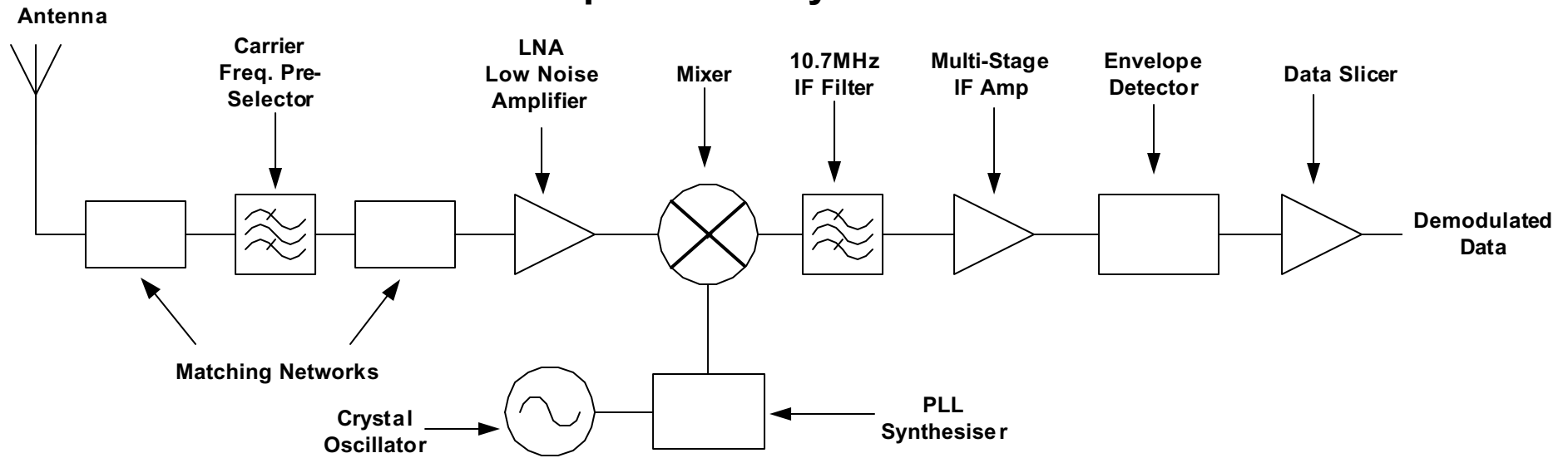


# Super-Heterodyne Receiver



| Block                  | Purpose   | Example   |
|------------------------|---|---|
| Antenna                | Capture radiated RF energy and couple energy into receiver front end.   | PCB trace, Rigid wire, External wire              |
| Frequency Pre-Selector | Suppress image frequency and out of band jamming sources.               | SAW (Surface Acoustic Wave) Filter.               |
| Matching Networks      | Transfer maximum energy between the different stages                    | LC network, Integrated filter components.         |
| Low Noise Amplifier    | Provide RF signal amplification with minimum noise.                     | Cascode Amplifier.                                |
| Mixer                  | Convert the input frequency (RF) to an intermediate frequency (IF).     | Double Balanced Mixer                             |
| IF Filter              | Set System Bandwidth  | Ceramic, LC networks.                             |
| IF Cascaded Amplifiers | Provide IF signal amplification   | Cascode Amplifiers                                |
| Envelope Detector      | Convert IF frequency to DC voltage levels.                              | Diode detector with low pass filter.              |
| Data Slicer            | Condition demodulated data to logic levels for microprocessor decoding. | Operational Amplifiers using RC timing components |