

**IEEE P802.11  
Wireless LANs  
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**Status of TGa (5 GHz high speed PHY) of 802.11 after March 98  
Plenary Meeting**

Naftali Chayat, TGa Chair

In March 1998 Task Group A of 802.11 gathered in Irvine, CA, with 120 people attending. Of the 6 PHY proposals in existence after January meeting one was withdrawn (Micrilor) and two pairs were merged: NTT and Lucent Technology merged their OFDM proposals, and BreezeCom and NEC merged their single carrier proposal. Two weeks prior to the meeting the proposers provided performance estimates for their proposal according to an agreed template. However, due to reinterpretation of regulatory requirements, reconsideration of power amplifier modeling and some missing data the Task Group postponed the choice of the modulation method to May meeting. In the meanwhile, the submitters will provide the additional data related to their proposals.

**Comparison of proposals**

<b>Company</b>	<b>Lucent Tech. + NTT</b>	<b>BreezeCom + NEC</b>	<b>RadioLAN</b>
Modulation method	OFDM DBPSK, DQPSK or 16-QAM in each subcarrier	Offset Quadrature Modulation (OQPSK/OQAM)	Differential Pulse Position Modulation (16-DPPM, 4-DPPM)
Pulse shaping features	48 subcarriers out of 64	50% Square-Root Raised Cosine	50% Square-Root Raised Cosine
Error Correction Coding	Convolutional K=7, R=1/2 or R=3/4 Inter-carrier interleaving	Hamming (31,26), uncoded option	Uncoded, option for Reed Solomon(15,13) coded with interleaving
Rates supported	5 Mbit/s (DBPSK, R=1/2) 10 Mbit/s (DQPSK, R=1/2) 15 Mbit/s (DQPSK, R=3/4) 20 Mbit/s (16-QAM, R=1/2) 30 Mbit/s (16-QAM, R=3/4)	21 Mbit/s (2-level, OQPSK, coded) 25 Mbit/s (2-level, OQPSK, uncoded) 42 Mbit/s (4-level, OQAM, coded) 50 Mbit/s (4-level, OQAM, uncoded)	10 Mbit/s (4-DPPM) 20 Mbit/s (16-DPPM) 20 Mbit/s (16-DPPM, coded)
Number of channels in U-NII band	5 in 100 MHz, 10 in 200 MHz 15 MHz channel spacing	4 in 100 MHz, 9 in 200 MHz 20 MHz channel spacing	3 in 100 MHz, 7 in 200 MHz 30 MHz channel spacing
Applicable documents	97/92, 97/123, 97/137, 98/02, 98/03, 98/12, 98/71r1, 98/72, 98/73, 98/74,	98/76r1, 98/109, 98/144	97/145r1, 98/38, 98/75, 98/132, 98/133