

# Sensing The Invisible

**TERA's unique THz technology enables groundbreaking solutions and products that transform our daily lives.**

We focus on developing and providing technological enhancements in multiple industries and markets such as Food, Medical, Pharma and Energy.

TERA is fueled by world-renowned scientists and decades of cutting-edge engineering. It branched out of the Weizmann Institute of Science in Israel, in 2003.

## TERA WAVES TECHNOLOGY

Terahertz (THz, 300-3,000GHz) electromagnetic waves are highly desirable due to their exceptional sensing and diagnostic capabilities, when illuminated on many biological or chemical materials. They are human-safe and offer unparalleled opportunities and information unavailable until today.

TERA is also developing TeraWater applications based on molecular resonance at various electromagnetic frequencies.

### AT A GLANCE

**Founded:** 2003

**Headquarters:** Herzliya, Israel

**Employees:** 100 FTE\*

**Total Patent Applications:** 88\*\*

**Total Investments:** +\$100M

**Total Investors:** 400

\* Excluding 100 outsourced employees

\*\* 46 Granted; 42 in process; and ~100 additional applications in various stages

<b>Human-Safe (Non-Ionizing)</b>	<b>Special Interactions with Water (H<sub>2</sub>O) Molecules</b>	<b>Unique Detection of Bio-Chemical Compounds, Viruses, Bacteria &amp; Gases</b>	<b>Penetrates Differently Than RF &amp; Infra-Red (IR)</b>
<b>Molecular Radar Capabilities</b>	<b>Extreme Signal Accuracy &amp; Resolution</b>	<b>Improve Bio-Availability in Food &amp; Pharma TeraWater based Formulations</b>	<b>Terahertz Transistor</b>

## PRODUCTS & SOLUTIONS

TERA primarily develops customized THz products and solutions for its strategic partners under its B2B platform. Its main product is the TeraSystem.

TeraSystem® – THz spectrometer operating as a diagnostic molecular radar. The TeraSystem can obtain new, valuable and unprecedented information from any gas, chemical, biological and organic material (including in water) for customized solutions.



**TERA BioStation**

**Bio-Station Non-Invasive Rapid Tests, Providing COVID-19 Results to Individuals Tested as *Clear/Not-Clear***



**TERA Egg**

**Egg Scanner Preventing 6.5B Male Chick Killing + Adding 41B/year Infertile Eggs (15%-18% of eggs)**



**TERA SYSTEM**

**TeraSystem Scanner Customizable to multiple THz Solutions & Products**

# COVID-19 Breath Analyzer Using Tera Waves

A rapid test for COVID-19.

TERA, via its fully owned subsidiary, TERA.Bio, introduces a 1-4 minutes clearance test to determine if an individual is *Negative* for COVID-19 (*Clear* to Continue). Comprised of the proprietary TeraSystem and molecular scanner, this rapid, non-invasive test, uses the sensitivity of Tera Waves to provide accurate and reliable results.

Following clinical trials in Israel, Latin America, Asia, USA (pending FDA approval), UAE and Europe (CE Mark approved) TERA.Bio is continuing to grow its number of testing sites around the world, in a collective efforts to fight COVID-19 and mobilize the global economy.



## HOW IT WORKS



## SCANNING EQUIPMENT



### TERA Bio-Station T101 & T202

Internal TeraSystem + scanner. Used to analyze breath aerosols and Volatile Organic Compounds (VOC). The Bio-Station T202 has also a Biowaste container to collect used TeraTubes



### TeraTube

Individual and consumable breath testing tube. Integrated with a proprietary membrane that captures the breath aerosols

## BENEFITS

- Real-Time Results
- Easy to Operate
- Non-Invasive
- Safe & Sterile
- Portable
- High Detection Rate
- Cost Effective
- High Throughput
- Artificial Intelligence
- Software Updates for other Viruses, Diseases, Variants and Bacteria (in the future)

<b>15-60</b> Tests Per Hour	<b>Exhaling 3 times</b> Collecting Breath Aerosols	<b>1-4 minutes*</b> Total Test Duration (from sample to result)
<b>30 kg / 66 lbs.</b> Bio-Station Specifications	<b>0.4-1.2 THz</b> Dynamic Range	<b>100,000 – 400,000**</b> Annual Tests Per Bio-Station

\* Current test duration. TERA.Bio estimates that during 2022 or sooner, the total test duration will decrease to less than 1 minute/test.

\*\* Assuming an average working time of 12hrs per Station, 7 days a week and depending on the Bio-Station model