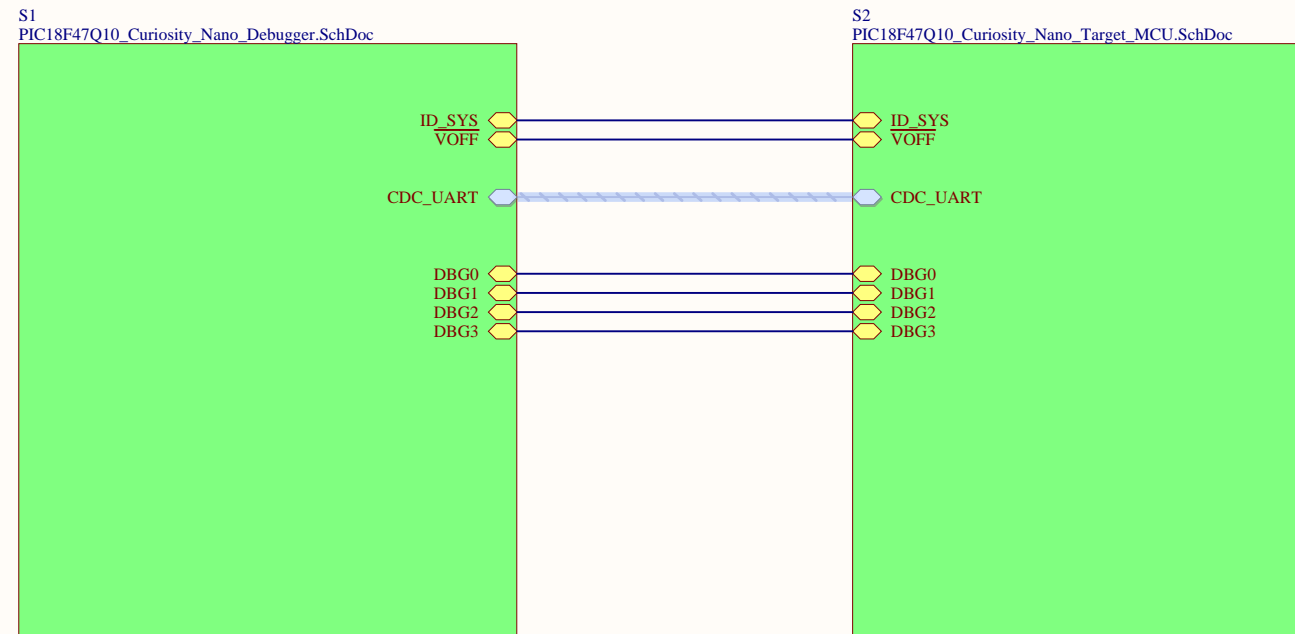


PIC18F47Q10 Curiosity Nano



TESTDOC1 TEST1
\$ > _
A11-0438

A12-1314 PCBADOC1
FW1
A11-0406 A12-1372
PCB1


A08-2972

LABEL1

Product number/revision
Serial number

Label PCBA

S3
PIC18F47Q10_Curiosity_Nano_Revision_History.SchDoc

Drawn By: Microchip Norway		 MICROCHIP
Engineer: HN, TF		
Project Title PIC18F47Q10 Curiosity Nano		
Sheet Title Top Level		
Size A3	PCB Assembly Number: A09-3246	PCBA Revision: 2
	PCB Number: A08-2972	PCB Revision: 2
File: PIC18F47Q10_Curiosity_Nano_TopLevel.SchDoc		Page: 1 of 4

Designed with
Altium
Altium.com

Revision History

PCB Assembly Rev 1:

▲

Design Changes:

Initial Design

PCB:

PCB revision 1

PCB Assembly Rev 2:



▲

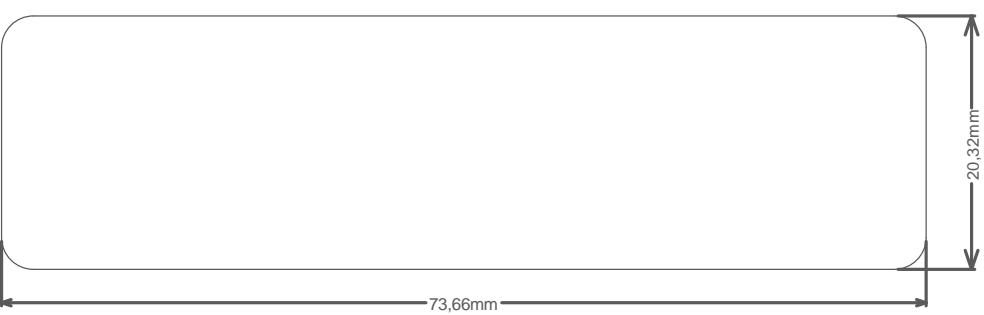
Design Changes:

Replace USB protection circuit (U105, C105) with
resettable PTC fuse (F100). U200 (PIC18F47Q10) is fitted
on this revision. Adjusted voltage range to: 1.8V to 5.5V

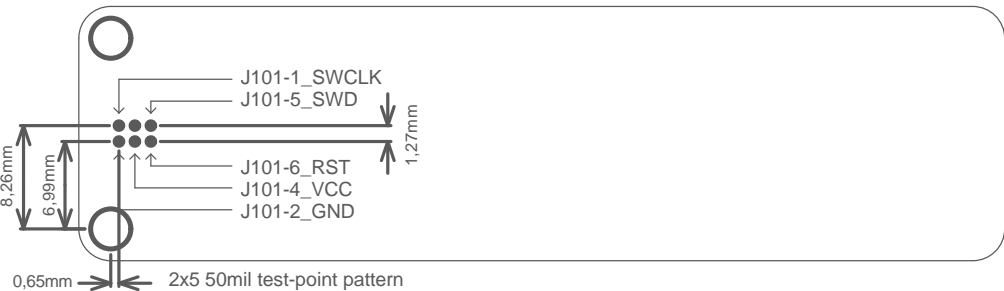
PCB:

PCB revision 2

Drawn By: Microchip Norway			
Engineer: HN, TF			
Project Title PIC18F47Q10 Curiosity Nano	 <i>Designed with</i> Altium Altium.com		
Sheet Title Revision History			
Size A3	PCB Assembly Number: A09-3246	PCBA Revision: 2	Date: 04.06.2019
	PCB Number: A08-2972	PCB Revision: 2	
File: PIC18F47Q10_Curiosity_Nano_Revision_History_SchDoc			Page: 4 of 4



Test Point Placement



A08-2972 Rev2
Microchip © 2019

LABEL1

GND RE0 RE1

<RC0>

<RC1>

RB5 RD5 RD6 RD7 GND RA0 RA1 RA2 RA3 RA4 RA5 RA6 RA7 UTG GND D0 D3 UOFF

VBUS

GND

J208 RC0
J207 RC1



TARGET

CONNECTIONS

RE3	J202	D3
RE2	J206	D2
RB6	J205	D1
RB7	J204	D0
RD0	J201	RX CDC
RD1	J203	TX CDC

DEBUGGER



TP101 GND

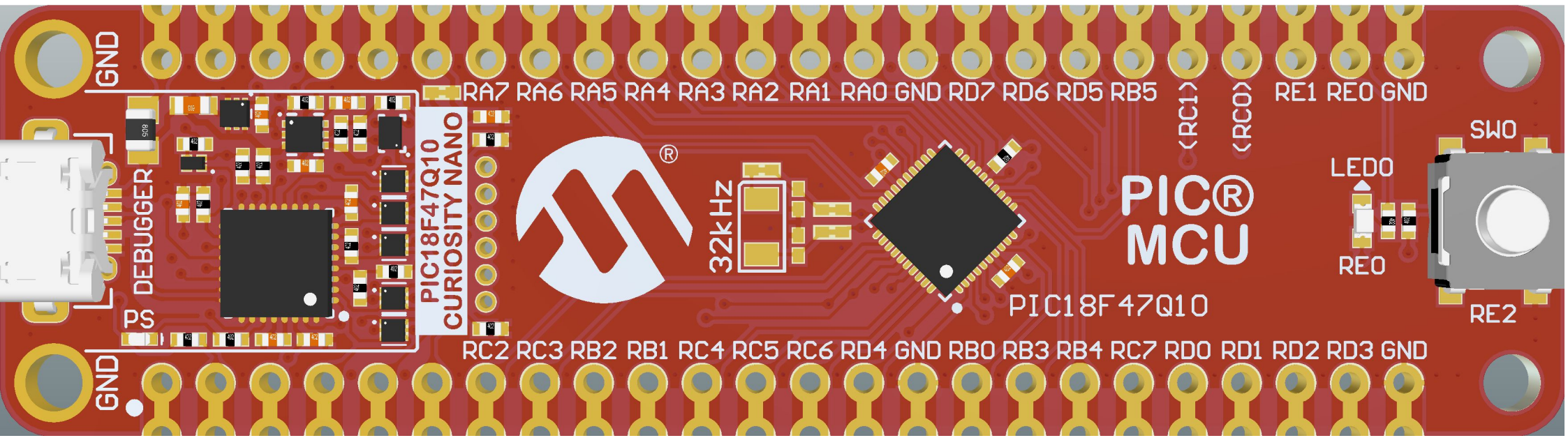
TP100 BOOT

CDC

GND RD3 RD2 RD1 RD0 RC7 RB4 RB3 RB0 GND RD4 RC6 RC5 RC4 RB1 RB2 RC3 RC2 D2 D1 TX RX ID NC

GND

J102



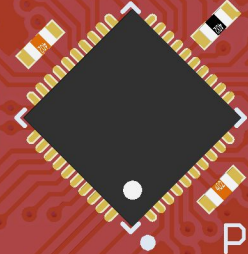
GND

RA7 RA6 RA5 RA4 RA3 RA2 RA1 RA0 GND RD7 RD6 RD5 RB5 <RC1> <RC0> RE1 RE0 GND

PIC18F47Q10
CURIOSITY NANO

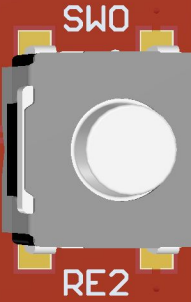


32kHz



PIC®
MCU

PIC18F47Q10



GND

RC2 RC3 RB2 RB1 RC4 RC5 RC6 RD4 GND RB0 RB3 RB4 RC7 RD0 RD1 RD2 RD3 GND

A08-2972 Rev2
Microchip © 2019

GND RE0 RE1 <RC0> <RC1> RB5 RD5 RD6 RD7 GND RA0 RA1 RA2 RA3 RA4 RA5 RA6 RA7 V_{TD} GND D0 D3 V_{OFF} U_{BUS} GND

GND RD3 RD2 RD1 RD0 RC7 RB4 RB3 RB0 GND RD4 RC6 RC5 RC4 RB1 RB2 RC3 RC2 D2 D1 TX RX ID NC



CONNECTIONS	
RE3	D3
RE2	D2
RB6	D1
RB7	D0
RD0	RX
RD1	TX

TARGET

DEBUGGER

CDC

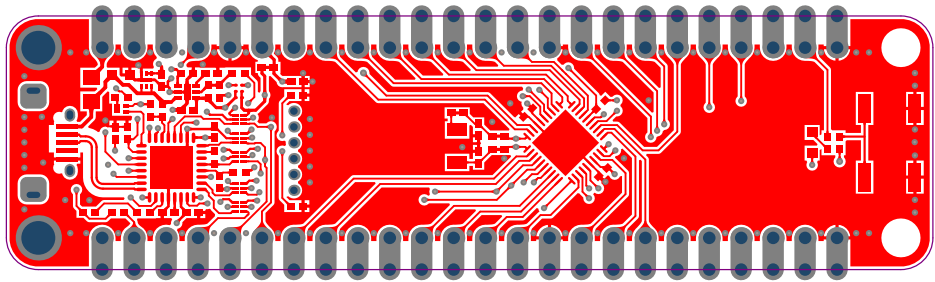


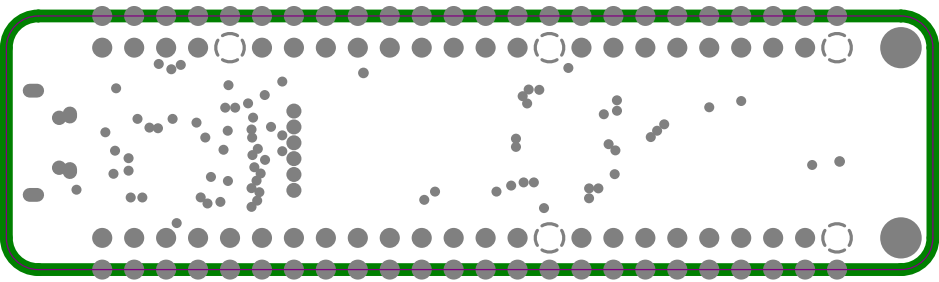
● GND
● BOOT

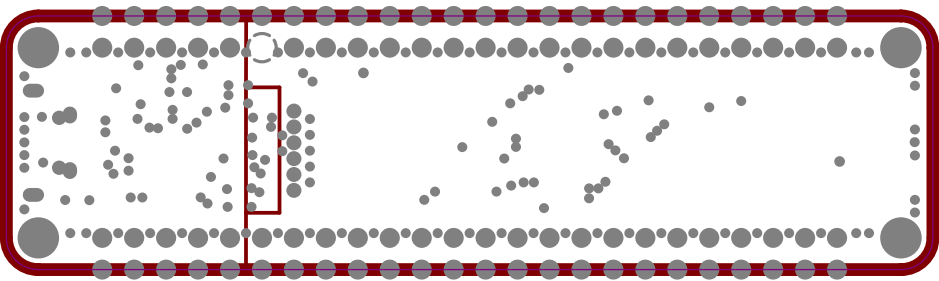
CDC

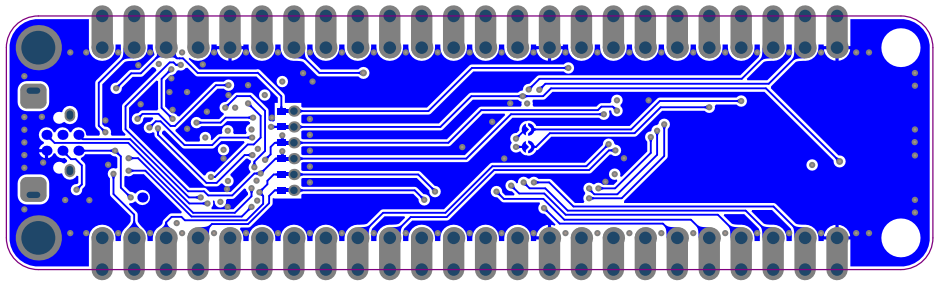
GND

GND









Component list

Bill of Materials Fitted for Variant [Default Assembly] of Project [PIC18F47Q10_Curiosity_Nano.PrjPcb] (No PCB Document Selected)

Source Data From: PIC18F47Q10_Curiosity_Nano.PrjPcb
 Project: PIC18F47Q10_Curiosity_Nano.PrjPcb
 Variant: Default Assembly



Report Date: 04.06.2019 18:13
 Print Date: 04.06.2019 6:09:01 PM

Fitted	Designator	Quantity	Value	Manufacturer	MPN	Description
Fitted	C100	1	4.7uF	WALSIN Technology Corporation	0603X475K100CT	Ceramic capacitor, SMD 0603, X5R, 10V, 10% (de31036)
Fitted	C101	1	2.2uF	Kemet	C0402C225M9PAC	Ceramic capacitor, SMD 0402, X5R, 6.3V, +/-20%
Fitted	C102, C104, C107, C108, C200,	6	100n	Kemet	C0402C104K4RACTU	Ceramic capacitor, SMD 0402, X7R, 16V, +/-10%
Fitted	C103, C205	2	2.2uF	tdk	C1005X5R1A225K	CAP CER 2.2UF 10V 10% X5R 0402
Fitted	C106	1	1u	Kemet	C0402C105K9PAC	Ceramic capacitor, SMD 0402, X5R, 6.3V, +/-10% (de26942)
Not	C203, C204	0	8.2p	YAGEO CORP	CC0402CRNPO9BN8R2	Ceramic capacitor, SMD 0402, NP0, 50V, +/-5%
Fitted	D100	1	GREEN LED	ROHM	SML-P12MTT86R	LED, SMD 0402, Green, Wave length=569nm, 2.1mcd @ (1mA, 1.9Vf)rohm
Fitted	D200	1	YELLOW LED	ROHM	SML-D12Y1WT86	LED, SMD 0603, Yellow, Wave length=590nm, 100mcd @ (20mA, 2.2Vf) rohm
Fitted	F100	1	MC36213	Multicomp	MC36213	Resettable PTC fuse, Ih = 0.5A, It = 1.0A, 0805 package
Fitted	FW1	1	nEDBG firmware			nEDBG firmware
Fitted	J105	1	MU-MB0142AB2-269	Allen Creations Corp.	MU-MB0142AB2-269	USB micro AB, Surface mount signals and DIP shield
Fitted	LABEL1	1	Label PCBA	ACT Logimark AS	505462	PCBA identification label PP Top White Gloss
Fitted	PCB1	1	PIC18F47Q10 Curiosity Nano			PIC18F47Q10 Curiosity Nano PCB documentation
Fitted	PCBADOC1	1	A09-3235 PCBA files			PIC18F47Q10 Curiosity Nano PCBA documentation
Fitted	Q101	1	DMN65D8LFB	Diodes Incorporated	DMN65D8LFB-7	N-channel MOSFET, DFN1006-3 (SOT883), 60V, 330mA, 4Ohm
Fitted	R100, R101, R102, R103, R105,	9	47k	KOA	RK73H1ETTP4702F	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R104	1	27k	YAGEO CORP	RC0402FR-0727KL	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R106	1	33k	ASJ	CR10-3302-FK	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R107, R108, R110, R112, R202,	6	1k	ASJ	CR10-1001-FK	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	R200	1	100k	ASJ	CR10-1003-FK	Thick film resistor, SMD 0402, 1/16W, 1%
Fitted	SW200	1	TS604VM1-035CR	Dailywell Electronics Co.LTD	TS604VM1-035CR-R	SWITCH, SMD, 260gf, 6.4mm X 6.2mm
Fitted	TEST1	1	PIC18F47Q10 Curiosity Nano			Fixture test for PIC18F47Q10 Curiosity Nano
Fitted	TESTDOC1	1	Curiosity Nano Test			Generic Test Instructions for Curiosity Nano
Fitted	U100	1	SAMD21E18A-MUT	Microchip	ATSAMD21E18A-MUT	Atmel 32-bit RISC MCU 32pin
Fitted	U101	1	MIC5528-3.3YMT	Microchip	MIC5528-3.3YMT-T5	LDO 3.3V 0.5A 6TDFN
Fitted	U102	1	MIC5353	Microchip	MIC5353YMT-TR	500mA Ultra Low Dropout LDO regulator, 2% accuracy, 1.6x1.6mm MLF
Fitted	U103, U104, U105, U106, U107	5	74LVC1T45FW4-7	Diodes Incorporated	74LVC1T45FW4-7	Single-Bit Dual-Supply Transceiver, 1.65-5.5 Translation and 3-State Outputs
Fitted	U108	1	MIC94163	Microchip Technology Inc	MIC94163YCS-TR	Loadswitch, Rds(on) = 14.5mohm, 1.0mm x 1.5mm WLCSPP, reverse blocking
Fitted	U200	1	PIC18F47Q10T-I/MP	Microchip Technology Inc	PIC18F47Q10T-I/MP	PIC18F47Q10 microcontroller, 40-pin UQFN
Not	XC200	0	32.768kHz	Kyocera Corporation	ST3215SB32768C0HPWB	Kyocera ST3215SB32768C0HPWB, 32.768kHz, 7pF, SMD tuning fork crystal

Approved

Notes