

World WLAN Application Alliance

WAA-TS 014-2024

Test Specification for Campus Office WLAN Performance

(Based on IEEE 802.11be-2024)

Released on July 1st, 2025

Foreword

Copyright Notice:

This document is the property of WAA.

This document was developed and is maintained by the Technical Committee on Standardization of WAA.

The content of this document is made available solely for use by WAA members and authorized users, For authorization, contact: tcs@waa-alliance.org.

Patent Statement:

Certain contents of this document may relate to patent rights. WAA does not undertake the responsibility to identify patents.

Should you have knowledge of any patent information potentially pertaining to this document, kindly forward the pertinent details to the WAA Secretariat via: tcs@waa-alliance.org.

Disclaimer:

This document may contain forward-looking statements, including but not limited to information regarding future technologies, business operations, products, etc. Due to numerous uncertainties in practice, actual results may differ significantly from the projected information. Therefore, the content of this document is for reference only and does not constitute any offer or commitment. Users shall exercise their own judgment and assume all risks associated with its use. WAA and its contributors shall not be held liable for any actions taken based on this document. WAA reserves the right to modify or adjust the information herein at any time without prior notice.

The main drafters of this document are:

Name	Affiliation
JI Chenhe	Huawei Technologies Co., Ltd.
CHEN Jie	China Academy of Information and Communications Technology (CAICT)
YUAN Liquan	ZTE Corporation
XU Yue	Huawei Technologies Co., Ltd.
FAN Dawei	Huawei Technologies Co., Ltd.
LV Maosheng	Huawei Technologies Co., Ltd.
SHI Wen	Huawei Technologies Co., Ltd.
LEI Gen	China Electronics Standardization Institute
MA Di	Spirent Communications Technology (Beijing) Co., Ltd.
JIANG Wei	FiberHome Telecommunication Technologies Co., Ltd.
SUN Li	China Unicom
QU Yajiang	Changeself Technology (Shenzhen) Co., Ltd.
XU Zichao	China Quality Certification Center
LI Zhongzheng	New H3C Technologies Co., Ltd.

FAN Zhichao	iTest Technology Co., Ltd.
WANG Yabin	China Quality Certification Center
LI Jian	Changeself Technology (Shenzhen) Co., Ltd.
WANG Xiaobo	Hangzhou Yongxie Technology Co., Ltd.

Contents

1 Overview	1
1.1 Scope	1
1.2 Applicability	1
1.3 Word usage	1
2 Normative References	1
3 Terms and Definitions	1
3.1 Scene	1
3.2 Campus	1
3.3 Basic Performance	2
3.4 Service Performance	2
3.5 Test Bed	2
3.6 Scene Model	2
3.7 Latency	2
3.8 Packet Loss Ratio	2
3.9 Concurrency	2
3.10 Channel Bandwidth	2
3.11 Interference	3
4 Acronym/Abbreviation	3
5 DUT and Test Environment Requirements	4
5.1 DUT	4
5.2 Test Environment Requirements	4
6 Test Tools and Test Platform Requirements	4
6.1 Automated Test Tools	4
6.2 Test Platform Classification and STA Capability Requirements	4
7 WAA Certification Requirements	6
7.1 Certification Prerequisites	6
7.2 Campus Network Performance Test Cases	6
8 Basic Performance Certification Test Cases for Campus Office Networks	7
8.1 Overall Requirements for Test Prerequisites	7
8.2 Bandwidth Performance Tests	8
8.3 Connection Performance Tests	15
8.4 Coverage Performance Tests	19
8.5 Roaming Mobility Performance Tests	26
8.6 Latency Performance Tests	28
8.7 Security Performance Test	33
9 Service Performance Certification Test Cases for Typical Campus Office Scenarios ...	33

9.1 Performance Tests for Multi-STA Concurrent Office Services 33

9.2 Mobile Office Performance Test42

9.3 Maximum Service Access Capacity Test 44

Appendix A (Standard) 47

Appendix B (Standard) 50

 B.1 Video Live Streaming: Service Model Selection 50

 B.2 Video Conferencing: Service Model Selection50

 B.3 Desktop Cloud: Service Model Selection 50

 B.4 File Transfer: Service Model Selection50

Appendix C (Informative) Reference Values of Signal Attenuation Caused by Common Obstacles 52

 C.1 Reference Values of Signal Attenuation Caused by Common Obstacles 52

Appendix D (Informative) Reference Values of Signal Attenuation at Common Distances 53

 D.1 Reference Values of Signal Attenuation at Common Distances 53