

## Technical Data Sheet

### AIPMT-GN215A6-EV: Artificially Intelligent Pest Management Device (AIPMD)

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#### Product Description

**AIPMT-GN215A6-EV** Artificially Intelligent Pest Management Device (AIPMD) is physical insect control/management trap. AIPMD makes use of Artificially Intelligent 2<sup>nd</sup> Generation Insect Communication System (AI2GENICS) module to communicate with insects to alter their behaviour. The change in behaviour is further exploited and EHT electric grid deployed in the exterminate insect-pests harmful to the crops and plants.

AI2GENICS™ entice then congregate the crop ravaging herbivorous and omnivorous insect-pests in AIPMD device. Beneficial insects remain at least 5ft away from the AIPMD due to alarm signals released by AI2GENICS™. The farmer prospective beneficial insects includes carnivorous insects (predators), parasitoid, nectar-pollen feeding bees viz. honey bees, bumblebees, etc. This device is safe for human, birds, and animals.

Artificially Intelligent Pest Management Device (AIPMD) is environment friendly, zero pollution, green/clean energy operated physical insect control/management device. AIPMD designed to operate on solar power with the option of an additional mini wind turbine; there is no need for external grid power. For emergency, there is provision for charging device externally using grid power.

#### Product Specifications:

**1. Coverage Area:** Up to 1.5 Acre\*

\* The above-mentioned coverage area may vary; it depends upon crops/plants/trees density and level of the land. If the farm is located on hillocks with steep tilt, area of coverage reduces.

**2. Radial Coverage Distance:** 140 foot

**3. Physical Specifications:**

- Physical Dimensions of Main Body of Device: 35.5cm (L) X 30cm (W) X 52cm (H)
- Weight of Main Body of Device Weight: 9.5 Kg
- Stand for Device: 46" + 46" collapsible stand, adjustable height

**Note:** Size and weight of solar voltaic panel may vary time to time depends upon manufacturer of SVP, while power generation capacity remains the same.

**4. Electrical Specification:**

- Solar Panel – 20Watt
- Optional Wind Turbine: 50 Watt, this feature is available at extra cost
- Battery: Li-Ion 10000mAh/11.1 VDC
- Battery Backup: 2 days when fully charged
- AI2GENICS Module: MICRO-AIGN215AE

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#### 5. Key Source of Communication with Insects: AI2GENICS™

**AI2GENICS™:** Artificially Intelligent Second Generation Insect Communication System\* Proprietary Technology: Invented, designed, developed and manufactured by AI-GENIX International Pvt. Ltd.

#### 6. Daily Working Duration:

- ✓ **AI2GENICS** 4 Hours/day, 365 Days year
- ✓ **EHT Electrocutation System:** 4 Hours/day, 365 Days year

**Note:** Once trap is installed one shall not remove it from the field until the end of life of trap, the exception is maintenance period, and it should not be relocated for achieving excellent results and control on pests in the dedicated area covered under the trap.

#### 7. Insect extermination Mode:

- Burn by electrocution (High-tension voltage grid deployed)

#### 8. Alarming System For Safety of Beneficial Insects: AI2GENICS™

- AI2GENICS™ ensures safety of 99.9% beneficial insects, an accidental catch of beneficial insects cannot rule out, but such catch score would be less than 0.1% when compared with other insect-pests caught in AIPMD.
- An accidental catch of honey bees and bumblebees with impaired memory (due to exposure to Neonicotinoids and other toxic pesticides) cannot be ruled out, but such catch score would be less than 0.1% when compared with other insect-pests caught in AIPMD.

#### 9. Operating System:

- Software controlled fully automatic operating system
- Rain and Condensed Moisture Protection: Traps get “TURN –OFF” automatically in case of rain or condensed moisture in the environment.

#### 10. Product Life: 6 Years\* (Maintenance required once in every two years during product lifetime)

\*If used as per guidelines are given in operation manual provided with the product.

#### 11. Orders of Insects controlled using AIPMT-GN215A6-EV Selectively exterminates herbivorous and omnivorous (harmful) flying insect-pests to the crops from the orders listed below

- Hemiptera (True Bugs, Aphids (winged adults only), cicadas, plant hoppers, leafhoppers and stink bugs, etc.)
- Coleoptera (Beetles)
- Lepidoptera (Moths)
- Isoptera (Termites)
- Orthoptera (grasshoppers, crickets, katydids, weta, lubber, Acrida, and locusts)
- Diptera (Mosquito, fly, midge, horsefly, etc.)

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- Hymenoptera (Sawflies, ants, etc.)
- Thysanoptera (Thrips)

The number of insect Genus: Species from above-given orders; controlled by this trap is 1980 plus types.

#### 12. Sucking Pest Control:

- This device effectively controls major flying sucking pest. Viz. Thrips, Aphid Males, Jassids, whitefly, stink bugs etc

#### 13. Application

- Protection of Crops from pests in IPM, Organic, Natural, Commercial and Sustainable Farming
- Shall be useful to protect all type of crops and plants in the open and protected farm, Viz. cereals, millets, legumes, pulses, oilseeds, vegetables, horticulture, floriculture, plantation crops, and forestry and aroma plants, etc.
- Food Processing factories, Food Storage Warehouse, Seed Storage Ware House, Animal Stables, Mosquito & Root Grubs Breeding Sites, etc.

#### 14. Environment

- Protects the environment from toxic contamination,
- AIPMD Energy-efficient operates on sustainable green clean solar energy

#### 15. Product Benefits

- Environment friendly: Its physical/mechanical insect control does not make use of chemical pesticides/insecticides for insect-pest management.
- Energy Conservation: Operates on inexhaustible green/clean solar energy.
- Saves Expense on Manpower: It is completely automatic system does not require human interaction daily to operate this machine. This leads to huge saving on work force required to spraying/ fumigation of insecticides/pesticides required in conventional pest management techniques.
- Increased harvest and production: Loss of harvest/crop due to infestation of insects/pests controlled effectively and yield increases by 30% to 40%.
- Saves Expense on Pesticides
- Zero operating: chemical/bio-chemical/microbial/ Semio-chemical not required
- Protection of Ecological Environment: Does not make use of chemicals.
- Healthy and natural farm produce: Pesticide-free farm produce & environment
- Physical Insecticidal: No Pesticides, Zero Pollution
- Easy to installation/relocation, no need for wiring, excavation and construction
- Investment recovery Period: Generally, investment recovery period is less than one crop cycle period when compared with expenses on chemical pesticides management in similar kind of crop.