

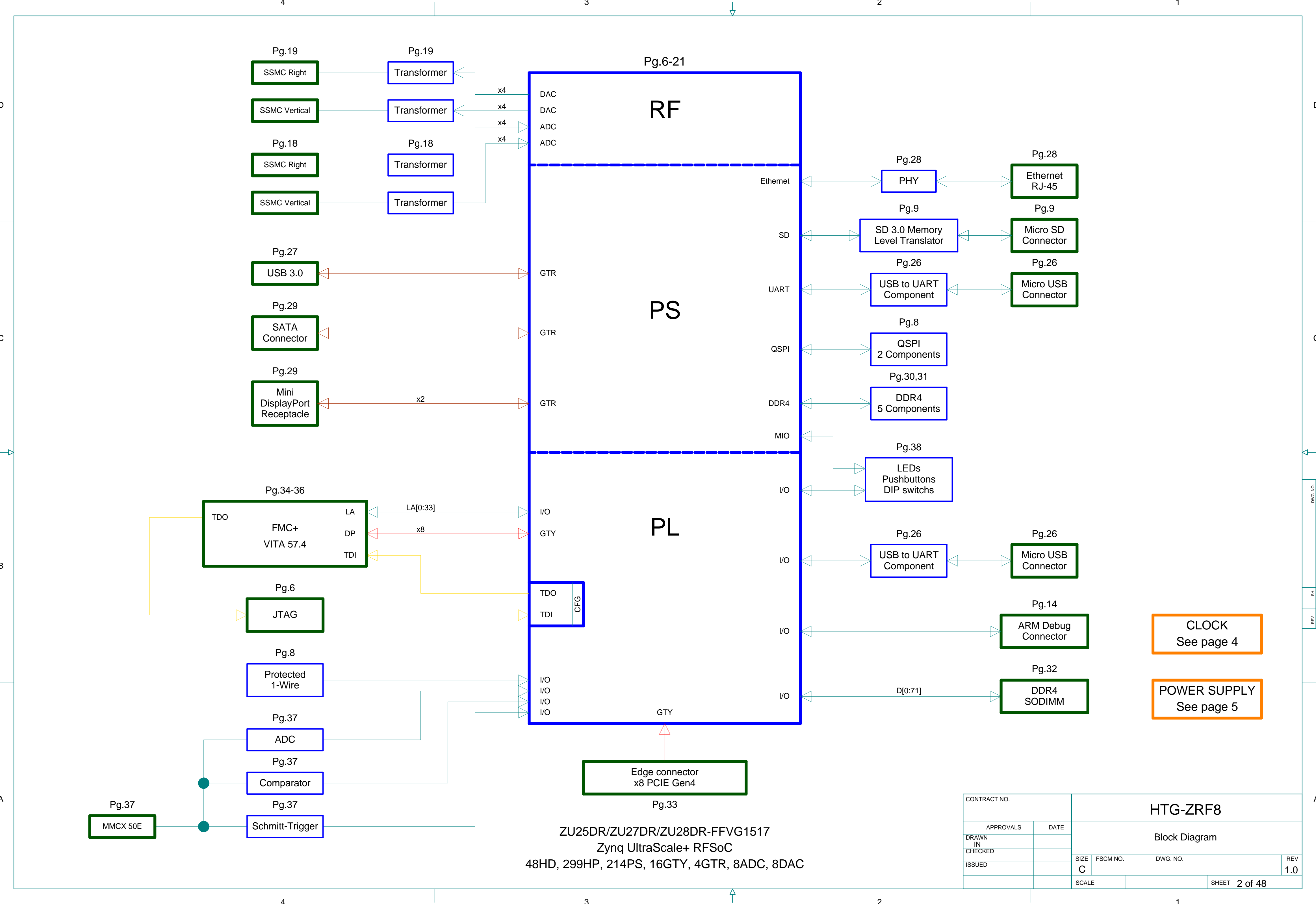
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FINAL VERSION REV. 1.0A

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CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	Note Page			
DRAWN IN					
CHECKED		SIZE	FSCM NO.	DWG. NO.	REV
ISSUED		C			1.0
		SCALE			SHEET 1 of 48



ZU25DR/ZU27DR/ZU28DR-FFVG1517
 Zynq UltraScale+ RFSoc
 48HD, 299HP, 214PS, 16GTY, 4GTR, 8ADC, 8DAC

CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	Block Diagram			
DRAWN IN	CHECKED	SIZE	FSCM NO.	DWG. NO.	REV
ISSUED		C			1.0
SCALE		SHEET 2 of 48			

4

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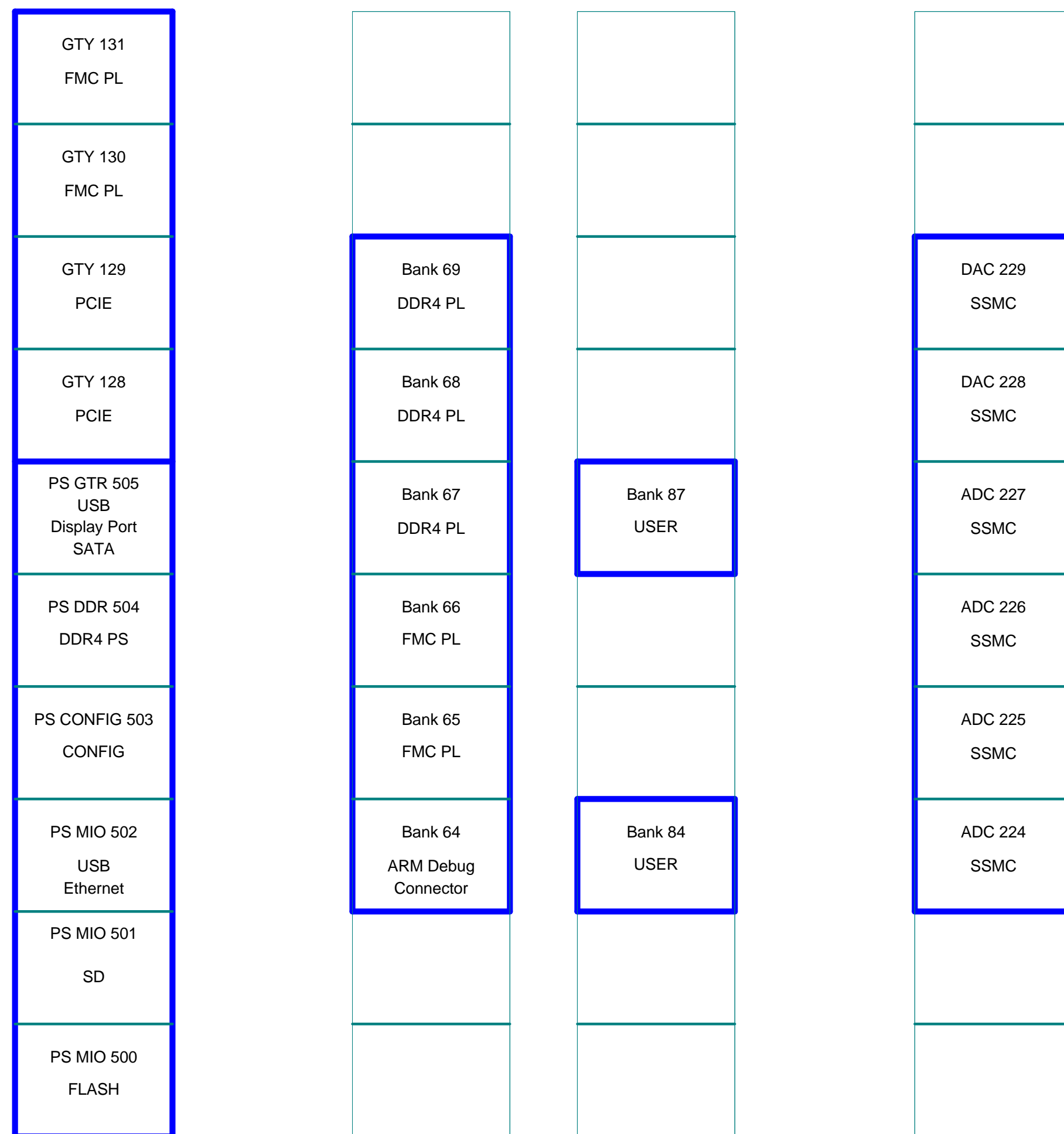
C

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ZU25DR/ZU27DR/ZU28DR-FFVG1517
 Zynq UltraScale+ RFSoc
 48HD, 299HP, 214PS, 16GTY, 4GTR, 8ADC, 8DAC
 DIE VIEW

CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	DIE Diagram			
DRAWN IN					
CHECKED					
ISSUED		SIZE C	FSCM NO.	DWG. NO.	REV 1.0
		SCALE			SHEET 3 of 48

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M

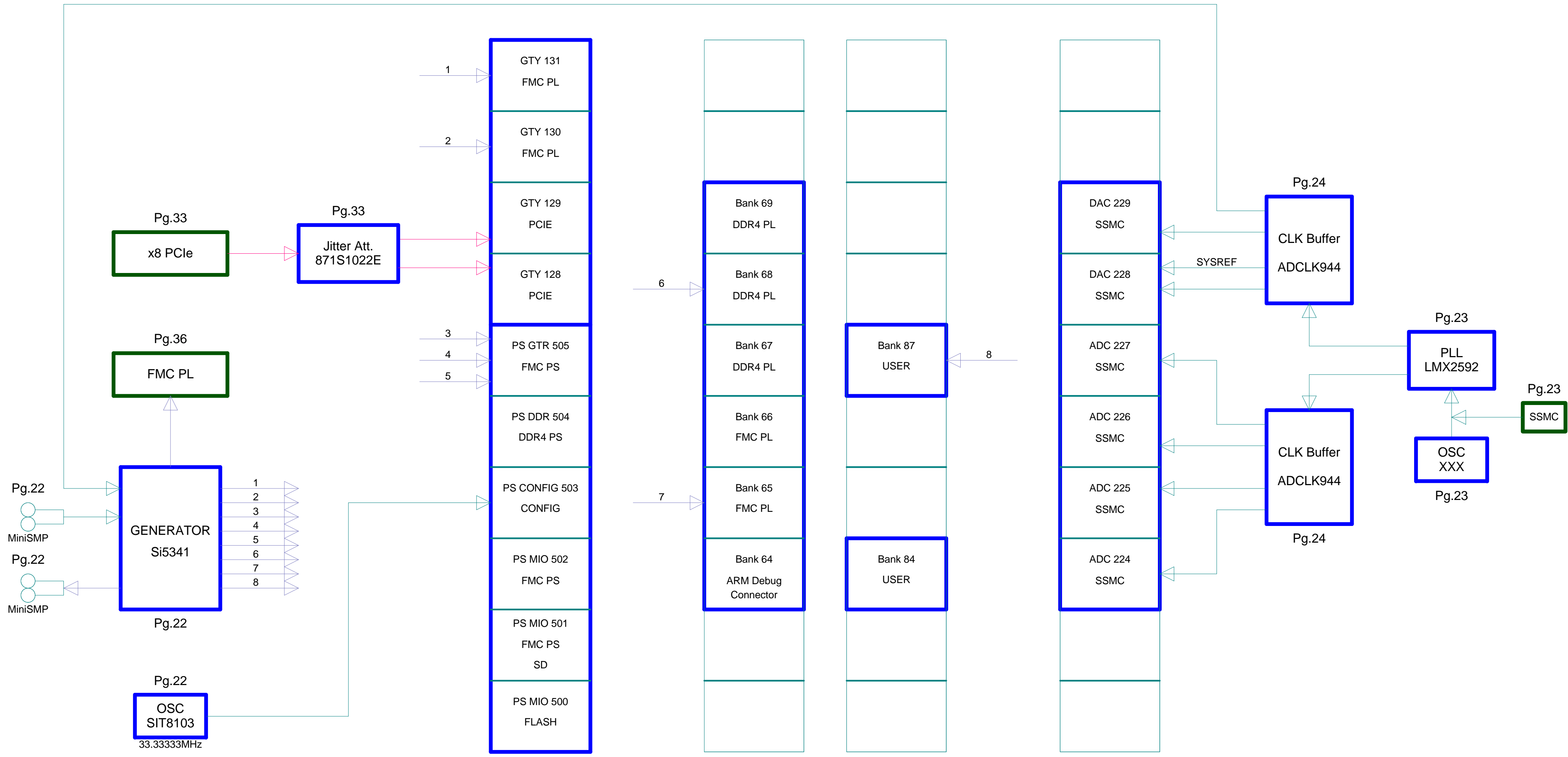
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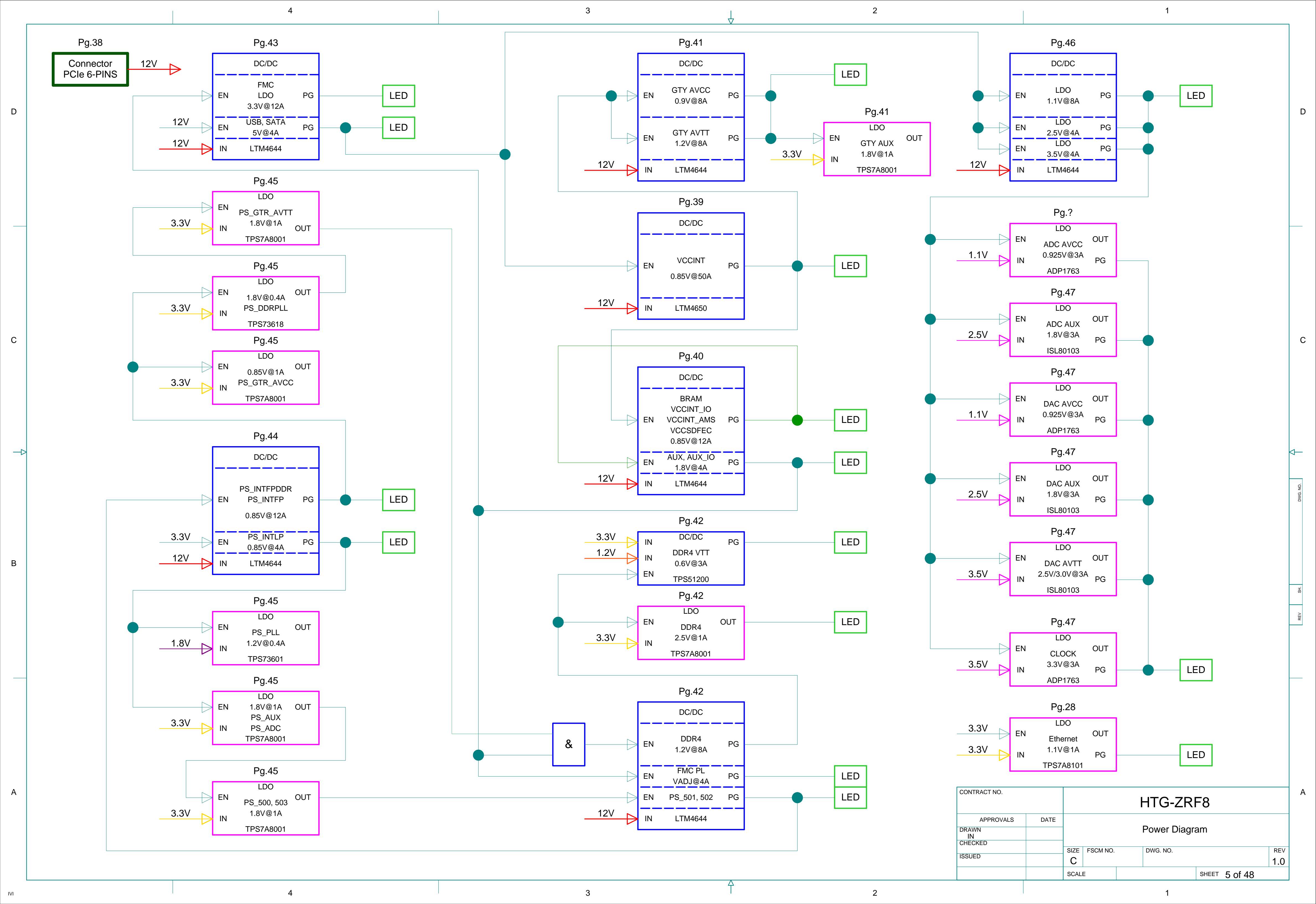


ZU25DR/ZU27DR/ZU28DR-FFVG1517
 Zynq UltraScale+ RFSoc
 48HD, 299HP, 214PS, 16GTY, 4GTR, 8ADC, 8DAC
 DIE VIEW

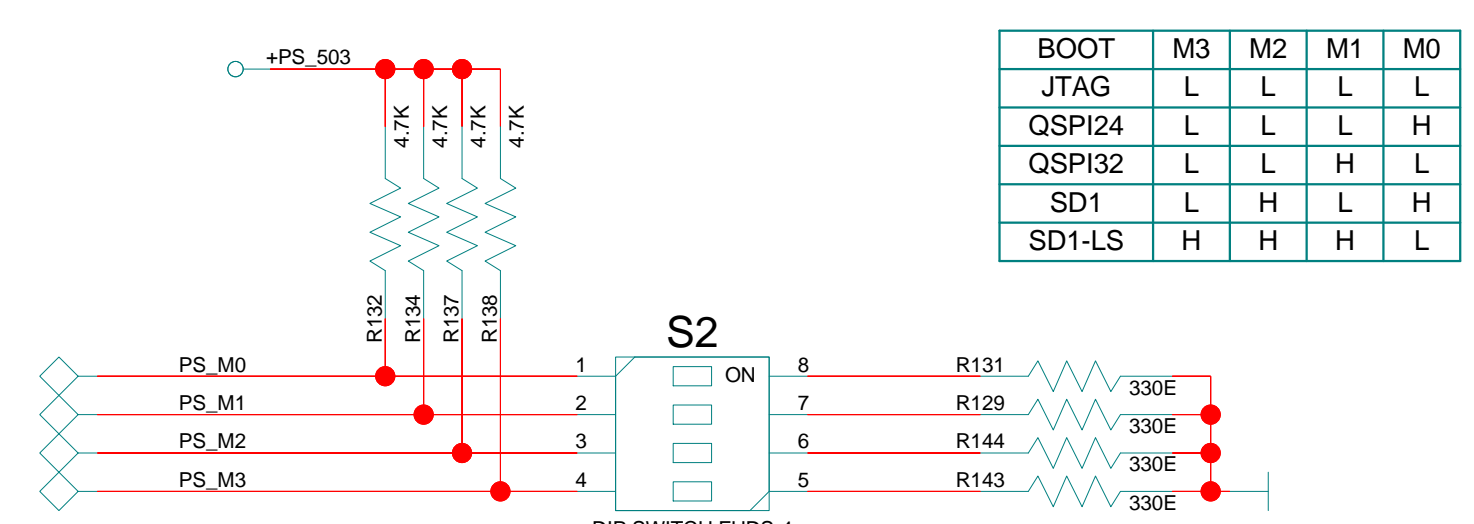
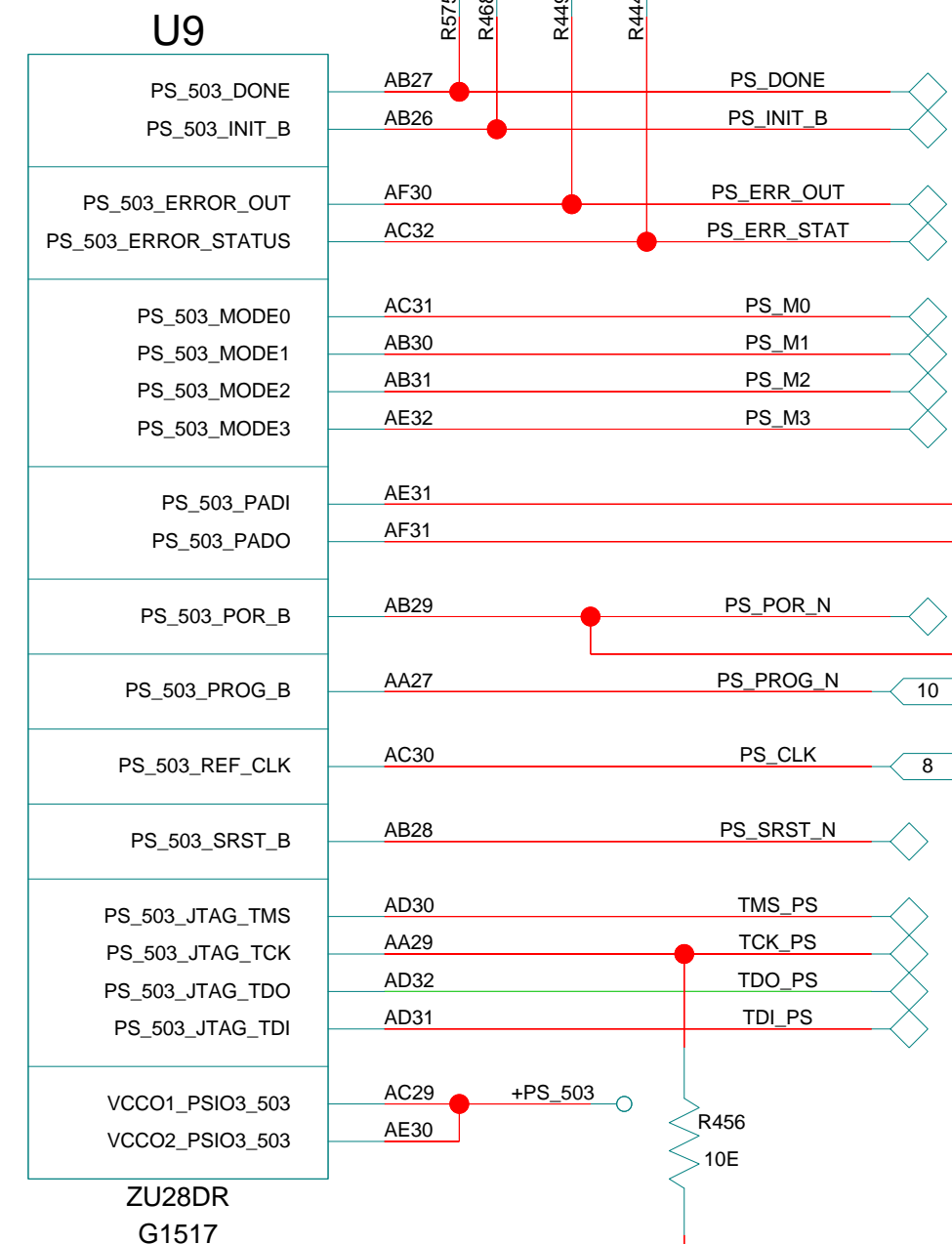
!Clocks from FMC connectors are not presented!

CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	Clock Diagram			
DRAWN IN	CHECKED	SIZE	FSCM NO.	DWG. NO.	REV
ISSUED		C			1.0
SCALE		SHEET 4 of 48			

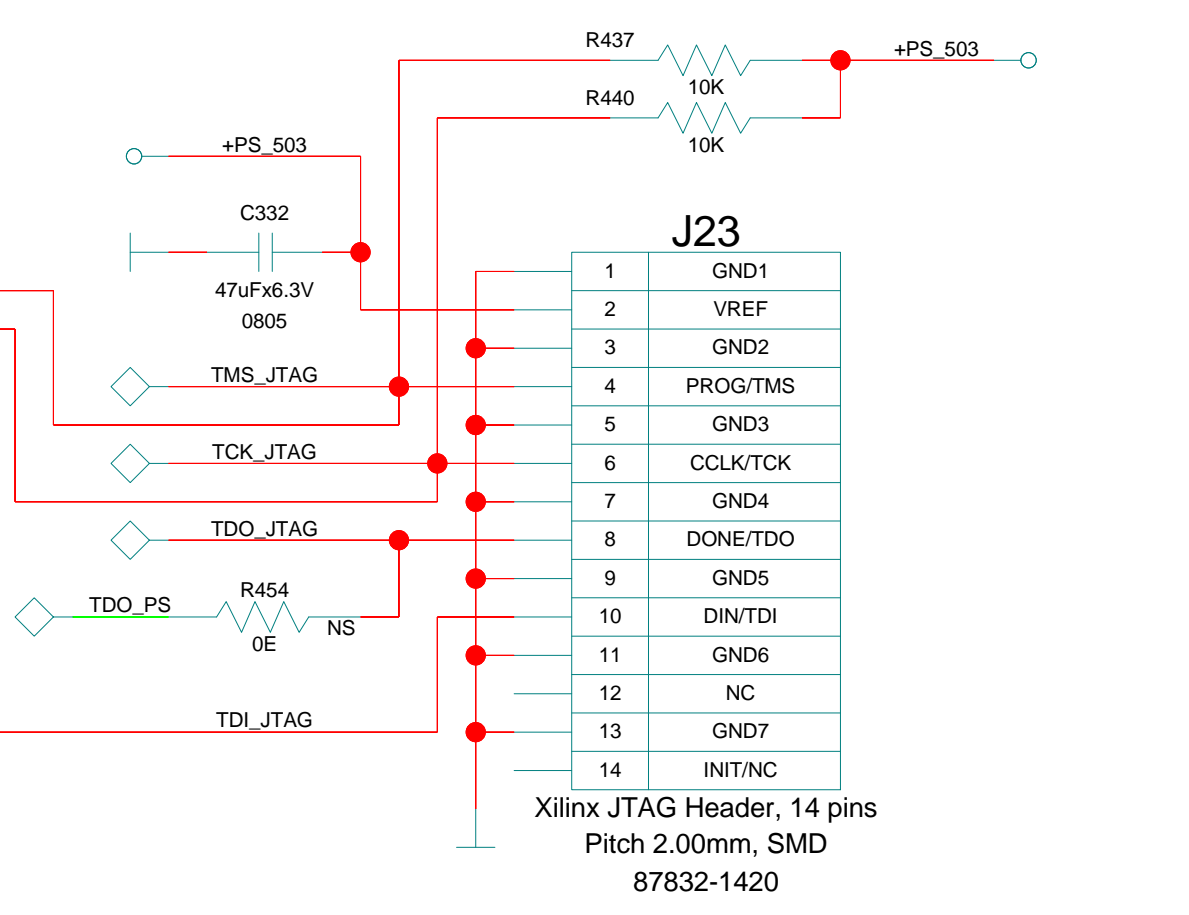
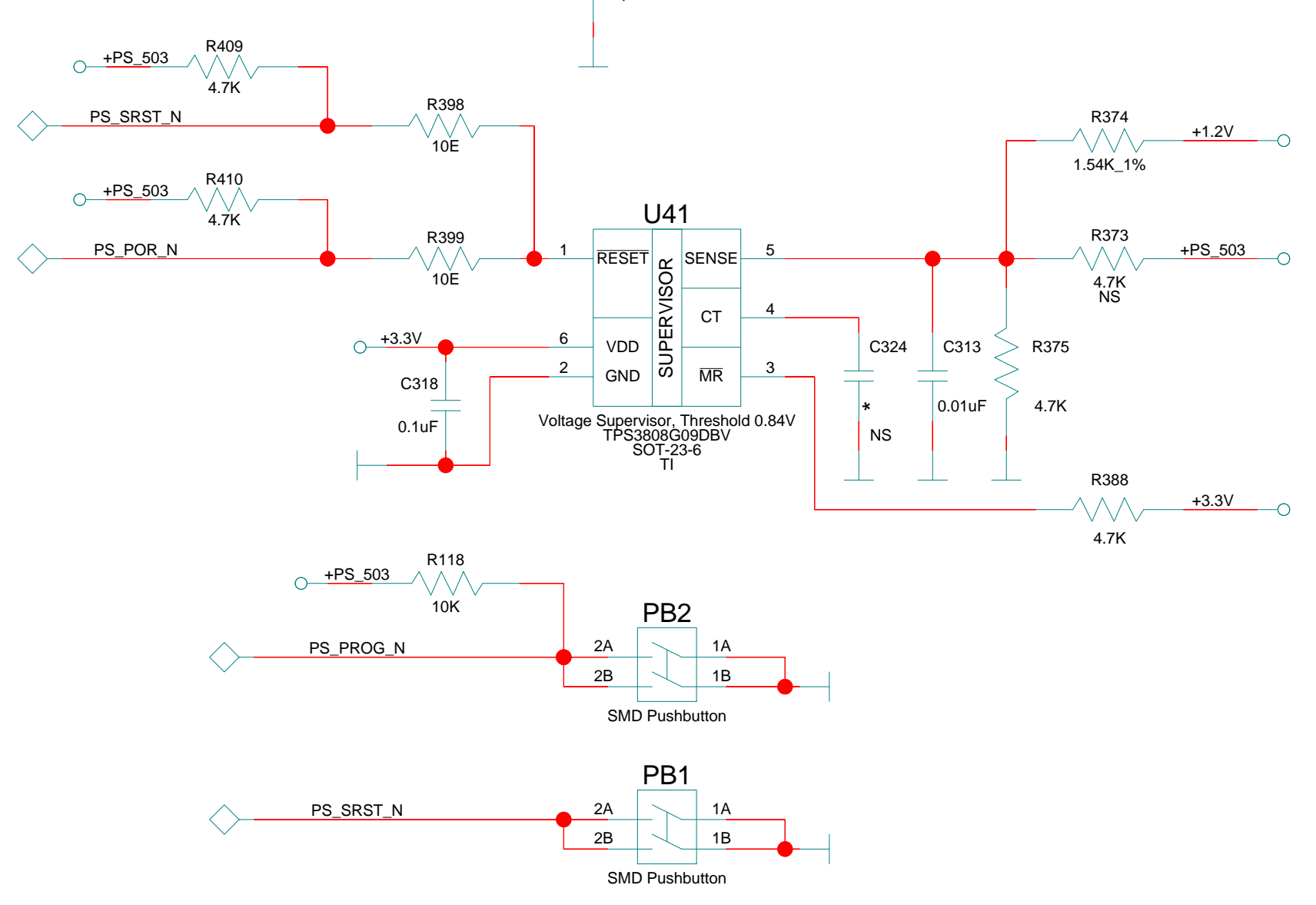
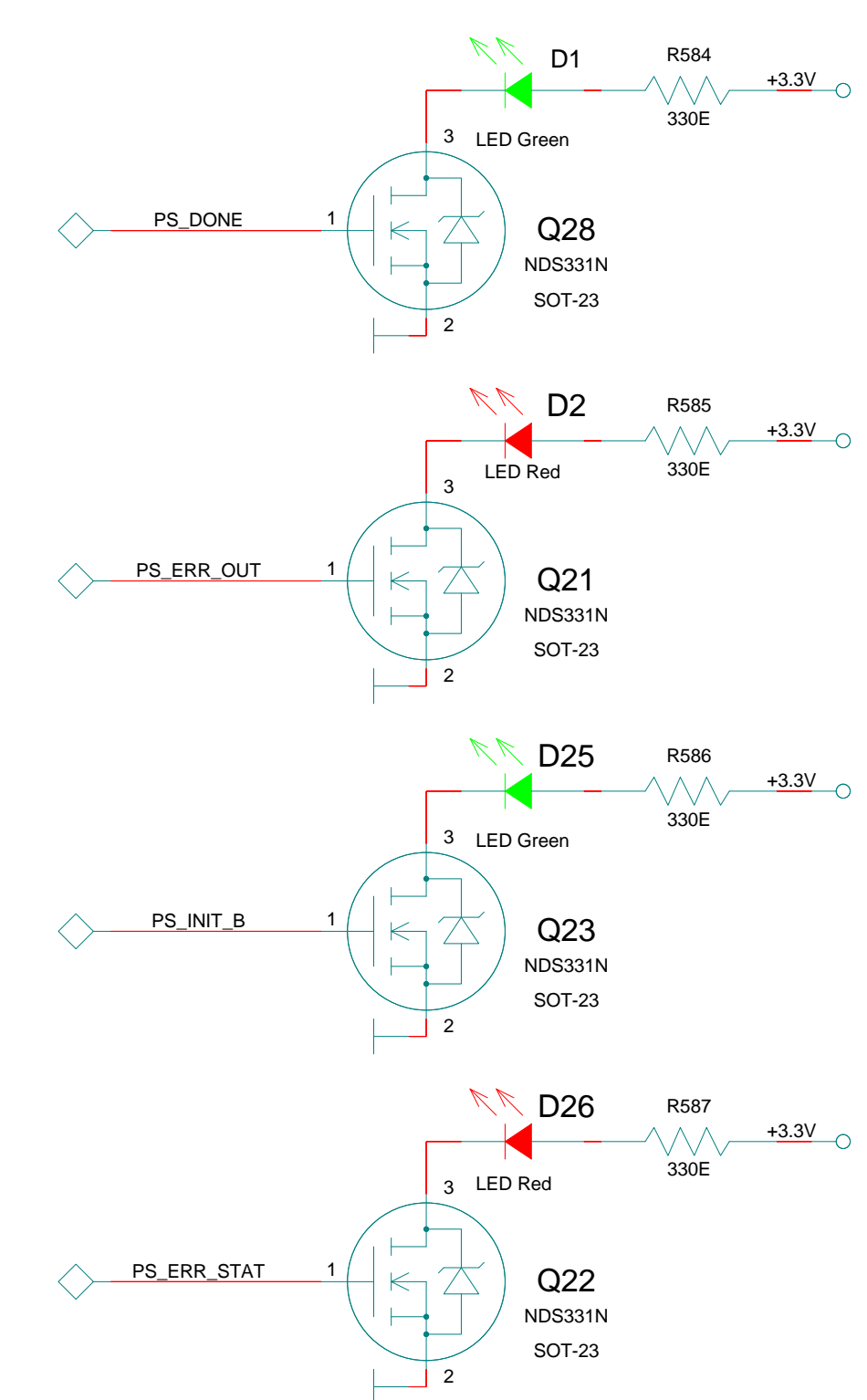
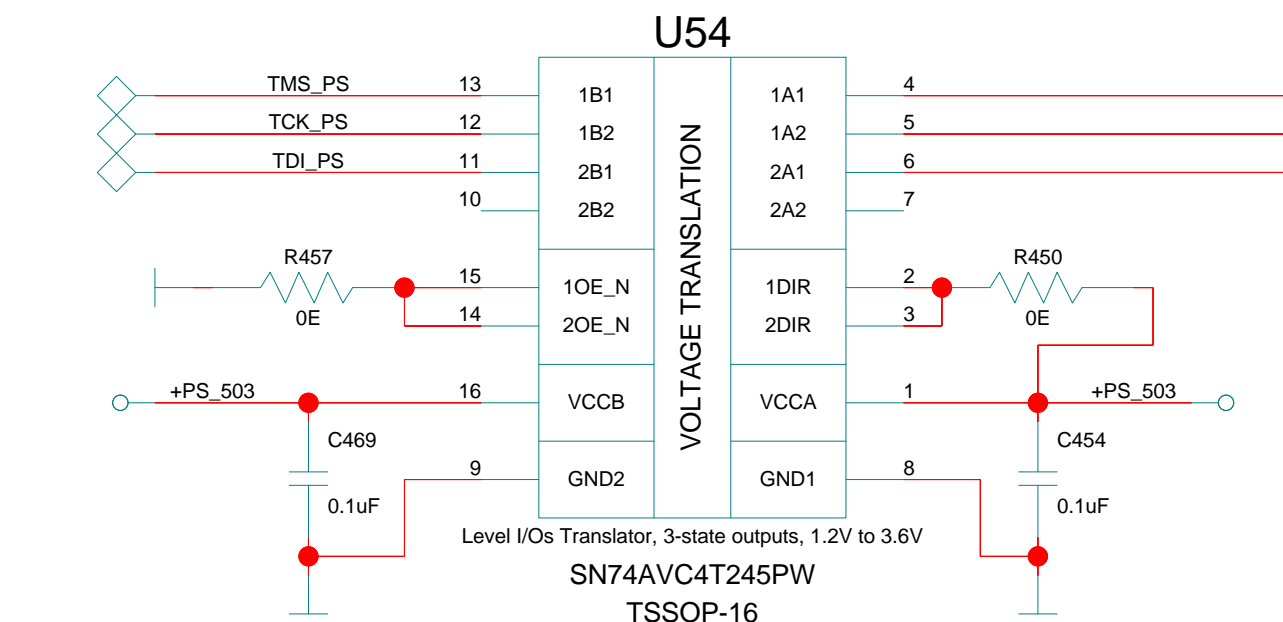
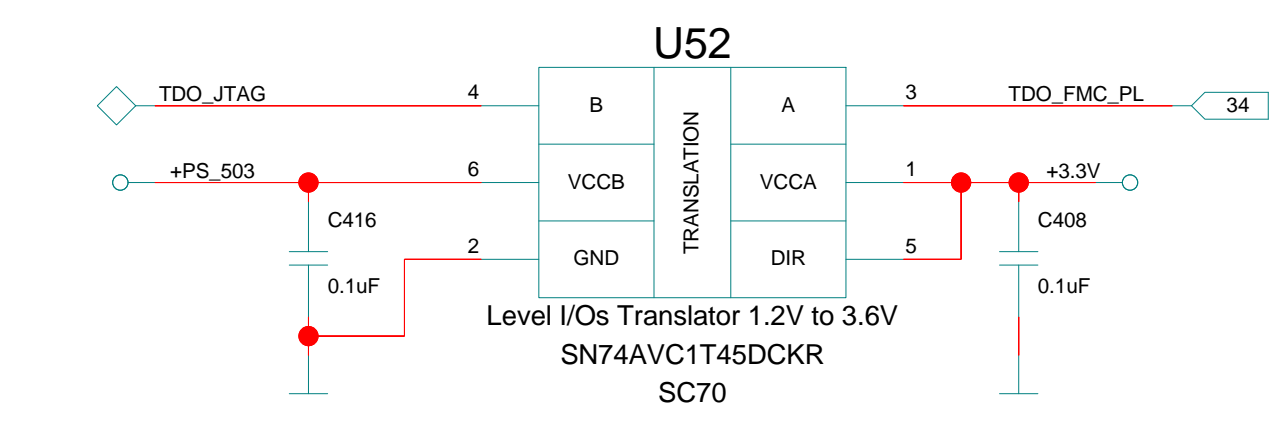
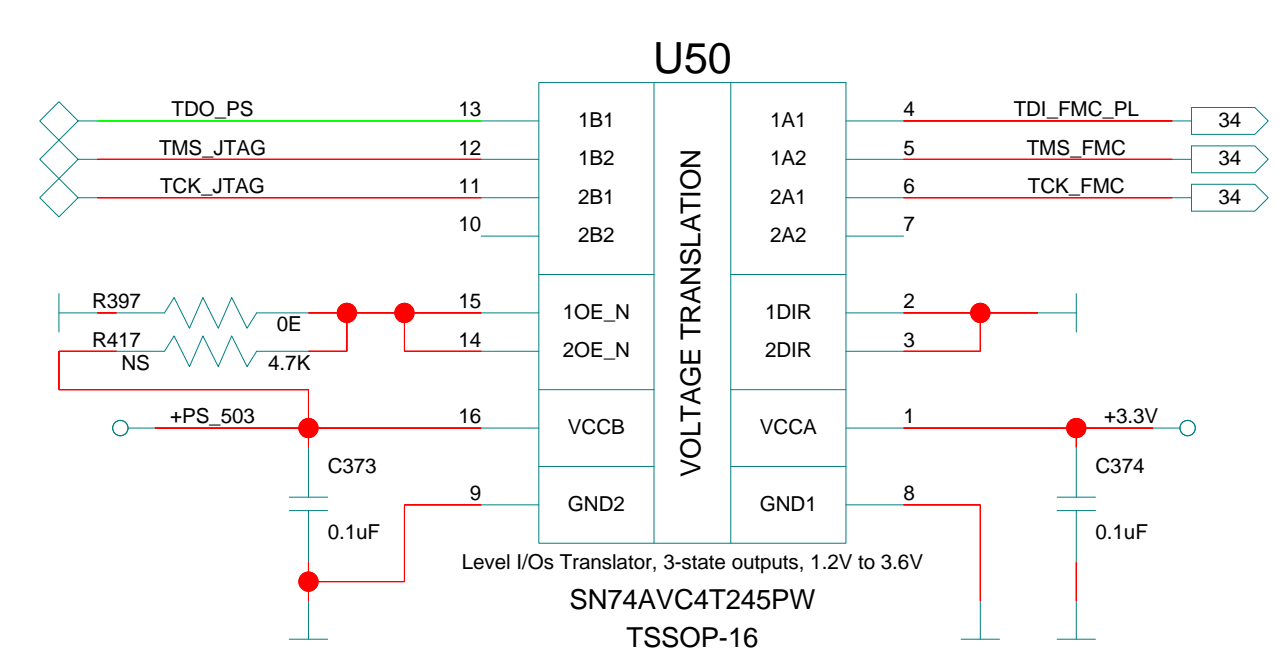
DWG. NO. REV. SH.



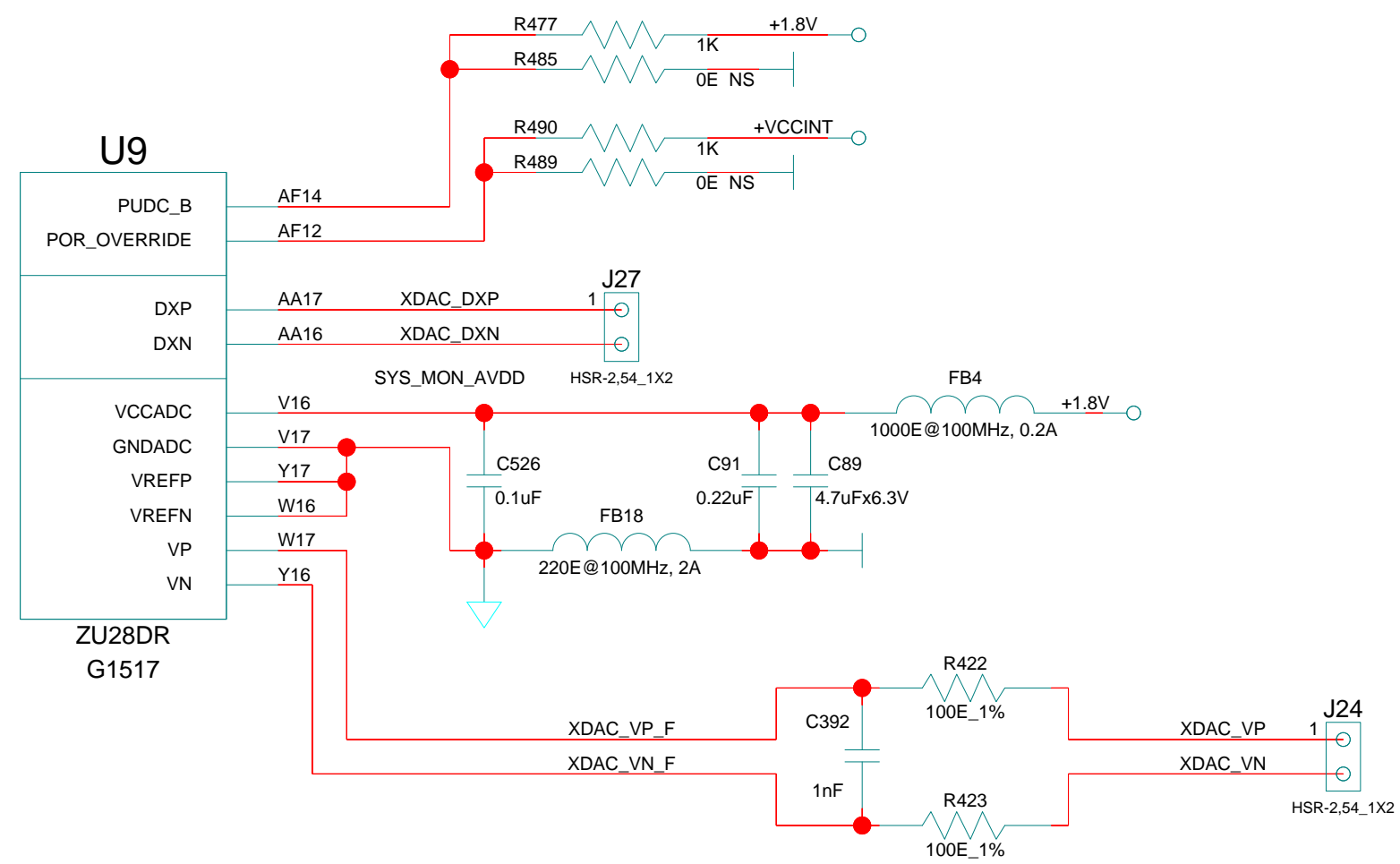
CONTRACT NO.		HTG-ZRF8			
APPROVALS					
DRAWN	IN		SIZE	FSCM NO.	DWG. NO.
CHECKED			C		
ISSUED			SCALE		REV 1.0
					SHEET 5 of 48



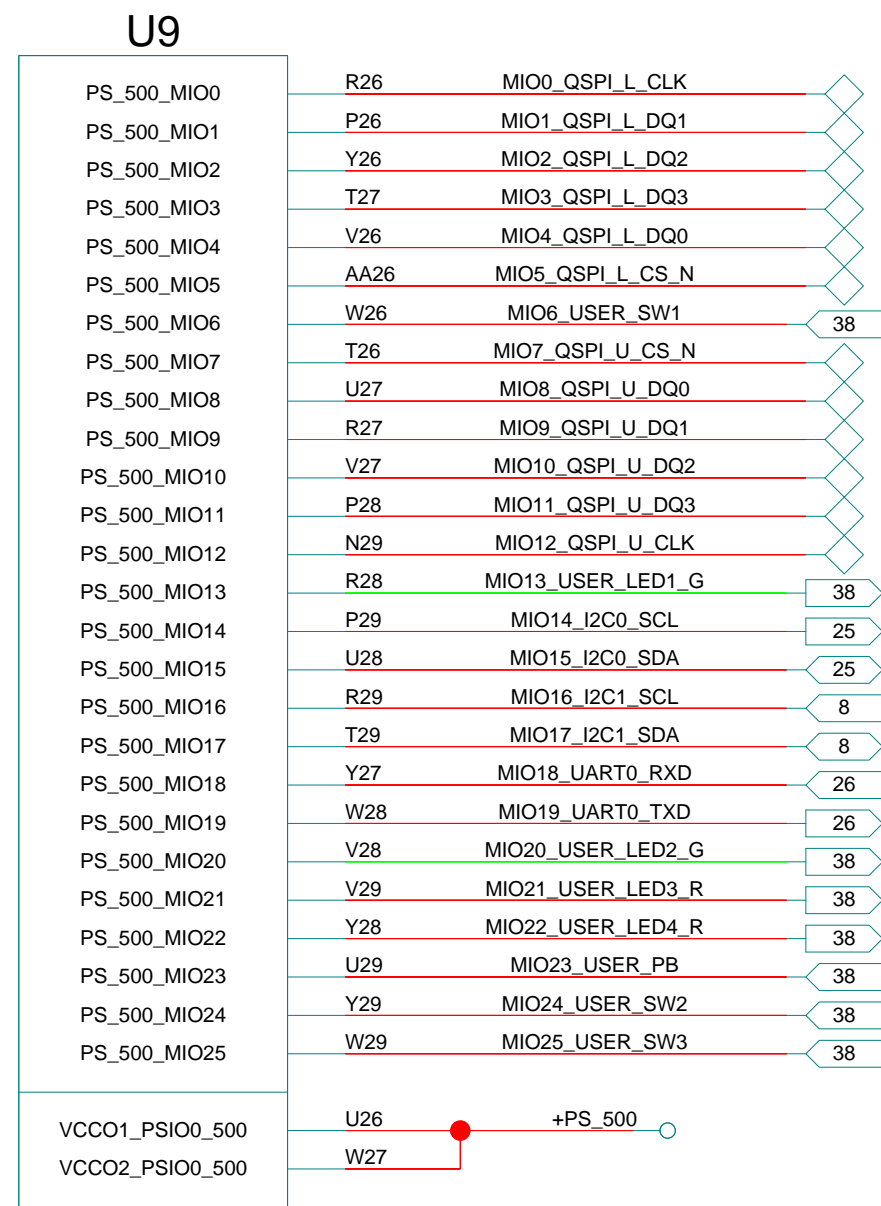
	BOOT	M3	M2	M1	M0
JTAG	L	L	L	L	L
QSPI24	L	L	L	L	H
QSPI32	L	L	L	H	L
SD1	L	H	L	L	H
SD1-LS	H	H	H	H	L



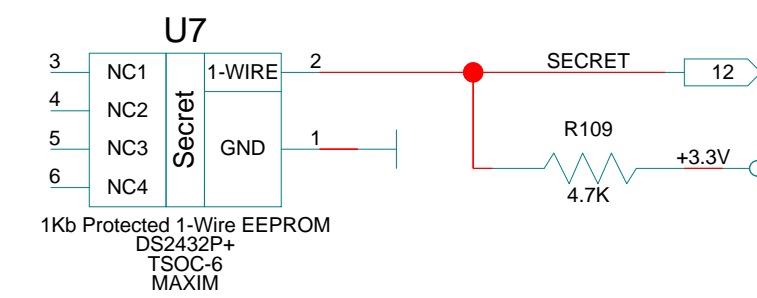
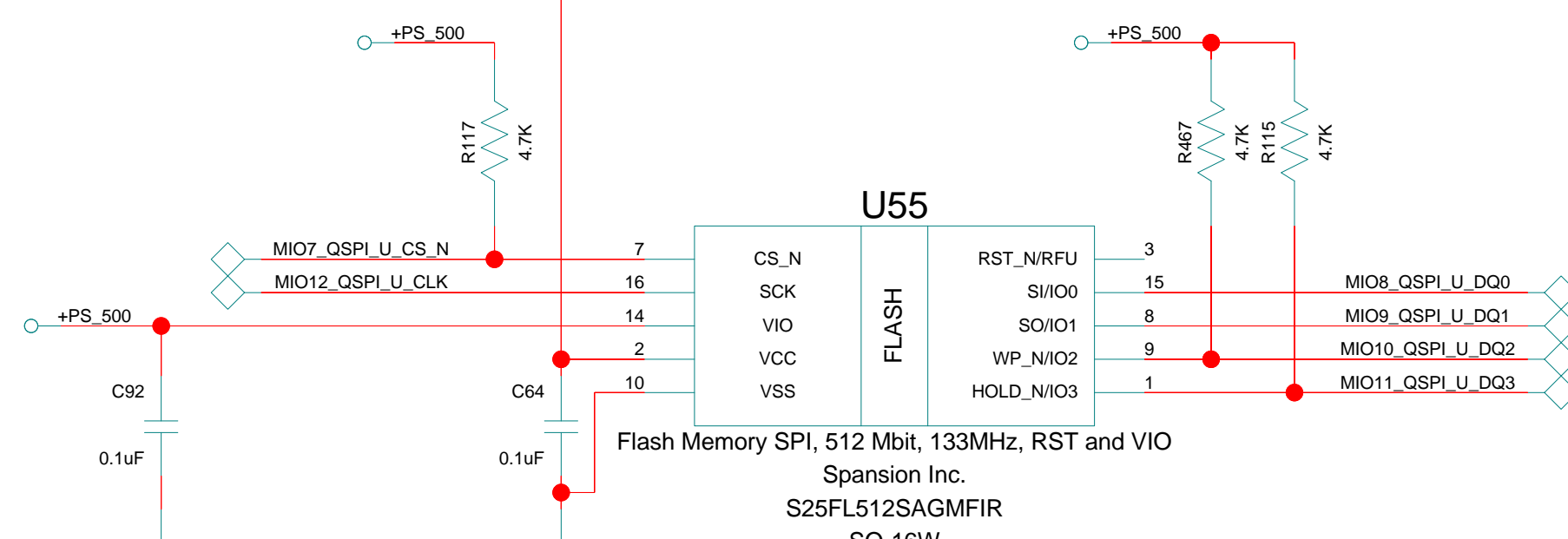
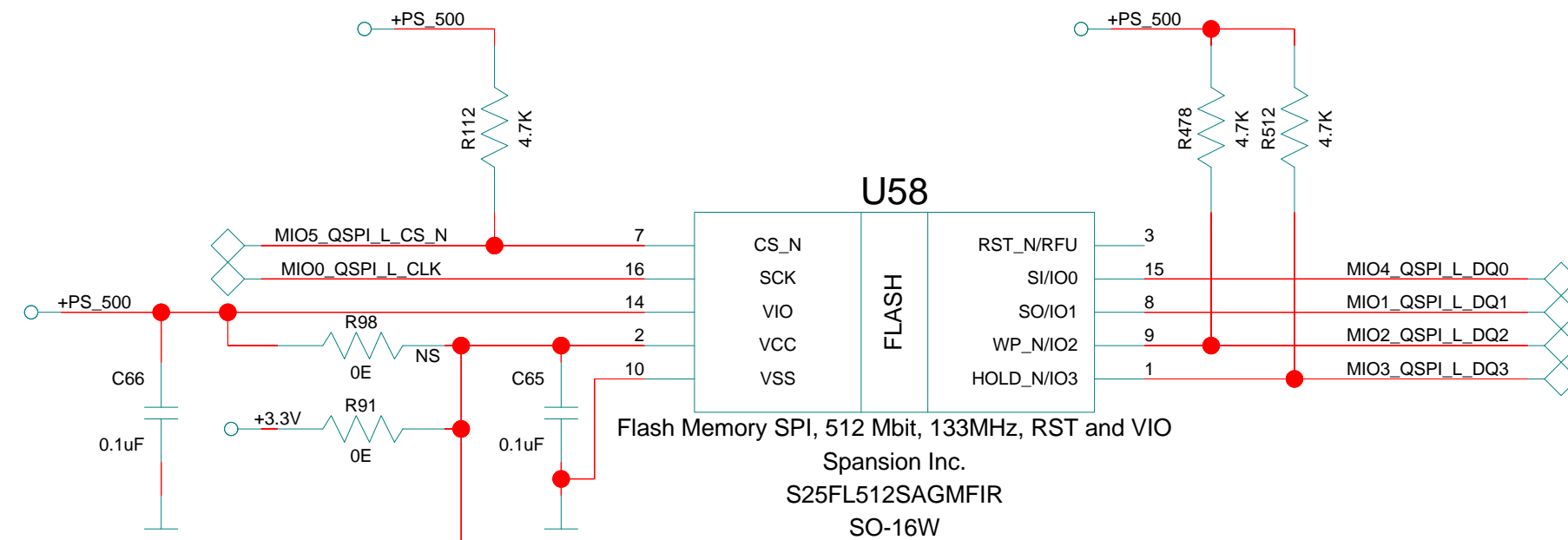
CONTRACT NO.		HTG-ZRF8			
APPROVALS					
DRAWN IN		PS Configuration. JTAG			
CHECKED					
ISSUED		SIZE	FSCM NO.	DWG. NO.	REV
		C			1.0
		SCALE	SHEET		6 of 48



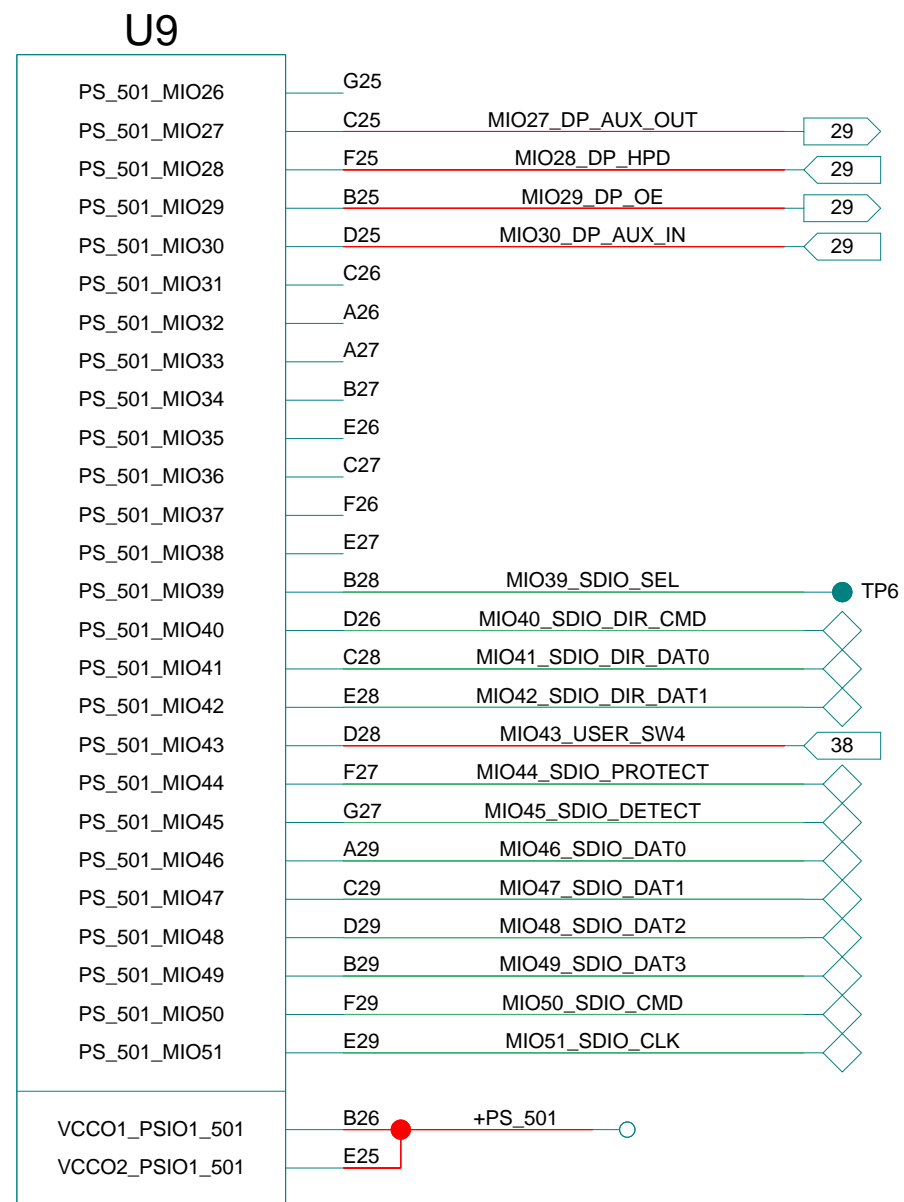
CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	PL Configuration			
DRAWN IN		SIZE		FSCM NO.	DWG. NO.
CHECKED		C			REV 1.0
ISSUED		SCALE		SHEET	7 of 48



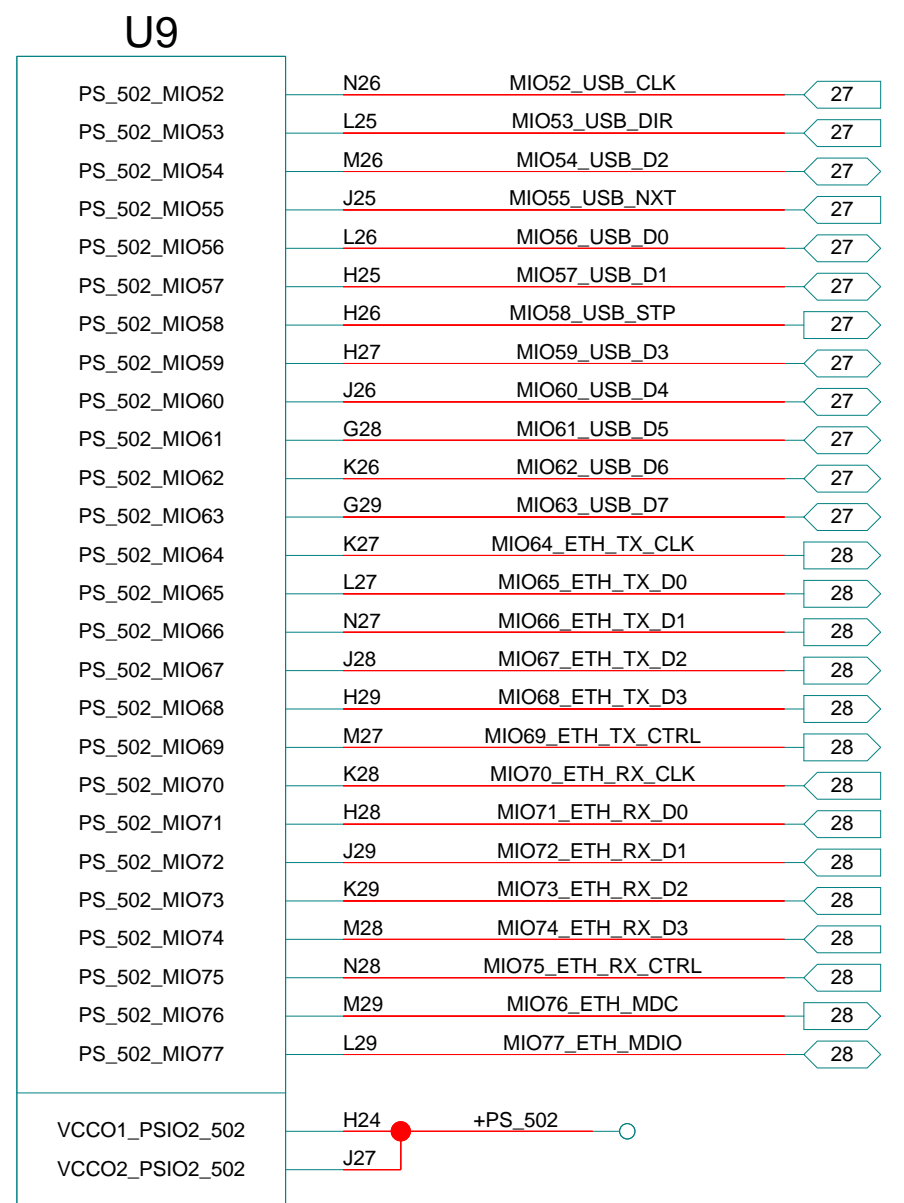
Zynq US+ RFSoc, 48HD, 299HP, 214PS, 16GTY, 4GTR, 8ADC, 8DAC
 ZU28DR
 G1517



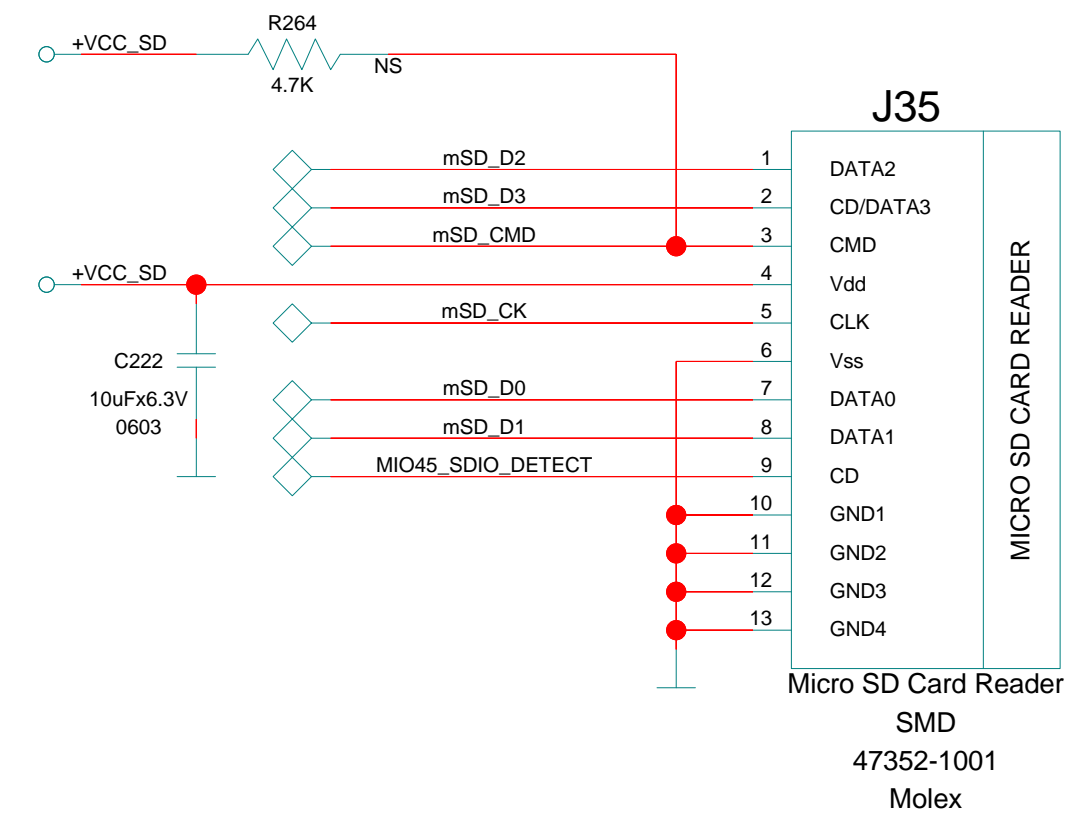
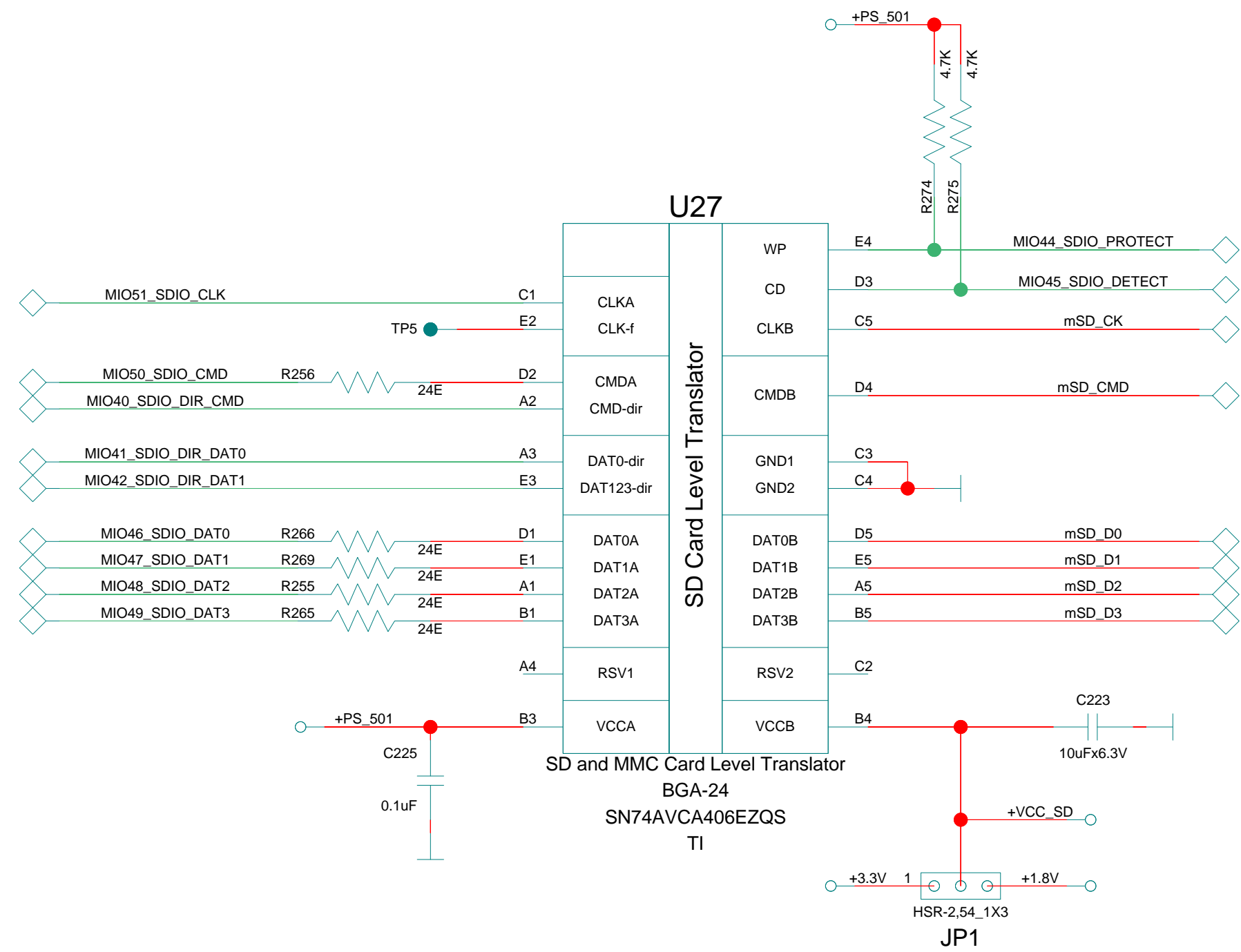
CONTRACT NO.		HTG-ZRF8			
APPROVALS		DATE		PS: 500. Flashes (Configuration)	
DRAWN					
CHECKED					
ISSUED					
SIZE	C	FSCM NO.	DWG. NO.	REV	1.0
SCALE				SHEET 8 of 48	



Zynq US+ RFSoc, 48HD, 299HP, 214PS, 16GTy, 4GTR, 8ADC, 8DAC
ZU28DR
G1517

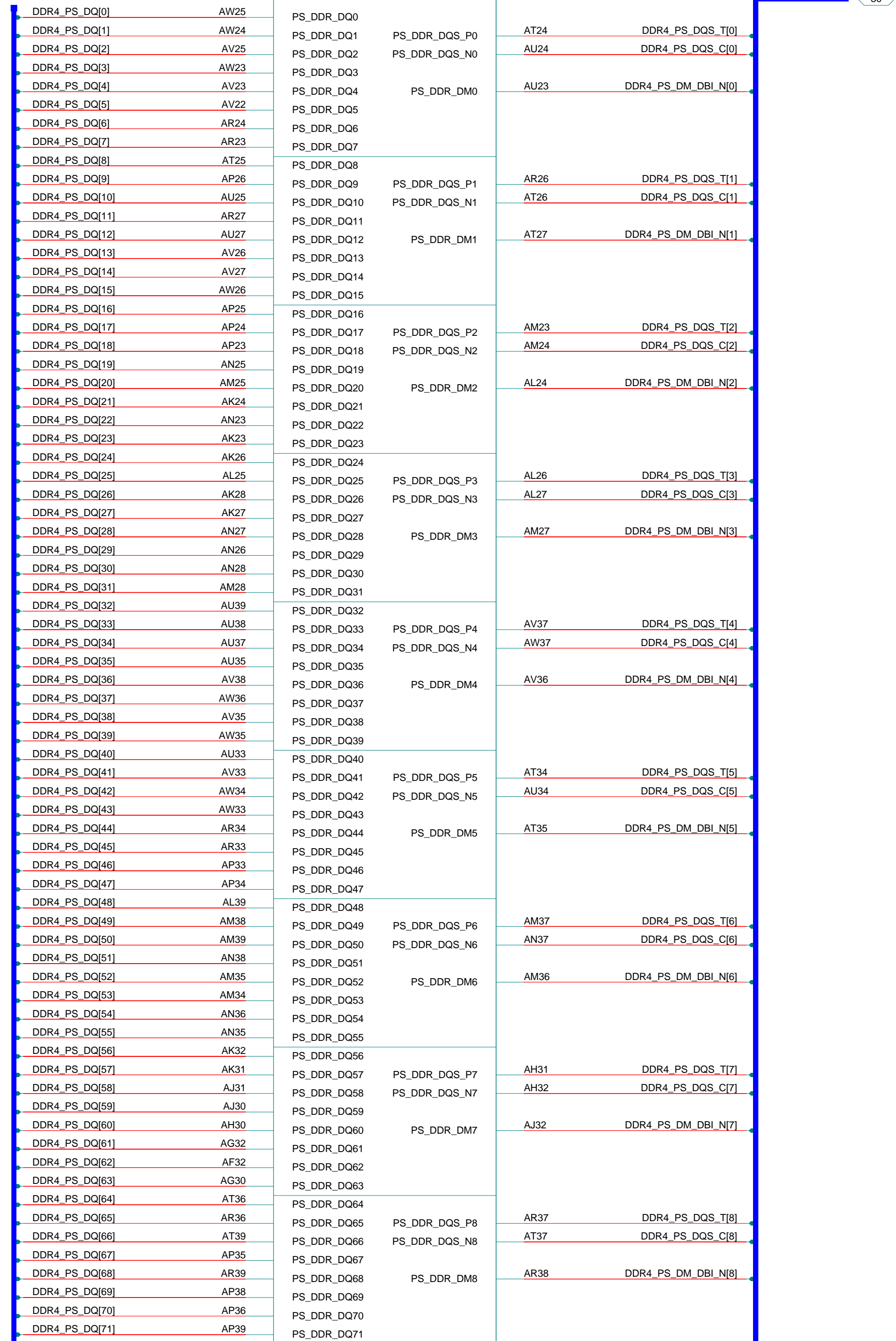


Zynq US+ RFSoc, 48HD, 299HP, 214PS, 16GTy, 4GTR, 8ADC, 8DAC
ZU28DR
G1517



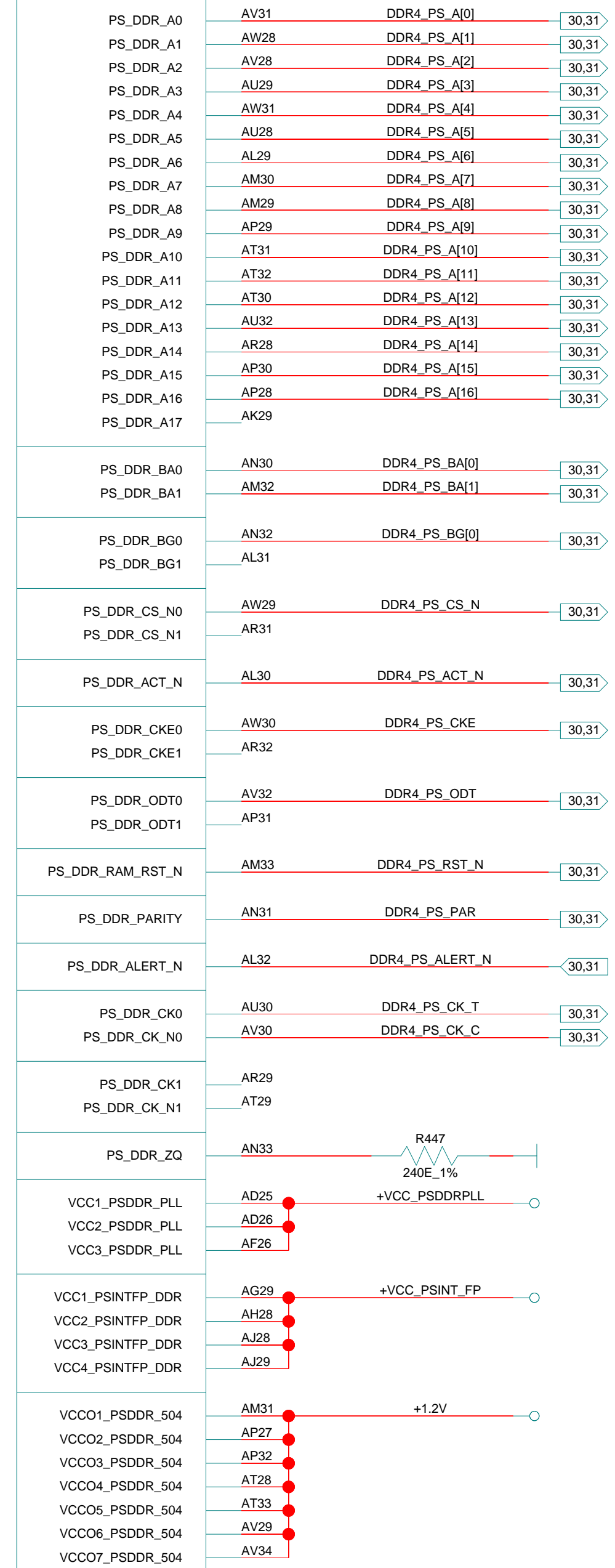
CONTRACT NO.		HTG-ZRF8		
APPROVALS	DATE	PS: 501, 502. Micro SD socket.		
DRAWN IN	CHECKED	SIZE	FSCM NO.	REV
ISSUED		C		1.0
SCALE		DWG. NO.		SHEET 9 of 48

U9



Zynq US+ RFSoc, 48HD, 299HP, 214PS, 16GTy, 4GTR, 8ADC, 8DAC
 ZU28DR
 G1517

U9



Zynq US+ RFSoc, 48HD, 299HP, 214PS, 16GTy, 4GTR, 8ADC, 8DAC
 ZU28DR
 G1517

CONTRACT NO.		HTG-ZRF8		
APPROVALS	DATE	PS 504: DDR4		
DRAWN IN		SIZE	FSCM NO.	DWG. NO.
CHECKED		C		
ISSUED		SCALE		SHEET 10 of 48
				REV 1.0

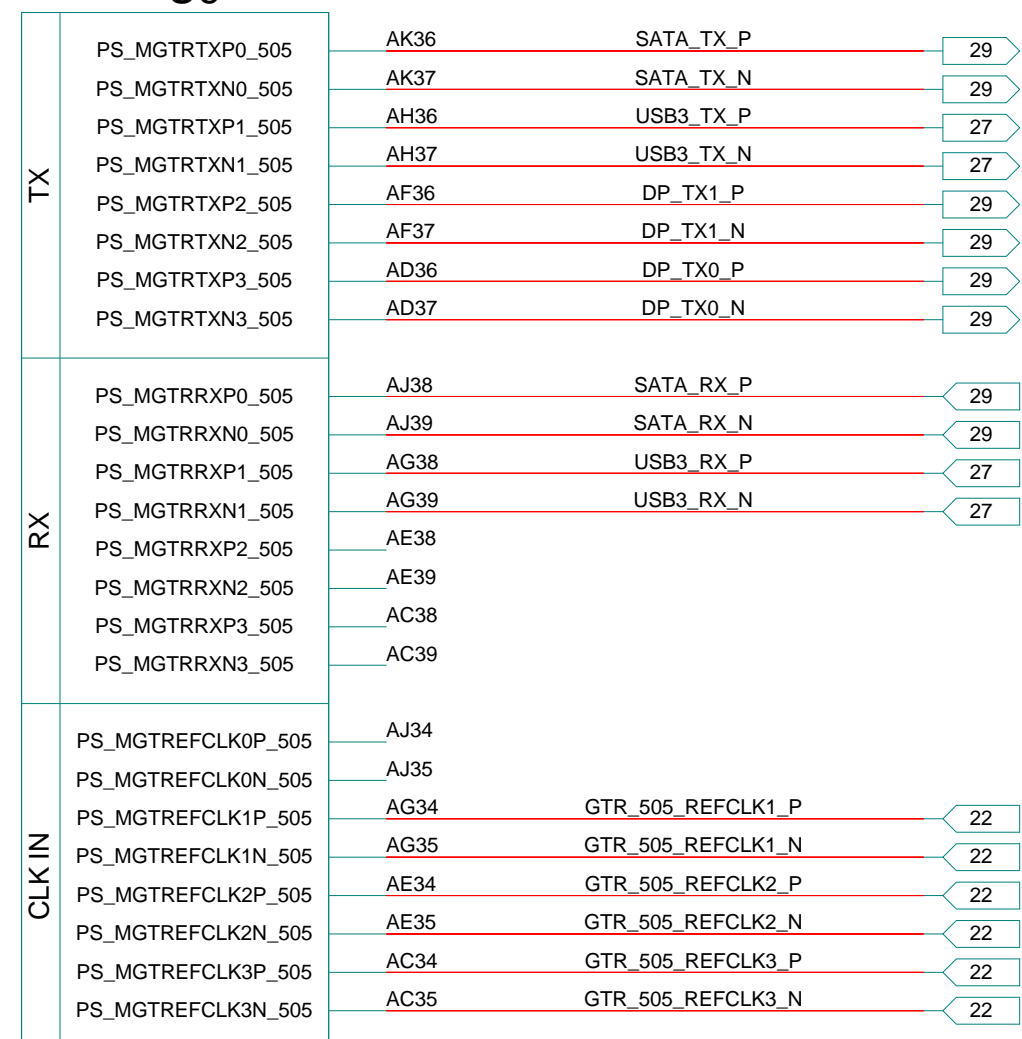
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Zynq US+ RFSoc, 48HD, 299HP, 214PS, 16GTY, 4GTR, 8ADC, 8DAC
 ZU28DR
 G1517

!DON'T SWAP THE LINES!

CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	PS: MGT (GTR)			
DRAWN IN	CHECKED	SIZE	FSCM NO.	DWG. NO.	REV
ISSUED		C			1.0
SCALE		SHEET		11 of 48	

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D

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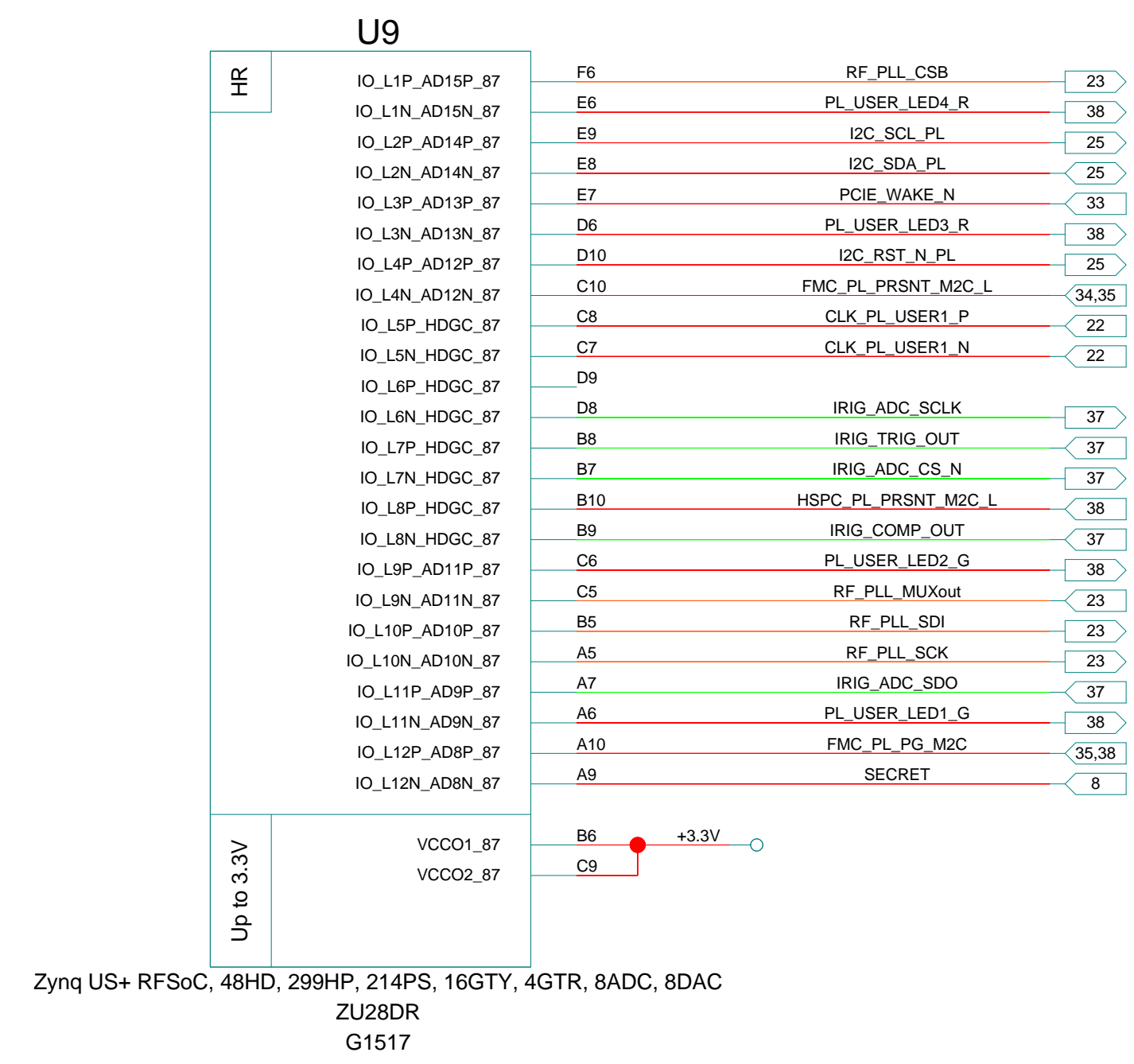
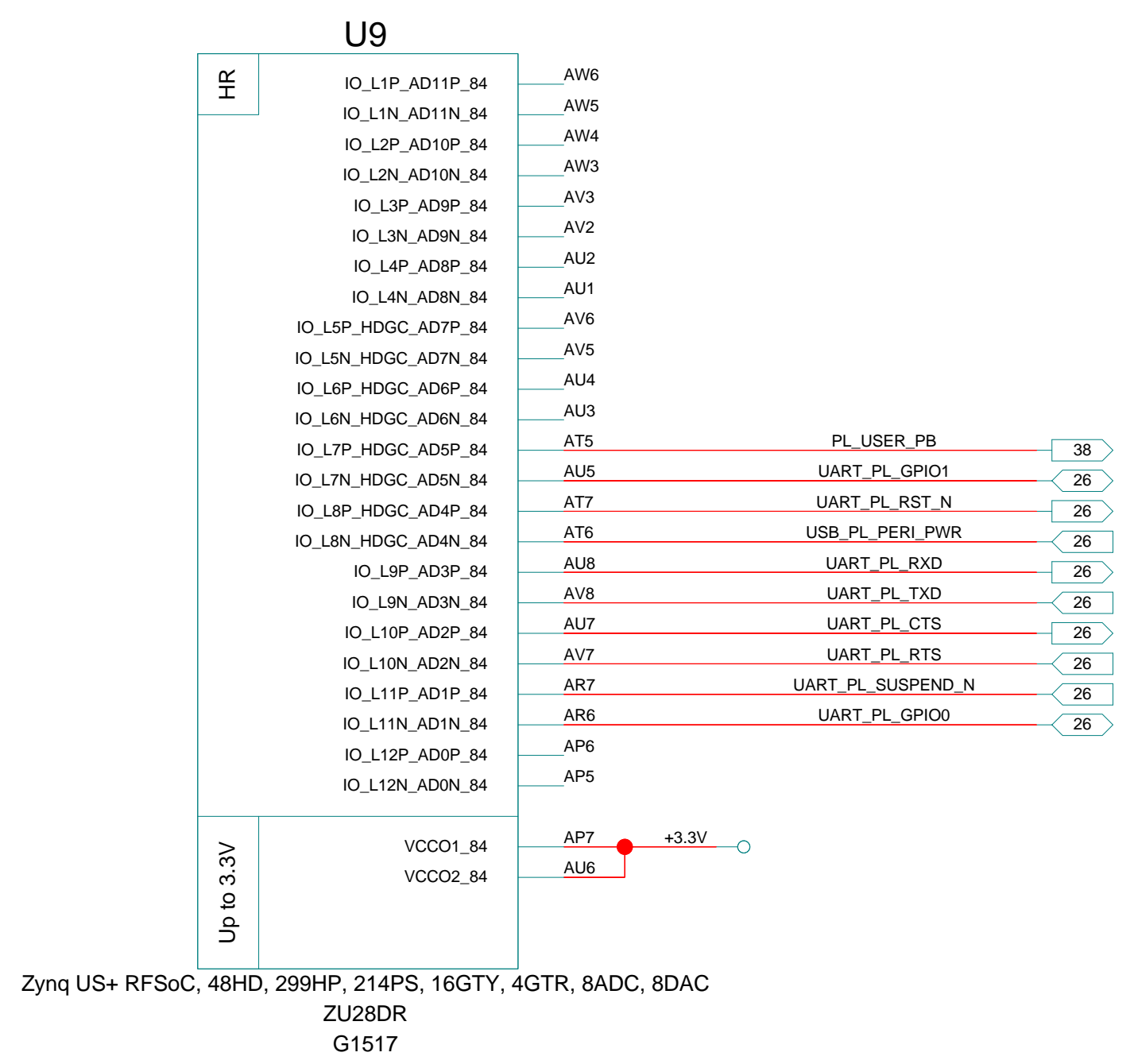
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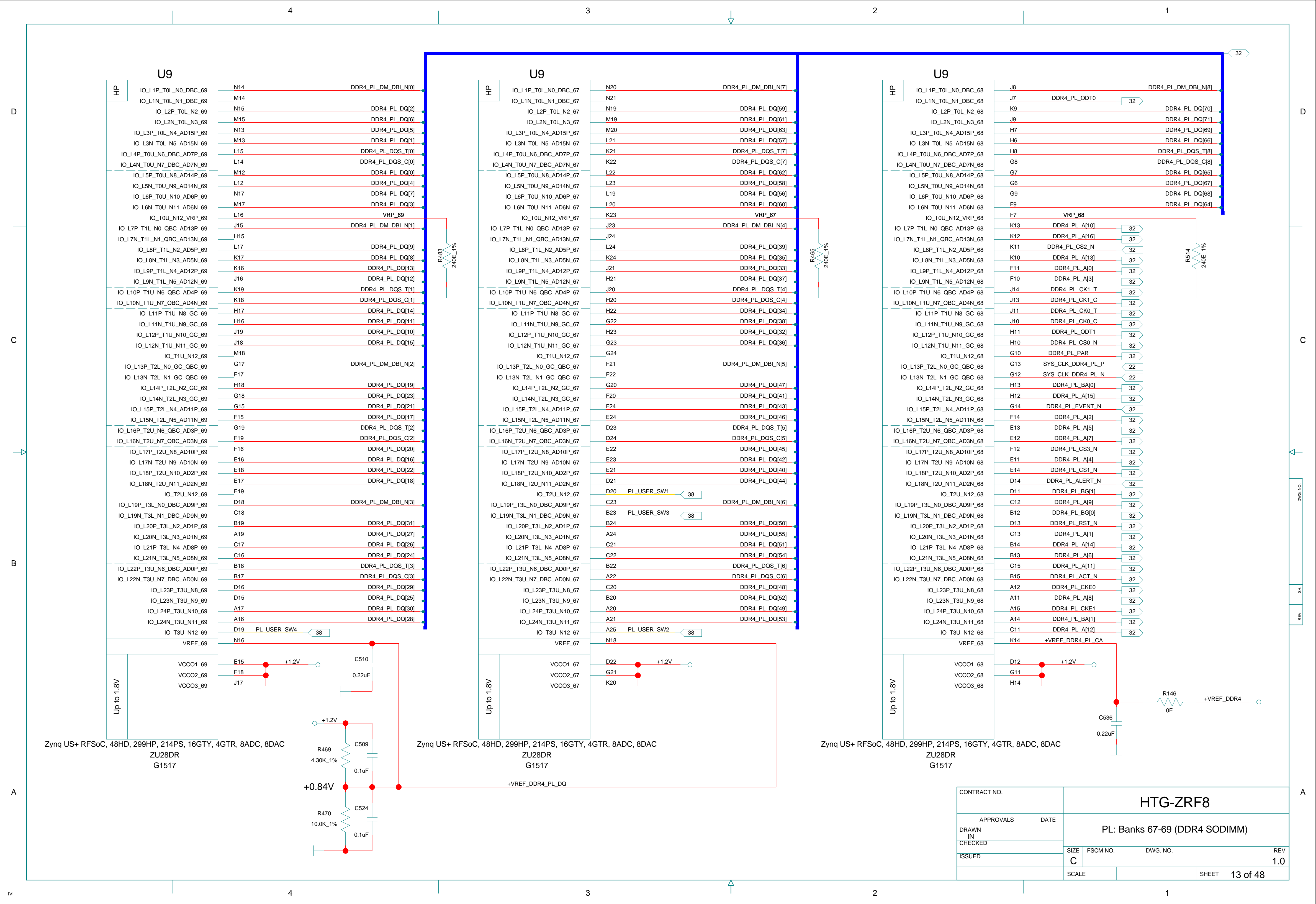


CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	PL: Banks 84, 87			
DRAWN		SIZE	FSCM NO.	DWG. NO.	REV
CHECKED		C			1.0
ISSUED		SCALE		SHEET	12 of 48

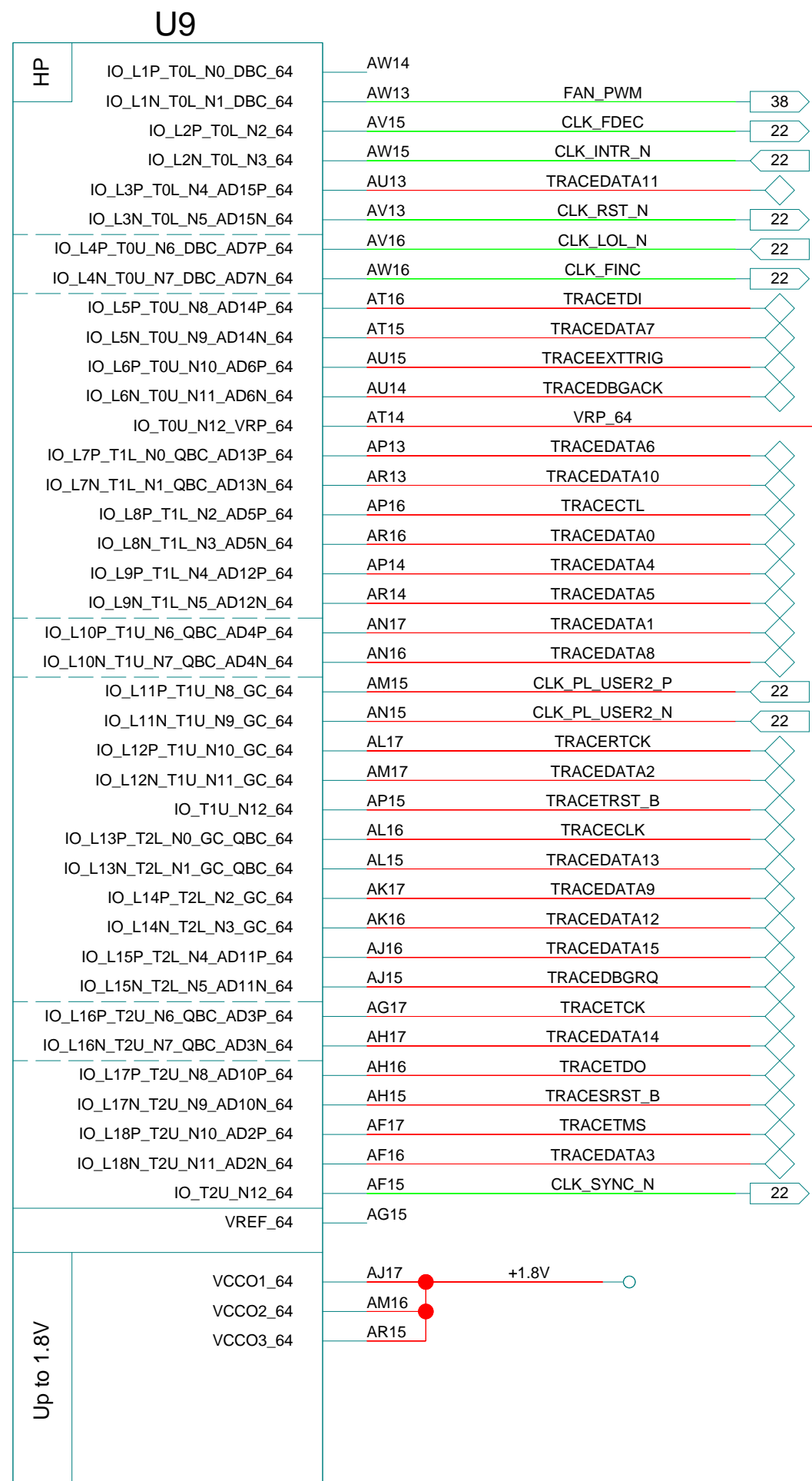
SH.

REV.

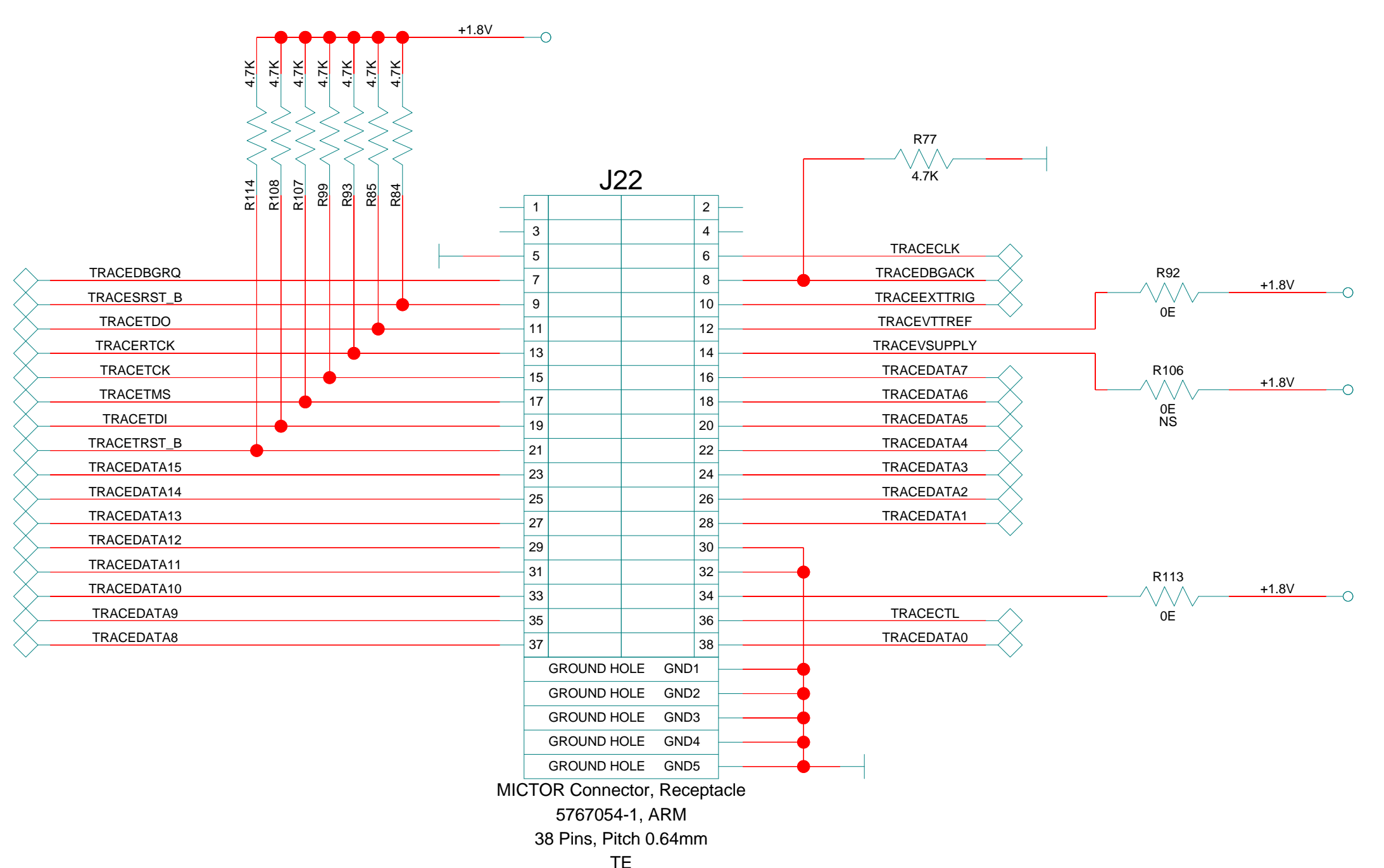
DWG. NO.



CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE				
DRAWN IN		PL: Banks 67-69 (DDR4 SODIMM)		SIZE	FSCM NO.
CHECKED				SCALE	DWG. NO.
ISSUED				REV	1.0
				SHEET	13 of 48

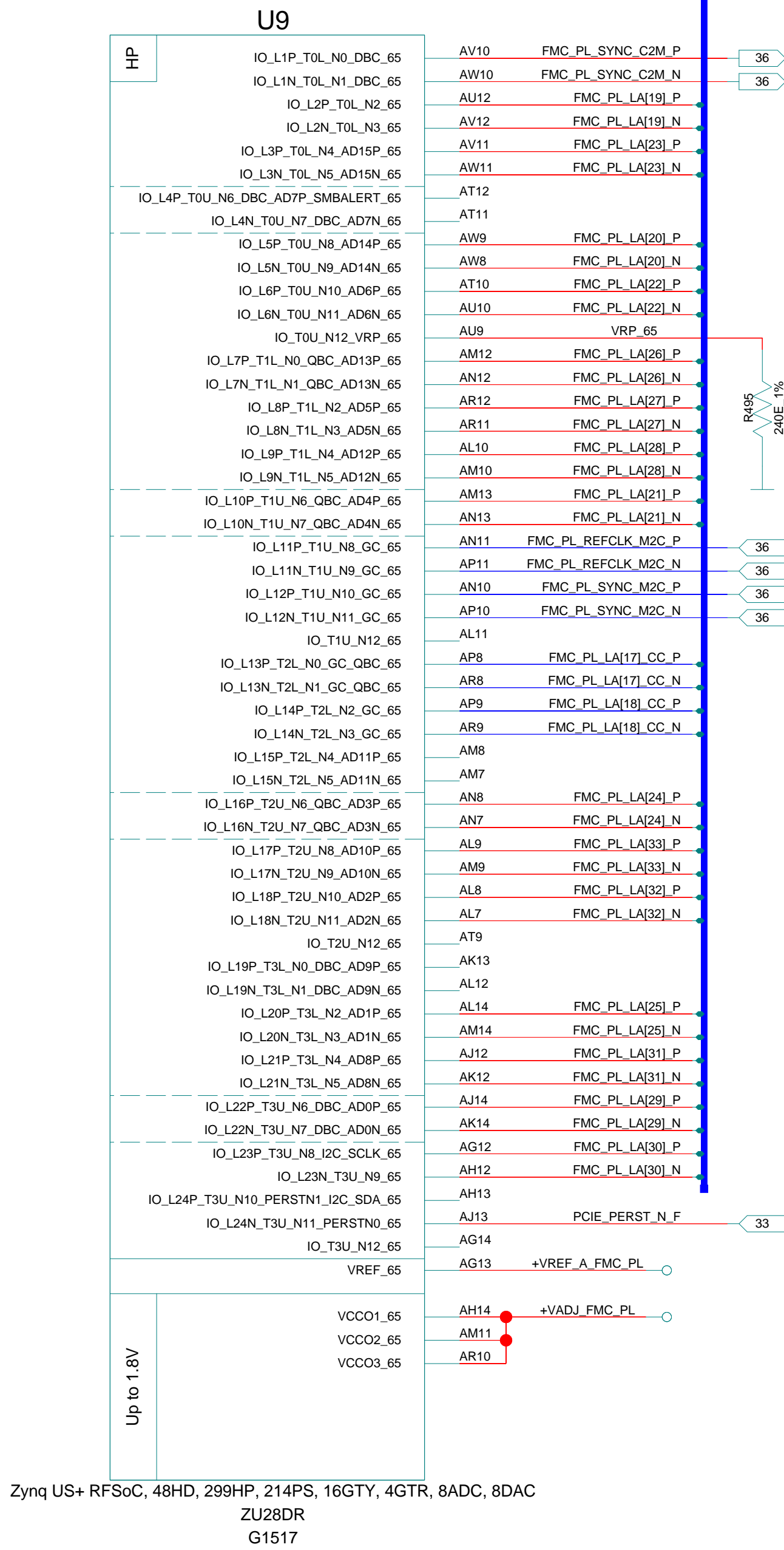
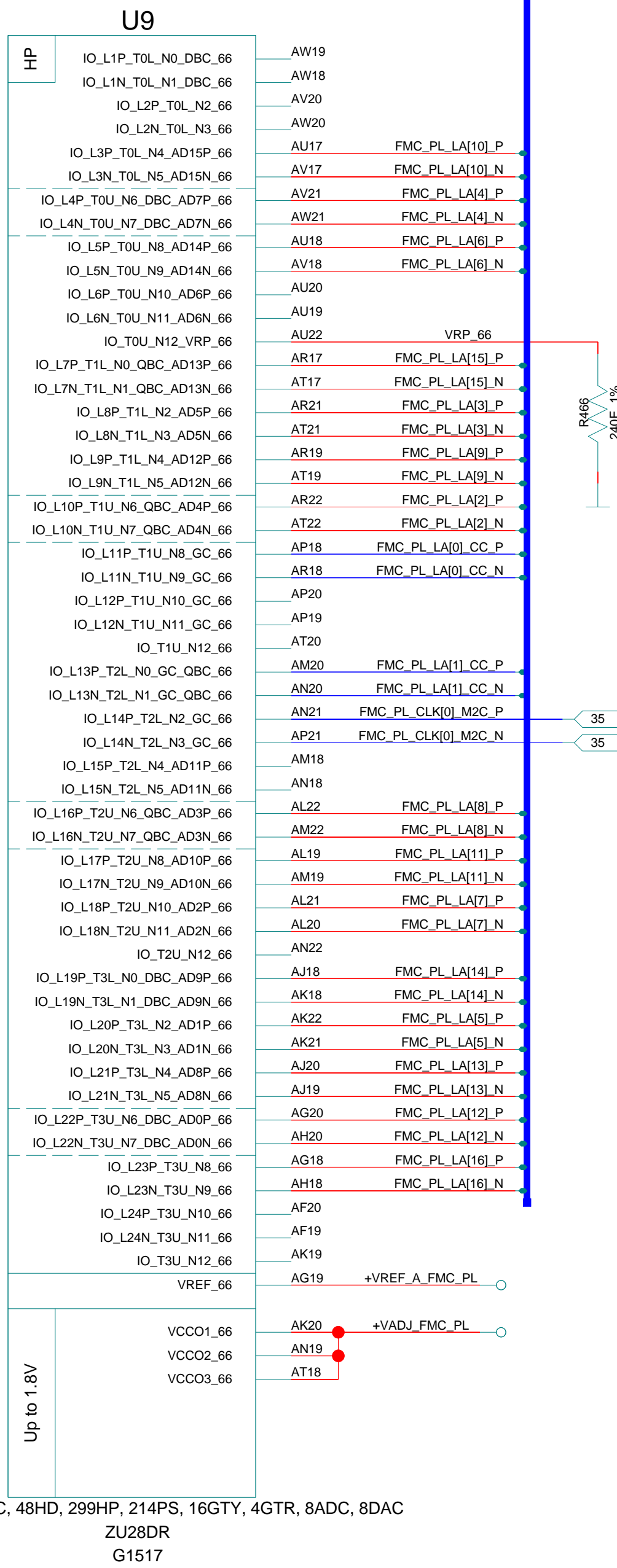


Zynq US+ RFSoc, 48HD, 299HP, 214PS, 16GTY, 4GTR, 8ADC, 8DAC
 ZU28DR
 G1517



MICTOR Connector, Receptacle
 5767054-1, ARM
 38 Pins, Pitch 0.64mm
 TE

CONTRACT NO.		HTG-ZRF8			
APPROVALS		DATE		PL: Bank64 (ARM Trace/Debug) and MICTOR 38 Receptacle	
DRAWN	IN				
CHECKED					
ISSUED		SIZE	FSCM NO.	DWG. NO.	REV
		C			1.0
SCALE				SHEET	14 of 48



CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	PL: Banks 65, 66 (FMC LVDS I/O)			
DRAWN IN CHECKED		SIZE	FSCM NO.	DWG. NO.	REV
ISSUED		C			1.0
SCALE		SHEET		15 of 48	

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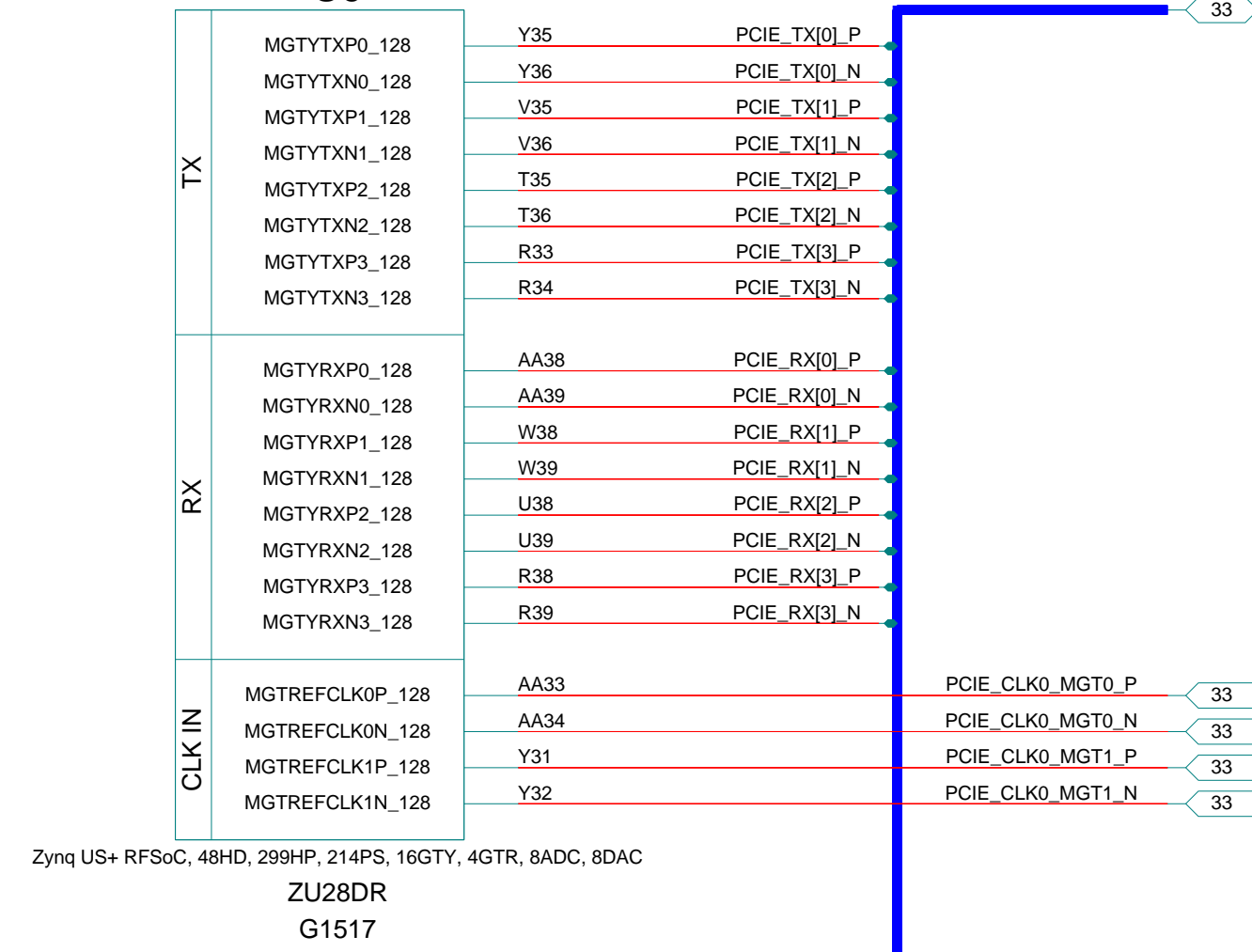
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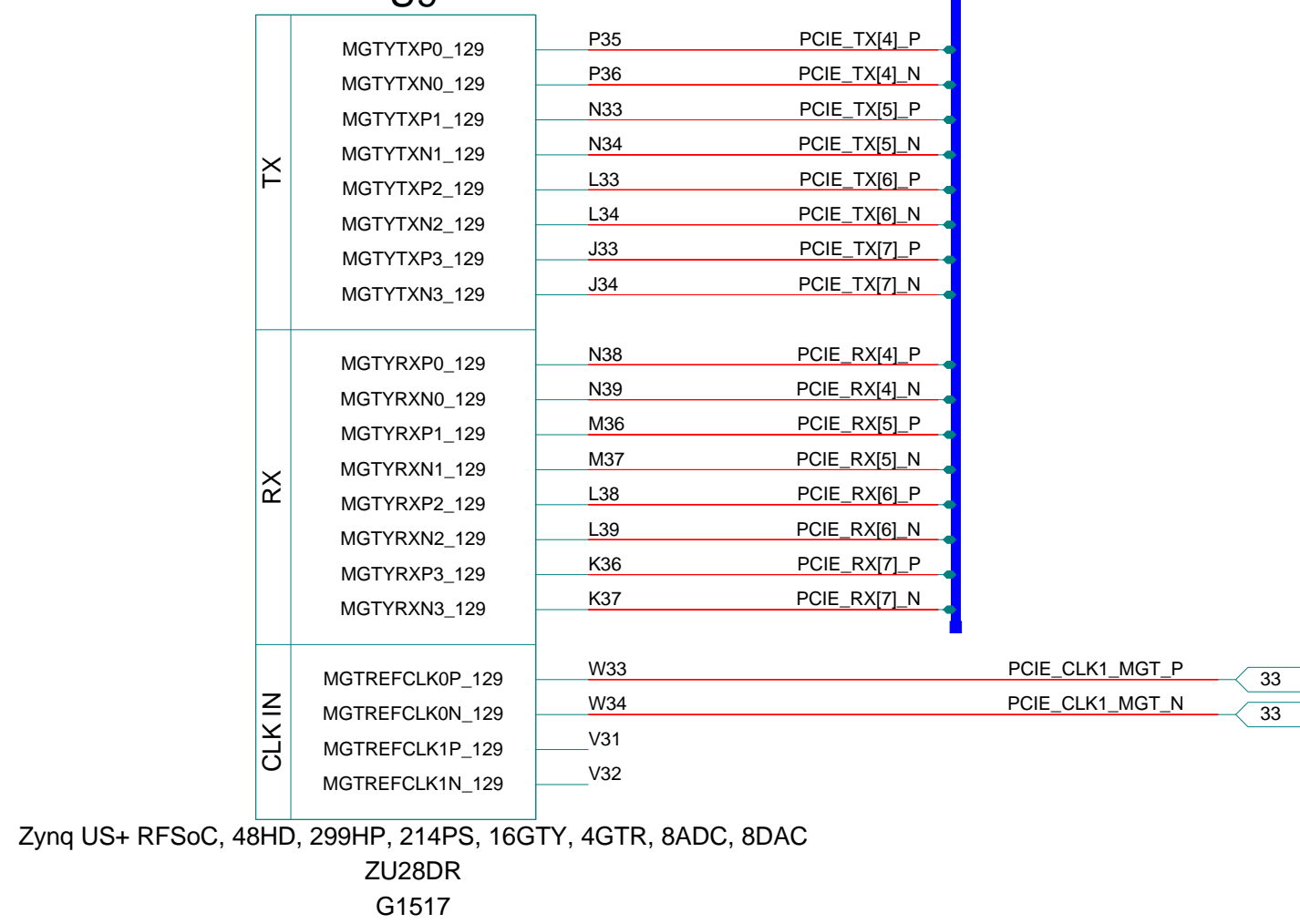
A

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U9



CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	PL: MGT 128, 129 (PCIE)			
DRAWN IN		SIZE		FSCM NO.	REV
CHECKED		C			1.0
ISSUED		SCALE		DWG. NO.	SHEET
					16 of 48

4

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DWG. NO.

SH.

REV.

REV.

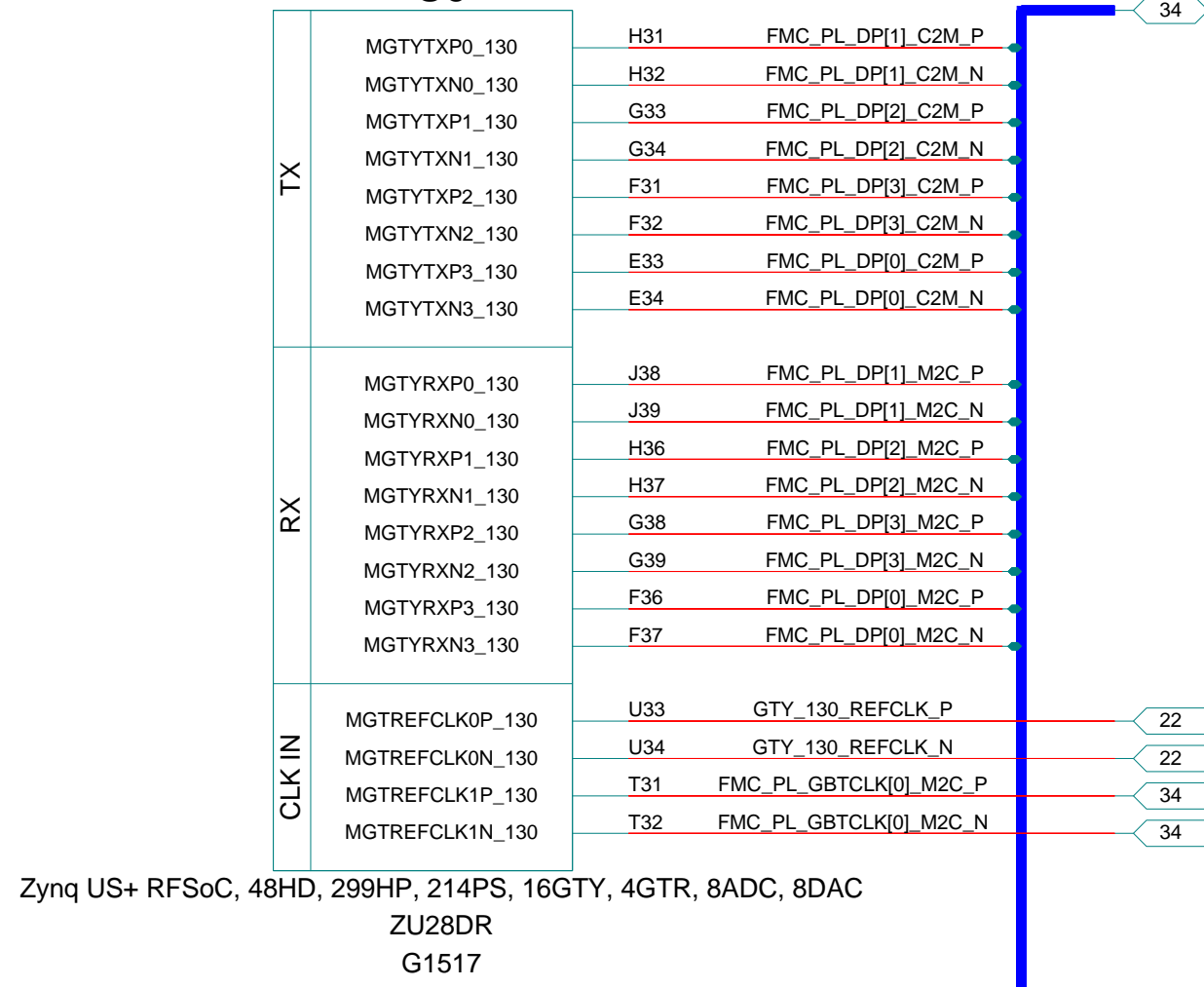
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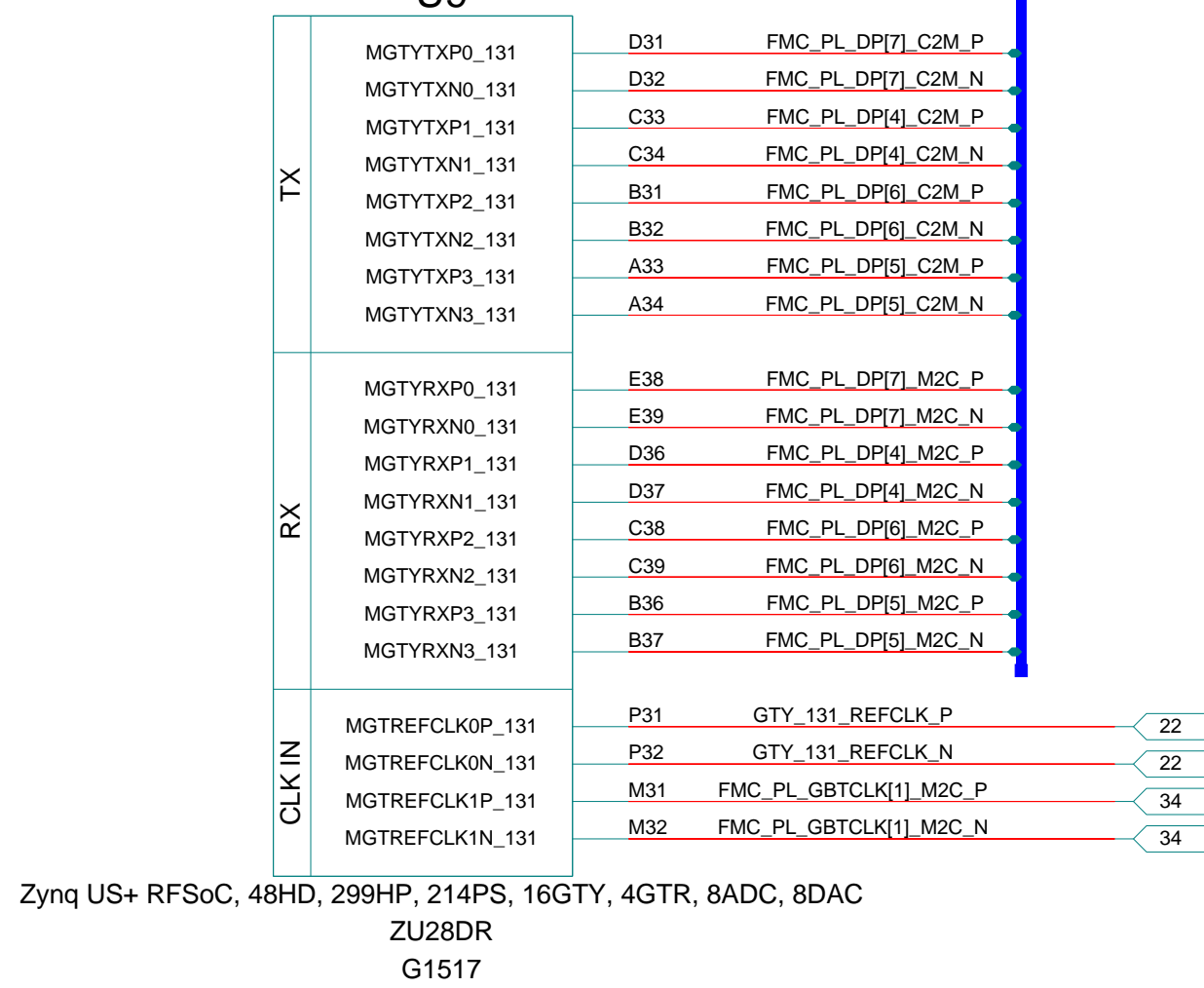
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U9



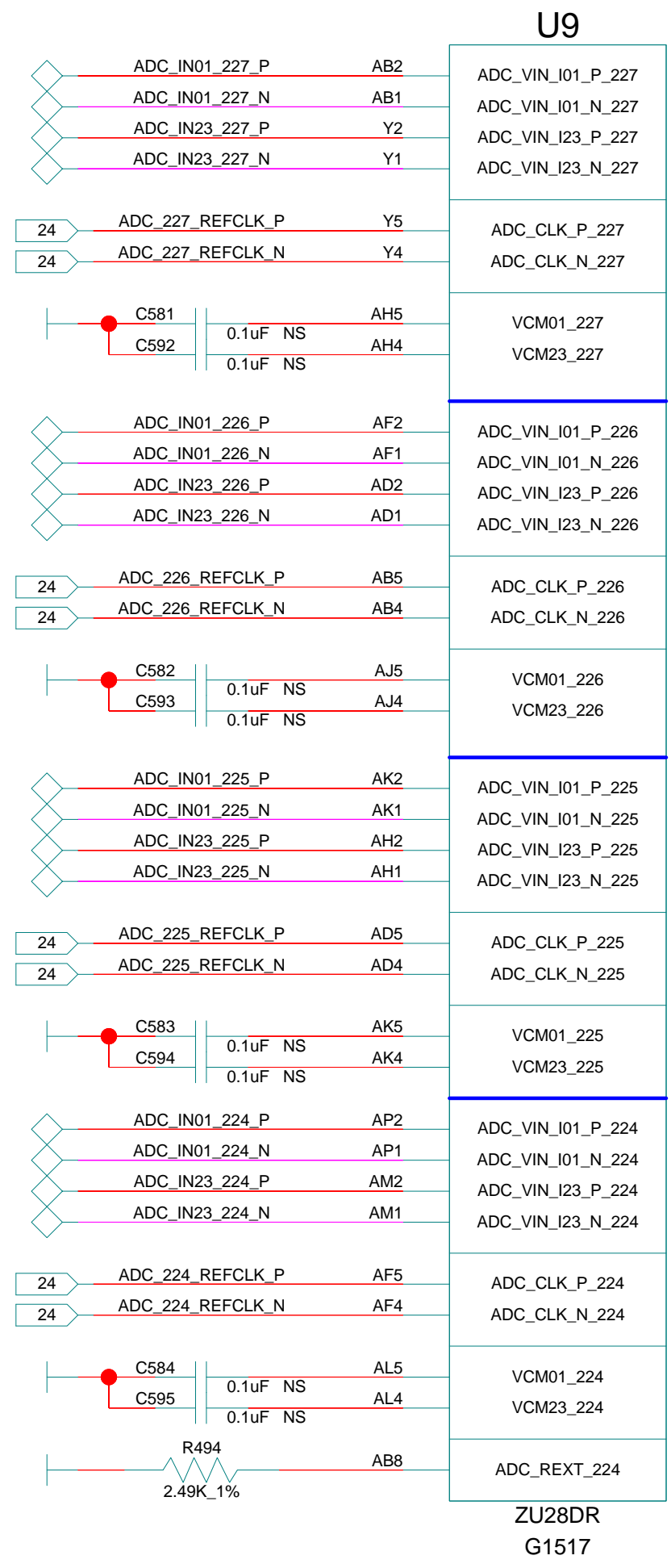
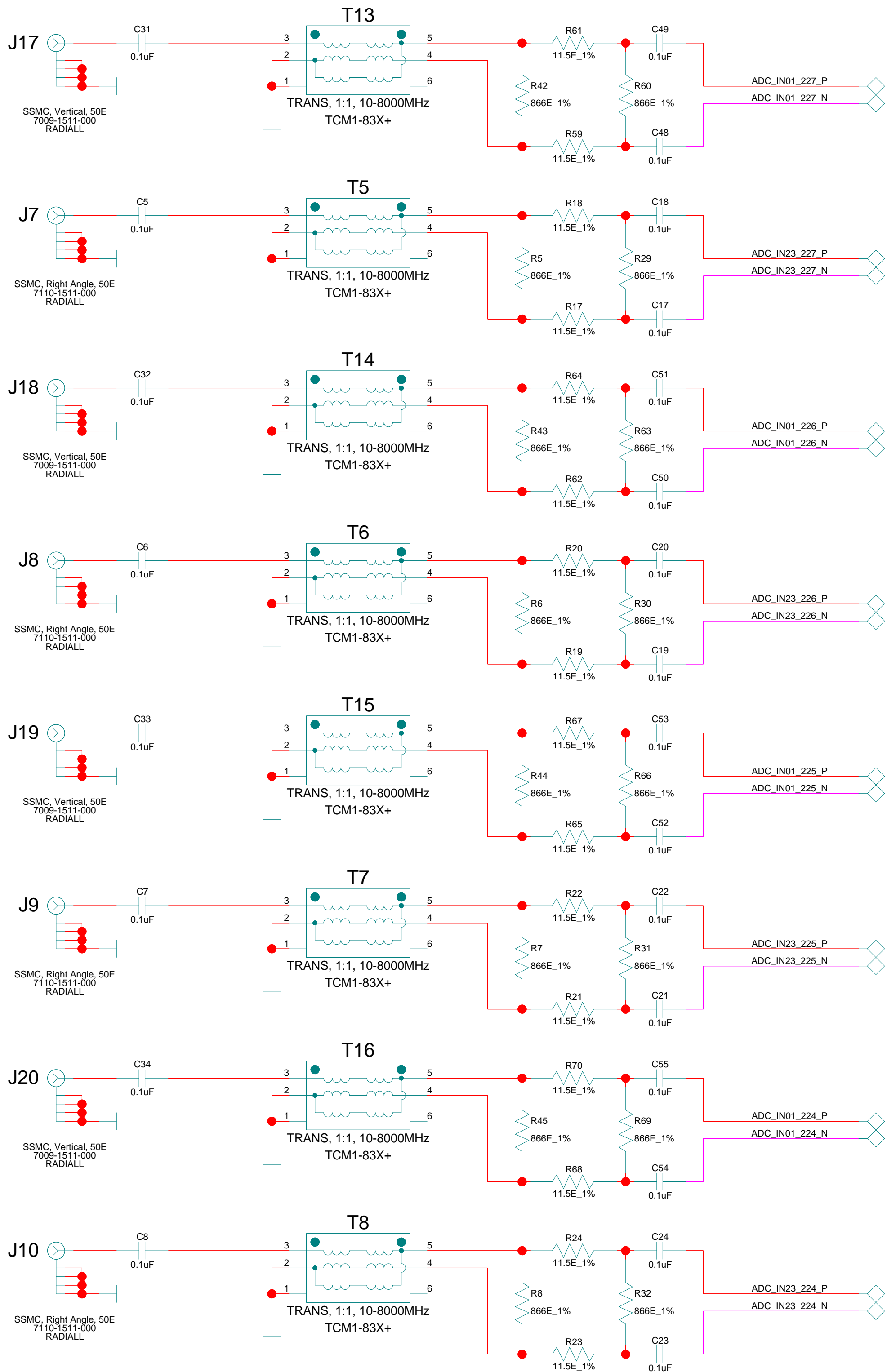
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APPROVALS	DATE	PL: MGT 130, 131 (FMC)			
DRAWN IN	CHECKED	SIZE	FSCM NO.	DWG. NO.	REV
ISSUED		C			1.0
SCALE		SHEET		17 of 48	

4

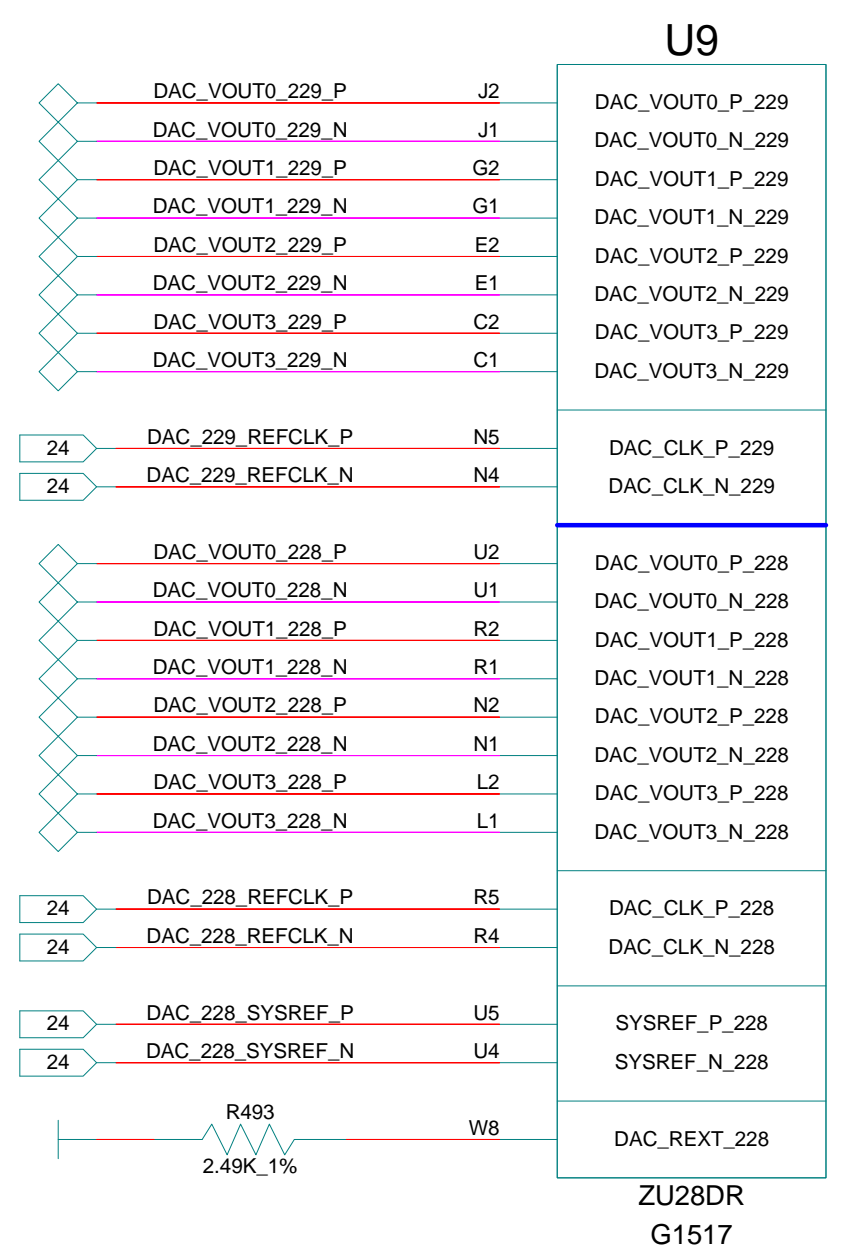
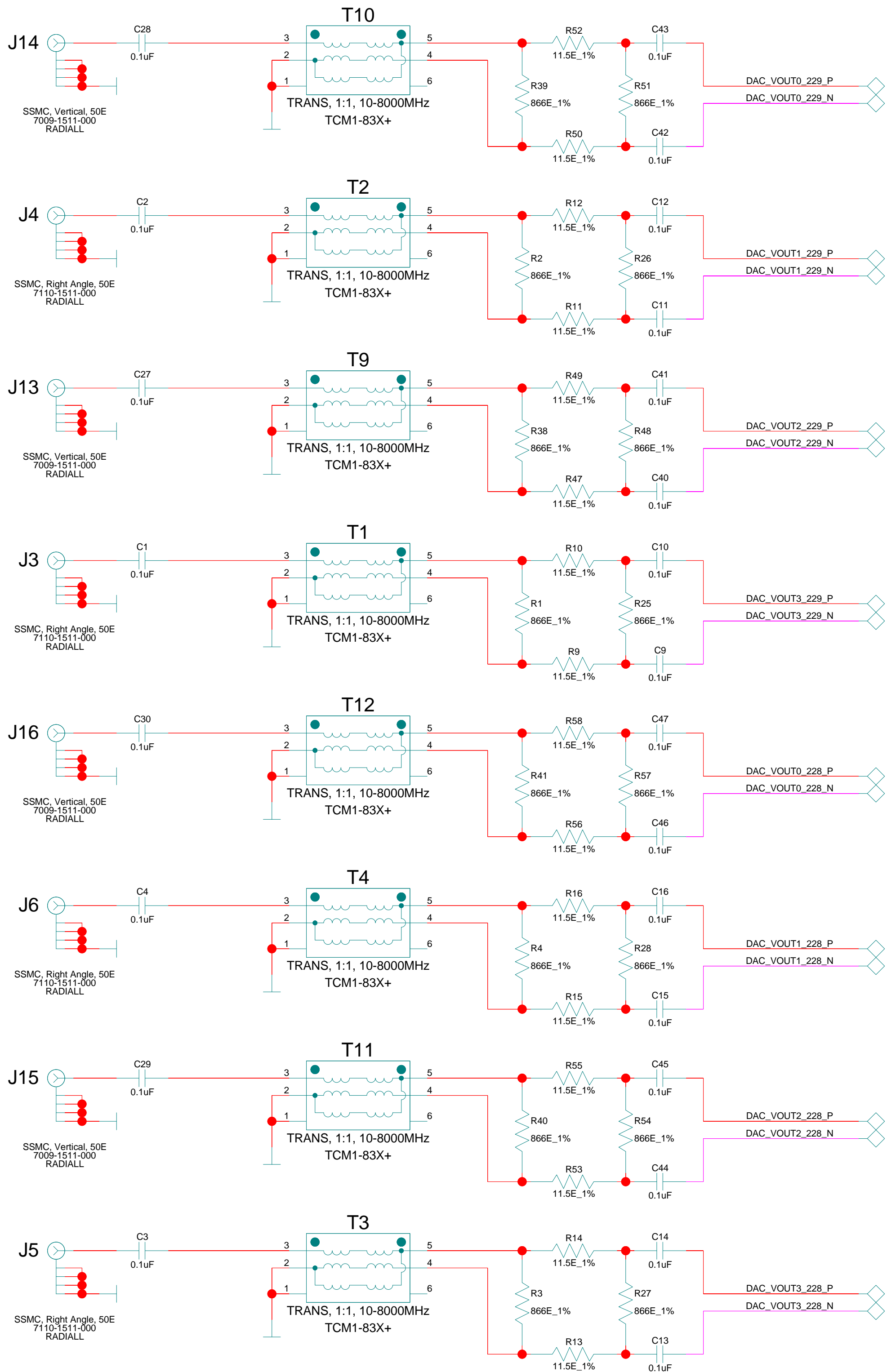
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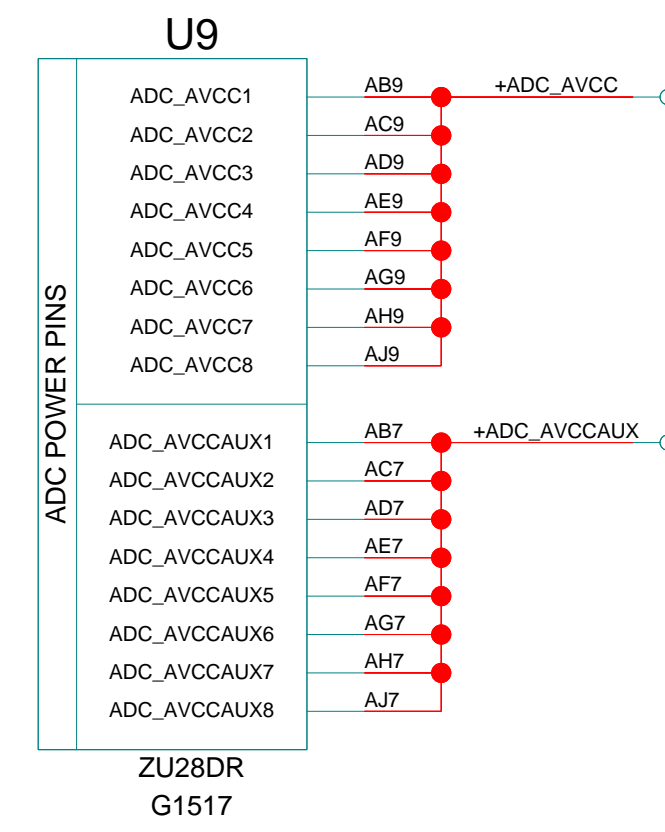
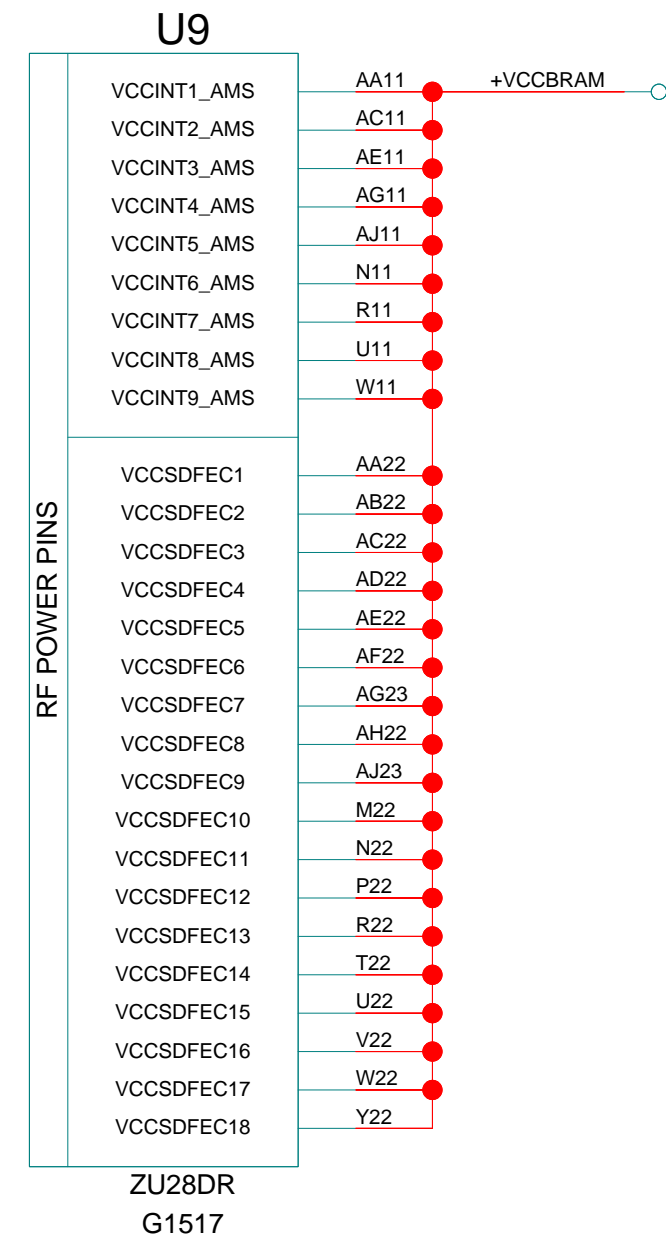
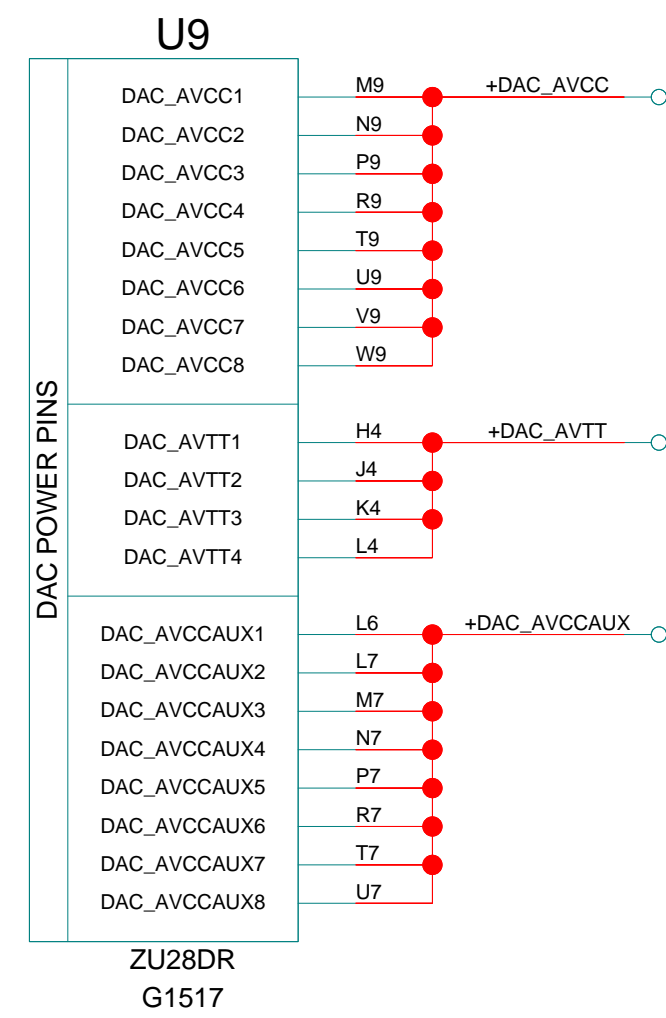
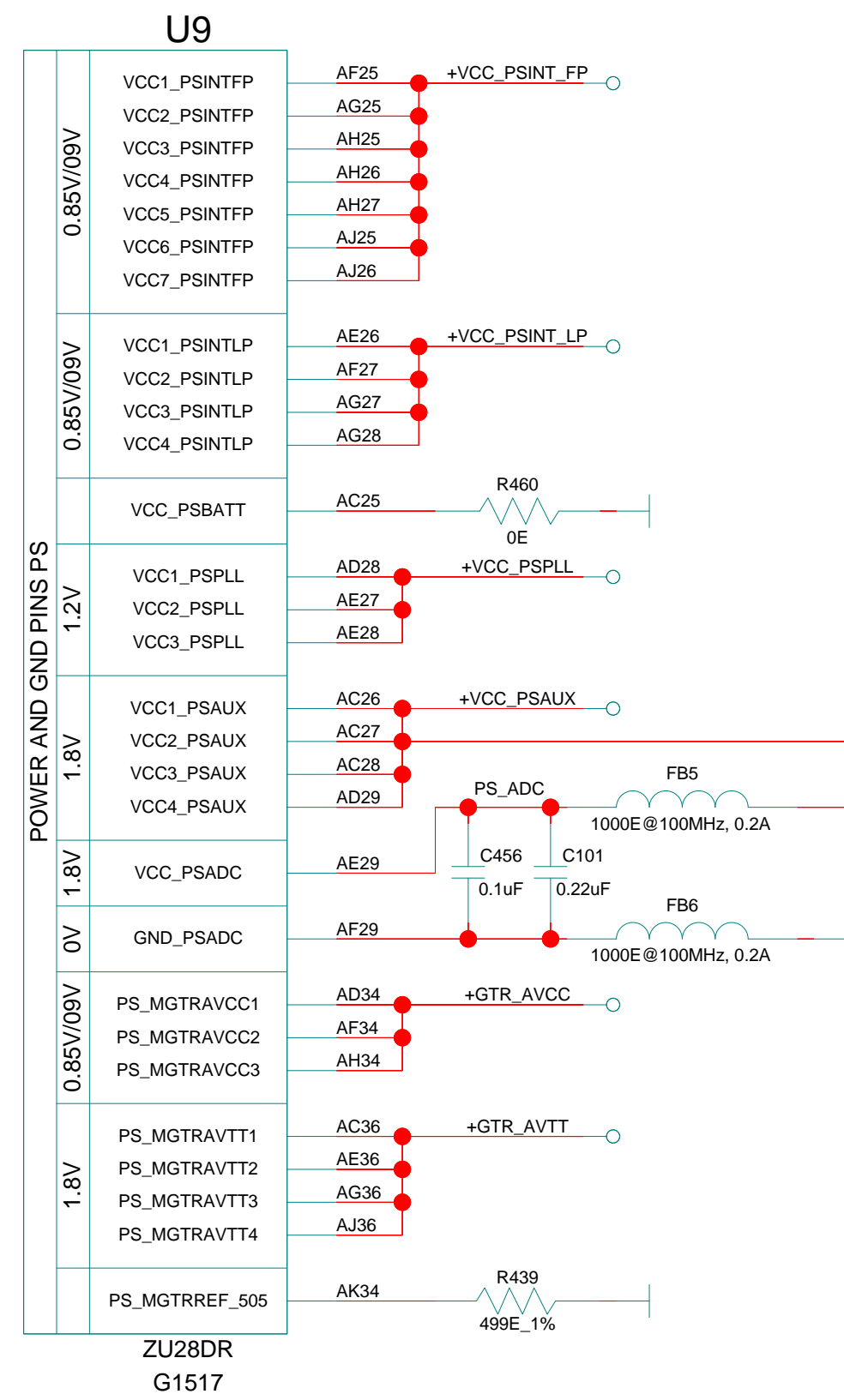
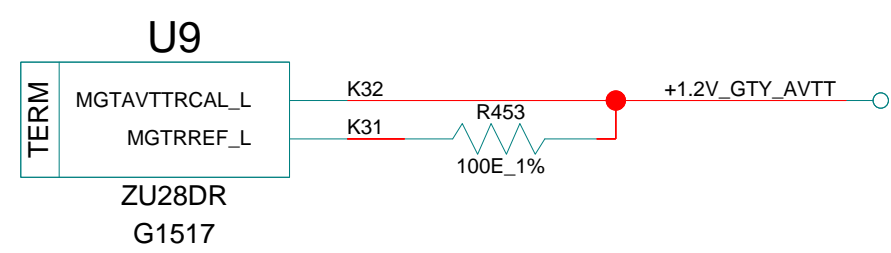
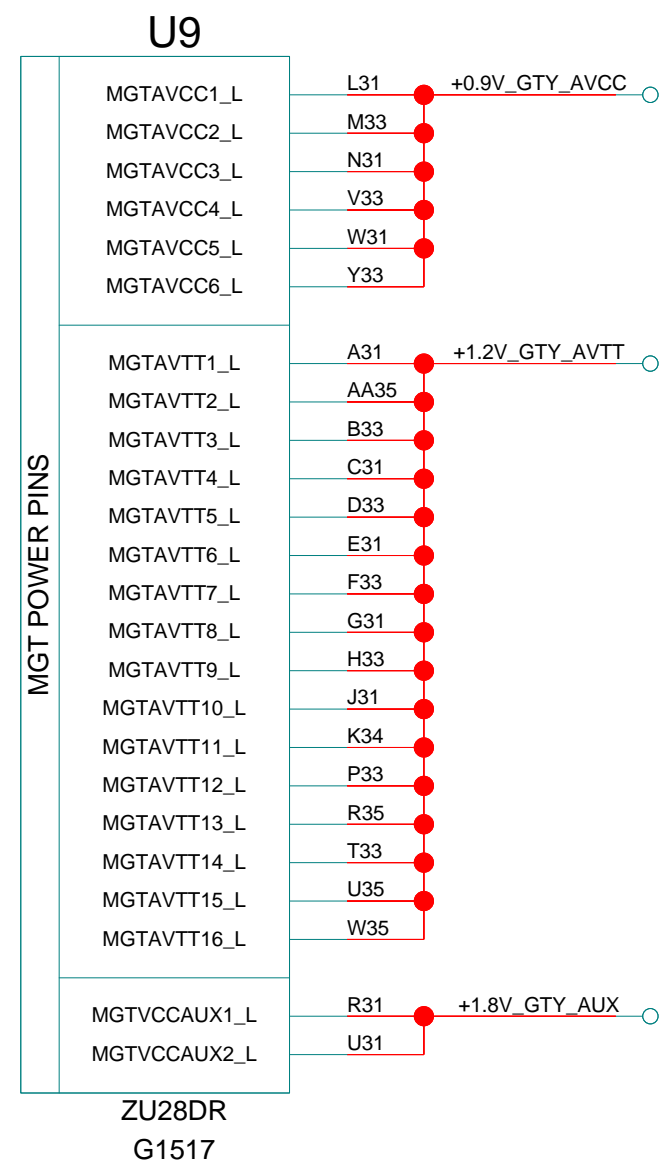
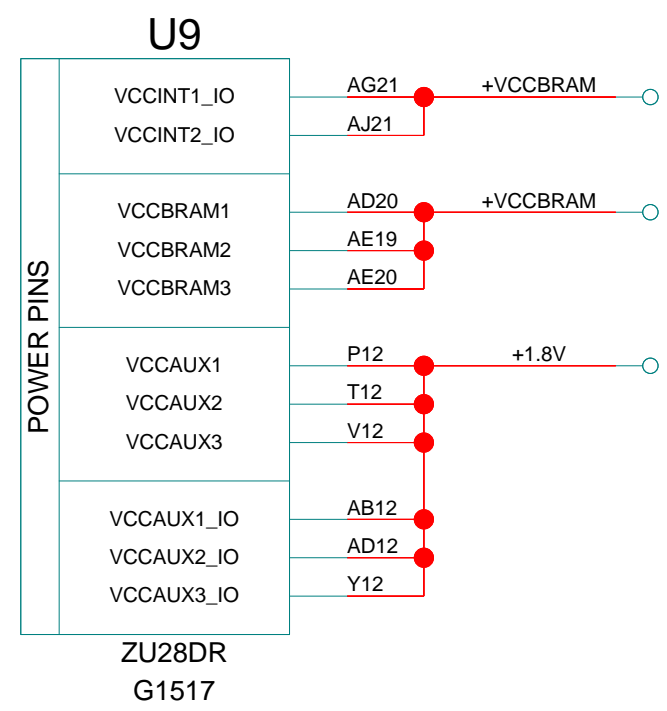
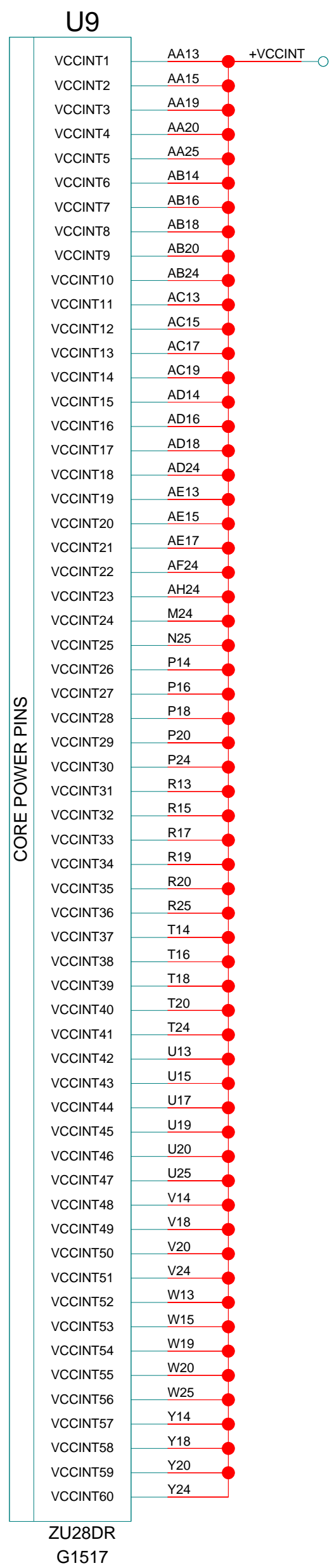
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CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE				
DRAWN	IN	RF: ADC			
CHECKED					
ISSUED	SIZE	FSCM NO.	DWG. NO.	REV	
	C			1.0	
	SCALE		SHEET	18 of 48	



CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	RF: DAC			
DRAWN	IN	SIZE	FSCM NO.	DWG. NO.	REV
CHECKED		C			1.0
ISSUED		SCALE		SHEET	19 of 48



CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE				
DRAWN IN CHECKED		RF, PS and PL: POWER Pins			
ISSUED					
SCALE		SIZE C	FSCM NO.	DWG. NO.	REV 1.0
		SHEET		20 of 48	



- U9**
- ADC_GND1 AA1
 ADC_GND2 AA10
 ADC_GND3 AA2
 ADC_GND4 AA3
 ADC_GND5 AA4
 ADC_GND6 AA5
 ADC_GND7 AA6
 ADC_GND8 AA7
 ADC_GND9 AA8
 ADC_GND10 AA9
 ADC_GND11 AB10
 ADC_GND12 AB3
 ADC_GND13 AB6
 ADC_GND14 AC1
 ADC_GND15 AC10
 ADC_GND16 AC2
 ADC_GND17 AC3
 ADC_GND18 AC4
 ADC_GND19 AC5
 ADC_GND20 AC6
 ADC_GND21 AC8
 ADC_GND22 AD10
 ADC_GND23 AD3
 ADC_GND24 AD6
 ADC_GND25 AD8
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 ADC_GND27 AE2
 ADC_GND28 AE3
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 ADC_GND41 AG4
 ADC_GND42 AG5
 ADC_GND43 AG6
 ADC_GND44 AG8
 ADC_GND45 AH10
 ADC_GND46 AH3
 ADC_GND47 AH6
 ADC_GND48 AH8
 ADC_GND49 AJ1
 ADC_GND50 AJ10
 ADC_GND51 AJ2
 ADC_GND52 AJ3
 ADC_GND53 AJ6
 ADC_GND54 AJ8
 ADC_GND55 AK3
 ADC_GND56 AL1
 ADC_GND57 AL2
 ADC_GND58 AL3
 ADC_GND59 AM3
 ADC_GND60 AM4
 ADC_GND61 AM5
 ADC_GND62 AN1
 ADC_GND63 AN2
 ADC_GND64 AN3
 ADC_GND65 AP3
 ADC_GND66 AR1
 ADC_GND67 AR2
 ADC_GND68 AR3
 ADC_GND69 W1
 ADC_GND70 W2
 ADC_GND71 W3
 ADC_GND72 W4
 ADC_GND73 W5
 ADC_GND74 W6
 ADC_GND75 Y3
 ADC_GND76 Y6
 ADC_SUB_GND AE10

- U9**
- DAC_GND1 A2
 DAC_GND2 B1
 DAC_GND3 B2
 DAC_GND4 B3
 DAC_GND5 C1
 DAC_GND6 D1
 DAC_GND7 D2
 DAC_GND8 D3
 DAC_GND9 E3
 DAC_GND10 E4
 DAC_GND11 F1
 DAC_GND12 F2
 DAC_GND13 F3
 DAC_GND14 F4
 DAC_GND15 G3
 DAC_GND16 G4
 DAC_GND17 H1
 DAC_GND18 H2
 DAC_GND19 H3
 DAC_GND20 J3
 DAC_GND21 K1
 DAC_GND22 K2
 DAC_GND23 K3
 DAC_GND24 K5
 DAC_GND25 L3
 DAC_GND26 L5
 DAC_GND27 M1
 DAC_GND28 M10
 DAC_GND29 M2
 DAC_GND30 M3
 DAC_GND31 M4
 DAC_GND32 M5
 DAC_GND33 M6
 DAC_GND34 M8
 DAC_GND35 N10
 DAC_GND36 N3
 DAC_GND37 N6
 DAC_GND38 N8
 DAC_GND39 P1
 DAC_GND40 P2
 DAC_GND41 P3
 DAC_GND42 P4
 DAC_GND43 P5
 DAC_GND44 P6
 DAC_GND45 P8
 DAC_GND46 R10
 DAC_GND47 R3
 DAC_GND48 R6
 DAC_GND49 R8
 DAC_GND50 T1
 DAC_GND51 T10
 DAC_GND52 T2
 DAC_GND53 T3
 DAC_GND54 T4
 DAC_GND55 T5
 DAC_GND56 T6
 DAC_GND57 T8
 DAC_GND58 U10
 DAC_GND59 U3
 DAC_GND60 U6
 DAC_GND61 U8
 DAC_GND62 V1
 DAC_GND63 V10
 DAC_GND64 V2
 DAC_GND65 V3
 DAC_GND66 V4
 DAC_GND67 V5
 DAC_GND68 V6
 DAC_GND69 V7
 DAC_GND70 V8
 DAC_GND71 W10
 DAC_GND72 W7
 DAC_GND73 Y10
 DAC_GND74 Y7
 DAC_GND75 Y8
 DAC_GND76 Y9
 DAC_SUB_GND P10

- U9**
- GND1 A13
 GND2 A18
 GND3 A23
 GND4 A28
 GND5 A3
 GND6 A30
 GND7 A32
 GND8 A35
 GND9 A36
 GND10 A37
 GND11 A38
 GND12 A4
 GND13 A8
 GND14 AA12
 GND15 AA14
 GND16 AA18
 GND17 AA21
 GND18 AA23
 GND19 AA24
 GND20 AA28
 GND21 AA30
 GND22 AA31
 GND23 AA32
 GND24 AA36
 GND25 AA37
 GND26 AB11
 GND27 AB13
 GND28 AB15
 GND29 AB17
 GND30 AB19
 GND31 AB21
 GND32 AB23
 GND33 AB25
 GND34 AB32
 GND35 AB33
 GND36 AB34
 GND37 AB35
 GND38 AB36
 GND39 AB37
 GND40 AB38
 GND41 AB39
 GND42 AC12
 GND43 AC14
 GND44 AC16
 GND45 AC18
 GND46 AC20
 GND47 AC21
 GND48 AC23
 GND49 AC24
 GND50 AC33
 GND51 AC37
 GND52 AD11
 GND53 AD13
 GND54 AD15
 GND55 AD17
 GND56 AD19
 GND57 AD21
 GND58 AD23
 GND59 AD27
 GND60 AD33
 GND61 AD35
 GND62 AD38
 GND63 AD39

GROUND PINS (SECTION 1 OF 6)

ZU28DR
G1517

- U9**
- GND64 AE12
 GND65 AE14
 GND66 AE16
 GND67 AE18
 GND68 AE21
 GND69 AE23
 GND70 AE24
 GND71 AE25
 GND72 AE33
 GND73 AE37
 GND74 AF11
 GND75 AF13
 GND76 AF18
 GND77 AF21
 GND78 AF23
 GND79 AF28
 GND80 AF33
 GND81 AF35
 GND82 AF38
 GND83 AF39
 GND84 AG16
 GND85 AG22
 GND86 AG24
 GND87 AG26
 GND88 AG31
 GND89 AG33
 GND90 AG37
 GND91 AH11
 GND92 AH19
 GND93 AH21
 GND94 AH23
 GND95 AH29
 GND96 AH33
 GND97 AH35
 GND98 AH38
 GND99 AH39
 GND100 AJ22
 GND101 AJ24
 GND102 AJ27
 GND103 AJ33
 GND104 AJ37
 GND105 AK10
 GND106 AK11
 GND107 AK15
 GND108 AK25
 GND109 AK30
 GND110 AK33
 GND111 AK35
 GND112 AK38
 GND113 AK39
 GND114 AK6
 GND115 AK7
 GND116 AK8
 GND117 AK9
 GND118 AL13
 GND119 AL18
 GND120 AL23
 GND121 AL28
 GND122 AL33
 GND123 AL34
 GND124 AL35
 GND125 AL36
 GND126 AL37

GROUND PINS (SECTION 2 OF 6)

ZU28DR
G1517

- U9**
- GND127 AL38
 GND128 AL6
 GND129 AM21
 GND130 AM26
 GND131 AM6
 GND132 AN14
 GND133 AN24
 GND134 AN29
 GND135 AN34
 GND136 AN39
 GND137 AN4
 GND138 AN5
 GND139 AN6
 GND140 AN9
 GND141 AP12
 GND142 AP17
 GND143 AP22
 GND144 AP37
 GND145 AP4
 GND146 AR20
 GND147 AR25
 GND148 AR30
 GND149 AR35
 GND150 AR4
 GND151 AR5
 GND152 AT1
 GND153 AT13
 GND154 AT2
 GND155 AT23
 GND156 AT3
 GND157 AT38
 GND158 AT4
 GND159 AT8
 GND160 AU11
 GND161 AU16
 GND162 AU21
 GND163 AU26
 GND164 AU31
 GND165 AU36
 GND166 AV1
 GND167 AV14
 GND168 AV19
 GND169 AV24
 GND170 AV39
 GND171 AV4
 GND172 AV9
 GND173 AW12
 GND174 AW17
 GND175 AW22
 GND176 AW27
 GND177 AW32
 GND178 AW38
 GND179 AW7
 GND180 B11
 GND181 B16
 GND182 B21
 GND183 B30
 GND184 B34
 GND185 B35
 GND186 B38
 GND187 B39
 GND188 B4

GROUND PINS (SECTION 3 OF 6)

ZU28DR
G1517

- U9**
- GND190 C14
 GND191 C19
 GND192 C24
 GND193 C30
 GND194 C32
 GND195 C35
 GND196 C36
 GND197 C37
 GND198 C4
 GND199 D17
 GND200 D27
 GND201 D30
 GND202 D34
 GND203 D35
 GND204 D38
 GND205 D39
 GND206 D4
 GND207 D5
 GND208 D7
 GND209 E10
 GND210 E20
 GND211 E30
 GND212 E32
 GND213 E35
 GND214 E36
 GND215 E37
 GND216 E5
 GND217 F15
 GND218 F23
 GND219 F28
 GND220 F30
 GND221 F34
 GND222 F35
 GND223 F38
 GND224 F39
 GND225 F5
 GND226 F8
 GND227 G16
 GND228 G26
 GND229 G30
 GND230 G32
 GND231 G35
 GND232 G36
 GND233 G37
 GND234 G5
 GND235 H19
 GND236 H30
 GND237 H34
 GND238 H35
 GND239 H38
 GND240 H39
 GND241 H5
 GND242 H9
 GND243 J12
 GND244 J22
 GND245 J30
 GND246 J32
 GND247 J35
 GND248 J36
 GND249 J37
 GND250 J5
 GND251 J6
 GND252 K15

GROUND PINS (SECTION 4 OF 6)

ZU28DR
G1517

- U9**
- GND253 K25
 GND254 K30
 GND255 K33
 GND256 K35
 GND257 K38
 GND258 K39
 GND259 K6
 GND260 K7
 GND261 K8
 GND262 L10
 GND263 L11
 GND264 L13
 GND265 L18
 GND266 L28
 GND267 L30
 GND268 L32
 GND269 L35
 GND270 L36
 GND271 L37
 GND272 L8
 GND273 L9
 GND274 M11
 GND275 M16
 GND276 M21
 GND277 M23
 GND278 M25
 GND279 M30
 GND280 M34
 GND281 M35
 GND282 M38
 GND283 M39
 GND284 N12
 GND285 N23
 GND286 N24
 GND287 N30
 GND288 N32
 GND289 N35
 GND290 N36
 GND291 N37
 GND292 N13
 GND293 P11
 GND294 P15
 GND295 P17
 GND296 P19
 GND297 P21
 GND298 P23
 GND299 P25
 GND300 P27
 GND301 P30
 GND302 P34
 GND303 P37
 GND304 P38
 GND305 P39
 GND306 R12
 GND307 R14
 GND308 R16
 GND309 R18
 GND310 R21
 GND311 R23
 GND312 R24
 GND313 R30
 GND314 R32
 GND315 R36

GROUND PINS (SECTION 5 OF 6)

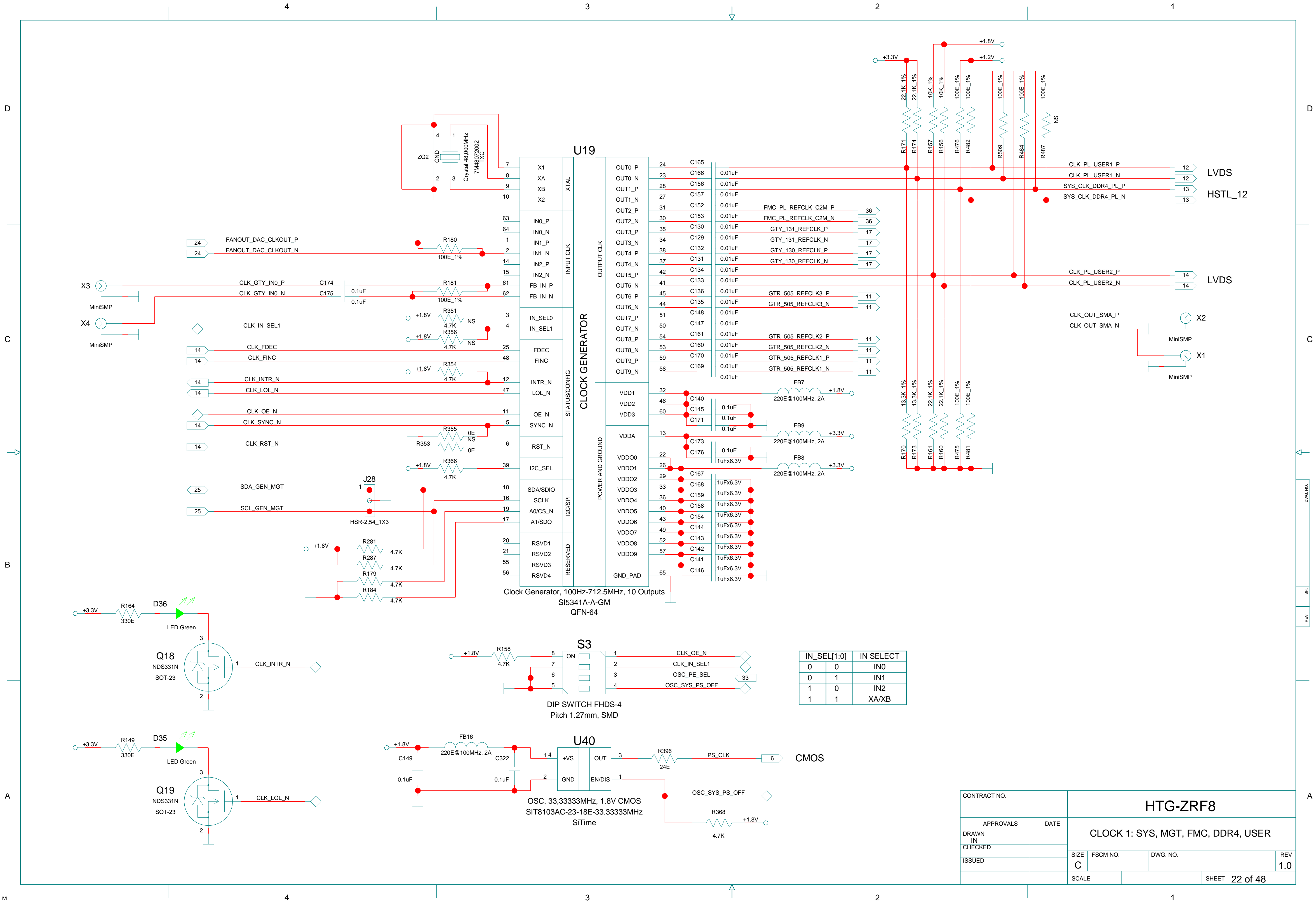
ZU28DR
G1517

- U9**
- GND316 R37
 GND317 T11
 GND318 T13
 GND319 T15
 GND320 T17
 GND321 T19
 GND322 T21
 GND323 T23
 GND324 T25
 GND325 T28
 GND326 T30
 GND327 T34
 GND328 T37
 GND329 T38
 GND330 T39
 GND331 U12
 GND332 U14
 GND333 U16
 GND334 U18
 GND335 U21
 GND336 U23
 GND337 U24
 GND338 U30
 GND339 U32
 GND340 U36
 GND341 U37
 GND342 V11
 GND343 V13
 GND344 V15
 GND345 V19
 GND346 V21
 GND347 V23
 GND348 V25
 GND349 V30
 GND350 V34
 GND351 V37
 GND352 V38
 GND353 V39
 GND354 W12
 GND355 W14
 GND356 W18
 GND357 W21
 GND358 W23
 GND359 W24
 GND360 W30
 GND361 W32
 GND362 W36
 GND363 W37
 GND364 Y11
 GND365 Y13
 GND366 Y15
 GND367 Y19
 GND368 Y21
 GND369 Y23
 GND370 Y25
 GND371 Y30
 GND372 Y34
 GND373 Y37
 GND374 Y38
 GND375 Y39

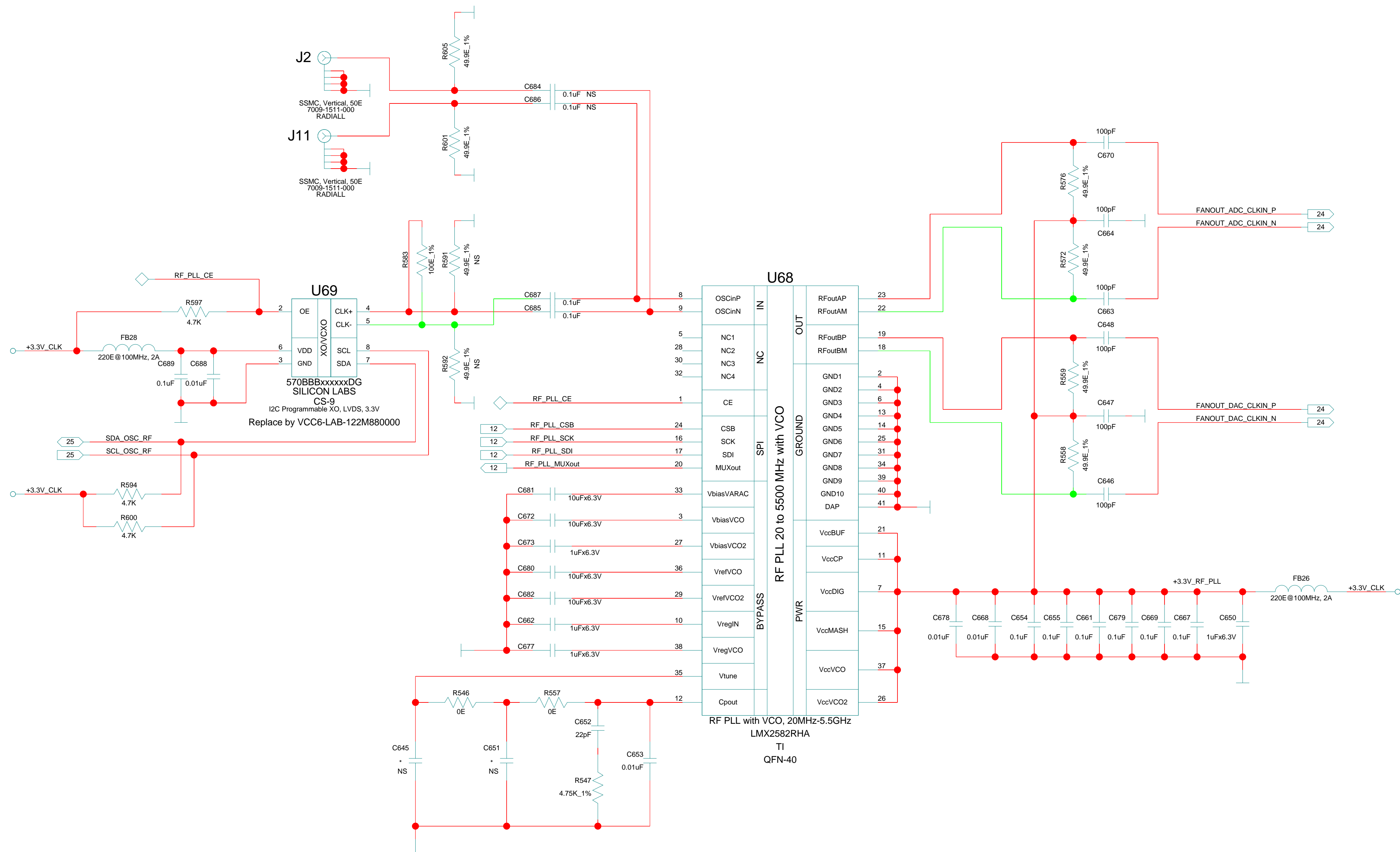
GROUND PINS (SECTION 6 OF 6)

ZU28DR
G1517

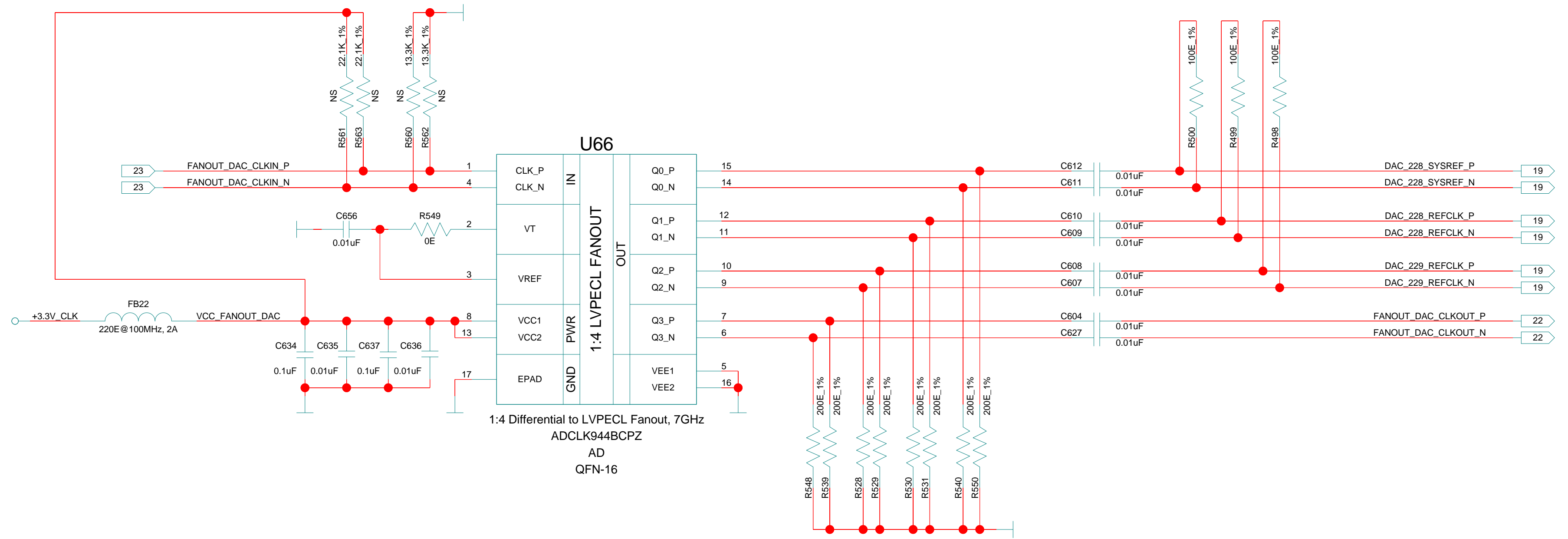
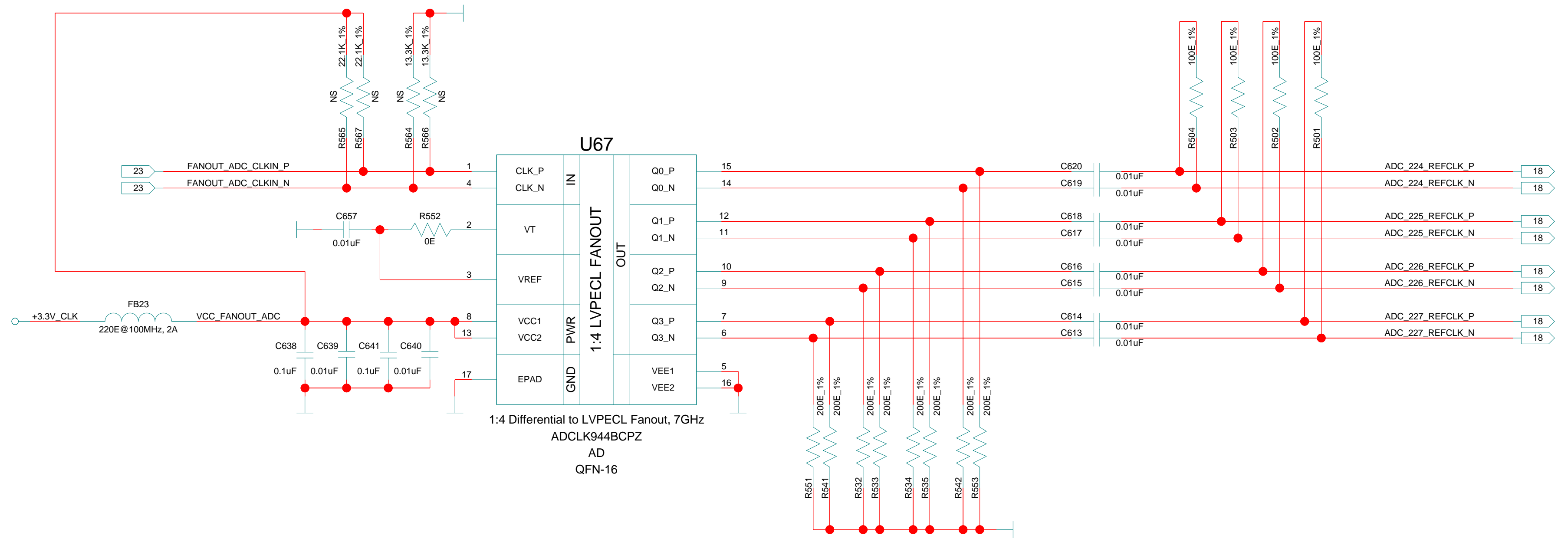
CONTRACT NO.		HTG-ZRF8			
APPROVALS					
DRAWN IN		RF, PS and PL: GND Pins			
CHECKED					
ISSUED		SIZE	FSCM NO.	DWG. NO.	REV
		C			1.0
		SCALE	SHEET 21 of 48		



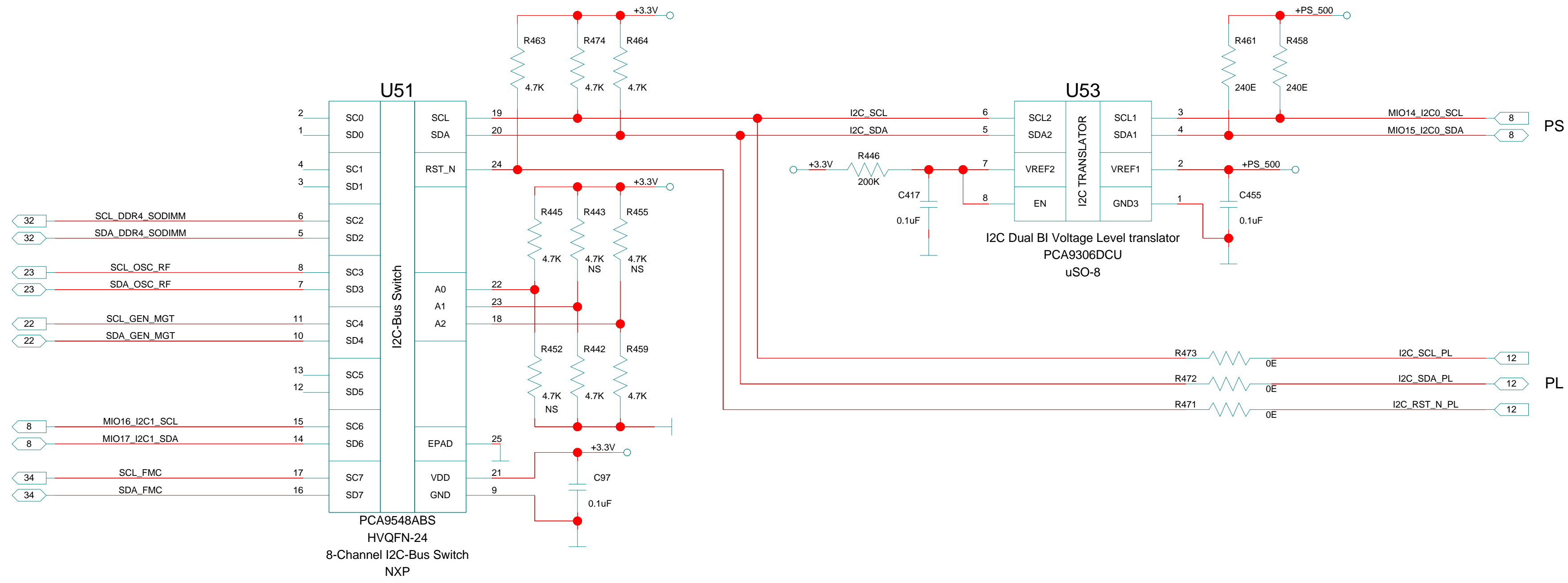
CONTRACT NO.		HTG-ZRF8		
APPROVALS	DATE			
DRAWN	IN	CLOCK 1: SYS, MGT, FMC, DDR4, USER		
CHECKED				
ISSUED	SIZE	FSCM NO.	DWG. NO.	REV
	C			1.0
	SCALE		SHEET	22 of 48



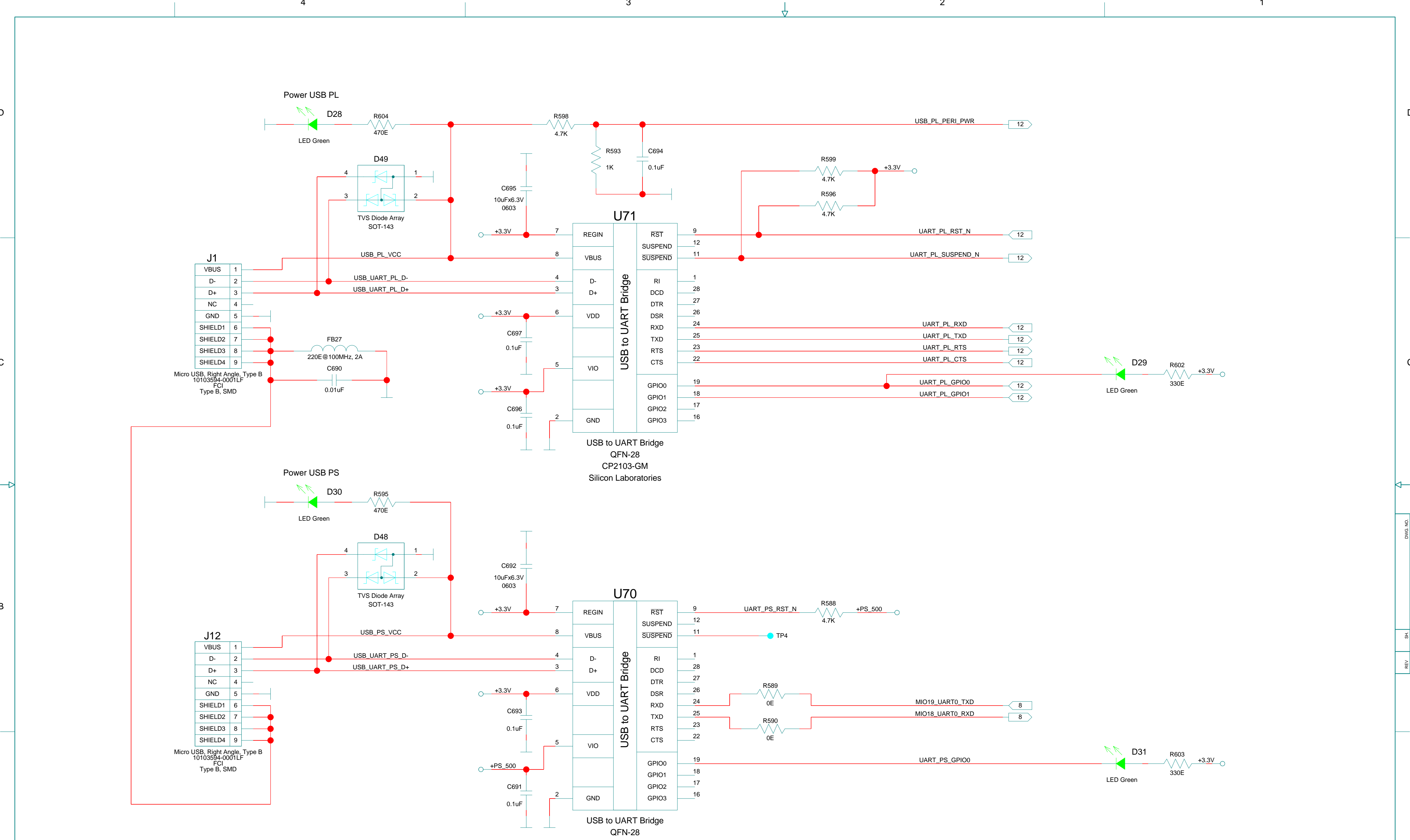
CONTRACT NO.		HTG-ZRF8			
APPROVALS		DATE		CLOCK 2: RF PLL	
DRAWN IN					
CHECKED					
ISSUED		SIZE	FSCM NO.	DWG. NO.	REV
		C			1.0
SCALE				SHEET 23 of 48	



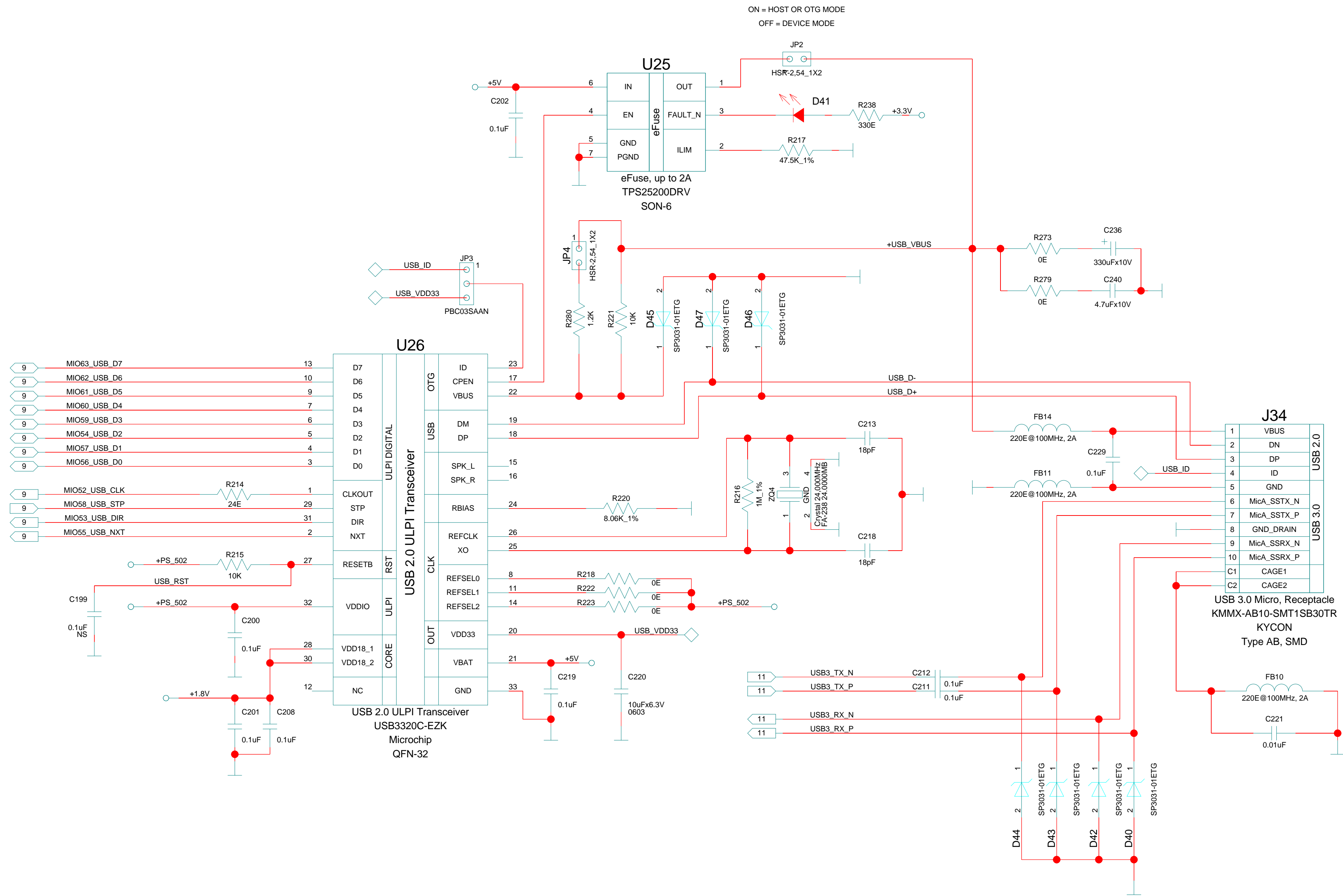
CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	CLOCK 3: RF Fanout			
DRAWN		SIZE		FSCM NO.	DWG. NO.
CHECKED		C			REV
ISSUED		SCALE		SHEET	24 of 48
					1.0



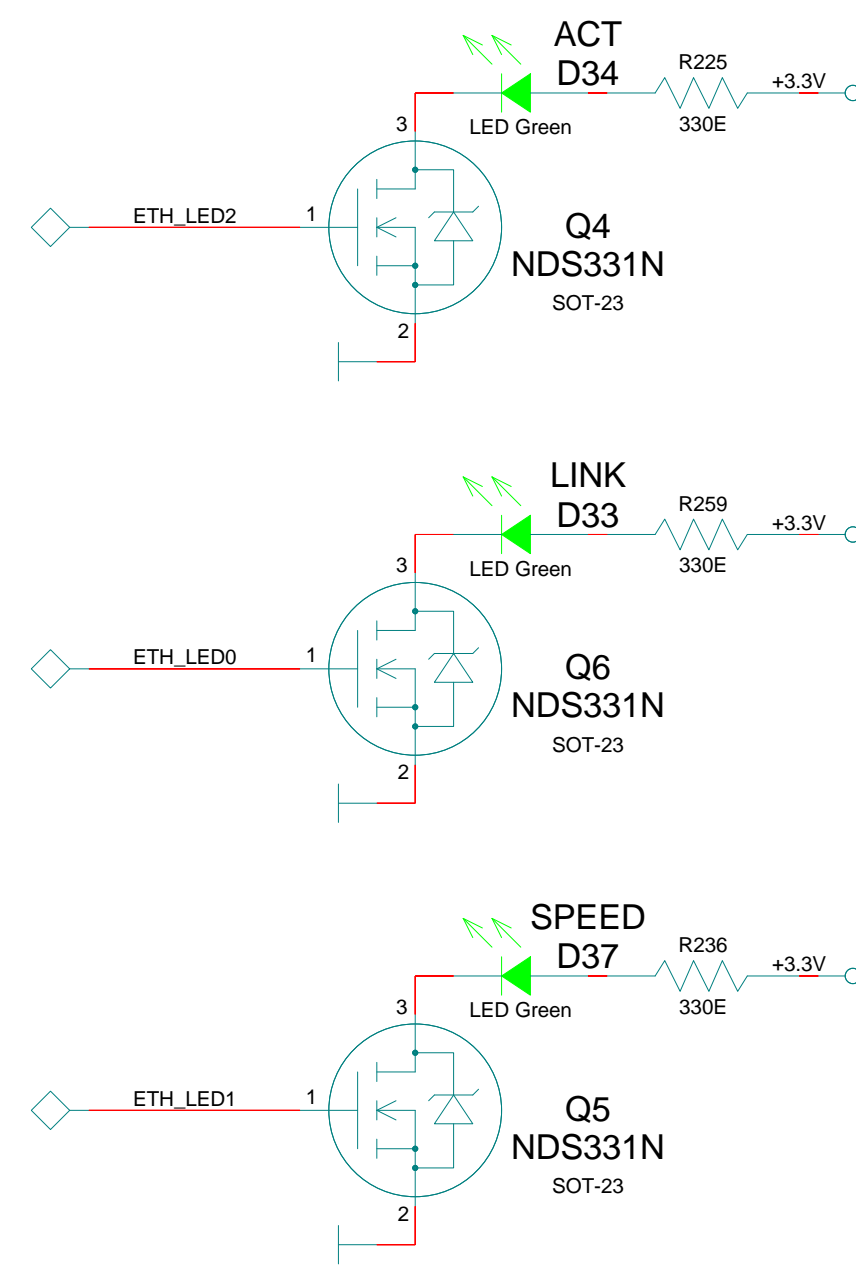
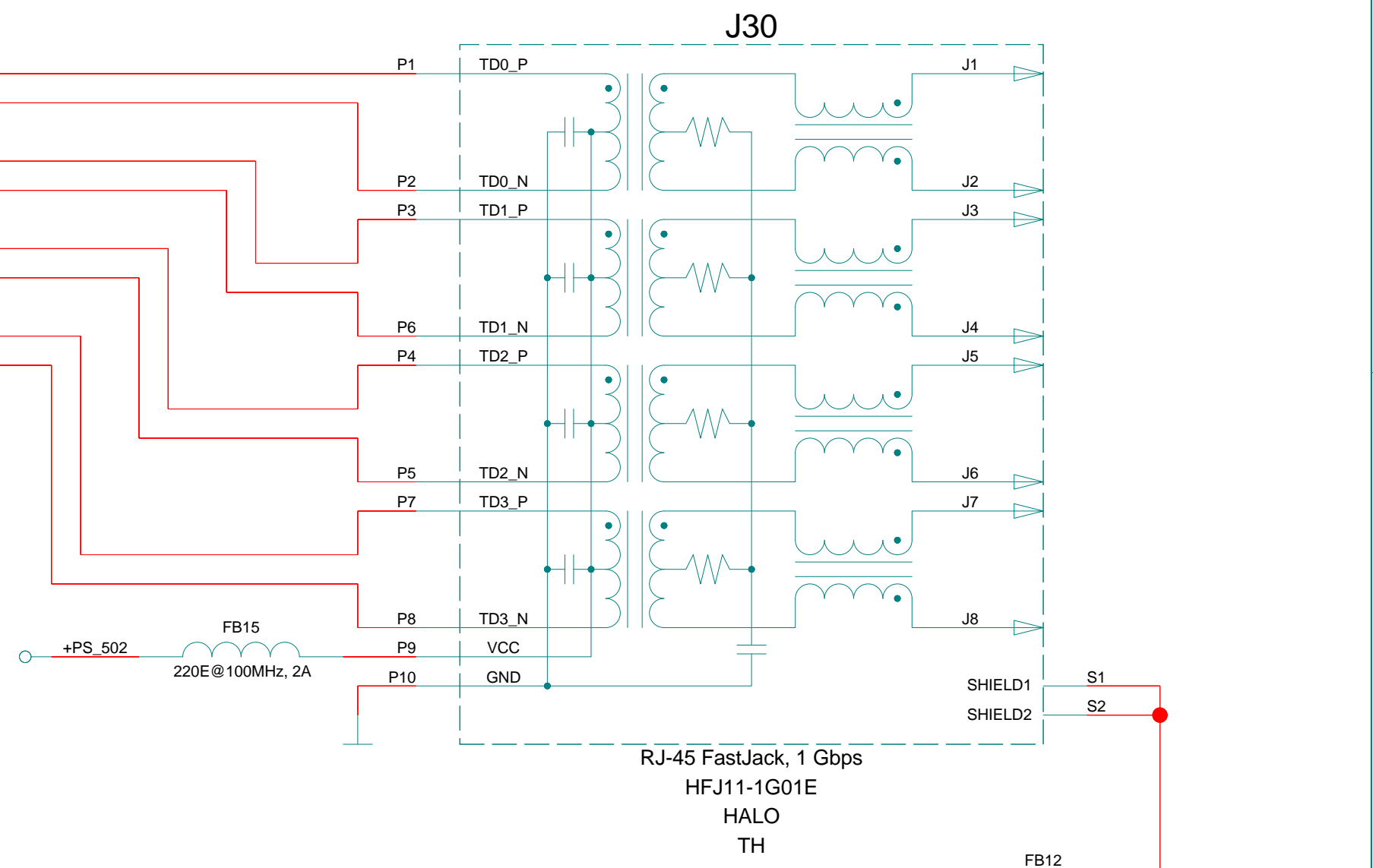
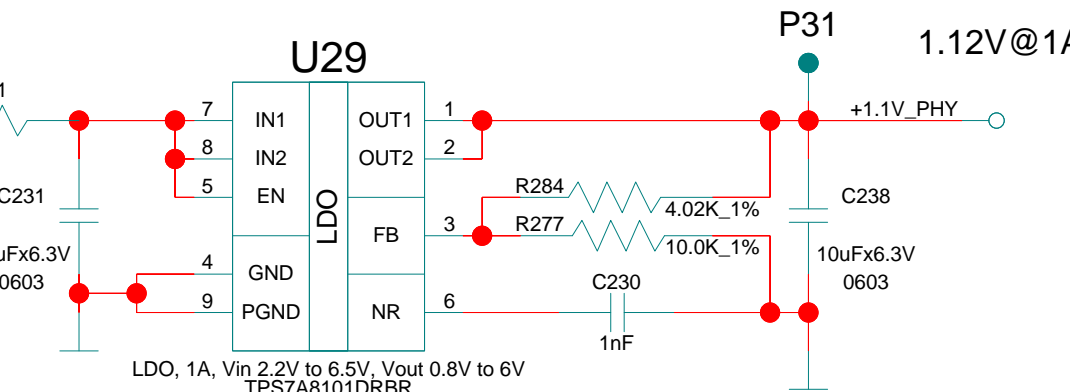
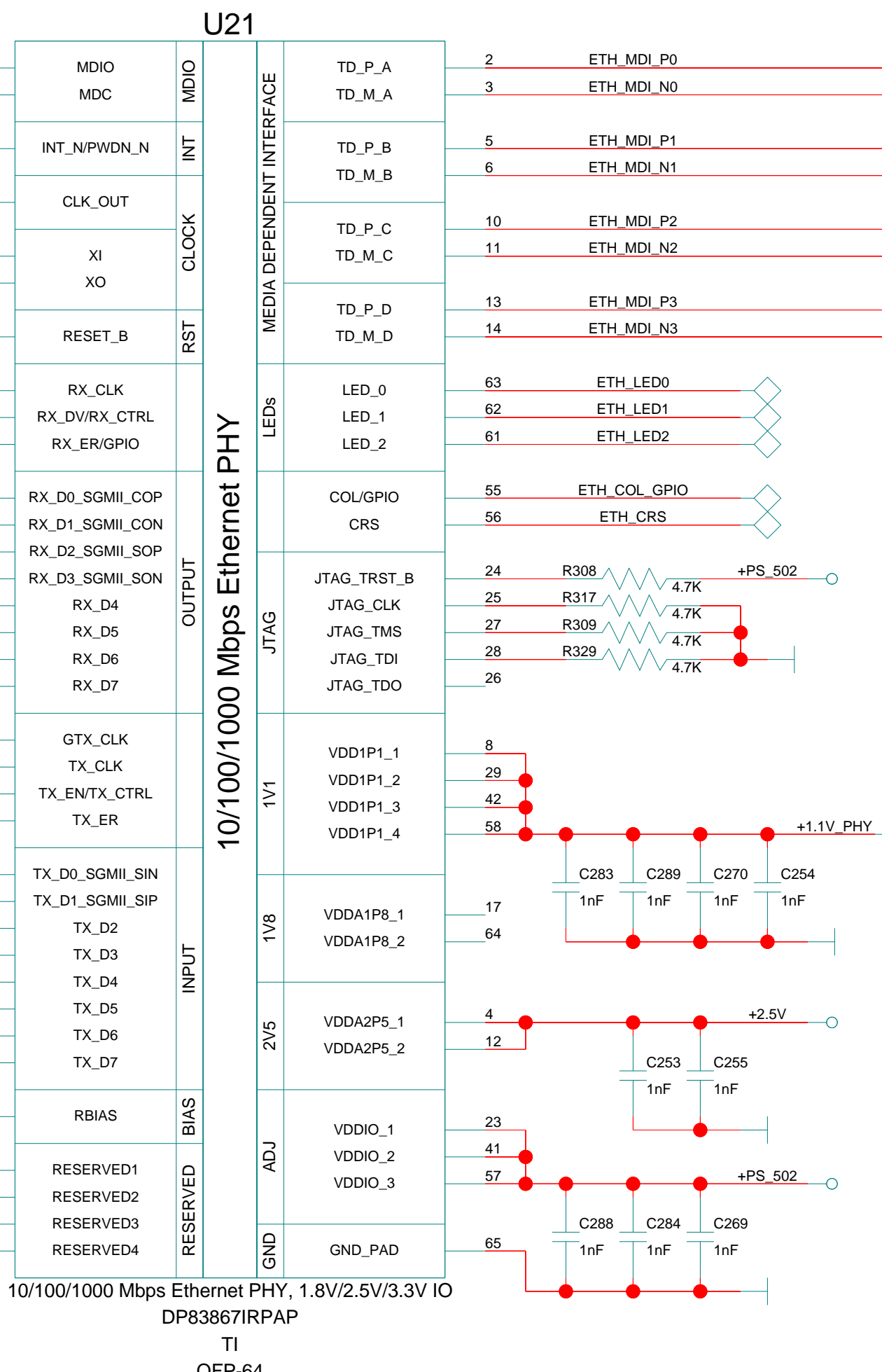
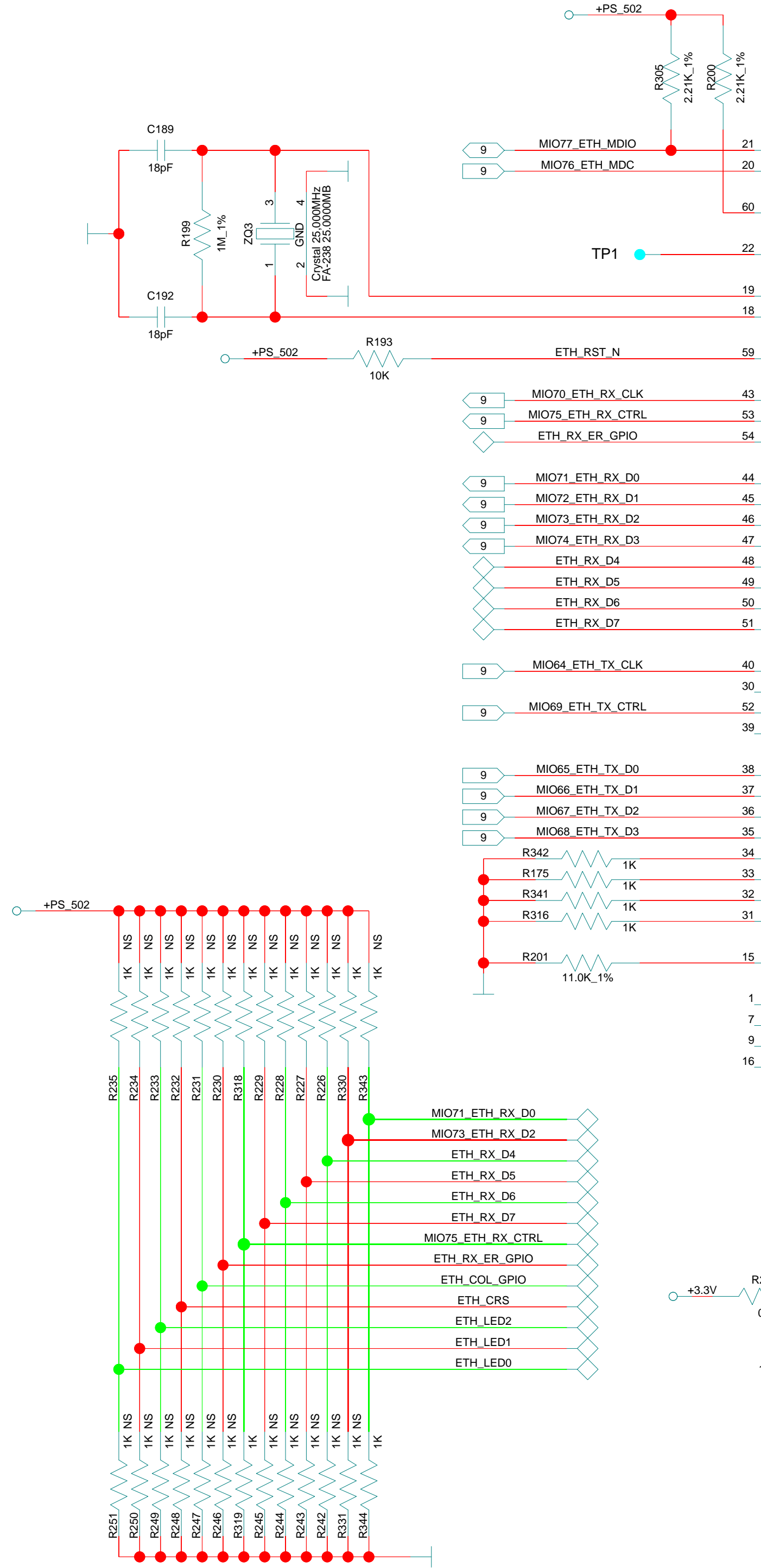
CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	I2C Switch			
DRAWN		SIZE	FSCM NO.	DWG. NO.	REV
CHECKED		C			1.0
ISSUED		SCALE			SHEET 25 of 48



CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	USB to UART			
DRAWN		SIZE	FSCM NO.	DWG. NO.	REV
CHECKED		C			1.0
ISSUED		SCALE		SHEET 26 of 48	



CONTRACT NO.		HTG-ZRF8			
APPROVALS		DATE		USB 3.0	
DRAWN	IN				
CHECKED					
ISSUED					
SCALE	C	FSCM NO.	DWG. NO.	REV	1.0
SHEET 27 of 48					



CONTRACT NO.		HTG-ZRF8			
APPROVALS		DATE		Ethernet 1Gbit	
DRAWN	IN				
CHECKED				SIZE	FSCM NO.
ISSUED				DWG. NO.	REV
				C	1.0
				SCALE	SHEET 28 of 48

D

C

B

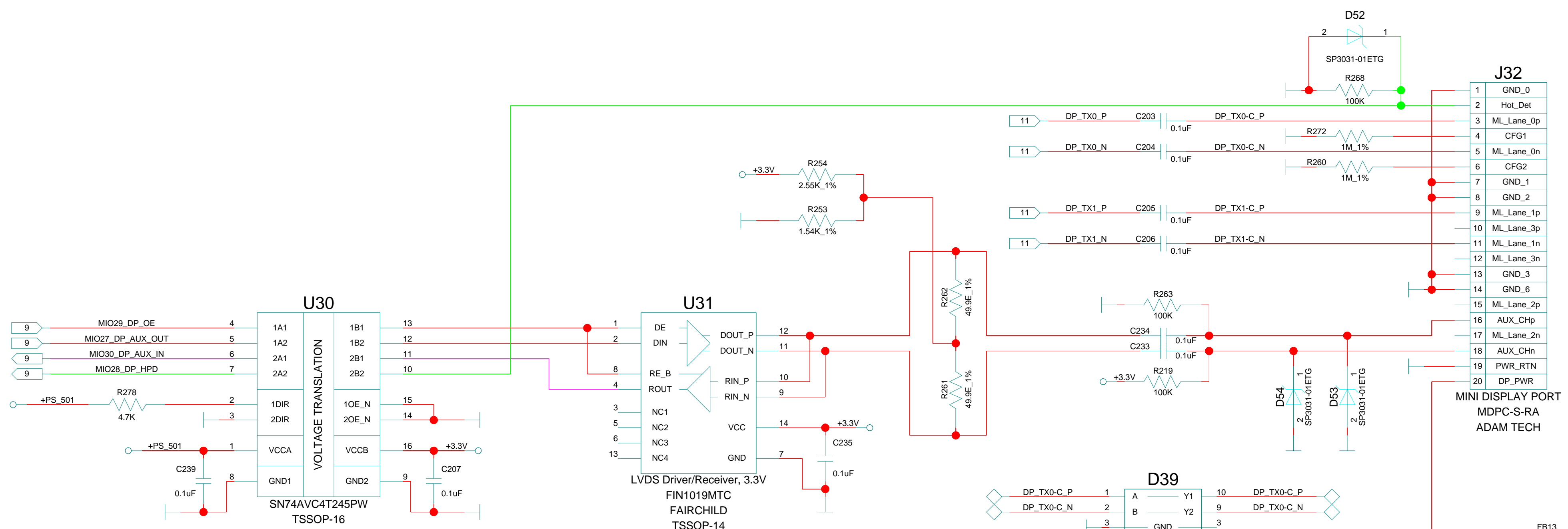
A

D

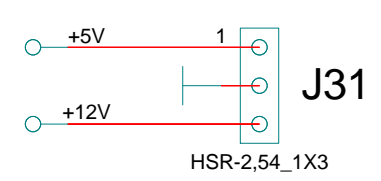
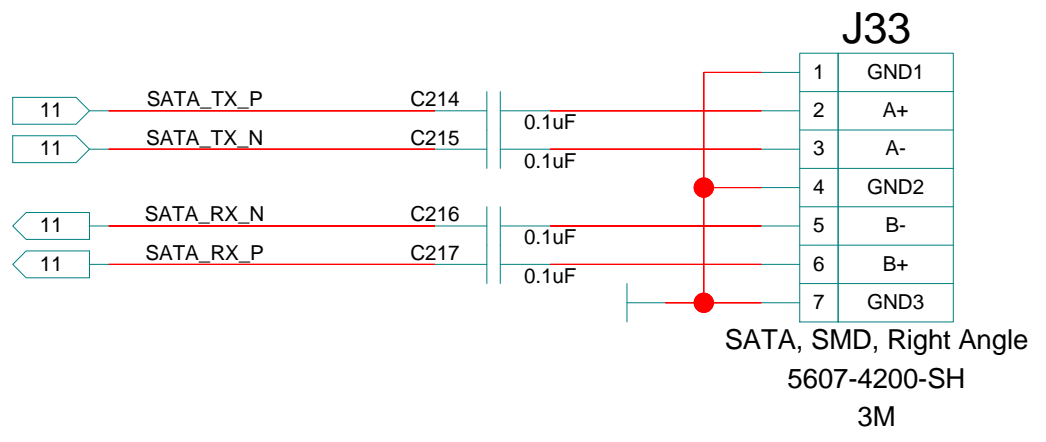
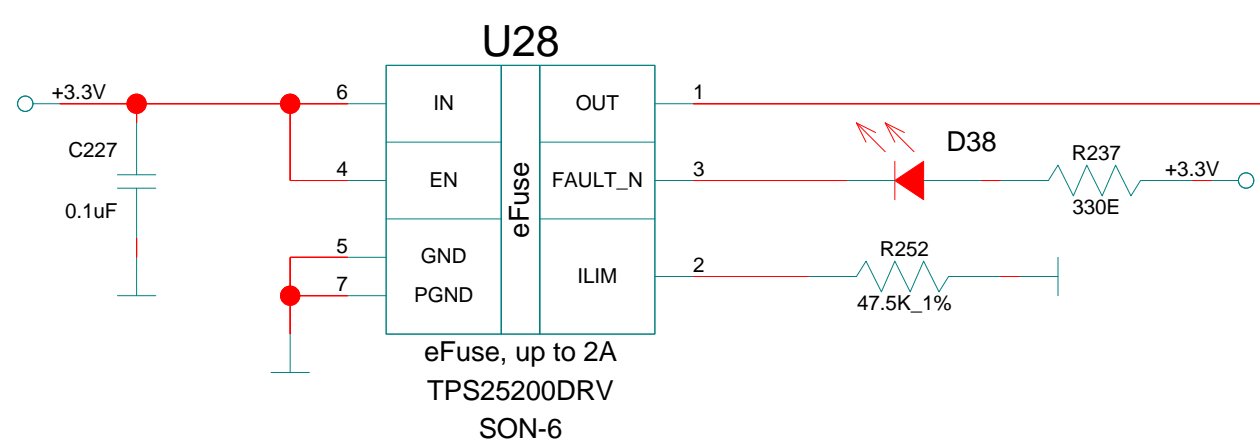
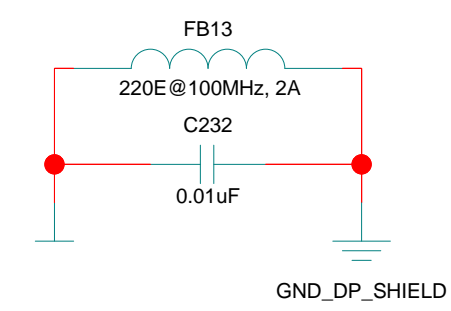
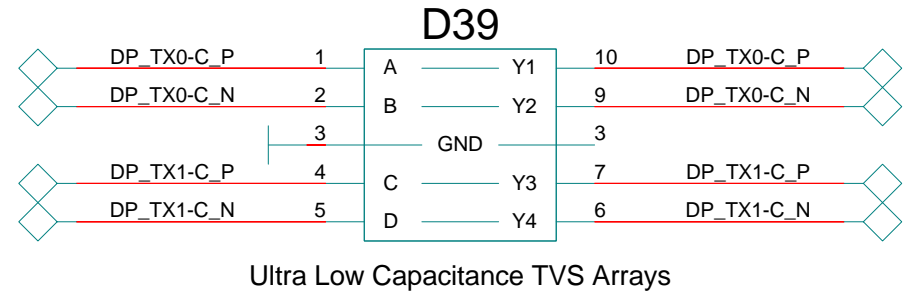
C

B

A



MINI DISPLAY PORT
MDPC-S-RA
ADAM TECH



CONTRACT NO.		HTG-ZRF8			
APPROVALS		DATE		Display Port and SATA	
DRAWN	IN				
CHECKED					
ISSUED		SIZE	FSCM NO.	DWG. NO.	REV
		C			1.0
SCALE				SHEET 29 of 48	

4

3

2

1

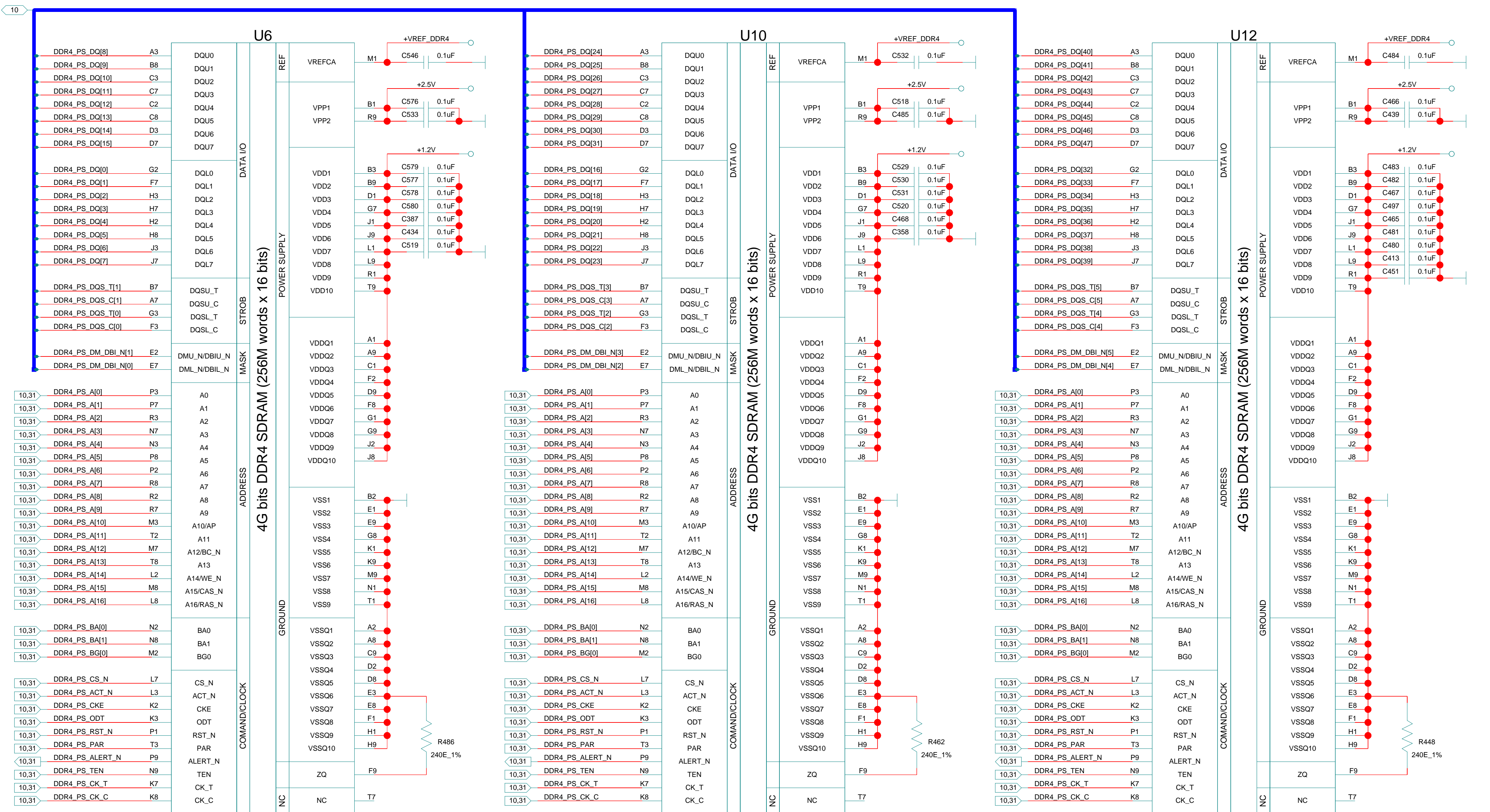
4

3

2

1

DWG. NO.
REV.
SH.

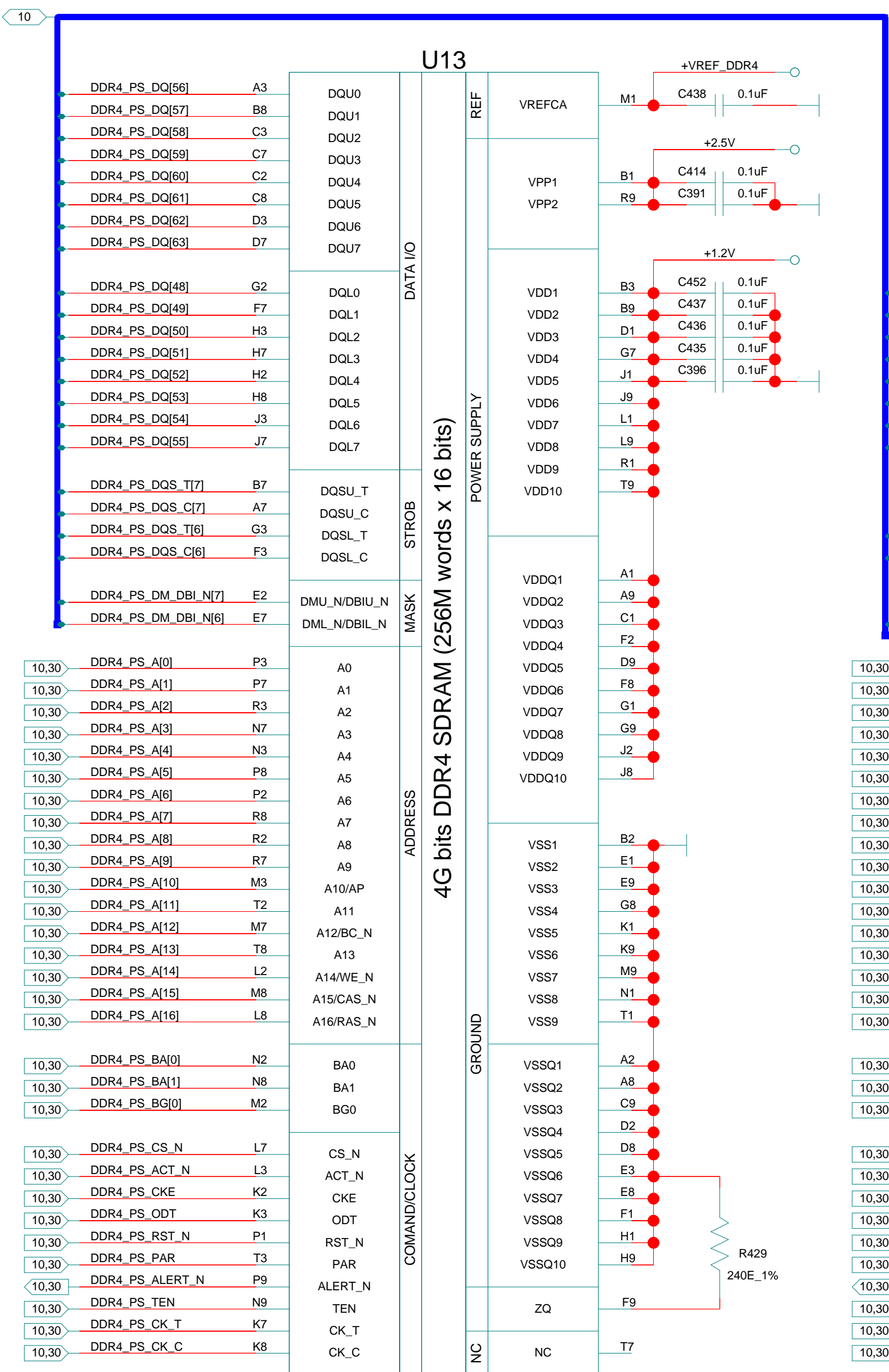


SDRAM 4Gbits DDR4-2400, 32Meg x 16 x 8banks
EDY4016AABG-DR-F
FBGA-96
MICRON

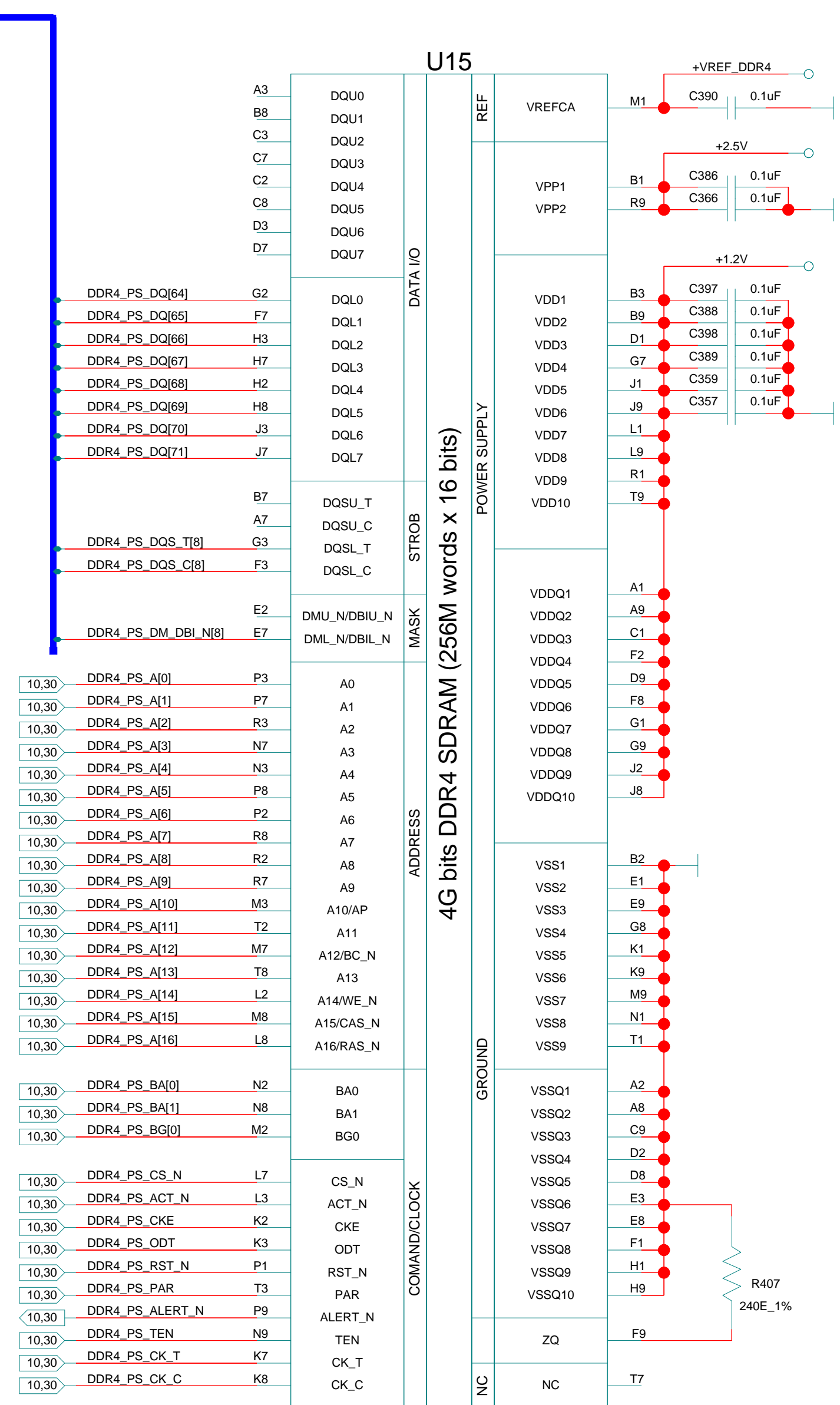
SDRAM 4Gbits DDR4-2400, 32Meg x 16 x 8banks
EDY4016AABG-DR-F
FBGA-96
MICRON

SDRAM 4Gbits DDR4-2400, 32Meg x 16 x 8banks
EDY4016AABG-DR-F
FBGA-96
MICRON

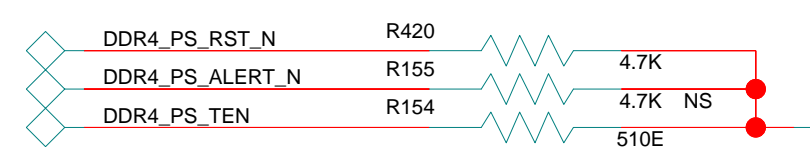
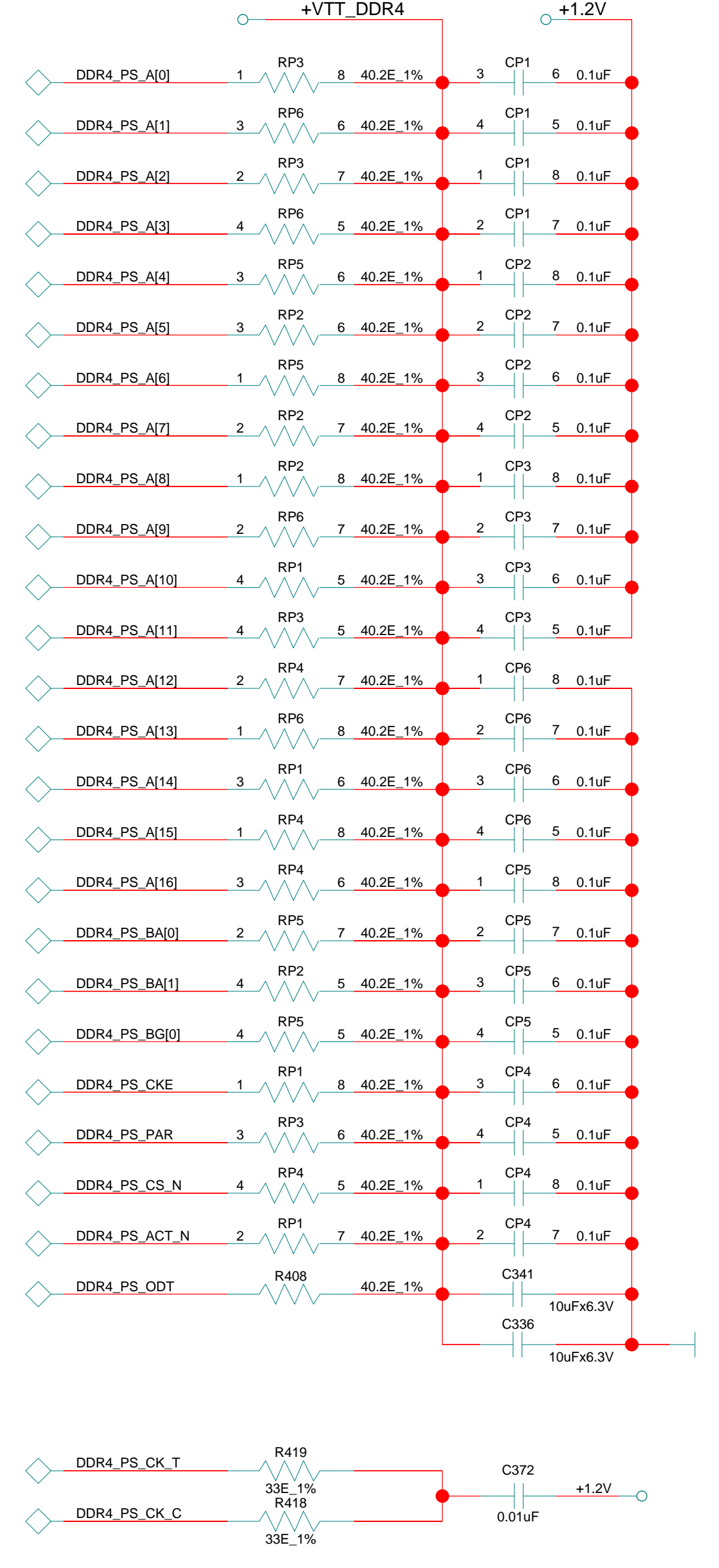
CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE				
DRAWN IN CHECKED		DDR4 Components 1-3 (PS)			
ISSUED					
		SIZE	FSCM NO.	DWG. NO.	REV
		C			1.0
		SCALE			SHEET 30 of 48



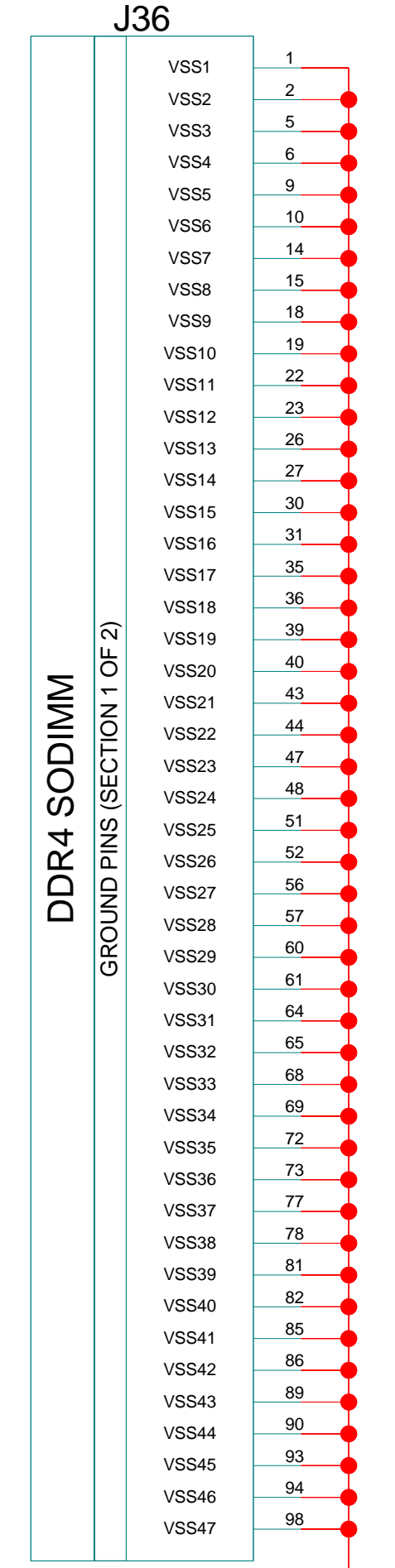
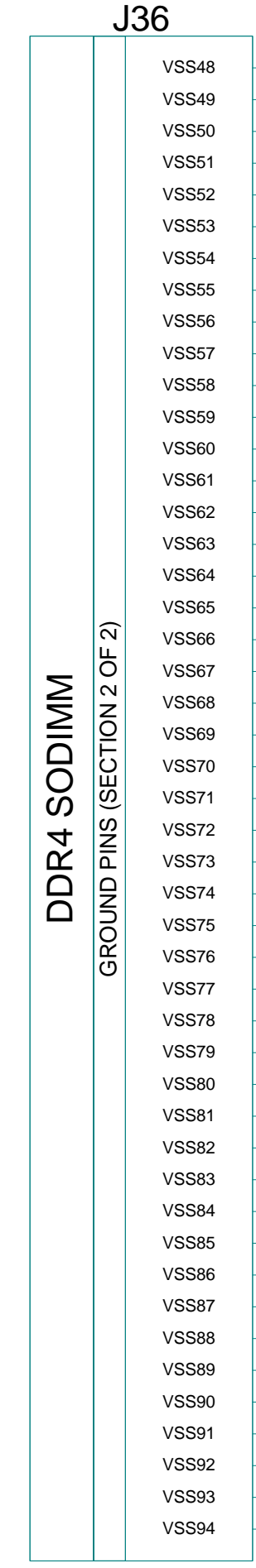
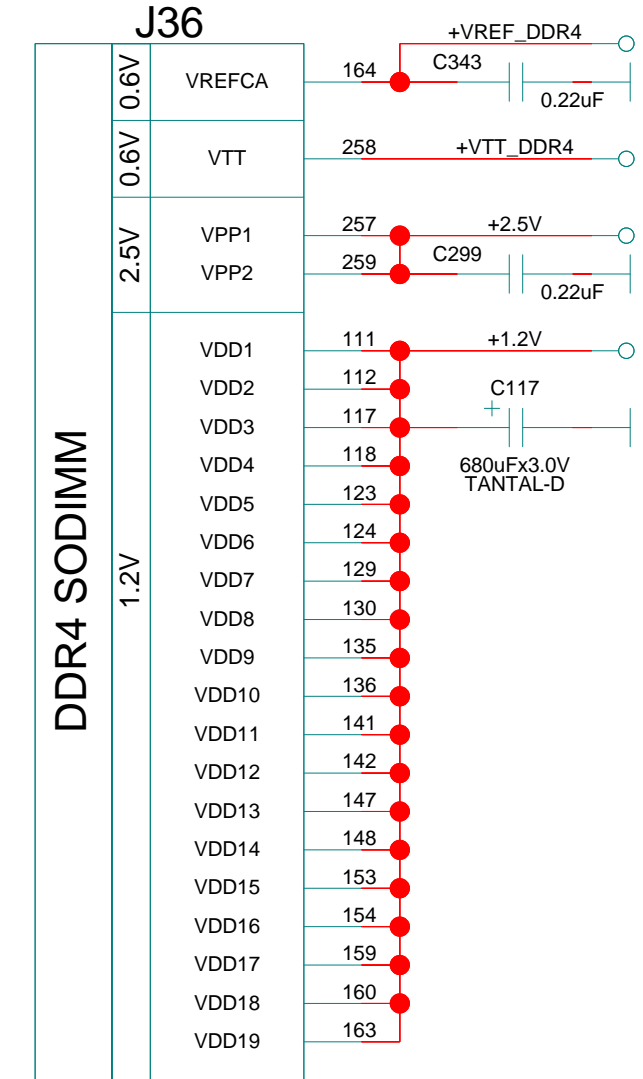
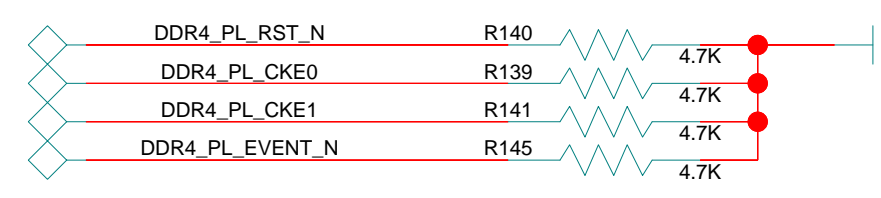
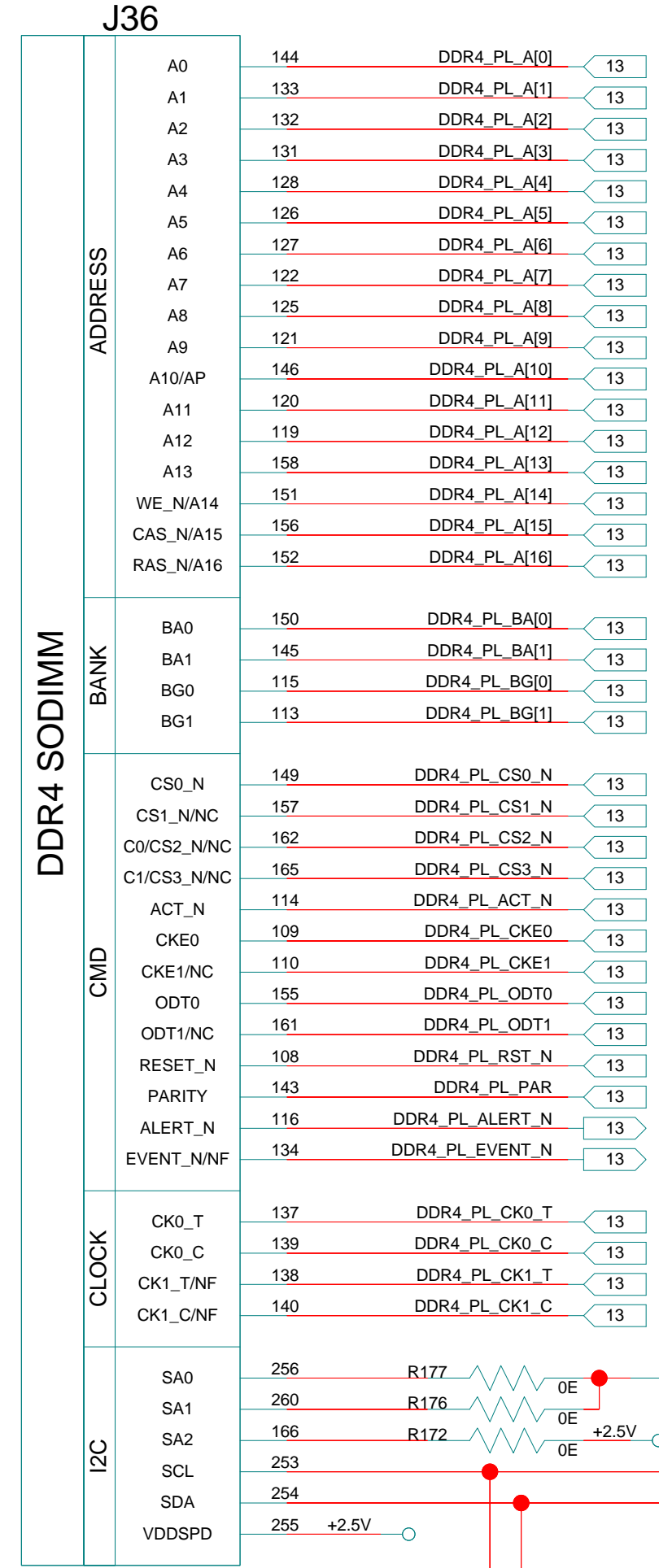
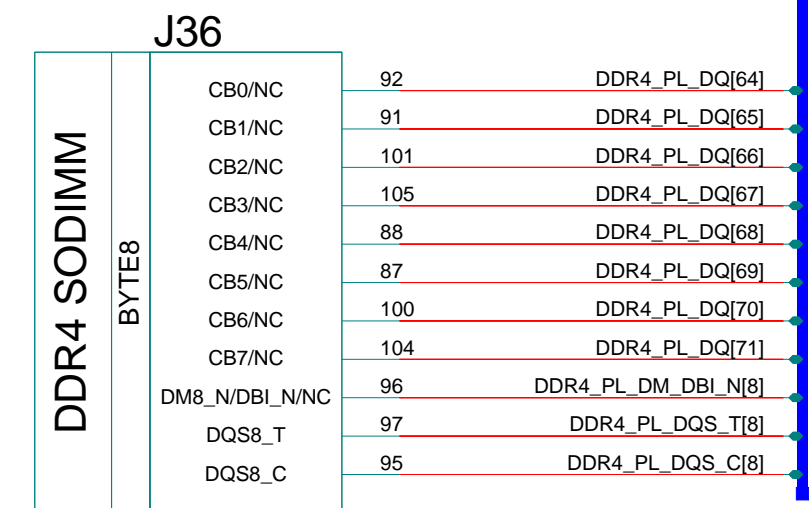
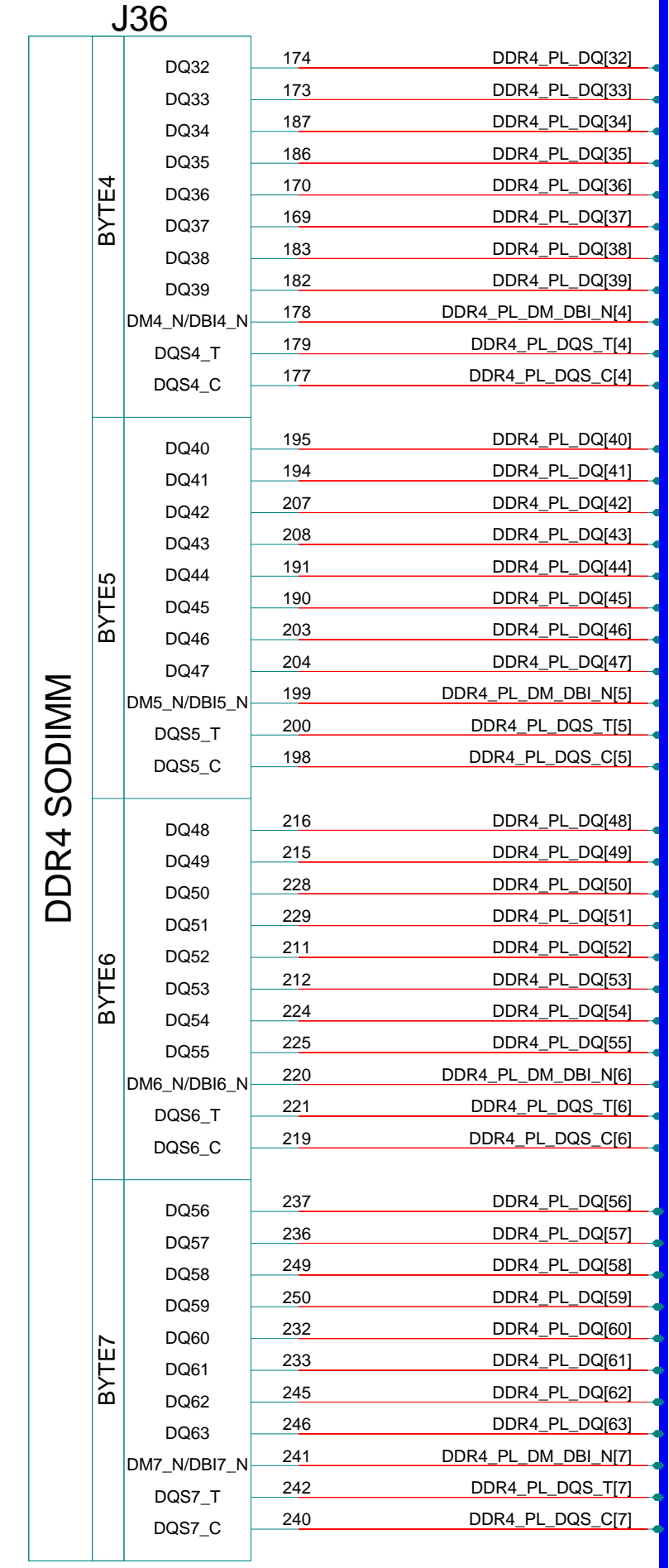
SDRAM 4Gbits DDR4-2400, 32Meg x 16 x 8banks
EDY4016AABG-DR-F
FBGA-96
MICRON



SDRAM 4Gbits DDR4-2400, 32Meg x 16 x 8banks
EDY4016AABG-DR-F
FBGA-96
MICRON



CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE				
DRAWN IN CHECKED		DDR4 Components 4-5 (PS)			
ISSUED		SIZE	FSCM NO.	DWG. NO.	REV
		C			1.0
		SCALE			SHEET 31 of 48



Socket DDR-4 SODIMM Standard Type
 DDR-4 SODIMM Standard Type
 260 Pins, Pitch 0.5mm

CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	DDR4 SODIMM (PL)			
DRAWN IN CHECKED					
ISSUED		SIZE C	FSCM NO.	DWG. NO.	REV 1.0
		SCALE			SHEET 32 of 48

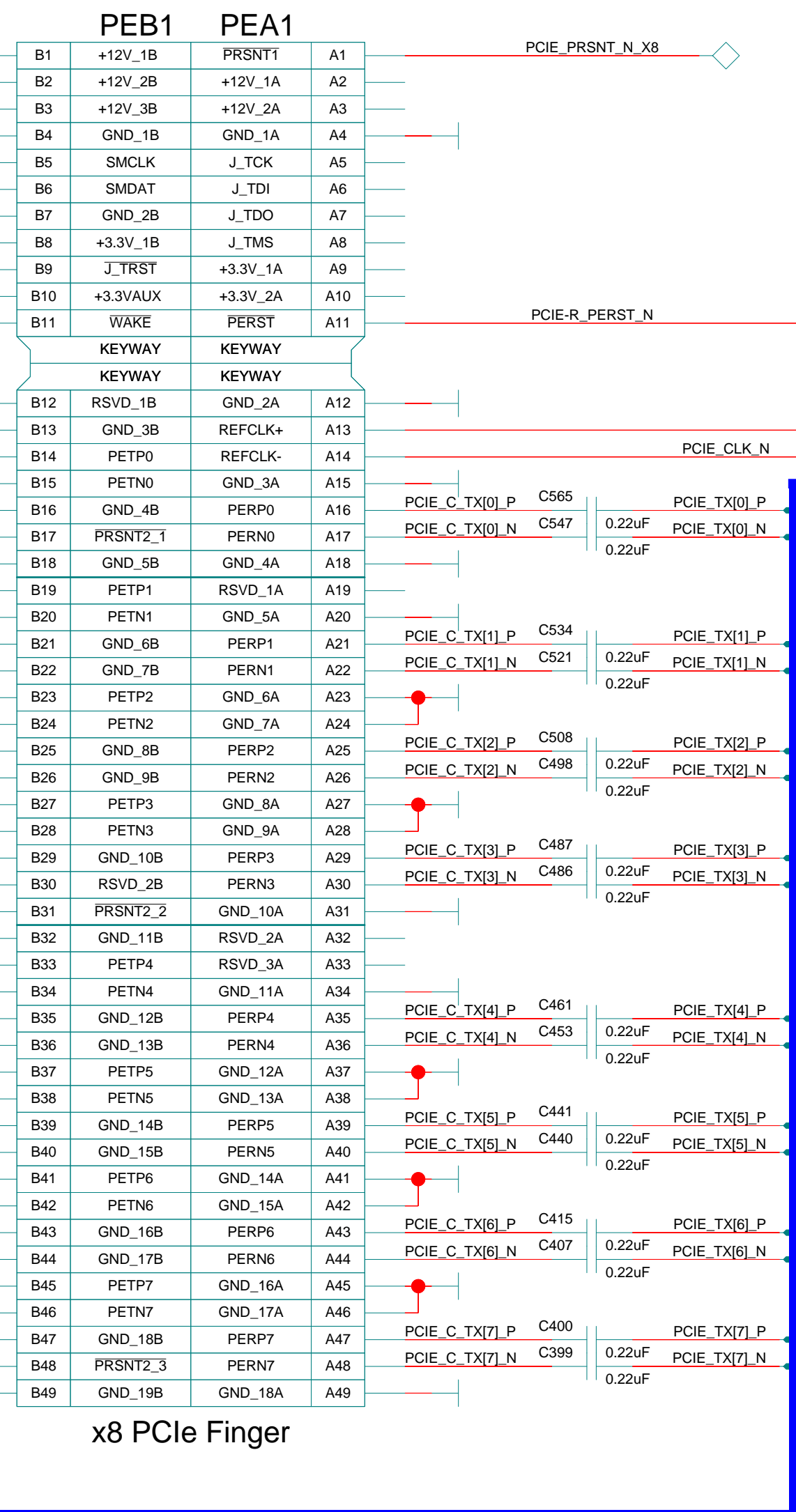
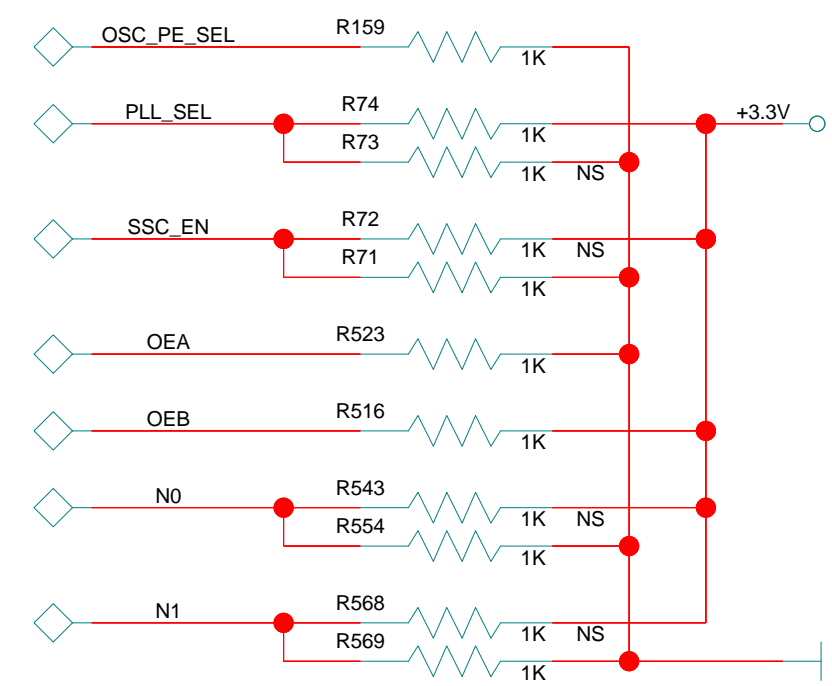
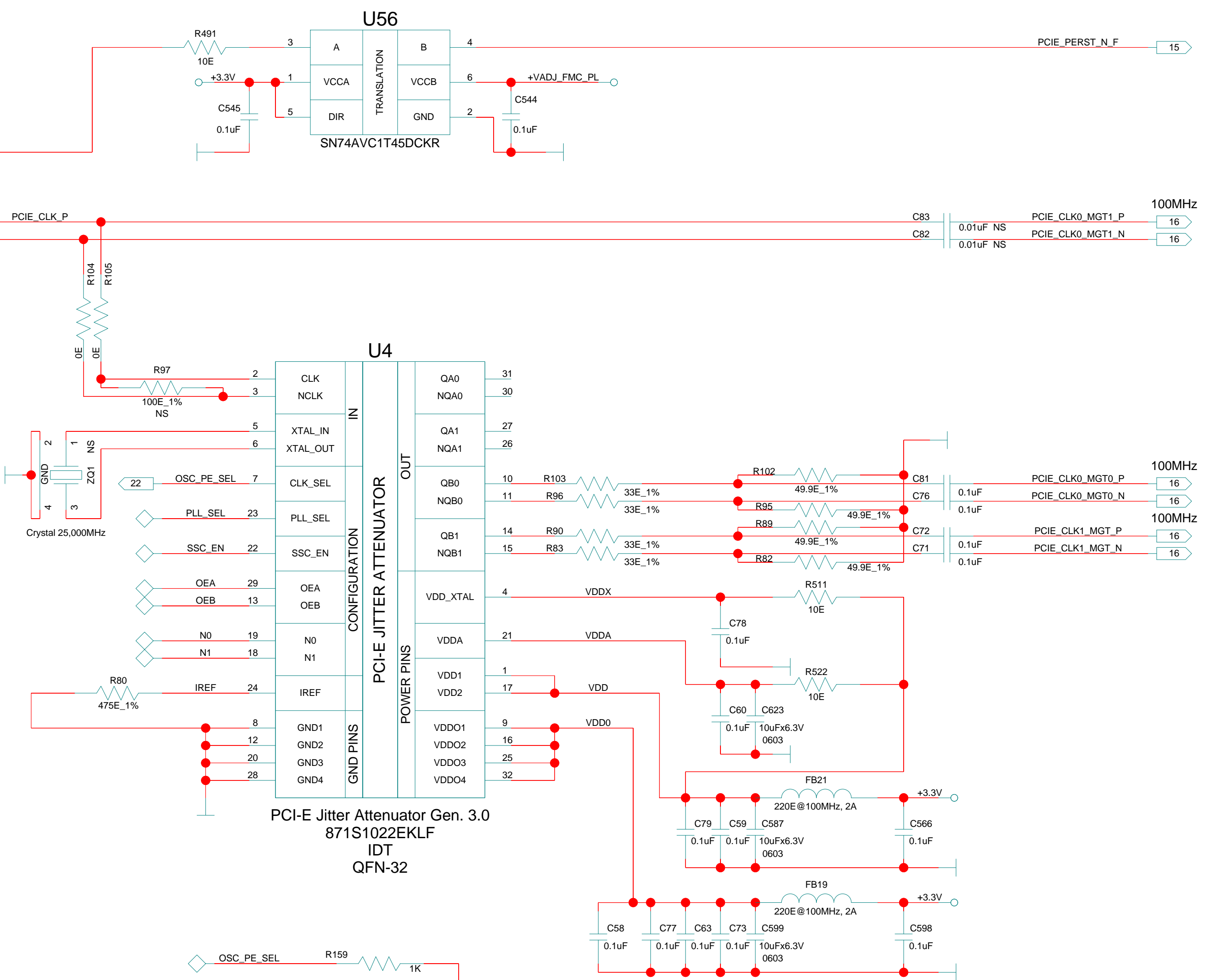
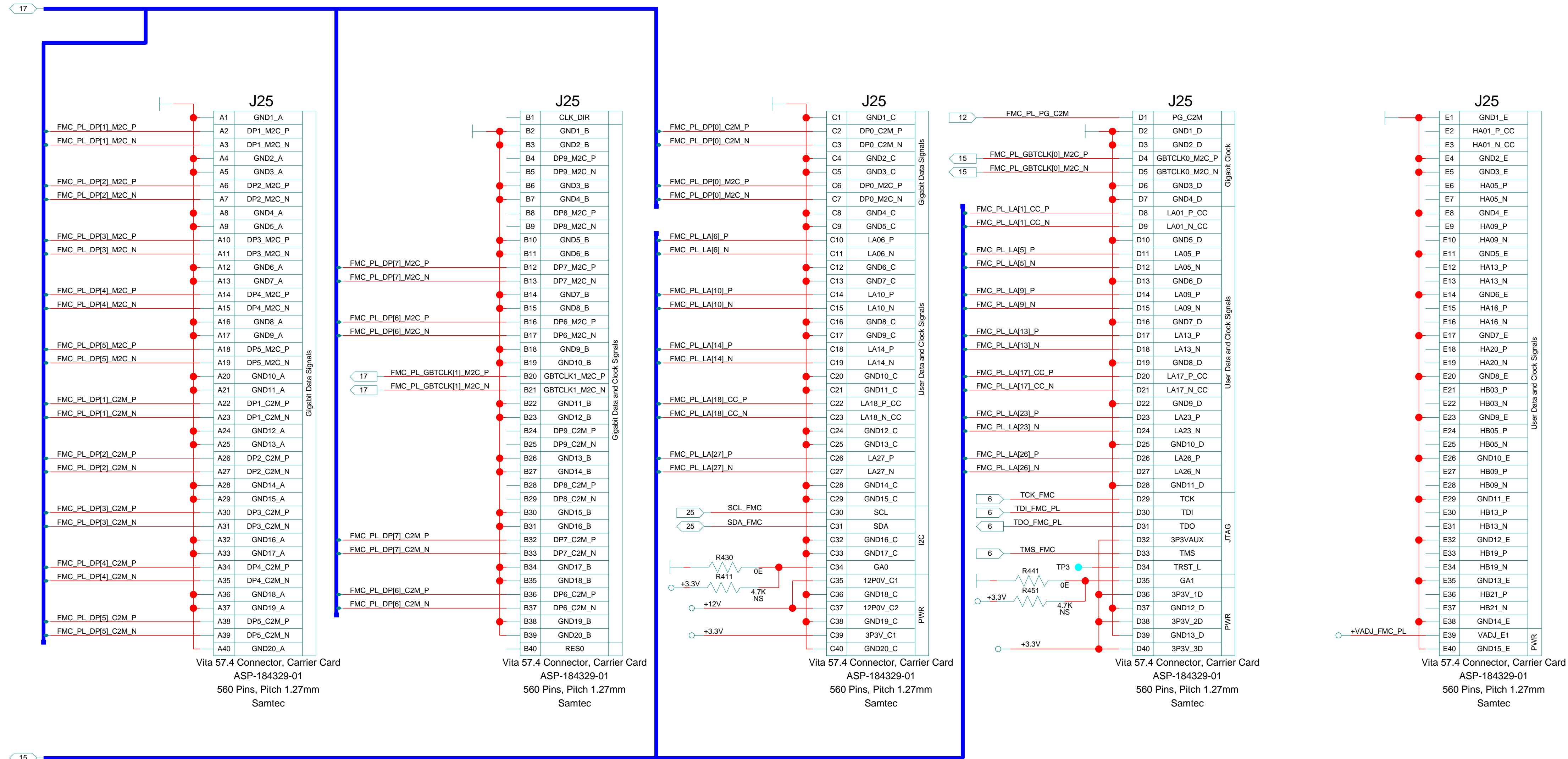


Table PCI Express Jitter Attenuator Mode Select

CLK_SEL	INPUTS			OUTPUTS (MHz)
	IN (MHz)	N1:N0	N Divider	
0	100	00	5	100
0	100	01	4	125
0	100	10	2	250
0	100	11	1	500
1	25	00	5	100
1	25	01	4	125
1	25	10	2	250
1	25	11	1	500



CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE				
DRAWN IN		PCIE Edge Connector			
CHECKED					
ISSUED		SIZE C	FSCM NO.	DWG. NO.	REV 1.0
SCALE		SHEET 33 of 48			



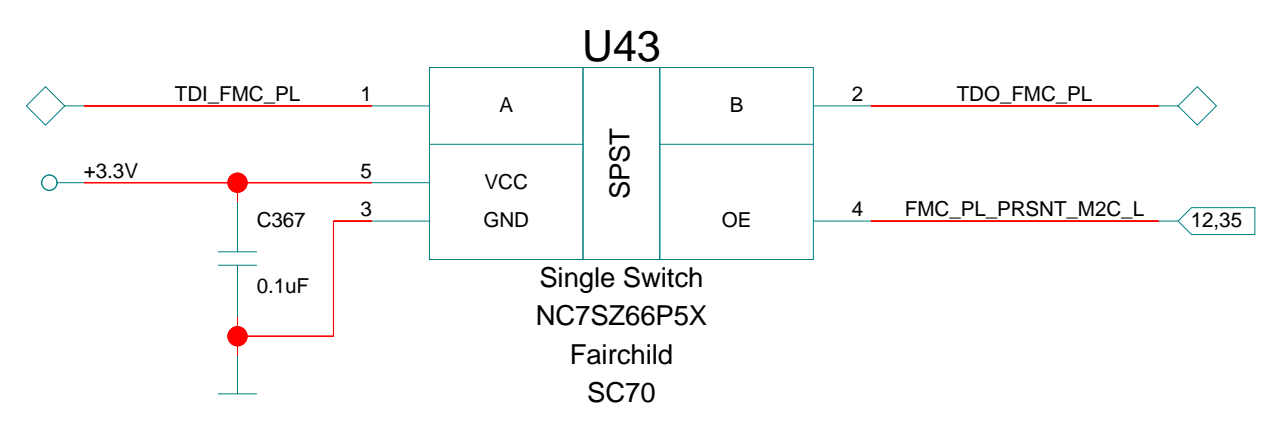
Vita 57.4 Connector, Carrier Card
ASP-184329-01
560 Pins, Pitch 1.27mm
Samtec

Vita 57.4 Connector, Carrier Card
ASP-184329-01
560 Pins, Pitch 1.27mm
Samtec

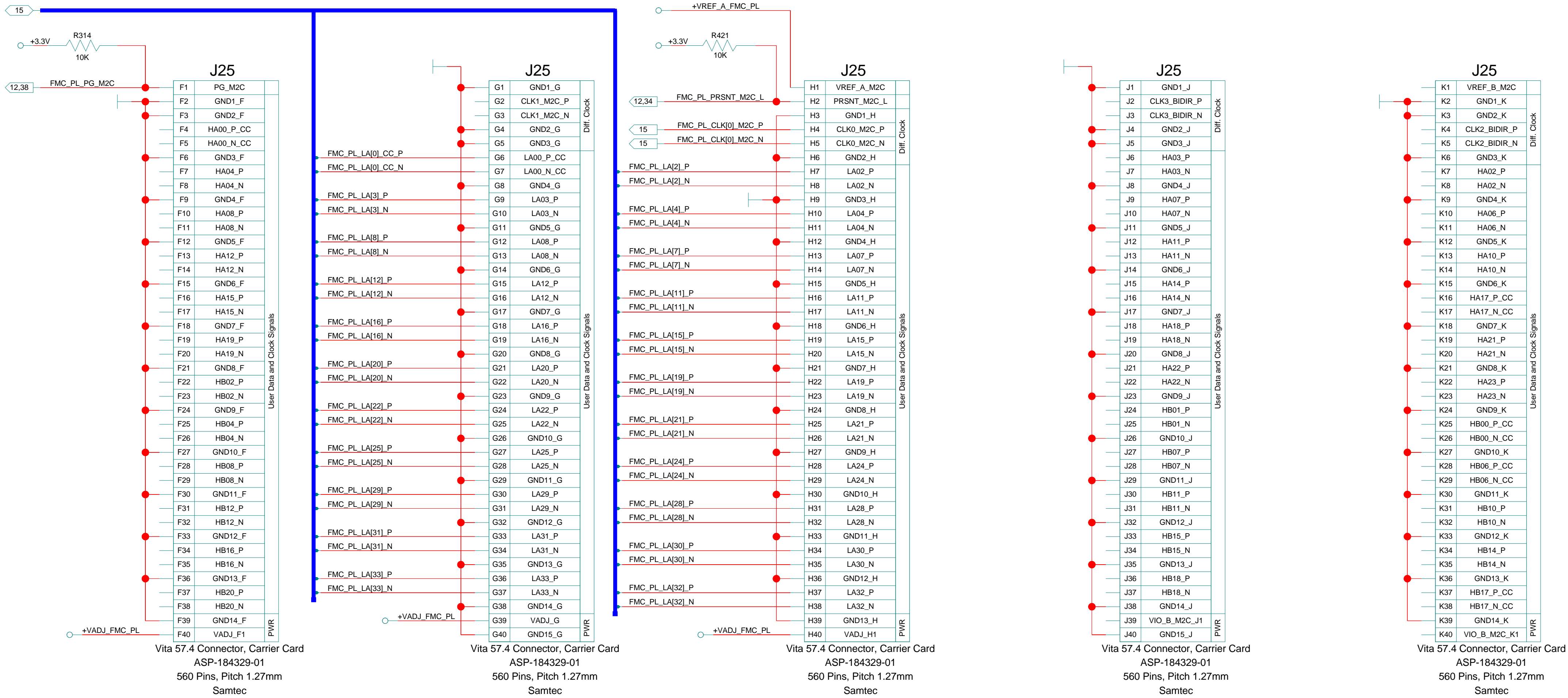
Vita 57.4 Connector, Carrier Card
ASP-184329-01
560 Pins, Pitch 1.27mm
Samtec

Vita 57.4 Connector, Carrier Card
ASP-184329-01
560 Pins, Pitch 1.27mm
Samtec

Vita 57.4 Connector, Carrier Card
ASP-184329-01
560 Pins, Pitch 1.27mm
Samtec



CONTRACT NO.		HTG-ZRF8		
APPROVALS	DATE			
DRAWN		SIZE	FSCM NO.	REV
CHECKED		C		1.0
ISSUED		SCALE	DWG. NO.	SHEET 34 of 48



CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	FMC+ PL sections F-K			
DRAWN IN	CHECKED	SIZE	FSCM NO.	DWG. NO.	REV
ISSUED		C			1.0
SCALE		SHEET 35 of 48			

D

D

C

C

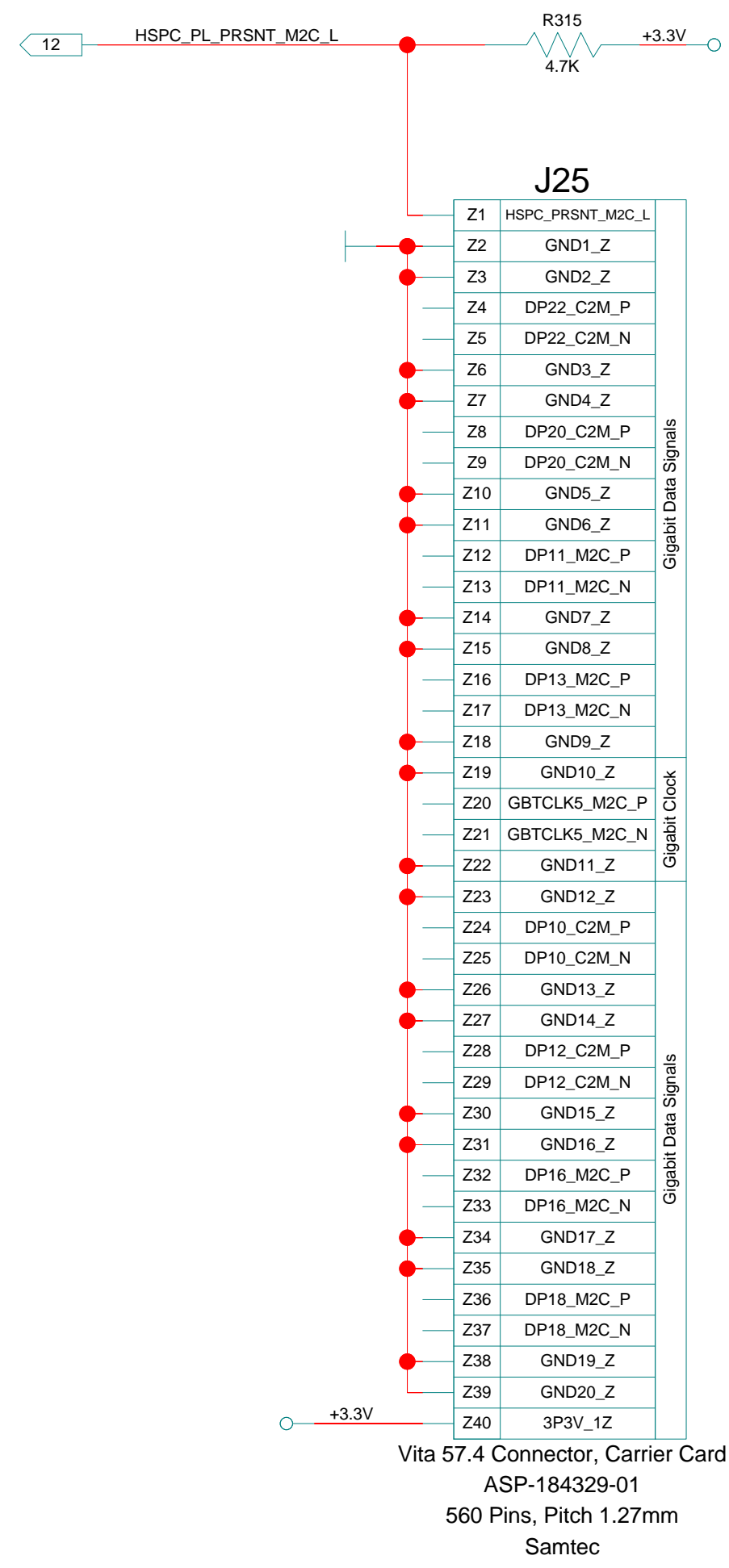
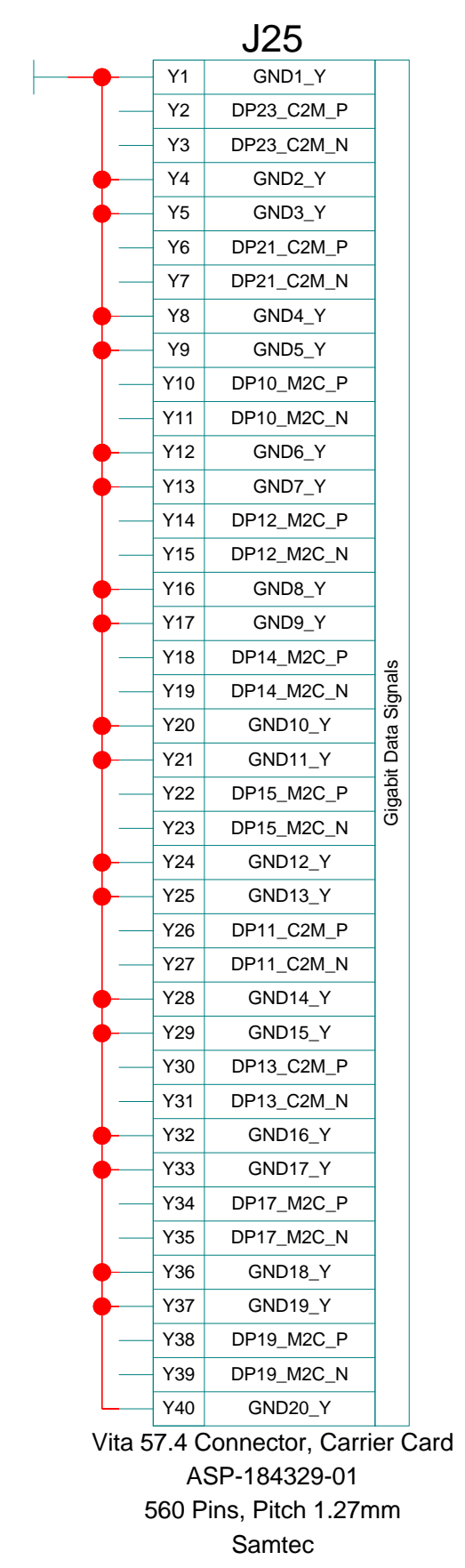
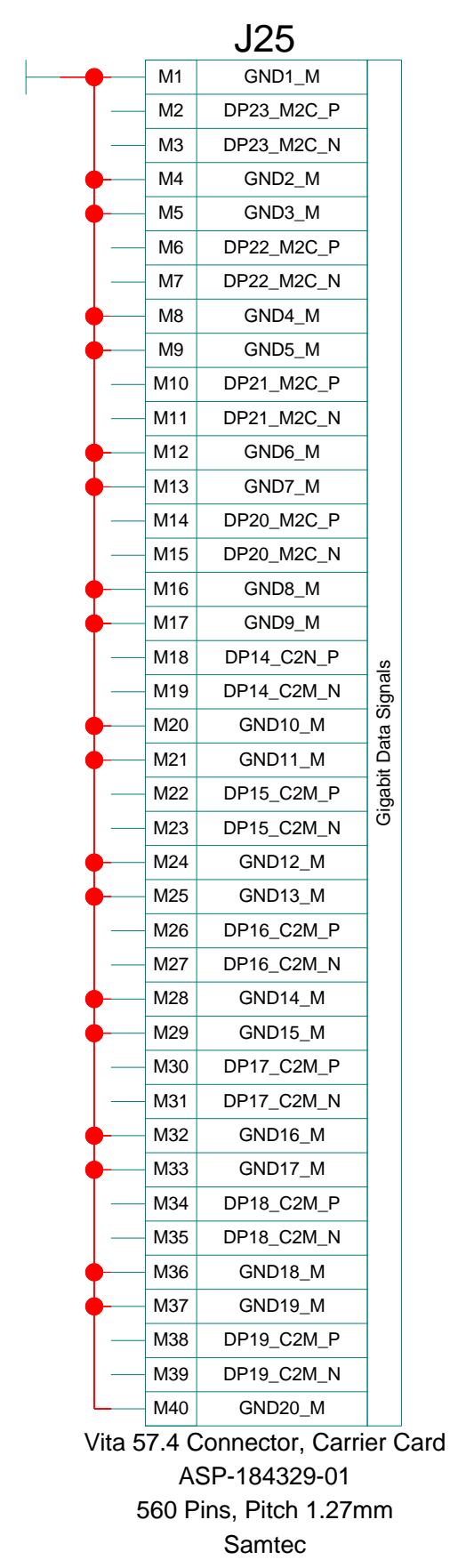
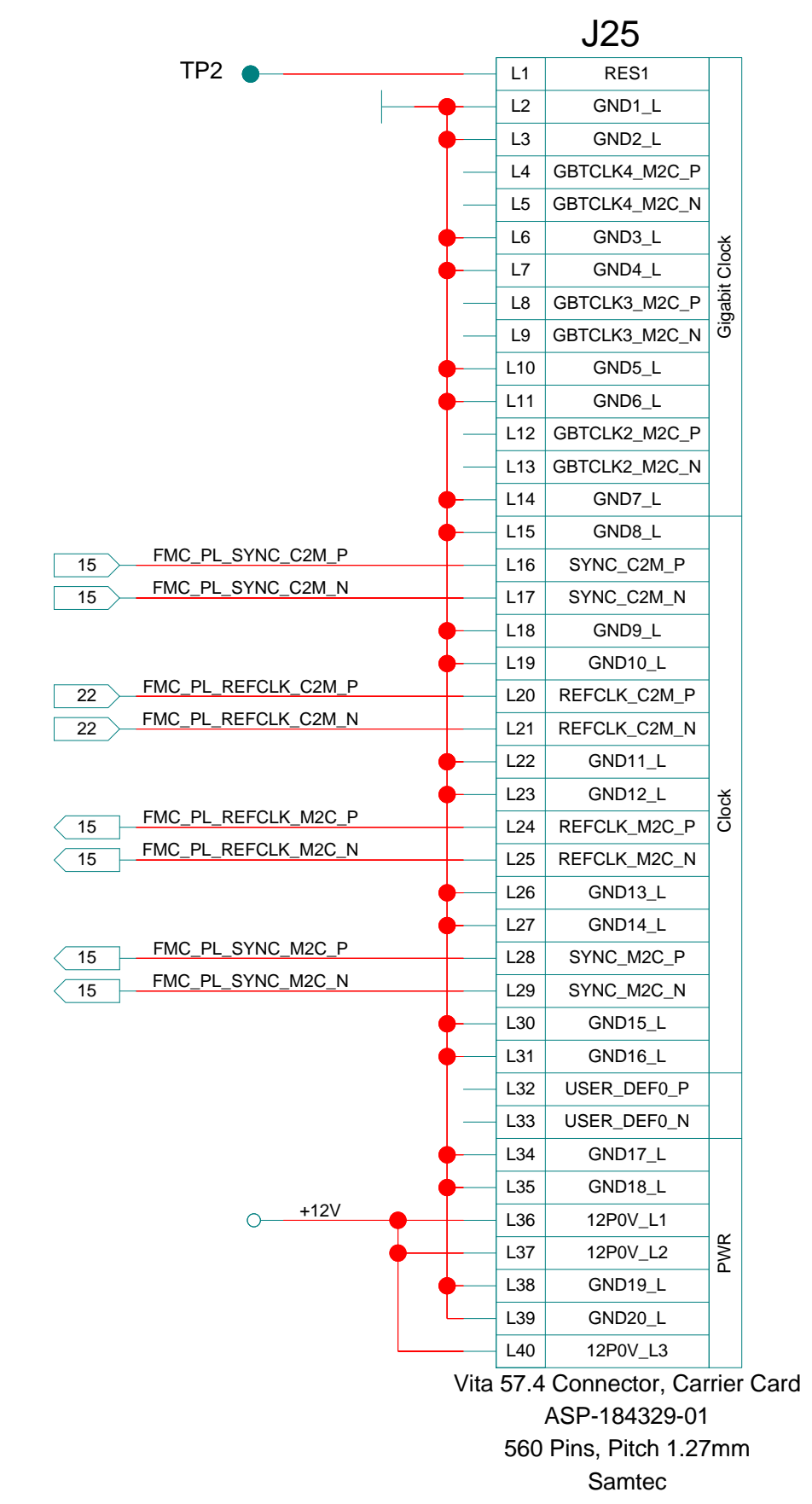
B

B

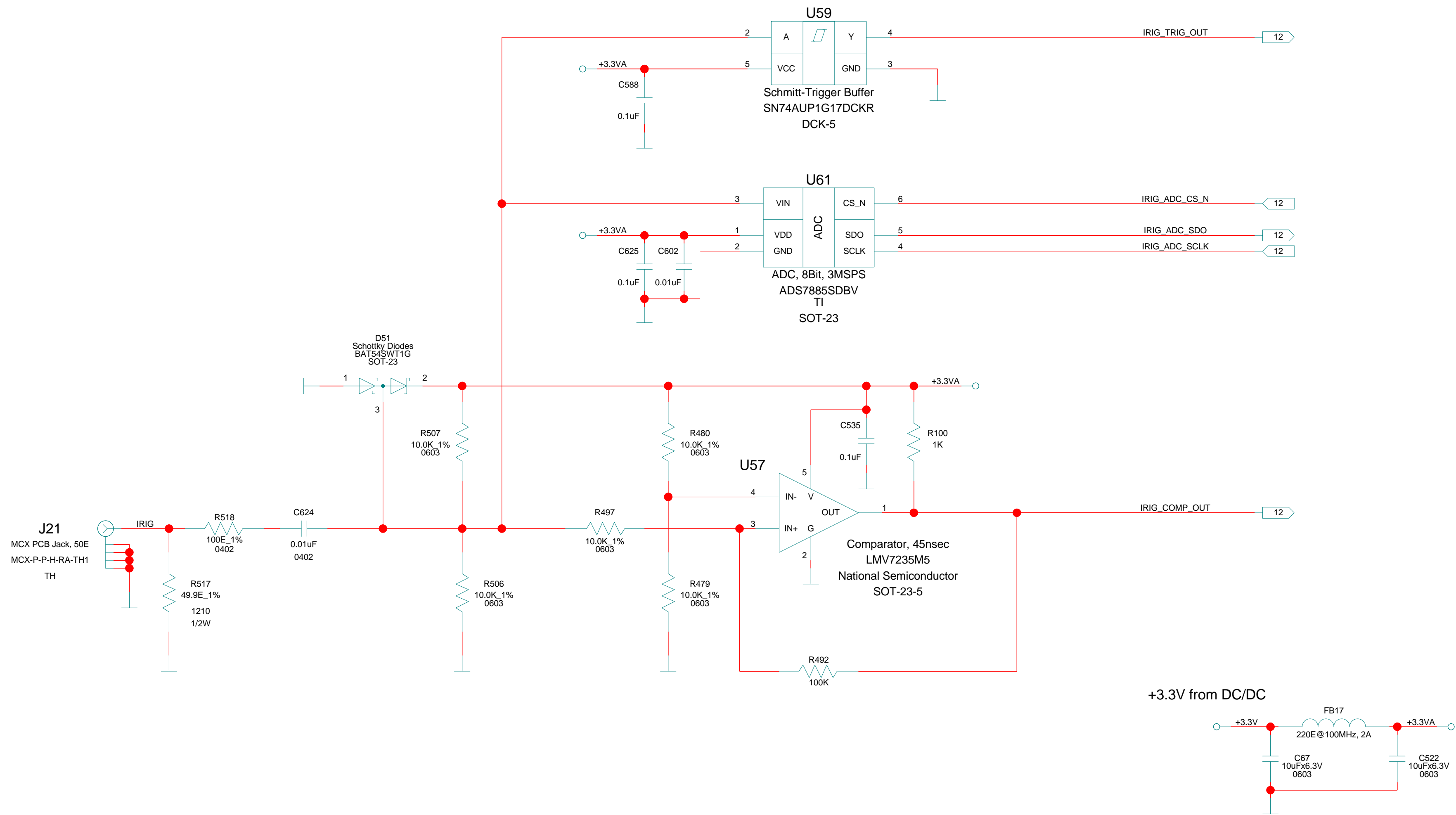
A

A

M

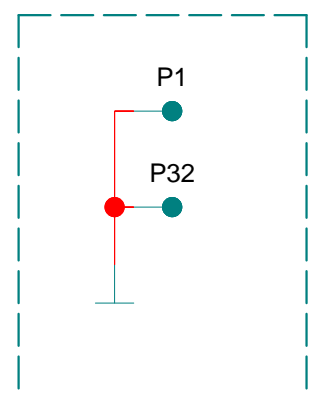
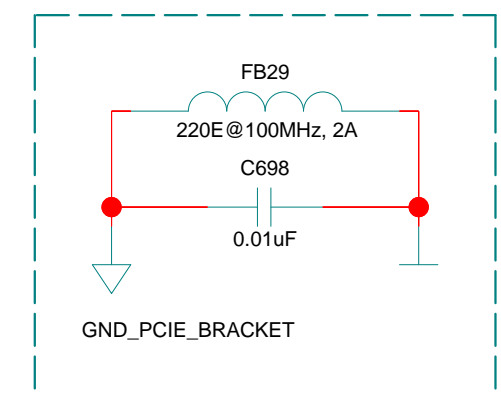
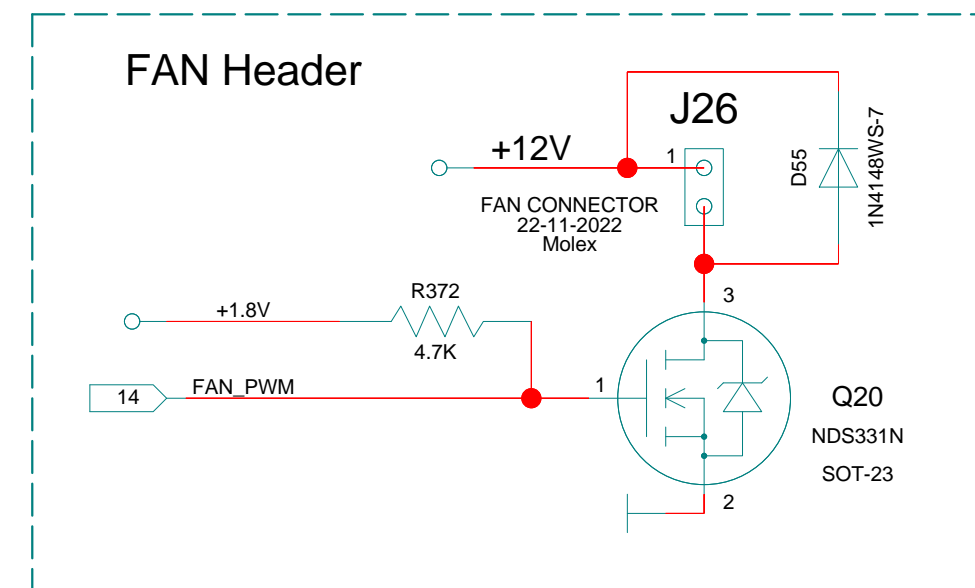
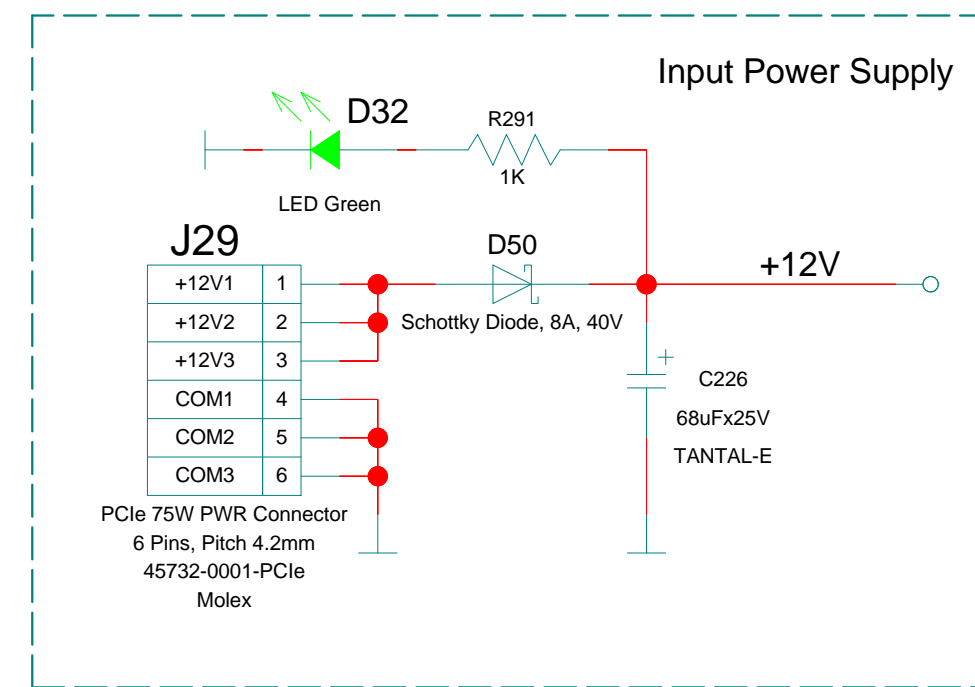
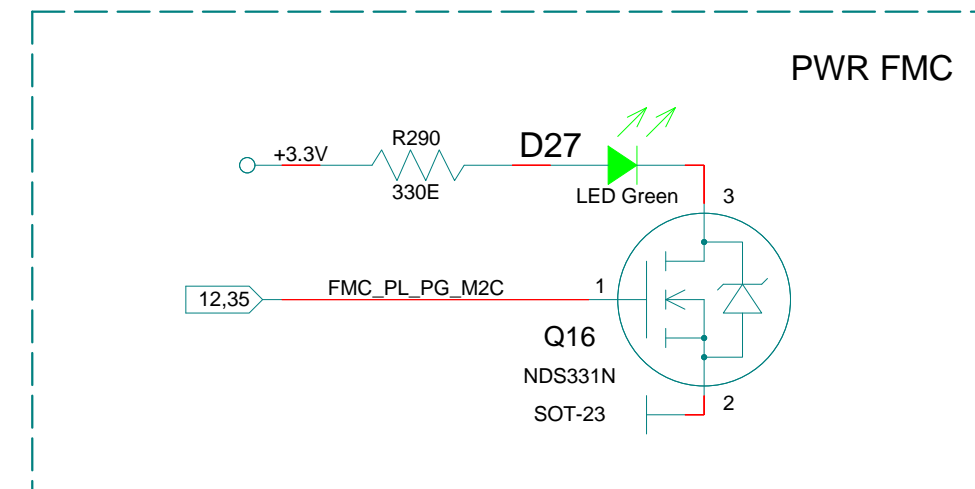
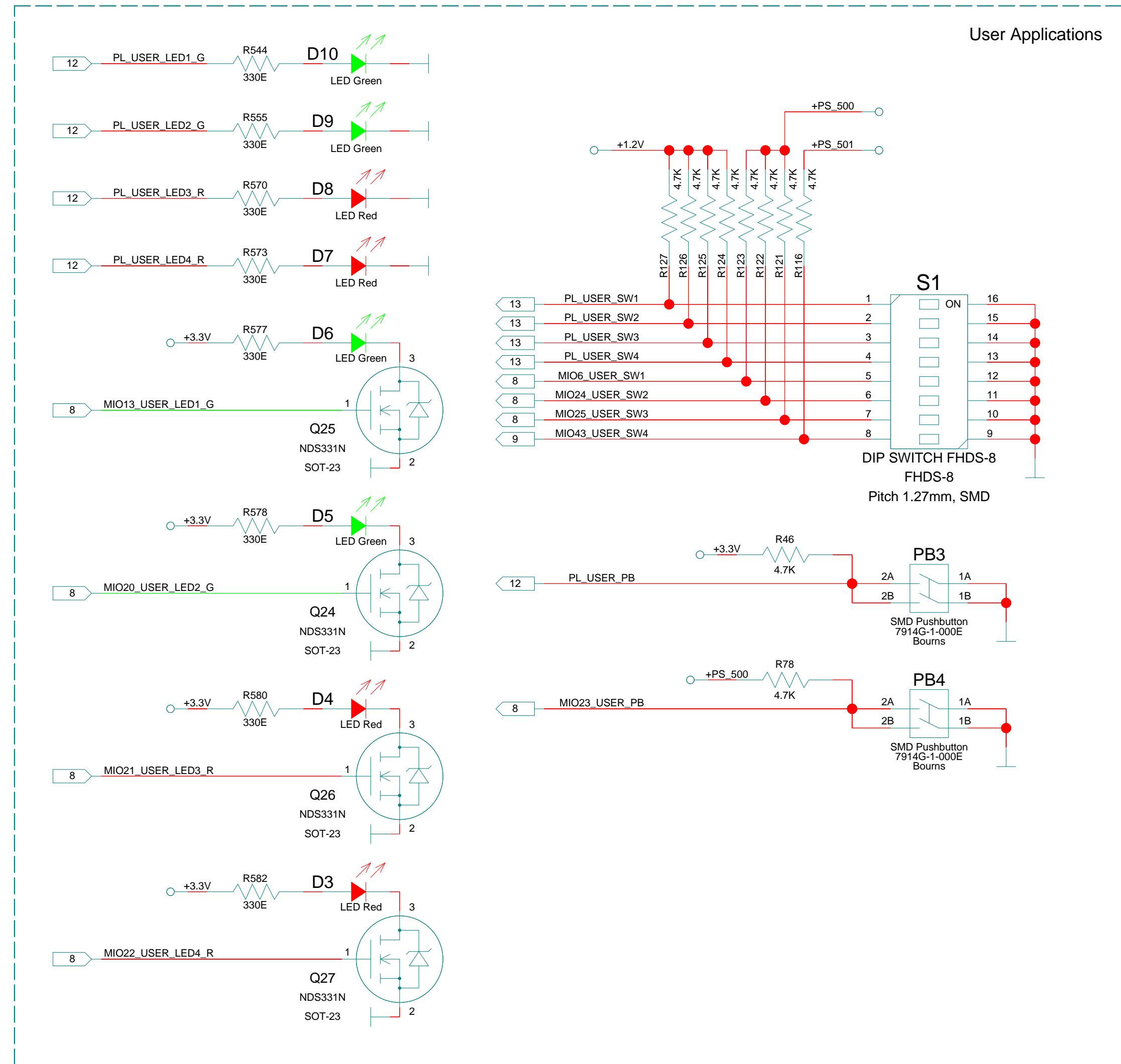


CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	FMC+ PL sections L, M, Y, Z			
DRAWN IN					
CHECKED					
ISSUED		SIZE	FSCM NO.	DWG. NO.	REV
		C			1.0
		SCALE		SHEET	36 of 48



With FPGA IP core IRIG-A, IRIG-B and IRIG-G are supported.

CONTRACT NO.		HTG-ZRF8			
APPROVALS	DATE	1PPS (GPS sync.)			
DRAWN		SIZE	FSCM NO.	DWG. NO.	REV
CHECKED		C			1.0
ISSUED		SCALE	SHEET 37 of 48		



CONTRACT NO.		HTG-ZRF8			
APPROVALS					
DRAWN IN		PWR IN, User APP			
CHECKED					
ISSUED		SIZE	FSCM NO.	DWG. NO.	REV
		C			1.0
		SCALE	SHEET		38 of 48