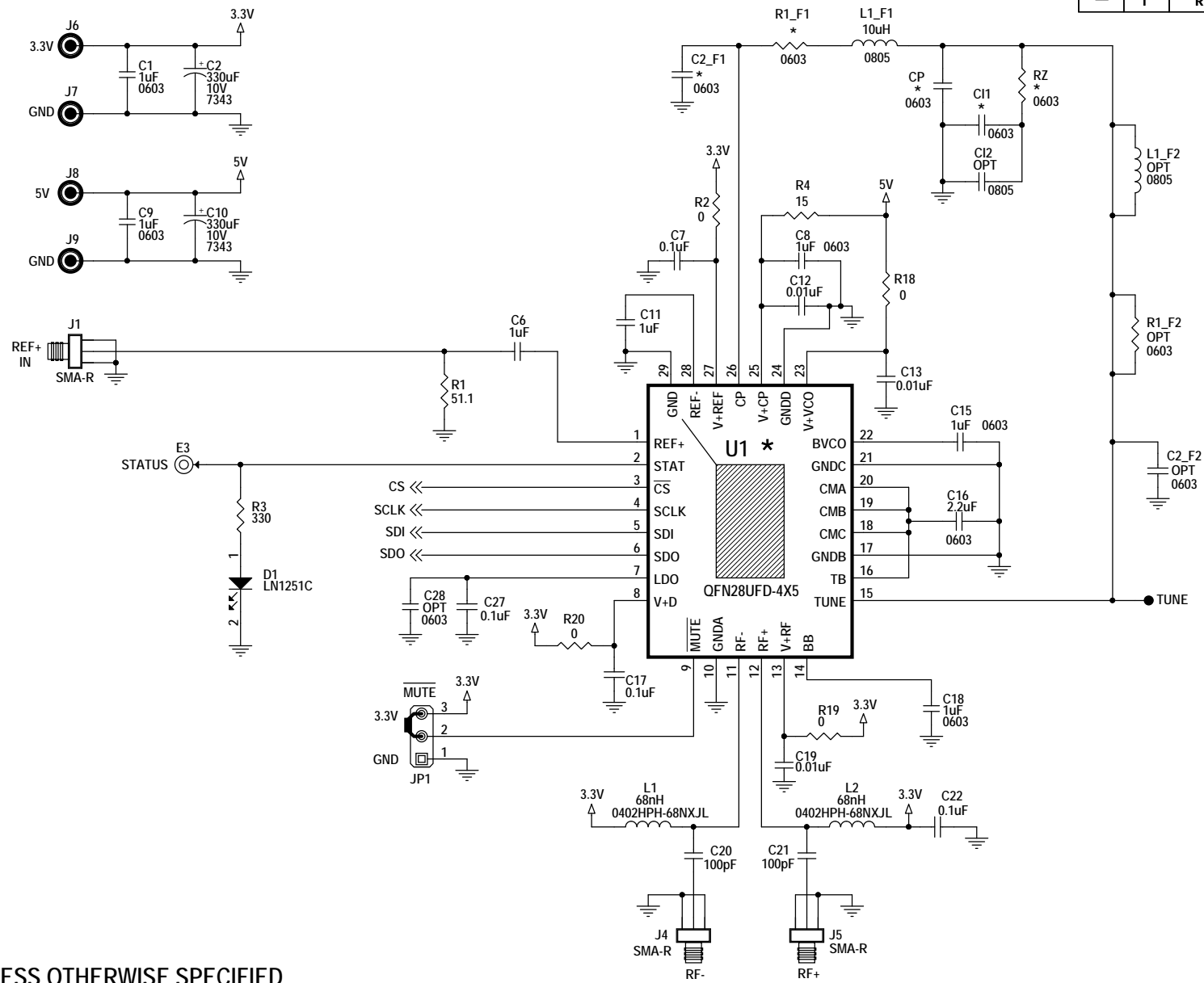


REVISION HISTORY				
ECO	REV	DESCRIPTION	APPROVED	DATE
-	1	REBUILD WITH CHANGE	CHRIS P.	09-21-15



**NOTE: UNLESS OTHERWISE SPECIFIED**

1. ALL RESISTORS ARE IN OHMS, 0402
2. ALL CAPACITORS ARE IN MICROFARADS, 0402

ASSY	U1	SUFFIX	VCO	C2_F1	C11	CP	R1_F1, RZ
A	LTC6948-1	1	2.24 TO 3.74 GHz	2.4nF	82nF	3.6nF	57.6
B	LTC6948-2	2	3.08 TO 4.91 GHz	2nF	68nF	3nF	63.4
C	LTC6948-3	3	3.84 TO 5.79 GHz	1.8nF	56nF	2.4nF	75
D	LTC6948-4	4	4.20 TO 6.39 GHz	1.6nF	56nF	2.4nF	76.8

**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.

**APPROVALS**

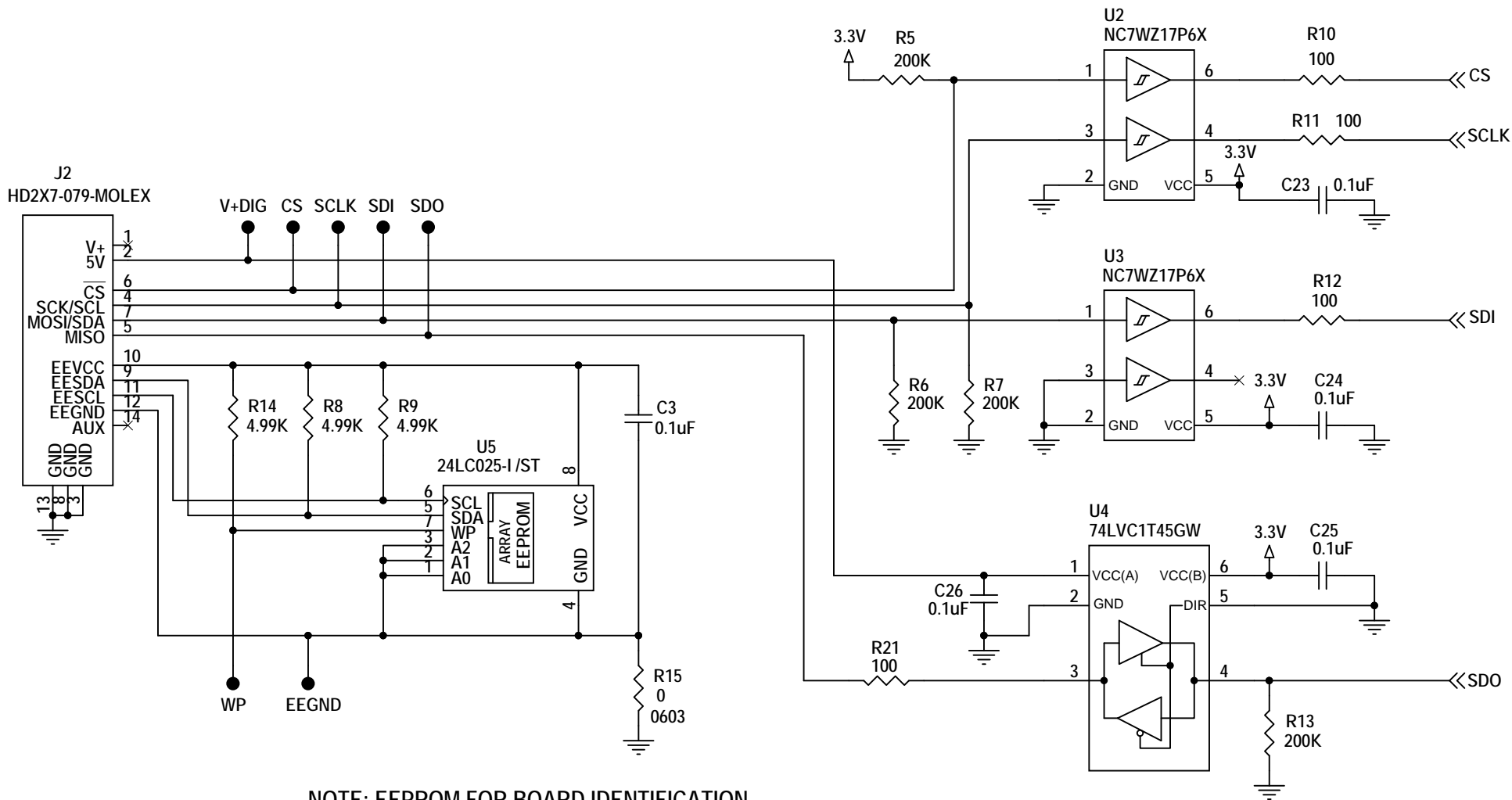
PCB DES.	KIM T.
APP ENG.	CHRIS P.
SCALE = NONE	

**LINEAR TECHNOLOGY**  
 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  
**ULTRALOW NOISE & SPURIOUS FRACTIONAL-N SYNTHESIZER WITH INTEGRATED VCO**

SIZE N/A	IC NO. LTC6948IUFD-1/2/3/4	REV. 1
DATE: Monday, September 21, 2015		SHEET 1 OF 2

# DC590 SPI INTERFACE



**NOTE:** EEPROM FOR BOARD IDENTIFICATION

## 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. KIM T.

APP ENG. CHRIS P.

SCALE = NONE



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ULTRALOW NOISE & SPURIOUS FRACTIONAL-N  
SYNTHESIZER WITH INTEGRATED VCO

SIZE N/A IC NO. LTC6948IUFD-1/2/3/4  
REV. 1  
DEMO CIRCUIT 1959B

DATE: Monday, September 21, 2015 SHEET 2 OF 2