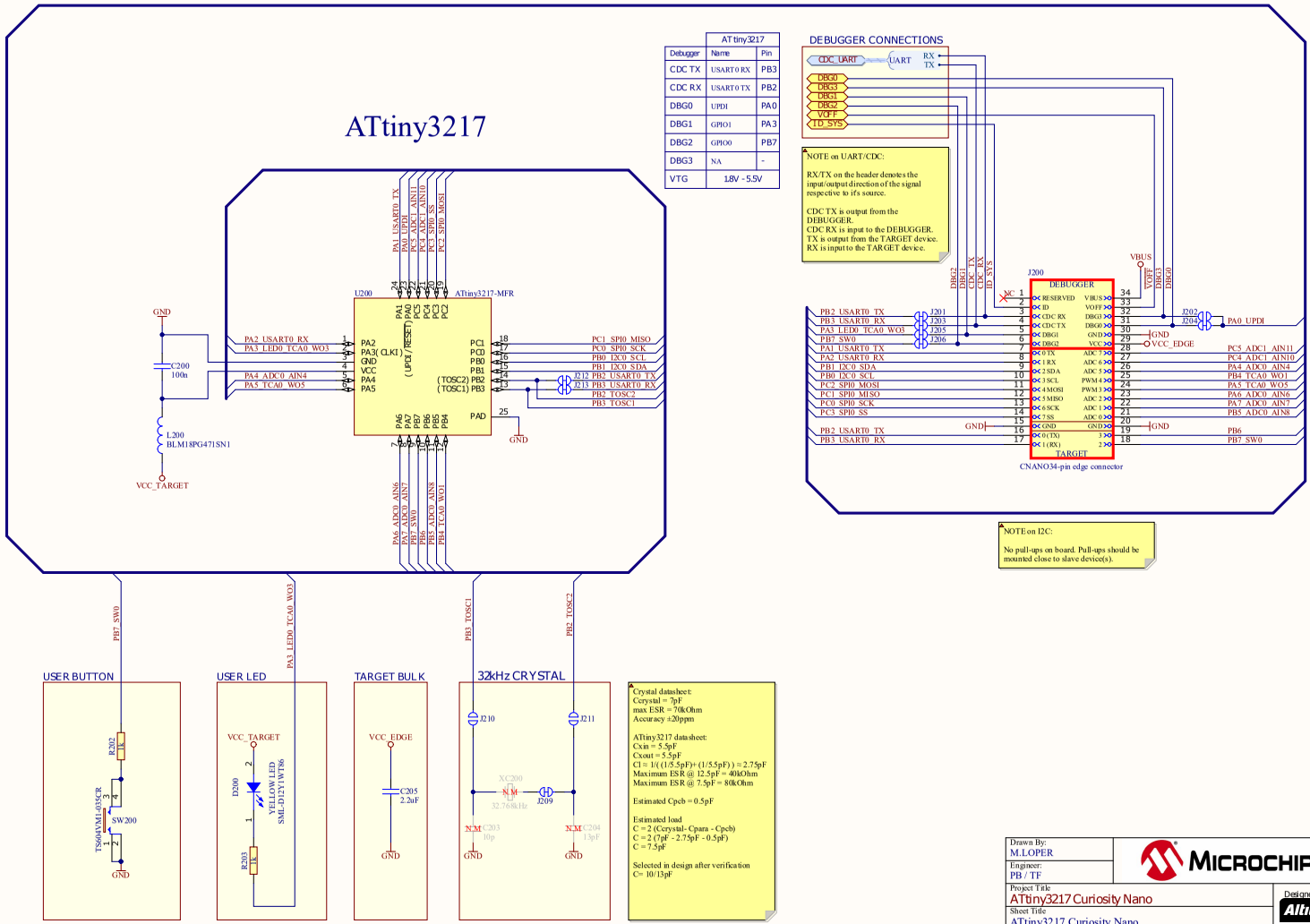

ATtiny3217		
Debugger	Name	Pin
CDC TX	USART0 RX	PB3
CDC RX	USART0 TX	PB2
DBG0	UPDI	PA0
DBG1	GPIO1	PA3
DBG2	GPIO0	PB7
DBG3	NA	-
VTG	1.8V - 5.5V	

NOTE on UART/CDC:

RX/TX on the header denotes the input/output direction of the signal respective to it's source.

CDC TX is output from the DEBUGGER.
CDC RX is input to the DEBUGGER.
TX is output from the TARGET device.
RX is input to the TARGET device.

NOTE on I2C:

No pull-ups on board. Pull-ups should be mounted close to slave device(s).

Crystal datasheet:
Ccrystal = 7pF
max ESR = 70kOhm
Accuracy ±20ppm

ATtiny3217 datasheet:
Cxin = 5.5pF
Cxout = 5.5pF
Cl ≈ 1/((1/5.5pF)+ (1/5.5pF)) ≈ 2.75pF
Maximum ESR @ 12.5pF = 40kOhm
Maximum ESR @ 7.5pF = 80kOhm

Estimated Cpcb = 0.5pF

Estimated load
C = 2 (Ccrystal- Cpara - Cpcb)
C = 2 (7pF - 2.75pF - 0.5pF)
C = 7.5pF

Selected in design after verification
C= 10/13pF

Drawn By: M.LOPER	MICROCHIP
Engineer: PB / TF	
Project Title: ATtiny3217 Curiosity Nano	Designed with Altium Altium.com
Sheet Title: ATtiny3217 Curiosity Nano	
Size A3	PCB Assembly Number: A09-3333 / PCBA Revision: 2
	PCB Number: A08-3055 / PCB Revision: 2
File: ATtiny3217_Curiosity_Nano_Target_MCU.SchDoc	Date: 27/11/2019
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