

See: <https://devzone.nordicsemi.com/blogs/943/measuring-lithium-battery-voltage-with-nrf52/>

Maximum voltage:  $4.2\text{ V} * (2\text{ M}/(0.8\text{ M}+2\text{ M})) = 3\text{ V}$   
Minimum voltage:  $2.7\text{ V} * (2\text{ M}/(0.8\text{ M}+2\text{ M})) = 1.93\text{ V}$   
ADC value at 4.2 V - 12 bit setup:  $3\text{ V} * (1/5) / 0.6\text{ V} * 4095 = 4095$   
ADC value at 2.7 V - 12 bit setup:  $1.93\text{ V} * (1/5) / 0.6\text{ V} * 4095 = 2634$   
Usable ADC resolution - 12 bit setup:  $4095 - 2634 = 1461$

