

MITO METER 2.0 [EURO]

Electromagnetic Field Meter User Manual ^(IX)

Firmware 1.2.07



Developed by EnviroSens & Blakes Electronics Integrators



Introduction

The MITO METER 2.0 [EURO] is a compact, easy-to-use, yet sophisticated EMF/RF (Electromagnetic Field/Radio Frequency) screening tool. It measures electromagnetic field and radio frequency intensity from a wide range of sources—including power lines, fuse boxes, household appliances, electronic devices, and wireless technologies such as spy cameras, tracking devices, wireless bugs, Wi-Fi, Bluetooth, 5G microwave radiation, and similar equipment—across a broad frequency range.

As the world's smallest 3-in-1 EMF/RF meter—weighing less than 2 ounces (50 grams)—It is also ideal for discreet carrying or concealment, allowing users to log radiation levels in sensitive or restricted areas with its built-in record and playback functions.

Designed as a Building Biology pre/post-screening tool, this device is particularly useful for those familiar with Building Biology's recommended guidelines. It features a bright, easy-to-read 18-step LED display, allowing users to effortlessly monitor their surroundings in everyday life.

For added versatility, an optional USB connection kit allows the three main metering measurement modes to interface with a computer, Mac, or Android device—enhancing its value for research and technical applications. *(Optional connection kit available [Here](#).)*

Important Notice

The Mito Meter displays measurement intensity in three colours: green, yellow, and red. These colours serve as a visual guide and do not indicate whether a reading is definitively safe or unsafe.

In general, lower readings, less noise, suggest an environment that aligns more closely with natural electromagnetic background levels, which is important for overall well-being.

This device is designed for both non-professionals and professionals to easily screen EMF/RF levels using a simple and intuitive interface. However, measurements intended for legal, or compliance purposes require specialized equipment and trained operators.

Package Contents

- Pre-installed LiPo rechargeable battery
 - Standard USB to Mini-USB charging cable
 - Velcro mounting solution
 - Rear-mounted alloy body contact voltage pad
 - Protective carry pouch
 - Pre-installed custom calibration firmware
-

Charging LiPo Battery

To charge the Mito Meter battery, use the supplied USB cable to connect it to a USB charger or computer. The front Red LED will be on during charging and turn off once the battery is fully charged. A full charge provides approximately 8 hours of operation and 48 hours on LFM-X Mode

(Continuous run time can be achieved using a connected external USB power source.)

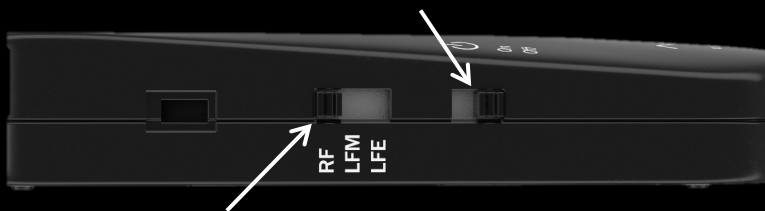
Important: When the battery charge drops below 10%, two solid green lights will appear in **RF Mode**, regardless of whether any RF is detected. When in **LFE Mode** and the battery charge drops below 10%, one solid green light will appear regardless of whether any electric field is detected.

To avoid the above scenario, make sure the battery is at least half-charged before heading out. Charging for just 10 minutes from a flat battery will provide approximately 50% charge—plenty enough to screen properties for a few hours.

Turning ON the Mito Meter

When the meter is powered on, it performs a quick self-test and displays the battery charge percentage. This sequence lasts approximately 3 seconds. The first LED sweep to the right indicates that the meter is powering on and running a self-test. This is followed by a second LED sweep to the left, which displays the battery charge level. One red light means the battery charge level is less than 10% and the meter shouldn't be used.

Turn the meter on with the **Power ON/OFF switch**.



Use the **Mode Switch** to select a detection mode:

- **RF Mode** – Measures Radio Frequencies, also referred to as microwaves, Wi-Fi and 5G.
 - Range: 100MHz to 8GHz
 - Alarm One: Sounds at 500 $\mu\text{W}/\text{m}^2$
 - Alarm Two: Sounds when the maximum power value is exceeded @100,000 $\mu\text{W}/\text{m}^2$.
- **LFM Mode** – Measures Low-Frequency Magnetic fields.
 - Range: 40Hz to 10kHz
 - Alarm One: Sounds at 200 nT
 - Alarm Two: Sounds when the maximum power value is exceeded @2,000 nT.
- **LFE Mode** – Measures Low-Frequency Electric fields, also referred to as e-Fields.
 - Range: 40Hz to 50kHz
 - Alarm One: Sounds at 30 V/m
 - Alarm Two: Sounds when the maximum power value is exceeded @1,000 V/m.

Understanding the Readings

$\mu\text{W}/\text{m}^2$ (microWatts per square meter)

Used to measure the power density of an RF (Radio Frequency) source.

This value is used for measuring RF radiation from:

4G/LTE/5G cell sites, phones, smart meters, Wi-Fi, Bluetooth, wireless devices, and microwave ovens.

$1,000 \mu\text{W}/\text{m}^2$ (microwatts per square meter) = $1 \text{ mW}/\text{m}^2$ (milliwatt per square meter)

nT (nanoTesla)

The magnetic flux density unit (nT) is used to measure alternating current (AC) magnetic field intensity, such as that from:

The PowerGrid, fuse boxes, home appliances, electronics, laptops, phones, cables, and vehicles.










100 nT (nanotesla) = 1 mG (milligauss)

V/m (Volts per meter)

A unit of measurement for electric field (e-Field) strength.

Used to measure the intensity of an electric field near voltage sources such as:


Cabling, water pipes, power lines, power outlets, hardwired laptops, metal structures and devices.

$\mu\text{W}/\text{m}^2$	nT	V/m
 0.5 <small>100</small>	10 <small>130</small>	2 <small>50</small>
 1 <small>200</small>	15 <small>170</small>	3 <small>80</small>
 2 <small>500</small>	20 <small>220</small>	4 <small>120</small>
 3 <small>1k</small>	30 <small>280</small>	6 <small>180</small>
 5 <small>2k</small>	40 <small>350</small>	8 <small>240</small>
 10 <small>5k</small>	50 <small>430</small>	10 <small>320</small>
 20 <small>10k</small>	60 <small>550</small>	15 <small>450</small>
 30 <small>30k</small>	80 <small>700</small>	20 <small>600</small>
 50 <small>100k</small>	100 <small>2k</small>	30 <small>1k</small>

Measurement Methods

There are **18 intensity levels**, displayed using **9 LED lights**. By **matching the LED reading** with the corresponding **numbers on the meter or chart** on next page, **numerical values can be noted**.

The first nine LEDs—the main working window—are the primary focus for Building Biologists when measuring EMF exposure in homes and workplaces. As radiation power levels become excessive, the **coloured LED lights scale up through the main LED window, leaving only red LEDs**.

With the speaker  on, **two separate alarms will sound as radiation levels rise**, with the **2nd alarm** indicating that the power value has **exceeded the meter's maximum limit**. (This is rarely the case, as far as background radiation goes in homes and the workplace.)

This **dynamic LED window design** allows for **quick and intuitive monitoring** across a broad measurement range, enabling users to **interpret readings at a glance or even through peripheral vision**—much like a Formula One race car display. This level of **visual feedback** is not achievable with numerical readouts alone and can be seen **at a distance in both full sunlight and dark situations**.

(Ideal for the visually impaired.)



RF Mode – Working Window

In most situations, **background RF levels** will fall within the **first fully lit LED window (<50 $\mu\text{W}/\text{m}^2$)** unless you live **near a cell tower or high-powered transmission station**.

The goal: Reduce RF exposure in your **sleeping area** to **below 0.5 $\mu\text{W}/\text{m}^2$** —an increasingly **challenging task in today's wireless world**, especially in congested areas. **Prioritizing a low-exposure sleeping environment is a crucial first step.**

Building Biologists recommend keeping a property's **background RF levels below 10 to 50 $\mu\text{W}/\text{m}^2$** . **Higher levels may require shielding**, and the **greater the microwave radiation, the more expensive shielding becomes**—especially when signals originate from **multiple directions**.

Pattern Sequence	microWatts ($\mu\text{W}/\text{m}^2$)	LED Display Results
1 Green	0.5 $\mu\text{W}/\text{m}^2$ >	
2 Green	1 $\mu\text{W}/\text{m}^2$ >	
3 Green	2 $\mu\text{W}/\text{m}^2$ >	
4 Green	3 $\mu\text{W}/\text{m}^2$ >	
4 Green, 1 Yellow	5 $\mu\text{W}/\text{m}^2$ >	
4 Green, 2 Yellow	10 $\mu\text{W}/\text{m}^2$ >	
4 Green, 3 Yellow	20 $\mu\text{W}/\text{m}^2$ >	
4 Green, 3 Yellow, 1 Red	30 $\mu\text{W}/\text{m}^2$ >	
4 Green, 3 Yellow, 2 Red	50 $\mu\text{W}/\text{m}^2$ >	
3 Green, 3 Yellow, 2 Red	100 $\mu\text{W}/\text{m}^2$ >	
2 Green, 3 Yellow, 2 Red	200 $\mu\text{W}/\text{m}^2$ >	
1 Green, 3 Yellow, 2 Red	500 $\mu\text{W}/\text{m}^2$ >	
3 Yellow, 2 Red	1,000 $\mu\text{W}/\text{m}^2$ (1k) >	
2 Yellow, 2 Red	2,000 $\mu\text{W}/\text{m}^2$ (2k) >	
1 Yellow, 2 Red	5,000 $\mu\text{W}/\text{m}^2$ (5k) >	
2 Red	10,000 $\mu\text{W}/\text{m}^2$ (10k) >	
1 Red	30,000 $\mu\text{W}/\text{m}^2$ (30k) >	
0 LEDs & Alarm	100,000 $\mu\text{W}/\text{m}^2$ (100k) >	







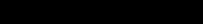
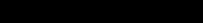
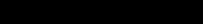
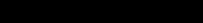
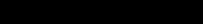
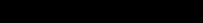
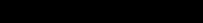
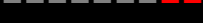
LFM Mode - Working Window

In inner suburbs, the average **background dynamic magnetic field levels** typically fall within the first meters 9-LED window working, **around 60nT to 100nT**. Those in **rural areas** or in **upper levels of high-rise apartments** will see levels **below 10nT**.

The closer you are to **high-load overhead power lines**, **poorly maintained power infrastructure**, or **dense city blocks**, the **higher your readings will likely be**.

As a general guideline, your primary objective should be to maintain a sleeping environment as **close as possible to 20nT or below**. For daytime exposure, background dynamic magnetic field levels should **remain under 100nT for pregnant mothers and children**, and **below 200nT for adults**.

Note: Recommendations based on Building Biology and the BioInitiative Report.

Pattern Sequence	nanoTesla (nT)	LED Display Results
1 Green	10 nT >	
2 Green	15 nT >	
3 Green	20 nT >	
4 Green	30 nT >	
4 Green, 1 Yellow	40 nT >	
4 Green, 2 Yellow	50 nT >	
4 Green, 3 Yellow	60 nT >	
4 Green, 3 Yellow, 1 Red	80 nT >	
4 Green, 3 Yellow, 2 Red	100nT >	
3 Green, 3 Yellow, 2 Red	130 nT >	
2 Green, 3 Yellow, 2 Red	170 nT >	
1 Green, 3 Yellow, 2 Red	220nT >	
3 Yellow, 2 Red	280 nT >	
2 Yellow, 2 Red	350 nT >	
1 Yellow, 2 Red	430 nT >	
2 Red	550nT >	
1 Red	700 nT >	
0 LEDs & Alarm	2,000 nT (2k) >	

LFE Mode Working Window

The average person sleeps in an environment with **1 to 3 V/m** of **alternating current (AC)** from **household electrical wiring**. In some cases, due to wiring errors or continuity issues, levels can reach 10 to 30V/m, or in rare cases, much higher.

In nature, these electric fields do not exist, which is why the primary objective should be to maintain sleeping areas as close as possible to **0.3 V/m or below**. For most people, achieving this requires **modifying or turning off electrical circuits in their bedrooms**. Since the Mito Meter only measures down to **approximately 1 to 2 V/m**, we recommend **no LED lights at least 1 to 2 meters away from beds** on LFE Mode.

As a general guideline, your goal should be to **maintain a low exposure environment** and **reduce electric fields in areas where you spend extended periods**. Minimize **workstation** and **laptop electric fields** by grounding the connected devices. If your readings are in the red, (Over 15 V/m) **further mitigation steps should be considered**. Read related post [Here](#).

Pattern Sequence	Volts Per Meter (V/m)	LED Display Results
1 Green	2 V/m >	
2 Green	3 V/m >	
3 Green	4 V/m >	
4 Green	6 V/m >	
4 Green, 1 Yellow	8 V/m >	
4 Green, 2 Yellow	10 V/m >	
4 Green, 3 Yellow	15 V/m >	
4 Green, 3 Yellow, 1 Red	20 V/m >	
4 Green, 3 Yellow, 2 Red	30 V/m >	
3 Green, 3 Yellow, 2 Red	50 V/m >	
2 Green, 3 Yellow, 2 Red	80 V/m >	
1 Green, 3 Yellow, 2 Red	120 V/m >	
3 Yellow, 2 Red	180 V/m >	
2 Yellow, 2 Red	240 V/m >	
1 Yellow, 2 Red	320 V/m >	
2 Red	450 V/m >	
1 Red	600 V/m >	
0 LEDs & Alarm	1,000 V/m (1k) >	

Measurement Technique

The Mito Meter uses super sensitive single-axis directional antennas and a low-frequency single-axis sensor for measurements, requiring rotation in all directions/axes for the best results. (Far more sensitive than three-axis variants.) Move the meter around to identify the highest reading—the highest reading represents the most accurate value.

The **RF and LFE antennas** are located on the top left side of the device. Blocking them with your grip may reduce accuracy. For the most accurate LFE (electric field) readings, hold the meter at the very end of the case by placing your middle finger on the rear-mounted alloy ground pad while applying pressure with your thumb on the front of the case. Then point the meter in the direction you want to measure.

When using LFE Mode with the meter's rear-mounted alloy ground pad, test readings both with and without shoes. Additionally, compare your body voltage potential with and without grounding sheets or grounding pads—many earthing solutions are ineffective and offer little to no protection.

See 'EMF Basics' for further information at blakes.com.au (Or click [Here](#))

Broadband Detection

- The Mito Meter is a broadband meter, meaning it detects all signals within its selected frequency range at any location.
- In RF mode, if a Wi-Fi router and a cell phone transmit at the same time, the meter captures both signals and shows a combined result.

Limitations of RF Broadband Meters

- All RF broadband meters, even professional versions, tend to underreport peak RF radiation in busy areas (e.g., cities)—sometimes by up to 10×.
- Real-time RF spectrum analysers with directional antennas are essential for precise signal measurements, accurately identifying individual signals, and calculating (adding up) total power levels. However, they are complex and extremely expensive.
- Broadband meters are popular for their ease of use, quick setup, and affordability.

Speed vs. Accuracy


- Fast RF meters capture more signals in high radiation environments and can capture fast bursts of radiation which is why people often refer to "fast meters" when discussing RF measurement. (The Mito Meter operates at 20,000 samples per second.)
 - However, accuracy at low power levels and the ability to detect and listen to RF signals remain more important for assessing and reducing RF exposure in homes and workplaces.
-

Extended Modes

The Mito Meter features three extended modes: **RF-Xs Mode** (Sound Signature), **RF-X6 Mode** (Six-Minute RF Monitoring), and **LFM-X Mode** (PowerGrid Monitor). These modes serve as additional tools for EMF screening and mitigation while also assisting professionals in remote consultations with Mito users.

RF-Xs Mode: Sound Signature

This mode helps identify the source of radiation by its pattern or what we refer to as the source's unique sound signature.

1. Make sure the speaker  is **switch is ON** and select **RF Mode**.
2. Quickly toggle the **MODE switch** from **LFE to RF twice** within two seconds. Two lights (orange and red) will start blinking.
3. Then move the **MODE switch** down to **LFM** and back to **RF**. Now move towards an RF source to listen to its Sound Signature.

RF → LFE → RF → LFE → RF ----- RF → LFM → RF

RF-X6 Mode: Six Minute Monitoring


















This mode logs approximately 6 million samples over six minutes and then displays the **Average** and **Highest Peak** radiation results via the LED display, as well as gives an **accumulated peak score** based on the estimated **peak duration time** over the recorded six-minute event (See chart next page.)

Turn on the meter and select **RF Mode**.

1. Quickly move the **MODE switch** down to **LFE** and back to **RF twice**, within two seconds. Two lights will be blinking—one orange and one red. The meter is now recording (logging data).
2. After six minutes, results will be displayed as follows;
 - **Average Peak:** Slowly blinking for six seconds.
 - **Highest Peak:** Fast blinking for six seconds.
 - **Accumulative Peak Duration:** Displayed for 10 seconds.

RF → LFE → RF → LFE → RF

RF-X6 Mode: Accumulative Peak Duration Chart

Pattern Sequence	Seconds - Peak Duration	LED Display Results
1 Green	0.1 sec >	
2 Green	0.2 sec >	
3 Green	0.3 sec >	
4 Green	0.5 sec >	
4 Green, 1 Yellow	0.7 sec >	
4 Green, 2 Yellow	1 sec >	
4 Green, 3 Yellow	2 sec >	
4 Green, 3 Yellow, 1 Red	3 sec >	
4 Green, 3 Yellow, 2 Red	5 sec >	
3 Green, 3 Yellow, 2 Red	10 sec >	
2 Green, 3 Yellow, 2 Red	20 sec >	
1 Green, 3 Yellow, 2 Red	30 sec >	
3 Yellow, 2 Red	1 minute >	
2 Yellow, 2 Red	1:30 minutes >	
1 Yellow, 2 Red	2 minutes >	
2 Red	3 minutes >	
1 Red	6 minutes >	

Effectively, this represents your **Peak Radiation Dosage**. As you reduce your wireless gadgets your results will shift from red to orange, then into the green—or ideally, no results displayed at all.

If you live near a telecommunications **cell tower/site**, **TV broadcast antenna**, or a **radio broadcast antenna**, the **peak duration score** will always be red.

No results (no LED lights) are ideal for **bedrooms and sensitive individuals**. For others, **aim for the green**, for all three RF-X6 results when shielding or mitigating wireless radiation, and seek assistance if needed.

Continuous peak radiation = increased body voltage: However, the **longitudinal scalar effect** at low radiation levels from **short bursts or pulses** over six minutes has various **biological effects not present in continuous peak radiation**. This is why some people struggle more with low-level radiation than with continuous peak radiation. Continuous peak radiation has its own set of characteristics as far as biological effects go. (*Read more [Here.](#)*)

LFM-X Mode: PowerGrid Monitor Mode

This mode monitors the power grid's **dynamic background magnetic fields**. The **Average and Highest AC 50/60Hz magnetic field levels** are recorded and displayed on the meter's LED lights after a **12-hour logging session**.

Before you begin: Ensure the battery is fully charged.
(only takes one hour to charge from flat)

1. Turn on the meter and select **RF Mode**.
2. Quickly move the **MODE switch** down to **LFE Mode** and back to **RF Mode** twice, within two seconds. Two lights will start blinking—one orange and one red.
3. Move the **MODE switch** down one click to **LFM Mode (RF → LFM)**.
 - The **LED lights** will sweep **left to right** for 20 seconds, giving you time to position the meter **upright, USB socket facing down**.
(Unless under or over powerlines, then click [Here](#) and read section 4.)
 - Once activated, **do not move, bump, or touch** the meter for **12 hours**, as the magnetic sensors are extremely sensitive.
4. After **12 hours**, the **average and highest recorded AC 50/60Hz RMS magnetic field values** will be displayed:
 - **If no lights are displayed**, no values were recorded, meaning **no magnetic fields above 10nT were detected**.
 - **Battery Life:** The device lasts **up to 48 hours** in LFM-X Mode—be sure to check the results before the battery runs flat.

RF → LFE → RF → LFE → RF ---- RF → LFM

See EMF Basics for more measurement and mitigation methods [Here](#)

Notes on Signal Sources

- Some EMF sources in the home, such as cell phones, smart meters, and Wi-Fi emitters (RF signals), change levels very rapidly due to protocol definitions.
 - Cell phones adjust their transmission levels based on signal strength from the cell tower and obstacles affecting the signal. (Increased up to 100× in signal strength with just one bar from four bars.)
 - Smart meters can send very fast signal bursts every few seconds, or hour/day, depending on the network type, while Wi-Fi routers adjust signal strength based on transfer load.
 - The Powergrid aside, LFM and LFE sources are usually more consistent, but as with RF signals, the device must be rotated in all directions to find the highest and most accurate reading.
 - Proximity to transmitters affects accuracy—measuring too close can cause the device to overread. For wireless devices, hold the meter at least 12 to 30cm away. This applies to all RF broadband meters. *(Further reading on the topic of near and far fields is recommended but not covered here.)*
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Reporting & Sample Rate

When in **RF mode**, peak radiation levels are reported, meaning each update displays the **maximum (or peak) level detected** since the last update.

- **Update Rate:**
 - **Meter LEDs:** ~5 times per second
 - **PC Software:** ~2 times per second
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Maintenance & Warranty

To ensure optimal performance and longevity, always keep the device away from excessive heat and humidity. Do not leave the battery on charge for extended periods—unplug the charger once the red light turns off to help preserve battery life. Avoid placing the meter in clothing pockets to reduce the risk of accidental damage from washing or water exposure.

Replacement batteries are available from specialty battery stores and typically last between 3 to 5 years. Click [Here](#) to order replacement.

You may also return your Mito Meter for a calibration check and/or battery replacement. Most units should still provide accurate readings after five years

Technical Specifications

MITO METER [EURO]		Version 1.2.07
RF Frequency range:	100MHz to 8GHz (Roll off up to 10GHz)	
RF uW/m ² range via LEDs:	0.5 to 100,000uW/m ²	
RF uW/m ² range via Software:	0.5 to 2000,000uW/m ²	
RF measuring range in dBm:	-60dBm to +5dBm	
RF Typical accuracy:	±6 dB	
RF accuracy @2.4GHz:	±0dB	
LFE (Electric Field) Frequency range:	40Hz to 10kHz	
LFE measuring range via LED/Software:	1-2 to 1000 V/m with 1V/m resolution	
LFE Accuracy	25%	
LFM (magnetic Field) Frequency range:	40Hz to 10KHz	
LFM measuring range via LED display:	10nT to 2000nT with 5nT resolution	
LFM measuring range via Software:	1nT to 5000nT with 1nT resolution	
LFM Accuracy	20%	
LFM Accuracy @50/60Hz	± 5nT	
Sampling Rate	20,000/sec RF Mode	
	16,000/sec RF-X6 Mode	

Building Biology Evaluation Guidelines

For MITO METER [EURO] Only - (AC) For Sleeping Areas (SBM-2025) ^

			Anomaly	No	Slight	Severe	Extreme
RF Mode	HF	High Frequency	μW/m ² *	< 0.1	0.1-10	10-1000	1000 >
LFM Mode	M	Magnetic Fields	nT	< 20	20-100	100-500	500 >
LFE Mode	E	Electric Fields	V/m**	< 0.3	1-5	5 - 50	50 >

* The meter measures down to approximately 0.5 μW/m². (Allow for extra distance or shielding.)

** The meter measures down to approximately 1-2 V/m. (Allow 1-2 meters of extra distance from the source at the first green light to account for voltage drop-off.)

^ For further information: <https://buildingbiology.com/building-biology-standard/>

RF - Industry Based Limits

Radio Frequency (Pulsed Microwave Radiation) limits by country are mainly established by regulatory agencies influenced by the wireless industry. These limits are based solely on thermal effects in adults and do not account for long-term, non-thermal biological effects across all ages or body sizes.

Note that the Telco industry measure continuous RF exposure using **RMS (Root Mean Square)** power levels, not **Peak Power**, as used by Building Biology Professionals. Peak power can be up to 100 times higher than their RMS value on some devices. Cell towers peak power levels vary significantly depending on the transmission type and modulation scheme, often much higher than their RMS levels.

Country/Region	Regulation/Guideline	< 950Mhz (1GHz)	1850Mhz (2GHz) >
International (Australia)	ICNIRP Guidelines	42V/m (4.75W/m ² , 4,750,000μW/m ²)	59V/m (9.25W/m ² , 10,000,000μW/m ²)
Belgium	Belgisch Staatsblad F.2001-1365	21V/m (1.18W/m ² , 1,180,000μW/m ²)	30V/m (2.31W/m ² , 2,310,000μW/m ²)
Germany	Deutsche Verordnung	42V/m (4.75W/m ² , 4,750,000μW/m ²)	59V/m (9.25W/m ² , 9,250,000μW/m ²)
Italy	Decreto n.381, 1998	20V/m (1W/m ² , 1,000,000μW/m ²)	20V/m (1W/m ² , 1,000,000μW/m ²)
Netherlands	Health Council	51V/m (6.92W/m ² , 6,920,000μW/m ²)	83V/m (18W/m ² , 18,000,000μW/m ²)
Switzerland	Verordnung 1999	4V/m (0.04W/m ² , 40,000μW/m ²)	6V/m (0.1W/m ² , 100,000μW/m ²)
United States	IEEE C95.1	49V/m (6.33W/m ² , 6,330,000μW/m ²)	68V/m (12W/m ² , 12,000,000μW/m ²)
Japan	Radio-Radiation Protection Guidelines, 1990	49V/m (6.33W/m ² , 6,330,000μW/m ²)	61V/m (10W/m ² , 10,000,000μW/m ²)
China/Russia	MEP, MIIT Rospotrebnadzor	6V/m (0.1W/m ² , 100,000μW/m ²)	6V/m (0.1W/m ² , 100,000μW/m ²)

Captured Regulatory Agencies

Many first-time EMF meter users are often alarmed by the high levels of microwave radiation they encounter while out and about. This can be attributed to the explosion of wireless connectivity, smart cities, the widespread rollout of cell towers, and the influence of compromised government agencies.

Robert F. Kennedy Jr. (US Secretary of Health & Human Services) along with many others, state that agencies such as the **FCC (Federal Communications Commission)**, **ICNIRP (International Commission on Non-Ionizing Radiation Protection)**, and other national regulatory bodies have been compromised by the wireless industry.

Key Issues with Captured Wireless Regulatory Agencies:

1. **Industry Influence on Policymaking:**
 - Many regulatory agencies rely on research & funding from the telecom industry itself.
 - Revolving door between telecom executives and regulatory positions (e.g., former FCC chairmen moving to top telecom companies).
2. **Outdated Safety Standards:**
 - ICNIRP and FCC guidelines are based on **thermal effects only**, ignoring biological effects such as DNA damage, oxidative stress, and neurological issues.
 - Standards were set decades ago before modern pulsed wireless technology (5G, smart meters, and IoT devices) became widespread.
3. **Conflict of Interest in Research Funding:**
 - Many studies downplaying RF risks are funded by telecom companies.
 - Independent studies showing harm (e.g., NTP and Ramazzini studies on cancer risks) are often dismissed or not considered in policy decisions.
4. **Lack of Precautionary Approach:**
 - Unlike environmental or food safety regulations, RF radiation policies do not adopt the **Precautionary Principle**.
 - Countries like Russia, China, and parts of Europe have far stricter RF exposure limits, and measurement methods but Western regulatory bodies resist revising guidelines.
5. **Suppression of Dissenting Scientists:**
 - Experts who raise concerns (e.g., Dr. Devra Davis, Dr. Martin Pall, Dr. Henry Lai, Dr. Andrew Marino.) often face professional attacks or funding cuts.

The WHO's IARC classified RF radiation as **possibly carcinogenic (Group 2B)** in 2011, yet industry-friendly agencies continue to downplay risks.

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