

MSM8916 + PM8916

Design Example Schematic

80-NK807-41 Rev. A

February 15, 2014

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Revision history

Revision	Date	Description
Α	February 2014	Initial release



MSM8916 + PM8916 Design Example Schematic

1 Reference Schematic

1.1 Introduction

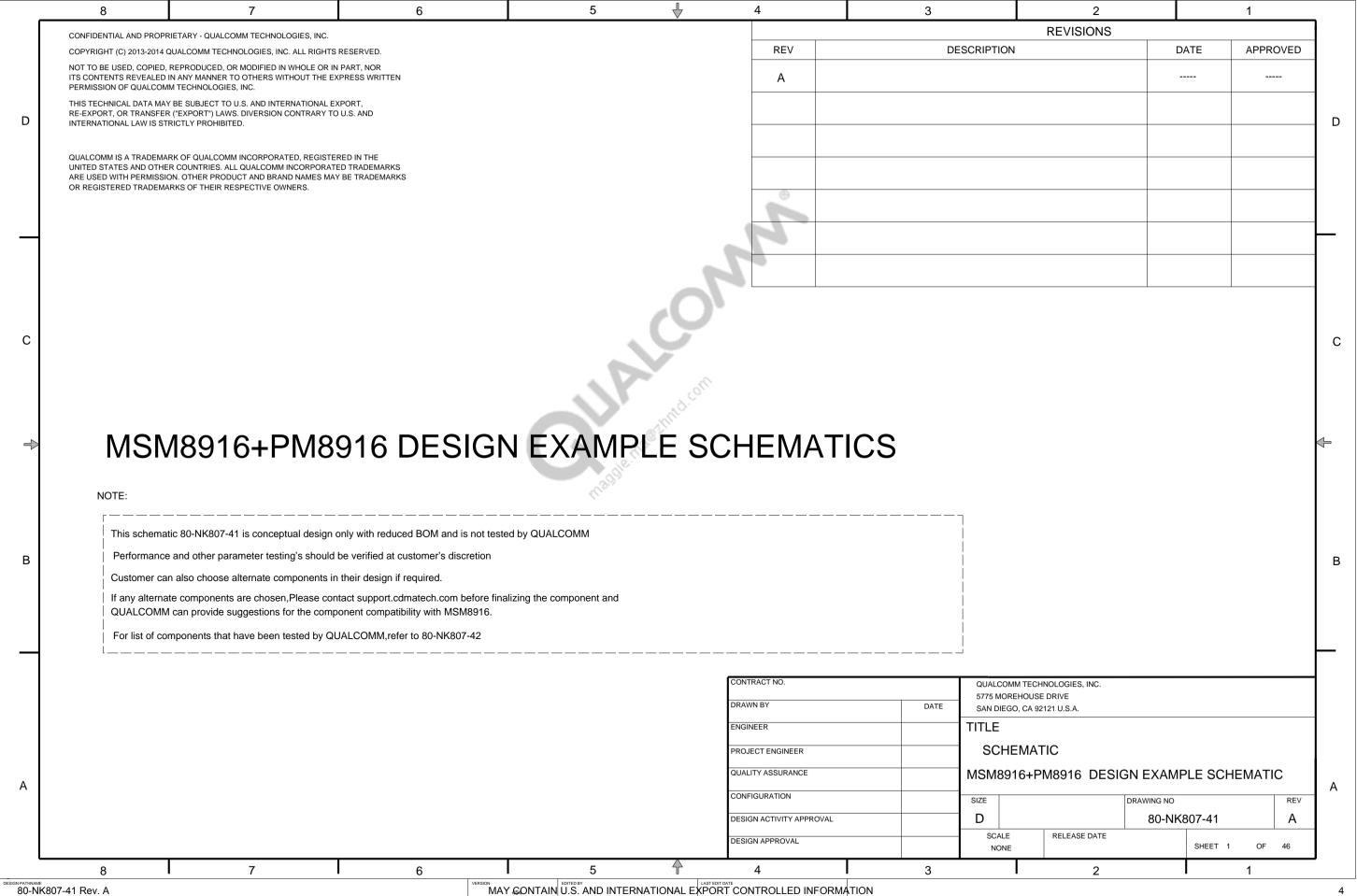
This document is meant to be a conceptual reference design only that describes an optimized BOM and is a "paper" design only. This design has not been built or tested by Qualcomm® and we leave the implementation and BOM choices to the OEM to make sure that they can meet their performance goals. This document includes reference design information, schematics, and a parts list based on the MSM8916. The schematic and parts list included in this document are preliminary and are intended only as a reference.

1.2 Schematic

This schematic is subject to change without notice, and for reference only, and is not built/tested/optimized for production phones.

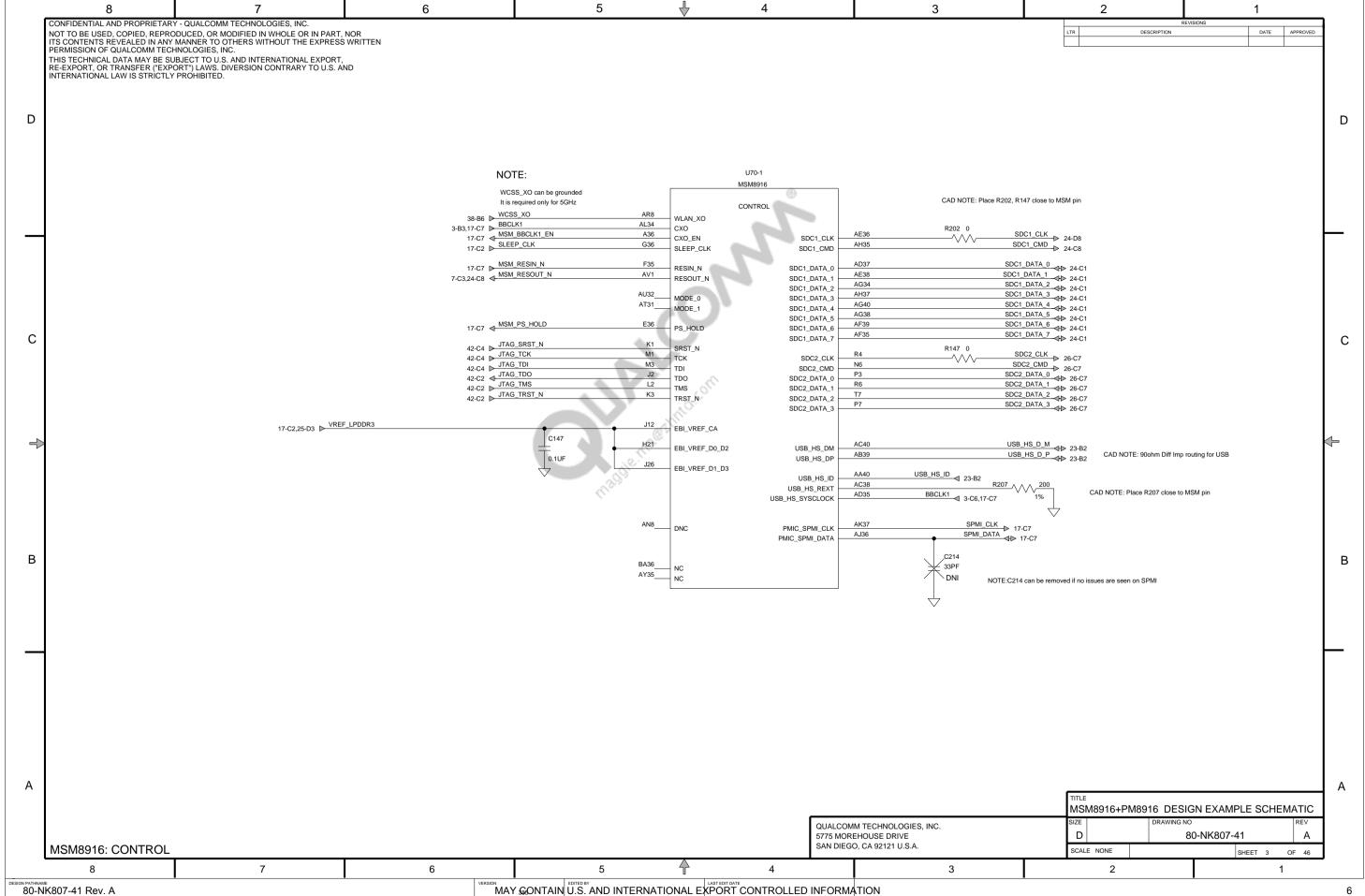
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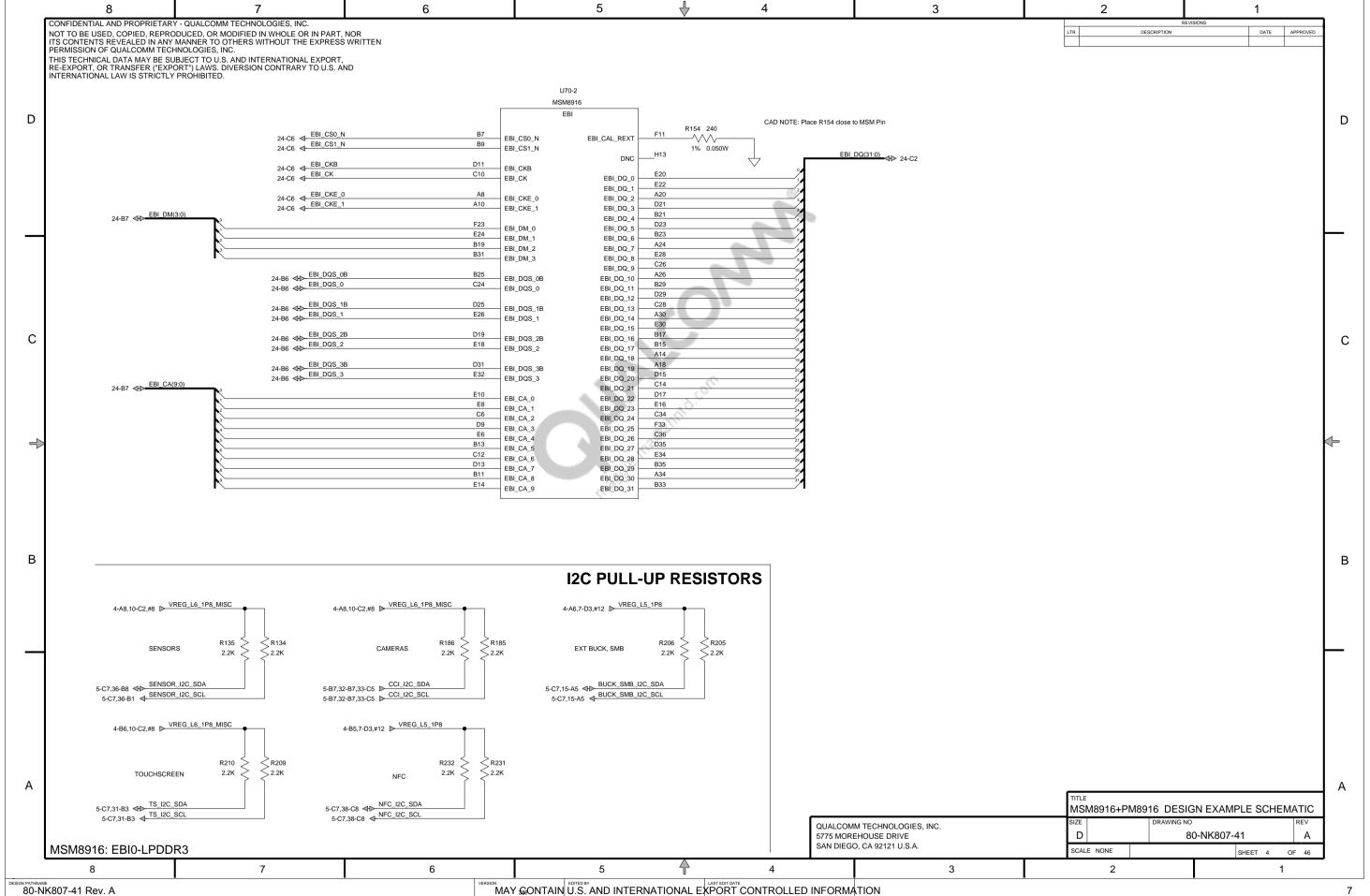
80-NK807-41 Rev. A



MSM8916 + PM8916 Design Example Schematic

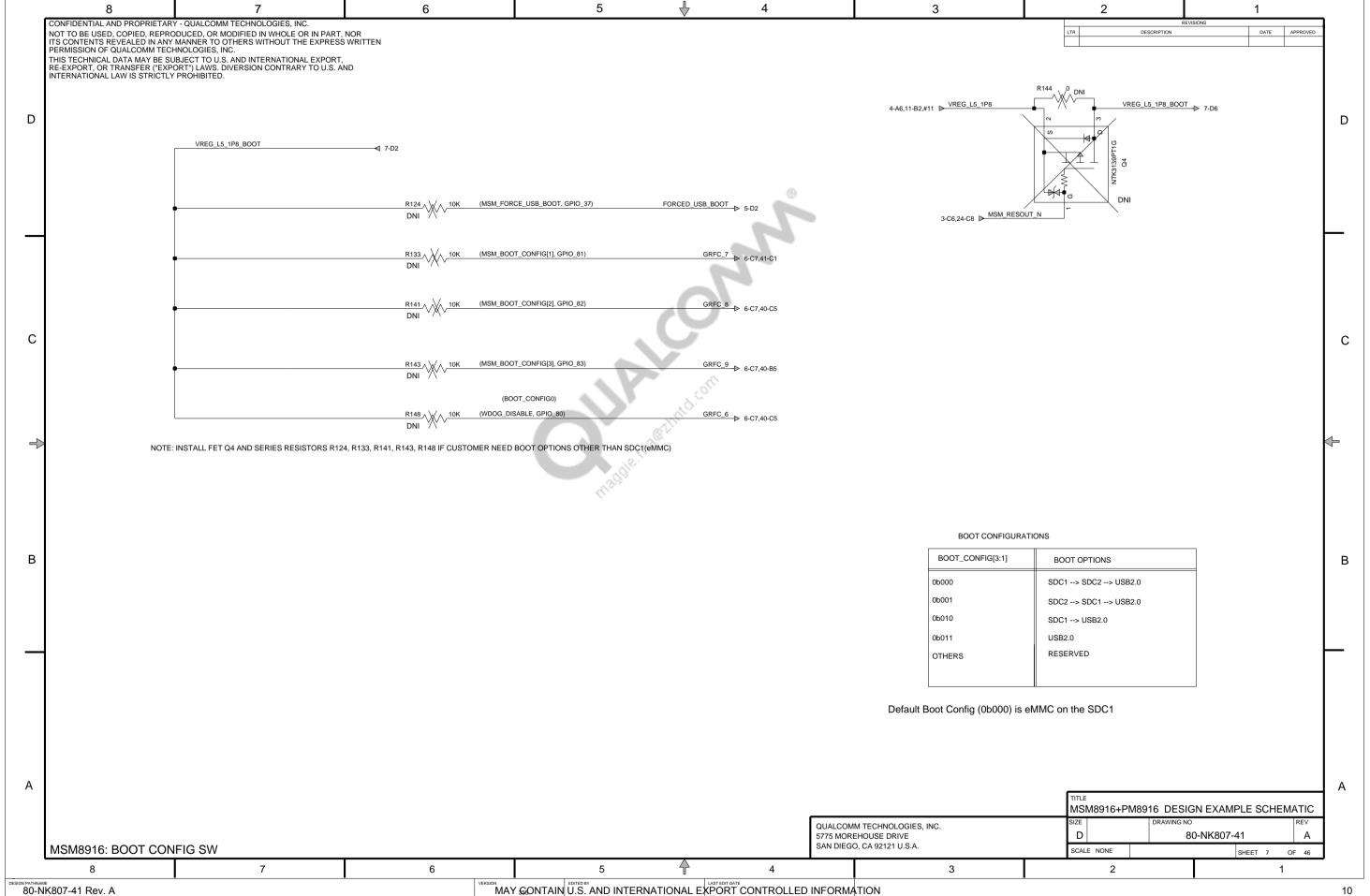
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	Sheet #	Content	Sheet #	Content	Sheet #	Content	t S	Sheet #	Content		-
	1			TOUCHSCREEN INTERFACE 2							
	2	TABLE OF CONTENTS		5MP SOC FRONT CAMERA							
	3	MSM8916: CONTROL		13MP REAR CAMERA		0					
	4	MSM8916: EBI0-LPDDR3		AUDIO: MICS,SPEAKERS & EAR PIECE							
_	5	MSM8916: GPIO[0:73]		AUDIO: HEADSET							\vdash
	6	MSM8916: GPIO[74:121]		SENSORS							
	7	MSM8916: BOOT CONFIG SW	37 E	BUTTONS	6-3						
	8	MSM8916: MIPI CSI, DSI	38 (CONNECTIVITY CARD							
	9	MSM8916: RF INTERFACE	39 I	RF PWR OPTIONS							
С	10	MSM8916: POWER 1	40 I	RF CONNECTOR 1							
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	12	MSM8916: POWER 3	42 [DEBUG CONN							
	13	MSM8916: GND	43 /		COL.						
	14	MSM8916: DECOUPLING	44 /								
	15	SMB1360	45 /	6	Ke.						
\Diamond	16	EXT BUCK REGULATORS	46 /	Mass							\
	17	PM8916: CONTROL, CLOCKS		Julie.							
	18	PM8916: CHARGING, GPIOs & MPPs		Mala							
	19	PM8916: SMPS		`							
	20	PM8916: LDOs									
	21	PM8916: LDO DECAPs									
В	22	PM8916 - AUDIO									В
	23	USB CONN INTERFACE									
	24	MEMORY: LPDDR3 + EMMC v4.5									
	25	MEMORY: POWER									
	26	MEMORY: uSD CONNECTOR									
	27	2x uSIM									
	28	1x uSIM									
	29	DISPLAY: BACKLIGHT DRIVER									
	30	1080P DISPLAY									
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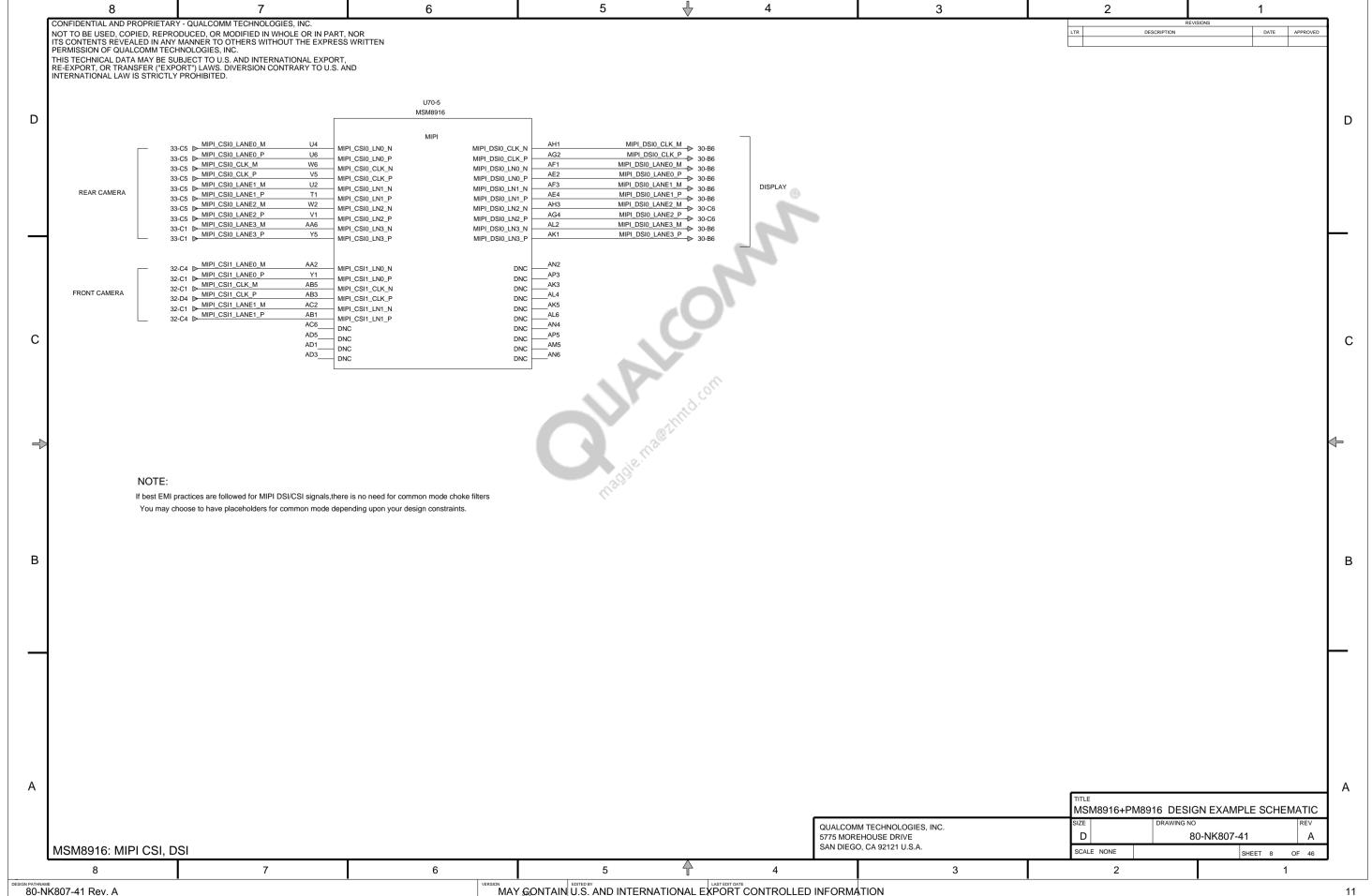


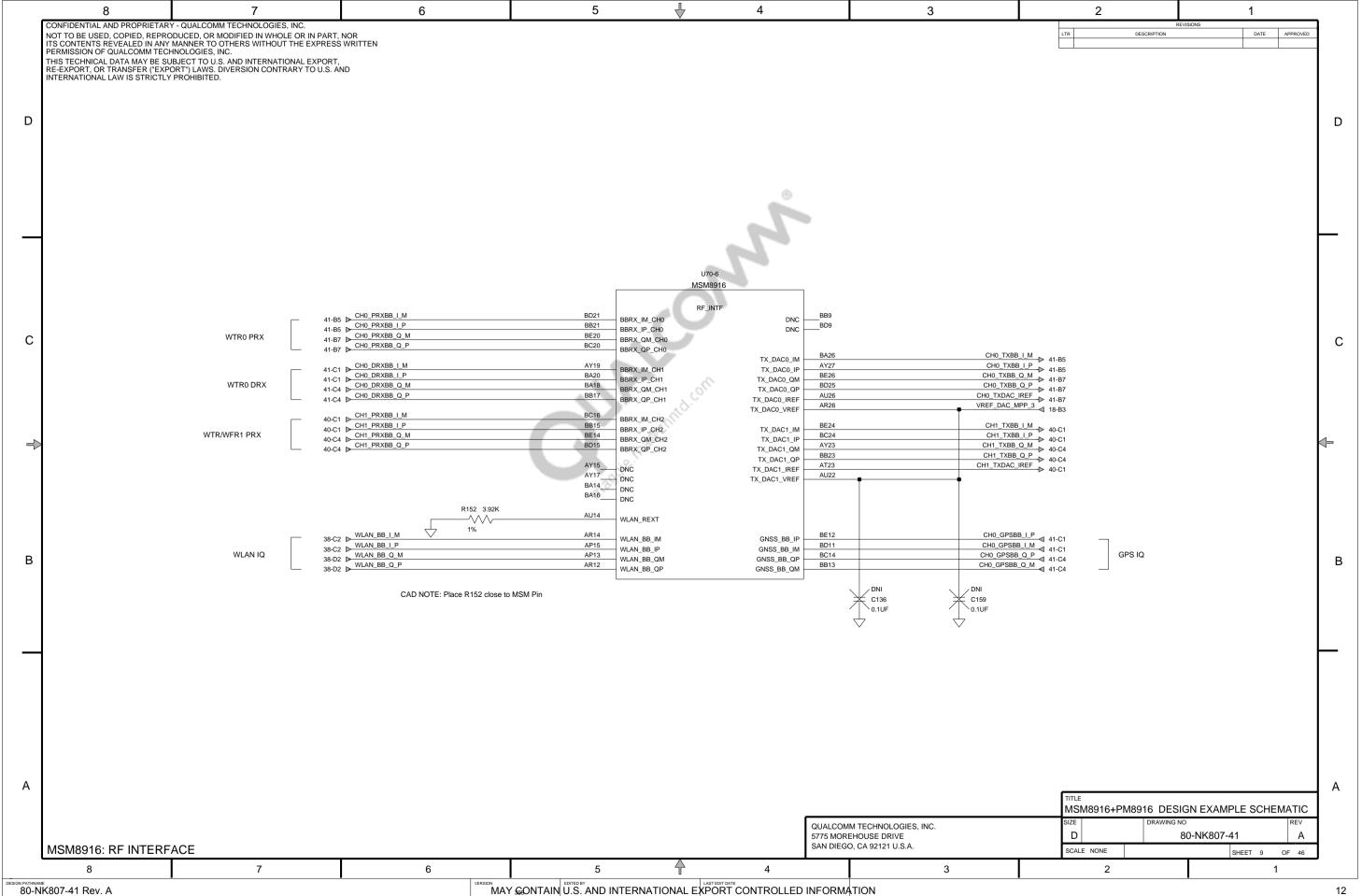


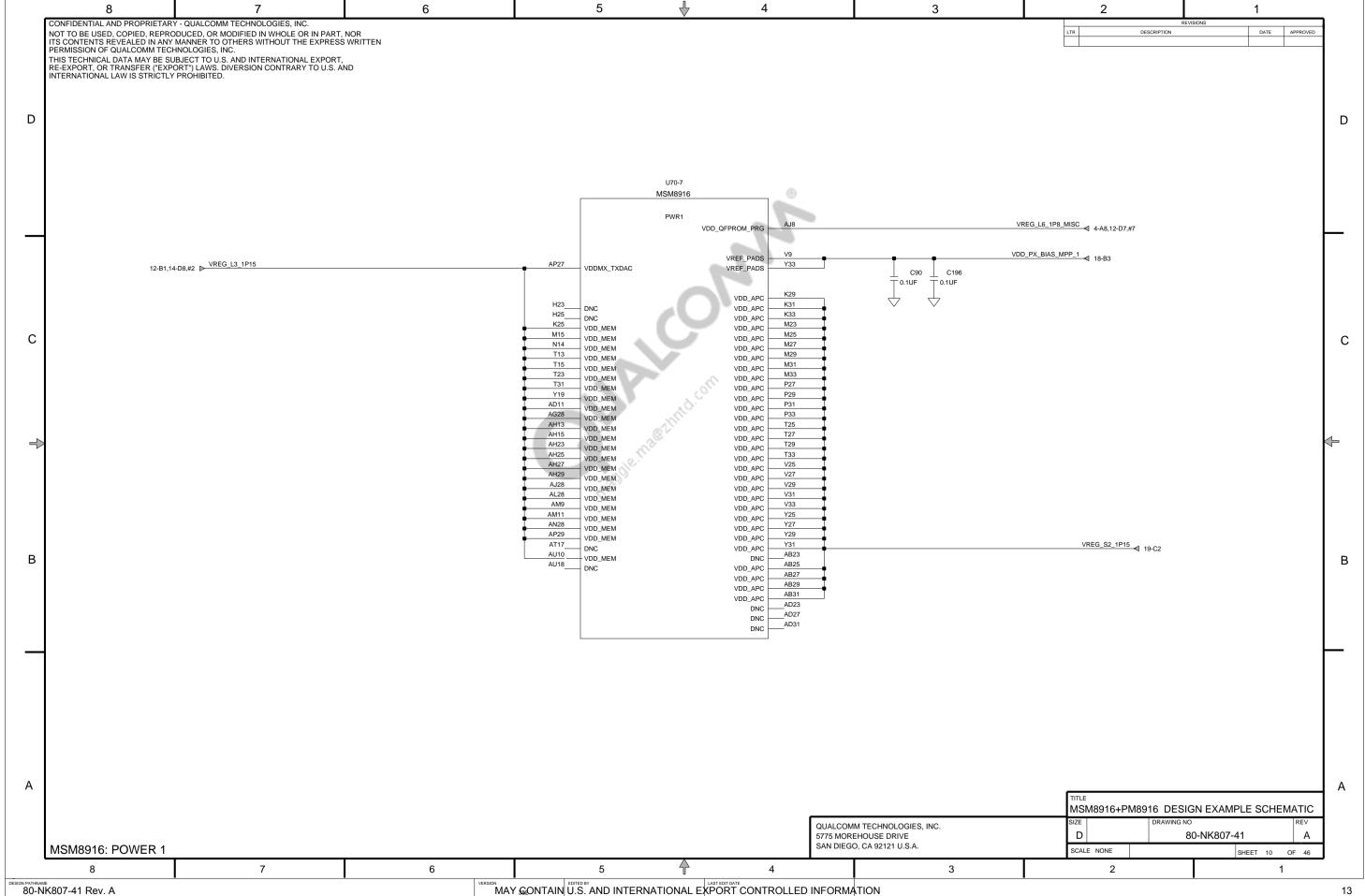
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				BA38GPIO_0	O1 E4 E4	FORCE	ED_USB_BOOT 7-D4		
				BB39 GPIO_1 AV35 GPIO_2	GPIO_38 GPIO_39 BC2	SD. V	_CARD_DET_N 26-C7 VCSS_BT_SSBI		
				AY37GPIO_3 AT9GPIO_4	GPIO_40 GPIO_41 BB5 BB1	WCSS_	WLAN_DATA_2 → 38-B4		
		4-A8,36-B8 ◀▷ SE	ENSOR_I2C_SDA	AY1GPIO_5 GPIO_6	GPIO_42 GPIO_43 BA6	WCSS_	WLAN_DATA_0 SS_WLAN_SET 38-B2		
		4-A8,36-B8 4-A8,36-B1 5-S	SENSOR_I2C_SCL	AV3 GPIO_7 GPIO_8	GPIO_44 GPIO_45 BB3 AY5	WCS W	SS_WLAN_CLK → 38-B2	-	
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		31-B3 ▶ TS	S_INT_N UCK_SMB_I2C_SDA	AM35 GPIO_13 AN40 GPIO_14	GPIO_50 GPIO_51 AA34 Y35		UIM3 RESET ≥ 28-C7		
		4-A5,15-A5 4-B	BUCK_SMB_I2C_SCL	AN36 GPIO_16 K7 GPIO_16	GPIO_52 AA38	U	UM2 DATA 28-C3		
		4-A8,31-B3 ⊲ ⊳ TS	S_I2C_SDA	G6 GPIO_17	GPIO_53 GPIO_54 H39		UIM2 RESET ≥ 27-B5		_
С		4-A8 31-B3 ►	S_I2C_SCL NFC_DISABLE	J6 GPIO_18 GPIO_19 GPIO_20	GPIO_55 GPIO_56 GPIO_57 GPIO_57	U	JIM2_PRESENT ■ 27-C1		С
		38-C8 NF	FC_INT_N IFC_I2C_SDA	AW6 GPIO_21	GPIO_57 GPIO_58 L38		27-D5		
		4-A0,30-C0	NFC_I2C_SCL CD_TE	BA2 GPIO_22 GPIO_23 AT5	GPIO_59 GPIO_60 AL38		T ALM GPIO 1 27-D1		
		30-C6 □ C6	CD_RST_N CAMO_MCLK	AU4 GPIO_24 GPIO_25	GPIO_61 GPIO_62 G34	C	SMB_INT □ 15-C7		
		33-C1 4 C	CAM1_MCLK CAM1 RESET N	C2 GPIO_26 GPIO_27	GPIO_64 AH39	CL	CDC_PDM_SYNC		
1		32-111 ≪⊩—	CI I2C SDA	B3 GPIO_28 GPIO_29	GPIO_65 GPIO_66 AJ38		CDC_PDM_RXU ■ 22-B6		\leftarrow
		32-B7 ◀	FLASH_LED_STB_0 FLASH_LED_STB_1	D3 GPIO_30 GPIO_31	GPIO_68 AL40		DMPASS INT N 22-B6		
		32-D4 ← C	CAM1_STANDBY_N CAM0_STANDBY_N	G4 GPIO_32 GPIO_33	GPIO_69 GPIO_70 AN38		RFFEI_CLK → 41-C1		
		33-01 ◀—	CAMO_RESET_N FLASH_LED_RESET_N	A4 GPIO_35	GPIO_71 GPIO_72 AT39		RFFE2_CLK		
		32-B7 ◀	ENON_EED_NEDET_N	GPIO_36	GPIO_73		41-B1		
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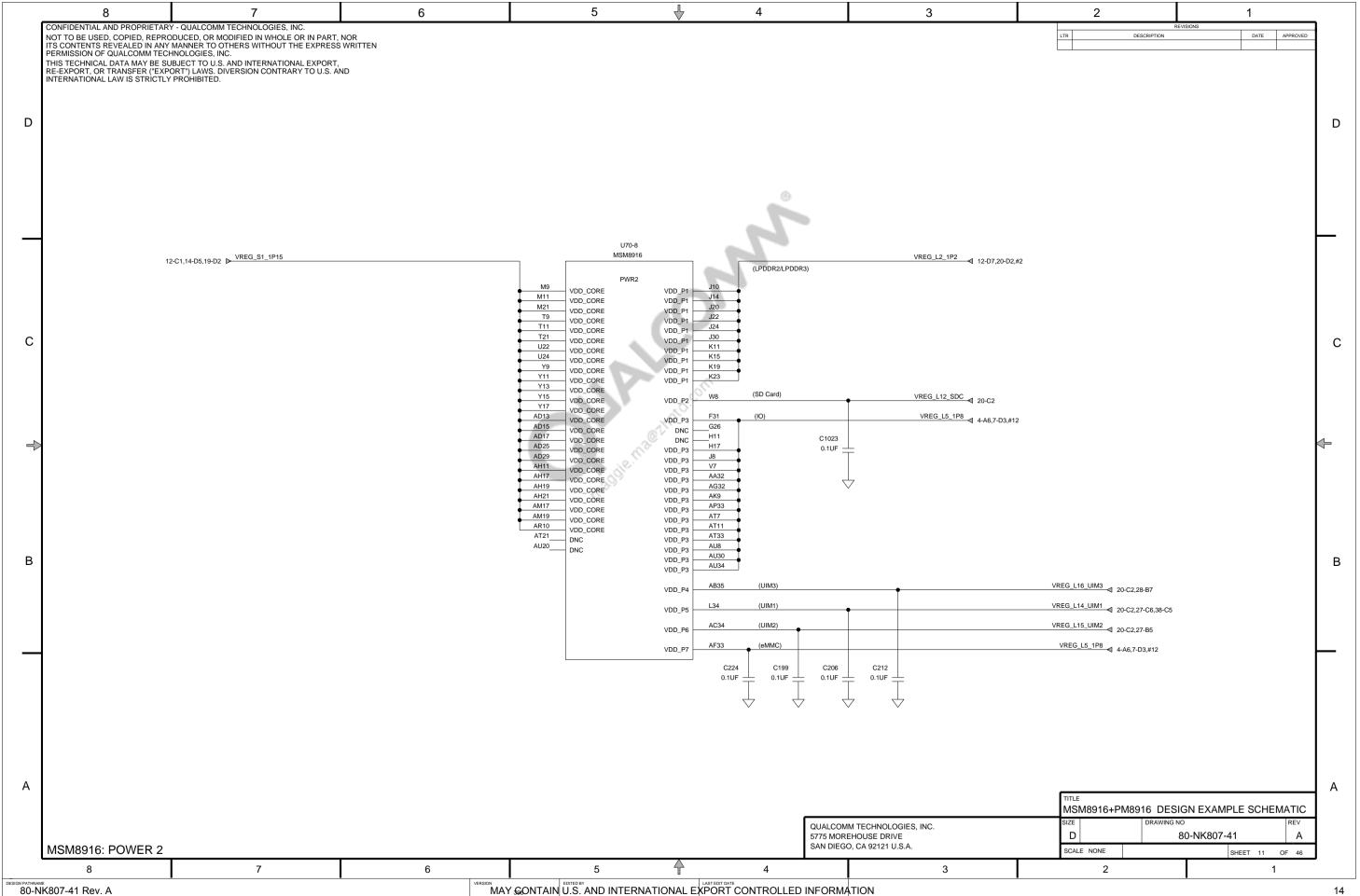
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C 100 200 10	_		41-C7	RFC_2 RFC_3 RFC_4 RFC_6 RFC_6 RFC_7 RFC_8 RFC_10 RFC_10 RFC_11 RFC_12	AV39 GPIO_ AP35 GPIO_ BC4 GPIO_ BE4 GPIO_ BC6 GPIO_ BD5 GPIO_ BD7 GPIO_ BC38 GPIO_ BC40 GPIO_ BC40 GPIO_ BC50 GPIO_ BC60 GPIO_ BC70 GPIO_	75 GPIO_111 76 GPIO_112 77 GPIO_113 78 GPIO_114 79 GPIO_115 80 GPIO_116 81 GPIO_117 122 GPIO_118 133 GPIO_119 144 GPIO_120 155 GPIO_121	C40 WW36 C39 C40			-	_
A	С		41-A6	RFC_15 RFC_16 RFC_17 RFC_18 RFC_19 RFC_20 RFC_21 XT_GPS_LNA_EN CD_5V_REG_EN	BB37 BB35 GPIO_ BB35 GPIO_ GPI	37 38 39 30 30 31 32 33 34 45 56					С
A MSM8916: GPIO[74:121] 8 7 6 5 4 3 2 1 1 1 1 1 1 1 1 1 1 1 1	4		41-C4	10_GSM_TX_PHASE_D0 11_GSM_TX_PHASE_D0 11_GSM_TX_PHASE_D0 12_01_02 12_01_03 12_104 12_01_05 12_01_06 12_VOLP_N	A38 GPIO BE34 GPIO GPIO GPIO GPIO AV36 GPIO AV36 GPIO GPIO AV36 GPIO GPIO GPIO GPIO GPIO GPIO GPIO GPIO	98 99 100 101 102 103 104 105 106 107					(
A MSM8916: GPIO[74:121] A MSM8916: GP	В		37-B4 ▶		GPIO_	Ina					В
MSM8916+PM8916 DESIGN EXAMPLE SCHEMATIC MSM8916: GPIO[74:121]			6-A5,32-A7,41-B5	<u> GRFC_12</u>	PA_INDICATOR ▶ 6-A6,32-A7,41	-B5					
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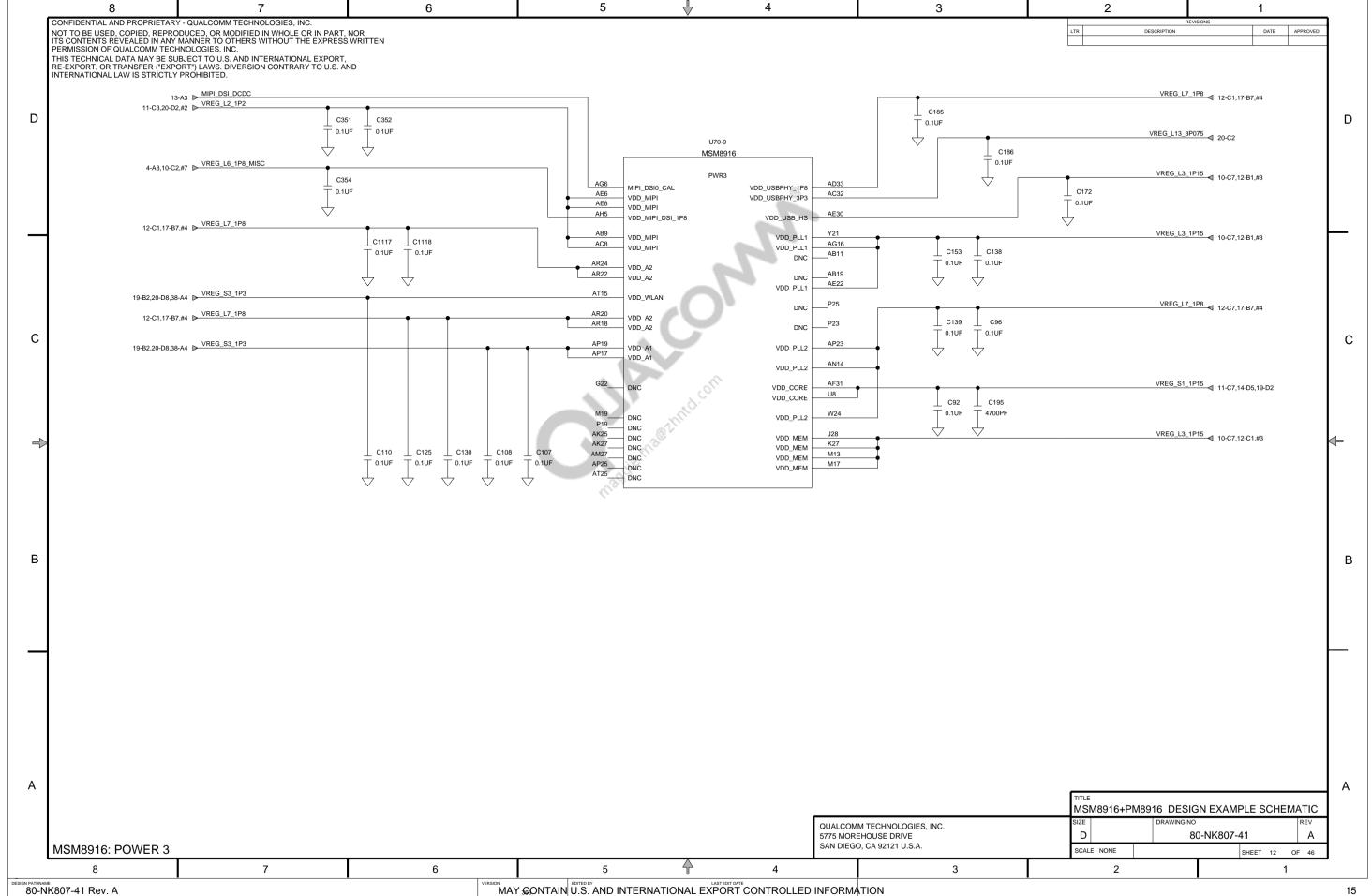


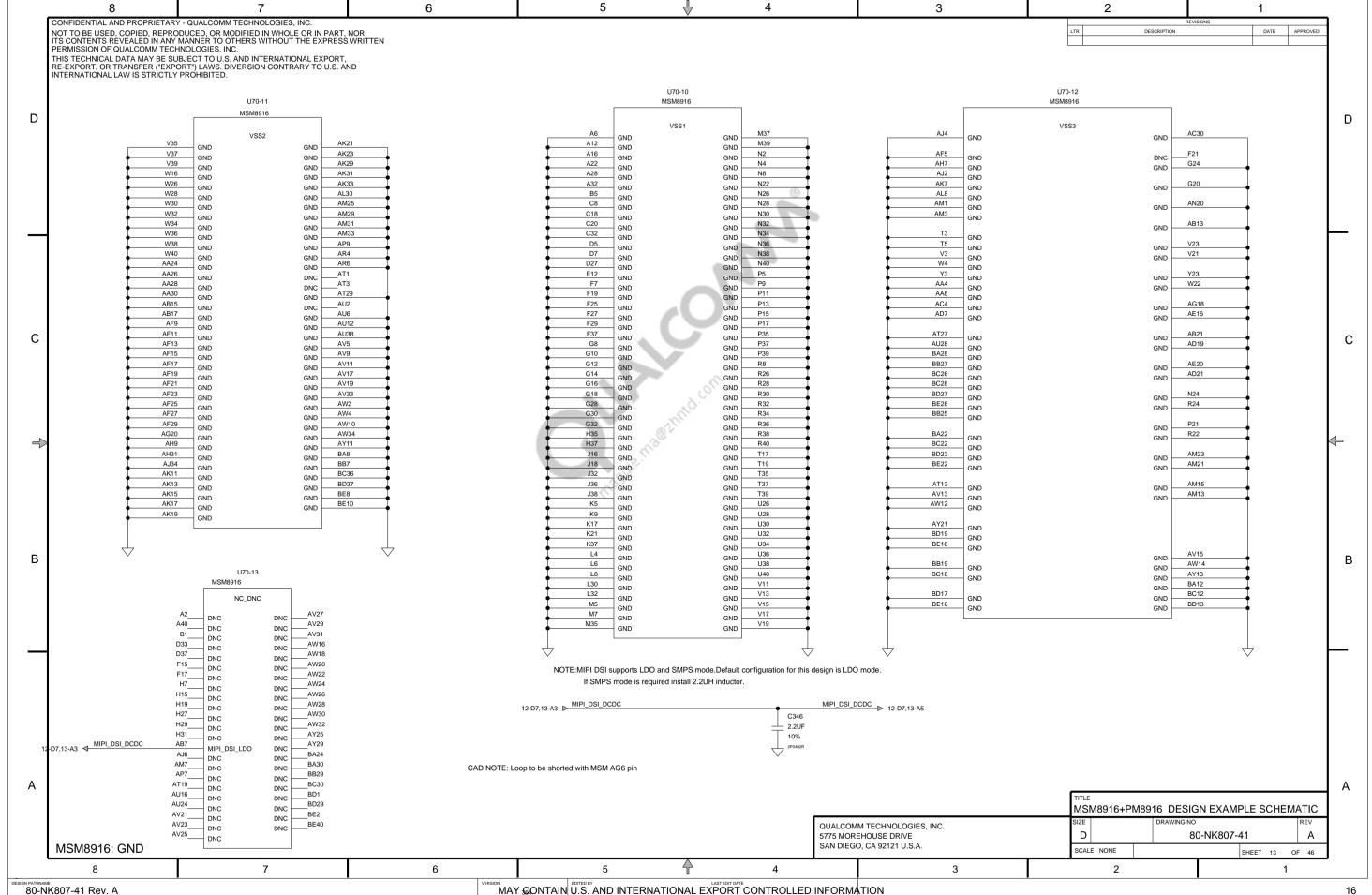


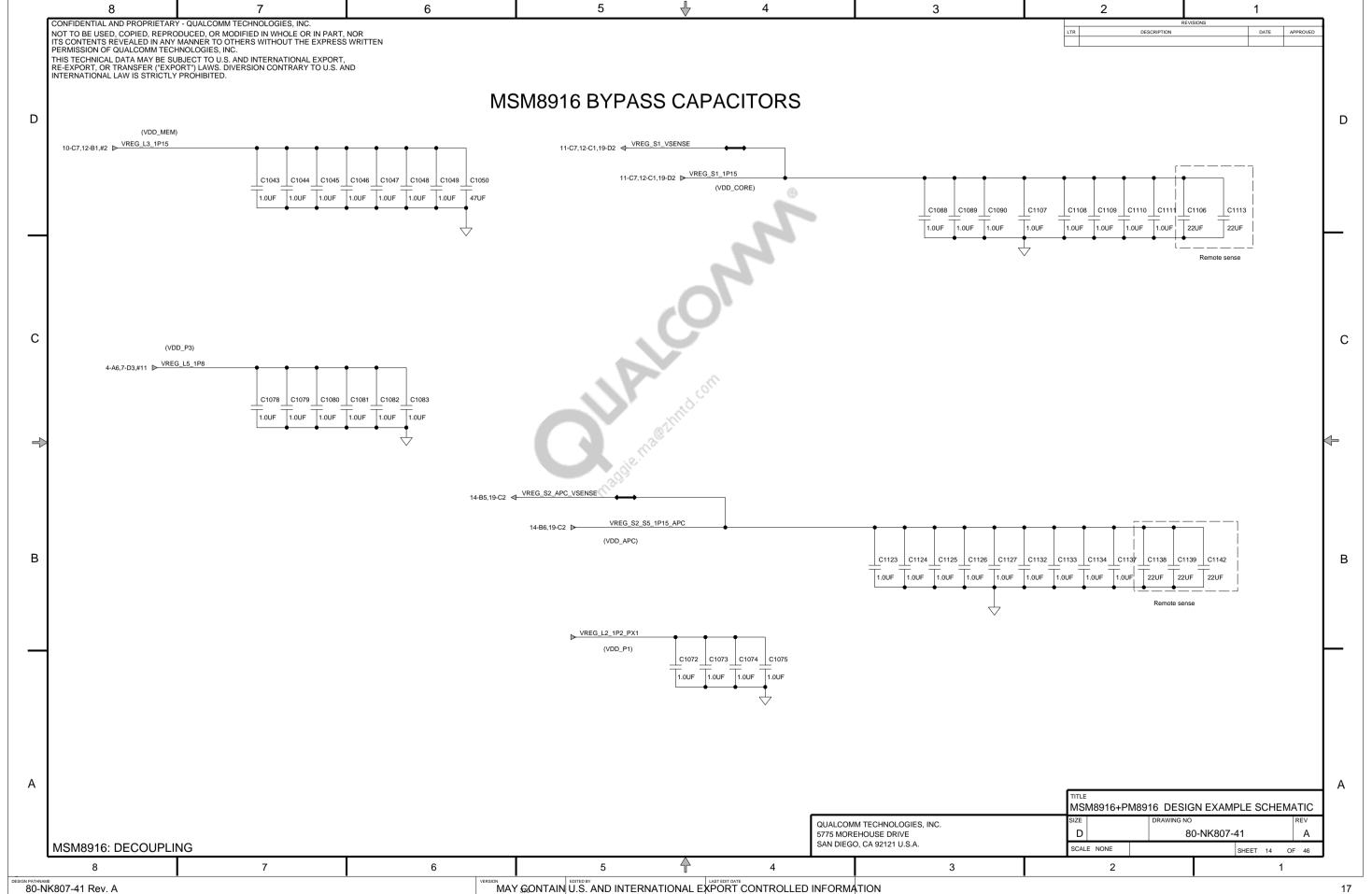


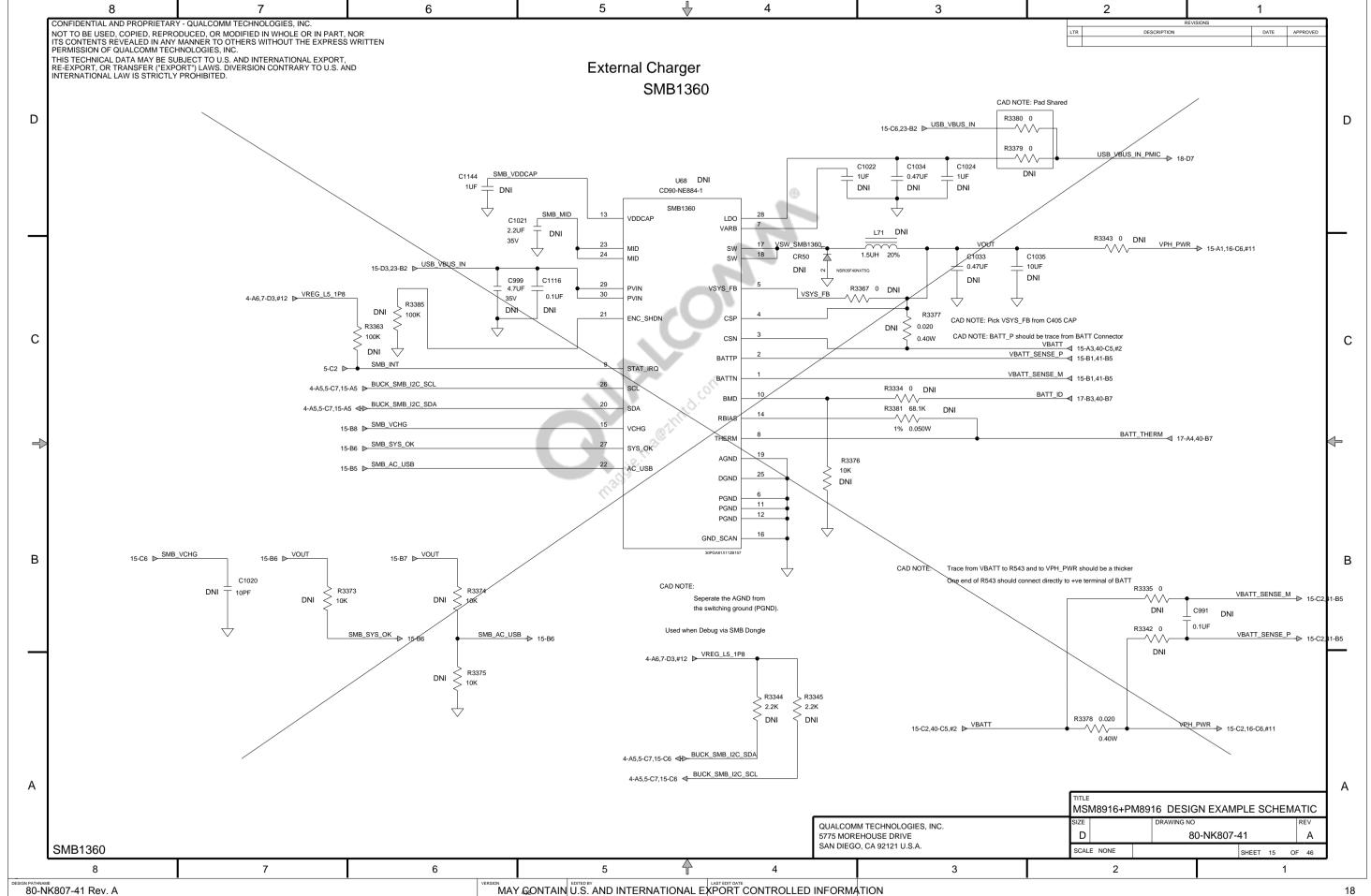


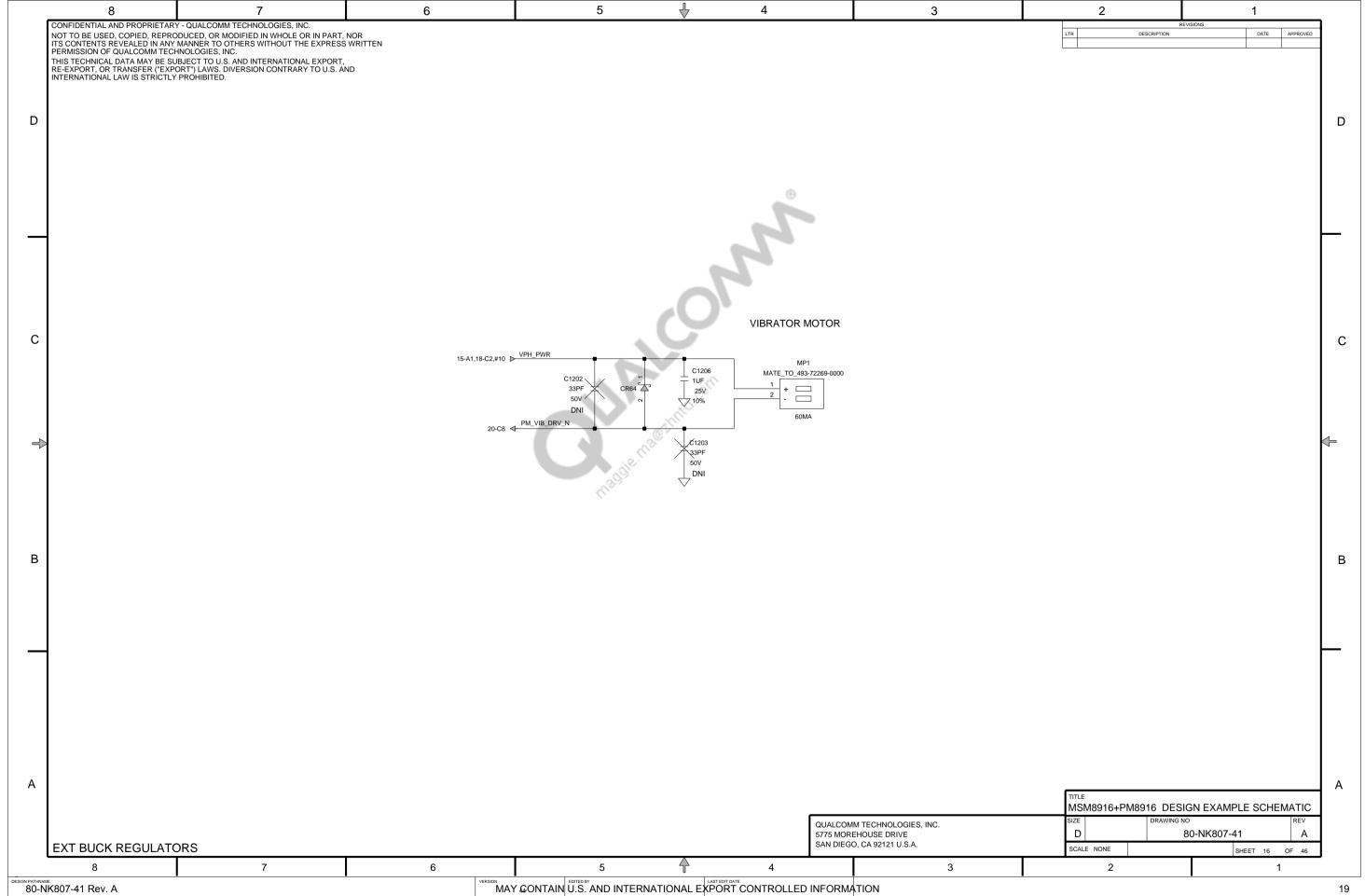


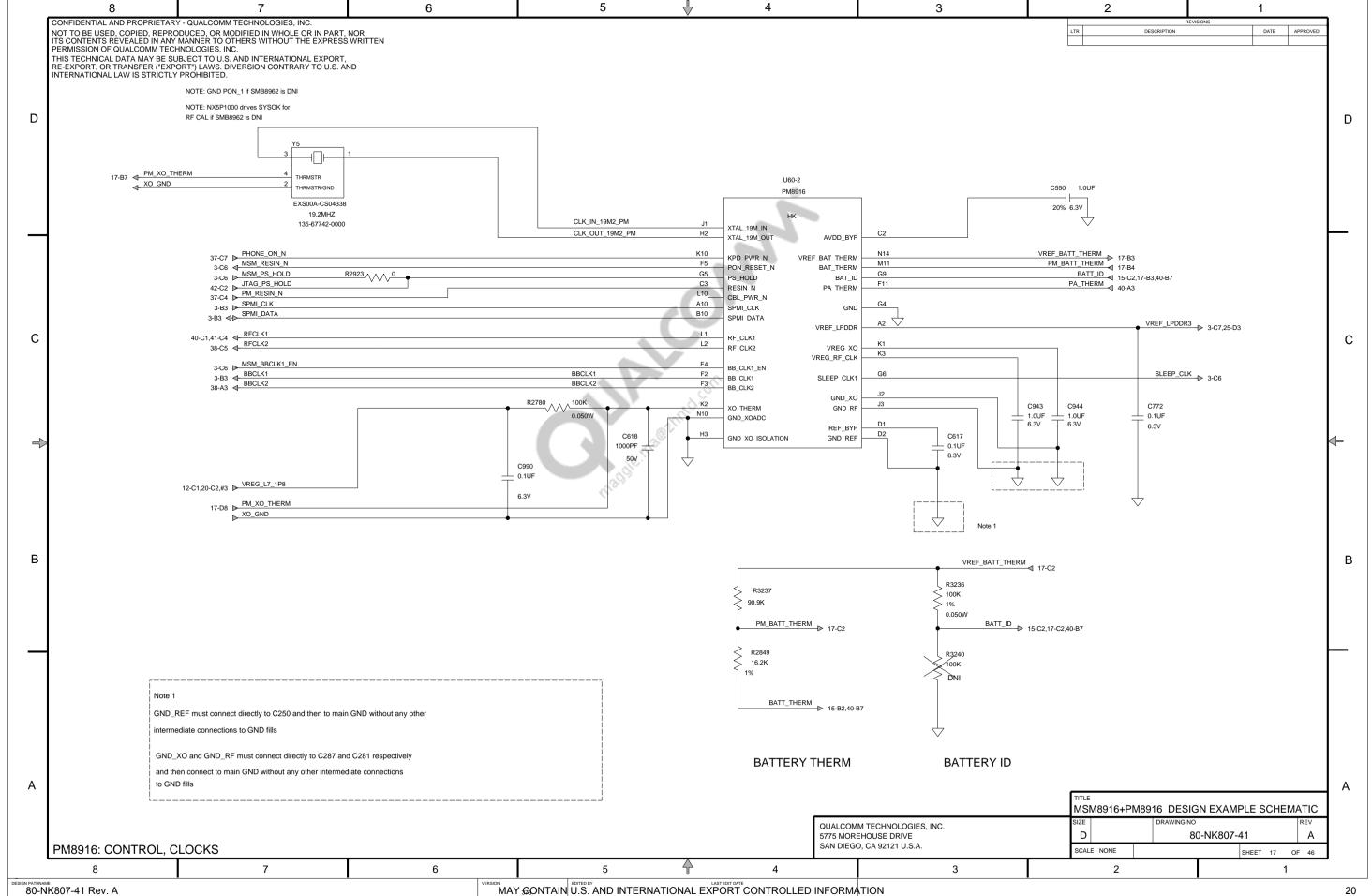


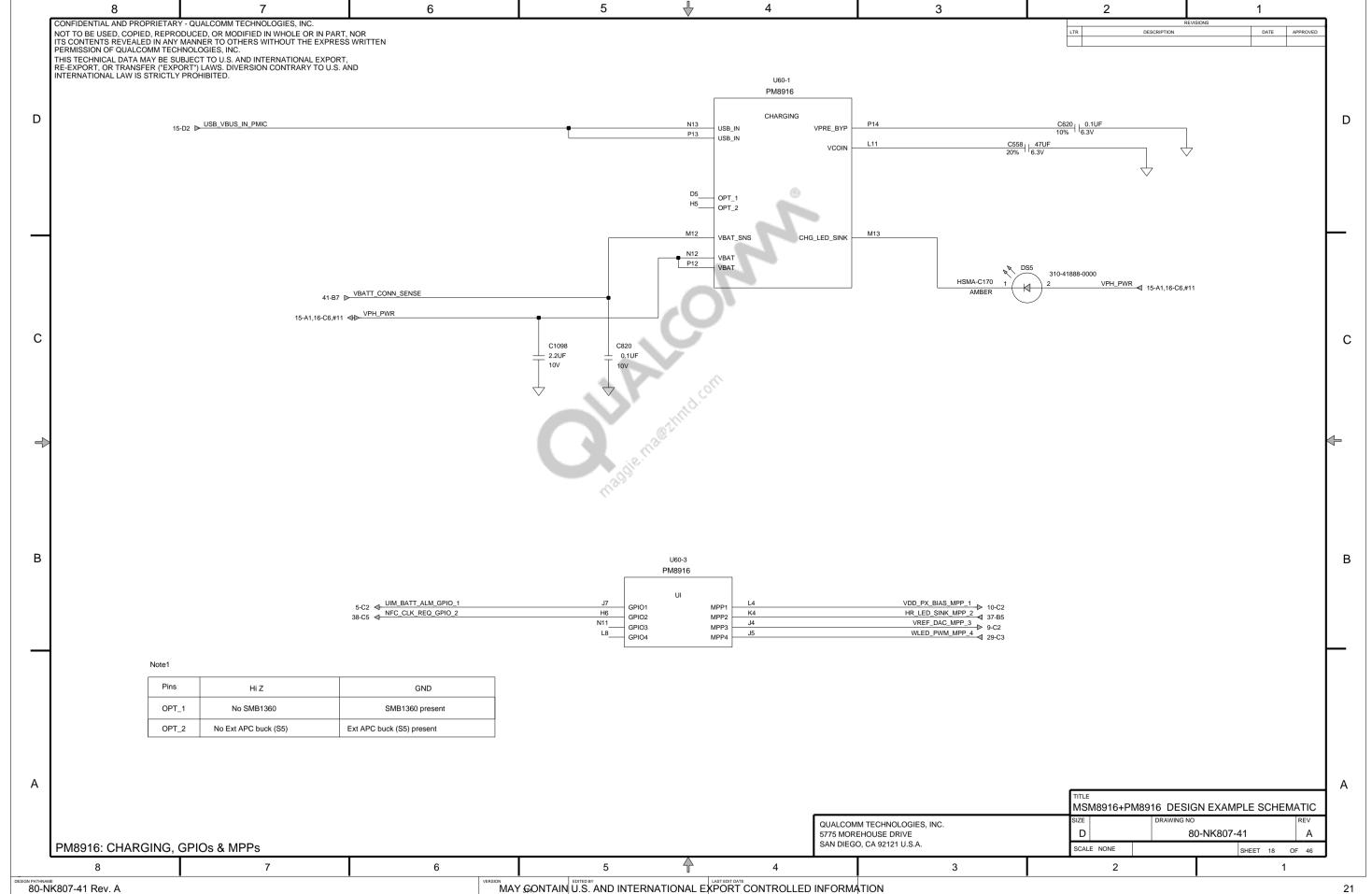


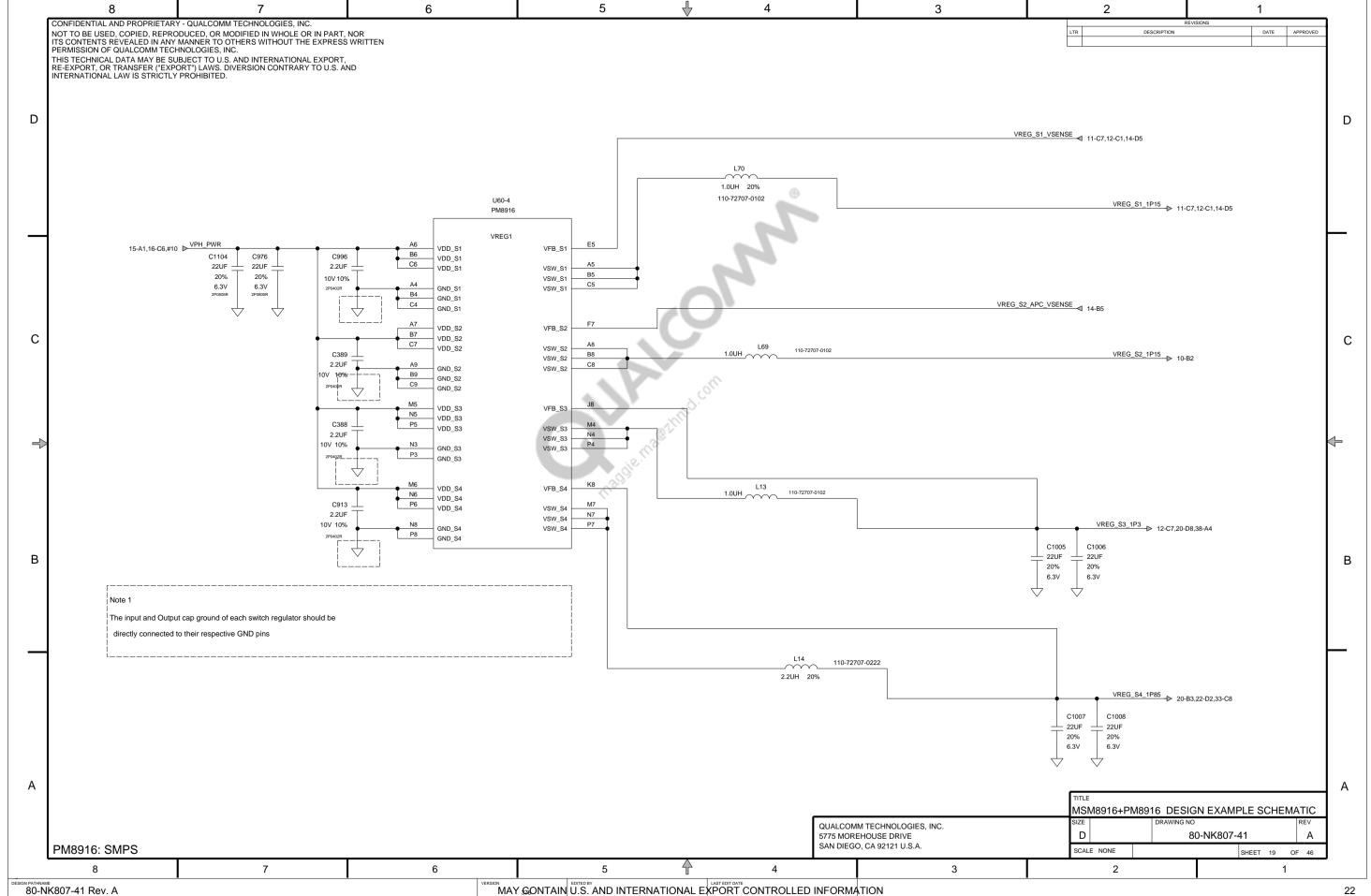


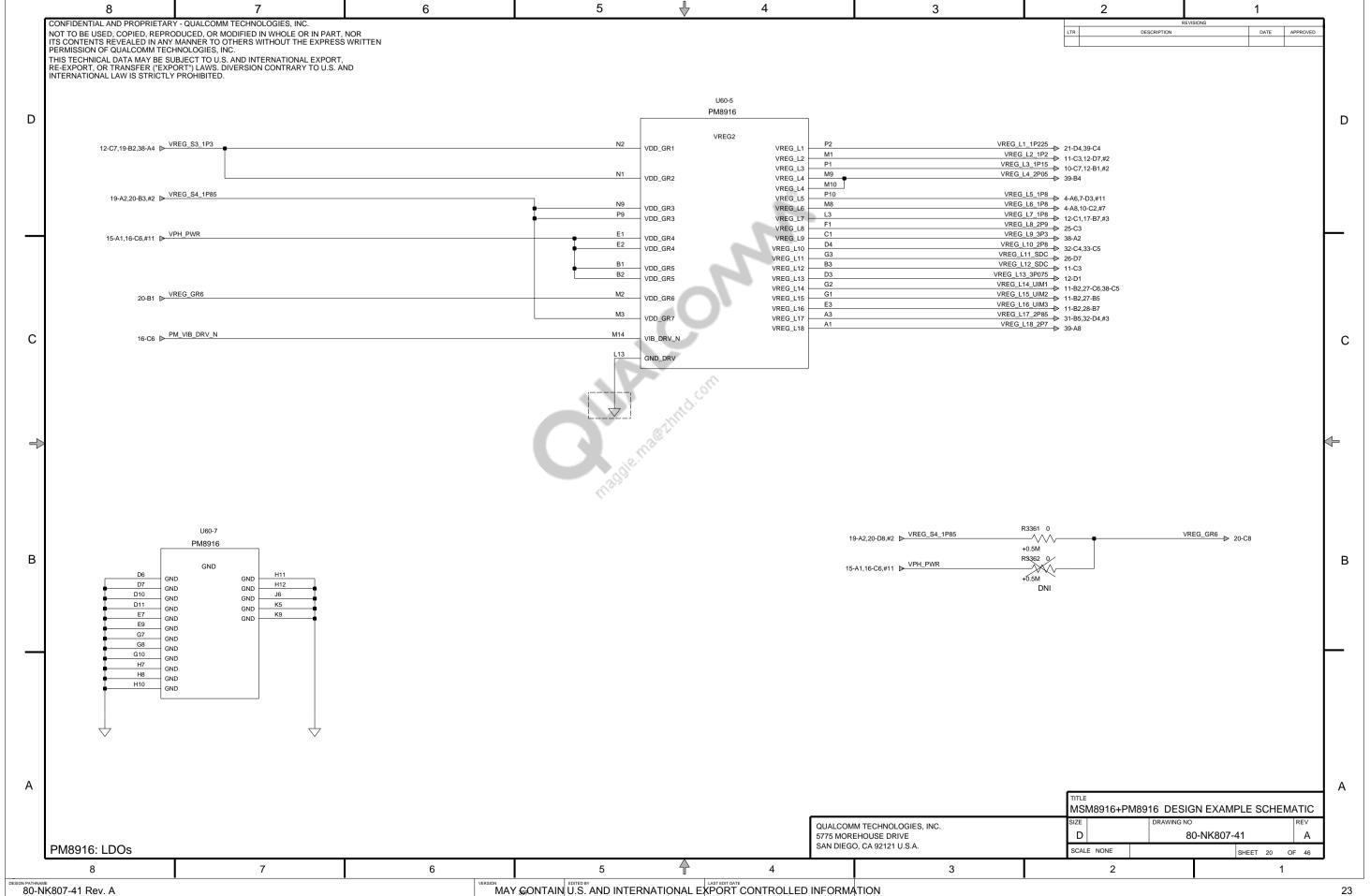


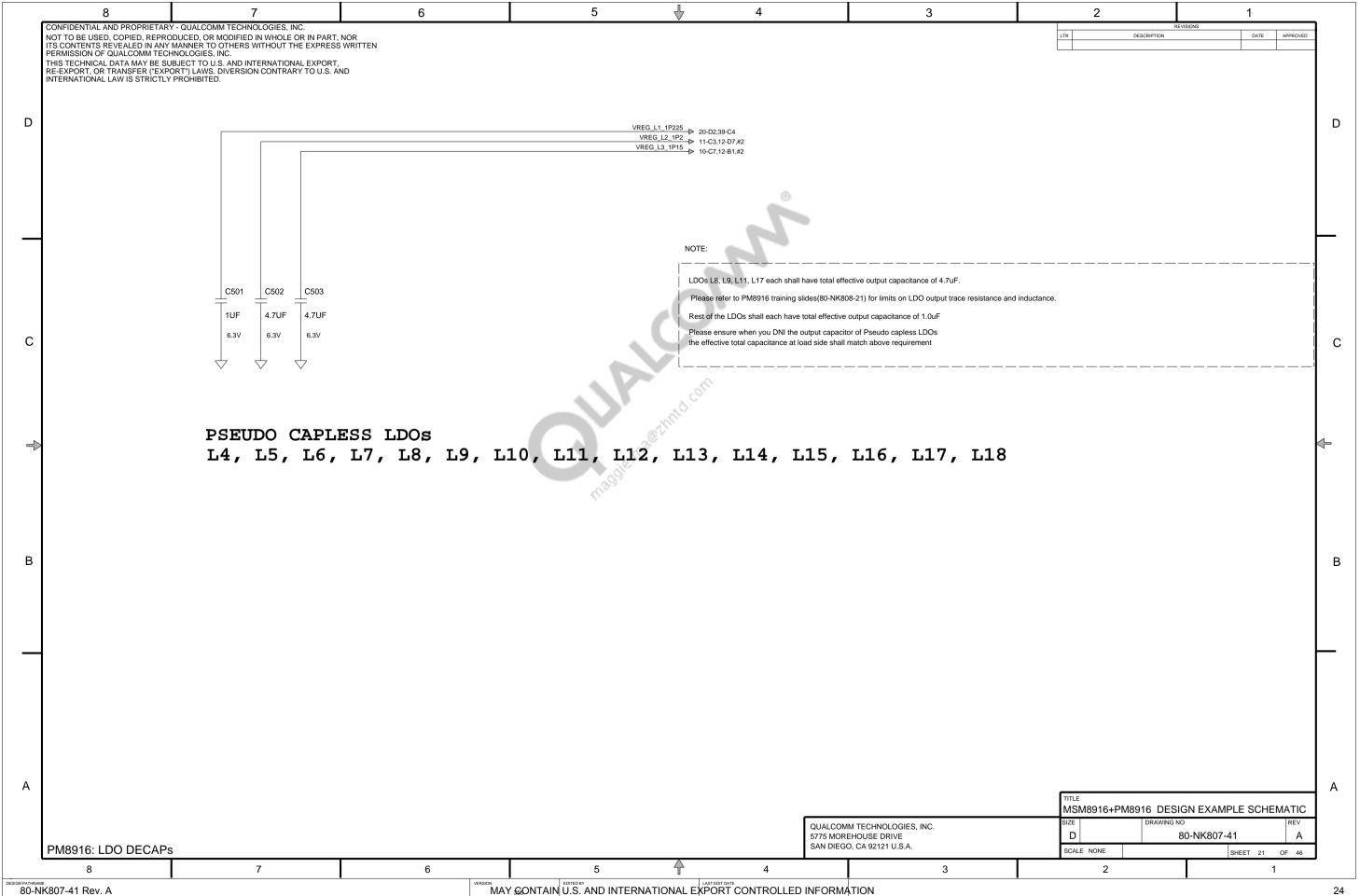


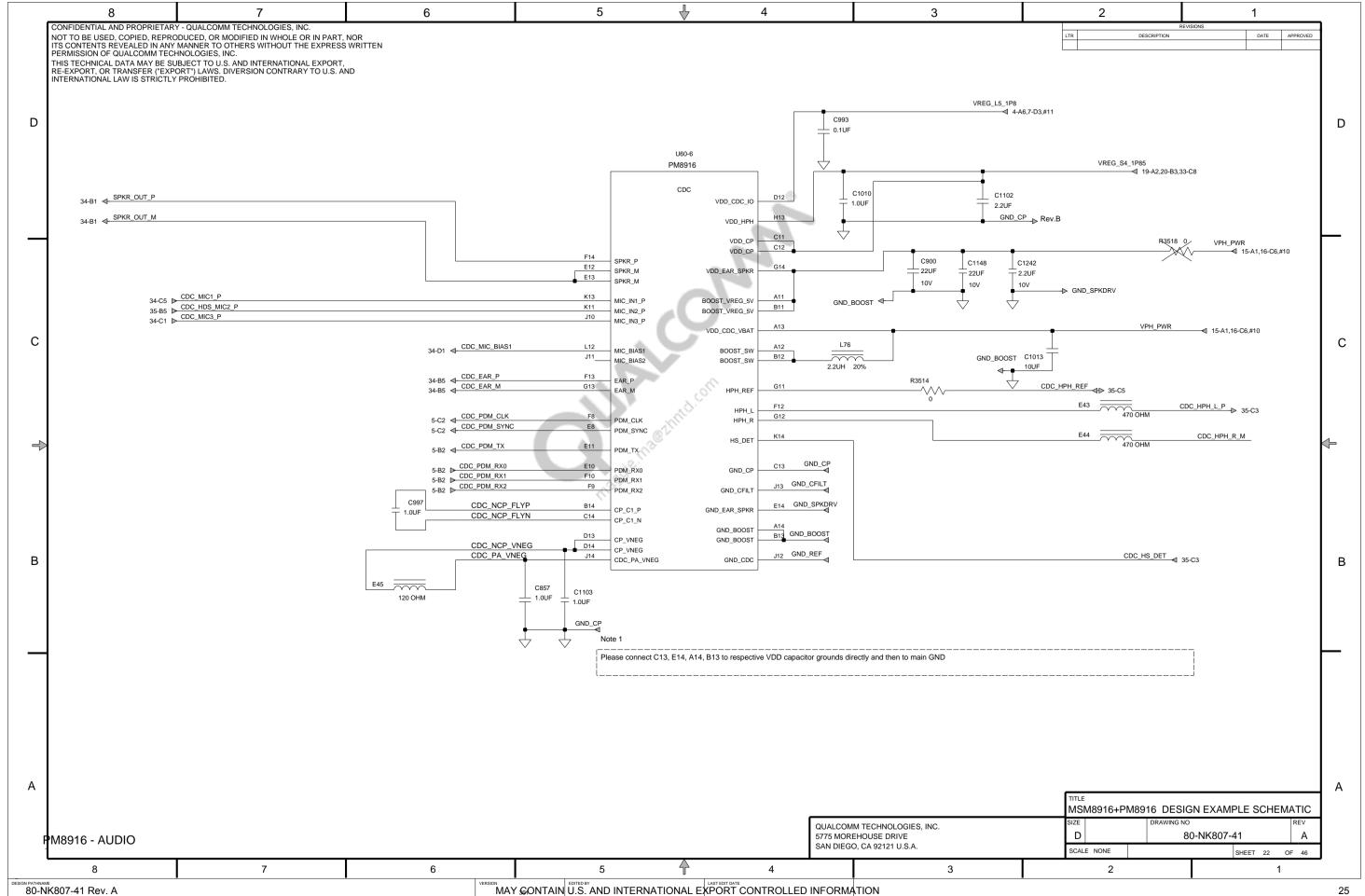


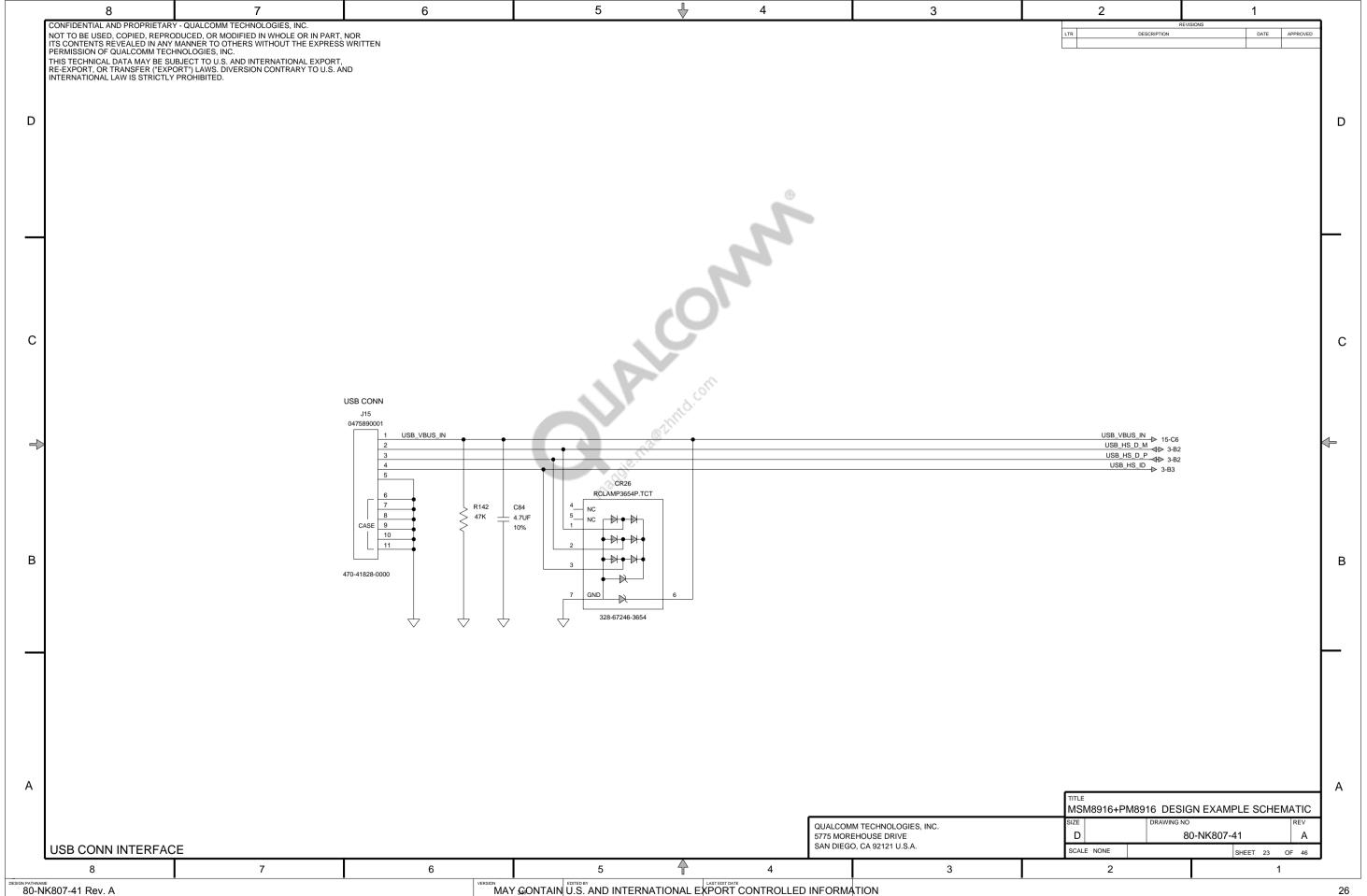


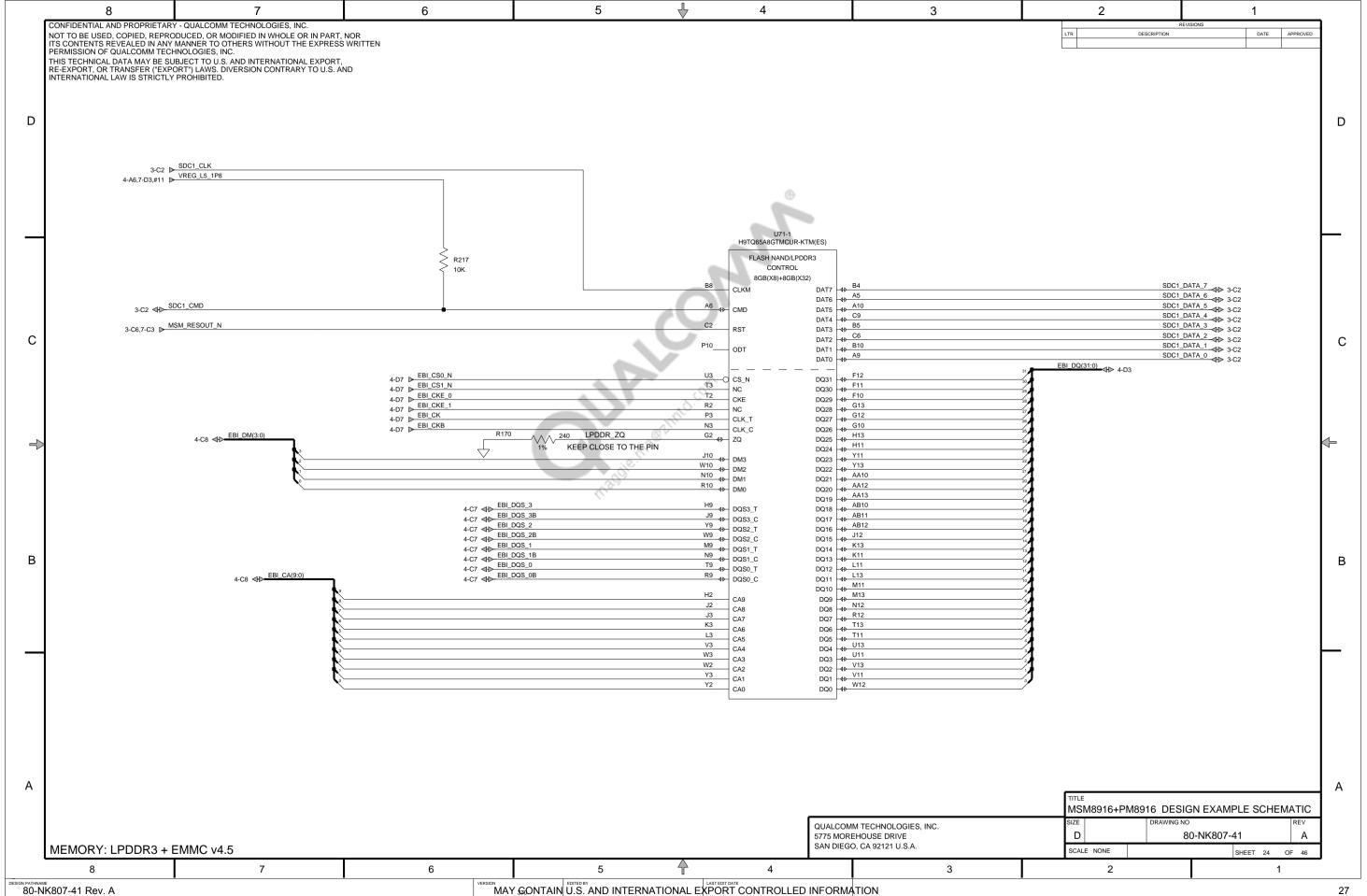


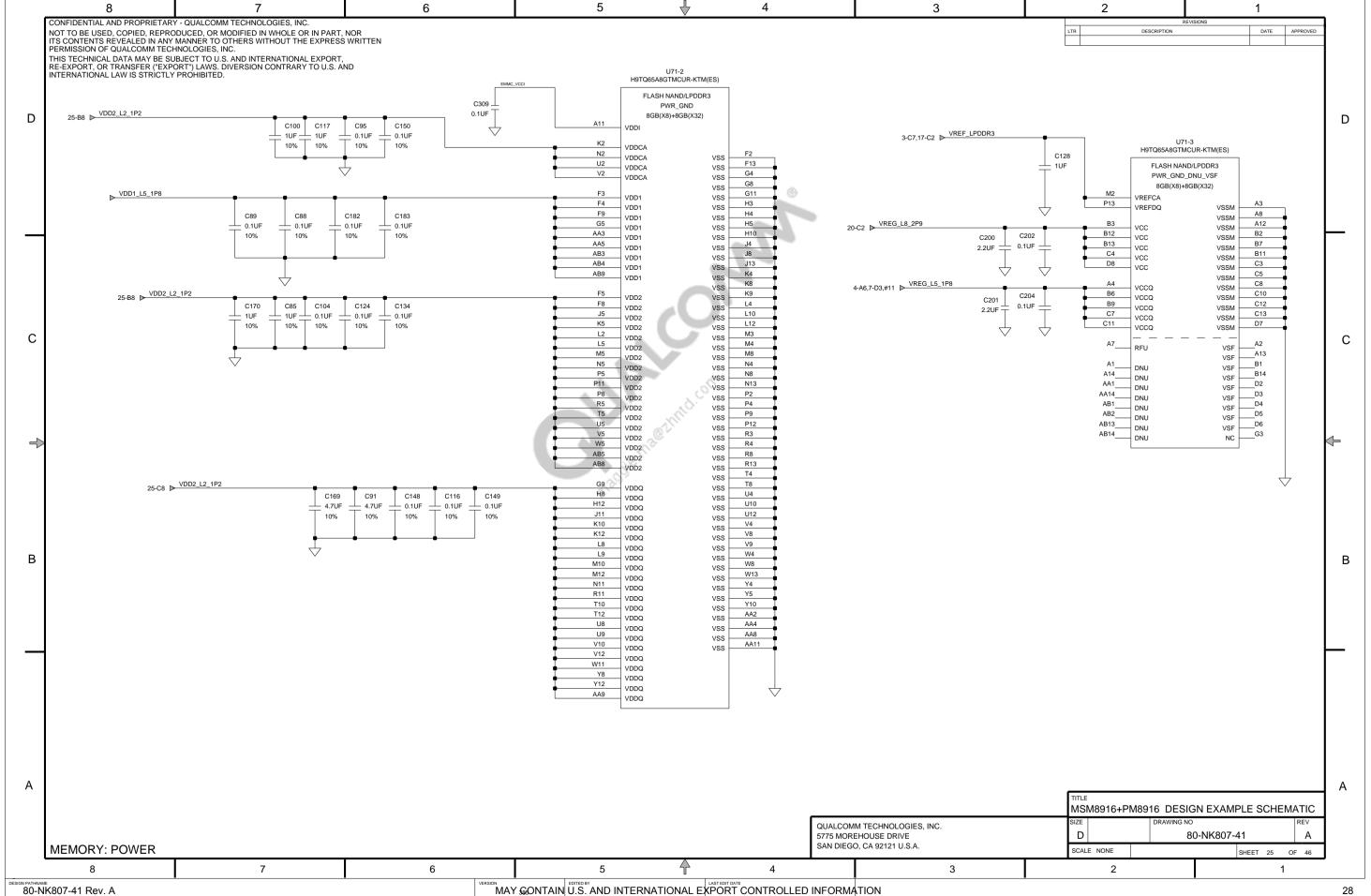


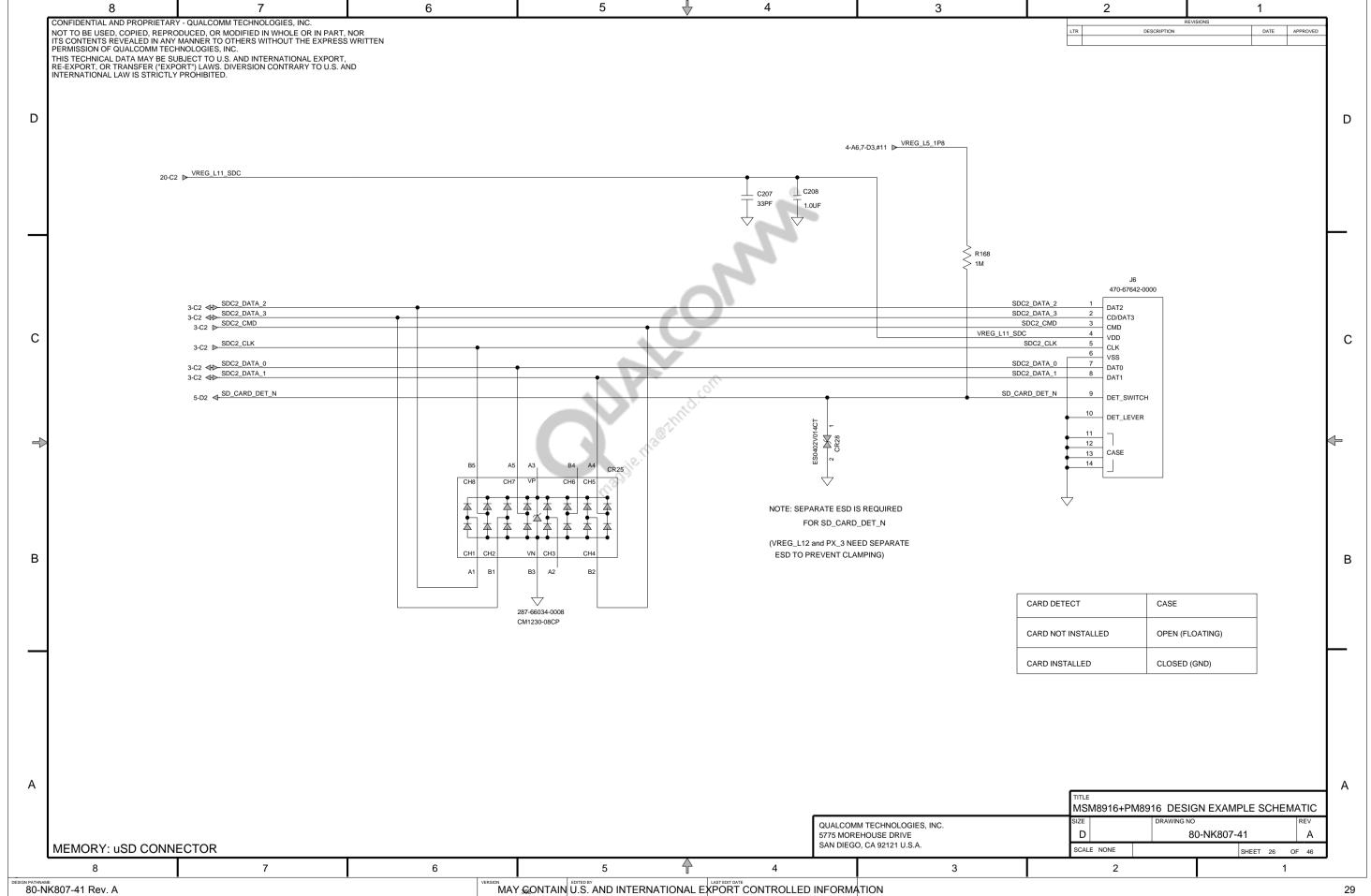


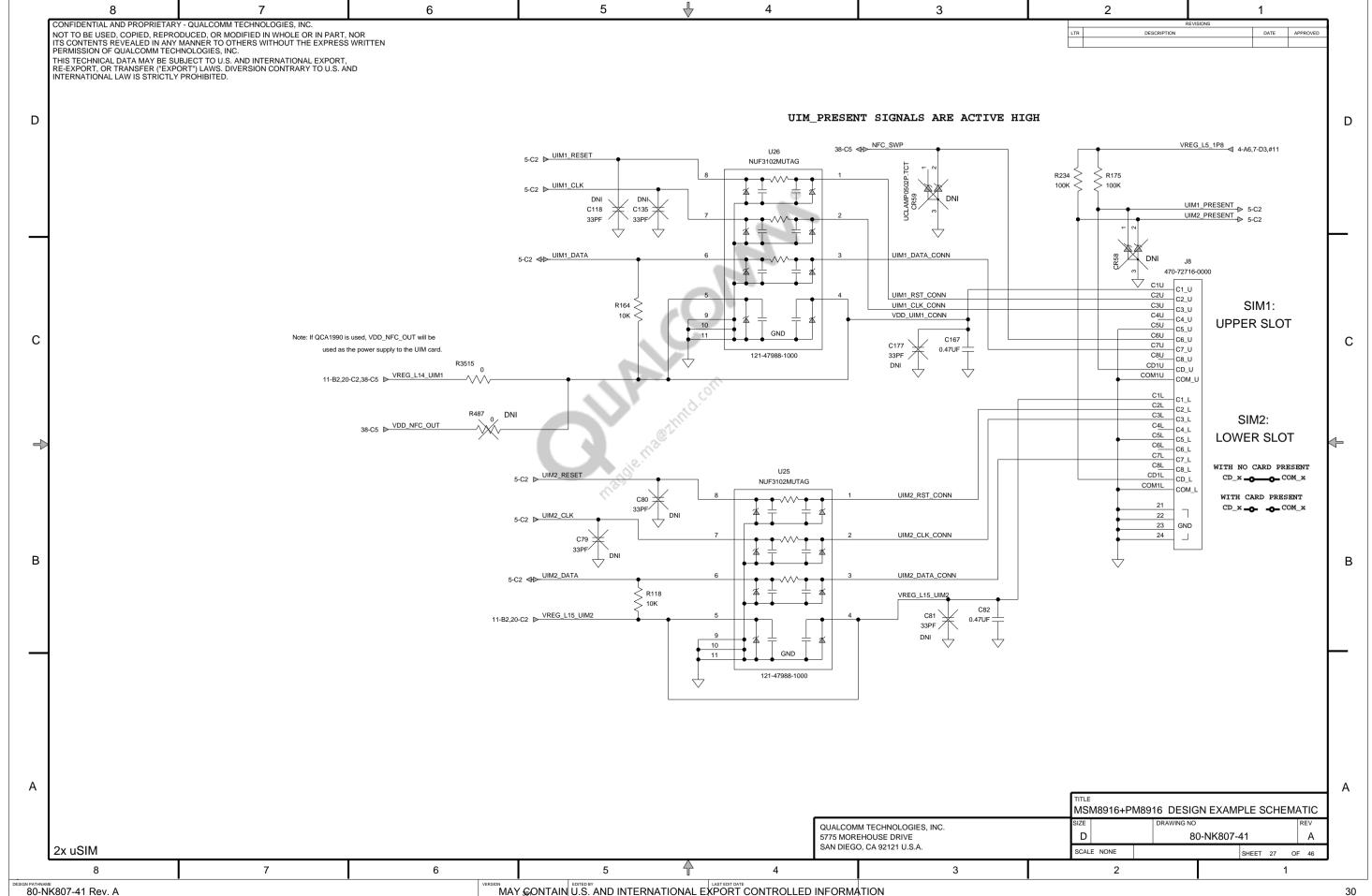


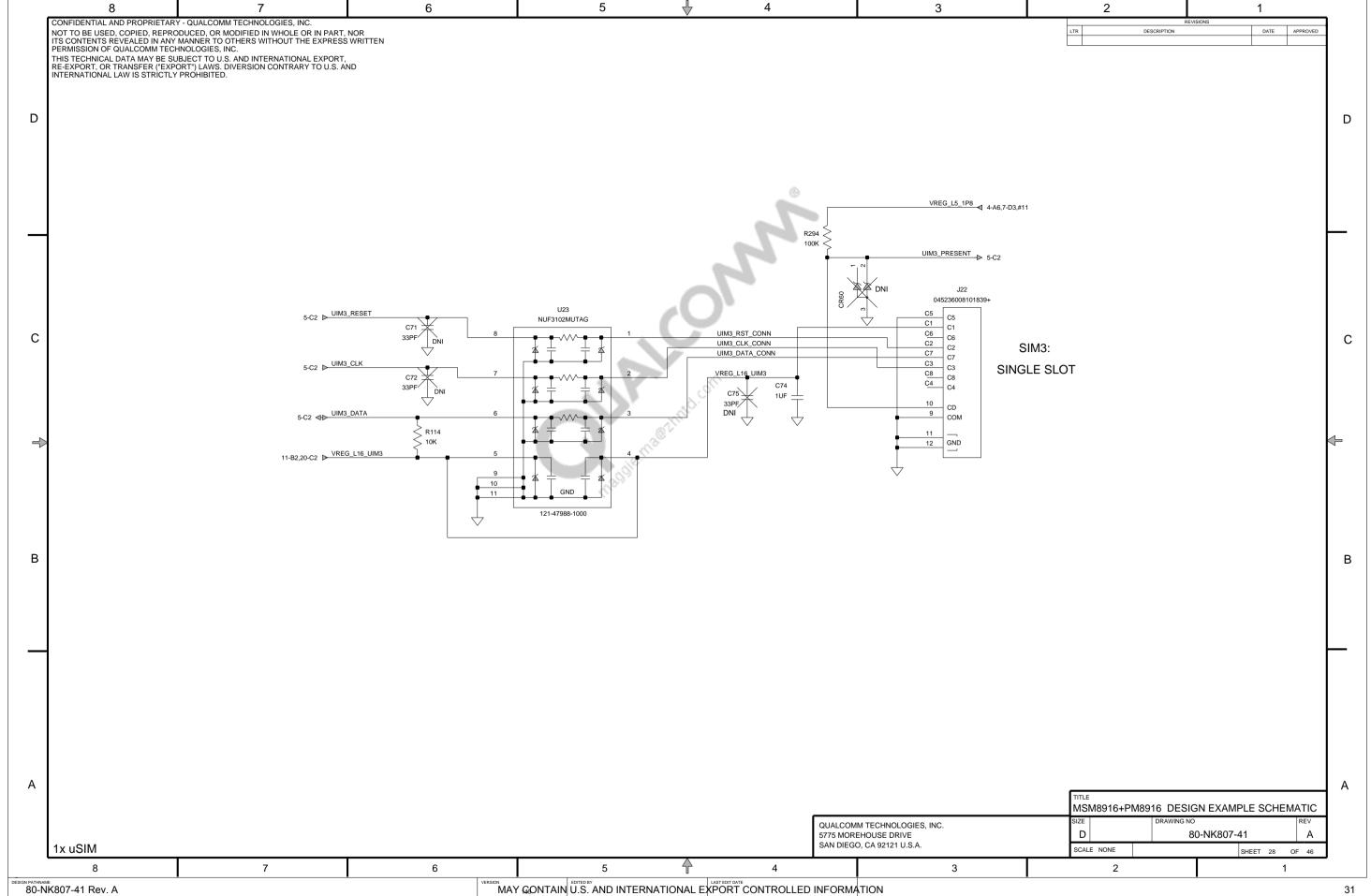


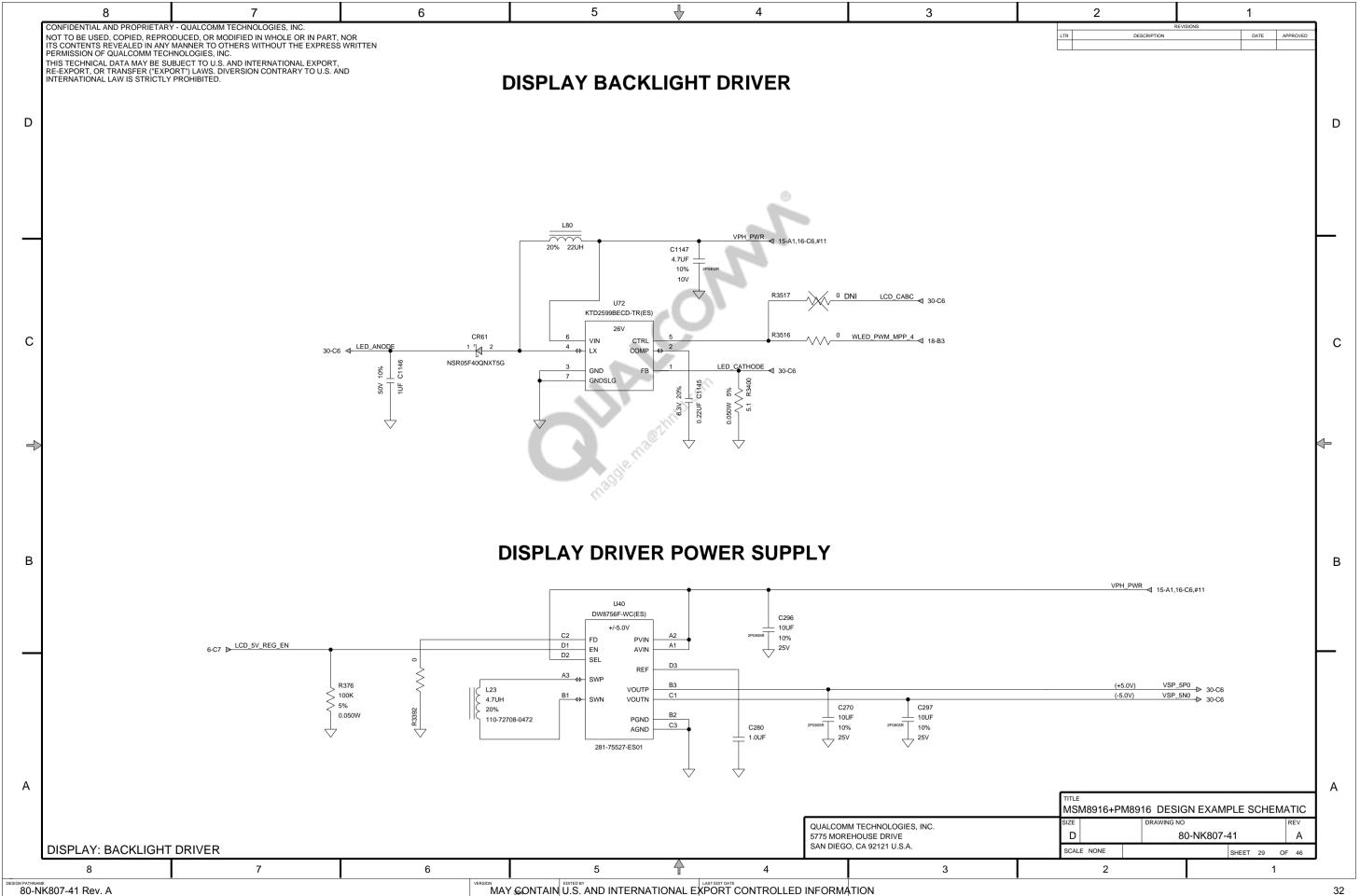


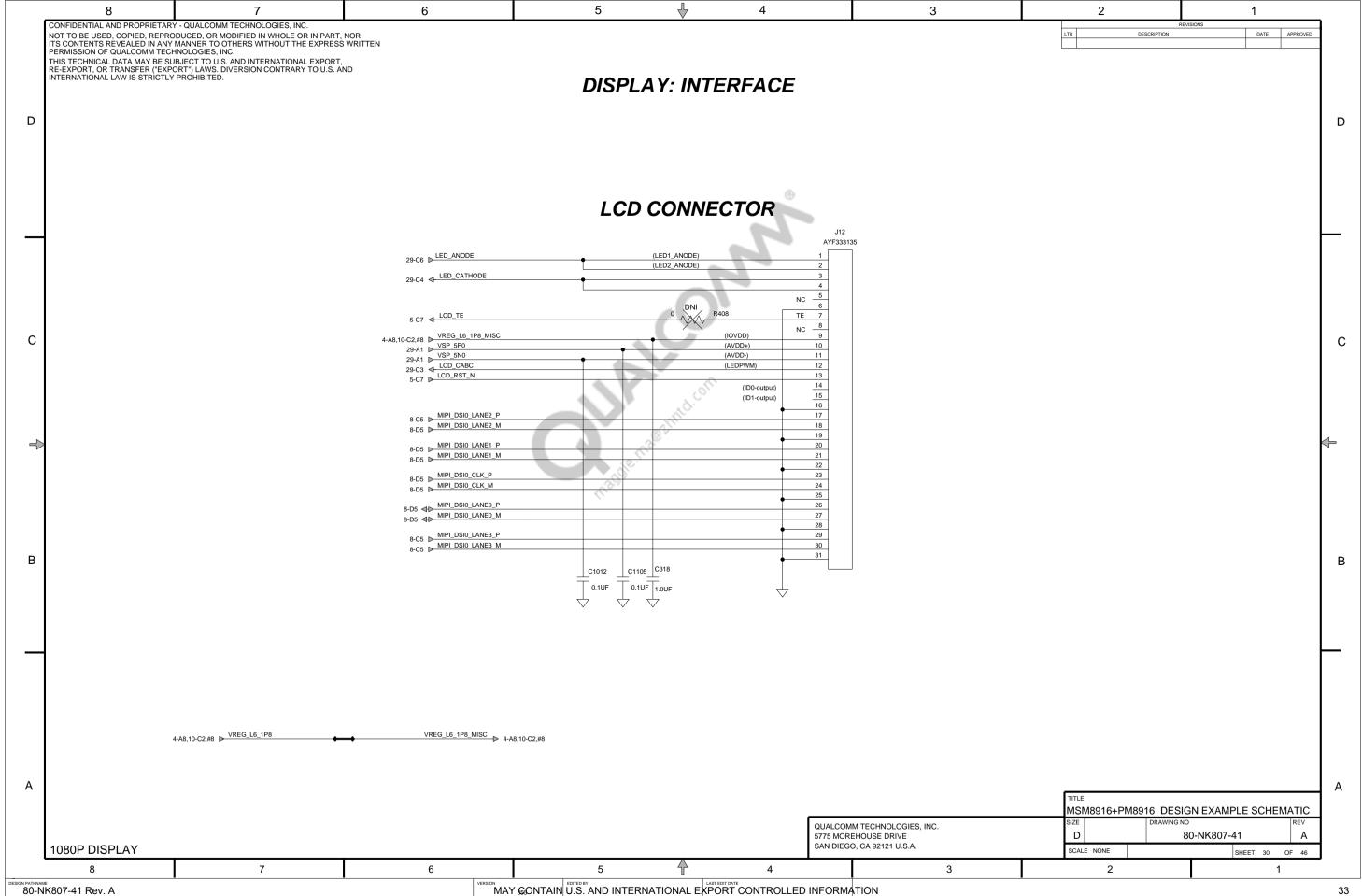


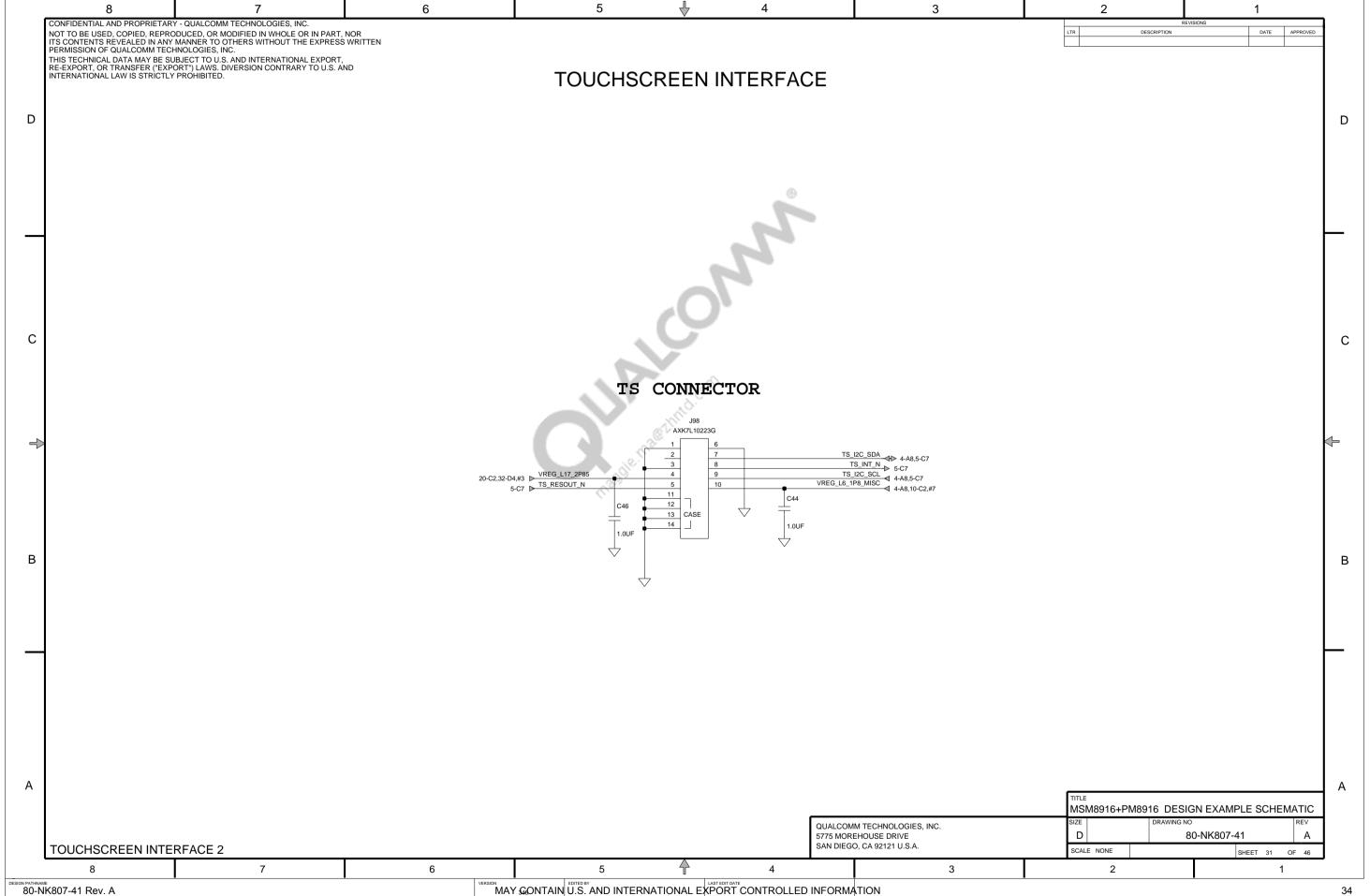


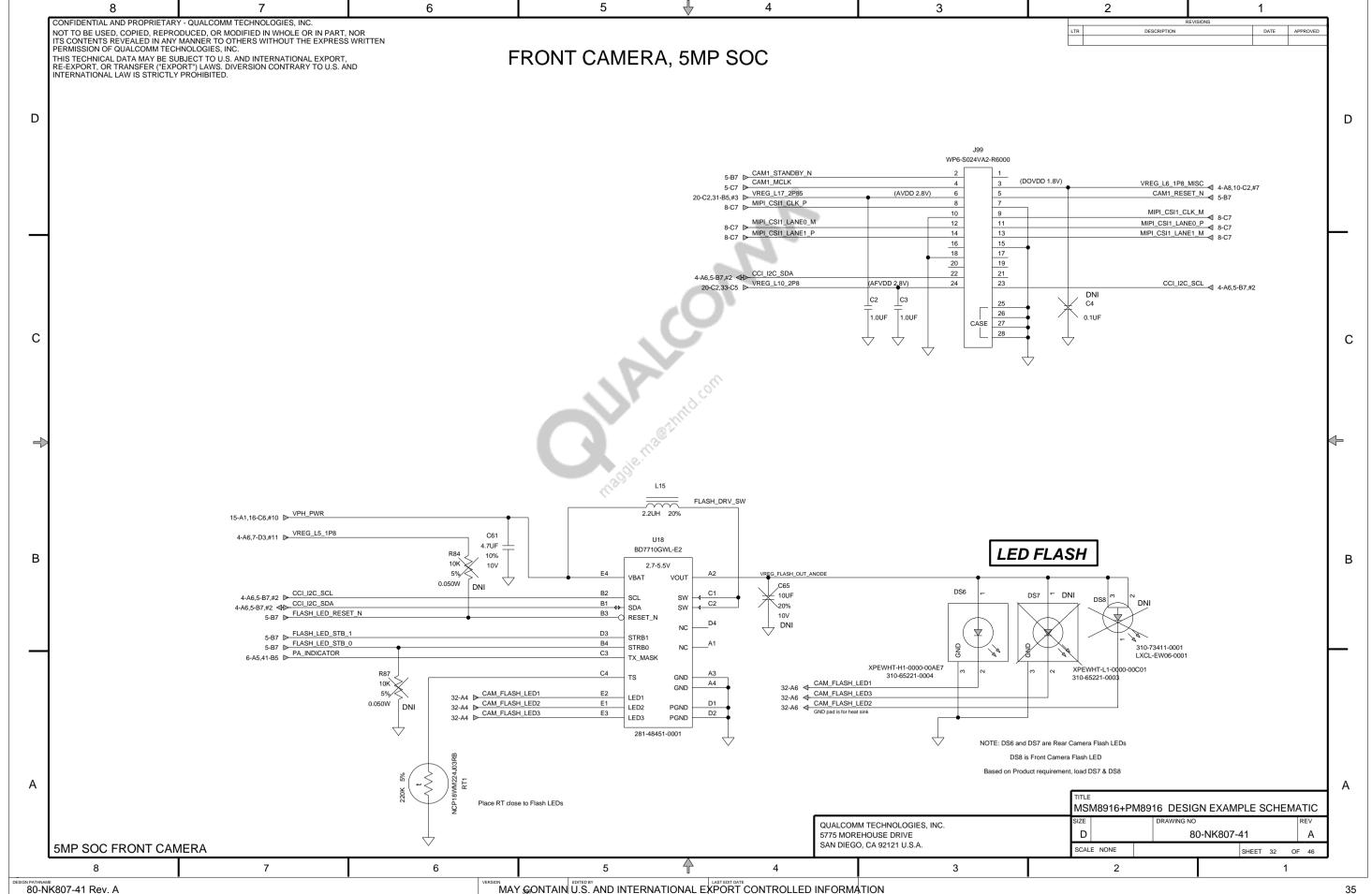


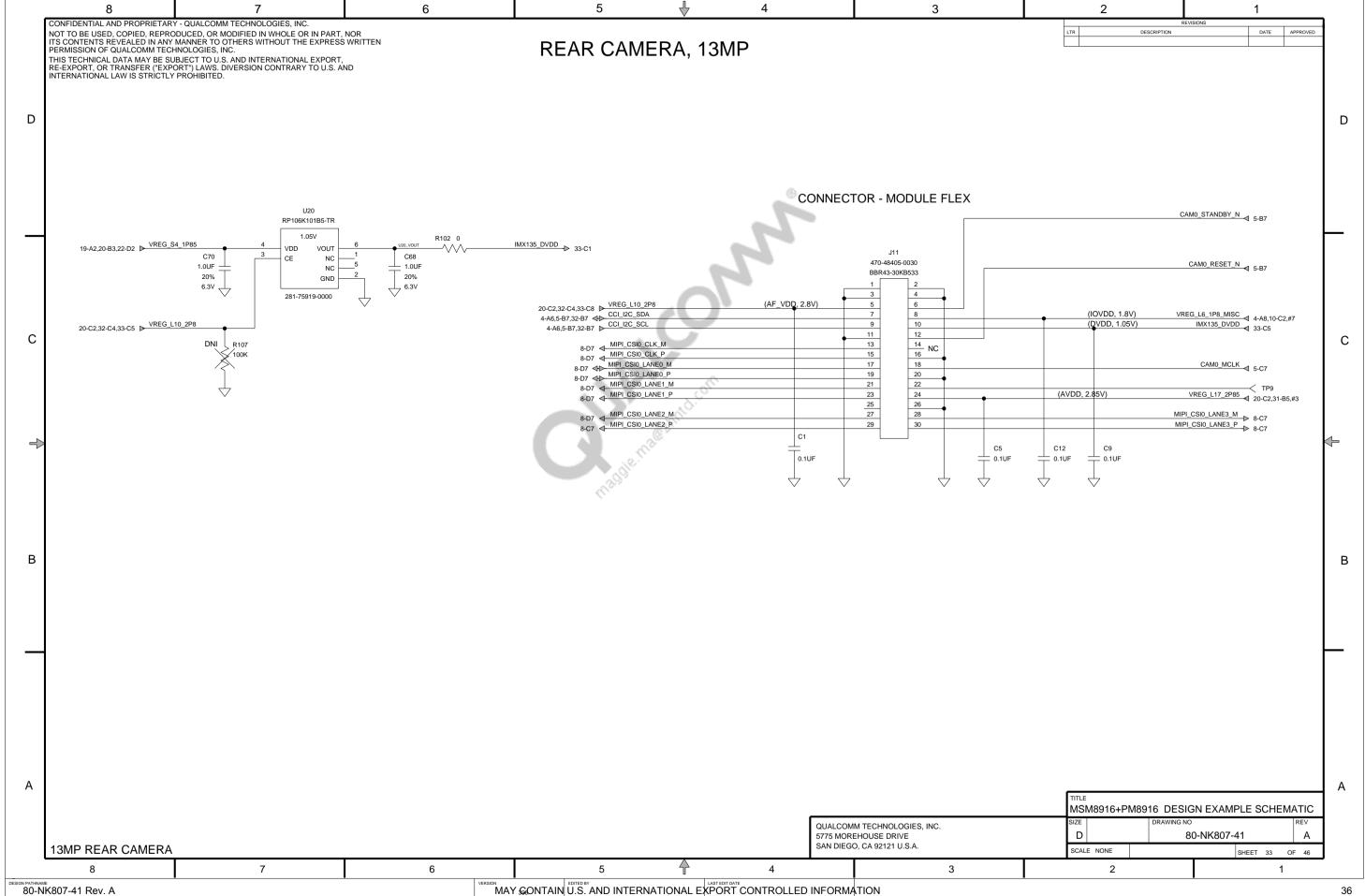


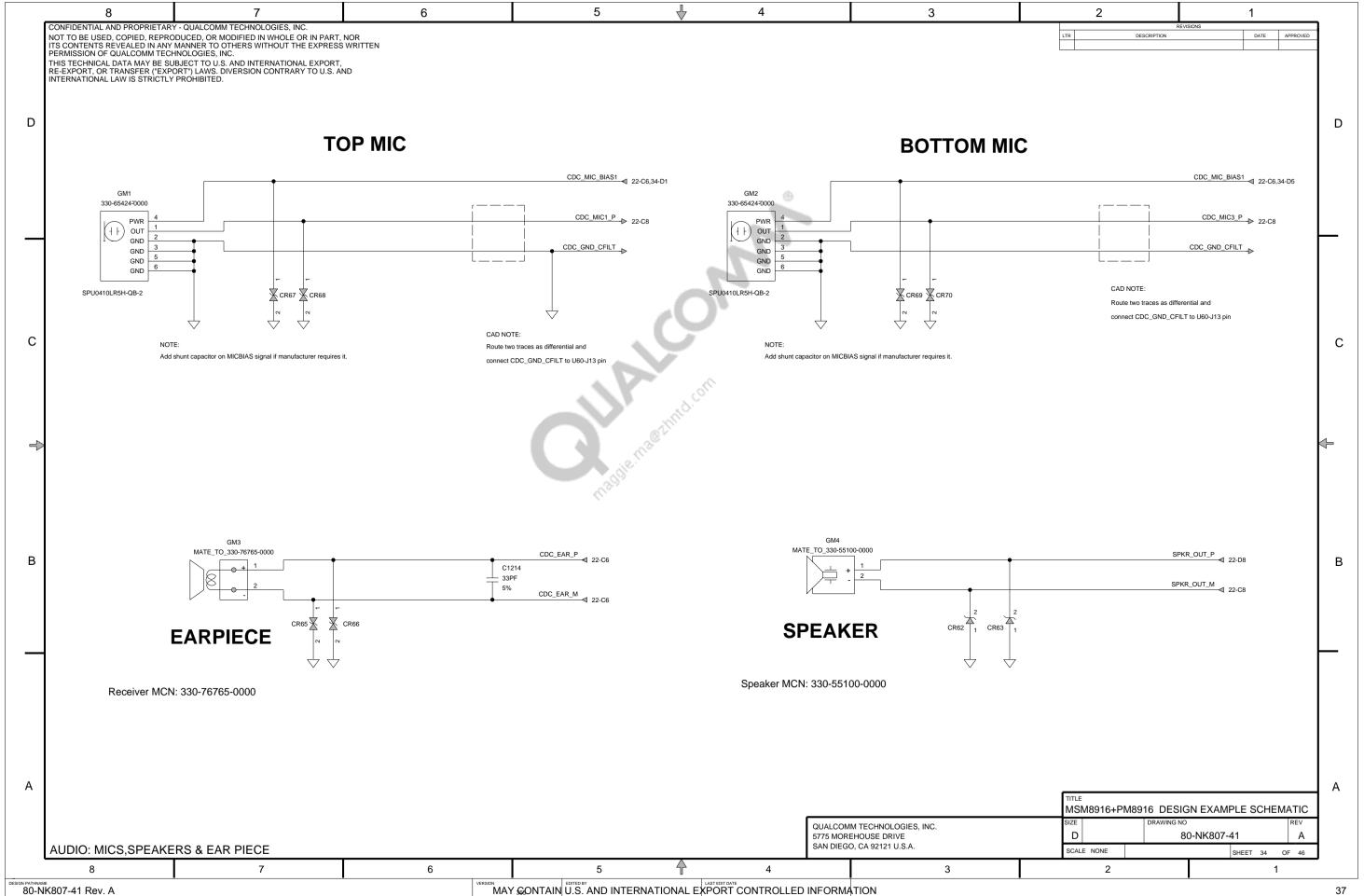


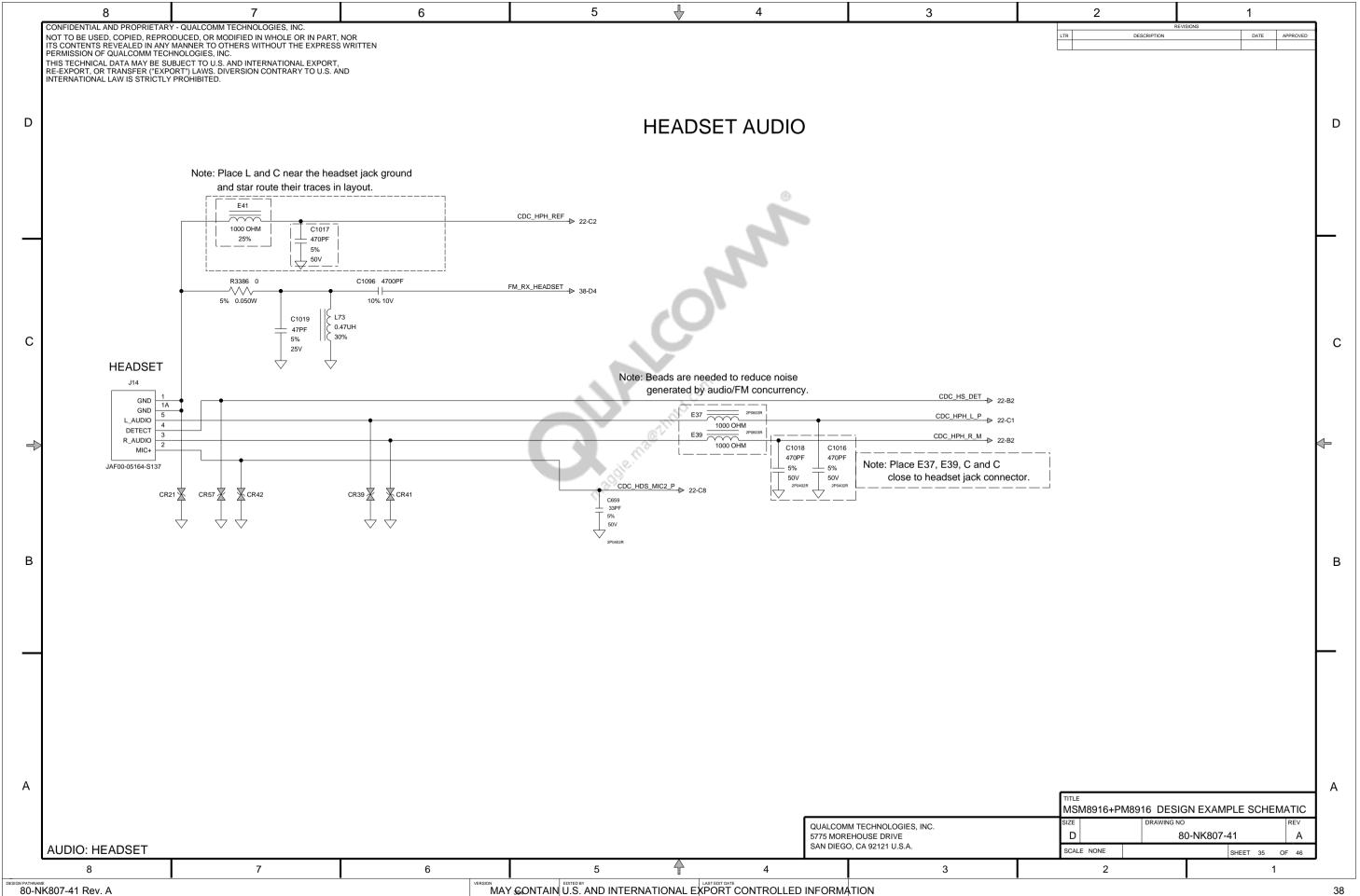


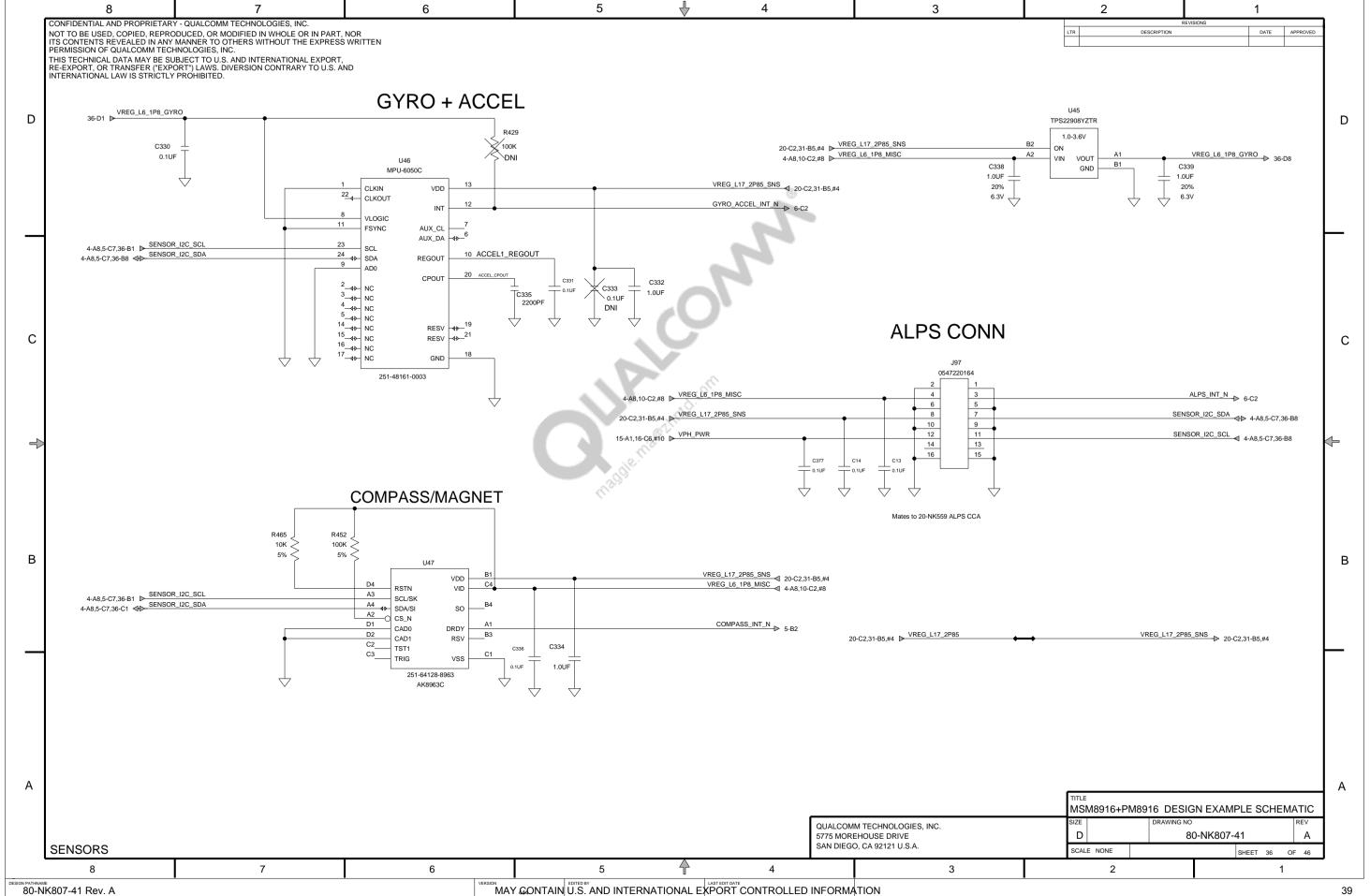


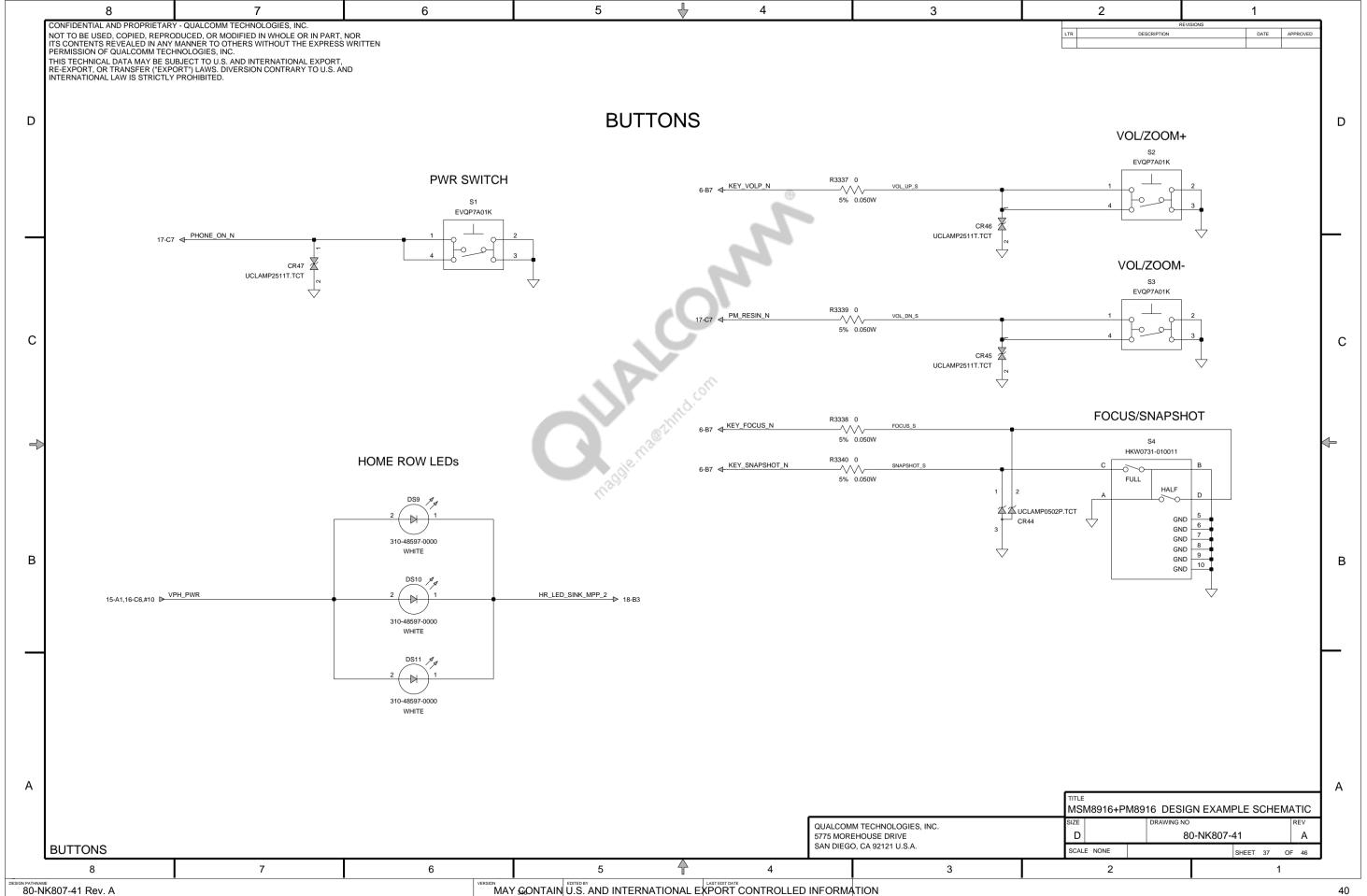


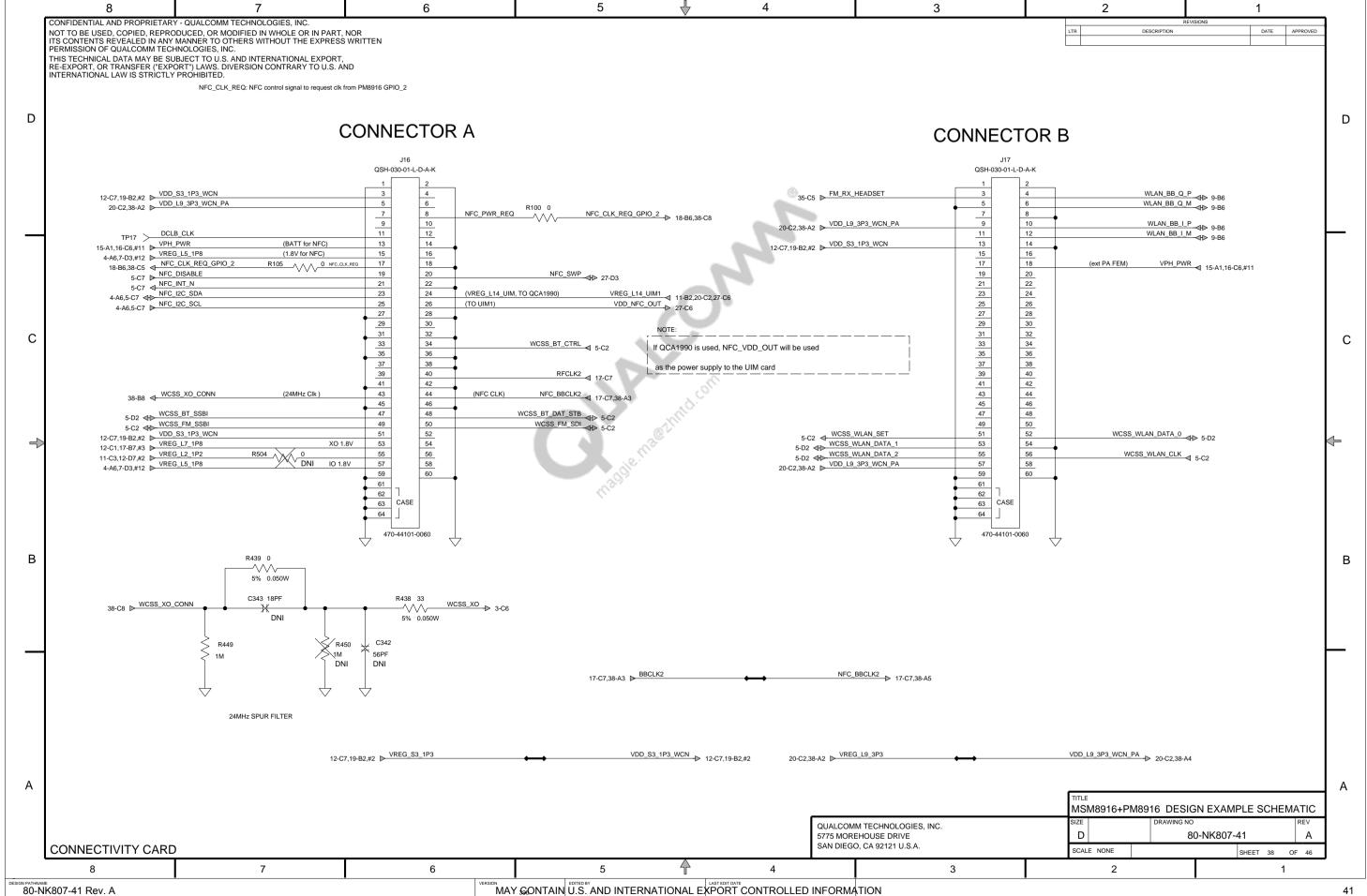


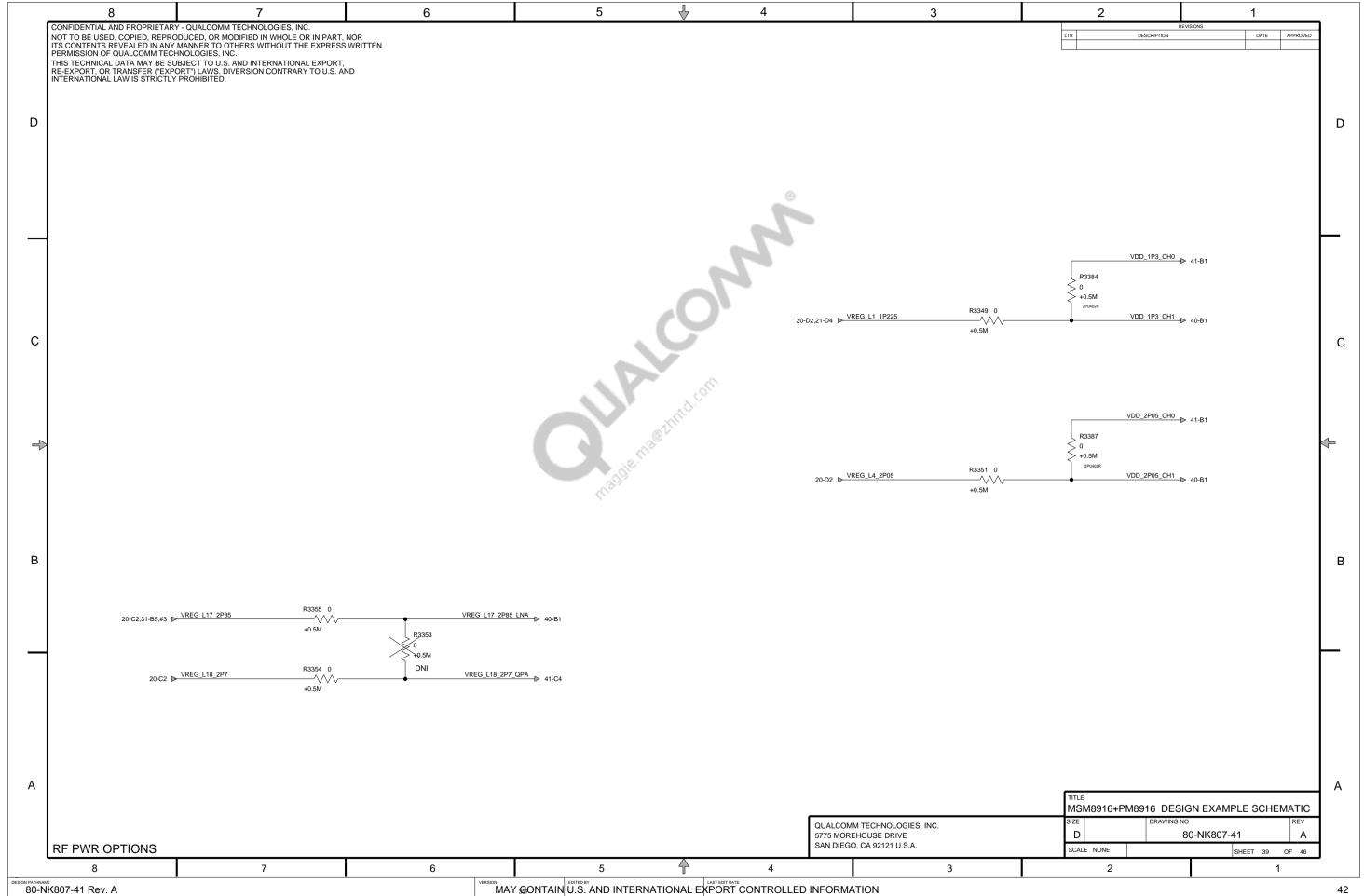


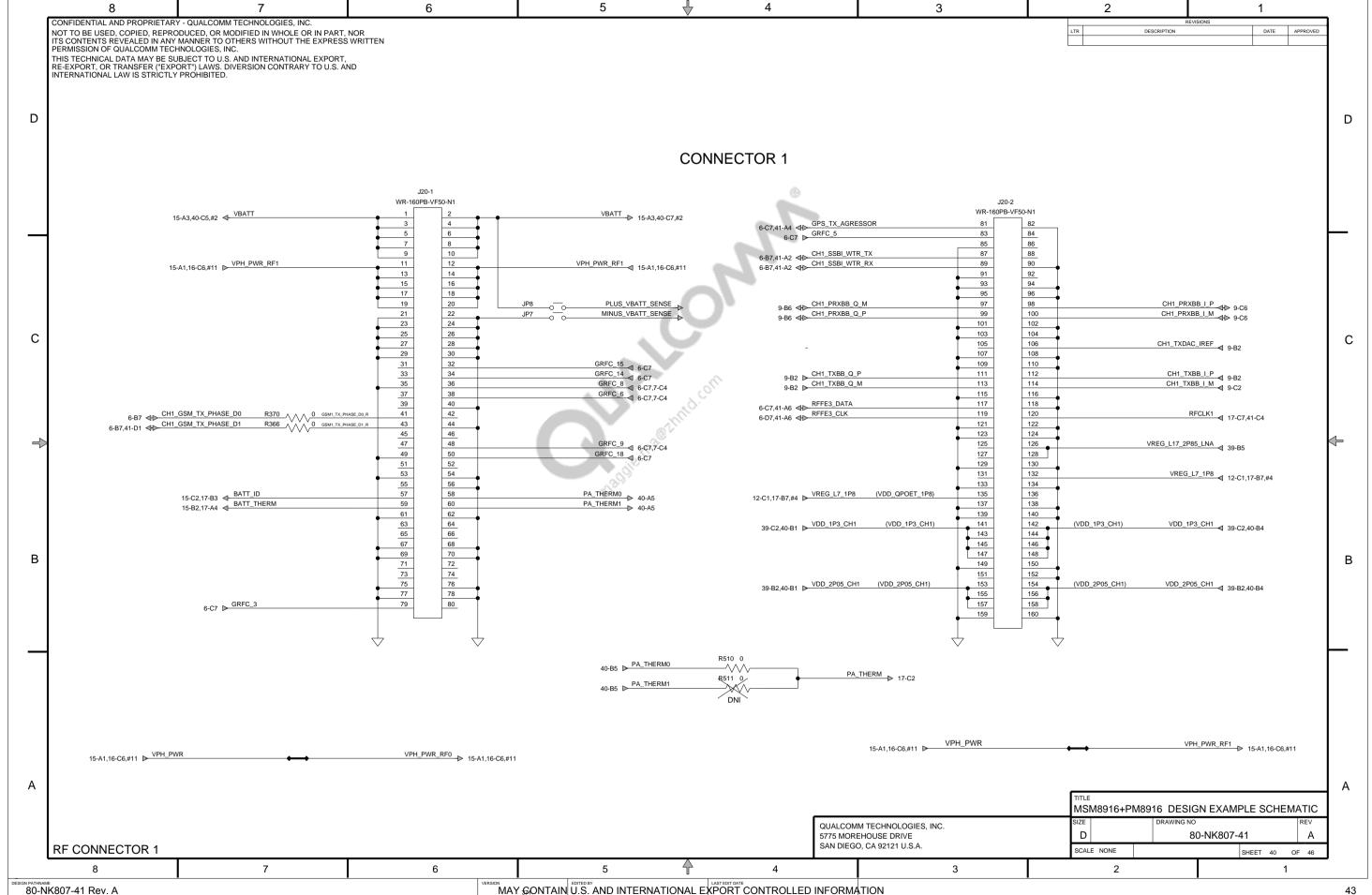


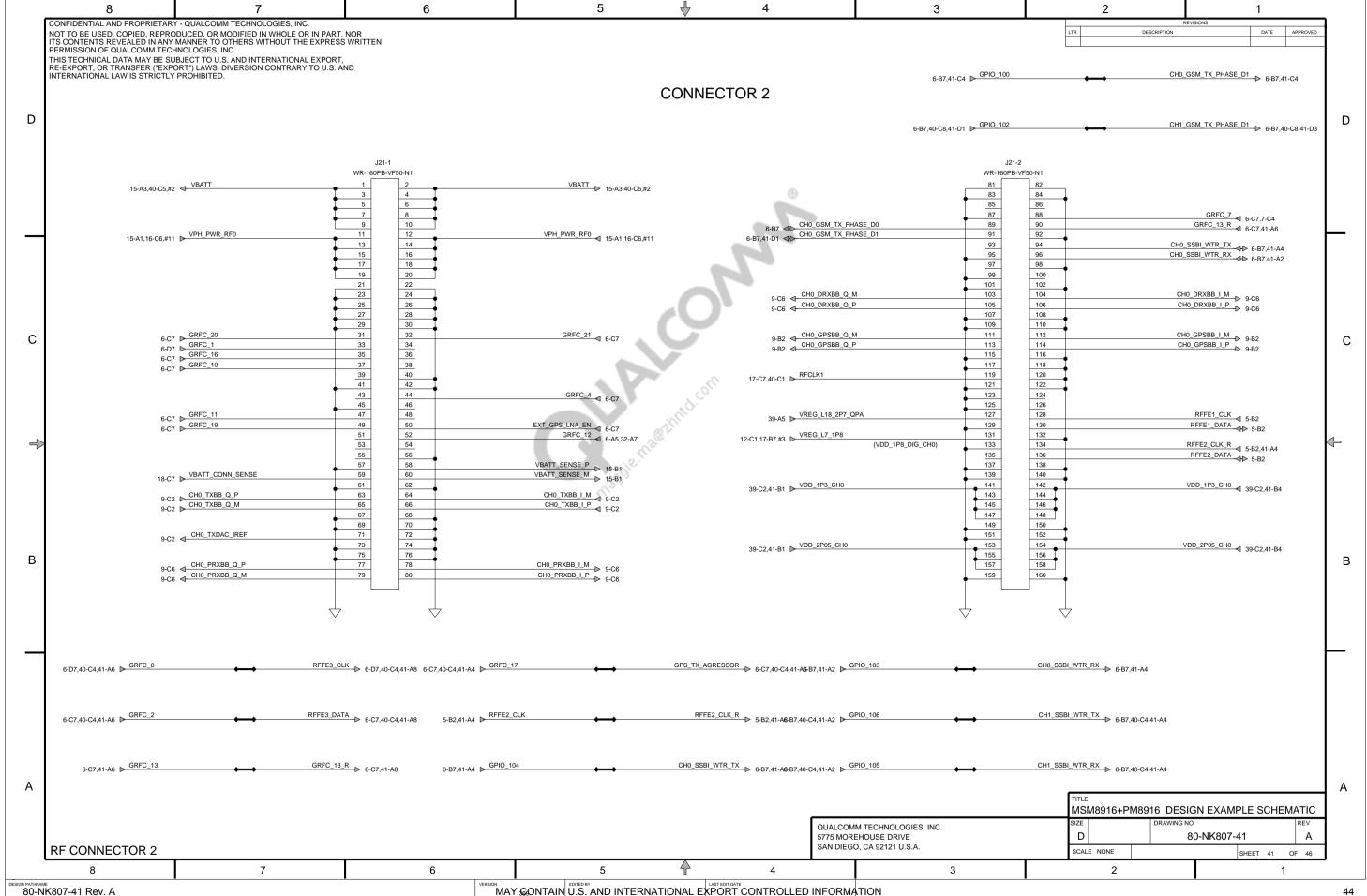


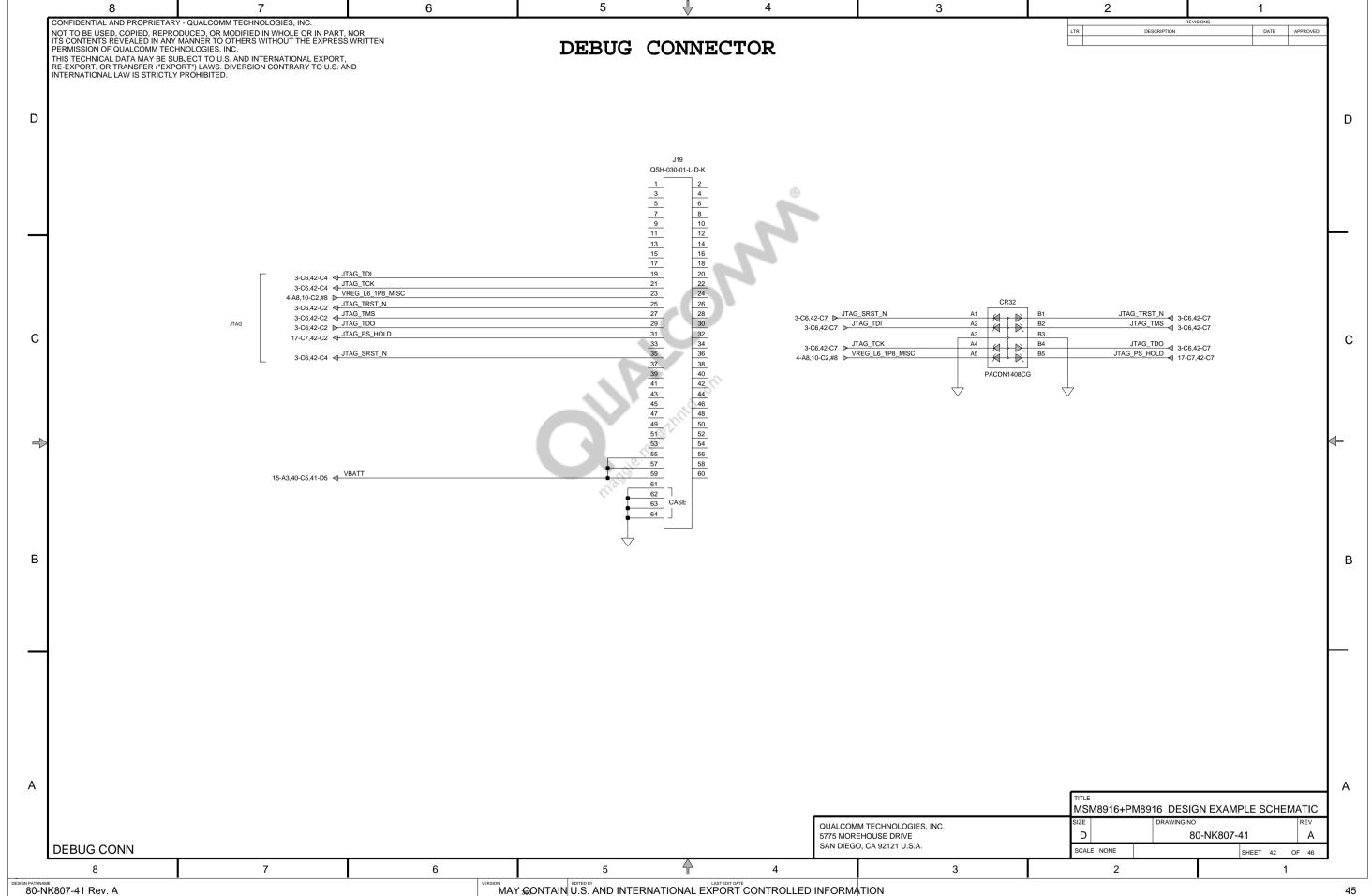












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ALPS_INT_N	33-C5	CH0_GPSBB_Q_M	CH1_PRXBB_Q_P	24-C6	24-C2	24-B6	GRFC_15	JTAG_TDI	MIPI_CSIO_LANE3_N	MSM_RESOUT_N	RFFE2_DATA	
6-C2 36-C1	CDC_EAR_M 22-C6	9-B2 41-C4	9-B6 40-C4	EBI_CKE_0 4-D7	EBI_DQ(9) 4-D3	EBI_DQS_2 4-C7	6-C7 40-C5	3-C6 42-C4	8-C7 33-C1	3-C6 7-C3	5-B2 41-B1	
BATT_ID	34-B5	CHO_GPSBB_Q_P	CH1_SSBI_WTR_RX	24-C6	24-C2	24-B6	GRFC_16	42-C7	MIPI_CSIO_LANE3_I	<u> </u>	SDC1_CLK	
15-C2 17-B3	CDC_EAR_P 22-C6	9-B2 41-C4	6-B7 40-C4	EBI_CKE_1 4-D7	EBI_DQ(30) 4-D3	EBI_DQS_2B 4-C7	6-C7 41-C7	JTAG_TDO 3-C6	8-C7 33-C1	NFC_CLK_REQ_GPIO_2 18-B6	3-C2 24-D8	
17-B3 17-C2	34-B5	CHO_GSM_TX_PHASE_D0	40-C4 41-A2	24-C6	24-C2	24-B6	GRFC_18	42-C2	MIPI_CSI1_CLK_M	38-C5	SDC1_CMD	
40-B7	CDC_HDS_MIC2_P	6-B7 41-C4	41-A4	EBI_CSO_N	EBI_DQ(11)	EBI_DQS_3	6-C7 40-B5	42-C7	8-C7	38-C8 NFC_DISABLE	3-C2	
BATT_THERM 15-B2	22-C8 35-B5	CHO_GSM_TX_PHASE_D1	CH1_SSBI_WTR_TX 6-B7	4-D7 24-C6	4-D3 24-C2	4-C7 24-B6	GRFC_19	JTAG_TMS 3-C6	32-C1 MIPI_CSI1_CLK_P	5-C7	24-C8 SDC1_DATA_0	
17-A4 40-B7	CDC_HPH_L_P 22-C1	6-B7 41-C4	40-C4 41-A2	EBI_CS1_N	EBI_DQ(25)	EBI_DQS_3B	6-C7 41-C7	42-C2 42-C7	8-C7 32-D4	38-C8 NFC_I2C_SCL	3-C2 24-C1	
BBCLK1	35-C3	41-C4 41-D1	41-A2 41-A4	4-D7 24-C6	4-D3 24-C2	4-C7 24-B6	GRFC_2	JTAG_TRST_N	MIPI_CSI1_LANEO_N		SDC1_DATA_1	
3-B3	CDC_HPH_REF	41-D3	CH1_TXBB_I_M	EBI_DM(0)	EBI_DQ(27)	EXT_GPS_LNA_EN	6-C7	3-C6	8-C7	5-C7	3-C2	
3-C6 17-C7	22-C2 35-C5	CH0_PRXBB_I_M 9-C6	9-C2 40-C1	4-C8 24-B7	4-D3 24-C2	6-C7 41-C5	40-C4 41-A6	42-C2 42-C7	32-C4 MIPI_CSI1_LANE0_I	38-C8 NFC_I2C_SDA	24-C1 SDC1_DATA_2	
BBCLK2	CDC_HPH_R_M	41-B5	CH1_TXBB_I_P	EBI_DM(3)	EBI_DQ(19)	FLASH_LED_RESET_N	41-A8	KEY_FOCUS_N	8-C7	4-A6	3-C2	
17-C7 38-A3	22-B2 35-B3	CH0_PRXBB_I_P 9-C6	9-B2 40-C1	4-C8 24-B7	4-D3 24-C2	5-B7 32-B7	GRFC_20 6-C7	6-B7 37-C4	32-C1 MIPI_CSI1_LANE1_N	5-C7 4 38-C8	24-C1 SDC1_DATA_3	
38-A5	CDC_HS_DET	41-B5	CH1_TXBB_Q_M	EBI_DM(1)	EBI_DQ(23)	FLASH_LED_STB_0	41-C7	KEY_SNAPSHOT_N	8-C7	NFC_INT_N	3-C2	
38-C5 BUCK_SMB_I2C_SCL	22-B2 35-C3	CHO_PRXBB_Q_M 9-C6	9-B2 40-C4	4-C8 24-B7	4-D3 24-C2	5-B7 32-B7	GRFC_21 6-C7	6-B7 37-B4	32-C1 MIPI_CSI1_LANE1_I	5-C7 38-C8	24-C1 SDC1_DATA_4	
4-A5	CDC_MIC1_P	9-C6 41-B7	CH1_TXBB_Q_P	EBI_DM(2)	24-C2 EBI_DQ(22)	FLASH_LED_STB_1	41-C5	KEY_VOLP_N	8-C7	NFC_SWP	SDC1_DATA_4 3-C2	
5-C7	22-C8	CH0_PRXBB_Q_P	9-B2	4-C8	4-D3	5-B7	GRFC_3	6-B7	32-C4	27-D3	24-C1	
15-A5 15-C6	34-C5 CDC_MIC3_P	9-C6 41-B7	40-C4 CH1_TXDAC_IREF	24-B7 EBI_DM(3:0)	24-C2 EBI_DQ(1)	32-B7 FM_RX_HEADSET	6-C7 40-B7	37-D4 LCD_5V_REG_EN	MIPI_DSIO_CLK_M 8-D5	38-C5 PA THERM	SDC1_DATA_5 3-C2	
BUCK_SMB_I2C_SDA	22-C8	CHO_SSBI_WTR_RX	9-B2	4-C8	4-D3	35-C5	GRFC_4	6-C7	30-B6	17-C2	24-C1	
4-A5	34-C1 CDC_MIC_BIAS1	6-B7 41-A2	40-C1	24-B7	24-C2	38-D4 FORCED_USB_BOOT	6-C7 41-C5	29-B7 LCD_CABC	MIPI_DSIO_CLK_P	40-A3 PA_THERMO	SDC1_DATA_6	
5-C7 15-A5	22-C6	41-A2 41-A4	COMPASS_INT_N 5-B2	EBI_DQ(14) 4-D3	EBI_DQ(13) 4-D3	5-D2	GRFC_5	29-C3	8-D5 30-B6	40-A5	3-C2 24-C1	
15-C6	34-D1	41-C1	36-B4	24-C2	24-C2	7-D4	6-C7	30-C6	MIPI_DSIO_LANEO_N	<u> </u>	SDC1_DATA_7	
CAM0_MCLK 5-C7	34-D5 CDC_PDM_CLK	CH0_SSBI_WTR_TX 6-B7	EBI_CA(2) 4-C8	EBI_DQ(7) 4-D3	EBI_DQ(15) 4-D3	GND_CFILT 22-B4	40-C4 GRFC_6	LCD_RST_N 5-C7	8-D5 30-B6	PA_THERM1 40-A5	3-C2 24-C1	
33-C1	5-C2	41-A4	24-B7	24-C2	24-C2	GND_REF	6-C7	30-C6	MIPI_DSIO_LANEO_I	P 40-B5	SDC2_CLK	
CAMO_RESET_N 5-B7	22-C6 CDC_PDM_RX0	41-A6 41-C1	EBI_CA(4) 4-C8	EBI_DQ(17) 4-D3	EBI_DQ(5) 4-D3	22-B4 GPS_TX_AGRESSOR	7-C4 40-C5	LCD_TE 5-C7	8-D5 30-B6	PHONE_ON_N 17-C7	3-C2 26-C7	
33-C1	5-B2	CHO_TXBB_I_M	24-B7	24-C2	4-D3 24-C2	6-C7	GRFC_7	30-C6	MIPI_DSIO_LANE1_N		SDC2_CMD	
CAMO_STANDBY_N	22-B6	9-C2	EBI_CA(8)	EBI_DQ(28)	EBI_DQ(20)	40-C4	6-C7	LED_ANODE	8-D5	PLUS_VBATT_SENSE	3-C2	
5-B7 33-C1	CDC_PDM_RX1 5-B2	41-B5 CH0_TXBB_I_P	4-C8 24-B7	4-D3 24-C2	4-D3 24-C2	41-A4 41-A6	7-C4 41-C1	29-C6 30-C6	30-B6 MIPI_DSIO_LANE1_I	40-C5 PM_BATT_THERM	26-C7 SDC2_DATA_0	
CAM1_MCLK	22-B6	9-C2	EBI_CA(0)	EBI_DQ(12)	EBI_DQ(0)	GRFC_0	GRFC_8	LED_CATHODE	8-D5	17-B4	3-C2	
5-C7	CDC_PDM_RX2	41-B5	4-C8	4-D3	4-D3	6-D7	6-C7	29-C4	30-B6	17-C2	26-C7	
32-D4 CAM1_RESET_N	5-B2 22-B6	CH0_TXBB_Q_M 9-C2	24-B7 EBI_CA(3)	24-C2 EBI_DQ(10)	24-C2 EBI_DQ(6)	40-C4 41-A6	7-C4 40-C5	30-C6 MINUS_VBATT_SENSE	MIPI_DSIO_LANE2_N 8-D5	M PM_RESIN_N 17-C7	SDC2_DATA_1 3-C2	
5-B7	CDC_PDM_SYNC	41-B7	4-C8	4-D3	4-D3	41-A8	GRFC_9	40-C5	30-C6	37-C4	26-C7	
32-D1 CAM1_STANDBY_N	5-C2 22-C6	CH0_TXBB_Q_P 9-C2	24-B7 EBI_CA(9)	24-C2 EBI_DQ(24)	24-C2 EBI_DQ(21)	GRFC_1 6-D7	6-C7 7-C4	MIPI_CSIO_CLK_M 8-D7	MIPI_DSIO_LANE2_I 8-C5	PM_VIB_DRV_N 16-C6	SDC2_DATA_2 3-C2	
5-B7	CDC_PDM_TX	41-B7	4-C8	4-D3	4-D3	41-C7	40-B5	33-C5	30-C6	20-C8	26-C7	
32-D4	5-B2	CH0_TXDAC_IREF	24-B7	24-C2	24-C2	GRFC_10	GYRO_ACCEL_INT_N	MIPI_CSIO_CLK_P	MIPI_DSIO_LANE3_N		SDC2_DATA_3	
CAM_FLASH_LED1 32-A4	22-B6 CH0_DRXBB_I_M	9-C2 41-B7	EBI_CA(7) 4-C8	EBI_DQ(18) 4-D3	EBI_DQ(16) 4-D3	6-C7 41-C7	6-C2 36-D4	8-D7 33-C5	8-C5 30-B6	17-B7 17-D8	3-C2 26-C7	
32-A6	9-C6	CH1_GSM_TX_PHASE_D0	24-B7	24-C2	24-C2	GRFC_11	HR_LED_SINK_MPP_2	MIPI_CSIO_LANEO_M	MIPI_DSIO_LANE3_I	P RFCLK1	SD_CARD_DET_N	
CAM_FLASH_LED2 32-A4	41-C1 CH0_DRXBB_I_P	6-B7 40-C8	EBI_CA(6) 4-C8	EBI_DQ(3) 4-D3	EBI_DQ(29) 4-D3	6-C7 41-C7	18-B3 37-B5	8-D7 33-C5	8-C5 30-B6	17-C7 40-C1	5-D2 26-C7	
32-A6	9-C6	CH1_GSM_TX_PHASE_D1	24-B7	24-C2	24-C2	GRFC_12	IMX135_DVDD	MIPI_CSIO_LANEO_P	MIPI_DSI_DCDC	41-C4	SENSOR_I2C_SCL	
CAM_FLASH_LED3 32-A4	41-C1 CHO_DRXBB_Q_M	6-B7 40-C8	EBI_CA(1) 4-C8	EBI_DQ(2) 4-D3	EBI_DQ(31:0) 4-D3	6-A5 6-A6	33-C1 33-C5	8-D7 33-C5	12-D7 13-A3	RFCLK2 17-C7	4-A8 5-C7	
32-A6	9-C6	41-D1	24-B7	24-C2	24-C2	6-R6 6-C7	JTAG_PS_HOLD	MIPI_CSIO_LANE1_M	13-A5	38-C5	36-B1	
CCI_I2C_SCL	41-C4	41-D3	EBI_CA(5)	EBI_DQ(31)	EBI_DQS_0	32-A7	17-C7	8-D7	13-A8	RFFE1_CLK	36-B8	
4-A6 5-B7	CH0_DRXBB_Q_P 9-C6	CH1_PRXBB_I_M 9-C6	4-C8 24-B7	4-D3 24-C2	4-C7 24-B6	41-B5 GRFC_13	42-C2 42-C7	33-C5 MIPI_CSIO_LANE1_P	MSM_BBCLK1_EN 3-C6	5-B2 41-C1	36-C8 SENSOR_I2C_SDA	
32-B7	41-C4	40-C1	EBI_CA(9:0)	EBI_DQ(26)	EBI_DQS_0B	6-C7	JTAG_SRST_N	8-D7	17-C7	RFFE1_DATA	4-A8	
32-C1 33-C5	CH0_GPSBB_I_M 9-B2	CH1_PRXBB_I_P 9-C6	4-C8 24-B7	4-D3 24-C2	4-C7 24-B6	41-A6 41-A8	3-C6 42-C4	33-C5 MIPI_CSIO_LANE2_M	MSM_PS_HOLD 3-C6	5-B2 41-C1	5-C7 36-B8	
CCI_I2C_SDA	41-C1	40-C1	EBI_CK	EBI_DQ(4)	EBI_DQS_1	41-C1	42-C7	8-D7	17-C7	RFFE2_CLK	36-C1	
4-A6	CH0_GPSBB_I_P	CH1_PRXBB_Q_M	4-D7	4-D3	4-C7	GRFC_14	JTAG_TCK	33-C5	MSM_RESIN_N	5-B2	36-C8	
5-B7 32-B7	9-B2 41-C1	9-B6 40-C4	24-C6 EBI_CKB	24-C2 EBI_DQ(8)	24-B6 EBI_DQS_1B	6-C7 40-C5	3-C6 42-C4	MIPI_CSIO_LANE2_P 8-C7	3-C6 17-C7	41-A4 41-A6	SLEEP_CLK 3-C6	
32-C4			4-D7	4-D3	4-C7		42-C7	33-C5		41-B1	17-C2	
											DESIGN EXAMPLE SC	
								MM TECHNOLOGIES, INC.		SIZE DRA	AWING NO 80-NK807-41	REV A
								REHOUSE DRIVE GO, CA 92121 U.S.A.				
	<u> </u>		T			A				SCALE NONE	SHEET 4	43 OF 46
8		7	6		5	†	4	3	: I	2		1
ME IV 907 41 Day A	I			VERSION	CONTAIN U.S. AND INTE	DNIATIONAL EXPORT	CONTROL LED INCORN	IATION				
IK807-41 Rev. A				MAY	TOUNTAIN U.S. AND INTE	KNATIONAL EXPORT	CONTROLLED INFORM	IA LION				

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OT TO BE U		DDUCED, OR MODIF MANNER TO OTHE	CHNOLOGIES, INC. FIED IN WHOLE OR IN PART FRS WITHOUT THE EXPRES							LTR DESCRIPTION	REVISIONS DATE APPROVED
HIS TECHNI E-EXPORT,	CAL DATA MAY BE SU	JBJECT TO U.S. ANI ORT") LAWS. DIVER	D INTERNATIONAL EXPORT RSION CONTRARY TO U.S. A	-, AND							
NET SH-ZONE	NET S	SH-ZONE	NET SH-ZONE	NET SH-ZONE	NET SH-ZONE	NET SH-ZONE					
B_AC_USB	UIM3_F	PRESENT	38-A4	26-D7	11-C3	20-D8					
15-B5	5-0		38-B4	VREG_L12_SDC	14-C8	22-D2					
15-B6 B_INT	28- UIM3_R		38-C4 38-D8	11-C3 20-C2	15-A4 15-C7	33-C8 VSP_5N0					
5-C2	5-C	32	VDD_NFC_OUT	VREG_L13_3P075	20-D2	29-A1					
15-C7 MB_SYS_OK	28-	-C7 ATT ALM GPIO 1	27-C6 38-C5	12-D1 20-C2	22-D3 24-D8	30-C6 VSP_5P0					
15-B6	5-C		VDD_PX_BIAS_MPP_1	VREG_L14_UIM1	25-C3	29-A1					
15-B6	18-		10-C2	11-B2	26-D3	30-C6	6				
MB_VCHG 15-B8	USB_HS 3-B		18-B3 VDD_S3_1P3_WCN	20-C2 27-C6	27-D1 28-D3	WCSS_BT_CTRL 5-C2					
15-C6	23-		12-C7	38-C5	32-B7	38-C5					
PKR_OUT_M 22-C8	USB_HS 3-E		12-C7 19-B2	VREG_L15_UIM2 11-B2	38-B8 38-C8	WCSS_BT_DAT_STB 5-C2					
34-B1	23-		20-D8	20-C2	VREG_L5_1P8_BOO'						
PKR_OUT_P	USB_HS		38-A4	27-B5	7-D2	WCSS_BT_SSBI					
22-D8 34-B1	3-E 23-		38-A6 38-B8	VREG_L16_UIM3 11-B2	7-D6 VREG_L6_1P8	5-D2 38-C8					
PMI_CLK	USB_VE	BUS_IN	38-C4	20-C2	4-A8	WCSS_FM_SDI	1				
3-B3 17-C7	15- 15-		38-D8 VOUT	28-B7 VREG_L17_2P85	4-B6 4-B8	5-C2 38-C5					
MI_DATA	23-		15-B6	20-C2	10-C2	WCSS_FM_SSBI	. 7				
3-B3		BUS_IN_PMIC	15-B7	31-B5	12-D7	5-C2					
17-C7 _I2C_SCL	15- 18-		VPH_PWR 15-A1	32-D4 33-C1	20-D2 30-A6	38-C8 WCSS_WLAN_CLK					
4-A8	VBATT		15-C2	36-B1	30-A7	5-C2					
5-C7	15-		16-C6	36-B3	30-C6	38-B2					
31-B3 S_I2C_SDA	15- 40-		18-C2 18-C6	36-B4 36-C5	31-B3 32-D1	WCSS_WLAN_DATA_0 5-D2					
4-A8	40-		19-C7	36-D4	33-C1	38-B2	F				
5-C7	41-		20-B3	36-D4	36-B4	WCSS_WLAN_DATA_1	10				
31-B3 S_INT_N	41-		20-C8 22-C1	39-B8 VREG_L17_2P85_LNA	36-C5 36-D4	5-D2 38-B4	2.0				
5-C7		_CONN_SENSE	22-C1	39-B5	42-C4	WCSS_WLAN_DATA_2	and the second				
31-B3 S_RESOUT_N	18-		29-B2 29-C4	40-B1 VREG_L18_2P7	42-C7 VREG_L6_1P8_GYR	5-D2 0 38-B4					
5-C7		_SENSE_M	32-B7	20-C2	36-D1	WCSS_WLAN_SET	S. C.				
31-B5	15-		36-B5	39-A8	36-D8	5-C2					
IM1_CLK 5-C2	15- 41-		37-B8 38-C2	VREG_L18_2P7_QPA 39-A5	VREG_L7_1P8 12-C1	38-B4 WCSS_XO					
27-D5	VBATT_	_SENSE_P	38-C8	41-C4	12-C7	3-C6					
IM1_DATA 5-C2	15- 15-		40-A1 40-A3	VREG_L1_1P225 20-D2	12-C7 12-D1	38-B6 WCSS_XO_CONN					
27-C5	41-		40-A3 40-A6	20-D2 21-D4	12-D1 17-B7	WCSS_XO_CONN 38-B8					
IM1_PRESENT	VDD1_L	L5_1P8	40-A8	39-C4	20-C2	38-C8					
5-C2 27-D1	25- VDD2 L	-D8 L2_1P2	40-C5 40-C7	VREG_L2_1P2 11-C3	38-B8 40-B1	WLAN_BB_I_M 9-B6					
IM1_RESET	25-		41-C5	12-D7	40-B1	38-C2					
5-C2	25-		41-C7	20-D2	41-B4	WLAN_BB_I_P					
27-D5 IM2_CLK	25- VDD_1F		VREF_BATT_THERM 17-B3	21-D4 38-B8	VREG_L8_2P9 20-C2	9-B6 38-C2					
5-C2	39-	-C2	17-C2	VREG_L2_1P2_PX1	25-C3	WLAN_BB_Q_M					
27-B5 [M2_DATA	41-		VREF_DAC_MPP_3 9-C2	14-B5 VREG_L3_1P15	VREG_S1_1P15 11-C7	9-B6 38-D2					
M2_DATA 5-C2		-B4 P3_CH1	9-C2 18-B3	VREG_L3_IP15 10-C7	11-C7 12-C1	WLAN_BB_Q_P					
27-B5	39-	-C2	VREF_LPDDR3	12-B1	14-D5	9-B6					
IM2_PRESENT 5-C2	40- 40-		3-C7 17-C2	12-C1 12-D1	14-D5 19-D2	38-D2 WLED_PWM_MPP_4					
27-C1	VDD_2P	P05_CH0	25-D3	14-D8	19-D2	18-B3					
M2_RESET	39-		VREG_GR6	20-D2	VREG_S2_1P15	29-C3					
5-C2 27-B5	41-		20-B1 20-C8	21-D4 VREG_L4_2P05	10-B2 19-C2						
IM3_CLK	VDD_2P	P05_CH1	VREG_L10_2P8	20-D2	VREG_S2_APC_VSE	NSE					
5-C2 28-C7	39- 40-		20-C2 32-C4	39-B4 VREG_L5_1P8	14-B5 14-B6						
28-C7 IM3_DATA	40-		32-C4 33-C5	VREG_L5_1P8 4-A6	14-B6 19-C2						
5-C2	VDD_L9	9_3P3_WCN_PA	33-C8	4-B5	VREG_S4_1P85						
28-C7	20-	-C2 -A2	VREG_L11_SDC 20-C2	7-D3 11-B2	19-A2 20-B3						
			20 02	11 22	20 23						
										TITLE	
											SIGN EXAMPLE SCHEMATIC
								QUALCOMM TECHNOLOGIES, INC.		SIZE DRAWING	
								5775 MOREHOUSE DRIVE		l D	00 NIZ007 44
										Б	80-NK807-41 A
								SAN DIEGO, CA 92121 U.S.A.		SCALE NONE	SHEET 44 OF 46
8		Г	7	6	Т	5	4	SAN DIEGO, CA 92121 U.S.A.	3		

BE USED, COPII FENTS REVEAL GION OF QUALC CHNICAL DATA I RT, OR TRANS TIONAL LAW IS SH-ZONE 33-B4 32-C3 32-C3 32-C2 33-B3 33-B2 33-B3 33-B4 31-B4 31-B5 32-B6 32-B6 32-B6 32-B6 28-C4 28-C6 28-C4 28-C4 27-B5 27-B3	COPRIETARY - QUALCOMM TECHNOLOGIES IED, REPRODUCED, OR MODIFIED IN WHO LED IN ANY MANNER TO OTHERS WITHOU' COMM TECHNOLOGIES, INC. MAY BE SUBJECT TO U.S. AND INTERNATI SER ("EXPORT") LAWS. DIVERSION CONTI STRICTLY PROHIBITED. INSTPAR EXCEPT_ASSY O.1UF - 1.0UF - 0.1UF - 0.1UF - 0.1UF - 0.1UF - 0.1UF - 1.0UF - 1.0U	.E OR IN PART, NOR THE EXPRESS WRITTEN DNAL EXPORT,	REFDES SH-ZONE INSTPAR EXCEPT_ASSY C1021 15-C5 2.2UF DNI C1022 15-D4 1UF DNI C1023 11-B4 0.1UF - C1024 15-D3 1UF DNI C1033 15-C3 0.47UF DNI C1034 15-D3 0.47UF DNI C1035 15-C3 10UF DNI C1035 15-C3 10UF DNI C1043 14-D7 1.0UF - C1044 14-D7 1.0UF - C1045 14-D7 1.0UF - C1046 14-D7 1.0UF - C1046 14-D7 1.0UF - C1047 14-D6 1.0UF - C1048 14-D6 1.0UF - C1048 14-D6 1.0UF - C1049 14-D6 1.0UF -	REFDES SH-ZONE EXCEPT_ASSY CR21 35-B7 - CR25 26-B5 - CR26 23-B5 - CR28 26-C4 - CR32 42-C3 - CR39 35-B6 - CR41 35-B6 - CR42 35-B7 - CR44 37-B3 - CR46 37-D3 - CR46 37-D3 - CR47 37-C7 -	REFDES SH-ZONE EXCEPT_ASSY J19
SH-ZONE 33-B4 32-C3 32-C2 33-B3 33-B2 33-B2 36-B3 36-B4 31-B4 31-B5 32-B6 33-C7 28-C6 28-C6 28-C6 28-C4 27-B5 27-B3 27-B3	INSTPAR	REFDES SH-ZONE INSTPAR EXCEPT_ASSY	C1021 15-C5 2.2UF DNI C1022 15-D4 1UF DNI C1023 11-B4 0.1UF - C1024 15-D3 1UF DNI C1033 15-C3 0.47UF DNI C1034 15-D3 0.47UF DNI C1035 15-C3 10UF DNI C1043 14-D7 1.0UF - C1044 14-D7 1.0UF - C1045 14-D7 1.0UF - C1046 14-D7 1.0UF - C1046 14-D7 1.0UF - C1047 14-D6 1.0UF - C1048 14-D6 1.0UF -	CR21 35-B7 - CR25 26-B5 - CR26 23-B5 - CR28 26-C4 - CR32 42-C3 - CR39 35-B6 - CR41 35-B6 - CR42 35-B7 - CR44 37-B3 - CR45 37-C3 - CR46 37-D3 - CR47 37-C7 -	J19 42-D5 - J20-1 40-C6 - J20-2 40-C3 - J21-1 41-D6 - J21-2 41-D3 - J22 28-C3 - J97 36-C3 - J98 31-B5 - J99 32-D3 -
33-B4 32-C3 32-C3 32-C2 33-B3 33-B2 33-B2 33-B4 31-B4 31-B5 32-B6 32-B4 33-C6 28-C6 28-C6 28-C6 28-C4 27-B5 27-B3 27-B3	0.1UF - 1.0UF - 1.0UF - 0.1UF DNI 0.1UF - 0.1UF - 0.1UF - 0.1UF - 1.0UF DNI 1.0UF - 1.	C201 25-C3 2.2UF - C202 25-C2 0.1UF - C204 25-C2 0.1UF - C206 11-A4 0.1UF - C207 26-D4 33PF - C208 26-D4 1.0UF - C212 11-A3 0.1UF - C214 3-B3 33PF DNI C224 11-A4 0.1UF - C270 29-A4 1.0UF - C280 29-A4 1.0UF - C280 29-A4 1.0UF - C296 29-B4 1.0UF - C296 29-B4 1.0UF - C309 25-D6 0.1UF - C318 30-B5 1.0UF -	C1021 15-C5 2.2UF DNI C1022 15-D4 1UF DNI C1023 11-B4 0.1UF - C1024 15-D3 1UF DNI C1033 15-C3 0.47UF DNI C1034 15-D3 0.47UF DNI C1035 15-C3 10UF DNI C1043 14-D7 1.0UF - C1044 14-D7 1.0UF - C1045 14-D7 1.0UF - C1046 14-D7 1.0UF - C1046 14-D7 1.0UF - C1047 14-D6 1.0UF - C1048 14-D6 1.0UF -	CR21 35-B7 - CR25 26-B5 - CR26 23-B5 - CR28 26-C4 - CR32 42-C3 - CR39 35-B6 - CR41 35-B6 - CR42 35-B7 - CR44 37-B3 - CR45 37-C3 - CR46 37-D3 - CR47 37-C7 -	J19 42-D5 - J20-1 40-C6 - J20-2 40-C3 - J21-1 41-D6 - J21-2 41-D3 - J22 28-C3 - J97 36-C3 - J98 31-B5 - J99 32-D3 -
32-C3 32-C3 32-C3 32-C2 33-B3 33-B2 33-B2 36-B3 36-B4 31-B5 32-B6 32-B6 32-B6 32-C7 28-C6 28-C6 28-C4 27-B5 27-B5 27-B3 27-B3	1.0UF - 1.0UF - 0.1UF DNI 0.1UF - 0.1UF - 0.1UF - 0.1UF - 1.0UF - 33PF DNI 33PF DNI 1UF - 33PF DNI	C202 25-C2 0.1UF - C204 25-C2 0.1UF - C206 11-A4 0.1UF - C207 26-D4 33PF - C208 26-D4 1.0UF - C212 11-A3 0.1UF - C214 3-B3 33PF DNI C224 11-A4 0.1UF - C270 29-A4 1.0UF - C280 29-A4 1.0UF - C280 29-A4 1.0UF - C296 29-B4 1.0UF - C297 29-A3 1.0UF - C309 25-D6 0.1UF - C318 30-B5 1.0UF -	C1022 15-D4 1UF DNI C1023 11-B4 0.1UF - C1024 15-D3 1UF DNI C1033 15-C3 0.47UF DNI C1034 15-D3 1UF DNI C1035 15-C3 10UF DNI C1035 15-C3 10UF DNI C1043 14-D7 1.0UF - C1044 14-D7 1.0UF - C1045 14-D7 1.0UF - C1046 14-D7 1.0UF - C1046 14-D7 1.0UF - C1047 14-D6 1.0UF - C1048 14-D6 1.0UF -	CR25 26-B5 - CR26 23-B5 - CR26 23-B5 - CR28 26-C4 - CR32 42-C3 - CR39 35-B6 - CR41 35-B6 - CR42 35-B7 - CR44 37-B3 - CR45 37-C3 - CR46 37-D3 - CR46 37-D3 - CR47 37-C7 -	J20-1 40-C6 - J20-2 40-C3 - J21-1 41-D6 - J21-2 41-D3 - J22 28-C3 - J97 36-C3 - J98 31-B5 - J99 32-D3 -
32-C3 33-B3 33-B2 33-B2 33-B2 36-B3 36-B4 31-B4 31-B5 32-B6 32-B6 32-C7 28-C6 28-C6 28-C4 27-B5 27-B5 27-B3 27-B3	1.0UF - 0.1UF DNI 0.1UF - 0.1UF - 0.1UF - 0.1UF - 0.1UF - 1.0UF - 1.0UF - 1.0UF - 1.0UF - 1.0UF DNI 1.0UF - 1.0UF - 33PF DNI 33PF DNI 1UF - 33PF DNI	C204 25-C2 0.1UF - C206 11-A4 0.1UF - C207 26-D4 33FF - C208 26-D4 1.0UF - C212 11-A3 0.1UF - C214 3-B3 33FF DNI C224 11-A4 0.1UF - C270 29-A4 1.0UF - C280 29-A4 1.0UF - C296 29-B4 1.0UF - C297 29-A3 1.0UF - C309 25-D6 0.1UF - C318 30-B5 1.0UF -	C1023 11-B4 0.1UF - C1024 15-D3 1UF DNI C1033 15-C3 0.47UF DNI C1034 15-D3 0.47UF DNI C1035 15-C3 10UF DNI C1043 14-D7 1.0UF - C1044 14-D7 1.0UF - C1045 14-D7 1.0UF - C1046 14-D7 1.0UF - C1047 14-D6 1.0UF - C1048 14-D6 1.0UF -	CR26 23-B5 - CR28 26-C4 - CR32 42-C3 - CR39 35-B6 - CR41 35-B6 - CR42 35-B7 - CR44 37-B3 - CR45 37-C3 - CR46 37-D3 - CR46 37-D3 - CR47 37-C7 -	J20-2 40-C3 - J21-1 41-D6 - J21-2 41-D3 - J22 28-C3 - J97 36-C3 - J98 31-B5 - J99 32-D3 -
33-B3 33-B2 33-B2 36-B3 36-B4 31-B5 32-B6 32-B6 32-C7 28-C6 28-C6 28-C4 27-B5 27-B5 27-B3 27-B3	0.1UF - 0.1UF - 0.1UF - 0.1UF - 0.1UF - 1.0UF - 1.0UF - 1.0UF - 1.0UF - 1.0UF - 33PF DNI 33PF DNI 1UF - 33PF DNI	C207 26-D4 33PF - C208 26-D4 1.0UF - C212 11-A3 0.1UF - C214 3-B3 33PF DNI C224 11-A4 0.1UF - C270 29-A4 10UF - C280 29-A4 1.0UF - C296 29-B4 10UF - C297 29-A3 10UF - C309 25-D6 0.1UF - C318 30-B5 1.0UF -	C1033 15-C3 0.47UF DNI C1034 15-D3 0.47UF DNI C1035 15-C3 10UF DNI C1043 14-D7 1.0UF - C1044 14-D7 1.0UF - C1045 14-D7 1.0UF - C1046 14-D7 1.0UF - C1046 14-D6 1.0UF - C1048 14-D6 1.0UF -	CR32 42-C3 - CR39 35-B6 - CR41 35-B6 - CR42 35-B7 - CR44 37-B3 - CR45 37-C3 - CR46 37-D3 - CR47 37-C7 -	J21-2 41-D3 - J22 28-C3 - J97 36-C3 - J98 31-B5 - J99 32-D3 -
33-B2 33-B2 36-B3 36-B4 31-B4 31-B5 32-B6 32-B6 33-C7 28-C6 28-C6 28-C4 28-C4 27-B5 27-B5	0.1UF - 0.1UF - 0.1UF - 0.1UF - 1.0UF - 1.0UF - 4.7UF - 10UF DNI 1.0UF - 33PF DNI 33PF DNI 1UF - 33PF DNI	C208 26-D4 1.0UF - C212 11-A3 0.1UF - C214 3-B3 33PF DNI C224 11-A4 0.1UF - C270 29-A4 1.0UF - C280 29-A4 1.0UF - C296 29-B4 1.0UF - C297 29-A3 1.0UF - C309 25-D6 0.1UF - C318 30-B5 1.0UF -	C1034 15-D3 0.47UF DNI C1035 15-C3 10UF DNI C1043 14-D7 1.0UF - C1044 14-D7 1.0UF - C1045 14-D7 1.0UF - C1046 14-D7 1.0UF - C1047 14-D6 1.0UF - C1048 14-D6 1.0UF -	CR39 35-B6 - CR41 35-B6 - CR42 35-B7 - CR44 37-B3 - CR45 37-C3 - CR46 37-D3 - CR47 37-C7 -	J22 28-C3 - J97 36-C3 - J98 31-B5 - J99 32-D3 -
36-B3 36-B4 31-B4 31-B5 32-B6 32-B4 33-C6 33-C7 28-C6 28-C4 28-C4 27-B5 27-B5 27-B3 27-B3	0.1UF - 0.1UF - 1.0UF - 1.0UF - 4.7UF - 10UF DNI 1.0UF - 1.0UF - 33PF DNI 33PF DNI 1UF - 33PF DNI	C214 3-B3 33PF DNI C224 11-A4 0.1UF - C270 29-A4 10UF - C280 29-A4 1.0UF - C296 29-B4 10UF - C297 29-A3 10UF - C309 25-D6 0.1UF - C318 30-B5 1.0UF -	C1043 14-D7 1.0UF - C1044 14-D7 1.0UF - C1045 14-D7 1.0UF - C1046 14-D7 1.0UF - C1047 14-D6 1.0UF - C1048 14-D6 1.0UF -	CR42 35-B7 - CR44 37-B3 - CR45 37-C3 - CR46 37-D3 - CR47 37-C7 -	J98 31-B5 - J99 32-D3 -
36-B4 31-B4 31-B5 32-B6 32-B4 33-C7 28-C6 28-C6 28-C4 28-C4 27-B5 27-B3 27-B3	0.1UF - 1.0UF - 1.0UF - 4.7UF - 10UF DNI 1.0UF - 1.0UF - 33PF DNI 33PF DNI 1UF - 33PF DNI	C224 11-A4 0.1UF - C270 29-A4 10UF - C280 29-A4 1.0UF - C296 29-B4 10UF - C297 29-A3 10UF - C309 25-D6 0.1UF - C318 30-B5 1.0UF -	C1044 14-D7 1.0UF - C1045 14-D7 1.0UF - C1046 14-D7 1.0UF - C1047 14-D6 1.0UF - C1048 14-D6 1.0UF -	CR44 37-B3 - CR45 37-C3 - CR46 37-D3 - CR47 37-C7 -	J99 32-D3 -
31-B5 32-B4 32-B4 33-C6 33-C7 28-C6 28-C4 28-C4 27-B5 27-B5 27-B3 27-B3	1.0UF - 4.7UF - 10UF DNI 1.0UF - 1.0UF - 33PF DNI 1UF - 33PF DNI	C280 29-A4 1.0UF - C296 29-B4 10UF - C297 29-A3 10UF - C309 25-D6 0.1UF - C318 30-B5 1.0UF -	C1046 14-D7 1.0UF - C1047 14-D6 1.0UF - C1048 14-D6 1.0UF -	CR46 37-D3 - CR47 37-C7 -	
32-B6 32-B4 33-C6 33-C7 28-C6 28-C4 28-C4 27-B5 27-B5 27-B3 27-B3	4.7UF - 10UF DNI 1.0UF - 1.0UF - 33PF DNI 33PF DNI 1UF - 33PF DNI	C296 29-B4 10UF - C297 29-A3 10UF - C309 25-D6 0.1UF - C318 30-B5 1.0UF -	C1047 14-D6 1.0UF - C1048 14-D6 1.0UF -	CR47 37-C7 -	
33-C6 33-C7 28-C6 28-C6 28-C4 28-C4 27-B5 27-B5 27-B3 27-B3	1.0UF - 1.0UF - 33PF DNI 33PF DNI 1UF - 33PF DNI	C309 25-D6 0.1UF - C318 30-B5 1.0UF -			REFDES SH-ZONE EXCEPT_ASSY
33-C7 28-C6 28-C6 28-C4 28-C4 27-B5 27-B5 27-B3 27-B3	1.0UF - 33PF DNI 33PF DNI 1UF - 33PF DNI	C318 30-B5 1.0UF -		CR50 15-C4 DNI CR57 35-B7 -	JP7 40-C5 -
28-C6 28-C4 28-C4 27-B5 27-B5 27-B3 27-B3	33PF DNI 1UF - 33PF DNI	C330 36-D7 0.1UF -	C1050 14-D6 47UF -	CR58 27-C2 DNI	JP8 40-C5 -
28-C4 28-C4 27-B5 27-B5 27-B3 27-B3	1UF - 33PF DNI	C331 36-C5 0.1UF -	C1072 14-A5 1.0UF - C1073 14-A4 1.0UF -	CR59 27-D3 DNI CR60 28-C3 DNI	
27-B5 27-B5 27-B3 27-B3		C332 36-C5 1.0UF -	C1074 14-A4 1.0UF -	CR61 29-C6 -	REFDES SH-ZONE INSTPAR EXCEPT_ASSY
27-B5 27-B3 27-B3	33PF DNI	C333 36-C5 0.1UF DNI C334 36-B5 1.0UF -	C1075 14-A4 1.0UF - C1078 14-C7 1.0UF -	CR62 34-B3 - CR63 34-B3 -	L13 19-B4 1.0UH -
27-B3	33PF DNI	C335 36-C6 2200PF -	C1079 14-C7 1.0UF -	CR64 16-C5 -	L14 19-A4 2.2UH -
	33PF DNI 0.47UF -	C336 36-B5 0.1UF - C338 36-D3 1.0UF -	C1080 14-C7 1.0UF - C1081 14-C7 1.0UF -	CR65 34-B7 - CR66 34-B7 -	L15 32-B5 2.2UH - L23 29-A6 4.7UH -
23-B6	4.7UF -	C339 36-D2 1.0UF -	C1082 14-C6 1.0UF -	CR67 34-C7 -	L69 19-C4 1.0UH -
25-C7 25-C7	1UF - 0.1UF -	C342 38-B6 56PF DNI C343 38-B7 18PF DNI	C1083 14-C6 1.0UF - C1088 14-D3 1.0UF -	CR68 34-C7 - CR69 34-C3 -	L70 19-D4 1.0UH - L71 15-C4 1.5UH DNI
25-C7	0.1UF -	C346 13-A4 2.2UF -	C1089 14-D3 1.0UF -	CR70 34-C3 -	L73 35-C7 0.47UH -
10-C3 25-B6	0.1UF - 4.7UF -	C351 12-D7 0.1UF - C352 12-D6 0.1UF -	C1090 14-D3 1.0UF - C1096 35-C6 4700PF -		L76 22-C4 2.2UH - L80 29-C5 22UH -
12-C3	0.1UF -	C354 12-D7 0.1UF -	C1098 18-C5 2.2UF -	REFDES SH-ZONE EXCEPT_ASSY	
				DS5 18-C2 -	REFDES SH-ZONE EXCEPT_ASSY
25-D7	1UF -	C389 19-C6 2.2UF -	C1104 19-C7 22UF -	DS6 32-B3 -	
					MP1 16-C4 -
12-B6	0.1UF -	C503 21-C7 4.7UF -	C1107 14-D3 1.0UF -	DS9 37-B6 -	
12-B6 25-B6		C550 17-D2 1.0UF - C558 18-D3 47UF -	3.09	DS10 37-B6 - DS11 37-A6 -	REFDES SH-ZONE EXCEPT_ASSY
25-D7	1UF -	C617 17-B3 0.1UF -	C1110 14-D2 1.0UF -		Q4 7-C2 DNI
27-D5 25-C7	0.1UF -	C618 17-B5 1000PF - C620 18-D2 0.1UF -	C1111 14-D2 1.0UF - C1113 14-D1 22UF -	REFDES SH-ZONE EXCEPT_ASSY	
12-B6	0.1UF -	C659 35-B5 33PF -	C1116 15-C5 0.1UF DNI	727 25 44	REFDES SH-ZONE INSTPAR EXCEPT_ASSY
25-D2 12-B6	1UF - 0.1UF -	C772 17-C2 0.1UF - C820 18-C5 0.1UF -	C1117 12-C6 0.1UF - C1118 12-C6 0.1UF -	E37 35-C4 - E39 35-B4 -	R84 32-B6 10K DNI
25-C6	0.1UF -	C857 22-B5 1.0UF -	C1123 14-B3 1.0UF -	E41 35-C7 -	R87 32-A6 10K DNI R100 38-C5 0 -
	0.1UF DNI	C900 22-C3 22UF - C913 19-B6 2.2UF -	C1124 14-B3 1.0UF - C1125 14-B3 1.0UF -	E43 22-C2 - E44 22-B2 -	R100 38-C5 0 - R102 33-C6 0 -
12-C3	0.1UF -	C943 17-C3 1.0UF -	C1126 14-B3 1.0UF -	E45 22-B6 -	R105 38-C7 0 - R107 33-C7 100K DNI
3-B5	0.1UF -	C976 19-C7 22UF -	C1132 14-B3 1.0UF -		R114 28-C6 10K -
25-B6 25-B6	0.1UF - 0.1UF -	C990 17-B6 0.1UF - C991 15-B2 0.1UF DNI	C1133 14-B2 1.0UF - C1134 14-B2 1.0UF -	REFDES SH-ZONE EXCEPT_ASSY	R118 27-B5 10K - R124 7-D6 10K DNI
25-D6	0.1UF -	C993 22-D4 0.1UF -	C1137 14-B2 1.0UF -	GM1 34-C8 -	R133 7-C6 10K DNI
12-C3 9-B3	0.1UF - 0.1UF DNI		C1138 14-B2 22UF - C1139 14-B2 22UF -	GM2 34-C4 - GM3 34-B7 -	R134 4-B7 2.2K - R135 4-B7 2.2K -
27-C3	0.47UF -	C999 15-C6 4.7UF DNI	C1142 14-B1 22UF -	GM4 34-B3 -	R141 7-C6 10K DNI
25-B7 25-C7	4.7UF - 1UF -	C1005 19-B2 22UF - C1006 19-B2 22UF -	C1144 15-D6 1UF DNI C1145 29-C4 0.22UF -		R142 23-B6 47K - R143 7-C6 10K DNI
12-D2	0.1UF -	C1007 19-A2 22UF -	C1146 29-C6 1UF -	REFDES SH-ZONE EXCEPT_ASSY	R144 7-D2 0 DNI
27-C3 25-C7	33PF DNI 0.1UF -	C1008 19-A2 22UF - C1010 22-D4 1.0UF -	C1147 29-C4 4.7UF - C1148 22-C3 22UF -	J6 26-C2 -	R147 3-C3 0 - R148 7-C6 10K DNI
25-C6	0.1UF -	C1012 30-B5 0.1UF -	C1202 16-C5 33PF DNI	J8 27-С2 - Л11 33-С3 -	R152 9-B6 3.92K - R154 4-D5 240 -
12-D3 12-D3	0.1UF -	C1013 22-C2 100F - C1016 35-B4 470PF -	C1203 16-B5 33PF DN1 C1206 16-C5 1UF -	J12 30-C4 -	R164 4-D5 240 - R164 27-C5 10K -
12-C3	4700PF -	C1017 35-C7 470PF -	C1214 34-B6 33PF -	J14 35-C8 -	R168 26-C3 1M -
11-A4	0.1UF - 0.1UF -	C1019 35-C7 47PF -	C1242 22-U3 2.2UF -	J15 23-B6 - J16 38-D6 -	R170 24-B5 240 - R175 27-D2 100K -
25-C3	2.2UF -	C1020 15-B7 10PF DNI		J17 38-D3 -	R185 4-B6 2.2K -
	25-D7 12-C3 25-C7 12-B5 12-B6 12-B6 25-B6 25-D7 27-D5 25-C7 12-B6 25-C6 27-D5 9-B3 12-C3 12-C3 3-B5 25-B6 25-D6 12-C3 3-B5 25-B6 25-D6 12-C3 9-B3 27-C3 25-C7 12-D2 27-C3 25-C7 12-D2 27-C3 25-C7 12-D2 27-C3 25-C7 25-C6 12-D3 12-D3 12-C3 11-D3	25-D7 0.1UF - 12-C3 0.1UF - 25-D7 1UF - 25-C7 0.1UF - 12-B6 0.1UF - 12-B6 0.1UF - 12-B6 0.1UF - 12-B6 0.1UF - 25-B6 0.1UF - 25-D7 1UF - 27-D5 339F DNI 25-C7 0.1UF - 12-B6 0.1UF - 12-B6 0.1UF - 27-D5 339F DNI 25-C7 0.1UF - 12-B6 0.1UF - 12-C3 0.1UF - 25-B6 0.1UF - 12-C3 0.47UF - 12-C3 0.47UF - 12-C3 0.47UF - 25-C7 1UF - 12-D2 0.1UF - 12-D3 0.1UF - 11-D4 0.1UF -	25-D7 0.1UF -	12-07 0.10F - C377 36-84 0.10F - C1102 22-85 2.20F -	22-07 0.10F C.377 36-84 0.10F C.102 22-30 2.20F C.103 22-31 2.20F C.103 22-32 2.20F C.103 22-3

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	NOT TO BE USED, CO ITS CONTENTS REVE PERMISSION OF QUAI THIS TECHNICAL DAT	PIED, REPRODUCED, ALED IN ANY MANNEI LCOMM TECHNOLOG A MAY BE SUBJECT 1 ISFER ("EXPORT") LA	TO U.S. AND INTERNATIONAL EXPO AWS. DIVERSION CONTRARY TO U.	RESS WRITTEN ORT,						LTR DESCRIPTION	REVISIONS DATE APPROVED	
-	REFDES SH-ZONE	INSTPAR EXCEP	T_ASSY REFD	DES SH-ZONE INSTPAR EXCEPT_ASSY								1
П	R186 4-B6	2.2K	- R35.									_
ו	R202 3-C3 R205 4-B4	0 2.2K	- R35.									D
	R206 4-B5	2.2K	- R35.									
	R209 4-A7	200 2.2K	-									
	R210 4-A7 R217 24-C6	2.2K 10K	-	DES SH-ZONE EXCEPT_ASSY								
	R231 4-A6 R232 4-A6	2.2K 2.2K	- R'	TT1 32-A6 -								
	R234 27-D2 R294 28-C4	100K 100K	- REFD	DES SH-ZONE EXCEPT_ASSY								
	R366 40-C7 R370 40-C7	0	- :	S1 37-C6 -								<u> </u>
	R376 29-A7 R408 30-C5	100K 0		S2 37-D2 - S3 37-C2 -								
	R429 36-D6 R438 38-B6	100K 33		S4 37-B2 -								
	R439 38-B7 R449 38-B7	0 1M	- DEFEN	DES SH-ZONE EXCEPT_ASSY								
	R450 38-B7	1M	DNI									
	R452 36-B6 R465 36-B7	100K 10K	- TP.	PP9 33-C1 - P17 38-C8 -								
	R487 27-C6 R504 38-B7	0	DNI									_
C	R510 40-A4 R511 40-A4	0	DNI REFD	DES SH-ZONE EXCEPT_ASSY								C
	R2780 17-C5 R2849 17-A4	100K 16.2K		I18 32-A5 - I20 33-C7 -			azhnid.com					
	R2923 17-C6 R3236 17-B3	0 100K	- U.	123 28-B5 - 125 27-B4 -			-EC					
	R3237 17-B4 R3240 17-B3	90.9K 100K	- U.	126 27-C4 - 140 29-A5 -		4 / 1	× 50,					
	R3334 15-C3	0	DNI	J45 36-D2 -			William.					
	R3335 15-B2 R3337 37-D4	0		146 36-C7 - 147 36-A6 -			2/1/6					
\Rightarrow	R3338 37-C4 R3339 37-C4	0	- U60-									ightharpoons
	R3340 37-B4 R3342 15-B2	0	- U60 DNI U60			10.1						
	R3343 15-C2 R3344 15-A4	0 2.2K	DNI U60)-5 20-C5 -		200						
	R3345 15-A4 R3349 39-C3	2.2K 0	DNI U60			400						
	R3351 39-B3	0	- U70)-1 3-B5 -								
	R3353 39-B6 R3354 39-A7	0	DNI U70-:	-11 13-B8 -								
	R3355 39-B7 R3361 20-B3	0	- U70-	-13 13-A7 -								
В	R3362 20-B3 R3363 15-C6	0 100K	DNI U70- DNI U70-									В
	R3367 15-C4 R3373 15-B7	0 10K	DNI U70	0-4 6-B5 -								1
	R3374 15-B6 R3375 15-A6	10K 10K	DNI U70	0-6 9-B5 -								
	R3376 15-B4 R3377 15-C3	10K 10K 0.020	DNI U70 DNI U70	0-8 11-B5 -								1
	R3378 15-A2	0.020	- U71	-1 24-A4 -								
	R3379 15-D3 R3380 15-D3	0	DNI U71	-3 25-B2 -								<u></u>
	R3381 15-C3 R3384 39-C2	68.1K 0	-	772 29-C5 -								1
	R3385 15-C6 R3386 35-C7	100K 0	DNI REFD	DES SH-ZONE EXCEPT_ASSY								1
	R3387 39-C2 R3392 29-A6	0		Y5 17-D6 -								
	R3400 29-C4 R3514 22-C3	5.1	=									1
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2 Parts List

Table 1 Parts list

lt a ma	Post description	04	Manufacturar	MDN	Def des
Item 1	Part description RES 0 200PPM 0.25W 1206 ROHS	Qty 2	Manufacturer KOA SPEER ELECTRONICS INC	MPN RK73Z2BTTD	Ref des R3380,R3518
ı	RES U ZUUPPWI U.ZSWI IZUU RUNS	2	ROHM CO LTD VISHAY INTERTECHNOLOGY IN YAGEO CORPORATION	MCR18EZHJ000 CRCW12060000Z0EA RC1206JR-07000L	K330U,K3310
2	RES 100K 200PPM 1% 0.050W 0201 ROHS	2	KOA SPEER ELECTRONICS INC PANASONIC INDUSTRIAL CO PANASONIC INDUSTRIAL CO VISHAY INTERTECHNOLOGY IN WALSIN TECHNOLOGY CORP YAGEO CORPORATION	RK73H1HTTC1003F ERJ1GEF1003C ERJ1GNF1003C CRCW0201100KFKED WR02X1003FAL RC0201FR-07100KL	R2780,R3236
3	RES 16.2K 200PPM 1% 0.050W 0201 ROHS	1	KOA SPEER ELECTRONICS INC VISHAY INTERTECHNOLOGY IN	RK73H1HTTC1622F CRCW020116K2FKED	R2849
4	RES 200 200PPM 1% 0.050W 0201 ROHS	1	KOA SPEER ELECTRONICS INC PANASONIC INDUSTRIAL CO VISHAY INTERTECHNOLOGY IN WALSIN TECHNOLOGY CORP YAGEO CORPORATION	RK73H1HTTC2000F ERJ1GEF2000C CRCW0201200RFKED WR02X2000FAL RC0201FR-07200RL	R207
5	RES 240 200PPM 1% 0.050W 0201 ROHS	2	PANASONIC INDUSTRIAL CO PANASONIC INDUSTRIAL CO VISHAY INTERTECHNOLOGY IN WALSIN TECHNOLOGY CORP	ERJ1GEF2400C ERJ1GNF2400C CRCW0201240RFNED WR02X2400FAL	R154,R170
6	RES 90.9K 200PPM 1% 0.050W 0201 ROHS	7	PANASONIC INDUSTRIAL CO TA-I TECHNOLOGY CO LTD VISHAY INTERTECHNOLOGY IN	ERJ1GEF9092C RM02FTN9092 CRCW020190K9FKED	R3237
7	RES 3.92K 100PPM 1% 0.125W 0805 ROHS	1	PANASONIC INDUSTRIAL CO ROHM ELECTRONICS ROHM ELECTRONICS VISHAY INTERTECHNOLOGY IN	ERJ6ENF3921V MCR10EZHF3921 MCR10EZPF3921 CRCW08053K92FKEA	R152
œ	RES 0 200PPM 5% 0.050W 0201 ROHS	16	CYNTEC CO. LTD. CYNTEC CO. LTD. KOA SPEER ELECTRONICS INC KOA SPEER ELECTRONICS INC PANASONIC INDUSTRIAL CO ROHM ELECTRONICS TA-I TECHNOLOGY CO LTD VISHAY INTERTECHNOLOGY IN WALSIN TECHNOLOGY CORP YAGEO CORPORATION	PFR03S-000-XNH-39 RR0306S-000-XNH-39 RK73Z1HTTB RK73Z1HTTC ERJ1GE0R00C MCR006YZPJ000 RM02JTN0 CRCW02010000Z0ED WR02X000JAL RC0201JR-070RL	R100,R105,R147,R202,R366,R370, R439,R2923,R3337,R3338,R3339,R3340, R3386,R3392,R3515,R3516
0	RES 10K 200PPM 5% 0.050W 0201 ROHS	5	CYNTEC CO. LTD. KOA SPEER ELECTRONICS INC KOA SPEER ELECTRONICS INC WALSIN TECHNOLOGY CORP	RR0306S-103-JNH-39 RK73B1HTTB103J RK73B1HTTC103J WR02X103JAL	R114,R118,R164,R217,R465
10	RES 100K 200PPM 5% 0.050W 0201 ROHS	5	CYNTEC CO. LTD. KOA SPEER ELECTRONICS INC KOA SPEER ELECTRONICS INC PANASONIC INDUSTRIAL CO ROHM ELECTRONICS TA-I TECHNOLOGY CO LTD VISHAY INTERTECHNOLOGY IN WALSIN TECHNOLOGY CORP YAGEO CORPORATION	RR0306S-104-JNH-39 RK73B1HTTB104J RK73B1HTTC104J ERJ1GEJ104C MCR006YZPJ104 RM02JTN104 CRCW0201100KJNED WR02X104JAL RC0201JR-07100KL	R175,R234,R294,R376,R452
11	RES 1M 200PPM 5% 0.050W 0201 ROHS	2	PANASONIC INDUSTRIAL CO WALSIN TECHNOLOGY CORP	ERJ1GEJ105C WR02X105JAL	R168,R449
13	RES 2.2K 200PPM 5% 0.050W 0201 ROHS	10	KOA SPEER ELECTRONICS INC KOA SPEER ELECTRONICS INC ROHM ELECTRONICS VISHAY INTERTECHNOLOGY IN WALSIN TECHNOLOGY CORP YAGEO CORPORATION	RK73B1HTTB222J RK73B1HTTC222J MCR006YZPJ222 CRCW02012K20JNED WR02X222JAL RC0201JR-072K2L	R134,R135,R185,R186,R205,R206, R209,R210,R231,R232
14	RES 33 200PPM 5% 0.050W 0201 ROHS	1	PANASONIC INDUSTRIAL CO WALSIN TECHNOLOGY CORP	ERJ1GEJ330C WR02X330JAL	R438
15	RES 5.1 200PPM 5% 0.050W 0201 ROHS	1	KOA SPEER ELECTRONICS INC KOA SPEER ELECTRONICS INC KOA SPEER ELECTRONICS INC ROHM ELECTRONICS WALSIN TECHNOLOGY CORP	RK73B1HTTB5R1J RK73B1HTTC5R1J RK73B1HTTCD5R1J MCR006YZPJ5R1 WR02X5R1JAL	R3400
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Item	Part description	Qty	Manufacturer	MPN	Ref des
16	RES 0 200PPM 5% 0.063W 0402 ROHS	2	CYNTEC CO. LTD. KOA SPEER ELECTRONICS INC PANASONIC INDUSTRIAL CO ROHM CO LTD VISHAY INTERTECHNOLOGY IN WALSIN TECHNOLOGY CORP YAGEO CORPORATION	RR0510X-000-X-N RK73Z1ETTP ERJ2GEOR00X MCR01MZPJ000 CRCW04020000Z0ED WR04X000PTL RC0402JR-070RL	R510,R3514
17	RES 47K 200PPM 5% 0.063W 0402 ROHS	1	ASJ PTE LTD. BOURNS INC KOA SPEER ELECTRONICS INC PANASONIC INDUSTRIAL CO ROHM CO LTD VISHAY DALE WALSIN TECHNOLOGY CORP YAGEO CORPORATION	CR10-473-JK CR0402-JW-473GLF RK73B1ETTP473J ERJ2GEJ473X MCR01MZPJ473 CRCW040247K0JNED WR04X73-JTL RC0402JR-0747KL	R142
18	RES 0 0.5MOHM 0402 ULTRA-LOW ROHS	8	ROHM ELECTRONICS	PMR01MZPJ000	R102,R3349,R3351,R3354,R3355,R3361, R3384,R3387
19	RES 0.020 75PPM 0.5% 0.40W 0603 MSTRIP HIGH POWER ROHS	1	VISHAY INTERTECHNOLOGY IN	WSLP0603R0200DEA	R3378
20	CAP,CHIP CERAMIC 33PF 5% C0G/NP0 50V ROHS	2	AVX CORP MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA	02015A330JAT2A GRM0335C1H330JA01D GRM0335C1H330JD01D	C207,C1214
21	CAP,CHIP CERAMIC 1000PF 5% C0G/NP0 50V ROHS	1	KEMET ELECTRONICS CORP MURATA ERIE NORTH AMERICA	C0402C102J5GAC7867 GRM1555C1H102JA01D	C618
22	CAP,CHIP CERAMIC 33PF 5% COG/NP0 50V ROHS	1	AVX CORP KEMET ELECTRONICS CORP KEMET ELECTRONICS CORP MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA TAIYO YUDEN CO LTD TAIYO YUDEN CO LTD TAIYO YUDEN CO LTD VENKEL CORP VISHAY INTERTECHNOLOGY IN VISHAY INTERTECHNOLOGY IN YISHAY INTERTECHNOLOGY IN YAGEO CORPORATION	04025A330JAT2A C0402C330J5GAC C0402C330J5GAC7867 GRM1555C1H330JA01D GRM1555C1H330JZ01D RM UMK105CG330JV-F UMK105CG330JV-T C0402C0G500-330JNE VJ0402A330JXAA VJ0402A330JXAAT VJ0402A330JXAAT VJ0402A330JXACW1BC CC0402JRNPO9BN330	C659
23	CAP,CHIP CERAMIC 470PF 5% C0G/NP0 50V ROHS	3	KEMET ELECTRONICS CORP KEMET ELECTRONICS CORP MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA TDK CORP OF AMERICA	C0402C471J5GAC7867 C0402C471J5GACTU GRM1555C1H471JA01B GRM1555C1H471JA01D C1005C0G1H471JT	C1016,C1017,C1018
24	CAP,CHIP CERAMIC 2200PF 10% X7R 16V ROHS	1	MURATA ERIE NORTH AMERICA	GRM033R71C222KA88D	C335
25	CAP,CHIP CERAMIC 0.1UF 10% X7R 16V ROHS	2	AVX CORP KEMET ELECTRONICS CORP KEMET ELECTRONICS CORP MURATA ERIE NORTH AMERICA YAGEO CORPORATION	0402YC104KAT2A C0402C104K4RAC7867 C0402C104K4RACTU GRM155R71C104KA88D CC0402KRX7R7BB104	C1012,C1105
26	CAP,CHIP CERAMIC 0.1UF 10% X5R 6.3V ROHS	56	AVX CORP AVX CORP AVX CORP DARFON ELECTRONICS CORP MURATA ERIE NORTH AMERICA SAMSUNG AMERICA INC TAIYO YUDEN CO LTD TAIYO YUDEN CO LTD TAIYO YUDEN CO LTD TDK CORP OF AMERICA TDK CORP OF AMERICA TDK CORP OF AMERICA VENKEL CORP WALSIN TECHNOLOGY CORP YAGEO CORPORATION	02016D104KAT2A 02016D104KAT4A C0201X5R104KCAS C0201X5R104KCTS C0603X5R104KCTS C0603X5R104KCTS GRM033R60J104KE19D CL03A104KQ3NNNC CE JMK063BJ104KP-F JMK063BJ104KP-F RM JMK063BJ104KP-F C0603X5R0J104K C0603X5R0J104KC C0603X5R0J104KT C0603X5R0J104KT C0201X5R6R3-104KNP 0201X104K6R3CT CC0201KRX5R5BB104	C1,C5,C9,C12,C13,C14, C88,C89,C90,C92,C95,C96, C104,C107,C108,C110,C116,C124, C125,C130,C134,C138,C139,C147, C148,C149,C150,C153,C172,C182, C183,C185,C186,C196,C199,C202, C204,C206,C212,C224,C309,C330, C331,C336,C351,C352,C354,C377, C617,C620,C772,C990,C993,C1023, C1117,C1118
27	CAP,CHIP CERAMIC 0.47UF 10% X5R 6.3V ROHS	2	AVX CORP SAMSUNG SEMI. INC TAIYO YUDEN CO LTD TDK CORP OF AMERICA	02016D474KAT2A CL03A474KQ3NNNC JMK063BJ474KP C0603X5R0J474K030BC	C82,C167

Item	Part description	Qty	Manufacturer	MPN	Ref des
28	CAP,CHIP CERAMIC 1UF 10% X5R 6.3V ROHS	6	AVX CORP DARFON ELECTRONICS CORP JOHANSON DIELECTRICS INC KEMET ELECTRONICS CORP KEMET ELECTRONICS CORP MURATA ERIE NORTH AMERICA SAMSUNG ELECTRO- MECHANICS TAIYO YUDEN CO LTD TDK CORP OF AMERICA TDK CORP OF AMERICA VENKEL CORP WALSIN TECHNOLOGY CORP YAGEO CORPORATION	04026D105KAT2A C1005X5R105KCTS 6R3R07X105KV4T C0402C105K9PAC7867 C0402C105K9PACTU GRM155R60J105KE19D CL05A105KQ5NNNC JMK105 BJ105KV-F C1005X5R0J105KT C1005X5R0J105KT C0402X5R6R3-105KNE 0402X105K6R3CT CC0402KRX5R5BB105	C74,C85,C100,C117,C128,C170
29	CAP,CHIP CERAMIC 0.1UF 10% X5R 10V ROHS	1	AVX CORP MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA PANASONIC INDUSTRIAL CO TAIYO YUDEN CO LTD	0201ZD104KAT2A GRM033R61A104KE15D GRM033R61A104KE84D ECJZEB1A104K LMK063BJ104KP-F	C820
30	CAP,CHIP CERAMIC 4700PF 10% X5R 10V ROHS	1	AVX CORP MURATA ERIE NORTH AMERICA PANASONIC INDUSTRIAL CO TAIYO YUDEN CO LTD	0201ZD472KAT2A GRM033R61A472KA01D ECJZEB1A472K LMK063BJ472KP-F	C1096
31	CAP,CHIP CERAMIC 2.2UF 10% X5R 10V ROHS	10	SAMSUNG ELECTRO- MECHANICS SAMSUNG ELECTRO- MECHANICS TDK CORP OF AMERICA TDK CORP OF AMERICA	CL05A225KP5NSNB CL05A225KP5NSNC C1005X5R1A225K050BC C1005X5R1A225KT	C200,C201,C346,C388,C389,C913, C996,C1098,C1102,C1242
32	CAP,CHIP CERAMIC 4.7UF 10% X5R 10V ROHS	3	SAMSUNG ELECTRO- MECHANICS TAIYO YUDEN CO LTD TAIYO YUDEN CO LTD TDK CORP OF AMERICA	CL05A475KP5NRNC LDK105BBJ475KV-F LMK105BBJ475KV-F C1005X5R1A475K050BC	C91,C169,C1147
33	CAP,CHIP CERAMIC 4.7UF 10% X5R 10V ROHS	1	KEMET ELECTRONICS CORP MURATA ERIE NORTH AMERICA TAIYO YUDEN CO LTD TDK CORP OF AMERICA TDK CORP OF AMERICA	C0603C475K8PACTU GRM188R61A475KE15D LMK107BJ475KA-T C1608X5R1A475K C1608X5R1A475KT	C61
34	CAP,CHIP CERAMIC 4700PF 10% X5R 16V ROHS	ALIGIO.	TAIYO YUDEN CO LTD TAIYO YUDEN CO LTD TDK CORP OF AMERICA TDK CORP OF AMERICA TDK CORP OF AMERICA TDK CORP OF AMERICA	CE EMK063BJ472KP-F RM EMK063BJ472KP-F C0603X5R1C472K C0603X5R1C472K030BA C0603X5R1C472KB C0603X5R1C472KT	C195
35	CAP,CHIP CERAMIC 4.7UF 10% X5R 16V ROHS	1	MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA TDK CORP OF AMERICA TDK CORP OF AMERICA TDK CORP OF AMERICA	GRM188R61C475KAAJ GRM188R61C475KAAJD C1608X5R1C475K080AC C1608X5R1C475KB C1608X5R1C475KB	C84
36	CAP,CHIP CERAMIC 1UF 10% X5R 25V ROHS	1	MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA	GRM155R61E105KA12 GRM155R61E105KA12D	C1206
37	CAP,CHIP CERAMIC 10UF 10% X5R 25V ROHS	3	MURATA ERIE NORTH AMERICA	GRM21BR61E106KA73L	C270,C296,C297
38	CAP,CHIP CERAMIC 1UF 10% X5R 50V ROHS	1	MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA	GRM188R61H105KAA GRM188R61H105KAALB GRM188R61H105KAALD	C1146
39	CAP,CHIP CERAMIC 47UF 20% X5R 4V ROHS	1	MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA SAMSUNG ELECTRO- MECHANICS SAMSUNG ELECTRO- MECHANICS SAMSUNG ELECTRO- MECHANICS SAMSUNG ELECTRO- MECHANICS	GRM188R60G476M GRM188R60G476ME15 GRM188R60G476ME15D CL10A476MR8N7RE CL10A476MR8NRNC CL10A476MR8NRNE CL10A476MR8NRNE	C1050
40	CAP,CHIP CERAMIC 1.0UF 20% X5R 6.3V ROHS	54	AVX CORP MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA SAMSUNG AMERICA INC SAMSUNG AMERICA INC TAIYO YUDEN CO LTD TDK CORP OF AMERICA TDK CORP OF AMERICA VENKEL CORP	02016D105MAT2A GRM033R60J105MEA2 GRM033R60J105MEA2D GRM033R60J105MEA2J CL03A105MQ3CSNC CL03A105MQ3CSNH JMK063ABJ105MP-F C0603X5R0J105M030BC C0603X5R0J105M030BC	C2,C3,C44,C46,C68,C70, C208,C280,C318,C332,C334,C338, C339,C550,C857,C943,C944,C997, C1010,C1043,C1044,C1045,C1046,C1047, C1048,C1049,C1072,C1073,C1074,C1075, C1078,C1079,C1080,C1081,C1082,C1083, C1088,C1089,C1090,C1103,C1107,C1108, C1109,C11110,C1111,C1123,C1124,C1125, C1126,C1127,C1132,C1133,C1134,C1137

Item	Part description	Qty	Manufacturer	MPN	Ref des
41	CAP,CHIP CERAMIC 0.22UF 20% X5R 6.3V ROHS	1	MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA PANASONIC INDUSTRIAL CO PANASONIC INDUSTRIAL CO SAMSUNG SEMI. INC TAIYO YUDEN CO LTD TDK CORP OF AMERICA TDK CORP OF AMERICA	GRM033R60J224ME15D GRM033R60J224ME90D ECJZEB0J224K ECJZEB0J224K CL03A224MQ3NNNC JMK063BJ224MP-F C0603X5R0J224M030BB C0603X5R0J224MT	C1145
42	CAP,CHIP CERAMIC 1UF 20% X5R 6.3V ROHS	1	AVX CORP KEMET ELECTRONICS CORP KEMET ELECTRONICS CORP MURATA ERIE NORTH AMERICA	04026D105MAT2A C0402C105M9PAC7867 C0402C105M9PACTU GRM153R60J105ME15D	C501
43	CAP,CHIP CERAMIC 4.7UF 20% X5R 6.3V ROHS	2	MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA NIC COMPONENTS CORP PANASONIC INDUSTRIAL CO SAMSUNG ELECTRO- MECHANICS SAMSUNG ELECTRO- MECHANICS TAIYO YUDEN CO LTD TAIYO YUDEN CO LTD TOK CORP OF AMERICA TOK CORP OF AMERICA YENKEL CORP YAGEO CORPORATION	GRM155R60J475ME47D GRM155R60J475ME87D NMC0402X5R475M6.3TRPF ECJ0EB0J475M CL05A475MQ5NQNC CL05A475MQ5NRNC JMK105BBJ475MV-F JMK105BJ475MV C1005X5R0J475M050BC C1005X5R0J475MT C0402X5R6R3-475MNP CC0402MRX5R5BB475	C502,C503
44	CAP,CHIP CERAMIC 22UF 20% X5R 6.3V ROHS	9	MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA SAMSUNG ELECTRO- MECHANICS SAMSUNG ELECTRO- MECHANICS SAMSUNG ELECTRO- MECHANICS TAIYO YUDEN CO LTD TAIYO YUDEN CO LTD TO T	GRM188R60J226MEA0 GRM188R60J226MEA0D GRM188R60J226MEA0J GRM188R60J226MEA0L CL10A226MQ8NTRE CL10A226MQ8NRNC CL10A226MQ8NRNE JMK107BJ226MA JMK107BJ226MA-TD C1608X5R0J226M8AC C1608X5R0J226MNT C0603X5R6R3-226MNE	C1005,C1006,C1007,C1008,C1106,C1113, C1138,C1139,C1142
45	CAP,CHIP CERAMIC 22UF 20% X5R 6.3V ROHS	2	AVX CORP MURATA ERIE NORTH AMERICA TAIYO YUDEN CO LTD TDK CORP OF AMERICA TDK CORP OF AMERICA TDK CORP OF AMERICA VENKEL CORP	08056D226MAT2A GRM21BR60J226ME39L JMK212BJ226MG-T C2012X5R0J226M C2012X5R0J226MT C2012X5R0J226MT C2012X5R0J226MT000N C0805X5R6R3-226MNE	C976,C1104
46	CAP,CHIP CERAMIC 47UF 20% X5R 6.3V ROHS	1	MURATA ERIE NORTH AMERICA SAMSUNG SEMI. INC TAIYO YUDEN CO LTD	GRM21BR60J476ME15L CL21A476MQYNNNE JMK212BJ476MG-T	C558
47	CAP,CHIP CERAMIC 10UF 20% X5R 10V ROHS	1	MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA PANASONIC INDUSTRIAL CO SAMSUNG AMERICA INC TAIYO YUDEN CO LTD TAIYO YUDEN CO LTD	GRM188R61A106ME69 GRM188R61A106ME69D GRM188R61A106ME69J ECJ1VB1A106M CL10A106MP8NNNC LMK107BJ106MA-T LMK107BJ106MALTD	C1013
48	CAP,CHIP CERAMIC 22UF 20% X5R 10V ROHS	2	DIGI-KEY CORP MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA SAMSUNG SEMI. INC TDK CORP OF AMERICA	445-9077-6-ND GRM188R61A226ME15 GRM188R61A226ME15D GRM188R61A226ME15J CL10A226MP8NUNE C1608X5R1A226M080AC	C900,C1148
49	CAP,CHIP CERAMIC 47PF 5% CH 60PPM 25V ROHS	1	MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA MURATA ERIE NORTH AMERICA	GRM0332C1E470JA01B GRM0332C1E470JA01D GRM0332C1E470JD01B GRM0332C1E470JD01D	C1019
50	INDUCTOR,POWER 22UH 20% 0.70A 0.360HM LOW PROFILE SHLD ROHS	1	COILCRAFT INC COILCRAFT INC	LPS4018-223MLB LPS4018-223MLC	L80
51	INDUCTOR,POWER 2.2UH 20% 2.6A 0.142OHM ROHS	1	TDK CORP OF AMERICA TDK CORP OF AMERICA	TFM201610AHM-2R2M TFM201610AHM-2R2M-T00	L76
52	INDUCTOR,POWER 0.47UH 30% 1.0A ROHS	1	TOKO AMERICA INC	MDT1608-CHR47N	L73
53	INDUCTOR,CHIP FILM 2.2UH 20% RDC=90MOHM ISAT=2.2A ROHS	1	TOKO AMERICA INC	1239AS-H-2R2M=P2	L15

Item	Part description	Qty	Manufacturer	MPN	Ref des
54	INDUCTOR,POWER CHOKE COIL 1.0UH 20% DCR=0.0450HM ISAT=3.8A ROHS	3	CYNTEC CO. LTD.	PIFE25201B-1R0MS-39	L13,L69,L70
55	INDUCTOR,POWER CHOKE COIL 2.2UH 20% DCR=0.0860HM ISAT=2.5A ROHS		CYNTEC CO. LTD.	PIFE25201B-2R2MS-39	L14
56	INDUCTOR,CHIP FILM 4.7UH 20% RDC=250MOHM 1.2A ROHS	1	TOKO AMERICA INC	1269AS-H-4R7M=P2	L23
57	BEAD,FERRITE CHIP 4700HM EMI SUPPRESSORS ROHS	2	TDK CORP OF AMERICA	MMZ1005Y471C	E43,E44
58	BEAD,FERRITE CHIP 1200HM 400MA EMI SUPPRESSOR ROHS	1	TDK CORP OF AMERICA TDK CORP OF AMERICA	MMZ1005Y121C MMZ1005Y121CT	E45
59	BEAD,FERRITE CHIP 1000OHM 200MA ROHS	3	TDK CORP OF AMERICA	MMZ1608Q102B	E37,E39,E41
60	FILTER,EMI 3 LINE W/ESD PROTECTION ROHS	3	ON SEMICONDUCTOR COMPONEN	NUF3102MUTAG	U23,U25,U26
61	CRYSTAL,19.2MHZ 10PPM 7PF W/THERMISTOR GPS ROHS	1	NDK AMERICA INC NDK AMERICA INC	EXS00A-CS04338 EXS00A-CS04340	Y5
62	DIODE,SCHOTTKY BARRIER VR=30V IF=200MA ROHS	1	ON SEMICONDUCTOR COMPONEN	NSR0230M2T5G	CR64
63	DIODE,SCHOTTKY BARRIER 500MA 40V ROHS	1	ON SEMICONDUCTOR COMPONEN	NSR05F40QNXT5G	CR61
64	IC,MPU 3-AXIS GYRO&ACCELEROMETER 2.5-3.3V I2C VLOGIC1.71-VDD ROHS	1	INVENSENSE INC	MPU-6050C	U46
65	IC,SENSOR COMPASS 3-AXIS 14/16BIT I2C/SPI 2.4-3.6V ROHS	1	ASAHI KASEI MICROSYSTEMS	AK8963C	U47
66	IC,MEMORY 8GBYTE ENAND(X8)+8GBIT LPDDR3(X32) 11.5 X13M ROHS	1	HYNIX SEMICONDUCTOR AMERI HYNIX SEMICONDUCTOR AMERI	H9TQ65A8GTMCUR-KTM H9TQ65A8GTMCUR-KTM(ES)	U71
67	IC, LED CAMERA FLASH DRIVER I2C 2.7- 5.5V 1.5A ROHS	1	ROHM ELECTRONICS	BD7710GWL-E2	U18
68	IC,DC/DC CONVERTER STEP UP LED DRIVER 26V ROHS	1	KINETIC TECHNOLOGIES KINETIC TECHNOLOGIES	KTD2599BECD-TR KTD2599BECD-TR(ES)	U72
69	IC,DC/DC CONVERTER W/DUAL OUTPUT +/-5.0V SGL INDUCTOR ROHS	1	DONGWOON ANATECH CO. DONGWOON ANATECH CO.	DW8756F-WC DW8756F-WC(ES)	U40
70	IC,VOLTAGE REGULATOR LDO 400MA 1.05V ROHS	1018 1018	RICOH ELECTRONICS INC.	RP106K101B5-TR	U20
71	IC,DIODE ARRAY 8 CHANNEL 25KV ESD PROTECTION ROHS	1	CALIFORNIA MICRO DEVICES ON SEMICONDUCTOR COMPONEN	PACDN1408CG PACDN1408CG	CR32
72	IC,DIODE ARRAY ESD PROTECTION 8- CHANNEL 8/15KV ROHS	1	CALIFORNIA MICRO DEVICES	CM1230-08CP	CR25
73	IC,MOSFET LOAD SWITCH P-CHANNEL 1A 1.0-3.6V ROHS	1	TEXAS INSTRUMENTS INC TEXAS INSTRUMENTS INC	TPS22908YZTR TPS22908YZTT	U45
74	SWITCH,TACT SPST SIDE-PUSH 2.2N 12V 50MA ROHS	3	PANASONIC	EVQP7A01K	S1,S2,S3
75	SWITCH,TACT MINI HORIZONTAL DBL ACTION W/O BOSS ROHS	1	HOSIDEN AMERICA CORPORATI HOSIDEN AMERICA CORPORATI	HKW0731-010010 HKW0731-010011	S4
76	LED,CHIP 590NM 2.0X1.25X0.8MM AMBER ROHS	1	AVAGO TECHNOLOGIES	HSMA-C170	DS5
77	LED,CHIP INGAN WHITE 146MCD@5MA ROHS	3	LITE-ON LITE-ON	LTW-C193SN5 LTW-C193SN5-INV	DS9,DS10,DS11
78	LED,CHIP 87.4@350MA 80-CRI WHITE ROHS	1	CREE INC.	XPEWHT-H1-0000-00AE7	DS6
79	SUPPRESSOR,TVS DIODE ARRAY 1-LINE 2.5V VC=8@5A ESD ROHS	12	SEMTECH CORP	UCLAMP2511T.TCT	CR21,CR39,CR41,CR42,CR45,CR46, CR47,CR57,CR67,CR68,CR69,CR70
80	SUPPRESSOR,TVS DIODE ARRAY 1-LINE 5V VC=12.5@2A ESD ROHS	2	SEMTECH CORP	UCLAMP0501T.TCT	CR62,CR63
81	SUPPRESSOR,TVS DIODE ARRAY 3-LINE VC=15@1A ROHS	1	SEMTECH CORP SEMTECH CORP	RCLAMP3654P.TCT RCLAMP3654PATCT	CR26
82	SUPPRESSOR,TVS DIODE ARRAY 2-LINE VC=12.5@2A ROHS	1	SEMTECH CORP	UCLAMP0502P.TCT	CR44

Item	Part description	Qty	Manufacturer	MPN	Ref des
83	SUPPRESSOR,GCDIODE FLIP-CHIP 14VDC 0.25PF ROHS	3	AEM, INC. AEM, INC. SEIKO INSTRUMENTS USA INC SEIKO INSTRUMENTS USA INC	ES0402V014CT ES0402V014CT-GT ES0402V014CT ES0402V014CT-GT	CR28,CR65,CR66
84	MICROPHONE, SILICON ULTRAMINI 4000HMS@1KHZ -38DB BOTTOM TYPE ROHS	2	KNOWLES ELECTRONICS INC KNOWLES ELECTRONICS INC	SPU0410LR5H-QB-2 SPU0410LR5H-QB-7	GM1,GM2
85	THERMISTOR, CHIP NTC 220KOHM 5% B=4500K 100MW ROHS	1	MURATA ERIE NORTH AMERICA	NCP18WM224J03RB	RT1
86	HEADER, VERT 0.5MMCTR 2X80 SMT BRD/BRD FEMALE ROHS	2	JAPAN AVIATION ELECTRONIC JAPAN AVIATION ELECTRONIC	WR-160PB-VF50-N1 WR-160PB-VF50-N1-R1300	J20,J21
87	CONN,HEADER BRD-TO-BRD 16CKT 0.5MM RCPT VERT ROHS	1	MOLEX INC MOLEX INC	0547220164 54722-0164	J97
88	CONN,SOCKET 10-POS 0.4MM LOW PROFILE ROHS	1	PANASONIC INDUSTRIAL CO	AXK7L10223G	J98
89	CONN,USB R/A MICRO AB RCPT BOTTOM MOUNT ROHS	1	MOLEX INC	0475890001	J15
90	CONN,SOCKET .5MM HI-SPEED 60-PIN ROHS	2	SAMTEC INC SAMTEC INC	QSH-030-01-L-D-A-K QSH-030-01-L-D-A-K-TR	J16,J17
91	CONN,SOCKET 0.5MM HI-SPEED 60-PIN W/O ALIGNMENT PINS ROHS	1	SAMTEC INC SAMTEC INC	QSH-030-01-L-D-K QSH-030-01-L-D-K-TR	J19
92	CONN,RECEPTACLE BRD-TO-BRD 30-POS 0.4MM PITCH ROHS	1	ACON INC	BBR43-30KB533	J11
93	CONN,MEMORY CARD MICRO SD PUSH- PUSH LOW PROFILE ROHS	1	MOLEX INC	503398-0891	J6
94	CONN,FPC 0.3MM PITCH R/A 31-POS DOUBLE CONTACT AU ROHS	1	PANASONIC INDUSTRIAL CO	AYF333135	J12
95	CONN,MICRO SIM PP W/ CLOSED SW 8P 1.3MM SMT ROHS	1	KYOCERA ELCO CORPORATION KYOCERA ELCO CORPORATION	045236008002839+ 045236008101839+	J22
96	CONN,DUAL MICRO SIM PUSH-PUSH DETECT W/ NC SW 16P 2.75MM SMT ROHS	1	KYOCERA ELCO CORPORATION KYOCERA ELCO CORPORATION	04 5236 016 012 839+ 045236016101839+	J8
97	CONN,RCPT BRD-TO-BRD FPC 24-PIN PITCH=0.4MM ROHS	1	JAE ELECTRONICS INC	WP6-S024VA2-R6000	J99
98	CONN,AUDIO JACK 3.5MM (SMT+DIP) ROHS	(C1	SHENZHEN LINKCONN ELECTRO	JAF00-05164-S137	J14
99	IC, MSM8916	1	QUALCOMM INCORPORATED		U60
100	IC, PM8916	1	QUALCOMM INCORPORATED		U70