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The reason DC/DC alternative was chosen [Over LDO]

48 (48 of 444)

-

+

80%

power supply

←

→

Highlight all

Match case

27

Note: Two additional external passive components are required to use the DC/DC regulator.

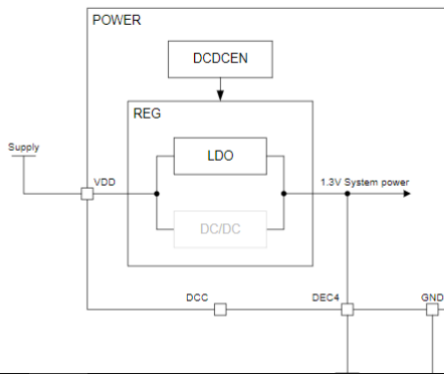
5.3.1 Regulators

The following internal power regulator alternatives are supported:

- Internal LDO regulator
- Internal DC/DC regulator

The LDO is the default regulator.

The DC/DC regulator can be used as an alternative to the LDO regulator and is enabled through the DCCEN on page 59 register. Using the DC/DC regulator will reduce current consumption compared to when using the LDO regulator, but the DC/DC regulator requires an external LC filter to be connected, as shown in DC/DC regulator setup on page 49.



Input voltage

437 (437 of 444)

-

+

80%

volt

←

→

Highlight all

Match case

54

Recommended is 3.0 V. Max is 3.9V.

Normally, values from 1.7 to 36V can be accepted.

[page 2 of datasheet]

	Note	Min.	Max.	Unit
Supply voltages				
VDD		-0.3	+3.9	V
VSS			0	V
I/O pin voltage				
V _{I/O} , VDD ≤ 3.6 V		-0.3	VDD + 0.3	V
V _{I/O} , VDD > 3.6 V		-0.3	3.9	V
Radio				
RF input level			10	dBm
Environmental QFN package				
Storage temperature		-40	+125	°C
MSL	Moisture Sensitivity Level		2	
ESD HBM	Human Body Model		3	kV
ESD HBM Class	Human Body Model Class		2	
ESD CDM	Charged Device Model		1	kV
Environmental WLCSP 2.482 x 2.464 mm package				
Storage temperature		-40	+125	°C
MSL	Moisture Sensitivity Level		1	
ESD HBM	Human Body Model		2	kV
ESD HBM Class	Human Body Model Class		2	
ESD CDM	Charged Device Model		1	kV
Flash memory				
Endurance		10 000		Write/erase cycles
Retention		10 years at 40°C		

Table 135: Absolute maximum ratings

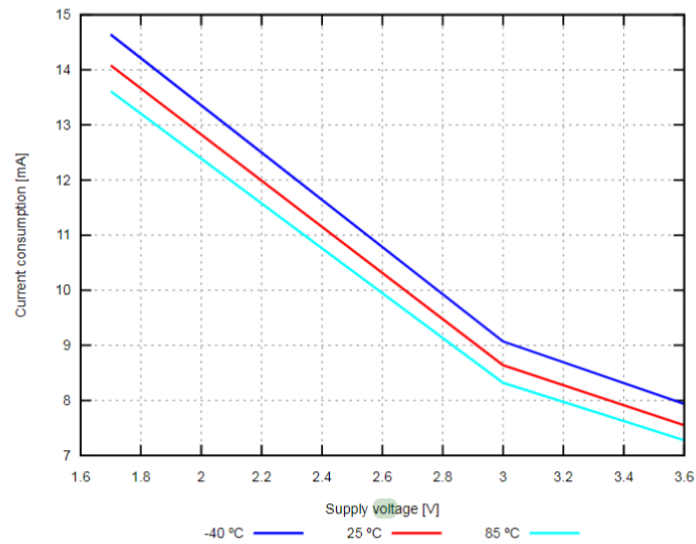
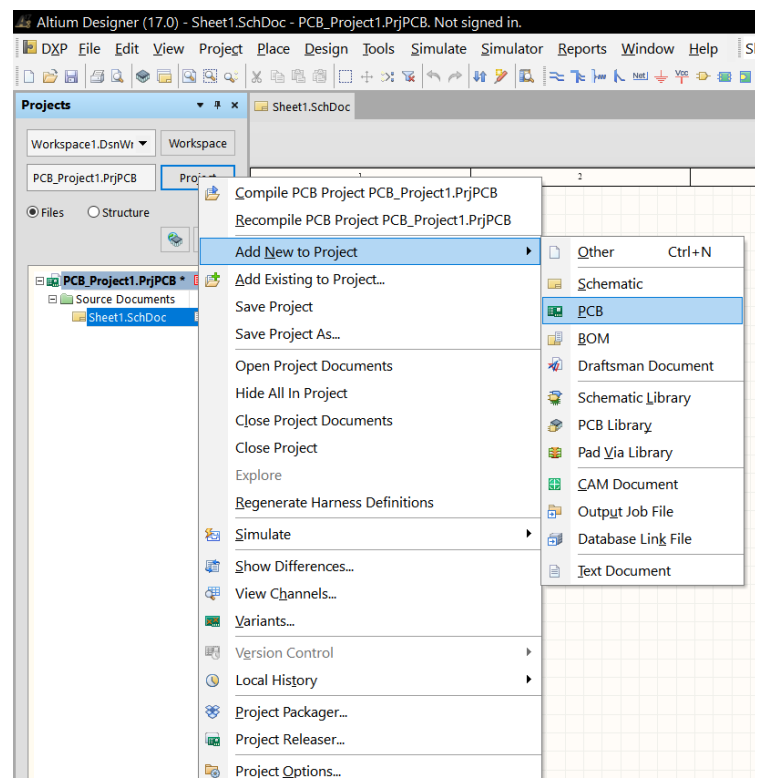
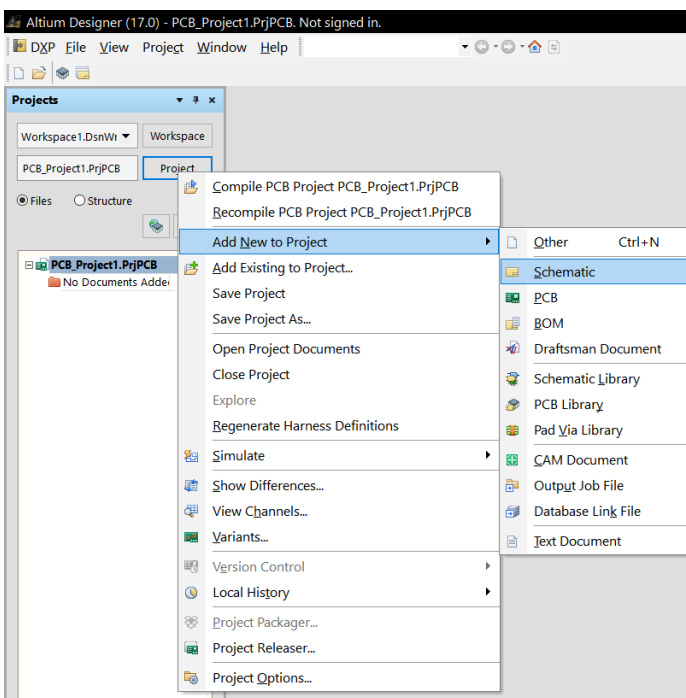
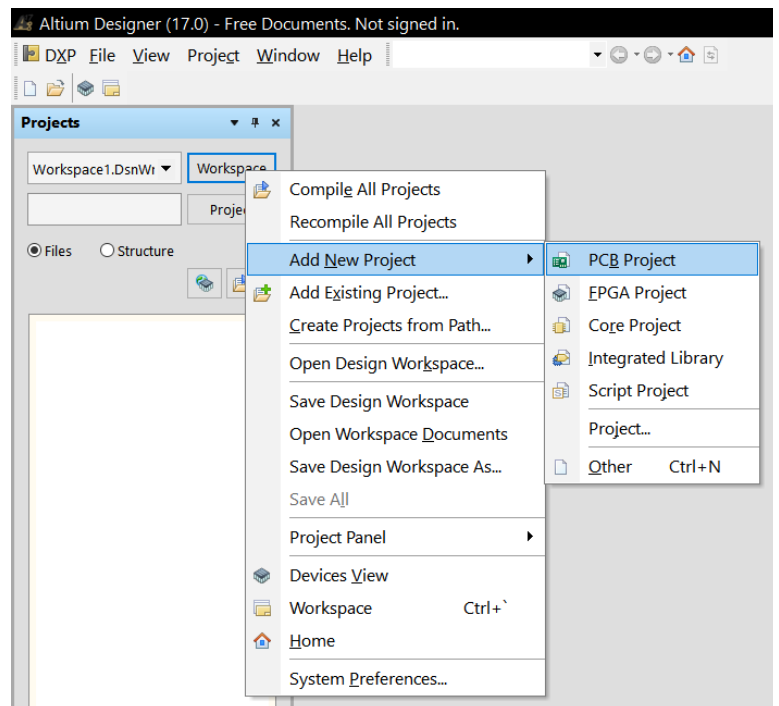
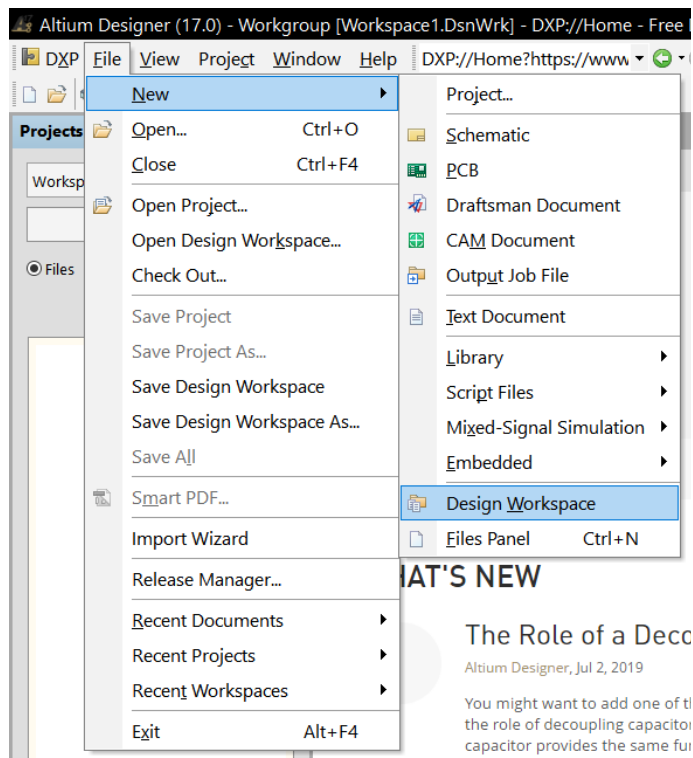


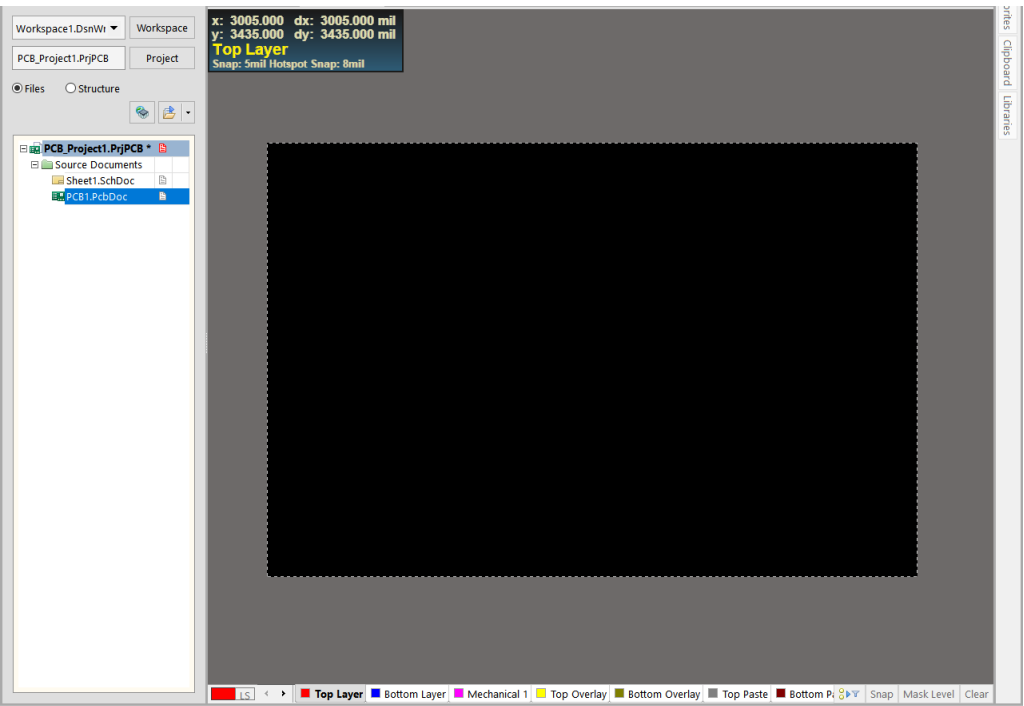
Figure 9: Radio transmitting @ 4 dBm output power, 1 Mbps Bluetooth low energy mode, Clock = HFXO, Regulator = DCDC (typical values)

New project on Altium Designer

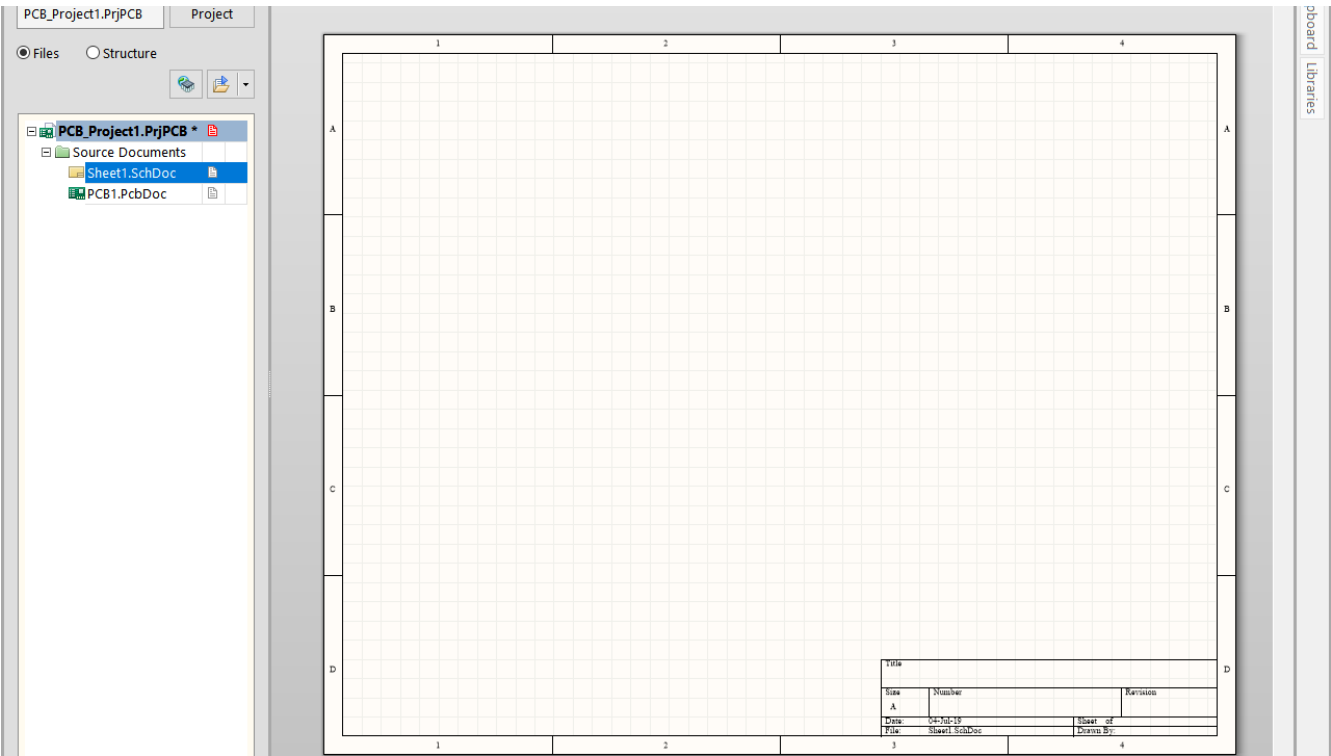
The process of using and learning the basics of Altium for the first time. [Learned from a youtube video tutorial]



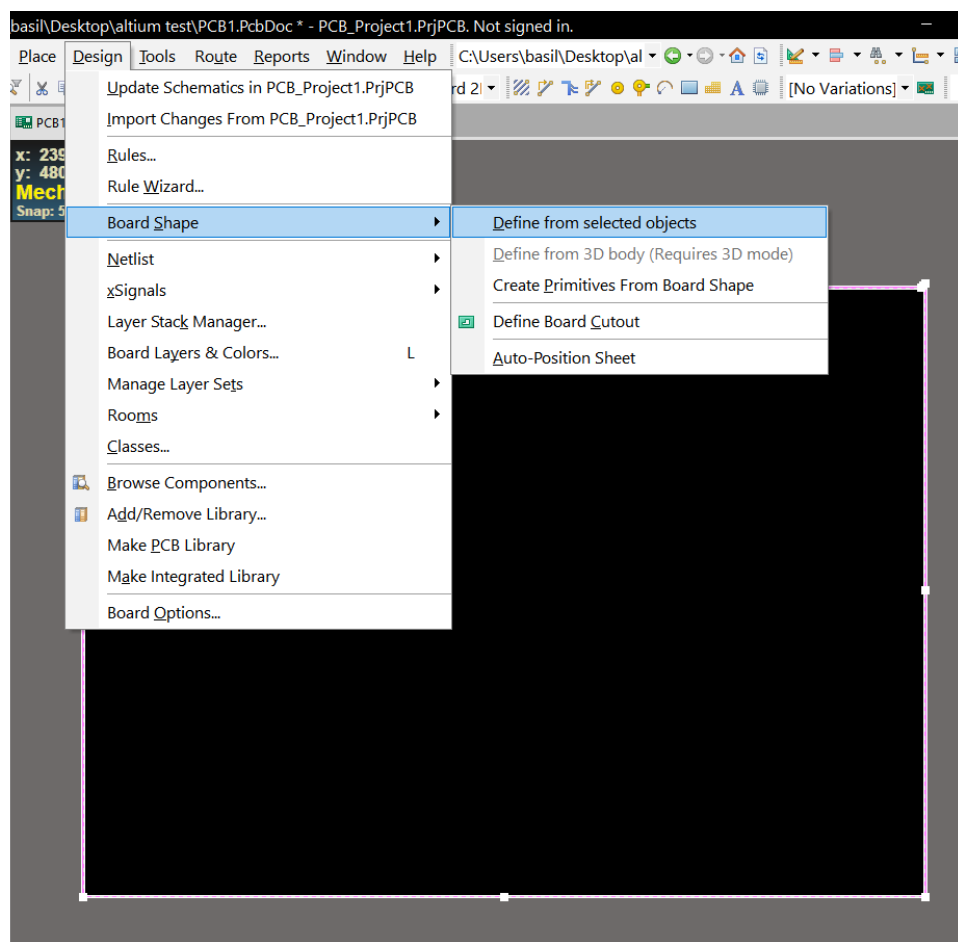
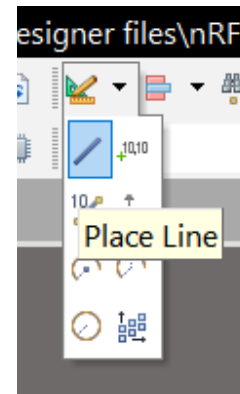
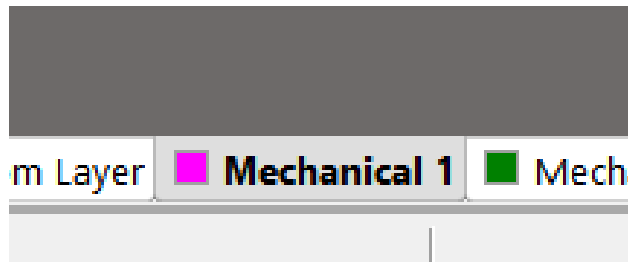
How pcb looks like:



How schematic looks like:



Define pcb layout



From metric to imperial

