

Fig. 1 a: Switching overview, b: Switching detail

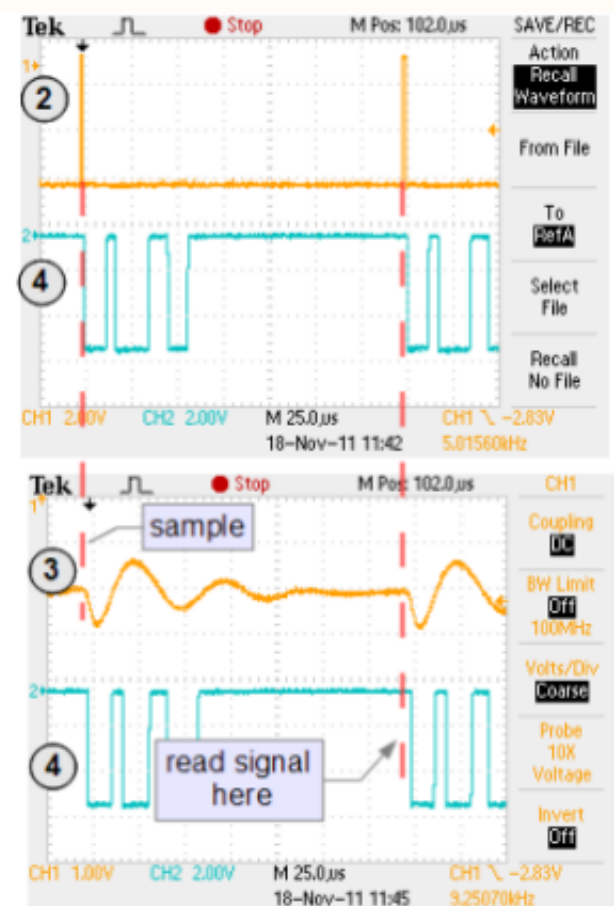


Fig. 2 a: Sample -> comparator b: Sample -> amp -> comparator

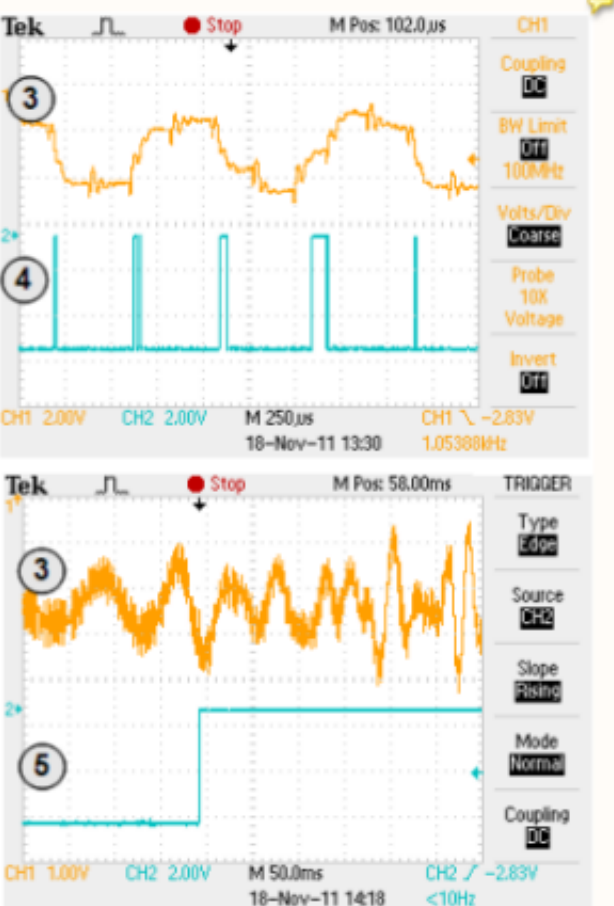


Fig. 3 a: 1kHz sinus signal -> comparator b: Approaching person -> output

**Fig. 1 Energy saving by sampling:**  
 This example shows a duty cycle of < 2%.  
 Sensor ON time is approx. 2.5us.  
 Example: This reduces power consumption of a K-LC1a from 35mA to 0.7mA.  
 Sampling rate is approx. 5.5kHz -> max. detectable Doppler frequency is 2.7 kHz corresponding to 60km/h.

**Fig. 2 Sampling pulse feed through (no signal):**  
 Sample pulse causes impulse reaction.  
 We must wait until signal is in steady state again.  
 Signal can be read immediately before next sampling.

**Fig. 3 Doppler signals:**  
 a) 1kHz signal. Window comparator is active low  
 Please note the sampling feed through.  
 b) Doppler signal from approaching person.  
 Controller generates timing and output signal

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