

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:	31/07/2025	Time Survey completed:	11:56
Survey address:	Carluke ML8		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY57271744	12/02/2025
Probe	Agos Aria-6000 Antenna	1089	31/12/2023
Cabling	1.7m cable	1406	14/05/2025

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

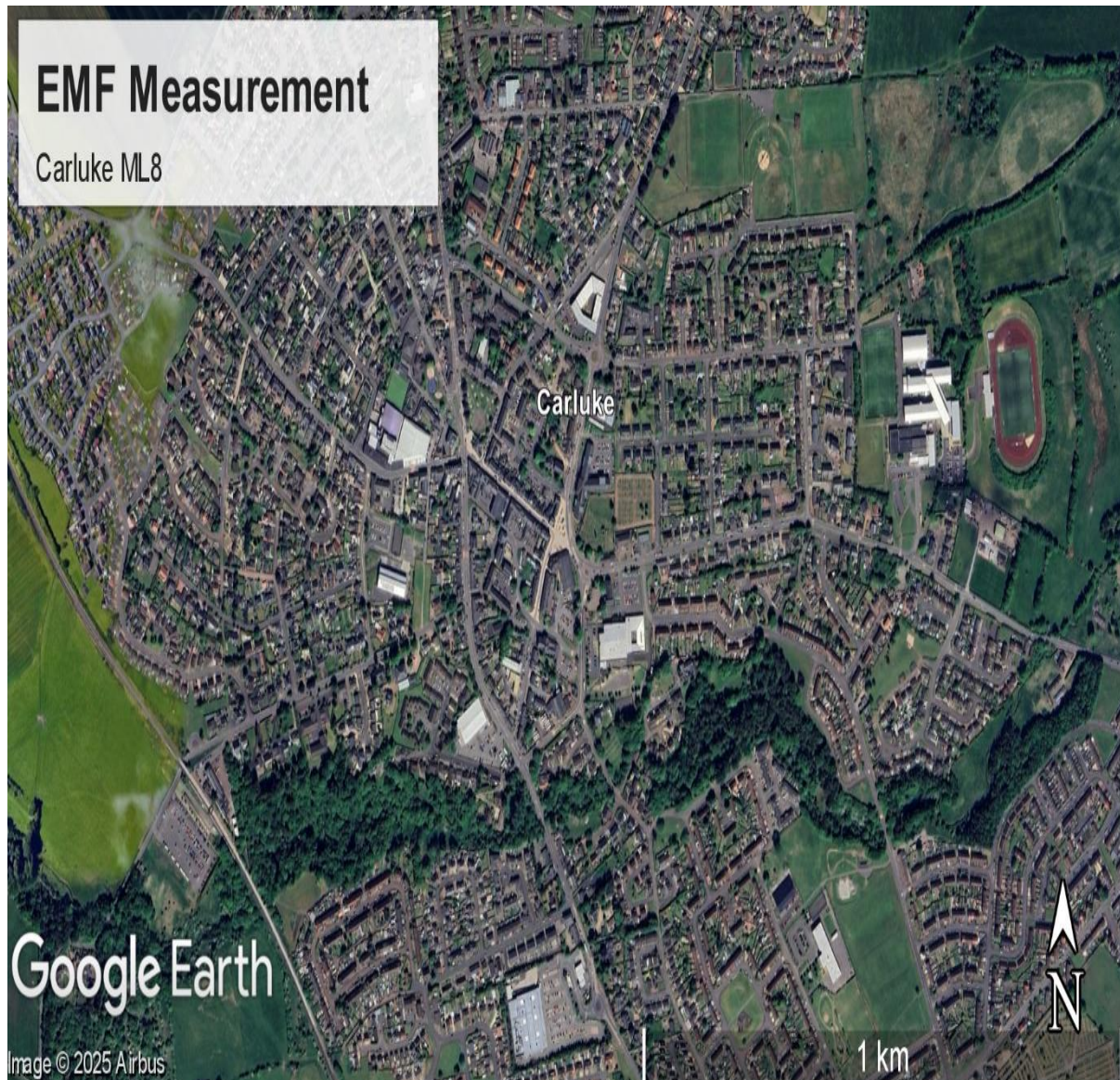
Mobile bands covered by this report

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



Location 1

Measurement time:	11:04
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01016
174-230 MHz	0.01168
470-694 MHz	0.01031
700 MHz	0.00138
800 MHz	0.03061
900 MHz	0.02709
1400 MHz	0.00051
1800 MHz	0.00067
1900 MHz	0.00024
2100 MHz	0.00101
2300 MHz	0.00049
2600 MHz TDD	0.00037
2600 MHz FDD	0.00012
3.4 GHz	0.00133
3.8 GHz	0.00319
Others	0.13626
Total	0.23543

Location 2

Measurement time:	11:12
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01080
174-230 MHz	0.01210
470-694 MHz	0.01058
700 MHz	0.00142
800 MHz	0.02558
900 MHz	0.02140
1400 MHz	0.00053
1800 MHz	0.00069
1900 MHz	0.00024
2100 MHz	0.00216
2300 MHz	0.00051
2600 MHz TDD	0.00039
2600 MHz FDD	0.00013
3.4 GHz	0.00141
3.8 GHz	0.00336
Others	0.14211
Total	0.23340

Location 3

Measurement time:	11:31
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01191
174-230 MHz	0.01257
470-694 MHz	0.01103
700 MHz	0.00146
800 MHz	0.22393
900 MHz	0.06012
1400 MHz	0.00055
1800 MHz	0.00075
1900 MHz	0.00025
2100 MHz	0.01200
2300 MHz	0.00053
2600 MHz TDD	0.00040
2600 MHz FDD	0.00014
3.4 GHz	0.00148
3.8 GHz	0.00356
Others	0.14875
Total	0.48945

Location 4

Measurement time:	11:50
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01179
174-230 MHz	0.01299
470-694 MHz	0.01129
700 MHz	0.00149
800 MHz	0.03404
900 MHz	0.01760
1400 MHz	0.00057
1800 MHz	0.00075
1900 MHz	0.00026
2100 MHz	0.00102
2300 MHz	0.00054
2600 MHz TDD	0.00042
2600 MHz FDD	0.00014
3.4 GHz	0.00154
3.8 GHz	0.00370
Others	0.15340
Total	0.25154

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.