

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:	08/04/2026	Time Survey completed:	14:03
Survey address:	Melton Mowbray LE13		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072606	03/07/2025
Probe	Agos Aria-6000 Antenna	AGOS-6000-1158	08/07/2025
Cabling	1.7m cable	1458	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 five locations and are presented in the following pages of this report.



Location 1

Measurement time:	12:49
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.02979
174-230 MHz	0.01957
470-694 MHz	0.01222
700 MHz	0.00187
800 MHz	0.00382
900 MHz	0.00069
1400 MHz	0.00083
1800 MHz	0.00199
1900 MHz	0.00033
2100 MHz	0.00086
2300 MHz	0.00056
2600 MHz TDD	0.00055
2600 MHz FDD	0.00025
3.4 GHz	0.00252
3.8 GHz	0.00598
Others	0.29516
Total	0.37696

Location 2

Measurement time:	13:12
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.03096
174-230 MHz	0.02042
470-694 MHz	0.01279
700 MHz	0.00501
800 MHz	0.00775
900 MHz	0.00287
1400 MHz	0.01058
1800 MHz	0.01080
1900 MHz	0.00034
2100 MHz	0.00675
2300 MHz	0.00144
2600 MHz TDD	0.00058
2600 MHz FDD	0.00034
3.4 GHz	0.00267
3.8 GHz	0.00632
Others	0.30964
Total	0.42926

Location 3

Measurement time:	13:25
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.03227
174-230 MHz	0.02160
470-694 MHz	0.01341
700 MHz	0.00877
800 MHz	0.00817
900 MHz	0.00076
1400 MHz	0.01130
1800 MHz	0.00430
1900 MHz	0.00036
2100 MHz	0.00288
2300 MHz	0.00062
2600 MHz TDD	0.00061
2600 MHz FDD	0.00032
3.4 GHz	0.00287
3.8 GHz	0.00681
Others	0.32786
Total	0.44291

Location 4

Measurement time:	13:42
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.03511
174-230 MHz	0.02285
470-694 MHz	0.01414
700 MHz	0.00168
800 MHz	0.00224
900 MHz	0.00138
1400 MHz	0.00072
1800 MHz	0.00115
1900 MHz	0.00038
2100 MHz	0.00095
2300 MHz	0.00067
2600 MHz TDD	0.00065
2600 MHz FDD	0.00027
3.4 GHz	0.00310
3.8 GHz	0.00735
Others	0.35102
Total	0.44366

Location 5

Measurement time:	13:57
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.03604
174-230 MHz	0.02362
470-694 MHz	0.01457
700 MHz	0.00204
800 MHz	0.00364
900 MHz	0.00082
1400 MHz	0.00083
1800 MHz	0.00228
1900 MHz	0.00040
2100 MHz	0.00105
2300 MHz	0.00069
2600 MHz TDD	0.00067
2600 MHz FDD	0.00030
3.4 GHz	0.00324
3.8 GHz	0.00769
Others	0.36352
Total	0.46139

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.