Omnidirectional Simulated Maser Software Package

With the Kuvexian war gearing up and Eye series ships' limited combat effectiveness quickly becoming noted, Iemochi Innovations & Sales started developing the software based on ancient Maser technology in early YE 40 to weaponize the Eye series ships and give them some semblance of point defense and basic precision strike capability. This software package weaponizes the integrated noncollinear phased array of the Eye II, Eye III , and subsequent starships, or any ship with a similar sensor hardware package.

WARNING! The OSMSP will disable any and all other weapons on board due to power requirements and driver assimilation. Do not install if existing weapons systems are sufficient!

About the OSMSP

By firing individual transceivers of the noncollinear phased array [1] in a timed sequence, one can produce a ripple effect of compounding signals at a single point in three dimensional space. This can simulate the effects of a maser [2] over an extremely small distance before the signal breaks up again, and is difficult to detect as a weapon firing. Most sensors will read a sudden radio burst, followed by something being vaporized at a very small point. Due to the variable wavelength of the signal, this can be anything from water to durandium, ferrium, or other common shipbuilding metals.

However, if the device comes up against shield that does not allow microwave signals of any type through, it will usually fizzle out to nothing, as the beam will not form except at that singular point in space that was targeted. If allowed to pass, however, the individual signals have a very low potential energy individually, creating almost no effect until the beam forms at the convergent point and the signal strength amplifies exponentially. This should produce a point of extreme potential energy, shearing atomic bonds and vaporizing metals.

This effect isn't necessarily at the surface of the target, however. Due to the low potential and energy carried by each of the individual signals, diffraction can be quite minimal, allowing the beam to form behind armor, as long as the armor isn't grounded by any form of material with radio-frequency blocking properties, such as a Faraday cage. This means that precise strikes can be made against critical ship systems without causing hull breaches that would ruin hulls. It also allows for very precise destruction of life sustaining equipment and the safe capture of sensitive materials.

Nomenclature Information

Even software is subject to various equipment registration laws, and is thusly required to have model and serial numbers.

- Designer: Iemochi Innovations & Sales
- Manufacturer: Iemochi Innovations & Sales

- Name: Omnidirectional Simulated Maser Software Package
- Nomenclature: IIS-Y1-4001
- Type: Microwave beam cutter
- Role: Antimaterial cutting, welding, precision laser strike
- Length: Not applicable [3]
- Mass: Not applicable [4]

Appearance

Due to using the existing noncollinear phased array on Eye series starships or any other craft equipped with the 220,000 element noncolinear phased array (variable wavelength transceiver), this device is only visible as a small user interface (UI) update, wherein the user can target a point in three dimensional space relative to the craft, and the ship will detect what material it's firing at using the laser spectrograph, adjusting automatically. Manual material selection can also be used, though inaccuracies may occur.

Discharge Information

"You may feel a slight tingling sensation, and then death."

- Muzzle Flash: No muzzle flash
- Retort: A high pitched buzz from deep within the hull as massive voltage is dumped across the array.
- Effective Range 900-1000 kilometers
- Rate of Fire: Constant
- Recoil: zero

Energy Source

In microwave physics a highly condensed point of radio frequency (RF) radiation can excite matter to plasma or cause massive thermal changes over a short period of time. Look at the microwave oven in your kitchen for an example of these physics. This software package takes an extremely high power communications array and removes the safeties. It also adds a targeting system that allows a starship to literally cut its way free of a grappling system, whether by cutting the power lines to graviton emitters or slicing off grappling arms and cables. It also allows it to cut the window free from a starship hull or destroy reaction chambers in engines, reactors, or other critical systems, destroy communications equipment or precision strike computers and personnel.

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- Ammunition Microwave radiation compressed into a short maser beam
- **Purpose:** Tier 7 (light anti mecha, considers most targets unarmored at GM discretion.)
- Round Capacity: Constant, moving beam for approximately 40 seconds, cooling down over the course of 90 seconds.

Weapon Mechanisms

Unlike traditional weapons systems, the OSMSP uses an entirely digital, simulated approach to perform the function of a high power cutting maser. This allows a lot more flexibility and reliability, though it can burn out the array after several uses, rendering the ship incapable of communicating in UHF, VHF, or other radio bands.

- **Firing Mechanism:** This weapon fires the transmitters of the noncollinear phased array individually at a slight delay, causing the beams to converge on a selected point in three dimensional space simultaneously before breaking up due to ripple effects. There is no loading, feeding, or other mechanical systems to break down.
- **Mode Selector:** Eye series ships use a touchscreen on the inside of the personnel pod for all systems control. This software package adds a weapons system sub-menu to the user interface.
- **Firing Modes:** Constant beam or short burst.
- **Weapon Sight:** Uses ship sensors for targeting, material selection, etc.

Pricing

Due to the lack of physical hardware with the system, the software package has no replaceable components, ammunition, or other conventional weapon drawbacks. It may burn out the noncollinear if overused, however.

- **OSMSP:** 4,000 KS

OOC Notes

Madi Harper created this article on 2018/07/22 07:53.

Approved by Zack here

[1)]
See Phased_array for basic physics
[2)]
Acronym, "microwave amplification by stimulated emission of radiation," see Maser for basic physics and history
[3)] , [4)]
Weapon uses existing noncollinear phased array, and as software, does not have physical dimensions. Software package size: 4Gb

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