

Project	IEEE 802.16 Broadband Wireless Access Working Group	
Title	Proposed PAR for Broadband Wireless Access Systems in Licensed Bands from 2 to 11 GHz	
Date	2000-03-08	
Source	Sub10 Working Group Study Group Chair - Brian G. Kiernan InterDigital Communications Corp. 781 Third Ave. King of Prussia, PA 19406	Voice: (610) 878-5637 Fax: (610) 878-7842 E-mail: brian.kiernan@interdigital.com
Re:	IEEE 802.16 Broadband Wireless Access PAR (sub10 GHz)	
Abstract	In November 1999, IEEE 802.16 formed a Study Group to investigate establishing air interface specifications for Broadband Wireless Access at frequencies below 10 GHz. The Study Group was to study the issue and prepare a Project Authorization Request, if appropriate. The Study Group met during the January and March 2000 meetings, agreed standardization was appropriate and generated the attached PAR.	
Purpose	To submit a draft PAR for an Air Interface Standard for Fixed Broadband Wireless Access Systems Operating Below 11 GHz to the 802.16 Working Group for review and to request approval to forward the PAR to the IEEE 802 Executive Committee. This draft addresses the objections raised by other IEEE 802 Working Groups.	
Notice	This document has been prepared to assist the IEEE 802.16. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.	
Release	The contributor acknowledges and accepts that this contribution may be made public by 802.16.	
IEEE Patent Policy	The contributor is familiar with the IEEE Patent Policy, which is set forth in the IEEE-SA Standards Board Bylaws < http://standards.ieee.org/guides/bylaws > and includes the statement: "IEEE standards may include the known use of patent(s), including patent applications, if there is technical justification in the opinion of the standards-developing committee and provided the IEEE receives assurance from the patent holder that it will license applicants under reasonable terms and conditions for the purpose of implementing the standard."	

IEEE-SA Standards Board Project Authorization Request (PAR) Form

1. Sponsor Date of Request 2000 Mar 10	2. Assigned Project Number 802.16.3	3. PAR Approval Date 2000 June 21 (expected)
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{Copyright release must be submitted with appropriate signatures by postal mail or FAX (+1-732-562-1571)}

[] PAR Signature Page on File

4. Project Title, Recorder and Working Group/Sponsor for this Project**Document type and title:**

- **Standard for**{document stressing the verb "shall"}
- **Recommended Practice for**{document stressing the verb "should"}
- **Guide for** {document in which good practices are suggested}

Title: Telecommunications and Information Exchange Between Systems - LAN/MAN Specific Requirements - Air Interface for Fixed Broadband Wireless Access Systems in Licensed Bands from 2 to 11 GHz

Name of Working Group (WG):		IEEE 802.16 Working Group on Broadband Wireless Access	
Name of Official Reporter (usually the WG Chair) who must be an SA member as well as an IEEE/Affiliate Member.		Roger B. Marks	
Title in WG:	Chair	IEEE/Affiliate Member #	[]
Company:	National Institute of Standards and Technology	Telephone:	+1-303-497-3037
Address:	325 Broadway, MC 813.00	FAX:	+1-303-497-7828
City/State/Zip:	Boulder, CO 80303	Email:	r.b.marks@ieee.org

Name of Sponsoring Society and Committee:		Computer Society, LAN/MAN Standards Committee; Microwave Theory and Techniques Society	
Name of Committee Sponsor Chair:		Jim Carlo, LAN/MAN Standards Committee	
		IEEE/Affiliate Member #	<input type="checkbox"/>
Company:	Texas Instruments	Telephone:	<input type="checkbox"/>
Address:	9208 Heatherdale Drive	FAX:	<input type="checkbox"/>
City/State/Zip:	Dallas, TX 75243-6332	Email:	jcarlo@ti.com

5. Describe This Project; Answer each of four questions below:

- a. Update an existing PAR [[No](#)]
- b. Choose one from the following:
 - New Standard
 - Revision of existing standard {number and year}
 - Amendment (Supplement) to an existing standard {number and year}
 - Corrigenda to an existing standard {number and year}
- c. Choose one from the following:
 - Full Use (5-year life cycle)
 - Trial Use (2-year life cycle)
- d. Choose one from the following:
 - Individual Sponsor Balloting

- Entity Sponsor Balloting

e. Fill in Target Completion Date to IEEE RevCom : 2002 Mar 31

6. Scope of Proposed Project:

This standard specifies the physical layer and media access control layer of the air interface of interoperable fixed point-to-multipoint broadband wireless access systems (e.g., those supporting data rates of DS1/E1 or greater). The specification enables access to data, video, and voice services with a specified quality of service in licensed bands designated for public network access. It applies to systems operating between 2 and 11 GHz.

7. Purpose of Proposed Project:

To enable rapid worldwide deployment of innovative, cost-effective and interoperable multi-vendor broadband wireless access products. To facilitate competition in broadband access by providing wireless alternatives to wireline broadband access. To facilitate coexistence studies, encourage consistent worldwide allocation, and accelerate the commercialization of broadband wireless access spectrum. Utilization of frequencies from 2 to 11 GHz will address a market that includes residences, Small Office-Home Office (SOHO), telecommuters and Small and Medium Enterprises (SME).

8. Intellectual Property

- Are you aware of any patents relevant to this project?
[No] {Yes, with detailed explanation below / No}
- Are you aware of any copyrights relevant to this project?
[No]
- Are you aware of any trademarks relevant to this project?
[No]
- Are you aware of any registration of objects or numbers relevant to this

project?
[No]

9. Are you aware of any other standards or projects with a similar scope?

[Yes] {Yes, with detailed explanation below / No}

T1P1.4 is currently developing air interface standards for Fixed Wireless Access to the PSTN Network. The primary focus of the group is wireless access to POTS, ISDN and Fractional T1/E1 services delivered via the public circuit switched telephone network, although their charter does include packet data services. The individual user data rates currently contemplated by this group range from 8 Kb/s to 2 Mb/s.

The ETSI HIPERACCESS Project is currently focusing on frequencies around 40 GHz but may evolve to frequencies below 11 GHz.

IEEE 802.11 and 802.15 address primarily short range WLAN and WPAN applications, respectively. The 802.16.3 standard is specifically directed towards longer-range wireless point to multipoint MAN/WAN systems that provide access to core public networks. These systems typically serve large numbers of dispersed subscribers.

ITU-R Working Party 8F is developing air interfaces for IMT-2000 and access systems beyond IMT-2000 for both mobile and fixed applications.

10. International Harmonization

Is this standard planned for adoption by another international organization?

[Yes]

If Yes: Which International Organization [ITU-R]

If Yes: Include coordination in question 13 below

11. Is this project intended to focus on health, safety or environmental issues?

[No]

12. Proposed Coordination/Recommended Method of Coordination

Mandatory Coordination:

SCC 10 (IEEE Dictionary)	by DR	{Circulation of D rafts}
IEEE Staff Editorial Review by	by DR	
SCC 14 (Quantities, Units and Letter symbols)	by DR	

Coordination requested by Sponsor:

[ITU-R, including Joint Rapporteur Group 8A/9B]	by [LI]	{Circulation of D Rafts/ L iaison memb/ C ommon memb}
[T1P1.4]	by [CO]	{Circulation of D Rafts/ L iaison memb/ C ommon memb}
ETSI TM4	by [LI]	{Circulation of D Rafts/ L iaison memb/ C ommon memb}

Coordination requested by Others:

{added by staff}

13. Additional Explanation Notes: {Item Number and Explanation}

As required by the LAN/MAN Standards Committee, documentation of [how of the project will address the Five Criteria for Standards Development](#) is available.

The PAR Copyright Release and Signature Page must be submitted by FAX or physical delivery before this PAR will be sent on for NesCom and Standards Board approval.
