



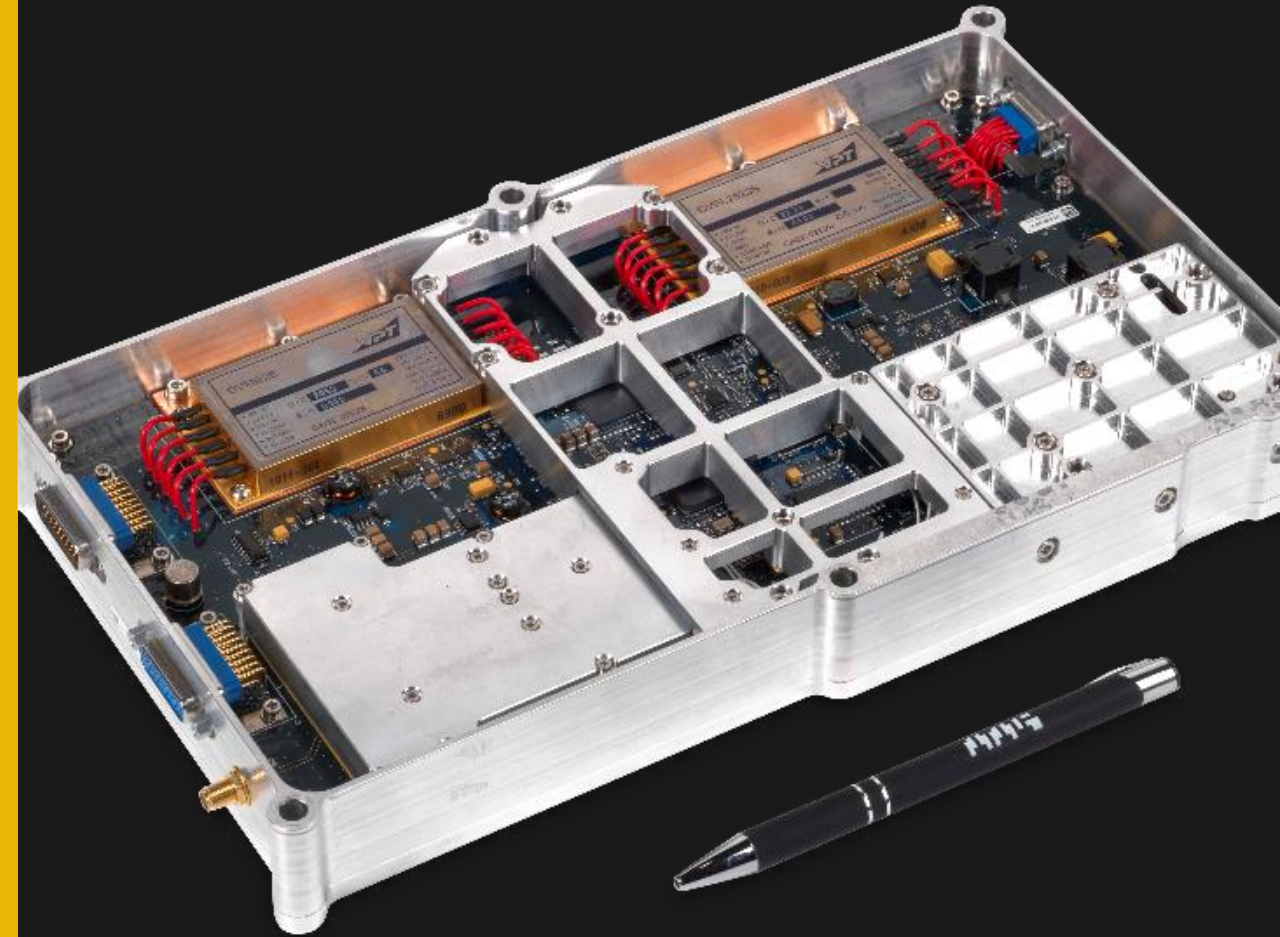
LEGERA™

inter-satellite relay terminal

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About TTP

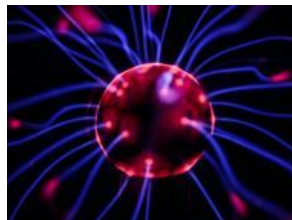
We help clients rapidly develop and scale up new technologies

- Based near Cambridge, UK
- 300+ engineers/scientists
- ~200 projects a year
- Extensive facilities
- Track record (+35 years)
- Employee owned
- \$100m+ annual turnover

Multidisciplinary expertise applied across multiple industries



Satellite and Space



Wireless Comms and Next G



Aerospace and Defence



Autonomous Vehicles



Industrial and Manufacturing



Medical Devices



Life Sciences and Biology

Core business:

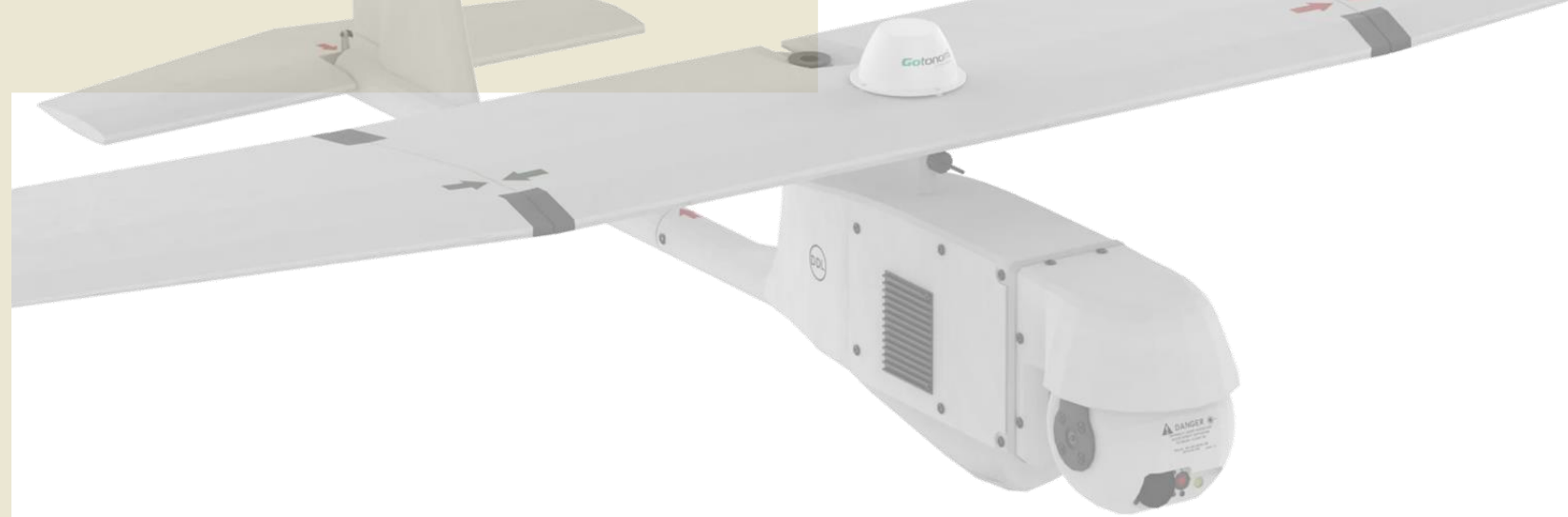
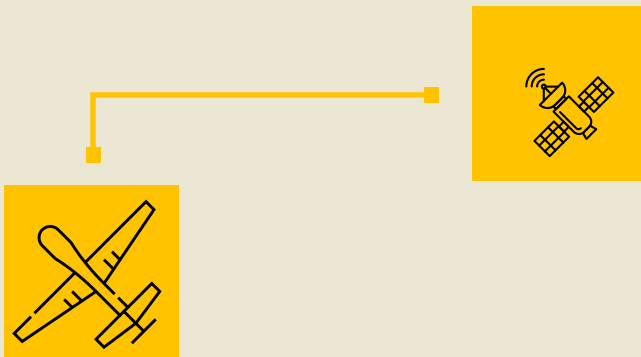
- Fast track engineering: design to manufacture
- New technology development and licensing

Our core service offerings:

- Innovation Strategy
- Technology Development
- Product and System Development
- Technical support & troubleshooting

Communications for UAVs

- The low SWaP-C satcom terminals enable beyond visual line-of-sight comms (BVLOS)
- The multi-link terminal can switch between cellular and satellite networks
- Developed within ESA IRIS programme
- TTP manufacture and are a channel to market for UAV terminal with airtime and support via [Gotonomi](https://www.gotonomi.com)



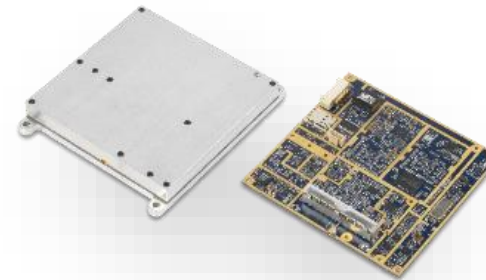
UAV terminal variants running on the Viasat VELARIS network:

Velaris 200



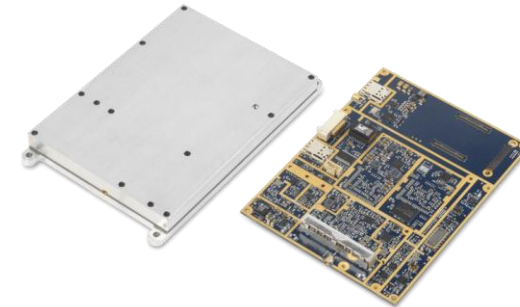
Satcom terminal with integrated antenna

Velaris Module



Satcom module (external antenna)

Velaris Multi-link Module



Hybrid satcom module with LTE and edge compute (external antenna)

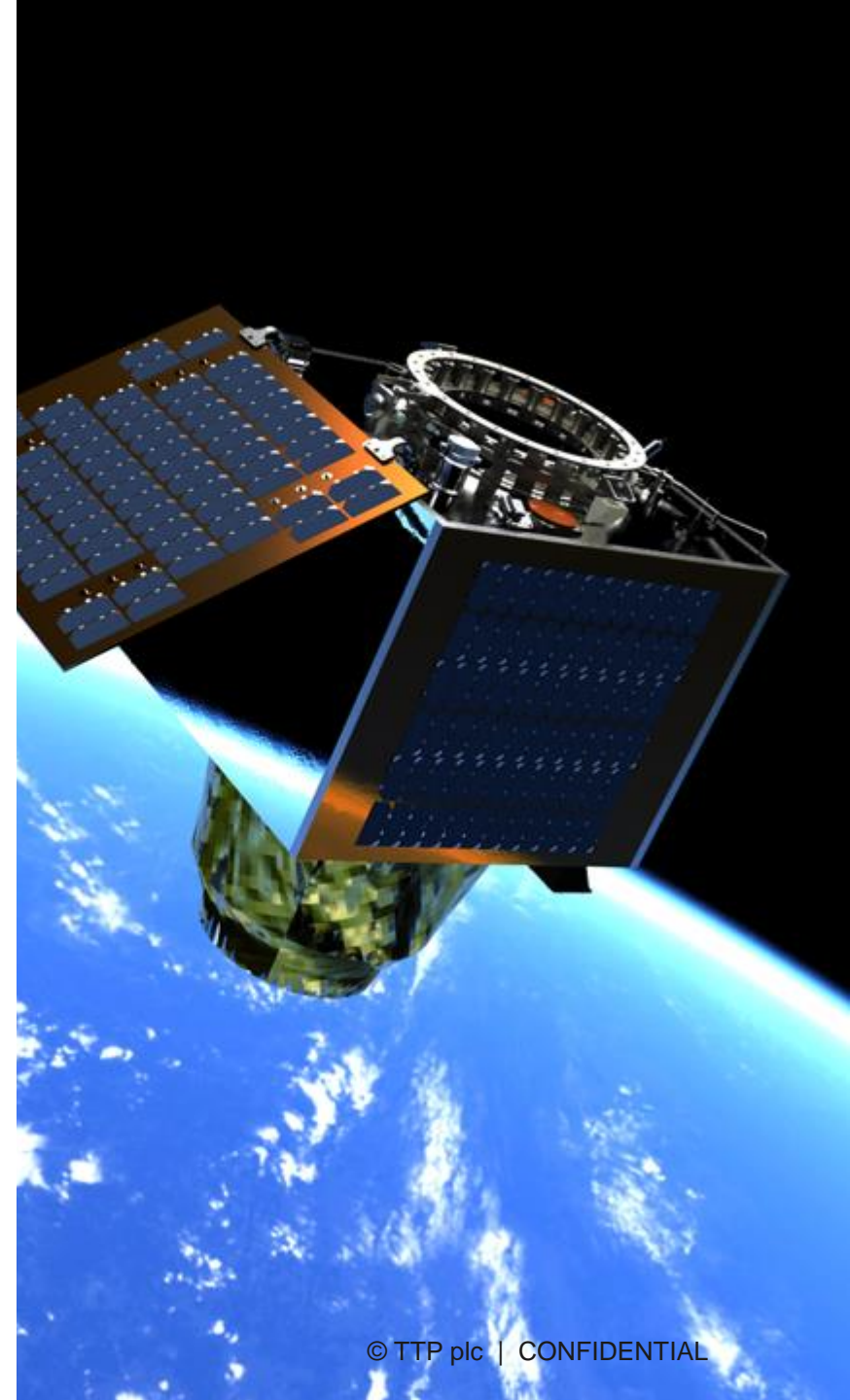


200-A Omni Antenna

Omni-directional antenna for use with Module or Multi-Link

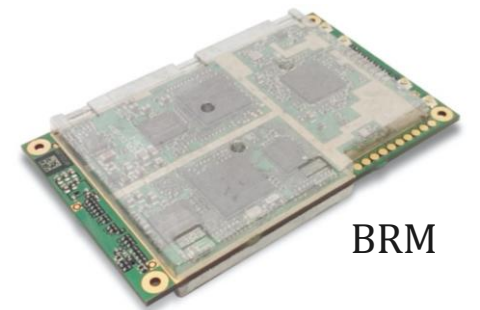
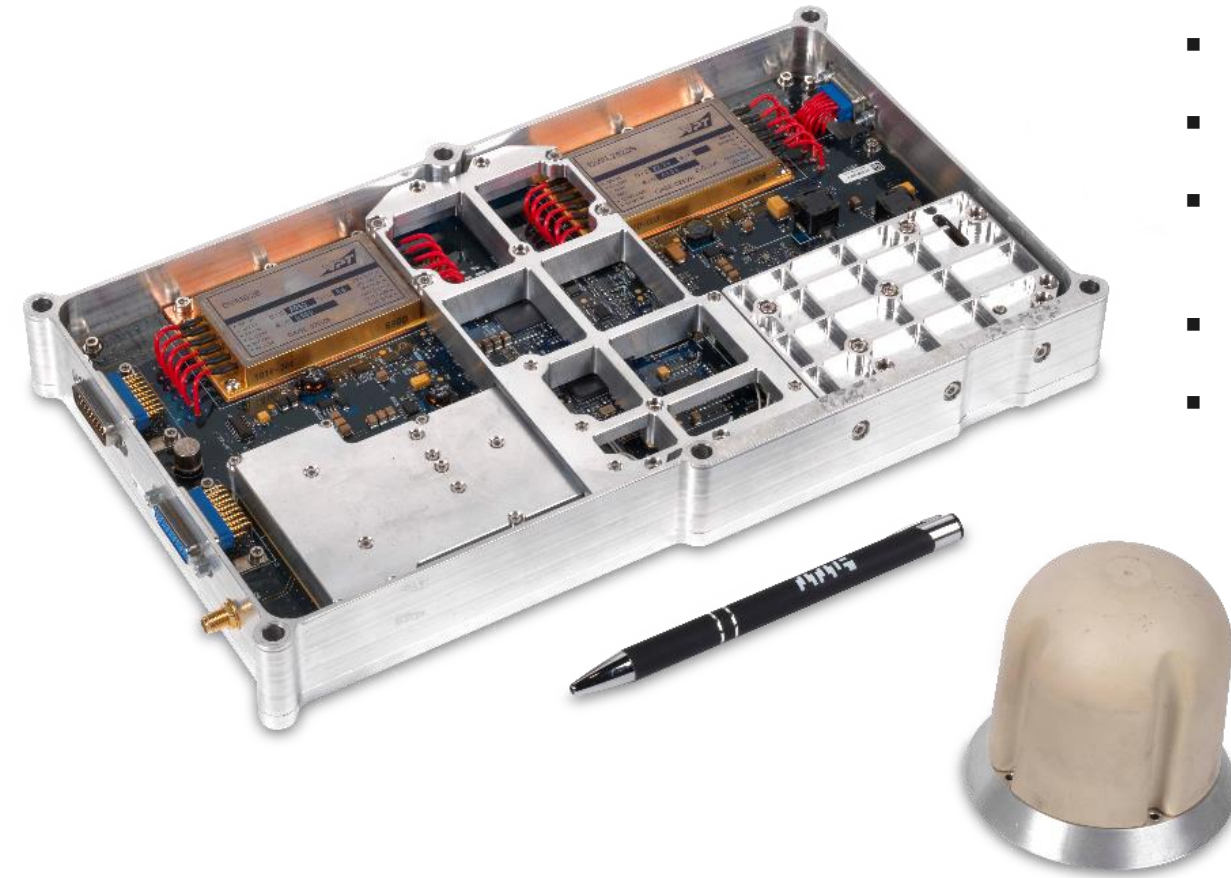
LEGERA™ inter-satellite relay terminal

- Developed in conjunction with Surrey Satellite Technology (SSTL)
- Utilising Viasat's L Band GEO network,
- Sovereign development, designed and manufactured in UK
- Lead customer: UK Space Command
- First satellite: Tyche, 150kg Carbonite+ pathfinder satellite for the UK's MINEVERA ISR constellation programme
- First launch: SpaceX Transporter 11, a dedicated Falcon 9 SSO Rideshare



What's inside...

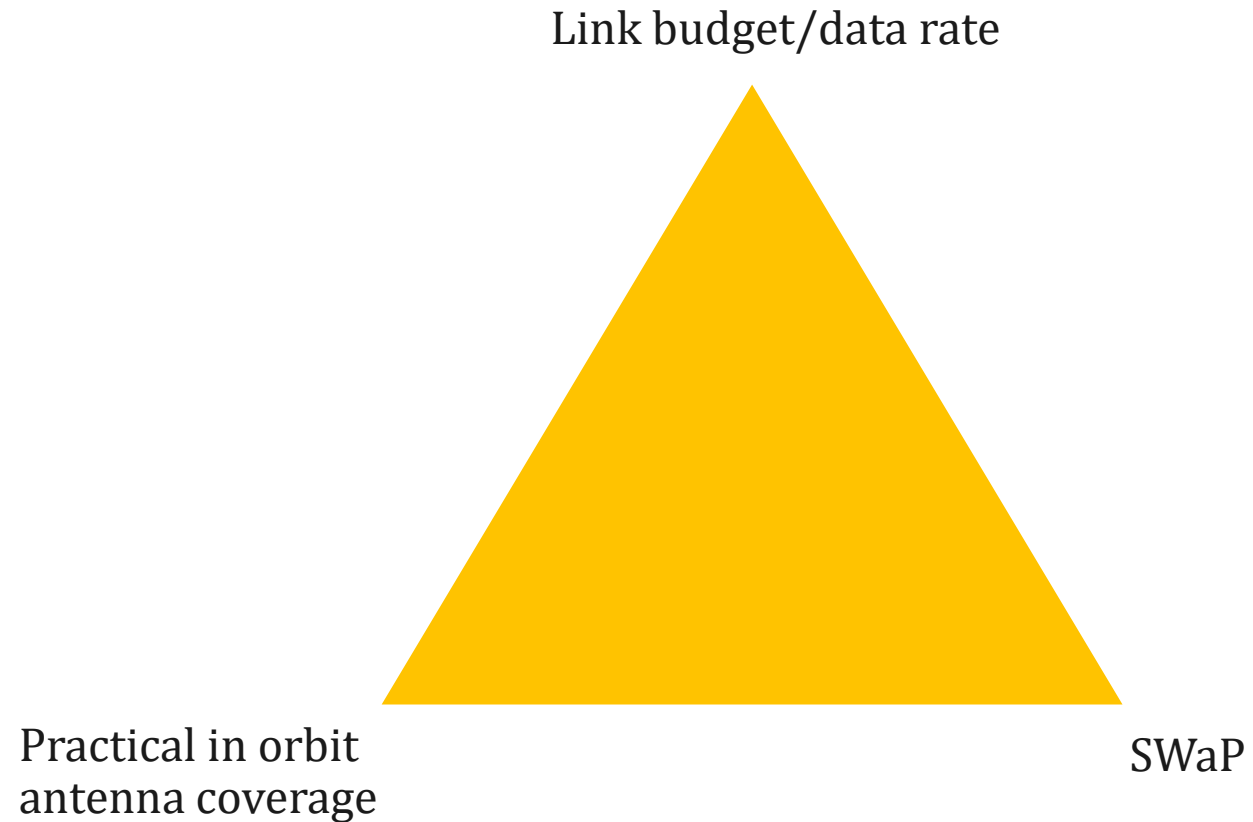
- Up to 200Kbps with omni directional antenna
- 5 years operational lifetime
- Utilises TTP developed BRM core module
- SSTL's application processing & interfacing platform with dual control and data interfaces
- Powerful logging and software updates via S band TT&C link
- Fully isolated 28V power supplies



BRM

An IOT4EO challenge

Assumption: Have suitable spectrum with capability and agreements on how to interoperate between multiple satellites, sensors and users



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