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 floor[2] 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:	18/08/2026	**Time Survey completed:**	08:50
Survey address:	Baxenden BB5		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9950A Spectrum Analyser	US55240265	31/10/2025
Probe	Agos Aria-6000 Antenna	AGOS-6000-1022	08/07/2025
Cabling	1.7m cable	2072	18/02/2026

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



Location 1

Measurement time:	08:07
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00832
174-230 MHz	0.00755
470-694 MHz	0.00596
700 MHz	0.00078
800 MHz	0.00742
900 MHz	0.00973
1400 MHz	0.00025
1800 MHz	0.00100
1900 MHz	0.00010
2100 MHz	0.00121
2300 MHz	0.00025
2600 MHz TDD	0.00026
2600 MHz FDD	0.00039
3.4 GHz	0.00098
3.8 GHz	0.00239
Others	0.09927
Total	**0.14584**

Location 2

Measurement time:	08:15
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00846
174-230 MHz	0.00794
470-694 MHz	0.00618
700 MHz	0.00080
800 MHz	0.02252
900 MHz	0.00523
1400 MHz	0.00027
1800 MHz	0.00102
1900 MHz	0.00011
2100 MHz	0.00068
2300 MHz	0.00026
2600 MHz TDD	0.00027
2600 MHz FDD	0.00051
3.4 GHz	0.00102
3.8 GHz	0.00250
Others	0.10241
Total	**0.16018**

Location 3

Measurement time:	08:25
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00853
174-230 MHz	0.00799
470-694 MHz	0.00629
700 MHz	0.00082
800 MHz	0.00857
900 MHz	0.02458
1400 MHz	0.00026
1800 MHz	0.00076
1900 MHz	0.00011
2100 MHz	0.00574
2300 MHz	0.00026
2600 MHz TDD	0.00031
2600 MHz FDD	0.00154
3.4 GHz	0.00104
3.8 GHz	0.00254
Others	0.10495
Total	**0.17429**

Location 4

Measurement time:	08:36
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00864
174-230 MHz	0.00798
470-694 MHz	0.00627
700 MHz	0.00082
800 MHz	0.00161
900 MHz	0.00421
1400 MHz	0.00027
1800 MHz	0.00035
1900 MHz	0.00011
2100 MHz	0.00049
2300 MHz	0.00026
2600 MHz TDD	0.00028
2600 MHz FDD	0.00038
3.4 GHz	0.00105
3.8 GHz	0.00258
Others	0.10514
Total	**0.14044**

Location 5

Measurement time:	08:44
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00871
174-230 MHz	0.00814
470-694 MHz	0.00641
700 MHz	0.00083
800 MHz	0.00612
900 MHz	0.00910
1400 MHz	0.00027
1800 MHz	0.00228
1900 MHz	0.00011
2100 MHz	0.00139
2300 MHz	0.00027
2600 MHz TDD	0.00029
2600 MHz FDD	0.00059
3.4 GHz	0.00107
3.8 GHz	0.00263
Others	0.10667
Total	**0.15488**

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.