

EM-03 "Hirakeru" Communication Satellite

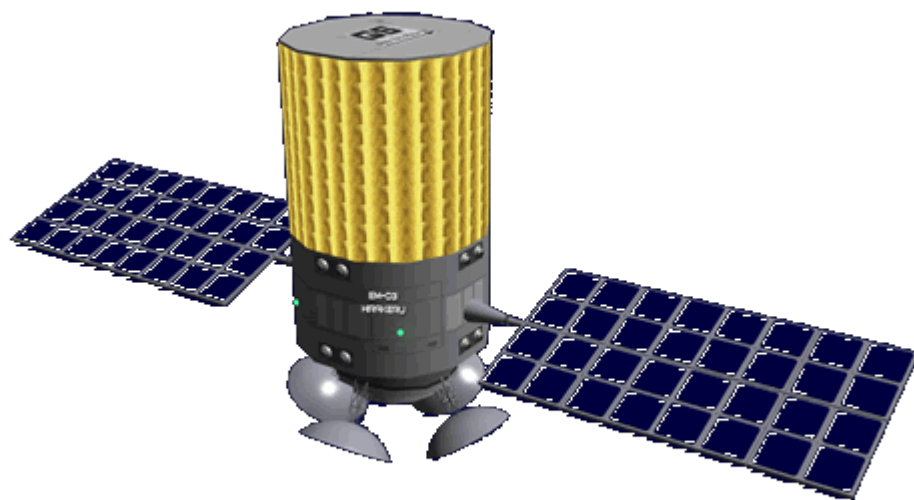
Emrys Industries

A Tamahagane Company

The [Emrys Industries](#) *hirakeru* communications satellite is intended for use on worlds to establish communications grid, it became available in [YE 33](#). In [YE 34](#) and [YE 36](#), the [Yamatai Star Empire](#) conducted major deployments of Emrys satellites to planets in its territory.

About the EM-03

The EM-03 is a full function Communications Satellite designed for planets with large populations. They are designed to work in harmony with other satellites or multiples of the EM-03 to provide complete coverage. Hirakeru means *"to become civilized, to become opened up"*



History

After the [Battle of Yamatai](#) the planetary communications network was a shamble. [Emrys Industries](#) went to work to modify their [EM-02 "Houmen" Communication Satellite](#) for a large scale permanent operation. The [Tamahagane Corporation](#) donated the first units to the Empire to restore the Capital communications

grid.

Details

Manufacturer: [Emrys Industries](#), [Geshrinari Shipyards](#) Nomenclature: EM-O3-1a Type: Communications
Class: Satellite Designer: [Tamahagane Corporation R&D](#) **Price:** 100,000 [KS](#) base

- Additional clusters 5,000 [KS](#) ea

Dimensions

Width: 2.5 meter (8.2 feet) Length: 10.5 meters (34.44 ft) Height: 4.5 meters (14.76 ft)

Capability

Base: 8,192,000 channels **Maximum:** 131,072,000

- Digital video
- Data
- Voice
- Radio
- Subspace

Networks

- [SYNC](#)
- [PANTHEON](#)
- InterNEP

Systems

EM-O3-E3303 Guidance

The EM-O3 uses a pair of [Ge-Z1-E3300 - Guidance System](#) for its Guidance and control, it only requires one, but the second one is a redundant backup for reliability.



EM-03-E3302 Transponder Cluster

The EM-03 is equipped with multiple transponder clusters. These units are multiplexing communications units, each cluster is capable of handling the bandwidth for up to 1,024,000 multiplexing signals. The EM-03 is scalable, and comes with eight clusters, however it can have up to 128.

EM-02 E3301 RADAR

The EM-03 is equipped with a RADAR for two purposes. To determine its altitude above the surface, and to track any objects approaching it so that Satellite can avoid destructive impacts.

EM-02-E3300 - Inertial Navigation Unit

The EM-03 is equipped with the [EM-02-E3300 - Inertial Navigation Unit](#). It detects any movement in all three axes and provides the data to the control unit for use in correcting.



EM-03-P3300 Thrusters

The EM-02 is equipped with eight [Geshrinari Maneuvering Thrusters](#) which are used for attitude control to ensure proper alignment of the antennae.

EM-03-P3301 Graviton Engine

The EM-02 is equipped with a [Geshrinari Graviton Engine](#) to maintain its position above the planet.

EM-O3-G3300 Power System

The EM-O3 is equipped with a bank of high efficiency rechargeable power cells. These are recharged by the two large solar arrays located on either side of the satellite. For periods of high energy requirements such as high volume subspace traffic, the power system switches to a compact aether generator.

Products & Items Database	
Product Categories	electronics, space stations
Product Name	EM-O3 "Hirakeru" Communication Satellite
Nomenclature	EM-O3-1a
Manufacturer	Geshrinari Shipyards , Emrys Industries
Year Released	YE 33
Price (KS)	100,000.00 KS

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