1. ALL PERIPHERAL VOLTAGES ARE FIXED @ 3.3 VOLTS +/-3%.
2. ALL OUTPUT POWER VOLTAGES ARE FIXED VOLTAGES.
3. ALL CRYSTALS & OSCILLATOR VOLTAGES ARE 3.3 VOLTS +/-3%.

REV	ECN	DESCRIPTION OF REVISION	DATE
0.1	11297-001	INTERNAL RELEASE	07/17/17

D210 MLB - CARRIER (OK3FAB)

LAST_MODIFICATION=15 08:31:02 2017

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58	58	CS: Sensor Hub	ALL	06/16/2017
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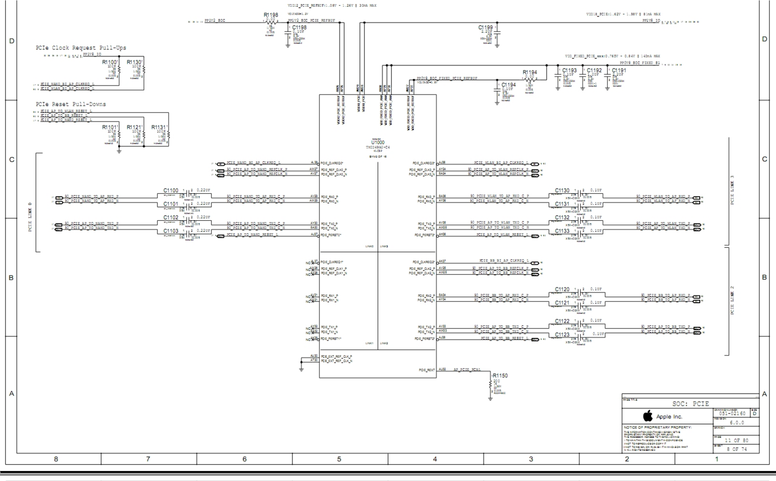
PCIe Clock Request Pull-Ups
PCIe Reset Pull-Downs
SOC: PCIE
Apple Inc.
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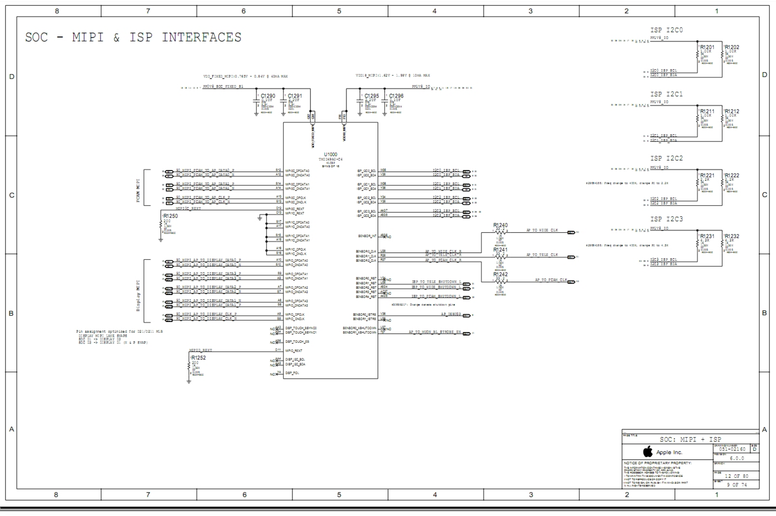
SOC - MIPI & ISP INTERFACES
ISP I2C0
ISP I2C1
ISP I2C2
ISP I2C3
SOC: MIPI + ISP
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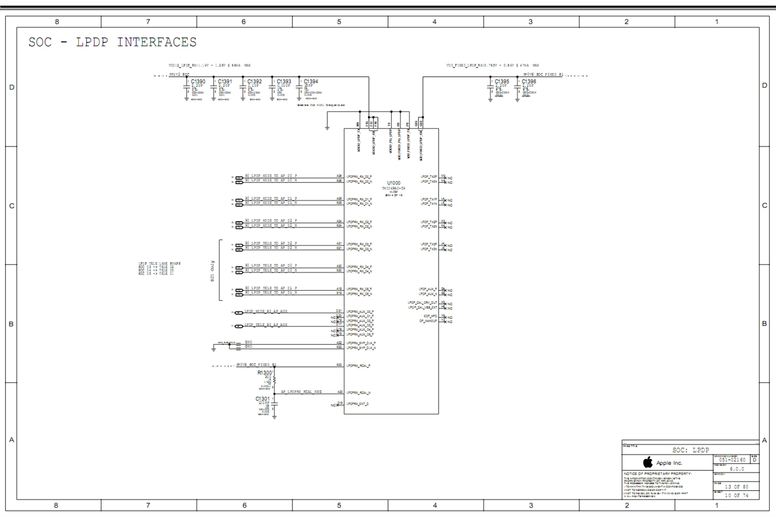
SOC - LPDP INTERFACES
SOC: LPDP
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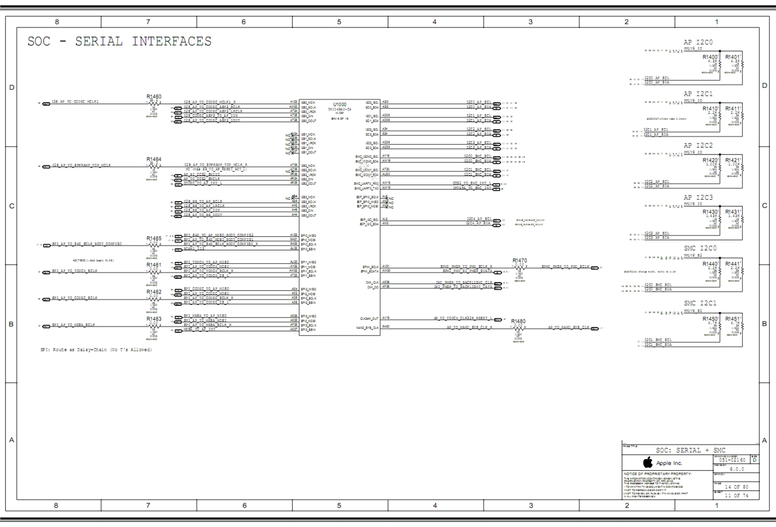
SOC - SERIAL INTERFACES
AP I2C0
AP I2C1
AP I2C2
AP I2C3
SMC I2C0
SMC I2C1
SOC: SERIAL + SMC
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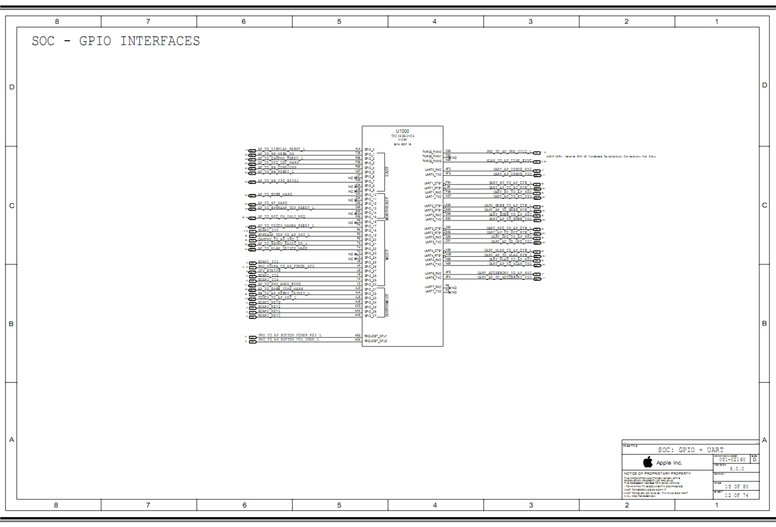
SOC - GPIO INTERFACES
SOC: GPIO + UART
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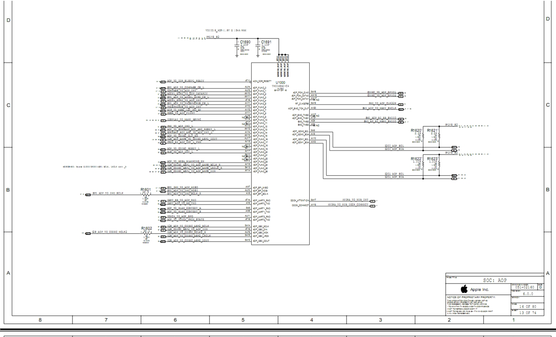
SOC - AOP


SOC: AOD
Apple Inc.
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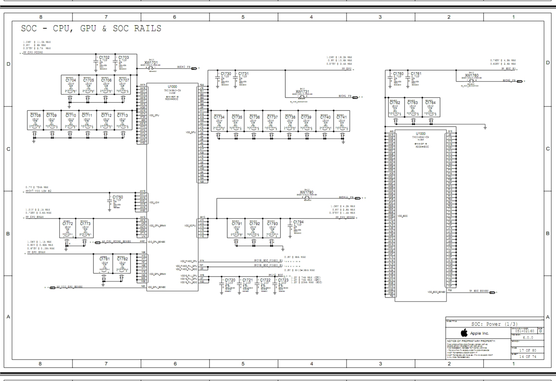
SOC - CPU, GPU & SOC RAILS
SOC: Power (1/3)
Apple Inc.
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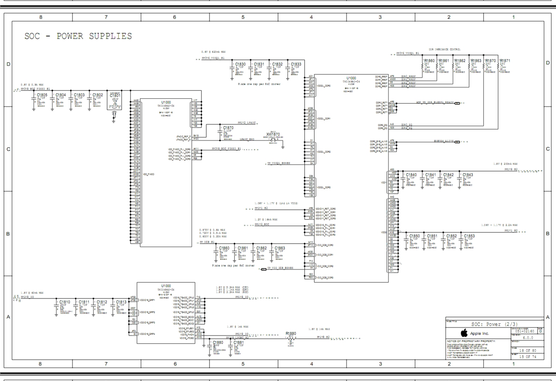
SOC - POWER SUPPLIES
SOC: Power (2/3)
Apple Inc.
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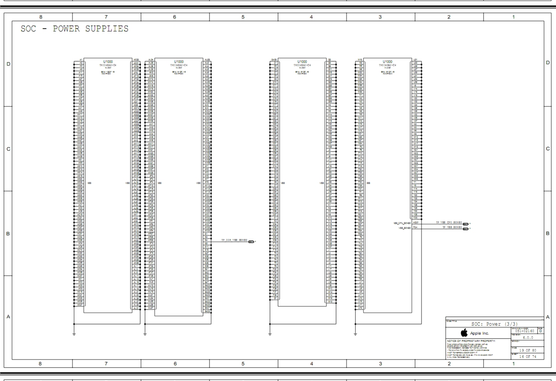
SOC - POWER SUPPLIES
SOC: Power (3/3)
Apple Inc.
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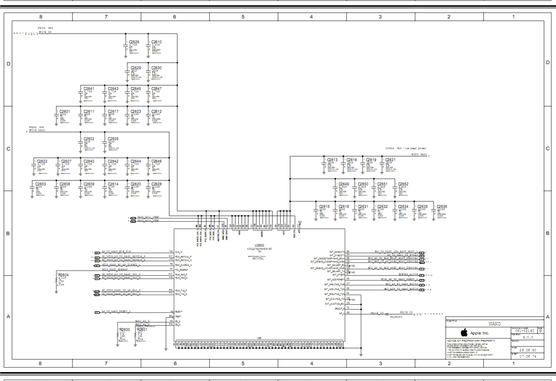
NAND
Apple Inc.
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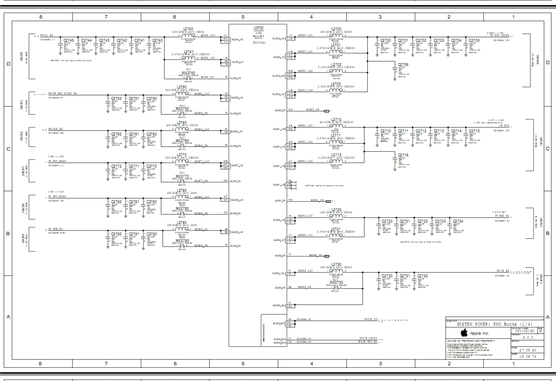
SYSTEM POWER: PMC Bucks (1/4)
Apple Inc.
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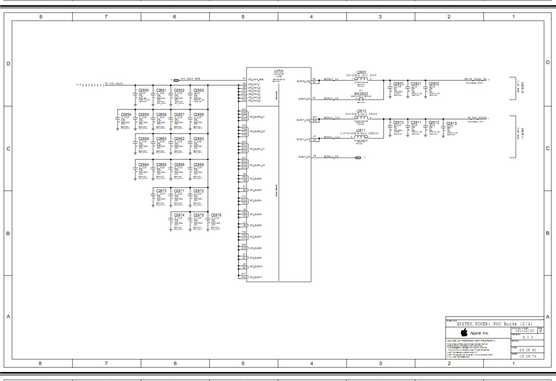
SYSTEM POWER: PMC Bucks (2/4)
Apple Inc.
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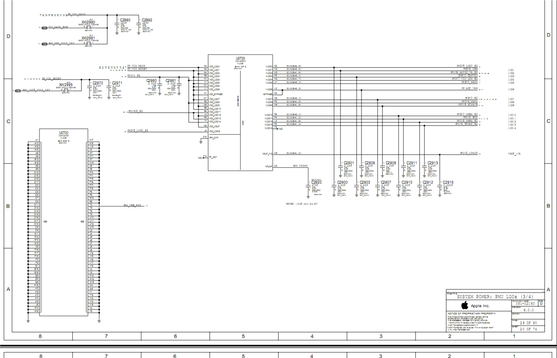
SYSTEM POWER: PMU CORE (1/4)
Apple Inc.
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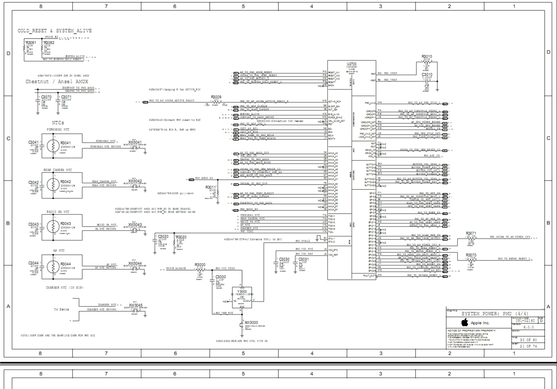
COLD_RESET & SYSTEM_ALIVE
Charger / Aux: AOUX
NTC6
SYSTEM POWER: PMU (2/4)
Apple Inc.
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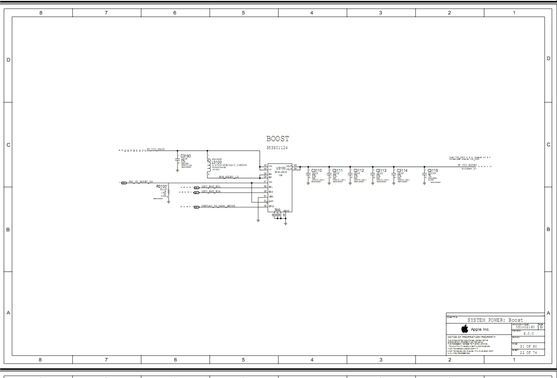
BOOST
SYSTEM POWER: Boost
Apple Inc.
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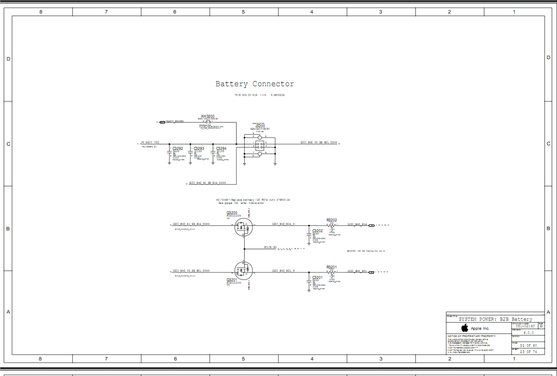
Battery Connector
SYSTEM POWER: B2B Battery
Apple Inc.
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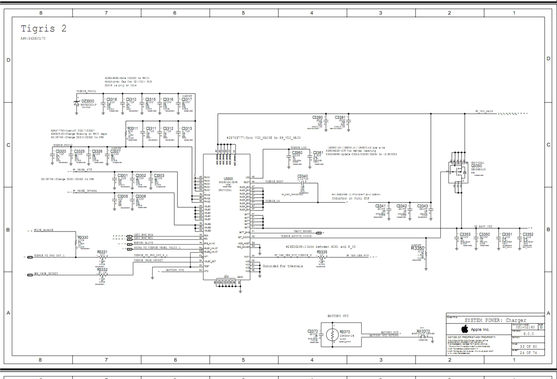
Tigris 2
SYSTEM POWER: Charger
Apple Inc.
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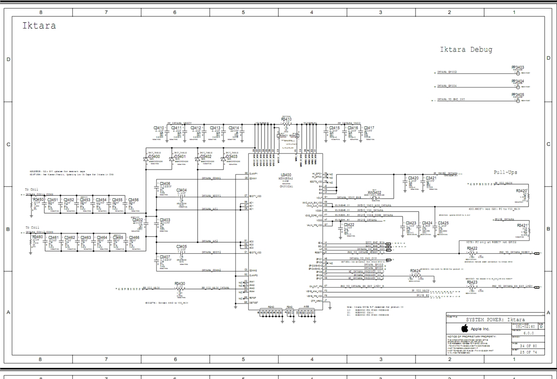
Iktara
Iktara Debug
Pull-Ups
SYSTEM POWER: Iktara
Apple Inc.
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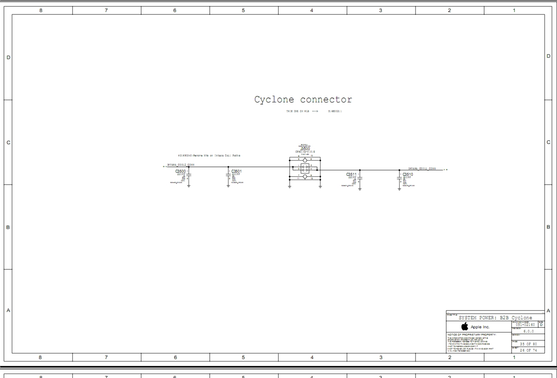
Cyclone connector
SYSTEM POWER: B2B Cyclone
Apple Inc.
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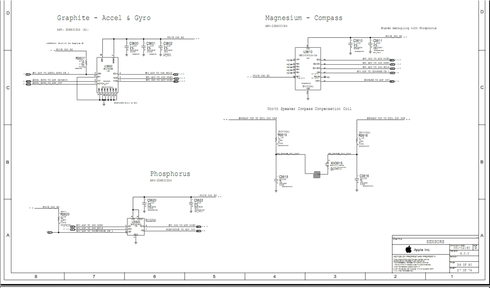
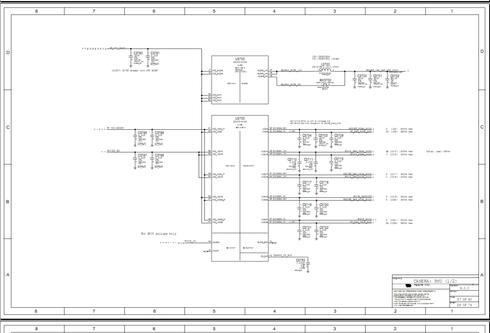
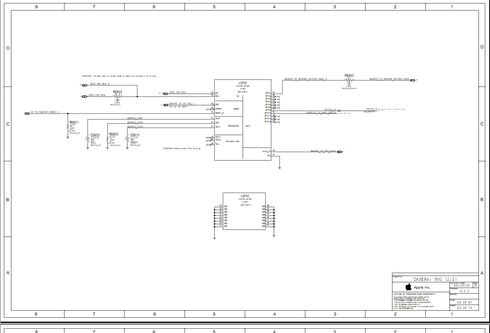
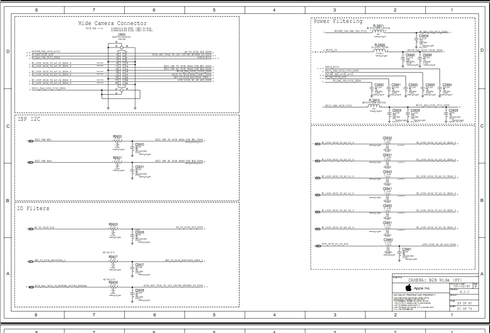
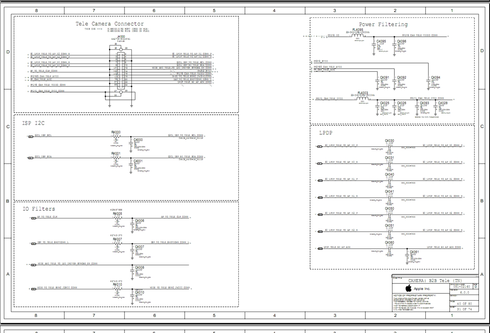
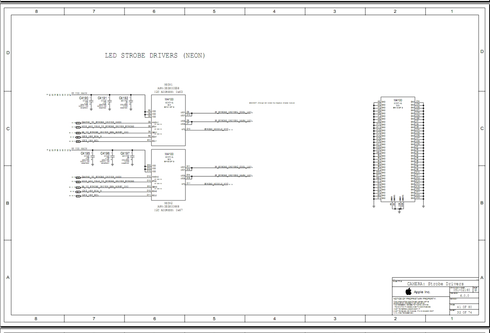


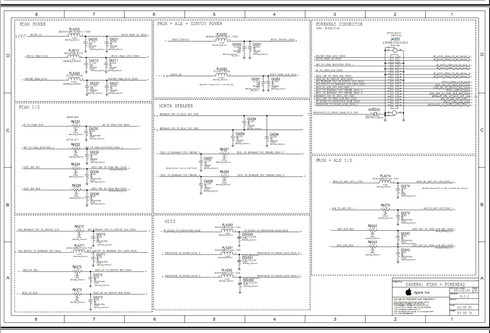


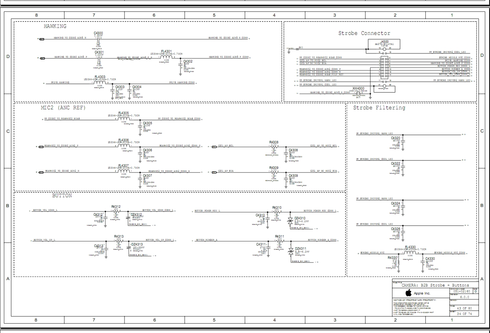




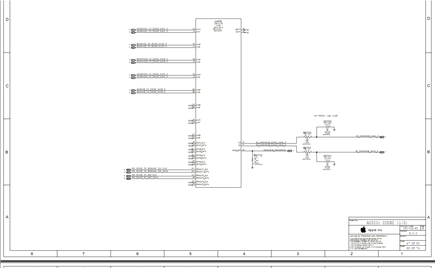




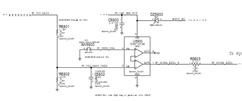




CALLAN AUDIO CODEC (ANALOG INPUTS & OUTPUTS)


CALLAN AUDIO CODEC (POWER & I/O)
South Speaker Amplifier
North Speaker Amplifier
FARC DRIVER
HIAL BIP
CHESTNUT DISPLAY PMU
HOJATS MESA BOOST
MESA POWER
MESA DIGITAL I/O
MESA AND MESA CONNECTOR
MAUNA POWER
MAUNA DIGITAL I/O

VDD_MAIN OV CUT-OFF CIRCUIT



Apple Inc.
I2C Controller Cut-Off Circuit
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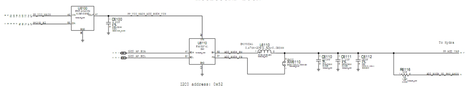
ACCESSORY BUCK



Apple Inc.
I2C: Accessory Buck
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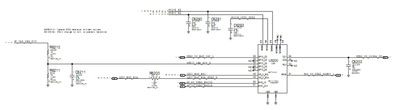
I2C: USB PD



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I2C: USB PD
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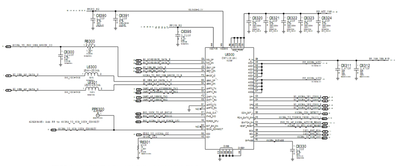
HYDRA



Apple Inc.
I2C: Hydra
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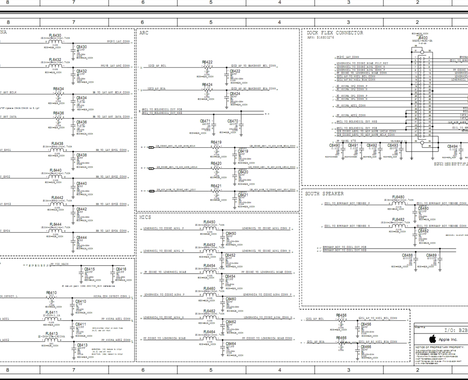

I2C MAP

(see 42997723 update)

Page #	Bus	Device	7-Bit Address	8-Bit Address	Device Max Speed	Regulating Speed	Net Name
8	AP SDC0	**Agnes** (Tristan PMU)	0x74	0xE8	400 Kbps	400 Kbps	SDC0_AP
		Chestnut (Tristan PMU)	0x77	0xEE	400 Kbps		
		AccessoryBuck (Tristan PMU)	0x52	0xA4	400 Kbps		
		Mauer (Tristan PMU)	0x6C	0xD8	1 Mbps		
9	AP SDC1	**MIC1 Temp Sensor** (Pearl Head)	0x4A	0x94	1 Mbps	100 Kbps	SDC1_AP
		MIC2 Temp Sensor (Pearl Head)	0x49	0x92	1 Mbps		
10	AP SDC1	**Adam** (Tristan PMU)	0x60	0xC0	1 Mbps	1 Mbps	SDC1_AP
		Conway (Tristan PMU)	0x71	0xE2	1 Mbps		
11	AP SDC1	**EEPROM** (Pearl Head)	0x51	0xA2	400 Kbps	400 Kbps	SDC1_AP
		Mucin (Pearl Head)	0x52	0xA4	400 Kbps		
		Salamoni (Pearl Head)	0x56	0xAC	1 Mbps		
		EEPROM (Pearl Head)	0x50	0xA0	400 Kbps		
	AP SDC1	**Cooper** (Tristan PMU)	0x70	0xE0	1 Mbps	100 Kbps	SDC1_AP
		Grumbergs (Tristan PMU)	0x62	0xC4	1 Mbps		
	AP SDC1	**Billings** (Pearl Head)	0x20	0x40	1 Mbps	1 Mbps	SDC1_AP
		Edwin (Pearl Head)	0x60	0xC0	1 Mbps		
	AP SDC2	**Concord** (Pearl Head)	0x70	0xE0	1 Mbps	100 Kbps	SDC2_AP
	AP SDC2	**Neon** (Pearl Head)	0x61	0xC2	1 Mbps	100 Kbps	SDC2_AP
		Xenon (Pearl Head)	0x62	0xC4	1 Mbps		
		Neon (Pearl Head)	0x67	0xC6	1 Mbps		
	AP SDC	**EEPROM** (Pearl Head)	0x51	0xA2	400 Kbps	400 Kbps	SDC_AP
4	AP SDC	**Doppler** (Pearl Head)	0x58	0xB0	1 Mbps	400 Kbps	SDC_AP
		CT150 (Pearl Head)	0x70	0xE0	400 Kbps		
5	AOP SDC	**Adam** (Tristan PMU)	0x60	0xC0	1 Mbps	1 Mbps	SDC1_AOP
		Adam (Tristan PMU)	0x41	0x82	1 Mbps		
		Apollo64 (Pearl Head Sensor)	0x61	0xC2	1 Mbps		SDC1_AOP_RD
		Turbo (Pearl Head)	0x62	0xC4	1 Mbps		
6	SMC SDC0	**Tigrid** (Tristan PMU)	0x71	0xE2	400 Kbps	400 Kbps	SDC0_SMC
		TPS61280 (Pearl Head)	0x75	0xEA	400 Kbps		
		CC02 (Pearl Head)	0x12 (0x13)	0x24 (0x27)	1 Mbps		
		Ariana (Pearl Head)	0x39	0x72	400 Kbps		
		Sheldon (Pearl Head)	0x55	0xAA	400 Kbps		
7	SMC SDC1	**Hydra** (Pearl Head)	0x14	0x24	400 Kbps	400 Kbps	SDC1_SMC

Apple Inc.
SYSTEM: I2C MAP
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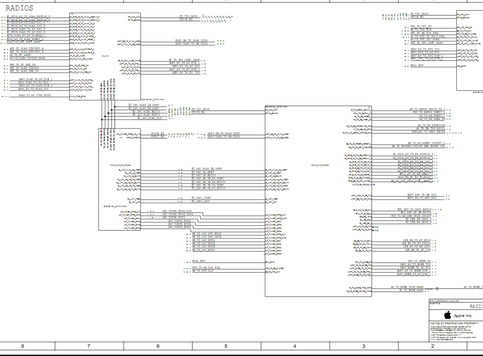
RADIOS



Apple Inc.
RADIOS
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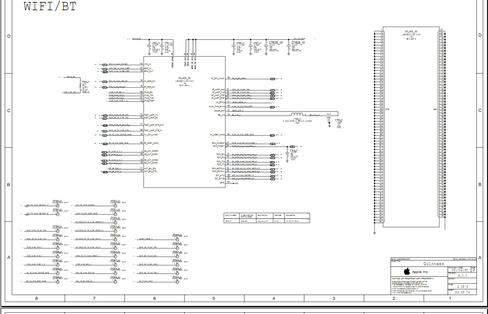
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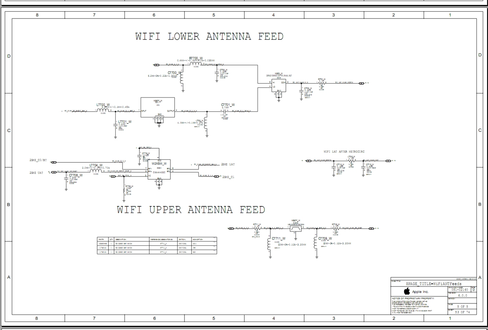
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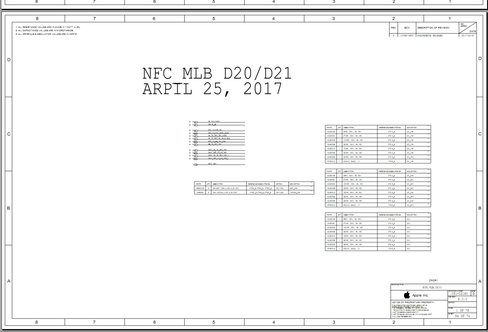
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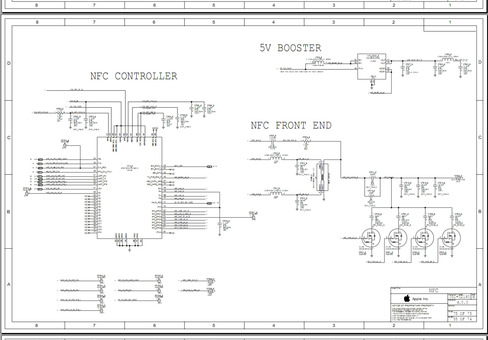
ARPIL 25, 2017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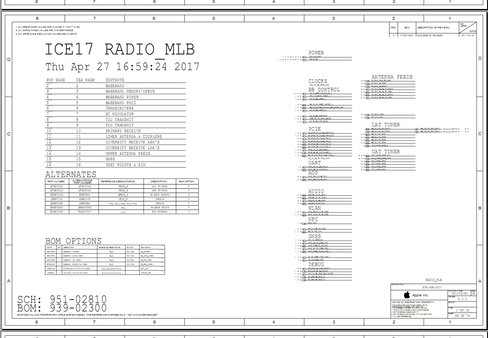
NFC CONTROLLER
NFC FRONT END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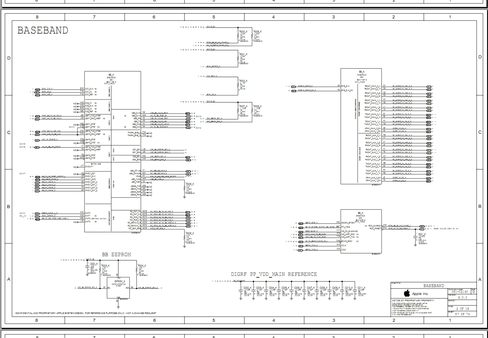
Thu Apr 27 16:59:24 2017
ALTERNATES
BOM OPTIONS
SCH: 951-02810
BOM: 939-02300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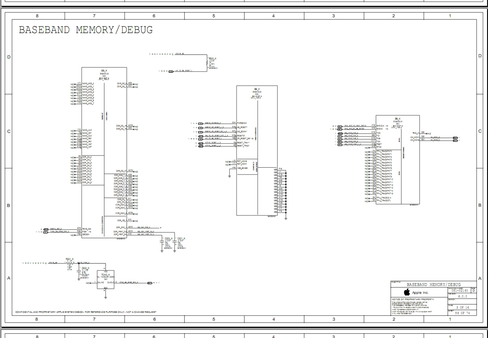
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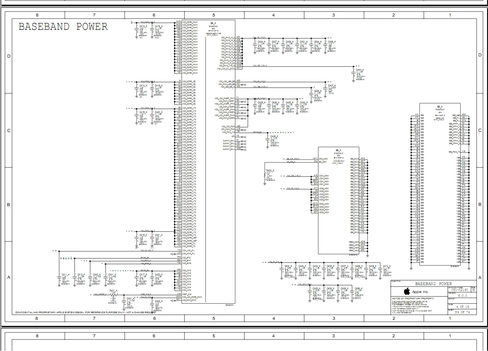
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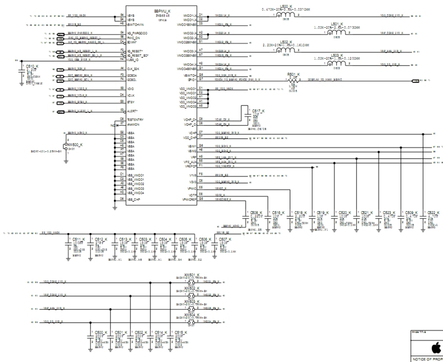
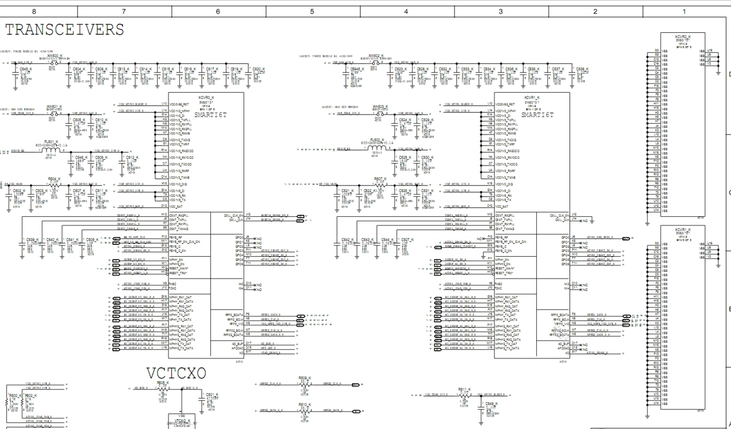


BASEBAND PMIC

CONFIDENTIAL AND PROPRIETARY APPLE BYTEDESIGN. FOR REFERENCE PURPOSE ONLY - NOT A CHANGE REQUEST

TRANSCEIVERS



VCTCXO

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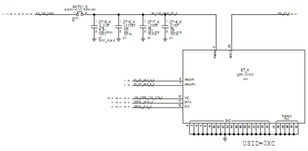
ET MODULATOR

ALPES II ES2 MODULE



ET MODULATOR

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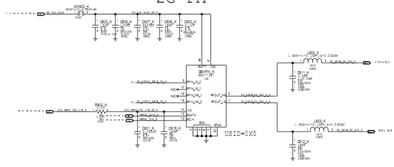
TDD TRANSMIT

2G PA



XCVR0 TX

MB HB TDD S-PAD

XCVR1 TX

TDD TRANSMIT

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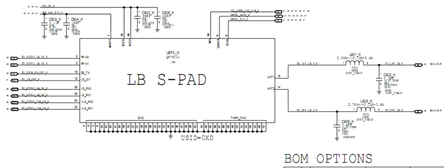
FDD TRANSMIT

LB S-PAD



BOM OPTIONS

DATE	BY	DESCRIPTION	REFERENCE DESIGNATOR	BOM OPTION
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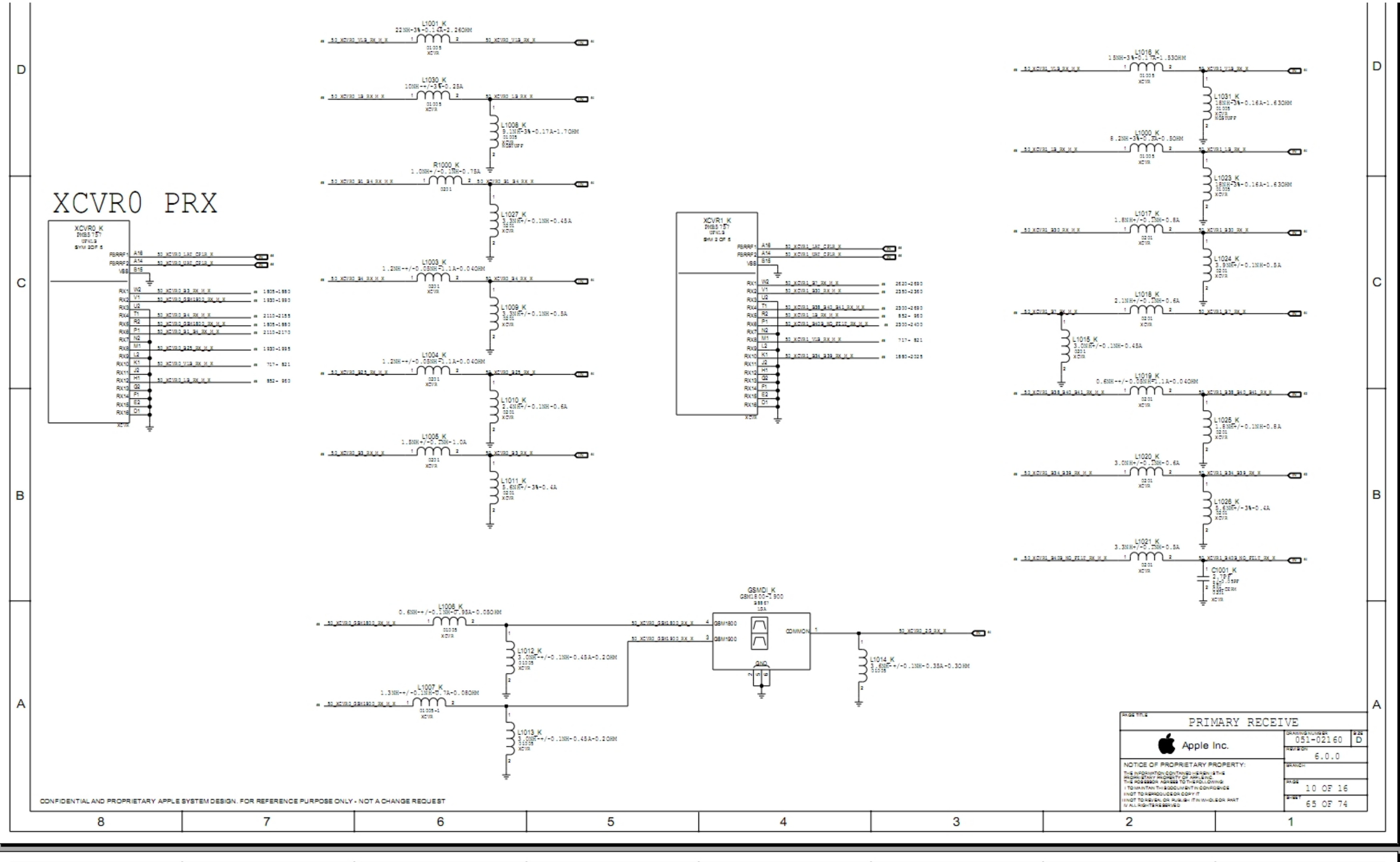
110ABR0		0G, 0.4MM, SMD, 100mg	VCTCXO_B	0G1
110ABR0		0G, 0.4MM, SMD, 100mg	VCTCXO_C	0G1
110AFR0		0G, 0.4MM, SMD, 100mg	VCTCXO_D	0G1
110AFR0		0G, 0.4MM, SMD, 100mg	VCTCXO_E	0G1
110AFR0		0G, 0.4MM, SMD, 100mg	VCTCXO_F	0G1
110AGR0		0G, 0.4MM, SMD, 100mg	VCTCXO_G	0G1
110AHR0		0G, 0.4MM, SMD, 100mg	VCTCXO_H	0G1

MB/HB S-PAD

FDD TRANSMIT

CONFIDENTIAL AND PROPRIETARY APPLE BYTEDESIGN. FOR REFERENCE PURPOSE ONLY - NOT A CHANGE REQUEST

PRIMARY RECEIVE


XCVR0 PRX
CONFIDENTIAL AND PROPRIETARY APPLE SYSTEM DESIGN. FOR REFERENCE PURPOSE ONLY - NOT A CHANGE REQUEST
PRIMARY RECEIVE
Apple Inc.
051-02160
D
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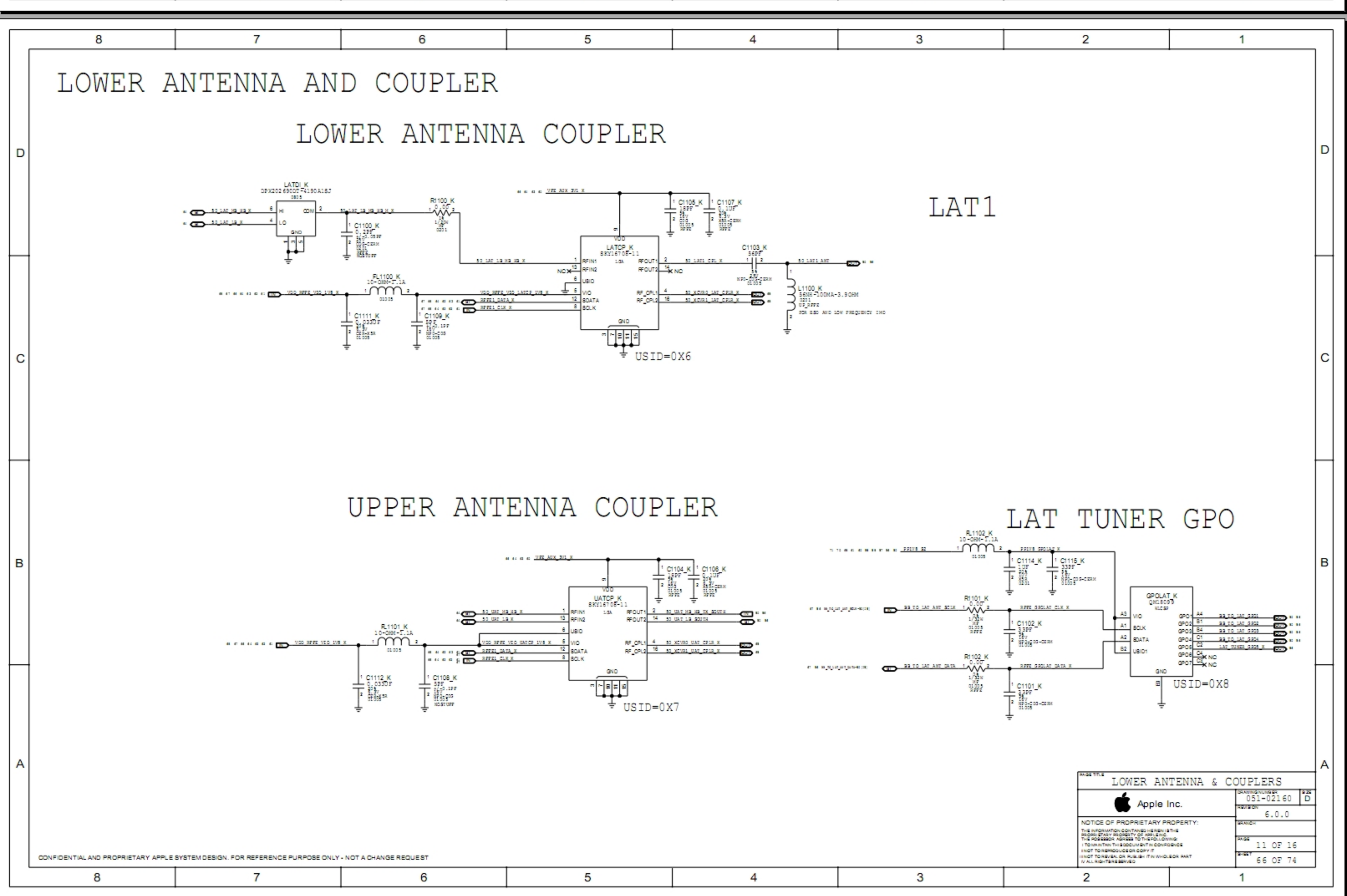
LOWER ANTENNA AND COUPLER
LOWER ANTENNA COUPLER
LAT1
USID=0X6
UPPER ANTENNA COUPLER
LAT TUNER GPO
USID=0X7
USID=0X8
LOWER ANTENNA & COUPLERS
Apple Inc.
051-02160
D
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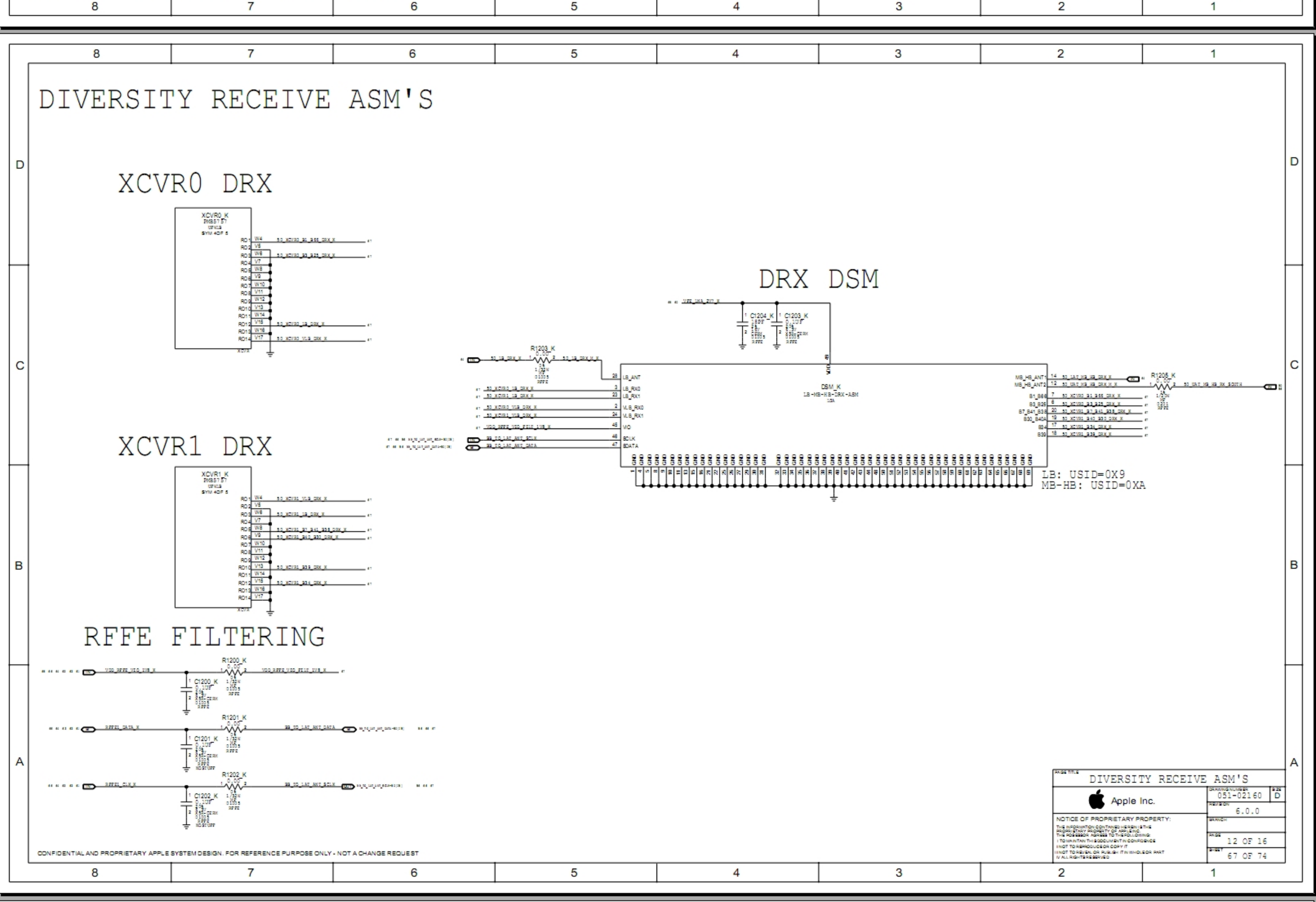
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XCVR0 DRX
XCVR1 DRX
DRX DSM
LB: USID=0X9
MB-HB: USID=0XA
RFFE FILTERING
DIVERSITY RECEIVE ASM'S
Apple Inc.
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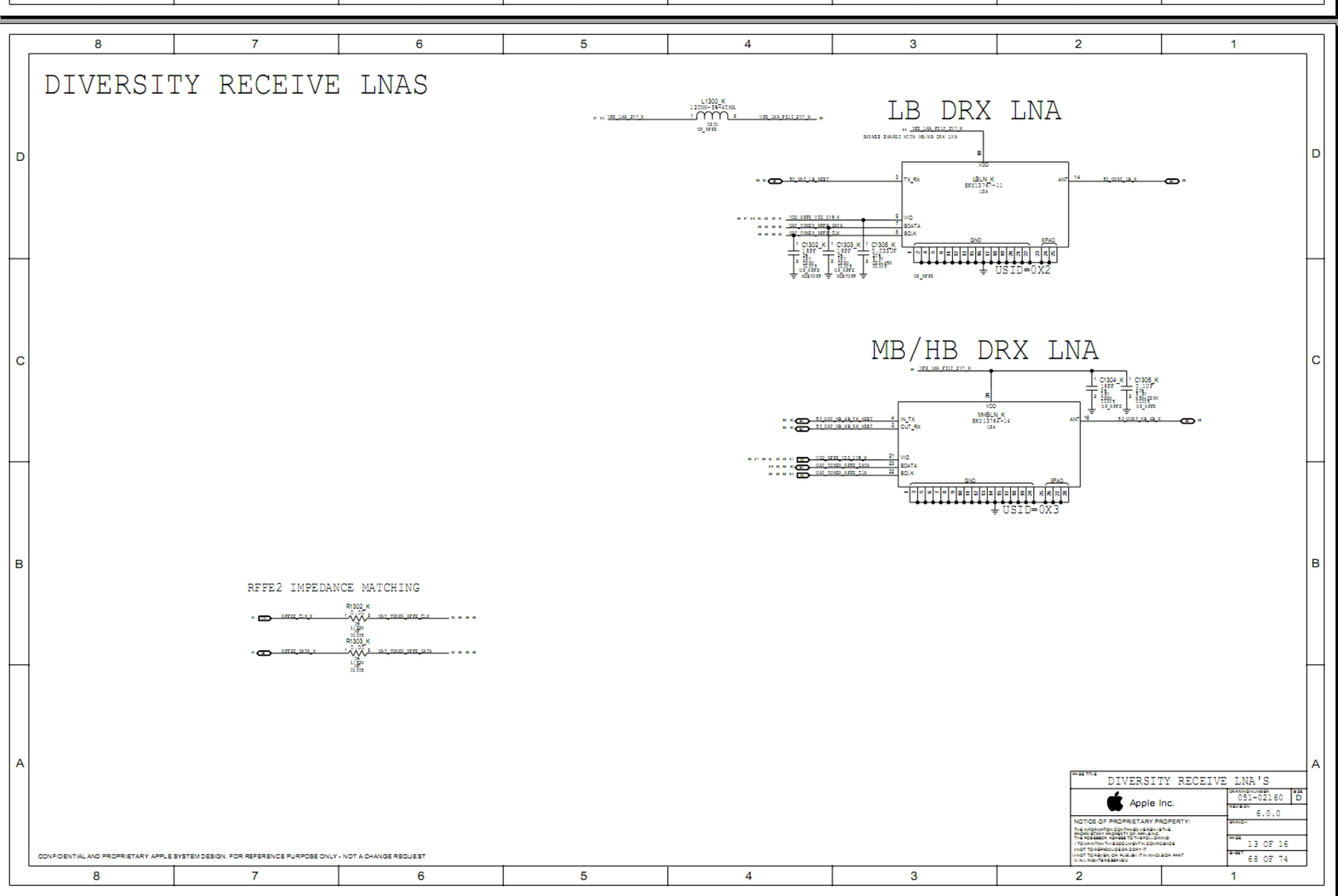
DIVERSITY RECEIVE LNAS
LB DRX LNA
USID=0X2
MB/HB DRX LNA
USID=0X3
RFFE2 IMPEDANCE MATCHING
DIVERSITY RECEIVE LNA'S
Apple Inc.
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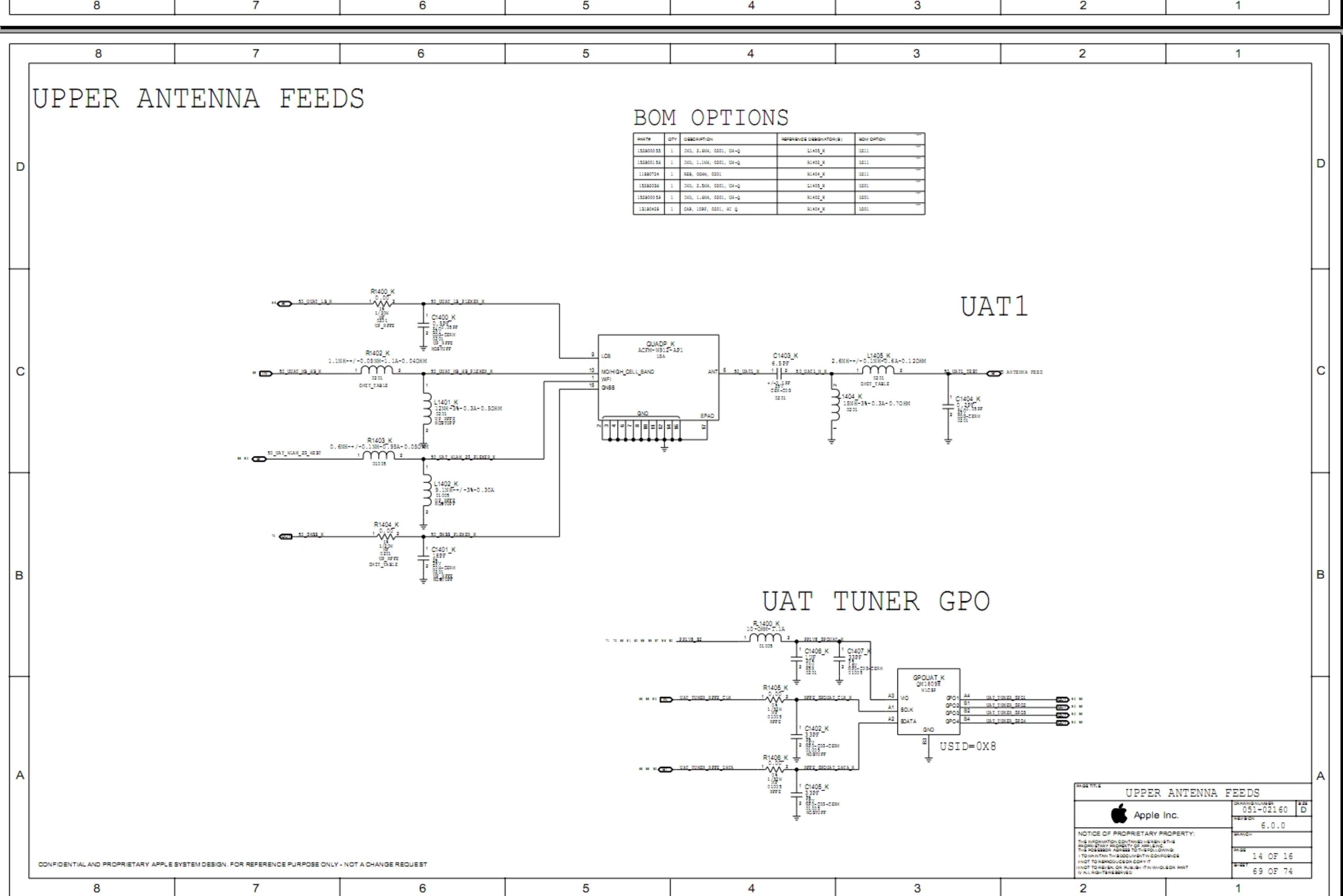
UPPER ANTENNA FEEDS
BOM OPTIONS
UAT1
UAT TUNER GPO
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UPPER ANTENNA FEEDS
Apple Inc.
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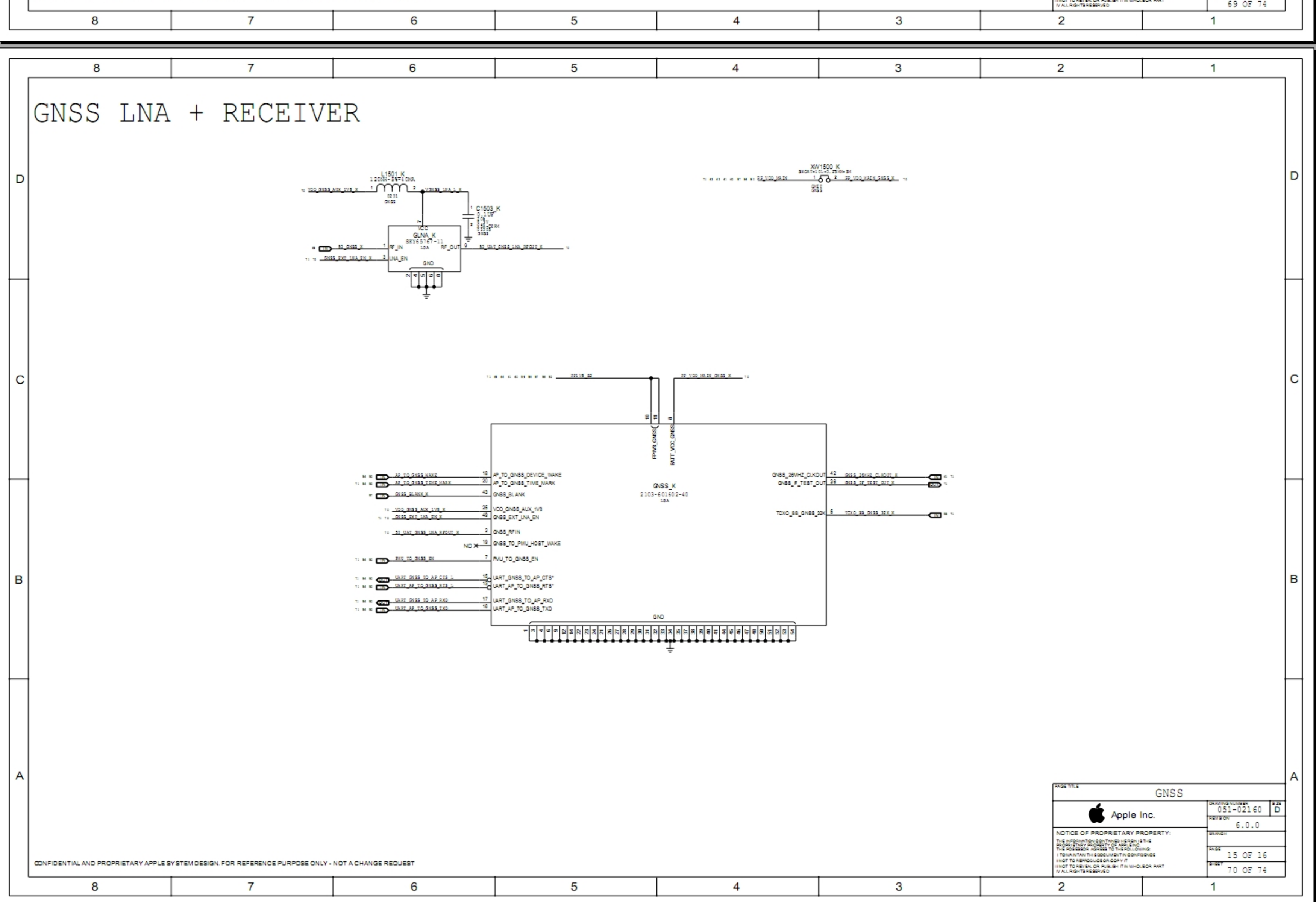
GNSS LNA + RECEIVER
GNSS
Apple Inc.
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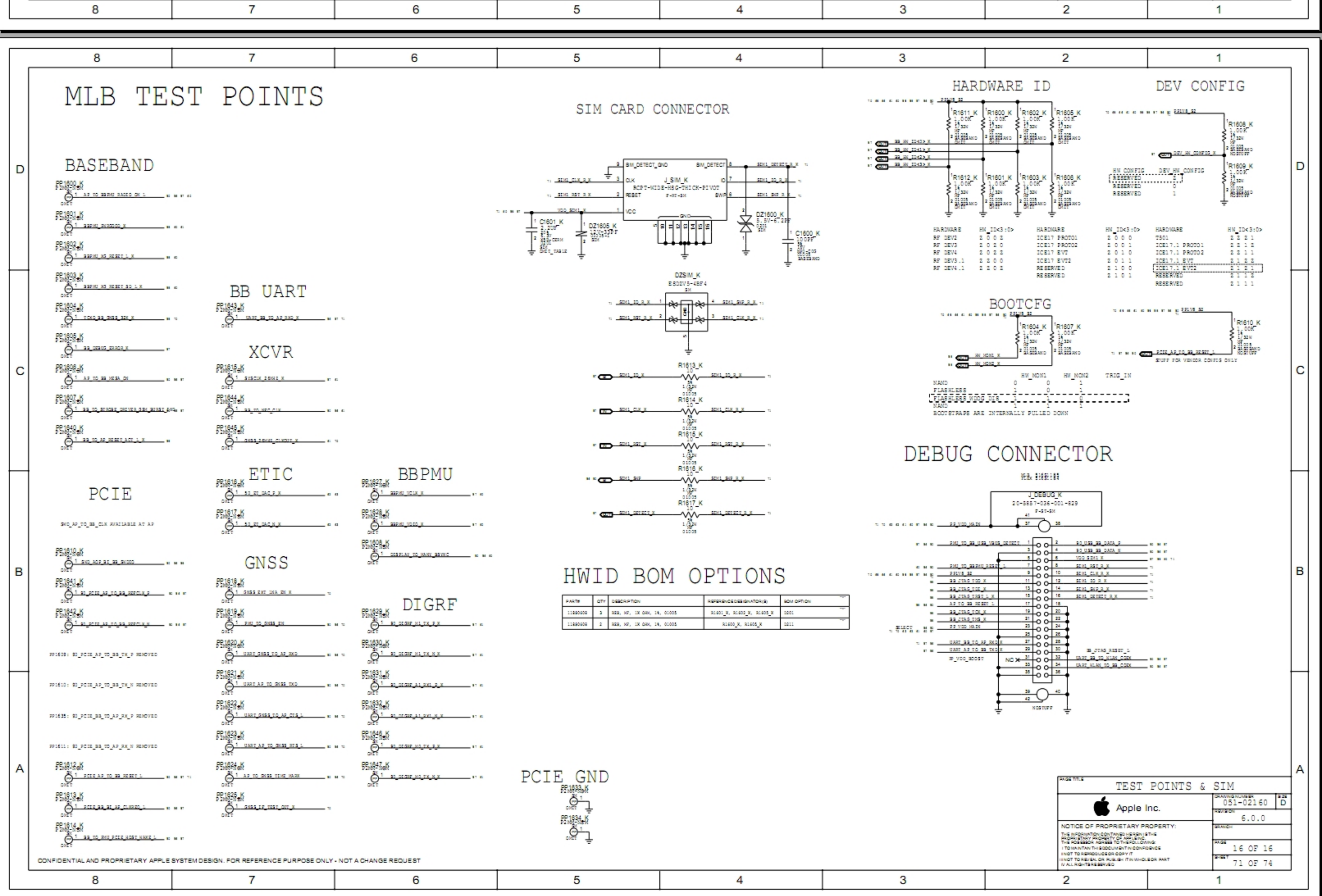
MLB TEST POINTS
BASEBAND
BB UART
XCVR
PCIE
ETIC
BBPMU
GNSS
DIGRF
PCIE GND
SIM CARD CONNECTOR
HWID BOM OPTIONS
HARDWARE ID
DEV CONFIG
BOOTCFG
DEBUG CONNECTOR
TEST POINTS & SIM
Apple Inc.
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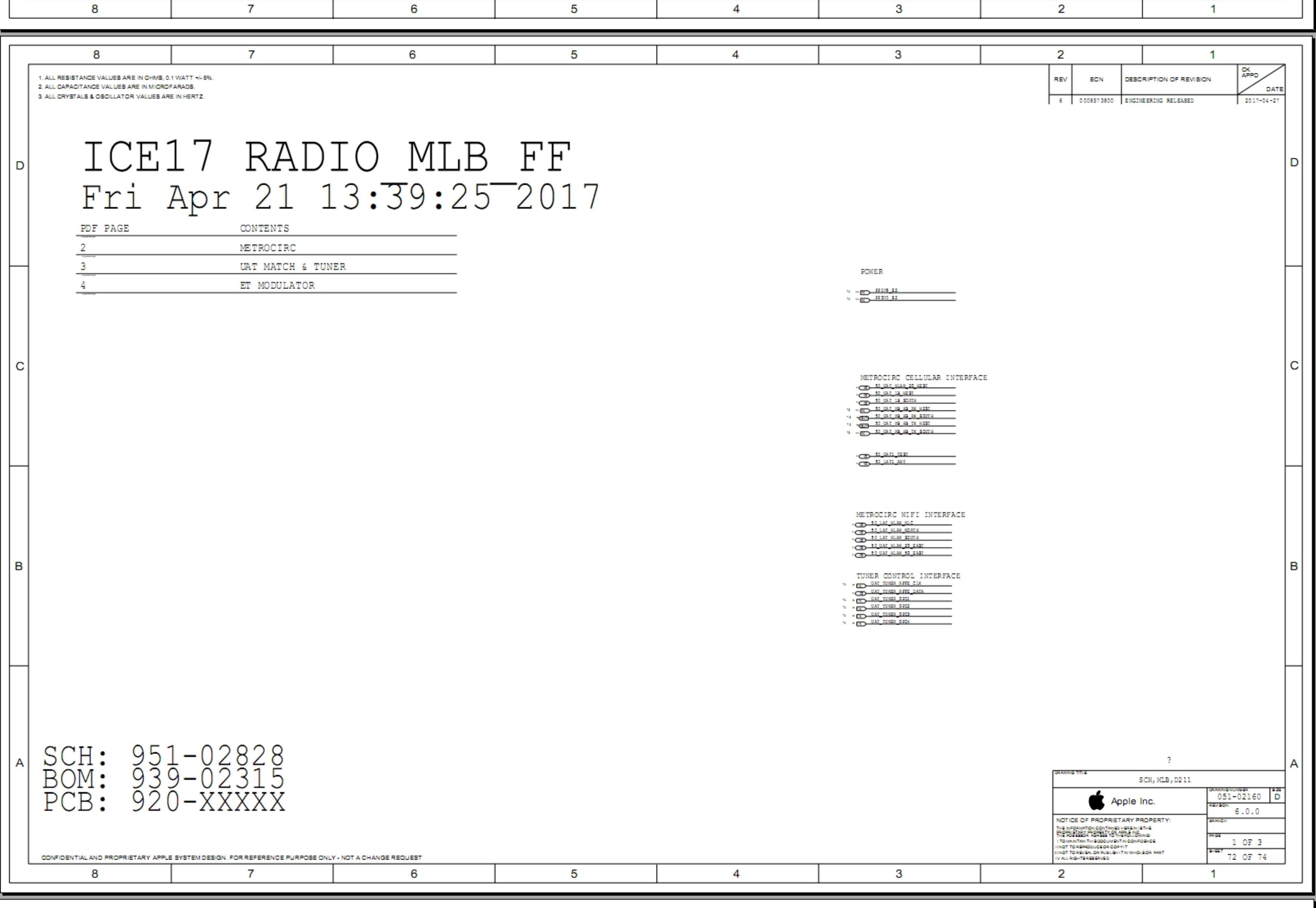
1. ALL RESISTANCE VALUES ARE IN OHMS, 0.1 WATT +/- 5%
2. ALL CAPACITANCE VALUES ARE IN MICROFARADS
3. ALL CRYSTALS & OSCILLATOR VALUES ARE IN HERTZ
ICE17 RADIO MLB FF
Fri Apr 21 13:39:25 2017
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METROCIRC
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UAT MATCH & TUNER
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ET MODULATOR
REV
ECN
DESCRIPTION OF REVISION
CK APPD
DATE
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0006973600
ENGINEERING RELEASED
2017-04-21
POWER
METROCIRC CELLULAR INTERFACE
METROCIRC WIFI INTERFACE
TUNER CONTROL INTERFACE
SCH: 951-02828
BOM: 939-02315
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Apple Inc.
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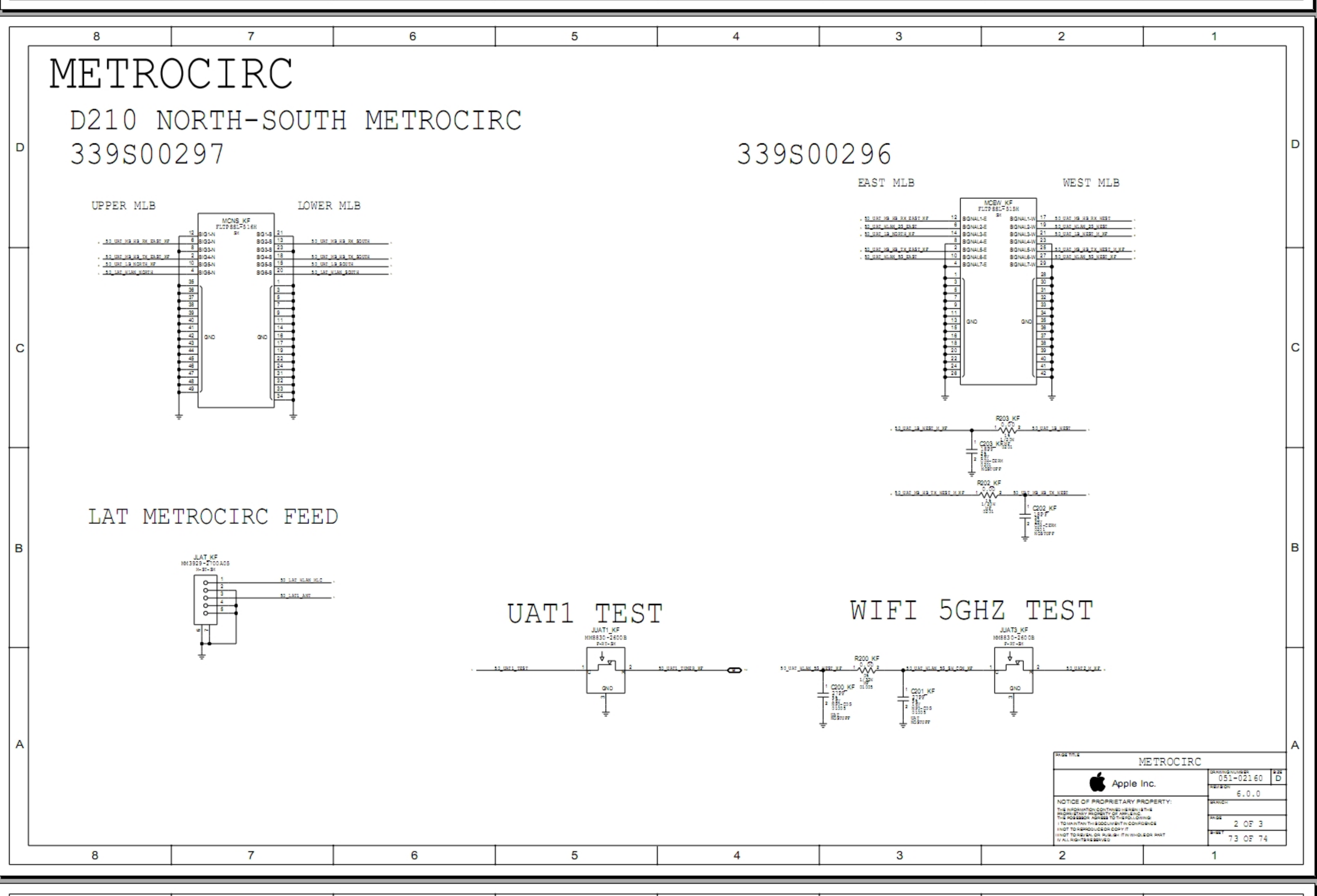
METROCIRC
D210 NORTH-SOUTH METROCIRC
339S00297
339S00296
UPPER MLB
LOWER MLB
EAST MLB
WEST MLB
LAT METROCIRC FEED
UAT1 TEST
WIFI 5GHZ TEST
METROCIRC
Apple Inc.
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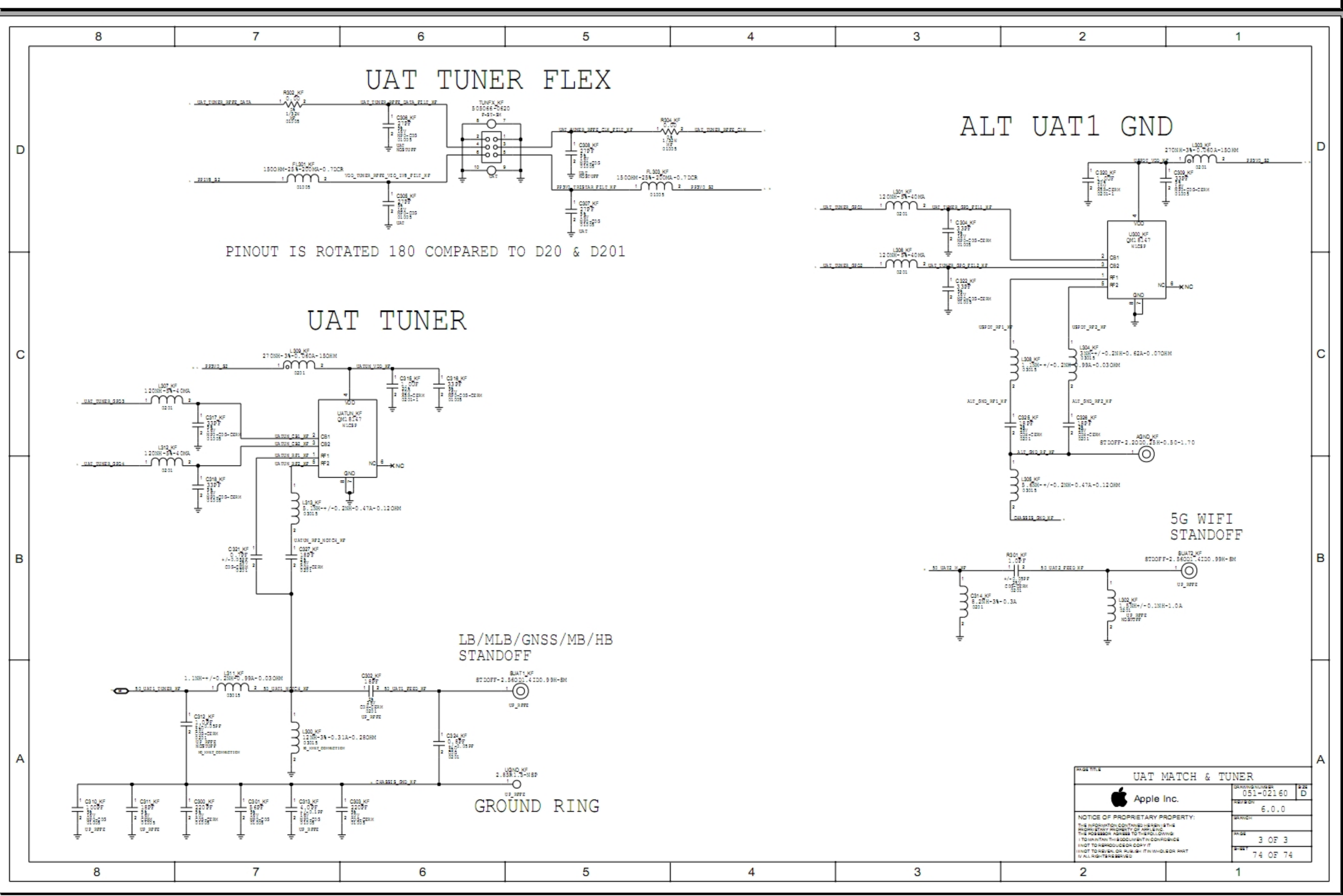
UAT TUNER FLEX
PINOUT IS ROTATED 180 COMPARED TO D20 & D201
ALT UAT1 GND
UAT TUNER
LB/MLB/GNSS/MB/HB STANDOFF
5G WIFI STANDOFF
GROUND RING
UAT MATCH & TUNER
Apple Inc.
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