


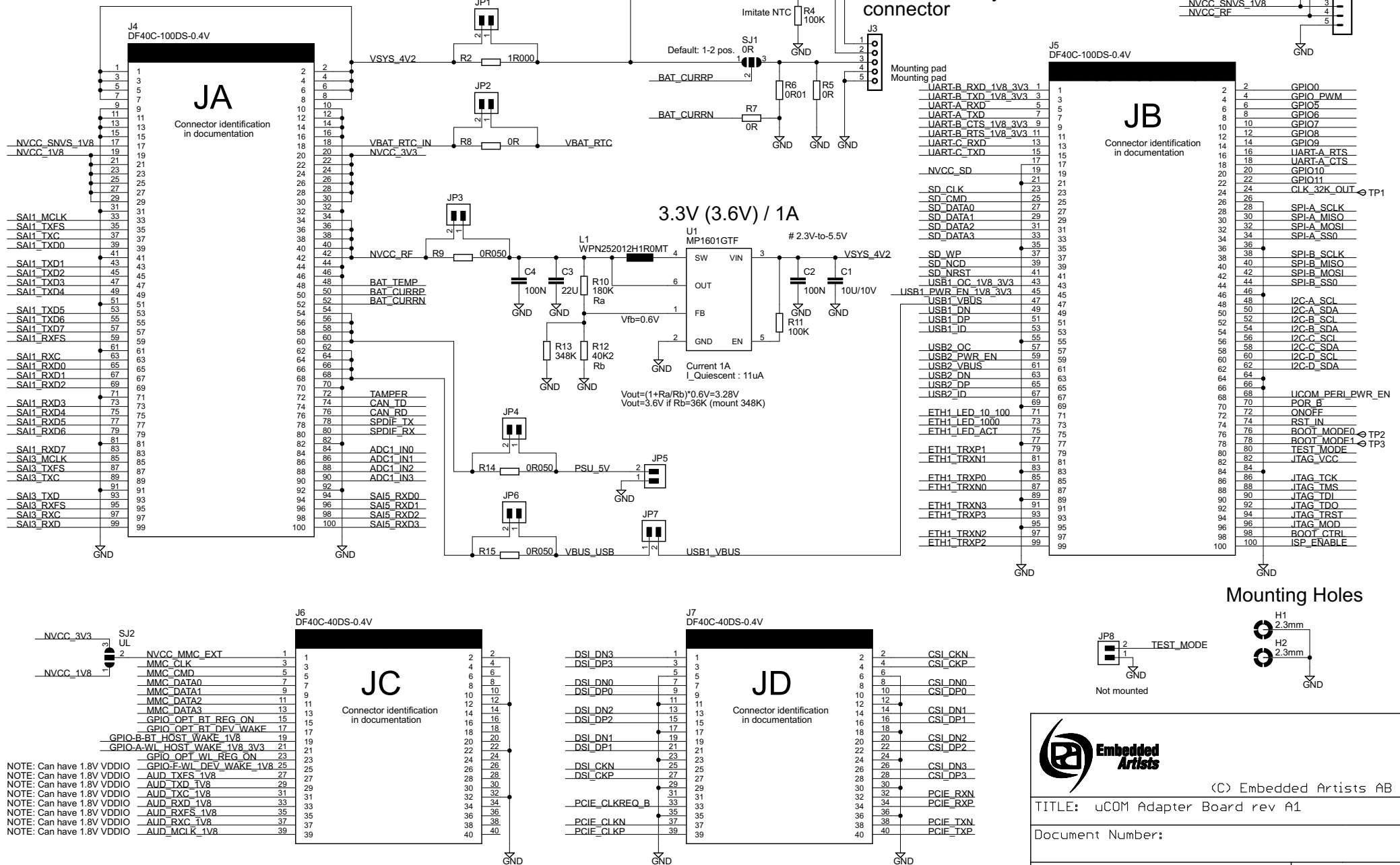
Page 2: uCOM Connectors
Page 3: Voltage Translators
Page 4: MXM3 edge connector
Page 5: JTAG debug interface
Page 6: Boot Mode Control
Page 7: MIPI-DSI to HDMI Bridge
Page 8: Connector to MIPI-DSI LCD

UL = UnLoaded = normally not mounted component.

Default jumper settings are indicated in the schematic.
However, always check jumper positions on actual boards
since there is no guarantee that all jumpers are in default place.

Rev A1 Added J13 to make switch between iMX7ULP and iMX8M Mini uCOM easier. Added D8, R29, R120 and R121.	
Rev A First official release	
 (C) Embedded Artists AB	
TITLE: uCOM Adapter Board rev A1	
Document Number:	
Date: 2019-10-15 00:11:04	Sheet: 1/8

uCOM Expansion Connectors



(C) Embedded Artists AB

TITLE: uCOM Adapter Board rev A1

Document Number:

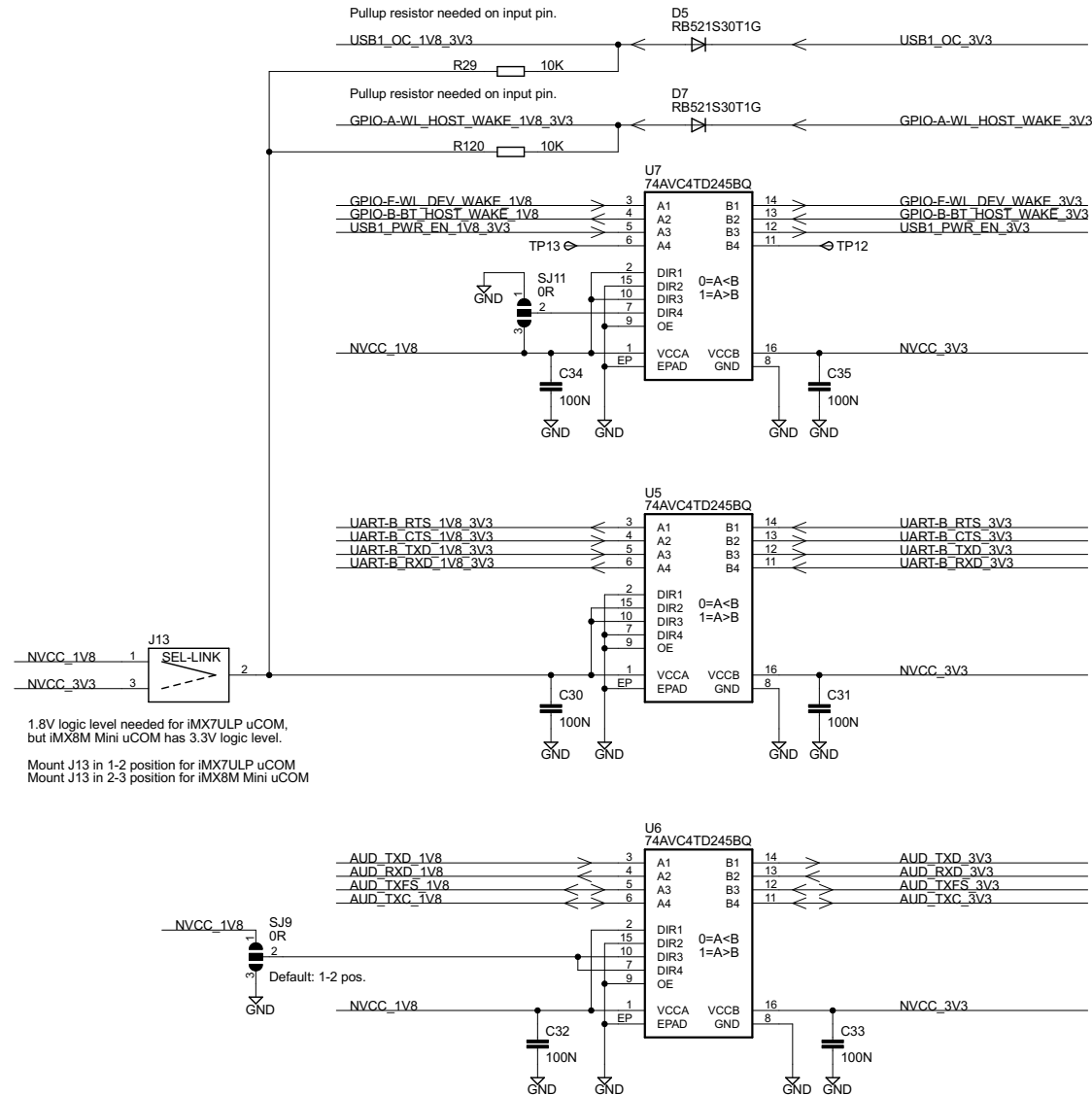
Date: 2019-10-15 00:11:04

Sheet: 2/8

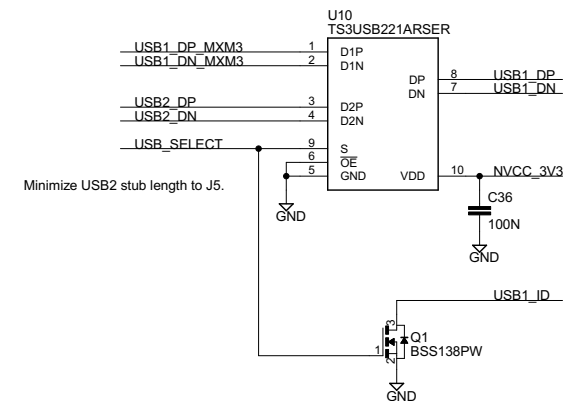
Voltage Translators

uCOM side

Carrier board side



USB multiplexor to allow iMX7ULP
USB channel to connect to USB2 (as Host)



(C) Embedded Artists AB

TITLE: uCOM Adapter Board rev A1

Document Number:

Date: 2019-10-15 00:11:04

Sheet: 3/8

MXM3 edge connector

J8B
MXM3 edge connector

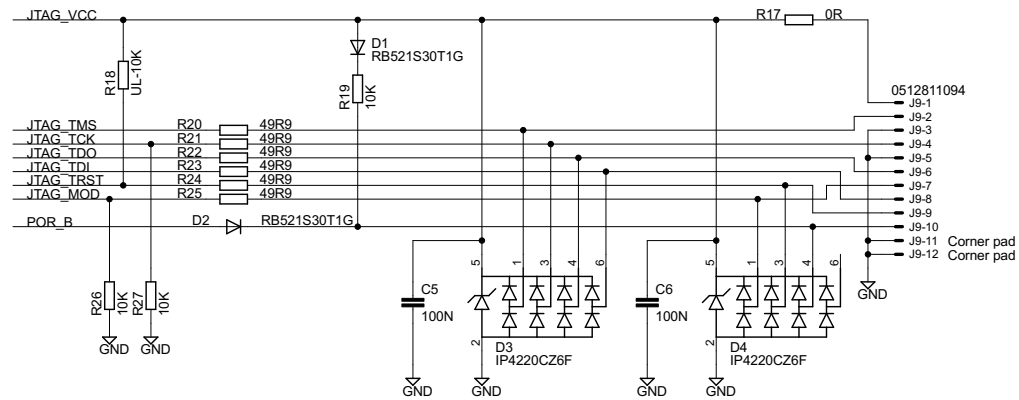
bottom side top side

PCIE_RXN	321	S158	GND	VIN	P156	320
PCIE_RXP	319	S157	PCIE_RX_N	VIN	P155	318
PCIE_TXN	317	S156	PCIE_RX_P	VIN	P154	316
PCIE_TXP	315	S155	GND	VIN	P153	314
PCIE_CLKN	313	S154	PCIE_TX_N	VIN	P152	312
PCIE_CLKP	311	S153	PCIE_TX_P	VIN	P151	310
PCIE_CLKN	309	S152	GND	VIN	P150	308
PCIE_CLKP	307	S151	PCIE_CLK_N	VIN	P149	306
PCIE_CLKP	305	S150	PCIE_CLK_P	VIN	P148	304
PCIE_CLKP	303	S149	GND	VIN	P147	302
PCIE_CLKP	301	S148	GND/BT_CTRL	VIN	P146	300
PCIE_CLKP	299	S147	SATA_RX_P	ISP_ENABLE	P145	298
PCIE_CLKP	297	S146	SATA_RX_N	VBAT_RTC	P144	296
PCIE_CLKP	295	S145	GND	GND/VIN_SELECT	P143	294
PCIE_CLKP	293	S144	SATA_TX_N	RESET_OUT	P142	292
PCIE_CLKP	291	S143	SATA_TX_P	RESET_IN	P141	290
PCIE_CLKP	289	S142	GND	PERI_PWR_EN	P140	288
PCIE_CLKP	287	S141	CSI_CLK_P	GPIO-A	P139	286
PCIE_CLKP	285	S140	CSI_CLK_M	GPIO-B	P138	284
PCIE_CLKP	283	S139	GND	PWM	P137	282
PCIE_CLKP	281	S138	CSI_D0_P	UART-A_TXD	P136	280
PCIE_CLKP	279	S137	CSI_D0_M	UART-A_RTS	P135	278
PCIE_CLKP	277	S136	GND	UART-A_CTS	P134	276
PCIE_CLKP	275	S135	CSI_D1_P	UART-B_TXD	P133	274
PCIE_CLKP	273	S134	CSI_D1_M	UART-B_RTS	P132	272
PCIE_CLKP	271	S133	GND	UART-B_CTS	P131	270
PCIE_CLKP	269	S132	CSI_D2_P	UART-B_TXD_3V3	P130	268
PCIE_CLKP	267	S131	CSI_D2_M	UART-B_RXD	P129	266
PCIE_CLKP	265	S130	GND	UART-C_TXD	P128	264
PCIE_CLKP	263	S129	CSI_D3_P	UART-C_RXD	P127	262
PCIE_CLKP	261	S128	CSI_D3_M	GND	P126	260
PCIE_CLKP	259	S127	GND	SPI-A_CLK	P125	258
PCIE_CLKP	257	S126	CSI_D7	SPI-A_MISO	P124	256
PCIE_CLKP	255	S125	CSI_D6	SPI-A_MOSI	P123	254
PCIE_CLKP	253	S124	CSI_D5	SPI-A_SS0	P122	252
PCIE_CLKP	251	S123	CSI_D4	SPI-B_CLK	P121	250
PCIE_CLKP	249	S122	CSI_D3	SPI-B_MISO	P120	248
PCIE_CLKP	247	S121	CSI_D2	SPI-B_MOSI	P119	246
PCIE_CLKP	245	S120	CSI_D1	SPI-B_SS0	P118	244
PCIE_CLKP	243	S119	CSI_D0	GND	P117	242
PCIE_CLKP	241	S118	GND	COM specific	P116	240
PCIE_CLKP	239	S117	CSI_PCLK	COM specific	P115	238
PCIE_CLKP	237	S116	CSI_MCLK	COM specific	P114	236
PCIE_CLKP	235	S115	CSI_VSYNC	COM specific	P113	234
PCIE_CLKP	233	S114	CSI_HSYNC	COM specific	P112	232
PCIE_CLKP	231	S113	COM specific	COM specific	P111	230
PCIE_CLKP	229	S112	COM specific	COM specific	P110	228
PCIE_CLKP	227	S111	COM specific	COM specific	P109	226
PCIE_CLKP	225	S110	COM specific	COM specific	P108	224
PCIE_CLKP	223	S109	COM specific	COM specific	P107	222
PCIE_CLKP	221	S108	COM specific	COM specific	P106	220
PCIE_CLKP	219	S107	COM specific	COM specific	P105	218
PCIE_CLKP	217	S106	COM specific	COM specific	P104	216
PCIE_CLKP	215	S105	COM specific	COM specific	P103	214
PCIE_CLKP	213	S104	GND	COM specific	P102	212
PCIE_CLKP	211	S103	COM specific	COM specific	P101	210
PCIE_CLKP	209	S102	COM specific	COM specific	P100	208
PCIE_CLKP	207	S101	GND	COM specific	P99	206
PCIE_CLKP	205	S100	COM specific	COM specific	P98	204
PCIE_CLKP	203	S99	COM specific	COM specific	P97	202
PCIE_CLKP	201	S98	GND	COM specific	P96	200
PCIE_CLKP	199	S97	AIN0	COM specific	P95	198
PCIE_CLKP	197	S96	AIN1	COM specific	P94	196
PCIE_CLKP	195	S95	AIN2	COM specific	P93	194
PCIE_CLKP	193	S94	AIN3	COM specific	P92	192
PCIE_CLKP	191	S93	AIN4	COM specific	P91	190
PCIE_CLKP	189	S92	AIN5	GND	P90	188
PCIE_CLKP	187	S91	AIN6	USB_H2_DP	P89	186
PCIE_CLKP	185	S90	AIN7	USB_H2_DN	P88	184
PCIE_CLKP	183	S89	AIN_VREF	GND	P87	182
PCIE_CLKP	181	S88	GND	USB_H2_OC	P86	180
PCIE_CLKP	179	S87	LCD_ENABLE	USB_H1_VBUS	P85	178
PCIE_CLKP	177	S86	LCD_VSYNC	USB_H1_VBUS	P84	176
PCIE_CLKP	175	S85	LCD_HSYNC	USB_H1_SSRXP	P83	174
PCIE_CLKP	173	S84	GPIO-G	USB_H1_SSRXN	P82	172
PCIE_CLKP	171	S83	LCD_CLK	GND	P81	170
PCIE_CLKP	169	S82	LCD_B7	USB_H1_SSTXP	P80	168
PCIE_CLKP	167	S81	LCD_B6	USB_H1_SSTXN	P79	166
PCIE_CLKP	165	S80	LCD_B5	USB_H1_DP	P78	164
PCIE_CLKP	163	S79	LCD_B4	USB_H1_DN	P77	162
PCIE_CLKP	161	S78	LCD_B3	GND	P76	160
PCIE_CLKP	159	S77	LCD_B2	USB_H1_OC	P75	158
PCIE_CLKP	157	S76	LCD_B1	USB_H1_PWR_EN		

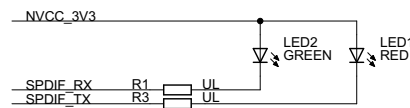
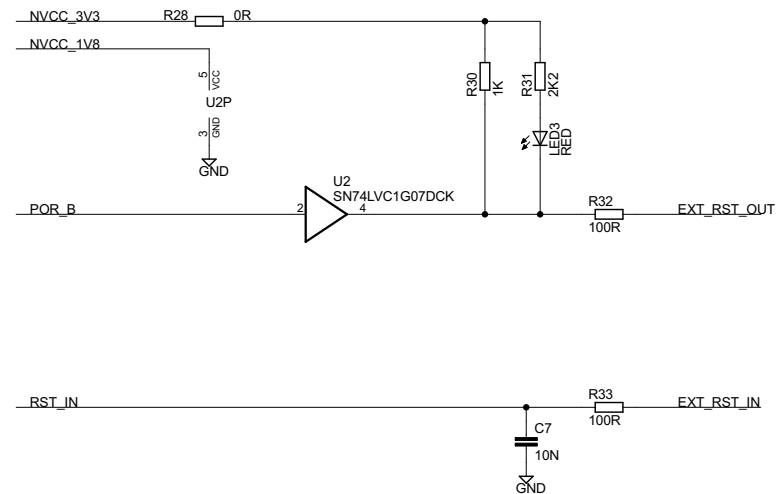
M1 M2 M3 M4 Mounting holes
A1 A2 A3 A4
GND GND GND GND

318					VIN_4V2
315					
312					
310					
308					
306					
304					
302					
300					
298					
296					
294					
292					
290					
288					
286					
284					
282					
280					
278					
276					
274					
272					
270					
268					
266					
264					
262					
260					
258					
256					
254					
252					
250					
248					
246					
244					
242					
240					
238					
236					
234					
232					
230					
228					
226					
224					
222					
220					
218					
216					
214					
212					
210					
208					
206					
204					
202					
200					
198					
196					
194					
192					
190					
188					
186					
184					
182					
180					
178					
176					
174					
172					
170					
168					
166					
164					
162					
160					
158					

JTAG debug interface



JTAG Debug Interface



(C) Embedded Artists AB

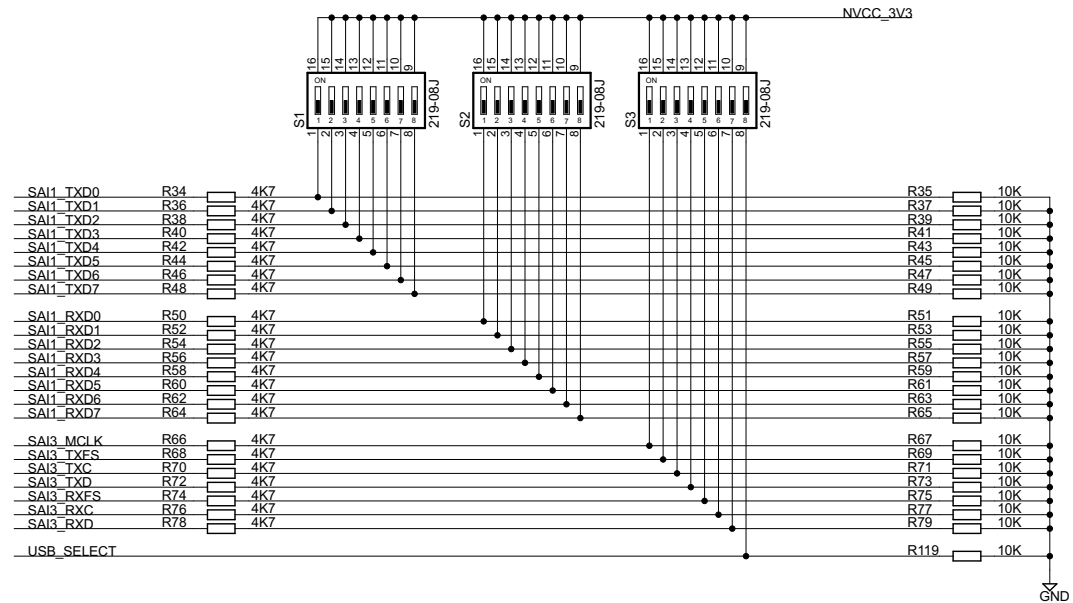
TITLE: uCOM Adapter Board rev A1

Document Number:

Date: 2019-10-15 00:11:04

Sheet: 5/8

Boot Mode Control



(C) Embedded Artists AB

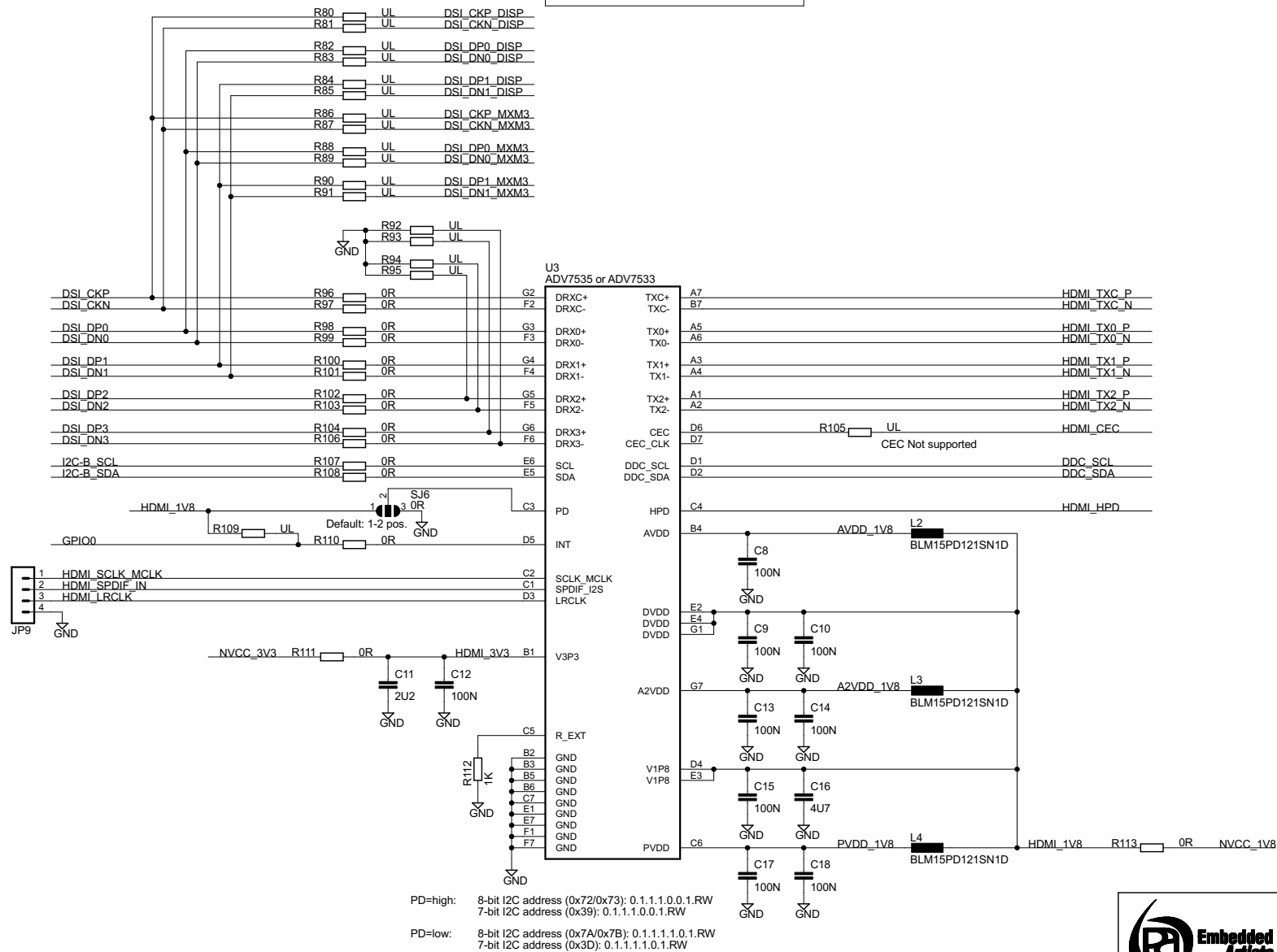
TITLE: uCOM Adapter Board rev A1

Document Number:

Date: 2019-10-15 00:11:04

Sheet: 6/8

MIPI-DSI to HDMI



(C) Embedded Artists AB

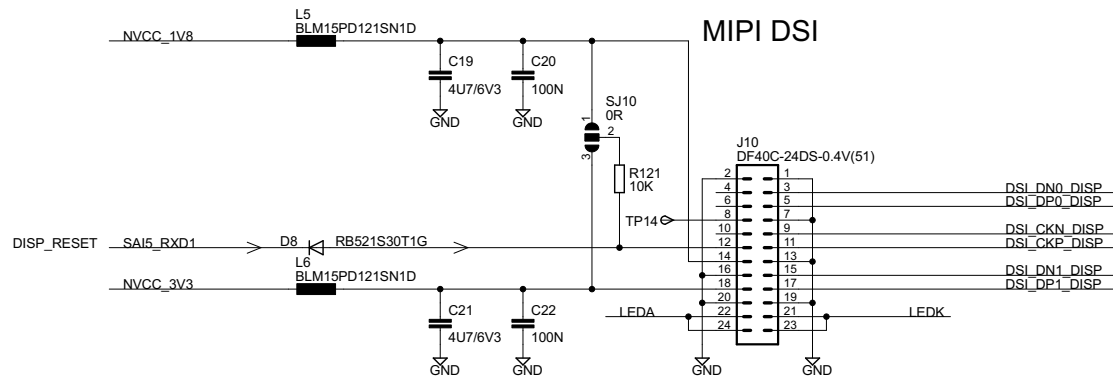
TITLE: uCOM Adapter Board rev A1

Document Number:

Date: 2019-10-15 00:11:04

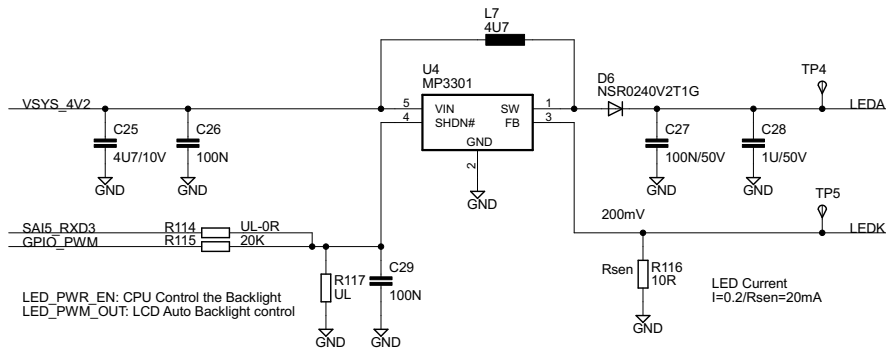
Sheet: 7/8

MIPI Display & Touch



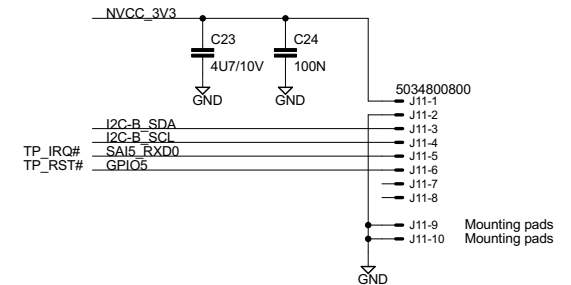
Note:
 1. HDMI is the default display, alternative with MIPI Panel;
 2. When HDMI Panel is used, R86-R108 should be populated and R81-R84 removed.
 3. When MIPI Panel is used, R81-R84 should be populated and R96-R108 removed.

LCD LED BackLight



LED_PWR_EN: CPU Control the Backlight
 LED_PWM_OUT: LCD Auto Backlight control

TOUCH



(C) Embedded Artists AB

TITLE: uCOM Adapter Board rev A1

Document Number:

Date: 2019-10-15 00:11:04

Sheet: 8/8