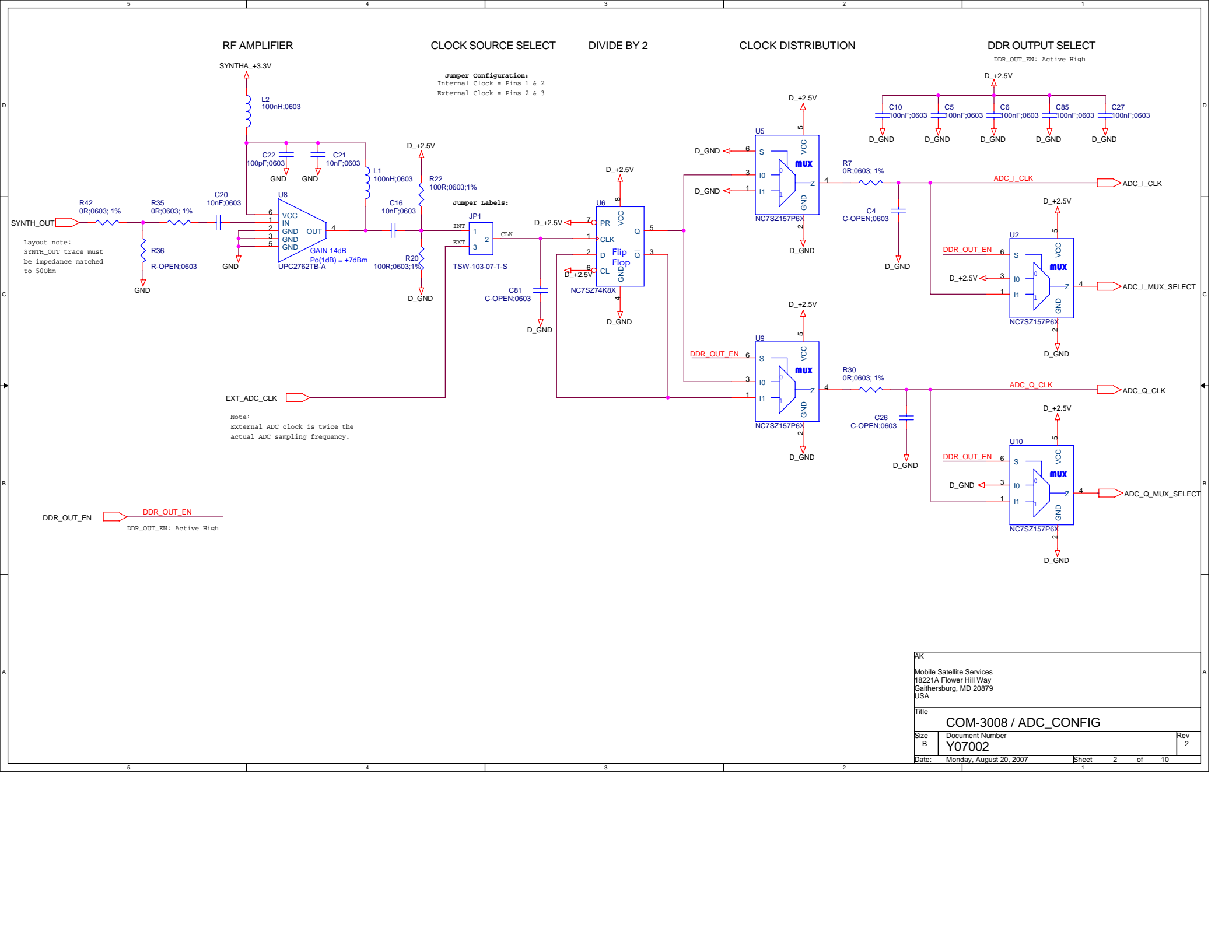


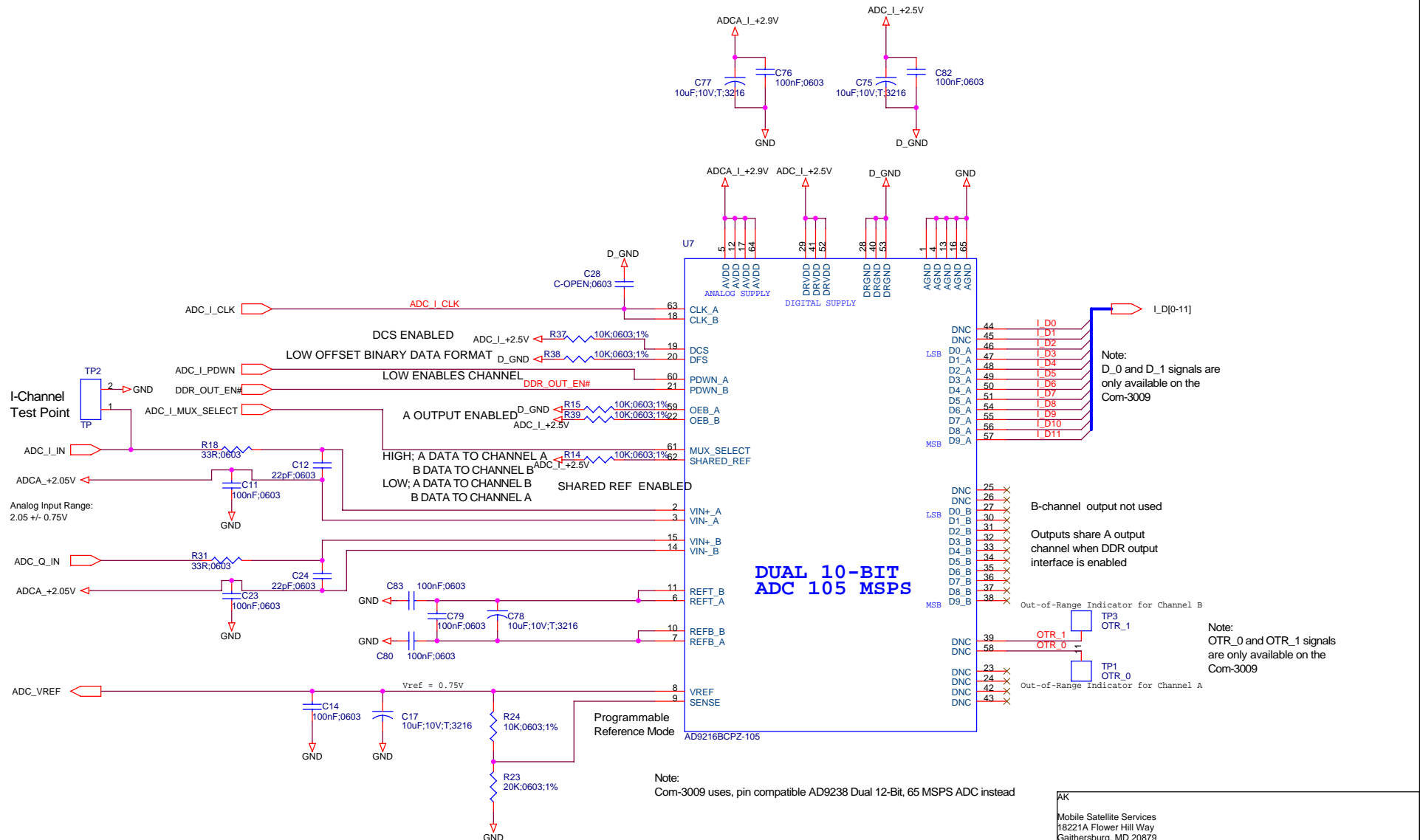
TABLE OF CONTENTS

MAIN.....	1	CLK SYNTH.....	6
ADC_CONFIG.....	2	CONNECTOR.....	7
ADC_I.....	3	MICRO.....	8
ADC_Q.....	4	LAYOUT.....	9
AFE.....	5	POWER.....	10

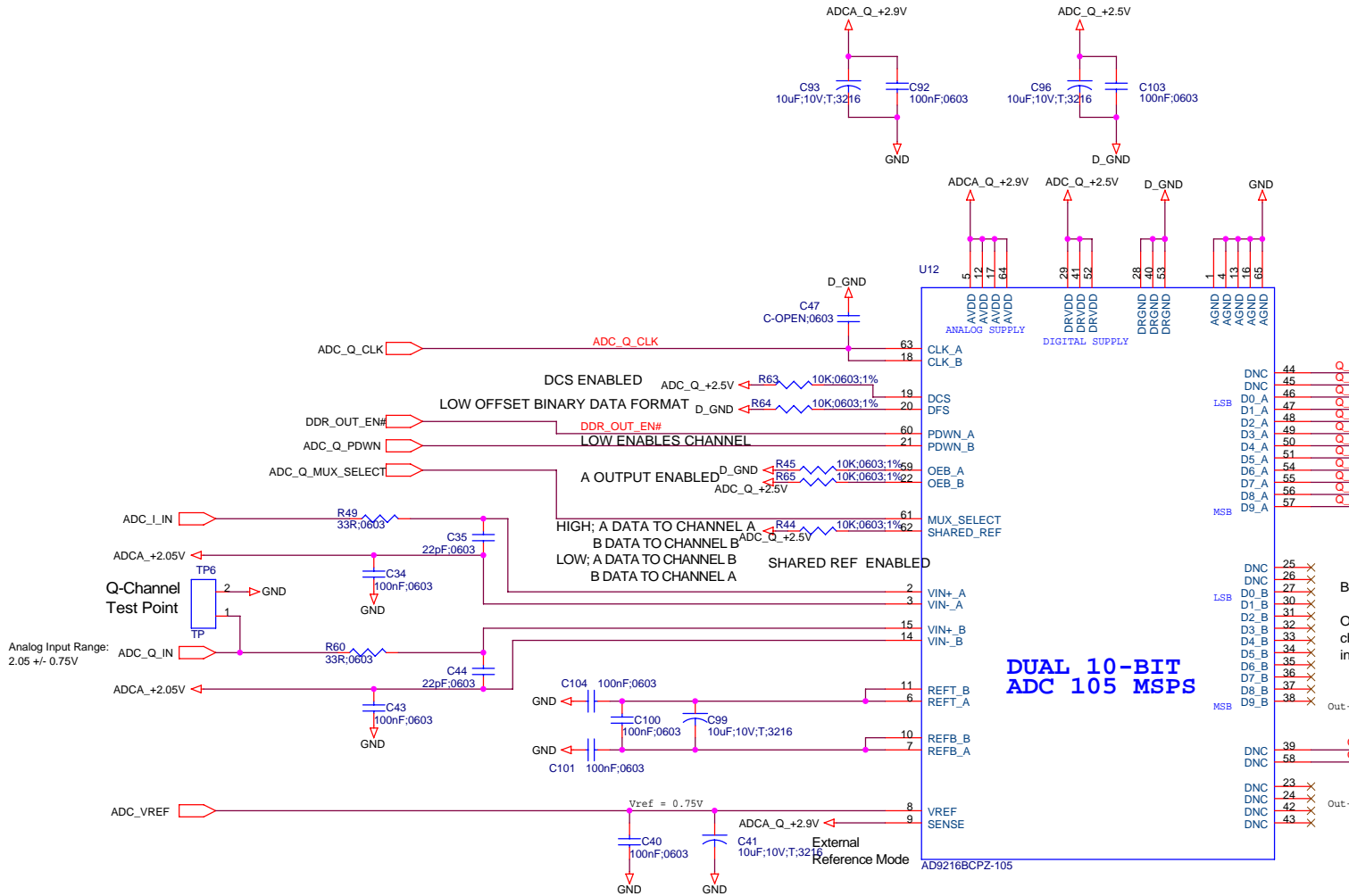
AK		
Mobile Satellite Services 18221A Flower Hill Way Gaithersburg, MD 20879 USA		
Title		
COM-3008 / MAIN		
Size	Document Number	Rev
A	Y07002	2
Date:	Thursday, April 24, 2008	Sheet 1 of 10



AK Mobile Satellite Services 18221A Flower Hill Way Gaithersburg, MD 20879 USA		
Title COM-3008 / ADC_CONFIG		
Size B	Document Number Y07002	Rev 2
Date: Monday, August 20, 2007	Sheet 2	of 10



AK Mobile Satellite Services 18221A Flower Hill Way Gaithersburg, MD 20879 USA		
Title COM-3008 / ADC_I		
Size B	Document Number Y07002	Rev 2
Date: Monday, August 20, 2007	Sheet 3	of 10



**DUAL 10-BIT
ADC 105 MSPS**

Note:
D_0 and D_1 signals are
only available on the
Com-3009

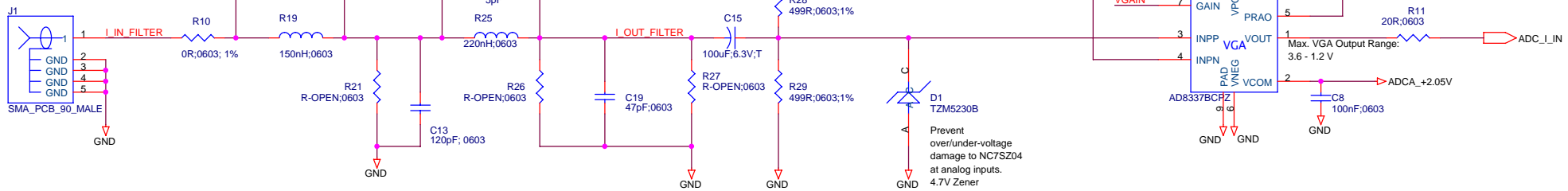
B-channel output not used
Outputs share A output
channel when DDR output
interface is enabled

Out-of-Range Indicator for Channel B
TP5
OTR_1
OTR_0
Out-of-Range Indicator for Channel A

Note:
Com-3009 uses, pin compatible AD9238 Dual 12-Bit, 65 MSPS ADC instead

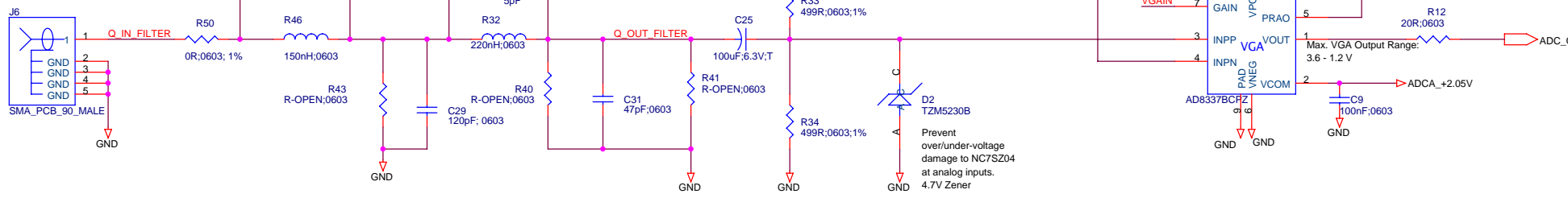
AK Mobile Satellite Services 18221A Flower Hill Way Gaithersburg, MD 20879 USA	
Title COM-3008 / ADC_Q	
Size B	Document Number Y07002
Date: Monday, August 20, 2007	Sheet 4 of 10
	Rev 2

**IF INPUT
I - CHANNEL**

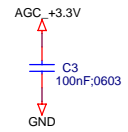


layout note: traces from the SMA connector to the A/D converter are 50 Ohm impedance matched (can be as high as 200-300 MHz).

**IF INPUT
Q - CHANNEL**



layout note: traces from the SMA connector to the A/D converter are 50 Ohm impedance matched (can be as high as 200-300 MHz).

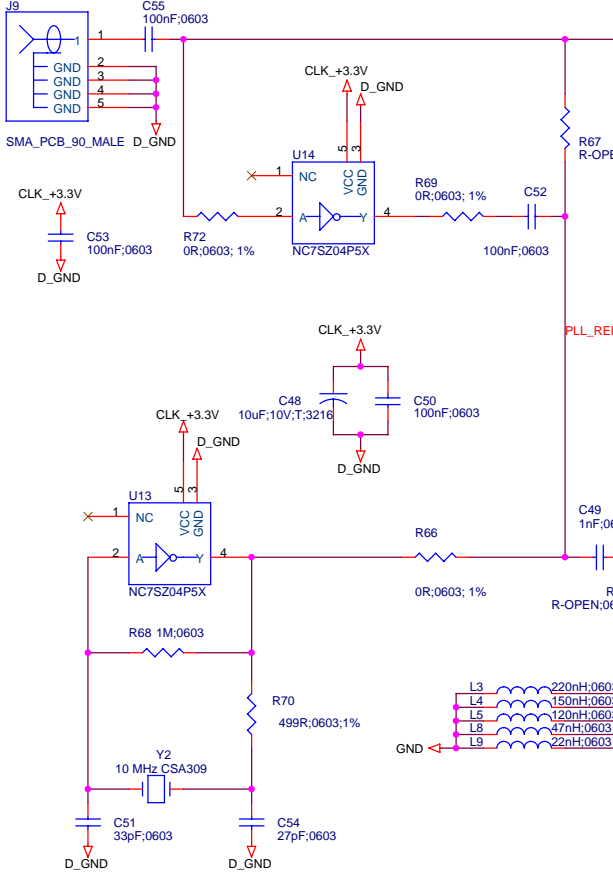


**EXTERNAL
AGC CONTROL
(INVERTING)**

Layout note:
VGAIN is a very sensitive trace as the receiver gain varies as 20dB/V. Avoid routing near any noise source.

AK Mobile Satellite Services 18221A Flower Hill Way Gaithersburg, MD 20879 USA		
Title COM-3008 / AFE		
Size B	Document Number Y07002	Rev 2
Date: Monday, August 20, 2007	Sheet 5	of 10

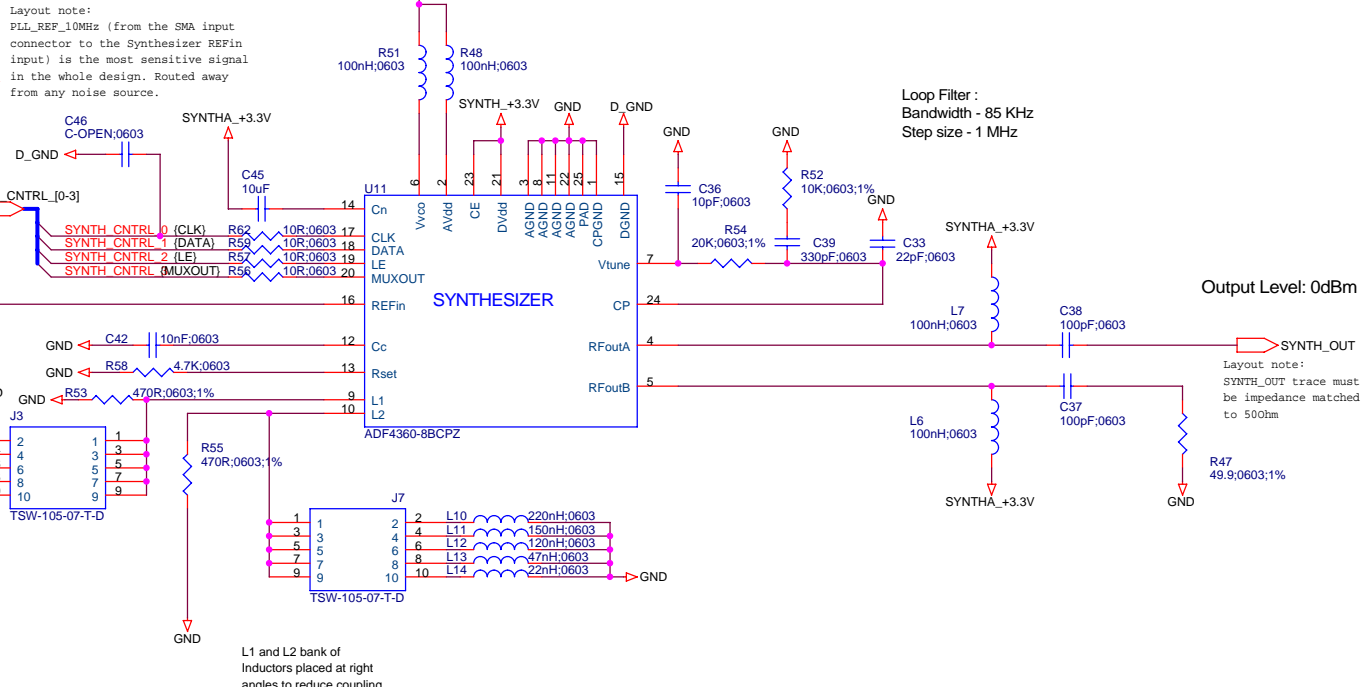
EXTERNAL FREQUENCY REFERENCE



Layout note:
PLL_REF_10MHz (from the SMA input connector to the Synthesizer REFIn input) is the most sensitive signal in the whole design. Routed away from any noise source.

Layout note:
Crystal uses "laydown" footprint

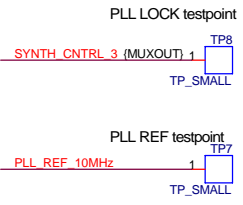
NOTE:
The ADF4360-8 synthesizer can generate frequencies between 65MHz - 410MHz (not concurrently) by changing the L1 and L2 inductors (jumpers), and the appropriate software tuning.



Loop Filter :
Bandwidth - 85 KHz
Step size - 1 MHz

Output Level: 0dBm

Layout note:
SYNTH_OUT trace must be impedance matched to 50ohm



AK Mobile Satellite Services 18221A Flower Hill Way Gaithersburg, MD 20879 USA		
Title COM-3008 / CLK_SYNTH		
Size B	Document Number Y07002	Rev 2
Date: Monday, August 20, 2007	Sheet 6	of 10

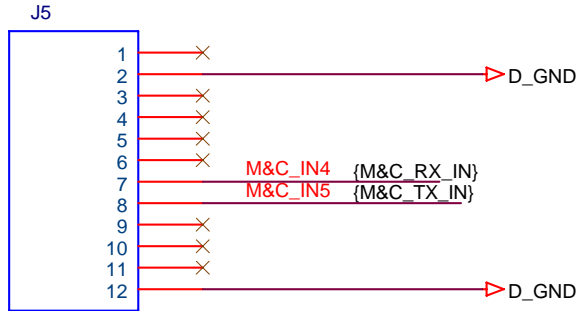
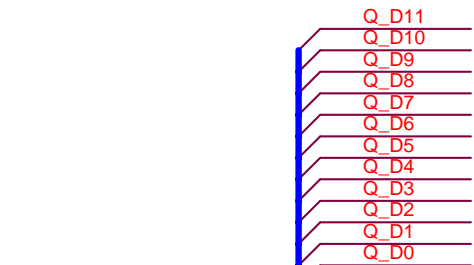
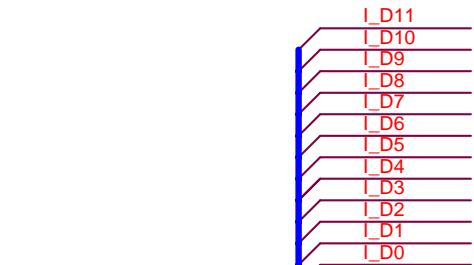
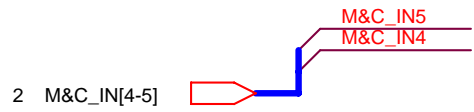
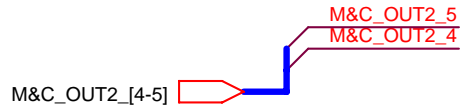
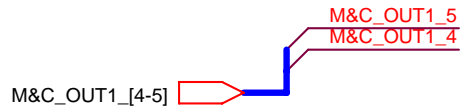
External ADC sampling clock (input)



Input AGC (input)

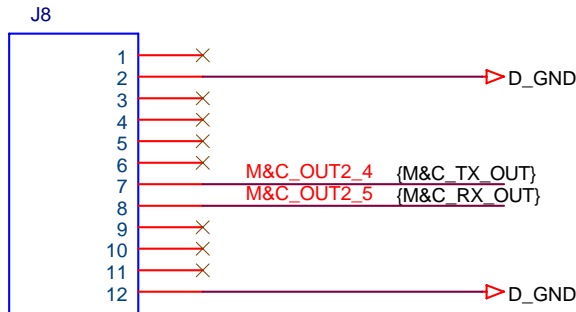


ADC sampling clock (output)



SQT-106-01-L-D-RA

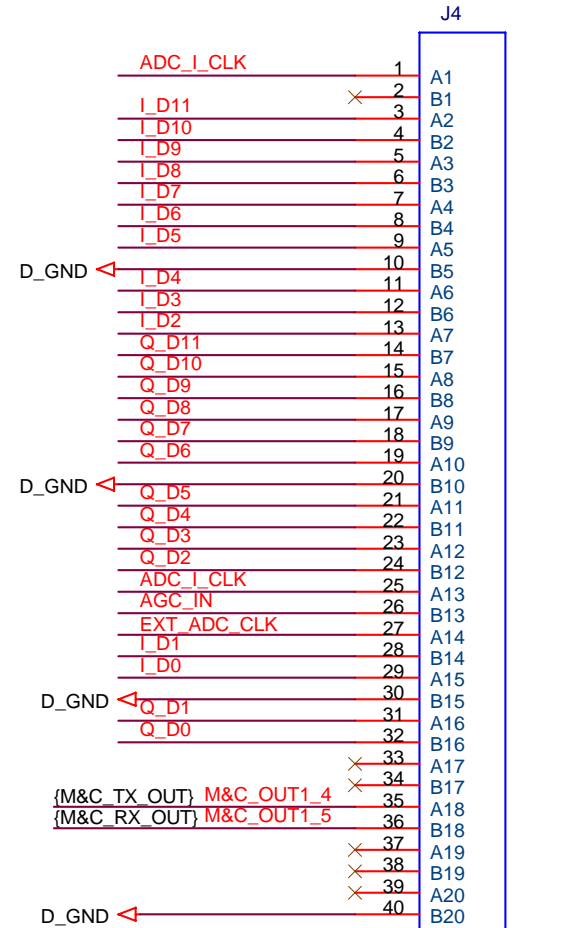
M&C INPUT
FEMALE CONNECTOR



TMMH-106-01-L-D-RA

M&C OUTPUT TO
EXTERNAL FREQ. REF
MALE CONNECTOR

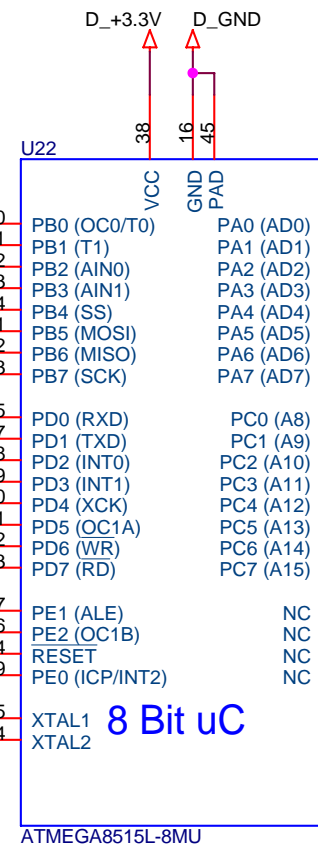
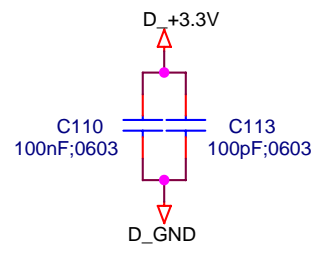
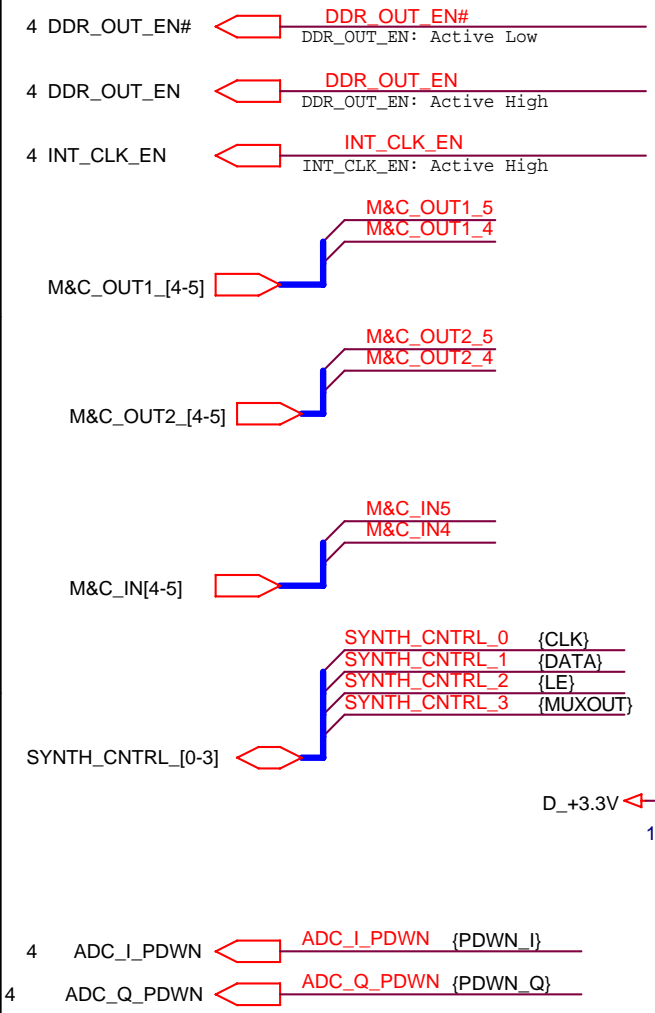
Note:
LSBs D0 and D1 signals
are only available on the
Com-3009



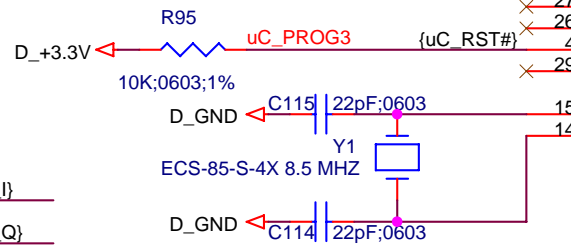
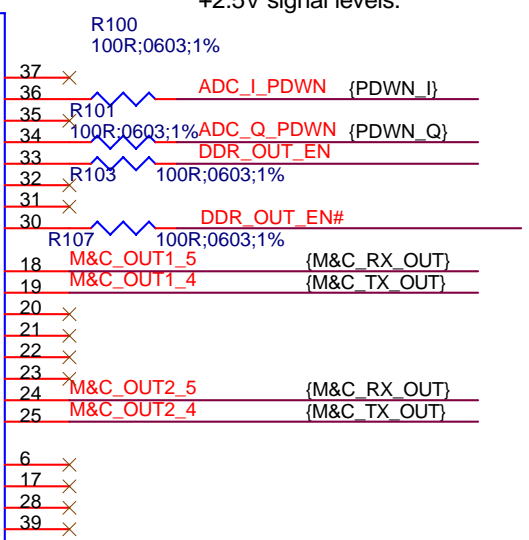
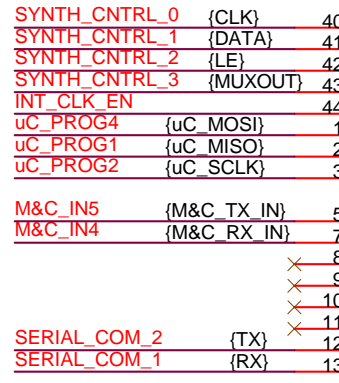
TMMH-120-01-L-D-RA

RIGHT OUTPUT
CONNECTOR

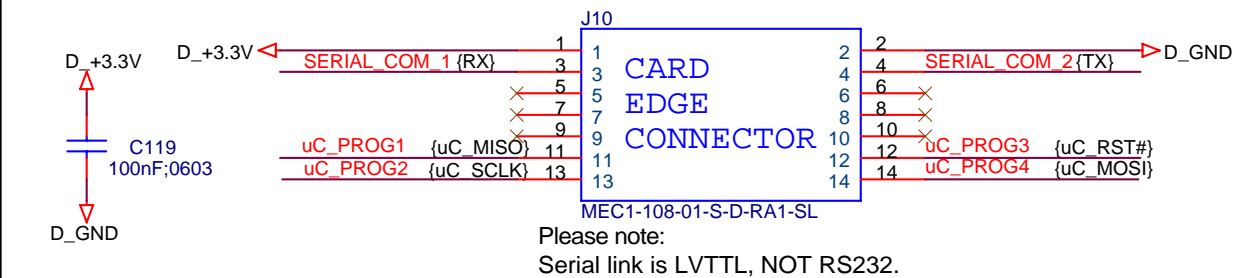
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Mobile Satellite Services 18221A Flower Hill Way Gaithersburg, MD 20879 USA		
Title COM-3008 / CONNECTOR		
Size A	Document Number Y07002	Rev 2
Date: Monday, August 20, 2007	Sheet 7	of 10



100 Ohm resistors are used to lower control signal voltages to +2.5V signal levels.

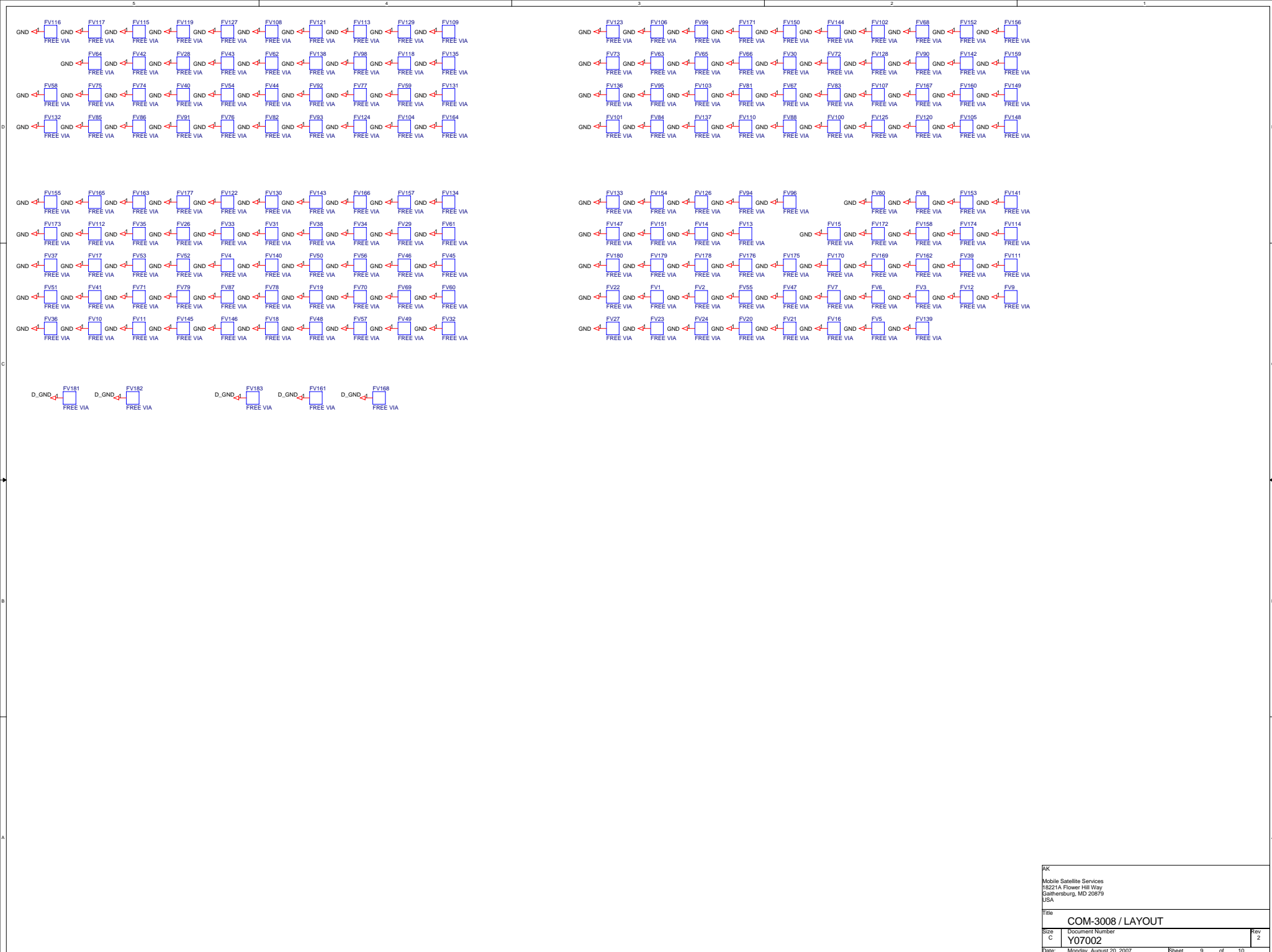


8 Bit uC



Please note:
Serial link is LVTTTL, NOT RS232.

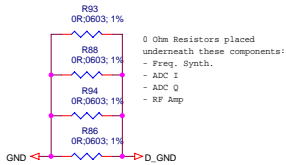
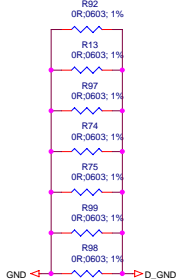
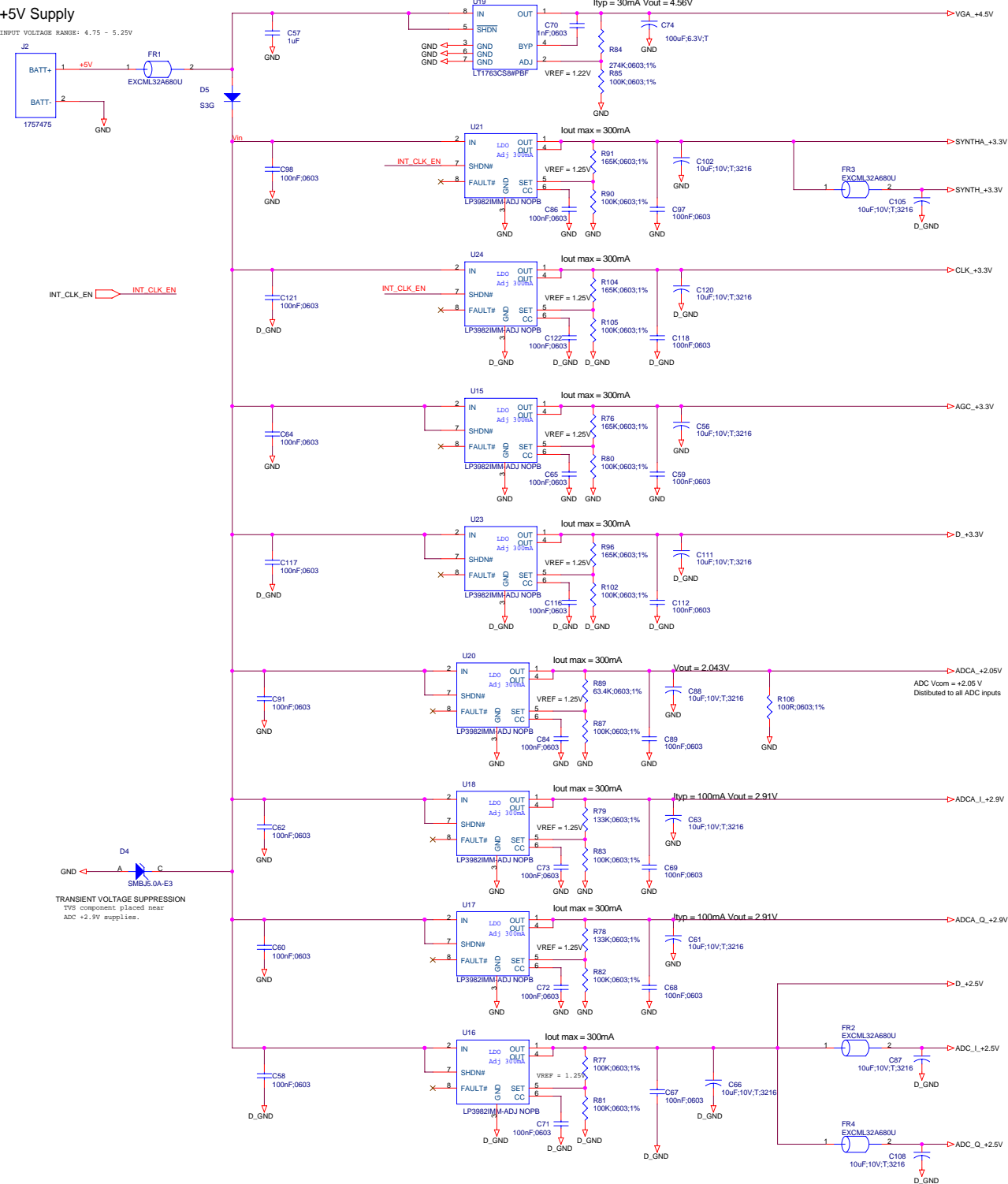
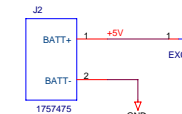
AK		
Mobile Satellite Services 18221A Flower Hill Way Gaithersburg, MD 20879 USA		
Title COM-3008 / MICRO		
Size A	Document Number Y07002	Rev 2
Date: Monday, August 20, 2007	Sheet 8	of 10



AK Mobile Satellite Services 18221A Flower Hill Way Catharsburg, MD 20879 USA		
Title COM-3008 / LAYOUT		
Size C	Document Number Y07002	Rev 2
Date: Monday, August 20, 2007	Sheet 9 of 10	

+5V Supply

INPUT VOLTAGE RANGE: 4.75 - 5.25V



COMP	DIGITAL V	ANALOG mA	V	mA
VGAs		+4.5	<50	
AGC	+3.3	<50		
ADC_I	+2.5	25	+2.9	110
ADC_Q	+2.5	25	+2.9	110
SYNTH	+3.3	10	+3.3	35