

Practicals in

Analog Communication

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4. Adjust frq. adj. pot so as to get 50KHz freq. on DSO
 6. Vary the freq. adj. pot so as to get 'X+0.5V' on DMM
 8. Vary the freq. adj. pot so as to get 'X-0.5V' on DMM
 10. Adjust freq. adj. pot so as to get back 50KHz freq. on DSO

2. Connect DMM
 5. Measure dc bias vtg. At 50KHz (say 'X' V)
 11. Disconnect DMM.

18. Vary freq. adj. pot so as to have 50KHz free running freq

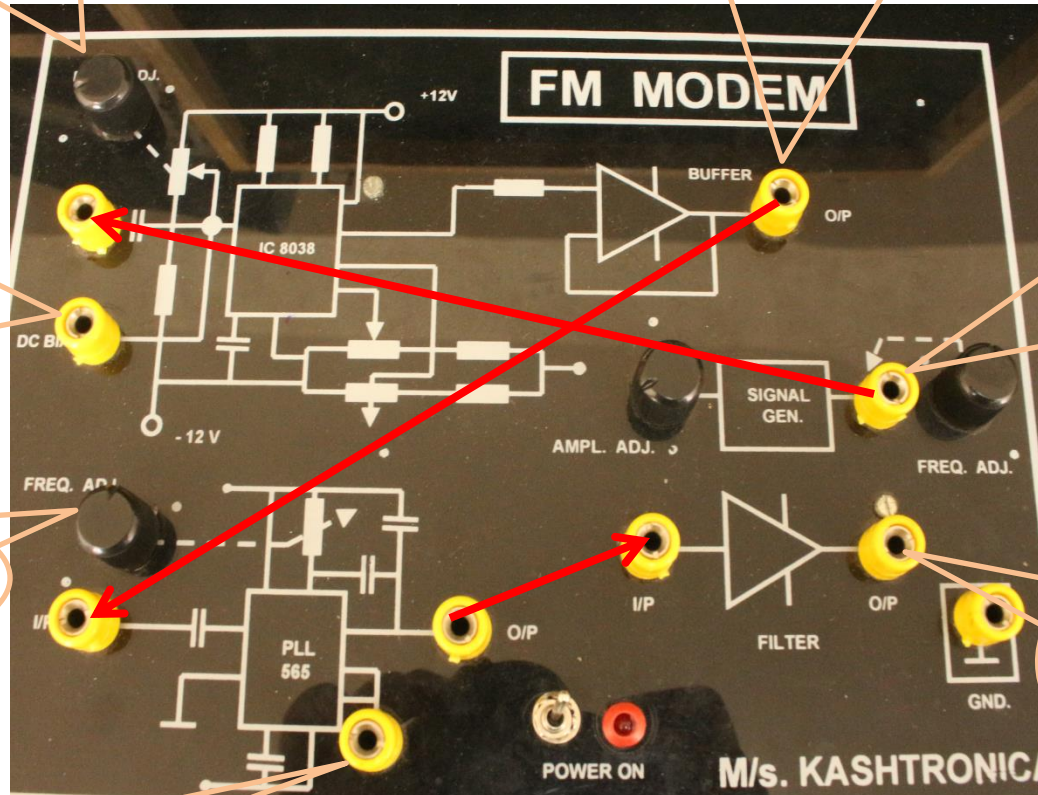
17. Connect DSO
 19. Disconnect DSO

12. Calculate frequency deviation and corresponding value of β .
 16. Repeat step 14 and 15 for at least two more values of β .

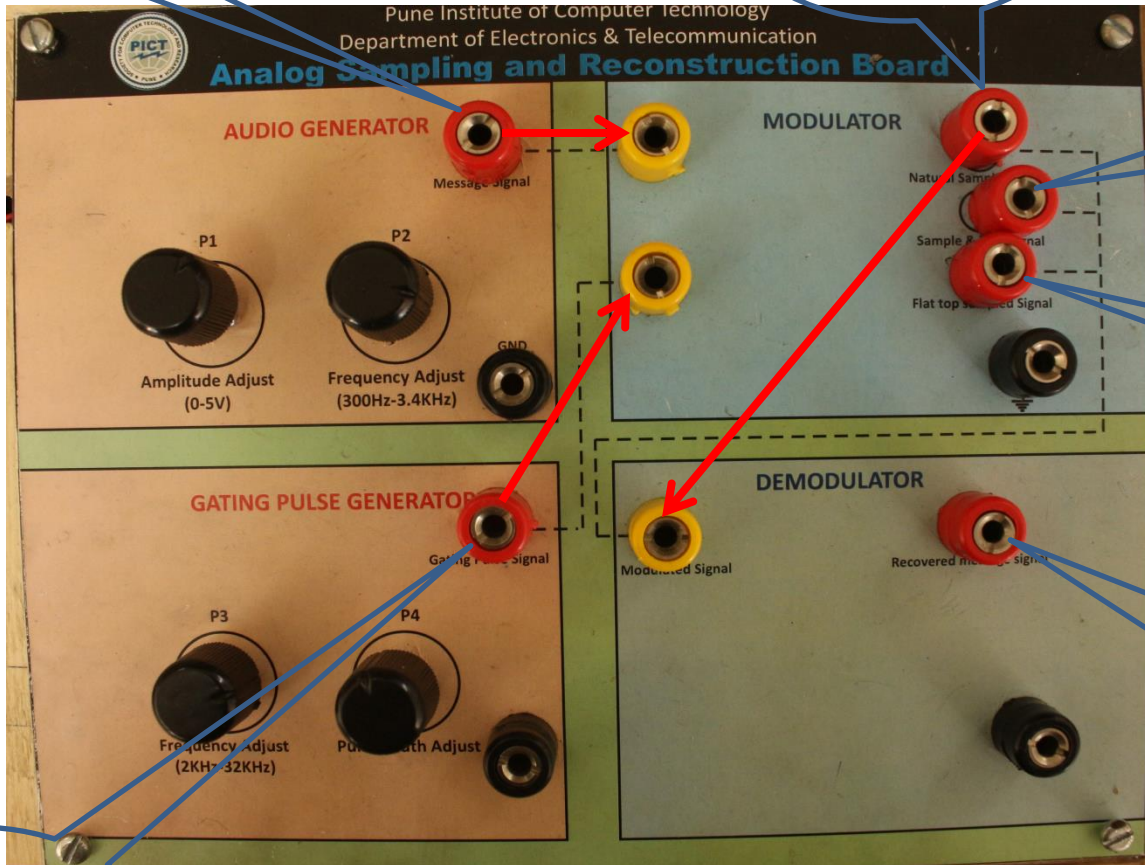
3. Connect DSO
 7. Note down the frequency F_1 for 'X+0.5V'
 9. Note down the frequency F_2 for 'X-0.5V'
 13. Observe FM signal and it's freq spectrum on DSO.
 15. Observe FM signal and it's freq spectrum on DSO for new value of β .

1. Adjust $1V_{p-p}$, 1KHz
 14. Change the modulating signal frequency so as to have another value of β .

20. Connect DSO
 21. Observe Recovered message signal



1. Connect DSO
2. Adjust 1-3KHZ message signal



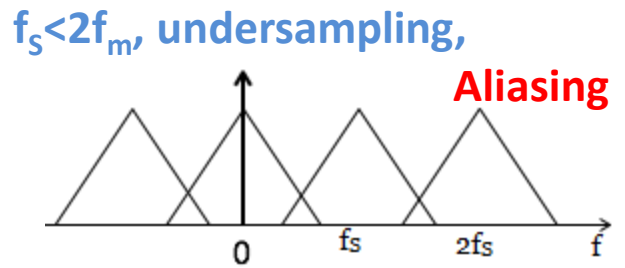
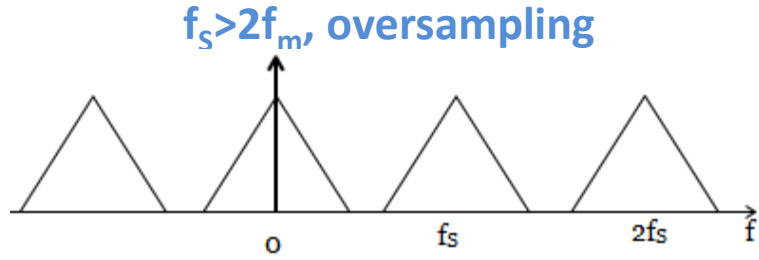
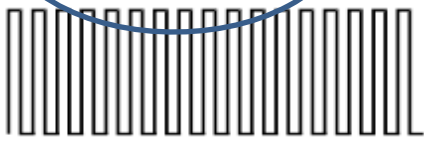
5. Connect DSO
6. Observe Natural sampled signal
7. Draw spectrum

8. Connect DSO
9. Observe sampled & hold signal
10. Draw spectrum

11. Connect DSO
12. Observe Flat top sampled signal
13. Draw spectrum

11. Connect DSO
12. Observe recovered message signal

3. Connect DSO
4. Adjust 16KHz, 50% duty cycle signal



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Analog Sampling and reconstruction