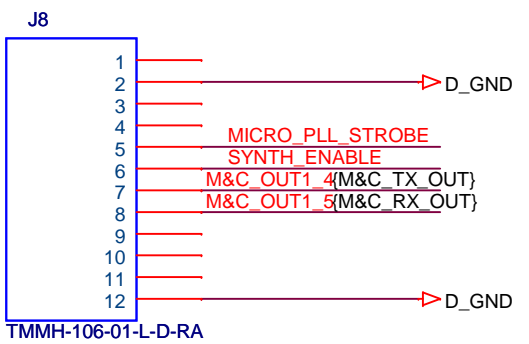


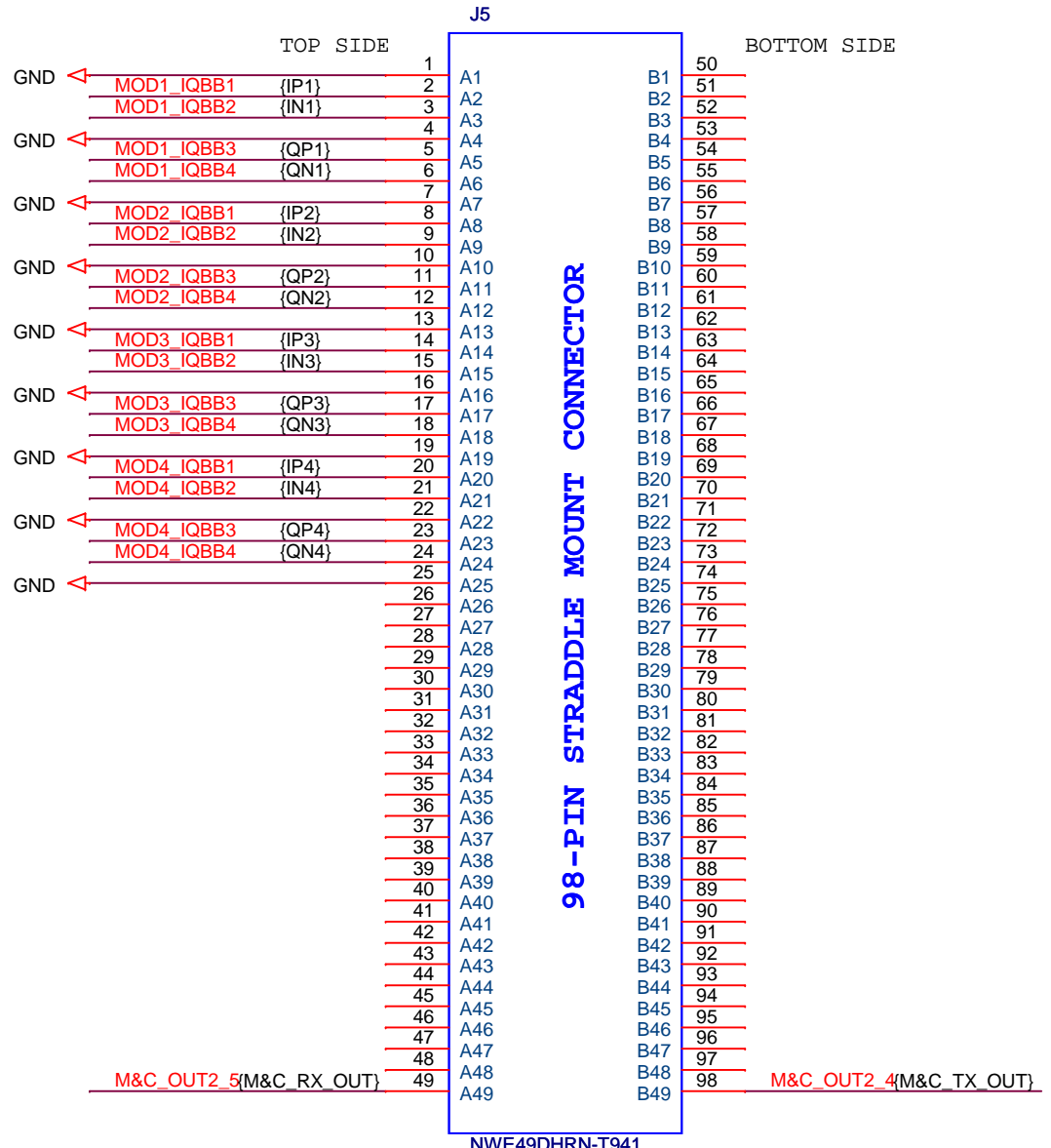
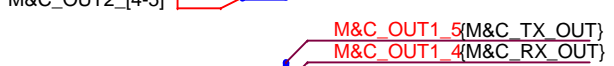
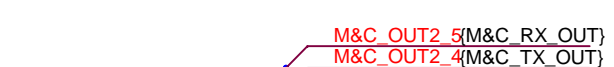
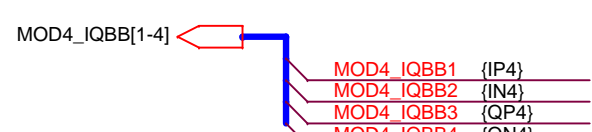
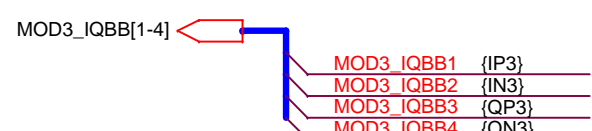
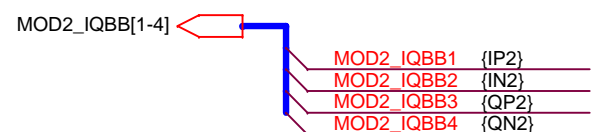
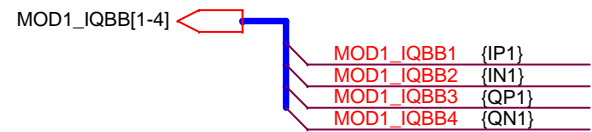
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MAIN		
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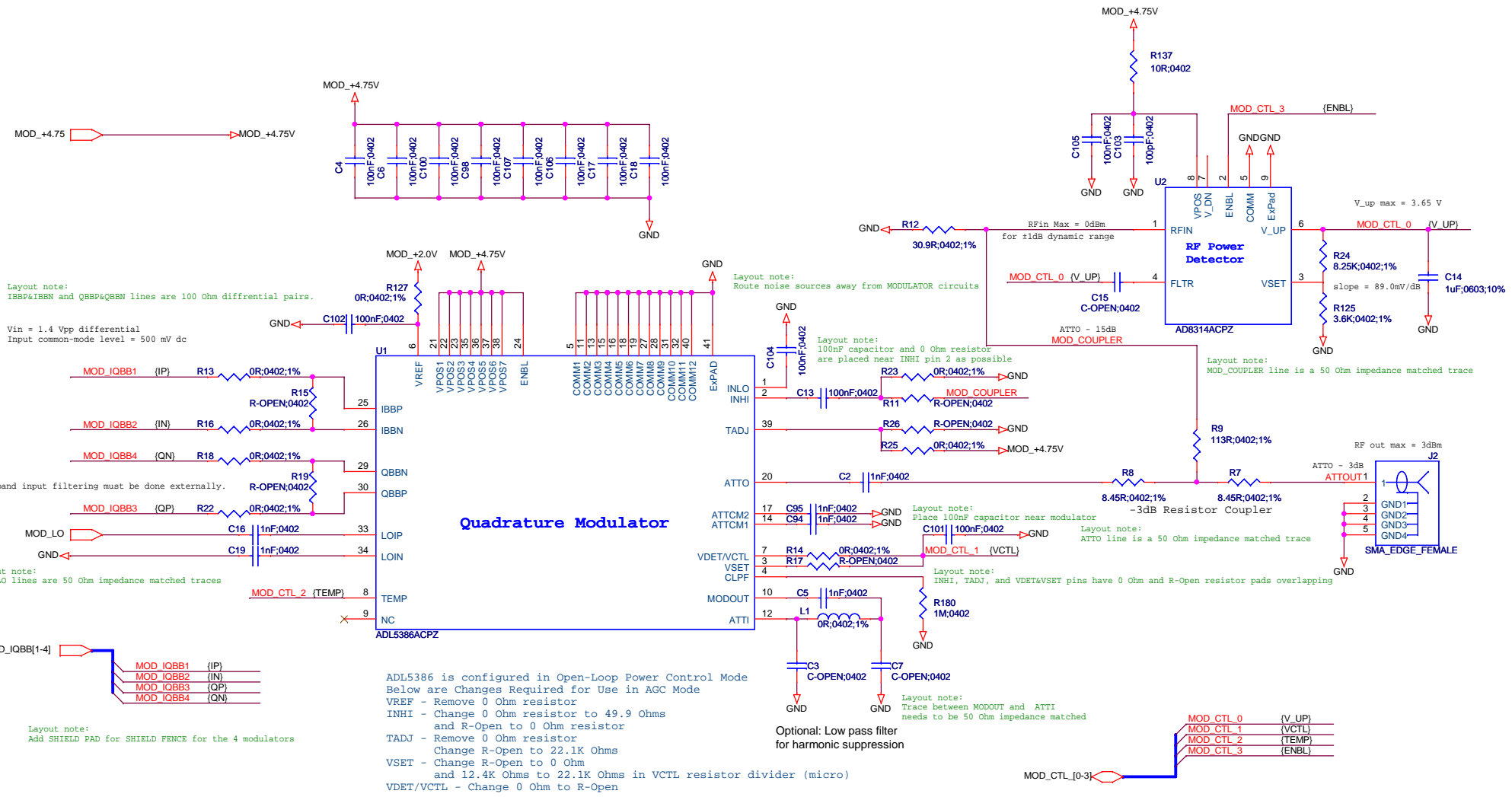
M&C OUTPUT TO
EXTERNAL FREQ. REF
MALE CONNECTOR



98-PIN STRADDLE MOUNT CONNECTOR

NWE49DHRN-T941

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CONNECTOR		
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Layout note:
 IBBP&IBBN and QBBP&QBBN lines are 100 Ohm differential pairs.
 Vin = 1.4 Vpp differential
 Input common-mode level = 500 mV dc

Layout note:
 Route noise sources away from MODULATOR circuits

Layout note:
 100nF capacitor and 0 Ohm resistor
 are placed near INHI pin 2 as possible

Layout note:
 MOD_COUPLER line is a 50 Ohm impedance matched trace

Note:
 Baseband input filtering must be done externally.

Layout note:
 MOD_LO lines are 50 Ohm impedance matched traces

Layout note:
 Place 100nF capacitor near modulator

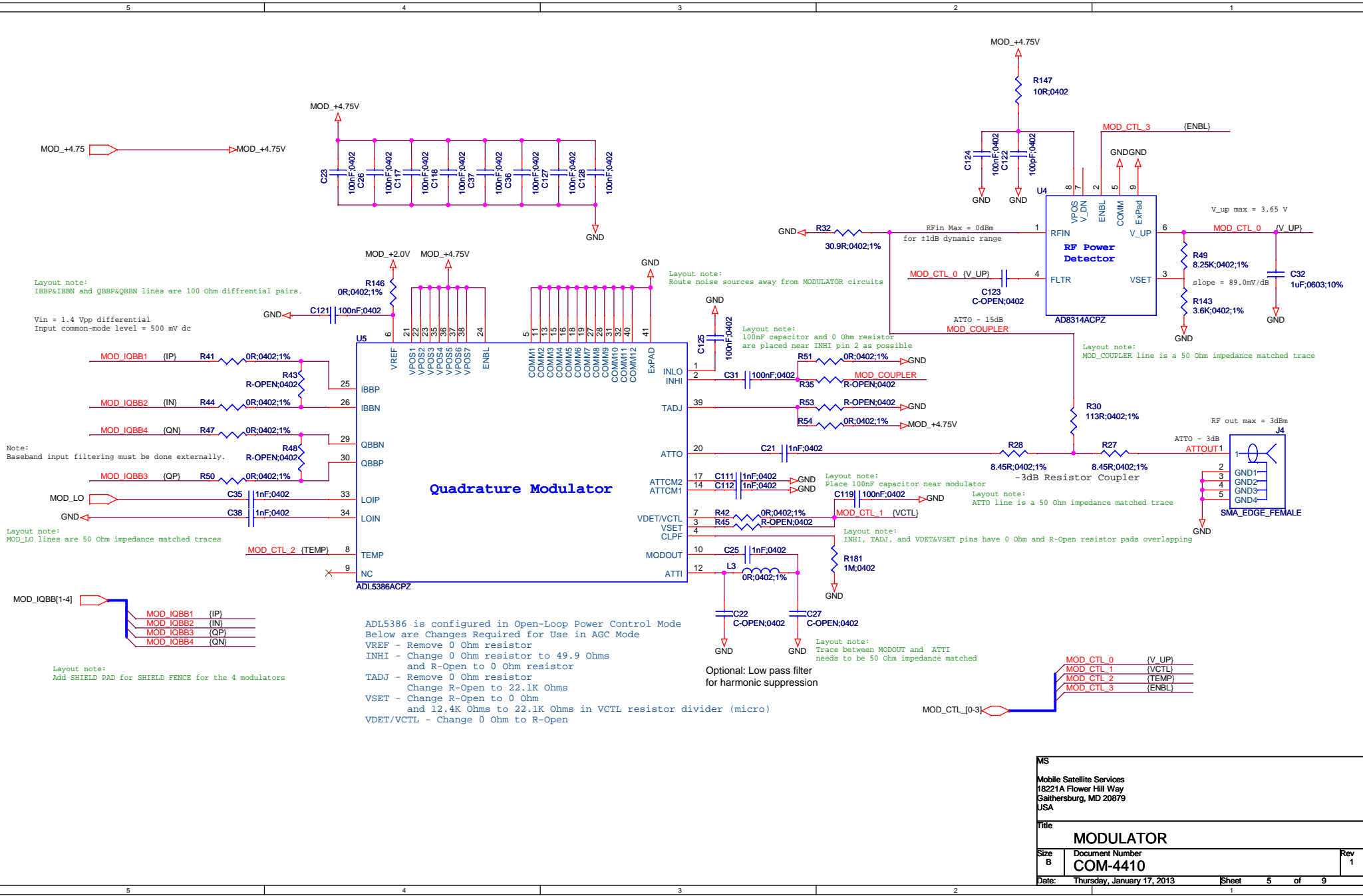
Layout note:
 ATTO line is a 50 Ohm impedance matched trace

Layout note:
 INHI, TADJ, and VDET&VSET pins have 0 Ohm and R-Open resistor pads overlapping

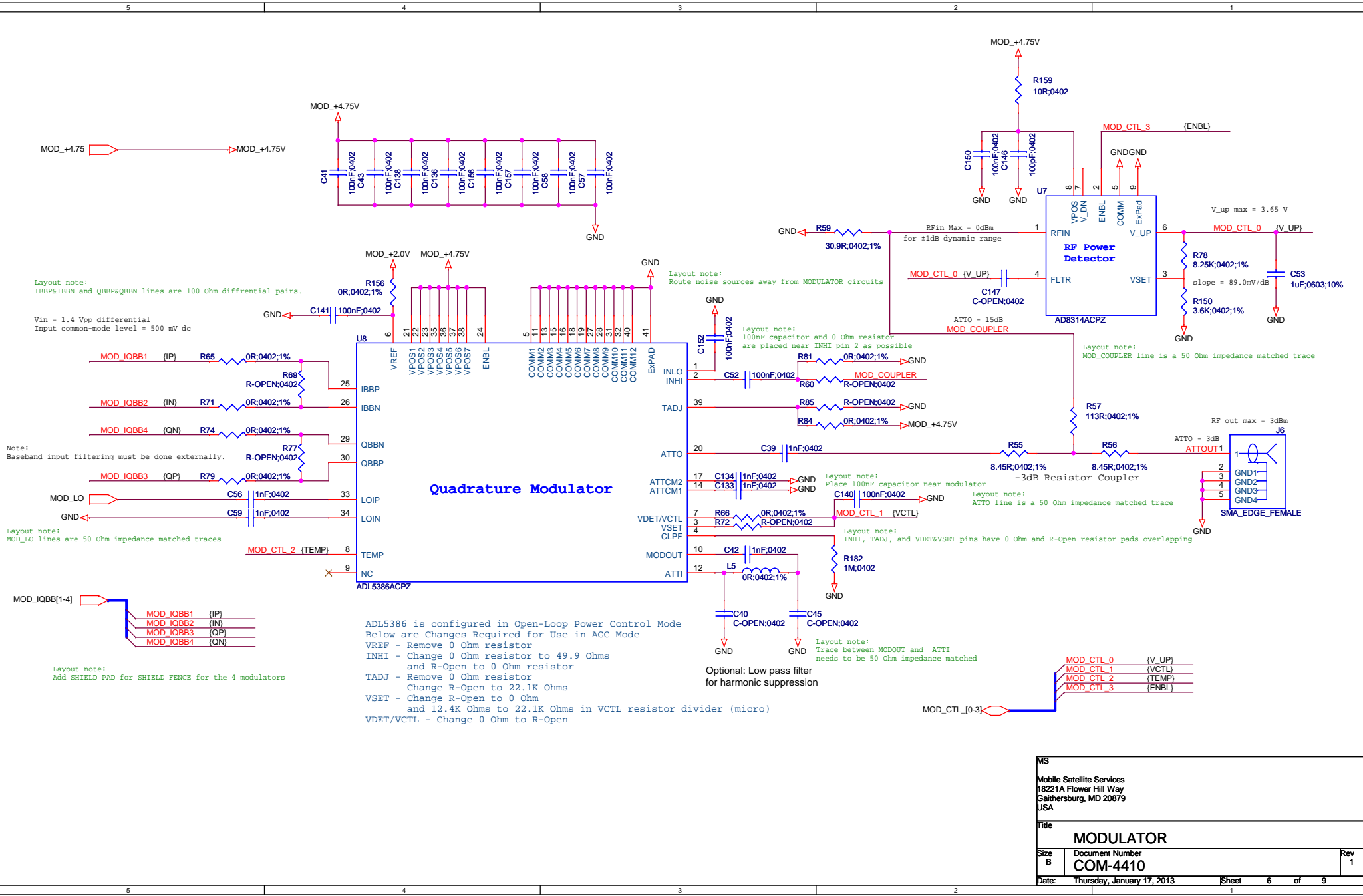
Optional: Low pass filter
 for harmonic suppression

ADL5386 is configured in Open-Loop Power Control Mode
 Below are Changes Required for Use in AGC Mode
 VREF - Remove 0 Ohm resistor
 INHI - Change 0 Ohm resistor to 49.9 Ohms
 and R-Open to 0 Ohm resistor
 TADJ - Remove 0 Ohm resistor
 Change R-Open to 22.1K Ohms
 VSET - Change R-Open to 0 Ohm
 and 12.4K Ohms to 22.1K Ohms in VCTL resistor divider (micro)
 VDET/VCTL - Change 0 Ohm to R-Open

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Layout note:
 IBBP&IBBN and QBBP&QBBN lines are 100 Ohm differential pairs.
 Vin = 1.4 Vpp differential
 Input common-mode level = 500 mV dc

Note:
 Baseband input filtering must be done externally.

Layout note:
 MOD_LO lines are 50 Ohm impedance matched traces

Layout note:
 Add SHIELD PAD for SHIELD FENCE for the 4 modulators

Layout note:
 Route noise sources away from MODULATOR circuits

Layout note:
 100nF capacitor and 0 Ohm resistor
 are placed near INHI pin 2 as possible

Layout note:
 MOD_COUPLER line is a 50 Ohm impedance matched trace

Layout note:
 Place 100nF capacitor near modulator

Layout note:
 ATTO line is a 50 Ohm impedance matched trace

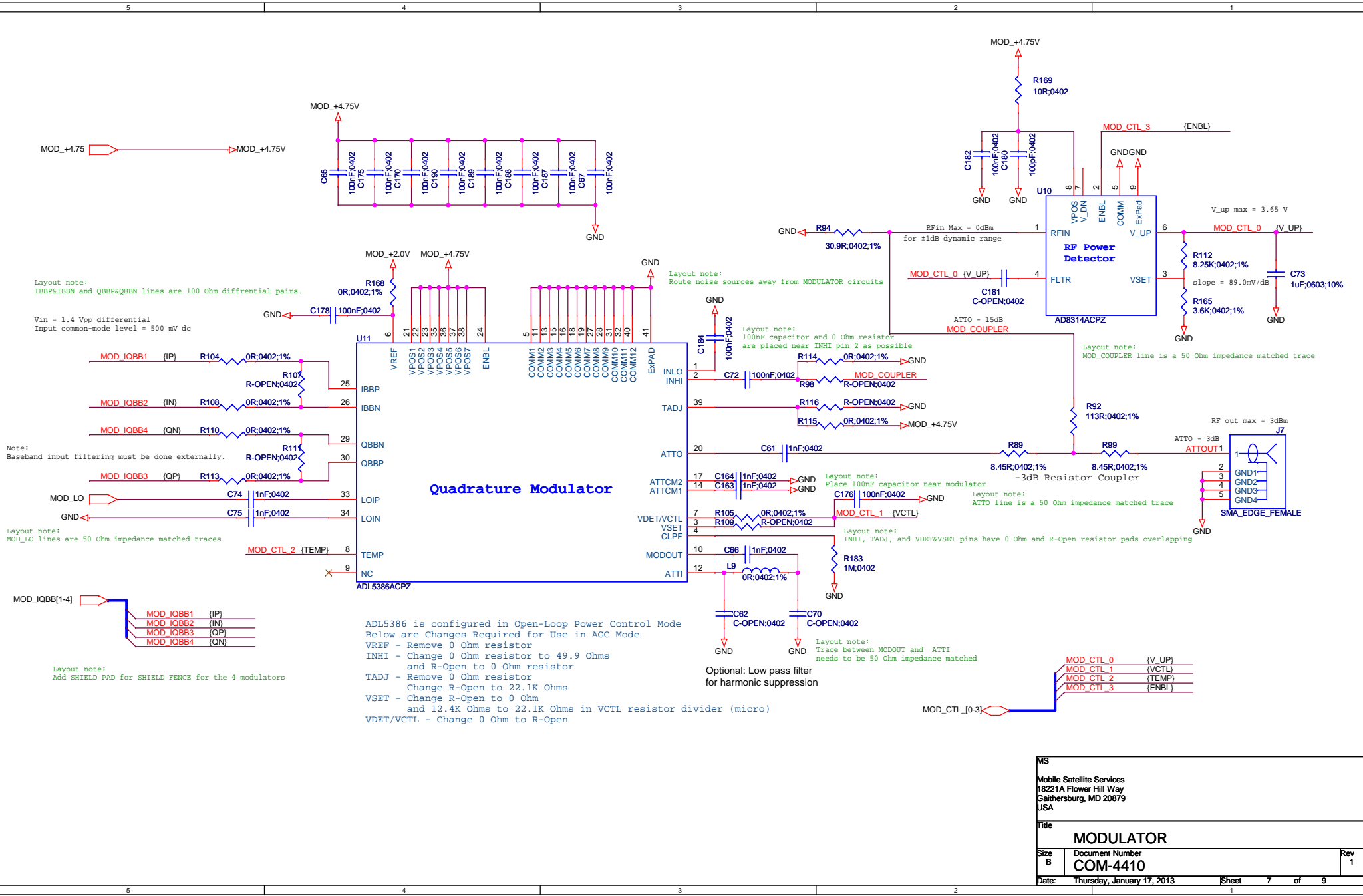
Layout note:
 INHI, TADJ, and VDET&VSET pins have 0 Ohm and R-Open resistor pads overlapping

Layout note:
 Trace between MODOUT and ATTI
 needs to be 50 Ohm impedance matched

ADL5386 is configured in Open-Loop Power Control Mode
 Below are Changes Required for Use in AGC Mode
 VREF - Remove 0 Ohm resistor
 INHI - Change 0 Ohm resistor to 49.9 Ohms
 and R-Open to 0 Ohm resistor
 TADJ - Remove 0 Ohm resistor
 Change R-Open to 22.1K Ohms
 VSET - Change R-Open to 0 Ohm
 and 12.4K Ohms to 22.1K Ohms in VCTL resistor divider (micro)
 VDET/VCTL - Change 0 Ohm to R-Open

Optional: Low pass filter
 for harmonic suppression

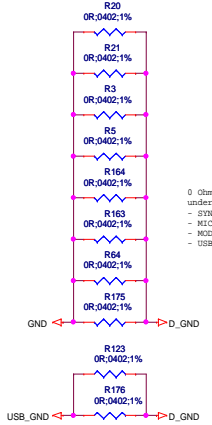
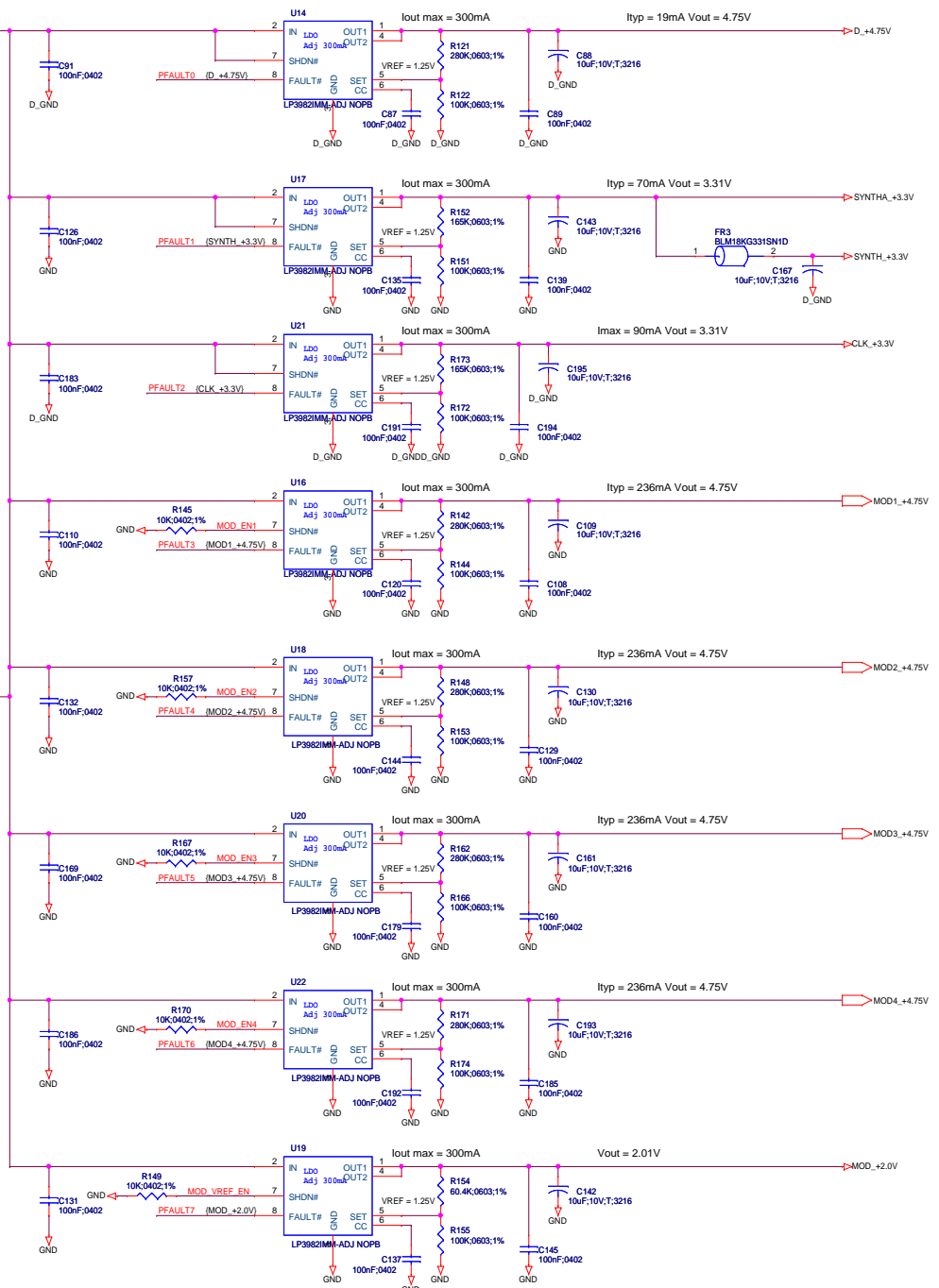
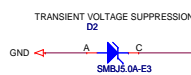
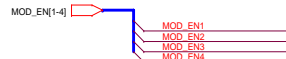
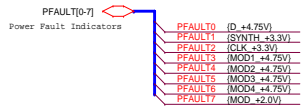
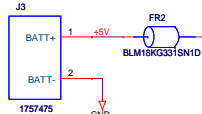
MS		
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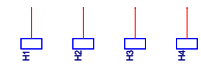
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Title MODULATOR		
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+5V Supply

OPERATIONAL RANGE: 5.0 - 5.5V



0 Ohm Resistors placed underneath these components:
 - SWPWRISZ
 - M1C80
 - M1C140ATORS
 - USB



COMP	DIGITAL V	mA	ANALOG V	mA
ATMEL	+4.75	<30		
SYNTH	+3.3	80	+3.3	80
MOD1			+4.75	236
MOD2			+4.75	236
MOD3			+4.75	236
MOD4			+4.75	236
CLK	+3.3	<90		

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 USA

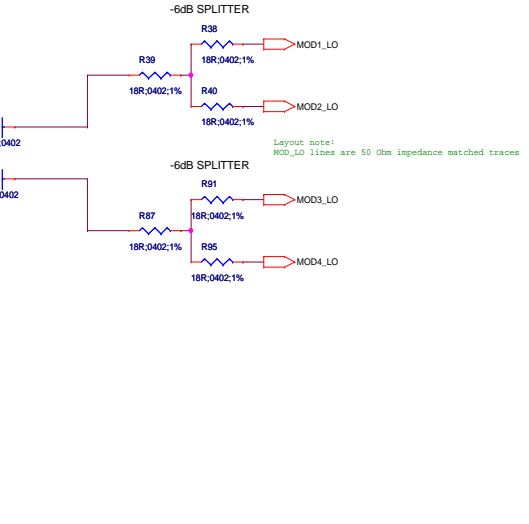
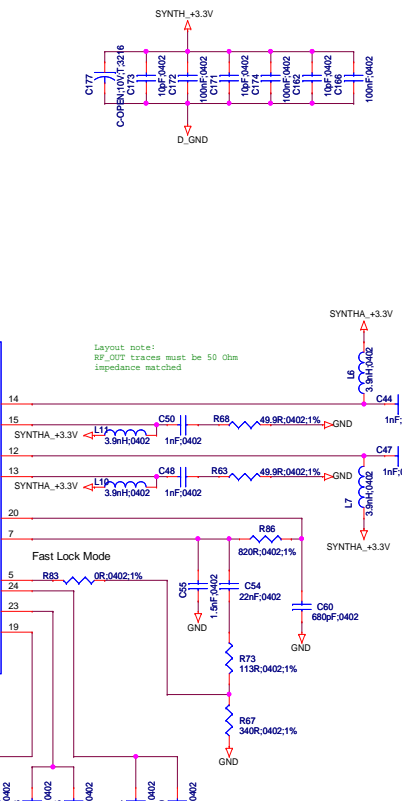
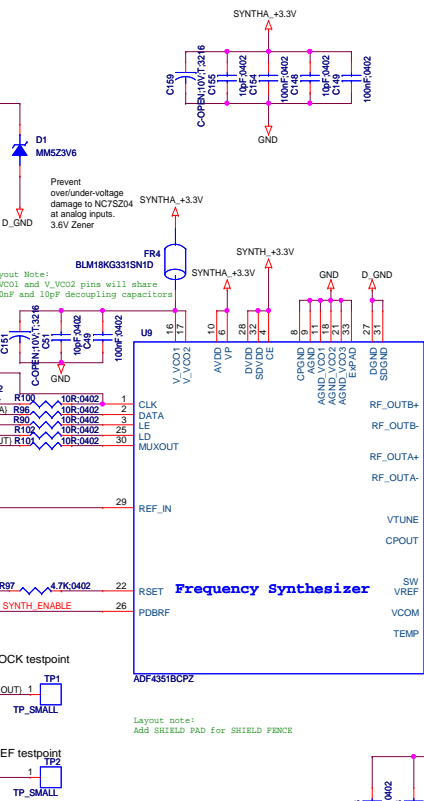
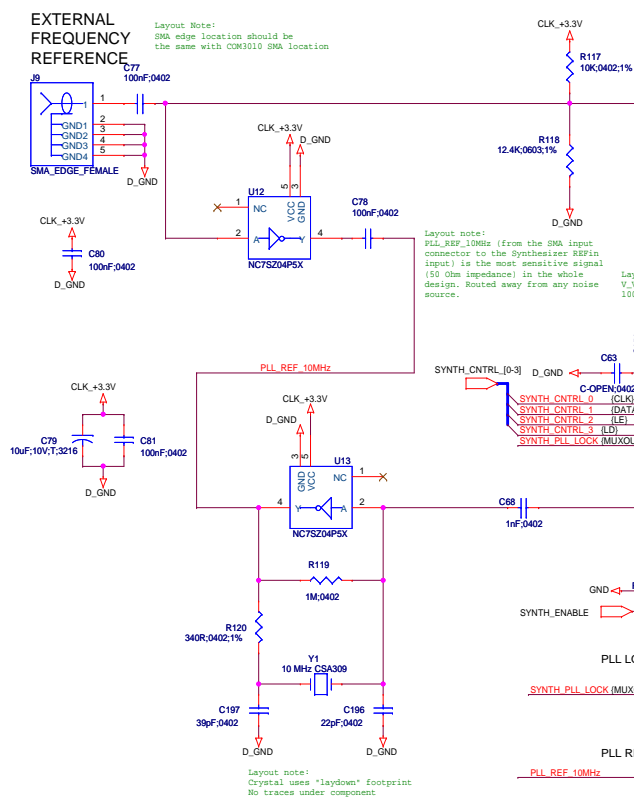
Title: **POWER**

Size: C Document Number: **COM-4410** Rev: 1

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EXTERNAL FREQUENCY REFERENCE

Layout Note:
SMA edge location should be the same with COM910 SMA location



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