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:	07/07/2026	**Time Survey completed:**	13:12
Survey address:	Rothwell NN14		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072591	11/12/2025
Probe	Agos Aria-6000 Antenna	AGOS-6000-1023	08/07/2025
Cabling	1.7m cable	1188	02/02/2026

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



Location 1

Measurement time:	11:46
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01410
174-230 MHz	0.01579
470-694 MHz	0.01247
700 MHz	0.00550
800 MHz	0.08363
900 MHz	0.04767
1400 MHz	0.00065
1800 MHz	0.00664
1900 MHz	0.00031
2100 MHz	0.00429
2300 MHz	0.00522
2600 MHz TDD	0.00054
2600 MHz FDD	0.00056
3.4 GHz	0.00279
3.8 GHz	0.00666
Others	0.19846
Total	**0.40528**

Location 2

Measurement time:	11:59
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01596
174-230 MHz	0.01784
470-694 MHz	0.01394
700 MHz	0.01039
800 MHz	0.05719
900 MHz	0.01441
1400 MHz	0.00073
1800 MHz	0.00986
1900 MHz	0.00035
2100 MHz	0.02937
2300 MHz	0.00372
2600 MHz TDD	0.00061
2600 MHz FDD	0.00113
3.4 GHz	0.00300
3.8 GHz	0.00791
Others	0.22758
Total	**0.41400**

Location 3

Measurement time:	12:15
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01794
174-230 MHz	0.02007
470-694 MHz	0.01545
700 MHz	0.00495
800 MHz	0.01957
900 MHz	0.00287
1400 MHz	0.00081
1800 MHz	0.00552
1900 MHz	0.00039
2100 MHz	0.00198
2300 MHz	0.00112
2600 MHz TDD	0.00069
2600 MHz FDD	0.00069
3.4 GHz	0.00347
3.8 GHz	0.00813
Others	0.25550
Total	**0.35916**

Location 4

Measurement time:	12:31
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01899
174-230 MHz	0.02130
470-694 MHz	0.01635
700 MHz	0.00313
800 MHz	0.00756
900 MHz	0.00250
1400 MHz	0.00086
1800 MHz	0.00395
1900 MHz	0.00042
2100 MHz	0.00249
2300 MHz	0.00099
2600 MHz TDD	0.00074
2600 MHz FDD	0.00044
3.4 GHz	0.00373
3.8 GHz	0.00854
Others	0.27156
Total	**0.36353**

Location 5

Measurement time:	12:54
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01995
174-230 MHz	0.02214
470-694 MHz	0.01701
700 MHz	0.00575
800 MHz	0.03247
900 MHz	0.00656
1400 MHz	0.00090
1800 MHz	0.00538
1900 MHz	0.00044
2100 MHz	0.00523
2300 MHz	0.00523
2600 MHz TDD	0.00076
2600 MHz FDD	0.00088
3.4 GHz	0.00415
3.8 GHz	0.01004
Others	0.28596
Total	**0.42284**

Location 6

Measurement time:	13:06
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01998
174-230 MHz	0.02246
470-694 MHz	0.01718
700 MHz	0.01074
800 MHz	0.11636
900 MHz	0.04328
1400 MHz	0.00091
1800 MHz	0.00797
1900 MHz	0.00044
2100 MHz	0.00348
2300 MHz	0.00677
2600 MHz TDD	0.00078
2600 MHz FDD	0.00073
3.4 GHz	0.00397
3.8 GHz	0.01014
Others	0.28987
Total	**0.55504**

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.