

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:	14/04/2026	Time Survey completed:	12:52
Survey address:	Shortstown MK42		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072605	25/03/2026
Probe	Agos Aria-6000 Antenna	AGOS-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:	12:14
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01218
174-230 MHz	0.01375
470-694 MHz	0.01029
700 MHz	0.00343
800 MHz	0.06332
900 MHz	0.02225
1400 MHz	0.00294
1800 MHz	0.01496
1900 MHz	0.00023
2100 MHz	0.00753
2300 MHz	0.00049
2600 MHz TDD	0.00042
2600 MHz FDD	0.00137
3.4 GHz	0.00701
3.8 GHz	0.00713
Others	0.19090
Total	0.35820

Location 2

Measurement time:	12:23
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01226
174-230 MHz	0.01380
470-694 MHz	0.01047
700 MHz	0.00428
800 MHz	0.04911
900 MHz	0.01272
1400 MHz	0.00240
1800 MHz	0.00775
1900 MHz	0.00023
2100 MHz	0.00338
2300 MHz	0.00049
2600 MHz TDD	0.00042
2600 MHz FDD	0.00145
3.4 GHz	0.01245
3.8 GHz	0.00720
Others	0.19181
Total	0.33022

Location 3

Measurement time:	12:30
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01232
174-230 MHz	0.01394
470-694 MHz	0.01036
700 MHz	0.00164
800 MHz	0.00617
900 MHz	0.00368
1400 MHz	0.00151
1800 MHz	0.00229
1900 MHz	0.00024
2100 MHz	0.00189
2300 MHz	0.00050
2600 MHz TDD	0.00043
2600 MHz FDD	0.00077
3.4 GHz	0.00467
3.8 GHz	0.00726
Others	0.19440
Total	0.26207

Location 4

Measurement time:	12:38
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01272
174-230 MHz	0.01441
470-694 MHz	0.01135
700 MHz	0.00256
800 MHz	0.01025
900 MHz	0.01380
1400 MHz	0.00406
1800 MHz	0.00581
1900 MHz	0.00025
2100 MHz	0.00498
2300 MHz	0.00051
2600 MHz TDD	0.00044
2600 MHz FDD	0.00298
3.4 GHz	0.00878
3.8 GHz	0.00757
Others	0.20114
Total	0.30160

Location 5

Measurement time:	12:46
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01329
174-230 MHz	0.01485
470-694 MHz	0.01105
700 MHz	0.00369
800 MHz	0.04535
900 MHz	0.01957
1400 MHz	0.00331
1800 MHz	0.00975
1900 MHz	0.00025
2100 MHz	0.00596
2300 MHz	0.00052
2600 MHz TDD	0.00046
2600 MHz FDD	0.00277
3.4 GHz	0.00543
3.8 GHz	0.00781
Others	0.20751
Total	0.35158

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.