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:	17/08/2026	**Time Survey completed:**	10:46
Survey address:	Bletchley MK2		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072607	27/10/2025
Probe	Agos Aria-6000 Antenna	ARIA_6000_1111	28/11/2024
Cabling	1.7m cable	1313	28/11/2024

[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:	10:05
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01181
174-230 MHz	0.01241
470-694 MHz	0.00959
700 MHz	0.09993
800 MHz	0.10898
900 MHz	0.02641
1400 MHz	0.01378
1800 MHz	0.00855
1900 MHz	0.00023
2100 MHz	0.00545
2300 MHz	0.00047
2600 MHz TDD	0.00044
2600 MHz FDD	0.00492
3.4 GHz	0.00362
3.8 GHz	0.00535
Others	0.16128
Total	**0.47324**

Location 2

Measurement time:	10:15
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01175
174-230 MHz	0.01267
470-694 MHz	0.00985
700 MHz	0.06350
800 MHz	0.07637
900 MHz	0.01036
1400 MHz	0.00895
1800 MHz	0.00904
1900 MHz	0.00024
2100 MHz	0.00933
2300 MHz	0.00049
2600 MHz TDD	0.00091
2600 MHz FDD	0.01924
3.4 GHz	0.00374
3.8 GHz	0.00553
Others	0.16513
Total	**0.40708**

Location 3

Measurement time:	10:30
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01244
174-230 MHz	0.01322
470-694 MHz	0.01017
700 MHz	0.02071
800 MHz	0.08209
900 MHz	0.00687
1400 MHz	0.00548
1800 MHz	0.00617
1900 MHz	0.00025
2100 MHz	0.00487
2300 MHz	0.00051
2600 MHz TDD	0.00047
2600 MHz FDD	0.00330
3.4 GHz	0.00298
3.8 GHz	0.00578
Others	0.17181
Total	**0.34711**

Location 4

Measurement time:	10:40
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01260
174-230 MHz	0.01342
470-694 MHz	0.01038
700 MHz	0.07943
800 MHz	0.12626
900 MHz	0.03263
1400 MHz	0.01941
1800 MHz	0.00745
1900 MHz	0.00025
2100 MHz	0.00502
2300 MHz	0.00051
2600 MHz TDD	0.00047
2600 MHz FDD	0.00257
3.4 GHz	0.00408
3.8 GHz	0.00596
Others	0.17673
Total	**0.49718**

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.