

EE469-969 Tutorial

A radar transmits a pulse with time-bandwidth product of 160.

- What are the pulse duration and the pulse bandwidth knowing that the transmitter has a duty cycle of 1% and the radar has a maximum unambiguous range of 100km?
- What is the range resolution of the radar ?
- What would have been the range resolution if no modulation on transmit was used ?
- What is the gain in using a modulated pulse in terms of range resolution?