

ETERNA (TM) CASTELLATED MOTE WITH MMCX CONNECTOR

Content:

1. Title Page
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3. Castellations
4. Battery Holder and Accelerometer Options

Notes:

1. Assembly Options:
 - 1.a) X1 & X5: installed crystals (32kHz and 20 MHz resp.)
 - 1.b) R12 TCK termination not installed
 - 1.c) Battery holder not installed
 - 1.d) Accelerometer not installed

2. Associated Documents



PCB FAB
600-0176 REV3



BOM
700-0207 REV3



ASY DWG
705-0176 REV3

Revision History:

Rev	Description	ECO	Author
01	Initial release Based on 700-0176 rev4 using LTC5800IWR-IPMA	1180	CN
02	Update U1 p/n (documentation only, not a functional change)	1214	CN
03	Change 32kHz & 20MHz XTAL	1394	RMP



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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 IS SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.

CONTRACT NO.

APPROVALS

DRAWN:

CHECKED:

APPROVED:

ENGINEER:

DESIGNER:



Linear Technology Corporation

1630 McCarthy Blvd. Phone: (408)432-1900
Milpitas, CA 95035 Fax: (408)434-0507

TITLE:

**LTP5902IPC-IPMA
PCA SCH, ETERNA IP CASTELLATED MOTE, CANADIAN**

SIZE
A

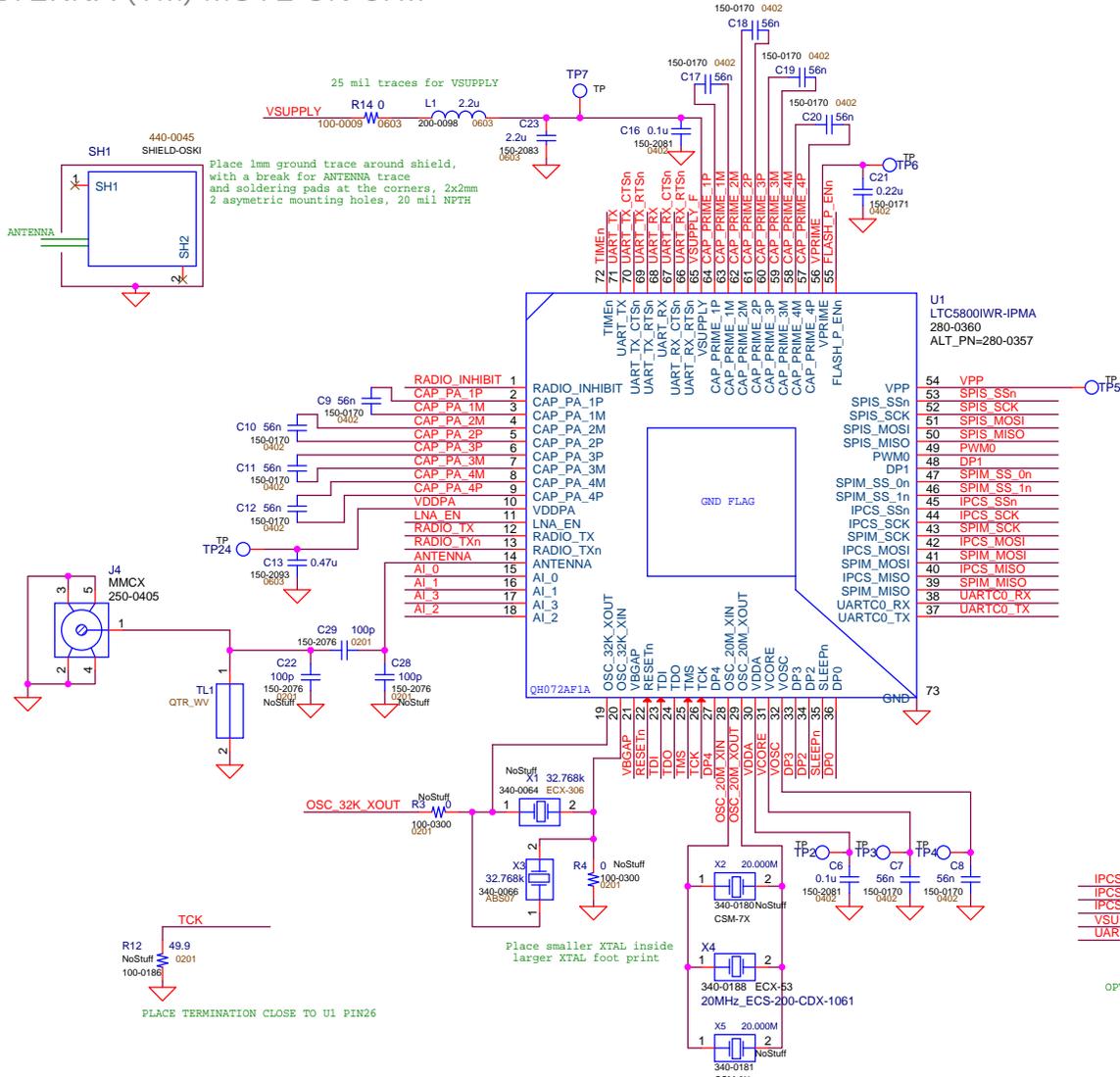
DWG NO.
710-0207

REV
03

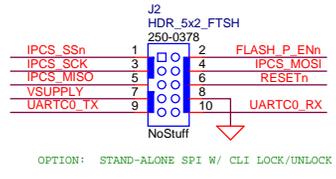
DATE: **Wednesday, July 29, 2015**

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ETERNA (TM) MOTE-ON-CHIP

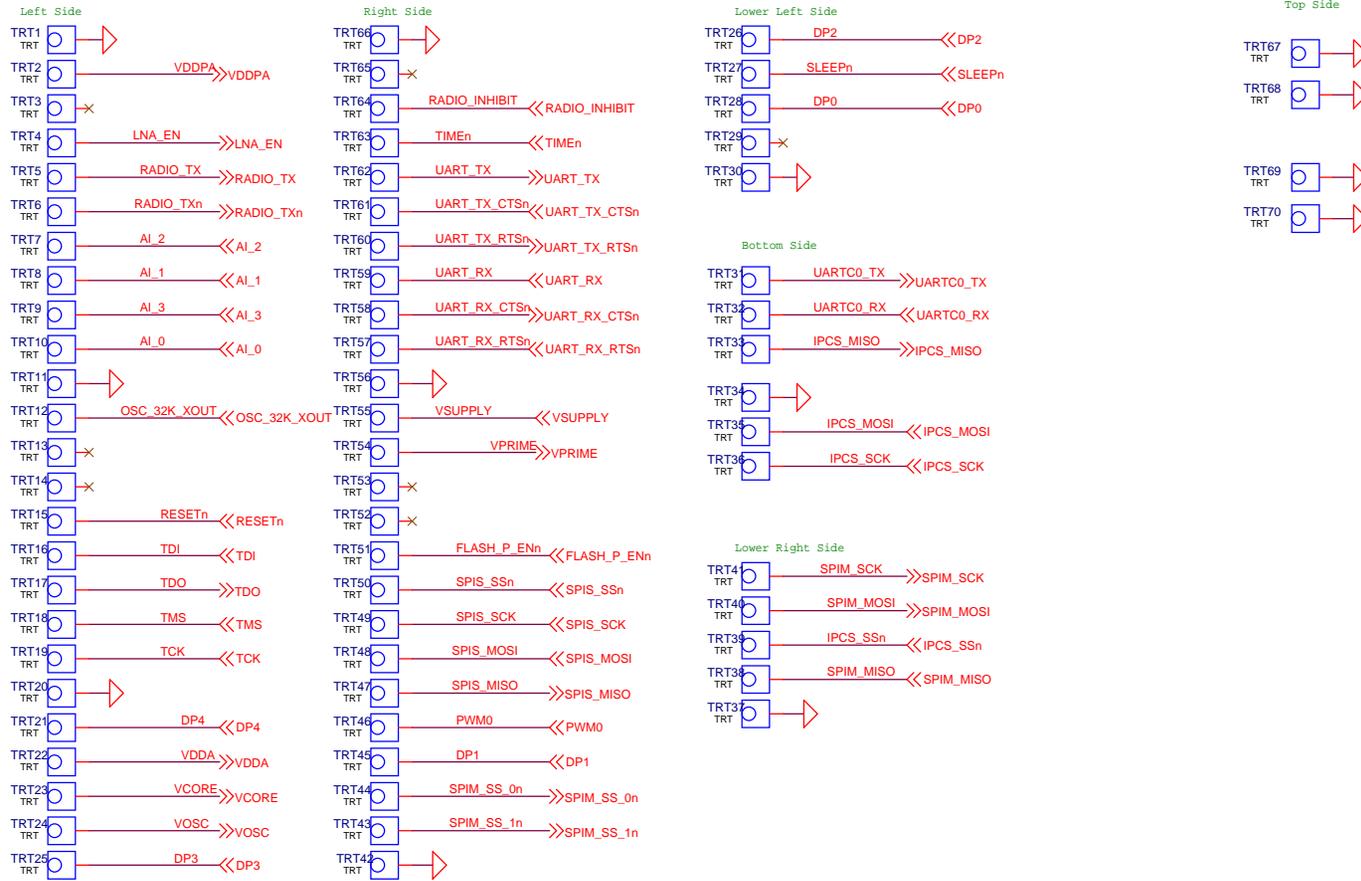


- | | | | |
|---------------|------------------|--------------|-----------------|
| RADIO_INHIBIT | << RADIO_INHIBIT | RESETn | << RESETn |
| VDDPA | >> VDDPA | TDI | << TDI |
| LNA_EN | >> LNA_EN | TDO | << TDO |
| RADIO_TX | >> RADIO_TX | TMS | << TMS |
| RADIO_TXn | >> RADIO_TXn | TCK | << TCK |
| AI_0 | << AI_0 | DP4 | << DP4 |
| AI_1 | << AI_1 | VDDA | >> VDDA |
| AI_2 | << AI_2 | VCORE | >> VCORE |
| AI_3 | << AI_3 | VOSC | >> VOSC |
| UARTC0_TX | >> UARTC0_TX | DP3 | << DP3 |
| UARTC0_RX | >> UARTC0_RX | DP2 | << DP2 |
| SPIM_MISO | << SPIM_MISO | SLEEPn | << SLEEPn |
| SPIM_MOSI | >> SPIM_MOSI | DP0 | << DP0 |
| SPIM_SCK | >> SPIM_SCK | FLASH_P_ENn | << FLASH_P_ENn |
| SPIM_SS_1n | >> SPIM_SS_1n | VPRIME | >> VPRIME |
| SPIM_SS_0n | >> SPIM_SS_0n | VSUPPLY | >> VSUPPLY |
| IPCS_MISO | >> IPCS_MISO | UART_RX_RTSn | << UART_RX_RTSn |
| IPCS_MOSI | << IPCS_MOSI | UART_RX_CTSn | << UART_RX_CTSn |
| IPCS_SCK | << IPCS_SCK | UART_RX | << UART_RX |
| IPCS_SSn | << IPCS_SSn | UART_TX_RTSn | << UART_TX_RTSn |
| DP1 | << DP1 | UART_TX_CTSn | << UART_TX_CTSn |
| PWM0 | << PWM0 | UART_TX | << UART_TX |
| SPIS_MISO | >> SPIS_MISO | TIMEn | << TIMEn |
| SPIS_MOSI | << SPIS_MOSI | OSC_32K_XOUT | << OSC_32K_XOUT |
| SPIS_SCK | << SPIS_SCK | | |
| SPIS_SSn | << SPIS_SSn | | |



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				CHECKED:	
				APPROVED:	
ENGINEER:	TITLE:	LTP5902IPC-IPMA PCA SCH, ETERNA IP CASTELLATED MOTE, CANADIAN			
DESIGNER:	SIZE	DWG NO.	REV		
	A	710-0207	03		
THIS CIRCUIT IS PROPRIETARY TO LINEAR TECHNOLOGY AND IS SUPPLIED FOR USE WITH LINEAR TECHNOLOGY PARTS.		DATE:	Wednesday, July 29, 2015		SHEET 2 OF 4

CASTELLATIONS



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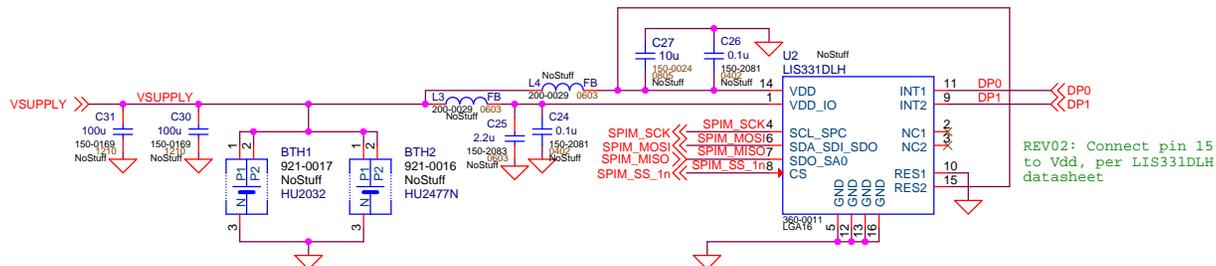
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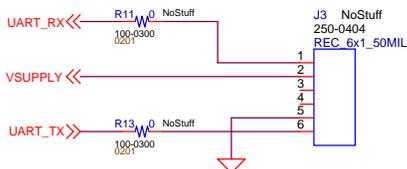
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SIZE A	DWG NO. 710-0207	REV 03	
DATE: Wednesday, July 29, 2015		SHEET 3 OF 4	

BATTERY HOLDER & ACCELEROMETER OPTIONS



REPLACE BATTERY HOLDER WITH DUAL THROUGH HOLE FOOTPRINT OPTION

ENERGY HARVESTING CONNECTOR OPTION



PLACE R11, R13 & J3 ON BOTTOM, MAY INTERFERE WITH BATTERY HOLDER.

J3 SHROUD SHALL PROTRUDE FROM EDGE OF BOARD OPPOSITE TO CHIP ANTENNA. PLACE R11 and R13 NEAR U1 TO MINIMIZE UART_RX AND UART_TX NET LENGTH.



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