

## SAG-3234033802-28-S1

### Ka Band Gaussian Optics Antenna, 32 to 40 GHz, 38 dBi Gain

**SAG-3234033802-28-S1** is a 12" Ka-Band Gaussian antenna that operates from 32 to 40 GHz. The Gaussian antenna delivers a 38 dBi nominal gain and 1.9 degree half power beamwidth. The antenna supports linear polarized waveforms and employs a corrugated feed horn to offer excellent aperture efficiency, high cross polarization rejections, and low sidelobe levels. This model is equipped with a standard WR-28 waveguide and UG-599/U flange as its input port. By removing the mode transition, Eravant model number SWT-28250-SB, the input port becomes a 0.250" diameter circular waveguide, which can support both linear and circular polarized waveforms.



#### Electrical Specifications:

Parameter	Minimum	Typical	Maximum
Frequency	32 GHz		40 GHz
Gain		38 dBi	
3 dB Beamwidth		1.9°	
Sidelobes		-25 dB	-20 dB
Cross Polarization		-20 dB	
Polarization	Linear and Circular		
Return Loss		14 dB	
Specification Temperature		+25°C	
Operating Temperature	-40°C		+85°C

#### ECCN

EAR99

#### FEATURES

- Center Fed
- Low sidelobes
- Low cross polarization

#### APPLICATIONS

- Radar systems
- Communication systems
- Plasma systems

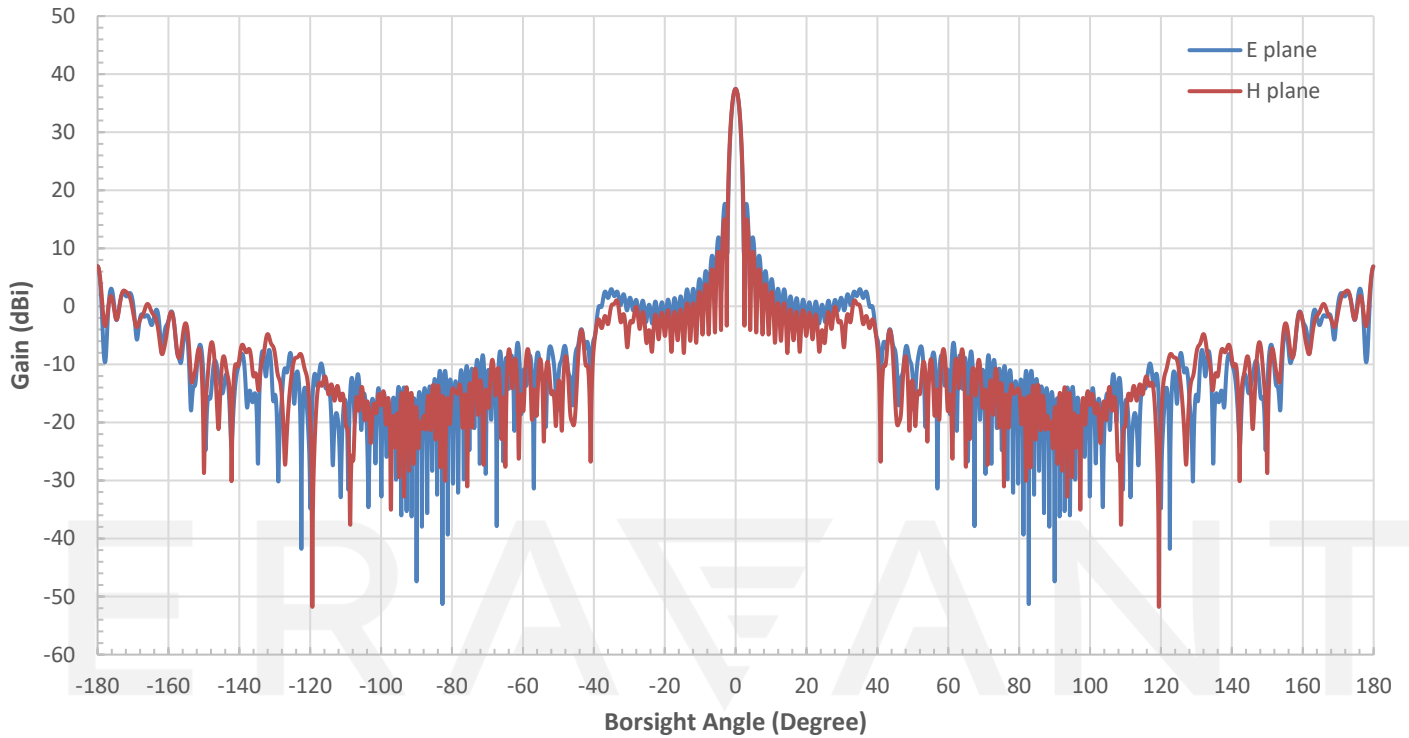
#### SUPPLEMENTAL DETAILS

#### Mechanical Specifications:

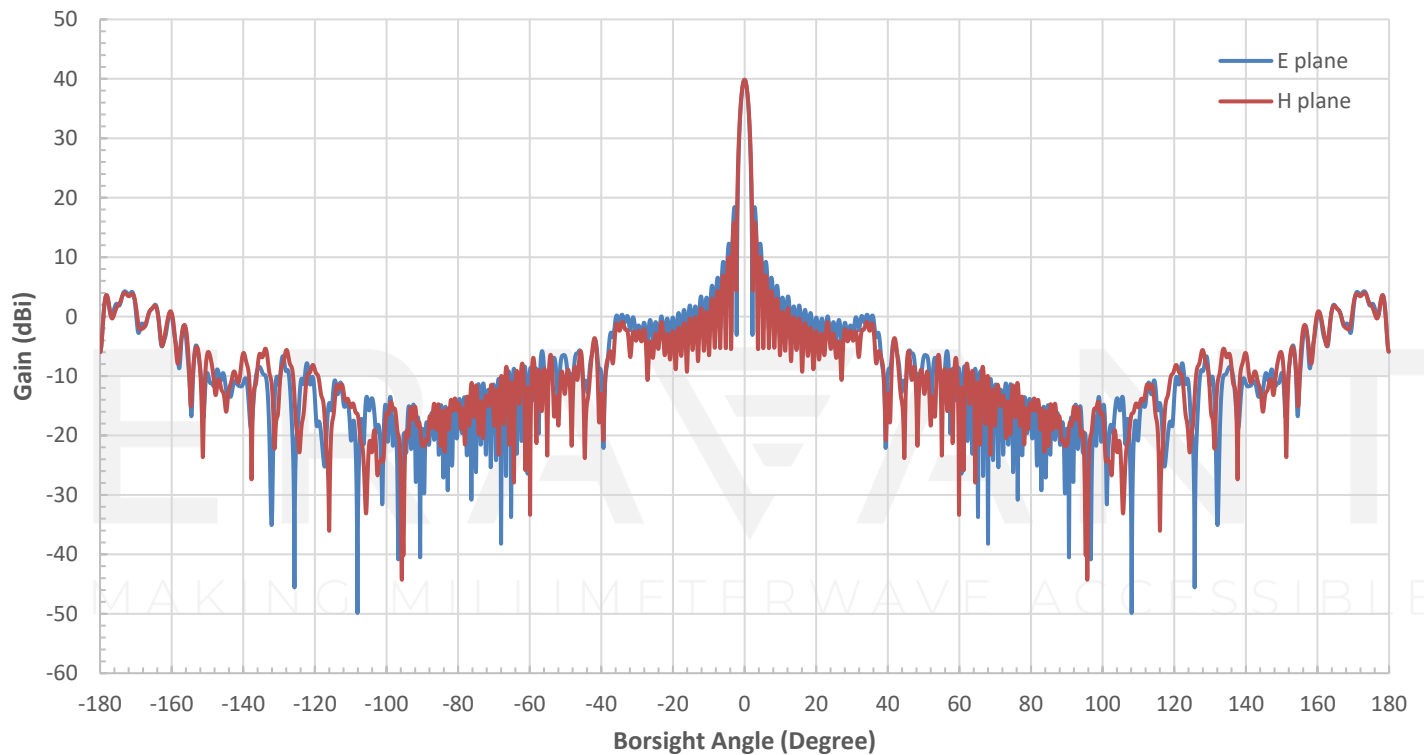
Item	Specification
Antenna Port	WR-28 Waveguide with UG-599/U Flange
Lens Diameter	12.0"
Material	Aluminum
Finish	Black Anodized
Weight	19.5 lb.
Outline	AG-RA38



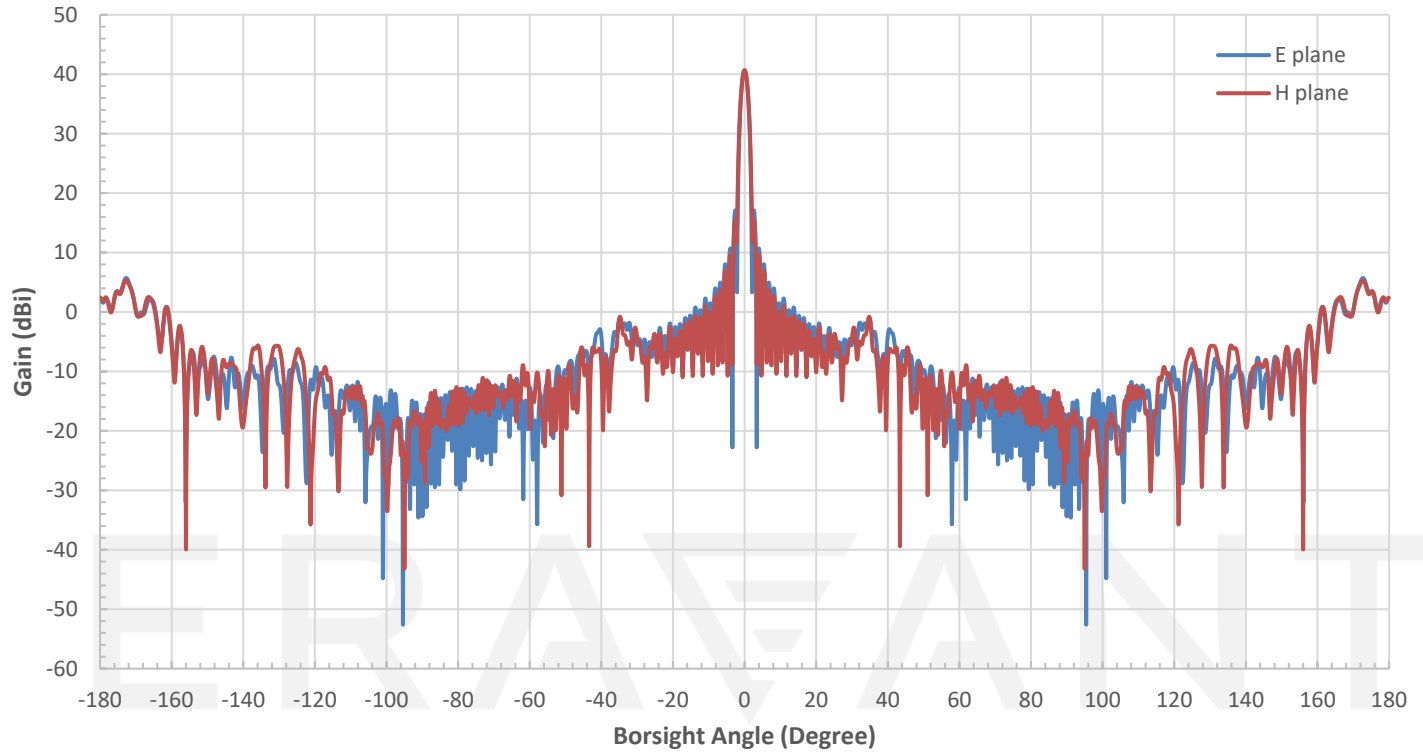
### Simulated Patterns at 32 GHz



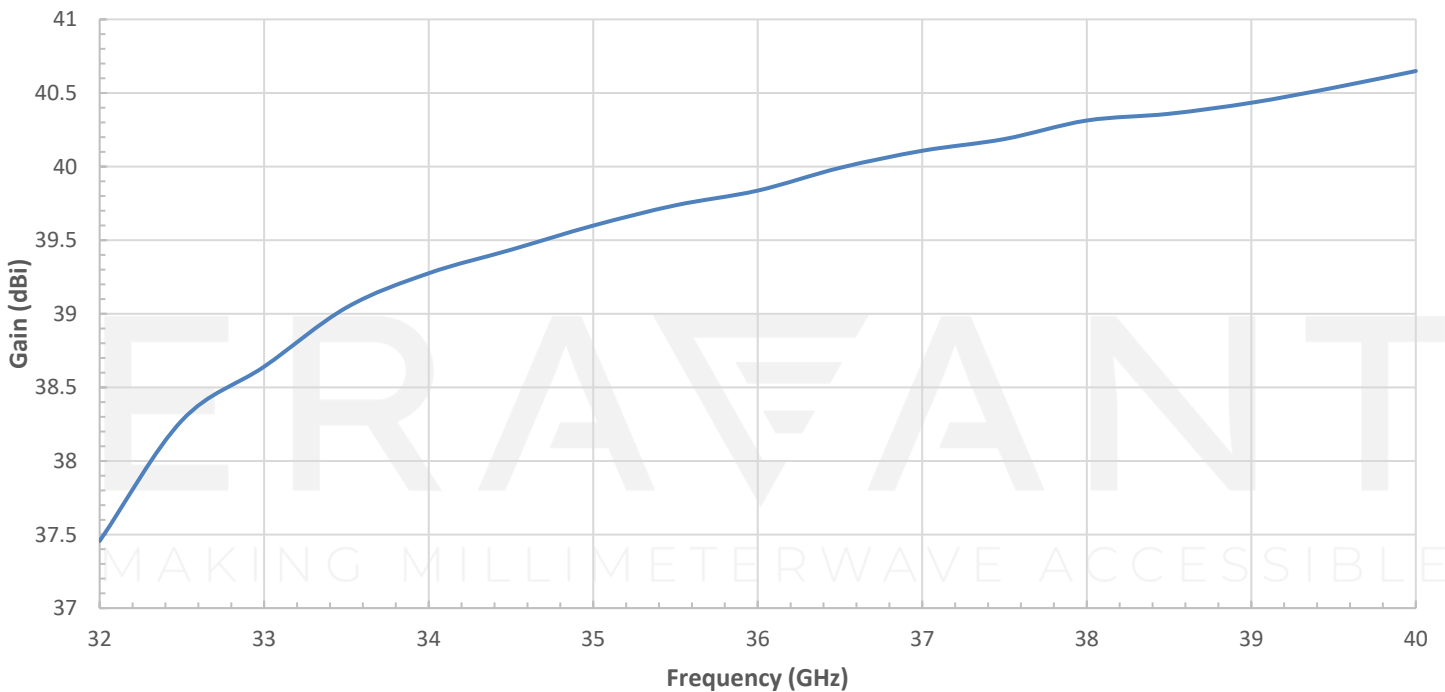
### Simulated Patterns at 36 GHz



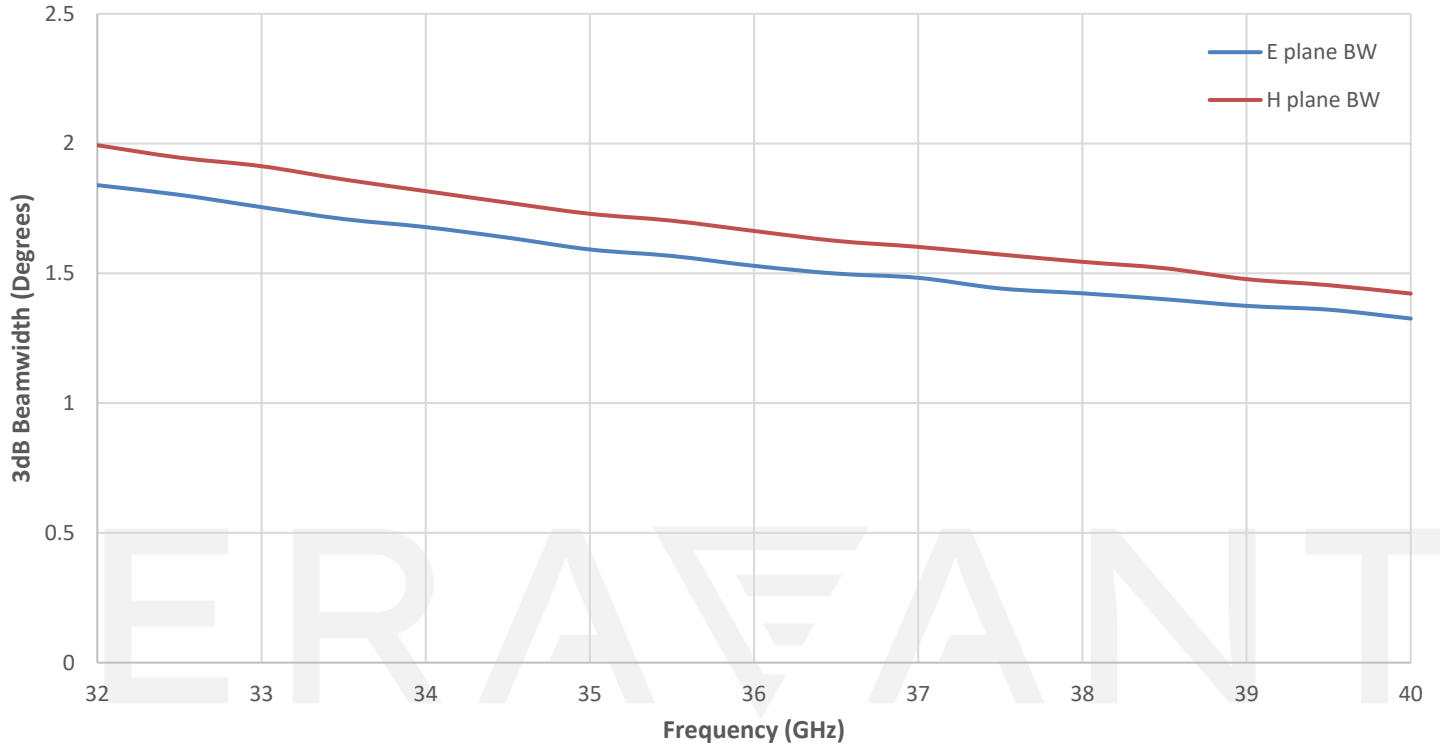
### Simulated Patterns at 40 GHz



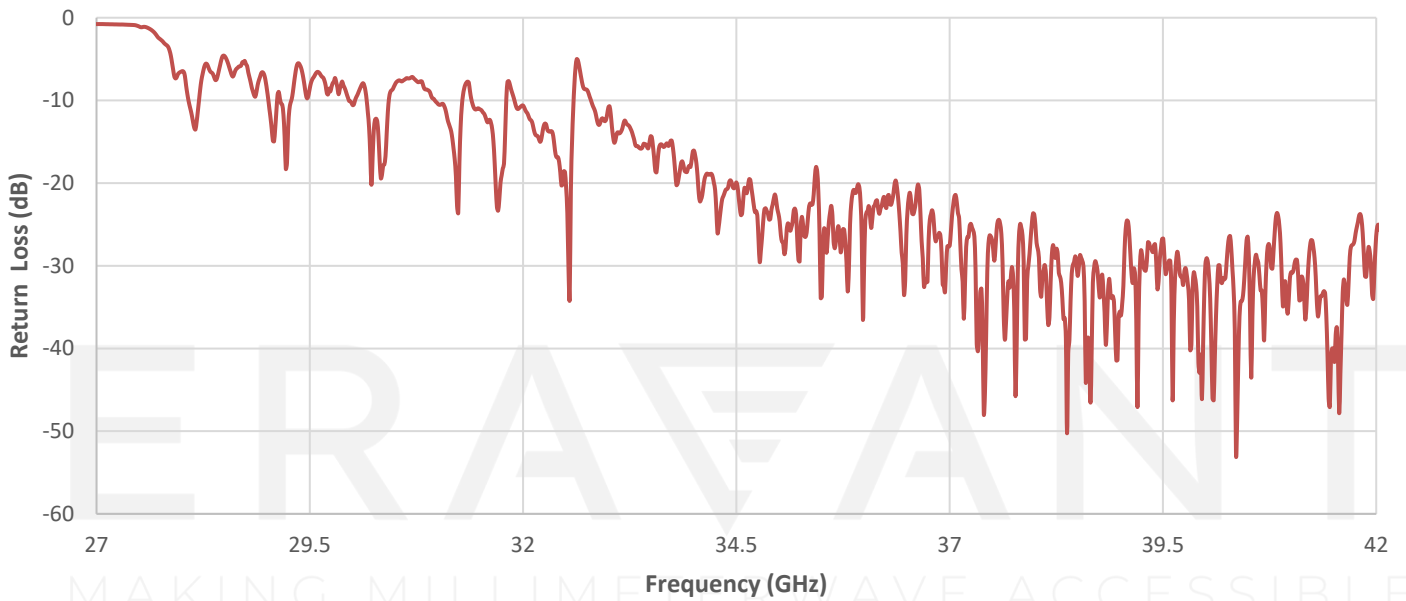
### Simulated Gain vs Frequency



### Simulated 3dB Beamwidth vs Frequency

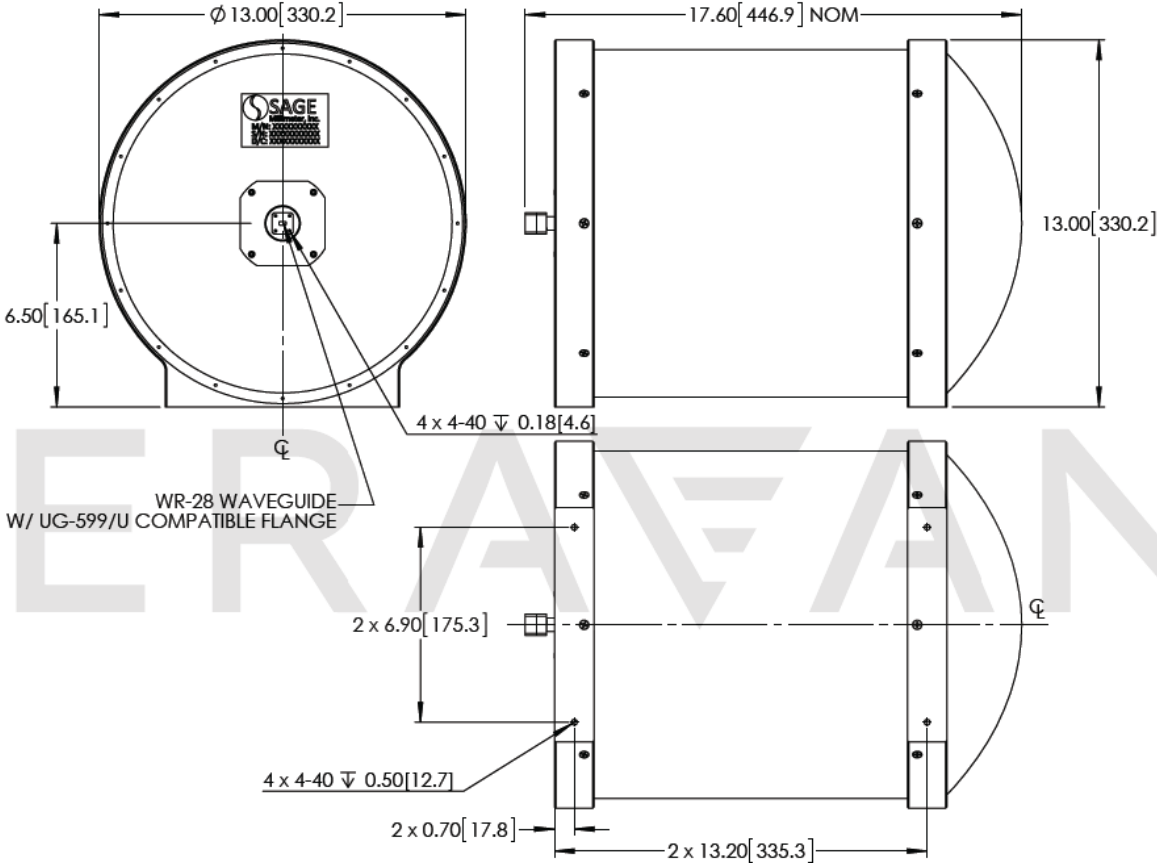


### Measured Return Loss vs Frequency



## SAG-3234033802-28-S1

**Mechanical Outline:** (Unless otherwise specified, all dimensions are in inches [millimeters])



**NOTE:**

- Test data provided is from a sample lot. Actual data may vary slightly from unit to unit. All testing is performed under +25 °C room temperature.
- Eravant reserves the right to change the information presented without notice.

**CAUTION:**

- Any foreign objects in the antenna will cause performance degradation and possible device damage.

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