

Superhetrodyne receiver

Lecture-30

TDC PART -1

PAPER 1(GROUP B)

Chapter -6

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Superheterodyne receiver

- A superheterodyne receiver, often shortened to superhet, is a type of radio receiver that uses frequency mixing to convert a received signal to a fixed intermediate frequency (IF) which can be more conveniently processed than the original carrier frequency.



Superheterodyne receiver principle

- The superheterodyne receiver is the most common configuration for radio communication. Its basic principle of operation is the translation of all received channels to an intermediate frequency (IF) band where the weak input signal is amplified before being applied to a detector.



Super in Superheterodyne

- Super stands for super sonic frequencies (Very very High frequencies) which are generated by beating incoming Rf signal with local oscillator frequencies.



Difference between Heterodyne and Superheterodyne

- A superheterodyne receiver contains a combination of amplification with frequency mixing, and is by far the most popular architecture for a microwave receiver. To heterodyne means to mix two signals of different frequencies together, resulting in a "beat" frequency.

