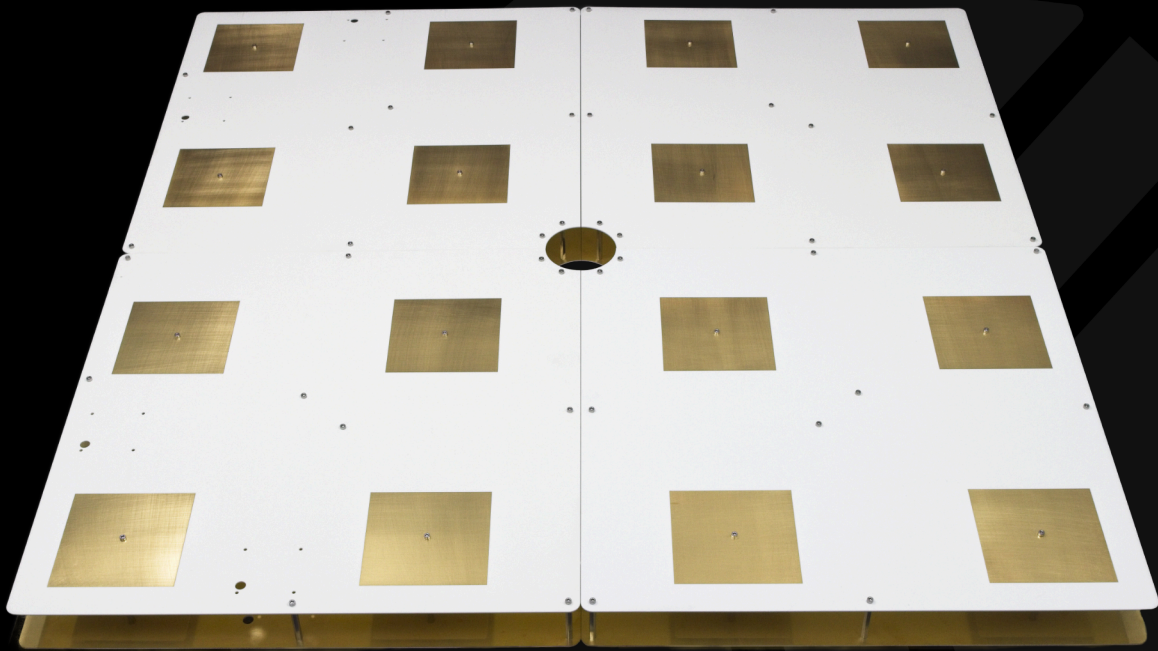


Printech

Space Heritage

UHF-Band Patch Antenna

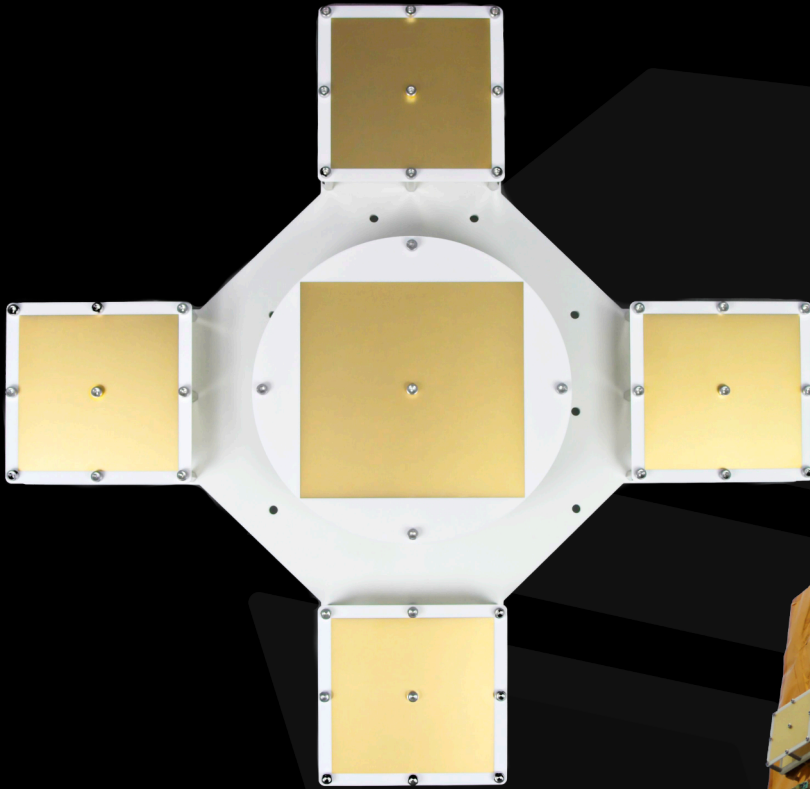


Printech is responsible for the design and building of the UHF antenna for the Lynk Global Cell Tower. This metre squared giant was made in four parts with Rogers 4003 material, a modified hydrocarbon.

These satellites are one of the first and only FCI commercial satellite-direct-to-standard-phone. The project aims to connect over three billion people and bring them out of '0G'.

With plans to put up another three imminently, this design could help change cellular communication as we know it!

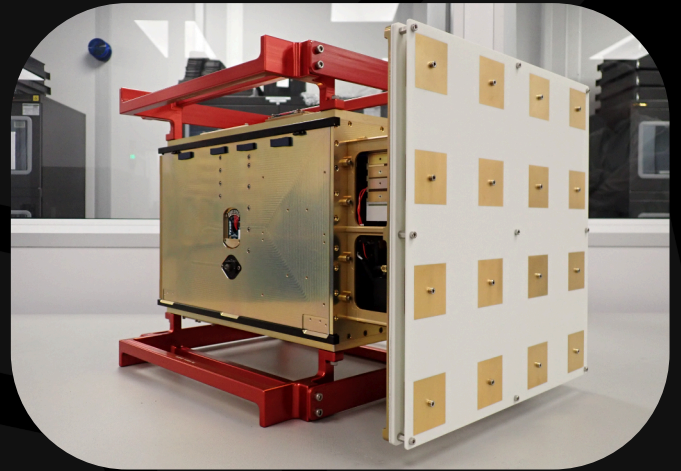
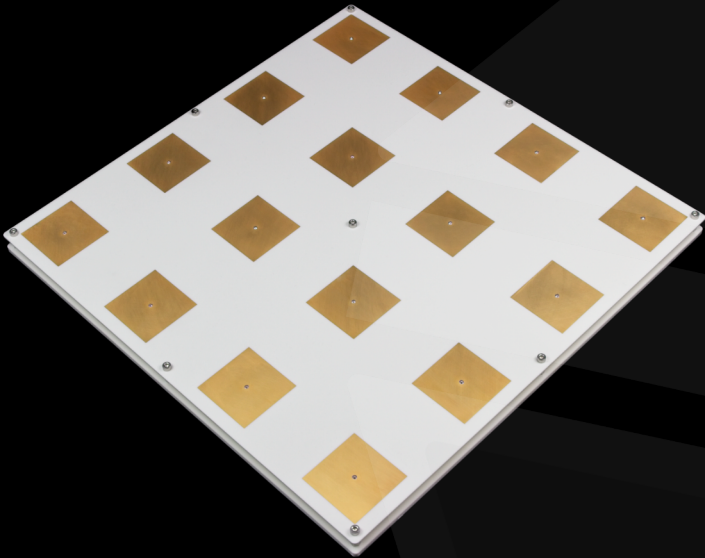
UHF-Band Patch Antenna



Printech designed and created the main antenna for the Loft Orbital YAM 3. This UHF antenna has a specialised function in that it has a wide beam (element in the middle) and narrow beam (outer elements) capabilities.

The YAM 3 is a satellite bus which houses a payload hub for customers and provides power, data and thermal interfaces to the payloads and onboard data processing.

X & S-Band Patch Antenna

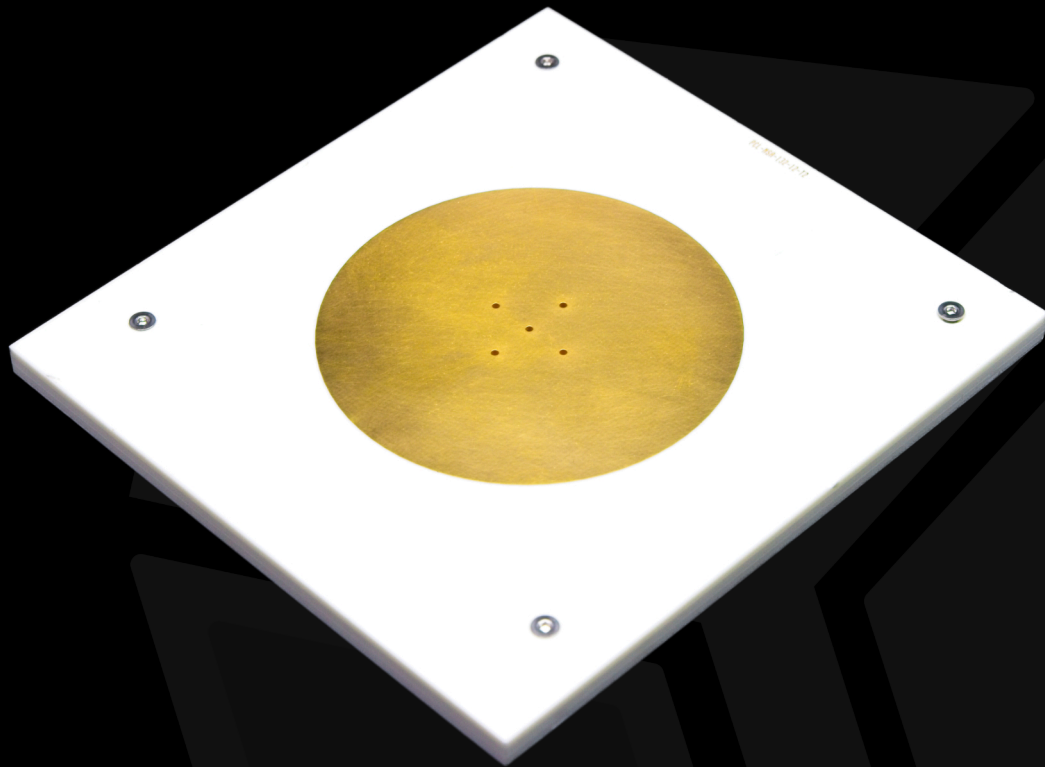


Printech built all the antennas on the NASA CAPSTONE mission. Made from Rogers 4003 material, the S-band pictured above has an air gap to maximise the gain.

The project serves to test and verify the calculated orbital stability for the Lunar Gateway space station, as part of the wider Artemis programme funded by NASA.

It was also dubbed 2022's mission of the year by the Small Satellite Conference; an achievement we are immensely proud of!

L-Band Patch Antenna

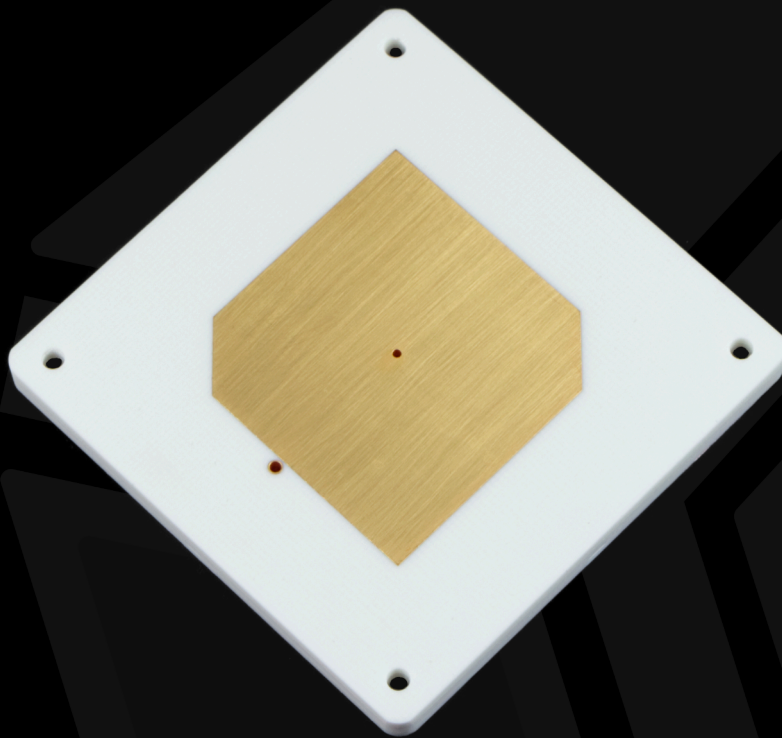


This L-band patch antenna is one of several antenna designs on the Prometheus 2 mission. This was built for In-Space Missions & Airbus for the Virgin Orbit UK launch.

The small cereal box sized satellites were built as a test platform for sophisticated Earth imaging and radio signal monitoring for the British Ministry of Defence (MOD).

Despite launch failure, we are still very pleased with the performance our L-band antennas would have achieved!

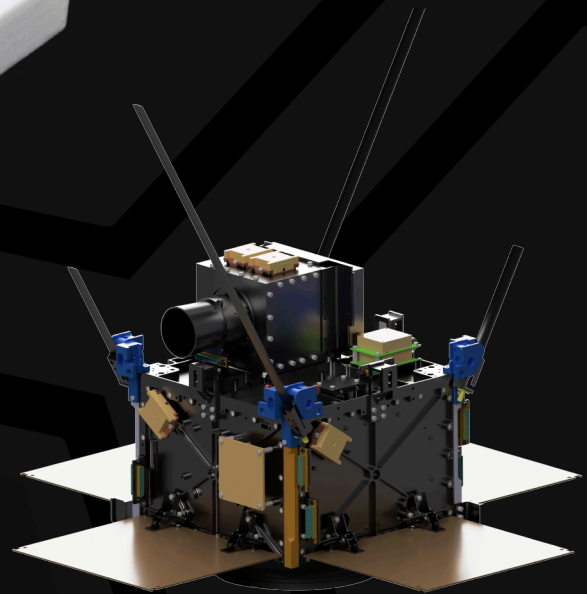
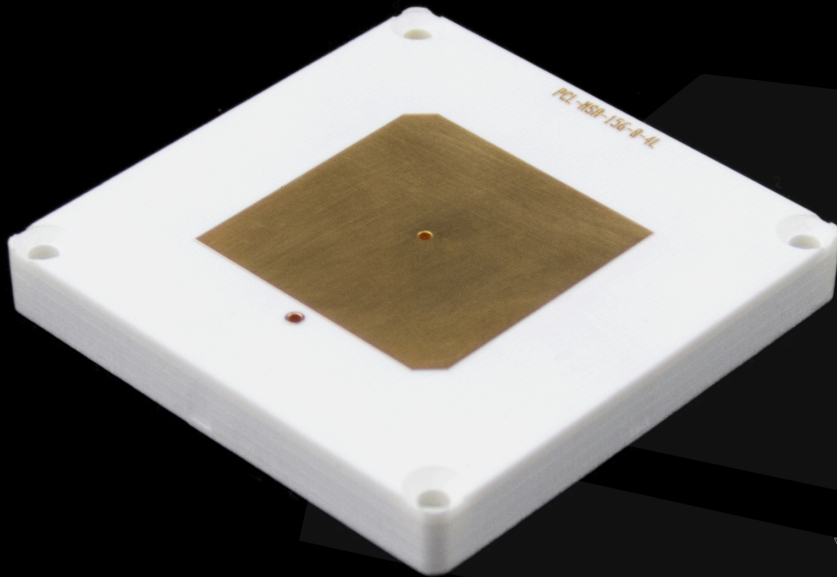
S-Band Antenna



This S-band antenna went through many iterations in order to achieve the required coverage before being selected for the Tranche 0 & 1 missions. The satellites were built by Terran Orbital and commissioned by Lockheed Martin; with the constellation featuring over 1000 of our S-band antennas in total!

The Tranche satellite constellation was developed by the Space Development Agency (SDA) is used for connecting space-based sensors to the Warfighter network.

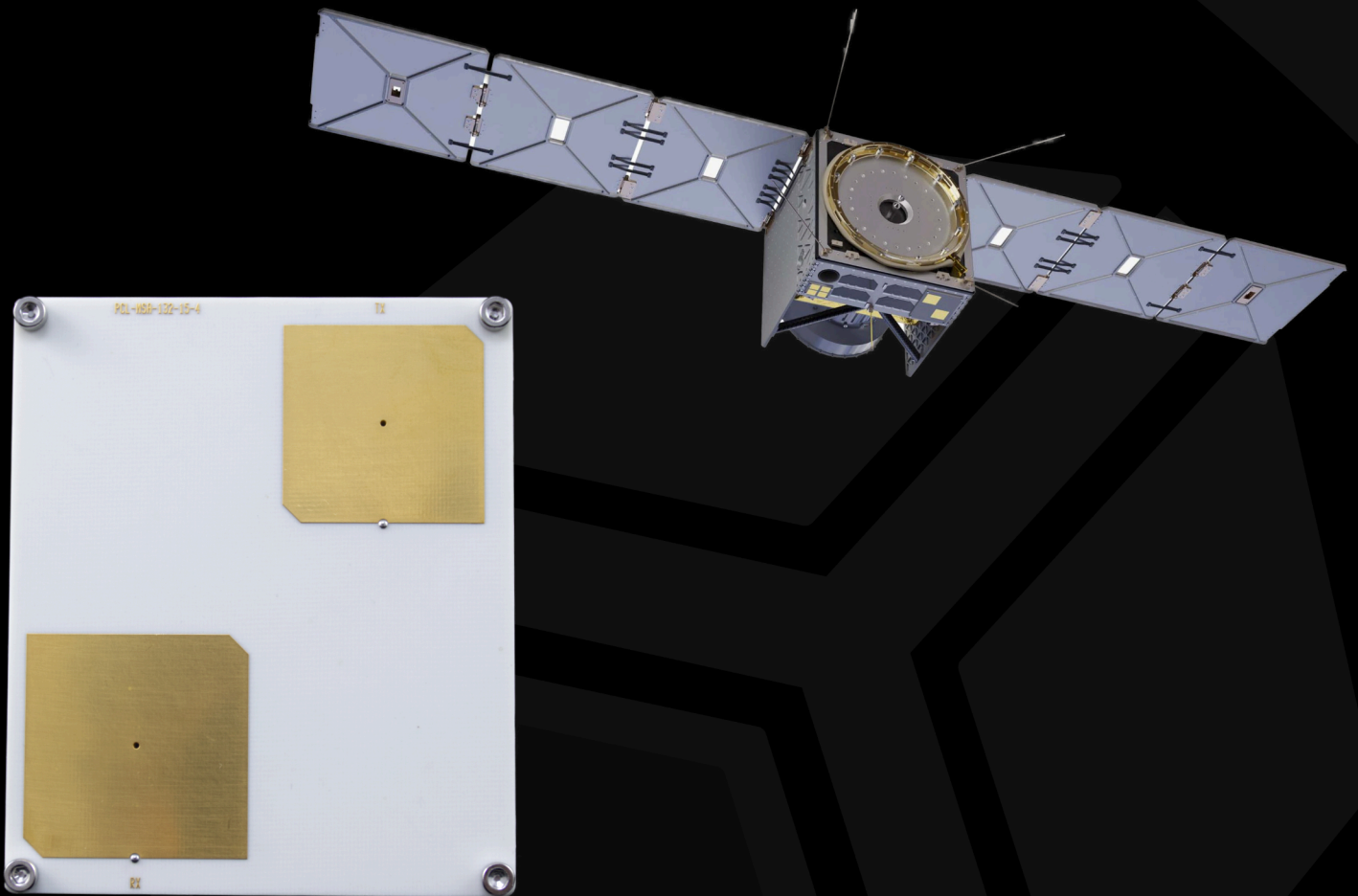
S-Band Patch Antenna



Printech designed and manufactured this S-band antenna for a Pixxel hyperspectral satellite. With several different antennas on the satellite, all supplied by Printech, Pixxel are looking to increase their data throughput in the future.

Pixxel are building hyperspectral small satellites to observe and highlight Earth phenomena using hyperspectral imaging. The satellites uses range from natural disaster response to mineral detection.

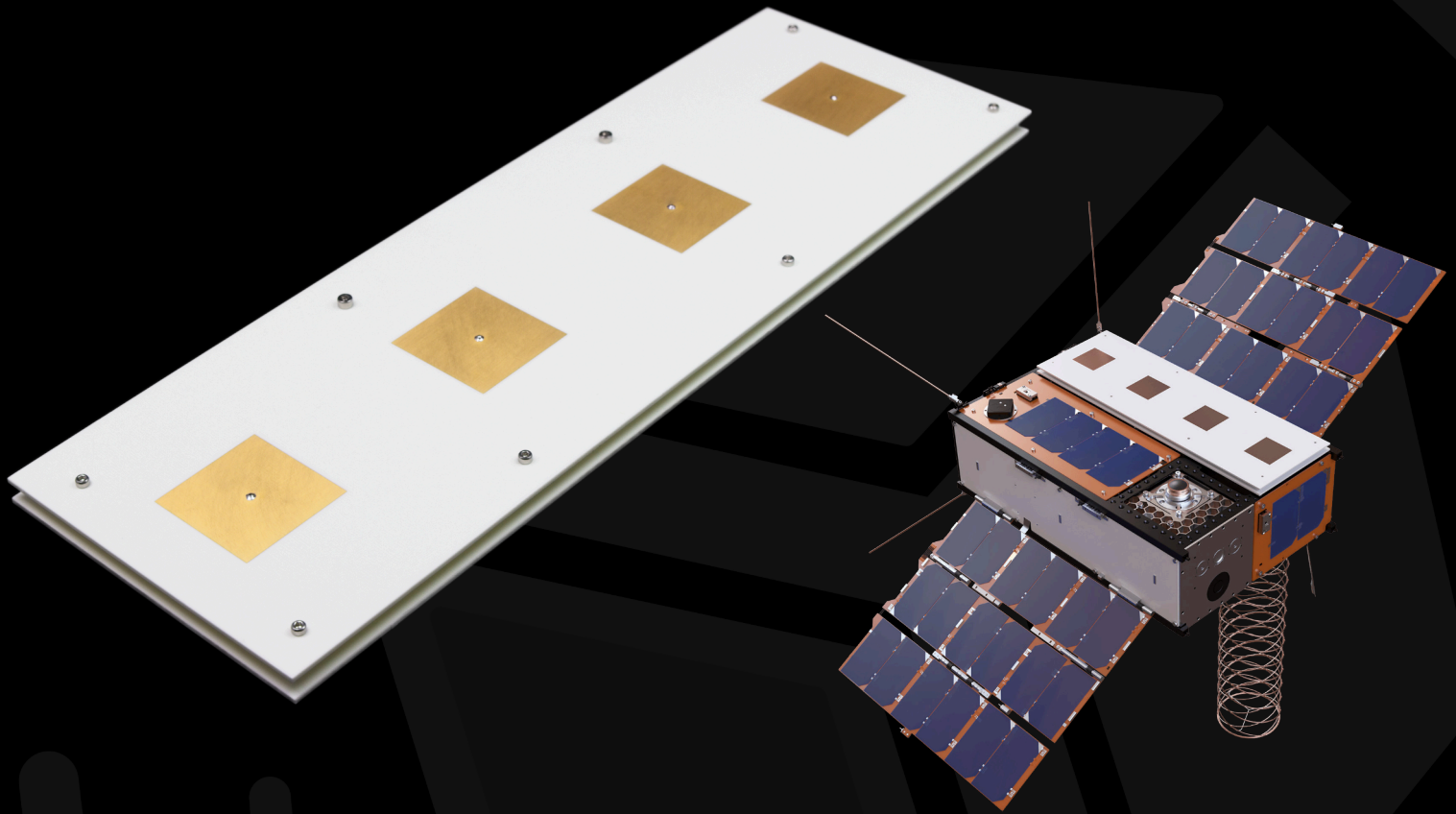
S & X-Band Patch Antenna



Printech designed and manufactured the antennas on the MP42 satellite buses built by Nano Avionics. The S-band above features transmit and receive functions and, along with our X-band antenna, has become a mainstay on all the MP42's.

The MP42 performs a variety of tasks such as remote sensing, high data throughput, emergency communications and carries out fundamental research missions.

C-Band Patch Antenna



The C-band antenna was designed and built by Printech for the Faraday Phoenix rideshare mission created by In-Space Missions.

This mission carried multiple payloads including Lacuna Space who were looking into a ground-breaking satellite Internet of Things (IOT) service, and the Airbus Software Defined Radio payload.

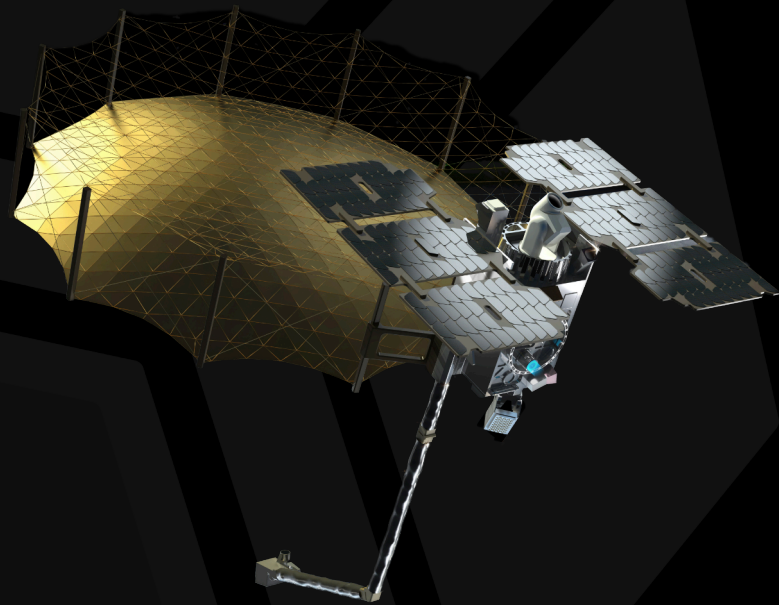
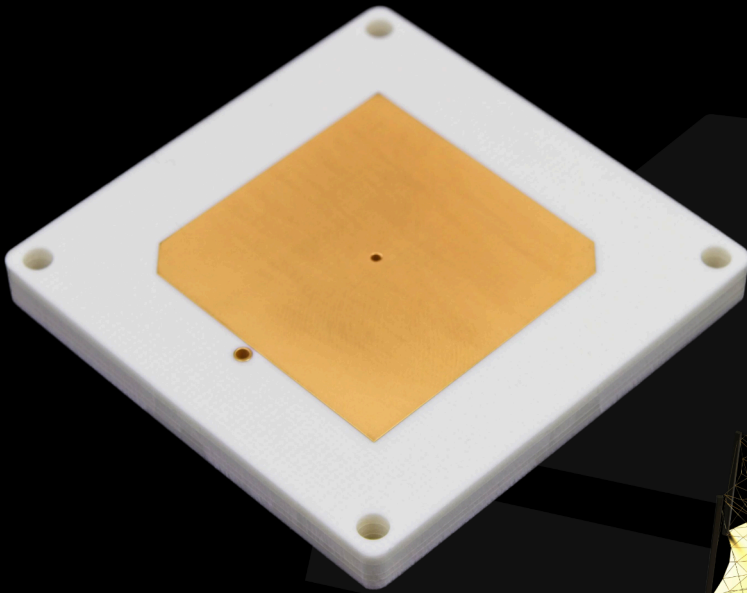
X-Band Patch Antenna



Printech designed and manufactured all the antennas onboard the Azalea satellite clusters built by In-Space Missions & BAE Systems. We use 4003 Rogers material to build the boards and as you can see, they are an integral part of the satellites design.

The Azalea satellites will utilise a range of sensors to collect visual, radar and radio frequency (RF) data in order to deliver information anywhere in the world whilst in orbit.

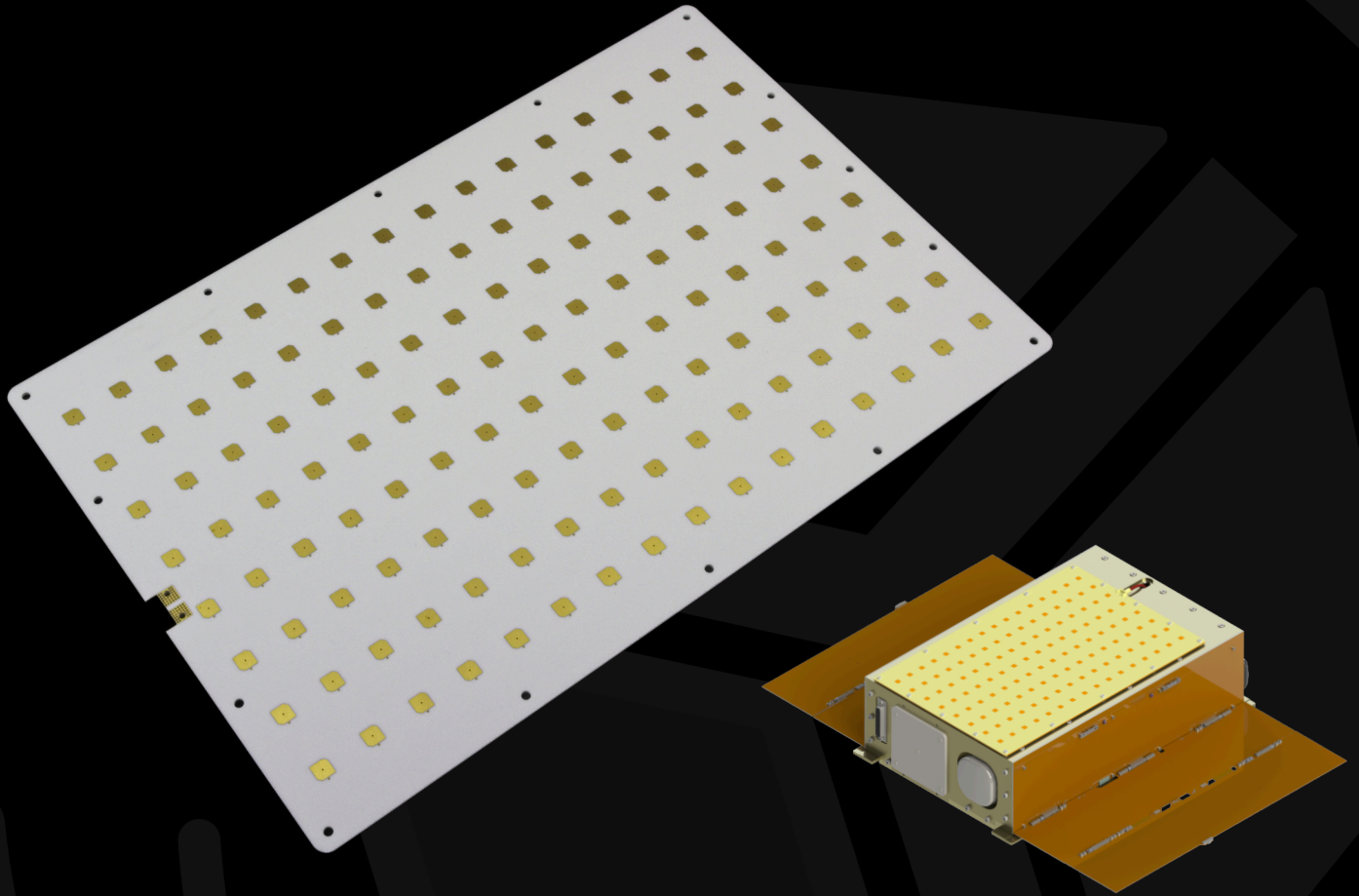
X-Band Patch Antenna



The design and build of the antennas were down to Printech for the Capella USA-X-SAR. The X-band antenna is used for the intersatellite link onboard the SAR. These little gems whilst simple in design pack quite the punch!

Each Synthetic Aperture Radar (SAR) is a single polarised instrument that allows for imaging with various capabilities. The SAR has multiple applications including monitoring military threats to observing glacial meltwater dynamics.

K-Band Patch Antenna



Printech designed and manufactured the K-band antenna for the microsatellite built by Michigan Tech Aerospace.

The Auris microsatellite listens to radio frequency emissions from spacecraft in a high orbit and spatially maps the power radiated from these spacecrafts to analyse how it impacts ground receivers.

All products displayed can be designed and manufactured in-house to your specification!

If you would like further information on any of products mentioned or have any questions about services we offer, ping an email to:

sales@pcli.co.uk

Also check out the website to find more data on the antennas:

<https://www.pcli.co.uk/antenna>

Nice one!

