IEEE 802.16 Working Group on Broadband Wireless Access

http://WirelessMAN.org

Dr. Roger B. Marks, Chair
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12 August 2005

Dear IEEE-SA RevCom:

This submittal is an application for approval of IEEE P802.16f/D6 (“Draft Amendment to IEEE Standard for Local and Metropolitan Area Networks - Part 16: Air Interface for Fixed Broadband Wireless Access Systems - Management Information Base”).

Attached to this letter, please find the following:

Page 2-5: IEEE-SA Standards Board Form for Submittal of Proposed Standards
Page 6-9: Coordination comments and responses

The draft itself will be included separately in PDF format and supplied to the IEEE Staff Project Editor in FrameMaker format. The ballot results will be provided directly to the RevCom Administrator to avoid publicizing the private contact information of the ballot group members.

As of this time, the final 15-day recirculation has been requested. We expect it open before 12 August. Until that recirculation is complete, I cannot completely confirm the approval ratio. However, all of the remaining Disapprove voters have indicated to us that they are satisfied and intend to convert their vote to Approve. Based on this information, we estimate that the current voting result is 83 Approve, 0 Disapprove, and 5 Abstain.

The cover letter for the upcoming recirculation is available as hyperlinked document IEEE 802.16-05/055.

Please feel free to contact me with any questions or concerns.

Sincerely,

Roger B. Marks
Chair, IEEE 802.16 Working Group on Broadband Wireless Access

IEEE-SA STANDARDS BOARD
FORM FOR SUBMITTAL OF PROPOSED STANDARDS

1. PROJECT NUMBER: P802.16f **2. DATE:** 12 August 2005

3. TITLE: Draft Amendment to IEEE Standard for Local and Metropolitan Area Networks - Part 16: Air Interface for Fixed Broadband Wireless Access Systems - Management Information Base

4. SPONSOR (Full name of society/committee): Computer Society/LMSC + Microwave Theory & Techniques Society

5. BALLOTING COMMITTEE: IEEE 802.16 Working Group + Microwave Theory and Techniques Society

6. NAME OF WORKING GROUP: IEEE 802.16 Working Group on Broadband Wireless Access

7. NAME AND ADDRESS OF SUBMITTER

Roger B. Marks
NIST
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Boulder, CO 80305
USA

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8. DESCRIPTION OF DOCUMENT (Check one from each column.)

☒ New	□ Standard	☒ Full Use (5-year life cycle)
□ Revision	□ Recommended Practice	□ Trial Use (2-year life cycle)
□ Reaffirmation	□ Guide	
□ Withdrawal	☒ Amendment/Corrigenda to an existing standard (Indicate number and year) 802.16-2004	

8A. REAFFIRMATION ONLY: The Sponsor confirms that the balloting group agrees that this standard continues to be useful in its current form and contains no significant obsolete or erroneous information.

□ Yes □ No

9. BALLOT INFORMATION

List the interest categories of **eligible** balloters only. Refer to the IEEE-SA Standards Board Operations Manual and the Working Guide for Submittal of Proposed Standards for the rules of balloting committee classification.

User	32	Producer	44	General Interest	32	Government	2
Interest Category	No.	Interest Category	No.	Interest Category	No.	Interest Category	No.

SUMMARY OF ELIGIBLE BALLOTS

	INITIAL BALLOT		RECIRCULATION BALLOT (if applicable)	
	Draft D3	Date Closed: 2005-04-28	Draft D5	Date Closed: 2005-07-14
	Number	Percentage	Number	Percentage
Eligible Balloters	110	100%	110	100%
Ballots Returned	83	75	87	80
Affirmatives	60	80	77	92
Total Negatives	16	N/A	06	N/A
Abstentions	07	08	05	05

Reasons for abstentions: Lack of time = 3 Lack of expertise = 2 Other = 0

10. RESOLUTION OF COMMENTS AND NEGATIVE VOTES

All balloting group members, observers, and coordinating groups have been advised of substantive changes made with respect to the balloted draft standard (in response to comments, in resolving negative votes, or for other reasons) and have received copies of all unresolved negative votes with reasons from the negative voter and the rebuttal, and have been advised that they have an opportunity to change their votes.

A. Have unresolved comments accompanying negative votes been circulated? *Include unresolved negative comments and rebuttal.* ☒ Yes ☐ No ☐ No unresolved comments

B. Have substantive document changes been circulated? ☒ Yes ☐ No ☐ No substantive changes

11. COORDINATION ACTIVITY (Not required for reaffirmation)

Using the abbreviations listed below, indicate the response received from each committee/organization required for coordination and include a copy of the response. Include documentation authorizing coordination by common membership, if applicable.

R = Received R/C = Received with comment NR = Not received

Committee/Organization	Response	Committee/Organization	Response
SCC10 (IEEE Dictionary)	NR		
SCC14 (Quantities, Units, & Letter Symbols)	R/C		
IEEE Standards Editorial Staff	R		

Indicate below any unresolved problems from coordination activities.

Comment 2009, received in second recirculation, from SCC14, was not accepted. The comment suggests the addition of a definition of "dBm". The group noted that this amendment is not the appropriate place for such a definition and that the definition has been added to the draft of a parallel project developing a corrigendum to the same base standard.

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12. PATENT/COPYRIGHT and REGISTRATION ISSUES

A. Any patent letters of assurance (LoAs) received by the Sponsor are to be forwarded to the PatCom Administrator [Fax: + 1 732 875 0524].

B. Is there any copyrighted material in the proposed standard? If yes, include copyright release(s). ☐ Yes ☒ No

C. Is the registration of objects and/or numbers a provision of the proposed standard? If yes, include a proposal for review by the IEEE-SA Registration Authority Committee (RAC). ☐ Yes ☒ No ☐ Already approved by RAC

13. INTERNATIONAL STANDARDS ACTIVITIES (Not required for reaffirmation)

Is this document intended to be the basis of or included in an international standard? ☐ Yes (Explain) ☒ No

14. UNIT OF MEASUREMENT (check one)

☒ International System of Units (SI) - Metric ☐ Inch/Pound ☐ Both ☐ Not measurement sensitive

☐ Other _____

15. Source Materials Submitted to IEEE Standards Department

A. Have electronic versions of the source documents (text and figures) been provided? ☒ Yes ☐ No Format: FrameMaker

B. Will a diskette or other online material be required to accompany the published standard? ☐ Yes ☒ No

16. Submission checklist (X = included in submittal package N/A = Not applicable)

	Submission Package Item	**List URL if online**
X	This submittal form	http://ieee802.org/16/docs/05/80216-05_056.pdf
X	Ballot summary form(s) (1 per ballot cycle)	emailed to RevCom Admin to protect private contact info
X	Copies of unresolved negatives & rebuttals	
X	PAR and PAR approval letter	http://ieee802.org/16/docs/04/80216-04_34r4.pdf
X	Coordination comments and responses	http://ieee802.org/16/docs/05/80216-05_056.pdf
X	.pdf of final balloted draft #D10	http://ieee802.org/16/private/drafts/netman/P80216f_D6.zip
N/A	Permissions & copyright releases	

PROJECT NUMBER: P802.16f **DATE:** 2005-08-12

This draft standard has been developed in accordance with the policies and procedures of the Sponsor and I am authorized by those policies and procedures to make this submittal.	
Roger B. Marks	Chair, IEEE 802.16 Working Group
Signature of Submitter	**Title (role in Sponsor)**

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FOR STANDARDS DEPARTMENT USE ONLY

	IEEE-SA Standards Board Chair	
Signature of IEEE-SA Officer	**Title**	**Date**

Return to:

IEEE Standards Department
RevCom Secretary
445 Hoes Lane
PO Box 1331
Piscataway, NJ 08855-1331

Coordination Comments and Responses

(1) Editorial

Ballot/Comment Data for 0001046 (P802.16f/D4 Recirculation)
Submitted Mon Jun 6 14:57:38 EDT 2005
Type: comment
Record Number: 00001001

ballot_code = 0001046
form_type = comment
ieee_number = 00001001
name = MichelleTurner
email = m.d.turner@ieee.org
phone = 732-562-3825
fax = 732-562-1571
org = IEEE
page = general
line =
subclause =
comment_type = Coordination
comment = Separate electronic files of figures shall be supplied in TIFF format (unless created in FrameMaker).
suggested_remedy =

(2) SCC14

Ballot/Comment Data for 0000998 (P802.16f)
Submitted Wed Apr 20 10:24:16 EDT 2005
Type: comment
Record Number: 00001002

ballot_code = 0000998
form_type = comment
ieee_number = 00001002
name = John T. Scott
email = john.scott@physics.org
phone = (973) 748 1399
fax = (973) 748 7074
org = IEEE SCC14
page = General
line =
subclause =
comment_type = Coordination
comment = This standard contains nothing that is a problem for SCC14. It has my approval.
suggested_remedy =

Ballot/Comment Data for 0001046 (P802.16f/D4 Recirculation)
Submitted Mon Jun 6 11:55:42 EDT 2005
Type: comment
Record Number: 00001002

ballot_code = 0001046
form_type = comment
ieee_number = 00001002
name = John T. Scott
email = john.scott@physics.org
phone = 973-748-1399
fax = 973-748-7074
org = IEEE SCC14
page = General
line =
subclause =
comment_type = Coordination
comment = This draft is approved by SCC14.
suggested_remedy =

Ballot/Comment Data for 0001057 (P802.16f/D5 2nd Recirculation)
Submitted Sun Jul 10 11:15:59 EDT 2005
Type: comment
Record Number: 00001002

ballot_code = 0001057
form_type = comment
ieee_number = 00001002
name = James R. Frysinger
email = frysingerj@cofc.edu
phone = 843.953.7644
fax = 843.953.4824
org = College of Charleston/Dept. of Physics and Astronomy
page = general
line =
subclause =
comment_type = Coordination
comment = Throughout the document the symbol for bit per second is incorrectly given as bps; the proper symbol is b/s. This error occurs in comment sections of the coding, not in the active code. [IEEE Std 1541, IEEE/ASTM SI 10]

suggested_remedy = Change bps to b/s.

Response:
Accepted.
Change "bps" to "b/s"

Ballot/Comment Data for 0001057 (P802.16f/D5 2nd Recirculation)
Submitted Sun Jul 10 11:15:03 EDT 2005
Type: comment
Record Number: 00001002

ballot_code = 0001057
form_type = comment
ieee_number = 00001002
name = James R. Frysinger
email = frysingerj@cofc.edu
phone = 843.953.7644
fax = 843.953.4824
org = College of Charleston/Dept. of Physics and Astronomy
page = general
line =
subclause =
comment_type = Coordination
comment = Throughout the document, the unit symbol dBm is found. This is not defined in IEEE/ASTM SI 10 nor in IEEE Std 260.1; these define instead the unit decibel (dB). In fact, IEEE/ASTM SI 10 states in clause 3.5.5, "Attachments of letters to a unit symbol as a means of giving information about the nature of teh quantity is incorrect." IEEE Std 260.1 states that reference levels are to be indicated in the text or as part of the quantity symbol, not as part of the unit symbol. The proper emendment would be to either provide annotated quantity symbols or to make a blanket statement that all levels are referenced to some particular value (perhaps 1 mV or perhaps 1 mW, but not both globally) and then to change all instances of dBm to dB.

It is recognized that other SDOs may recognize the unit with symbol dBm but support for its use here ought to be made readily available to the reader. If the WG considers it absolutely essential, for the sake of harmony with standards from other SDOs to use dBm, then this document needs to define that symbol up front and not leave it to the reader to find the correct answer. It would be circular logic to aver that those who already "know the meaning" do not need this support since they already know the meaning. Those who do not know the answer probably also do not know where to find it on their own and they would find no help on that in IEEE/ASTM SI 10 or IEEE Std 260.1.

suggested_remedy = Emend to change all instances of dBm to dB (preferred) or provide a local definition at the front of the document for dBm (acceptable).

Response:

The term “dBm” is used in IEEE Std 802.16-2004, the base standard. The P802.16f project MIB amendment is not the proper venue to address this issue. Modification/clarification of legacy language use of common technical terms in the base document is not within the scope of the P802.16f project authorization. The P802.16f project authorization limits the scope of the project to addressing only the addition of MIB related elements. Clearly, the legacy use of the common technical term 'dBm' in the base document is not a MIB specific element. However, the comment is squarely within the domain of the existing IEEE P802.16-2004/Cor 1 project, which is developing a Corridendum to the same base standard. A relevant Coordination comment was submitted in the recent IEEE-SA Sponsor Ballot of this Corrigendum project:

SCC14 Coordination Comments on
P802.16-2004/Cor 1: Corrigendum to IEEE Standard for Local and Metropolitan Area Networks - Part 16: Air Interface for Fixed Broadband Wireless Access Systems

Very little in this long standard raises any concerns from SCC14. Here are a couple of picky points:

1) The decibel, dB, is of course a permitted unit (although, oddly, it is not SI). Likewise, the dBm is well-enough understood to be permitted also. But I'd like to see a definition (that is, the reference level) of dBi when it first appears (in subclause 8.3.10). The "m" and the "i" would be better as subscripts.
2) A little more care needs to be taken to ensure that all quantity symbols are set, as they should be, in italic. Note that k and k appear interchangeably in 8.4.4.5 2) (k is correct). The integer counting symbol n or N occasionally appears incorrectly as roman.
3) Note that the unit symbol for "second" is "s" and that for "millisecond" is "ms." In Table 342 I find the incorrect "msec," which is specifically not permitted.

For IEEE SCC14
John T. Scott
21 June 2005

The response to that comment will be:

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1) In section 4, we have included the following abbreviations:

"dBm Decibels relative to one milliwatt
dBi Decibels of gain relative to the zero dB gain of a free-space isotropic radiator"

[Note that dBm is taken from the IEEE Dictionary (IEEE Std 100-1996); dBi is taken from <http://ntia.its.bldrdoc.gov/fs-1037/fs-1037c.htm>]

Regarding subscripting the "m" or the "i", note that the IEEE Dictionary does not subscript the "m" in dBm. Nor does the baseline document IEEE Std 802.16-2004 subscript the "m" or the "i" in dBm or dBi, so I do not want the Corrigendum to be inconsistent with that document. Making such a change would be in the authority of the IEEE staff editor, however.

2) We have reviewed all quantity symbols through out the document (for example the symbol k in section 8.4.4.5.2), and edited them to be italic.

3) We have changed every instance of "msec" to "ms".

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Since the P802.16f SCC14 Coordination comment is being fully addressed by the response to the Corrigendum Coordination comment, we believe it is most appropriate to make no corresponding change to the P802.16f draft.