

WMC SemBio

The world's first! Leading the future of animal husbandry with a dual virus prevention solution.

Total AI/FMD Protection



"The world's only innovative solution that sterilizes, defends, and protects highly pathogenic avian influenza (AI) and foot-and-mouth disease (FMD) viruses in a three-dimensional manner through the synergy of powerful air sterilization systems and immune-enhancing feed additives."

Executive Summary

WMC Sembio's Global Market Entry Strategy

This proposal outlines a strategic roadmap for WMC Sembio to enter and secure a significant share in the global livestock market with its innovative FDA-certified natural mineral feed and premium eggs.



Innovative Technology

FDA-certified natural mineral feed with 4 domestic patents



Strategic Market Entry

Prioritized targets: North America, Europe, and Japan



Proven Efficacy

Superior antimicrobial properties and comprehensive health benefits



Customer-Centric Value

Tailored benefits for farmers, distributors, and end consumers

WMC SemBio Max

SemBio Mineral Ingredient

- ✓ Natural SEM mineral raw materials
- ✓ U.S. FDA certification
- ✓ Zero verified mortality rate (based on 10,000 animal samples)
- ✓ Great protection against Avian Influenza (AI) and Foot-and-Mouth Disease
- ✓ Natural preservative, keeping freshness for twice as long
- ✓ Perfect solution for national policies, increases farmer profits, and improves the livestock environment
- ✓ Reduces E. coli (84%), Staphylococcus (70%) and Salmonella (90%)
- ✓ Four domestic patents (Korea)
- ✓ Excellent antibacterial, sterilizing and immune-boosting capabilities
- ✓ Adsorb and decompose heavy metals



"Golden Egg"

WMC Sembio

Premium "Mineral Health Eggs" - Just one of WMC Sembio's innovative products

Global Market Drivers

- ✓ Antibiotic reduction requirements
- ✓ Increased demand for natural ingredients
- ✓ Growing consumer preference for animal welfare

WMC Sembio's Core Competitive Advantages



Intellectual Property

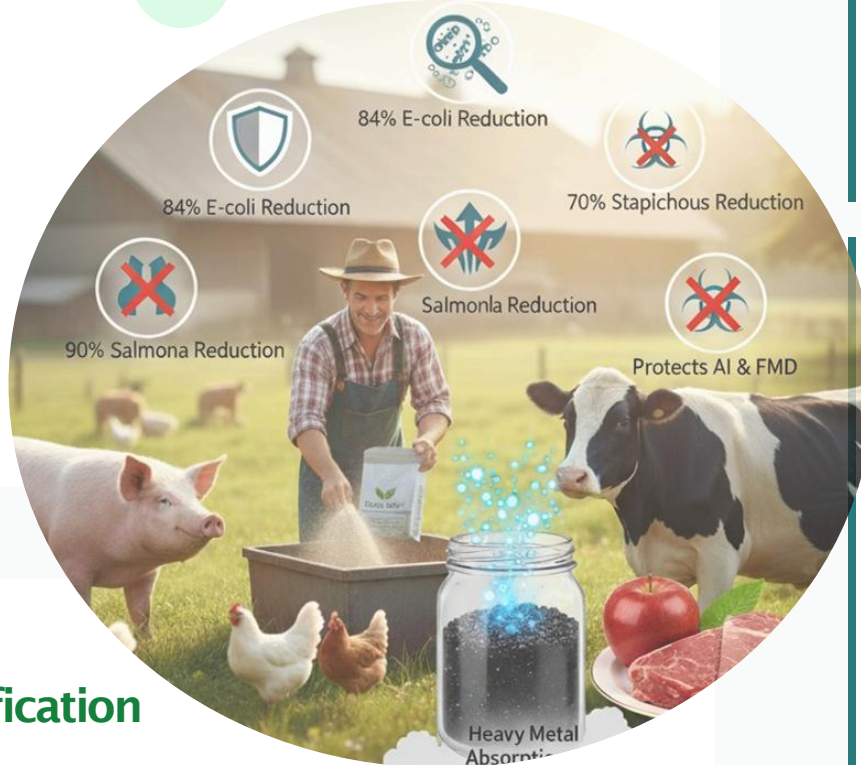
Domestic Patents

4 Granted patents for natural mineral technology

Domestic Trademark

1 Registered trademark in Korea

특허 제 10-0897488호



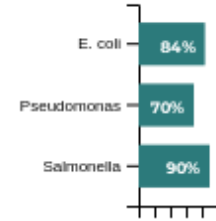
FDA Certification

- US FDA certified natural mineral new material feed
- Strict compliance with international safety standards
- Critical competitive advantage in US market



Antimicrobial Efficacy

- E. coli reduction by 84%
- Pseudomonas reduction by 70%
- Salmonella reduction by 90%



Product Advantages



Performance Enhancement

- Egg production rate increased by 3-5%
- Production period extended by 3-6 months



Immune System Support

- Lifespan extended from 80 weeks to 100-120 weeks
- Reduced disease incidence and mortality



Natural Mineral Technology

- Superior bioavailability compared to inorganic minerals
- Higher absorption rate in livestock



Global Regulatory Support

- Ongoing international trademark and patent applications.
- Supporting global market expansion

Product Value Proposition

WMC Sembio's products offer compelling value through two main pillars:



Differentiated Efficacy of Natural Mineral Feed



Superior Bioavailability

2-3x higher bioavailability and absorption rate compared to inorganic minerals



Antimicrobial Properties

Reduces pathogenic bacteria by 70-90% in the intestinal tract



Enhanced Production

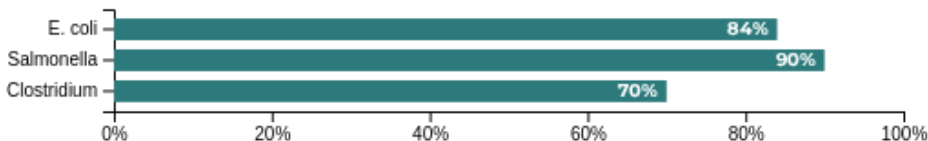
Increases egg production by 3-5% and extends laying period by 3-6 months



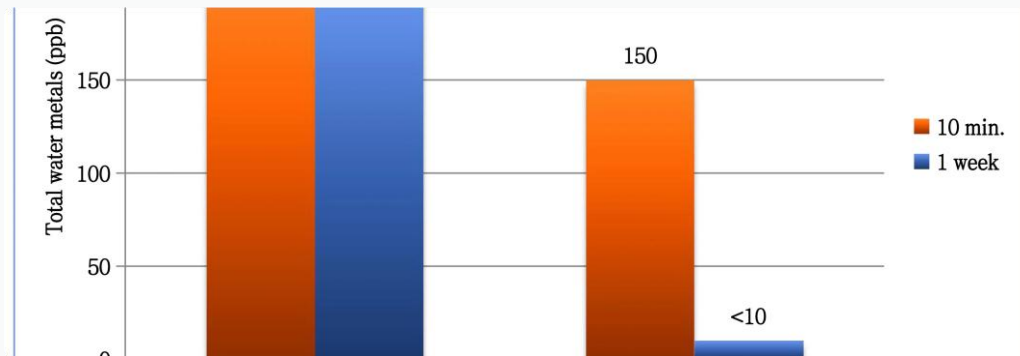
Environmental Benefits

Reduces ammonia emissions by 7-15%, contributing to sustainable farming

Bacterial Reduction Efficiency



Trust Assurance through FDA Certification



Safety Verification

FDA certification provides rigorous safety testing and GRAS status



Global Market Access

FDA certification facilitates market entry in North America and Europe



Strategic Advantage

Positions WMC Sembio as a trusted global partner for livestock nutrition



Innovation Leadership

4 domestic patents and ongoing international registrations

WMC SemBio Max

Enhanced Livestock Health

- Patented natural SEM mineral
- U.S, FDA certified
- Zero verified mortality
- Great protection against Avian Influenza (AI) and Foot-mouth Disease
- A natural preservative, keeping freshness for twice as long
- Perfect solution for national policies, increases farmer profits, improves the livestock environment



[혁신적인 축산 방역 솔루션: AI 및 구제역 완전 봉쇄]

WMC SemBio Max

Cutting edge Eco-Friendly Mineral Ingredient

Innovative Livestock Epidemic Prevention Solutions:
AI and Foot-and-Mouth Disease Complete Lockdown

Sembio Feed Additives

**AI/FMD Protection
Air Sterilizer**

Product	SemBio Max
Product Type	Feed Additive Mineral Ingredient
FDA	Registered (USA)
Mineral Type	SEM Mineral raw materials
Benefits	Antibacterial, Sterilizing Immune-Boosting, Reduce Disease
Unit Cost (1kg)	\$4.00 USD : \$4,000 (1000Kg)
FOB point	Korea
Shipping	Best way
Packing Info	20Kg (1 bag): 50 bags/1 pallet =1 ton
20 feet container	17 pallets (17 tons)
M.O.Q	34 tons (4~6 months use)
Lead Time	(10~14 days)
Supply Requirement (per month)	<ul style="list-style-type: none">• 1 chick =144g,• 10K chicks=144kg ,• 800K chicks=11,520kg (11.5 tons)• 1M Chicks =14.4 tons
Min Requirement Supply Time	12 weeks

WMC Sembio Max

Partnering for a sustainable and prosperous future in the global livestock industry.

AI/FMD Protection

AI/FMD Protection air sterilization and disinfection Smart Factory Solutions

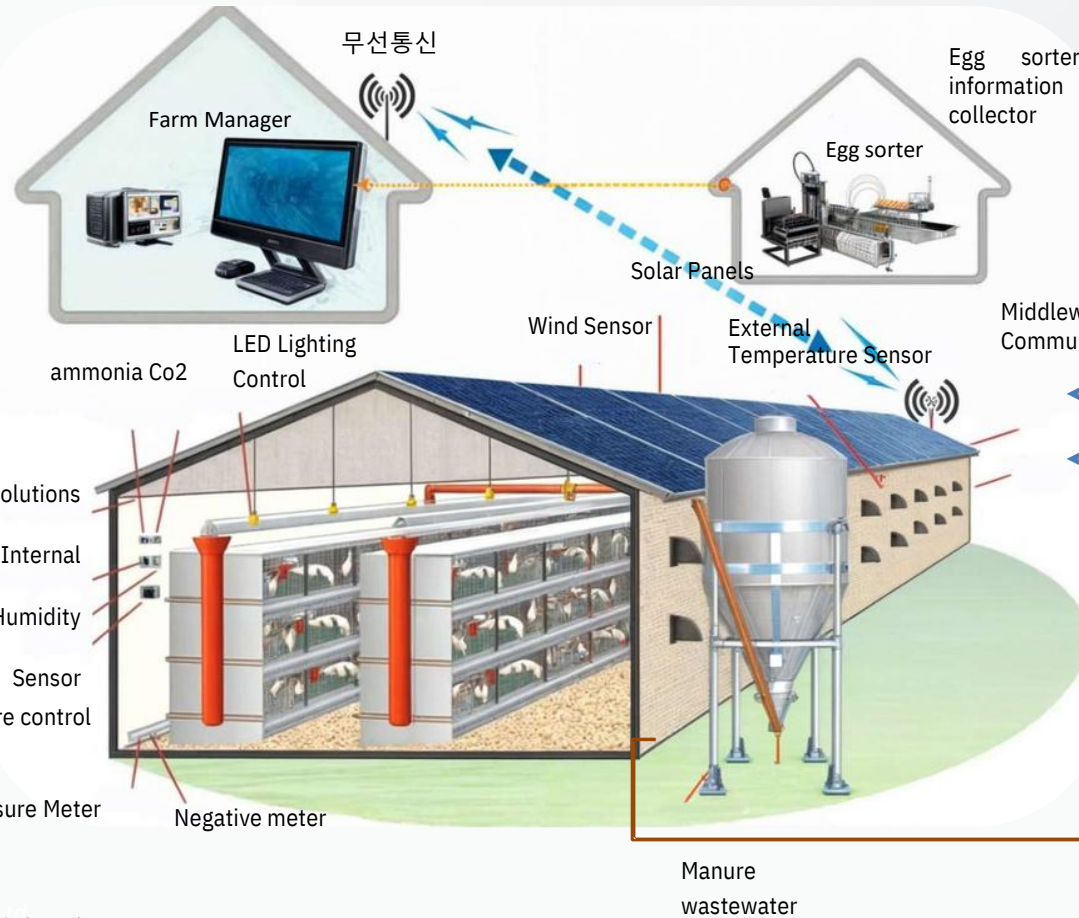


Touch screen Monitoring Solutions

Internal
Temp/Humidity
Sensor
Heater for temperature control

Water Pressure Meter

Negative meter

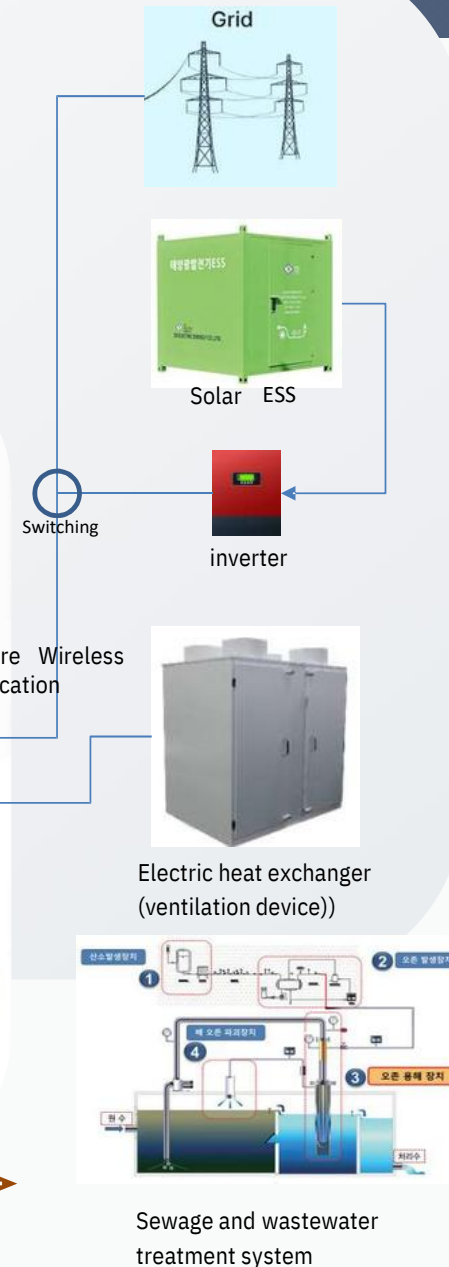


AI/FMD Protection

Air Sterilizer



Sembio Feed
Additives



SemBio Max Core Tech/Functions --Patented

Category	Functions
❖ Safety	US FDA-Certified. Eco-Friendly Solution.
❖ Gut Health	Patented Gut Health Tech. Boosts Nutrient Absorption.
❖ Growth	Dramatically Improves Feed Efficiency. Maximizes Growth Potential.
❖ Immunity	Zero Mortality with Stronger Immunity.
❖ Antibiotic Alternative-Free	Replaces Antibiotics, Provides Antioxidants.
❖ Disease Prevention	Comprehensive AI/FMD Protection.
❖ Egg Quality	Double Egg Freshness & Quality Improvement
❖ Harmful Bacteria	Eliminates up to 90% of Harmful Bacteria.
❖ Sterilization	Powerful Sterilizing & Antibacterial Action.
❖ Environment	Decomposes Heavy Metals for a Clean Environment.
❖ Profitability	Maximizes Farm Profits. Complies with Gov't Regulations.



WMC Sembio's advanced air disinfection/sterilization capabilities and innovative FDA-approved natural feed additive (SemBio) provide the world's first solution to prevent, protect, and treat avian flu/FMD (foot-and-mouth disease), and present an integrated strategy and proposal to attract successful domestic and foreign investment as a leading company in the global market



Excellent antibacterial ability

84% reduction in *E. coli*, 70% reduction in *staphylococcus*, 90% reduction in *Salmonella*



Increases immunity

Enhance the immune response of livestock, significantly reduce disease incidence and mortality



Extended Lifespan

Extend livestock life to 100~120 weeks of age, increase productivity



Competitive Advantage

- ✓ **5 domestic patents** - Natural mineral new material and feed additive manufacturing method
- ✓ **FDA Certified** - Safety and efficacy verification through US FDA certification
- ✓ **Safety and efficacy verification through US FDA certification** **WA 인증 가능**
- Antibiotic-Free (Residue Worry Free) certified
- ✓ **Domestic Trademark** - 1 completed, each country/region application in progress

Additional features

- 🔥 **Natural preservatives** - Inhibits spoilage of livestock products, maintaining freshness more than twice
- ⚙️ **Disease defense** - AI (avian influenza) and foot-and-mouth disease protection effects

**Innovative Livestock Epidemic Prevention Solutions:
AI and Foot-and-Mouth Disease Complete Lockdown**

Patents & Certificates

WMC Sembio의 글로벌 시장 진출을 위한 핵심 특허/인증서 정보

WMC SemBio Max SemBio Mineral Ingredient

- ✓ Natural SEM mineral raw materials
- ✓ U.S. FDA certification
- ✓ Zero verified mortality rate (based on 10,000 animal samples)
- ✓ Great protection against Avian Influenza (AI) and Foot-and-Mouth Disease
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WMC Sembio 세계시장 전략 (Confidential & Internal Use only)

특허 및 인증서

특허증



미국식품의약청(FDA) 시험 인증서



미네랄 건강란의 시험성적서

건강란 시험성적서

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한국국제연구원
 Korea Foreign Research Institute

학위 증명서 (Certificate)

학위명 (DEGREE) : 석사 / 學位名 (DEGREE) : 碩士
 학위명 (DEGREE) : 석사 / 學位名 (DEGREE) : 碩士
 학위명 (DEGREE) : 석사 / 學位名 (DEGREE) : 碩士

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충남대 건강란 시험성적서

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비밀. 면역력을 강화

바이러스를 사멸하라!

바이러스에 대하여 닭이 건강하도록 면역력을 키워 건강한 계란을 낳도록 관리

<h2 style="margin: 0;">시험 성적서</h2>					
주식회사 바이오드 4) 5499 현악북도 익산시 교동로 79 (TEL : 063-850-0685, FAX : 063-850-0686)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> 성적서번호 </td> <td style="width: 50%; padding: 5px;"> B-2021-1 </td> </tr> <tr> <td colspan="2" style="padding: 5px;"> 제이자(1)(총 2) </td> </tr> </table>	성적서번호	B-2021-1	제이자(1)(총 2)	
성적서번호	B-2021-1				
제이자(1)(총 2)					
1. 의뢰자 정보					
기 관 명	대 표 자				
주 소					
접수일자	시험완료일자				
2021년 8월 23일	2021년 10월 30일				
2. 시 료 명 : SEM-1, SEM-2, SEM-3, LST					
3. 시험결과					
시험항목	시험구분				
할바바이러스시험 (Influenza virus)	S-1				
	S-2				
	S-3				
	LST				
판명					
로카인음					
로카인음					
로카인음					
로카인음					
시험방법					
ASTM E1052-11					
1) 시험조건					
- 시험법 : 농밀측산검역본부 고시 제2018-16호의 【소득제 호흡시험 지침】					
- 용시바이러스 : Avian Influenza(A/M596/96주)					
4. 용 도 : 회사 자체 품질관리 및 보고서 제출					
참고 : 시험결과서					
예고 : 1) 이 성적서는 제작자가 제시한 시료 및 시료명대로 시험한 결과로서 현재 제출에 대한 품질을 보증하지 않습니다. 2) 이 성적서는 온도, 안전, 경고 및 조항을 필요로 사용할 수 있으며, 온도 이외의 사용을 금합니다. 3) 이 성적서는 원본(제발행) 보관할 용하여, 사본 및 전자 인쇄본/직접본은 유효하지 않습니다.					
2021년 11월 17일					
주식회사 바이오드 대표이사					

6. 종합결론: S -1, S -2, S -3, LST의 Avian influenza virus 대한 항바이러스 효능시험 결과, LST의 원액, 10배, 100배 희석액에서 바이러스 사멸효능을 보였다.

SENTIGEN-300 for AI/FMD Air Disinfectors

Disinfect viruses and Sterilize the air in your room.

- ◆ **World's Ultra Powerful 5-stage Disinfectant**
- ◆ **800 Million Bipolar Ions Emission Per Second**
- ◆ **Eco-friendly and Ozone Free**
- ◆ **8 in 1 Smart Air Quality Monitoring System**
- ◆ **Advanced Defense Against COVID-19 and Flu**

NOVIRUSAIR MAWI-300-E Ultra Disinfectors is an air purification sterilization solution that is convenient, reliable and easy-to-use. It quickly disinfects and sterilizes air at home or office.

NOVIRUSAIR MAWI-300-E Ultra Disinfectors is fast-working, environment-friendly and does not emit ozone. It uses advanced bio-plasma technology to remove airborne pollutants, eradicates viruses and bacteria, absorbs smoke, odors and volatile organic compounds, decomposes harmful substances such as formaldehyde and benzene by 99%., and drastically improves indoor air quality.

NOVIRUSAIR MAWI-300-E Ultra Disinfectors is FDA registered and listed as infection control medical device (CLASS 2).

Aero-dynamic Sterilization™ Technology

LNT Ozone Free™ Technology

800 Million Bipolar Ions™ Technology

Nano UV-C LED Sterilization™ Technology

High Functional 8 in 1 Air Quality Sensor

(CO2+Temperature+Humidity+TVOC+HCHO+PM1.0/PM2.5/PM10+AQI)

Patented Technology (Korea Patent No. 10-2537336)

**Wi-Fi/Bluetooth Connectivity for Real Time
(Smartphone Air Monitoring App)**



Life-Saving Solution
See what you are breathing

Features

MEDICAL & INDUSTRIAL-GRADE SANITIZATION

800M Bipolar Ions™ Technology combined with Aero-dynamic Air Sterilization and UV-C Nano LED Technology will eradicate viruses, bacteria as well as smoke, cigarette fumes, wildfire smoke, cooking odor, food smells, pet odor, chemical odor, harmful gas and pollution odors like formaldehyde, benzene, xylene, VOCs by 99.97%. NOVIRUSAIR is equipped also with antiviral copper filter to block the entry of viruses and bacteria.

SUPERIOR AIR DISINFECTION AND PURIFICATION

Ultra powerful 5-step disinfection system will make your air cleaner and fresher. You can enjoy pristine forest air in your room, living room, basement, kitchen, office, hotel, hospital, school and more. NOVIRUSAIR helps you sleep better by capturing airborne pollutants which irritate your sinuses, nasal passages and lungs.

8 in 1 SMART AIR QUALITY DETECTION SYSTEM

Query air quality data at any time using mobile APP. Monitor PM2.5, T&H, CO2, TVOC and etc.

5 KTL (Korea Testing Lab) TESTS

Passed bacteria eradication, virus eradication, ozone safety, noise, and odor removal tests.

Benefits

World's First Ultra Powerful 5-step Air Sterilization System

Emits 800M positive and negative ions per second and eradicates bacteria, viruses, VOC, odor. Passed 5 KTL (Korea Testing Lab) tests. (surface/air virus eradication, ozone safety, noise, odor removal)

OZONE-FREE (LNT Ozone Zero™ Technology)

Emits only up to 0.0023ppm of ozone per hour (only 1/21 of 0.05ppm per hour suggested by WHO).

MOLECULAR LEVEL CONTROL

Removes air pollutants such as VOCs, gaseous chemicals, fine dust and odors at the particle level.

SMARTPHONE AIR QUALITY DETECTION via BUILT-IN WIFI

Tracks even the slightest changes in air quality within seconds. Immediately alerts when the air is not safe - Smart air quality monitoring to create safe environments.

Class 2 Medical Device Approved by FDA

Registered and listed on FDA as class 2 medical device.

Sentigen 300



- **Eradicates Human Corona Virus and other viruses**
- **360° Air Intake and Ion Dispersion**
- **Emits over 800 million ions per second**
- **5-stage ultra-powerful disinfection process**
- **UV-C LED Kills Covid-19 virus in 2 seconds.**
- **Anti-virus copper filter kills Covid-19 virus in 5 minutes**
- **Wall Hanging & Standing Design**
- **Passed 5 KTL (Korea Testing Lab) Tests**
- **Patented technology (patent number10-2537336)**
- **Smartphone Air Quality Monitoring System**

Life-Saving Solution AIR DISINFECTOR

Model		MAWI-300-E
Effective Area		49.6~ 85 m ²
Specification	Rated Power	30W
	Size(W X H)	40x40x10.5 cm
	Weight	1.75kg (excl. adapter)
	Power (adapter)	AC 100V-220V 50/60Hz DC 5V/3A
	Cable	1.5M / USB-C, Cable
	Filter	2 years
	Noise	34dB (Normal)-40 dB (Storm)
	Wireless	Wireless Connectivity + Smartphone App
	CO2 Detection Range	400-5000PPM
	CO2 Detection Accuracy	±(50PPM + 5%*reading value)
	PM1.0/PM2.5/PM10 Detection Range	0 - 1000µg/m ³
	PM1.0/PM2.5/PM10 Accuracy	±10µg/m ³ (0 - 100µg/m ³)
	TVOC Detection Range	0 - 9.999mg/m ³
	HCHO Detection Range	0 - 1.999mg/m ³
	Temp Detection Range	-20 - 50°C
	Temp Accuracy	±1°C
	Humidity Detection Range	0% - 99%RH
	Humidity Accuracy	±5%RH
Design	Display	LED (Blue)
	Color	White/Silver
	Material	PC / ABS
	Control Button	N/A
Disinfection & Filter	CU Filter	Anti-viral Copper Filter
(Built-in Filter x 4)	Plasma	Cold Plasma Ions + OH Radical
	UVC (LED)	UVC LED -275 nm (Peak)
	UVC+Nano Photo Catalyst	OH Radical
Packaging	Manual x1	
	Adapter + USB-C Cable x1	Remote Control (Optional)
Product Info	Category	Plasma Air Sterilizer
	Manufacturer	Lenatech
	Country	Made in Korea
	Certification	KC, CE, RoHS, FDA
	Availability	Q1/2025
	AS	TBD