

Joseph R. Palicke

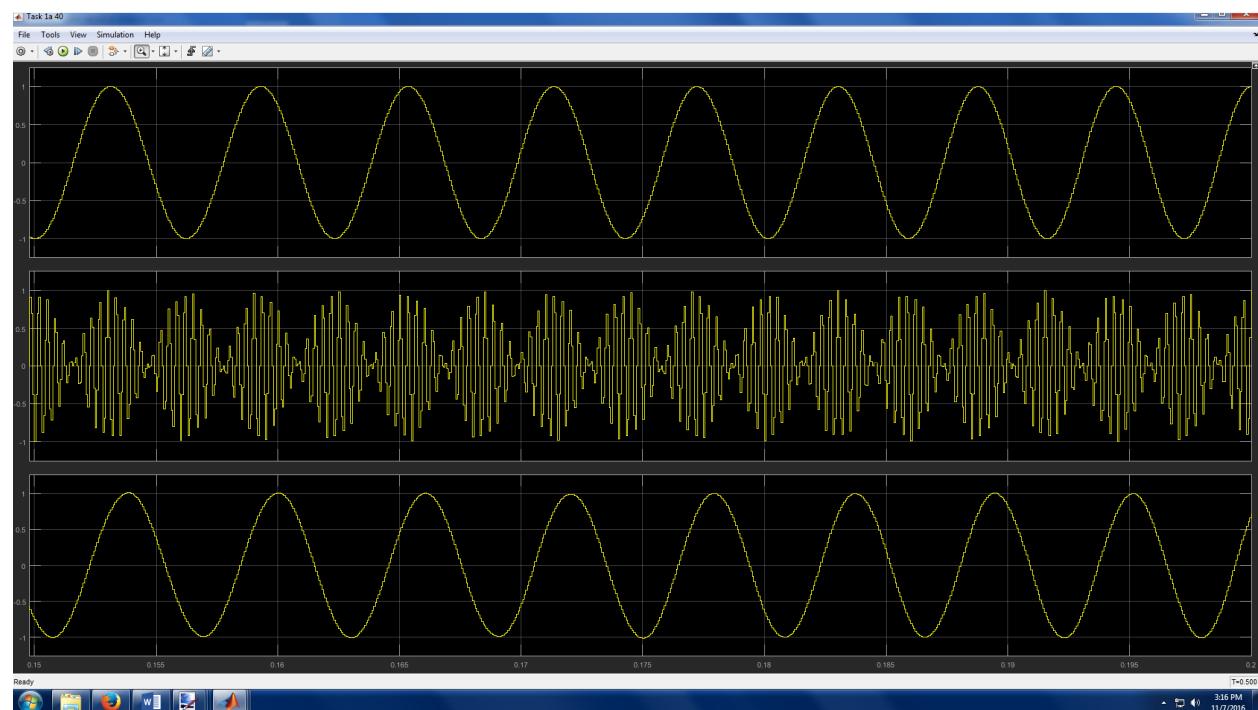
ECE 44800

Lab 9

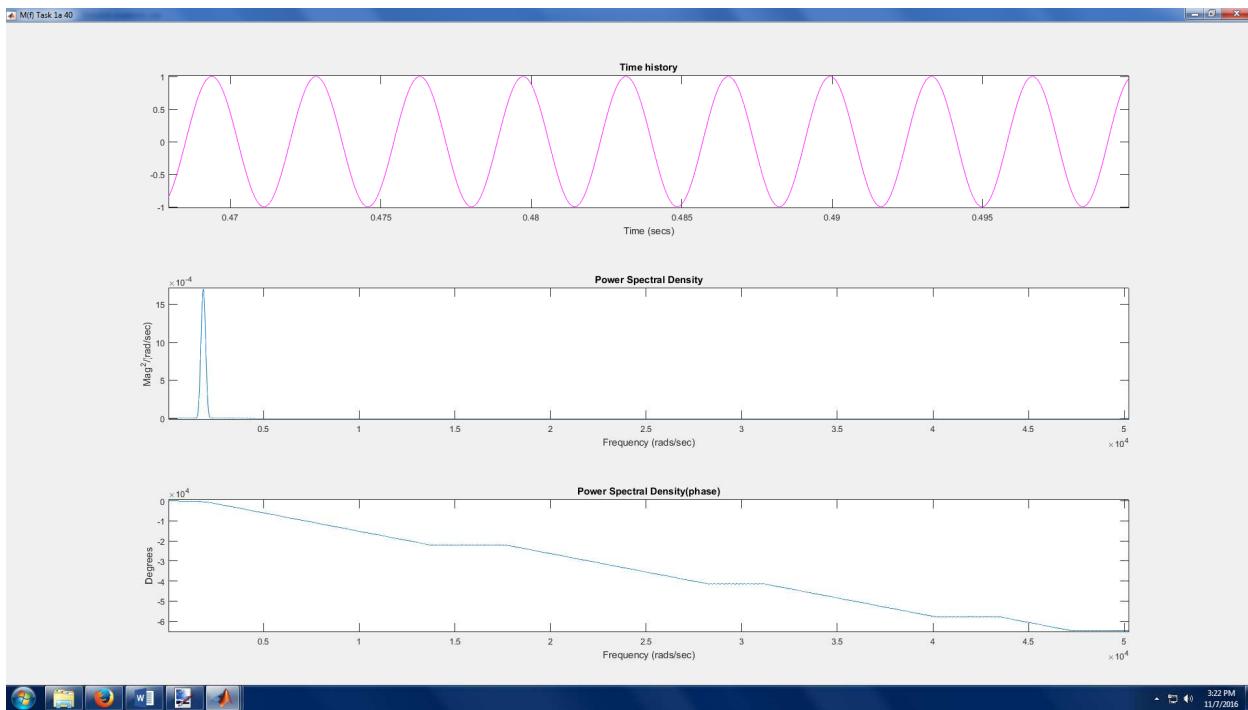
Modulated Signals and Noise

Task 1 Part 1

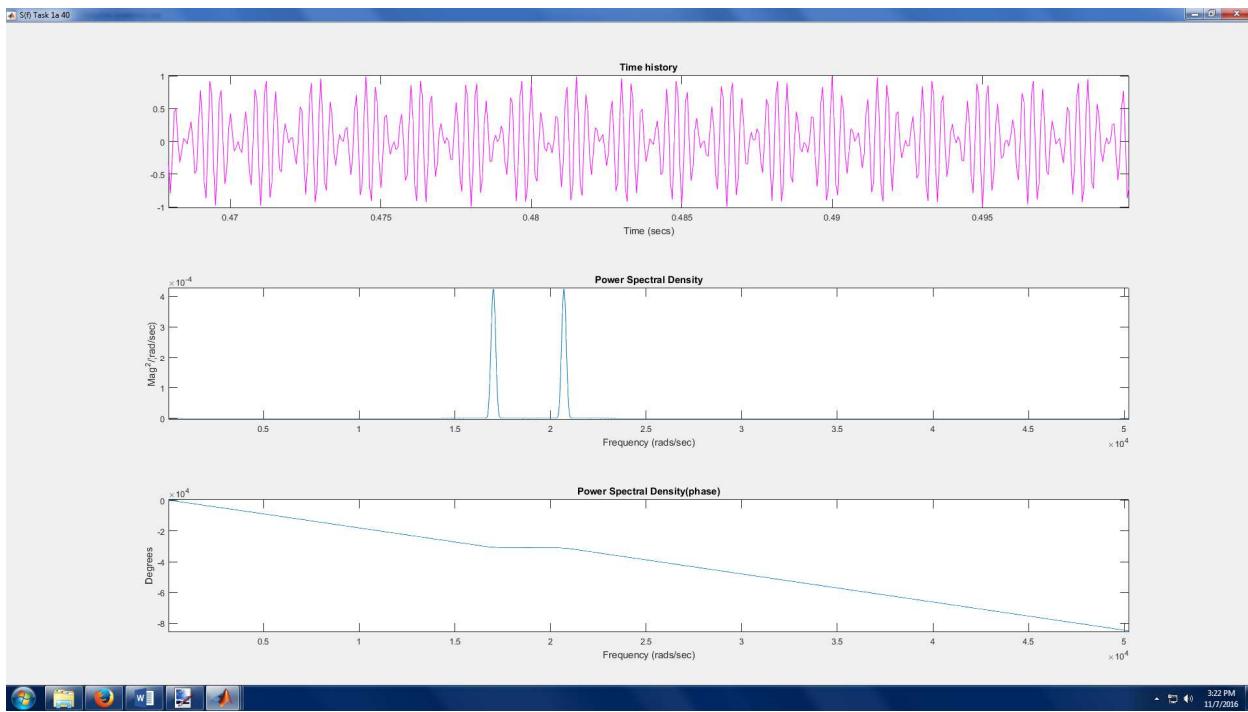
40dB DSBSC Scope (Top to bottom:  $m(t)$ ,  $s(t)$ ,  $\sim m(t)$ )



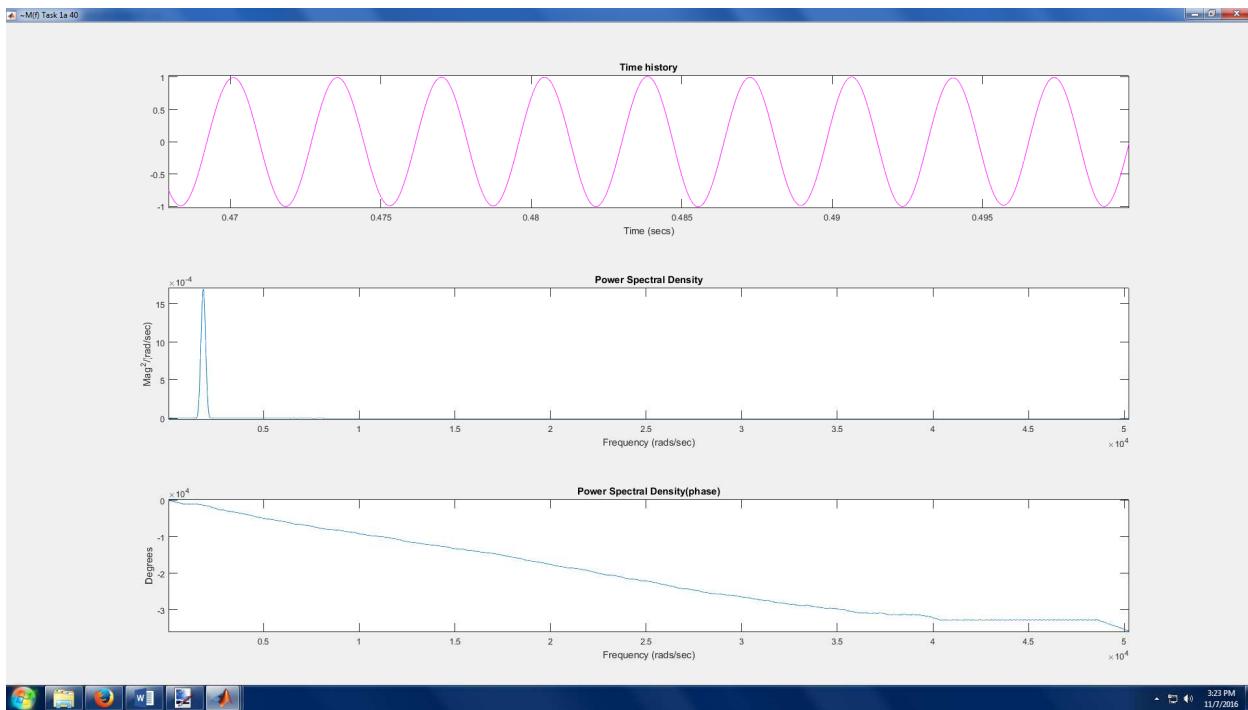
### 40dB Power Spectral Density for $m(t)$ DSBSC



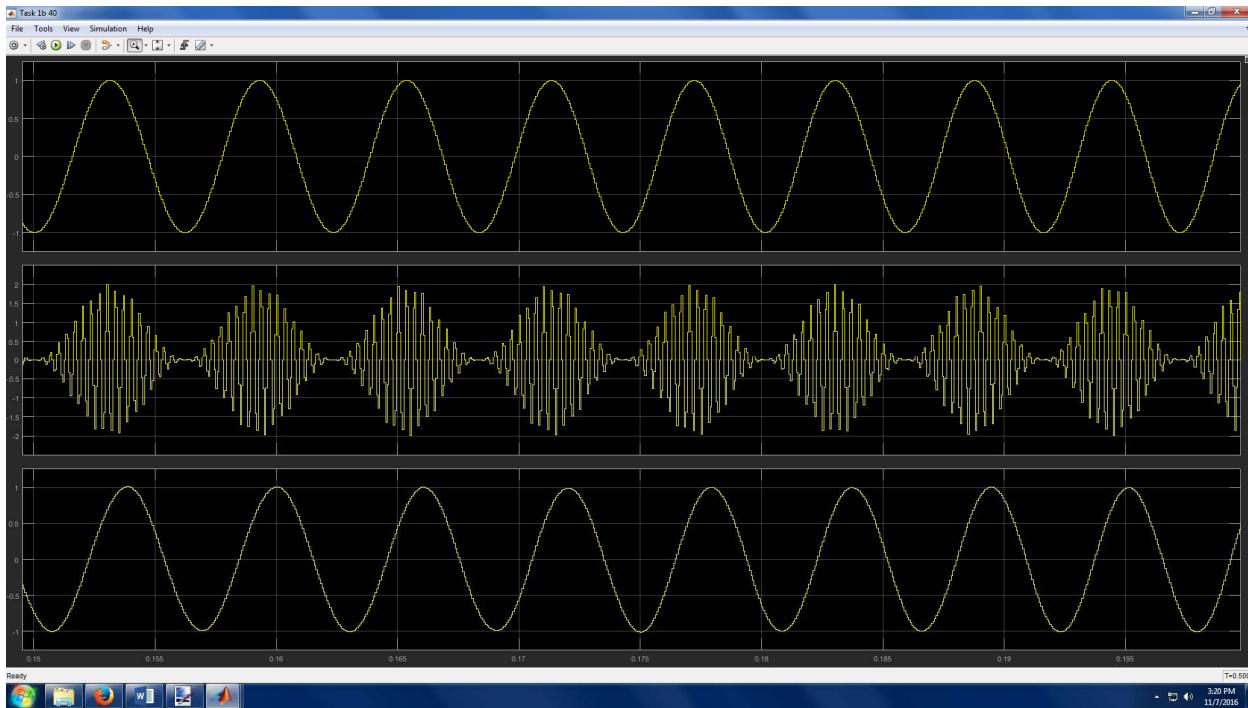
### 40dB Power Spectral Density for $s(t)$ DSBSC



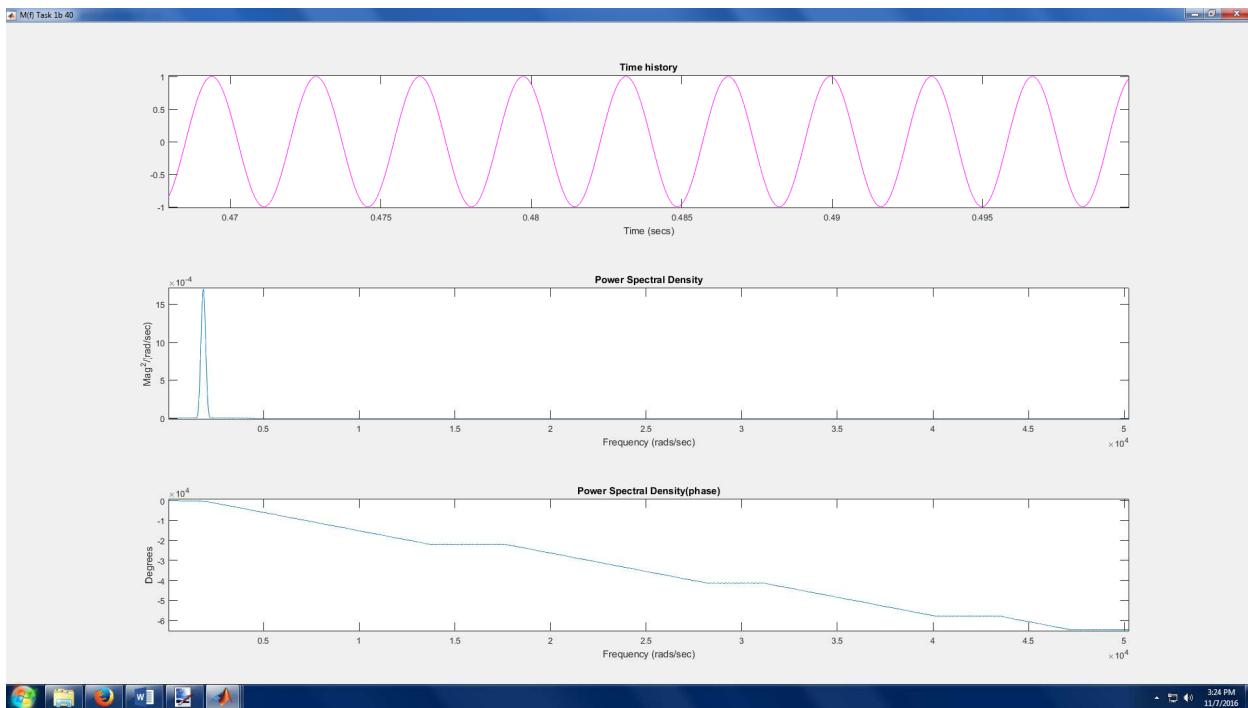
### 40dB Power Spectral Density for $\sim m(t)$ DSBSC



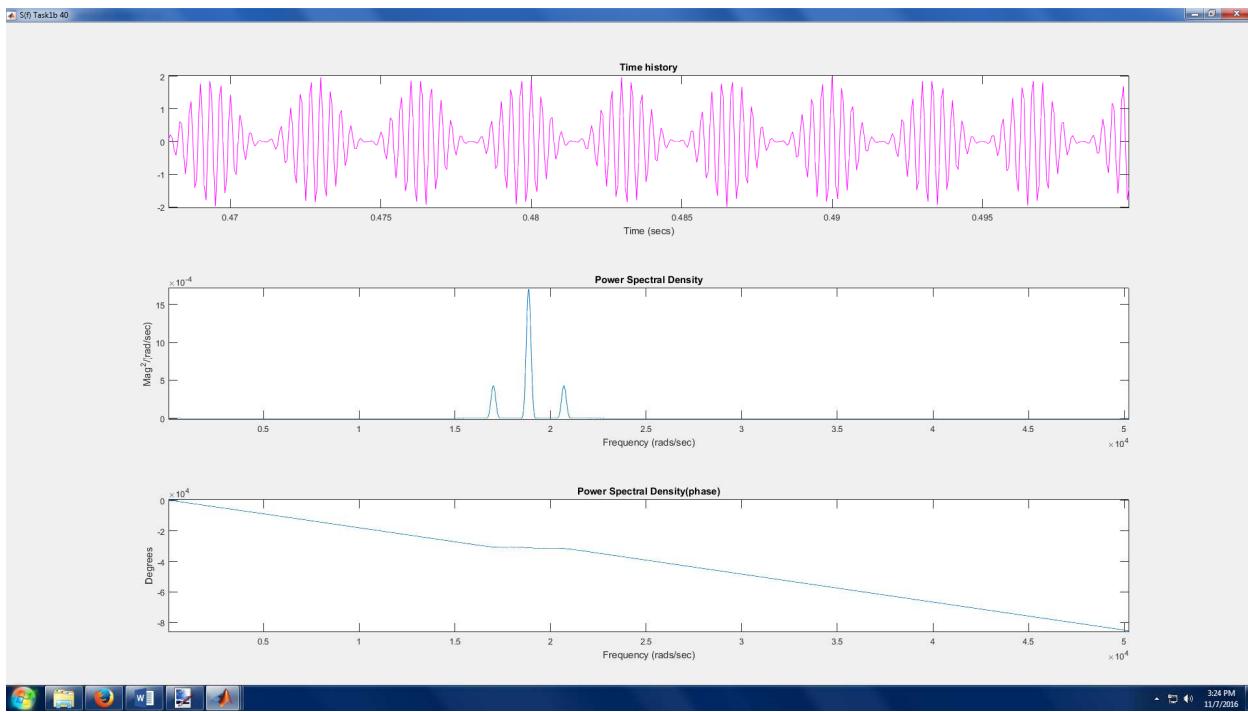
### 40dB DSBAM Scope (Top to bottom: $m(t)$ , $s(t)$ , $\sim m(t)$ )



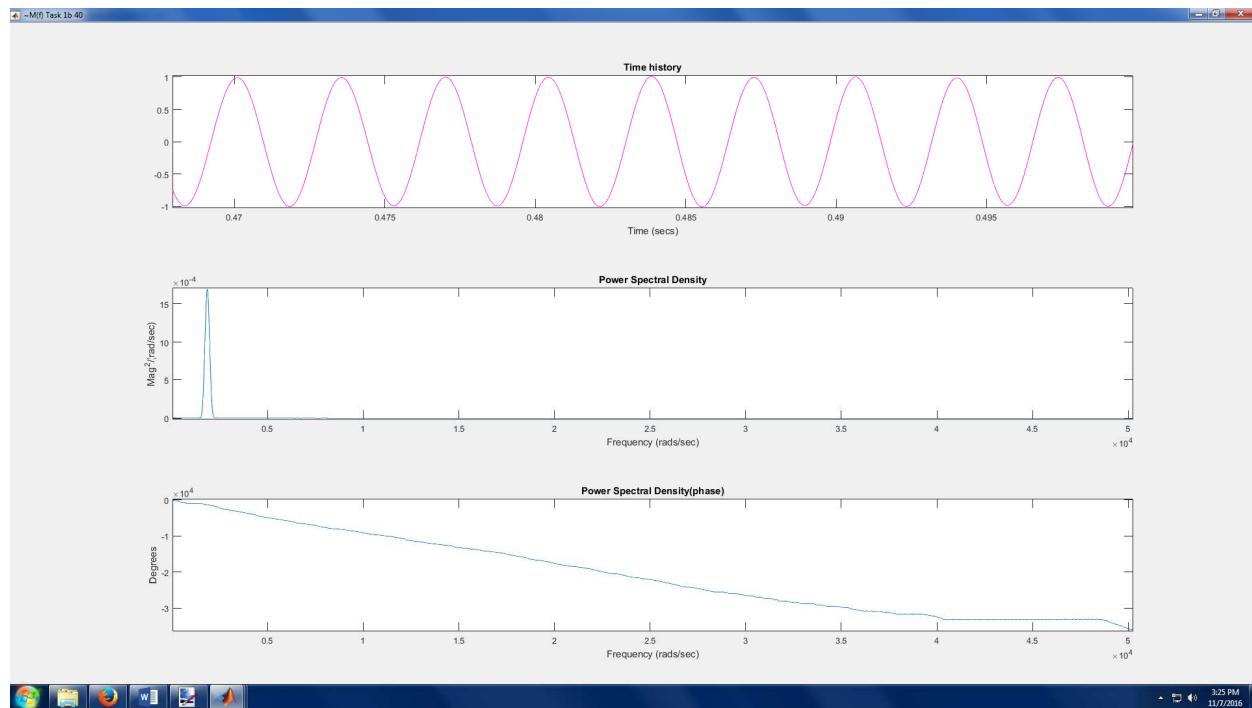
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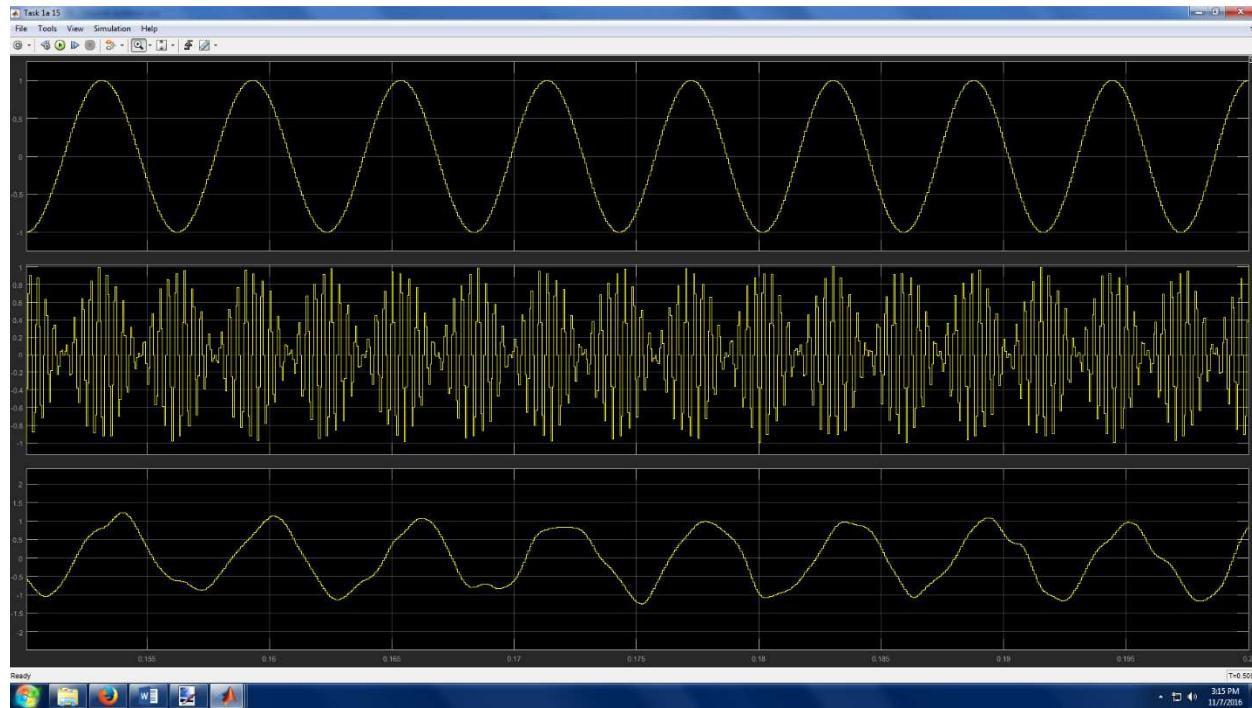
### 40dB Power Spectral Density for $s(t)$ DSBAM



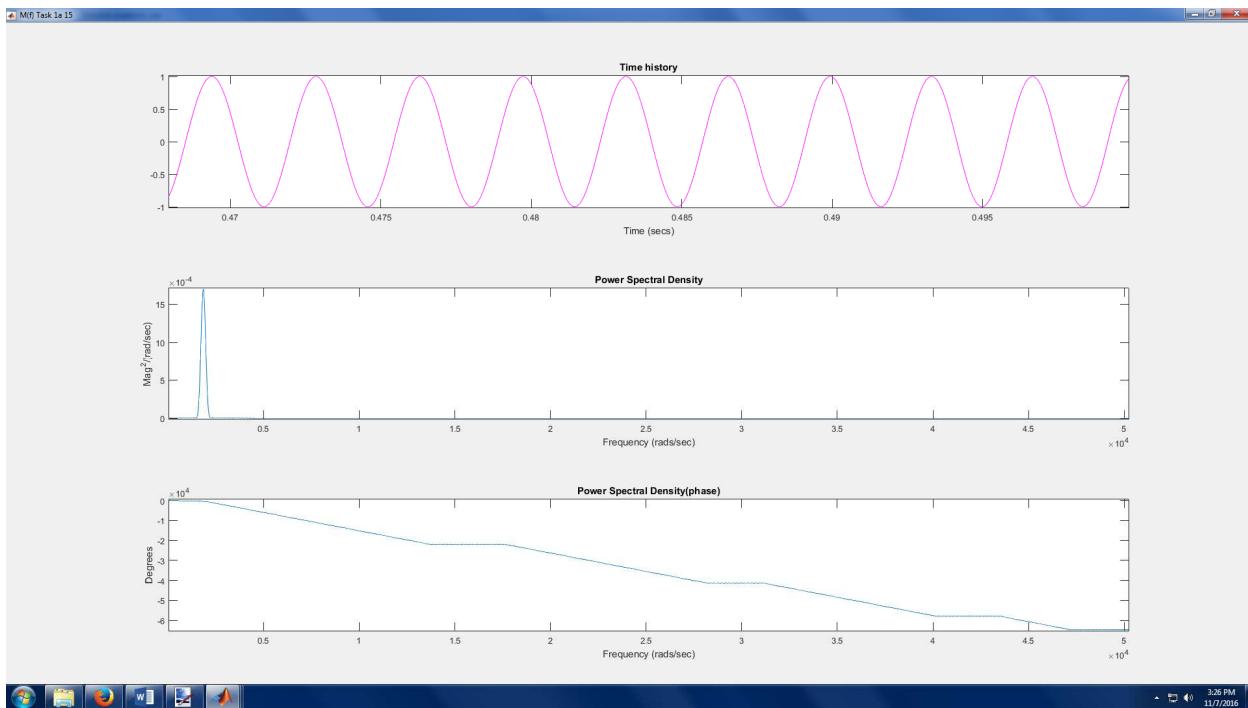
### 40dB Power Spectral Density for $\sim m(t)$ DSBAM



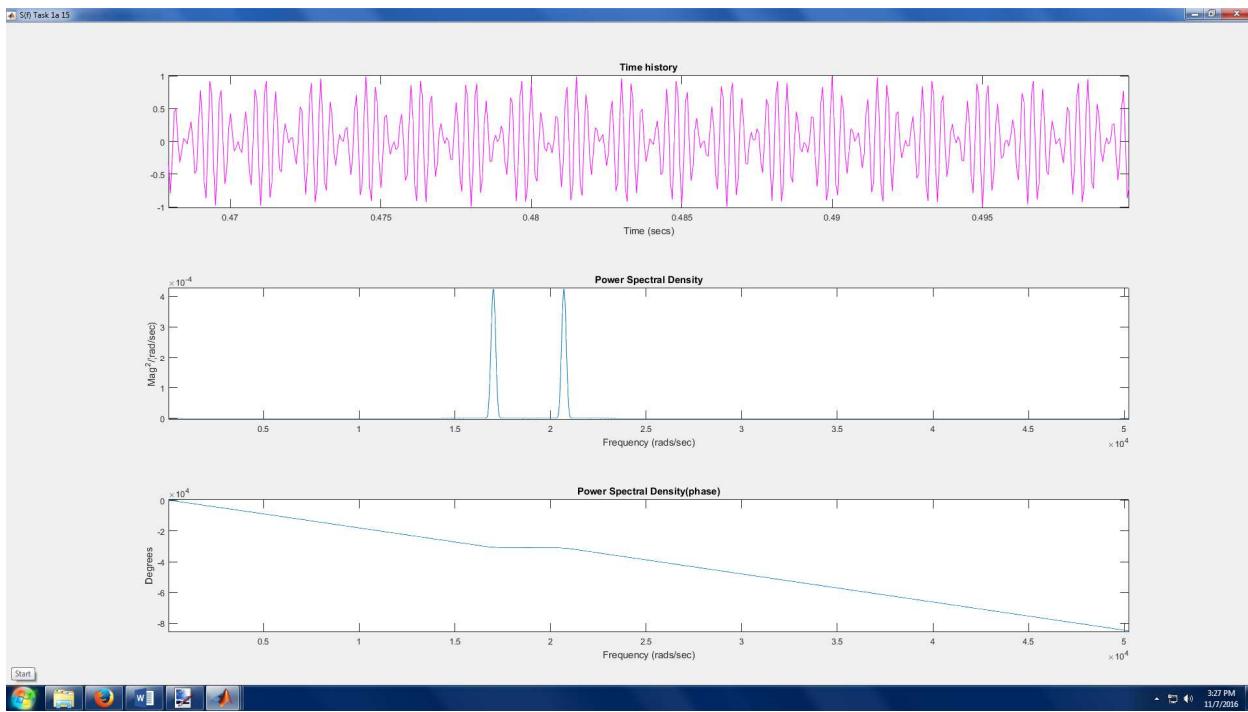
15dB DSBSC Scope (Top to bottom:  $m(t)$ ,  $s(t)$ ,  $\sim m(t)$ )



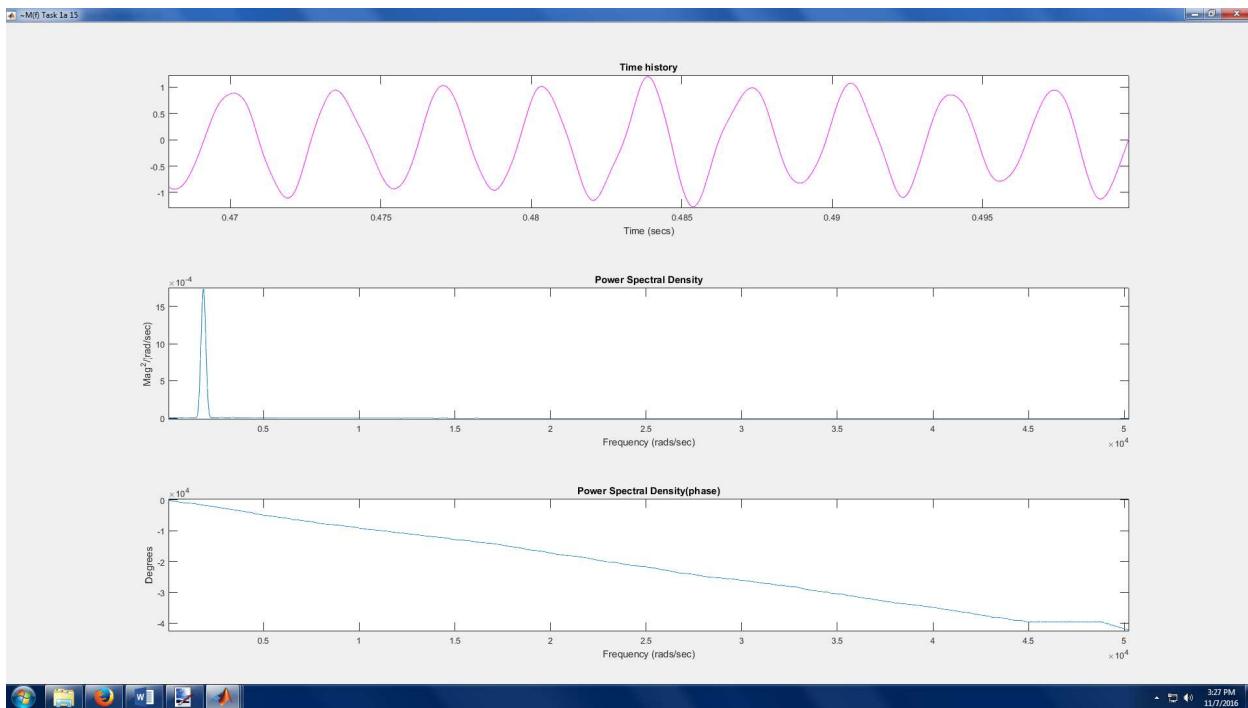
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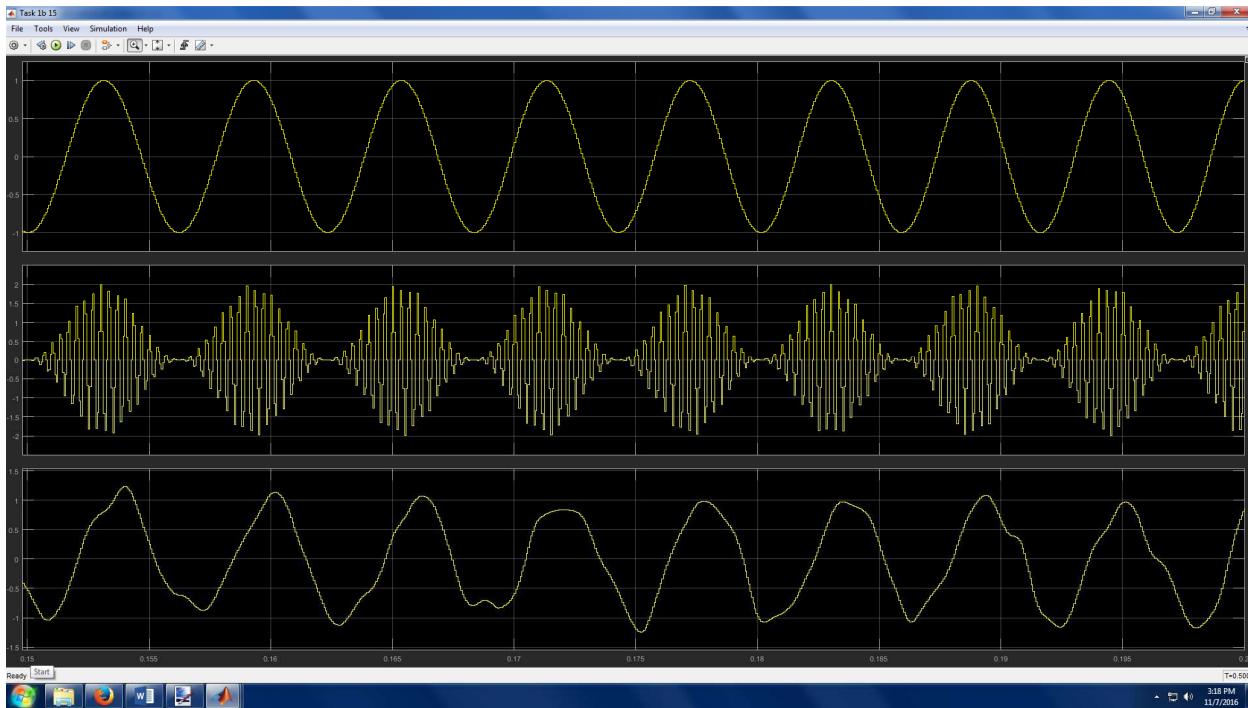
### 15dB Power Spectral Density for $s(t)$ DSBSC



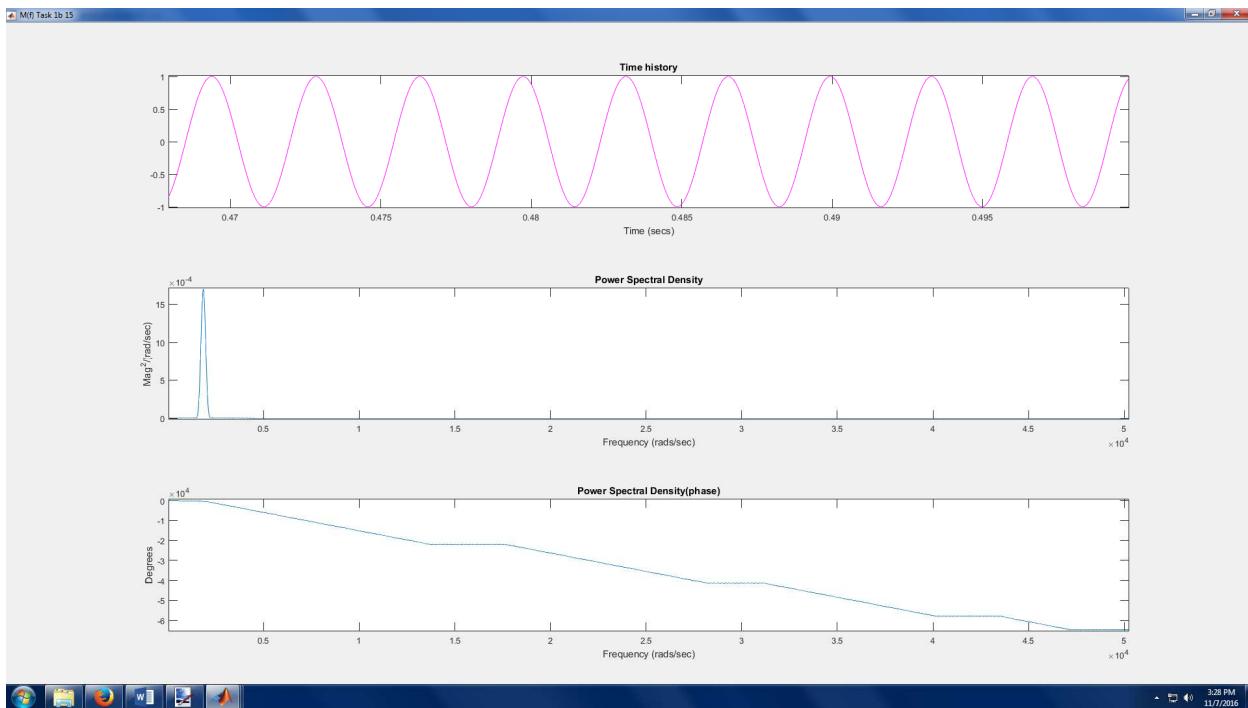
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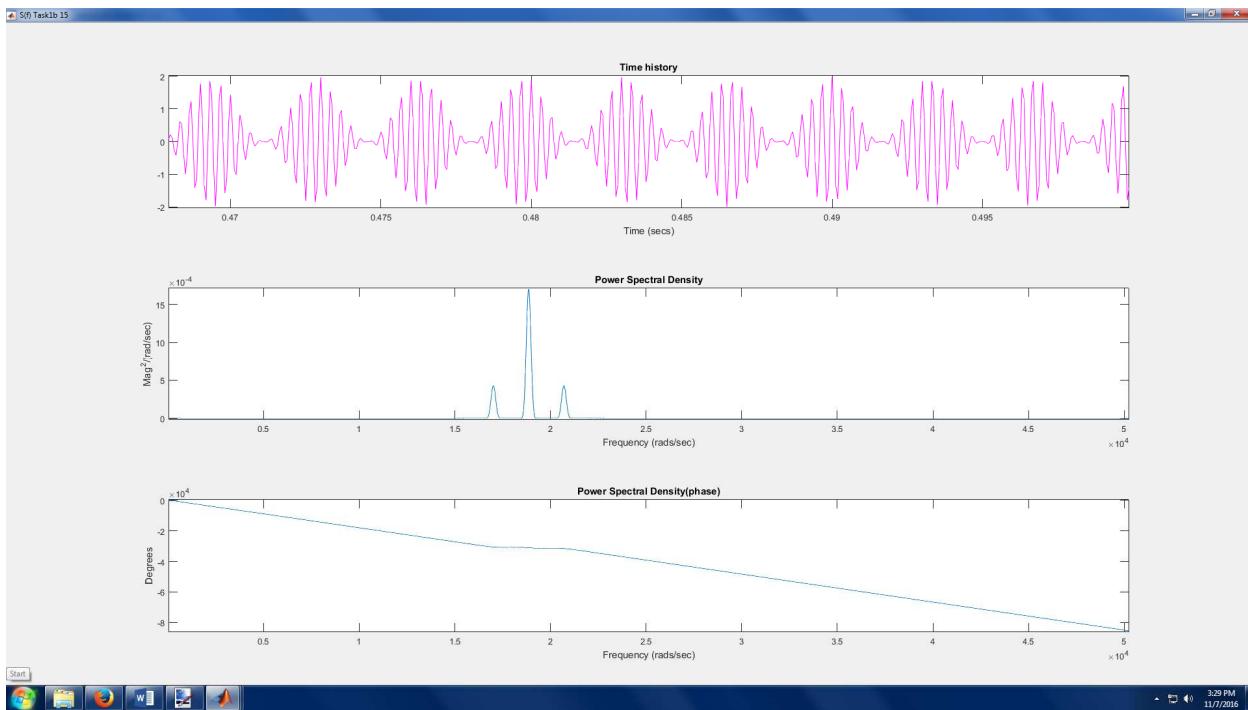
15dB DSBAM Scope (Top to bottom:  $m(t)$ ,  $s(t)$ ,  $\sim m(t)$ )



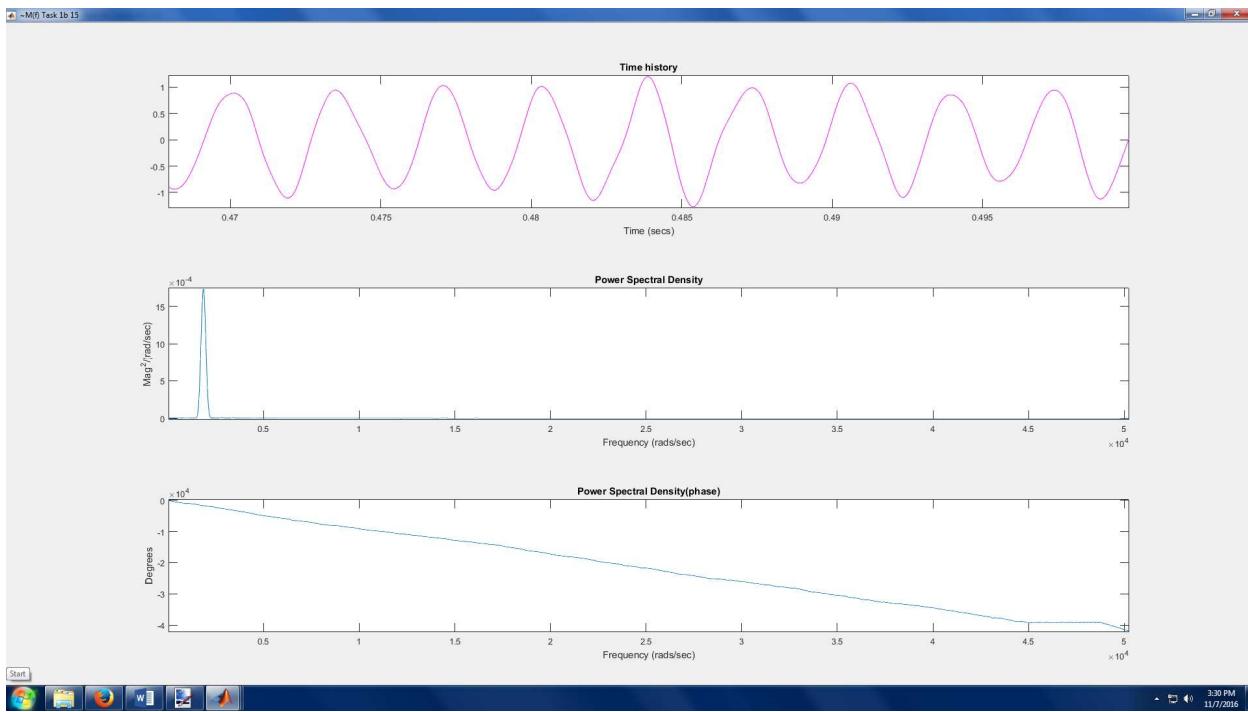
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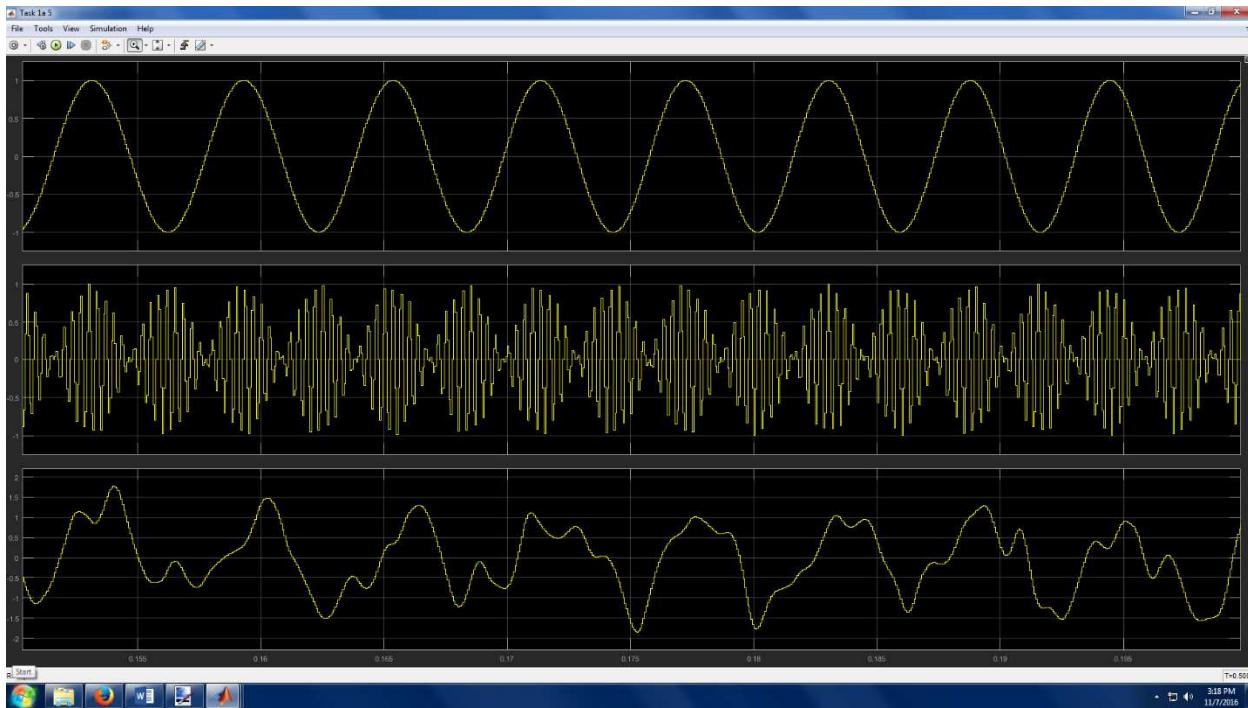
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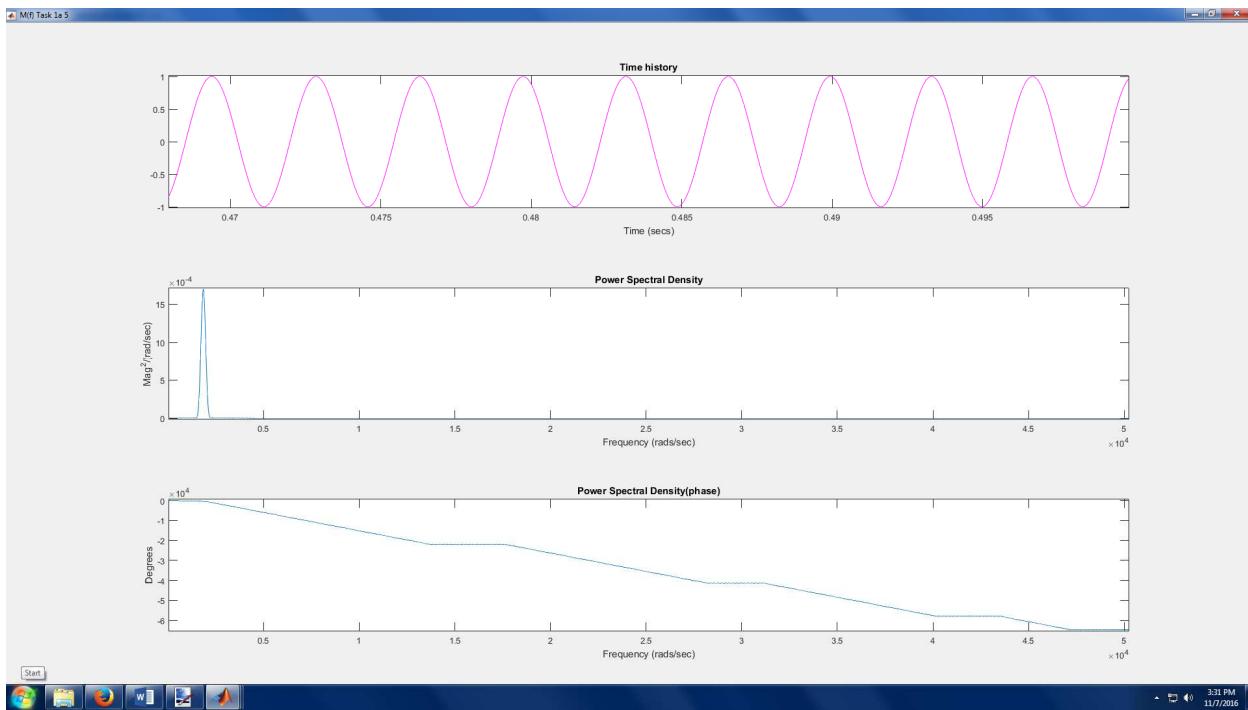
### 15dB Power Spectral Density for $\sim m(t)$ DSBAM



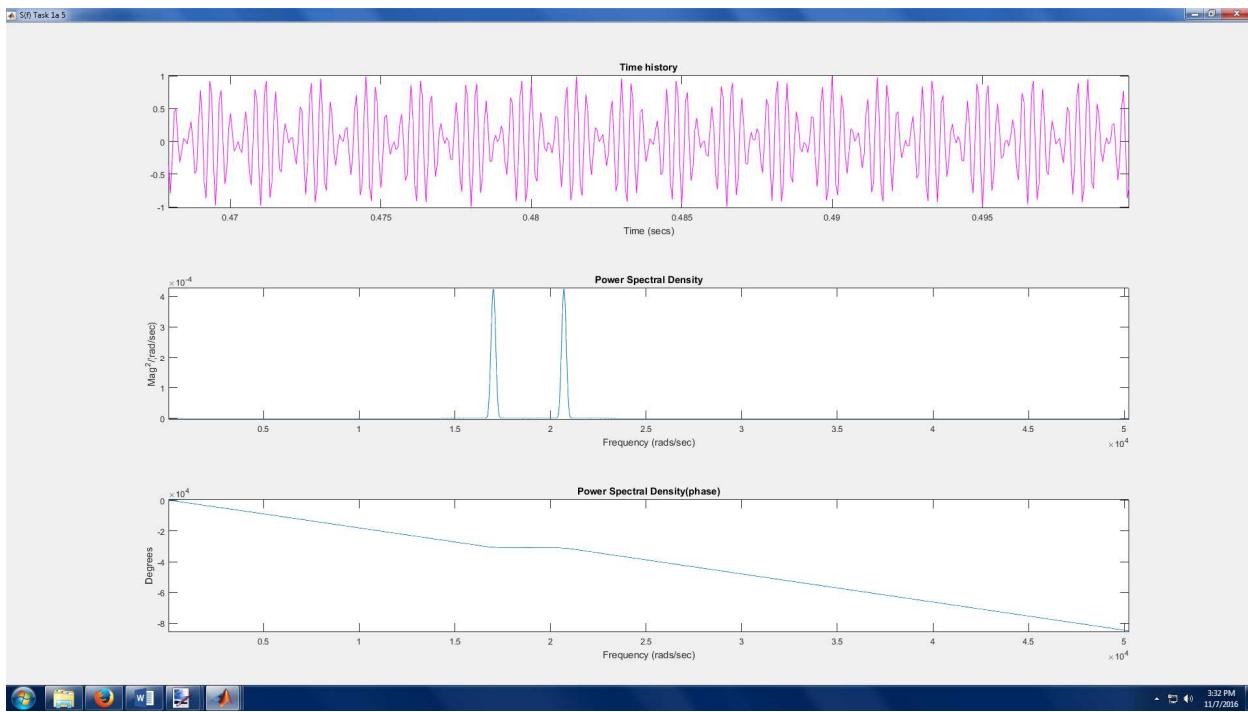
### 5dB DSBSC Scope (Top to bottom: $m(t)$ , $s(t)$ , $\sim m(t)$ )



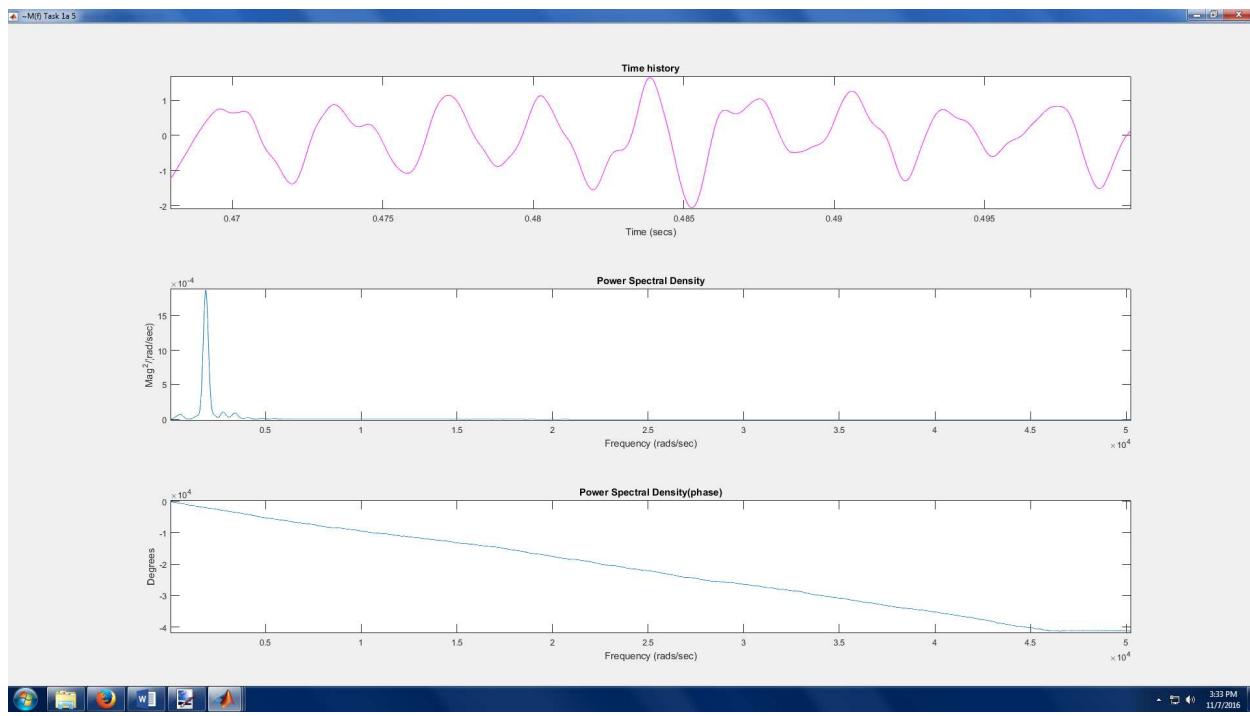
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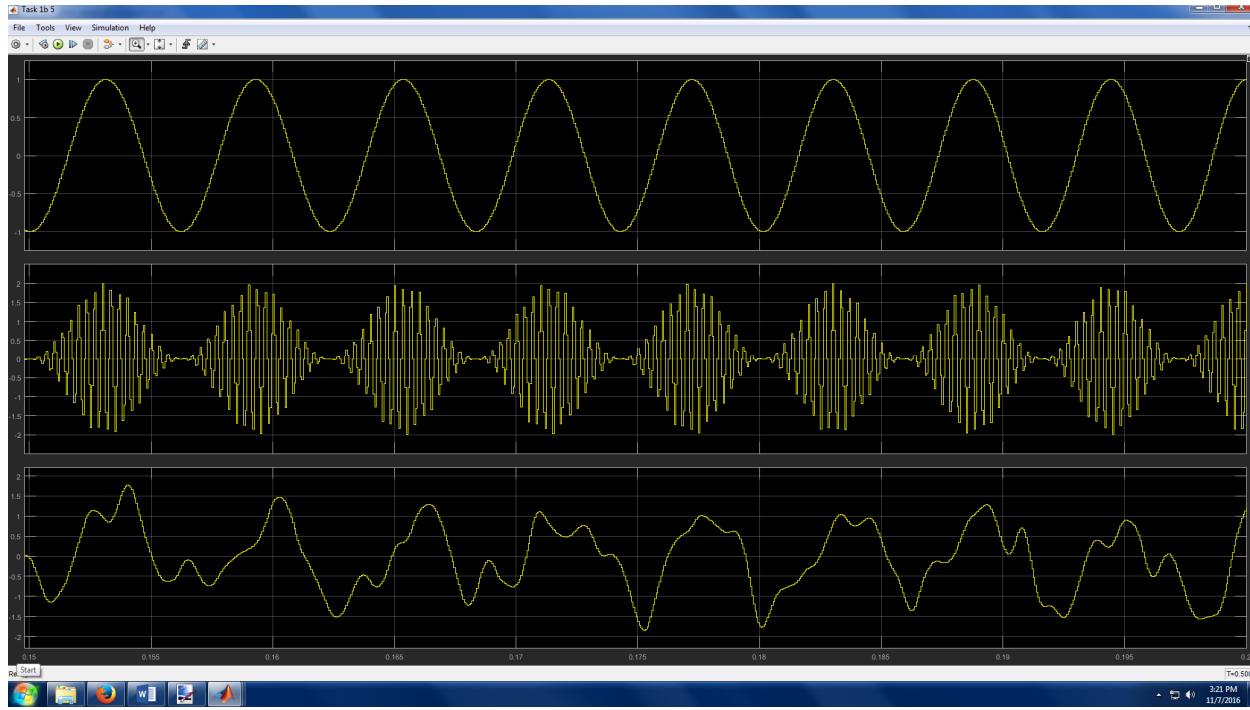
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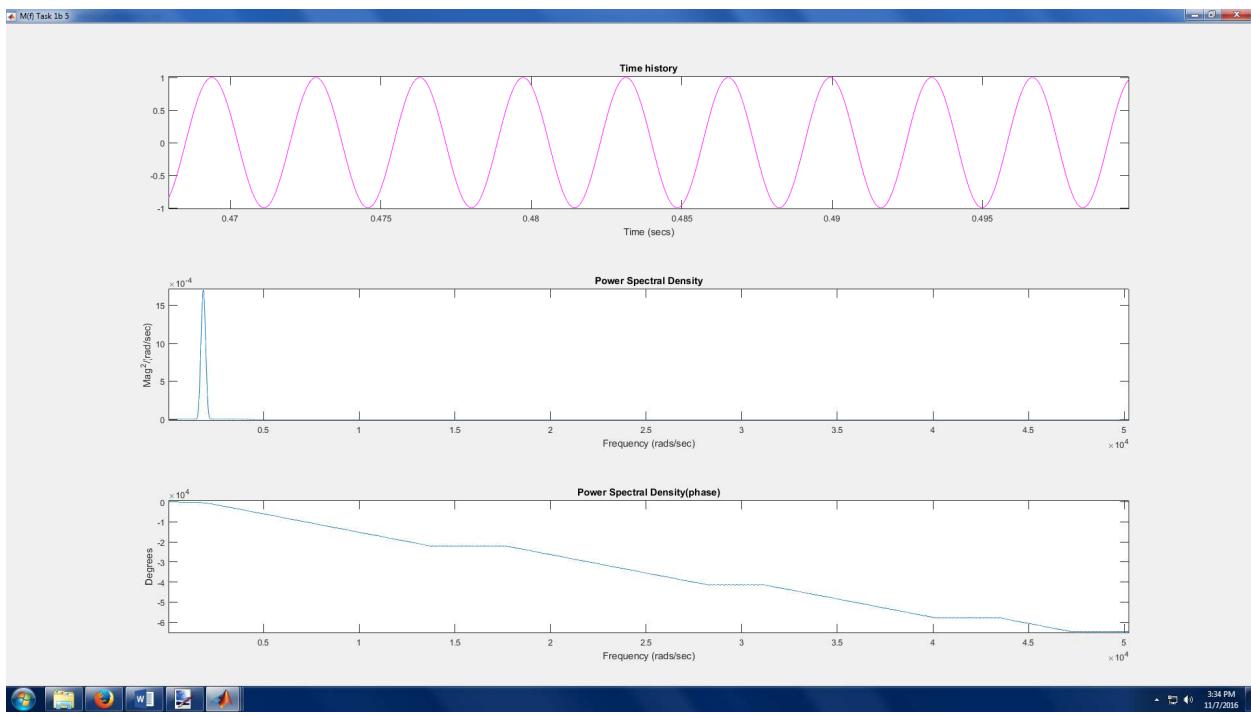
### 5dB Power Spectral Density for $\sim m(t)$ DSBSC



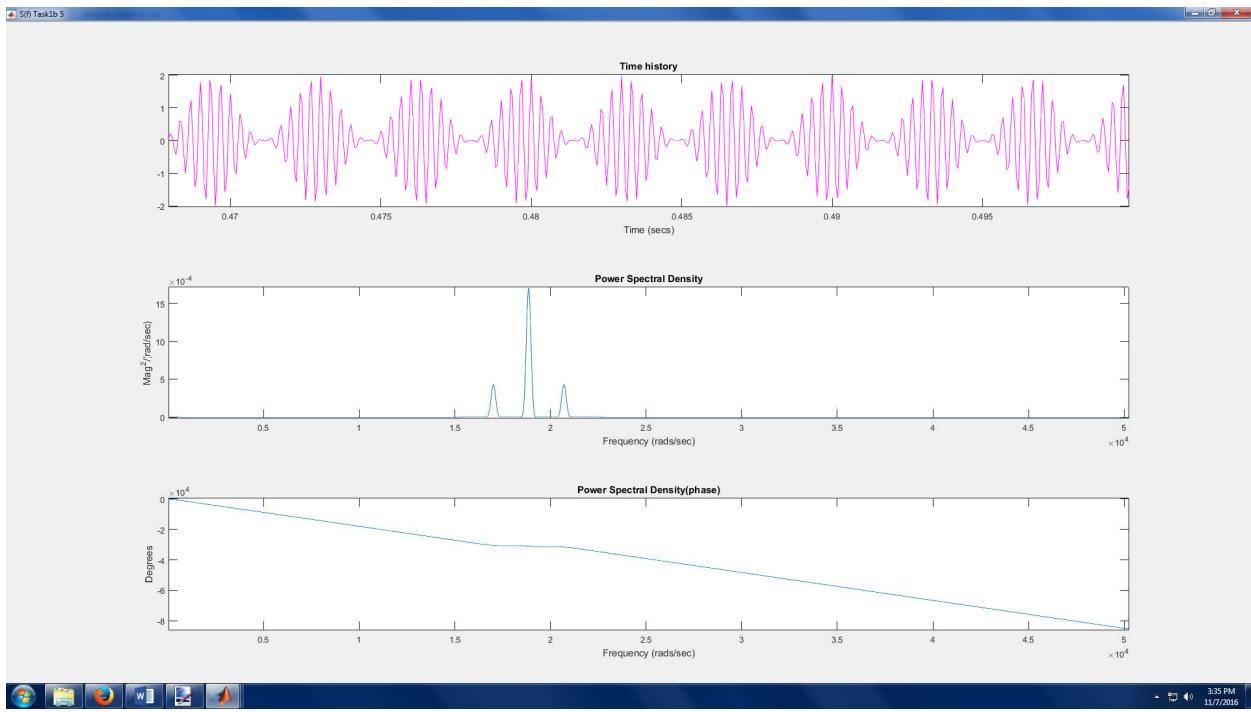
5dB DSBAM Scope (Top to bottom:  $m(t)$ ,  $s(t)$ ,  $\sim m(t)$ )



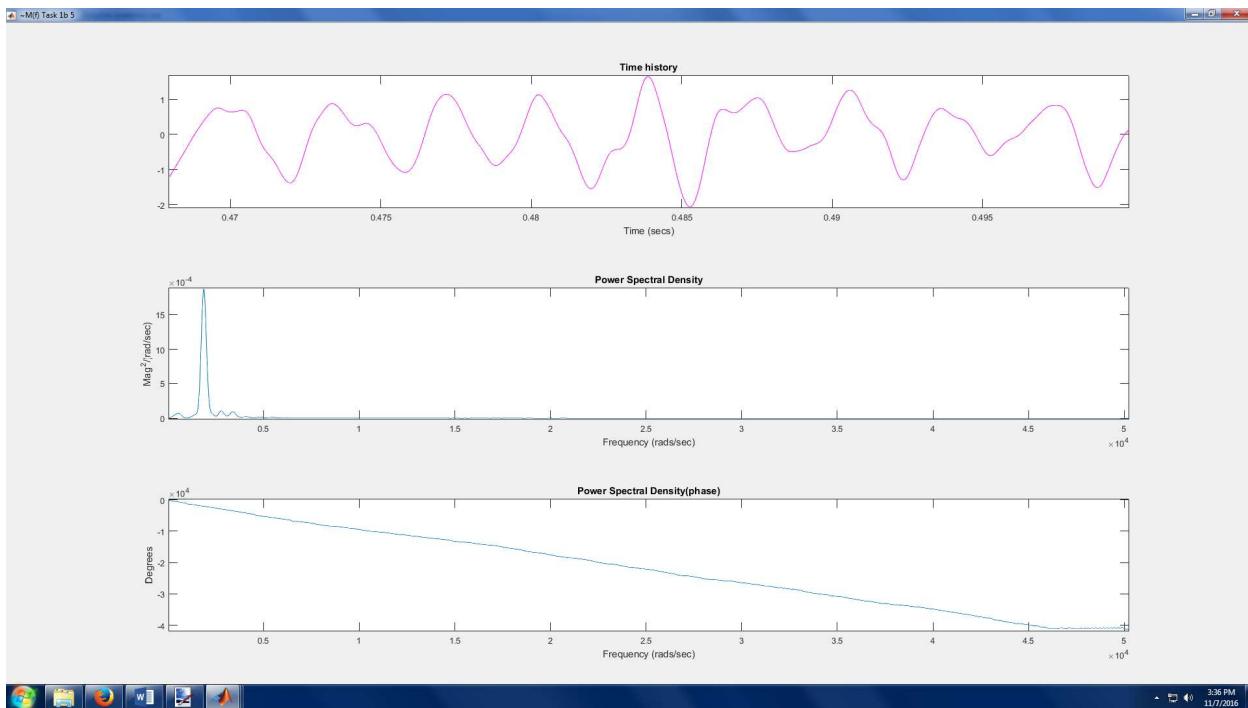
5dB Power Spectral Density for  $m(t)$  DSBAM



5dB Power Spectral Density for  $s(t)$  DSBAM

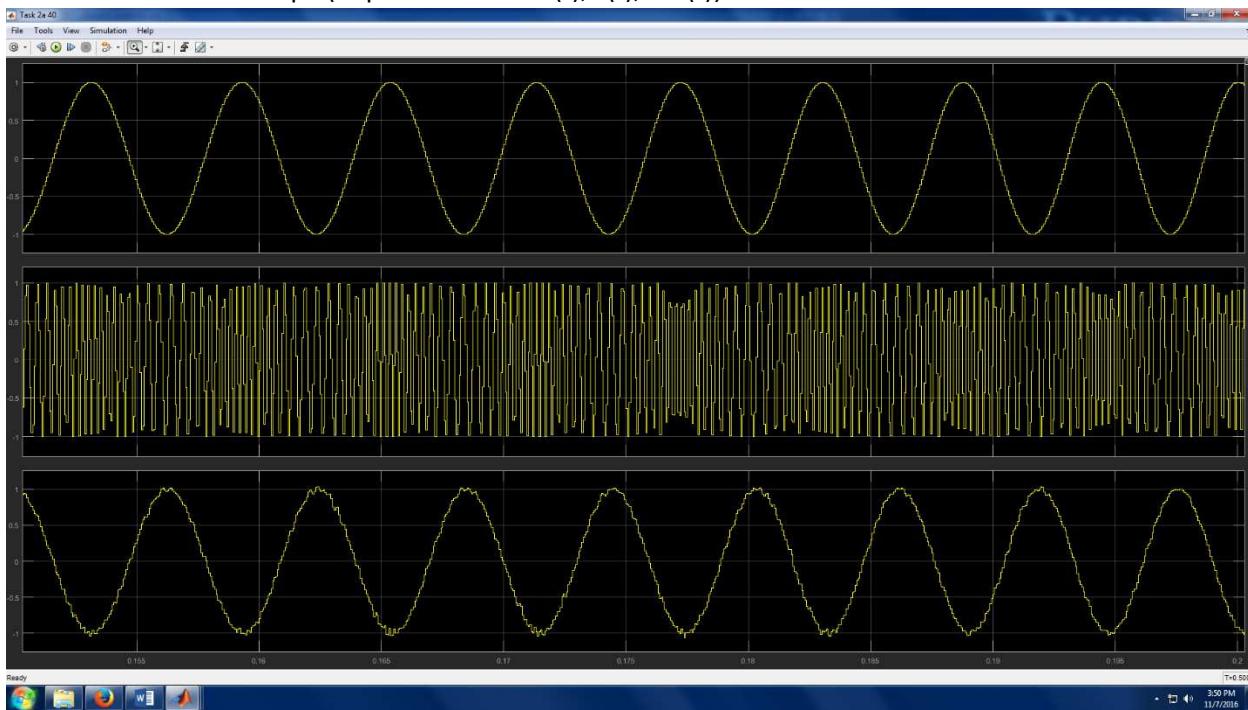


### 5dB Power Spectral Density for $\sim m(t)$ DSBAM

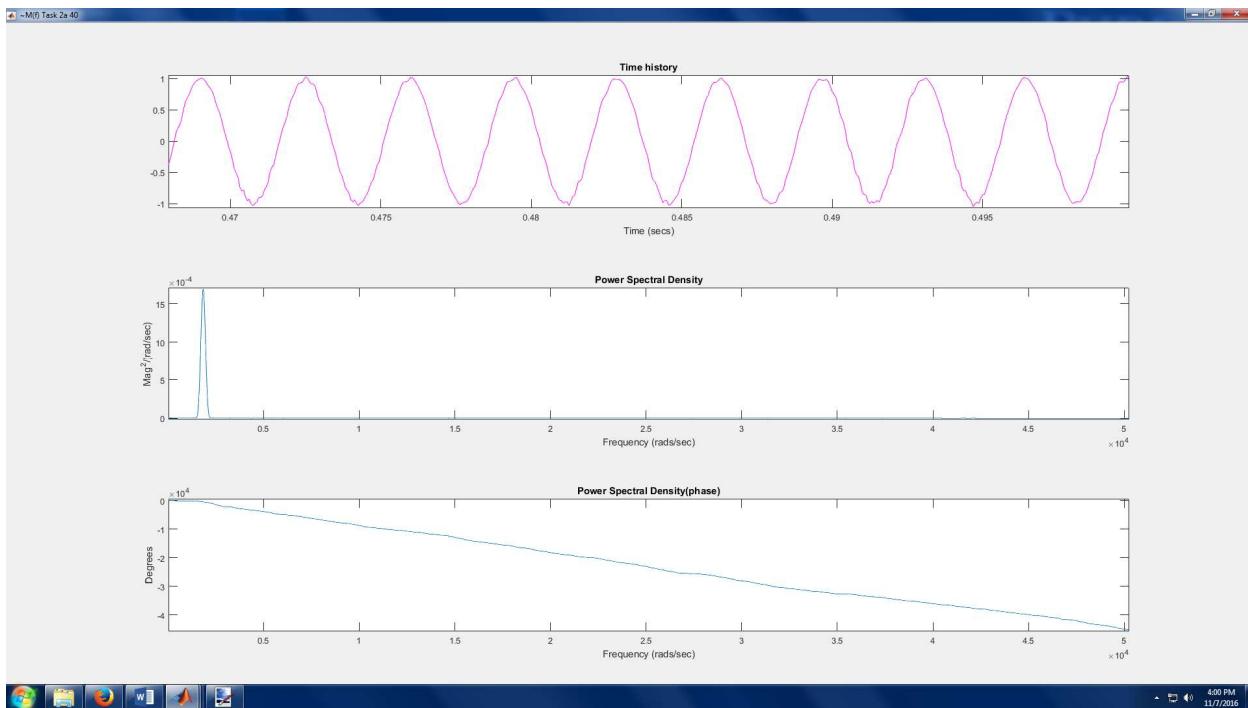


### Task II Part I

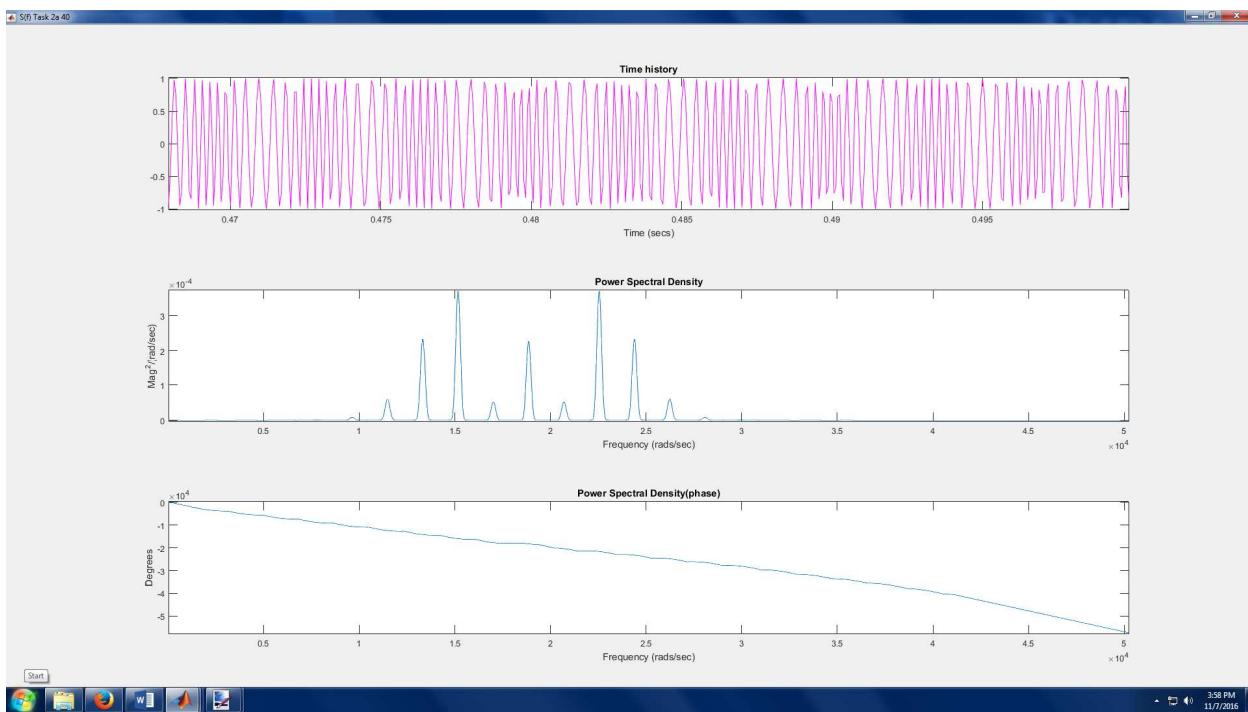
40dB Wideband FM Scope (Top to bottom:  $m(t)$ ,  $s(t)$ ,  $\sim m(t)$ )



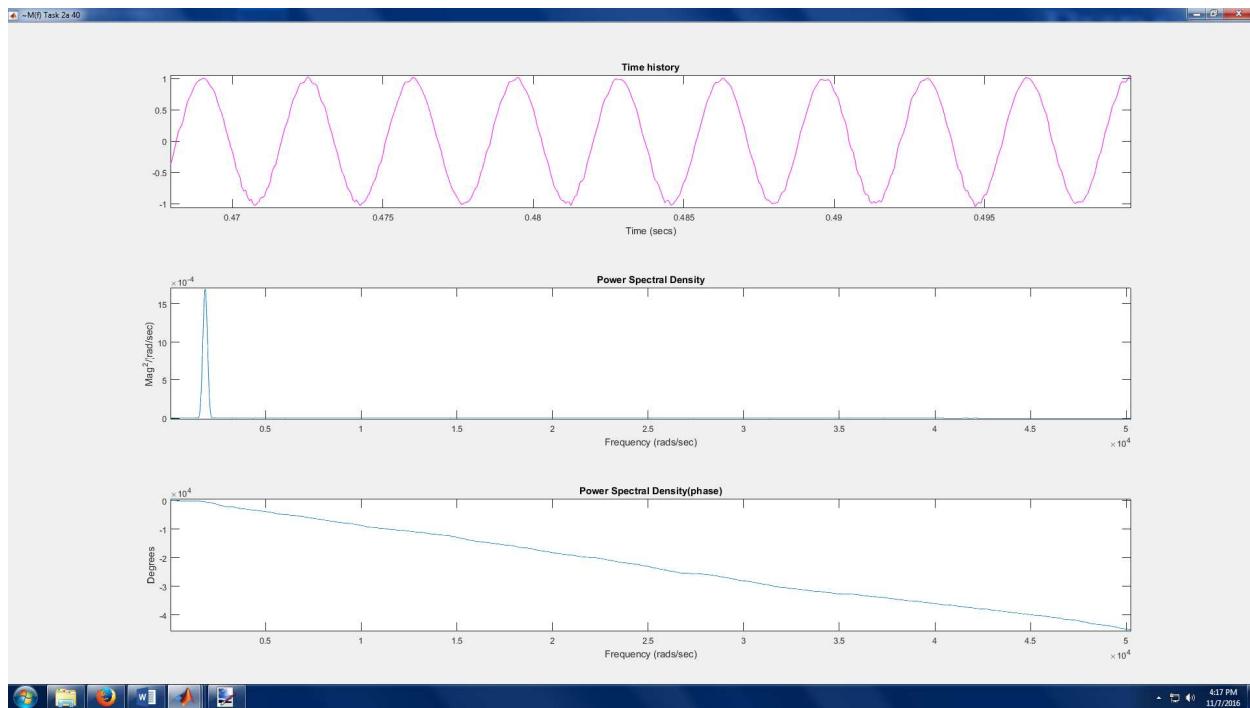
## 40dB Power Spectral Density for $m(t)$ Wideband FM



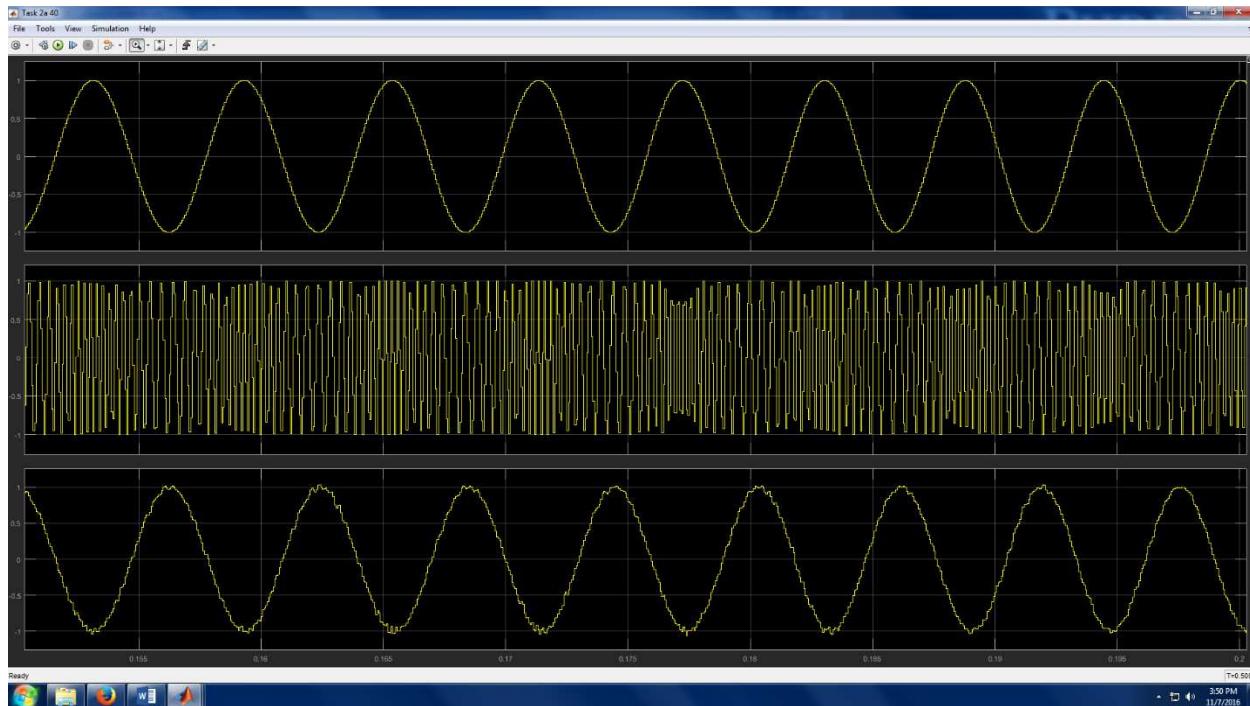
## 40dB Power Spectral Density for $s(t)$ Wideband FM



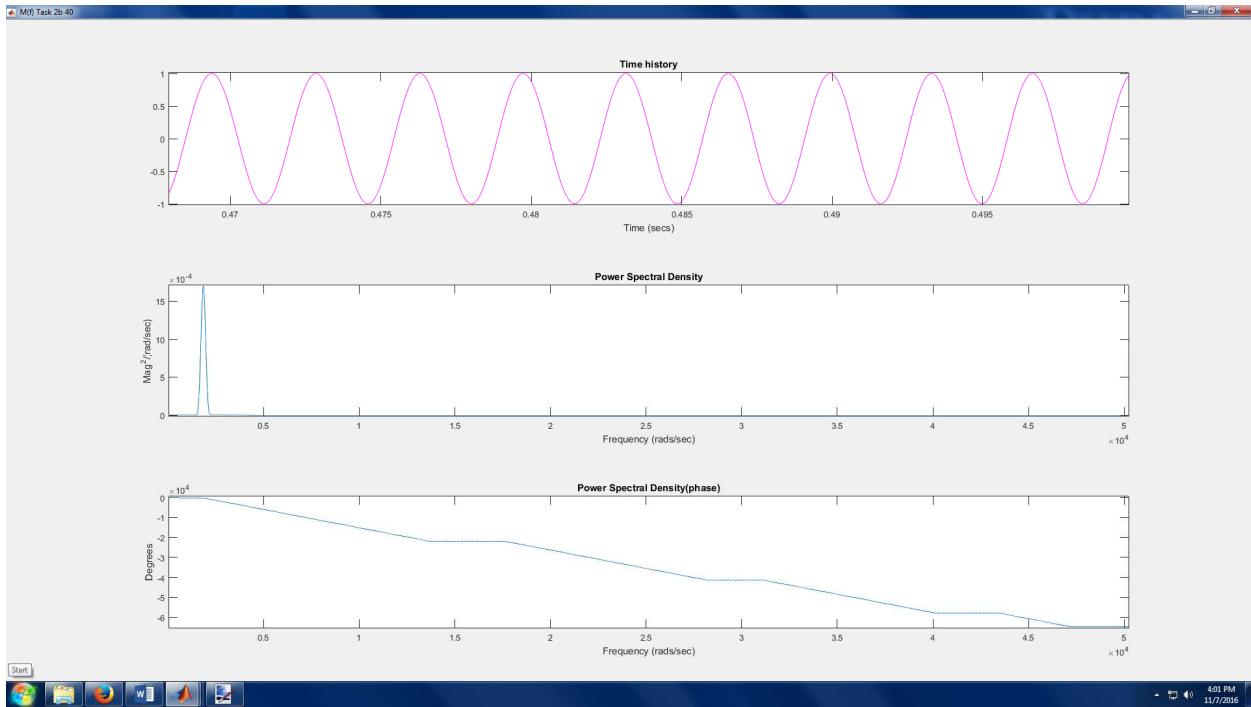
### 40dB Power Spectral Density for $\sim m(t)$ DSBSC



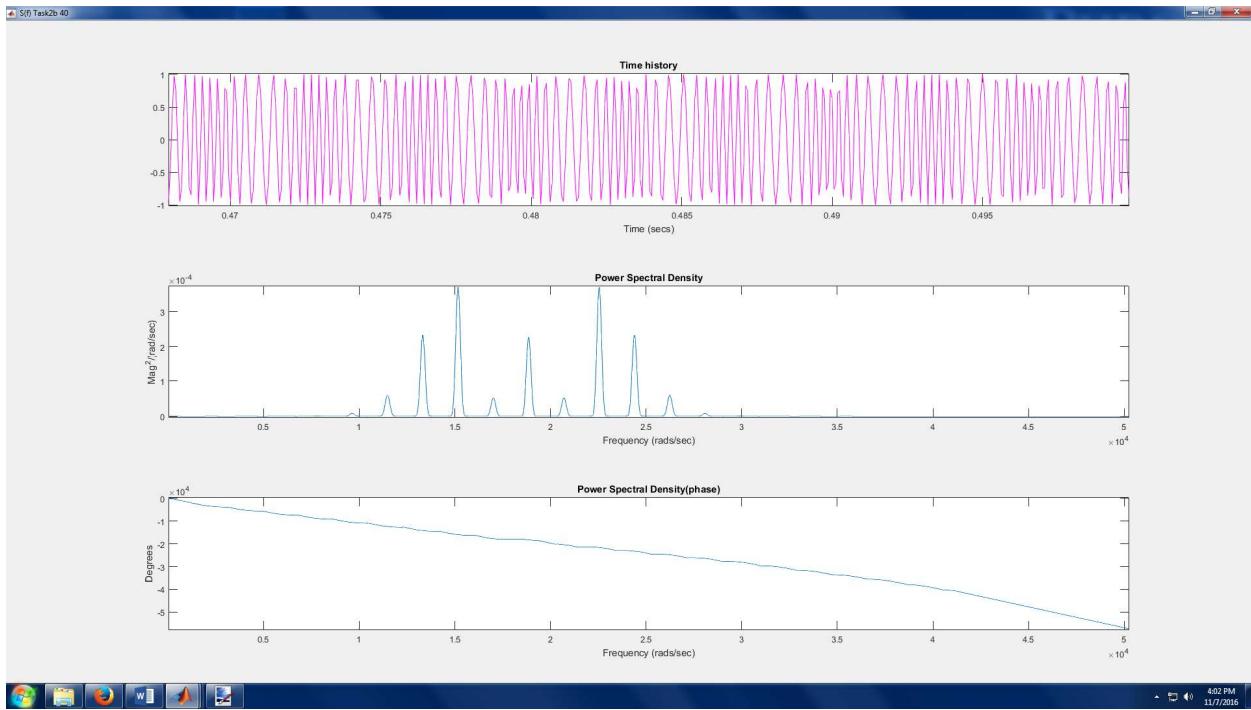
### 40dB Narrowband FM Scope (Top to bottom: $m(t)$ , $s(t)$ , $\sim m(t)$ )



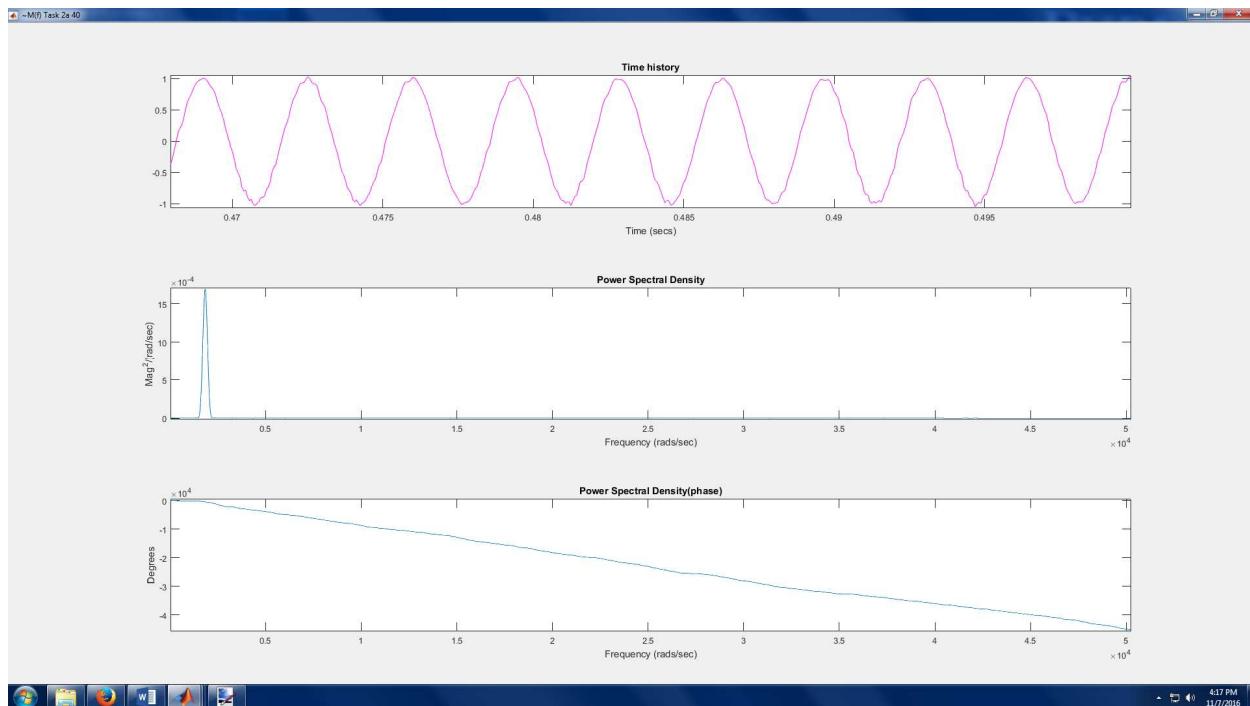
### 40dB Power Spectral Density for $m(t)$ Narrowband FM



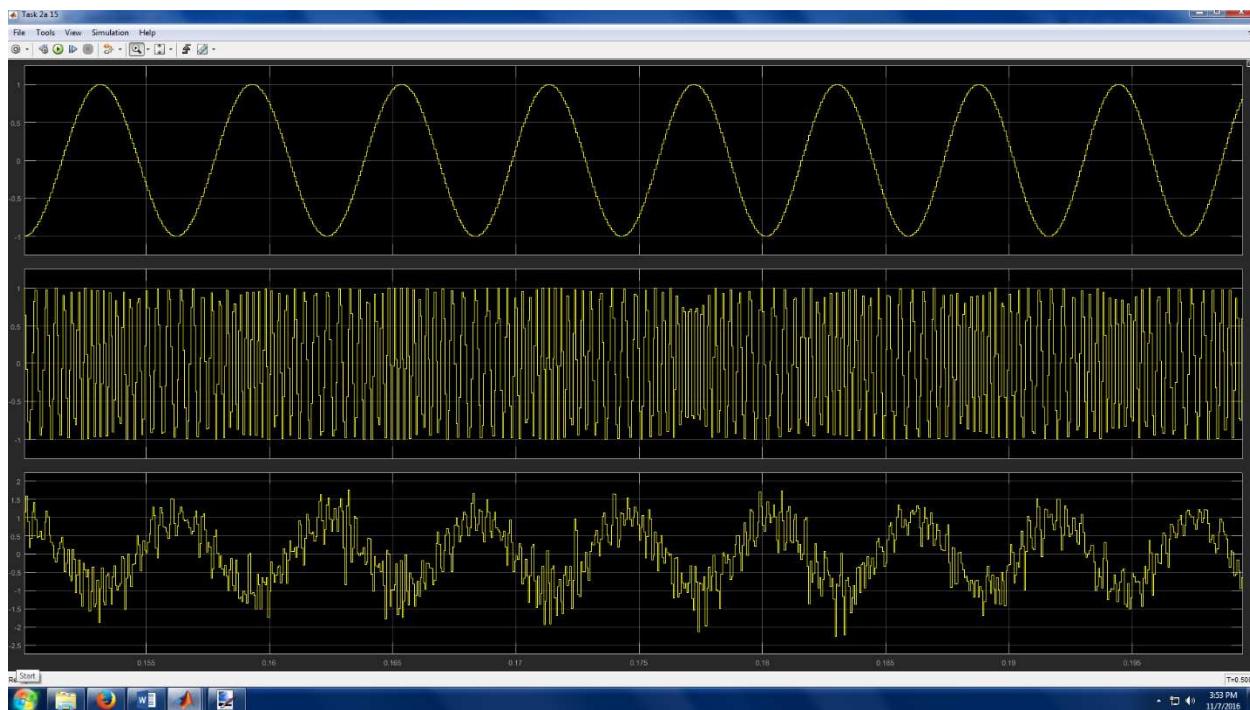
### 40dB Power Spectral Density for $s(t)$ Narrowband FM



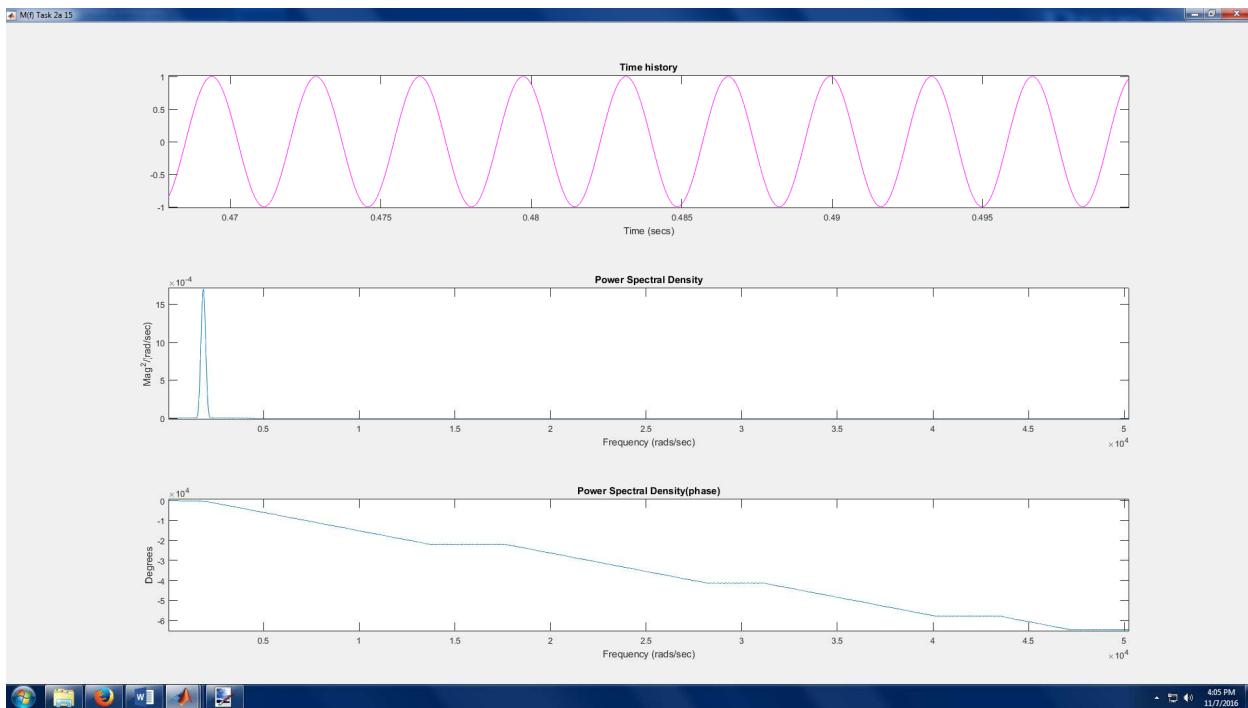
### 40dB Power Spectral Density for $\sim m(t)$ Narrowband FM



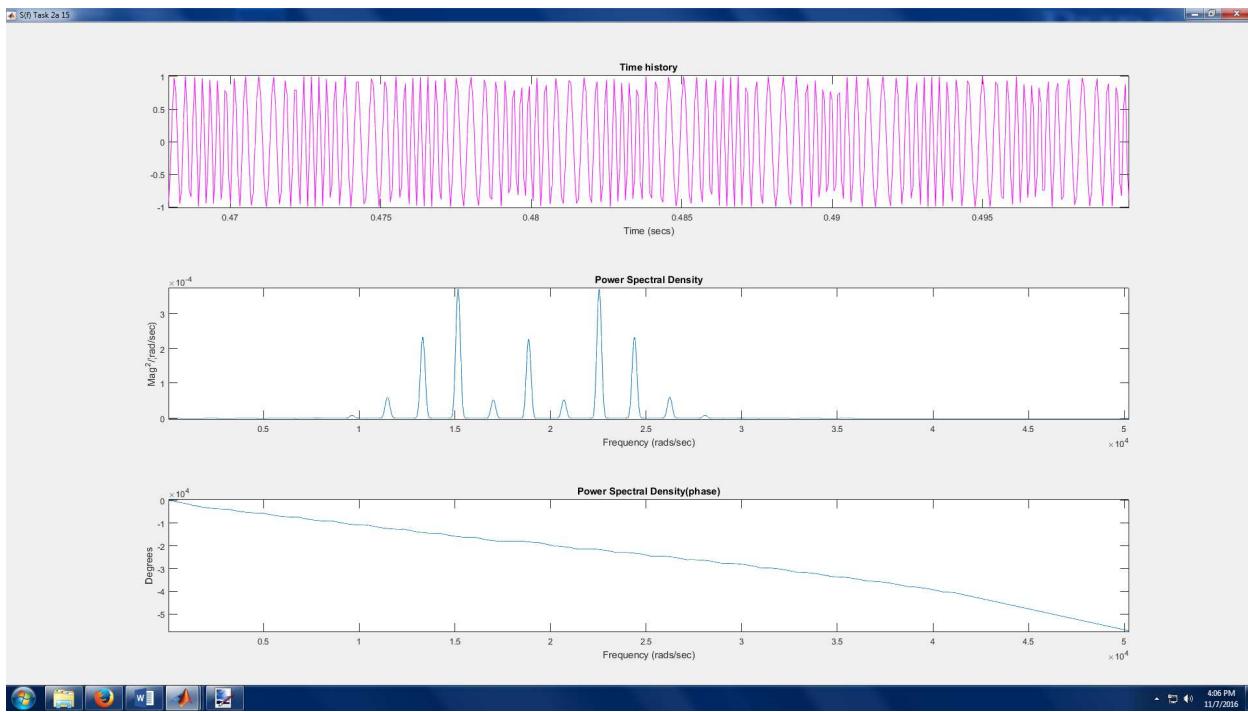
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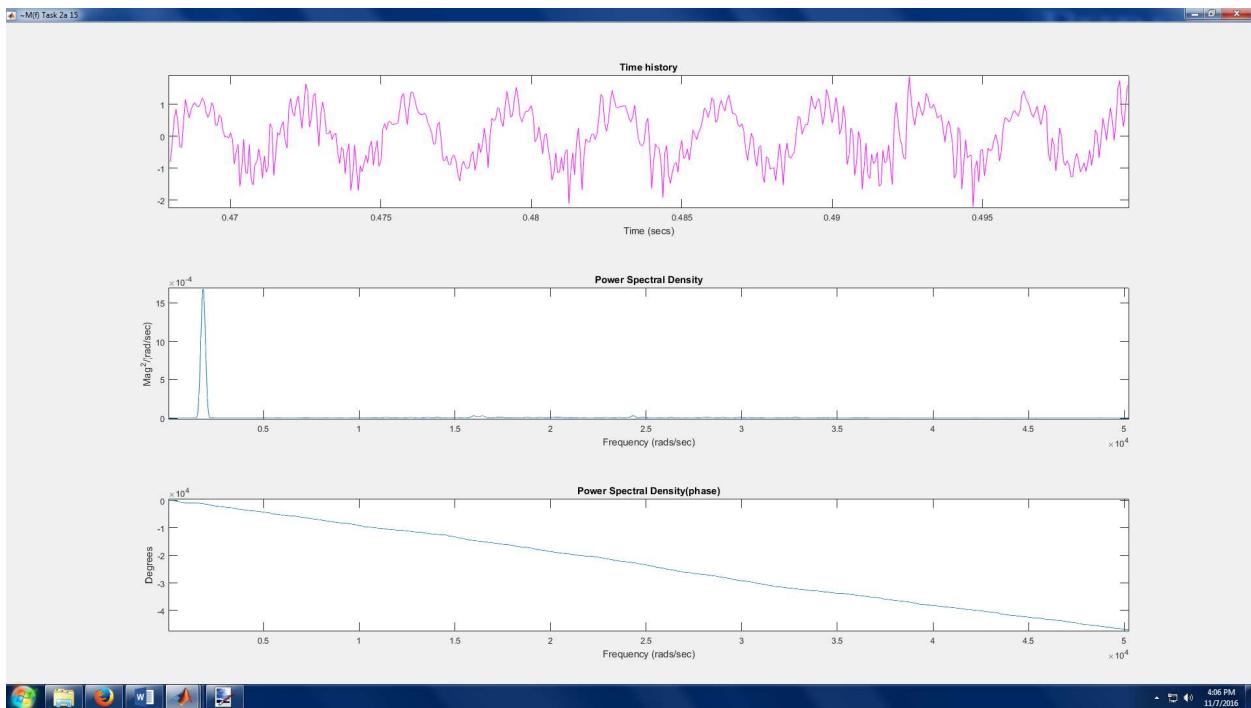
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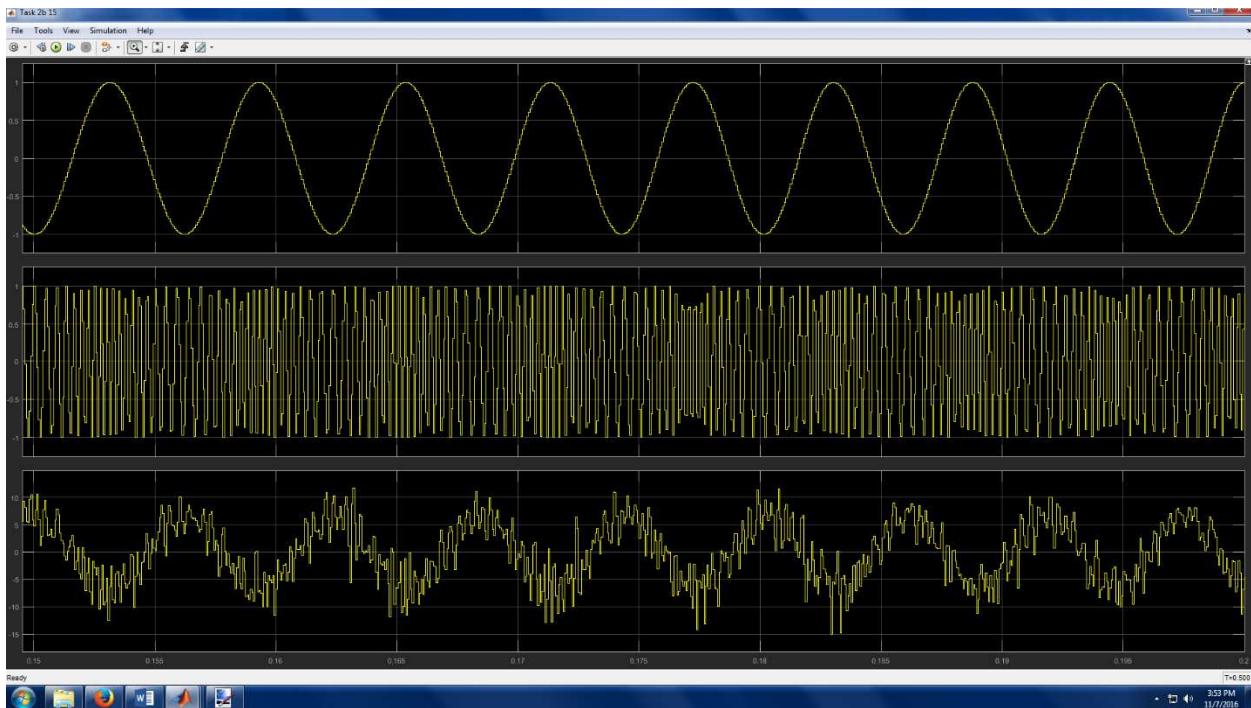
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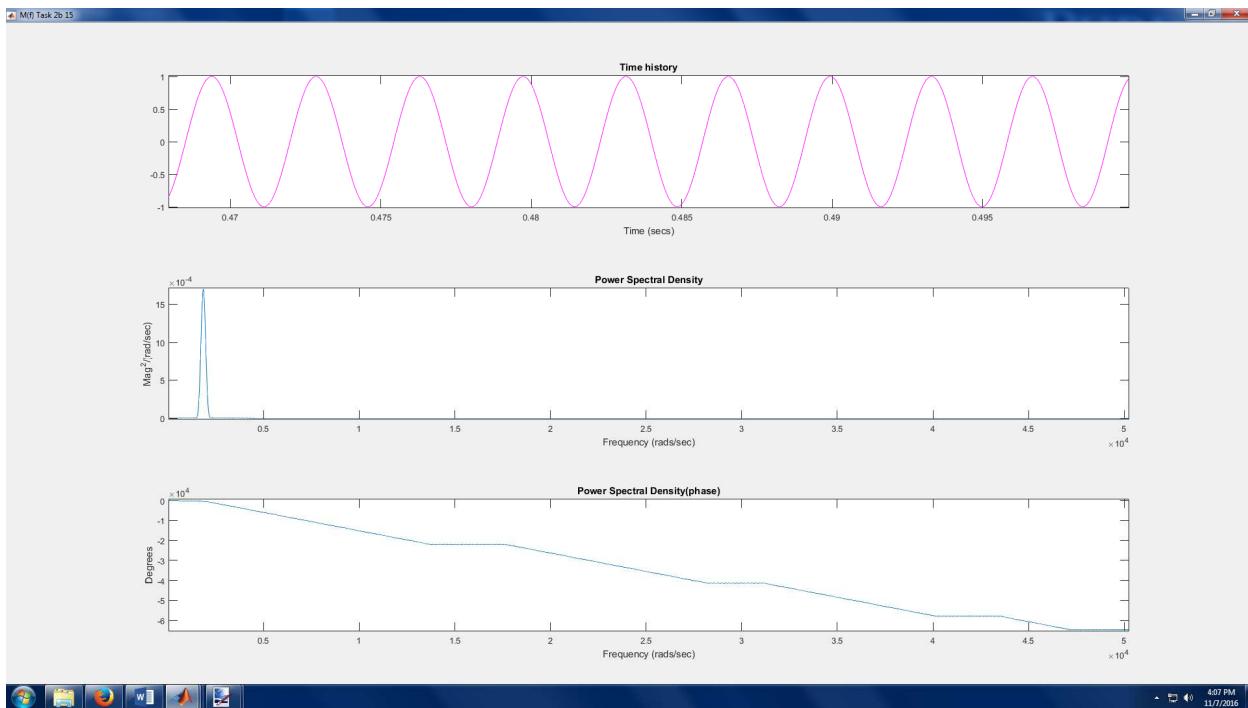
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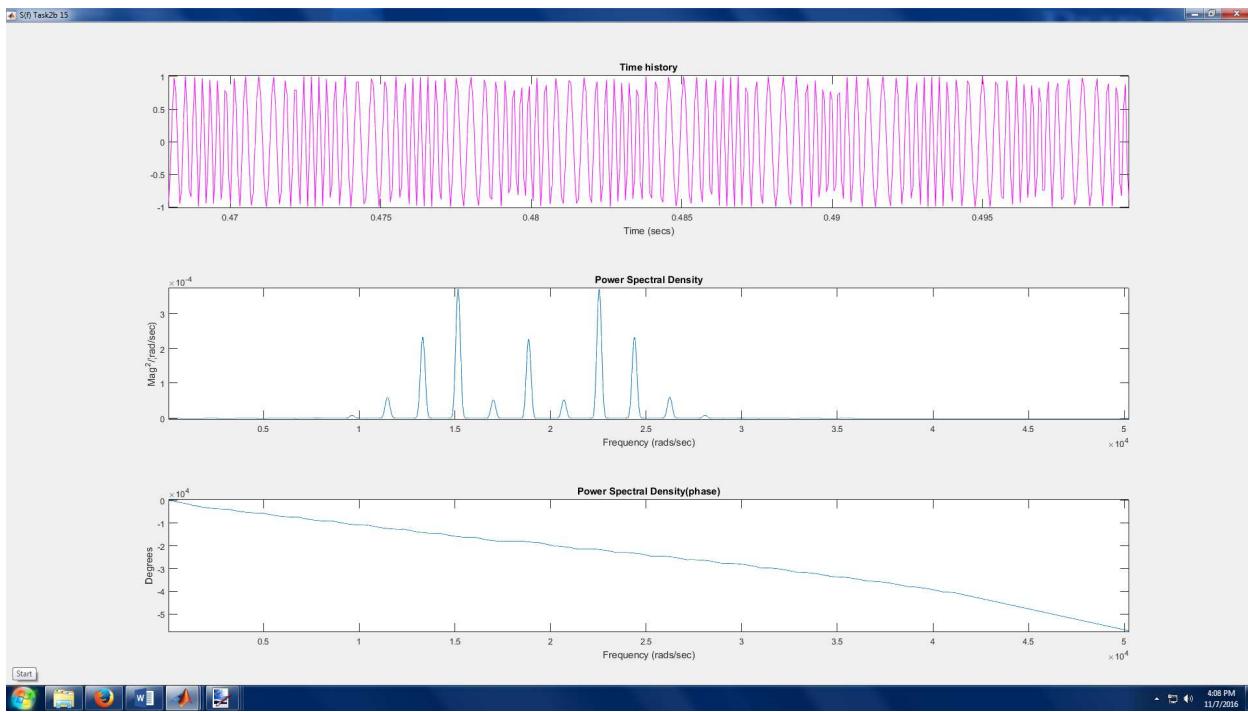
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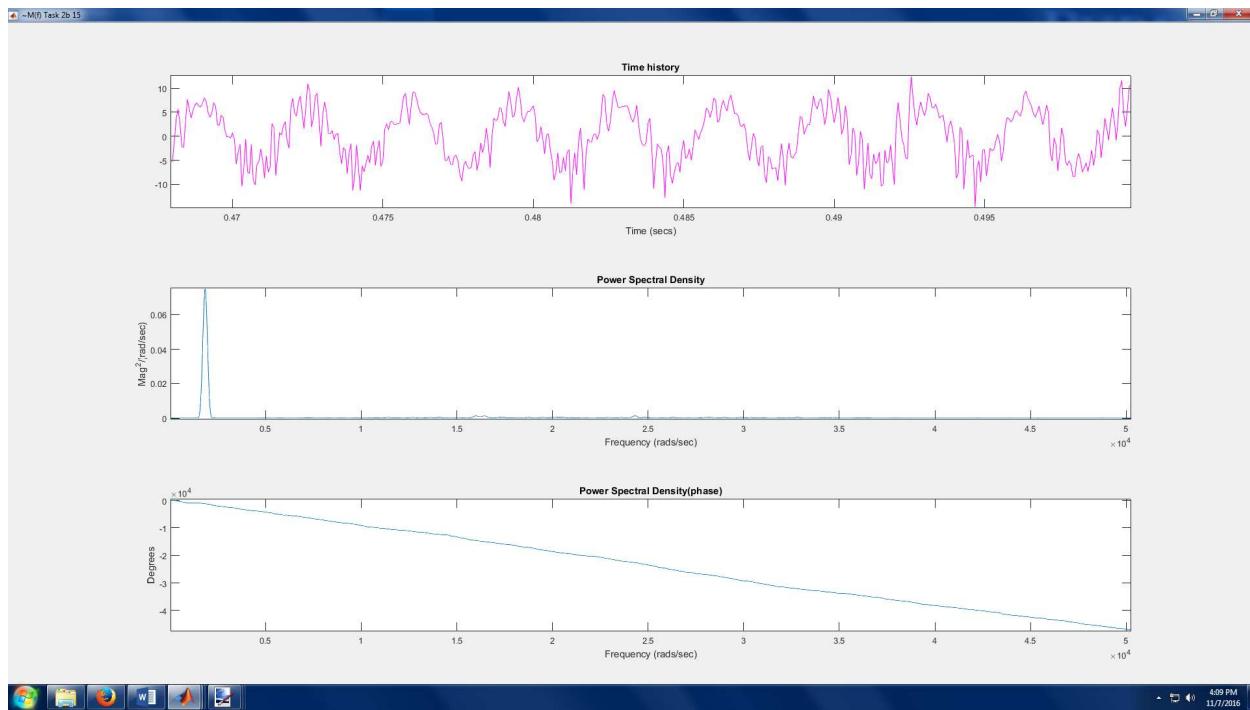
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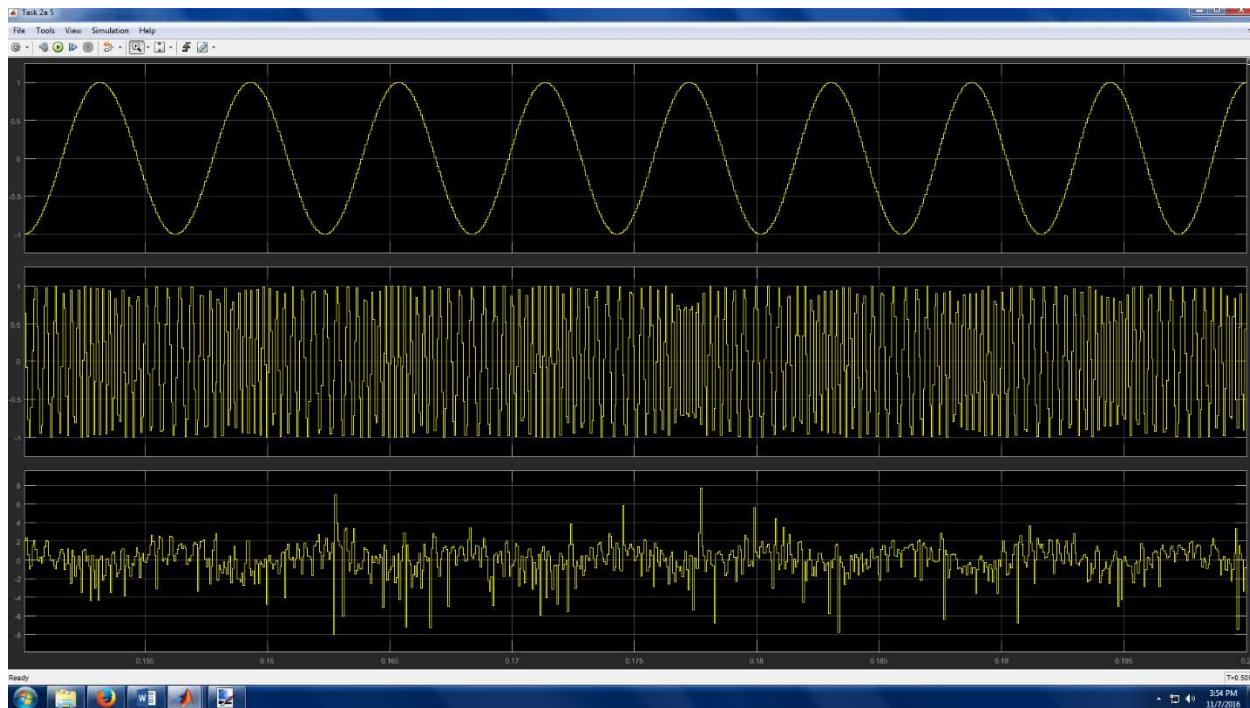
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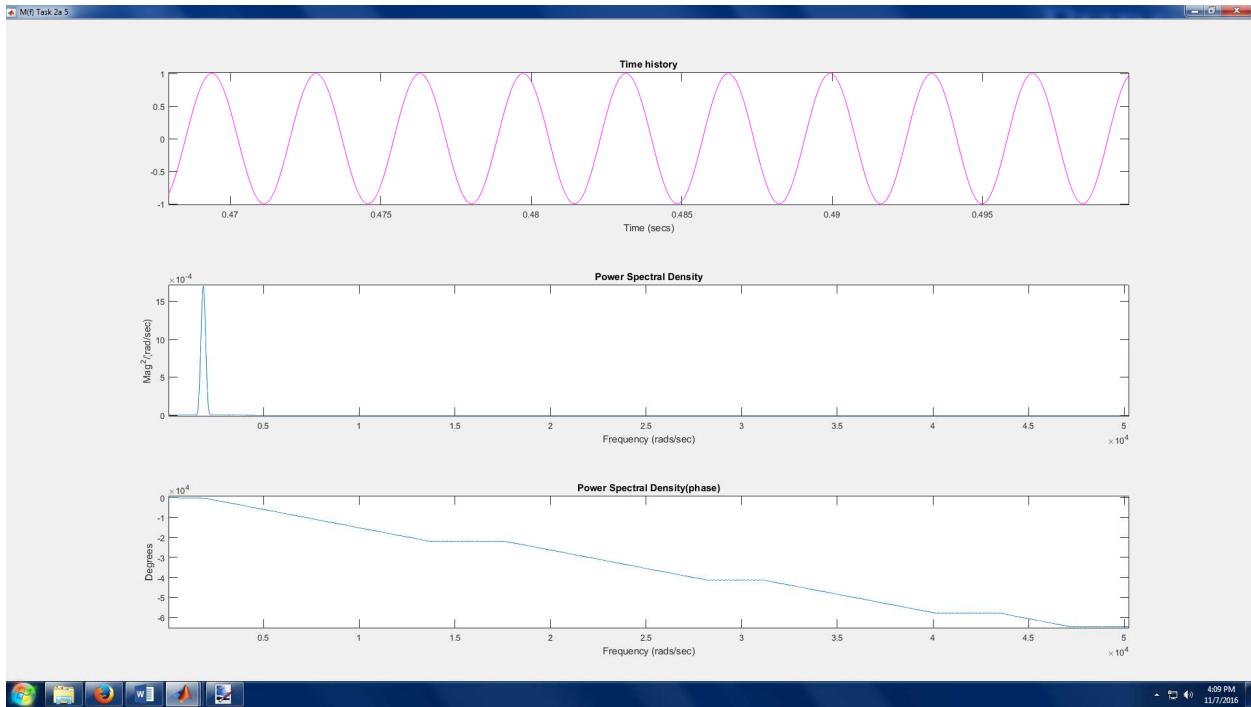
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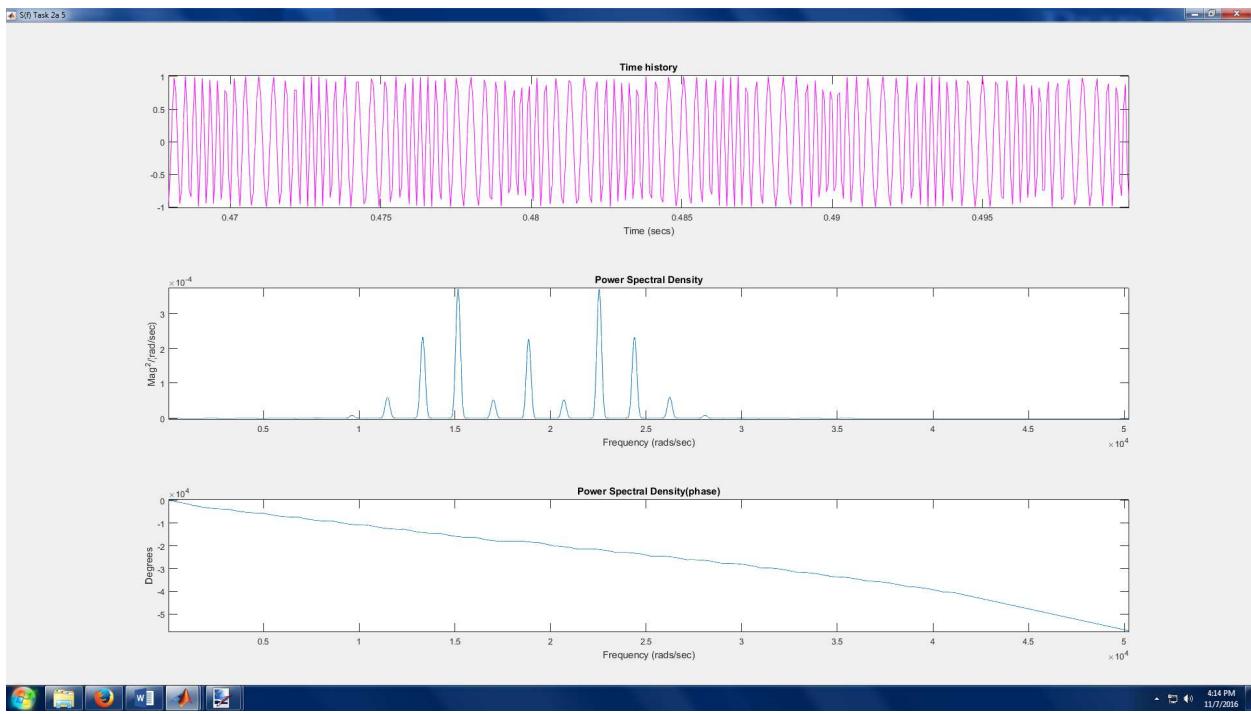
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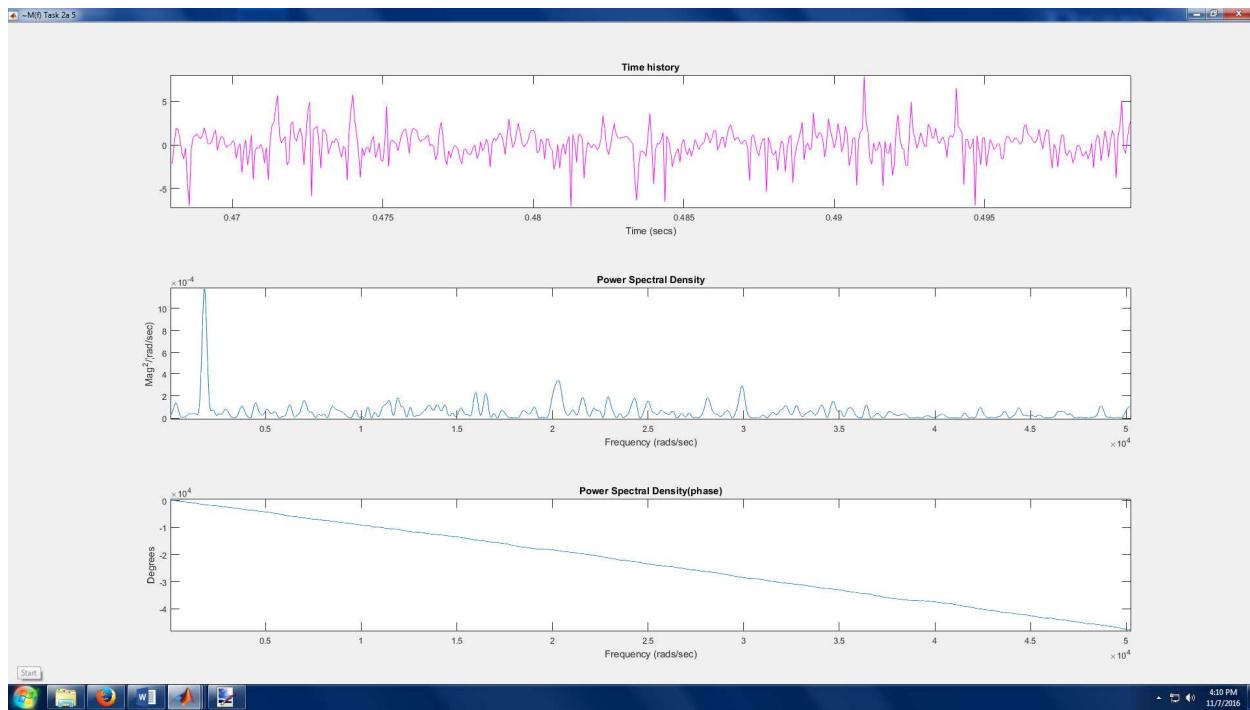
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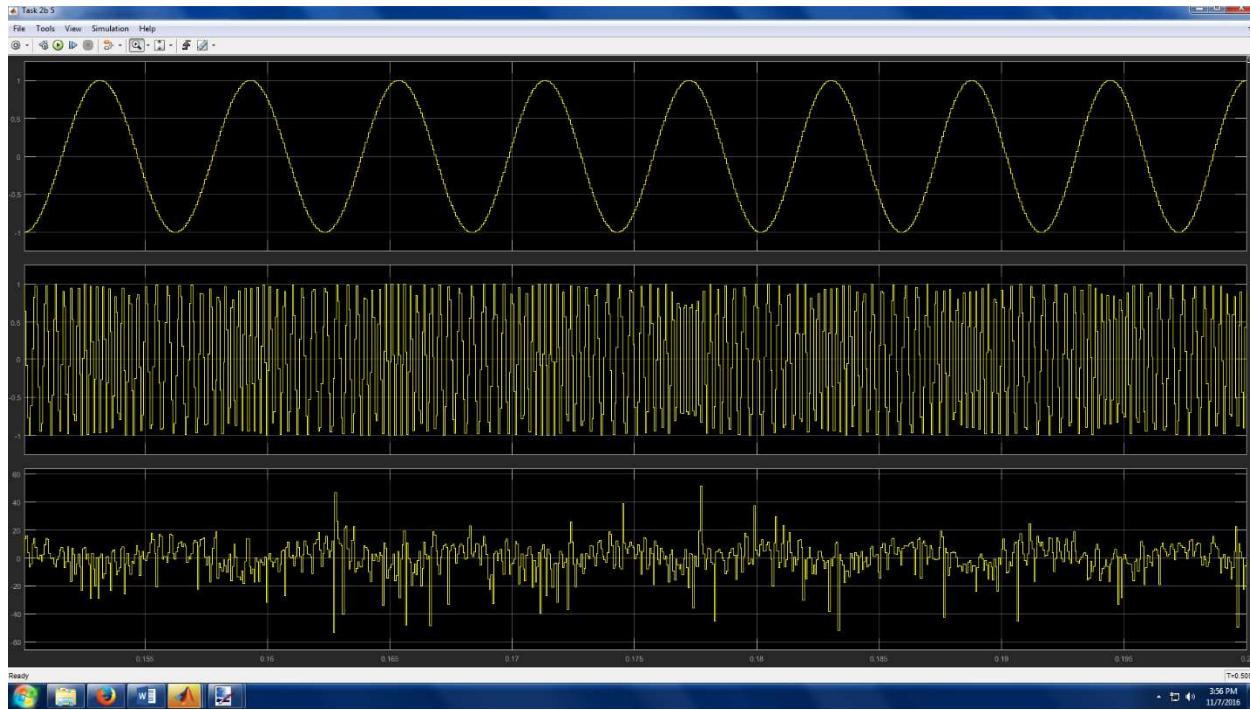
## 5dB Power Spectral Density for $s(t)$ Wideband FM



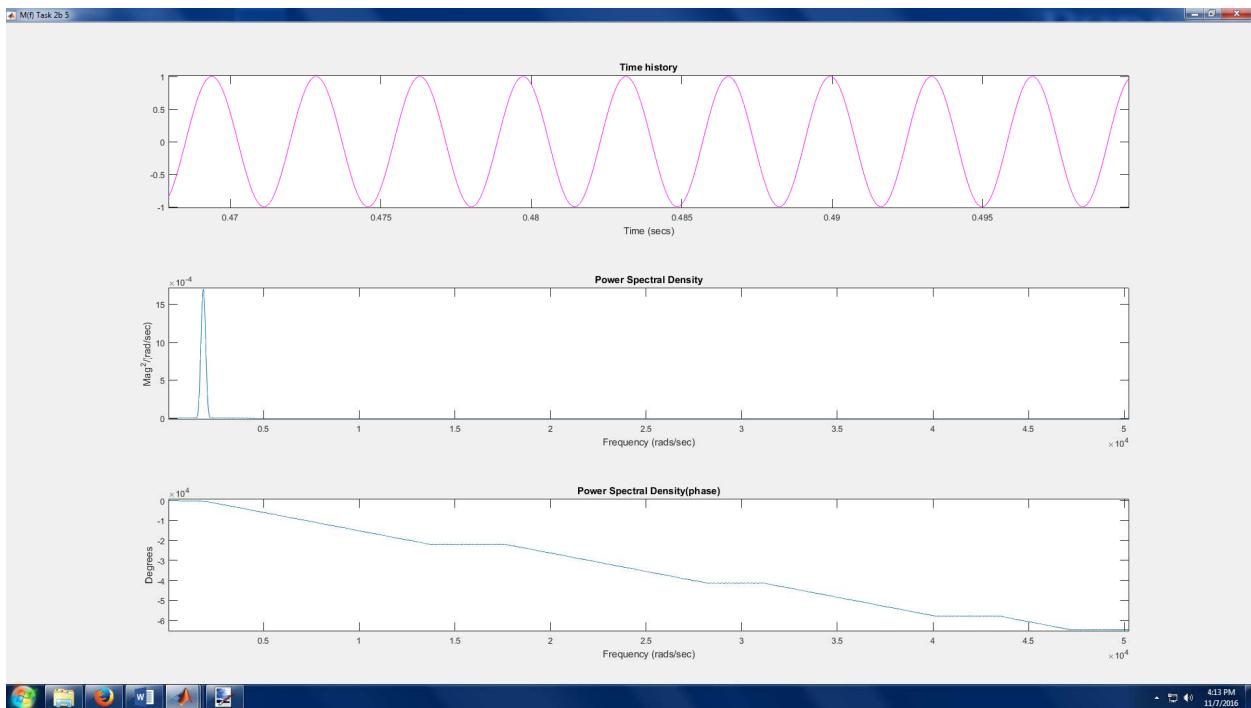
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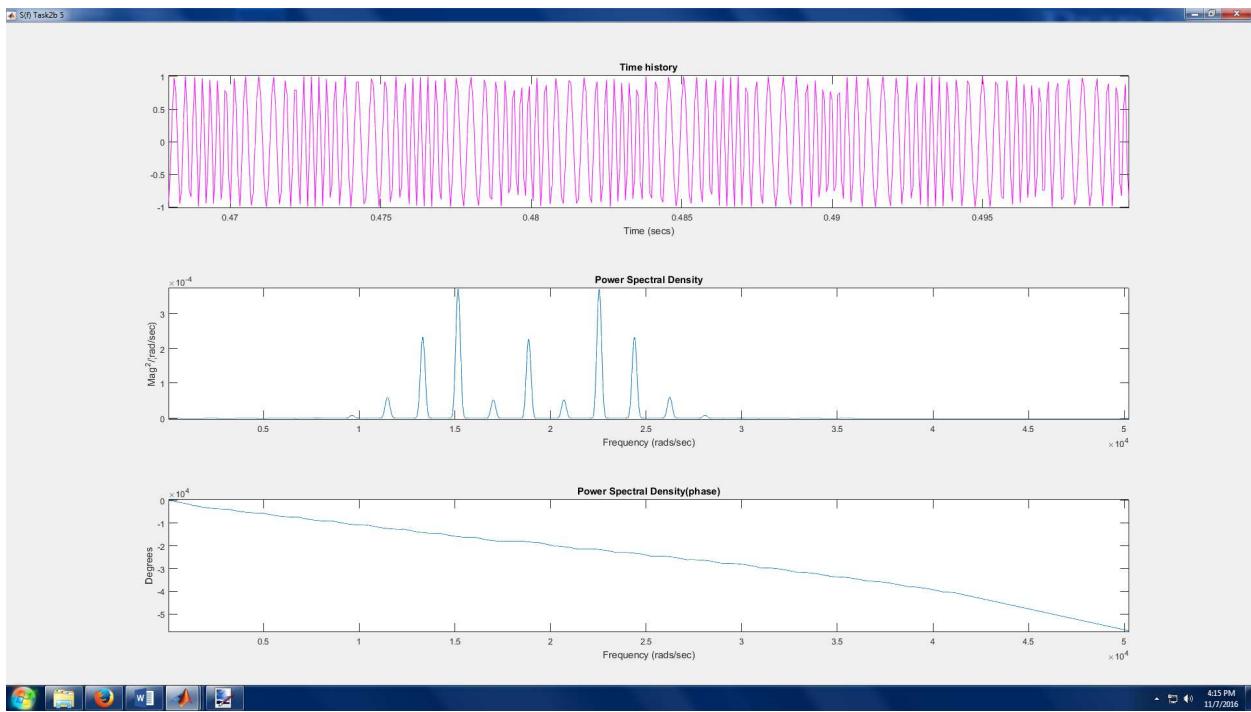
5dB Narrowband FM Scope (Top to bottom:  $m(t)$ ,  $s(t)$ ,  $\sim m(t)$ )



## 5dB Power Spectral Density for $m(t)$ Narrowband FM



## 5dB Power Spectral Density for $s(t)$ Narrowband FM



## 5dB Power Spectral Density for $\sim m(t)$ Narrowband FM

