

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:	07/01/2026	Time Survey completed:	11:49
Survey address:	Baldock SG6		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072605	19/03/2025
Probe	Agos Aria-6000 Antenna	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:	11:05
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01036
174-230 MHz	0.01174
470-694 MHz	0.00890
700 MHz	0.00124
800 MHz	0.00151
900 MHz	0.00209
1400 MHz	0.00043
1800 MHz	0.00423
1900 MHz	0.00020
2100 MHz	0.00084
2300 MHz	0.00055
2600 MHz TDD	0.00036
2600 MHz FDD	0.00024
3.4 GHz	0.00273
3.8 GHz	0.00605
Others	0.16294
Total	0.21442

Location 2

Measurement time:	11:12
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01056
174-230 MHz	0.01184
470-694 MHz	0.00893
700 MHz	0.00156
800 MHz	0.00659
900 MHz	0.01342
1400 MHz	0.00043
1800 MHz	0.00531
1900 MHz	0.00020
2100 MHz	0.00134
2300 MHz	0.00099
2600 MHz TDD	0.00037
2600 MHz FDD	0.00024
3.4 GHz	0.00280
3.8 GHz	0.00624
Others	0.16442
Total	0.23526

Location 3

Measurement time:	11:19
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01054
174-230 MHz	0.01181
470-694 MHz	0.00892
700 MHz	0.00169
800 MHz	0.00798
900 MHz	0.01003
1400 MHz	0.00043
1800 MHz	0.00230
1900 MHz	0.00020
2100 MHz	0.00167
2300 MHz	0.00125
2600 MHz TDD	0.00037
2600 MHz FDD	0.00024
3.4 GHz	0.00284
3.8 GHz	0.00631
Others	0.16461
Total	0.23119

Location 4

Measurement time:	11:27
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01038
174-230 MHz	0.01187
470-694 MHz	0.00904
700 MHz	0.00149
800 MHz	0.00455
900 MHz	0.00715
1400 MHz	0.00043
1800 MHz	0.00174
1900 MHz	0.00020
2100 MHz	0.00120
2300 MHz	0.00084
2600 MHz TDD	0.00036
2600 MHz FDD	0.00024
3.4 GHz	0.00286
3.8 GHz	0.00617
Others	0.16448
Total	0.22300

Location 5

Measurement time:	11:35
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01040
174-230 MHz	0.01177
470-694 MHz	0.00887
700 MHz	0.00122
800 MHz	0.00113
900 MHz	0.00113
1400 MHz	0.00043
1800 MHz	0.00090
1900 MHz	0.00020
2100 MHz	0.00060
2300 MHz	0.00048
2600 MHz TDD	0.00037
2600 MHz FDD	0.00024
3.4 GHz	0.00272
3.8 GHz	0.00605
Others	0.16371
Total	0.21022

Location 6

Measurement time:	11:43
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01049
174-230 MHz	0.01181
470-694 MHz	0.00890
700 MHz	0.00122
800 MHz	0.00220
900 MHz	0.00194
1400 MHz	0.00043
1800 MHz	0.00294
1900 MHz	0.00021
2100 MHz	0.00079
2300 MHz	0.00053
2600 MHz TDD	0.00036
2600 MHz FDD	0.00024
3.4 GHz	0.00273
3.8 GHz	0.00608
Others	0.16417
Total	0.21503

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.