

Report on the Testing of the
Rigaku Analytical Devices
KT-500

In accordance with:
FCC Rule Part: 47 CFR Part 2.1093
RSS-102 Issue 5

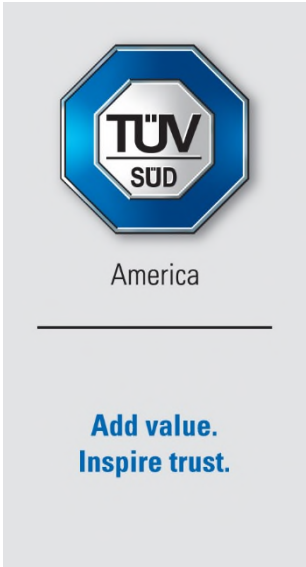
FCC ID: 2AZ35-SDPAC
IC: 27303-SDPAC

RF Exposure Certification Exhibit - MPE

Prepared for: Rigaku Analytical Devices
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COMMERCIAL-IN-CONFIDENCE

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| SIGNATURE | | | |
|---------------|-------------------------------|----------------------|-------------|
| | | | |
| NAME | JOB TITLE | RESPONSIBLE FOR | ISSUE DATE |
| Franklin Rose | Sr. Wireless RF Test Engineer | Authorized Signatory | 26 MAY 2021 |

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD America, Inc. document control rules.

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| FCC Accreditation | Innovation, Science, and Economic Development Canada |
| Designation Number US1148 New Brighton, MN Test Laboratory | Accreditation |
| | Site Number 4512A New Brighton, MN Test Laboratory |

EXECUTIVE SUMMARY
A sample of this product was tested and found to be compliant with the standards listed above.

| | |
|-------------------------------|--|
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General Information:

Applicant: Rigaku Analytical Devices
Device Category: Portable
Environment: Extremity

Technical Information (2.4GHz WIFI):

FCC ID: 2AZ35-SDPAC
IC: 27303-SDPAC
Antenna Type: Unictron AA258, WiFi Dual Band PCB
Antenna Gain: 2.4GHz = 0.9 dBi
Maximum Transmitter Conducted Power: 17.83 dBm, 60.67 mW
Maximum System EIRP: 18.73 dBm, 74.64mW
Exposure Conditions: 50mm separation distance

Technical Information (5GHz WIFI):

FCC ID: 2AZ35-SDPAC
IC: 27303-SDPAC
Antenna Type: Unictron AA258, WiFi Dual Band PCB
Antenna Gain: 5GHz = 3.8 dBi
Maximum Transmitter Conducted Power: 15.09 dBm, 32.28 mW
Maximum System EIRP: 18.89 dBm, 77.45mW
Exposure Conditions: 50mm separation distance



FCC:

Justification for SAR Test Exclusion:

Standalone SAR Test Exclusion:

Per KDB 447498 D01 General RF Exposure Guidance v05r02, the standalone 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR}$$

Table 1: SAR Test Exclusion Calculation - FCC

| Transmitter | Max Conducted Source-based Time-averaged Power (mW) | Test Separation (mm) | Frequency (GHz) | 1-g / 10-g (Input 1 or 10) | Estimated SAR (W/kg) | Standalone SAR Test Exclusion | Limit for Standalone SAR Test Exclusion | Standalone SAR Required |
|-------------|---|----------------------|-----------------|----------------------------|----------------------|-------------------------------|---|-------------------------|
| 2.4GHz WIFI | 60.67 | 50 | 2.47 | 10 | 0.1 | 1.9 | 7.5 | no |
| 5GHz WIFI | 32.28 | 50 | 5.795 | 10 | 0.1 | 1.6 | 7.5 | no |



ISED

Justification for SAR Test Exclusion:

The SAR test exclusion thresholds are determined using IC RSS-102 Issue 5, Section 2.5.1 and shown below in this report.

Table 2: SAR Test Exclusion Calculation - ISED

| Transmitter | Transmitter Frequency (GHz) | Max Conducted Source-based Time-averaged Power (mW) | Test Separation (mm) | Frequency (MHz) | Exemption Threshold (mW) | Standalone SAR Required |
|-------------|-----------------------------|---|----------------------|-----------------|--------------------------|-------------------------|
| 2.4GHz WIFI | 2.47 | 74.64 | 50 | 2450 | 309 | No |
| 5GHz WIFI | 5.795 | 77.45 | 50 | 5800 | 106 | No |