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:	03/09/2026	**Time Survey completed:**	13:56
Survey address:	Halifax HX1		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY59221931	28/07/2026
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 six locations and are presented in the following pages of this report.



Location 1

Measurement time:	13:00
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00273
174-230 MHz	0.00172
470-694 MHz	0.00158
700 MHz	0.03011
800 MHz	0.01899
900 MHz	0.01554
1400 MHz	0.00506
1800 MHz	0.00041
1900 MHz	0.00004
2100 MHz	0.00263
2300 MHz	0.00076
2600 MHz TDD	0.00007
2600 MHz FDD	0.00006
3.4 GHz	0.00106
3.8 GHz	0.00115
Others	0.02903
Total	**0.11093**

Location 2

Measurement time:	13:09
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00284
174-230 MHz	0.00183
470-694 MHz	0.00170
700 MHz	0.01973
800 MHz	0.02161
900 MHz	0.01683
1400 MHz	0.01381
1800 MHz	0.00220
1900 MHz	0.00004
2100 MHz	0.00297
2300 MHz	0.00069
2600 MHz TDD	0.00008
2600 MHz FDD	0.00006
3.4 GHz	0.00133
3.8 GHz	0.00115
Others	0.03103
Total	**0.11792**

Location 3

Measurement time:	13:16
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00263
174-230 MHz	0.00190
470-694 MHz	0.00178
700 MHz	0.00354
800 MHz	0.01961
900 MHz	0.03300
1400 MHz	0.00246
1800 MHz	0.00061
1900 MHz	0.00004
2100 MHz	0.00102
2300 MHz	0.00054
2600 MHz TDD	0.00008
2600 MHz FDD	0.00006
3.4 GHz	0.00090
3.8 GHz	0.00121
Others	0.03196
Total	**0.10135**

Location 4

Measurement time:	13:25
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00375
174-230 MHz	0.00197
470-694 MHz	0.00188
700 MHz	0.02149
800 MHz	0.01798
900 MHz	0.01649
1400 MHz	0.04437
1800 MHz	0.00210
1900 MHz	0.00004
2100 MHz	0.00358
2300 MHz	0.00120
2600 MHz TDD	0.00009
2600 MHz FDD	0.00007
3.4 GHz	0.00285
3.8 GHz	0.00139
Others	0.03402
Total	**0.15326**

Location 5

Measurement time:	13:33
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00346
174-230 MHz	0.00204
470-694 MHz	0.00191
700 MHz	0.00573
800 MHz	0.01785
900 MHz	0.04849
1400 MHz	0.00761
1800 MHz	0.00303
1900 MHz	0.00005
2100 MHz	0.00265
2300 MHz	0.00116
2600 MHz TDD	0.00009
2600 MHz FDD	0.00007
3.4 GHz	0.00100
3.8 GHz	0.00134
Others	0.03627
Total	**0.13274**

Location 6

Measurement time:	13:50
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00333
174-230 MHz	0.00217
470-694 MHz	0.00199
700 MHz	0.01650
800 MHz	0.02585
900 MHz	0.02522
1400 MHz	0.00521
1800 MHz	0.00128
1900 MHz	0.00005
2100 MHz	0.00221
2300 MHz	0.00087
2600 MHz TDD	0.00010
2600 MHz FDD	0.00008
3.4 GHz	0.00176
3.8 GHz	0.00150
Others	0.03807
Total	**0.12617**

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.