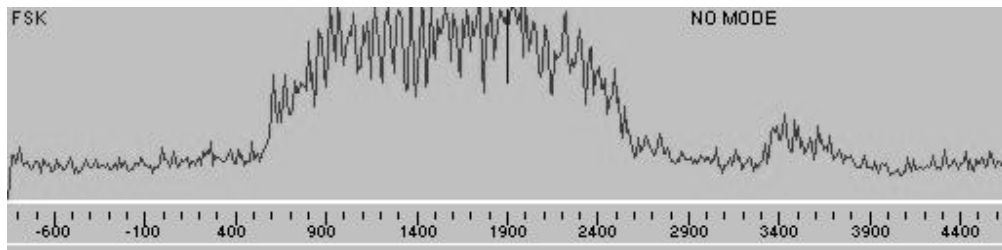


## ARD9800 OFDM 36ch Modem

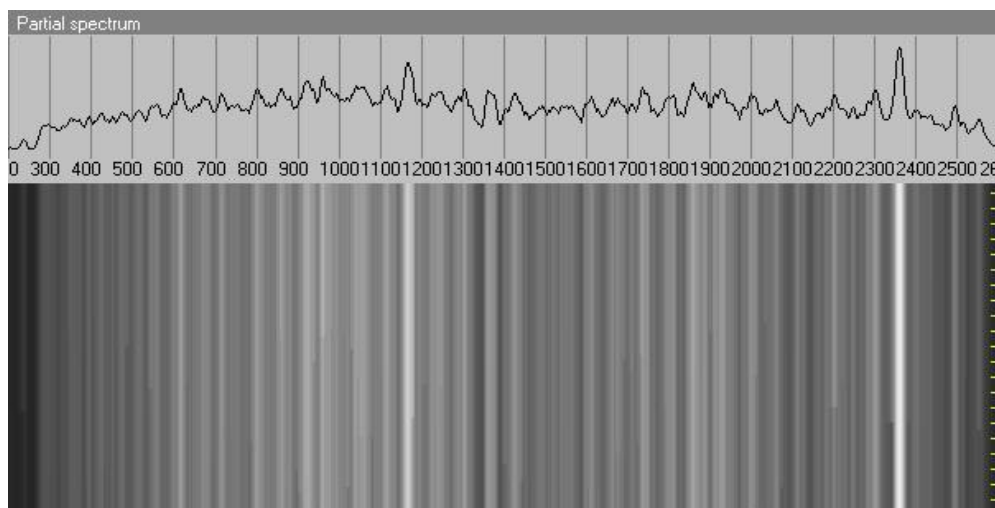
### ARD9800

This modem developed by AOR is using OFDM as modulation method. The OFDM is using 36 carriers in the range from 300 Hz - 2500 Hz. The symbol rate of each carrier is 50 bd with a guard interval of 4mS. The spacing between the carriers is 62.5 Hz. Each carrier is DQPSK modulated. The error correction for voice is Golay + Hamming, for video/data convolution + reed-Solomon. Each transmission starts with a header of 1 sec and consists of 3 tones and a BPSK training pattern for synchronization.

For digital voice the AMBE2020 coder and decoder are used.



Picture 18: Spectrum of ARD9800-OFDM



Picture 19: Spectrum and Sonogram of ARD9800-OFDM