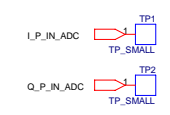
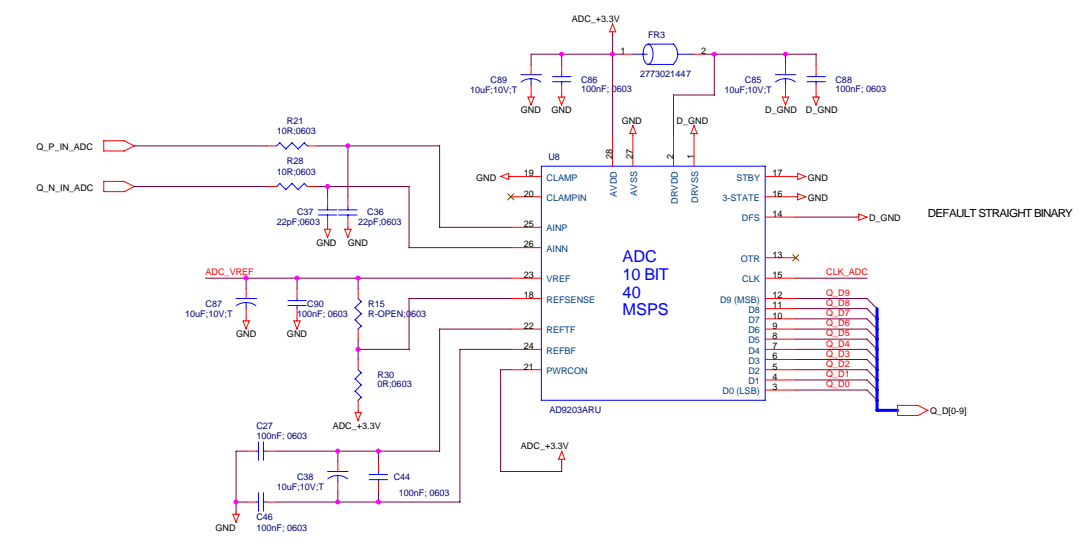
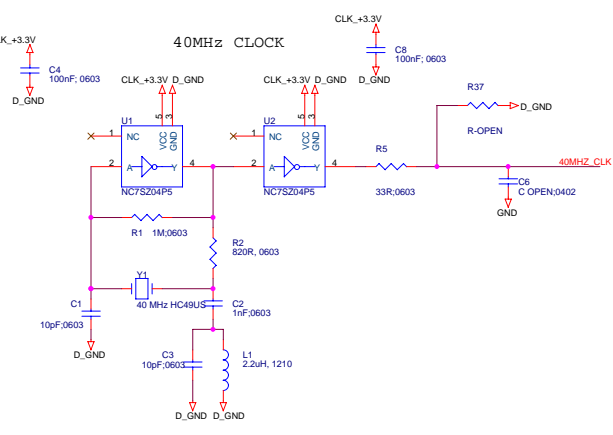
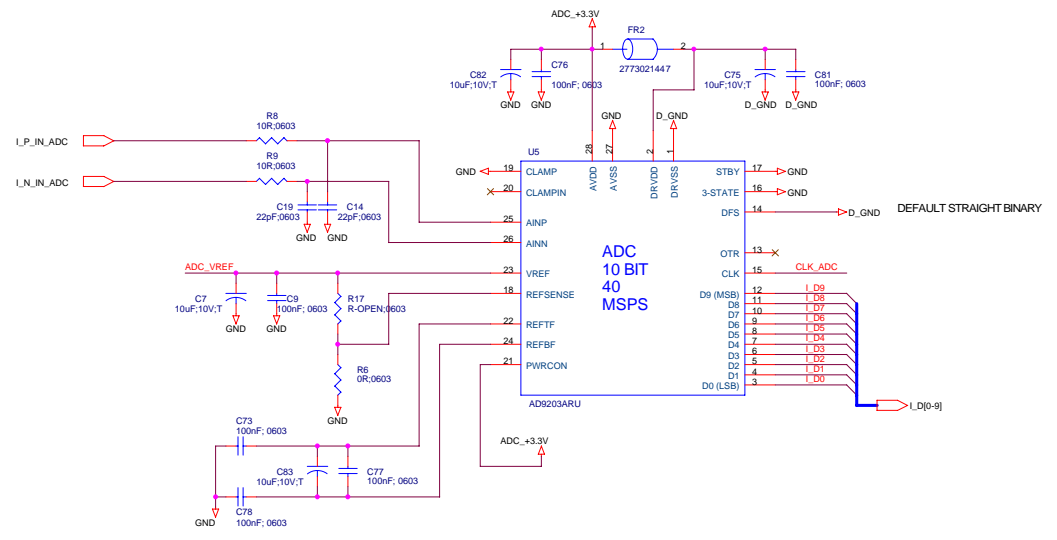
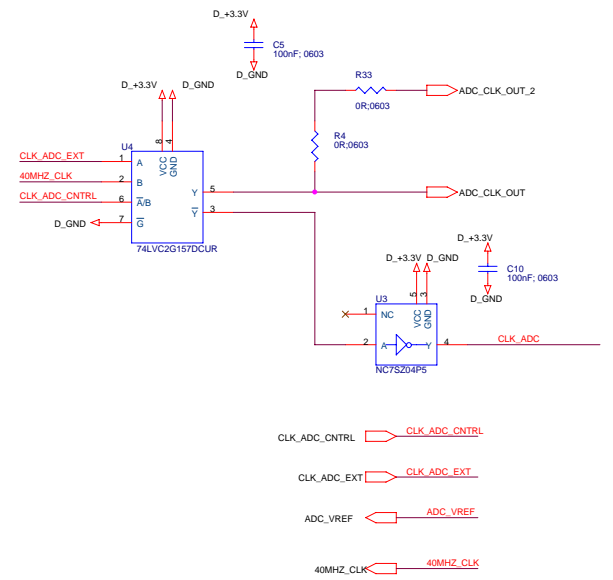
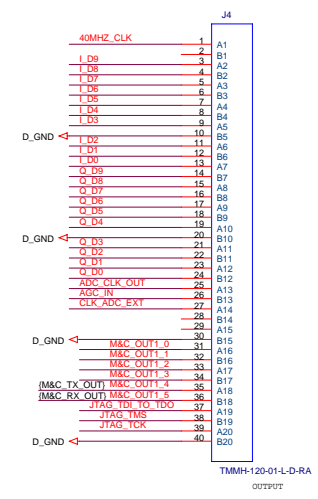
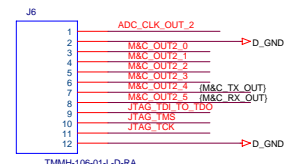
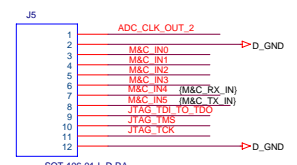
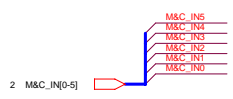
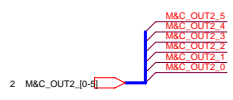
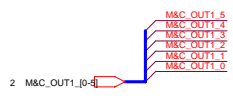
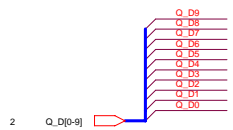
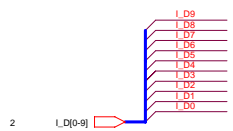


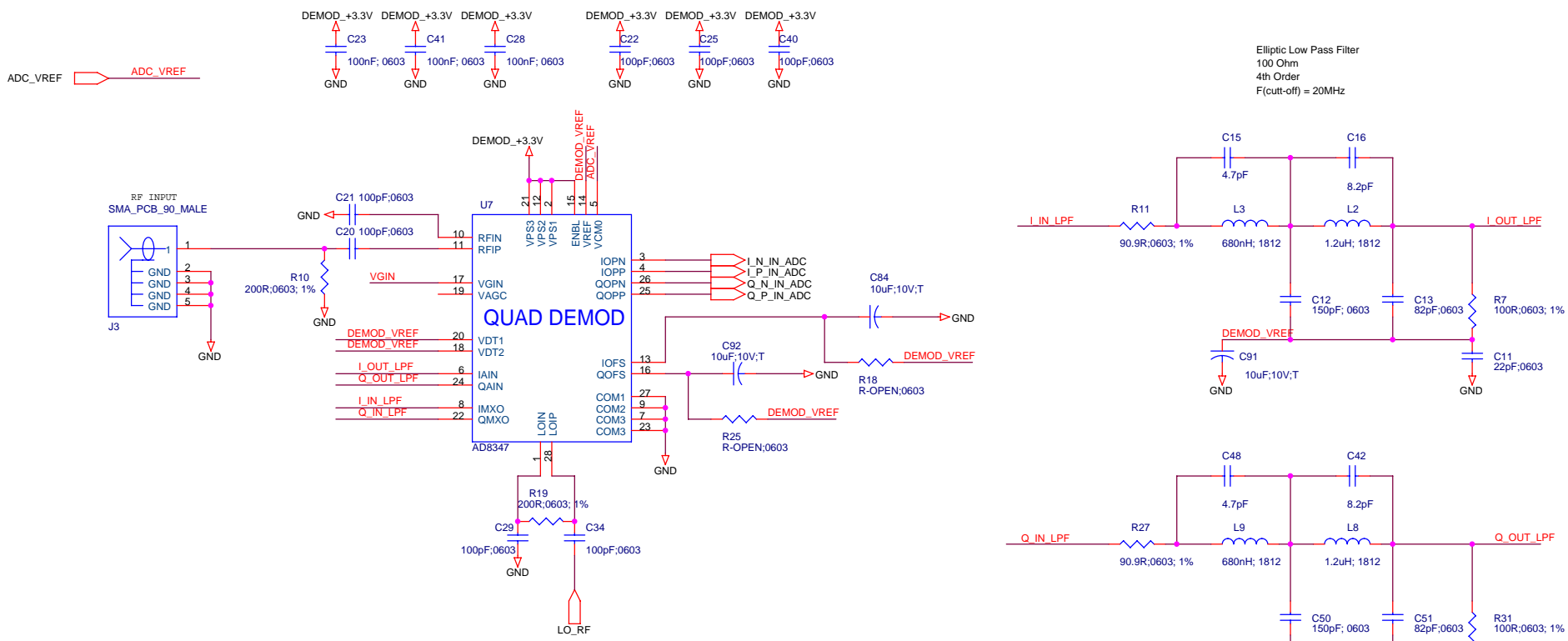
TABLE OF CONTENTS

MAIN..... 1
 ADC..... 2
 CONNECTOR..... 3
 DEMODULATOR..... 4
 FREQ SYNTH..... 5
 MICRO..... 6
 POWER..... 7
 LAYOUT..... 8



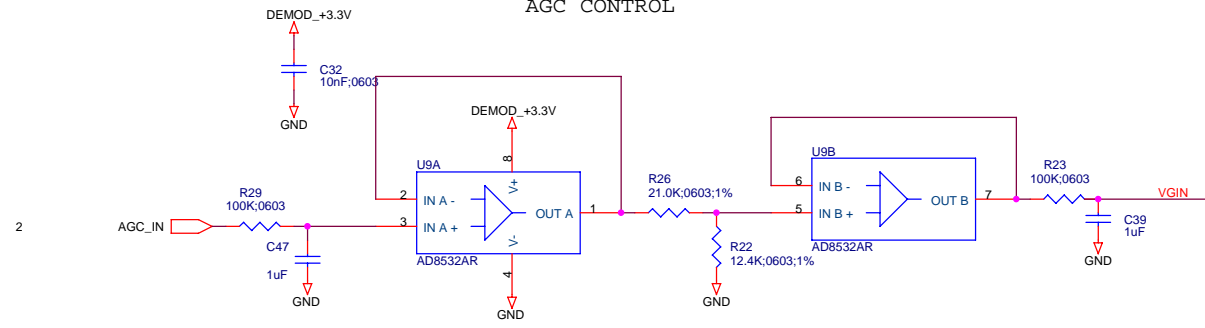
Mobile Satellite Services	
Michael J. Yoha 18221A Flower Hill Way Cathersburg, MD 20879 USA	
Title ComBlock RX / ADC	
Size C	Document Number Y01009
Date Thursday, February 26, 2004	Rev 2
Sheet 2 of 8	





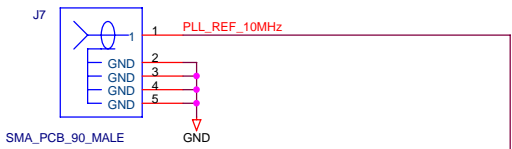
Elliptic Low Pass Filter
 100 Ohm
 4th Order
 F(cut-off) = 20MHz

EXTERNAL AGC CONTROL



Mobile Satellite Services		
Michael J. Yoha 18221A Flower Hill Way Gaithersburg, MD 20879 USA		
Title ComBlock RX / DEMODULATOR		
Size B	Document Number Y01009	Rev 2
Date: Thursday, February 26, 2004	Sheet 4	of 8

**EXTERNAL
FREQUENCY
REFERENCE**



CLK_ON_OFF_+3.3V

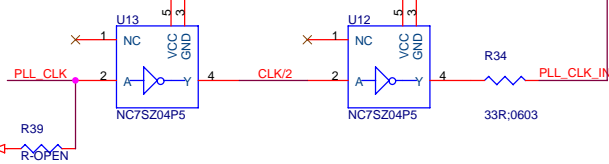


CLK_ON_OFF_+3.3V



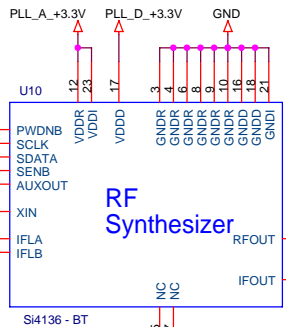
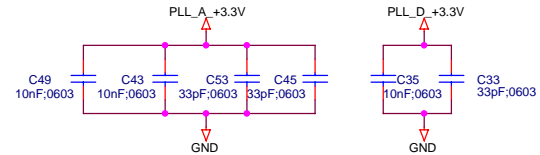
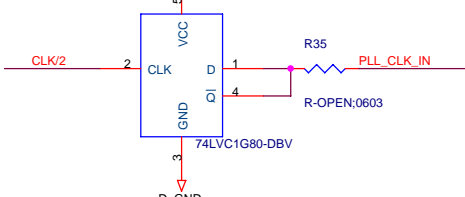
CLK_ON_OFF_+3.3V D_GND

CLK_ON_OFF_+3.3V D_GND



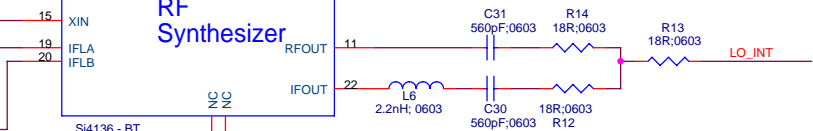
**CLOCK DIVID BY 2
40MHz IN -- 20MHz OUT**

CLK_ON_OFF_+3.3V

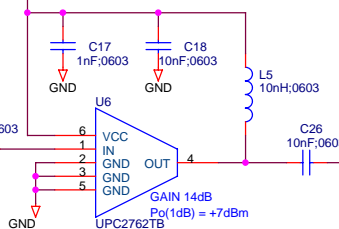
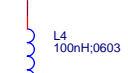


**LEVEL FROM MIXER:
RF Typ.: -3dBm**

**POWER COMBINER
GAIN = -6dB**

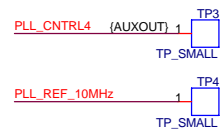


DEMOD_+3.3V



**ATTENUATOR
GAIN = -6dB**

**LEVEL TO RF Mod.:
Typ.: -9dBm**



Mobile Satellite Services		
Michael J. Yoha 18221A Flower Hill Way Gaithersburg, MD 20879 USA		
Title ComBlock RX/ FREQ SYNTH		
Size B	Document Number Y01009	Rev 2
Date: Thursday, February 26, 2004	Sheet 5	of 8

4 CLK_ADC_CNTRL ← CLK_ADC_CNTRL

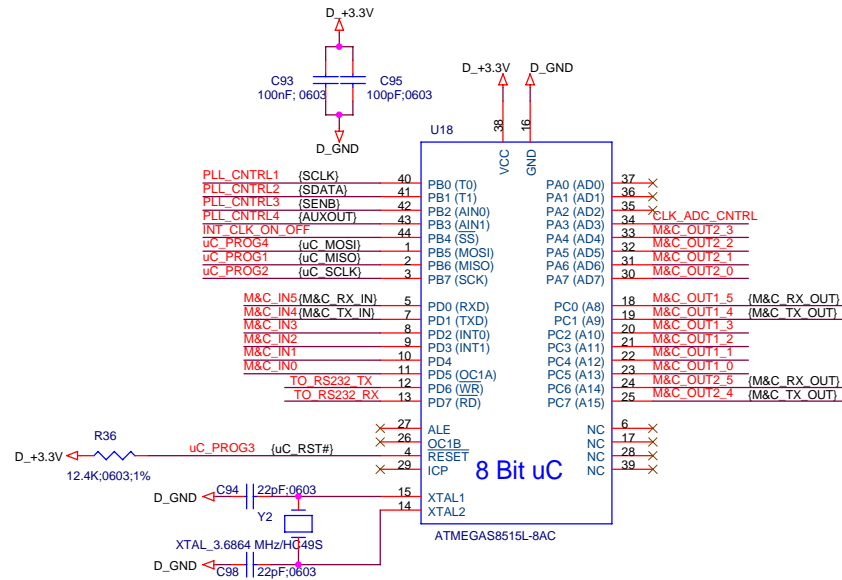
4 INT_CLK_ON_OFF ← INT_CLK_ON_OFF

2 M&C_OUT1_[0-4] ← M&C_OUT1_5
M&C_OUT1_4
M&C_OUT1_3
M&C_OUT1_2
M&C_OUT1_1
M&C_OUT1_0

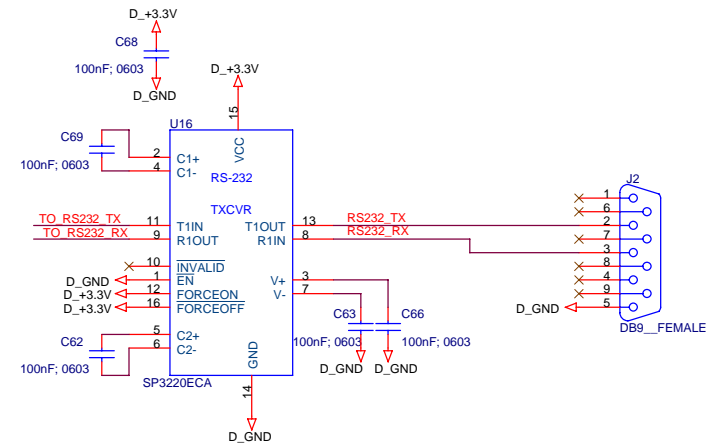
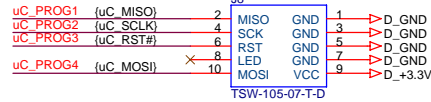
2 M&C_OUT2_[0-4] ← M&C_OUT2_5
M&C_OUT2_4
M&C_OUT2_3
M&C_OUT2_2
M&C_OUT2_1
M&C_OUT2_0

2 M&C_IN_[0-5] ← M&C_IN5
M&C_IN4
M&C_IN3
M&C_IN2
M&C_IN1
M&C_IN0

2 PLL_CNTRL_[1-4] ← PLL_CNTRL1 (SCLK)
PLL_CNTRL2 (SDATA)
PLL_CNTRL3 (SENB)
PLL_CNTRL4 (AUXOUT)



IN CIRCUIT PROGRAMMING HEADER



Mobile Satellite Services

Michael J. Yoha
18221A Flower Hill Way
Gaithersburg, MD 20879
USA

Title
ComBlock RX / MICRO

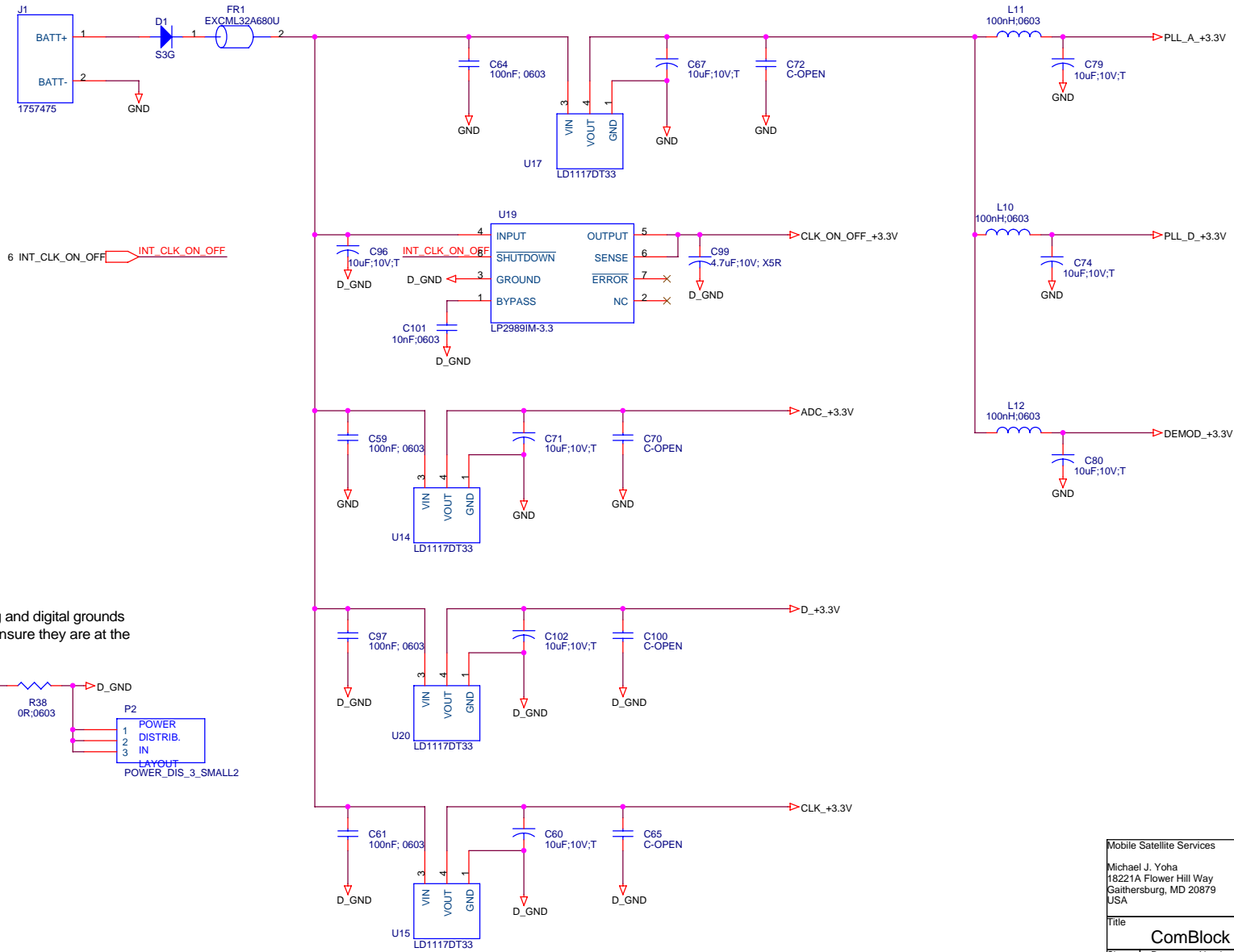
Size B Document Number
Y01009

Rev 2

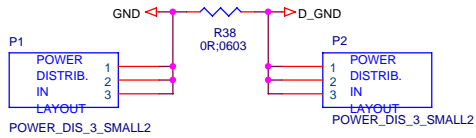
Date: Thursday, February 26, 2004

Sheet 6 of 8

+5 V Supply



Connect analog and digital grounds
in one place to insure they are at the
same potential



Mobile Satellite Services		
Michael J. Yoha 18221A Flower Hill Way Gaithersburg, MD 20879 USA		
Title ComBlock RX / POWER		
Size B	Document Number Y01009	Rev 2
Date: Wednesday, February 25, 2004	Sheet 7	of 8

