

ICNIRP Measurement Report

This report presents the results of measurements of electromagnetic field emission levels in the vicinity of mobile base stations. Results are presented as percentages of the power density reference levels for general public exposure in the 1998 edition of the Guidelines published by the International Commission on Non-Ionizing Radiation Protection (ICNIRP)¹, with figures provided for individual frequency bands used for base station (downlink) transmissions as well as an overall figure for all other frequency bands between 30 MHz to 6 GHz. The total percentage equals the sum of all individual percentages.

The power density reference levels in the ICNIRP Guidelines are the root mean square (rms) values averaged over six minutes. In this report, we have measured the average E-field strength over a six-minute period in each measurement location.

We have applied a measurement threshold of 3dB above the system noise floor² of the measurement equipment, below which any E-field strength levels measured are deemed not sufficiently above the system noise floor to be valid. In the results tables below, measurement results are shown to a precision of four decimal places. Results which are not sufficiently above the system noise floor to record as a valid measurement are shown as a dash (-). Results which are too small to register to four decimal places are shown as 0.0000%.

Date of Survey:	06/11/2025	Time Survey completed:	12:32
Survey address:	Salisbury SP2		

Measurement equipment			Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	US55240262	18/06/2025	
Probe	Agos Aria-6000 Antenna	1157	23/09/2025	
Cabling	1.7m cable	1379	25/09/2025	

¹ <https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf>

² The noise floor of the measurement equipment is the level of background noise that is present before detecting any external signals. In other words, it indicates the absolute minimum level of detectable signals.

Broadcast bands covered by this report

Frequency Band	Frequency Range	Technology*
	87.5-108 MHz	FM Radio
	174-230 MHz	DAB
	470-694 MHz	Digital TV

Mobile bands covered by this report

Frequency Band	Frequency Range	Technology*
700 MHz	738-788 MHz	4G, 5G
800 MHz	791-821 MHz	4G
900 MHz	925-960 MHz	2G, 3G, 4G
1400 MHz	1452-1492 MHz	4G (Supplementary downlink)
1800 MHz	1805-1880 MHz	2G, 4G
1900 MHz	1900-1920 MHz	4G
2100 MHz	2110-2170 MHz	3G, 4G
2300 MHz	2350-2390 MHz	4G
2600 MHz TDD	2570-2620 MHz	4G
2600 MHz FDD	2620-2690 MHz	4G
3.4 GHz	3410-3680 MHz	5G, 4G
3.8 GHz	3680-4200 MHz	Various
Others**		

* This is an indication of the type of technologies typically deployed in these bands; not all frequency bands and technologies may be in use at all locations. ** All other frequencies between 30 MHz and 6 GHz.

Survey locations

The survey was conducted within the area shown in the map below. Measurements were taken at seven locations and are presented in the following pages of this report.



Location 1

Measurement time:	11:27
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01248
174-230 MHz	0.04112
470-694 MHz	0.00678
700 MHz	0.00074
800 MHz	0.00053
900 MHz	0.00045
1400 MHz	0.00021
1800 MHz	0.00027
1900 MHz	0.00009
2100 MHz	0.00028
2300 MHz	0.00021
2600 MHz TDD	0.00020
2600 MHz FDD	0.00010
3.4 GHz	0.00064
3.8 GHz	0.00158
Others	0.07612
Total	0.14178

Location 2

Measurement time:	11:41
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.03316
174-230 MHz	0.08710
470-694 MHz	0.01171
700 MHz	0.00318
800 MHz	0.00725
900 MHz	0.00124
1400 MHz	0.00023
1800 MHz	0.00126
1900 MHz	0.00009
2100 MHz	0.00050
2300 MHz	0.00022
2600 MHz TDD	0.00022
2600 MHz FDD	0.00022
3.4 GHz	0.00069
3.8 GHz	0.00170
Others	0.08174
Total	0.23051

Location 3

Measurement time:	11:48
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.02007
174-230 MHz	0.40211
470-694 MHz	0.00687
700 MHz	0.00219
800 MHz	0.00430
900 MHz	0.00098
1400 MHz	0.00023
1800 MHz	0.00044
1900 MHz	0.00010
2100 MHz	0.00047
2300 MHz	0.00023
2600 MHz TDD	0.00022
2600 MHz FDD	0.00033
3.4 GHz	0.00071
3.8 GHz	0.00176
Others	0.08343
Total	0.52442

Location 4

Measurement time:	11:59
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01591
174-230 MHz	0.07780
470-694 MHz	0.00844
700 MHz	0.00117
800 MHz	0.00139
900 MHz	0.00050
1400 MHz	0.00024
1800 MHz	0.00040
1900 MHz	0.00010
2100 MHz	0.00034
2300 MHz	0.00024
2600 MHz TDD	0.00023
2600 MHz FDD	0.00015
3.4 GHz	0.00073
3.8 GHz	0.00182
Others	0.08469
Total	0.19413

Location 5

Measurement time:	12:10
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.02439
174-230 MHz	0.03610
470-694 MHz	0.00635
700 MHz	0.00090
800 MHz	0.00080
900 MHz	0.00044
1400 MHz	0.00024
1800 MHz	0.00030
1900 MHz	0.00010
2100 MHz	0.00030
2300 MHz	0.00024
2600 MHz TDD	0.00023
2600 MHz FDD	0.00010
3.4 GHz	0.00076
3.8 GHz	0.00188
Others	0.08751
Total	0.16066

Location 6

Measurement time:	12:17
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.16356
174-230 MHz	0.66187
470-694 MHz	0.00681
700 MHz	0.00151
800 MHz	0.00267
900 MHz	0.00060
1400 MHz	0.00025
1800 MHz	0.00051
1900 MHz	0.00010
2100 MHz	0.00039
2300 MHz	0.00025
2600 MHz TDD	0.00024
2600 MHz FDD	0.00016
3.4 GHz	0.00079
3.8 GHz	0.00196
Others	0.09337
Total	0.93504

Location 7

Measurement time:	12:26
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01850
174-230 MHz	0.13282
470-694 MHz	0.00894
700 MHz	0.00088
800 MHz	0.00063
900 MHz	0.00051
1400 MHz	0.00025
1800 MHz	0.00033
1900 MHz	0.00011
2100 MHz	0.00032
2300 MHz	0.00026
2600 MHz TDD	0.00025
2600 MHz FDD	0.00012
3.4 GHz	0.00080
3.8 GHz	0.00199
Others	0.09117
Total	0.25787

Disclaimer: The results detailed in this report apply only to the tests made at the reported time, using the test equipment detailed. They do not indicate that on another date an identical set of results would be achieved, due to changes in local environmental conditions or other factors which may or may not have an effect on the measurement results obtained at that future time.