

E157 Lecture 23 Day Plan

Any questions before quiz

Clarify that conversion gain includes splitting power between tone and image.

Quiz + Team Quiz + Talk through solution

Discuss assignment schedule

Do mixers work for signals with bandwidth instead of tones? – Yes, AM modulation

Draw spectra for SSB mixer below

What LO frequencies make 20MHz IF from 40MHz RF? – 20MHz and 60MHz: LO can be either high side injection or low side injection

What's a tracking generator for? Relate to S-parameters – Makes a scalar VNA

Check-in, office hours

https://commons.wikimedia.org/wiki/File:SSB_and_Image_Rejection_Mixer.svg

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Single Sideband Mixer

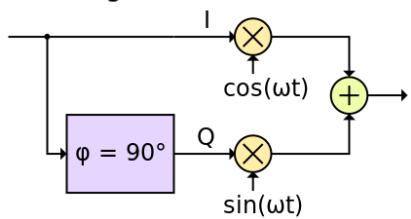


Image Rejection Mixer

