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:	20/07/2026	**Time Survey completed:**	13:32
Survey address:	Radlett WD6		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072597	15/08/2025
Probe	Agos Aria-6000 Antenna	ARIA-6000-1157	08/07/2025
Cabling	1.7m cable	2068	15/11/2024

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



Location 1

Measurement time:	13:03
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.02244
174-230 MHz	0.01517
470-694 MHz	0.00995
700 MHz	0.02053
800 MHz	0.06358
900 MHz	0.00057
1400 MHz	0.00439
1800 MHz	0.00497
1900 MHz	0.00028
2100 MHz	0.00215
2300 MHz	0.00051
2600 MHz TDD	0.00046
2600 MHz FDD	0.00020
3.4 GHz	0.00351
3.8 GHz	0.00525
Others	0.22765
Total	**0.38161**

Location 2

Measurement time:	13:10
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.02359
174-230 MHz	0.01581
470-694 MHz	0.01053
700 MHz	0.00414
800 MHz	0.02516
900 MHz	0.00059
1400 MHz	0.00282
1800 MHz	0.00350
1900 MHz	0.00030
2100 MHz	0.00141
2300 MHz	0.00054
2600 MHz TDD	0.00049
2600 MHz FDD	0.00022
3.4 GHz	0.00585
3.8 GHz	0.00571
Others	0.24258
Total	**0.34324**

Location 3

Measurement time:	13:18
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.02519
174-230 MHz	0.01696
470-694 MHz	0.01099
700 MHz	0.00442
800 MHz	0.01393
900 MHz	0.00063
1400 MHz	0.00275
1800 MHz	0.00960
1900 MHz	0.00031
2100 MHz	0.00234
2300 MHz	0.00057
2600 MHz TDD	0.00052
2600 MHz FDD	0.00023
3.4 GHz	0.00347
3.8 GHz	0.00606
Others	0.25627
Total	**0.35425**

Location 4

Measurement time:	13:26
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.02661
174-230 MHz	0.01755
470-694 MHz	0.01148
700 MHz	0.00966
800 MHz	0.02676
900 MHz	0.00064
1400 MHz	0.00450
1800 MHz	0.00497
1900 MHz	0.00033
2100 MHz	0.00282
2300 MHz	0.00066
2600 MHz TDD	0.00054
2600 MHz FDD	0.00024
3.4 GHz	0.00427
3.8 GHz	0.00642
Others	0.26890
Total	**0.38636**

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.