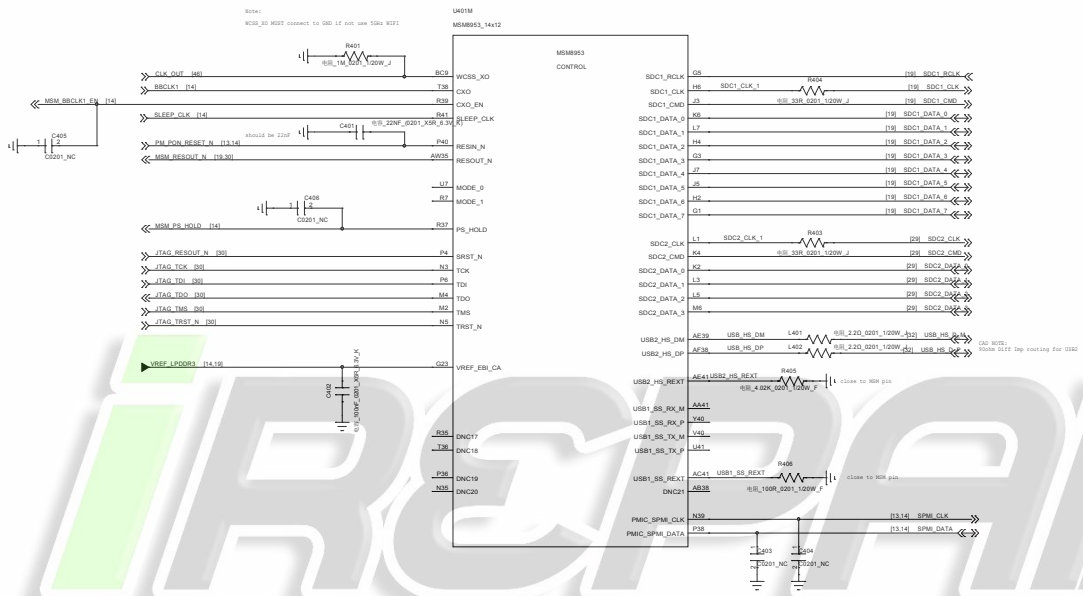
Title	<Title>
Size A	Document Number <Doc>
Rev	<RevCode>
Date:	Saturday, January 27, 2018
Sheet	1 of 47

iREPAIR
LABORATORIO TÉCNICO
MICROSOLDADURA

Title <Title>		
Size A	Document Number <Doc>	Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 2 of 47	

iREPAIR
LABORATORIO TÉCNICO
MICROSOLDADURA

Title <Title>		
Size A	Document Number <Doc>	Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 3 of 47	



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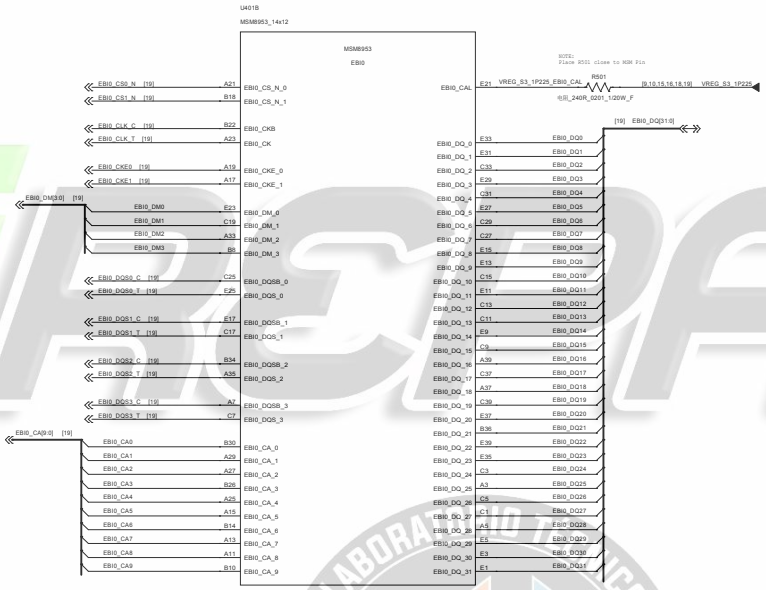
LABORATORIO TÉCNICO
MICROSOLDADURA

MSM8953
Control

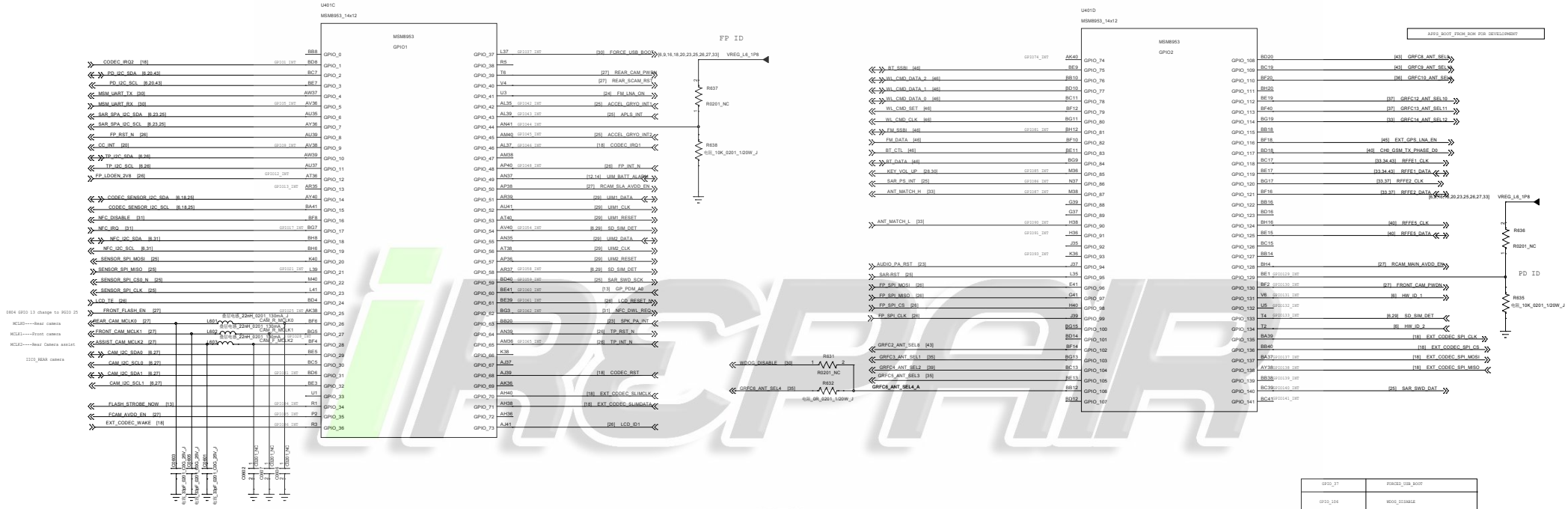
Title	<Title>		
Size D	Document Number <Doc>		Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 4 of 47		



MSM8953
EBI

Title	<Title>		
Size D	Document Number <Doc>		Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 5 of 47		

NOTE:
Asterisks (*) indicate modem power management (MPM) wake-up pins

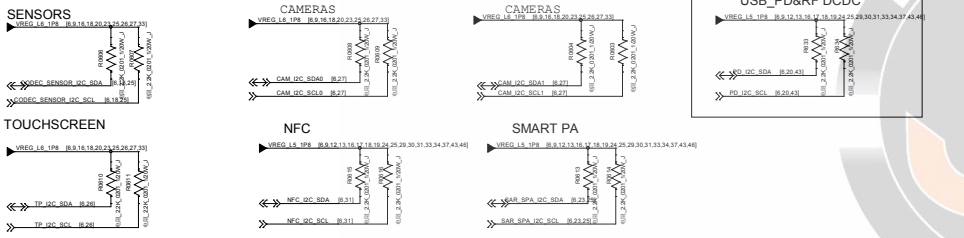


GPIO_37	FORCED_USB_BOOT
GPIO_106	WDOG_DISABLE
GPIO_108	APPS_BOOT_FROM_ROM

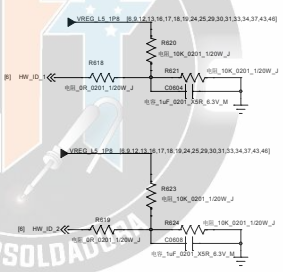
BOOT_CONFIG[3:1]	BOOT_CONFIG
0b000	SDC1 -> SDC2 -> USB2.0
0b001	SDC2 -> SDC1-> USB2.0
0b010	SDC1-> USB2.0
0b011	USB2.0

Default Boot Config (0b000) is SDC1(eMMC)

I2C PULL-UP



NOTE:
Ensure SW sets these GPIOs (Sensor, CTP and Camera I2C bus) to inout pull down when the peripherals are powered off to eliminate leakage.



MSM8953 GPIO

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Size D	Document Number <Doc>
Rev	<RevCode>
Date: Saturday, January 27, 2018	Sheet 6 of 47

iREPAIR
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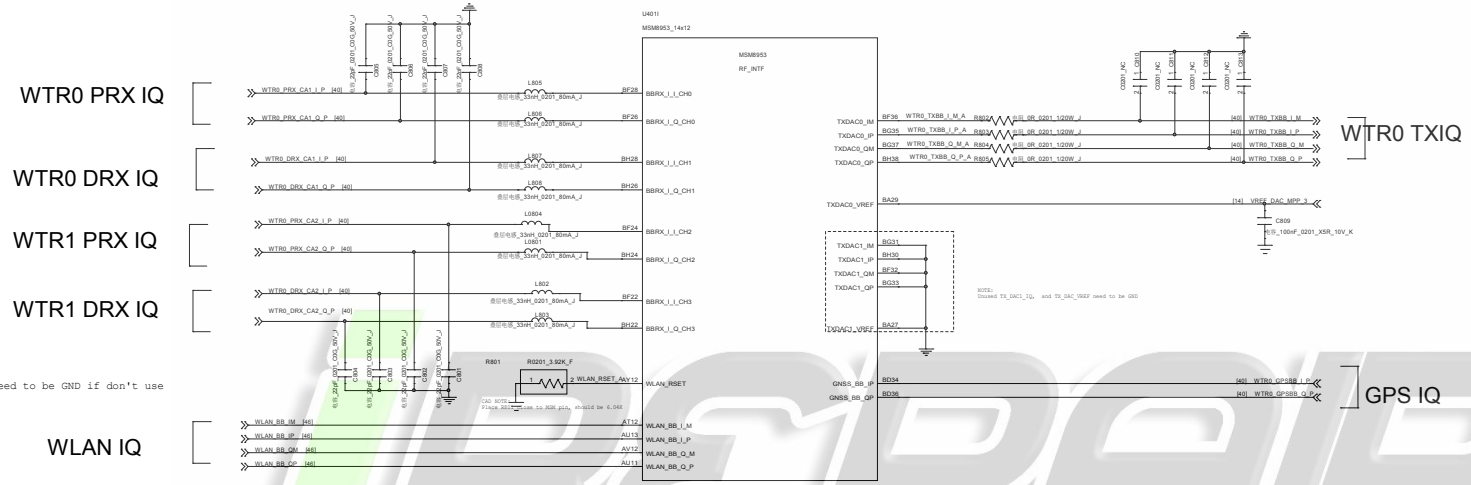
MSM8953
MIPI

Title	<Title>		
Size D	Document Number <Doc>		Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 7 of 47		



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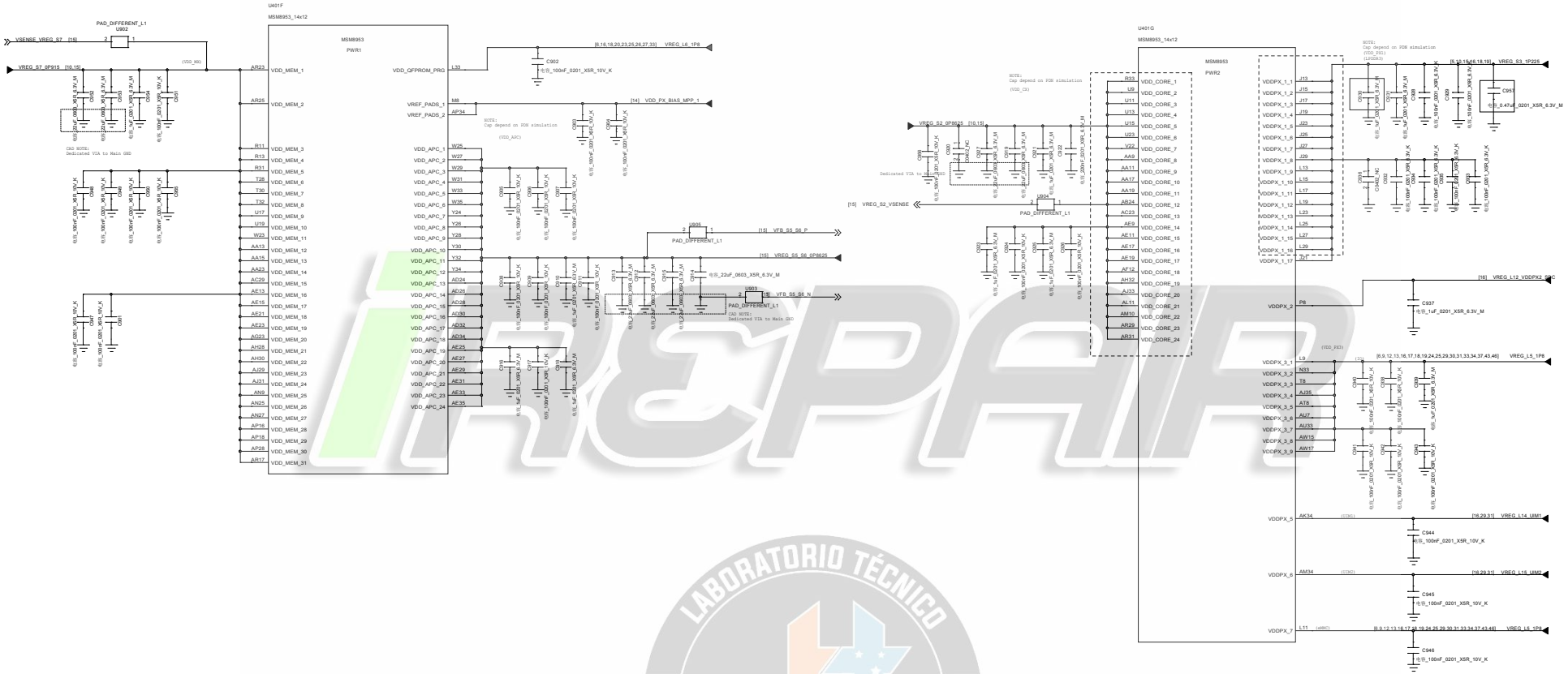
Date: Saturday, January 27, 2018	Sheet 8 of 47	



MSM8953
POWER1

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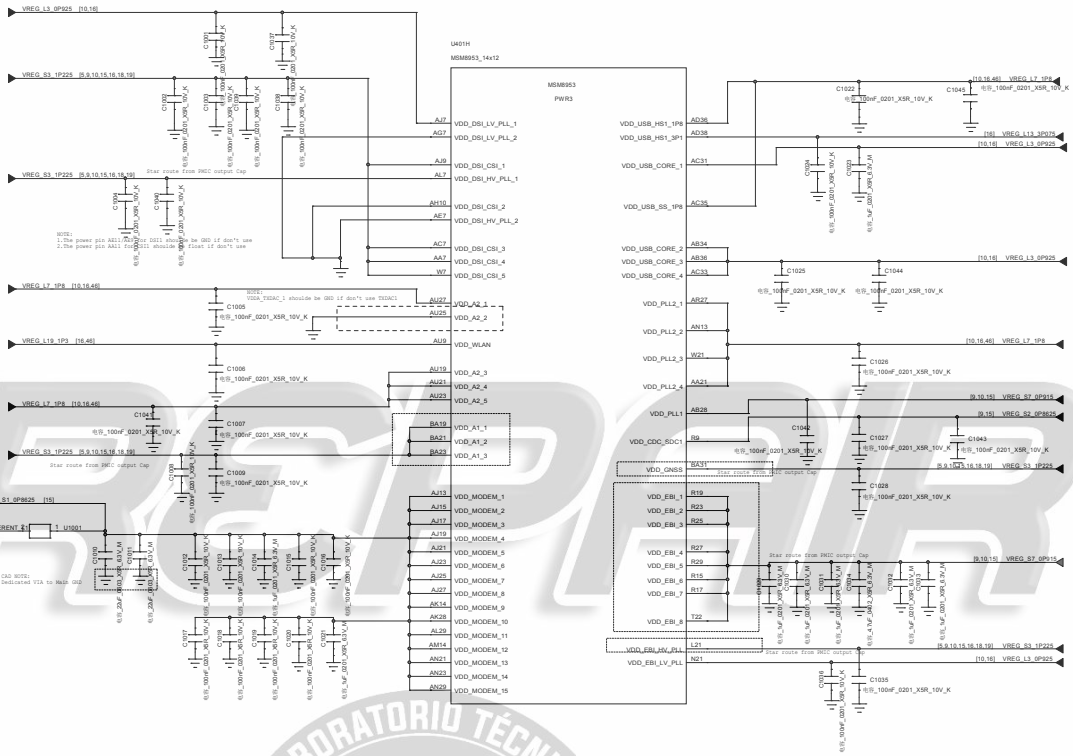
Size D	Document Number <Doc>		Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 9 of 47		



MSM8953
POWER2

LABORATORIO TÉCNICO
MICROSOLDADURA

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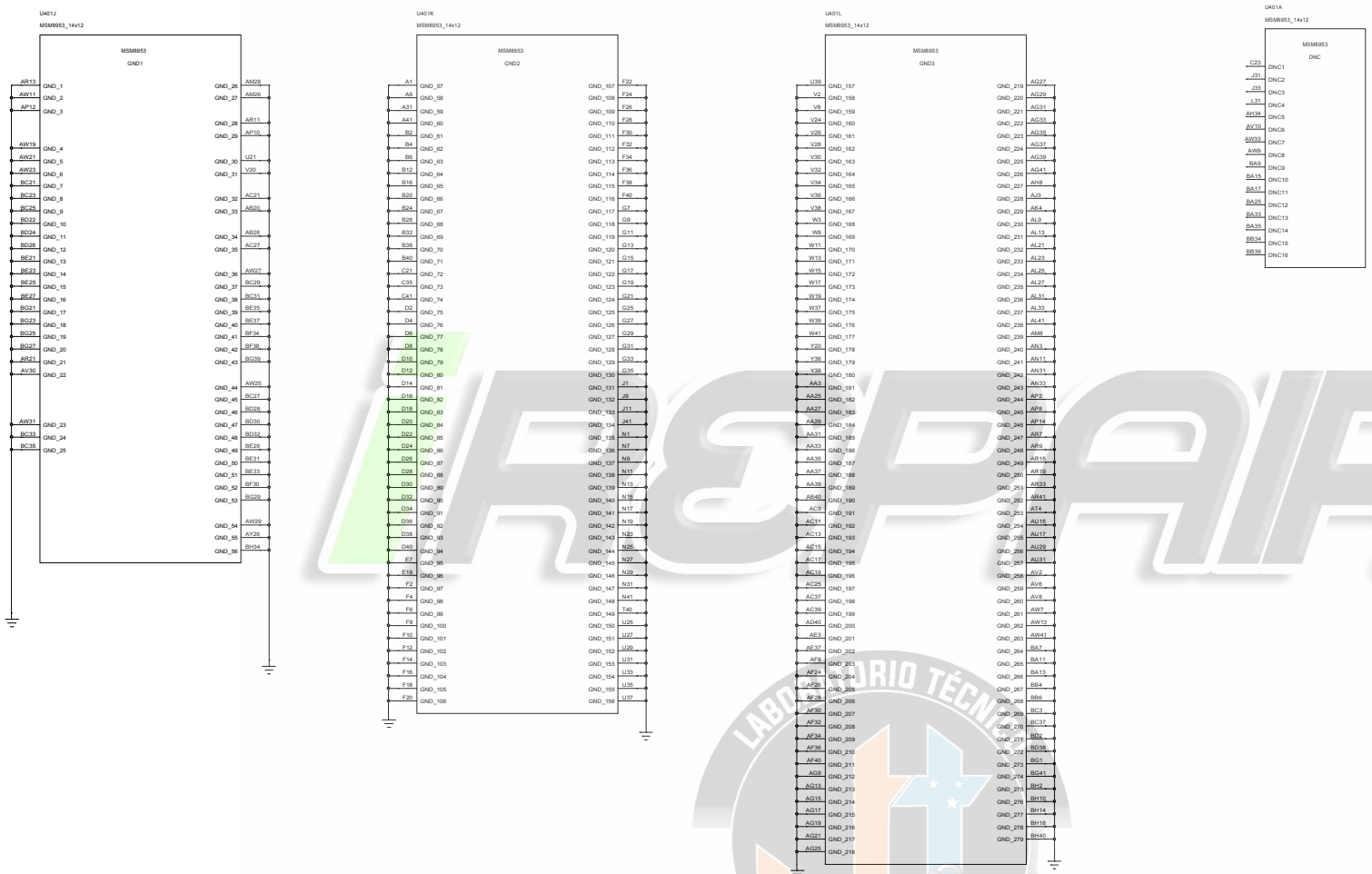
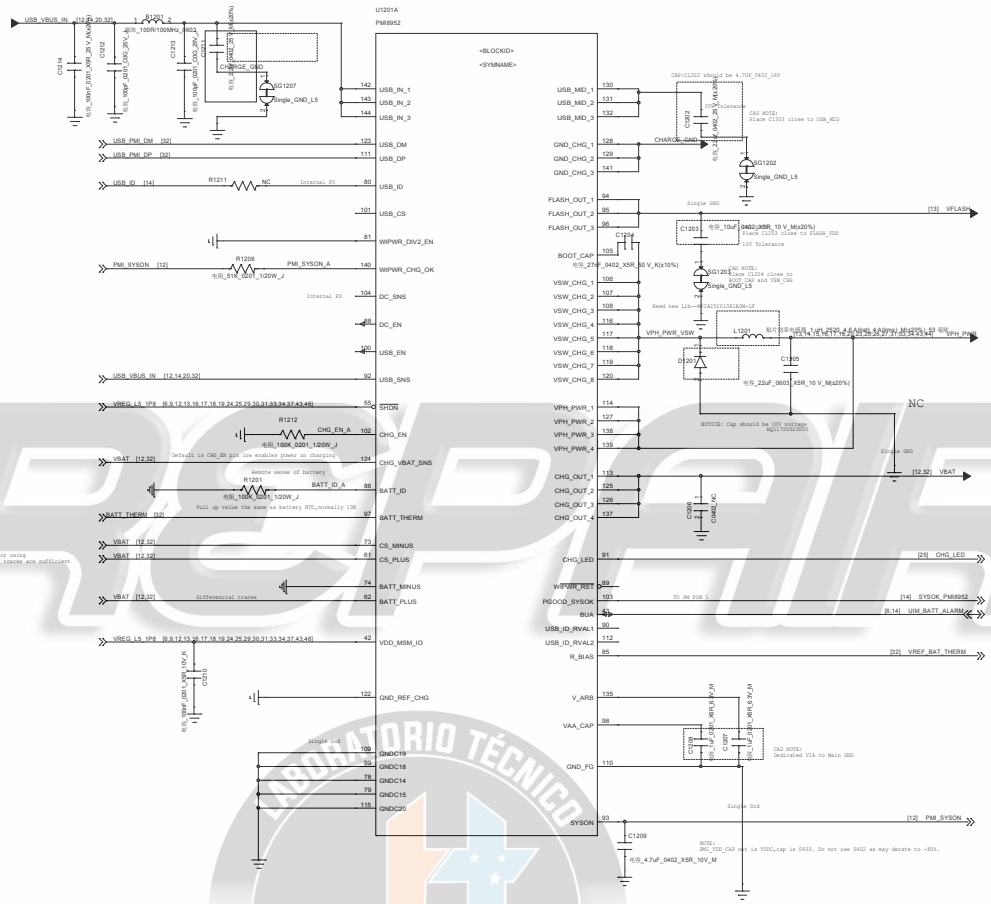
Size D	Document Number <Doc>		Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 10 of 47		



MSM8953
GND

Title	<Title>		
Size D	Document Number <Doc>		Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 11 of 47		

PMI PIN	connection on device without Wipower	connection on device with Wipower
CHG_OK	Pull up to VDD_CAP with 51kohm	Stark PMI CHG_OK
DVI2_EN	Pull down to GND with 5ohm	Stark PMI DVI2_EN
GPIO2	No Connect For parallel charging: Connects to SMB EN pin Do NOT pull up to VDD_CAP	100ohm pull down to gnd For parallel charging: Connects to SMB EN pin. Do NOT pull up to VDD_CAP



PMI8952 Charger

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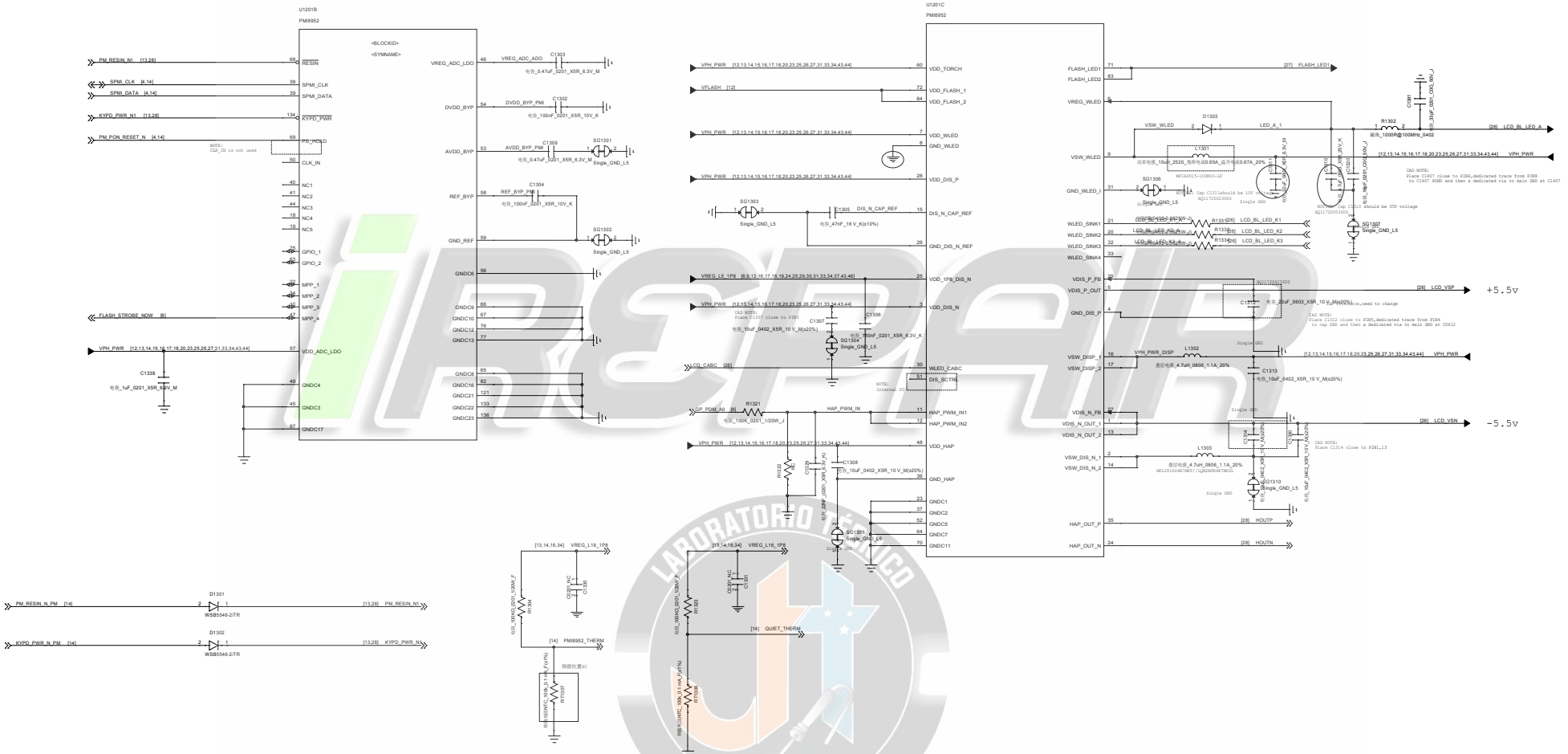
Date: Saturday, January 27, 2018	Sheet 12 of 47		



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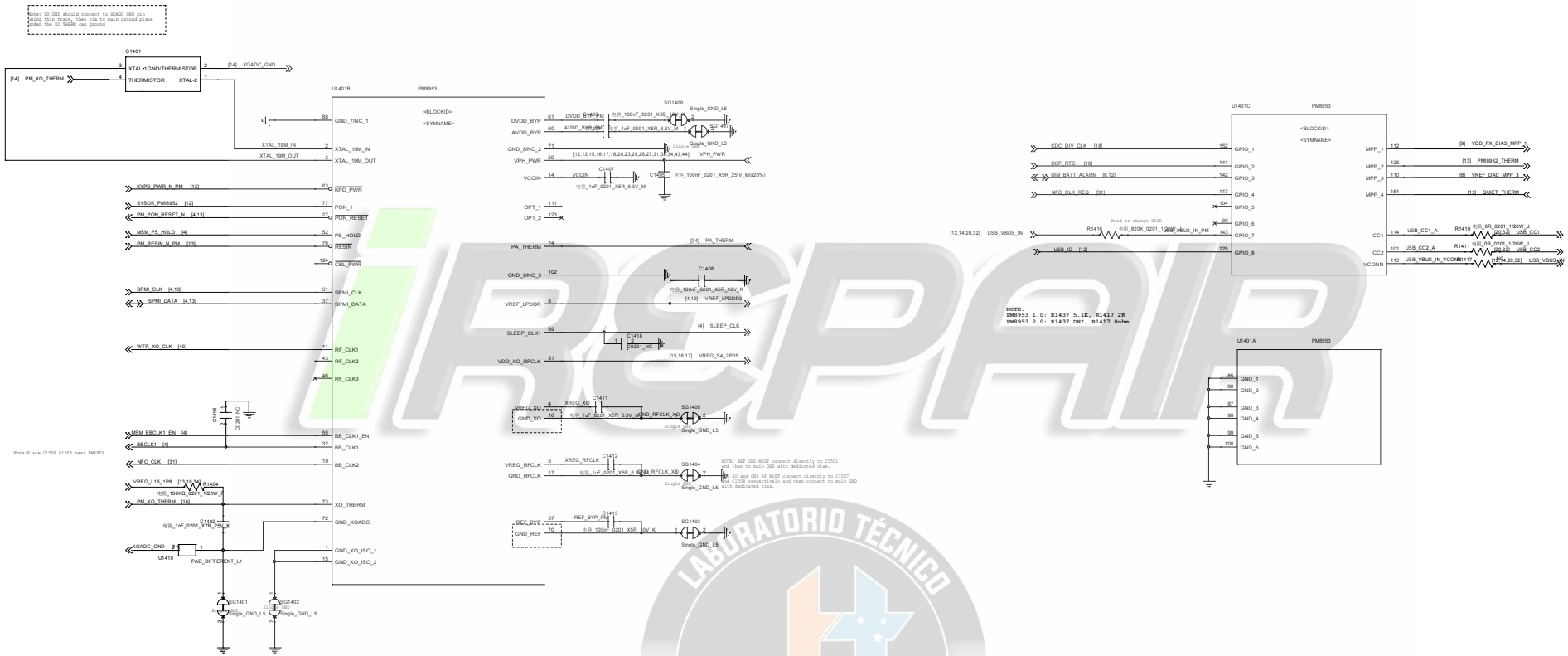
Size D	Document Number <Doc>		Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 13 of 47		



PM8953
Control/Interface

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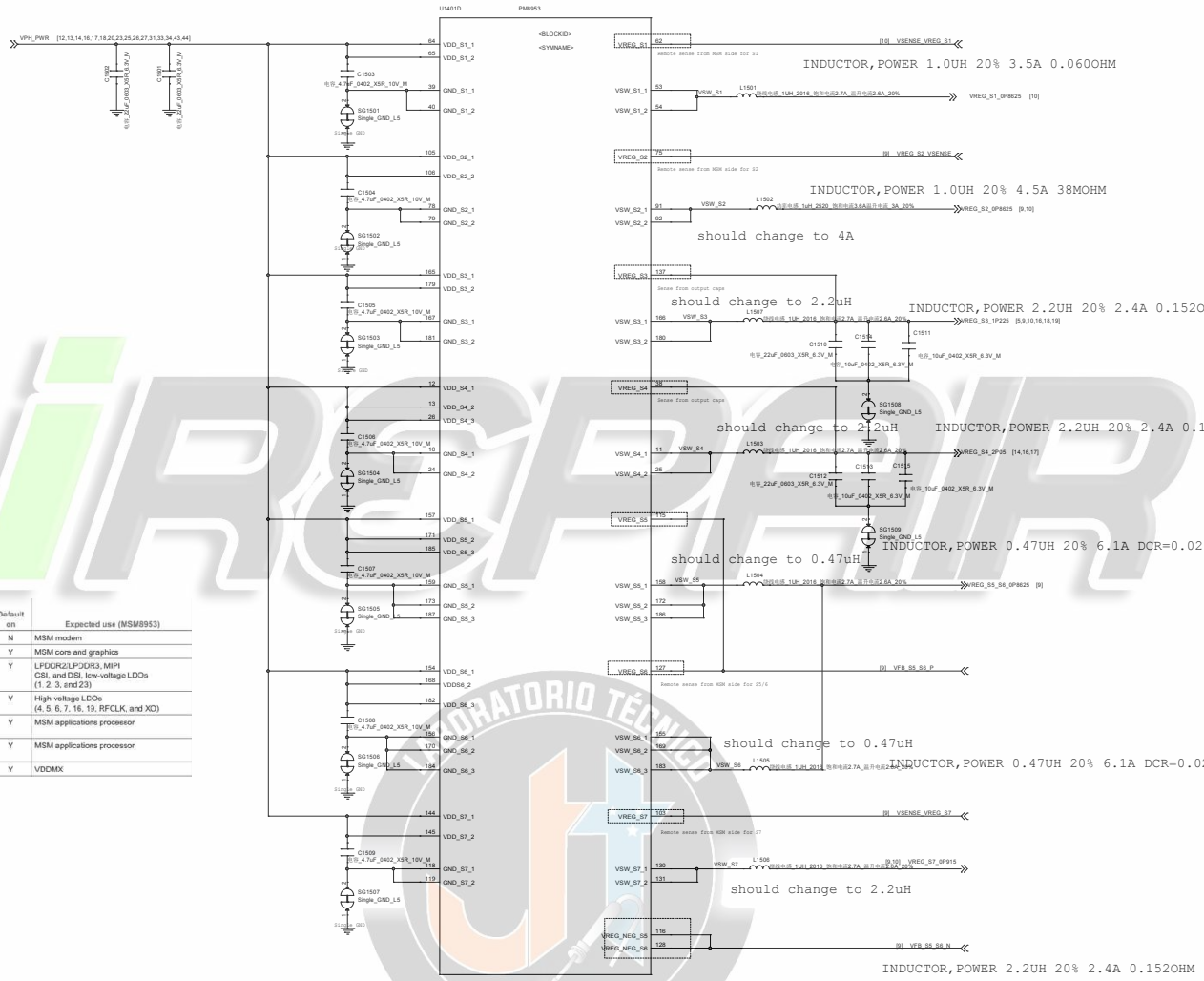
Size D	Document Number <Doc>		Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 14 of 47		



Function	Circuit type	Default voltage (V)	Specified range (V) (MSM8953)	Programmable range (V)	Rated current (mA)	Default on	Expected use (MSM8953)
S1	SMPS	0.87	0.4–1.14	0.32–2.04	3000	N	MSM modem
S2	SMPS	0.87	0.4–1.14	0.32–2.04	4000	Y	MSM core and graphics
S3	SMPS	1.225	1.2–1.25	0.32–2.04	2000	Y	LPDDR2/LPDDR3, MIPI CSI, and DSI, low-voltage LDOs (1, 2, 3, and 23)
S4	SMPS	2.04	1.8–2.04	0.32–2.04	2000	Y	High-voltage LDOs (4, 5, 6, 7, 16, 19, RFCLK, and XO)
S5	SMPS	0.87	0.4–1.14	0.35–1.355	3750	Y	MSM applications processor
S6	SMPS	0.87	0.4–1.14	0.35–1.355	3750	Y	MSM applications processor
S7	SMPS	0.915	0.4–1.14	0.32–2.04	2000	Y	VDDMX

PM8953
SMPS

Title	QL1509_MB_V1.0		
Size D	Document Number <Doc>		Rev V1.0
Date: Saturday, January 27, 2018	Sheet 16 of 47		

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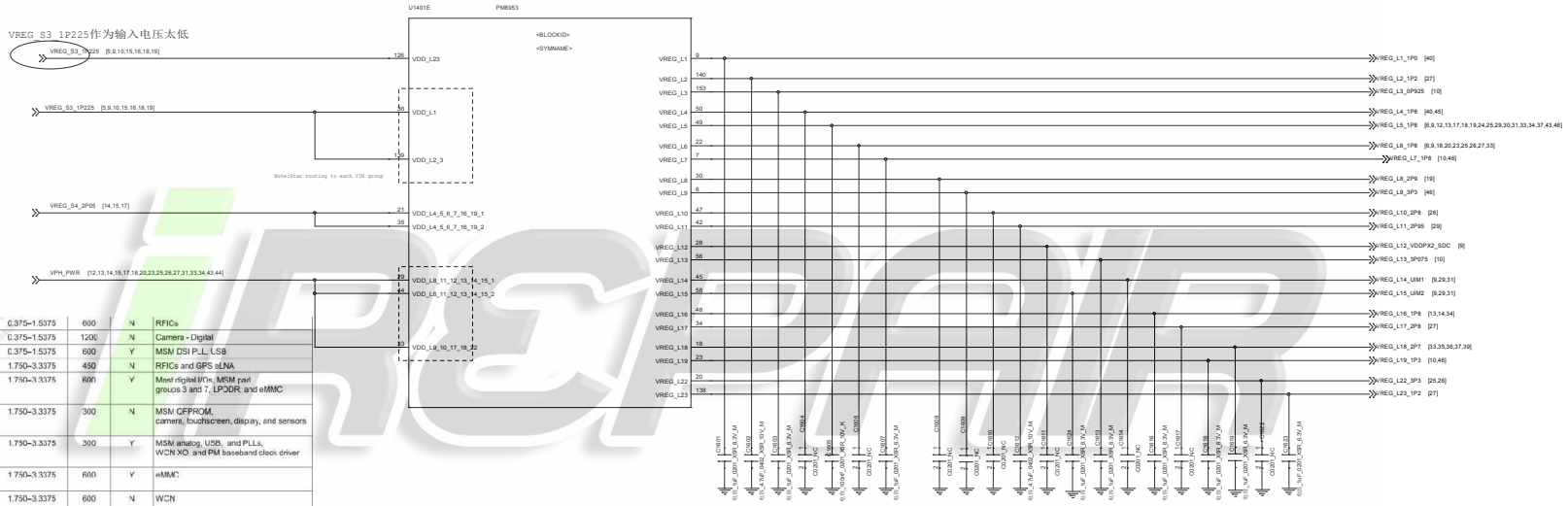
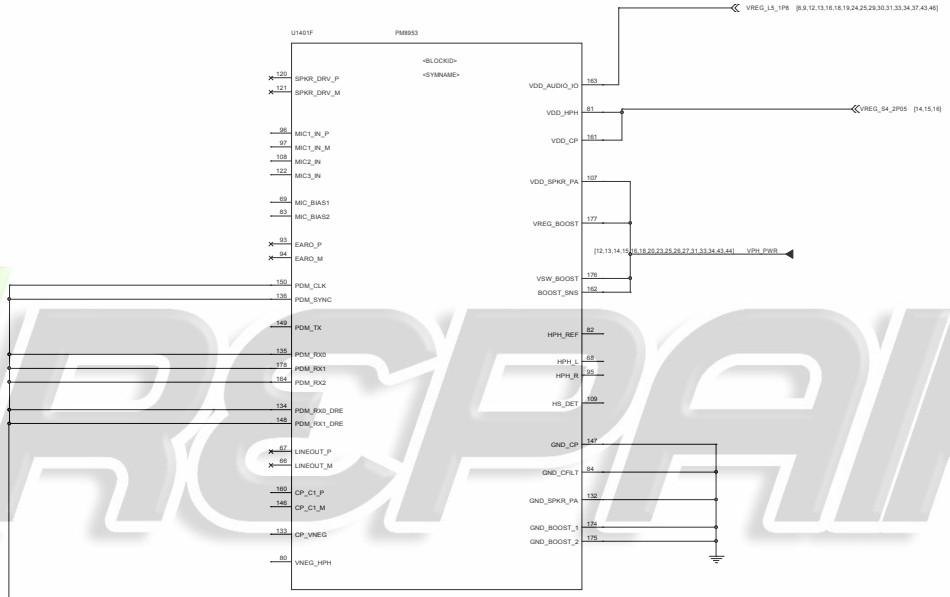


L1	NMOS LDO	1.0	1.0	0.375–1.5375	600	N	RFICs
L2	NMOS LDO	1.100	1.100	0.375–1.5375	1200	N	Camera - Digital
L3	NMOS LDO	0.925	0.925	0.375–1.5375	600	Y	MSM DSI PLL, LSB
L4	PMOS LDO	1.800	1.800	1.750–3.3375	450	N	RFICs and GPS sLNA
L5	PMOS LDO	1.800	1.800	1.750–3.3375	600	Y	Mixed digital I/Os, MSM pad groups 3 and 7, LPDDR, and eMMC
L6	PMOS LDO	1.800	1.800	1.750–3.3375	300	N	MSM QFPROM, camera, touchscreen, display, and sensors
L7	PMOS LDO	1.800	1.800	1.750–3.3375	300	Y	MSM analog, USB, and PLLs, WCN XO, and PM baseband clock driver
L8	PMOS LDO	2.900	2.900	1.750–3.3375	600	Y	eMMC
L9	PMOS LDO	Vout = 3.3 V for VBAT > 3.575 V; Vout = 3 V for VBAT < 3.575 V	3.000–3.300	1.750–3.3375	600	N	WCN

Function	Circuit type	Default V (V)	Specified range (V) (MSM8953)	Programmable range (V)	Rated current (mA)	Default ON	Expected use (MSM8953)
L10	PMOS LDO	3.0	3.0	1.750–3.3375	150	N	Sensors and touchscreen
L11	PMOS LDO	2.950	2.950	1.750–3.3375	600	Y	Micro SD
L12	PMOS LDO	2.950	1.800/2.950	1.750–3.3375	50	Y	MSM pad group 2 and SDC2
L13	PMOS LDO	3.125	3.125	1.750–3.3375	150	Y	MSM USB type C and PMIC and external codec audio
L14	PMOS LDO	1.800	1.800/3	1.750–3.3375	50	N	MSM pad group 5, dual-voltage UIM1, and NFC
L15	PMOS LDO	1.800	1.800/3	1.750–3.3375	50	N	MSM pad group 6 and dual-voltage UIM2
L16	PMOS LDO	1.800	1.800	1.750–3.3375	5	N	PMIC HKADC
L17	PMOS LDO	2.850	2.850	1.750–3.3375	300	N	Camera and display
L18	PMOS LDO	2.700	2.700	1.750–3.3375	150	N	QTI RF front-end
L19	NMOS LDO	1.350	1.350	0.375–1.5375	600	N	MSM analog, WCN, and WGR
L20	Low-noise LDO	1.74	1.74	1.74–3.3375	5	Y	PMIC XO circuits
L21	Low-noise LDO	1.74	1.74	1.74–3.3375	5	N	PMIC RF clock buffers
L22	PMOS LDO	2.800	2.800	1.750–3.3375	150	N	Camera – analog
L23	NMOS LDO	1.15	1.15	0.375–1.5375	600	N	Camera – digital

PM8953
LDO

Title	QL1559_MB_V1.0	
Size D	Document Number <Doc>	Rev V1.0
Date: Saturday, January 27, 2018	Sheet 16 of 47	



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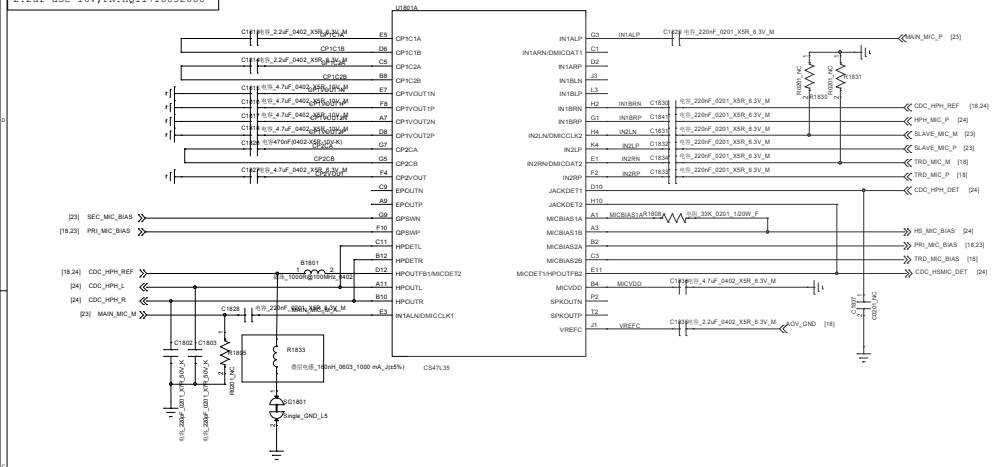
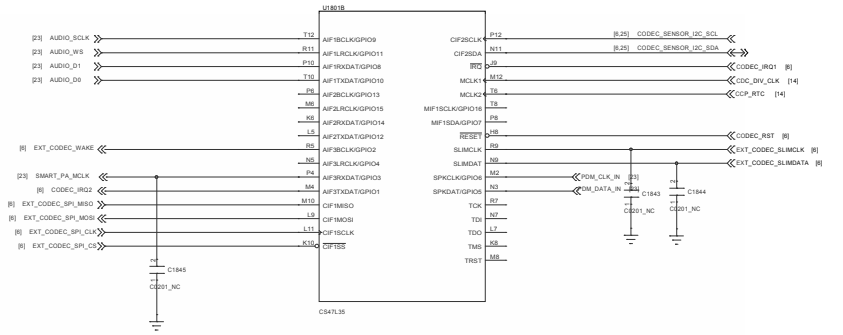
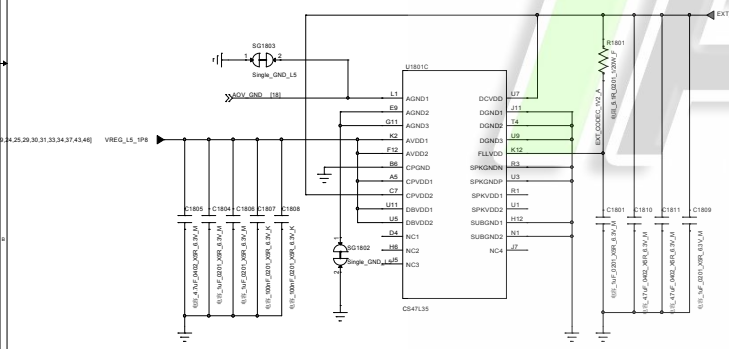
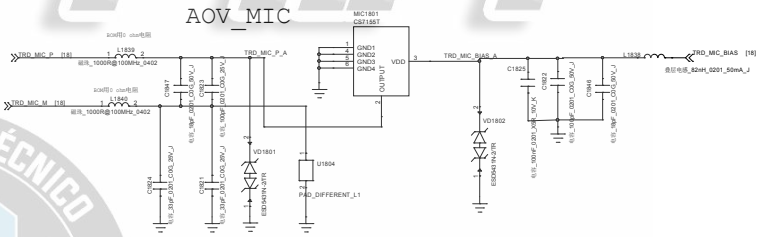
Title	<Title>	
Size D	Document Number <Doc>	Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 17 of 47	

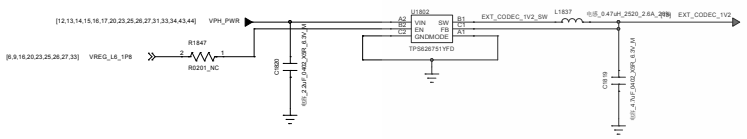
2.2uf use 10V,PN:HQ11710052000











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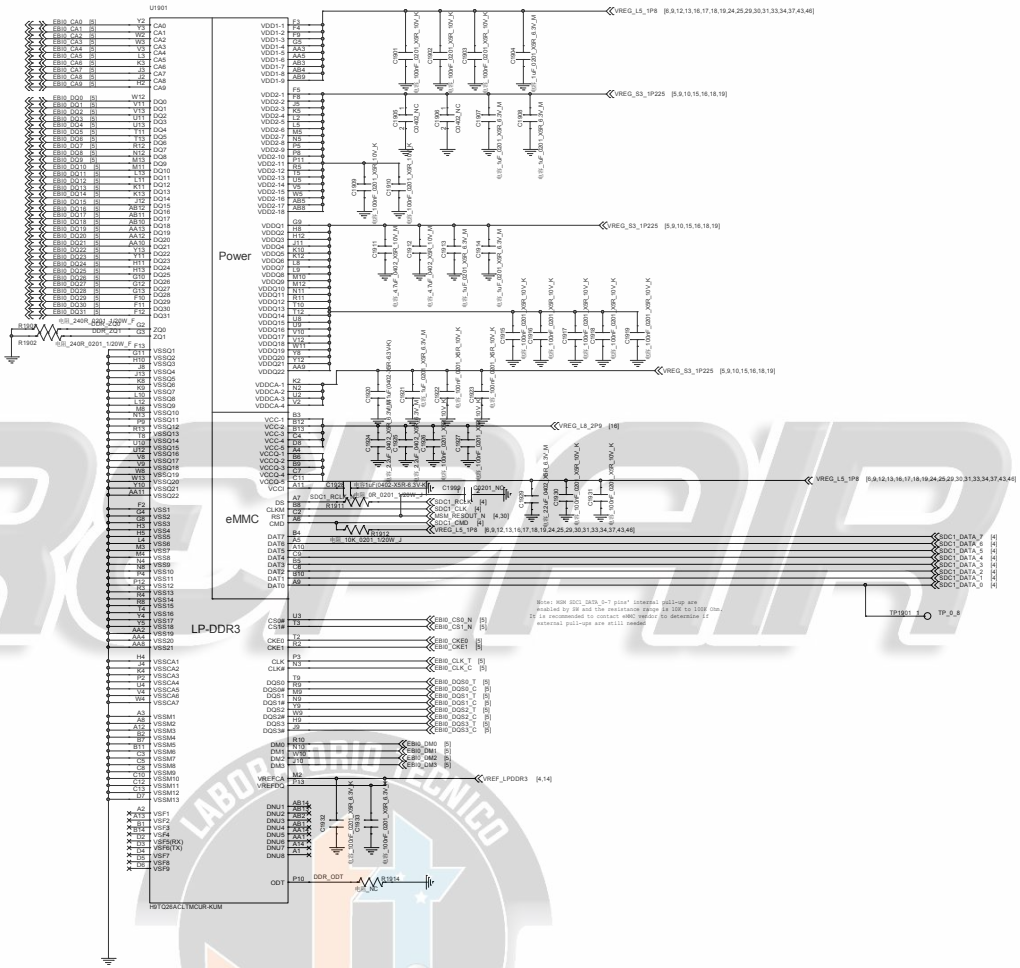
MICROSOLDADURA

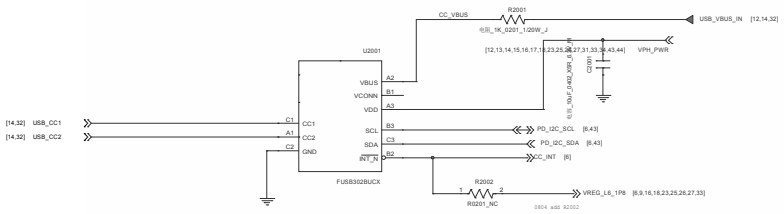
Company: Huaqin			
Block Title	Test Points		
Project	Telfer	Rev	1.0
Date:	Saturday, January 27, 2018	Sheet 18 of 47	



Note: HGM SDC1_DATA_0-7 pins' internal pull-up are enabled by SW and the resistance range is 10K to 100K Ohm. It is recommended to contact eMC vendor to determine if external pull-ups are still needed

MEMORY(LPDDR3+EMMC V5.1)

Title	<Title>		
Size D	Document Number <Doc>		Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 19 of 47		



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Title	<Title>	
Size D	Document Number <Doc>	Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 20 of 47	

iREPAIR

LABORATORIO TÉCNICO
MICROSOLDADURA

Title	<Title>	
Size D	Document Number <Doc>	Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 21 of 47	

iREPAIR
LABORATORIO TÉCNICO
MICROSOLDADURA

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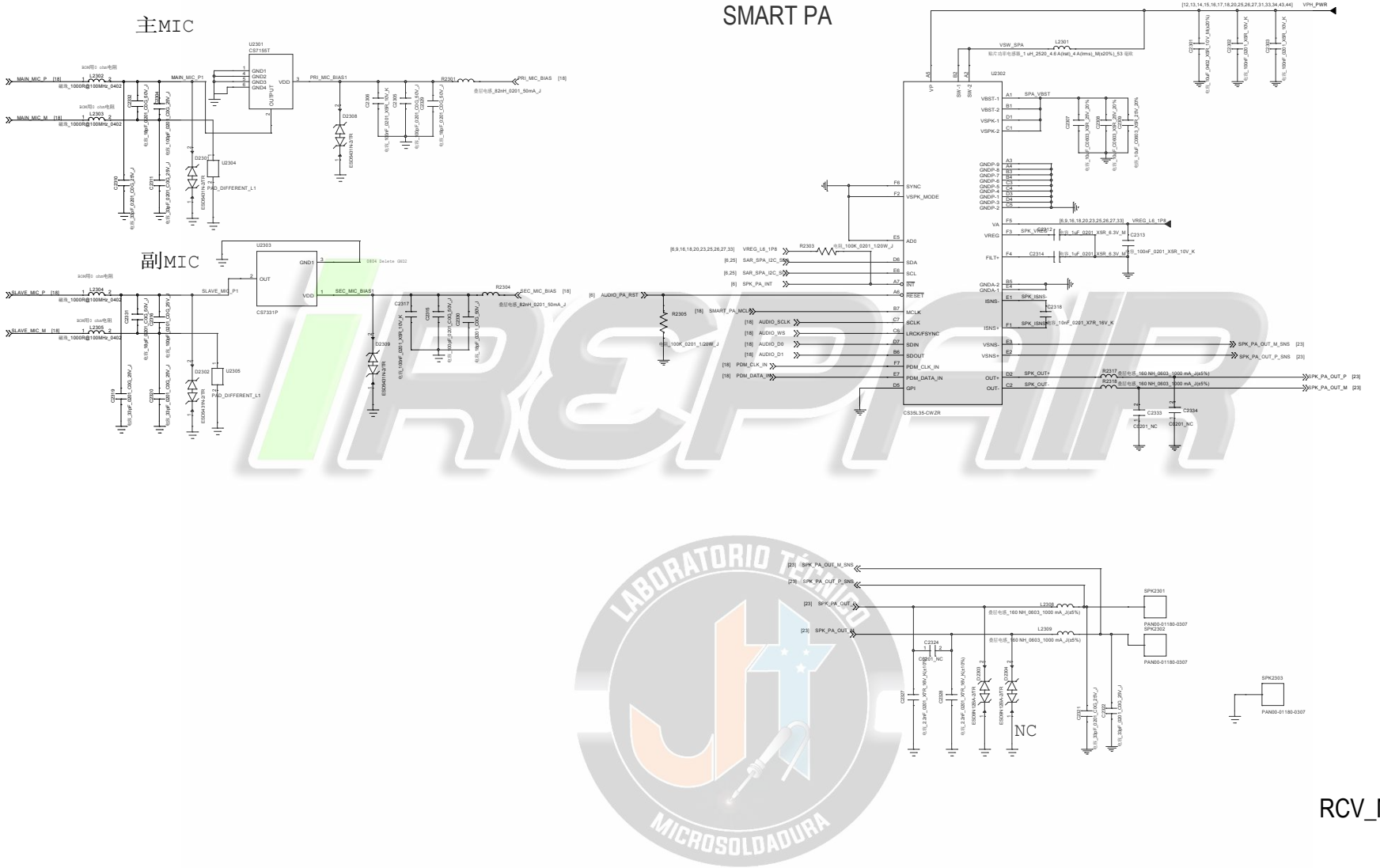
Size A	Document Number <Doc>	Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 22 of 1	



RCV_MIC_Headphone

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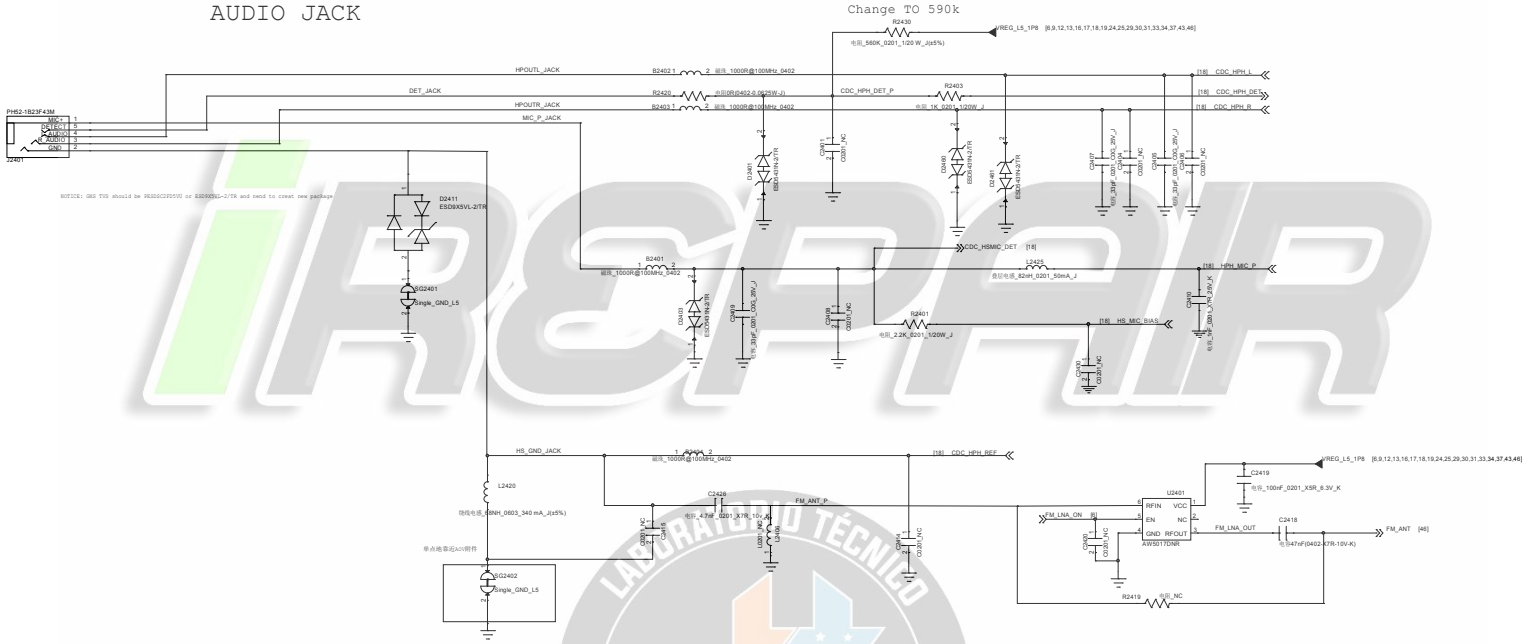
Size D	Document Number <Doc>		Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 23 of 47		

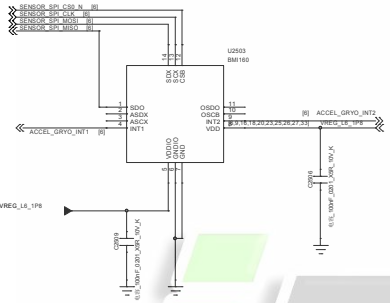
AUDIO JACK



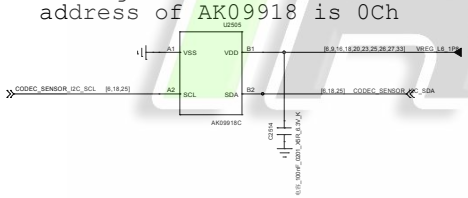
Title	<Title>		
Size D	Document Number <Doc>		Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 24 of 47		

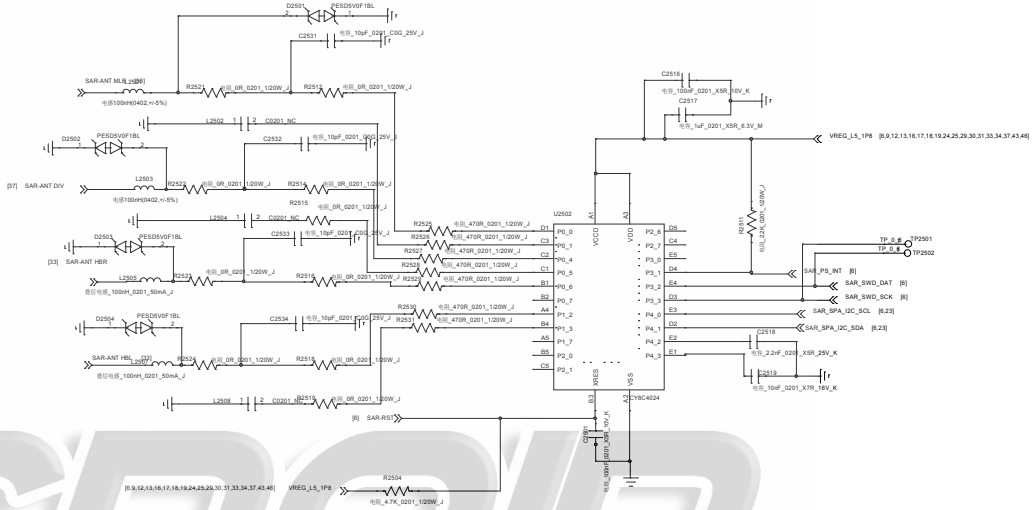
ACCELEROMETER+GYRO

I2C ADDRESS 0X68 0b1101000



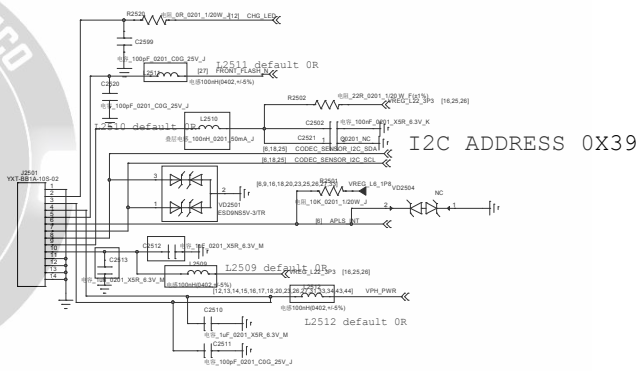
Magnetic Sensor
address of AK09918 is 0Ch





ALS/P SENSOR+Front Flash+Charge LED CONN

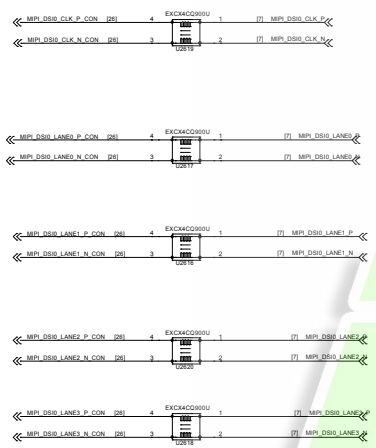
LED change to A-SP194W1D-C01-4T-AR2.4



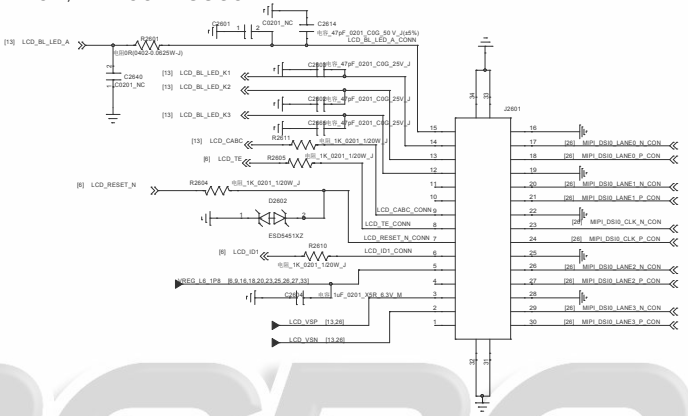
address of AK09918 is 0Ch

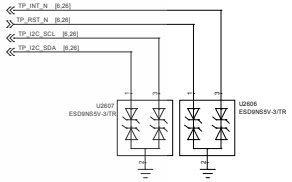
Title	<Title>		
Size D	Document Number <Doc>		Rev <RevCode>
Date: Monday, May 07, 2018	Sheet 25 of 47		

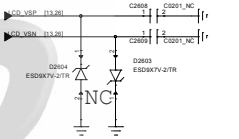
LCD MIPI Common Mode Filter



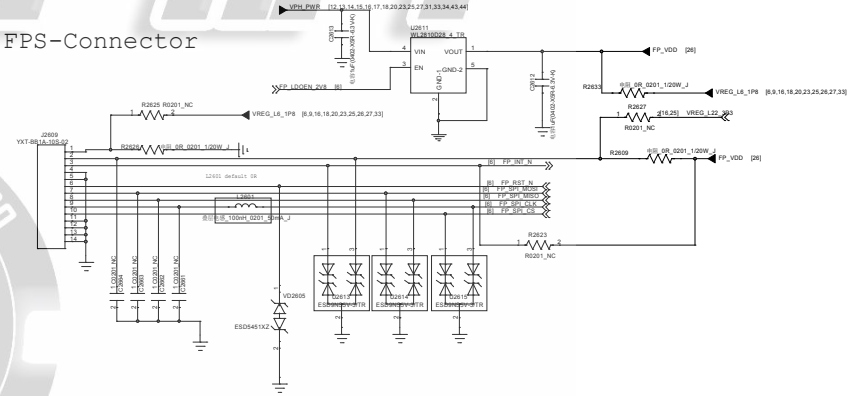
LCD/TP-Connector

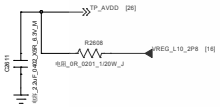




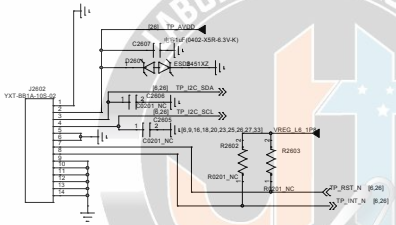


FPS-Connector





TP-Connector



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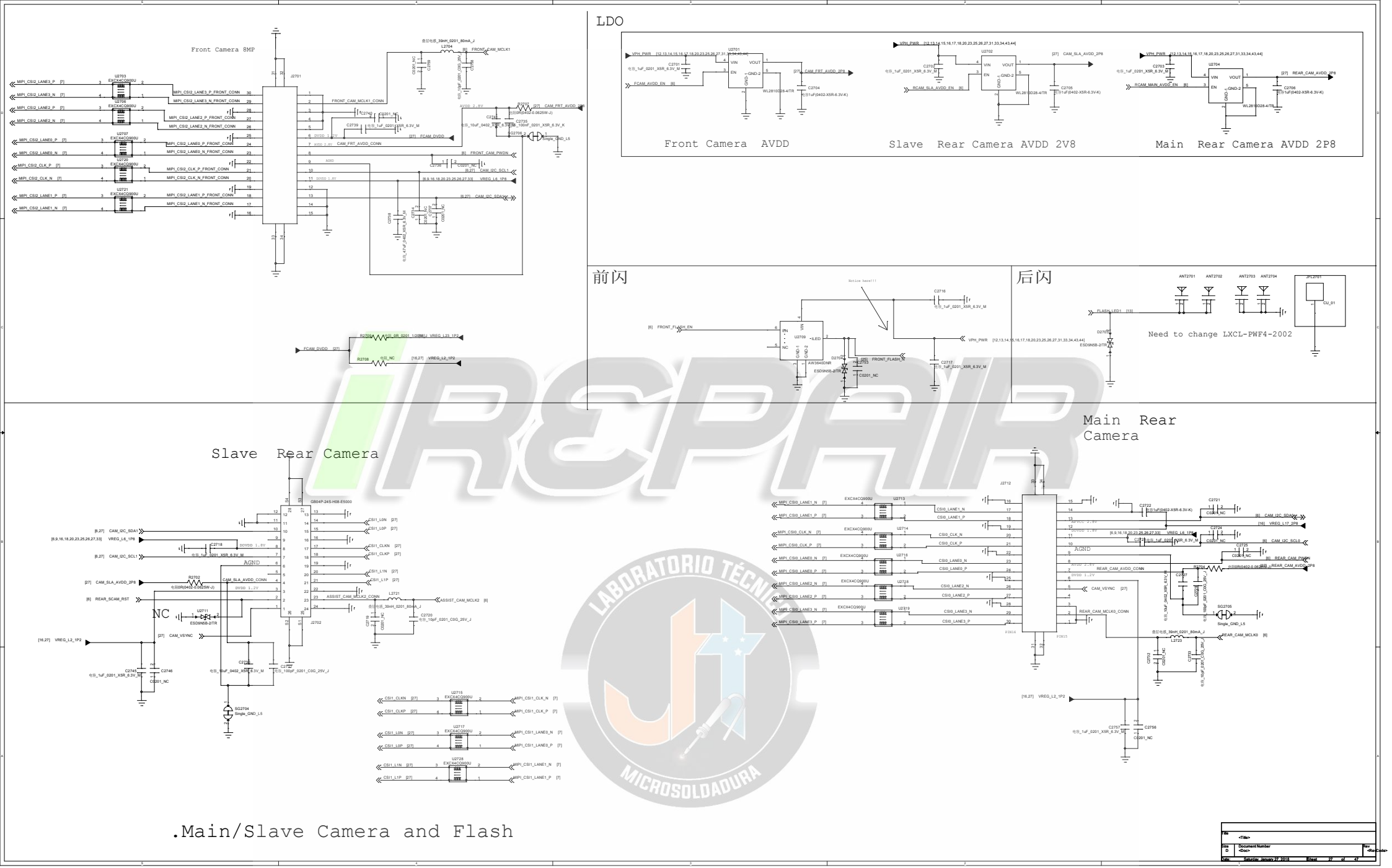
Date: Saturday, January 27, 2018	Sheet 26 of 47		



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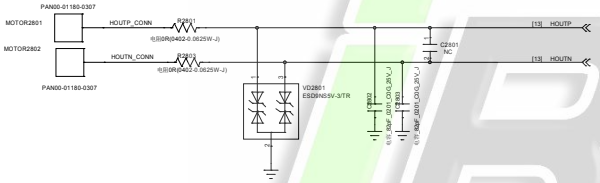
Date: Saturday, January 27, 2018	Sheet 27 of 47		

MOTOR



音量键&开关机键

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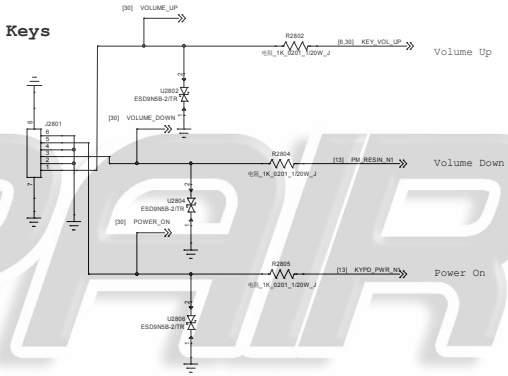

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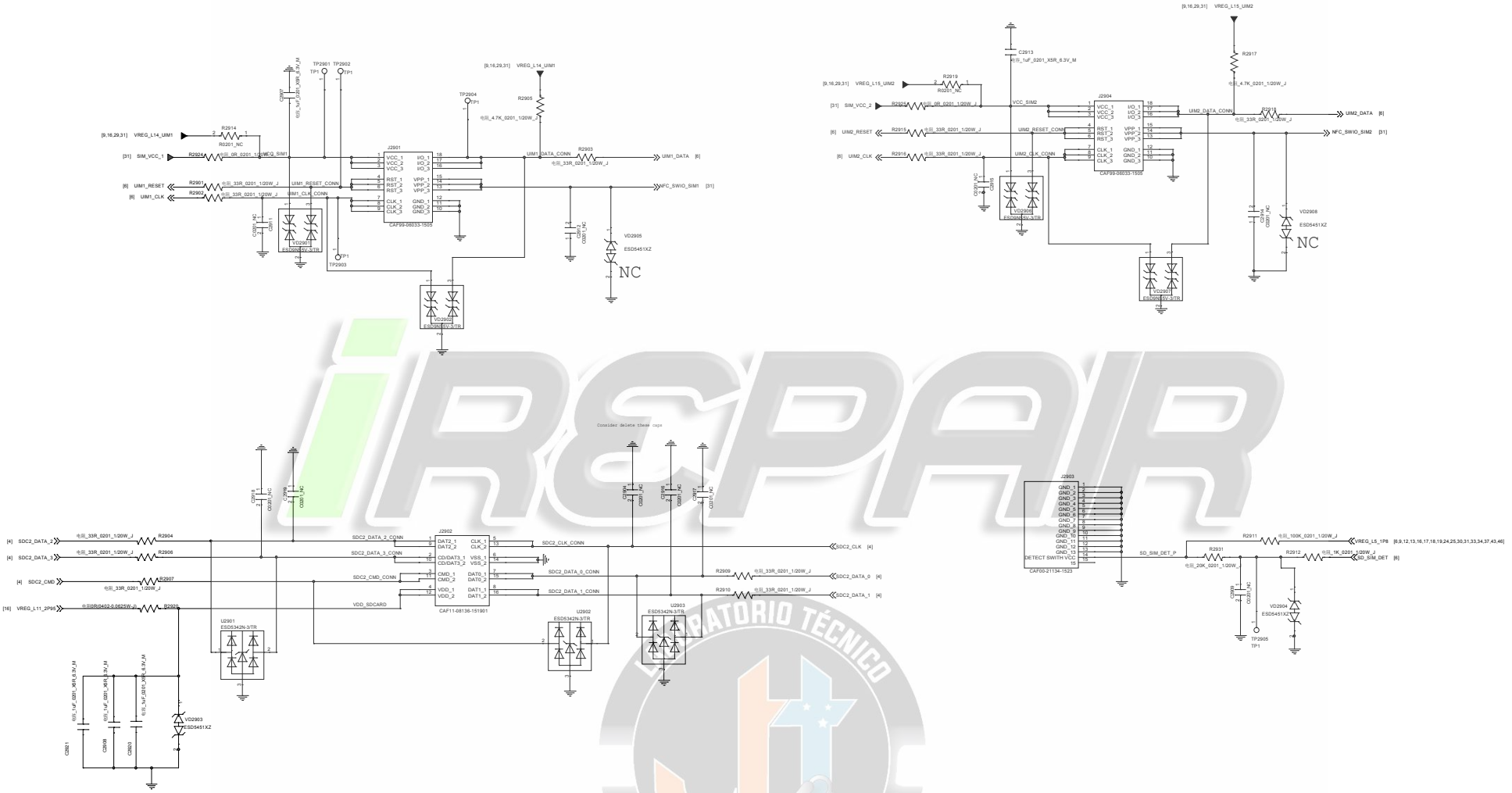

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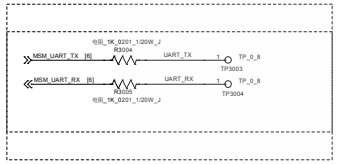

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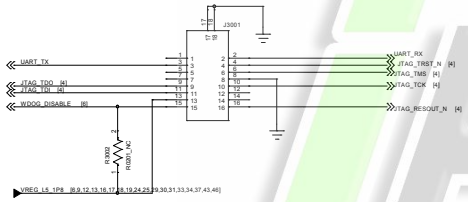

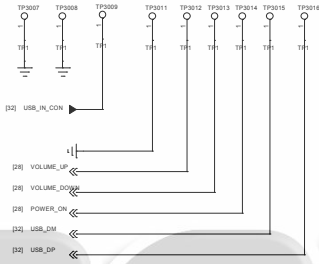

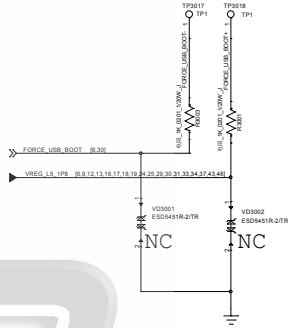

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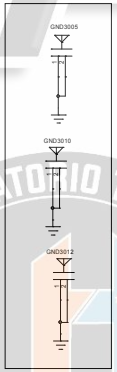

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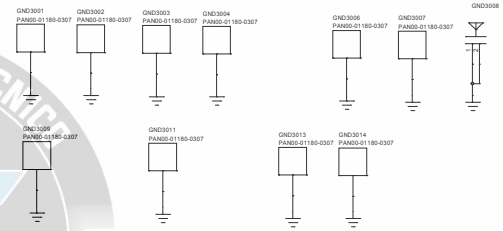

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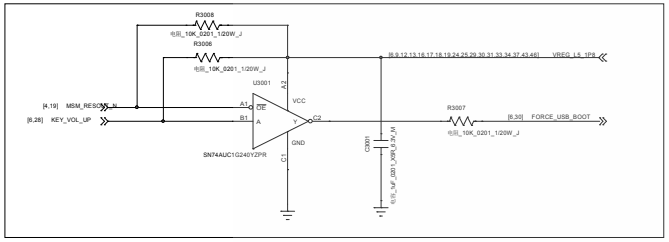
power key +volup to enter 9008 mode



TP/GND/Shielding

Title	<Title>		
Size D	Document Number <Doc>		Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 30 of 47		

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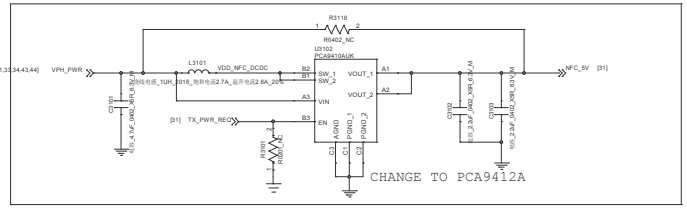
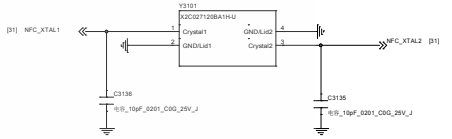
NQ330 PIN-TO-PIN NQ310(PN553)

The purpose of this chapter is to propose several application schematics for: NQ310 and NQ330 chips in VFBGA package

DCDC POWER FOR NFC



27.12MHz Crystal



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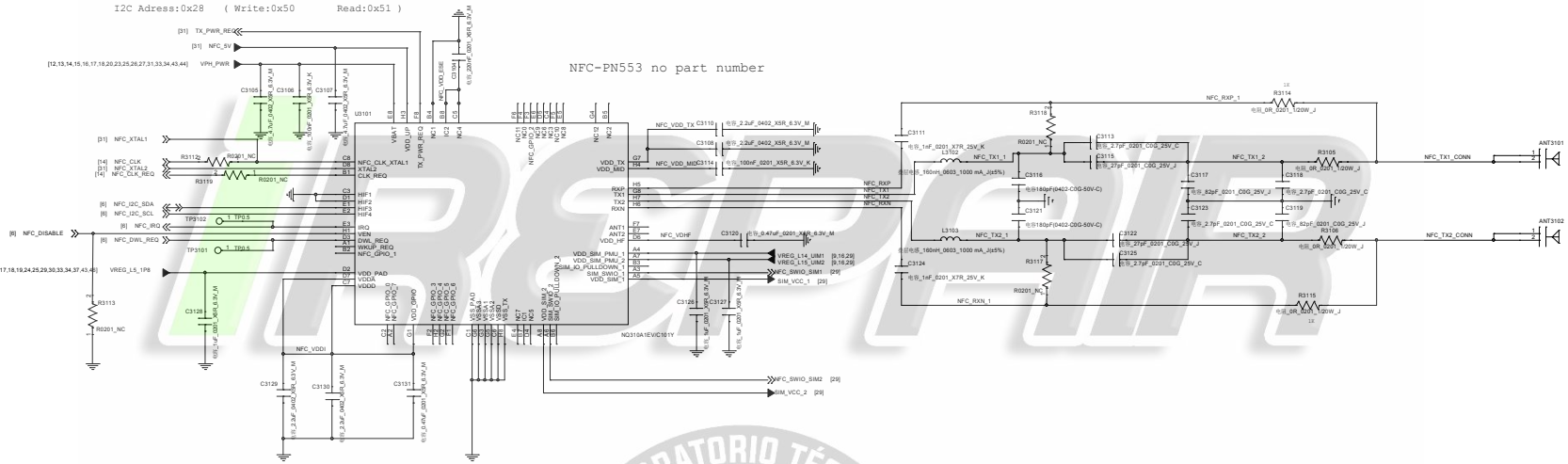

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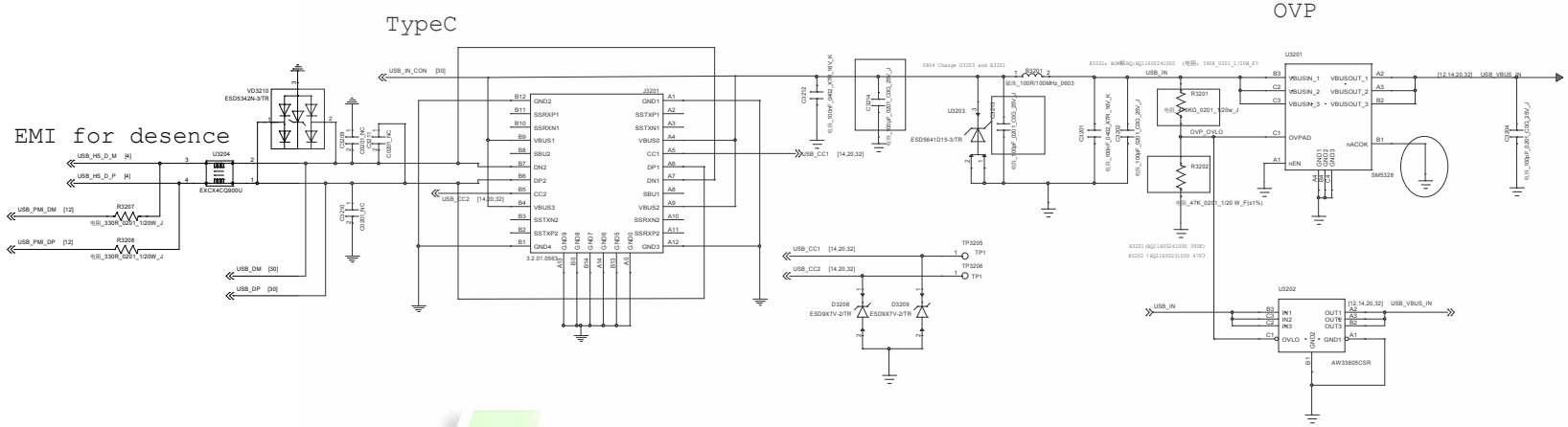
Date: Saturday, January 27, 2018	Sheet 31 of 47		



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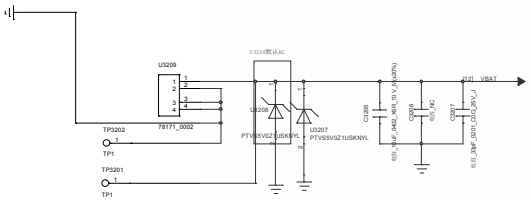

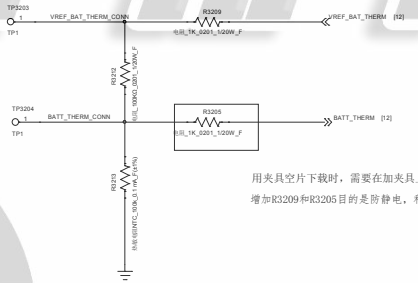

用夹具空片下载时，需要在加夹具上将TP3203和TP3204短接。这样，软件可以识别为电池不在位。

增加R3209和R3205目的是防静电，和防VREF_BAT_THERM在夹具上误短路。

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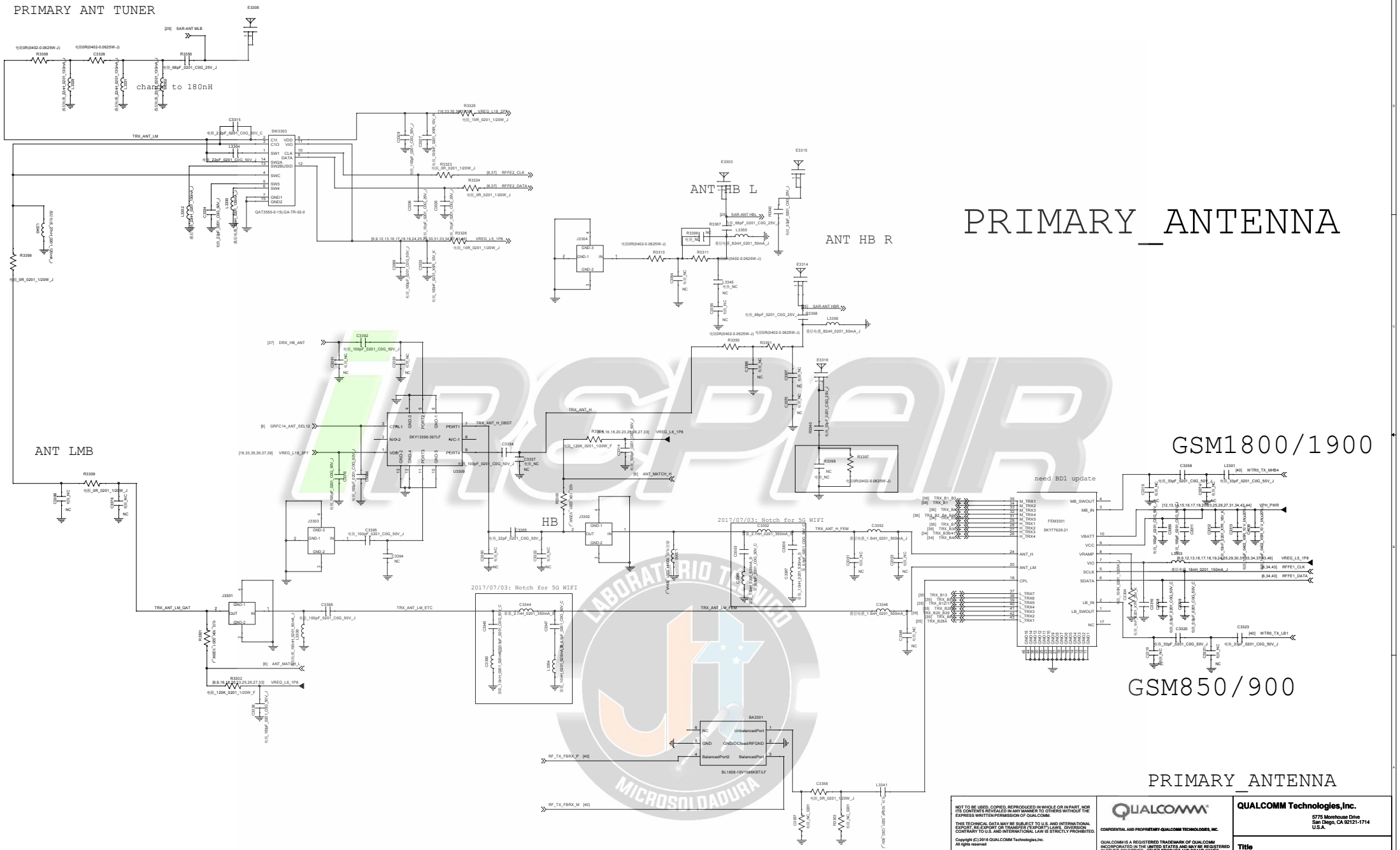
Size D	Document Number <Doc>	Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 32 of 47	



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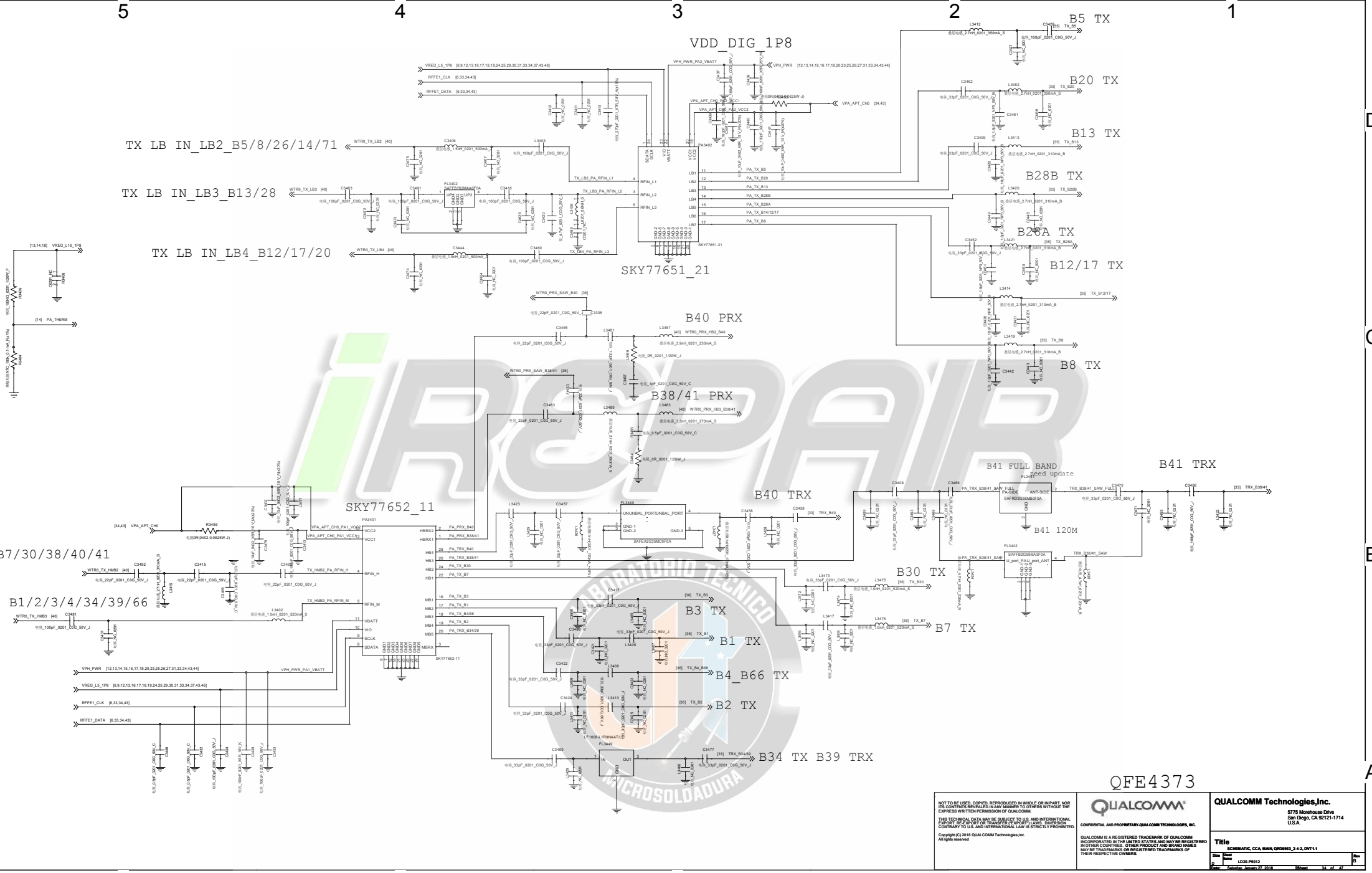
Size	Sheet Name	Rev
D	LD26-P5912	B

Date: Saturday, January 27, 2018 Sheet 33 of 47



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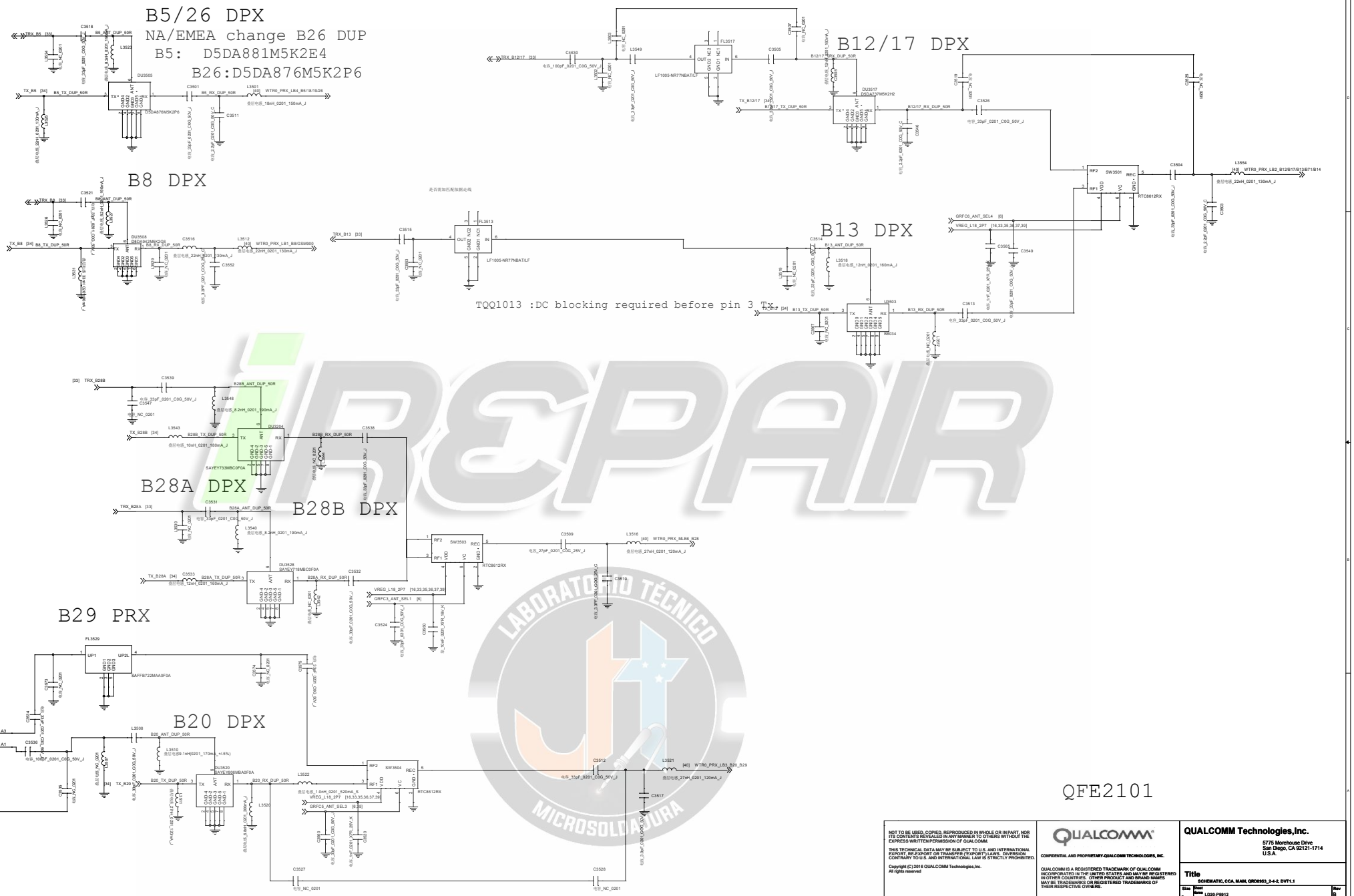
Size	Document Number	Rev
D	LD20-P5912	B

Date: Saturday, January 27, 2018 | Sheet 34 of 47



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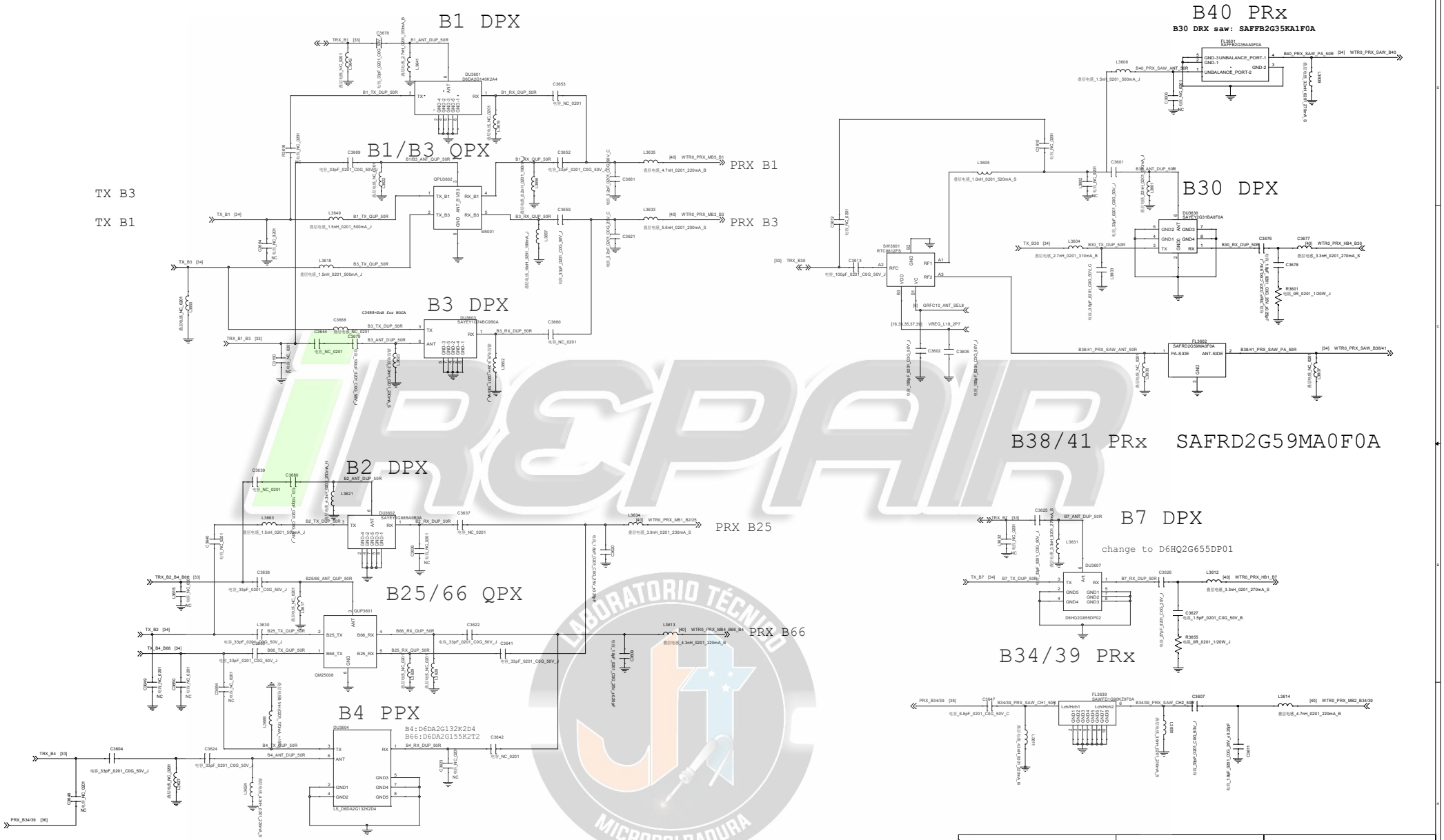
Size: D | Sheet Name: LD20-PS912 | Rev: B

Date: Saturday, January 27, 2018 | Sheet 35 of 47



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Size	Sheet Name	Rev
D	LD26-P5912	B

Date: Saturday, January 27, 2018 Sheet 36 of 47

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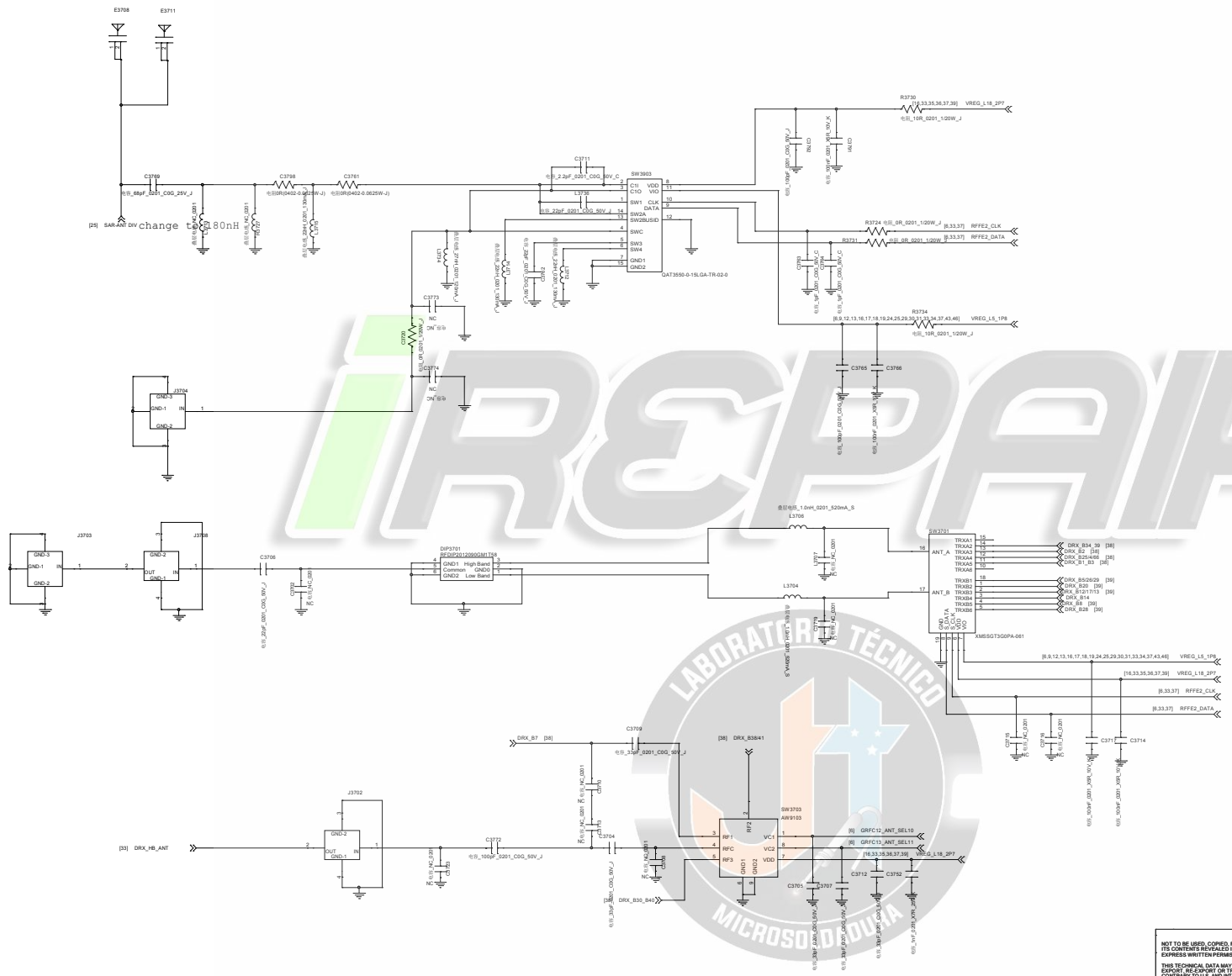

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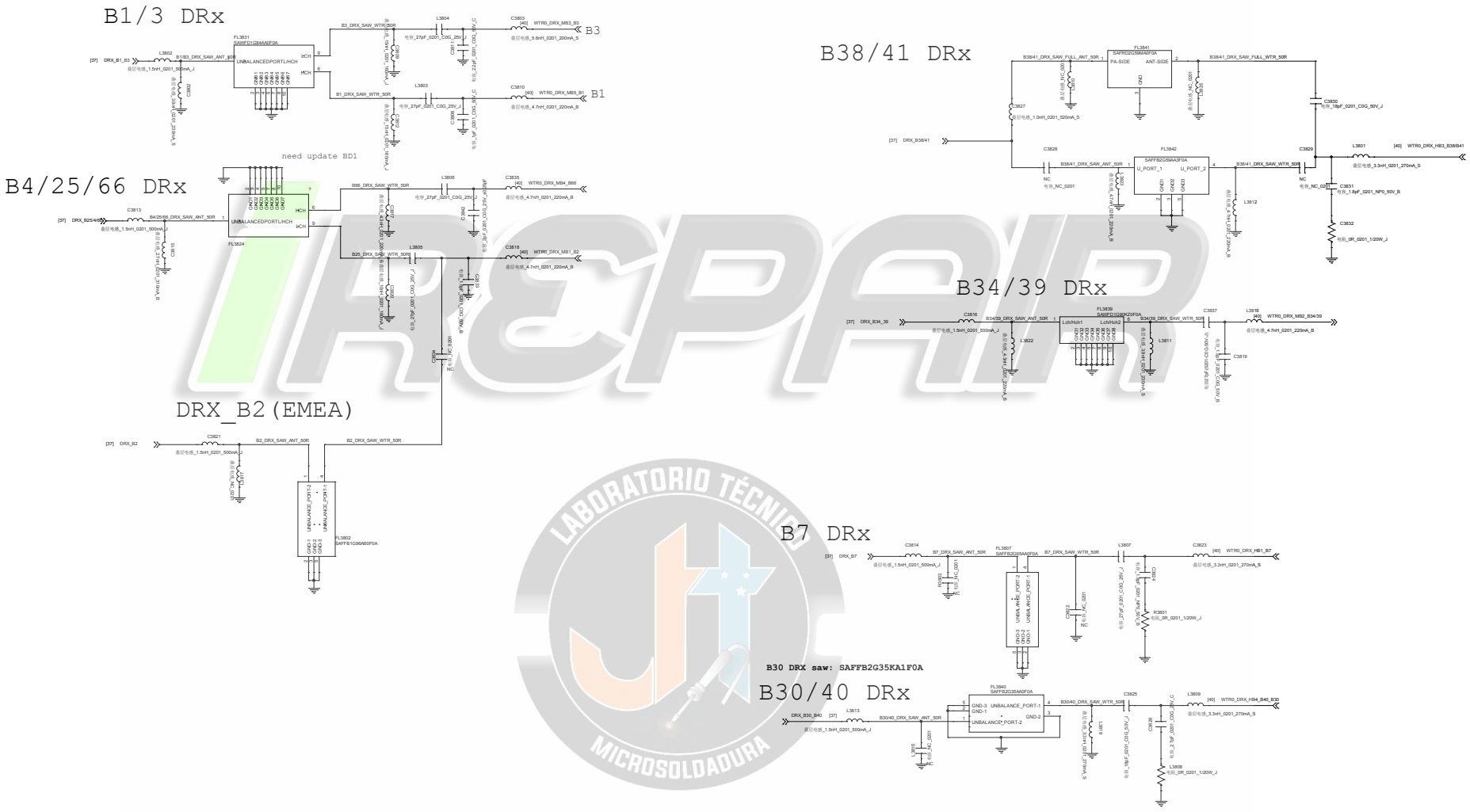
Size	Sheet Name	Rev
D	LD20-PS912	B

Date: Saturday, January 27, 2018 Sheet 37 of 47



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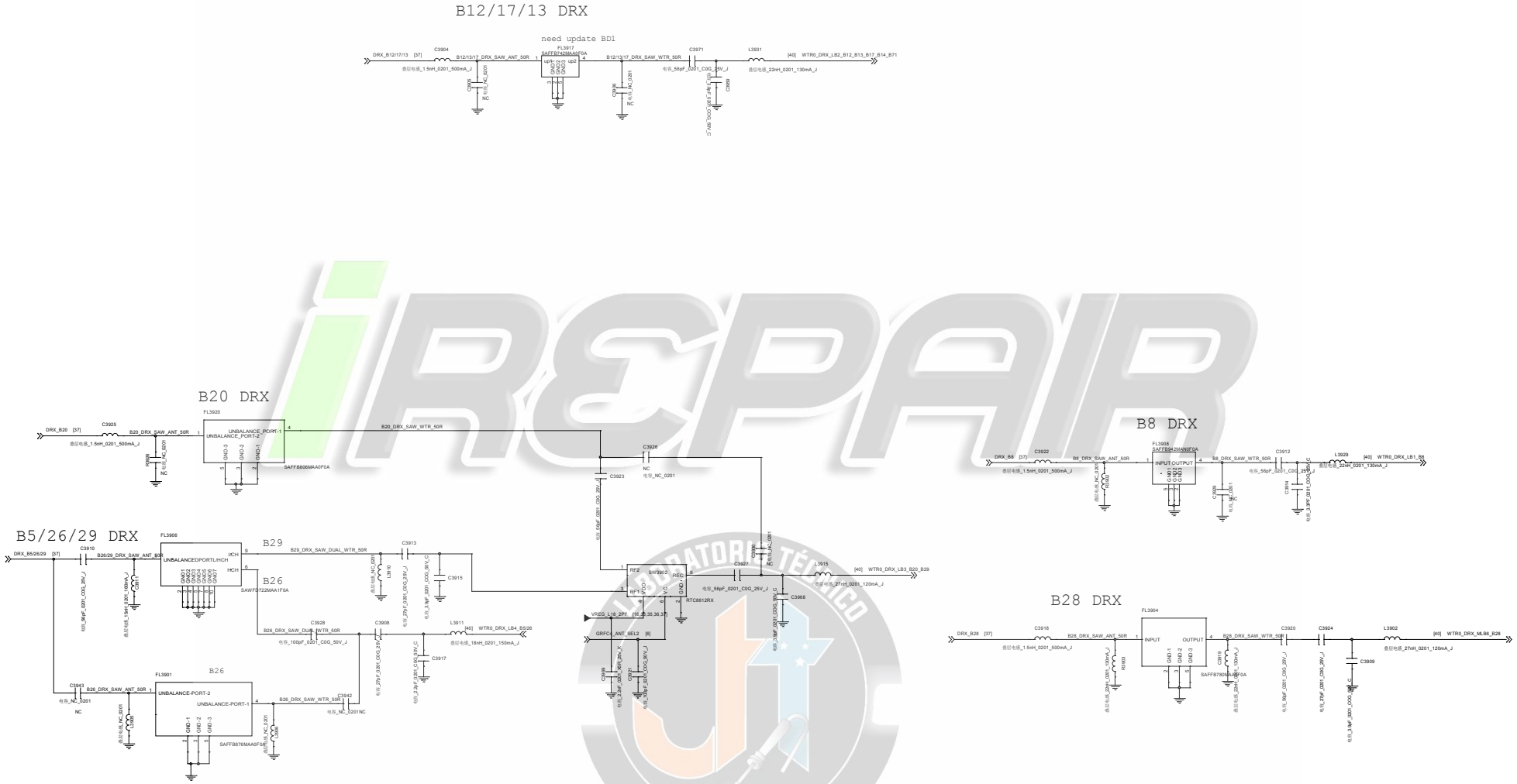

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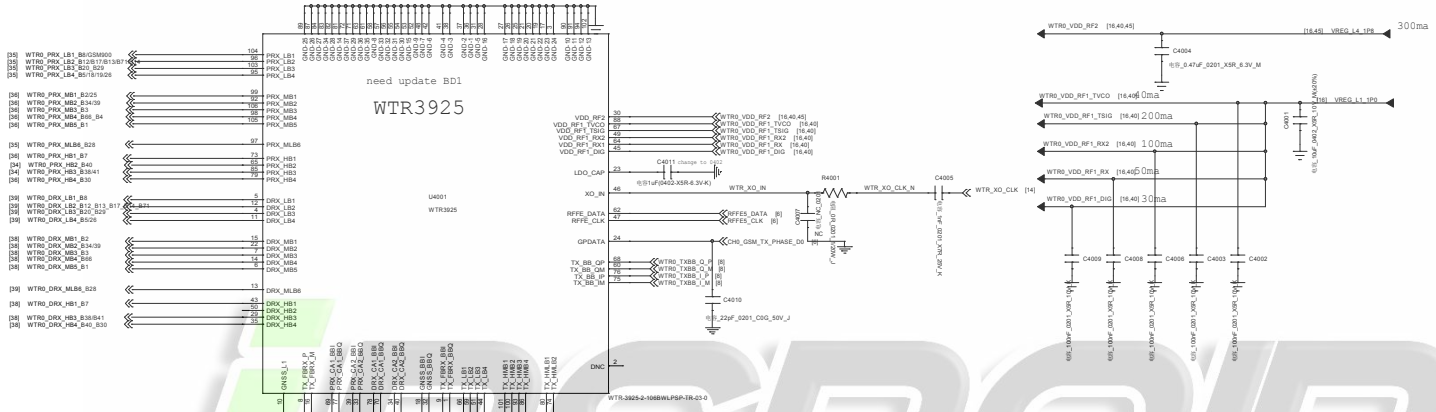
Size	Sheet Name	Rev
D	LD20-P5912	B

Date: Saturday, January 27, 2018 | Sheet 39 of 47



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Size	Sheet Name	Rev
D	LD26-P5912	B

Date: Saturday, January 27, 2018 Sheet 46 of 47

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Title <Title>		
Size A	Document Number <Doc>	Rev <RevCode>
Date: Saturday, January 27, 2018	Sheet 41 of 47	

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Title <Title>		
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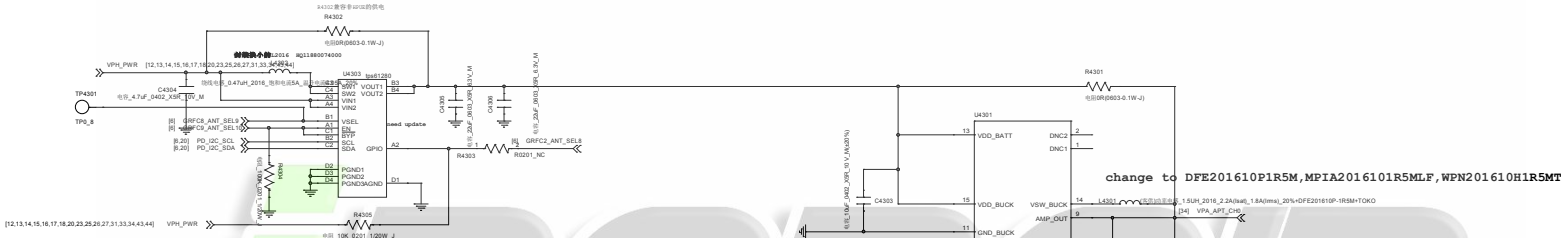
Date: Saturday, January 27, 2018	Sheet 42 of 47	



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Size	Sheet Name	Rev
D	LD20-P5912	B

Date: Saturday, January 27, 2018 Sheet 43 of 47

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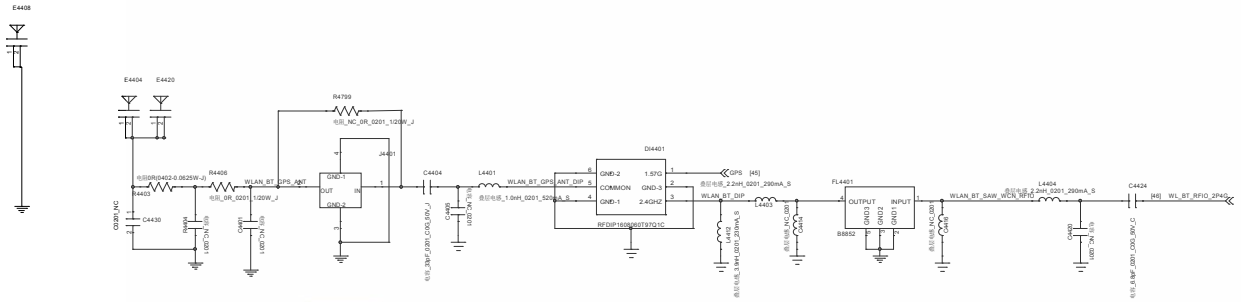

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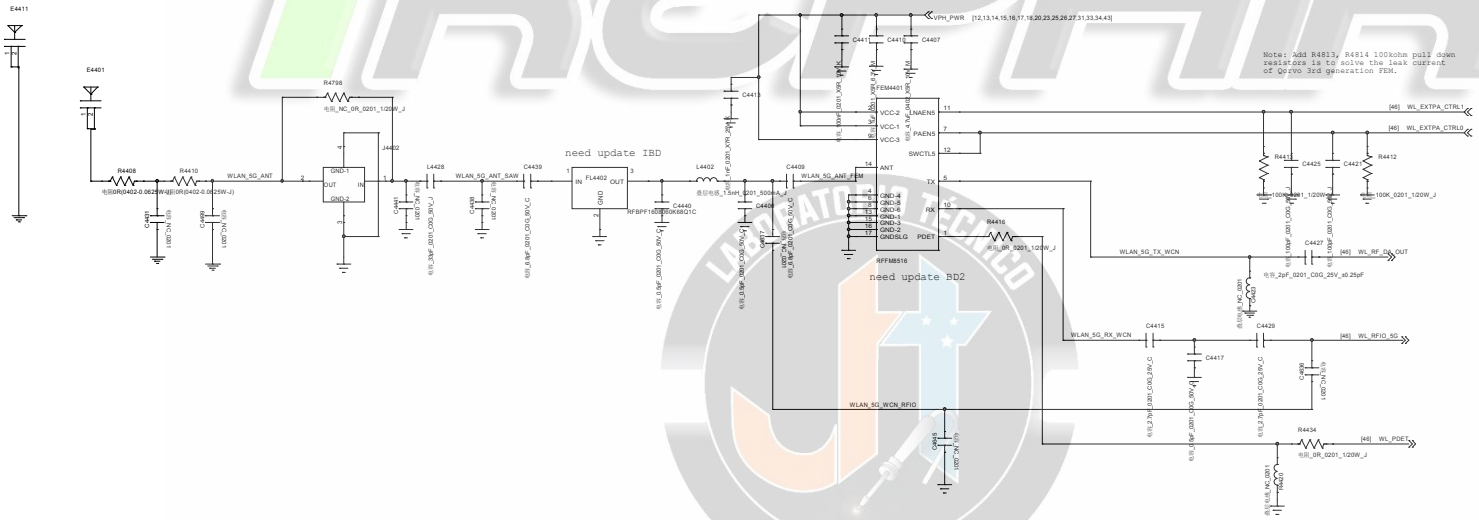

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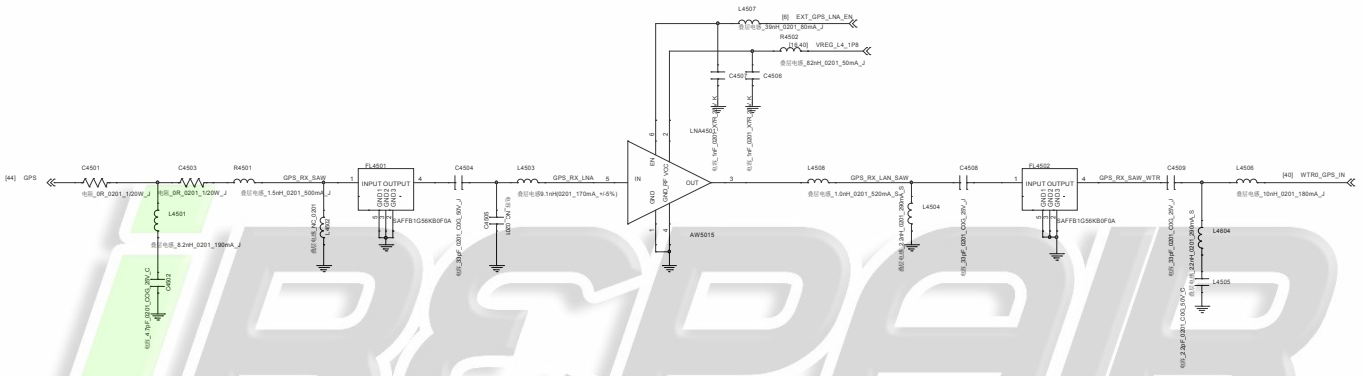
Size	Sheet Name	Rev
D	LD20-P5912	B

Date: Saturday, January 27, 2018 Sheet 44 of 47

GPS



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LABORATORIO TÉCNICO
MICROSOLDADURA

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Size	Sheet Name	Rev
D	LD20-P5912	B

Date: Saturday, January 27, 2018 Sheet 45 of 47

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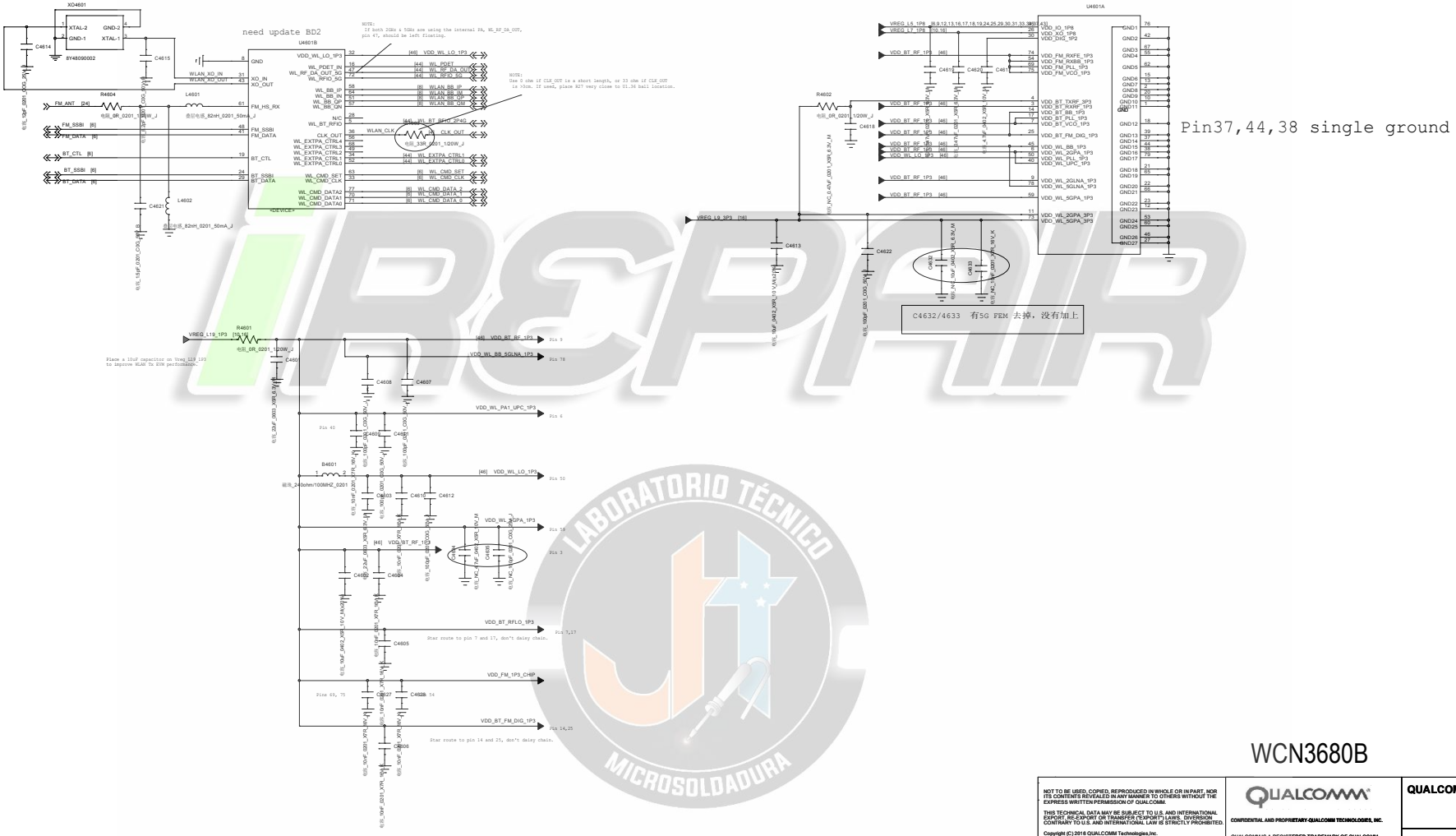

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Size: D | Sheet Name: LD20-P5912 | Rev: B

Date: Saturday, January 27, 2018 | Sheet 46 of 47

LABORATORIO TÉCNICO MICROSOLDADURA

MSM8953 GPIO Configuration For QRD8953

GPIO_0	NFC_SPI_ESE_MOSI	GPIO_41		GPIO_82	FM_DATA
GPIO_1	NFC_SPI_ESE_MISO	GPIO_42	ACCL_INT1	GPIO_83	BT_CTL
GPIO_2	NFC_SPI_ESE_CS_N	GPIO_43	ALSP_INT_N	GPIO_84	BT_DATA
GPIO_3	NFC_SPI_ESE_CLK	GPIO_44	MAG_DRDY_INT	GPIO_85	KEY_VOL_UP_N
GPIO_4	UART_MSM_TX	GPIO_45	GYRO_INT	GPIO_86	
GPIO_5	UART_MSM_RX	GPIO_46	SCAM_D_ELDO_EN	GPIO_87	
GPIO_6		GPIO_47	SENSOR_SPI_CS2_N	GPIO_88	
GPIO_7		GPIO_48	FP_INT_N	GPIO_89	
GPIO_8		GPIO_49	UIM_BATT_ALARM	GPIO_90	
GPIO_9		GPIO_50	WCD_ELDO_EN	GPIO_91	
GPIO_10	TP_I2C_SDA	GPIO_51	UIM1_DATA	GPIO_92	
GPIO_11	TP_I2C_SCL	GPIO_52	UIM1_CLK	GPIO_93	SCAM_ID
GPIO_12		GPIO_53	UIM1_RESET	GPIO_94	
GPIO_13		GPIO_54		GPIO_95	
GPIO_14	SENSOR_I2C_SDA	GPIO_55	UIM2_DATA	GPIO_96	WSA_EN
GPIO_15	SENSOR_I2C_SCL	GPIO_56	UIM2_CLK	GPIO_97	
GPIO_16	NFC_DISABLE	GPIO_57	UIM2_RESET	GPIO_98	
GPIO_17	NFC_IRQ	GPIO_58		GPIO_99	
GPIO_18	NFC_I2C_SDA	GPIO_59		GPIO_100	GRFC0_SEL
GPIO_19	NFC_I2C_SCL	GPIO_60	GP_PDM_A0	GPIO_101	GRFC1_SEL
GPIO_20	SENSOR_SPI_MOSI	GPIO_61	LCD_RST_N	GPIO_102	GRFC2_SEL
GPIO_21	SENSOR_SPI_MISO	GPIO_62	NFC_DWL_REQ	GPIO_103	GRFC3_SEL
GPIO_22	SENSOR_SPI_CS0_N	GPIO_63		GPIO_104	GRFC4_SEL
GPIO_23	SENSOR_SPI_CLK	GPIO_64	TP_RST_N	GPIO_105	GRFC5_SEL
GPIO_24	LCD_TE0	GPIO_65	TP_INT_N	GPIO_106	WDOG_DISABLE
GPIO_25		GPIO_66		GPIO_107	GRFC7_SEL
GPIO_26	CAM_MCLK0	GPIO_67	WCD_RST_N	GPIO_108	GRFC8_SEL
GPIO_27	CAM_MCLK1	GPIO_68		GPIO_109	GRFC9_SEL
GPIO_28		GPIO_69	WCD_MSM_MCLK	GPIO_110	
GPIO_29	CAM_I2C_SDA0	GPIO_70	SLIMBUS_CLK	GPIO_111	
GPIO_30	CAM_I2C_SCL0	GPIO_71	SLIMBUS_DATA0	GPIO_112	
GPIO_31	CAM_I2C_SDA1	GPIO_72		GPIO_113	
GPIO_32	CAM_I2C_SDA1	GPIO_73	WCD_INTR1	GPIO_114	
GPIO_33		GPIO_74	WCD_INTR2	GPIO_115	
GPIO_34	FLASH_STROBE_NOW	GPIO_75	BT_SSBI	GPIO_116	EXT_GPS_LNA_EN
GPIO_35		GPIO_76	WL_CMD_DATA_2	GPIO_117	CH0_GSM_TX_PHASE_D0
GPIO_36		GPIO_77	WL_CMD_DATA_1	GPIO_118	RFFE1_CLK
GPIO_37	FORCE_USB_BOOT	GPIO_78	WL_CMD_DATA_0	GPIO_119	RFFE1_DATA
GPIO_38		GPIO_79	WL_CMD_SET	GPIO_120	RFFE2_CLK
GPIO_39	MCAM_PWD_N	GPIO_80	WL_CMD_CLK	GPIO_121	RFFE2_DATA
GPIO_40	MCAM_RST_N	GPIO_81	FM_SSBI	GPIO_122	RFFE4_CLK

GPIO_123	RFFE4_DATA	GPIO_134	
GPIO_124		GPIO_135	FP_SPI_CLK
GPIO_125		GPIO_136	FP_SPI_CS
GPIO_126	RFFE3_CLK	GPIO_137	FP_SPI_MOSI
GPIO_127	RFFE3_DATA	GPIO_138	FP_SPI_MISO
GPIO_128		GPIO_139	USB_SS_SEL
GPIO_129	SCAM_RST_N	GPIO_140	FP_RST_N
GPIO_130	SCAM_PWD_N	GPIO_141	NFC_ESE_PWR_REQ
GPIO_131			
GPIO_132			
GPIO_133	SDCARD_DET_N		

PMI8952 GPIO/MPP Configuration For QRD8953

GPIO_1		MPP_1	
GPIO_2		MPP_2	GREEN_LED
		MPP_3	
		MPP_4	FLASH_STROBE_NOW

PM8953 GPIO/MPP Configuration For QRD8953

GPIO_1	CODEC_DIV_CLK	MPP_1	VDD_PX_BIAS_MPP_1
GPIO_2	NFC_CLK_REQ(SDCARD_DET_N)		
GPIO_3	UIM_BATT_ALARM	MPP_3	VREF_DAC_MPP_3
GPIO_4		MPP_4	QUIET_THERM
GPIO_5			
GPIO_6			
GPIO_7	VBUS_USB_IN		
GPIO_8	USB_ID		

GPIO TABLE

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Size	Sheet Name	Rev
D	LD20-P5912	B

Date: Saturday, January 27, 2018 Sheet 47 of 47