

RELEASED

Page	Index	Page	Index	Page	Index	Page	Index
1	COVER PAGE	11	.....	21	.....	31	.....
2	BLOCK DIAGRAM	12	.....	22	.....	32	.....
3	CORE MCU - nRF52	13	.....	23	.....	33	.....
4	DW1000 UWB RADIO	14	.....	24	.....	34	.....
5	Power supply	15	.....	25	.....	35	.....
6	SPI/I2C devices	16	.....	26	.....	36	.....
7	.....	17	.....	27	.....	37	.....
8	.....	18	.....	28	.....	38	.....
9	.....	19	.....	29	.....	39	.....
10	.....	20	.....	30	.....	40	.....

DESIGN CONSIDERATIONS

DESIGN NOTE:
Example text for informational
design notes.

DESIGN NOTE:
Example text for critical
design notes.

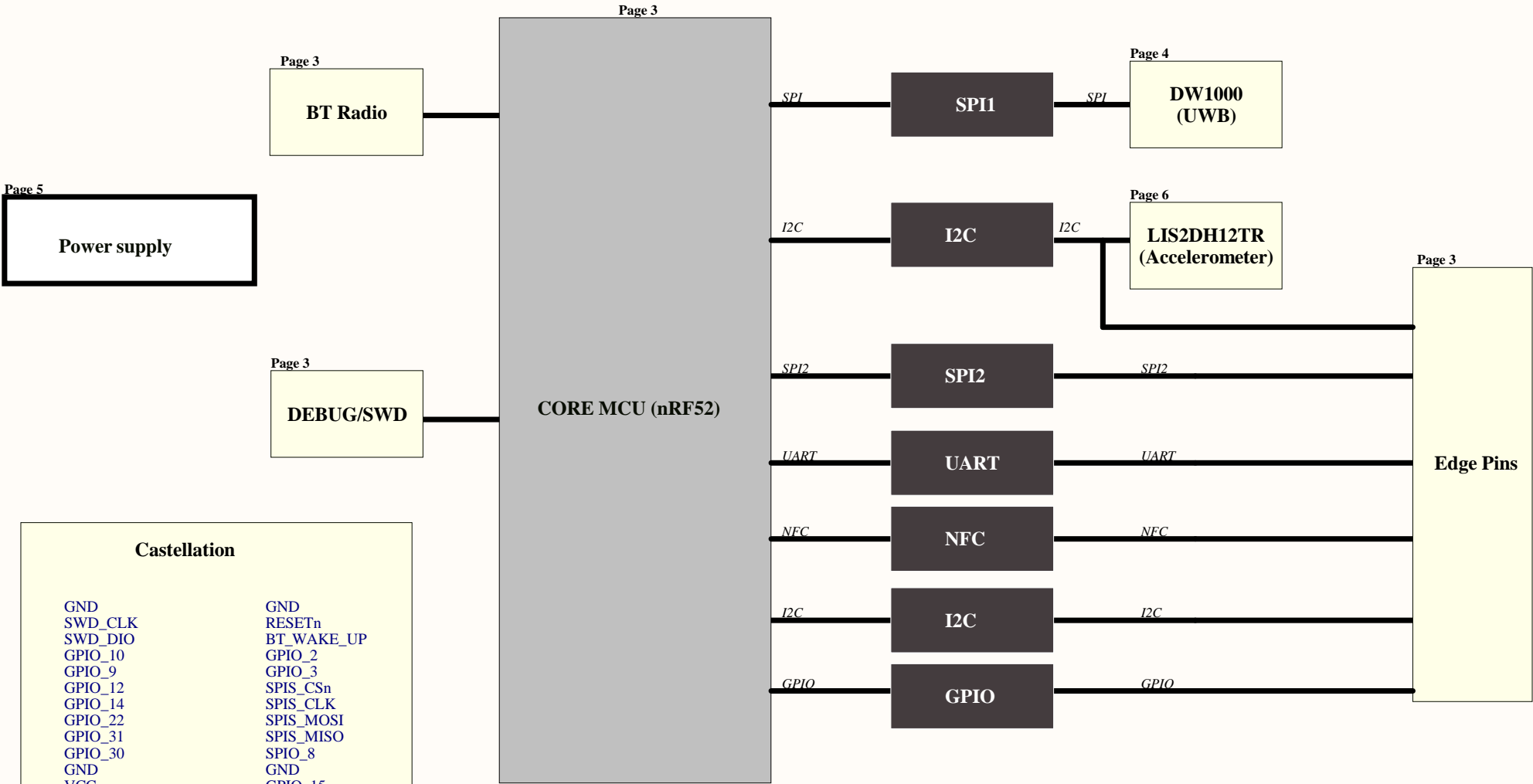
DESIGN NOTE:
Example text for cautionary
design notes.

LAYOUT NOTE:
Example text for critical
layout guidelines.

Decawave			
Title:		DWM1001	
Page Contents: [01] - COVER PAGE.SchDoc			
Size: A4	DWG NO	Revision: D1	
Date: 17/01/2018	Sheet 1 of 6		

DWM1001

(Block Diagram)



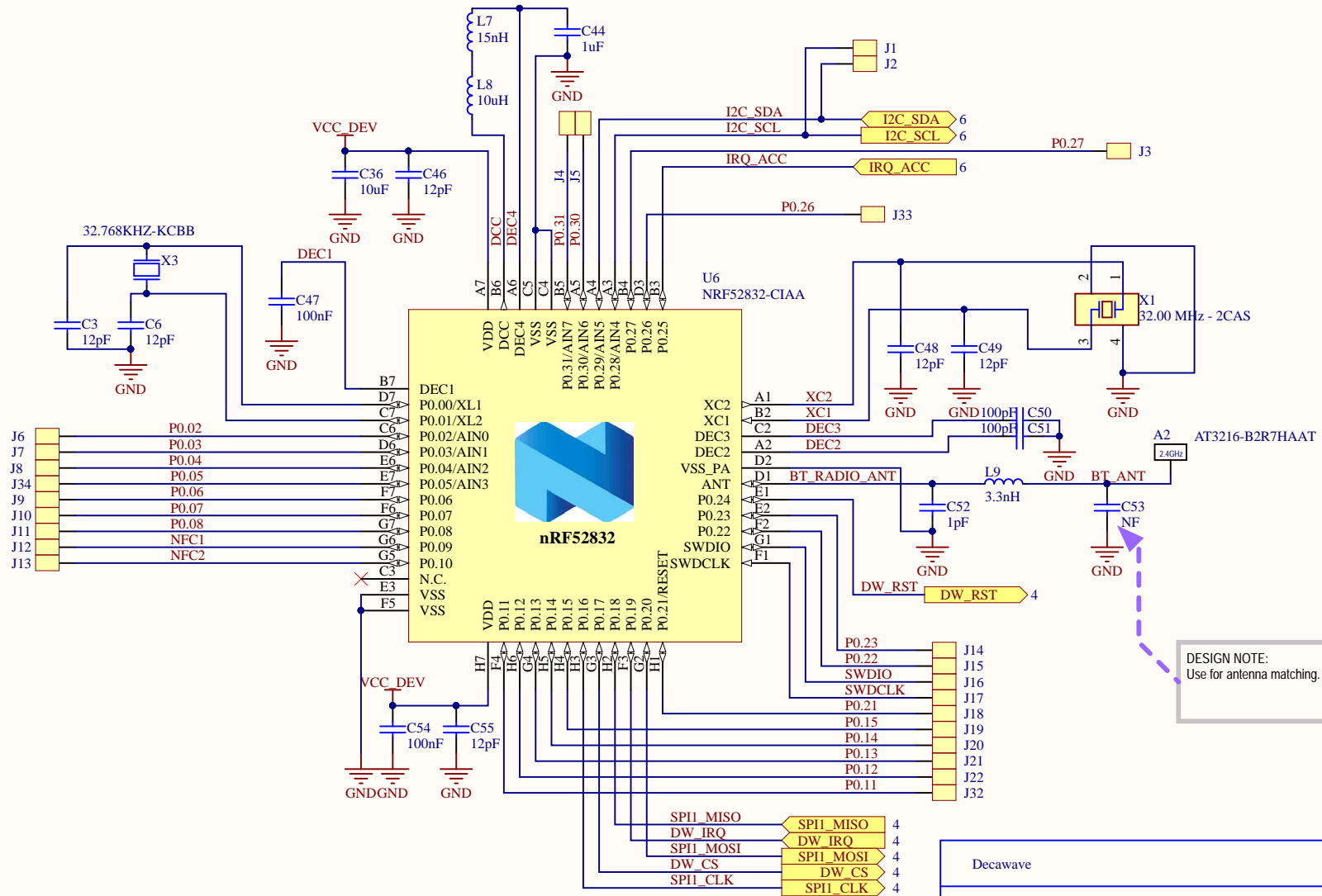
Castellation

GND	GND
SWD_CLK	RESETn
SWD_DIO	BT_WAKE_UP
GPIO_10	GPIO_2
GPIO_9	GPIO_3
GPIO_12	SPIS_CS _n
GPIO_14	SPIS_CLK
GPIO_22	SPIS_MOSI
GPIO_31	SPIS_MISO
GPIO_30	SPI0_8
GND	GND
VCC	GPIO_15
GPIO_27	GPIO_0
I2C_SDA	GPIO_1
I2C_SCL	UART_TX
GPIO_23	READY
GPIO_13	UART_RX

Castellated pitch : 1.0mm

Decawave			
Title:		DWM1001	
Page Contents:		[02] - BLOCK DIAGRAM.SchDoc	
Size:	A4	DWG NO	Revision: D1
Date:	17/01/2018		Sheet 2 of 6

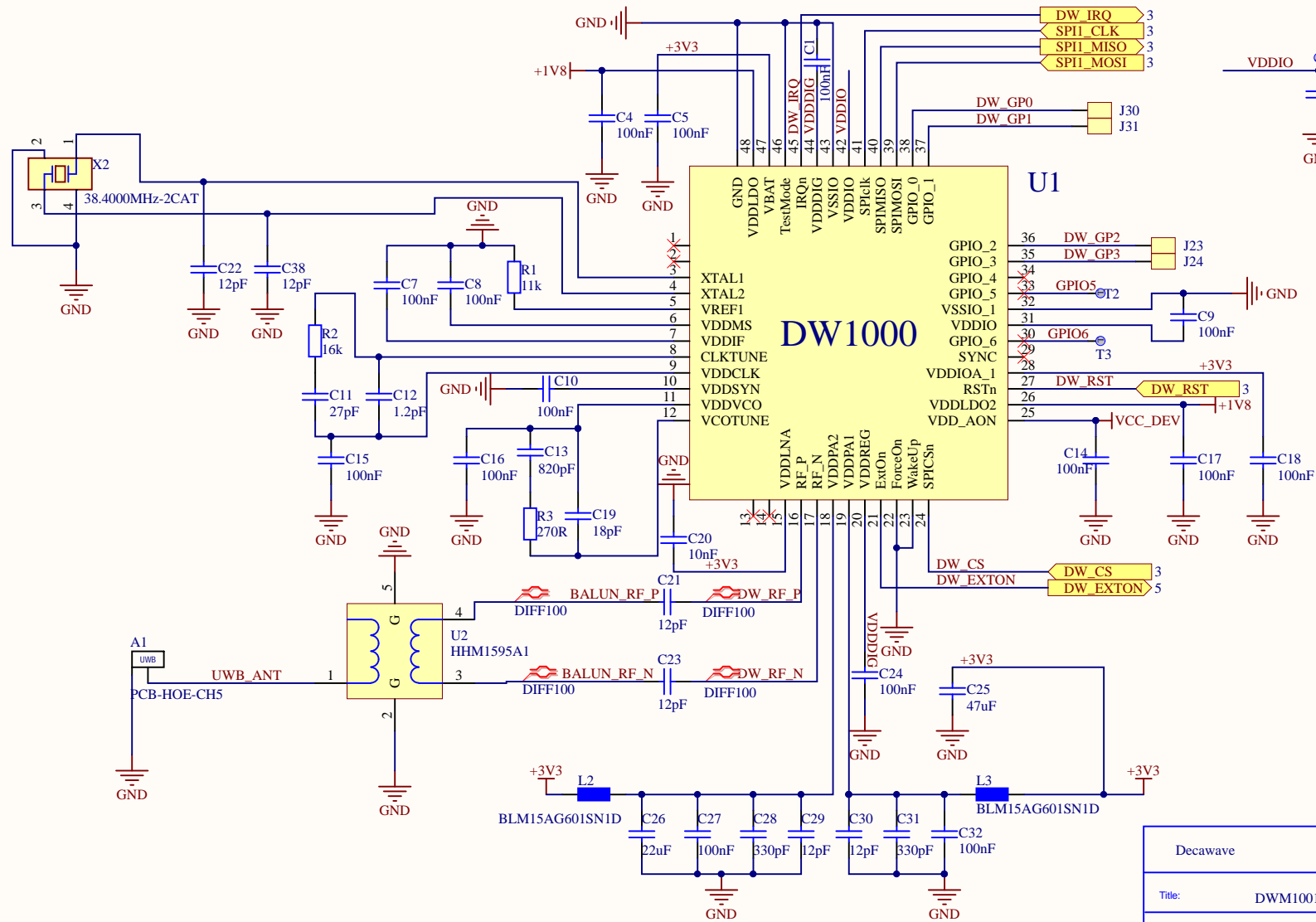
Core MCU



DESIGN NOTE:
Use for antenna matching.

Decawave			
Title: DWM1001			
Page Contents: [03] - CORE MCU.SchDoc			
Size: A4	DWG NO	Revision: D1	
Date: 17/01/2018	Sheet 3 of 6		

DW1000

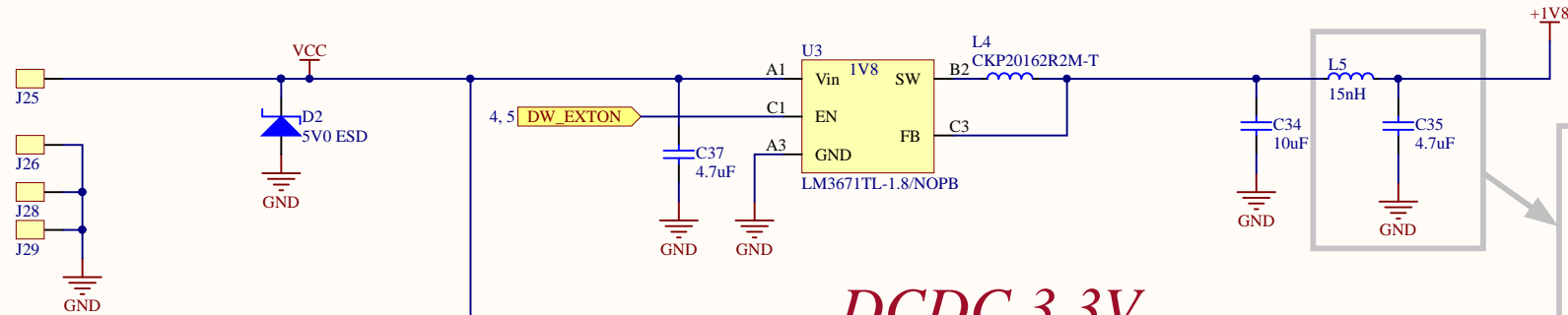


DESIGN NOTE:
Use test point for high voltage OTP programming
Vmin 3.7V Vmax 3.9V

Decawave		
Title: DWM1001		
Page Contents: [04] - DW radio.SchDoc		
Size: A4	DWG NO	Revision: D1
Date: 17/01/2018	Sheet 4 of 6	

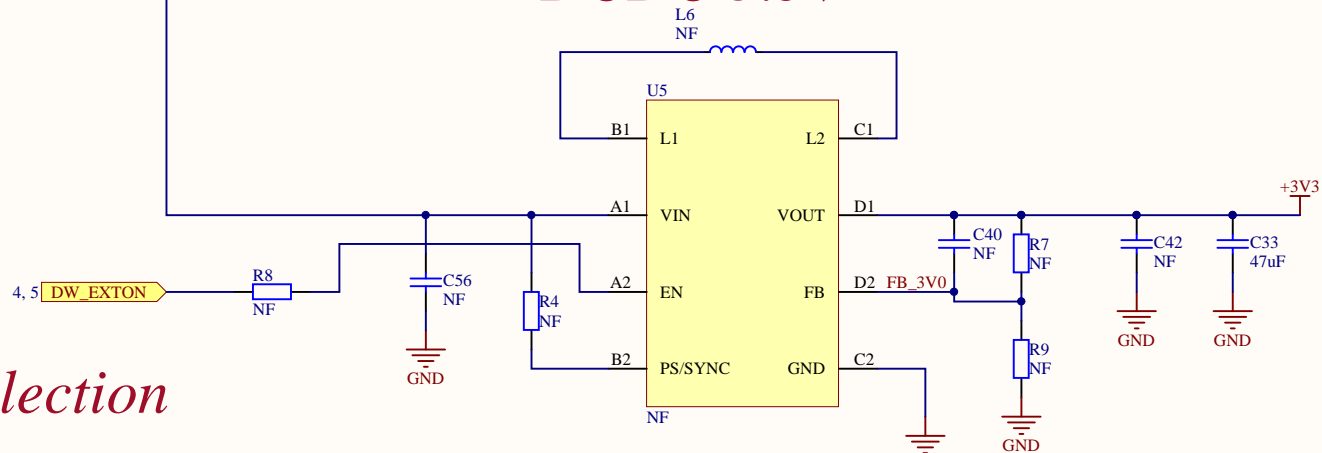
Power supply

DCDC 1.8V



DESIGN NOTE:
 F=2.25Mhz, VconvRipple=60mV,
 VmaxRipple=5mV
<http://www.aimtec.com/site/Aimtec/files/documents/ApplicationNotes/a016e%20-%20reduction%20of%20output%20ripple%20&%20noise.pdf>

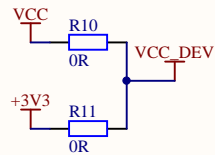
DCDC 3.3V



DC-DC 3.3V, U5 is not fitted in production units

Decawave	
Title: DWM1001	
Page Contents: [05] - Power supply.SchDoc	
Size: A4	Revision: D1
Date: 17/01/2018	Sheet 5 of 6

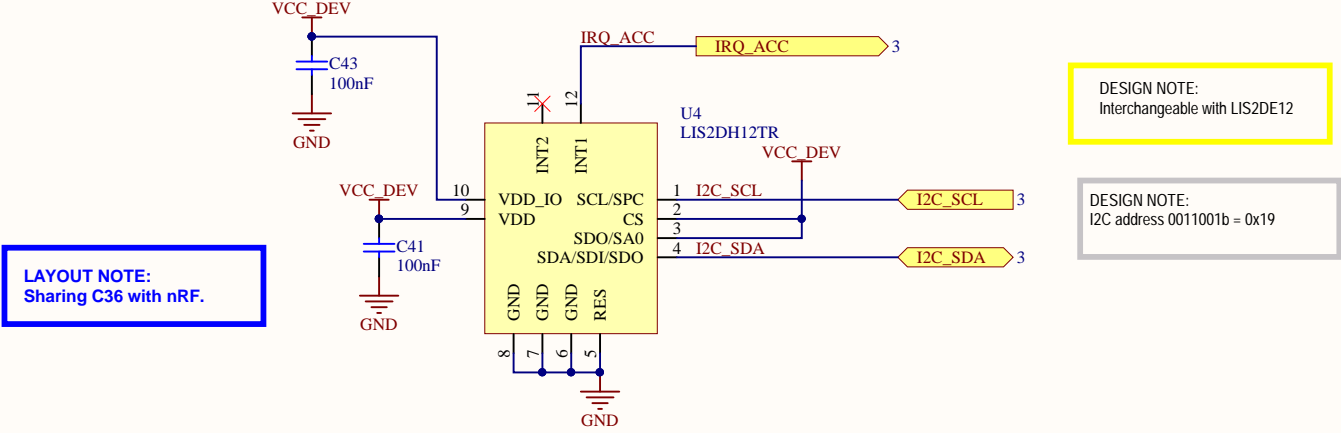
Power supply selection



I2C/SPI devices

LIS2DH12

3-Axes Accelerometer



Decawave			
Title: DWM1001			
Page Contents: [06] - SPI I2C devices.SchDoc			
Size: A4	DWG NO		Revision: D1
Date: 17/01/2018	Sheet 6 of 6		