

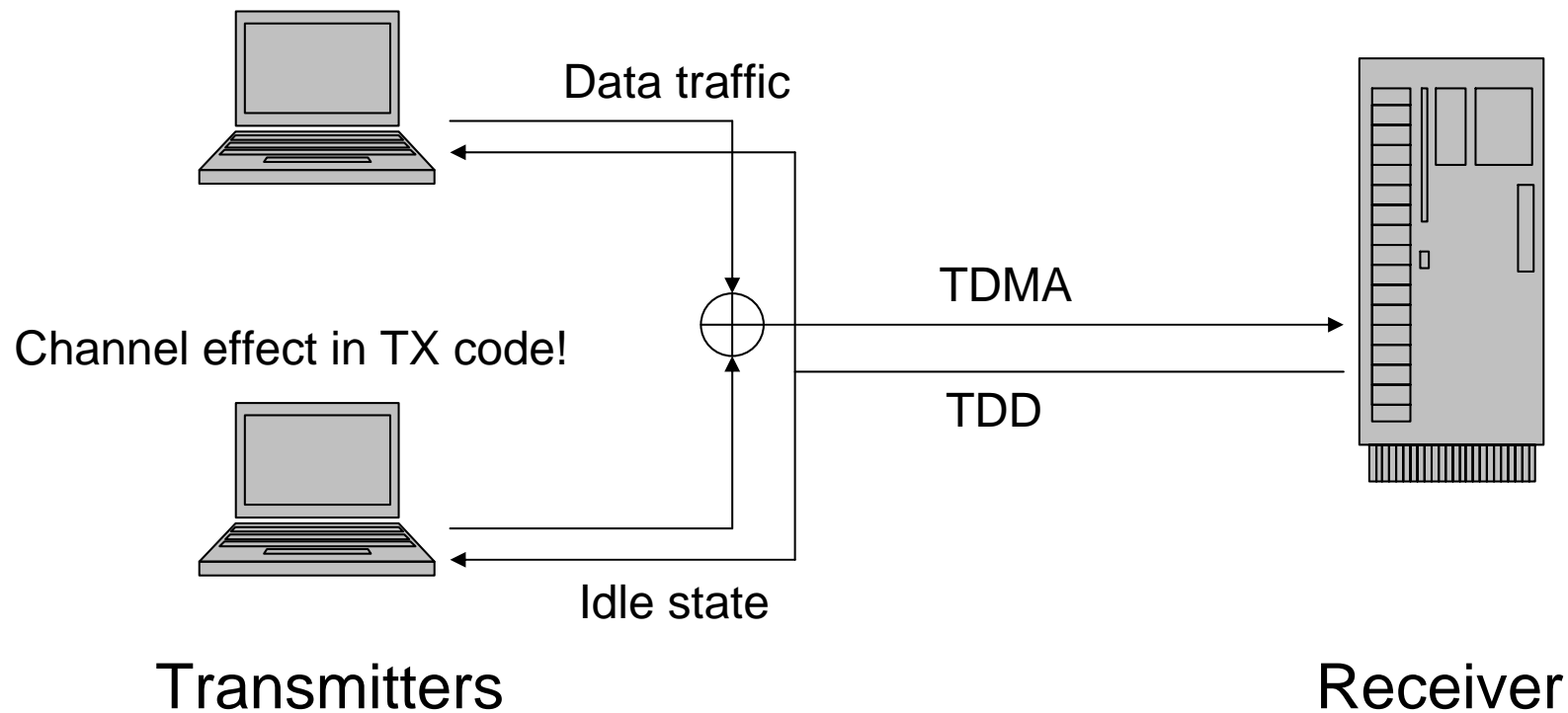
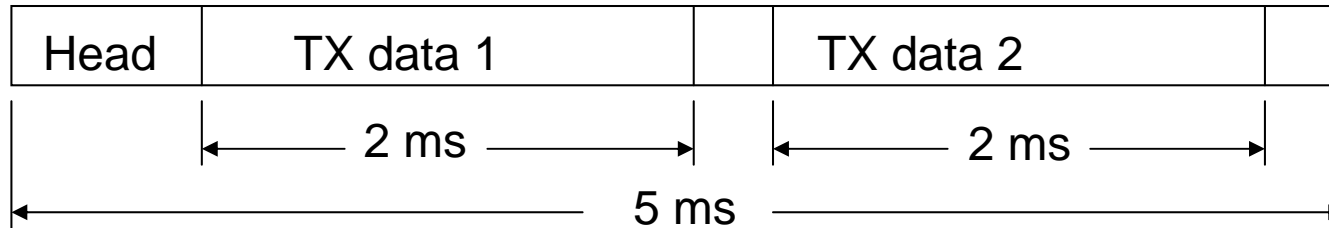
WAND Proposal

Liang Dong

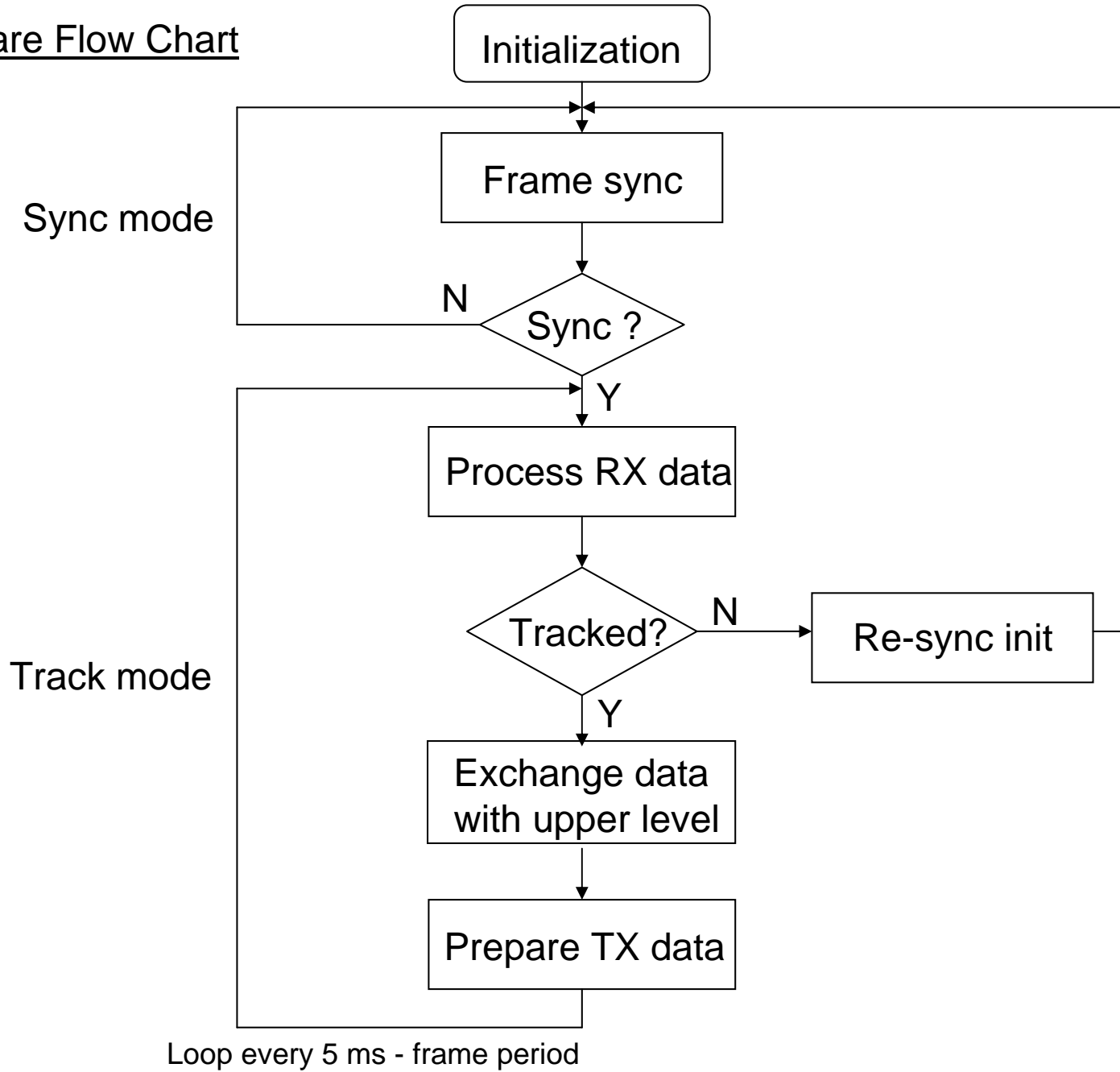
December 12, 2002

1. PC-Based Baseband Transmitter / Receiver
2. Using Agilent Signal Generator and Signal Analyzer

PC-Based Baseband Transmitter / Receiver (Asymmetric)

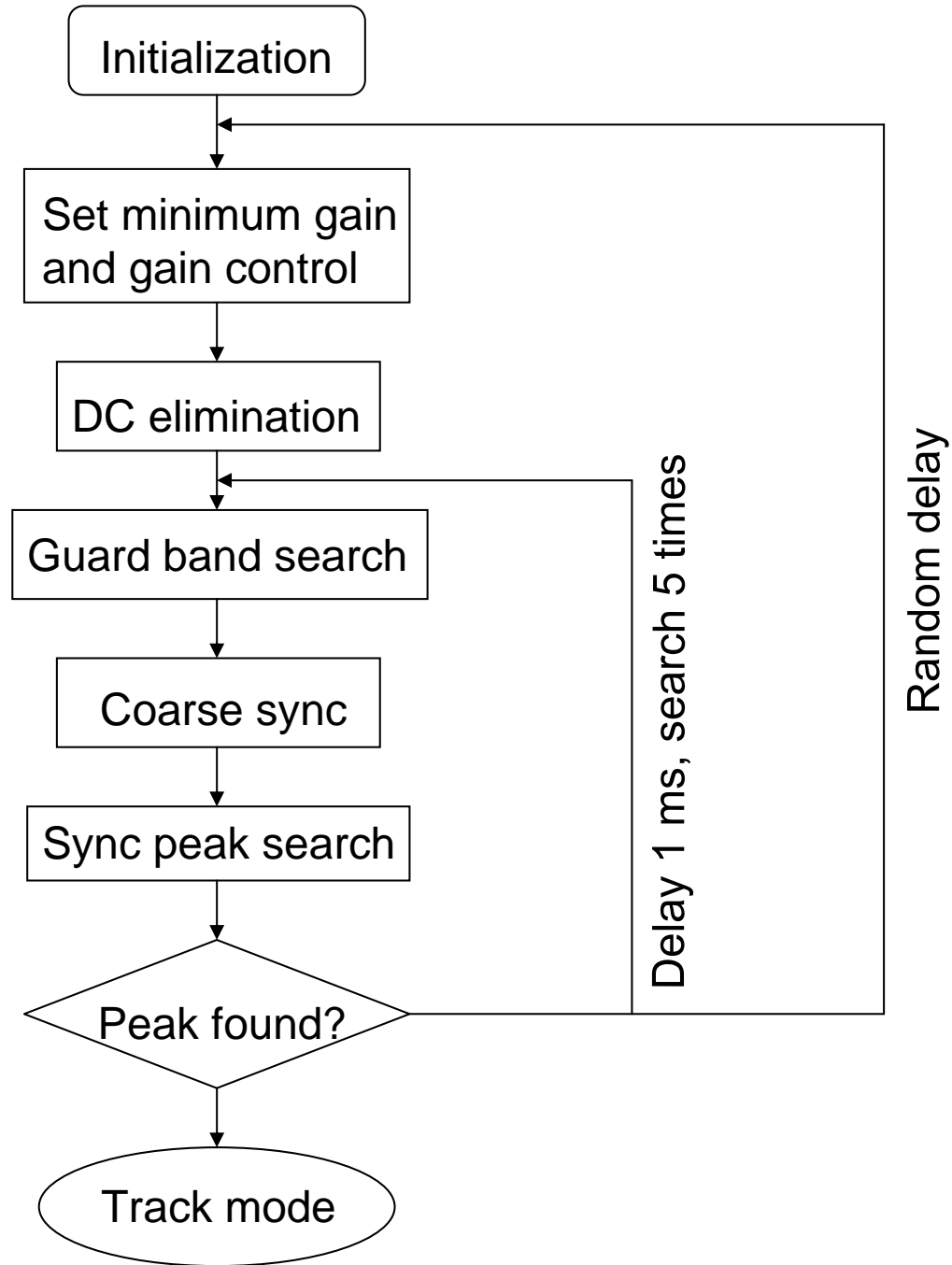


Software Flow Chart

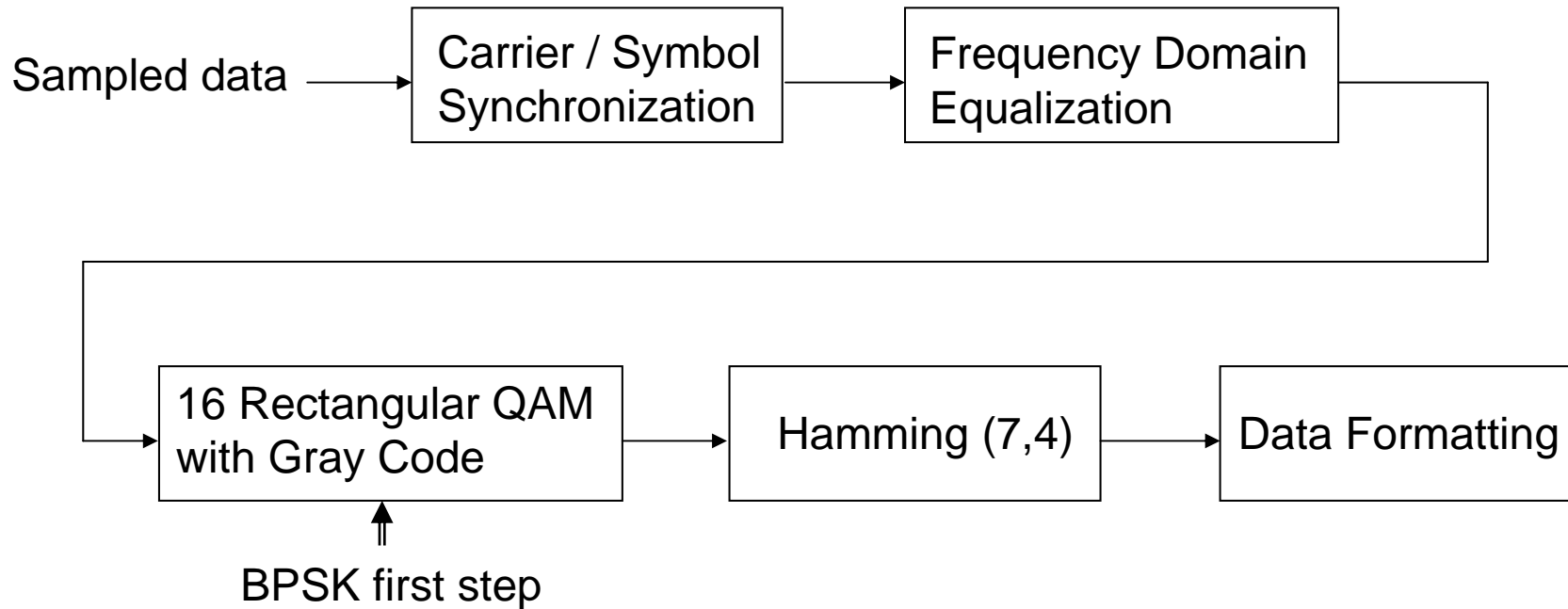


Loop every 5 ms - frame period

Frame Sync Flow Chart



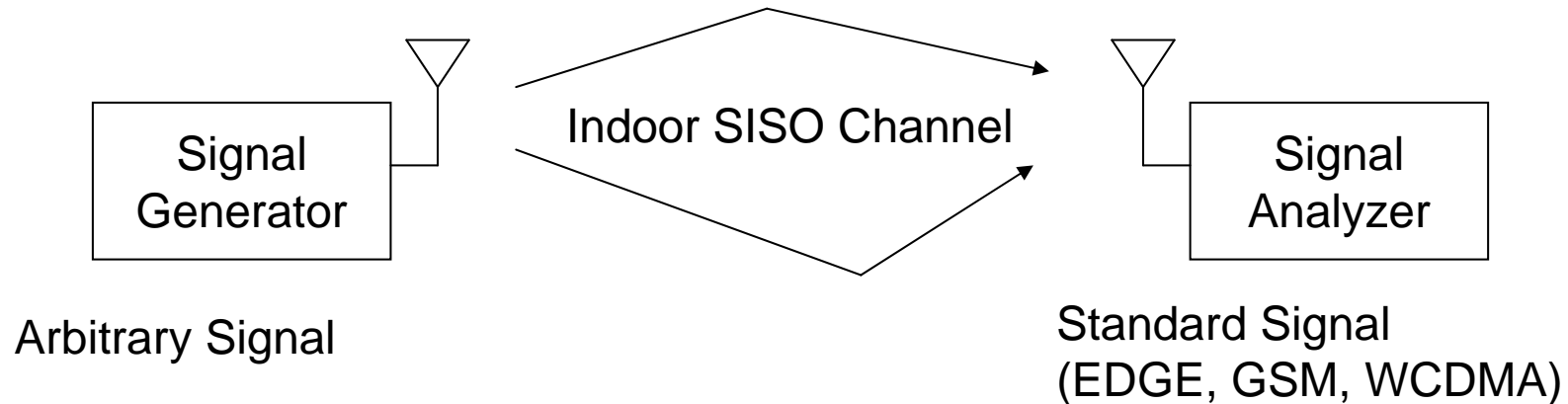
Receiver Block Diagram



Real-Time Display

- Received signal spectrum and spectrogram (SISO links)
- BPSK demodulation, display eye diagram & constellation at low SNR
- Measure / display SNR accurately
- Histogram of demodulated symbols
- Bit stream of a group of detected binary bits

Using Signal Generator and Signal Analyzer



- Check simulated channel effect
- Check carrier / symbol sync (high SNR)
- Construct a standard TX signal