Códigos

passa\_faixa.m

|  |
| --- |
| **function** h **=** passa\_faixa**(**deltaf**,** fc1**,** fc2**,** fs**)**  h **=** conv**(**passa\_alta**(**deltaf**,** fc1**,** fs**),** passa\_baixa**(**deltaf**,** fc2**,** fs**));**  **endfunction** |

rejeita\_faixa.m

|  |
| --- |
| **function** h **=** rejeita\_faixa**(**deltaf**,** fc1**,** fc2**,** fs**)**  hpf **=** passa\_faixa**(**deltaf**,** fc1**,** fc2**,** fs**);**  N **=** numel**(**hpf**);**  n**=-(**N**-**1**)/**2**:(**N**-**1**)/**2**;**  delta**=**zeros**(**size**(**n**));**  delta**(**n**==**0**)** **=** 1**;**  h **=** delta **-** hpf**;**  **endfunction** |

passa\_baixa.m

|  |
| --- |
| **function** h **=** passa\_baixa**(**deltaf**,** fc**,** fs**)**  # Trecho para arredondar para o numero impar  n **=** ceil**(**fs**/**deltaf**);**  **if** **(**rem**(**n**,** 2**)** **==** 0**)**  n **=** n **+** 1**;**  endif  x **=** **-((**n**-**1**)/**2**):**1**:((**n**-**1**)/**2**);**  x**(**x**==**0**)** **=** 10e-10**;**  h **=** sin**(**x**\***2**\***pi**\***fc**/**fs**)./(**pi**\***x**);**  **endfunction** |

passa\_alta.m

|  |
| --- |
| **function** h **=** passa\_alta**(**deltaf**,** fc**,** fs**)**  h **=** passa\_baixa**(**deltaf**,** fc**,** fs**);**  N **=** numel**(**h**);**  n**=-(**N**-**1**)/**2**:(**N**-**1**)/**2**;**  impulso **=** zeros**(**size**(**n**));**  impulso**(**n**==**0**)** **=** 1**;**  h **=** impulso **-** h**;**  **endfunction** |

Resposta em frequência

aula\_09.m

|  |
| --- |
| clear**;**  clc**;**  deltaf **=** 200**;**  fc1 **=** 500**;**  fc2 **=** 4e3**;**  fs **=** 16e3**;**  h **=** passa\_faixa**(**deltaf**,** fc1**,** fc2**,** fs**);**  figure**(**1**);**  freqz**(**h**,** 1**,** 1024**,** fs**);**  clear**;**  deltaf **=** 100**;**  fc1 **=** 3e3**;**  fc2 **=** 7e3**;**  fs **=** 20e3**;**  h **=** rejeita\_faixa**(**deltaf**,** fc1**,** fc2**,** fs**);**  figure**(**2**);**  freqz**(**h**,** 1**,** 1024**,** fs**);** |

Passa faixa:



Rejeita faixa:

