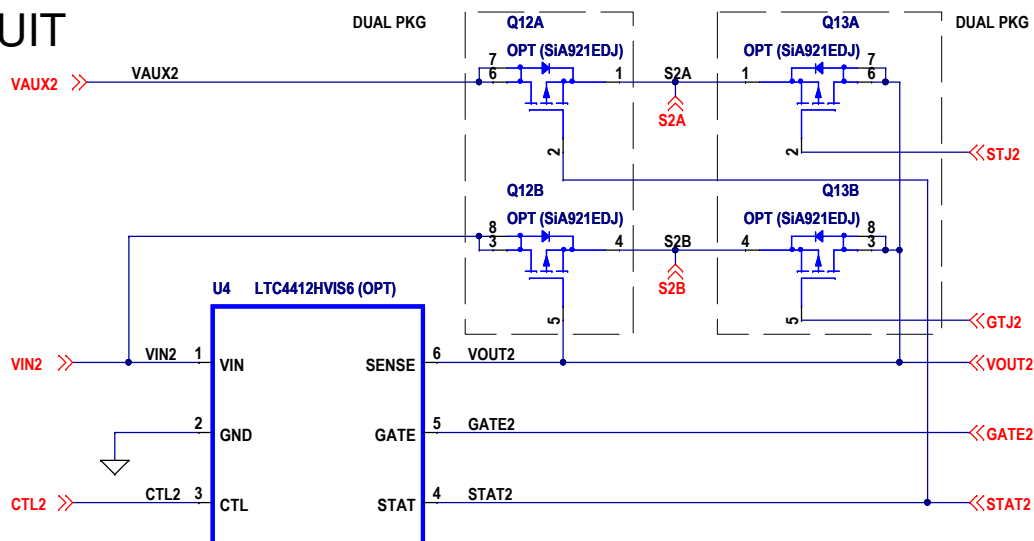
<p><b>CUSTOMER NOTICE</b></p> <p>LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMER'S RESPONSIBILITY TO VERIFY PROPER AND RELIABLE OPERATION IN THE ACTUAL APPLICATION. COMPONENT SUBSTITUTION AND PRINTED CIRCUIT BOARD LAYOUT MAY SIGNIFICANTLY AFFECT CIRCUIT PERFORMANCE OR RELIABILITY. CONTACT LINEAR TECHNOLOGY APPLICATIONS ENGINEERING FOR ASSISTANCE.</p>		<p><b>APPROVALS</b></p>			<p>1630 McCarthy Blvd. Milpitas, CA 95035 Phone: (408)432-1900 www.linear.com Fax: (408)434-0507 LTC Confidential-For Customer Use Only</p>	
		PCB DES.	AK		TITLE: SCHEMATIC	SIZE
APP ENG.	JOSH Y.	TITLE: SCHEMATIC		N/A	LTC4412HVIS6 & LTC4414EMS8	2
THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.		SCALE = NONE		DATE: Monday, December 17, 2012		SHEET 1 OF 3

# OPTIONAL CIRCUIT



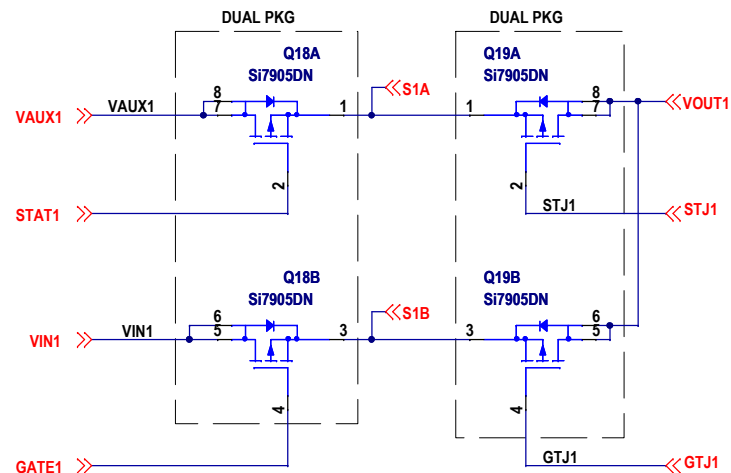
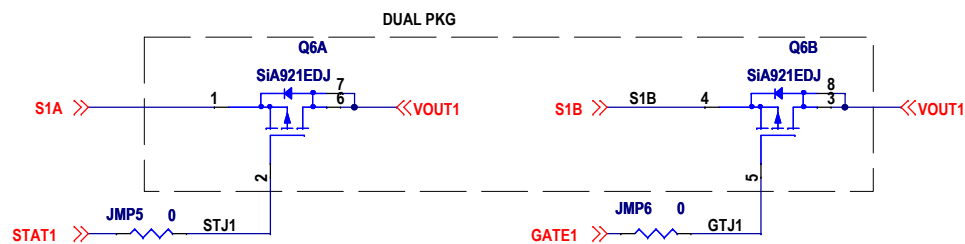
ISOLATED

# OPTIONAL CIRCUIT



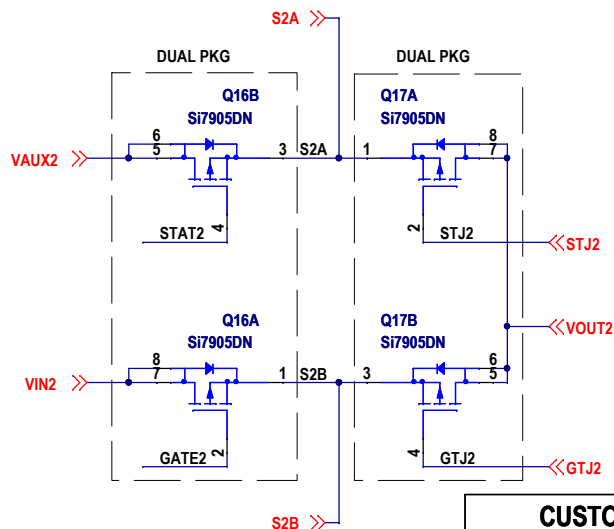
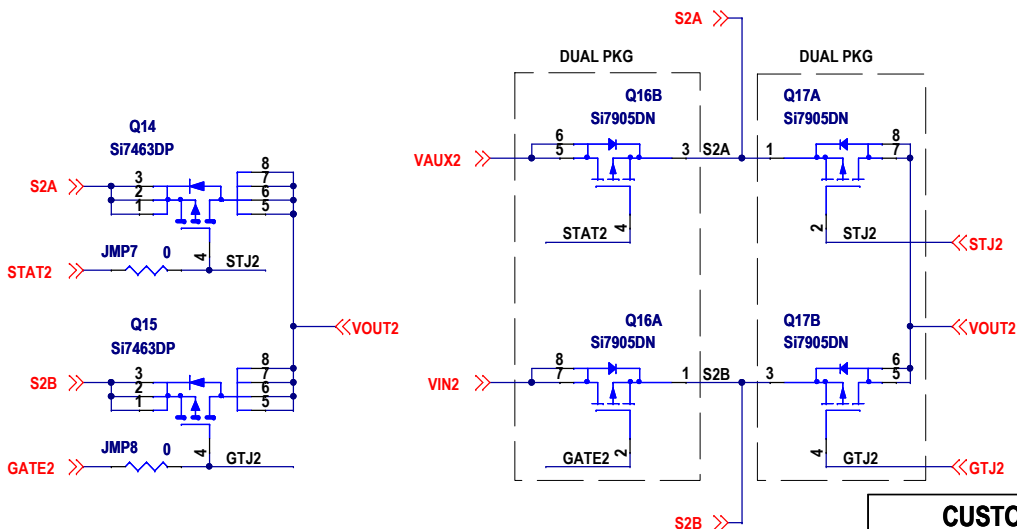
<p><b>CUSTOMER NOTICE</b></p> <p>LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMER'S RESPONSIBILITY TO VERIFY PROPER AND RELIABLE OPERATION IN THE ACTUAL APPLICATION. COMPONENT SUBSTITUTION AND PRINTED CIRCUIT BOARD LAYOUT MAY SIGNIFICANTLY AFFECT CIRCUIT PERFORMANCE OR RELIABILITY. CONTACT LINEAR TECHNOLOGY APPLICATIONS ENGINEERING FOR ASSISTANCE.</p>		<p><b>APPROVALS</b></p>		<p>1630 McCarthy Blvd. Milpitas, CA 95035 Phone: (408)432-1900 <a href="http://www.linear.com">www.linear.com</a> Fax: (408)434-0507 LTC Confidential-For Customer Use Only</p>
		<p>PCB DES. AK</p> <p>APP ENG. JOSH Y.</p>	<p>TITLE: SCHEMATIC</p> <p><b>DUAL LOW LOSS 36V POWERPATH CONTROLLERS</b></p>	
<p>THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.</p>		<p>SCALE = NONE</p>	<p>SIZE N/A</p> <p>IC NO. <b>LTC4412HVIS6 &amp; LTC4414EMS8</b></p> <p><b>DEMO CIRCUIT 1635A</b></p>	<p>REV. 2</p>
<p>DATE: Monday, December 17, 2012</p>			<p>SHEET 2 OF 3</p>	

# OPTIONAL CIRCUIT



ISOLATED

# OPTIONAL CIRCUIT



## NOTE FOR ALL CIRCUITS:

THE DEMO BOARD AS SHIPPED SHOWS THE MOST COMMON FUNCTIONS FOR TWO ELECTRICALLY ISOLATED CIRCUITS. THIS DEMO BOARD WAS DESIGNED TO SHOW CASE THE MAXIMUM NUMBER OF EVALUATION OPTIONS THAT CORRESPOND TO THE CIRCUITS IN THE DATA SHEETS BOTH ICs. HOWEVER, THERE ARE SOME IMPORTANT RULES TO ALWAYS FOLLOW:

1. NEVER INSTALL U1 (TOP LAYER) AND U3 (BOTTOM LAYER) AT THE SAME TIME. INSTALL ONE OR THE OTHER, BUT NOT BOTH.
2. NEVER INSTALL U2 (TOP LAYER) AND U4 (BOTTOM LAYER) AT THE SAME TIME. SAME AS 1.
3. JMP1-4 ARE MEANT FOR SIMPLE DIODE-OR OPERATION. THEY MUST BE REMOVED FOR PROPER BACK-TO-BACK ISOLATION.

THERE ARE MORE GUIDELINES SPECIFICALLY FOR CERTAIN CIRCUITS. PLEASE SEE THE QUICK START GUIDE FOR MORE APPLICATIONS AND INFORMATION.

### 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.

THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.

### APPROVALS

PCB DES.	AK
APP ENG.	JOSH Y.

SCALE = NONE



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Milpitas, CA 95035  
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TITLE: SCHEMATIC  
DUAL LOW LOSS 36V POWERPATH CONTROLLERS

SIZE	IC NO. LTC4412HVIS6 & LTC4414EMS8	REV.
N/A	DEMO CIRCUIT 1635A	2

DATE: Monday, December 17, 2012 SHEET 3 OF 3