2005-09-28 IEEE 802.16-05/070r2

# IEEE 802.16 Working Group on Broadband Wireless Access <a href="http://wirelessMAN.org">http://wirelessMAN.org</a>



Dr. Roger B. Marks 325 Broadway, MC 818.00 Boulder, CO 80305 USA Tel: +1 303 497 7837 mailto:r.b.marks@ieee.org 28 September 2005

#### Dear IEEE-SA RevCom:

This submittal is an application for approval of IEEE P802.16-2004/Cor1/D5 ("Draft Corrigendum to IEEE Standard for Local and Metropolitan Area Networks – Part 16: Air Interface for Fixed Broadband Wireless Access Systems").

Attached to this letter, please find the following:

Page 2-5: IEEE-SA Standards Board Form for Submittal of Proposed Standards

Page 6-7: Coordination comments and responses

The final 15-day recirculation closed on 27 September. According to my copies of the submitted ballots, the final voting result is 169 Approve, 2 Disapprove, and 6 Abstain, for an approval ratio of 98.8%.

Please note that this submittal letter is an update of the previous version IEEE 802.16-05/070 (submitted on 16 September, during the final recirc) and includes some changes to the data in the submittal form. Also, page 7 is added here.

Sincerely,

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

## IEEE-SA STANDARDS BOARD FORM FOR SUBMITTAL OF PROPOSED STANDARDS

1. PROJECT NUMBER: P802.16-2	2004/Cor1/D5	<b>2. DATE:</b> 28 September 2005
<b>3. TITLE:</b> Corrigendum to IEEE S Broadband Wireless Access Systems	tandard for Local and Metropoli	tan Area Networks - Part 16: Air Interface for Fixed
4. SPONSOR (Full name of society/o	committee): Computer Society/Ll	MSC + Microwave Theory & Techniques Society
5. BALLOTING COMMITTEE: II	EEE 802.16 Working Group + Mi	crowave Theory and Techniques Society
6. NAME OF WORKING GROUP	: IEEE 802.16 Working Group or	n Broadband Wireless Access
7. NAME AND ADDRESS OF SUE	BMITTER	
Roger B. Marks NIST 325 Broadway, MC 818.00 Boulder, CO 80305 USA		
Telephone: +1 303 497 7837	Fax:	E-Mail: r.b.marks@ieee.org
8. DESCRIPTION OF DOCUMEN	T (Check one from each column.	)
<ul><li>★ New</li><li>□ Revision</li><li>□ Reaffirmation</li><li>□ Withdrawal</li></ul>	<ul> <li>□ Standard</li> <li>□ Recommended Practice</li> <li>□ Guide</li> <li>Ճ Amendment/Corrigenda standard (Indicate number)</li> </ul>	` • • • • • • • • • • • • • • • • • • •
8A. REAFFIRMATION ONLY:		at the balloting group agrees that this standard its current form and contains no significant formation.

User 73	Pro	oducer	93	General Interest	51	Government	3
Interest Category No	o. Into	erest Category	No.	Interest Category	No.	Interest Category	No
		SUMMAR	Y OF ELIGI	BLE BALLOTS			
	_ I	NITIAL BALL	.OT_	RECIRC	ULATION	N BALLOT (if applicab	le)
	Draft D3	Date Closed:	2005-07-10	Draft D	<u>D</u> a	ate Closed: 2005-09-27	
	Number	Percentage		Numbe	<u>r</u> <u>Pe</u>	rcentage	
Eligible Balloters	220	100%		220		0%	
Ballots Returned	168	76		177		<u> </u>	
Affirmatives	135	85		169	98		
Total Negatives	26	N/A		2	<u>N/</u>	<u>'A</u>	
Abstentions	7	4		6	3		
Reasons for abstentions:		c =		Lack of expertise	· – 0	Other $= 1$	
10. RESOLUTION OF All balloting group respect to the ballo have received copie advised that they ha	COMMENT members, ob ted draft stan s of all unreso ve an opportu	servers, and co dard (in respon plyed negative v unity to change t	ordinating grase to comme otes with reast their votes.	cs oups have been a nts, in resolving sons from the nega	dvised of negative voter	substantive changes mayotes, or for other reason and the rebuttal, and have	ns) we b
10. RESOLUTION OF All balloting group respect to the ballo have received copie advised that they ha A. Have unreso	COMMENT members, ob ted draft stan s of all unreso ve an opportu- lived commen irculated? <i>Inc</i>	ors AND NEGA pservers, and co dard (in respon- olved negative valuity to change to ts accompanyin lude unresolved	ordinating grase to commercates with reastheir votes. In genegative In negative con	ES  oups have been a  nts, in resolving  sons from the nega  XYes  nments and rebutt	dvised of negative voter    No negative voter	substantive changes ma	ons) ive b
10. RESOLUTION OF All balloting group respect to the ballo have received copie advised that they ha A. Have unreso votes been c B. Have substan  11. COORDINATION Using the abbreviation coordination and incluif applicable.	comments of the description of t	pservers, and condard (in responsible of negative variety to change to the accompanying dude unresolved and changes been (Not required for the response. In	ordinating grase to comme otes with reast their votes. It is negative described in reastive concirculated?  For reaffirmates ponse received documents of the comments of the c	ES oups have been a nts, in resolving sons from the negative with	dvised of negative voter I No II. I No III. I No III. I No IIII. I No IIII NO	substantive changes mayotes, or for other reason and the rebuttal, and has no long. No unresolved comments of the No substantive changes are substantive changes.	ons) ave benents
10. RESOLUTION OF All balloting group respect to the ballo have received copie advised that they ha A. Have unreso votes been c B. Have substan  11. COORDINATION Using the abbreviation coordination and incluif applicable.  R = F	comments of the description of t	pservers, and condard (in responsible of negative variety to change to the accompanying dude unresolved and changes been (Not required for the response. In	ordinating grase to commerce with reast their votes. In a grantive concirculated?  For reaffirmates ponse received with received with	comment	dvised of negative voter \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{nmittee/or ng coordin} \) \( \text{NR} =	substantive changes mayotes, or for other reason and the rebuttal, and has no other notation. No substantive changes and substantive changes are not on the common memory.	ons) and be be be be a larger bersl
10. RESOLUTION OF All balloting group respect to the ballo have received copie advised that they ha A. Have unreso votes been c B. Have substan  11. COORDINATION Using the abbreviation coordination and incluif applicable.  R = F Committee/Organical	members, obted draft stants of all unresove an opportulved commenticulated? <i>Inc</i> ative document of the documen	pservers, and condard (in responsible of negative variety to change to the accompanying dude unresolved and changes been (Not required for the response. In	ordinating grase to comme otes with reast their votes. It is generative of the reast their votes. It is generative concirculated?  For reaffirmates ponse received with reast their votes. It is generative concirculated?	ES oups have been a nts, in resolving sons from the negative with	dvised of negative voter \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{nmittee/or ng coordin} \) \( \text{NR} =	substantive changes mayotes, or for other reason and the rebuttal, and has no other notation. No substantive changes and substantive changes are not on the common memory.	ons) ive b nents ges bers
10. RESOLUTION OF All balloting group respect to the ballo have received copie advised that they ha A. Have unreso votes been c B. Have substan  11. COORDINATION Using the abbreviation coordination and incluif applicable.  R = F  Committee/Orga SCC10 (IEEE D	comments of the description of the comments of all unresource an opportulived comments of the	rs AND NEGA servers, and co dard (in respon- olved negative v unity to change to ts accompanyin- dude unresolved ant changes been (Not required for w, indicate the re- the response. In	ordinating grase to comme otes with reast their votes. It is generative of negative of negative concirculated?  For reaffirmates ponse received with received with reast to comme of the received with response received with reast their votes.	comment	dvised of negative voter \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{nmittee/or ng coordin} \) \( \text{NR} =	substantive changes mayotes, or for other reason and the rebuttal, and has no other notation. No substantive changes and substantive changes are not on the common memory.	ons) ave b nents ges bers
10. RESOLUTION OF All balloting group respect to the ballo have received copie advised that they ha A. Have unreso votes been c B. Have substan  11. COORDINATION Using the abbreviation coordination and inch if applicable.  R = F  Committee/Orga SCC10 (IEEE D SCC14 (Quantit	comments of the comments of all unresover an opportulated? <i>Inc</i> utive documents described below the acopy of the comments of t	oservers, and condard (in responsible of negative value) to change the saccompanying dude unresolved and changes been (Not required for the response. In the R/C = R	ordinating grase to comme otes with reast their votes. It is generative of the reast their votes of their votes of their votes. It is generated their votes of their votes. It is their votes of their votes. It is their votes of their votes	comment	dvised of negative voter \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{nmittee/or ng coordin} \) \( \text{NR} =	substantive changes mayotes, or for other reason and the rebuttal, and has no other notation. No substantive changes and substantive changes are not on the common memory.	ons) and be be be be a larger bersl
10. RESOLUTION OF All balloting group respect to the ballo have received copie advised that they ha A. Have unreso votes been c B. Have substan  11. COORDINATION Using the abbreviation coordination and incluif applicable.  R = F  Committee/Orga SCC10 (IEEE D	comments of the comments of all unresover an opportulated? <i>Inc</i> utive documents described below the acopy of the comments of t	oservers, and condard (in responsible of negative value) to change the saccompanying dude unresolved and changes been (Not required for the response. In the R/C = R	ordinating grase to comme otes with reast their votes. It is generative of negative of negative concirculated?  For reaffirmates ponse received with received with reast to comme of the received with response received with reast their votes.	comment	dvised of negative voter \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{nmittee/or ng coordin} \) \( \text{NR} =	substantive changes mayotes, or for other reason and the rebuttal, and has no other notation. No substantive changes and substantive changes are not on the common memory.	ons) and be be be be a larger bersl
All balloting group respect to the balloting group respect to the balloting expect to the balloting respect to the balloting respect to the balloting respect to the balloting respect to the balloting advised that they hat they had a substant and inclusive substant and inclusive substant applicable.  R = For Committee/Organization (IEEE December 2014)  SCC10 (IEEE December 2014)  SCC14 (Quantity IEEE Standards	commental members, obted draft stants of all unresove an opportulived commentarculated? <i>Inc</i> antive documental documental deceived an initial companion of the control of t	rs and negative value of the response of the response. In the response of the	cordinating grase to comme ones with reast their votes. It is negative of the reast their votes. It is negative of their votes of their votes of their votes. It is negative of their votes of their votes of their votes of their votes of their votes. It is negative of their votes of their votes of their votes of their votes of their votes. It is negative of their votes of their votes of their votes of their votes. It is negative of their votes of their votes of their votes. It is negative of their votes of their votes. It is negative of their votes of their votes of their votes. It is negative of their votes of their votes of their votes. It is negative of their votes of their votes. It is negative of their votes of their v	oups have been a nts, in resolving sons from the negative sons from the negative sons from the negative sons from the negative sons from each content on authorizing comment of the sons o	dvised of negative voter \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{nmittee/or ng coordin} \) \( \text{NR} =	substantive changes mayotes, or for other reason and the rebuttal, and has no other notation. No substantive changes and substantive changes are not on the common memory.	ons) ave b nents ges bers
10. RESOLUTION OF All balloting group respect to the ballothave received copie advised that they hat A. Have unreso votes been c B. Have substant  11. COORDINATION Using the abbreviation coordination and incheif applicable.  R = F  Committee/Organt SCC10 (IEEE D SCC14 (Quantite	commental members, obted draft stants of all unresove an opportulived commentarculated? <i>Inc</i> antive documental documental deceived an initial companion of the control of t	rs and negative value of the response of the response. In the response of the	cordinating grase to comme ones with reast their votes. It is negative of the reast their votes. It is negative of their votes of their votes of their votes. It is negative of their votes of their votes of their votes of their votes of their votes. It is negative of their votes of their votes of their votes of their votes of their votes. It is negative of their votes of their votes of their votes of their votes. It is negative of their votes of their votes of their votes. It is negative of their votes of their votes. It is negative of their votes of their votes of their votes. It is negative of their votes of their votes of their votes. It is negative of their votes of their votes. It is negative of their votes of their v	oups have been a nts, in resolving sons from the negative sons from the negative sons from the negative sons from the negative sons from each content on authorizing comment of the sons o	dvised of negative voter \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{No} \) \( \square \text{nmittee/or ng coordin} \) \( \text{NR} =	substantive changes mayotes, or for other reason and the rebuttal, and has no other notation. No substantive changes and substantive changes are not on the common memory.	ons) ive b nents ges bers

9. BALLOT INFORMATION

12	PATENT/COPYRIGHT and	A DECICED ATION ICCIES
12.	PATENT/COPYRICHT and	A REGISTRATION ISSUES

A. Any patent letters of assurance (LoAs) received by the Sponsor are to be Administrator [Fax: + 1 732 875 0524].	forwarded to the PatCom		
B. Is there any copyrighted material in the proposed standard?	es 🛮 No		
If yes, include copyright release(s).			
C. Is the registration of objects and/or numbers a provision of	es 🛮 No 🗆 Already approved by RAC		
the proposed standard? If yes, include a proposal for review			
by the IEEE-SA Registration Authority Committee (RAC).			
13. INTERNATIONAL STANDARDS ACTIVITIES (Not required for re	affirmation)		
Is this document intended to be the basis of or included in an international	standard? X Yes (Explain) □ No		
This document is relevent to Recommendations under development in ITU-	R Working Parties 8A and 9B.		
14. UNIT OF MEASUREMENT (check one)			
X 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?	X Yes □ No Format: FrameMaker		
B. Will a diskette or other online material be required to accompany the published standard?	□ Yes X No		

# **16. Submission checklist** (X = included in submittal package <math>N/A = Not applicable)

	Submission Package Item	List URL if online
X	This submittal form	http://ieee802.org/16/docs/05/80216-05_070.pdf
X	Ballot summary form(s) (1 per ballot cycle)	provided to RevCom Admin
X	Copies of unresolved negatives & rebuttals	http://ieee802.org/16/docs/05/80216-05_061r2.pdf
X	PAR and PAR approval letter	http://ieee802.org/16/docs/04/80216-04_41r2.pdf
X	Coordination comments and responses	http://ieee802.org/16/docs/05/80216-05_070.pdf
X	.pdf of final balloted draft # <u>D5</u>	http://ieee802.org/16/private/drafts/maint/P80216_Cor1_D5.zip
N/A	Permissions & copyright releases	

PROJECT NUMBER:	1/Cor1/D5 2005-09-27 DATE:
This draft standard has been developed in accord by those policies and procedures to make this sub	ance with the policies and procedures of the Sponsor and I am authorized mittal.
	Chair, IEEE 802.16 Working Group
Signature of Submitter	Title (role in Sponsor)
FOR STAN	DARDS DEPARTMENT USE ONLY
	SA Standards Board Chair tle Date

## **Return to:**

IEEE Standards Department RevCom Secretary 445 Hoes Lane PO Box 1331 Piscataway, NJ 08855-1331 2005-09-27 IEEE 802.16-05/070r1

## **Coordination Comments and Responses**

## (1) Editorial

From: Michelle Turner

Document under Review: P802.16-2004/Cor1/D

Starting Page: 10 Suggested Remedy:

SECTION III: Recommended changes

• In 5.2.3.2 please correct the following sentence to read as follows: Replace Figure 11 with the following

Figure:

Decision of Group: Accepted

### (2) SCC14

Document under Review: P802.16-2004/Cor1/D3

SCC14 Coordination Comments on P802.16-2004/Cor 1: Corrigendum to IEEE Standard for Local and Metropolitan Area Networks - Part 16: AirInterface for Fixed Broadband Wireless Access SystemsVery 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-enoughunderstood 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 Noccasionally 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 theincorrect "msec," which is specifically not permitted. That's all ... For IEEE SCC14 John T. Scott 21 June 2005 Decision of Group: Accepted-Modified

Editor's Actions:

1) In section 4, I 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) I have reviewed and try to identify quantity symbols through out the document and to edit them to be italic, although I might have missed some instances, anyway the IEEE technical editor will fix such instances as well. 3) I have changed every instance of "msec" to "ms".

This response was accepted by SCC14, as noted by this recirculation comment from John T. Scott: No problems for SCC14.

2005-09-27 IEEE 802.16-05/070r1

## (3) Additional coordination comment related to SCC14, received during second recirculation

Document under Review: P802.16-2004/Cor1/D5 Coordination Comment from: James R. Frysinger

Comment: I do see a definition of "dBm" here under "Abbreviations and Acronyms" (though "dBm" is a unit symbol and neither of these).

Is FED-STD-1037C going to be added to the list of references or to the bibliography? This relates to my comment on P802.16e a few moments ago.

Suggested Remedy: Add FED-STD-1037C to the list of references or to the bibliography.

## Response:

The Working Group has already responded to an SCC14 Coordination Comment from John T. Scott on this issue, and he has accepted our response.

Mr. Frysinger is following up on an an SCC14 Coordination Comment that he submitted previously in a different ballot (P802.16e). In that case, the 802.16 Working Group suggested that the issue would best be handled in the P802.16-2004/Cor1 ballot; it also provided Mr. Frysinger with the explicit response to Mr. Scott's comment. Mr. Frysinger responded with a rather detailed note accepting this resolution [see IEEE 802.16-05/059r2 <a href="http://ieee802.org/16/docs/05/80216-05\_059r2.pdf">http://ieee802.org/16/docs/05/80216-05\_059r2.pdf</a>, pages 8-10].

In Mr. Frysinger's detailed note in the P802.16e ballot, he mentioned that "I must trust that the baseline document includes the citation in its bibliography or references." This item was not previously submitted in or transmitted to the P802.16-2004/Cor1 ballot process for consideration.

At this time, Mr. Frysinger is suggesting that we "Add FED-STD-1037C to the list of references or to the bibliography." We accept the comment. However, we do not believe that this response warrants another recirculation. We would be happy to communicate to the IEEE-SA editorial staff a request for the implementation of the following editorial instruction:

In Annex A [Bibliography], Insert new reference and renumber the remaining references as needed: \*Federal Standard 1037C, Telecommunications: Glossary of Telecommunication Terms, August 1996 <a href="http://ntia.its.bldrdoc.gov/fs-1037/fs-1037c.htm">http://ntia.its.bldrdoc.gov/fs-1037/fs-1037c.htm</a>