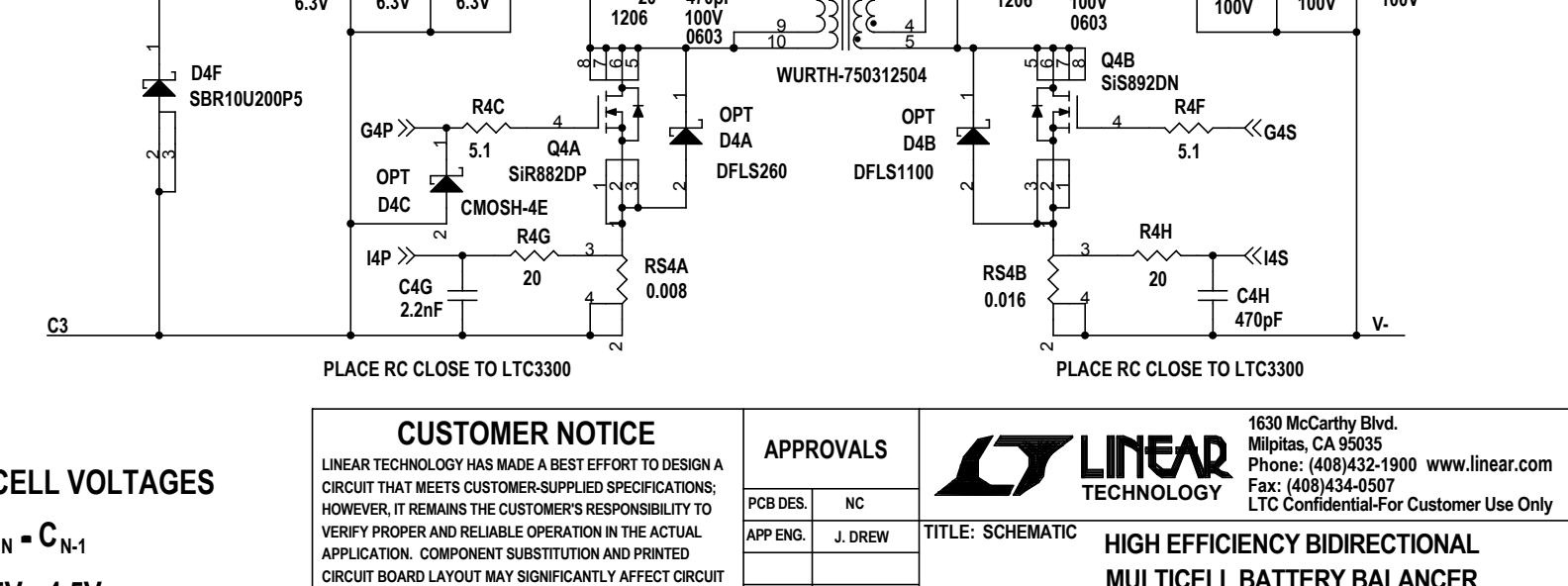
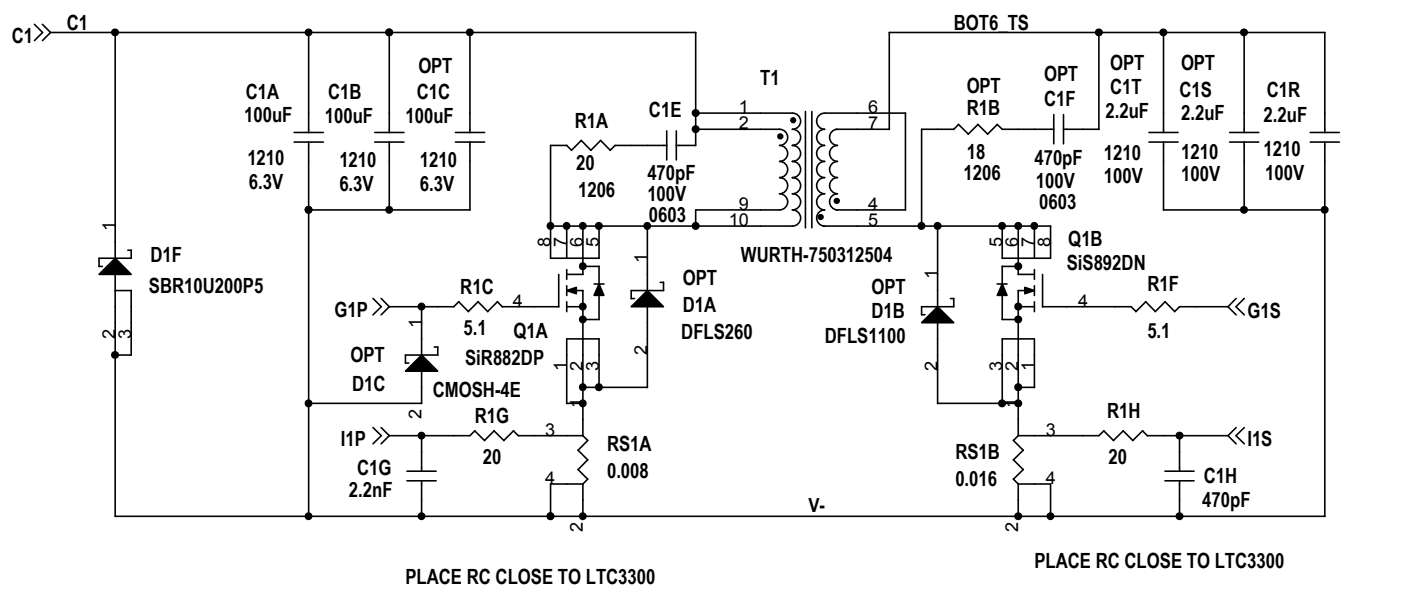
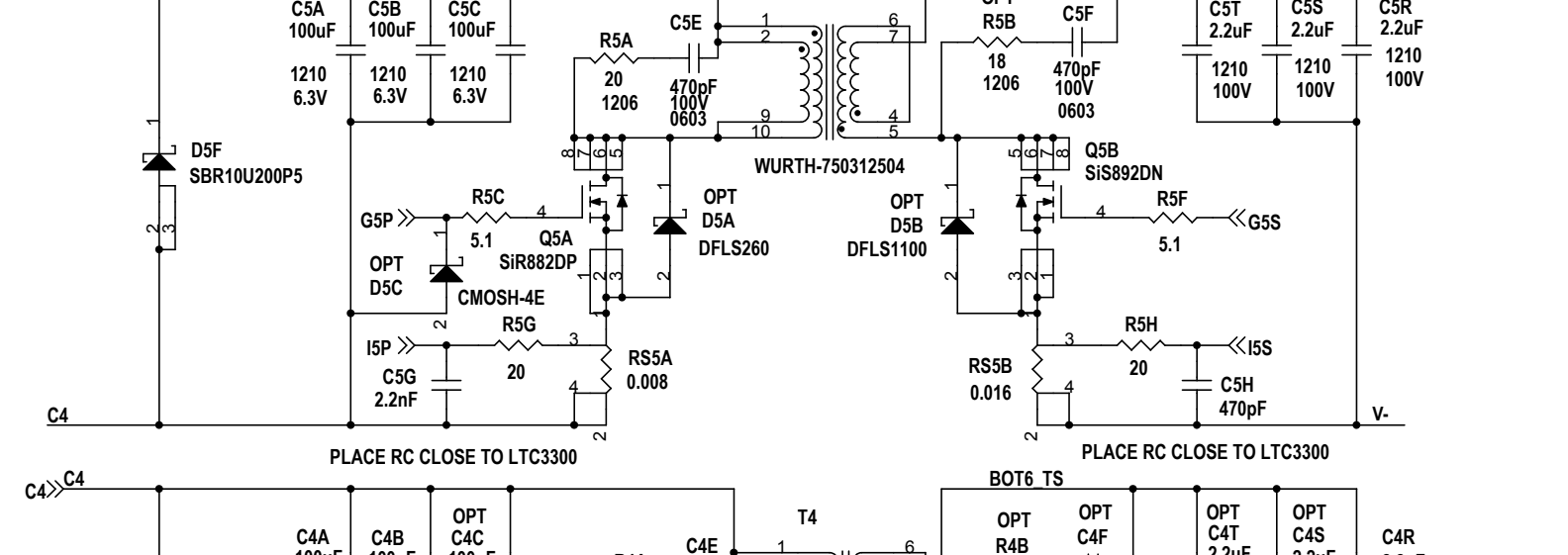
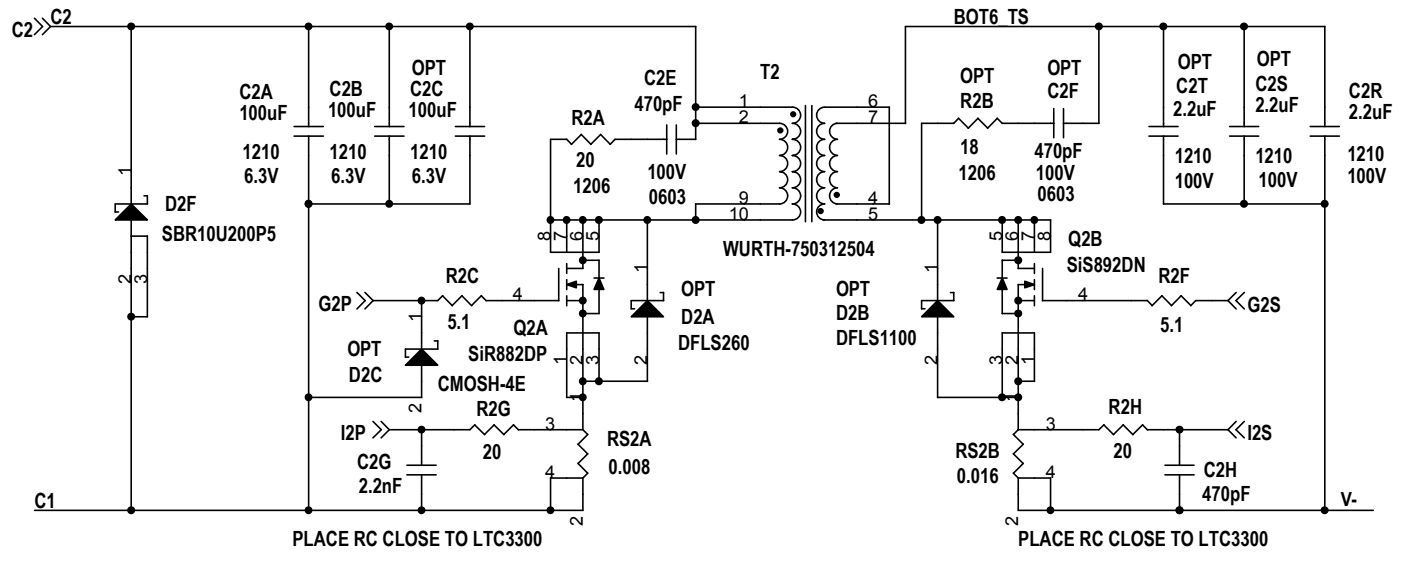
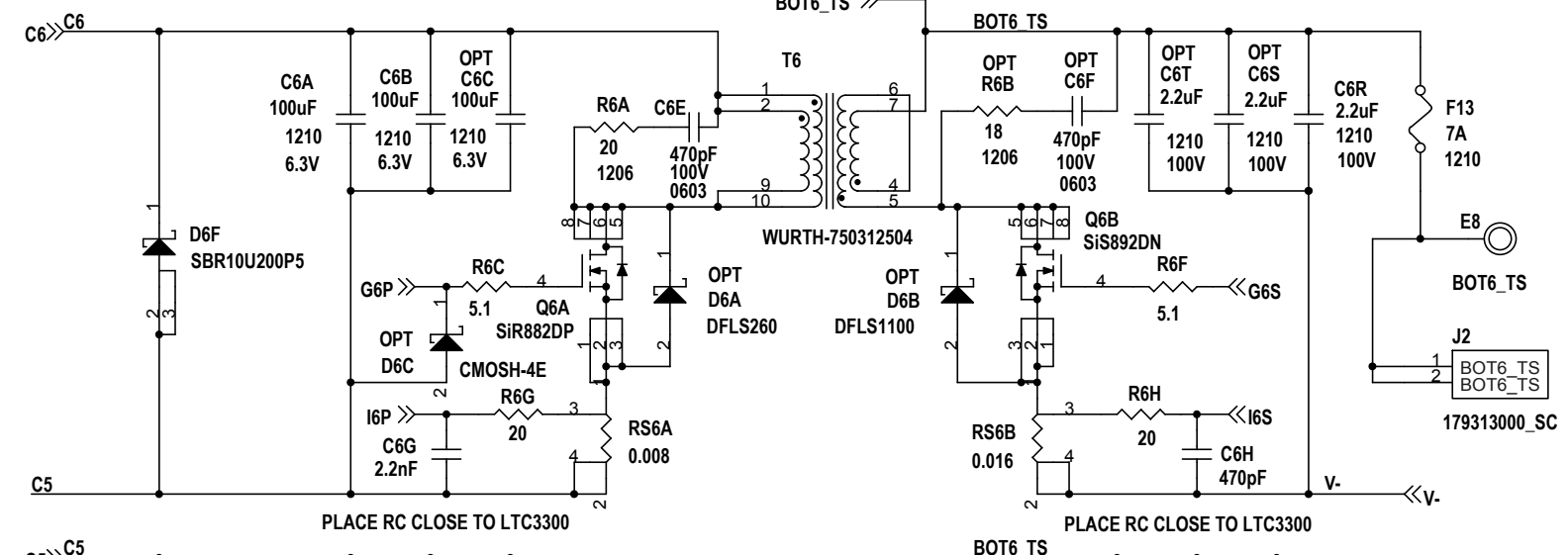
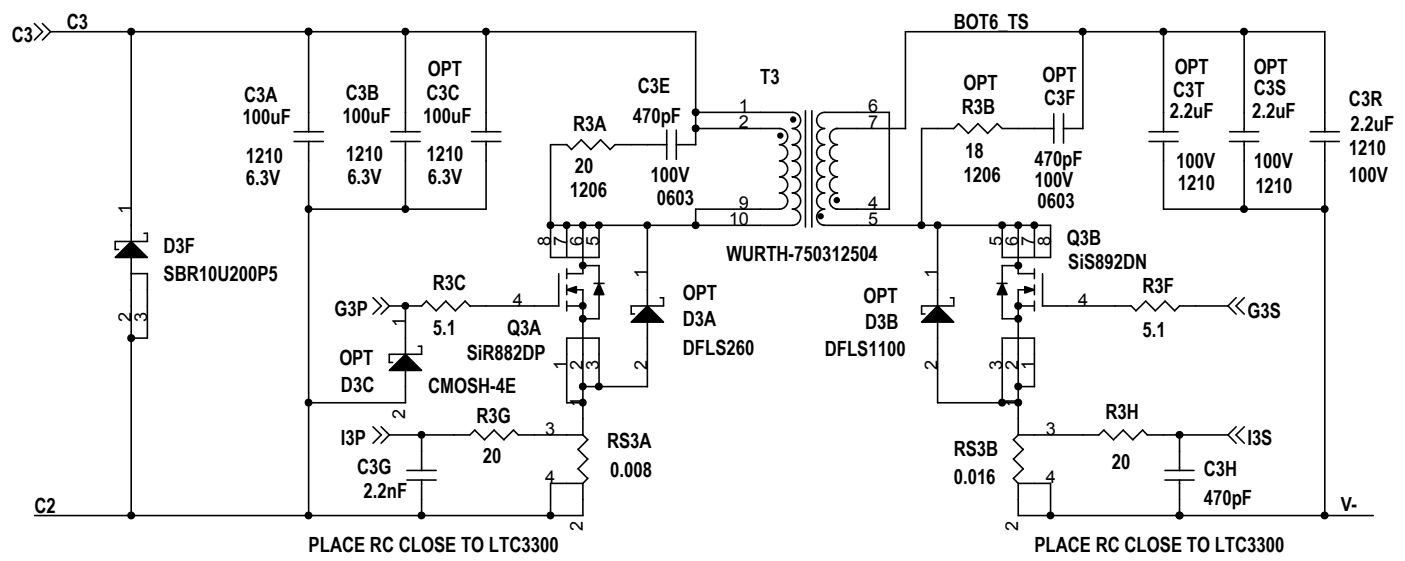
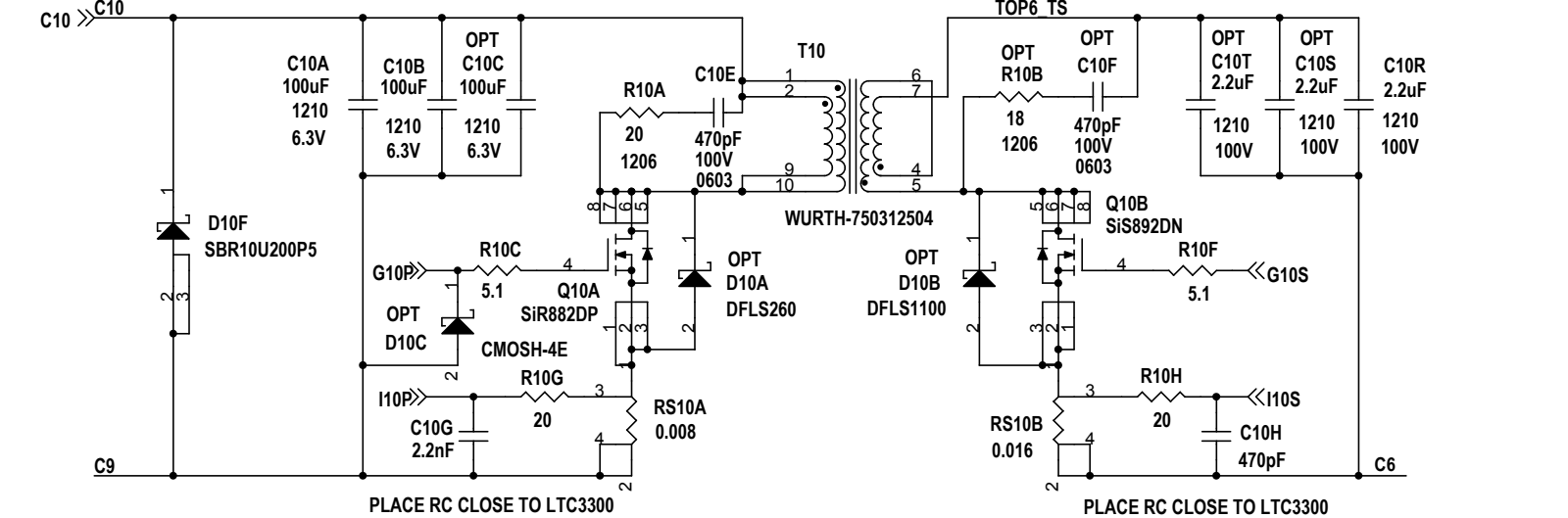
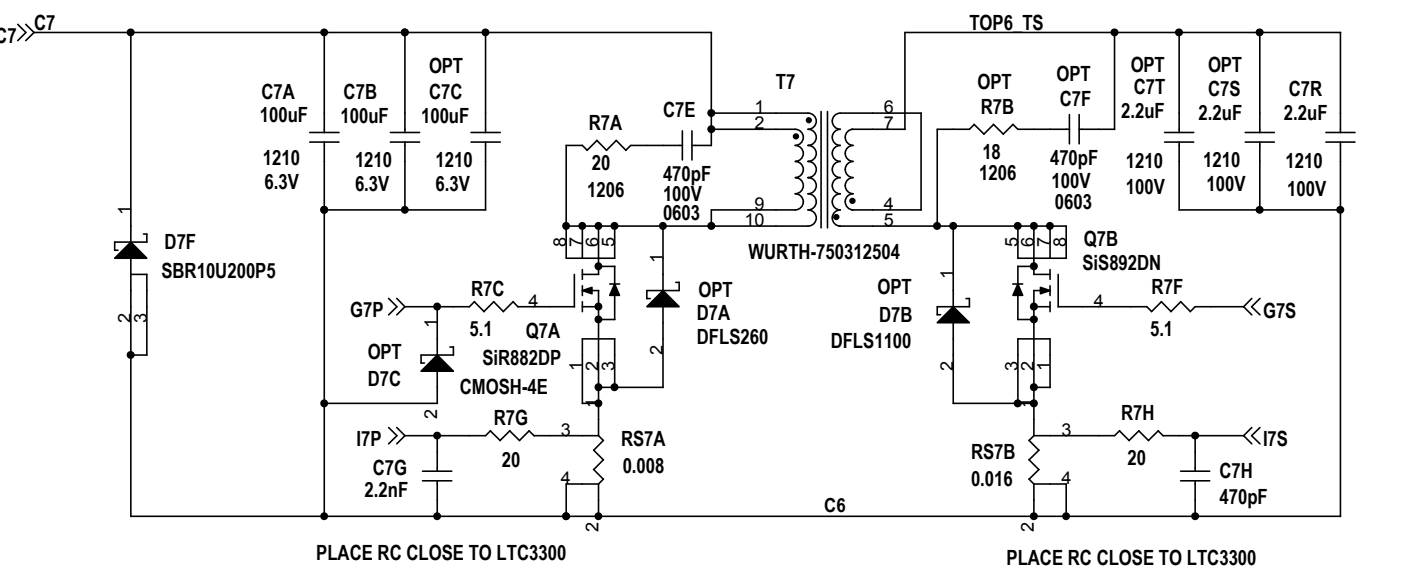
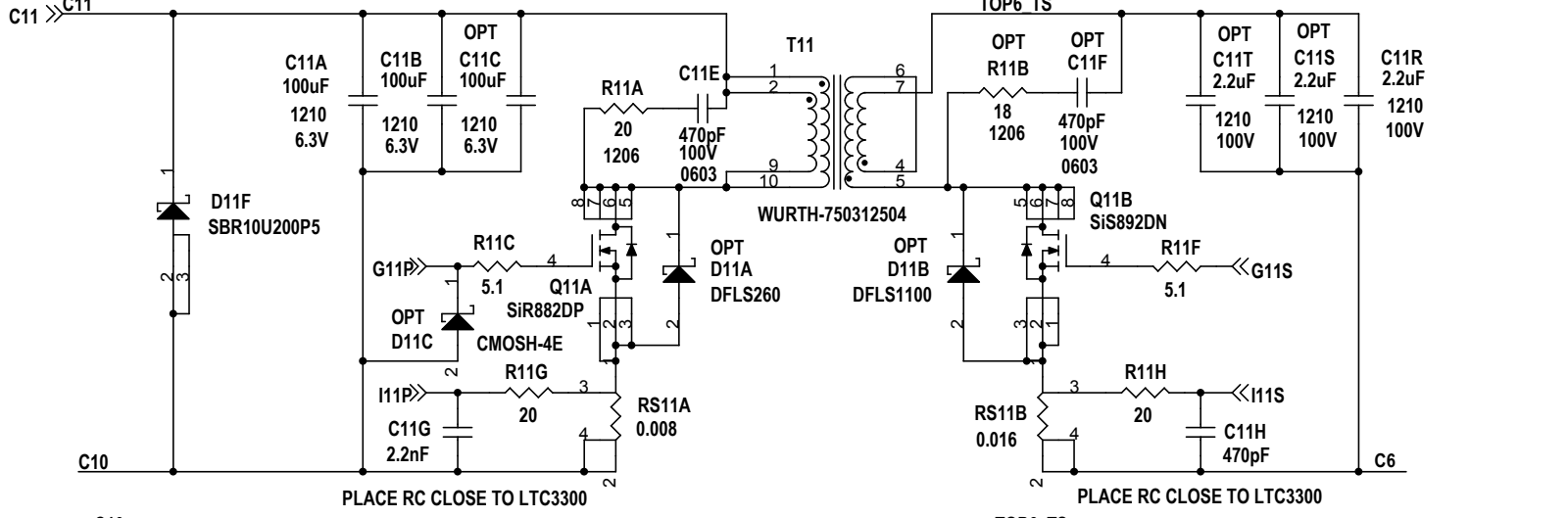
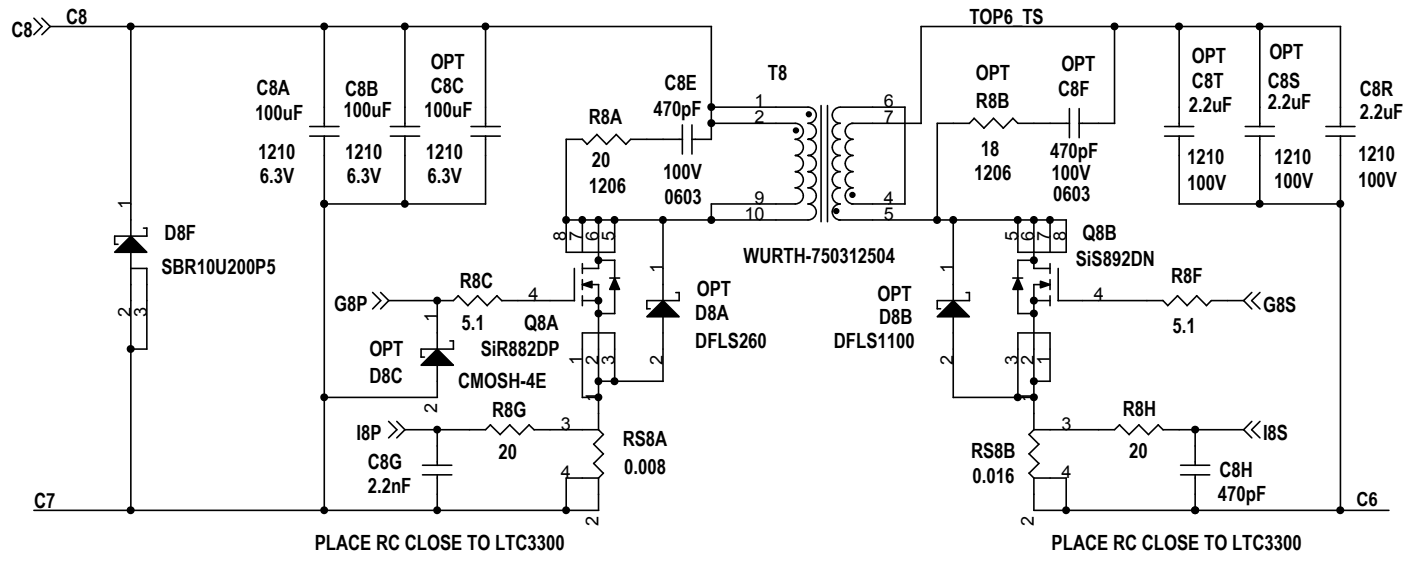
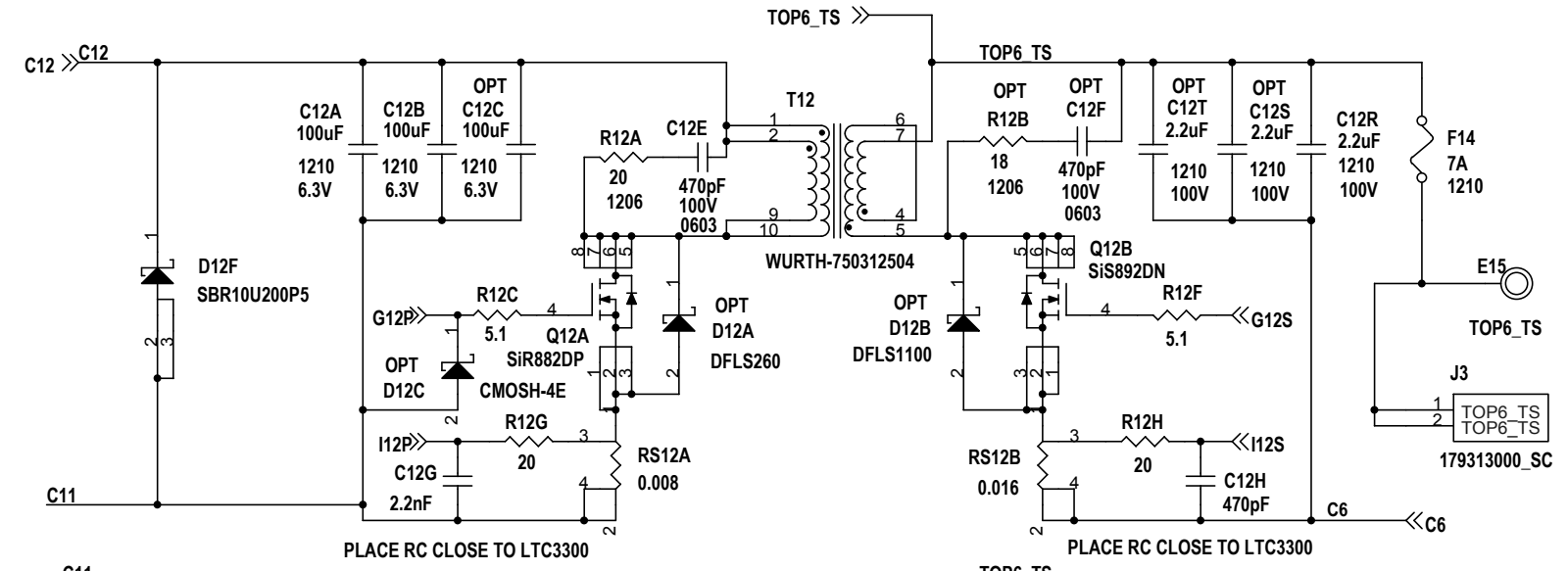
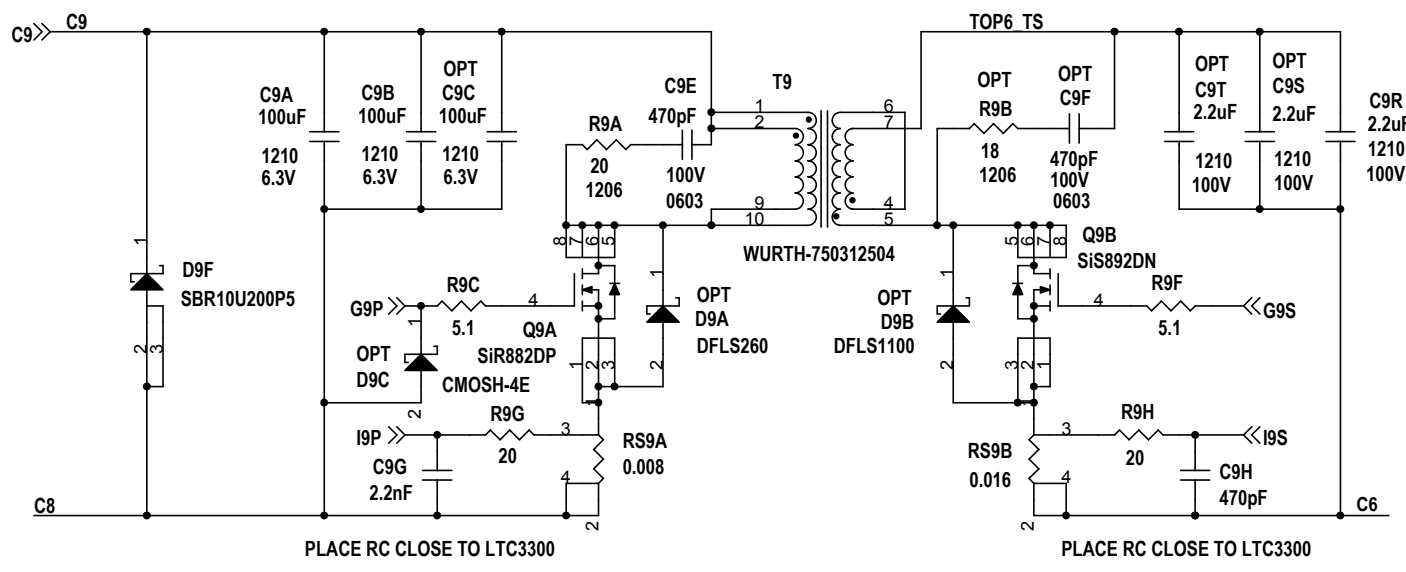


| REVISION HISTORY |     |                |          |         |
|------------------|-----|----------------|----------|---------|
| ECO              | REV | DESCRIPTION    | APPROVED | DATE    |
| -                | 1   | PRODUCTION FAB | J.DREW   | 1-11-13 |



**BATTERY CELL VOLTAGES**  
 $C_N = C_{N-1}$   
 2.5V - 4.5V  
 2.5A

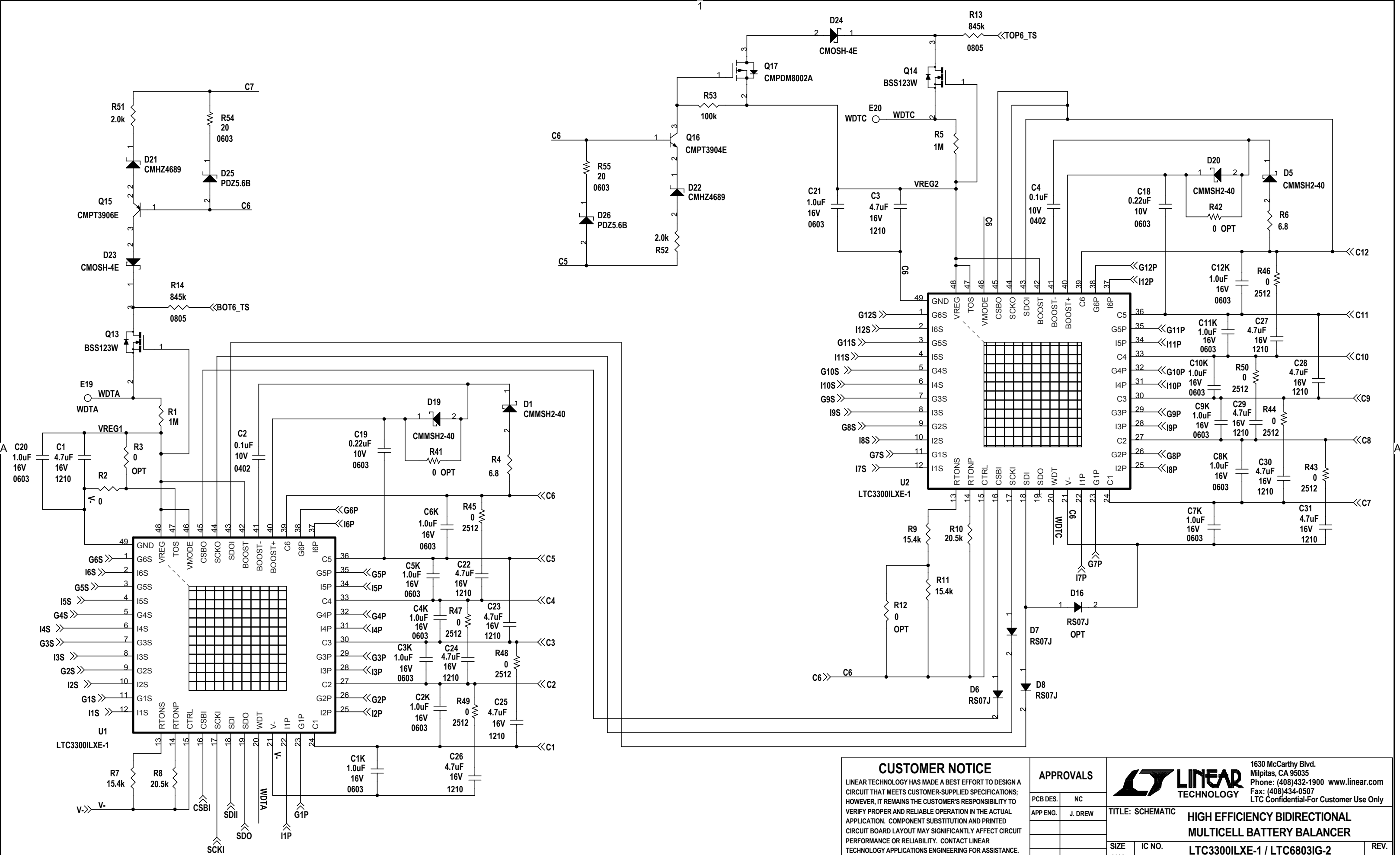
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|--|--|---|--|--------------|--|---|--|
| <b>CUSTOMER NOTICE</b><br>LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED SPECIFICATIONS; HOWEVER, IT REMAINS THE CUSTOMER'S RESPONSIBILITY TO VERIFY PROPER AND RELIABLE 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><br>PCB DES. NC<br>APP ENG. J. DREW |  |              |  | 1630 McCarthy Blvd.<br>Milpitas, CA 95035<br>Phone: (408)432-1900 www.linear.com<br>Fax: (408)434-0507<br>LTC Confidential-For Customer Use Only                              |  |
| THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.  |  | SCALE = NONE  |  |              |  | <b>TITLE: SCHEMATIC</b><br><b>HIGH EFFICIENCY BIDIRECTIONAL MULTICELL BATTERY BALANCER</b><br>SIZE N/A IC NO. <b>LTC3300ILXE-1 / LTC6803IG-2</b><br><b>DEMO CIRCUIT 2064A</b> |  |
| DATE: 1-11-13  |  |   |  | SHEET 1 OF 5 |  |   |  |



BATTERY CELL VOLTAGES

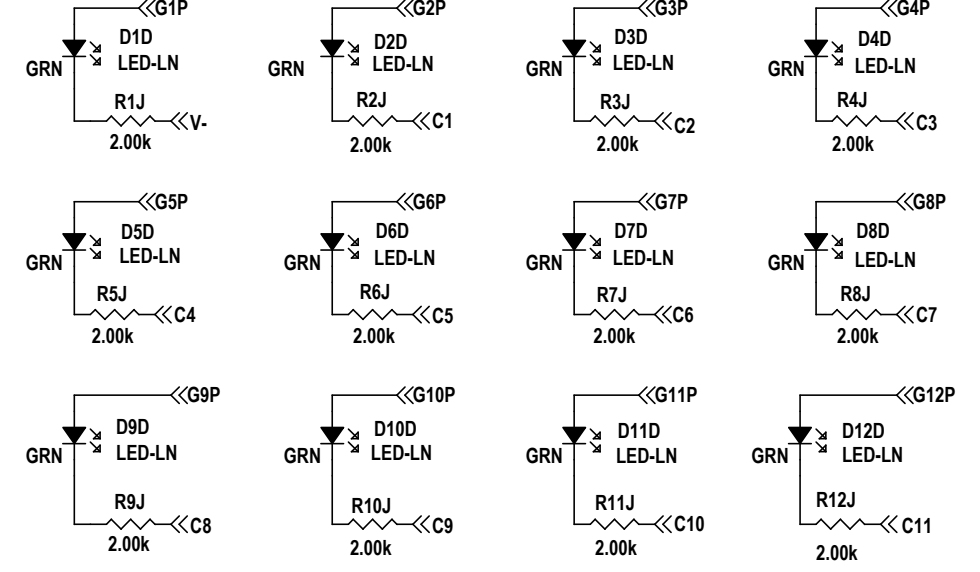
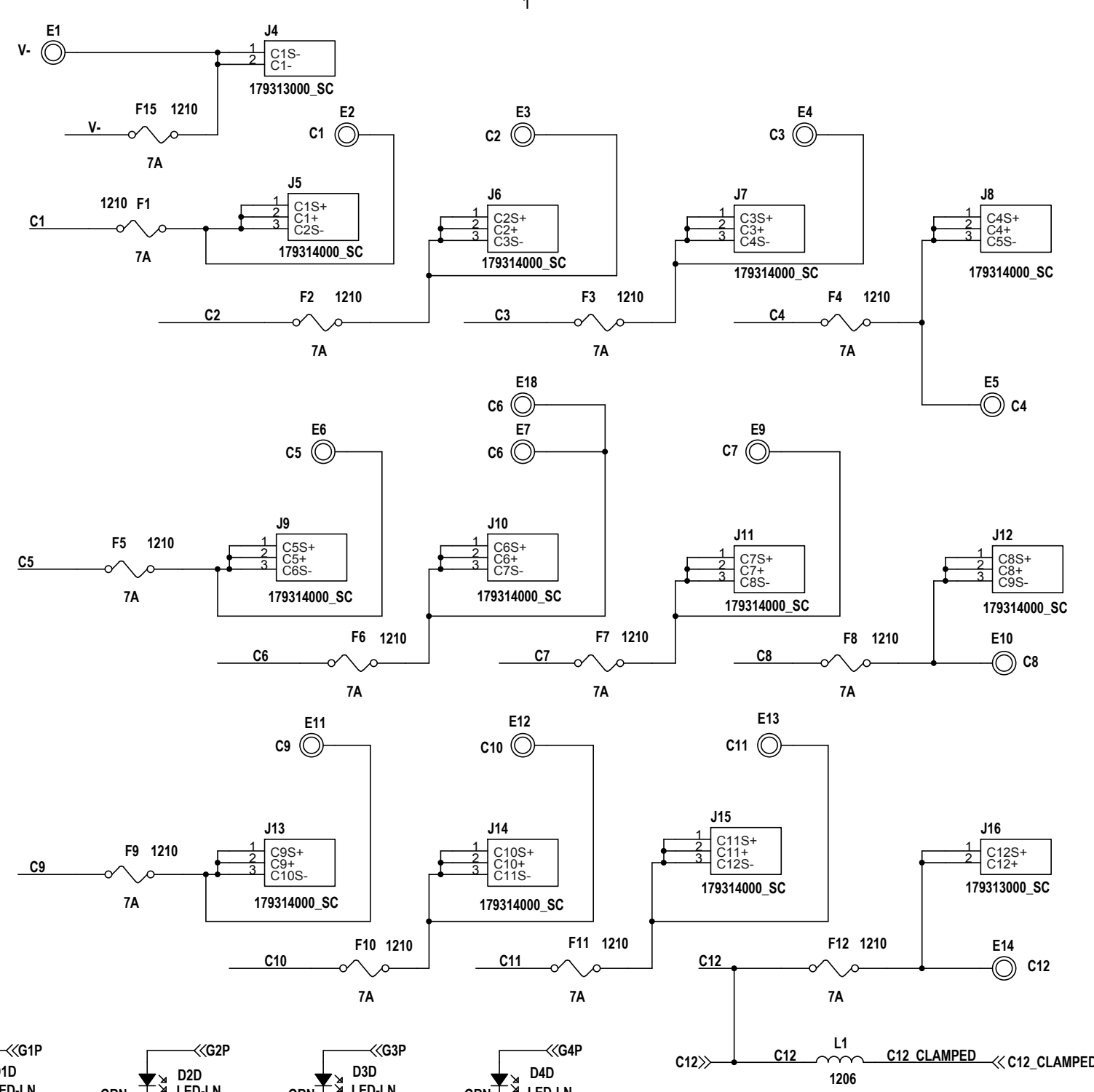
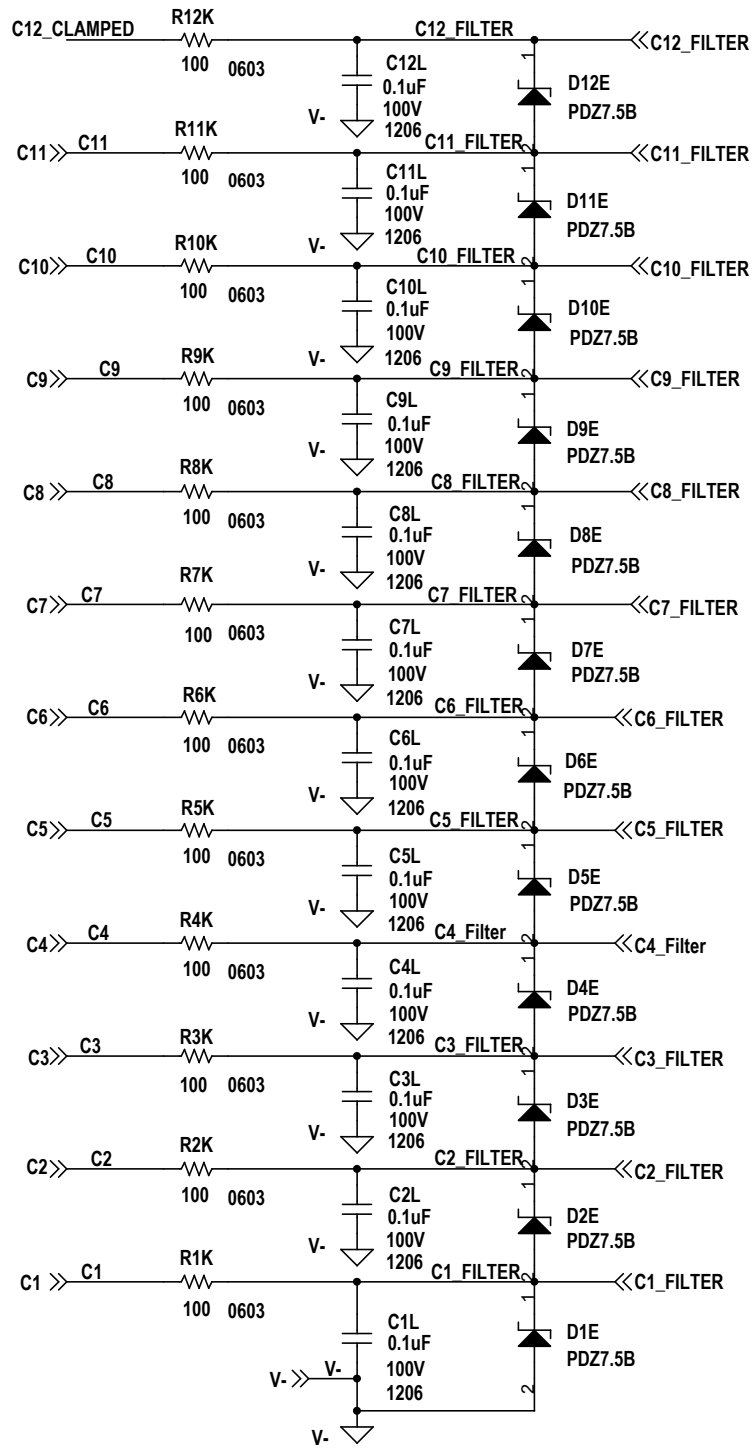
$C_N = C_{N-1}$   
 2.5V - 4.5V  
 2.5A

|  |    |                  |               |   |  |   |
|--|----|------------------|---------------|---|--|---|
| <b>CUSTOMER NOTICE</b><br>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> |               |   | 1630 McCarthy Blvd.<br>Milpitas, CA 95035<br>Phone: (408)432-1900 www.linear.com<br>Fax: (408)434-0507<br>LTC Confidential-For Customer Use Only |   |
| PCB DES.   | NC | APP ENG.         | J. DREW       |   | TITLE: SCHEMATIC   | <b>HIGH EFFICIENCY BIDIRECTIONAL MULTICELL BATTERY BALANCER</b> |
| THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.  |    | SCALE = NONE     | DATE: 1-11-13 | SIZE N/A                                  | IC NO. LTC3300LXE-1 / LTC6803IG-2  | REV. 1  |
|  |    |                  |               | <b>DEMO CIRCUIT 2064A</b><br>SHEET 2 OF 5 |  |   |

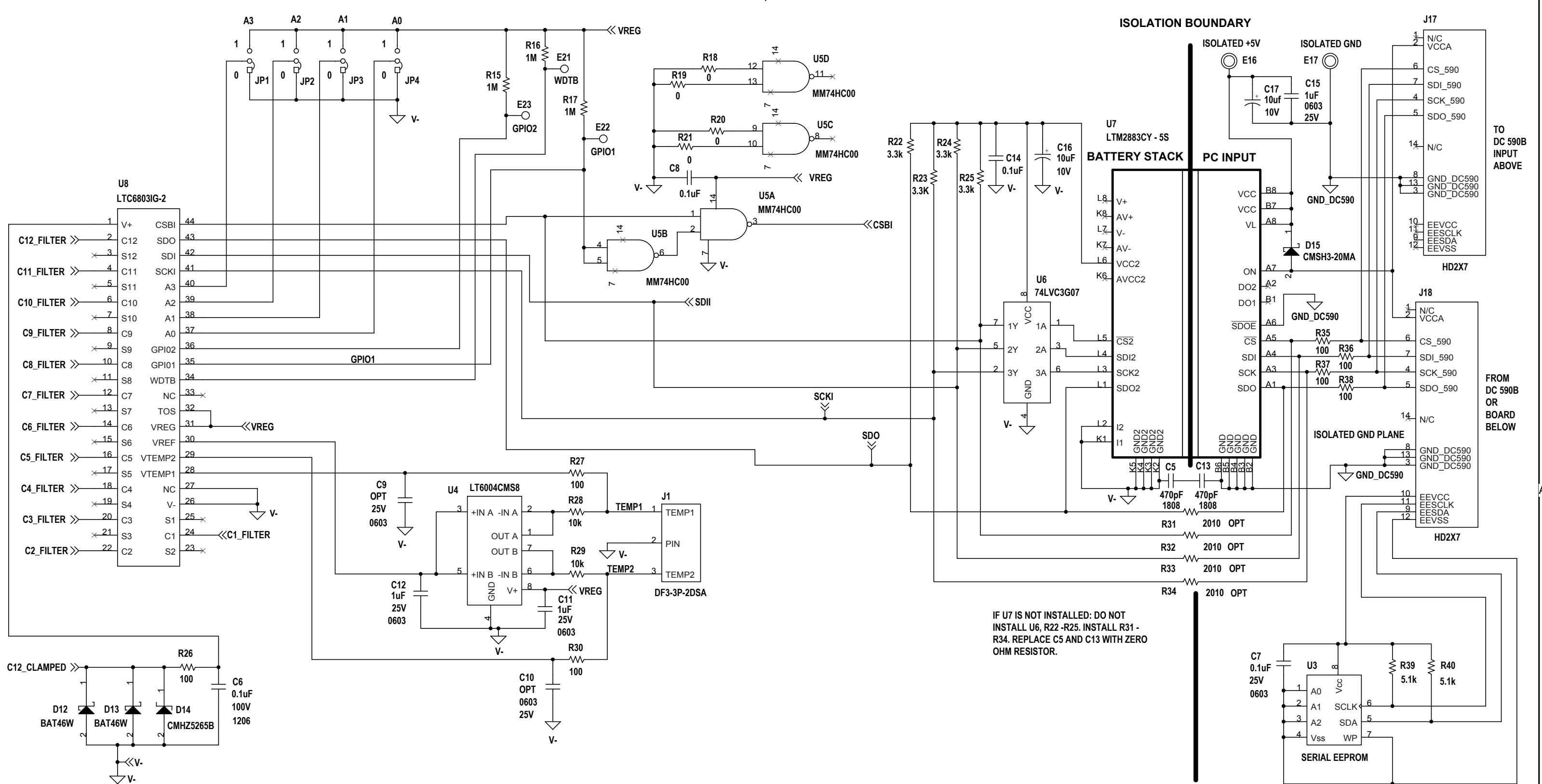


|  |         |  |                                   |          |    |          |         |
|--|---------|--|-----------------------------------|----------|----|----------|---------|
| <p><b>CUSTOMER NOTICE</b></p> <p>LINEAR TECHNOLOGY HAS MADE A BEST EFFORT TO DESIGN A CIRCUIT THAT MEETS CUSTOMER-SUPPLIED 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>THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.</p> |         | <p><b>APPROVALS</b></p> <table border="1"> <tr> <td>PCB DES.</td> <td>NC</td> </tr> <tr> <td>APP ENG.</td> <td>J. DREW</td> </tr> </table> |                                   | PCB DES. | NC | APP ENG. | J. DREW |
|  |         | PCB DES.   | NC                                |          |    |          |         |
| APP ENG.   | J. DREW |  |                                   |          |    |          |         |
| <p>TITLE: SCHEMATIC</p> <p><b>HIGH EFFICIENCY BIDIRECTIONAL MULTICELL BATTERY BALANCER</b></p>   |         | <p>SIZE: N/A</p> <p>IC NO.: LTC3300ILXE-1 / LTC6803IG-2</p> <p>DATE: 1-11-13</p>   | <p>REV. 1</p> <p>SHEET 3 OF 5</p> |          |    |          |         |

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|  |         |                  |   |              |  |  |      |
|--|---------|------------------|---|--------------|--|--|------|
| <b>CUSTOMER NOTICE</b><br>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> |   |              | 1630 McCarthy Blvd.<br>Milpitas, CA 95035<br>Phone: (408)432-1900 www.linear.com<br>Fax: (408)434-0507<br>LTC Confidential-For Customer Use Only |  |      |
|  |         | PCB DES.         | NC  |              | <b>TITLE: SCHEMATIC</b><br><b>HIGH EFFICIENCY BIDIRECTIONAL MULTICELL BATTERY BALANCER</b>   |  |      |
| APP ENG.   | J. DREW | SIZE             | IC NO.  |              |  |  | REV. |
| SCALE = NONE   |         | N/A              | LTC3300ILXE-1 / LTC6803IG-2<br>DEMO CIRCUIT 2064A |              |  |  | 1    |
| THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.  |         | DATE: 1-11-13    |   | SHEET 4 OF 5 |  |  |      |



IF U7 IS NOT INSTALLED: DO NOT  
INSTALL U6, R22-R25. INSTALL R31 -  
R34. REPLACE C5 AND C13 WITH ZERO  
OHM RESISTOR.

|  |  |   |                                   |  |  |
|--|--|---|-----------------------------------|--|--|
| <b>CUSTOMER NOTICE</b><br>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><br>PCB DES. NC<br>APP ENG. J. DREW                                 |                                   | <b>LINEAR TECHNOLOGY</b><br>1630 McCarthy Blvd.<br>Milpitas, CA 95035<br>Phone: (408)432-1900 www.linear.com<br>Fax: (408)434-0507<br>LTC Confidential-For Customer Use Only |  |
|  |  | TITLE: SCHEMATIC<br><b>HIGH EFFICIENCY BIDIRECTIONAL MULTICELL BATTERY BALANCER</b> |                                   |  |  |
| THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.  |  | SIZE N/A  | IC NO. LTC3300LXE-1 / LTC6803IG-2 | REV. 1   |  |
| SCALE = NONE   |  | DATE: 1-11-13   |                                   | SHEET 5 OF 5   |  |