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:	14/08/2026	**Time Survey completed:**	13:28
Survey address:	Bamber Bridge PR5		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	US55240265	31/10/2025
Probe	Agos Aria-6000 Antenna	AGOS-6000-1022	08/07/2025
Cabling	1.7m cable	2072	18/02/2026

[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 seven 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	0.00904
174-230 MHz	0.00817
470-694 MHz	0.00636
700 MHz	0.00896
800 MHz	0.01207
900 MHz	0.01329
1400 MHz	0.01369
1800 MHz	0.00257
1900 MHz	0.00011
2100 MHz	0.00698
2300 MHz	0.00354
2600 MHz TDD	0.00145
2600 MHz FDD	0.01139
3.4 GHz	0.00227
3.8 GHz	0.00300
Others	0.11082
Total	**0.21373**

Location 2

Measurement time:	12:23
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00959
174-230 MHz	0.00863
470-694 MHz	0.00672
700 MHz	0.00903
800 MHz	0.00866
900 MHz	0.01620
1400 MHz	0.10616
1800 MHz	0.00203
1900 MHz	0.00012
2100 MHz	0.06459
2300 MHz	0.03994
2600 MHz TDD	0.00780
2600 MHz FDD	0.01851
3.4 GHz	0.00273
3.8 GHz	0.00334
Others	0.11939
Total	**0.42346**

Location 3

Measurement time:	12:36
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01015
174-230 MHz	0.00919
470-694 MHz	0.00712
700 MHz	0.00890
800 MHz	0.01539
900 MHz	0.01170
1400 MHz	0.00520
1800 MHz	0.00135
1900 MHz	0.00013
2100 MHz	0.00164
2300 MHz	0.00192
2600 MHz TDD	0.00108
2600 MHz FDD	0.00025
3.4 GHz	0.00193
3.8 GHz	0.00310
Others	0.12545
Total	**0.20449**

Location 4

Measurement time:	12:44
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01041
174-230 MHz	0.00952
470-694 MHz	0.00741
700 MHz	0.05263
800 MHz	0.14470
900 MHz	0.06903
1400 MHz	0.02687
1800 MHz	0.01426
1900 MHz	0.00014
2100 MHz	0.01774
2300 MHz	0.00263
2600 MHz TDD	0.00095
2600 MHz FDD	0.00475
3.4 GHz	0.00366
3.8 GHz	0.00404
Others	0.13156
Total	**0.50031**

Location 5

Measurement time:	12:52
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01073
174-230 MHz	0.00974
470-694 MHz	0.00761
700 MHz	0.01629
800 MHz	0.02807
900 MHz	0.10913
1400 MHz	0.02063
1800 MHz	0.02373
1900 MHz	0.00014
2100 MHz	0.01010
2300 MHz	0.00207
2600 MHz TDD	0.00066
2600 MHz FDD	0.00061
3.4 GHz	0.00420
3.8 GHz	0.00352
Others	0.13409
Total	**0.38131**

Location 6

Measurement time:	13:10
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01103
174-230 MHz	0.01012
470-694 MHz	0.00781
700 MHz	0.16599
800 MHz	0.08466
900 MHz	0.06865
1400 MHz	0.02854
1800 MHz	0.00890
1900 MHz	0.00015
2100 MHz	0.00832
2300 MHz	0.00384
2600 MHz TDD	0.00091
2600 MHz FDD	0.00079
3.4 GHz	0.00274
3.8 GHz	0.00432
Others	0.13922
Total	**0.54599**

Location 7

Measurement time:	13:22
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01121
174-230 MHz	0.01036
470-694 MHz	0.00796
700 MHz	0.01102
800 MHz	0.01747
900 MHz	0.02130
1400 MHz	0.01498
1800 MHz	0.00230
1900 MHz	0.00015
2100 MHz	0.00380
2300 MHz	0.00391
2600 MHz TDD	0.00224
2600 MHz FDD	0.00601
3.4 GHz	0.00341
3.8 GHz	0.00387
Others	0.14059
Total	**0.26059**

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.