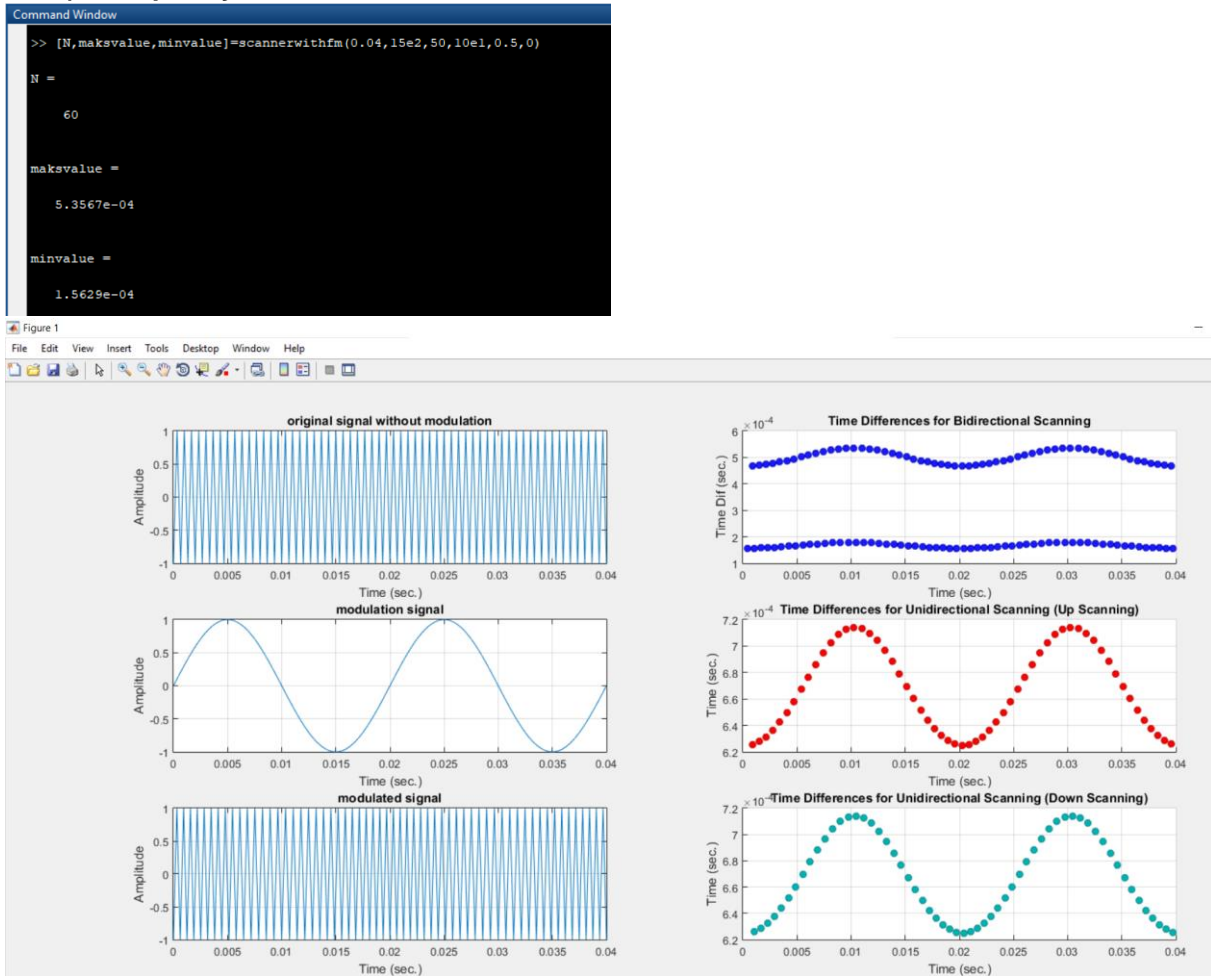
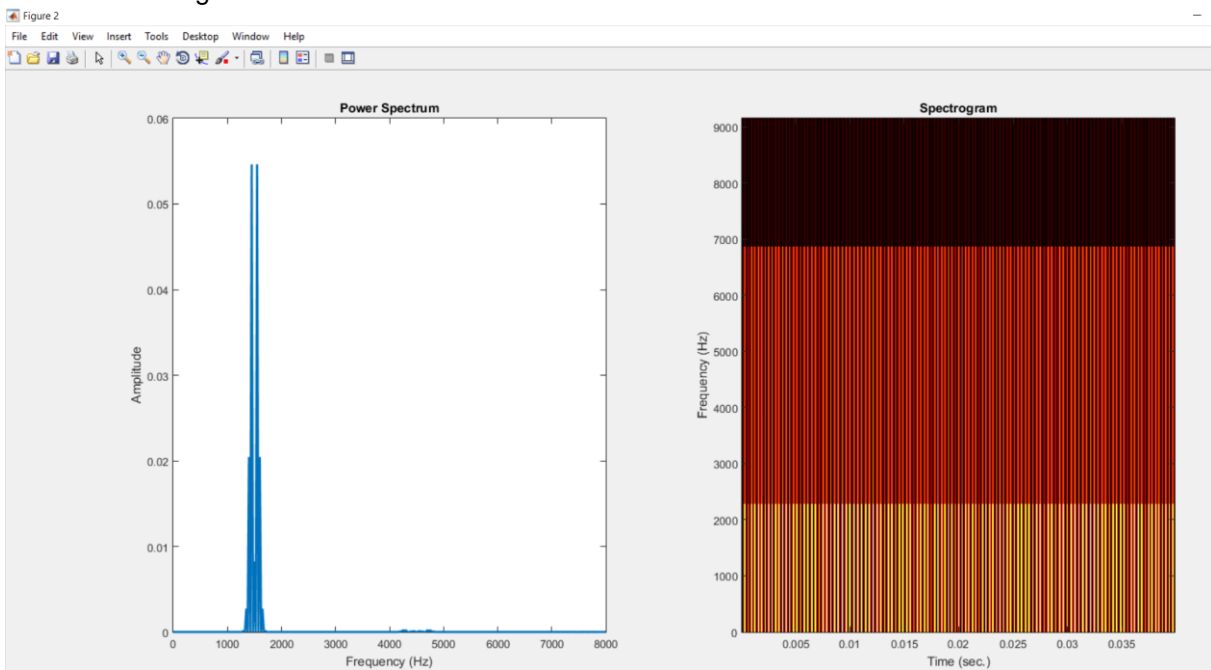


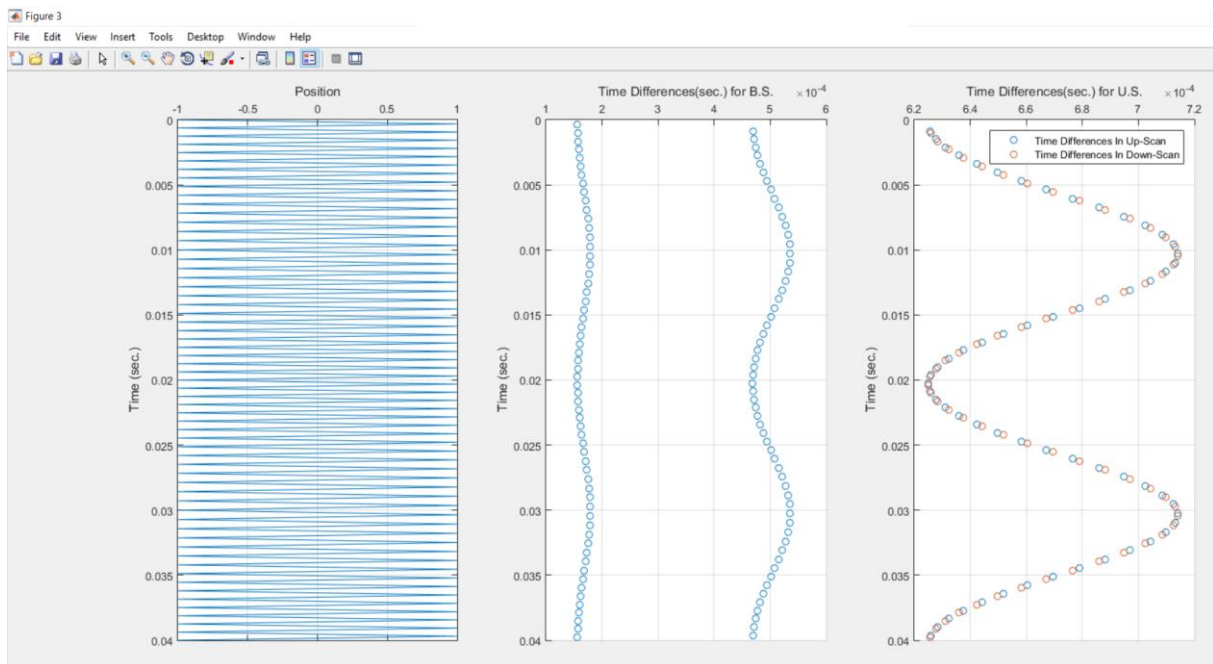
1) Frequency Modulation



You can think amplitude as a voltage of the signal generator that corresponds a specific location on 1-axis of target surface. 1 and -1 indicates V_{max} and V_{min} . Estimated time differences are calculated at 0.5 for both scanning methods: unidirectional and bidirectional scan.



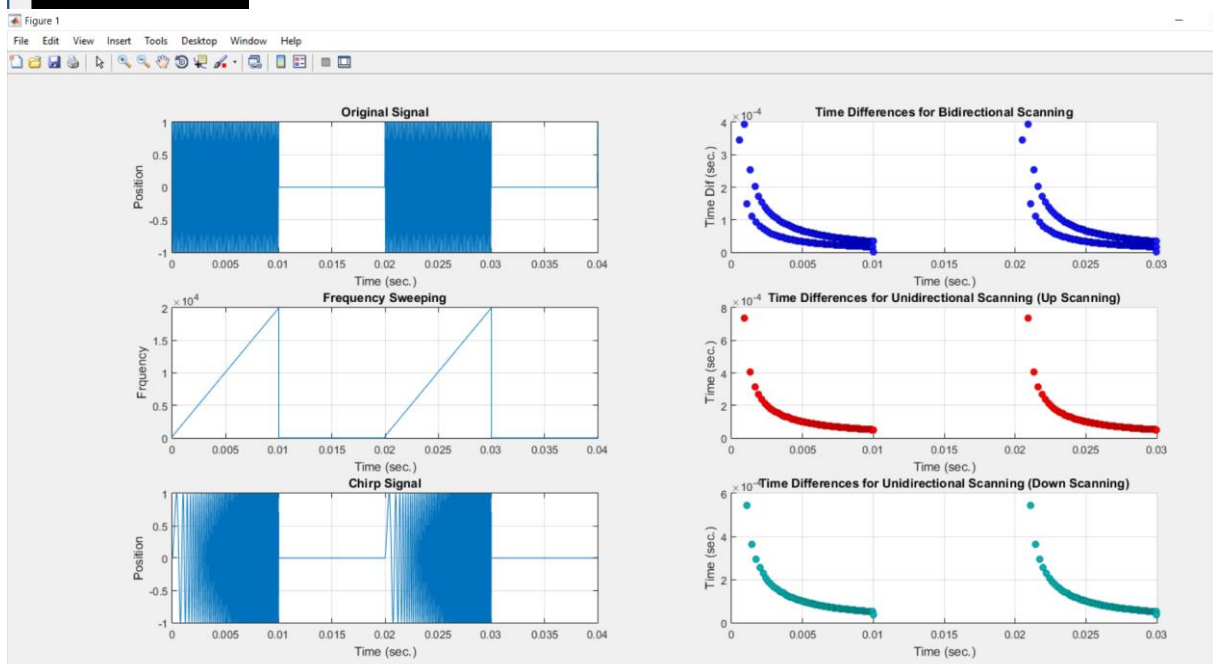
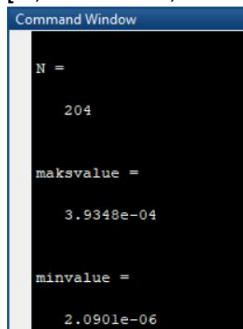
1500 Hz center frequency and 1000 Hz modulation bandwidth can be seen Power Spectrum in Figure 2.

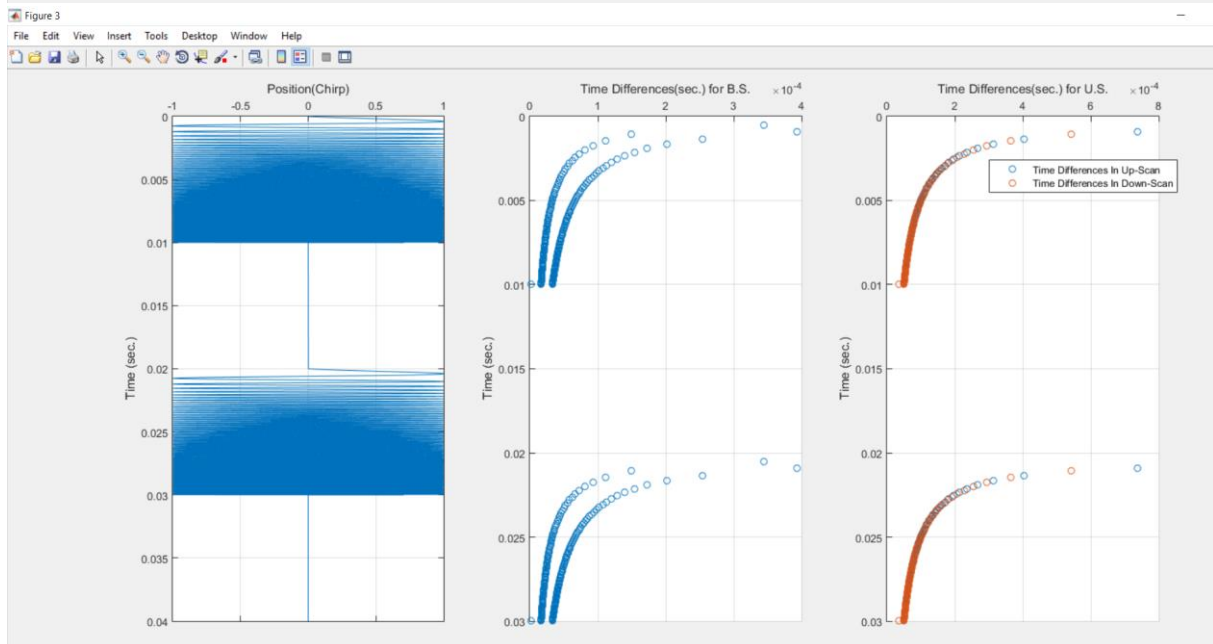
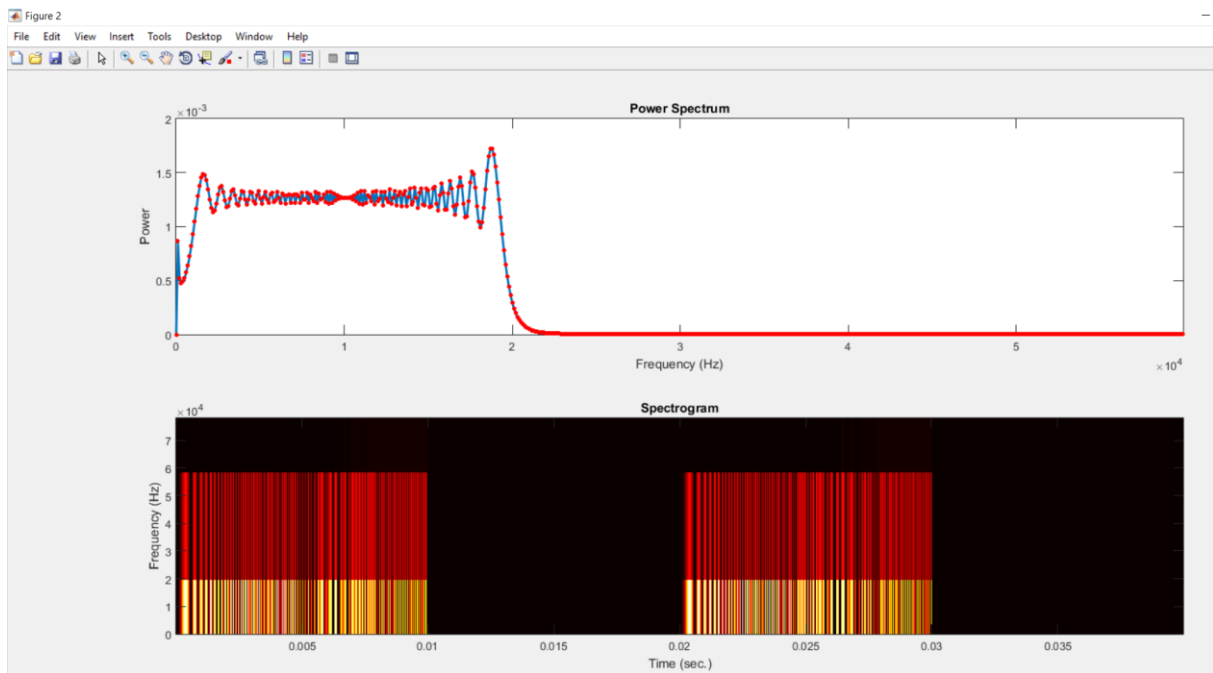


Plots in this figure are actually same with the modulated signal, and time differences that are calculated on modulated signal in figure 1. I give them as a more realistic visualization of laser scanning over the 1-axis.

2) Frequency Sweep (Chirp)

`[N,maksvalue,minvalue]= scannerchirp(0.04,100,250,19975,50,0.5,0)`





3) Sine scan with ramp offset

```
Command Window
>> [N,makvalue,minvalue]= scannernovel(0.02,20000,200,0.4,3,1.5,0)

N =

    148

makvalue =

    4.5083e-05

minvalue =

    3.4787e-06
```

