

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:	15/04/2026	Time Survey completed:	14:53
Survey address:	Letchworth SG6		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072605	25/03/2026
Probe	Agos Aria-6000 Antenna	ARIA-6000-1111	08/07/2025
Cabling	1.7m cable	1409	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:	14:08
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01178
174-230 MHz	0.01316
470-694 MHz	0.00997
700 MHz	0.00132
800 MHz	0.00073
900 MHz	0.00069
1400 MHz	0.00049
1800 MHz	0.00680
1900 MHz	0.00023
2100 MHz	0.00132
2300 MHz	0.00047
2600 MHz TDD	0.00040
2600 MHz FDD	0.00027
3.4 GHz	0.00307
3.8 GHz	0.00678
Others	0.18384
Total	0.24132

Location 2

Measurement time:	14:16
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01198
174-230 MHz	0.01345
470-694 MHz	0.01083
700 MHz	0.00134
800 MHz	0.00074
900 MHz	0.00072
1400 MHz	0.00050
1800 MHz	0.01205
1900 MHz	0.00023
2100 MHz	0.00184
2300 MHz	0.00048
2600 MHz TDD	0.00041
2600 MHz FDD	0.00027
3.4 GHz	0.00312
3.8 GHz	0.00695
Others	0.18684
Total	0.25175

Location 3

Measurement time:	14:24
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01192
174-230 MHz	0.01358
470-694 MHz	0.01031
700 MHz	0.00147
800 MHz	0.00099
900 MHz	0.00077
1400 MHz	0.00068
1800 MHz	0.00661
1900 MHz	0.00023
2100 MHz	0.00097
2300 MHz	0.00049
2600 MHz TDD	0.00041
2600 MHz FDD	0.00027
3.4 GHz	0.00313
3.8 GHz	0.00694
Others	0.18669
Total	0.24548

Location 4

Measurement time:	14:31
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01183
174-230 MHz	0.01341
470-694 MHz	0.01025
700 MHz	0.00140
800 MHz	0.00094
900 MHz	0.00080
1400 MHz	0.00049
1800 MHz	0.00635
1900 MHz	0.00023
2100 MHz	0.00081
2300 MHz	0.00048
2600 MHz TDD	0.00041
2600 MHz FDD	0.00028
3.4 GHz	0.00312
3.8 GHz	0.00693
Others	0.18688
Total	0.24460

Location 5

Measurement time:	14:39
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01182
174-230 MHz	0.01329
470-694 MHz	0.01006
700 MHz	0.00143
800 MHz	0.00087
900 MHz	0.00071
1400 MHz	0.00055
1800 MHz	0.01002
1900 MHz	0.00023
2100 MHz	0.00078
2300 MHz	0.00047
2600 MHz TDD	0.00041
2600 MHz FDD	0.00027
3.4 GHz	0.00310
3.8 GHz	0.00690
Others	0.18621
Total	0.24713

Location 6

Measurement time:	14:47
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01191
174-230 MHz	0.01338
470-694 MHz	0.01008
700 MHz	0.00132
800 MHz	0.00074
900 MHz	0.00069
1400 MHz	0.00049
1800 MHz	0.00541
1900 MHz	0.00023
2100 MHz	0.00074
2300 MHz	0.00048
2600 MHz TDD	0.00041
2600 MHz FDD	0.00027
3.4 GHz	0.00310
3.8 GHz	0.00691
Others	0.18479
Total	0.24094

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.