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:	07/05/2025	**Time Survey completed:**	12:40
Survey address:	Telford TF4		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072603	13/02/2025
Probe	Agos Aria-6000 Antenna	ARIA6000-1158	25/09/2023
Cabling	1.7m cable	1458	18/01/2024

[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.

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:	12:02
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
700 MHz	0.00525
800 MHz	0.00214
900 MHz	0.00062
1400 MHz	0.00178
1800 MHz	0.00799
1900 MHz	0.00019
2100 MHz	0.00249
2300 MHz	0.00042
2600 MHz TDD	0.00038
2600 MHz FDD	0.00017
3.4 GHz	0.00158
3.8 GHz	0.00372
Others	0.06479
Total	**0.09154**

Location 2

Measurement time:	12:15
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
700 MHz	0.01003
800 MHz	0.00153
900 MHz	0.00066
1400 MHz	0.00338
1800 MHz	0.00163
1900 MHz	0.00023
2100 MHz	0.00084
2300 MHz	0.00049
2600 MHz TDD	0.00044
2600 MHz FDD	0.00019
3.4 GHz	0.00188
3.8 GHz	0.00442
Others	0.07500
Total	**0.10070**

Location 3

Measurement time:	12:25
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
700 MHz	0.01175
800 MHz	0.00330
900 MHz	0.00071
1400 MHz	0.00596
1800 MHz	0.01152
1900 MHz	0.00024
2100 MHz	0.00225
2300 MHz	0.00052
2600 MHz TDD	0.00048
2600 MHz FDD	0.00067
3.4 GHz	0.00206
3.8 GHz	0.00485
Others	0.08146
Total	**0.12577**

Location 4

Measurement time:	12:34
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
700 MHz	0.00858
800 MHz	0.00205
900 MHz	0.00079
1400 MHz	0.00385
1800 MHz	0.00958
1900 MHz	0.00025
2100 MHz	0.00415
2300 MHz	0.00055
2600 MHz TDD	0.00050
2600 MHz FDD	0.00024
3.4 GHz	0.00218
3.8 GHz	0.00512
Others	0.08593
Total	**0.12377**

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.