

# OH-V1-E4400 Unified Small Craft Sensor Package

Initially designed for the [VF-41 Sparrowhawk](#) upcoming 5-year update of the [VF-41 Sparrowhawk](#) and the [Next Gen Fighter Program](#), the Unified Small Craft Sensor Package was eventually adapted for use with future small craft designs. It features state-of-the-art sensor capabilities, a robust design, and integrated electronic warfare capabilities.

|                  |  |
|------------------|--|
| Year of Creation | <a href="#">YE 44</a>                  |
| Designer         | <a href="#">Osman Heavy Industries</a> |
| Nomenclature     | OH-V1-E4400                            |
| Manufacturer     | <a href="#">Osman Heavy Industries</a> |
| Fielded by       | (Organizations using this component)   |
| Availability     | Mass Production                        |
| Price            | (Price in KS)                          |

## History

The E4400 Unified Small Craft Sensor Package was designed in [YE 44](#) to replace the Model 33 sensor array from the now-defunct Axis Mechworks that was used in the [VF-41 Sparrowhawk](#). In [YE 43](#) the supply of Model 33 arrays started to wane, leading to OHI developing their own in-house sensor package based on the Axis model, with their own improvements and additions to bring the design into the modern era. The range of the existing sensors was improved, and several new ones were added. These included an Electrogravitic<sup>1)</sup> Distortion Sensor, a Magnetic Field Sensor, and an Aether Detector.

The final product was, in essence, a one-size-fits-all sensor package for anything larger than a power armor or a car and smaller than an out-and-out starship, making any craft mounting it capable of tasks ranging from exploration and reconnaissance to combat and electronic warfare. The range on several of the sensor systems inside the package were limited primarily by the requirement to keep them small enough to fit on smaller platforms, leaving room for a future package aimed at starships and capital ships.

## Function and Design

The E4400 consists of an array of sensors that can be distributed throughout a craft with a central processing module or located in one package, allowing for either ease of maintenance or greater damage redundancy. The exception to this are the Visible Light and Thermal imaging systems, which are always distributed.

| Sensor Type                                  | Detection Method/Pattern | Range               | Active/Passive |
|--|--------------------------|---------------------|----------------|
| Active <a href="#">Subspace Mass Sensors</a> | Mass and Movement, Cone  | 20 LY <sup>2)</sup> | Active         |

| Sensor Type                                     | Detection Method/Pattern                     | Range                       | Active/Passive |
|---|--|-----------------------------|----------------|
| Passive <a href="#">Subspace Mass Sensors</a>   | Mass and Movement, Omnidirectional           | 10 LY <sup>3)</sup>         | Passive        |
| Electrogravitic <sup>4)</sup> Distortion Sensor | Gravity Distortions, Cone                    | 6 AU                        | Passive        |
| Electromagnetic Field Sensor                    | Electromagnetic Fields and Distortions, Cone | 5 AU                        | Passive        |
| <a href="#">Aether</a> Sensors                  | Aether Energy/Drive Trail, Omnidirectional   | 2 AU                        | Passive        |
| Exotic Particle and Wave Sensors                | Exotic Particles and Waves <sup>5)</sup>     | 2 AU                        | Passive        |
| <a href="#">LIDAR</a> Array                     | Laser, Directed Area                         | 5,000,000 KM <sup>6)</sup>  | Active         |
| Thermal Imaging & Tracking                      | Heat Signature, Omnidirectional              | 5,000,000 KM <sup>7)</sup>  | Passive        |
| Visible Imaging & Tracking                      | Visible Light, Omnidirectional               | 5,000,000 KM <sup>8)</sup>  | Passive        |
| <a href="#">PESA</a> Search Radar               | Radio Waves, Omnidirectional                 | 1,500,000 KM <sup>9)</sup>  | Passive        |
| <a href="#">AESA</a> Radar                      | Radio Waves, Cone                            | 1,500,000 KM <sup>10)</sup> | Active         |

## Electronic Warfare

In addition to serving as a sensors system, the E4400 can act as an electronic warfare suite. When acting in this role, the E4400 can perform ECM, ECCM, and active stealth duties.

### ECM

The E4400 can redirect its various sensor systems to act as electronic warfare instruments, directly interfering with enemy sensors and missile homing with RADAR and LIDAR, or using the systems to generate false sensor noise and false positives in a large area around the craft, frustrating efforts to aim both guided and “dumb” weaponry.

### ECCM

The E4400 can perform many [ECCM tasks](#), such as Sensor Chirping, Sensor Polarization, Frequency Hopping, and Jamming-Homing<sup>11)</sup>. Additionally, the system is capable of entering “Burnthrough mode”, in which its non-camera based sensors <sup>12)</sup> are focused in a cone forward, effectively burning through enemy ECM.

This Burnthrough mode is capable of breaking through all but the most advanced stealth systems, with the downside of leaving the craft blind outside of the cone that the Burnthrough scan is focused on with the exception of the Visual Imaging and Thermal Imaging systems.

### Active Stealth

By retasking certain sensors, the E4400 is able to generate false sensor returns in a wide area around the

craft, making it extremely difficult to determine the craft's true location within the area, at the cost of revealing the general area the craft is in.

## OOC Notes

Alex Hart created this article on 2022/09/23 17:03.

This was approved by Andrew on 2023/04/18<sup>13)</sup>

1)

Scalar/gravity

2)

Moon scale at maximum range

3)

Planet scale at maximum range

4)

Scalar/gravity, piggybacks on Subspace Mass Sensors

5)

Neutrino, Tachyon, Etc.

6) 9) 10)

Latency increases as distance increases, limited by lightspeed

7) 8)

Latency increases as distance increases, maximum range may be increased by decreasing sensor resolution, limited by lightspeed

11)

Radiation homing for multiple jamming types

12)

Everything but the Visual and Thermal imaging systems

13)

<https://starmy.com/roleplay-forum/threads/vf-41-iiy-haitaka.70389/#post-437525>

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Last update: **2023/12/21 00:58**

