

1. Consider a system where the DAC is updated every 4 μ s (250 kHz) with a value from a 200-element wave table containing a single cycle of a waveform. What would be the frequency of the output wave?

➤ The frequency will be 1.25kHz.

2. Consider that the ADC in 12-bit mode divides the input voltage range (0-3V) into 4096 steps (where 0V is 0, and 3V is 4095). What is the voltage/measurement resolution (how much does the voltage change per bit) of the ADC? What would be the ADC output value (nearest integer) if the input voltage was 1.75V?

➤ The voltage resolution of the ADC 12-bit mode is approximately 0.000732 volts per bit.

➤ The output voltage would be approximately 2.389.

