

MSM8916 + PM8916

Design Example Schematic

80-NK807-41 Rev. A

February 15, 2014

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U.S.A.**

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Revision history

Revision	Date	Description
A	February 2014	Initial release

QUALCOMM®
maggie.ma@zhntd.com

1 Reference Schematic

1.1 Introduction

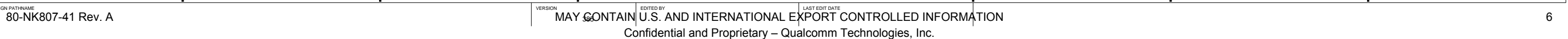
This document is meant to be a conceptual reference design only that describes an optimized BOM and is a "paper" design only. This design has not been built or tested by Qualcomm® and we leave the implementation and BOM choices to the OEM to make sure that they can meet their performance goals. This 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.

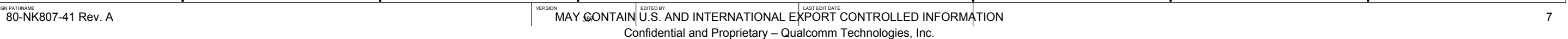
1.2 Schematic

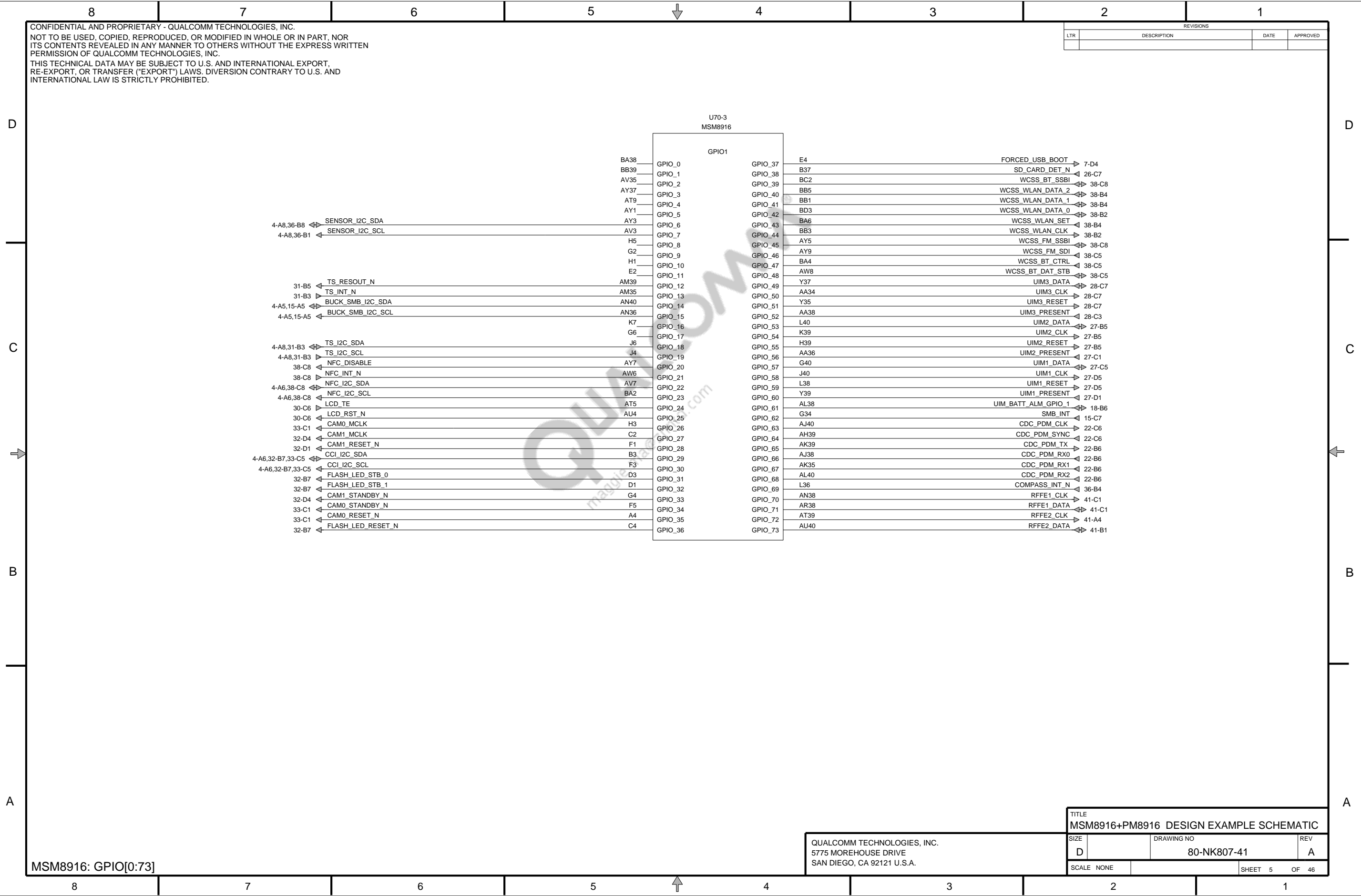
This schematic is subject to change without notice, and for reference only, and is not built/tested/optimized for production phones.

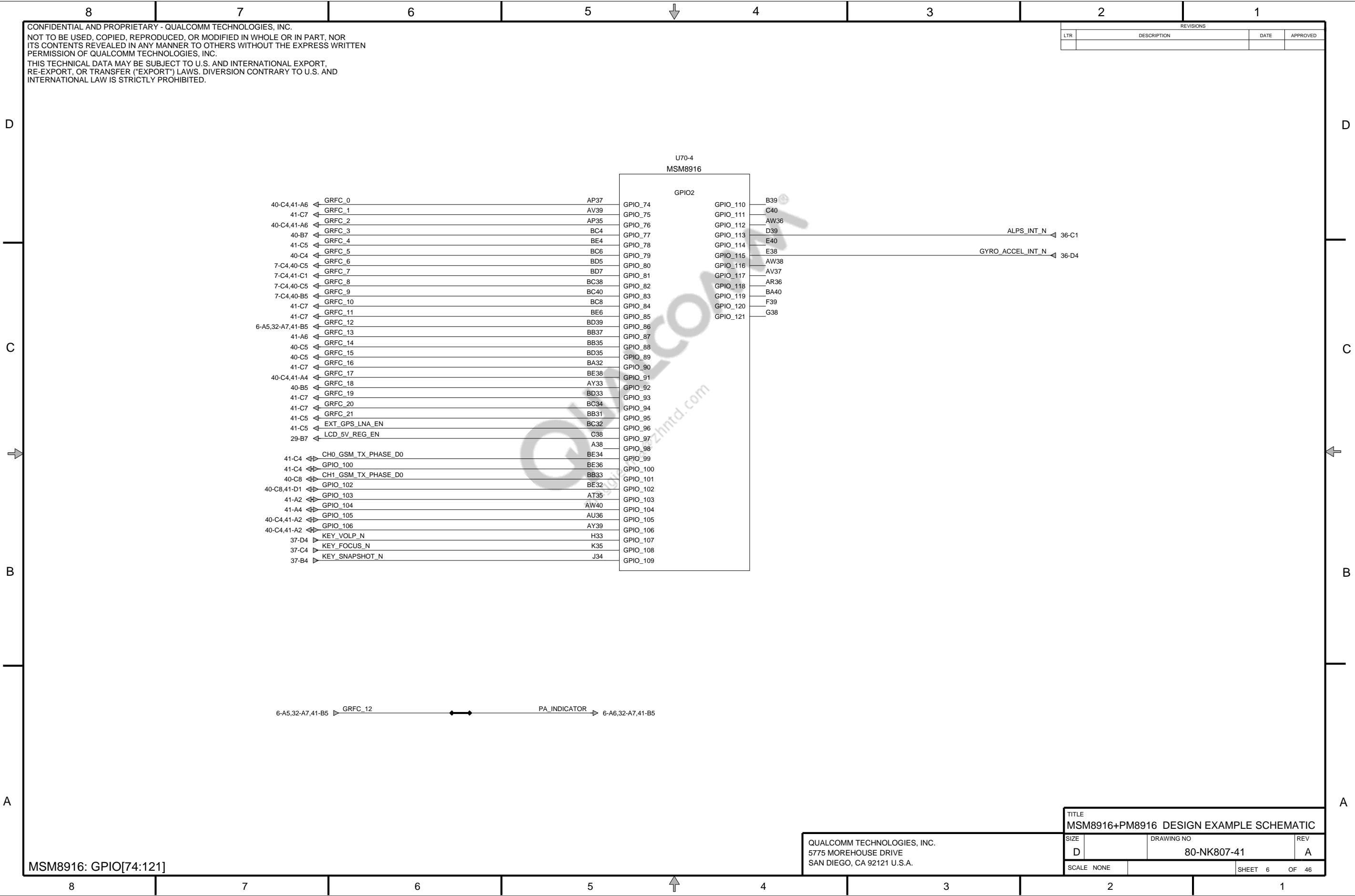
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<div>MSM8916+PM8916 DESIGN EXAMPLE SCHEMATICS</div>																																							
<div>NOTE:</div> <div><div>This schematic 80-NK807-41 is conceptual design only with reduced BOM and is not tested by QUALCOMM</div><div>Performance and other parameter testing's should be verified at customer's discretion</div><div>Customer can also choose alternate components in their design if required.</div><div>If any alternate components are chosen,Please contact support.cdmatech.com before finalizing the component and QUALCOMM can provide suggestions for the component compatibility with MSM8916.</div><div>For list of components that have been tested by QUALCOMM,refer to 80-NK807-42</div></div>																																							
<div>CONTRACT NO.</div> <div>DRAWN BY</div> <div>ENGINEER</div> <div>PROJECT ENGINEER</div> <div>QUALITY ASSURANCE</div> <div>CONFIGURATION</div> <div>DESIGN ACTIVITY APPROVAL</div> <div>DESIGN APPROVAL</div>				<div>QUALCOMM TECHNOLOGIES, INC.</div> <div>5775 MOREHOUSE DRIVE</div> <div>SAN DIEGO, CA 92121 U.S.A.</div> <div>TITLE</div> <div>SCHEMATIC</div> <div>MSM8916+PM8916 DESIGN EXAMPLE SCHEMATIC</div> <div>SIZE</div> <div>D</div> <div>DRAWING NO</div> <div>80-NK807-41</div> <div>REV</div> <div>A</div> <div>SCALE</div> <div>NONE</div> <div>RELEASE DATE</div> <div>SHEET 1 OF 46</div>																																			

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D	Sheet #		Content		Sheet #		Content		Sheet #		Content		Sheet #		Content		D
	1	/			31	TOUCHSCREEN INTERFACE 2											
	2	TABLE OF CONTENTS			32	5MP SOC FRONT CAMERA											
	3	MSM8916: CONTROL			33	13MP REAR CAMERA											
	4	MSM8916: EBI0-LPDDR3			34	AUDIO: MICS,SPEAKERS & EAR PIECE											
	5	MSM8916: GPIO[0:73]			35	AUDIO: HEADSET											
	6	MSM8916: GPIO[74:121]			36	SENSORS											
	7	MSM8916: BOOT CONFIG SW			37	BUTTONS											
	8	MSM8916: MIPI CSI, DSI			38	CONNECTIVITY CARD											
	9	MSM8916: RF INTERFACE			39	RF PWR OPTIONS											
C	10	MSM8916: POWER 1			40	RF CONNECTOR 1											C
	11	MSM8916: POWER 2			41	RF CONNECTOR 2											
	12	MSM8916: POWER 3			42	DEBUG CONN											
	13	MSM8916: GND			43	/											
	14	MSM8916: DECOUPLING			44	/											
	15	SMB1360			45	/											
	16	EXT BUCK REGULATORS			46	/											
	17	PM8916: CONTROL, CLOCKS															
	18	PM8916: CHARGING, GPIOs & MPPs															
	19	PM8916: SMPS															
	20	PM8916: LDOs															
B	21	PM8916: LDO DECAPs															B
	22	PM8916 - AUDIO															
	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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										QUALCOMM TECHNOLOGIES, INC. 5775 MOREHOUSE DRIVE SAN DIEGO, CA 92121 U.S.A.				TITLE MSM8916+PM8916 DESIGN EXAMPLE SCHEMATIC			
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										SCALE NONE		SHEET 2 OF 46					
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MSM8916: GPIO[74:121]

TITLE

MSM8916+PM8916 DESIGN EXAMPLE SCHEMATIC

QUALCOMM TECHNOLOGIES, INC.
5775 MOREHOUSE DRIVE
SAN DIEGO, CA 92121 U.S.A.

SIZE

D

DRAWING NO

80-NK807-41

REV

A

SCALE

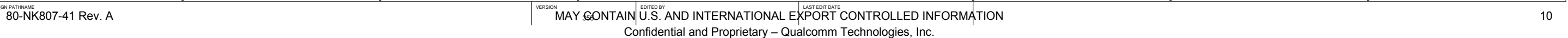
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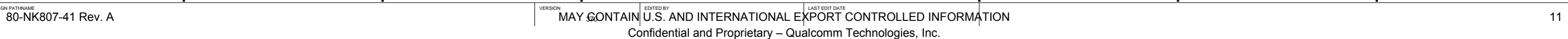
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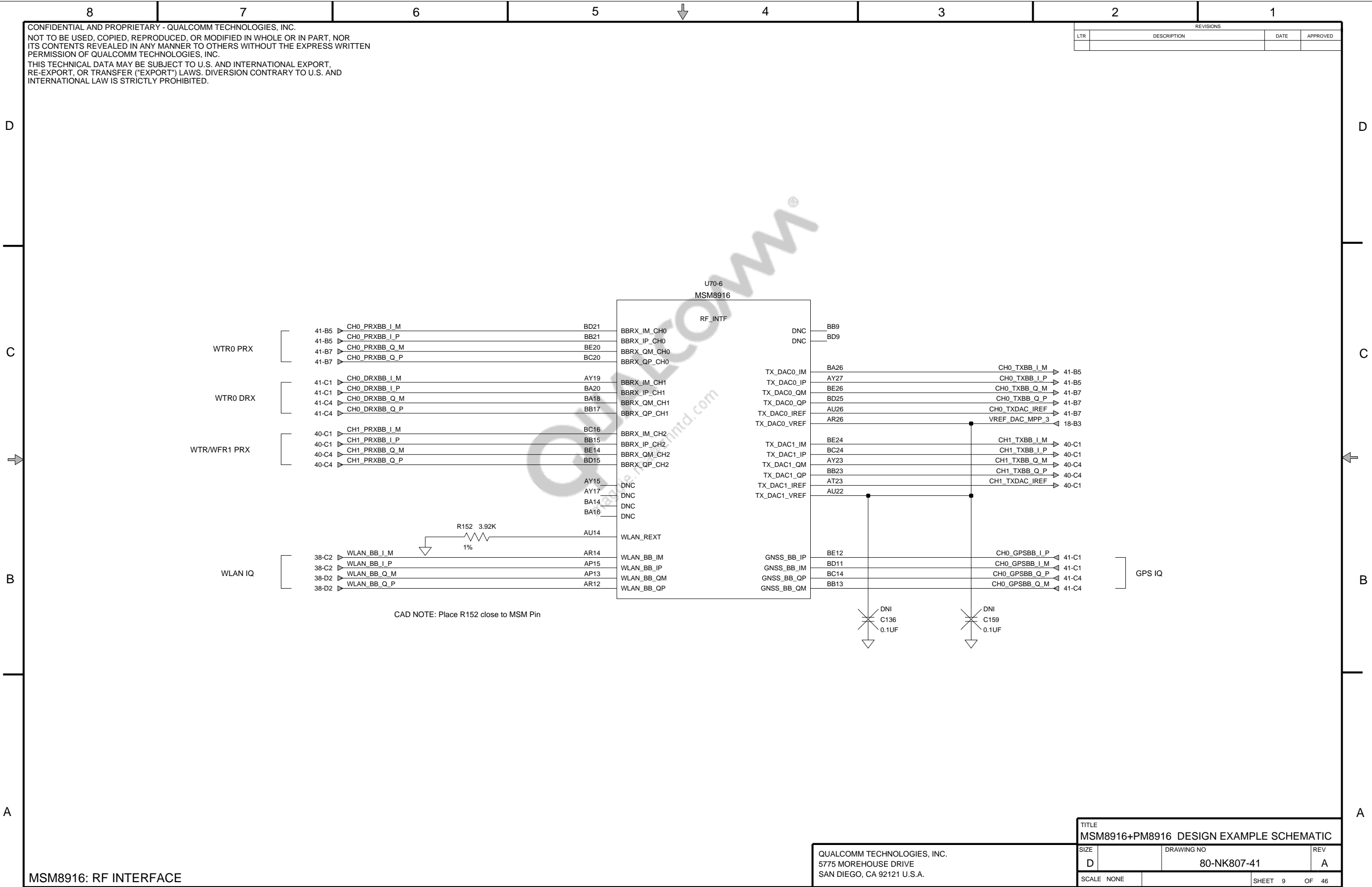
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OF

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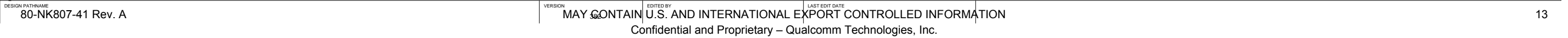


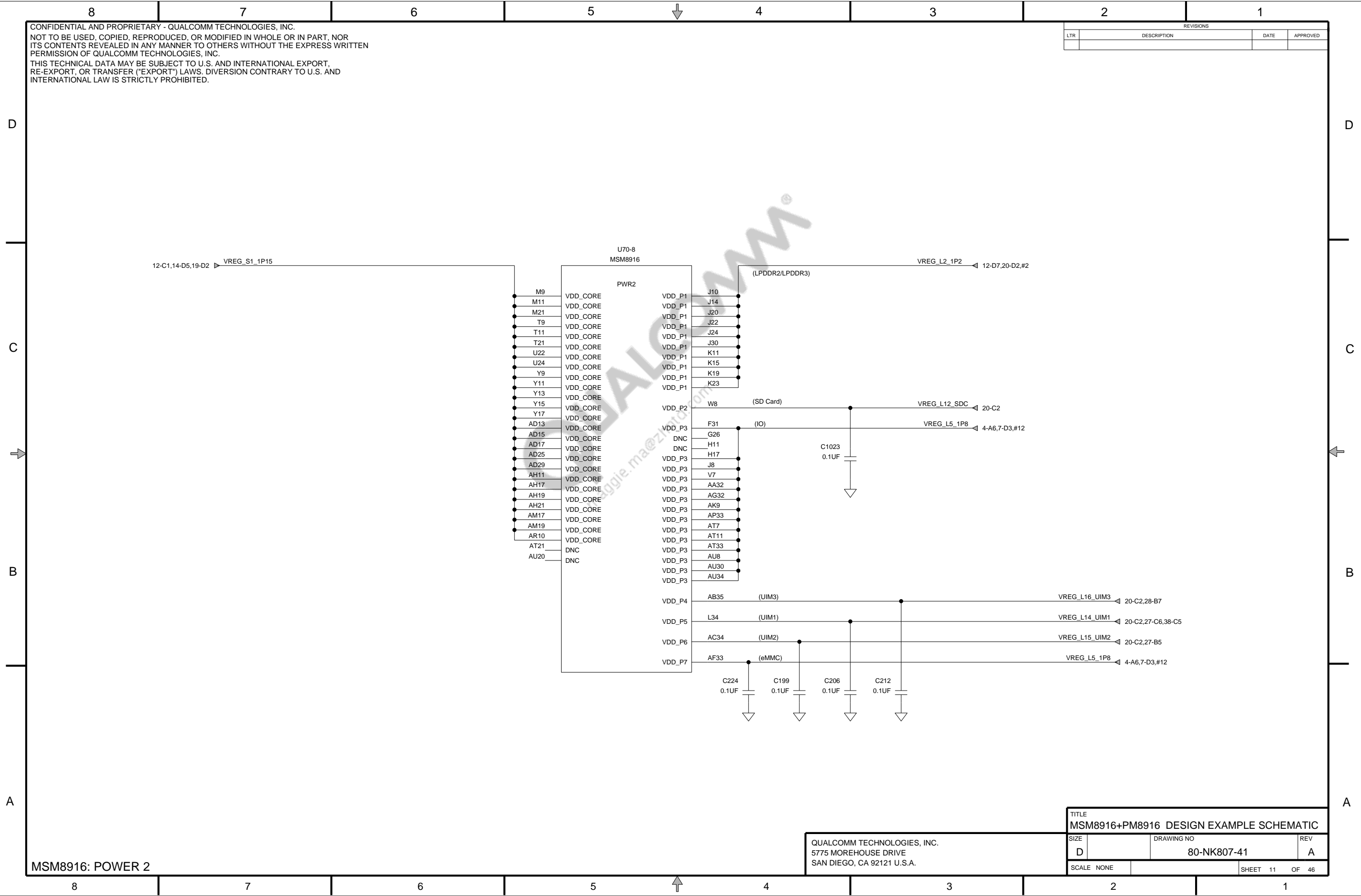


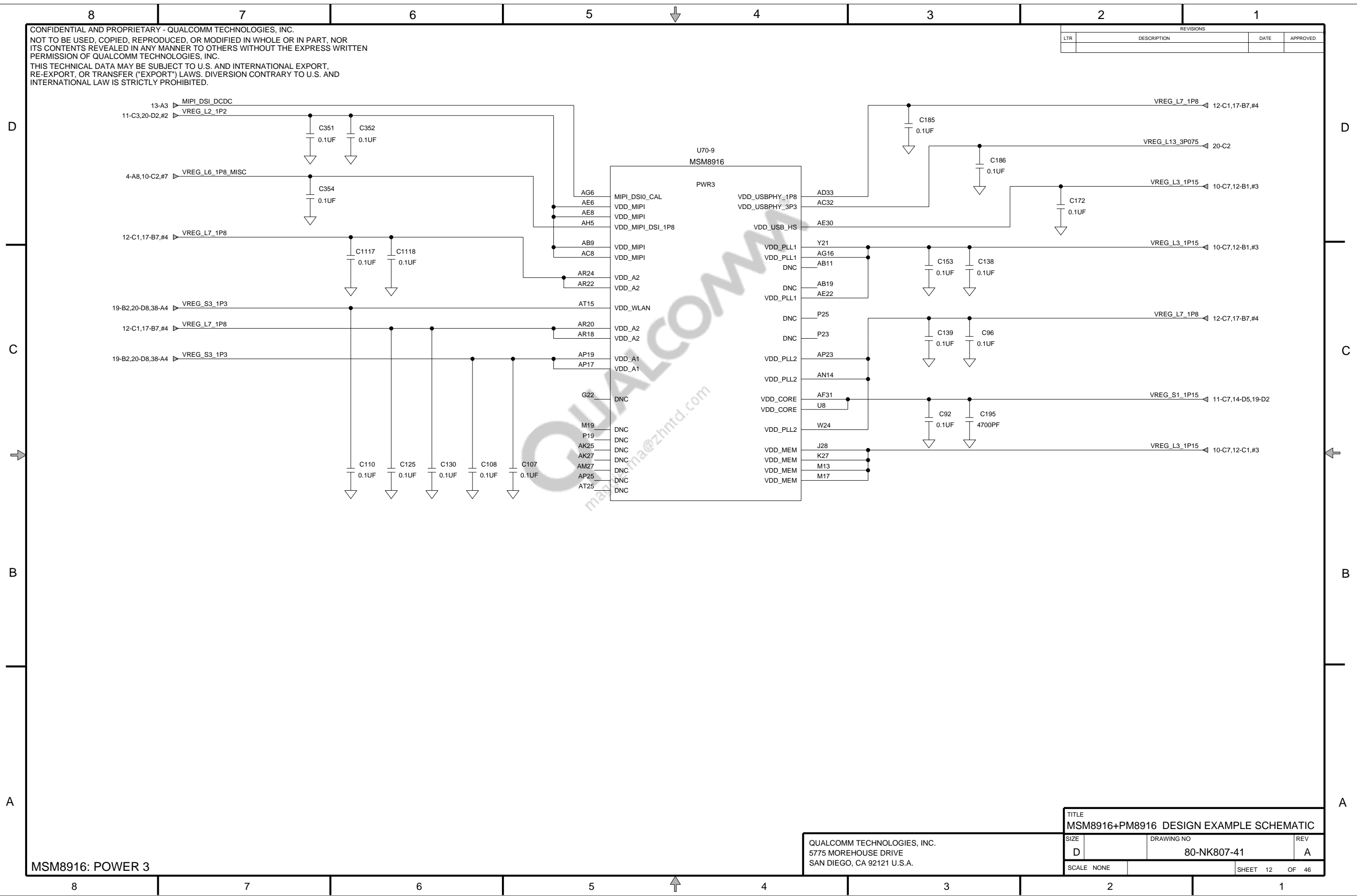
MSM8916: RF INTERFACE

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5775 MOREHOUSE DRIVE
SAN DIEGO, CA 92121 U.S.A.

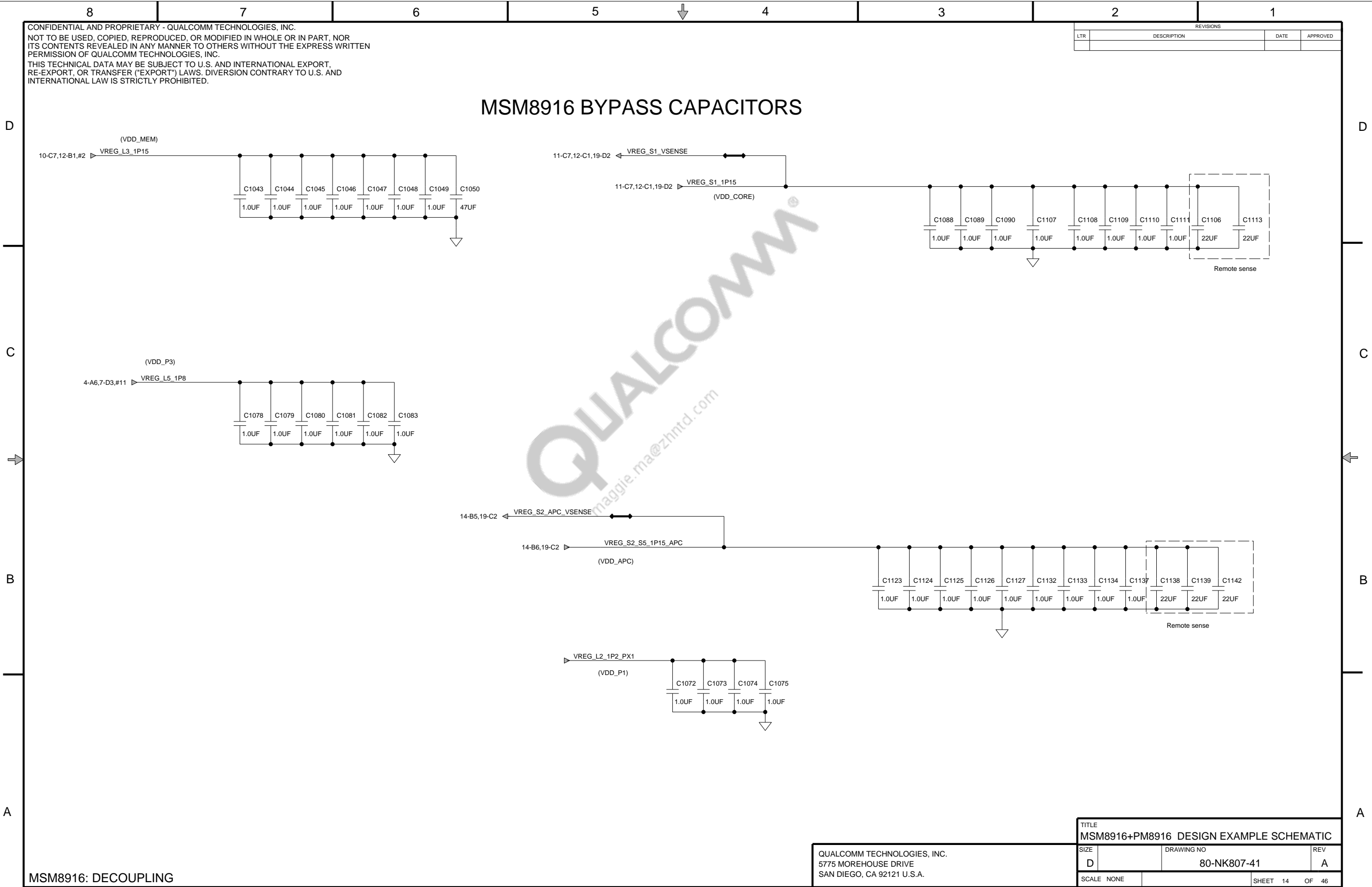
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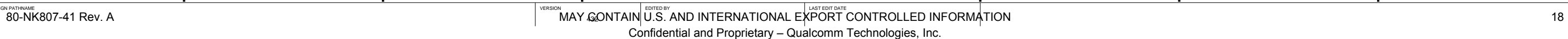


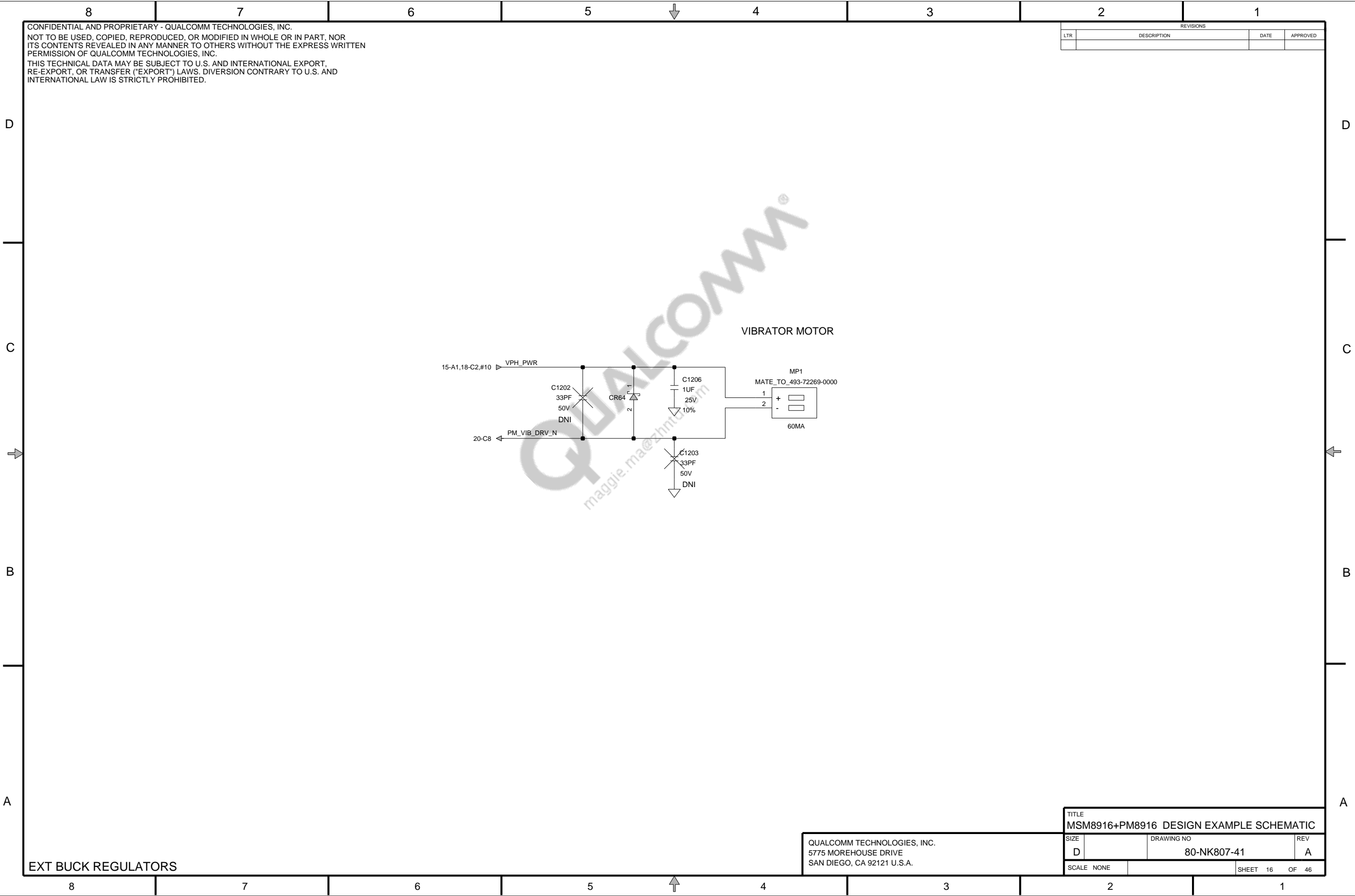


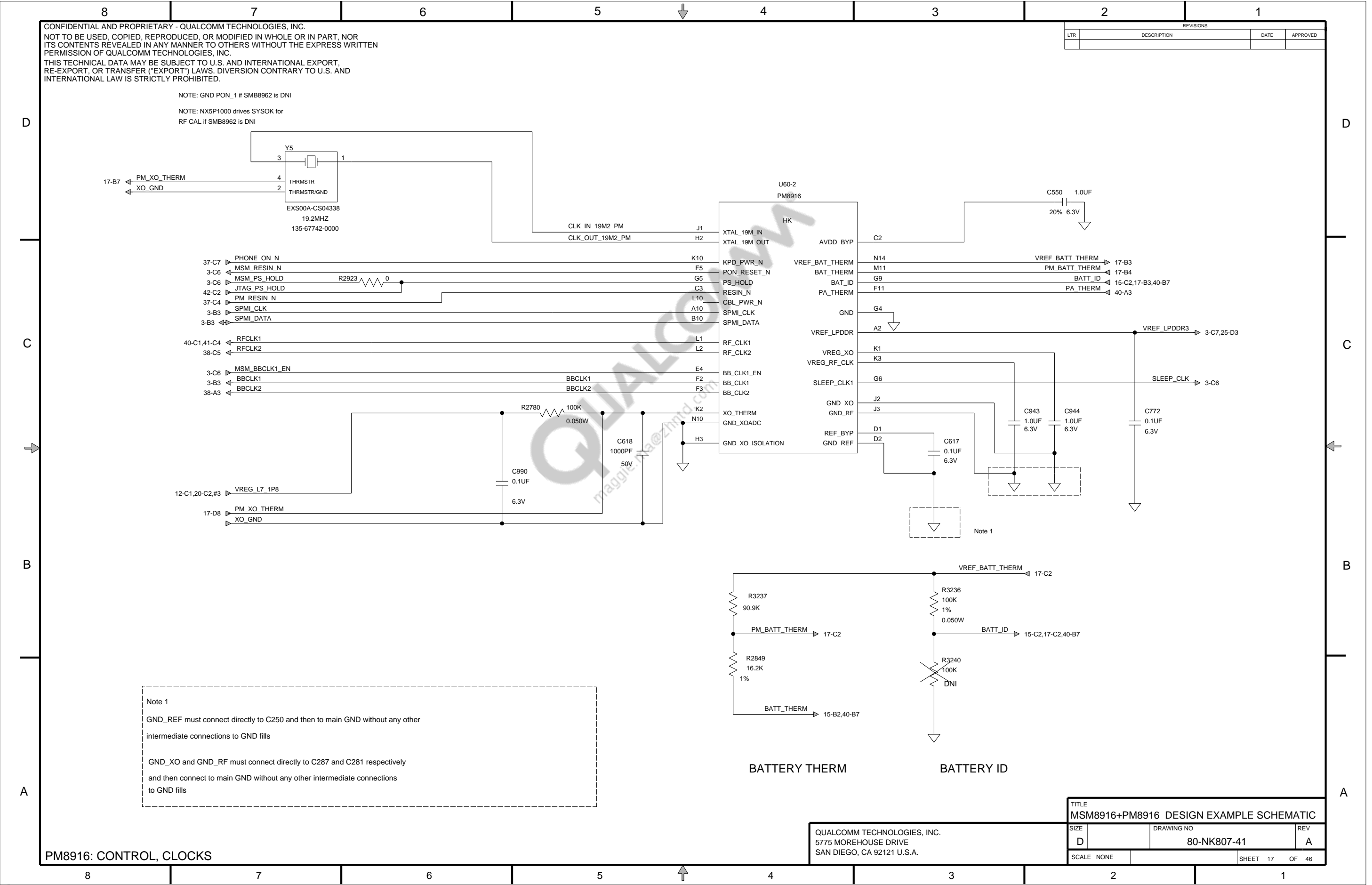


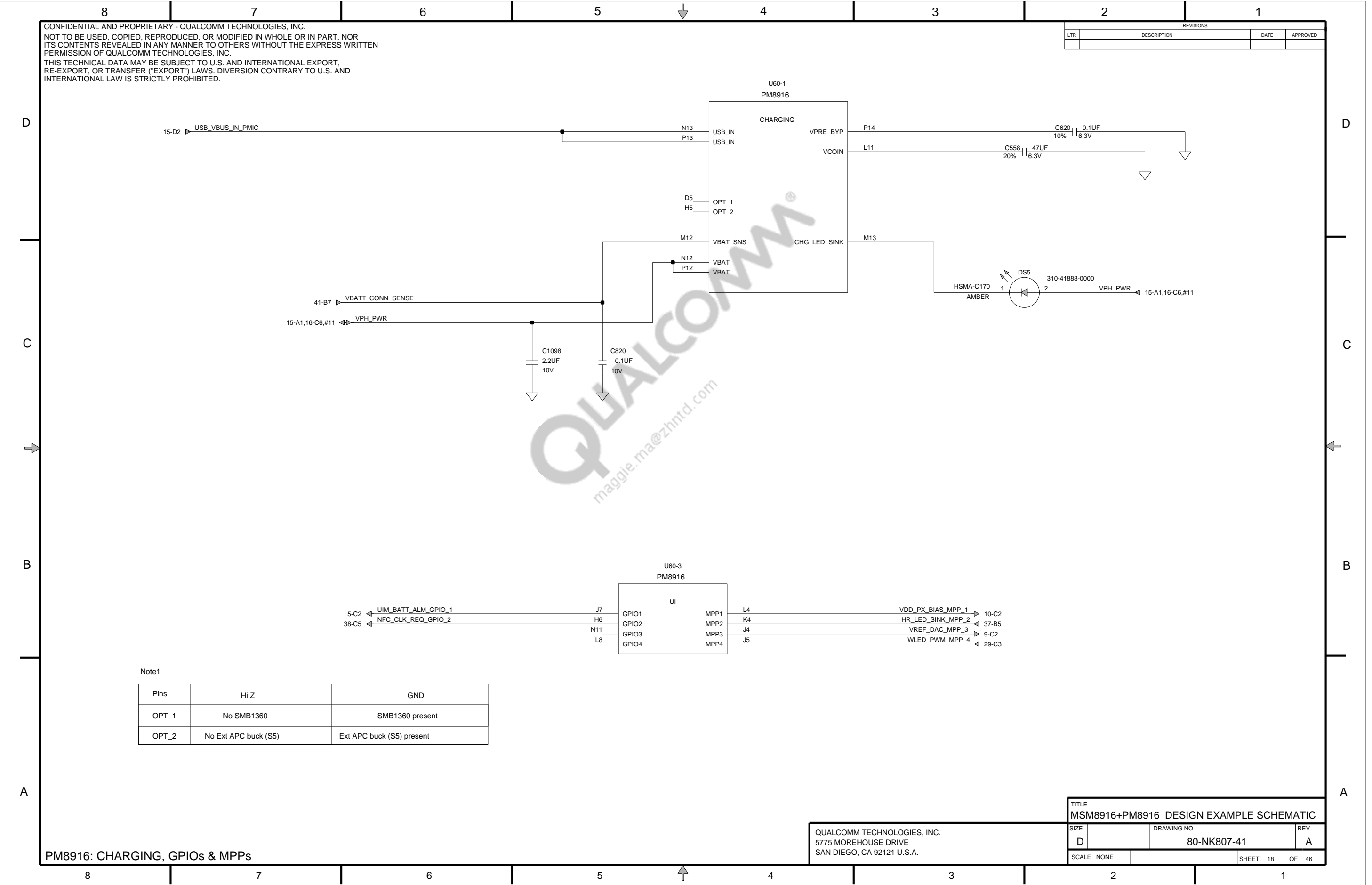


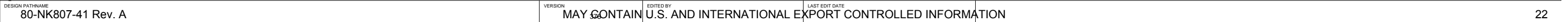


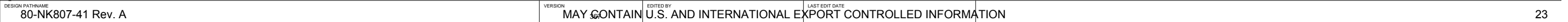


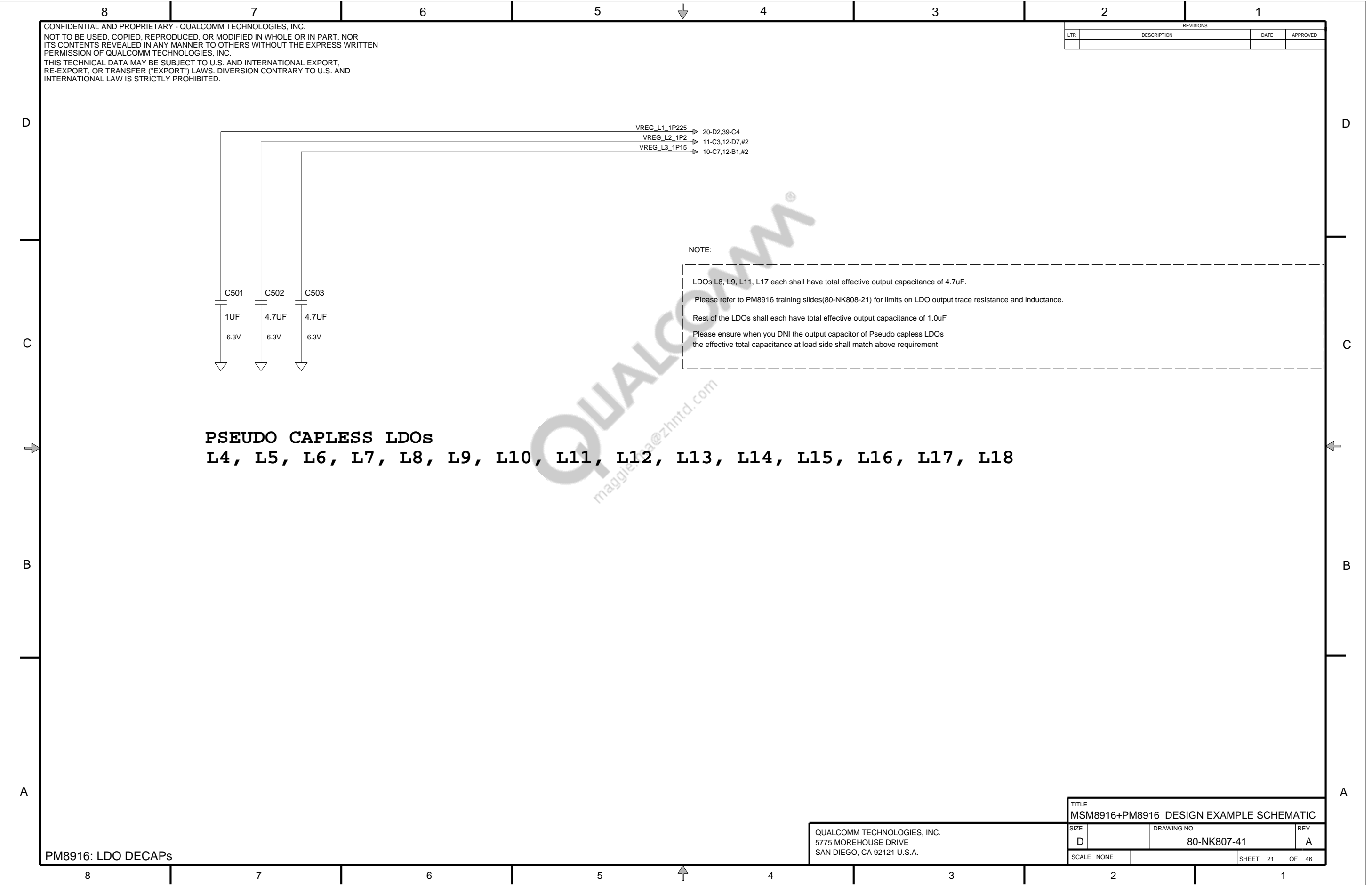












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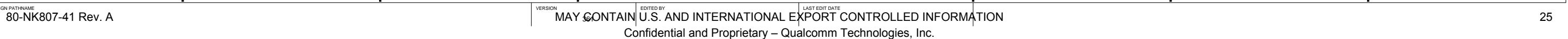
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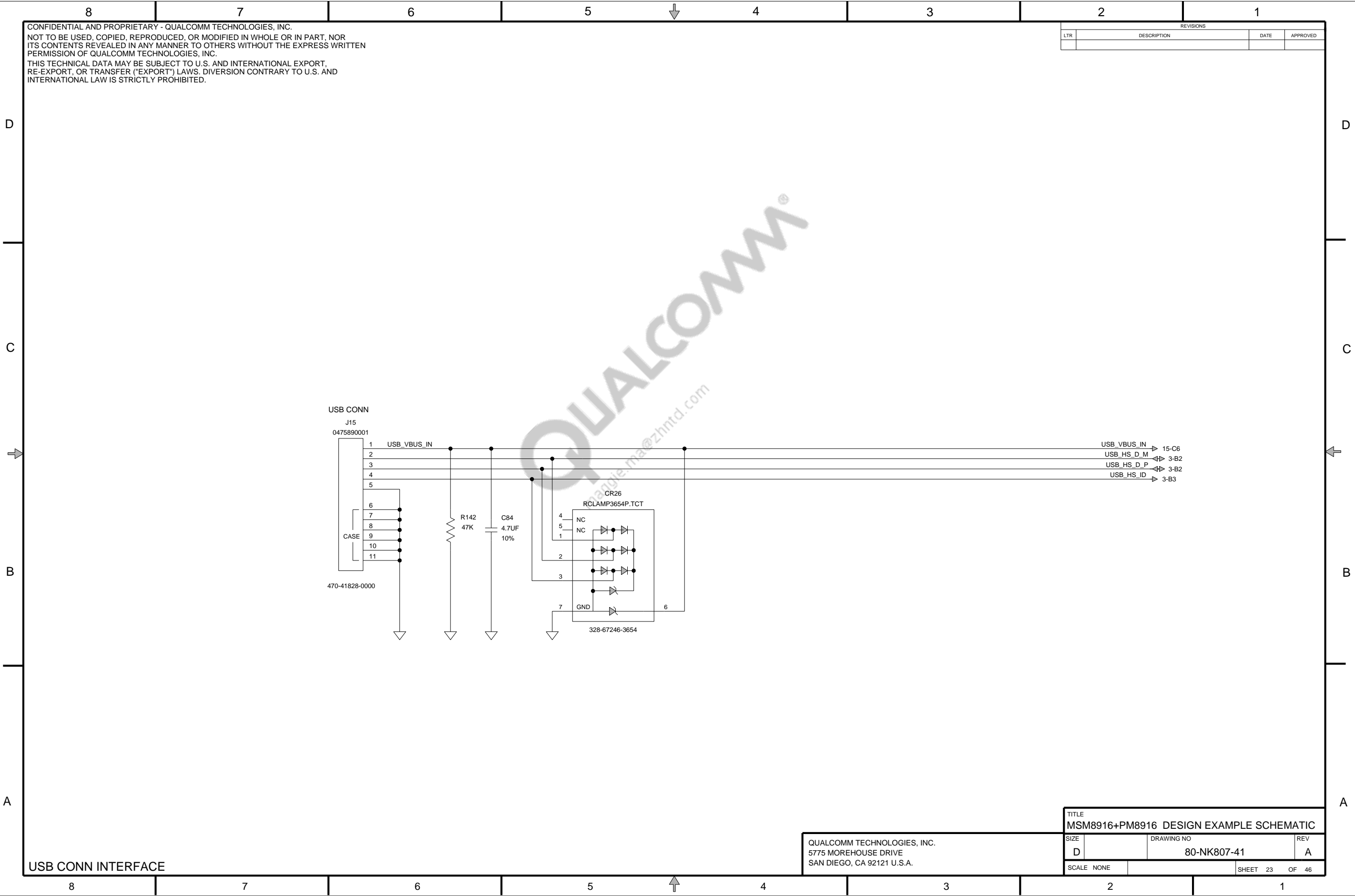
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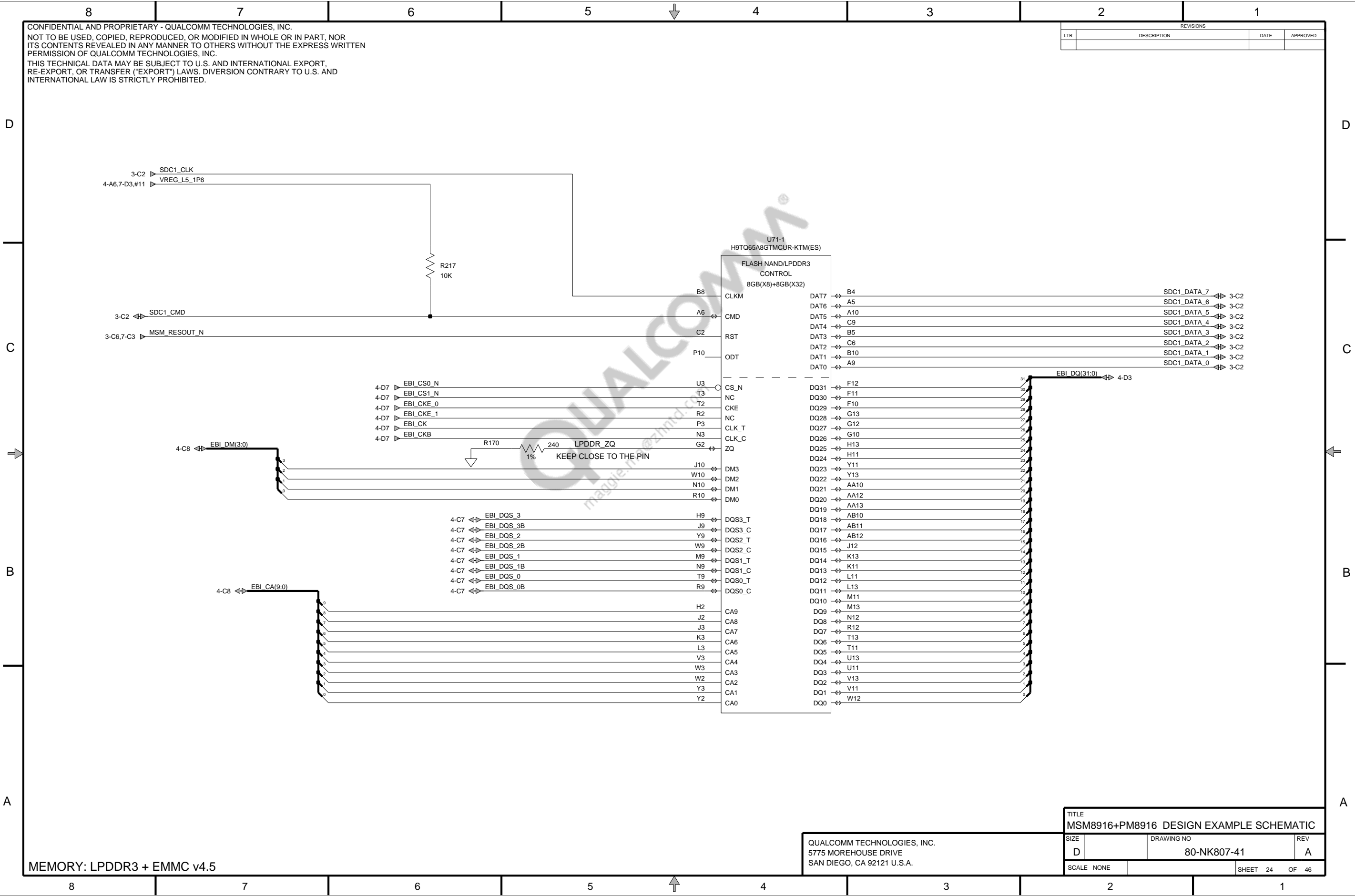
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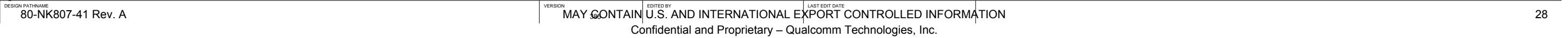
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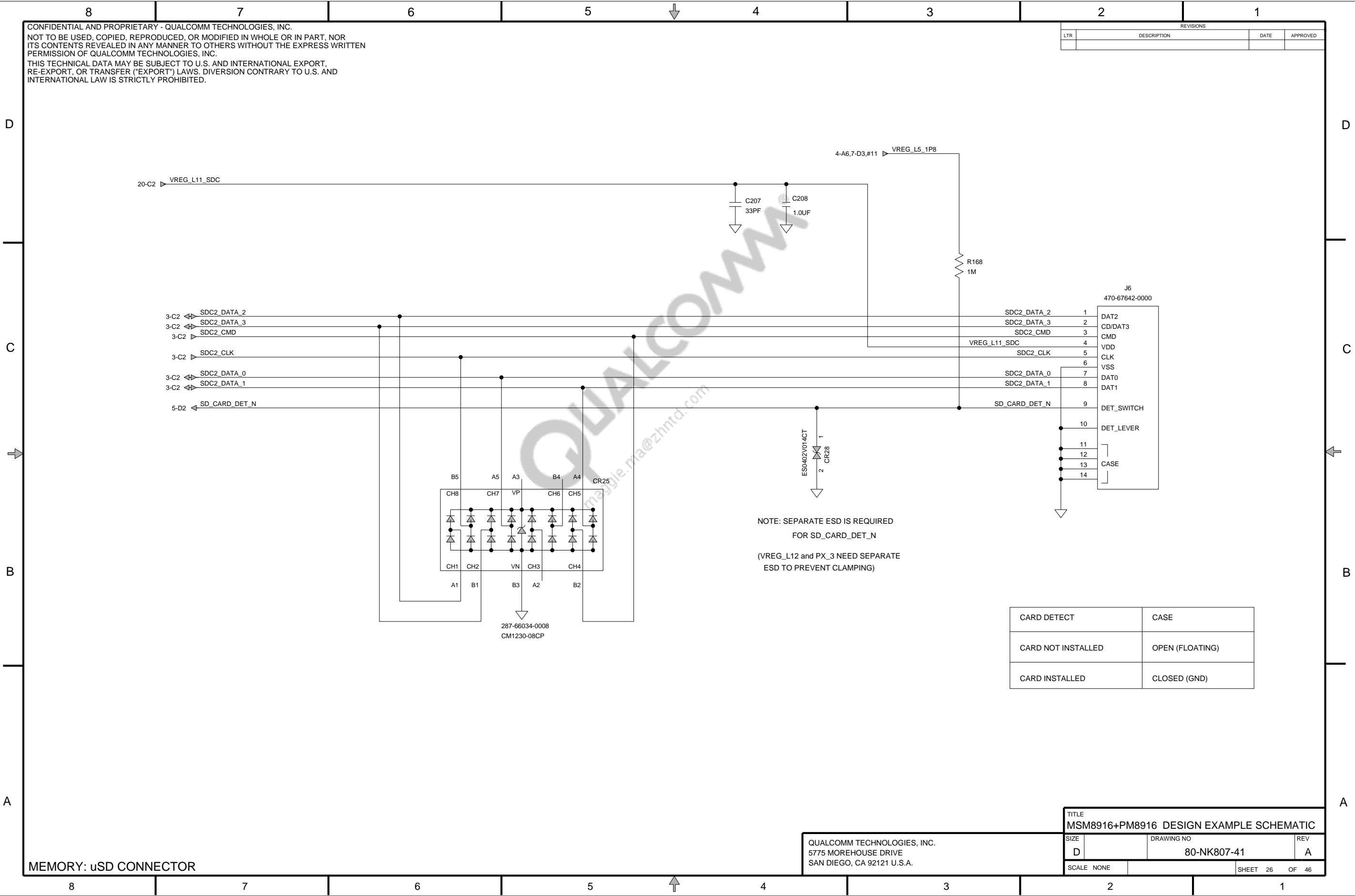
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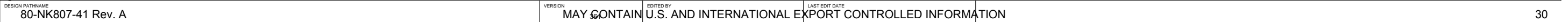


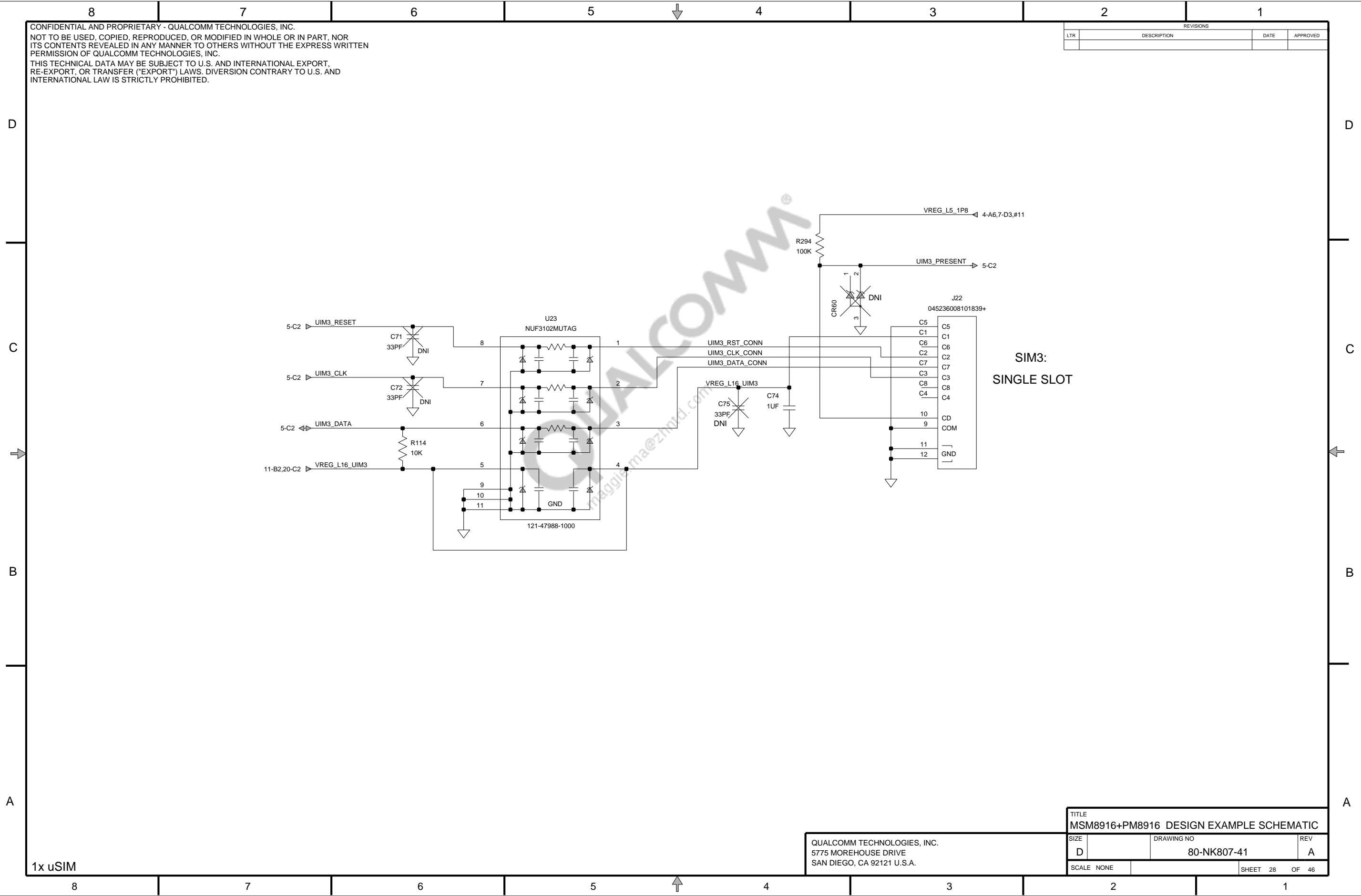






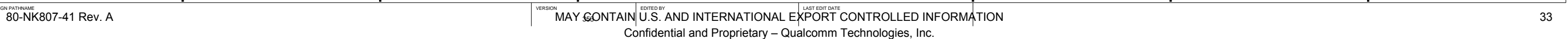


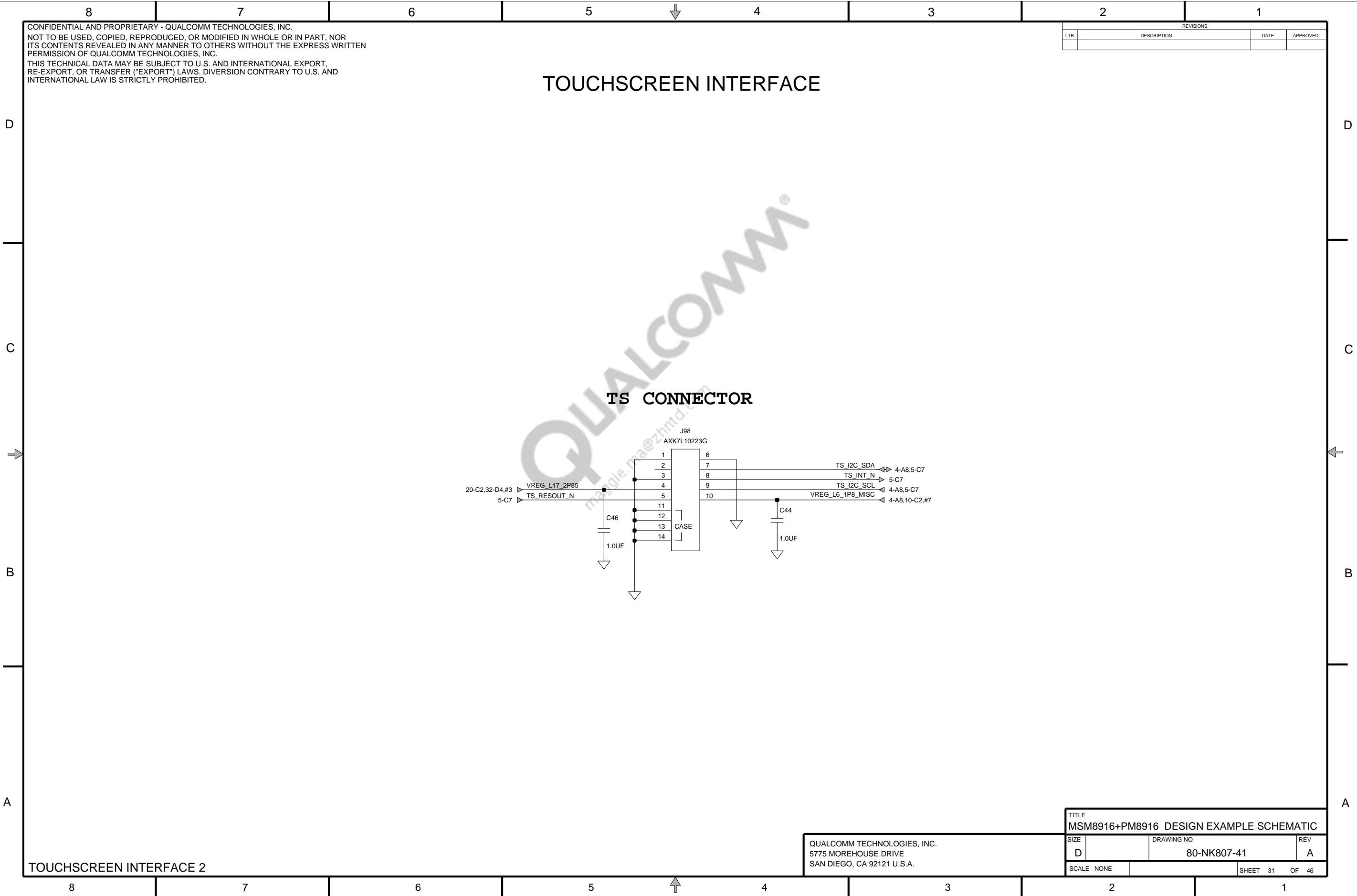


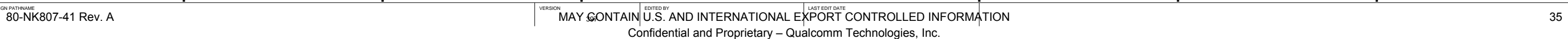


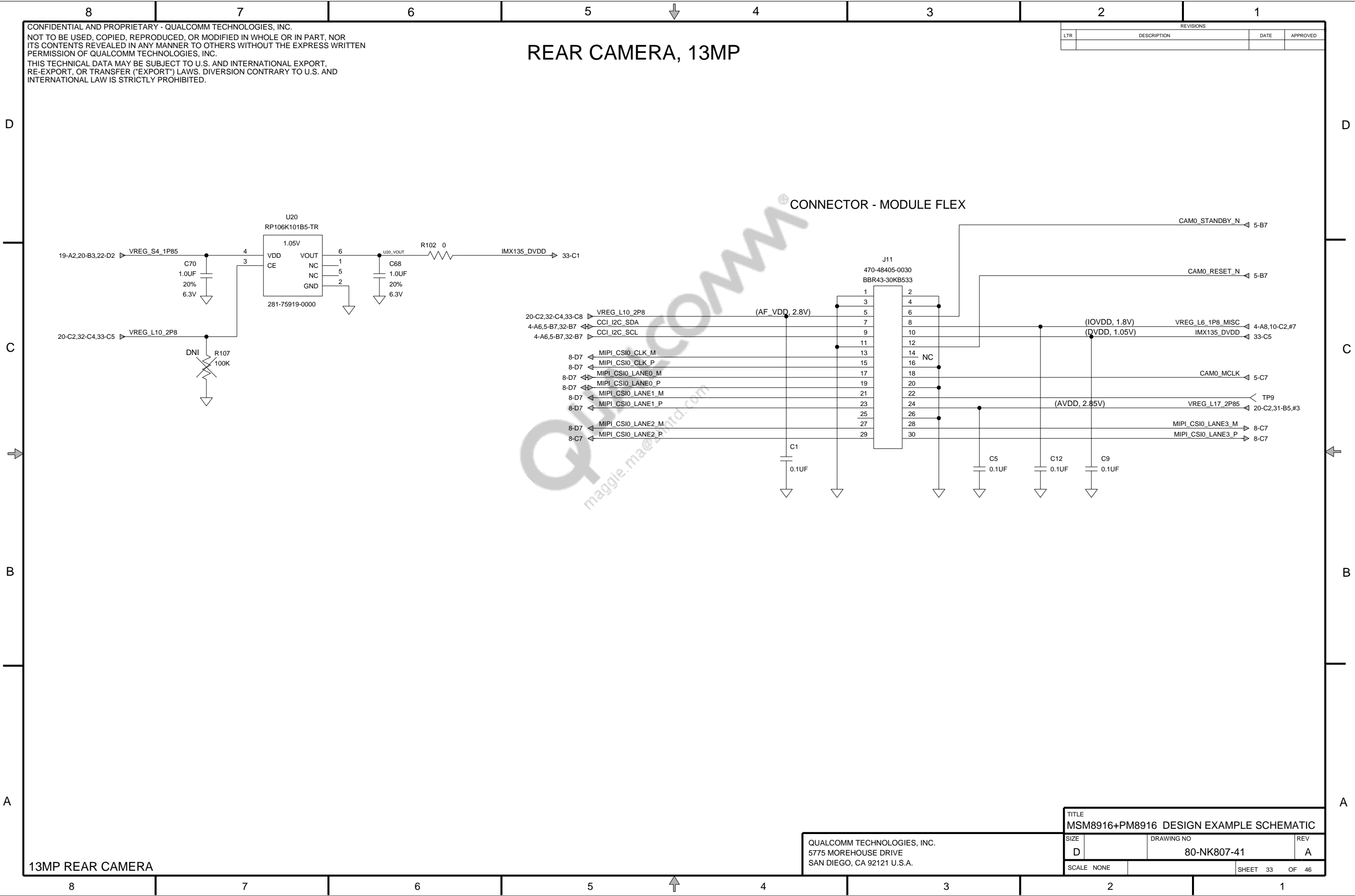
DISPLAY BACKLIGHT DRIVER

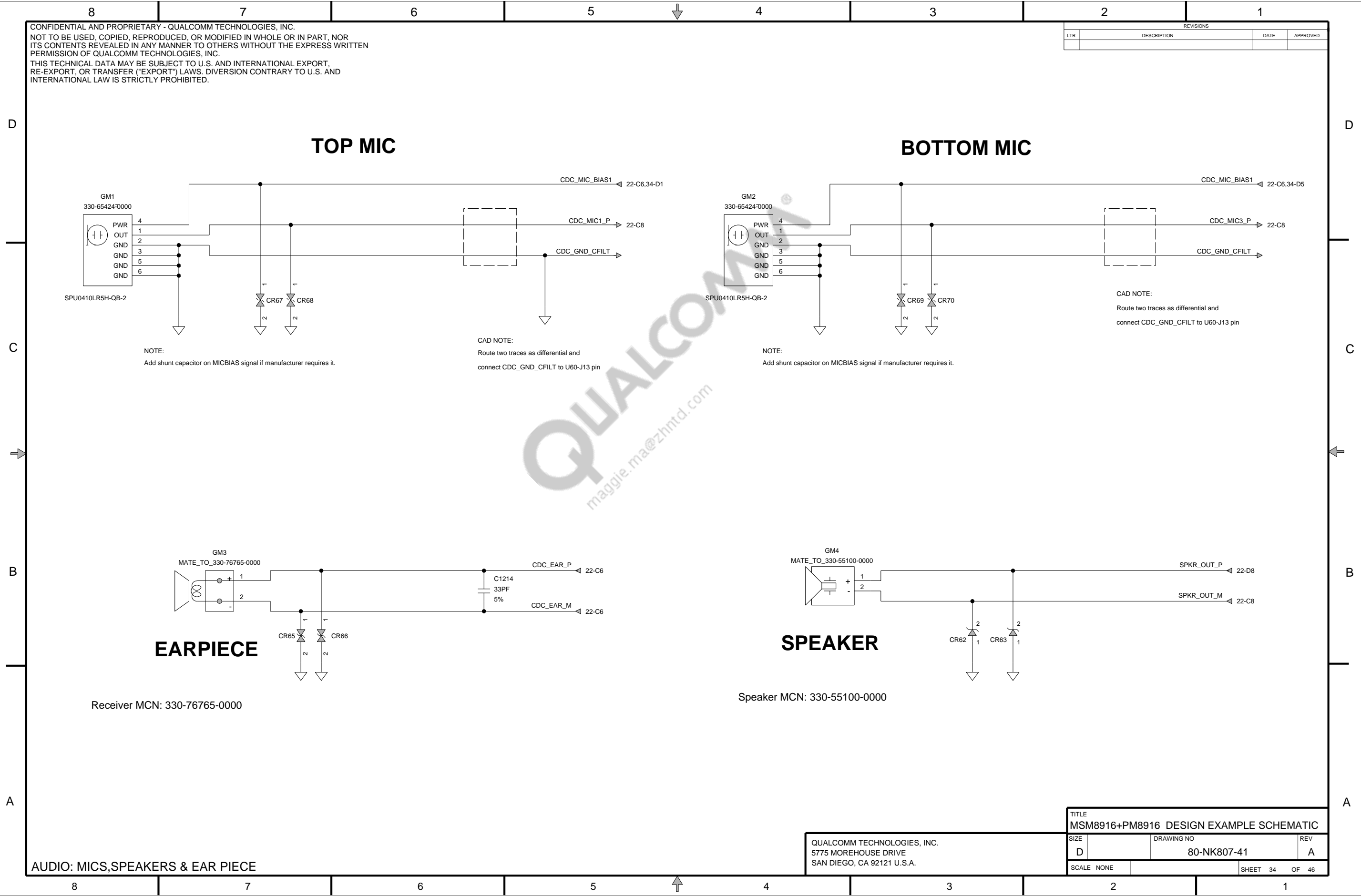


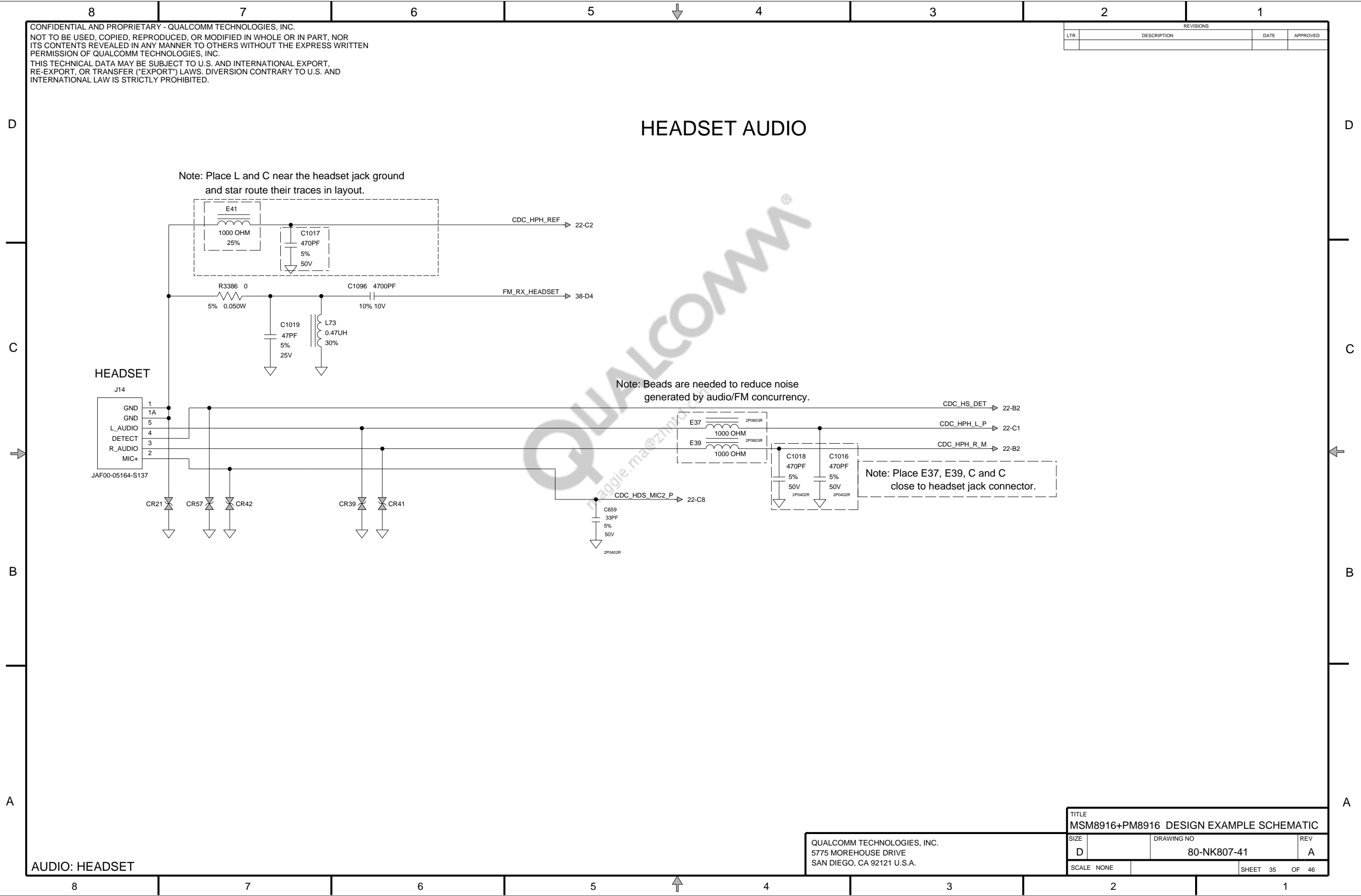


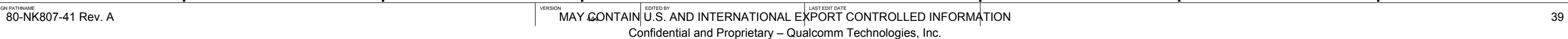


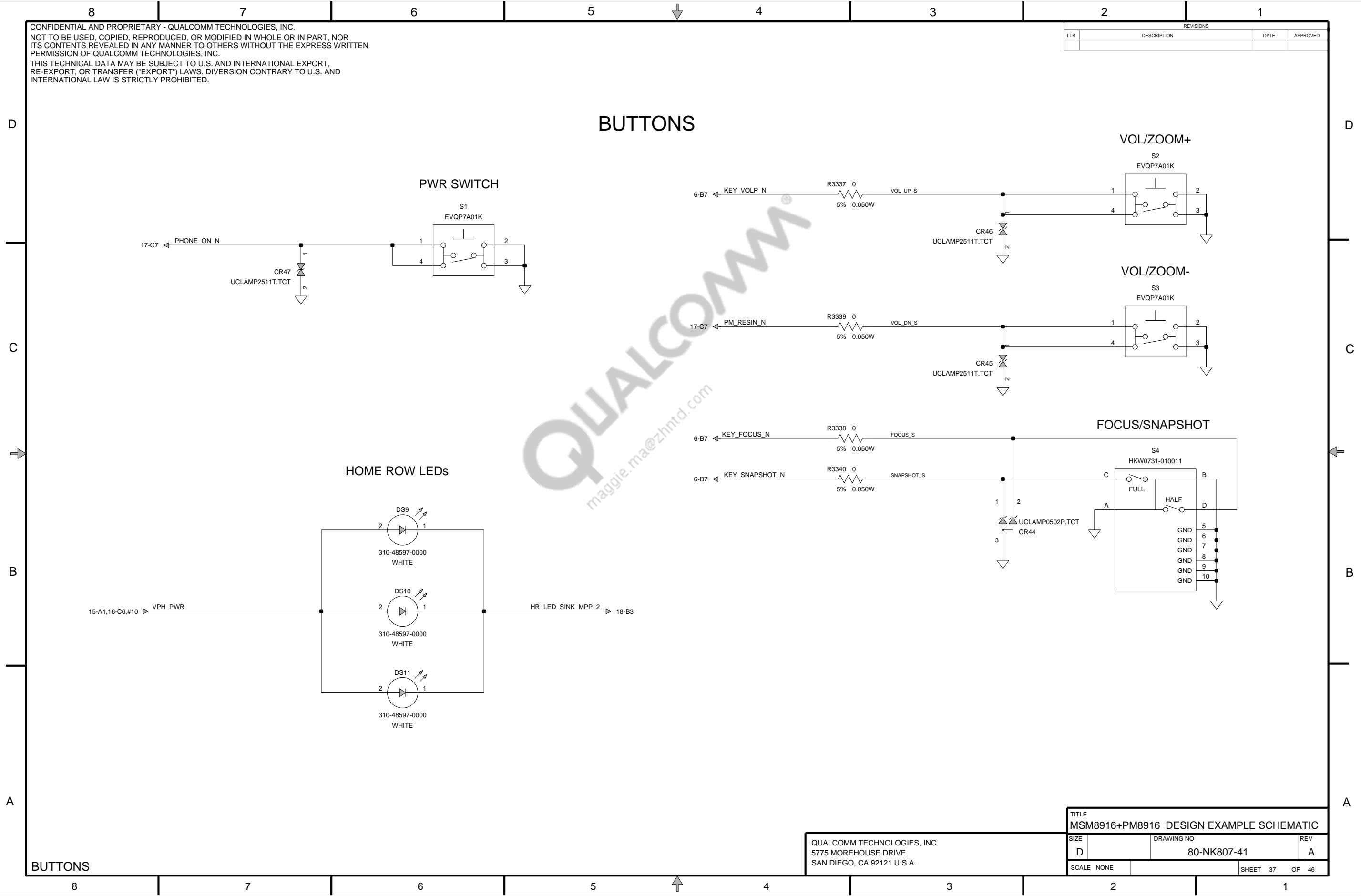


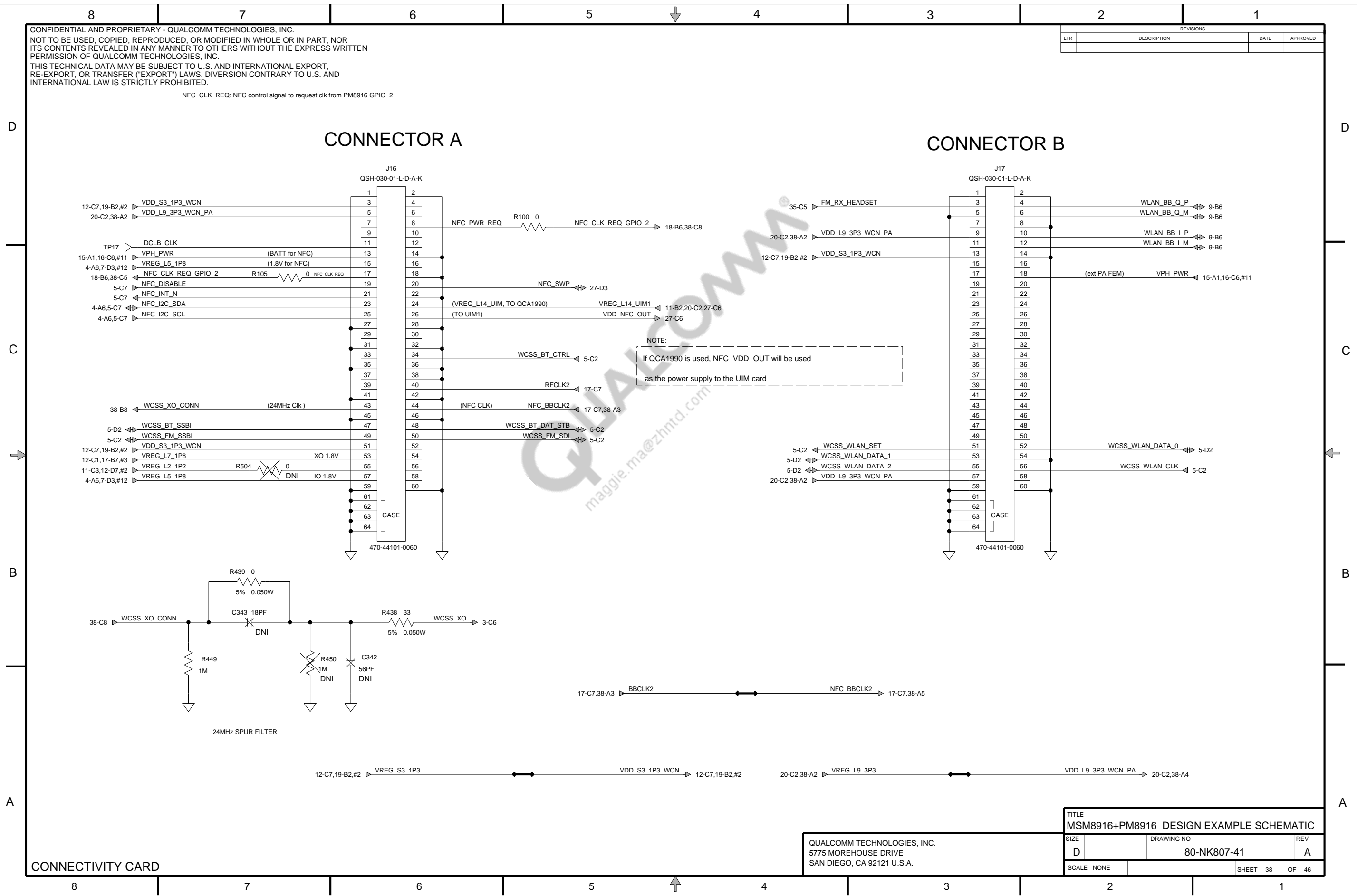


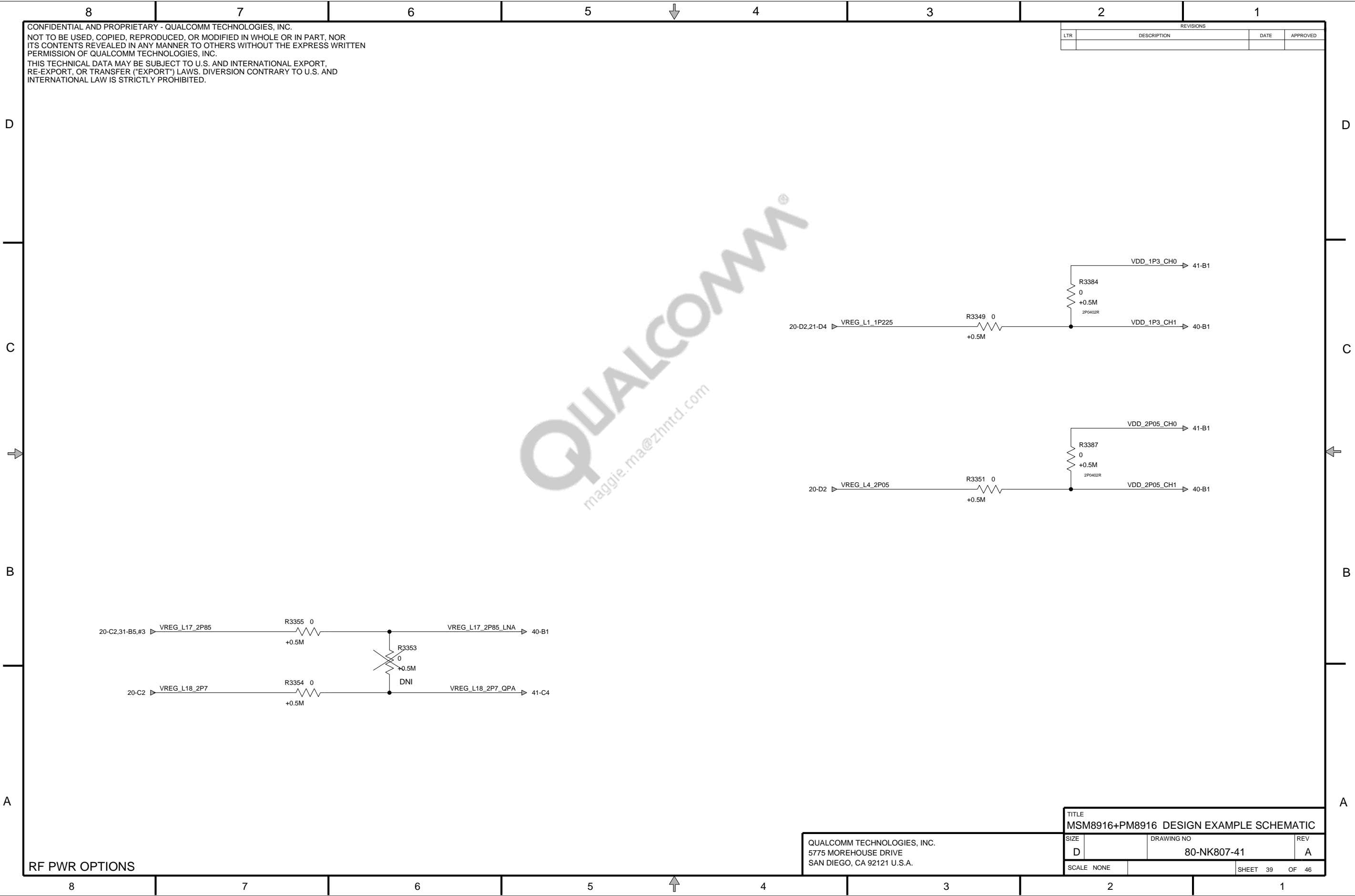


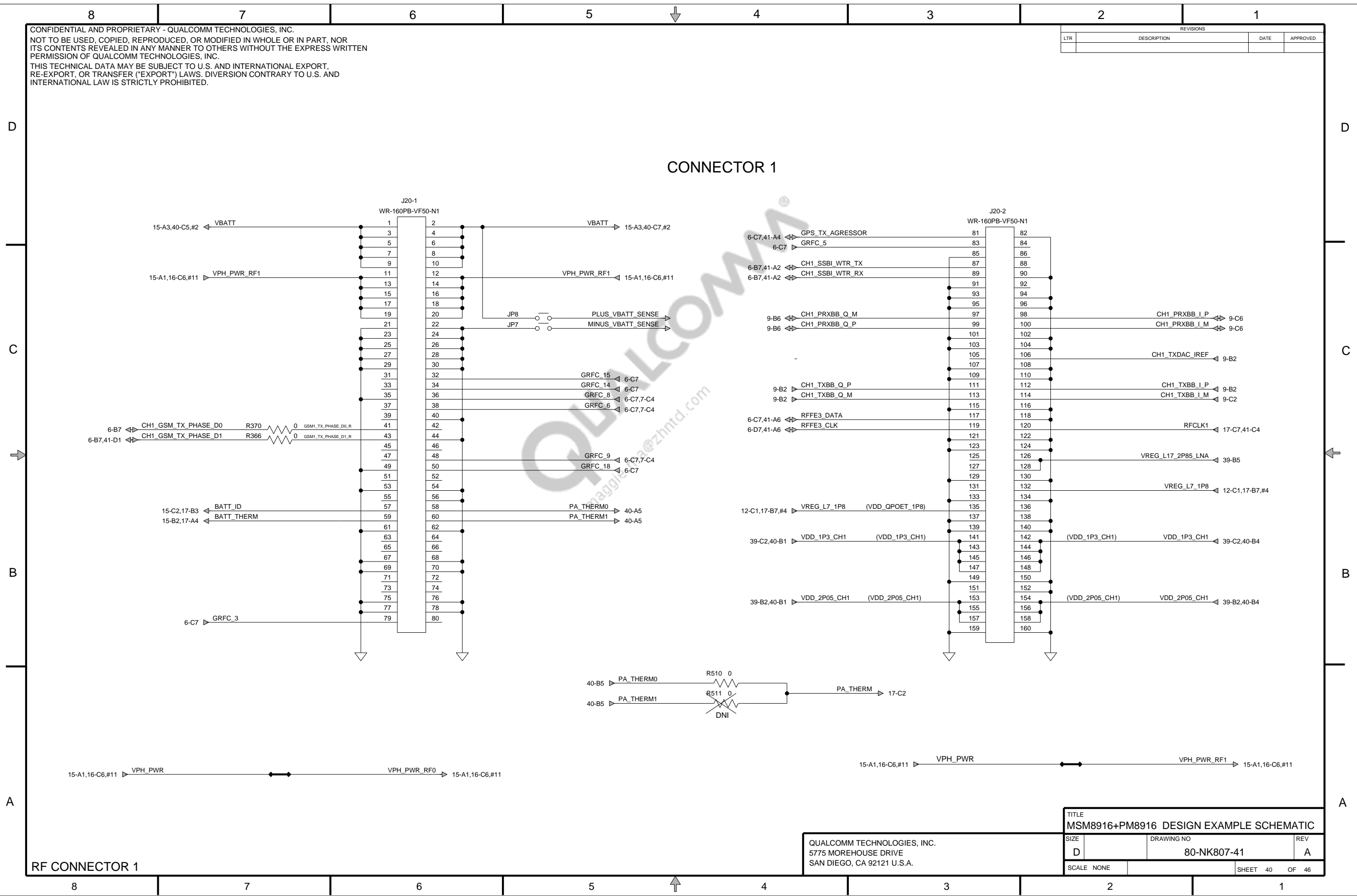


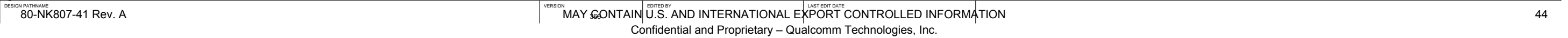


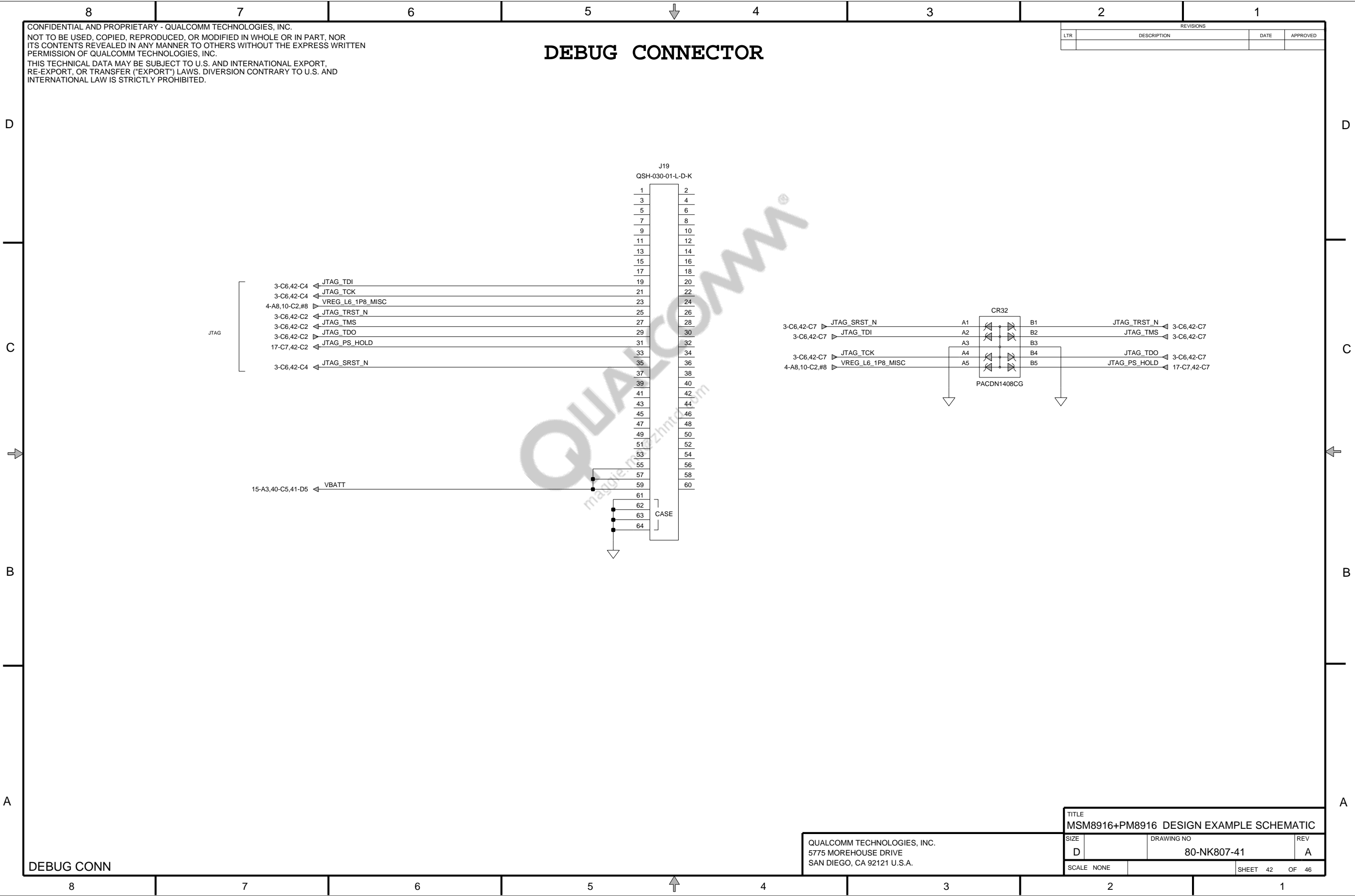












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NET SH-ZONE						NET SH-ZONE						NET SH-ZONE						NET SH-ZONE						NET SH-ZONE						NET SH-ZONE																																													
SMB_AC_USB						UIM3_PRESENT						38-A4						26-D7						11-C3						20-D8																																													
15-B5						5-C2						38-B4						VREG_L12_SDC						14-C8						22-D2																																													
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SMB_INT						UIM3_RESET						38-D8						20-C2						15-C7						VSP_5N0																																													
5-C2						5-C2						VDD_NFC_OUT						VREG_L13_3P075						20-D2						29-A1																																													
15-C7						28-C7						27-C6						12-D1						22-D3						30-C6																																													
SMB_SYS_OK						UIM_BATT_ALM_GPIO_1						38-C5						20-C2						24-D8						VSP_5P0																																													
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15-B6						18-B6						10-C2						11-B2						26-D3						30-C6																																													
SMB_VCHG						USB_HS_D_M						18-B3						20-C2						27-D1						WCSS_BT_CTRL																																													
15-B8						3-B2						VDD_S3_1P3_WCN						27-C6						28-D3						5-C2																																													
15-C6						23-B2						12-C7						38-C5						32-B7						38-C5																																													
SPKR_OUT_M						USB_HS_D_P						12-C7						VREG_L15_UIM2						38-B8						WCSS_BT_DAT_STB																																													
22-C8						3-B2						19-B2						11-B2						38-C8						5-C2																																													
34-B1						23-B2						20-D8						20-C2						VREG_L5_1P8_BOOT						38-C5																																													
SPKR_OUT_P						USB_HS_ID						38-A4						27-B5						7-D2						WCSS_BT_SSBI																																													
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4-A8						VBATT						15-C2						36-B1						30-A7						5-C2																																													
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5-C2						41-B5						38-C2						39-A5						12-C1						WCSS_XO																																													
27-D5						VBATT_SENSE_P						38-C8						41-C4						12-C7						3-C6																																													
UIM1_DATA						15-B1						40-A1						VREG_L1_1P225						12-C7						38-B6																																													
5-C2						15-C2						40-A3						20-D2						12-D1						WCSS_XO_CONN																																													
27-C5						41-B5						40-A6						21-D4						17-B7						38-B8																																													
UIM1_PRESENT						VDD1_L5_1P8						40-A8						39-C4						20-C2						38-C8																																													
5-C2						25-D8						40-C5						VREG_L2_1P2						38-B8						WLAN_BB_I_M																																													
27-D1						VDD2_L2_1P2						40-C7						11-C3						40-B1						9-B6																																													
UIM1_RESET						25-B8						41-C5						12-D7						40-B4						38-C2																																													
5-C2						25-C8						41-C7						20-D2						41-B4						WLAN_BB_I_P																																													
27-D5						25-D8						VREF_BATT_THERM						21-D4						VREG_L8_2P9						9-B6																																													
UIM2_CLK						VDD_1P3_CH0						17-B3						38-B8						20-C2						38-C2																																													
5-C2						39-C2						17-C2						VREG_L2_1P2_PX1						25-C3						WLAN_BB_Q_M																																													
27-B5						41-B1						VREF_DAC_MPP_3						14-B5						VREG_S1_1P15						9-B6																																													
UIM2_DATA						41-B4						9-C2						VREG_L3_1P15						11-C7						38-D2																																													
5-C2						VDD_1P3_CH1						18-B3						10-C7						12-C1						WLAN_BB_Q_P																																													
27-B5						39-C2						VREF_LPDDR3						12-B1						14-D5						9-B6																																													
UIM2_PRESENT						40-B1						3-C7						12-C1						14-D5						38-D2																																													
5-C2						40-B4						17-C2						12-D1						19-D2						WLED_PWM_MPP_4																																													
27-C1						VDD_2P05_CH0						25-D3						14-D8						19-D2						18-B3																																													
UIM2_RESET						39-C2						VREG_GR6						20-D2						VREG_S2_1P15						29-C3																																													
5-C2						41-B1						20-B1						21-D4						10-B2																																																			
27-B5						41-B4						20-C8						VREG_L4_2P05						19-C2																																																			
UIM3_CLK						VDD_2P05_CH1						VREG_L10_2P8						20-D2						VREG_S2_APC_VSENSE																																																			
5-C2						39-B2						20-C2						39-B4						14-B5																																																			
28-C7						40-B1						32-C4						VREG_L5_1P8						14-B6																																																			
UIM3_DATA						40-B4						33-C5						4-A6						19-C2																																																			
5-C2						VDD_L9_3P3_WCN_PA						33-C8						4-B5						VREG_S4_1P85																																																			
28-C7						20-C2						VREG_L11_SDC						7-D3						19-A2																																																			
						38-A2						20-C2						11-B2						20-B3																																																			
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D	REFDES				SH-ZONE				INSTPAR				EXCEPT_ASSY				REFDES				SH-ZONE				EXCEPT_ASSY				REFDES				SH-ZONE				EXCEPT_ASSY																																			
	C1				33-B4				0.1UF				-				C201				25-C3				2.2UF				-				C1021				15-C5				2.2UF				DNI				CR21				35-B7				-				J19				42-D5				-			
	C2				32-C3				1.0UF				-				C202				25-C2				0.1UF				-				C1022				15-D4				1UF				DNI				CR25				26-B5				-				J20-1				40-C6				-			
	C3				32-C3				1.0UF				-				C204				25-C2				0.1UF				-				C1023				11-B4				0.1UF				-				CR26				23-B5				-				J20-2				40-C3				-			
C	C4				32-C2				0.1UF				DNI				C206				11-A4				0.1UF				-				C1024				15-D3				1UF				DNI				CR28				26-C4				-				J21-1				41-D6				-			
	C5				33-B3				0.1UF				-				C207				26-D4				33PF				-				C1033				15-C3				0.47UF				DNI				CR32				42-C3				-				J21-2				41-D3				-			
	C9				33-B2				0.1UF				-				C208				26-D4				1.0UF				-				C1034				15-D3				0.47UF				DNI				CR39				35-B6				-				J22				28-C3				-			
	C12				33-B2				0.1UF				-				C212				11-A3				0.1UF				-				C1035				15-C3				10UF				DNI				CR41				35-B6				-				J97				36-C3				-			
B	C13				36-B3				0.1UF				-				C214				3-B3				33PF				DNI				C1043				14-D7				1.0UF				-				CR42				35-B7				-				J98				31-B5				-			
	C14				36-B4				0.1UF				-				C224				11-A4				0.1UF				-				C1044				14-D7				1.0UF				-				CR44				37-B3				-				J99				32-D3				-			
	C44				31-B4				1.0UF				-				C270				29-A4				10UF				-				C1045				14-D7				1.0UF				-				CR45				37-C3				-															
	C46				31-B5				1.0UF				-				C280				29-A4				1.0UF				-				C1046				14-D7				1.0UF				-				CR46				37-D3				-															
A	C61				32-B6				4.7UF				-				C296				29-B4				10UF				-				C1047				14-D6				1.0UF				-				CR47				37-C7				-															
	C65				32-B4				10UF				DNI				C297				29-A3				10UF				-				C1048				14-D6				1.0UF				-				CR50				15-C4				DNI															
	C68				33-C6				1.0UF				-				C309				25-D6				0.1UF				-				C1049				14-D6				1.0UF				-				CR57				35-B7				-				JP7				40-C5				-			
	C70				33-C7				1.0UF				-				C318				30-B5				1.0UF				-				C1050				14-D6				47UF				-				CR58				27-C2				DNI				JP8				40-C5				-			
	C71				28-C6				33PF				DNI				C330				36-D7				0.1UF				-				C1072				14-A5				1.0UF				-				CR59				27-D3				DNI															
	C72				28-C6				33PF				DNI				C331				36-C5				0.1UF				-				C1073				14-A4				1.0UF				-				CR60				28-C3				DNI															
	C74				28-C4				1UF				-				C332				36-C5				1.0UF				-				C1074				14-A4				1.0UF				-				CR61				29-C6				-															
	C75				28-C4				33PF				DNI				C333				36-C5				0.1UF				DNI				C1075				14-A4				1.0UF				-				CR62				34-B3				-															
	C79				27-B5				33PF				DNI				C334				36-B5				1.0UF				-				C1078				14-C7				1.0UF				-				CR63				34-B3				-															
	C80				27-B5				33PF				DNI				C335				36-C6				2200PF				-				C1079				14-C7				1.0UF				-				CR64				16-C5				-															
	C81				27-B3				33PF				DNI				C336				36-B5				0.1UF				-				C1080				14-C7				1.0UF				-				CR65				34-B7				-															
	C82				27-B3				0.47UF				-				C338				36-D3				1.0UF				-				C1081				14-C7				1.0UF				-				CR66				34-B7				-															
	C84				23-B6				4.7UF				-				C339				36-D2				1.0UF				-				C1082				14-C6				1.0UF				-				CR67				34-C7				-															
	C85				25-C7				1UF				-				C342				38-B6				56PF				DNI				C1083				14-C6				1.0UF				-				CR68				34-C7				-															
	C88				25-C7				0.1UF				-				C343				38-B7				18PF				DNI				C1088				14-D3				1.0UF				-				CR69				34-C3				-															
	C89				25-C7				0.1UF				-				C346				13-A4				2.2UF				-				C1089				14-D3				1.0UF				-																											
	C90				10-C3				0.1UF				-				C351				12-D7				0.1UF				-				C1090				14-D3				1.0UF				-																											
	C91				25-B6				4.7UF				-				C352				12-D6				0.1UF				-				C1096				35-C6				4700PF				-																											
	C92				12-C3				0.1UF				-				C354				12-D7				0.1UF				-				C1098				18-C5				2.2UF				-																											
	C95				25-D7				0.1UF				-				C377				36-B4				0.1UF				-				C1102				22-D3				2.2UF				-																											
	C96				12-C3				0.1UF				-				C388				19-C6				2.2UF				-				C1103				22-B5				1.0UF				-																											
	C100				25-D7				1UF				-				C389				19-C6				2.2UF				-				C1104				19-C7				22UF				-																											
	C104				25-C7				0.1UF				-				C501				21-C7				1UF				-				C1105				30-B5				0.1UF				-																											
	C107				12-B5				0.1UF				-				C502				21-C7				4.7UF				-				C1106				14-D2				22UF				-																											
	C108				12-B6				0.1UF				-				C503				21-C7				4.7UF				-				C1107				14-D3				1.0UF				-																											
	C110				12-B6				0.1UF				-				C550				17-D2				1.0UF				-				C1108				14-D2				1.0UF				-																											
	C116				25-B6				0.1UF				-				C558				18-D3				47UF				-				C1109				14-D2				1.0UF				-																											
	C117				25-D7				1UF				-				C617				17-B3				0.1UF				-				C1110				14-D2				1.0UF				-																											
	C118				27-D5				33PF				DNI				C618				17-B5				1000PF				-				C1111				14-D2				1.0UF				-																											
	C124				25-C7				0.1UF				-				C620				18-D2				0.1UF				-				C1113				14-D1				22UF				-																											
	C125				12-B6				0.1UF				-				C659				35-B5				33PF				-				C1116				15-C5				0.1UF				DNI																											
	C128				25-D2				1UF				-				C772				17-C2				0.1UF				-				C1117				12-C6				0.1UF				-																											
	C130				12-B6				0.1UF				-				C820				18-C5				0.1UF				-				C1118				12-C6				0.1UF				-																											
	C134				25-C6				0.1UF				-				C857				22-B5				1.0UF				-				C1123				14-B3				1.0UF				-																											
	C135				27-D5				33PF				DNI				C900				22-C3				22UF				-				C1124				14-B3				1.0UF				-																											
	C136				9-B3				0.1UF				DNI				C913				19-B6				2.2UF				-				C1125				14-B3				1.0UF				-																											
	C138				12-C3				0.1UF				-				C943				17-C3				1.0UF				-				C1126				14-B3				1.0UF				-																											
	C139				12-C3				0.1UF				-				C944				17-C2				1.0UF				-				C1127				14-B3				1.0UF				-																											
	C147				3-B5				0.1UF				-				C976				19-C7				22UF				-				C1132				14-B3				1.0UF				-																											
	C148				25-B6				0.1UF				-				C990				17-B6				0.1UF				-				C1133				14-B2				1.0UF				-																											
	C149				25-B6				0.1UF				-				C991				15-B2				0.1UF				DNI				C1134				14-B2				1.0UF				-																											
	C150				25-D6				0.1UF				-				C993				22-D4				0.1UF				-				C1137				14-B2				1.0UF				-																											
	C153				12-C3				0.1UF				-				C996				19-C6				2.2UF				-				C1138				14-B2				22UF				-																											
	C159				9-B3				0.1UF				DNI				C997				22-B6				1.0UF				-				C1139				14-B2				22UF				-																											
	C167				27-C3				0.47UF				-				C999				15-C6				4.7UF				DNI				C1142				14-B1				22UF				-																											
	C169				25-B7				4.7UF				-				C1005				19-B2				22UF				-				C1144				15-D6				1UF				DNI																											
	C170				25-C7				1UF				-				C1006				19-B2				22UF				-				C1145				29-C4				0.22UF				-																											
	C172				12-D2				0.1UF				-				C1007				19-A2				22UF				-				C1146				29-C6				1UF				-																											
	C177				27-C3				33PF				DNI				C1008				19-A2				22UF				-				C1147				29-C4				4.7UF				-																											
	C182				25-C7				0.1UF				-				C1010				22-D4				1.0UF				-				C1148				22-C3				22UF				-																											
	C183				25-C6				0.1UF				-				C1012				30-B5				0.1UF				-				C1202				16-C5				33PF				DNI																											
	C185				12-D3				0.1UF				-				C1013				22-C2				10UF				-				C1203				16-B5				33PF				DNI																											
	C186				12-D3				0.1UF				-				C1016				35-B4				470PF				-				C1206				16-C5				1UF				-																											
	C195				12-C3				4700PF				-				C1017				35-C7				470PF				-				C1214				34-B6				33PF				-																											
	C196				10-C3				0.1UF				-				C1018				35-B4				470PF				-				C1242				22-C3				2.2UF				-																											
	C199				11-A4				0.1UF				-				C1019				35-C7				47PF				-																																											
	C200				25-C3				2.2UF				-				C1020				15-B7				10PF				DNI																																											
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												LTR	DESCRIPTION								DATE	APPROVED
D	REFDES	SH-ZONE	INSTPAR	EXCEPT_ASSY	REFDES	SH-ZONE	INSTPAR	EXCEPT_ASSY														
	R186	4-B6	2.2K	-	R3515	27-C6	0	-														
	R202	3-C3	0	-	R3516	29-C4	0	-														
	R205	4-B4	2.2K	-	R3517	29-C4	0	DNI														
	R206	4-B5	2.2K	-	R3518	22-C2	0	-														
	R207	3-B3	200	-																		
	R209	4-A7	2.2K	-																		
	R210	4-A7	2.2K	-	REFDES	SH-ZONE	EXCEPT_ASSY															
	R217	24-C6	10K	-	RT1	32-A6	-															
	R231	4-A6	2.2K	-																		
C	R232	4-A6	2.2K	-	REFDES	SH-ZONE	EXCEPT_ASSY															
	R234	27-D2	100K	-	S1	37-C6	-															
	R294	28-C4	100K	-	S2	37-D2	-															
	R366	40-C7	0	-	S3	37-C2	-															
	R370	40-C7	0	-	S4	37-B2	-															
	R376	29-A7	100K	-	REFDES	SH-ZONE	EXCEPT_ASSY															
	R408	30-C5	0	DNI	TP9	33-C1	-															
	R429	36-D6	100K	DNI	TP17	38-C8	-															
	R438	38-B6	33	-																		
	R439	38-B7	0	-	REFDES	SH-ZONE	EXCEPT_ASSY															
B	R449	38-B7	1M	-	TP9	33-C1	-															
	R450	38-B7	1M	DNI	TP17	38-C8	-															
	R452	36-B6	100K	-																		
	R465	36-B7	10K	-	REFDES	SH-ZONE	EXCEPT_ASSY															
	R487	27-C6	0	DNI	U18	32-A5	-															
	R504	38-B7	0	DNI	U20	33-C7	-															
	R510	40-A4	0	-	U23	28-B5	-															
	R511	40-A4	0	DNI	U25	27-B4	-															
	R2780	17-C5	100K	-	U26	27-C4	-															
	R2849	17-A4	16.2K	-	U40	29-A5	-															
A	R2923	17-C6	0	-	U45	36-D2	-															
	R3236	17-B3	100K	-	U46	36-C7	-															
	R3237	17-B4	90.9K	-	U47	36-A6	-															
	R3240	17-B3	100K	DNI	U60-1	18-C4	-															
	R3334	15-C3	0	DNI	U60-2	17-B4	-															
	R3335	15-B2	0	DNI	U60-3	18-B5	-															
	R3337	37-D4	0	-	U60-4	19-B6	-															
	R3338	37-C4	0	-	U60-5	20-C5	-															
	R3339	37-C4	0	-	U60-6	22-B5	-															
	R3340	37-B4	0	-	U60-7	20-A8	-															
	R3342	15-B2	0	DNI	U68	15-B5	DNI															
	R3343	15-C2	0	DNI	U70-1	3-B5	-															
	R3344	15-A4	2.2K	DNI	U70-10	13-B5	-															
	R3345	15-A4	2.2K	DNI	U70-11	13-B8	-															
	R3349	39-C3	0	-	U70-12	13-B3	-															
	R3351	39-B3	0	-	U70-13	13-A7	-															
	R3353	39-B6	0	DNI	U70-2	4-B6	-															
	R3354	39-A7	0	-	U70-3	5-B5	-															
	R3355	39-B7	0	-	U70-4	6-B5	-															
	R3361	20-B3	0	-	U70-5	8-C7	-															
	R3362	20-B3	0	DNI	U70-6	9-B5	-															
	R3363	15-C6	100K	DNI	U70-7	10-B5	-															
	R3367	15-C4	0	DNI	U70-8	11-B5	-															
	R3373	15-B7	10K	DNI	U70-9	12-B5	-															
	R3374	15-B6	10K	DNI	U71-1	24-A4	-															
	R3375	15-A6	10K	DNI	U71-2	25-A5	-															
	R3376	15-B4	10K	DNI	U71-3	25-B2	-															
	R3377	15-C3	0.020	DNI	U72	29-C5	-															
	R3378	15-A2	0.020	-																		
	R3379	15-D3	0	DNI																		
	R3380	15-D3	0	-	REFDES	SH-ZONE	EXCEPT_ASSY															
	R3381	15-C3	68.1K	DNI	Y5	17-D6	-															
	R3384	39-C2	0	-																		
	R3385	15-C6	100K	DNI																		
	R3386	35-C7	0	-																		
	R3387	39-C2	0	-																		
	R3392	29-A6	0	-																		
	R3400	29-C4	5.1	-																		
	R3514	22-C3	0	-																		
													TITLE MSM8916+PM8916 DESIGN EXAMPLE SCHEMATIC									
												QUALCOMM TECHNOLOGIES, INC. 5775 MOREHOUSE DRIVE SAN DIEGO, CA 92121 U.S.A.	REV A									
												SIZE D	DRAWING NO 80-NK807-41		REV A							
												SCALE NONE			SHEET 46	OF 46						
8		7		6		5		4		3		2		1								

2 Parts List

Table 1 Parts list

Item	Part description	Qty	Manufacturer	MPN	Ref des
1	RES 0 200PPM 0.25W 1206 ROHS	2	KOA SPEER ELECTRONICS INC ROHM CO LTD VISHAY INTERTECHNOLOGY IN YAGEO CORPORATION	RK73Z2BTDD MCR18EZJ000 CRCW12060000Z0EA RC1206JR-07000L	R3380,R3518
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 CRCW0201100KFED 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	1	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 MCR10EZH3921 MCR10EZF3921 CRCW08053K92FKEA	R152
8	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
9	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 RK73B1HTTC5R1J MCR006YZPJ5R1 WR02X5R1JAL	R3400

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 ERJ2GE0R00X MCR01MZIPJ000 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 MCR01MZIPJ473 CRCW040247K0JNED WR04X473JTL RC0402JR-0747KL	R142
18	RES 0 0.5MOHM 0402 ULTRA-LOW ROHS	8	ROHM ELECTRONICS	PMR01MZIPJ000	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% C0G/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 VISHAY INTERTECHNOLOGY IN YAGEO CORPORATION	04025A330JAT2A C0402C330J5GAC C0402C330J5GAC7867 GRM1555C1H330JA01D GRM1555C1H330JZ01D RM UMK105CG330JV-F UMK105CG330JV-F UMK105CG330JV-T C0402C0G500-330JNE VJ0402A330JXAA 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 DARFON ELECTRONICS CORP DARFON ELECTRONICS CORP DARFON ELECTRONICS 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 C0603X5R104KCAS C0603X5R104KCTS GRM033R60J104KE19D CL03A104KQ3NNNC CE JMK063BJ104KP-F JMK063BJ104KP-F RM JMK063BJ104KP-F C0603X5R0J104K C0603X5R0J104K030BC 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 C1005X5R0J105K050BB C1005X5R0J105KT C0402X5R6R3-105KNE 0402X105K6R3CT CC0402KRX5R55BB105	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	1	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 C1608X5R1C475KT	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 CL10A476MR8NZNE	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 C0603X5R0J105MT C0201X5R6R3-105MNP	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,C1110,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 ECJZEB0J224M 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 TDK CORP OF AMERICA TDK CORP OF AMERICA VENKEL 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 SAMSUNG ELECTRO-MECHANICS TAIYO YUDEN CO LTD TAIYO YUDEN CO LTD TDK CORP OF AMERICA TDK CORP OF AMERICA VENKEL CORP	GRM188R60J226MEA0 GRM188R60J226MEA0D GRM188R60J226MEA0J GRM188R60J226MEA0L CL10A226MQ8N7RE CL10A226MQ8NRNC CL10A226MQ8NRNE JMK107BJ226MA JMK107BJ226MA-TD C1608X5R0J226M080AC C1608X5R0J226MT 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 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 0.36OHM 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=0.045OHM ISAT=3.8A ROHS	3	CYNTEC CO. LTD.	PIFE25201B-1R0MS-39	L13,L69,L70
55	INDUCTOR,POWER CHOKE COIL 2.2UH 20% DCR=0.086OHM ISAT=2.5A ROHS	1	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 470OHM EMI SUPPRESSORS ROHS	2	TDK CORP OF AMERICA	MMZ1005Y471C	E43,E44
58	BEAD,FERRITE CHIP 120OHM 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	NSR05F40QNX5G	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	KTD2599BECB-TR KTD2599BECB-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	1	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 400OHMS@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	1	SHENZHEN LINKCONN ELECTRO	JAF00-05164-S137	J14
99	IC, MSM8916	1	QUALCOMM INCORPORATED		U60
100	IC, PM8916	1	QUALCOMM INCORPORATED		U70