

# INTERNATIONAL STANDARD

ISO/IEC/  
IEEE  
**8802-11**

Second edition  
2018-05-01

**AMENDMENT 2**  
2019-03

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## Information technology — Telecommunications and information exchange between systems — Local and metropolitan area networks — Specific requirements —

### iTeh STANDARD PREVIEW (standards.iteh.ae)

**Wireless LAN medium access control  
(MAC) and physical layer (PHY)  
specifications**

ISO/IEC/IEEE 8802-11:2018/Amd.2:2019

c417fbee56c0/iso-iec-ieee-8802-11-2018-amd-2-2019

### AMENDMENT 2: Sub 1 GHz license exempt operation

*Technologies de l'information — Télécommunications et échange  
d'information entre systèmes — Réseaux locaux et métropolitains —  
Exigences spécifiques —*

*Partie 11: Spécifications du contrôle d'accès du milieu sans fil (MAC)  
et de la couche physique (PHY)*

*AMENDEMENT 2: Fonctionnement sans licence dans les bandes de  
fréquences inférieures à 1 GHz*



Reference number  
ISO/IEC/IEEE 8802-11:2018/Amd.2:2019(E)



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**Abstract:** Modifications to both the IEEE 802.11™ physical layer (PHY) and the medium access control (MAC) sublayer to enable operation of license-exempt IEEE 802.11 wireless networks in frequency bands below 1 GHz, excluding the television (TV) White Space bands, with a transmission range up to 1 km and a minimum data rate of at least 100 Kb/s are defined in this amendment.

**Keywords:** IEEE 802.11ah™, long transmission range, low power consumption, MAC, medium access control, narrower bandwidth, OFDM, orthogonal frequency division multiplexing, PHY, physical layer, sub 1 GHz, wireless local area network, WLAN

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Print: ISBN 978-1-5044-3911-4      STD22509  
PDF: ISBN 978-1-5044-3912-1      STDPD22509

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## **Introduction**

This introduction is not part of IEEE Std 802.11ah-2016, IEEE Standard for Information technology—Telecommunications and information exchange between systems—Local and metropolitan area network—Specific requirements—Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications—Amendment 2: Sub 1 GHz License-Exempt Operation.

This amendment defines modifications to both the IEEE 802.11™ physical layer (PHY) and the medium access control (MAC) sublayer to enable operation of license-exempt IEEE 802.11 wireless networks in frequency bands below 1 GHz, excluding the television (TV) White Space bands, with a transmission range up to 1 km and a minimum data rate of at least 100 Kb/s.

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## Contents

3.	Definitions, acronyms, and abbreviations.....	33
3.2	Definitions specific to IEEE 802.11 .....	33
3.4	Abbreviations and acronyms .....	37
4.	General description .....	38
4.3	Components of the IEEE 802.11 architecture .....	38
4.3.13a	Sub 1 GHz (S1G) STA .....	38
4.3.13a.1	Overview.....	38
4.3.13a.2	S1G Relay .....	39
5.	MAC service definition .....	40
5.1	Overview of MAC services .....	40
5.1.2	Security services .....	40
5.1.5	MAC data service architecture .....	40
	5.1.5.6 S1G Relay .....	40
6.	Layer management.....	42
6.3	MLME SAP interface .....	42
6.3.2	Power management.....	42
6.3.2.2	MLME-POWERMGT.request.....	42
6.3.3	Scan.....	42
6.3.3.2	MLME-SCAN.request.....	42
6.3.3.3	MLME-SCAN.confirm.....	44
6.3.4	Synchronization.....	47
6.3.4.2	MLME-JOIN.request.....	47
6.3.5	Authenticate.....	47
6.3.5.2	MLME-AUTHENTICATE.request.....	47
6.3.7	Associate.....	47
6.3.7.2	MLME-ASSOCIATE.request.....	47
6.3.7.3	MLME-ASSOCIATE.confirm.....	49
6.3.7.4	MLME-ASSOCIATE.indication.....	51
6.3.7.5	MLME-ASSOCIATE.response.....	53
6.3.8	Reassociate.....	56
6.3.8.2	MLME-REASSOCIATE.request.....	56
6.3.8.3	MLME-REASSOCIATE.confirm.....	59
6.3.8.4	MLME-REASSOCIATE.indication.....	62
6.3.8.5	MLME-REASSOCIATE.response.....	65
6.3.11	Start.....	68
6.3.11.2	MLME-START.request.....	68
6.3.29	Block Ack .....	70
6.3.29.3	MLME-ADDBA.confirm .....	70
6.3.29.5	MLME-ADDBA.response .....	70
6.3.106	Dynamic AID assignment operation.....	71
6.3.106.1	General .....	71
6.3.106.2	MLME-AIDSWITCH.request .....	71
6.3.106.3	MLME-AIDSWITCH.confirm .....	72
6.3.106.4	MLME-AIDSWITCH.indication.....	72
6.3.106.5	MLME-AIDSWITCH.response .....	73
6.3.107	Sync Control .....	74
6.3.107.1	General .....	74
6.3.107.2	MLME-SYNCCONTROL.request .....	74
6.3.107.3	MLME-SYNCCONTROL.indication.....	75

6.3.108	STA Information Announcement .....	75
6.3.108.1	General.....	75
6.3.108.2	MLME-STAINFORMATION.request .....	75
6.3.108.3	MLME-STAINFORMATION.indication.....	76
6.3.109	EDCA Parameter Set update.....	77
6.3.109.1	General.....	77
6.3.109.2	MLME-EDCAPARAMETERSET.request .....	77
6.3.109.3	MLME-EDCAPARAMETERSET.indication.....	77
6.3.110	EL Operation.....	78
6.3.110.1	General.....	78
6.3.110.2	MLME-ELOPERATION.request .....	78
6.3.110.3	MLME-ELOPERATION.indication.....	79
6.3.111	TWT Setup.....	79
6.3.111.1	General.....	79
6.3.111.2	MLME-TWTSETUP.request .....	79
6.3.111.3	MLME-TWTSETUP.confirm.....	80
6.3.111.4	MLME-TWTSETUP.indication .....	81
6.3.111.5	MLME-TWTSETUP.response .....	82
6.3.112	TWT Teardown.....	82
6.3.112.1	General.....	82
6.3.112.2	MLME-TWTTEARDOWN.request .....	82
6.3.112.3	MLME-TWTTEARDOWN.indication.....	83
6.3.113	Sectorized Group ID List management .....	84
6.3.113.1	General.....	84
6.3.113.2	MLME-SECTORIZEDGROUPID.request .....	84
6.3.113.3	MLME-SECTORIZEDGROUPID.indication.....	84
6.3.114	Header Compression procedure.....	85
6.3.114.1	General.....	85
6.3.114.2	MLME-HEADERCOMPRESSION.request .....	85
6.3.114.3	MLME-HEADERCOMPRESSION.confirm.....	86
6.3.114.4	MLME-HEADERCOMPRESSION.indication.....	87
6.3.114.5	MLME-HEADERCOMPRESSION.response .....	87
6.3.115	Reachable Address Update .....	88
6.3.115.1	General.....	88
6.3.115.2	MLME-REACHABLEADDRESSUPDATE.request .....	88
6.3.115.3	MLME-REACHABLEADDRESSUPDATE.indication .....	89
6.3.116	Control response MCS negotiation operation.....	90
6.3.116.1	General.....	90
6.3.116.2	MLME-CONTROLRESPONSEMCS.request .....	90
6.3.116.3	MLME-CONTROLRESPONSEMCS.confirm .....	90
6.3.116.4	MLME-CONTROLRESPONSEMCS.indication.....	91
6.3.116.5	MLME-CONTROLRESPONSEMCS.response .....	92
6.3.117	S1G Relay (de)activation.....	92
6.3.117.1	General.....	92
6.3.117.2	MLME-S1GRELAYACTIVATE.request .....	93
6.3.117.3	MLME-S1GRELAYACTIVATE.confirm .....	93
6.3.117.4	MLME-S1GRELAYACTIVATE.indication.....	94
6.3.117.5	MLME-S1GRELAYACTIVATE.response .....	95
6.5	PLME SAP interface .....	95
6.5.4	PLME-CHARACTERISTICS.confirm .....	95
6.5.4.2	Semantics of the service primitive.....	95
8.	PHY service specification.....	97
8.3	Detailed PHY service specifications.....	97

8.3.4	Basic service and options.....	97
8.3.4.4	Vector descriptions .....	97
8.3.5	PHY SAP detailed service specification.....	98
8.3.5.8	PHY-TXEND.confirm.....	98
8.3.5.12	PHY-CCA.indication.....	98
9.	Frame formats .....	100
9.2	MAC frame formats.....	100
9.2.2	Conventions .....	100
9.2.3	General frame format.....	100
9.2.4	Frame fields .....	100
9.2.4.1	Frame Control field.....	100
9.2.4.2	Duration/ID field.....	106
9.2.4.5	QoS Control field.....	107
9.2.4.6	HT Control field.....	108
9.2.4.7	Frame Body field .....	109
9.2.5	Duration/ID field (QoS STA).....	110
9.2.5.1	General.....	110
9.2.5.2	Setting for single and multiple protection under enhanced distributed channel access (EDCA) .....	110
9.2.5.7	Setting for control response frames .....	112
9.3	Format of individual frame types.....	112
9.3.1	Control frames .....	112
9.3.1.1	Format of Control frames .....	112
9.3.1.5	PS-Poll frame format .....	114
9.3.1.6	CF-End frame format.....	114
9.3.1.20	VHT NDP Announcement frame format.....	115
9.3.1.22	TACK frame format.....	115
9.3.2	Data frames .....	116
9.3.2.1	<a href="https://standards.ieee.org/ieee-standards/sist/31ba91b8-1cf6-4def-b3af-171bee56c0/iso-iec-8802-11-2018-amd-2-2019">https://standards.ieee.org/ieee-standards/sist/31ba91b8-1cf6-4def-b3af-171bee56c0/iso-iec-8802-11-2018-amd-2-2019</a> Format of Data frames .....	116
9.3.2.2	Aggregate MSDU (A-MSDU) format .....	117
9.3.3	Management frames.....	118
9.3.3.1	Format of Management frames.....	118
9.3.3.6	Association Request frame format.....	118
9.3.3.7	Association Response frame format .....	119
9.3.3.8	Reassociation Request frame format .....	120
9.3.3.9	Reassociation Response frame format .....	121
9.3.3.10	Probe Request frame format .....	122
9.3.3.11	Probe Response frame format .....	123
9.3.4	Extension frames.....	124
9.3.4.3	S1G Beacon frame format .....	124
9.4	Management and Extension frame body components .....	126
9.4.1	Fields that are not elements .....	126
9.4.1.6	Listen Interval field .....	126
9.4.1.8	AID field .....	127
9.4.1.9	Status Code field .....	127
9.4.1.11	Action field .....	128
9.4.1.15a	Originator Preferred MCS field .....	128
9.4.1.33	Rate Identification field .....	129
9.4.1.48	VHT MIMO Control field .....	130
9.4.1.49	VHT Compressed Beamforming Report field .....	131
9.4.1.53	Operating Mode field .....	133
9.4.1.58	Sync Control field .....	134
9.4.1.59	Suspend Duration field .....	135