

OVER6G Checklist

1. For frequencies up to 8500 MHz provide spatial peak SAR evaluation based on IEC/IEEE 62209-1528:2020, along with applicable product-specific procedures among KDB Pubs. 648474, 616217, 941225. SAR test data shall account for device tune-up tolerance (that is referred to as "Reported SAR" in KDB 447498).

ANS: Yes, the reported SAR was scaled by the tune-up tolerance. See page 44 of 45 Test Report SAR-WiFi 6E Part 1.

10.1. SAR Test Result

Test Date	2025. 10. 09	Temp./Hum.	22°C/52%
Test Voltage	AC 120V, 60Hz (with AC Adapter)	Tested by	Brian Hsieh

Liquid Temperature : 21.0°C										Depth of Liquid: > 15cm		
Test Mode: WIFI 6E												
Remark	Test Position: Body	Antenna Position	Separation Distance (mm)	Frequency	Conducted Power (dBm)	Maximum Tune-up (dBm)	SAR 1g (W/kg)	Scale Factor	Reported SAR	Limit (W/kg)	psAPD ^{Note} ²(W/m²)	
											1 cm²	4 cm²
802.11be-EHT320												
Antenna: AUX-ANT												
	Bottom	Fixed	0	6105	12.24	13.00	0.061	1.191	0.073	1.60	0.605	0.473
	Bottom	Fixed	0	6425	12.47	13.00	0.030	1.130	0.034	1.60	0.304	0.200
	Bottom	Fixed	0	6585	12.48	13.00	0.050	1.127	0.056	1.60	0.497	0.344
	Bottom	Fixed	0	6745	12.58	13.30	0.036	1.180	0.042	1.60	0.363	0.259
	Bottom	Fixed	0	6905	11.13	12.00	0.052	1.222	0.064	1.60	0.518	0.382
	Back	Fixed	5	6105	12.24	13.00	0.067	1.191	0.080	1.60	0.673	0.566
Antenna: Main-ANT												
Note 1	Bottom	Fixed	0	6105	12.04	13.00	0.141	1.247	0.176	1.60	1.410	1.120
	Bottom	Fixed	0	6425	11.94	12.50	0.140	1.138	0.159	1.60	1.400	1.080
	Bottom	Fixed	0	6585	12.19	13.00	0.075	1.205	0.090	1.60	0.749	0.568
	Bottom	Fixed	0	6745	12.21	13.00	0.048	1.199	0.058	1.60	0.480	0.386
	Bottom	Fixed	0	6905	10.72	11.30	0.043	1.143	0.049	1.60	0.425	0.293
Note 1	Back	Fixed	5	6105	12.04	13.00	0.078	1.247	0.097	1.60	0.779	0.649

Note: 1. We only presented the worst plots for each test configuration.

2. For reference purposes only, not specifically for compliance.

2. This policy considers a device compliant for Equipment Authorization purposes, so long as the SAR evaluation of step 1. is within the same SAR limits that have been established for frequencies below 6000 MHz (e.g., 1.6 W/kg for 1-g average SAR). In this case, the SAR evaluations are taken as a conservative compliance demonstration to the MPE power density limits of 47 CFR 1.1310(d)(3).

ANS: Yes, SAR was performed to demonstrate < 1.6 W/kg and PD was performed to demonstrate compliance with 1.1310(d)(3).

3. Documentation is required to support evaluation with MPE limits providing power density data in accordance with the following:

3.1 For the test configurations of step 1 having the highest SAR, evaluate Incident Power Density (IPD), using a suitable near-field probe and a total-field/power-density reconstruction method.

ANS: Yes, E-field probe EUmmW4,10GHz verification source and Dipole 6.5GHzV2 were used for PD measurement. See page 14 of 45 Test Report SAR-WiFi 6E Part 1, Test Report-SAR WiFi 6E Part 6 D6.5GHzV2 SN1051.

4. MEASUREMENT EQUIPMENTLIST

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Signal Generator	Agilent	N5182B	MY53050409	2024.11.29	1 Year
2.	Data Acquisition Electronic	SPEAG	DAE4	1337	2025.03.21	1 Year
3.	E-Field Probe	SPEAG	EX3DV4	3801	2025.07.03	1 Year
4.	E-Field Probe	SPEAG	EUmmWV4	9584	2025.06.20	1 Year
5.	System Verification Device	SPEAG	5G verification source 10 GHz	2014	2024.10.16	1 Year
6.	Stäubli Robot TX90 XL	Stäubli	TX90	F12/5K9SA1/A101	N.C.R.	N.C.R.
7.	mmWave Phantom	SPEAG	QD 015 025CA	1059	N.C.R.	N.C.R.
8.	D6.5GHzV2 system Validation Dipole	SPEAG	D6.5GHzV2	1051	2024.09.17	3 Years
9.	ENA Network Analyzer	Agilent	E5071C-285	MY46215502	2025.05.26	1 Year
10.	SAR Software	SPEAG	Dasy6 SAR	V16.0.0.016	N.C.R.	N.C.R.
11.	Test Software	Speag	cDasy6 Module mmWave	V16.0.2.136	N.C.R.	N.C.R.

3.2 Report estimated IPD measurement uncertainty (e.g., per methods of IEC/IEEE 63195-1:2022)

ANS: Yes, see page 13 of 45 of Test Report SAR-WiFi 6E Part 1.

3.3 Power density test data shall account for device tune-up tolerance.

ANS: Yes, See page 45 of 45 Test Report SAR-WiFi 6E Part 1.

10.2. Power Density Test Result

Test Date	2025. 10. 09	Temp./Hum.	22°C/52%
Test Voltage	AC 120V, 60Hz (with AC Adapter)	Tested by	Brian Hsieh

Test Mode: WIFI 6E									
Remark	Test Position: Body	Antenna Position	Separation Distance (mm)	Frequency	Uncertainty Cor. Factor Note2	Scale Factor	psPDtot (W/m ²) 4cm ²	C-psPDtot+ Note3 (W/m ²) 4cm ²	Limit (W/m ²) 4cm ²
802.11be-EHT320									
Antenna: AUX-ANT									
Note 1	Back	Fixed	2	6105	1.12	1.191	2.260	3.015	10.00
	Back	Fixed	2	6425	1.12	1.130	0.084	0.106	10.00
	Back	Fixed	2	6585	1.12	1.127	1.080	1.363	10.00
	Back	Fixed	2	6745	1.12	1.180	0.041	0.054	10.00
	Back	Fixed	2	6905	1.12	1.222	0.626	0.857	10.00
Antenna: Main-ANT									
Note 1	Back	Fixed	2	6105	1.12	1.247	1.670	2.332	10.00
	Back	Fixed	2	6425	1.12	1.138	0.980	1.249	10.00
	Back	Fixed	2	6585	1.12	1.205	0.204	0.275	10.00
	Back	Fixed	2	6745	1.12	1.199	0.073	0.098	10.00
	Back	Fixed	2	6905	1.12	1.143	0.111	0.142	10.00

Note: 1. We only presented the worst plots for each test configuration.

Note 2: The correction factor uncertainty in dB corresponds to the difference between the actual uncertainty and the 30% target value, as per the TCB Workshop April. 2021.

Per IEC 62479:2010, actual uncertainty is 1.52 dB(42%) so the correction factor is $0.7 + 0.42 = 1.12$.

Note 3: c-psPDtot = Compensated PStot.

3.4 If supported by the test system, also report estimated Absorbed (epithelial) Power Density (APD) (e.g., as per method in [Samaras, 2021])

ANS: Yes, See page 44 of 45 Test Report SAR-WiFi 6E Part 1.

10.1. SAR Test Result

Test Date	2025. 10. 09	Temp./Hum.	22°C/52%
Test Voltage	AC 120V, 60Hz (with AC Adapter)	Tested by	Brian Hsieh

Liquid Temperature : 21.0°C									Depth of Liquid: > 15cm			
Test Mode: WIFI 6E												
Remark	Test Position: Body	Antenna Position	Separation Distance (mm)	Frequency	Conducted Power (dBm)	Maximum Tune-up (dBm)	SAR 1g (W/kg)	Scale Factor	Reported SAR	Limit (W/kg)	psAPD ^{Note} ²(W/m²)	
											1 cm²	4 cm²
802.11be-EHT320												
Antenna: AUX-ANT												
	Bottom	Fixed	0	6105	12.24	13.00	0.061	1.191	0.073	1.60	0.605	0.473
	Bottom	Fixed	0	6425	12.47	13.00	0.030	1.130	0.034	1.60	0.304	0.200
	Bottom	Fixed	0	6585	12.48	13.00	0.050	1.127	0.056	1.60	0.497	0.344
	Bottom	Fixed	0	6745	12.58	13.30	0.036	1.180	0.042	1.60	0.363	0.259
	Bottom	Fixed	0	6905	11.13	12.00	0.052	1.222	0.064	1.60	0.518	0.382
	Back	Fixed	5	6105	12.24	13.00	0.067	1.191	0.080	1.60	0.673	0.566
Antenna: Main-ANT												
Note 1	Bottom	Fixed	0	6105	12.04	13.00	0.141	1.247	0.176	1.60	1.410	1.120
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	Bottom	Fixed	0	6745	12.21	13.00	0.048	1.199	0.058	1.60	0.480	0.386
	Bottom	Fixed	0	6905	10.72	11.30	0.043	1.143	0.049	1.60	0.425	0.293
Note 1	Back	Fixed	5	6105	12.04	13.00	0.078	1.247	0.097	1.60	0.779	0.649

Note: 1. We only presented the worst plots for each test configuration.

2. For reference purposes only, not specifically for compliance.

4. The process of steps 1 to 4 shall be repeated for at least five channels, at the channel center frequency, selected to cover uniformly the largest frequency ranges used in the device, between 5925 MHz and 8500 MHz, and consistent with KDB Publication 248227 test configuration provisions.

ANS: 5 channels were performed with SAR measurement for 6 GHz WLAN.

See page 44 of 45 Test Report SAR-WiFi 6E Part 1.

10.1. SAR Test Result

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Note 1	Back	Fixed	5	6105	12.04	13.00	0.078	1.247	0.097	1.60	0.779	0.649

Note: 1. We only presented the worst plots for each test configuration.

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5. For the purpose of SAR test exemption, analyses of simultaneous transmission combinations of RF sources with frequencies from 4 MHz and 8500 MHz (where the lowest frequency is per KDB Publication 447498- D01 SAR evaluation requirements¹¹), may be performed according to the SPLSR approach (id.). Accordingly, no further compliance evaluation is needed for all antenna pairs for which the SPLSR exemption is applicable.

ANS: The simulation SAR is < 1.6 W/kg and SPLSR was not performed for this application.

6. For evaluations and test exemption analyses of simultaneous-transmission combinations of different RF sources, the procedure outlined above, for a single source between 6000 and 8500 MHz shall be included in the calculation of total exposure ratio (TER) as in KDB Pub. 447498-D01-Appendix C.

ANS: TER was demonstrated <1 and presented at section 10.2 of Test Report SAR-WiFi 6E Part 1.

Total Exposure Ratio

WLAN 6E ANT AUX C-psPDtot avg	WLAN 6E ANT Main C-psPDtot avg	BT ANT Main ^{Note} SAR _{1g}	TER	Limit
3.015 / 10 = 0.302	2.332 / 10 = 0.233	0.029 / 1.6 = 0.018	0.553	≤1

Note: The BT Highest Body SAR_{1g} is 0.029 W/kg, please refer to report number EM-SR250140.

7. Any source above 8500 MHz shall be evaluated via incident power density measurements.

ANS: This application supports frequency up to 7115MHz only.