

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:	12/06/2026	Time Survey completed:	09:00
Survey address:	Southbourne PO10		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072613	07/07/2025
Probe	Agos Aria-6000 Antenna	1157	08/07/2025
Cabling	1.7m cable	1379	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:	08:00
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00860
174-230 MHz	0.00971
470-694 MHz	0.00744
700 MHz	0.00101
800 MHz	0.00079
900 MHz	0.00067
1400 MHz	0.00035
1800 MHz	0.00053
1900 MHz	0.00016
2100 MHz	0.00087
2300 MHz	0.00035
2600 MHz TDD	0.00032
2600 MHz FDD	0.00021
3.4 GHz	0.00199
3.8 GHz	0.00486
Others	0.13448
Total	0.17237

Location 2

Measurement time:	08:11
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00937
174-230 MHz	0.01062
470-694 MHz	0.00804
700 MHz	0.00114
800 MHz	0.00102
900 MHz	0.00096
1400 MHz	0.00038
1800 MHz	0.00060
1900 MHz	0.00018
2100 MHz	0.00208
2300 MHz	0.00039
2600 MHz TDD	0.00035
2600 MHz FDD	0.00034
3.4 GHz	0.00224
3.8 GHz	0.00541
Others	0.14803
Total	0.19116

Location 3

Measurement time:	08:21
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01001
174-230 MHz	0.01114
470-694 MHz	0.00846
700 MHz	0.00114
800 MHz	0.00098
900 MHz	0.00119
1400 MHz	0.00041
1800 MHz	0.00074
1900 MHz	0.00019
2100 MHz	0.00056
2300 MHz	0.00041
2600 MHz TDD	0.00037
2600 MHz FDD	0.00023
3.4 GHz	0.00239
3.8 GHz	0.00577
Others	0.15659
Total	0.20059

Location 4

Measurement time:	08:32
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01023
174-230 MHz	0.01158
470-694 MHz	0.00871
700 MHz	0.00117
800 MHz	0.00163
900 MHz	0.00134
1400 MHz	0.00042
1800 MHz	0.00065
1900 MHz	0.00020
2100 MHz	0.00057
2300 MHz	0.00042
2600 MHz TDD	0.00038
2600 MHz FDD	0.00023
3.4 GHz	0.00250
3.8 GHz	0.00604
Others	0.16299
Total	0.20907

Location 5

Measurement time:	08:46
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01059
174-230 MHz	0.01199
470-694 MHz	0.00891
700 MHz	0.00126
800 MHz	0.00130
900 MHz	0.00166
1400 MHz	0.00043
1800 MHz	0.00090
1900 MHz	0.00021
2100 MHz	0.00084
2300 MHz	0.00044
2600 MHz TDD	0.00039
2600 MHz FDD	0.00026
3.4 GHz	0.00258
3.8 GHz	0.00624
Others	0.16717
Total	0.21519

Location 6

Measurement time:	08:54
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01070
174-230 MHz	0.01191
470-694 MHz	0.00891
700 MHz	0.00135
800 MHz	0.00155
900 MHz	0.00080
1400 MHz	0.00043
1800 MHz	0.00067
1900 MHz	0.00021
2100 MHz	0.00100
2300 MHz	0.00044
2600 MHz TDD	0.00039
2600 MHz FDD	0.00024
3.4 GHz	0.00257
3.8 GHz	0.00624
Others	0.16765
Total	0.21504

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.