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July 12, 2000

BY HAND DELIVERY

Ms. Magalie R. Salas, Secretary
 Federal Communications Commission
 The Portals, 445 12th Street, S.W.
 Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
 OFFICE OF THE SECRETARY

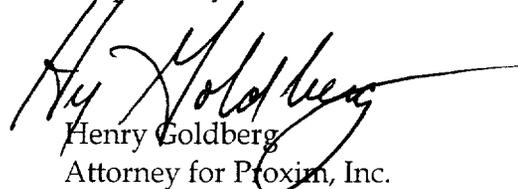
Re: ET Docket No. 99-231,
Amendment of Part 15 of the Commission's
Rules Regarding Spread Spectrum Devices
 --- *Ex Parte Filing*

Dear Ms. Salas:

This letter reports that, on July 11, 2000, Kevin Negus and David King of Proxim, Inc., Leigh Chinitz and Samrat Vasisht of Motorola, Inc., James Henderson, Jr. of Charter Communications, Peter Pitsch of Intel, Inc. and Stephen Berger and Robert Rogers of Siemens met with Mark Schneider and Daniel Mah, Legal Assistants to Commissioner Susan Ness, Clint Odom, Legal Advisor to Chairman Kennard and Adam Krinsky, Legal Advisor to Commissioner Tristani. The substance of the conversation is covered in Proxim's and CUBE's comments and *ex parte* submissions in the above referenced proceeding and the attached *Proxim Response to the Intersil ExParte Presentation of June 23, 2000* that was given out during the meetings.

If there are any questions in this regard, please contact the undersigned.

Respectfully submitted,


 Henry Goldberg
 Attorney for Proxim, Inc.

Attachment

cc: Mark Schneider
 Daniel Mah
 Clint Odom
 Adam Krinsky

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Proxim Response to the Intersil *Ex Parte*
Presentation of June 23, 2000

David King
Chairman, CEO and President
Proxim, Inc.

Jul 10 / 00



WBFH Does Not Increase Interference

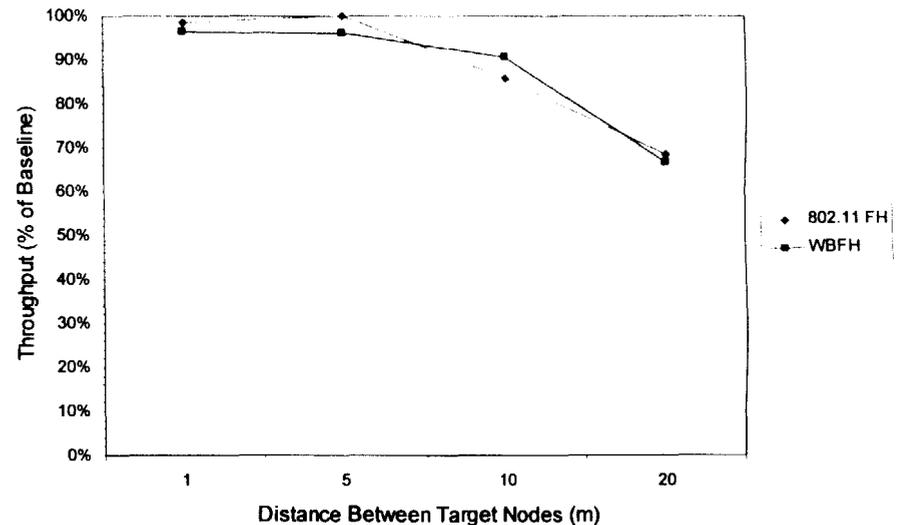
- Intersil is very fond of quoting that in 1996 when a single company - Symbol Technology - asked the FCC to consider reduced hopping channels with no supporting technical analysis, the Commission expressed “serious concerns” about interference
- The Symbol request, however, is very different from the present WBFH initiative with respect to the interference potential of the proposed rule changes.
- Intersil, therefore, is not so fond of quoting the NPRM in ET Docket 99-231 where, after reviewing detailed technical analyses, the Commission states:
“We do not believe these proposed rule changes will result in any significant increase in interference”
- And now, after examining vast amounts of analysis and measurements from both sides, the Commission can adopt its WBFH proposal without any interference concerns

Intersil Claims of Increased Interference due to WBFH are Baseless

- Detailed measurements, the accuracy of which the opponents concede, clearly show no increased interference to IEEE802.11b devices from WBFH compared to existing narrowband FH devices

Offset Frequency from center	Signal to	Interference	Ratio (dB)
	CW	802.11FH	WBFH
- 8 MHz	3	2	3
- 6 MHz	6	6	6
- 4 MHz	8	8	8
- 2 MHz	8	8	8
Center (0)	9	9	8
+2 MHz	8	8	8
+ 4 MHz	8	8	8
+ 6 MHz	6	7	7
+ 8 MHz	2	3	3

Measured signal/interference ratio for an IEEE802.11b DS receiver



Measured throughput in presence of existing FH and WBFH for an IEEE802.11b DS receiver

- Furthermore, since WBFH devices are constrained to operate at eight times lower transmit power, harmful interference is in fact substantially reduced

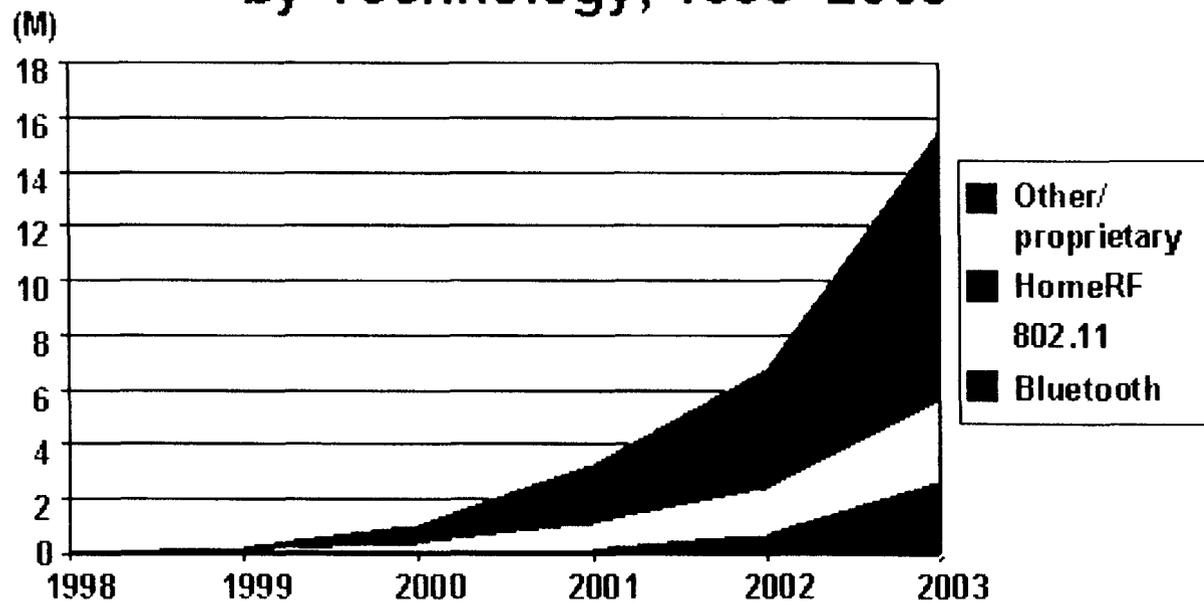
The Commission's WBFH Initiative Will Benefit US Consumers Significantly

- Competition between technologies provides US consumers with more choice, lower prices, and innovative products
- The Small Business Administration supports the Commission's WBFH initiative as a boon to small businesses in the U.S.
- HomeRF's vision and product plans for a single home network combining voice, data and streaming media services clearly aligns with the Commission's vision for competitive broadband services
- Broadband residential gateways from the market share leader Motorola (in cable modems) and from Cayman (in DSL routers) are already shipping with HomeRF networking built-in
 - more than 10 other broadband equipment suppliers have announced plans to ship residential gateways with HomeRF networking built-in
 - this trend accelerates as the digital cordless networking market share leader Siemens makes HomeRF cordless phones widely available
 - several manufacturers have also announced and started shipping "Webpads" with HomeRF-compatible networking built-in



Independent Analysts Predict HomeRF Will Lead the US Home Networking Market

U.S. RF Home Networking Nodes by Technology, 1998–2003



Source: IDC #21533, February 2000



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The Existing 15.247 Rules are Not Technology Neutral as Intersil Asserts

- Note: as spreading gain increases, instantaneous availability for channel bandwidth decreases, or hence data rates are reduced

	Spreading Gain Requirement
Existing DS Rules	10
Existing FH Rules	75
Proposed WBFH Rules	15

The Commission's WBFH initiative merely reduces FH's current 650% disadvantage in accessing bandwidth relative to direct sequence to a 50% disadvantage

The Commission's Supporters have made Tangible and Significant Compromises

- Members of HomeRF have over the course of working with OET on this NPRM unilaterally agreed:
 - to reduce the minimum hopping rate from 50 hops/s to 2.5 hops/s to address concerns raised by DS equipment manufacturers
 - to adopt non-overlapping channels to address concerns raised by a tiny minority of Bluetooth members
 - to reduce transmit power not by five times as originally proposed but by eight times such that WBFH actually produces substantially less interference than existing FH or DS products
- WECA and Intersil have never agreed to any compromise proposal put forth by OET

Global Comparison of 2.4 GHz Spread Spectrum Channel Parameters

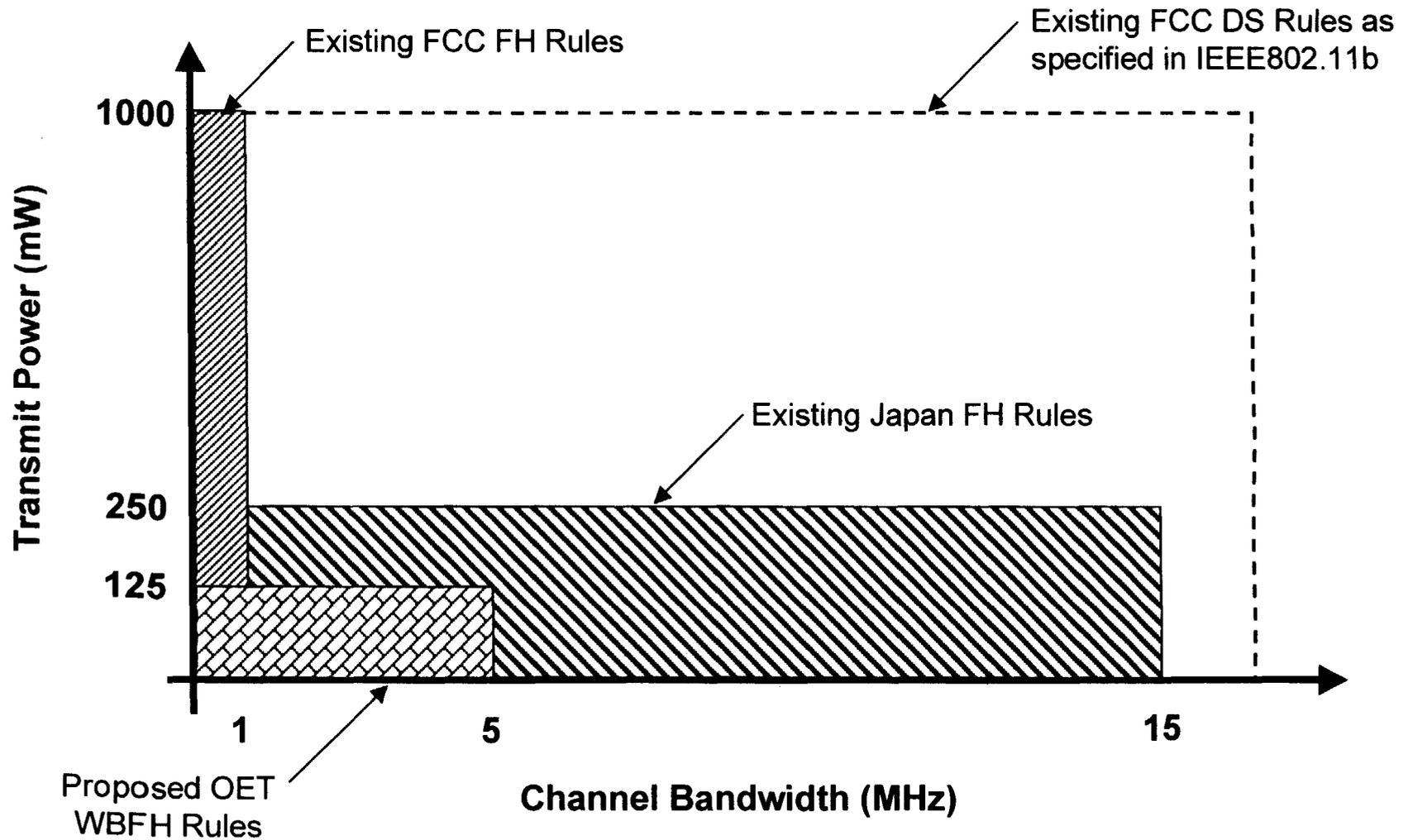
Parameter	OET WBFH Proposal	Existing Japan FH Rules	Existing ETSI FH Rules	WECA WBFH Proposal	IEEE802.11b Specification
Maximum Channel Bandwidth	5 MHz	15 MHz	4 MHz	4 MHz	~17 MHz
Transmit Power	125 mW	250 mW	100 mW	60 mW	1000 mW
Minimum Hopping Rate	2.5 Hz	none	2.5 Hz	2.5 Hz	none
Minimum Number of Channels	15	5	20	20	1
Band Edge Emissions Limit	Difficult	Easy	Easy	Difficult	Difficult

The OET WBFH proposal is still far more restrictive than existing rules elsewhere in the world AND still far more restrictive than the specifications imposed by the IEEE802.11b upon itself.



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Graphical Comparison of Channel Width and Transmit Power



Conclusions

- OET has completely addressed all interference issues with its WBFH proposal - there are no technical justifications for continued changes in this proposal or delay in adopting it
- Rapid adoption of the WBFH proposal will benefit US consumers immensely
- HomeRF has compromised significantly to address concerns raised during the NPRM
- The final WBFH proposal is more restrictive than WBFH rules anywhere in the world including ETSI and more restrictive than the FCC's current DS rules