

## Japan Satellite Navigation Geodetic System

**Responsible Organization:** [Japan Aerospace Exploration Agency \(JAXA\)](#)

**Abbreviated Frame Name:** [JGS](#)

**Associated TRS:** [ITRS](#)

**Coverage of Frame:** [Global](#)

**Type of Frame:** [3-Dimensional](#)

**Last Version:** [JGS2010](#)

### **Brief Description**

The JGS2010 is the current JGS solution obtained by combination of SLR, GPS and QZSS time series of station positions of 40 stations including 9 QZSS Monitoring Stations. The JGS2010 is computed by MCS (Master Control Station) in JAXA.

### **Definition of Frame**

- **Origin:** [Zero translation and translation rate with respect to ITRF2008.](#)
- **Scale:** [Zero scale and scale rate with respect to ITRF2008.](#)
- **Orientation:** [Zero rotation and rotation rate with respect to ITRF2008.](#)
- **Time Evolution:** [Zero rotation rate with respect to ITRF2008.](#)

**Coordinate System:** [Cartesian coordinates \(X, Y, Z\)](#)

### **References:**

- [Quasi-Zenith Satellite System Navigation Service Interface Specification for QZSS](#)  
[http://qz-vision.jaxa.jp/USE/is-qzss/index\\_e.html](http://qz-vision.jaxa.jp/USE/is-qzss/index_e.html)

## Transformation Parameters

Transformation parameters from JGS2010 to ITRF. “ppb” refers to parts per billion (or  $10^{-9}$ ). The units for rate are understood to be “per year.”

ITRF Solution	Tx (mm)	Ty (mm)	Tz (mm)	D (ppb)	Rx (mas)	Ry (mas)	Rz (mas)	Epoch
ITRF2008	(ZEROS BY CONSTRUCTION)							