

STL (Satellite Time + Location)

What is STL?

STL is a powerful satellite-based time and location service offered by Orolia in partnership with Satelles. It uses the Iridium constellation of satellites to deliver a burst signal specifically designed for position, navigation, and timing applications. The technology is available today with global coverage.

Signal Comparison To GNSS

	GNSS	STL
Timing accuracy	~20 ns	~200 ns
Positioning accuracy	~3 m	~30-50 m
Anti-Jam	Low signal level- easily jammed	30-40 dB stronger signal, difficult to jam
Anti-Spoof	Encrypted signals for military users only	Encrypted signal available to all users
Coverage	Global precision degrades at poles	Global coverage increases at poles
Indoor Operation	Very limited	Widely available

Powerful



- **1000x** stronger than GPS
- Deep indoor penetration
- Significantly harder to jam than GPS

Secure



- Encrypted signal resists spoofing
- Geo-location based multi-factored authentication for cybersecurity

Available Worldwide Today



- Global coverage
- **66** Satellites – largest constellation in orbit today

Accurate



- **+/- 200 ns to UTC** is the typical accuracy

800 Km

LEO altitude used by Iridium satellites delivering STL

Iridium satellite



Low Earth Orbit (LEO)

20,500 Km

Medium Earth Orbit (MEO)

GNSS



orolia

Satelles