

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:	12/01/2026	Time Survey completed:	12:35
Survey address:	Old Warden SG18		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072605	19/03/2025
Probe	Agos Aria-6000 Antenna	ARIA-6000-1111	08/07/2025
Cabling	1.7m cable	1409	08/07/2025

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 six locations and are presented in the following pages of this report.



Location 1

Measurement time:	11:52
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00971
174-230 MHz	0.01098
470-694 MHz	0.01069
700 MHz	0.00108
800 MHz	0.00059
900 MHz	0.00060
1400 MHz	0.00040
1800 MHz	0.00340
1900 MHz	0.00019
2100 MHz	0.00050
2300 MHz	0.00039
2600 MHz TDD	0.00033
2600 MHz FDD	0.00022
3.4 GHz	0.00247
3.8 GHz	0.00551
Others	0.15297
Total	0.20002

Location 2

Measurement time:	11:59
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01008
174-230 MHz	0.01132
470-694 MHz	0.01059
700 MHz	0.00112
800 MHz	0.00062
900 MHz	0.00061
1400 MHz	0.00041
1800 MHz	0.00844
1900 MHz	0.00020
2100 MHz	0.00052
2300 MHz	0.00040
2600 MHz TDD	0.00035
2600 MHz FDD	0.00023
3.4 GHz	0.00258
3.8 GHz	0.00575
Others	0.15973
Total	0.21295

Location 3

Measurement time:	12:06
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01028
174-230 MHz	0.01154
470-694 MHz	0.01112
700 MHz	0.00115
800 MHz	0.00067
900 MHz	0.00083
1400 MHz	0.00042
1800 MHz	0.00273
1900 MHz	0.00020
2100 MHz	0.00059
2300 MHz	0.00041
2600 MHz TDD	0.00036
2600 MHz FDD	0.00023
3.4 GHz	0.00264
3.8 GHz	0.00589
Others	0.16773
Total	0.21679

Location 4

Measurement time:	12:13
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01047
174-230 MHz	0.01176
470-694 MHz	0.01986
700 MHz	0.00116
800 MHz	0.00066
900 MHz	0.00072
1400 MHz	0.00043
1800 MHz	0.00135
1900 MHz	0.00020
2100 MHz	0.00067
2300 MHz	0.00042
2600 MHz TDD	0.00036
2600 MHz FDD	0.00024
3.4 GHz	0.00271
3.8 GHz	0.00603
Others	0.16553
Total	0.22254

Location 5

Measurement time:	12:22
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01068
174-230 MHz	0.01189
470-694 MHz	0.01274
700 MHz	0.00119
800 MHz	0.00092
900 MHz	0.00083
1400 MHz	0.00044
1800 MHz	0.00223
1900 MHz	0.00021
2100 MHz	0.00056
2300 MHz	0.00043
2600 MHz TDD	0.00037
2600 MHz FDD	0.00024
3.4 GHz	0.00276
3.8 GHz	0.00616
Others	0.16946
Total	0.22111

Location 6

Measurement time:	12:29
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01077
174-230 MHz	0.01221
470-694 MHz	0.01155
700 MHz	0.00118
800 MHz	0.00065
900 MHz	0.00065
1400 MHz	0.00044
1800 MHz	0.00607
1900 MHz	0.00021
2100 MHz	0.00055
2300 MHz	0.00043
2600 MHz TDD	0.00037
2600 MHz FDD	0.00025
3.4 GHz	0.00281
3.8 GHz	0.00626
Others	0.17204
Total	0.22646

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.