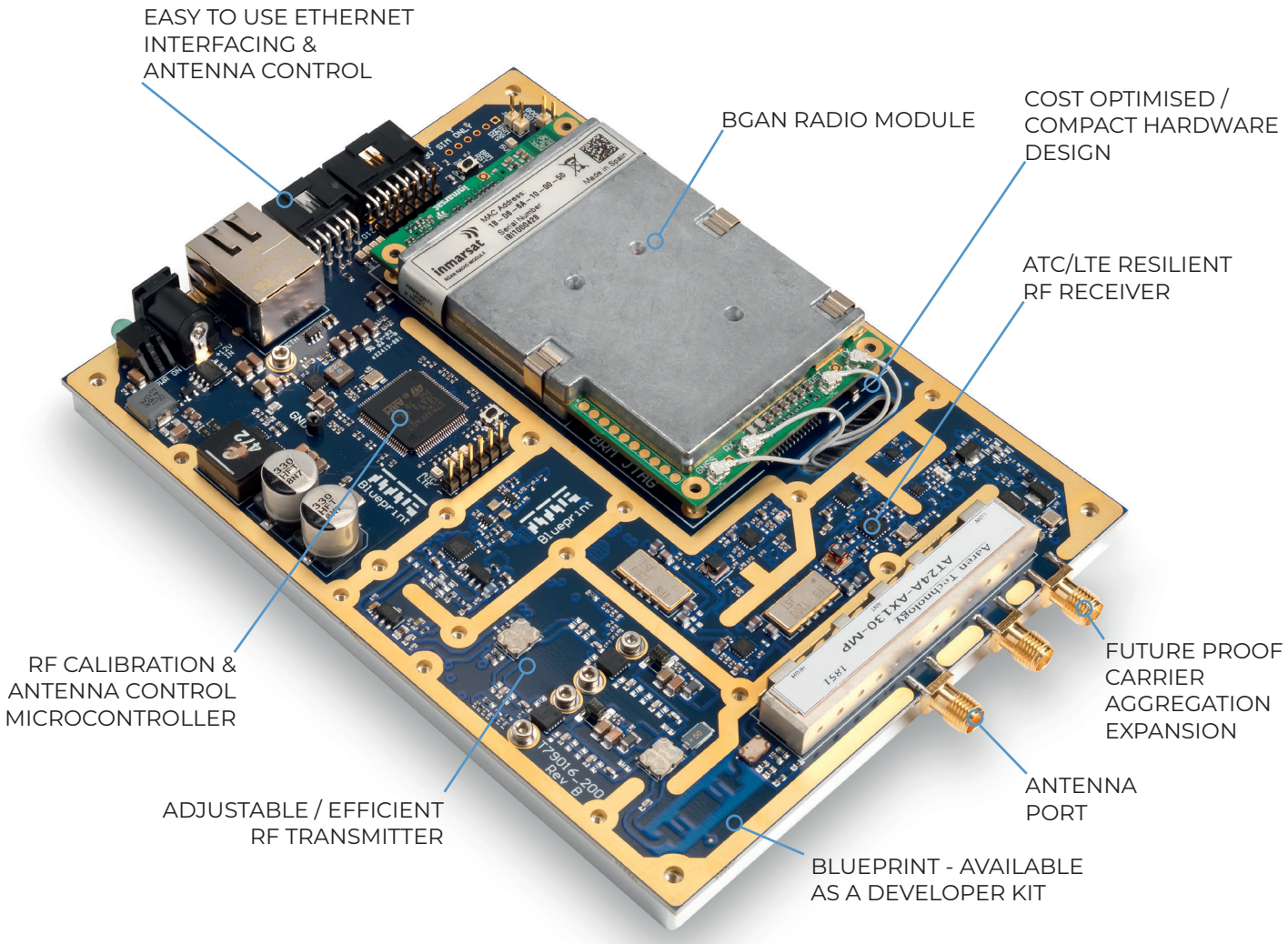
brmworks
A TTP service

BRM Blueprint

BRMworks new Blueprint reference design provides a rapid, low-risk and cost-effective BGAN user terminal development solution.

The Blueprint is a complete Ethernet to antenna BGAN user terminal reference design, based on Inmarsat's BGAN Radio Module (BRM). It includes the latest requirements for ATC/LTE resilience, making it significantly easier for new and existing partners in the Inmarsat ecosystem to bring land, maritime and aeronautical terminals to market.



The challenges
Developing BGAN User Terminals

Even with the BRM, developing a complete satellite terminal requires specialist RF design skills.

- Obtaining the mandatory Inmarsat Type Approval can prove to be a lengthy and expensive exercise, requiring specialist knowledge.
- Technical risks can create barriers for new entrants to the satcom/Inmarsat ecosystem and can result in increased development and product costs plus a longer time to market for new satellite enabled products and services.

The BRMworks solution
Design Blueprint

The BRMworks solution is a new BRM Integration Blueprint reference design for new and existing partners in the Inmarsat ecosystem, providing a blueprint for integrating all the components required to produce an end product.

- Simple application: No RF design required. Get started with a developer kit - the developer kit version of the Blueprint design, capable of over-the-satellite operation, is available for evaluation purposes as well as to provide an early hardware and software integration platform for developers.
- Low-cost: Cost optimised hardware design and cost-effective user terminal development.
- Low-risk: Adopting a Blueprint based design approach reduces the technical and schedule risks for developers. The BRM Blueprint has been fully tested and proven capable of meeting Inmarsat's Type Approval requirements to ensure a rapid Type Approval of the developer's end product.
- Rapid time to market: The BRM Blueprint allows you to cut development time from 2 years to 2 months.
- Customisable: Easily adapted for remote/active antenna designs (including aeronautical). Developers can incorporate application specific features such as value added functions, application processors, software and local connectivity options e.g. Bluetooth, WiFi, LoRa.
- For all markets: The BRM Blueprint reference design is applicable to all land, maritime and aeronautical applications.
- Fast track: Compatible with qualification facilities available at TTP, allowing faster transition through the Type Approval process.
- Future proof: Carrier aggregation ready. Supports I6 constellation.

The Blueprint
Low-risk, highly flexible

The reference design incorporates the key BGAN elements of a user terminal including:

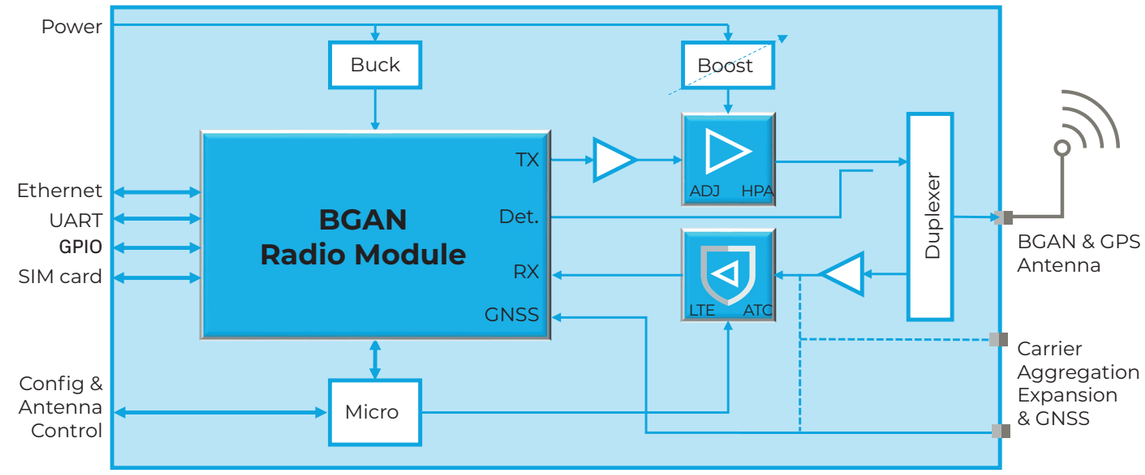
- Meets Inmarsat Type Approval requirements
- Ethernet to antenna port functionality
- Adjustable / efficient RF transmitter design
- ATC/LTE resilient RF receiver design
- Microcontroller for RF calibration & antenna control
- Developer kit available for fast track development

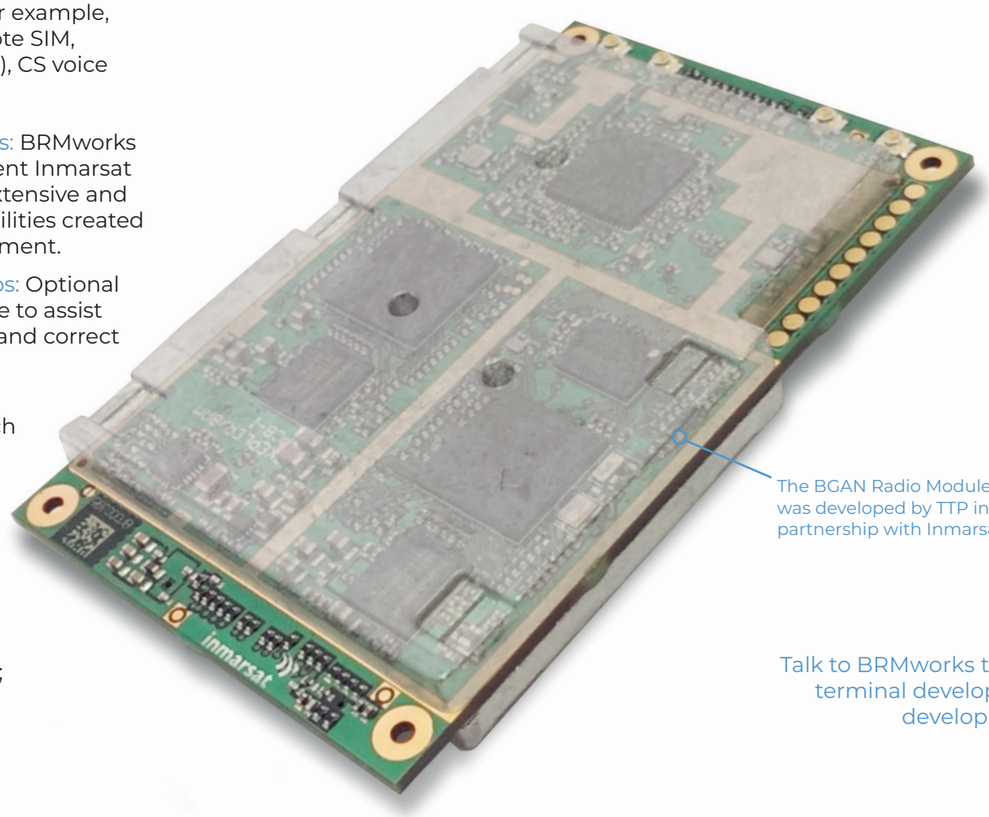
Why BRMworks?
Harnessing knowledge and breaking down barriers

For those wanting a turnkey BGAN user terminal product development, BRMworks is an ideal development partner. We offer a full range of design services including antenna design, Blueprint customisation, mechanical and thermal design, WebUI customisation, terminal / remote management software development, LPWAN / WiFi / Bluetooth / LTE integration, CE / FCC testing, Inmarsat Type Approval testing and aeronautical certification documentation and test. In addition, BRMworks is uniquely placed to offer BRM software customisation, for example, the addition of features such as remote SIM, Maritime Safety Data Services (MSDS), CS voice and carrier aggregation.

- Inmarsat Type Approval test services: BRMworks offers cost-effective and time-efficient Inmarsat Type Approval test services via its extensive and highly automated BGAN testing facilities created for and proven by the BRM development.
- Extended development relationships: Optional engineering support is also available to assist developers understand test results and correct any issues, if needed.
- Access a truly multi-disciplinary team: BRMworks is part of TTP which provides the full capability, experience and knowledge of a truly collaborative, pioneering team of over 240 scientists and engineers.
- Proven track record: Commercialising technology; engaging directly with multiple Value Added Manufacturers (VAMs); providing long term support & maintenance.

Adopting a Blueprint based design approach significantly reduces technical and schedule risks for developers. The Blueprint meets Inmarsat's Type Approval requirements to ensure a rapid Type Approval of the developer's end product, leaving developers to concentrate on their individual 'value-add' services and features - without the need for specialist RF design skills.





The BGAN Radio Module was developed by TTP in partnership with Inmarsat.

Key Features	
Typical BoM cost (excl.BRM)	~$200
Compact Size (incl. BRM)	~158 x 118mm
Low power consumption	✓
Supports all BGAN classes	✓
Carrier aggregation ready	✓
ATC/LTE specification compliant	✓
Antenna control interface	✓

Talk to BRMworks to see how the Blueprint can benefit your terminal development, get started with a developer kit or develop a programme that best suits your needs.

enquiries@brm-works.com

BRMworks services


Antenna Design


Blueprint Customisation


Mechanical and Thermal Design


WebUI Customisation


Terminal / Remote Management Software Development / Support


Inmarsat Type Approval Testing

BRM Software Customisation

CE / FCC Testing


LPWAN / WiFi / Bluetooth / LTE Integration

Aeronautical Certification Documentation and Test

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TTP and Inmarsat working together.