System Block Diagram:
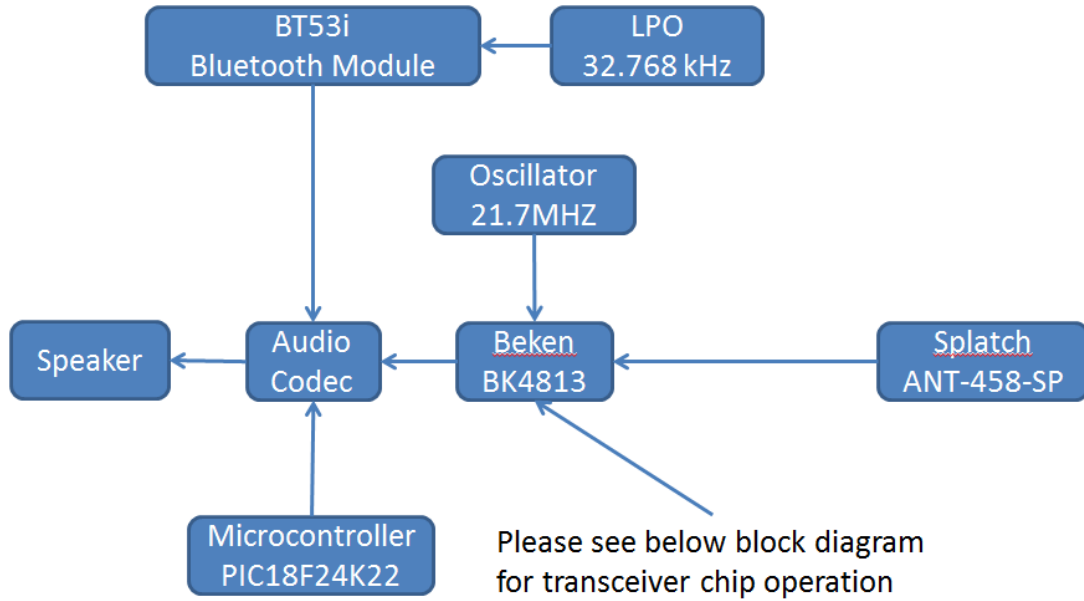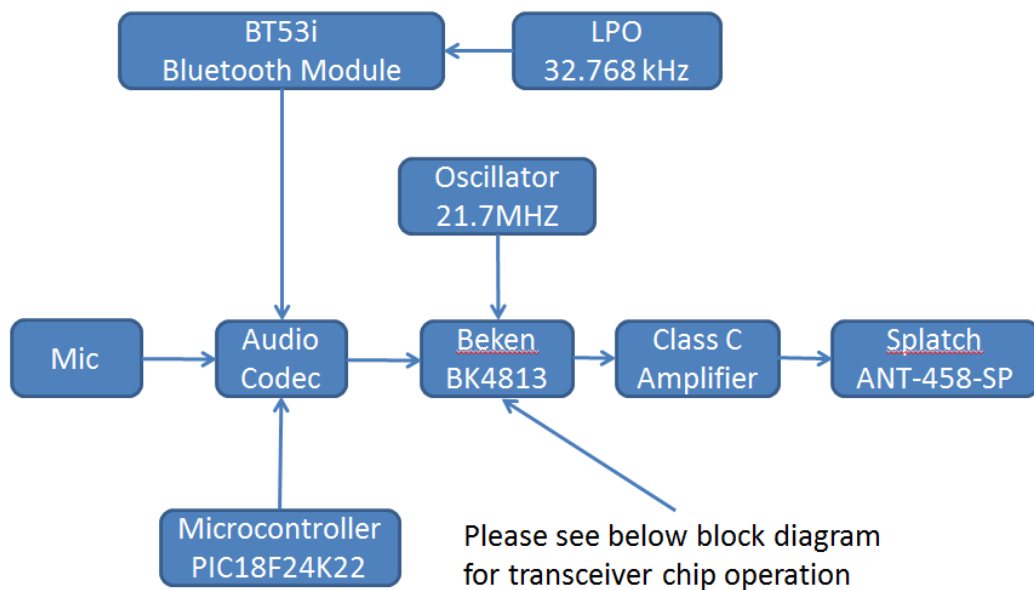
Transmit:

Receive:

Radio Block Diagram: