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**IEEE P802.11  
Wireless LANs**

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**Report of the result of Letter Ballot 19**

**Date:** September 28, 1999

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**Summary**

**Motion1: To file the proposed ex-parte letter as given in document IEEE 99/209-r4 at the FCC.**

**Vote: 68, 3, 3, Motion passes**

**Motions 2: To file the proposed ex-parte letter as given in document IEEE 99/210-r3 at the FCC.**

**Vote: 69, 2, 3, Motion passes**

**Motion 3: If both 99/209 and 99/210 are approved, the 802.11 and 802.0 Chairs are empowered to t  
single one.**

**Vote: 69, 1, 4, Motion passes.**

Letter Ballot 19 was started on September 17, 1999, with a closing date of September 27, 1999. A heads-up message was already sent c

The motions were as follows:

Motion number	Subject
1	To file the proposed ex-parte letter as given in document IEEE 99/209-r4 at the FCC.
2	To file the proposed ex-parte letter as given in document IEEE 99/210-r3 at the FCC.
3	If both 99/209 and 99/210 are approved, the 802.11 and 802.0 Chairs are empowered to to merge both letters into a single one.

The ballot result is as follows:

Voting members NOT responding: 18  
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**Motion number 1**

Number of voting members in 802.11 : 92  
 Number of votes received 74  
 Return ratio = 80 % (required >= 50 %)

Approved without comments : 66  
 Approved with comments : 2  
 Disapproved with comments : 3  
 Approval ratio = 95 % (required => 50 %)

Abstain (Lack of Time) : 2  
 Abstain (Lack of Expertise) : 0  
 Abstain (Other) : 1  
 Abstention ratio = 4 % (required < 30 %)

**Motion 1 passes**

Note: One aspirant member disapproving, one aspirant member abstaining and one nearly voting member approving.  
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**Motion number 2**

Number of voting members in 802.11 : 92  
 Number of votes received 74  
 Return ratio = 80 % (required >= 50 %)

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Approved without comments : 68  
Approved with comments : 1  
Disapproved with comments : 2  
Approval ratio = 97 % (required => 50 %)

Abstain (Lack of Time) : 2  
Abstain (Lack of Expertise) : 0  
Abstain (Other) : 1  
Abstention ratio = 4 % (required < 30 %)

### **Motion 2 passes**

Two aspirant members abstaining, one nearly member approving.  
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### ***Motion number 3***

Number of voting members in 802.11 : 92  
Number of votes received 74  
Return ratio = 80 % (required >= 50 %)

Approved without comments : 68  
Approved with comments : 1  
Disapproved with comments : 1  
Approval ratio = 98 % (required => 50 %)

Abstain (Lack of Time) : 2  
Abstain (Lack of Expertise) : 0  
Abstain (Other) : 2  
Abstention ratio = 5 % (required < 30 %)

### **Motion 3 passes**

Two aspirant members abstaining, one nearly member approving.  
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Full name	Status of member	Vote on Motion # 1	Vote on Motion # 2	Vote on Motion # 3	Comment on Motion # 1	Comment on Motion # 2
Mr. Jeff Abramowitz	Voter	Approve	Approve	Approve		
Dr. Reza Ahy	Voter	Did not vote	Did not vote	Did not vote		
Mr. Keith B. Amundsen	Voter	Approve with comment	Approve	Approve with comment	The "additional comment" "a." could use a more complete "Therefore" statements	
Mr. Carl F. Andren	Voter	Approve	Approve	Approve		
Mr. David Bagby	Aspirant	Abstain, other reason	Abstain, other reason	Abstain, other reason		
Mr. James R. Baker	Voter	Approve	Approve	Approve		
Mr. Kevin M. Barry	Voter	Approve	Approve	Approve		
Mr. Phil Belanger	Voter	Approve	Approve	Approve		
Mr. Simon Black	Voter	Did not vote	Did not vote	Did not vote		
Mr. Timothy J. Blaney	Voter	Abstain, other reason	Abstain, other reason	Approve		
Mr. Jan Boer	Voter	Approve	Approve	Approve		
Mr. Ronald Brockmann	Voter	Approve	Approve	Approve		
Mr. Wesley Brodsky	Voter	Approve	Approve	Approve		
Mr. Naftali Chayat	Voter	Abstain, lack of time	Abstain, lack of time	Abstain, lack of time		
Mr. Wen-Chiang Chen	Voter	Approve	Approve	Approve		
Mr. Ken Clements	Voter	Approve	Approve	Approve		
Mr. Wim Diepstraten	Voter	Approve	Approve	Approve		
Mr. Peter Ecclesine	Voter	Approve	Approve	Approve		
Mr. Richard Eckard	Voter	Approve	Approve	Approve		
Mr. Darwin Engwer	Voter	Approve	Approve	Approve		
Mr. Greg Ennis	Voter	Approve	Approve	Approve		
Mr. John Fakatselis	Voter	Approve	Approve	Approve		
Mr. Michael Fischer	Voter	Approve	Approve	Approve		
Mr. George Fishel	Voter	Did not vote	Did not vote	Did not vote		
Mr. John Fisher	Voter	Do not approve with comment	Do not approve with comment	Approve	Do not feel that it is appropriate for the 802.11 group to submit a letter that has a clear motive of promoting	Disagree with the conclusion that Gaussian noise should not replace the CW jamming test,

Full name	Status of member	Vote on Motion # 1	Vote on Motion # 2	Vote on Motion # 3	Comment on Motion # 1	Comment on Motion # 2
					commercial advantage to one technology over another. Interference claims need to be validated by an independent body such as IEEE-EMCS,  Recommended change: Do not submit 99/209-r4 to the FCC	Recommended (Do not submit 99/209-r3 to the FCC
Mr. Ian Gifford	Voter	Approve	Approve	Approve		
Mr. Motohiro Gochi	Voter	Approve	Approve	Approve		
Mr. Tim Godfrey	Voter	Approve	Approve	Approve		
Dr. Steven D. Gray	Voter	Approve	Approve	Approve		
Mr. Jan Haagh	Voter	Approve	Approve	Approve		
Mr. Karl Hannestad	Voter	Did not vote	Did not vote	Did not vote		
Mr. Kei Hara	Voter	Approve	Approve	Approve		
Mr. Victor Hayes	Voter	Approve	Approve	Approve		
Mr. Allen Heberling	Voter	Approve	Approve	Approve		
Dr. Chris Heegard	Voter	Approve	Approve	Approve		
Mr. Robert Heile	Voter	Approve	Approve	Approve		
Mr. Juha Heiskala	Voter	Approve	Approve	Approve		
Mr. Maarten Hoeben	Nearly Voter	Approve	Approve	Approve		
Mr. Masataka Iizuka	Voter	Approve	Approve	Approve		
Mr. Masayuki Ikeda	Voter	Approve	Approve	Approve		
Mr. Donald C. Johnson	Voter	Approve	Approve	Approve		
Mr. Tal Kaitz	Voter	Abstain, lack of time	Abstain, lack of time	Abstain, lack of time		
Mr. Kevin Karcz	Voter	Approve	Approve	Approve		
Mr. Mika Kasslin	Voter	Did not vote	Did not vote	Did not vote		
Mr. Dean M. Kawaguchi	Voter	Approve	Approve	Approve		
Mr. Stuart J. Kerry	Voter	Approve	Approve	Approve		
Dr. Ing. Jamshid Khun-Jush	Voter	Did not vote	Did not vote	Did not vote		
Mr. Patrick Kinney	Voter	Do not	Approve	Approve	Comments a,b,c,d are	

Full name	Status of member	Vote on Motion # 1	Vote on Motion # 2	Vote on Motion # 3	Comment on Motion # 1	Comment on Motion # 2
		approve with comment			inappropriate given that any increased used of this band will degrade operation. It is the intent of operation in this band that users accept and adapt to various sources of interference. In this manner Bluetooth, HomeRF, and others are interference sources to 802.11.  Recommended change: Do not submit this letter.	
Dr. Steven Knudsen	Voter	Did not vote	Did not vote	Did not vote		
Dr. John M. Kowalski	Voter	Did not vote	Did not vote	Did not vote		
Mr. Bruce P. Kraemer	Voter	Approve	Approve	Approve		
Mr. David S. Landeta	Voter	Approve	Approve	Approve		
Mr. Changoo Lee	Voter	Did not vote	Did not vote	Did not vote		
Mr. James S. Li	Voter	Approve	Approve	Approve		
Mr. Stanley Ling	Voter	Did not vote	Did not vote	Did not vote		
Mr. Michael D. McInnis	Voter	Approve	Approve	Approve		
Dr. Akira Miura	Voter	Did not vote	Did not vote	Did not vote		
Dr. Masahiro Morikura	Voter	Approve	Approve	Approve		
Dr. Richard van Nee	Voter	Approve	Approve	Approve		
Mr. Erwin R. Noble	Voter	Approve	Approve	Approve		
Mr. Bob O'Hara	Voter	Approve	Approve	Approve		
Dr. Tomoki Ohsawa	Voter	Approve	Approve	Approve		
Mr. Kazuhiro Okanoue	Voter	Approve	Approve	Approve		
Mr. Richard H. Paine	Voter	Approve	Approve	Approve		
Mr. Roger Pandanda	Voter	Approve	Approve	Approve		
Mr. Al Petrick	Voter	Approve	Approve	Approve		
Ms. Victoria M.	Voter	Approve	Approve	Approve		

Full name	Status of member	Vote on Motion # 1	Vote on Motion # 2	Vote on Motion # 3	Comment on Motion # 1	Comment on Motion # 2
Poncini						
Mr. Gregory S. Rawlins	Voter	Did not vote	Did not vote	Did not vote		
Dr. Stanley A. Reible	Voter	Do not approve with comment	Do not approve with comment	Do not approve with comment	<p>The statement "Working Group currently has over 200 members employed by 86 companies" does not accurately reflect the number of members who are voting for this proposal.</p> <p>Recommended change; Since you are implying a vote by company to the FCC, repeat vote to get a true indication how many of the indicated 86 companies actually support this proposal.</p> <p>Comment a: The concern expressed by 802.11b is not increased interference between users of FH systems, but rather that CCK can tolerate little interference.</p> <p>Recommended change: Recommend that 802.11b designers only implement the 2 and 5.5 Mbps modes of operation in their product designs.</p>	<p>The CW test jam is inaccurate for (number of chips symbol) less than 10. The Gaussian jam signal test is accurate for n less than 10 and n greater than 10.</p> <p>Recommended change: Use the Gaussian jam for n less than 10. Proposals have been submitted which define the use of Gaussian jam (valid for both n less than 10 and n greater than 10).</p>
Mr. Frits Riep	Voter	Approve	Approve	Approve		

Full name	Status of member	Vote on Motion # 1	Vote on Motion # 2	Vote on Motion # 3	Comment on Motion # 1	Comment on Motion # 2
Mr. Carlos A. Rios	Voter	Approve	Approve	Approve		
Mr. Kent G. Rollins	Voter	Did not vote	Did not vote	Did not vote		
Dr. Clemens C.W. Ruppel	Aspirant	Do not approve with comment	Abstain, other reason	Abstain, other reason	<p>All arguments should be based on technical basis only. In the letter is an argument stating, that the desired data rate has been obtain already by IEEE 802.11b using today's FCC Part 15.247 and therefore, there is no need for a change. This is an argument to protect IEEE 802.11b (and the implementations done by some companies). In order to judge the quality of WBFH ,one has to look more detailed into different technical solutions and implementations. Maybe WBFH allows to develop superior high-speed WLANs.</p> <p>Should "costs" be an argument against or for a change of the rules. Costs significantly depend on the technical solutions and the implementation. Do we know all technical solutions and are the assumptions in this letter correct?</p>	

Full name	Status of member	Vote on Motion # 1	Vote on Motion # 2	Vote on Motion # 3	Comment on Motion # 1	Comment on Motion # 2
					Is the argument, that a WBFH will not operate in typical environments, correct? How about using an equalizer. IEEE 802.11b systems will have the need for an equalizer too, if the delay spread is high!  Recommended change: to withdraw this letter to FCC and leave responses to the individuals (of IEEE 802.11b).	
Mr. Anil K. Sanwalka	Voter	Approve	Approve	Abstain, other reason		
Dr. Stephen J. Shellhammer	Voter	Did not vote	Did not vote	Did not vote		
Dr. Matthew B. Shoemake	Voter	Approve	Approve	Approve		
Mr. Thomas Siep	Voter	Did not vote	Did not vote	Did not vote		
Mr. David Skellern	Voter	Approve	Approve	Approve		
Mr. Donald I. Sloan	Voter	Approve	Approve	Approve		
Mr. Hitoshi Takanashi	Voter	Approve	Approve	Approve		
Mr. Satoru Toguchi	Voter	Approve	Approve	Approve		
Ms. Cherry Tom	Voter	Approve	Approve	Approve		
Mr. Mike Trompower	Voter	Approve	Approve	Approve		
Dr. Chih C. Tsien	Voter	Did not vote	Did not vote	Did not vote		
Mr. Tom Tsoulogiannis	Voter	Approve	Approve	Abstain, other reason		
Mr. Hirohisa Wakai	Voter	Approve with comment	Approve with comment	Approve	"typo" in both of 209-r4 and 210-r3. Bob Heile is the chair	"typo" in both of and 210-r3. Bob Heile is the

Full name	Status of member	Vote on Motion # 1	Vote on Motion # 2	Vote on Motion # 3	Comment on Motion # 1	Comment on Motion # 2
					of "802.15". Both of those document says Bob as "802.11" chair. It must be corrected before submitting	of "802.15". Both of those document says Bob as "802.11" chair. It must be corrected before submitting
Mr. Ikuo Wakayama	Voter	Approve	Approve	Approve		
Dr. Robert M. Ward Jr.	Voter	Did not vote	Did not vote	Did not vote		
Mr. Mark Webster	Voter	Approve	Approve	Approve		
Mr. Leo Wilz	Voter	Did not vote	Did not vote	Did not vote		
Mr. Harry Worstell	Voter	Approve	Approve	Approve		
Mr. Lawrence W. Yonge III	Voter	Approve	Approve	Approve		
Mr. Chris Zegelin	Voter	Approve	Approve	Approve		
Mr. Johnny Zweig	Voter	Approve	Approve	Approve		
Mr. Jim Zyren	Voter	Approve	Approve	Approve		