

## Results on a direct digital receiver operated with fast learning networks

---

*O. Mireux, J.-J. Brault and R.G. Bosisio. "Results on a direct digital receiver operated with fast learning networks." 2002 MTT-S International Microwave Symposium Digest 02.1 (2002 Vol. 1 [MWSYM]): 497-500 vol. 1.*

In this paper, learning algorithms are used to decode QPSK modulated signals in a direct conversion microwave/millimetre wave receiver using an application specific six port module. Two different algorithms, K-Means and Online Bayesian Network, are considered for operation of the decoder to recover IQ data from modulated signals. Bit Error Rate (BER) vs. Noise level ( $E_b/N_0$ ) results are presented including the case where the Local Oscillator (LO) is not locked to carrier signal.

 [Return to main document.](#)