

WEA453e



Radio Specification	IEEE 802.11a/b/g/n/ac Dual concurrent radio 3x3 MIMO, 3 spatial streams PHY data rates up to 1.3Gbps Dynamic frequency selection(DFS) IEEE 802.11n high throughput (HT20/40) IEEE 802.11ac very high throughput (VHT20/40/80)
Operation Mode	Controlled Mode, Stand-alone Mode, WIPS sensor Mode
Supported Wireless LAN Controllers	WEC8500 Series WEC8050 Series
Data Rates	IEEE 802.11b : 1, 2, 5.5 and 11 Mbps IEEE 802.11a/g : 6, 9, 12, 18, 24, 36, 48, and 54 Mbps IEEE 802.11n : MCS 0 to MCS 23 (6.5Mbps ~ 450 Mbps) IEEE 802.11ac : MCS 0 to MCS 9 (6.5Mbps ~ 1.3 Gbps, NSS 1 to 3)
Frequency Band	IEEE 802.11b/g/n : 2.412GHz ~2.472GHz 13CH IEEE 802.11a/n/ac : 5.180GHz~5.825GHz 24CH * Available Channel is Compliant with local regulatory domain
Maximum Transmit Power	23dBm with 1 stream * The maximum transmit power will vary by channel and according to individual regulation
External Antenna (Sold Separately)	Omni-Directional (dual band) : 2.4GHz 5dBi, 5GHz 8dBi Directional (dual band) : 2.4GHz 6.5dBi, 5GHz 7dBi
Interfaces	Two 10/100/1000BASE-T Ethernet Autosensing (RJ-45) One Management Console Port(RJ-45)
Indicators	LED indicates AP status(booting, provisioning, service, upgrade, fault)
Dimensions (W × L × H)	267 × 184 × 58 (mm)
Weight / Volume	2.6kg / 2.8L
Environmental	Storage Temperature : -40 ~ 70°C Operating Temperature : -40 ~ 55°C Operating Humidity: 5 ~ 100% (non condensing)
Environmental Class	IP66 & IP67
Input Power Requirements	IEEE 802.3at PoE: 50 to 57 VDC
Powering Options (Sold Separately)	Local Power Supply: AC/DC power adapter (AC 100 ~ 240V, 1A, 50/60Hz, Output 48V)
Power Draw	< 25.5W
Compliance Standards	<ul style="list-style-type: none"> • Safety IEC 60950-1 EN 60950-1 UL 60950-1 CAN/CSA-C22.2 No. 60950-1 • Radio Approvals FCC Part 15.247, 15.407 FCC Part 15.107 and 15.109 RSS-210 ICES-003 EN 300 328, EN 301 893 EN 301 489-1 and -17 KN 301 489-1/KN 301 489-17 (Korea) Radio Equipment Specifications (Korea) EMI and susceptibility (Class B)
Part Numbers	WDS-A453E/KOR WDS-A453E/XAR (US & CANADA) WDS-A453E/EUS (EU)

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Standard	Modulation	Data Rate Mbps	1			6			11		
			RX0	RX1	RX2	RX0	RX1	RX2	RX0	RX1	RX2
11b	DSSS	1	-97	-97	-97	-97	-97	-97	-97	-97	-97
	CCK	11	-89	-89	-89	-89	-89	-89	-89	-89	-88
11a/g	OFDM	6	-93	-93	-93	-93	-93	-93	-93	-93	-93
	OFDM	9	-91	-91	-91	-92	-92	-91	-92	-91	-91
	OFDM	12	-90	-90	-90	-90	-90	-90	-90	-90	-90
	OFDM	18	-87	-87	-88	-88	-88	-87	-88	-87	-87
	OFDM	24	-84	-84	-84	-84	-84	-84	-84	-84	-84
	OFDM	36	-81	-81	-81	-81	-81	-81	-81	-81	-81
	OFDM	48	-76	-76	-77	-77	-77	-76	-77	-76	-76
	OFDM	54	-75	-75	-75	-75	-75	-75	-75	-75	-75
HT20S1	MCS0	6.5	-92	-92	-92	-92	-92	-92	-92	-92	-92
	MCS1	13	-88	-88	-88	-88	-88	-88	-88	-88	-88
	MCS2	19.5	-86	-86	-86	-86	-86	-86	-86	-86	-86
	MCS3	26	-82	-82	-83	-83	-83	-82	-83	-82	-82
	MCS4	39	-79	-79	-79	-79	-79	-79	-79	-79	-79
	MCS5	52	-75	-75	-75	-75	-75	-75	-75	-75	-75
	MCS6	58.5	-73	-73	-73	-73	-74	-73	-74	-73	-73
HT20S2	MCS7	65	-72	-72	-72	-72	-72	-72	-72	-72	-72
	MCS8	13	-89			-89			-89		
	MCS9	26	-85			-86			-86		
	MCS10	39	-83			-83			-83		
	MCS11	52	-80			-80			-80		
	MCS12	78	-76			-77			-76		
	MCS13	104	-72			-72			-72		
	MCS14	117	-70			-71			-71		
HT20S3	MCS15	130	-69			-69			-69		
	MCS16	19.5	-87			-87			-87		
	MCS17	39	-84			-84			-84		
	MCS18	58.5	-82			-82			-82		
	MCS19	78	-78			-79			-78		
	MCS20	117	-75			-75			-75		
	MCS21	156	-71			-71			-71		
	MCS22	175.5	-69			-69			-69		
	MCS23	195	-68			-68			-68		

Receive Sensitivity

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	Standard	Modulation	Data Rate	36			100			161				
			Mbps	RX0	RX1	RX2	RX0	RX1	RX2	RX0	RX1	RX2		
	11a/g	OFDM	6	-94	-93	-93	-94	-93	-93	-93	-93	-93		
		OFDM	9	-92	-92	-92	-92	-92	-92	-91	-91	-90		
		OFDM	12	-90	-90	-90	-90	-90	-90	-87	-90	-90		
		OFDM	18	-88	-88	-88	-88	-88	-88	-84	-87	-86		
		OFDM	24	-84	-84	-84	-84	-84	-84	-81	-84	-84		
		OFDM	36	-81	-81	-81	-81	-81	-81	-78	-81	-81		
		OFDM	48	-77	-77	-77	-77	-77	-76	-76	-76	-76		
		OFDM	54	-75	-75	-75	-75	-75	-75	-74	-74	-74		
			HT20S1	MCS0	6.5	-93	-93	-92	-93	-93	-93	-90	-92	-92
				MCS1	13	-89	-89	-88	-89	-89	-88	-88	-88	-88
MCS2	19.5			-86	-86	-86	-86	-86	-86	-85	-86	-86		
MCS3	26			-83	-83	-83	-83	-83	-83	-81	-82	-82		
MCS4	39			-80	-80	-79	-80	-80	-80	-79	-79	-79		
MCS5	52			-76	-75	-75	-75	-75	-75	-74	-75	-75		
MCS6	58.5			-74	-74	-74	-74	-73	-74	-73	-73	-73		
MCS7	65			-72	-72	-72	-72	-72	-72	-71	-71	-71		
Receive Sensitivity	HT20S2	MCS8	13	-89			-89			-87				
		MCS9	26	-86			-86			-85				
		MCS10	39	-83			-84			-81				
		MCS11	52	-80			-80			-78				
		MCS12	78	-77			-77			-74				
		MCS13	104	-72			-72			-70				
		MCS14	117	-70			-71			-68				
	HT20S3	MCS15	130	-69			-69			-66				
		MCS16	19.5	-88			-88			-85				
		MCS17	39	-84			-85			-83				
		MCS18	58.5	-82			-82			-79				
		MCS19	78	-79			-79			-77				
		MCS20	117	-75			-75			-72				
	HT40S1	MCS21	156	-71			-71			-69				
		MCS22	175.5	-69			-69			-68				
MCS23		195	-68			-68			-65					
MCS0		13.5	-89	-89	-89	-90	-89	-89	-88	-89	-89			
	MCS1	27	-86	-86	-86	-86	-86	-86	-85	-85	-85			
	MCS2	40.5	-84	-84	-83	-83	-83	-83	-82	-83	-83			
	MCS3	54	-80	-80	-80	-80	-80	-80	-79	-80	-80			

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Standard	Modulation	Data Rate	36			100			161		
		Mbps	RX0	RX1	RX2	RX0	RX1	RX2	RX0	RX1	RX2
HT40S1	MCS4	81	-77	-77	-77	-77	-77	-77	-76	-76	-76
	MCS5	108	-73	-73	-73	-72	-73	-72	-72	-72	-72
	MCS6	121.5	-71	-71	-71	-71	-71	-71	-70	-70	-71
	MCS7	135	-69	-69	-69	-69	-69	-69	-68	-69	-69
HT40S2	MCS8	27	-86			-86			-85		
	MCS9	54	-83			-83			-82		
	MCS10	81	-80			-80			-79		
	MCS11	108	-77			-77			-76		
	MCS12	162	-73			-74			-73		
	MCS13	216	-69			-69			-68		
	MCS14	243	-67			-68			-67		
	MCS15	270	-66			-66			-65		
HT40S3	MCS16	40.5	-84			-84			-83		
	MCS17	81	-81			-81			-80		
	MCS18	121.5	-78			-79			-78		
	MCS19	162	-75			-75			-75		
	MCS20	243	-72			-72			-71		
	MCS21	324	-67			-68			-67		
	MCS22	364.5	-67			-66			-66		
	MCS23	405	-65			-62			-64		
VHT20S1	MCS0NSS1	6.5	-92	-92	-92	-92	-92	-92	-90	-91	-91
	MCS1NSS1	13	-88	-88	-88	-88	-88	-88	-88	-88	-88
	MCS2NSS1	19.5	-86	-86	-86	-86	-86	-86	-85	-86	-85
	MCS3NSS1	26	-83	-83	-83	-83	-83	-83	-81	-82	-82
	MCS4NSS1	39	-80	-79	-79	-80	-79	-79	-78	-79	-79
	MCS5NSS1	52	-75	-75	-75	-75	-75	-75	-74	-74	-75
	MCS6NSS1	58.5	-73	-73	-73	-73	-73	-74	-73	-73	-73
	MCS7NSS1	65	-72	-72	-72	-72	-72	-72	-70	-71	-71
MCS8NSS1	78	-67	-67	-67	-67	-67	-67	-65	-66	-67	
VHT20S2	MCS0NSS2	13	-89			-89			-88		
	MCS1NSS2	26	-86			-86			-85		
	MCS2NSS2	39	-83			-84			-81		
	MCS3NSS2	52	-80			-80			-78		
	MCS4NSS2	78	-77			-77			-76		
	MCS5NSS2	104	-72			-72			-70		
	MCS6NSS2	117	-71			-71			-69		

Receive Sensitivity

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	Standard	Modulation	Data Rate			36			100			161		
			Mbps	RX0	RX1	RX2	RX0	RX1	RX2	RX0	RX1	RX2		
Receive Sensitivity	VHT20S2	MCS7NSS2	130	-69			-69			-68				
		MCS8NSS2	156	-64			-64			-63				
	VHT20S3	MCS0NSS3	19.5	-88			-88			-86				
		MCS1NSS3	39	-85			-85			-84				
		MCS2NSS3	58.5	-82			-82			-80				
		MCS3NSS3	78	-79			-79			-78				
		MCS4NSS3	117	-76			-75			-74				
		MCS5NSS3	156	-71			-71			-69				
		MCS6NSS3	175.5	-69			-69			-67				
		MCS7NSS3	195	-68			-67			-67				
	VHT40S1	MCS8NSS3	234	-62			-61			-60				
		MCS0NSS1	13.5	-89	-89	-89	-89	-89	-89	-88	-89	-88		
		MCS1NSS1	27	-85	-86	-85	-86	-86	-85	-84	-85	-85		
		MCS2NSS1	40.5	-83	-83	-83	-83	-83	-83	-82	-83	-83		
		MCS3NSS1	54	-80	-80	-80	-80	-80	-80	-79	-79	-80		
		MCS4NSS1	81	-77	-77	-77	-77	-77	-76	-75	-76	-76		
		MCS5NSS1	108	-71	-72	-72	-72	-72	-72	-71	-72	-72		
		MCS6NSS1	121.5	-71	-71	-71	-71	-71	-70	-69	-70	-70		
		MCS7NSS1	135	-68	-69	-69	-69	-69	-69	-67	-69	-69		
	MCS8NSS1	162	-65	-65	-65	-65	-65	-64	-63	-64	-64			
	MCS9NSS1	180	-64	-63	-63	-63	-63	-63	-61	-61	-61			
	VHT40S2	MCS0NSS2	27	-86			-86			-85				
		MCS1NSS2	54	-82			-82			-82				
		MCS2NSS2	81	-79			-80			-79				
		MCS3NSS2	108	-76			-76			-76				
		MCS4NSS2	162	-73			-73			-72				
		MCS5NSS2	216	-69			-69			-68				
		MCS6NSS2	243	-67			-67			-66				
MCS7NSS2		270	-66			-66			-65					
MCS8NSS2		324	-61			-61			-60					
MCS9NSS2	360	-59			-59			-58						
VHT40S3	MCS0NSS3	40.5	-84			-84			-84					
	MCS1NSS3	81	-81			-81			-80					
	MCS2NSS3	121.5	-79			-78			-78					
	MCS3NSS3	162	-75			-75			-74					
MCS4NSS3	243	-72			-70			-71						

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Standard	Modulation	Data Rate Mbps	36			100			161		
			RX0	RX1	RX2	RX0	RX1	RX2	RX0	RX1	RX2
VHT40S3	MCS5NSS3	324	-68			-66			-67		
	MCS6NSS3	364.5	-66			-66			-65		
	MCS7NSS3	405	-64			-65			-64		
	MCS8NSS3	486	-59			-57			-56		
	MCS9NSS3	540	-58			-58			-56		
VHT80S1	MCS0NSS1	29.3	-85	-86	-86	-86	-86	-86	-85	-85	-85
	MCS1NSS1	58.5	-82	-82	-82	-82	-82	-82	-81	-81	-81
	MCS2NSS1	87.8	-79	-80	-80	-80	-80	-80	-78	-79	-79
	MCS3NSS1	117	-76	-76	-76	-76	-76	-76	-75	-76	-76
	MCS4NSS1	175.5	-73	-73	-73	-73	-73	-73	-72	-72	-73
	MCS5NSS1	234	-68	-69	-69	-69	-68	-68	-68	-68	-68
	MCS6NSS1	263.3	-67	-67	-67	-67	-67	-67	-66	-67	-67
	MCS7NSS1	292.5	-66	-66	-66	-66	-66	-66	-65	-66	-66
	MCS8NSS1	351	-62	-61	-62	-62	-62	-61	-61	-61	-61
	MCS9NSS1	390	-60	-60	-60	-60	-60	-60	-59	-59	-59
VHT80S2	MCS0NSS2	58.5	-82			-82			-81		
	MCS1NSS2	117	-79			-79			-78		
	MCS2NSS2	175.5	-76			-76			-75		
	MCS3NSS2	234	-73			-73			-72		
	MCS4NSS2	351	-70			-70			-69		
	MCS5NSS2	468	-66			-66			-65		
	MCS6NSS2	526.5	-64			-64			-63		
	MCS7NSS2	585	-63			-63			-62		
	MCS8NSS2	702	-58			-58			-57		
	MCS9NSS2	780	-56			-56			-56		
VHT80S3	MCS0NSS3	87.8	-81			-81			-79		
	MCS1NSS3	175.5	-78			-77			-77		
	MCS2NSS3	263.3	-75			-75			-74		
	MCS3NSS3	351	-72			-72			-71		
	MCS4NSS3	526.5	-68			-68			-67		
	MCS5NSS3	702	-64			-64			-63		
	MCS7NSS3	877.5	-62			-62			-61		
	MCS8NSS3	1053	-57			-57			-56		
	MCS9NSS3	1170	-56			-55			-54		

Receive Sensitivity