

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:	15/08/2025	Time Survey completed:	10:55
Survey address:	Burnley BB11		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072599	22/02/2025
Probe	Agos Aria-6000 Antenna	6000-1022	08/07/2025
Cabling	1.7m cable	1462	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

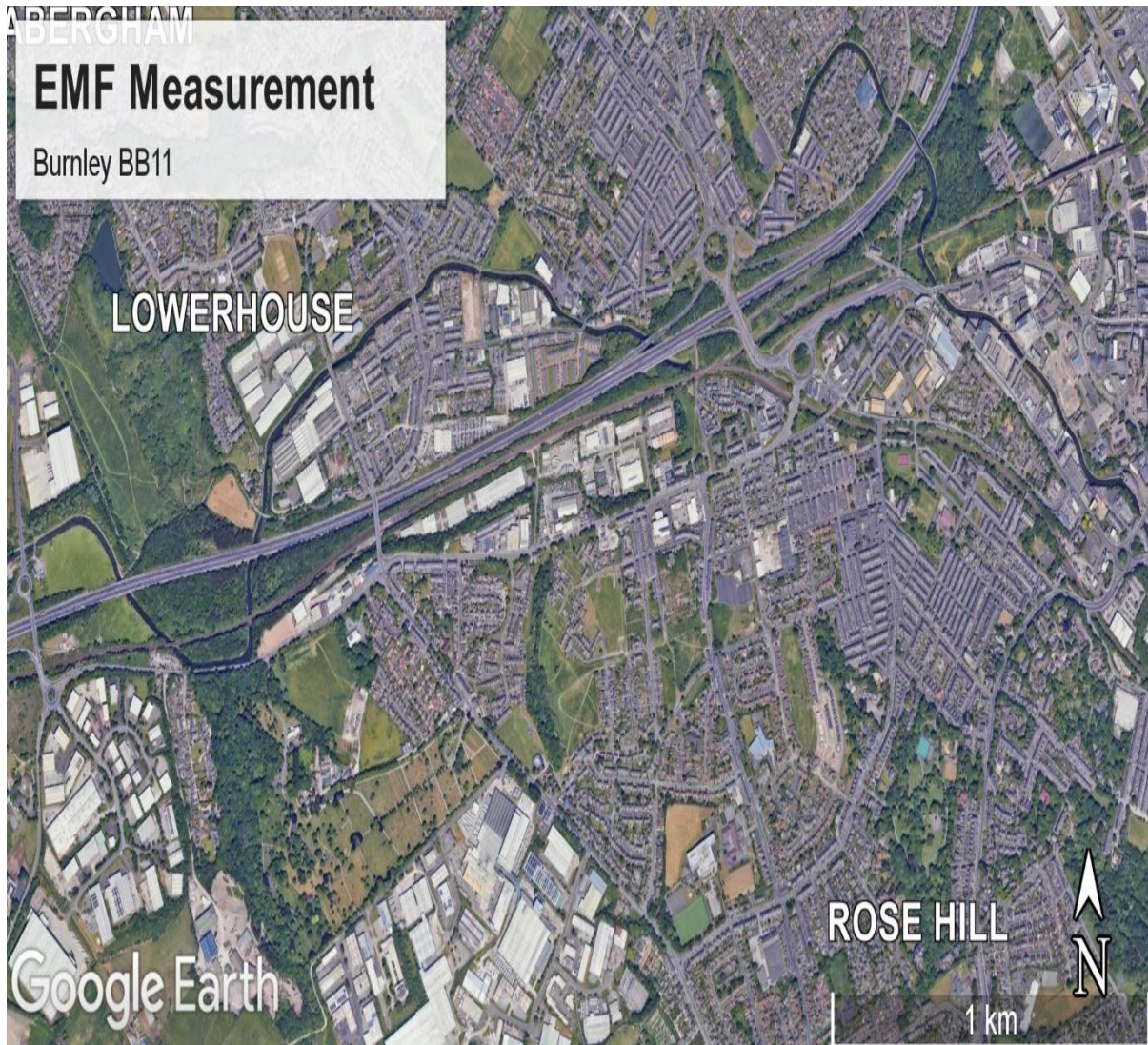
Mobile bands covered by this report

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



Location 1

Measurement time:	10:09
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01102
174-230 MHz	0.01128
470-694 MHz	0.00880
700 MHz	0.00418
800 MHz	0.00103
900 MHz	0.00201
1400 MHz	0.00187
1800 MHz	0.00407
1900 MHz	0.00020
2100 MHz	0.00350
2300 MHz	0.00041
2600 MHz TDD	0.00036
2600 MHz FDD	0.00020
3.4 GHz	0.00509
3.8 GHz	0.00523
Others	0.15318
Total	0.21245

Location 2

Measurement time:	10:16
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01225
174-230 MHz	0.01197
470-694 MHz	0.00934
700 MHz	0.01289
800 MHz	0.00417
900 MHz	0.00086
1400 MHz	0.00672
1800 MHz	0.00194
1900 MHz	0.00022
2100 MHz	0.00182
2300 MHz	0.00046
2600 MHz TDD	0.00039
2600 MHz FDD	0.00022
3.4 GHz	0.00323
3.8 GHz	0.00566
Others	0.16474
Total	0.23688

Location 3

Measurement time:	10:25
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01196
174-230 MHz	0.01337
470-694 MHz	0.00998
700 MHz	0.01562
800 MHz	0.00927
900 MHz	0.00117
1400 MHz	0.01926
1800 MHz	0.00466
1900 MHz	0.00024
2100 MHz	0.00469
2300 MHz	0.00048
2600 MHz TDD	0.00042
2600 MHz FDD	0.00025
3.4 GHz	0.00340
3.8 GHz	0.00627
Others	0.17944
Total	0.28049

Location 4

Measurement time:	10:33
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01274
174-230 MHz	0.01406
470-694 MHz	0.01068
700 MHz	0.00268
800 MHz	0.00116
900 MHz	0.00195
1400 MHz	0.00394
1800 MHz	0.00229
1900 MHz	0.00025
2100 MHz	0.00136
2300 MHz	0.00052
2600 MHz TDD	0.00046
2600 MHz FDD	0.00027
3.4 GHz	0.00389
3.8 GHz	0.00686
Others	0.19472
Total	0.25784

Location 5

Measurement time:	10:42
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01342
174-230 MHz	0.01495
470-694 MHz	0.01122
700 MHz	0.00358
800 MHz	0.00224
900 MHz	0.00218
1400 MHz	0.00208
1800 MHz	0.00163
1900 MHz	0.00027
2100 MHz	0.00212
2300 MHz	0.00055
2600 MHz TDD	0.00049
2600 MHz FDD	0.00029
3.4 GHz	0.00417
3.8 GHz	0.00737
Others	0.20822
Total	0.27477

Location 6

Measurement time:	10:49
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01424
174-230 MHz	0.01539
470-694 MHz	0.01157
700 MHz	0.00409
800 MHz	0.00135
900 MHz	0.00213
1400 MHz	0.00198
1800 MHz	0.00387
1900 MHz	0.00028
2100 MHz	0.00435
2300 MHz	0.00057
2600 MHz TDD	0.00051
2600 MHz FDD	0.00030
3.4 GHz	0.00596
3.8 GHz	0.00770
Others	0.21517
Total	0.28946

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.