

SAR Test exclusion documentation according to FCC § 1.1307(b)(3), RSS-102



BNetzA-CAB-13/21-08

This SAR test exclusion document is referring to the Test report identification no.: 24013198_Rev.01_FCC Part 95 M and 24013199_Rev.01_RSS-251_Issue2.

Contains the module with the Certification numbers	
FCC ID	ZKS-QR4000
IC ID	9849A-QR4000
HVIN (Hardware Version Identification Number)	Rev. A
PMN (Product Marketing Name)	QR4000
FVIN (Firmware Version Identification Number)	8
HMN (Host Marketing Name)	QR4000

Equipment Under Test (EUT)			
EUT / Technology	Operating Frequency [GHz]	EIRP Average power. [dBm]	Antenna Gain [dBi]
QR4000 / FMCW RADAR	76.365 (WF0/CF0)	25.7**	17.5
	76.605 (WF0/CF1)	24.5**	17.5
	76.125 (WF1/CF0)	26.8**	17.5
	76.845 (WF1/CF3)	23.9**	17.5

** measurement results are taken from TÜV Nord HF Test report no. 24013198_Rev.00_FCC Part 95 M and 24013199_Rev.01_RSS-251_Issue2.

SAR test exclusion according to FCC § 1.1307(b)(3)

According to FCC § 1.1307(b)(3)(i)(C) and the Table 1 in (C), the EUT is exempted from SAR evaluation.

SAR test exclusion for 76 – 81 GHz RADAR devices

Operating Frequency [GHz]	d _{separation} [cm]	Power measured [mW]	EIRP Power limit [mW]	Exclusion [Yes / No]
76.400	20	371.54	6297.6	Yes
76.638	20	281.84	6297.6	Yes
76.139	20	478.63	6297.6	Yes
76.860	20	245.47	6297.6	Yes

SAR test exclusion according to RSS-102 Issue 5 Section 2.5.2

According to RSS-102 Issue 5 section 2.5.2, if the EUT operates at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p of the device is equal to or less than 5 W (adjusted for tune-up tolerance), then it is exempted from SAR evaluation.

SAR test exclusion for 76 – 81 GHz RADAR devices

Operating Frequency [GHz]	d _{separation} [cm]	Power measured [mW]	EIRP Power limit [mW]	Exclusion [Yes / No]
76.400	> 20	371.54	5000.0	Yes
76.638	> 20	281.84	5000.0	Yes
76.139	> 20	478.63	5000.0	Yes
76.860	> 20	245.47	5000.0	Yes

ATTESTATION: I attest that the EUT meets the exemption from the routine evaluation limits according to FCC § 1.1307(b)(3) as well as meets the exemption from the routine evaluation limits in section 2.5 “Exemption Limits for Routine Evaluation” of RSS-105 issue 5; that the Technical Brief was prepared and the information contained therein is correct; that the device evaluation was performed or supervised by me; that applicable measurement methods and evaluation methodologies have been followed; and that the device meets the SAR and/or RF field strength limits of FCC § 1.1307(b)(3) and RSS-102 issue 5.

Signature	
Name	Mr. Ralf Trepper
Designation	Laboratory Manager
Date of issue	2024-09-11