

- Orbital systems
- Satellites
- Ground segments
- Balloons
- Transversal competencies



Ternwaves has invented & developed a revolutionary waveform for direct-to-satellites (LEO/MEO/GEO) & terrestrial connectivity, called Golden Modulation. This fundamental technology solves the problem of capacity limitation of IoT and sat-to-phones networks, crucial for their massive markets in full growth, while guaranteeing an ultra-resilience (very high robustness to jamming and fully operational even when GNSS signals are jammed), the ultimate range, a very low energy consumption, and a very low cost.

This technology offers a performance 300 times higher than that of SpaceX/Swarm Technologies regarding the capacity and therefore the competitiveness of satellite IoT and sat-to-phones networks.

Golden Modulation can also provide geolocation without GNSS assistance, important for connected device autonomy and in case of GNSS signals jamming.

COMPETENCIES & CAPABILITIES

TERNWAVES is specialized in wireless communication.



TERNWAVES

PRODUCTS & SERVICES

■ Direct-to-satellite & bi-directional, resilient & secure connectivity technology – called Golden Modulation

→ This technology is delivered as a software to be ported:

- on LEO/MEO/GEO satellites SDR (Software-Defined Radio) based payloads without any hardware change. It can even be ported on satellites already in orbit by simple software upload (OTA).

Note: For GEO satellites not having an SDR based payload, this technology is also fully compliant with satellite mirroring operation thanks to no strong latency requirements

- on connected devices

■ GNSS free geolocation services leveraging Golden Modulation technology

This technology can operate in any frequency bands, including ISM bands thanks to its very high robustness to interferences.

It does not request GNSS signals to operate – thus resilient to GNSS signals jamming.

It is also compatible with any protocol to easily integrate into any existing IoT networks.

MAJOR SPACE PROJECTS & REFERENCES

Supported by European Space Agency & CNES, in partnership with Kineis & Loft Orbital for RF Space Lab project on YAM-5 satellite, identified as a game changer for IoT connectivity by CNRS, awarded best 2022 French startup for Data & IA by La Tribune, selected as a Distinguished Member of the 100 Innovators of 2022 for Le Point magazine, selected as the most promising 10 space tech startups in Europe by SpaceFounders, won Eurosatory 2022 GICAT Innovation Start up prize, ...

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TURNOVER not communicated

WORK FORCE 5 employees

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