

Project	<b>IEEE 802.16 Broadband Wireless Access Working Group</b> < <a href="http://ieee802.org/16">http://ieee802.org/16</a> >
Title	<b>802.16e OFDMA Profile for 5 MHz – 10 ms</b>
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Source(s)	Herbert Ruck David Maez Weidong Yang Navini Networks 817-235-9599, hruck@navini.com
Re:	IEEE 802.16e/D6 Sponsor Ballot
Abstract	This contribution proposes include a profile for OFDMA 5 MHz with 10 ms frame duration for the base station and 10 ms and 5 ms for the subscriber station.
Purpose	Adoption
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## 1 Explanation:

We propose to include in the text a profile for OFDMA systems with 5 MHz bandwidth. The frame duration shall be 10 ms for the base station and 10 ms and 5 ms (with auto detect) for the subscriber station.

The unresolved comment 1855 referred to the need of a 5 MHz profile. Several other comments and contributions recognized the need for additions and changes in the profile section.

## 2 Remedy:

In Chapter 12 insert the following table in the OFDMA section.

### 12.4.3xxx WirelessMAN-OFDMA 5 MHz channel basic PHY Profile

Profile identifier: OFDMA\_ProfPxxx

Systems implementing OFDMA\_ProfPxxx shall meet the minimum performance requirements listed in Tables yyy1 and yyy2:

Table yyy1 –Base Station Minimum Performance Requirements for OFDMA\_Profxxx

Capability of Base Station	Minimum performance
Channel bandwidth	5 MHz
Operation mode	Licensed bands
BER performance threshold, BER = $10^{-6}$ (using all subchannels BS/SS)	
QPSK-1/2	$\leq -86$ dBm
QPSK-3/4	$\leq -84$ dBm
16QAM-1/2	$\leq -79$ dBm
16QAM-3/4	$\leq -77$ dBm
64QAM-2/3 (if 64-QAM supported)	$\leq -72$ dBm
64QAM-3/4 (if 64-QAM supported)	$\leq -71$ dBm
Reference frequency tolerance BS	$\leq \pm 2 \cdot 10^{-6}$
Frame duration code set BS	{6}

Table yyy2 – Subscriber Station Minimum Performance Requirements for OFDMA\_Profxxx

Capability of Subscriber Station	Minimum performance
Channel bandwidth	5 MHz
Operation mode	Licensed bands
BER performance threshold, BER = $10^{-6}$ (using all subchannels BS/SS)	
QPSK-1/2	$\leq -86$ dBm
QPSK-3/4	$\leq -84$ dBm
16QAM-1/2	$\leq -79$ dBm
16QAM-3/4	$\leq -77$ dBm
64QAM-2/3 (if 64-QAM supported)	$\leq -72$ dBm
64QAM-3/4 (if 64-QAM supported)	$\leq -71$ dBm
SS to BS synchronization tolerance	$\leq 50$ Hz
Frame duration code set SS	{6} and {4} with auto detect