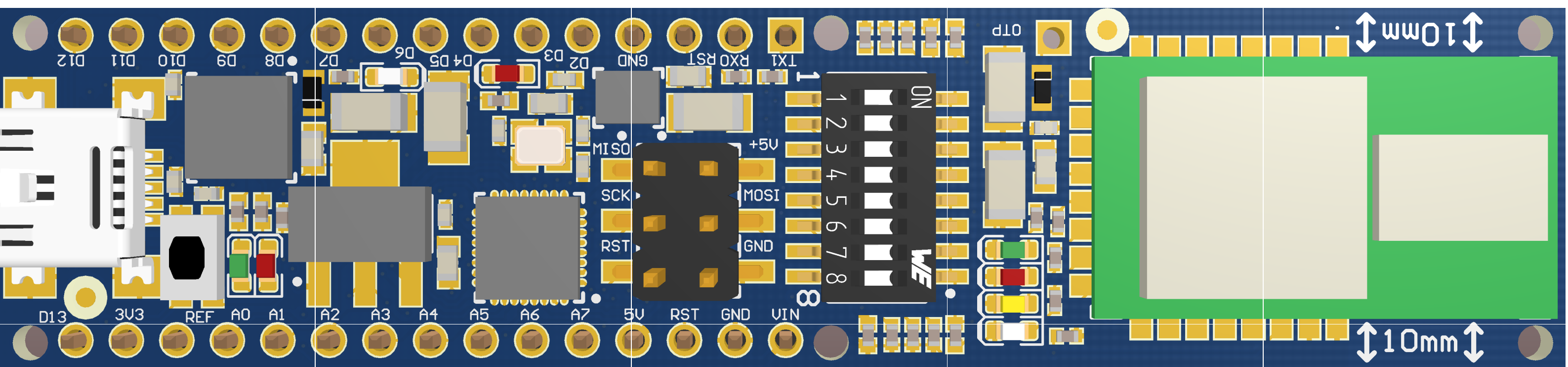


Title		
Radio Beacon		
Size	Number	Revision
A3		1.0
Date:	3/9/2015	Sheet 1 of 1
File:	Z:\Kunder\RadioBeacon.SchDoc	Drawn By: gn@loligo.se



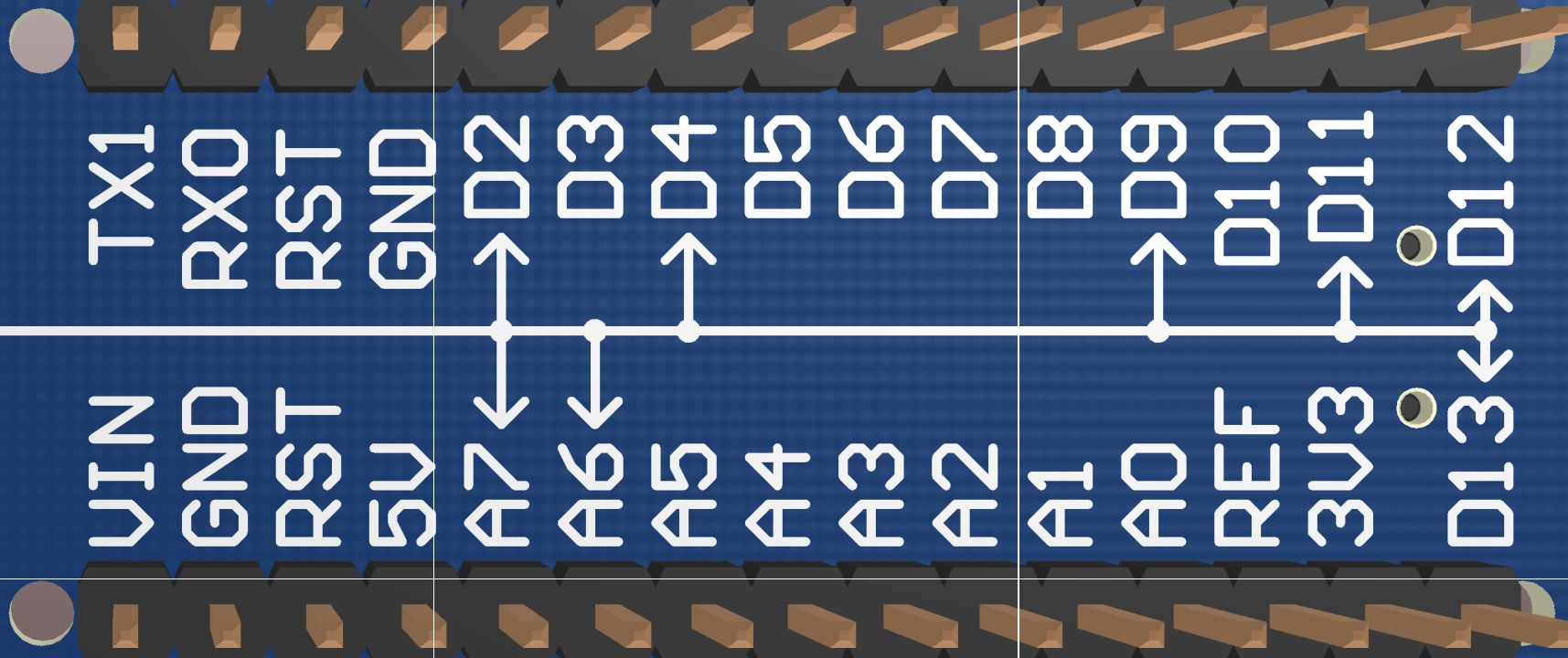
No metal
within 10mm
of this area
in all
directions

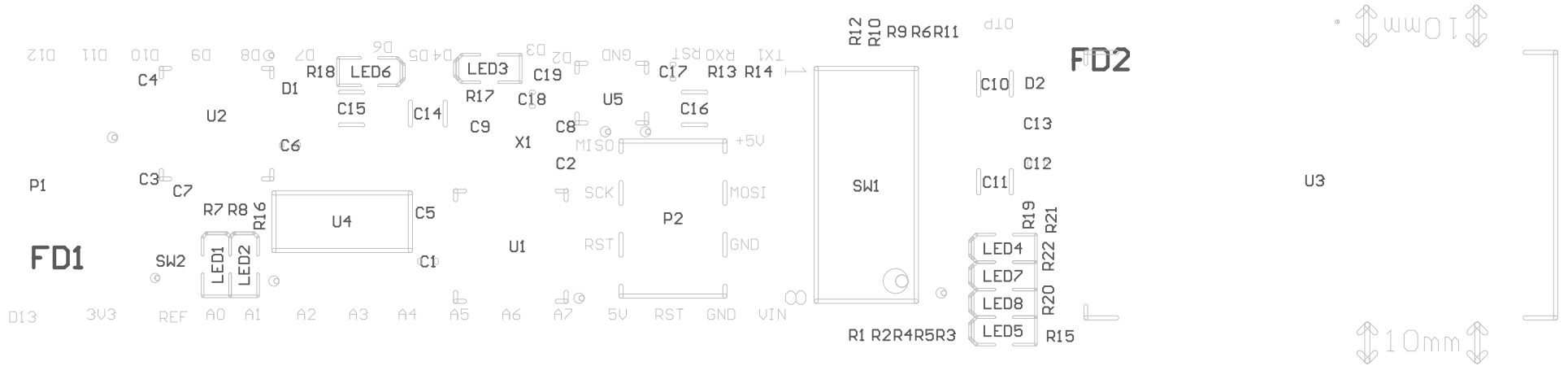
Radio Beacon v1.0

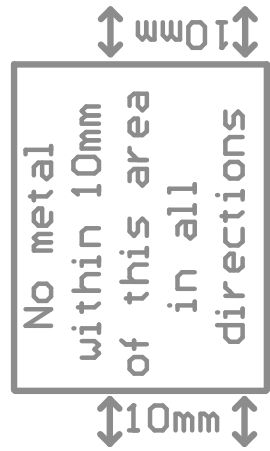
Navigation aid
for robots

www.loligo.se

Compatible with
Arduino Nano,
except for these
signals who are
used internally





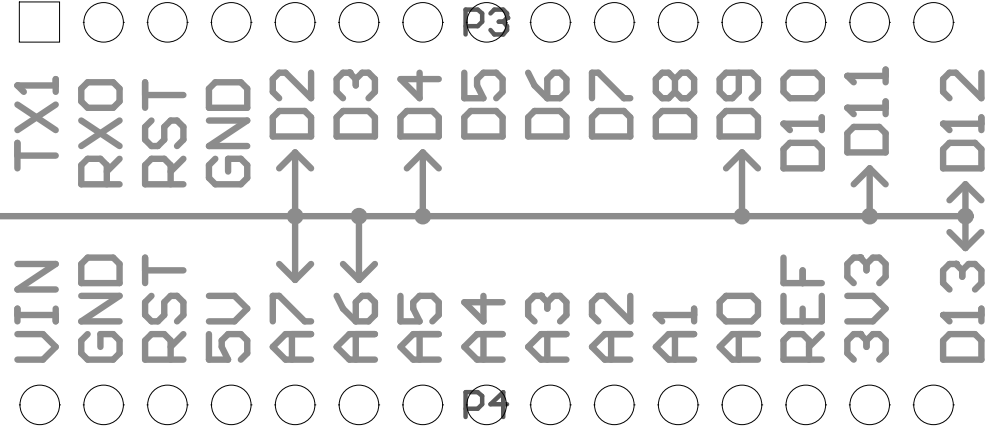


Radio Beacon v1.0

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used internally



Board Stack Report

Stack Up		Layer Stack			
Layer	Board Layer Stack	Name	Material	Thickness	Constant
1		Top Paste			
2		Top Overlay			
3		Top Solder	Solder Resist	0.010mm	3.5
4		Component Side	Copper	0.036mm	
5		Dielectric 1	FR-4	1.500mm	4.2
6		Bottom Layer	Copper	0.036mm	
7		Solder Side	Solder Resist	0.010mm	3.5
8		Bottom Overlay			
9		Bottom Paste			
	Height : 1.591mm				

Comment	Description	Designator	Footprint	LibRef	Quantity
CAP 4.7uF 10V 0603(1608)	CAP 4.7uF 10V ±10% 0603 (1608 Metric) Thickness 0.55mm SMD	C1, C6, C12	CAPC0603(1608)55_N	CMP-1035-02784-1	3
CAP 100nF 10V 0402(1005)	CAP 100nF 10V ±5% 0402 (1005 Metric) Thickness 0.6mm SMD	C2, C3, C4, C5, C7, C13	CAPC0402(1005)60_L	CMP-1034-02064-1	6
CAP 12pF 10V 0402(1005)	CAP 12pF 10V ±1% 0402 (1005 Metric) Thickness 0.6mm SMD	C8, C9	CAPC0402(1005)60_L	CMP-1034-00749-1	2
CAP 47uF 10V 1206(3216)	CAP 47uF 10V ±20% 1206 (3216 Metric) Thickness 1.9mm SMD	C10, C11, C15, C16	CAPC1206(3216)190_N	CMP-1037-05002-1	4
CAP 470nF 35V 1206(3216)	CAP 470nF 35V ±10% 1206 (3216 Metric) Thickness 1.9mm SMD	C14	CAPC1206(3216)190_M	CMP-1037-04562-1	1
CAP 2.2uF 10V 0603(1608)	CAP 2.2uF 10V ±10% 0603 (1608 Metric) Thickness 1mm SMD	C17, C18	CAPC0603(1608)100_L	CMP-1035-02758-1	2
CAP 33nF 10V 0402(1005)	CAP 33nF 10V ±10% 0402 (1005 Metric) Thickness 0.6mm SMD	C19	CAPC0402(1005)60_M	CMP-1034-01980-1	1
MBR0520	Schottky Diode	D1, D2	0603D	D Schottky	2
Green	LED 0603 SMD Green 570nm 50mcd 20mA	LED1, LED4	LED-0603-GREEN	LED_SMD_Green_0603_570nm	2
Red	LED 0603 SMD Hyper Red 630nm 220mcd 20mA	LED2, LED3, LED7	LED-0603-RED	LED_SMD_Red_0603_220mcd	3
White	LED 0603 SMD Bright White 8700K	LED5, LED6	LED-0603-WHITE	LED_SMD_White_0603_Bright	2
Yellow	LED 0603 SMD Yellow 590nm 150mcd 20mA	LED8	LED-0603-YELLOW	LED_SMD_Yellow_0603_150mcd	1
65100516121	WR-COM Mini USB SMT Type B 5 Contacts	P1	65100516121	WE-Communication Connectors 65100516121	1
610x0621121	WR-PHD 2.54 mm Dual SMT Pin Header	P2	610x0621121	WE-2.54 mm Pin Header & Jumper 610x0621121	1
61301511121	WR-PHD 2.54mm Pin Header	P3, P4	61301511121	WE-2.54 mm Pin Header & Jumper 61301511121	2
3K 1% 0402(1005)	3K 0.063W 1% 0402 (1005 Metric) SMD	R1, R3, R6, R11	RESC0402(1005)_M	CMP-1011-00562-1	4
6K04 1% 0402(1005)	6K04 0.063W 1% 0402 (1005 Metric) SMD	R2, R9	RESC0402(1005)_N	CMP-1011-00598-1	2
12K 1% 0402(1005)	12K 0.063W 1% 0402 (1005 Metric) SMD	R4, R10	RESC0402(1005)_N	CMP-1011-00631-1	2
24K 1% 0402(1005)	24K 0.063W 1% 0402 (1005 Metric) SMD	R5, R12	RESC0402(1005)_N	CMP-1011-00664-1	2
330R 1% 0402(1005)	330R 0.063W 1% 0402 (1005 Metric) SMD	R7, R8, R17	RESC0402(1005)_M	CMP-1011-00454-1	3
1K 1% 0402(1005)	1K 0.063W 1% 0402 (1005 Metric) SMD	R13, R14, R16	RESC0402(1005)_L	CMP-1011-00510-1	3
10K 1% 0402(1005)	10K 0.063W 1% 0402 (1005 Metric) SMD	R15	RESC0402(1005)_N	CMP-1011-00623-1	1
180R 1% 0402(1005)	180R 0.063W 1% 0402 (1005 Metric) SMD	R18	RESC0402(1005)_L	CMP-1011-00424-1	1
150R 1% 0402(1005)	150R 0.063W 1% 0402 (1005 Metric) SMD	R19, R21, R22	RESC0402(1005)_L	CMP-1011-00415-1	3
33R 1% 0402(1005)	33R 0.063W 1% 0402 (1005 Metric) SMD	R20	RESC0402(1005)_L	CMP-1011-00341-1	1
SW DIP-8	DIP Switch, 8 Position, SPST	SW1	SOIC127P800X210-16N SW8	SW DIP-8	1
KMR2		SW2	KMR2	KMR2	1
ATmega328P-MUR	8-bit AVR Microcontroller, 32KB Flash, 1KB EEPROM, 2KB SRAM, 32-pin MLF, Industrial Grade (-40°C to 85°C), Reel	U1	32M1-A_L	CMP-0095-00090-2	1
FT232RQ-Reel	USB UART Asynchronous Serial Data Transfer Chip, 32- pin QFN, Tape and Reel	U2	PQFN5X5-32_V	COM-UART-FT232R- SQ32	1
DWM1000	UWB Transciever	U3	DWM1000	DWM1000	1
LM2940IMP-5.0/NOPB	1A Low Dropout Regulator, 4-pin SOT- 223, Pb-Free	U4	MP04A_N	CMP-0062-01724-2	1
LP3982ILD-3.3/NOPB	Micropower, Ultra Low- Dropout, Low-Noise, 300mA CMOS Regulator, 8-pin LLP, Pb-Free	U5	LDA08C	CMP-0062-01284-2	1
16MHz	XTAL SMD 2520, 16MHz	X1	BT-XTAL_2520	XTAL_TSX-2520	1