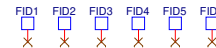
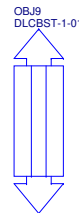
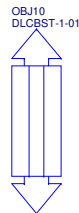


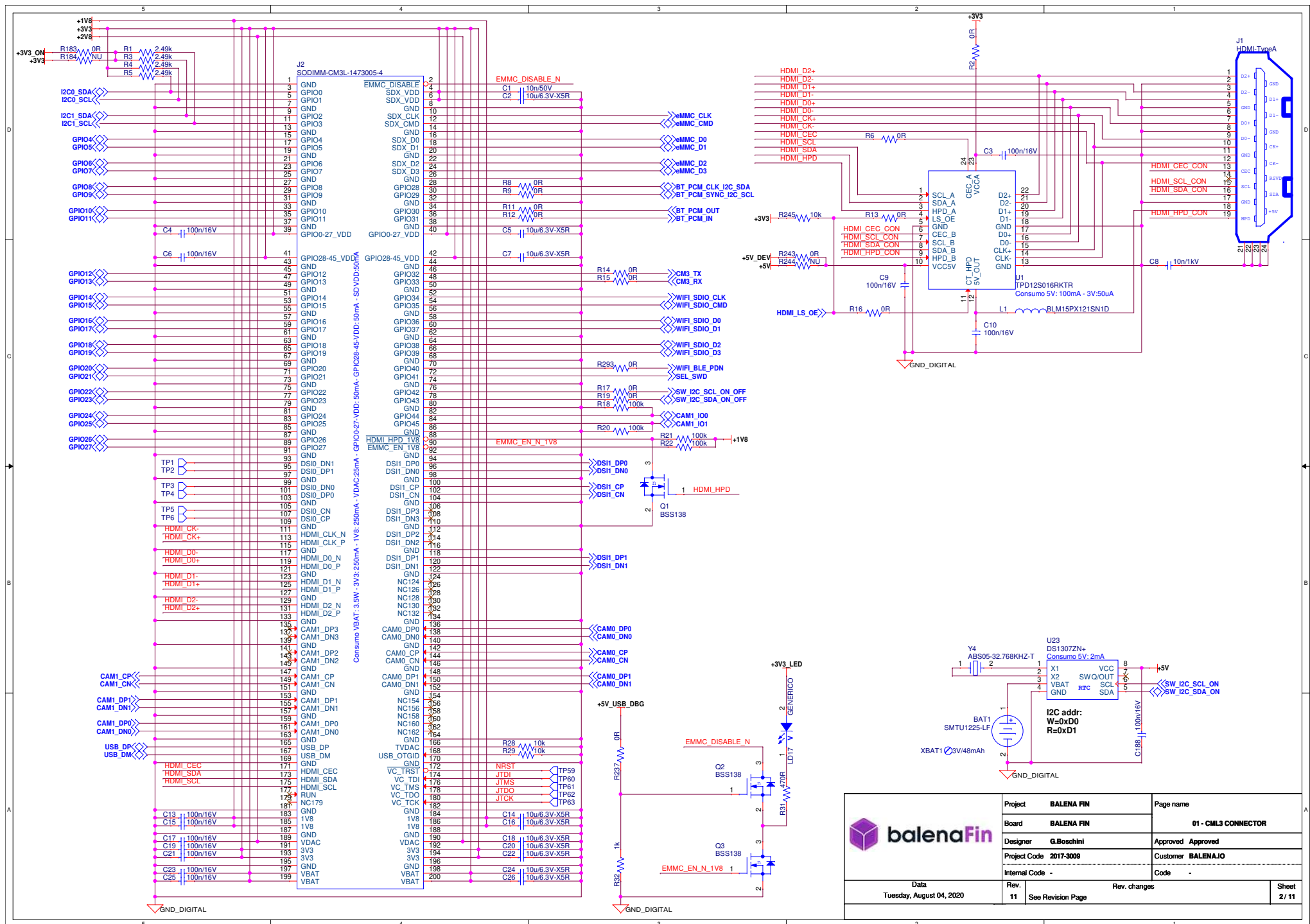
Revision	Date	Author	Description
1	13/05/2017	G.Boschini	First Draft
2	26/08/2017	G.Boschini	<ul style="list-style-type: none">- Updated symbol from library- Removed micro SD card interface- Removed Artik 020 USB Debug- Removed Temperature and Humidity sensor- Removed CM3L Jtag connector- Removed Accelerometer and Gyroscope sensor- Removed Battery Backup from Artik- Changed color led +5V and +3V3- Changed Display and Camera connector- Changed WIFI+BL Module- Changed LED driver functionality (from CM3 or Artik)- Moved on I2C0 Camera, Display and EEPROM HAT- Moved on I2C1 Artik and HAT- Added NanoSIM support- Added extended IO Artik connector- Added Power Disconnection functionality managed by Artik- Corrected SWD Artik pinout- Replaced USB HUB and Ethernet controller with LAN9514
3	20/11/2017	G.Boschini	<ul style="list-style-type: none">- Updated symbol from library- Removed DSW1- Removed FTDI Programm connector (J23)- Replaced HDMI-D connector with HDMI-A connector- Replaced eMMC with Sandisk- Added Power On/Off LED- Added UART connection between Artik and CML via FTDI chip- Added RF-Switch for select antenna- Added 5V protection for power-up from HAT- Added Power switch for powerdown 5V device (USB HOST, HDMI)- Added Pullup on HDMI_L5_OE signal- Added mPCIe Reset functionality- Improved capacitor at DC input of mPCIe- Changed project name from Amber to Rubus- Changed HAT fuse to 3A- Changed PullDown LED RGB Resistor- Changed Voltage Input Rail up to 30V
4	02/01/2018	G.Boschini	<ul style="list-style-type: none">- Correct PCB Led SilkScreen
5	17/01/2018	G.Boschini	<ul style="list-style-type: none">- Removed UART Bluetooth connection- Changed I2C bus for RTC, Artik 020, CM3, IO Expander and isolated RTC and Artik bus from IO Expander and CM3 when CM3 is not powered- Modified 5V HAT Power Supply- Enable W_Disable_mPCIe- Removed WiFi clock enable- Added switch for selection of WiFi antennas and removed signal from CM3- Added capacitors on 5V of USB Host output- Removed RGB Led- Added serial connection from CM3 to Artik- Added SWO connection from CM3 to Artik- Moved HDMI Enable and PDM WiFi to IO Expander- Replaced power input connector with black version
6	06/02/2018	G.Boschini	<ul style="list-style-type: none">- Updated symbol from library- Corrected SW-I2C net name- Added RGB led- Removed SWO connection from CM3 to Artik- Moved PDM WiFi to CM3- Moved HDMI_L5_OE to IO3 of IO Expander
7	22/02/2018	G.Boschini	<ul style="list-style-type: none">- Removed logo from silkscreen
8	17/05/2018	G.Boschini	<ul style="list-style-type: none">- Added FIN logo on silkscreen- Changed value of R259,R264,C218,C219,C222,C224,C227,C228,C229,C230
9	10/12/2018	G.Boschini	<ul style="list-style-type: none">- Removed Reset Button (PB1)- Removed protection networks of HAT connector (DS11,DS12,DS13,DS14,DS15,DS16,DS17,DS18,DS19,DS20,DS21,DS22,DS23,DS24,RR5,RR6,RR7,RR8,RR9,RR10,RR11,RR12)- Changed value of F3, J18- Removed FTDI and relative components- Added digital switch for USART to SWD communication from CM3 to Artik- Removed I2C connections to mPCIe- Added led RGB PWM control- Added POR feature- Added switch for DSI e CSI interface- Added switch for I2C (PCM) for DSI/CSI connector- Removed I2C from Artik IO Connector Expander
10	31/01/2019	G.Boschini	<ul style="list-style-type: none">- Updated symbol from library- Replace LAN9514 with industrial version- Replace RJ45 connector with temperature extended version- Added power supply from debug USB- Added R311 for reset MCU- Change to mount USB strip connector
11	04/08/2020	M. Cossali	<ul style="list-style-type: none">- Changed R116 and R32 to 1k




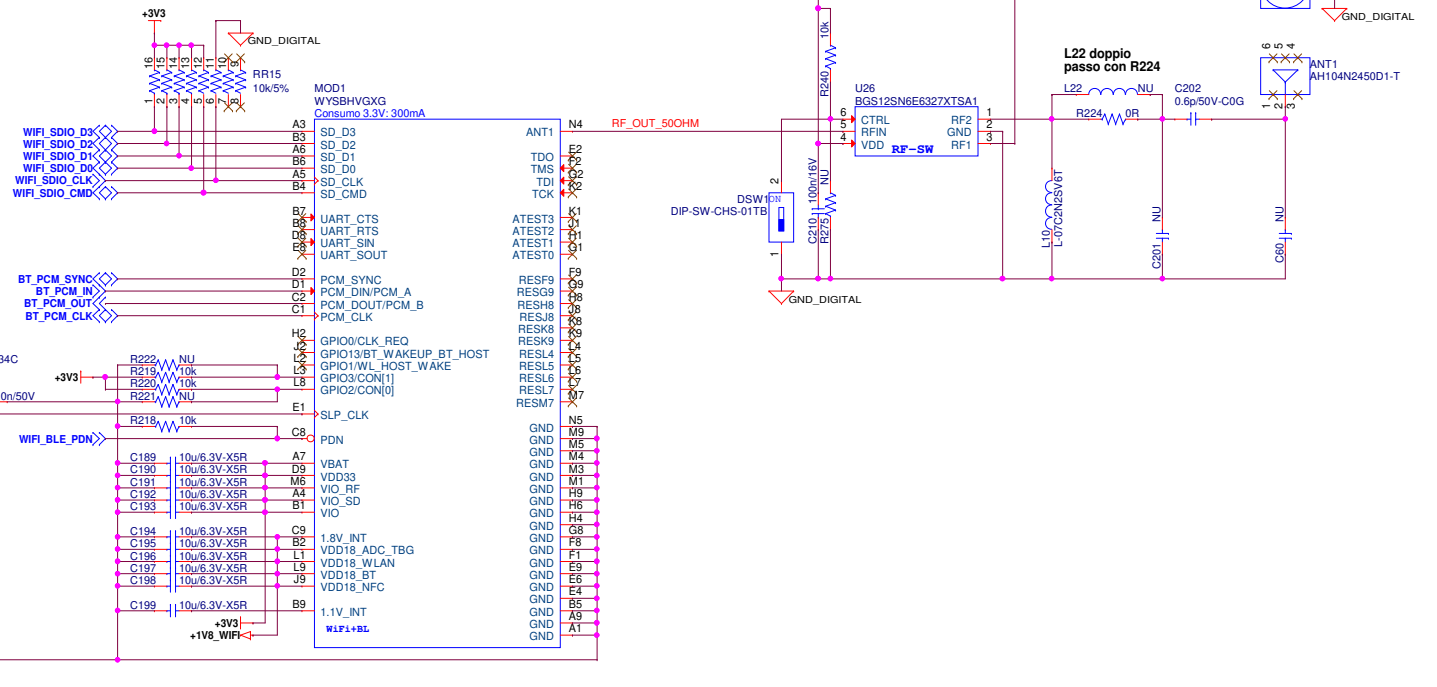
Test Point SPEA




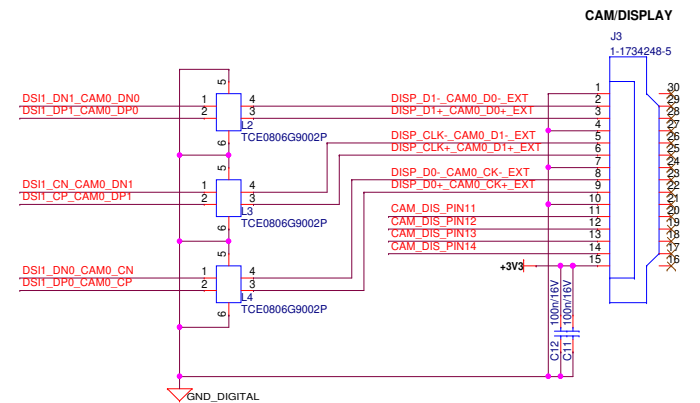
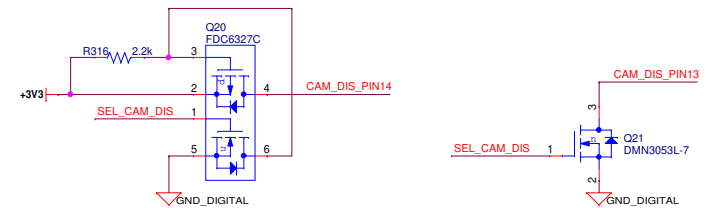
	Project	BALENA FIN	Page name	
	Board	BALENA FIN	00 - REVISION	
	Designer	G.Boschini	Approved	Approved
	Project Code	2017-3009	Customer	BALENAJO
	Internal Code	-	Code	-
Data		Rev.	Rev. changes	
Tuesday, August 04, 2020		11	See Revision Page	Sheet 1 / 11




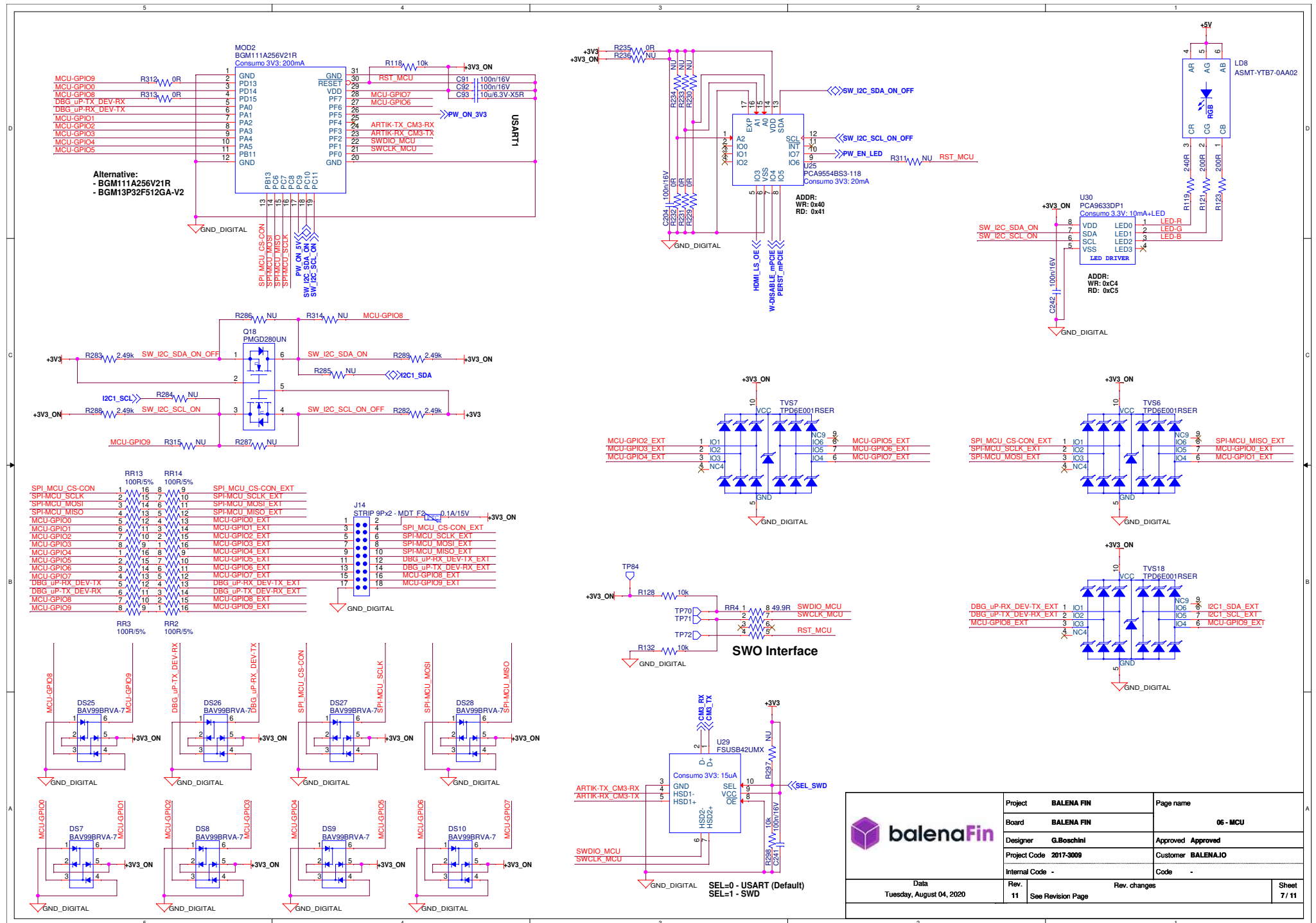
	Project	BALENA FIN	Page name	01 - CML3 CONNECTOR
	Board	BALENA FIN	Approved	
	Designer	G.Boschini	Approved	
	Project Code	2017-3009	Customer	
	Internal Code	-	Code	
Data	Rev.	11	See Revision Page	Rev. changes
Tuesday, August 04, 2020				Sheet 2 / 11

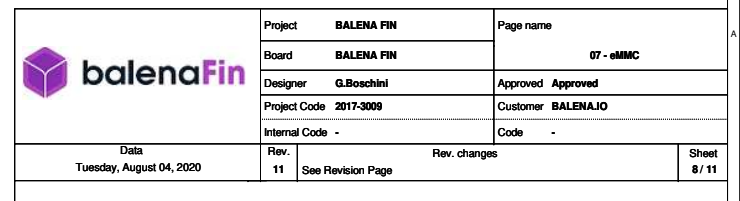


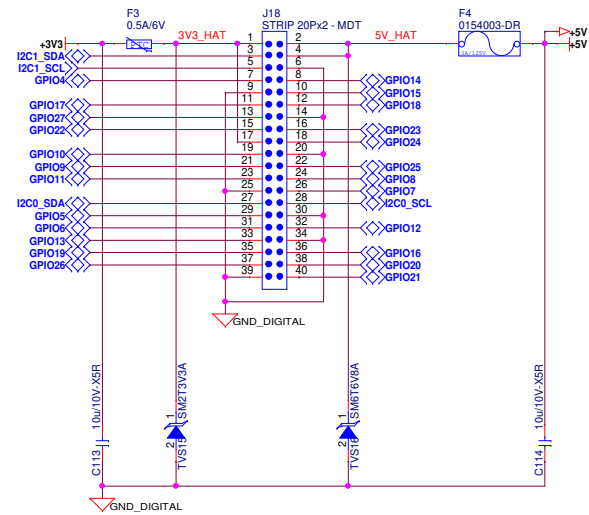
	Project	BALENA FIN	Page name
	Board	BALENA FIN	03 - WIFI - BLE
	Designer	G.Boschini	Approved Approved
	Project Code	2017-3009	Customer BALENA I/O
	Internal Code	-	Code -
Data	Rev.	Rev. changes	Sheet
Tuesday, August 04, 2020	11	See Revision Page	4 / 11




	Project BALENA FIN		Page name 04 - MPII INTERFACE	
	Board BALENA FIN			
	Designer G.Boschini		Approved Approved	
	Project Code 2017-3009		Customer BALENA IO	
	Internal Code -		Code -	
Date Tuesday, August 04, 2020		Rev. 11 See Revision Page	Rev. changes	Sheet 5 / 11







	Project BALENA FIN		Page name	
	Board BALENA FIN		08 - HAT	
	Designer G.Boschini		Approved Approved	
	Project Code 2017-3009		Customer BALENA I/O	
	Internal Code -		Code -	
Data Tuesday, August 04, 2020		Rev. 11	See Revision Page	Rev. changes
				Sheet 9 / 11

