

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: $4095 - 2634 = 1461$

