

Engineering ideas into products

Design, manufacturing and technology services

Singapore project leadership.
Global engineering and delivery resources.



Singapore-based engineering partner

2021

Established in Singapore

Product development
Engineering & manufacturing
Digital & cybersecurity services

Bryantech brings engineering, supply chain and specialist partners together to help businesses develop and deliver reliable products and systems.

Innovation

Technology shaped around customer needs

Reliability

Design, test and delivery discipline

Mutual benefit

Collaborative and flexible partnerships

Sustainability

Lifecycle thinking and responsible choices

Eight business areas

01 Product design

Hardware, software and mechanical design

03 Robotics

Mechanics, control, perception and AI integration

05 GaN HEMT

Device design, fabrication coordination and validation

07 IoT & cloud

Connected devices, applications and data platforms

02 Manufacturing

PCB/PCBA, prototyping, NPI and supply chain

04 Automation

Industrial systems, controls and commissioning

06 Satellite

Satellite, payload and launch-service coordination

08 Cybersecurity

Assessment, protection and operational support

Five stages of product development

Engage one work package or a complete development program.

CONCEPT	FEASIBILITY	ENGINEERING	VALIDATION	PRODUCTION
Product requirements	Feasibility study	Hardware design	EVT testing	NPI engineering
Industrial design	Architecture selection	Mechanical design	DVT & reliability	Tooling & fixtures
System concept	PoC prototype	Embedded & control	EMC & safety	Supply chain
Market benchmark	Rapid mock-up	App & cloud	PVT & test systems	Production & quality
Cost & roadmap	Cost & compliance	Prototype integration	Failure closure	Packaging & delivery

Design & engineering capabilities

Electronics & embedded

Schematic and PCB layout, MCU/MPU/FPGA, firmware, drivers and control software

Industrial & mechanical

Product concepts, CMF, structures, mechanisms, thermal analysis and assembly design

System engineering

Prototype integration, interfaces and verification planning



Manufacturing & industrialization



PCB & PCBA

Multilayer PCB / FPC
SMT, BGA and assembly
Prototype to volume



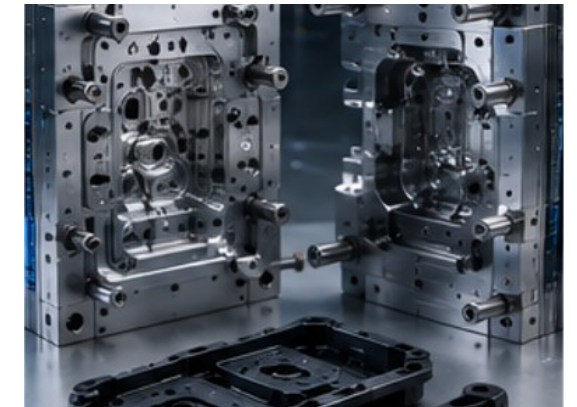
Additive manufacturing

SLA / SLS / MJF
Metal printing / DMLS
Functional prototypes



Precision machining

Multi-axis CNC
Turning, milling, finishing
Dimensional inspection



Tooling & molds

Injection molds
Mold-flow analysis
Fixtures and validation

Specialist manufacturing resources coordinated through Bryantech.

Test, quality & compliance support



Electrical & functional

Flying probe, ICT/FCT, programming, calibration and fixture development

Environmental & reliability

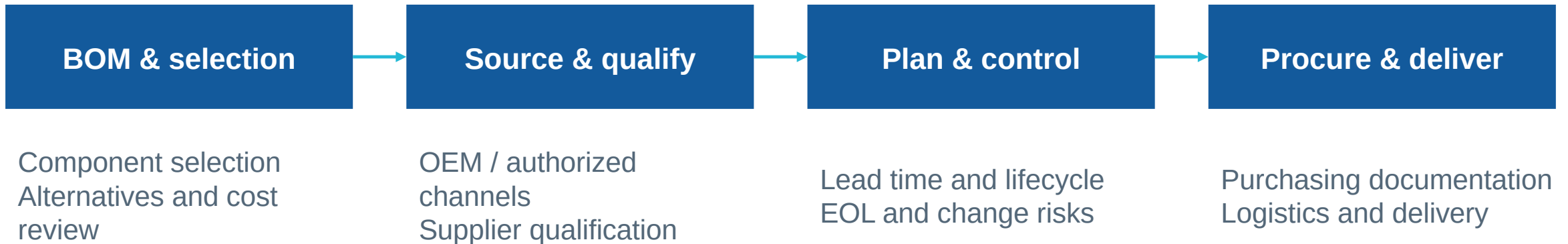
Temperature, burn-in, vibration and project-specific qualification plans

Compliance support

EMC, RF/wireless and electrical safety testing coordination

Component sourcing & supply chain

BOM readiness, sourcing and delivery coordination



Customer visibility

BOM status, supplier records, delivery plans and change tracking

Robotics & embodied intelligence

Mechanical & motion systems

Structures, joints, actuators, kinematics and servo control

Sensing & onboard intelligence

Cameras, LiDAR, sensor fusion, perception and embedded computing

Data, training & deployment

Data collection, model integration, robot connectivity and fleet monitoring



Industrial automation & integration

Integrated equipment, controls and monitoring



Engineering scope

Mechanical integration, power distribution, control logic and communication interfaces

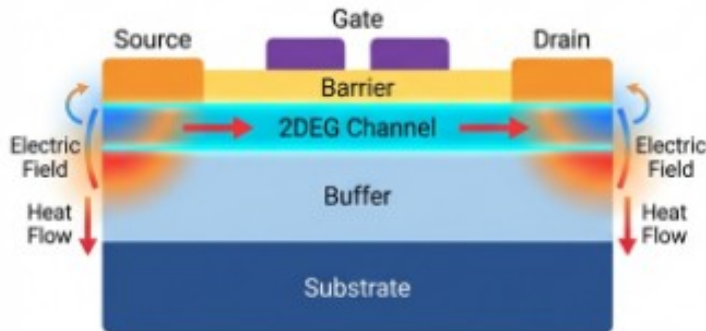
Delivery scope

Installation coordination, commissioning, functional tests and operating documents

Applications: production equipment, material handling and building systems

GaN HEMT development support

GaN HEMT



GaN HEMT concept diagram

Device design, fabrication coordination and validation



Program coordination

Requirements, device and process interfaces, engineering samples and test documentation

Satellite & payload program support

Satellite, payload and launch coordination

Satellite & payload

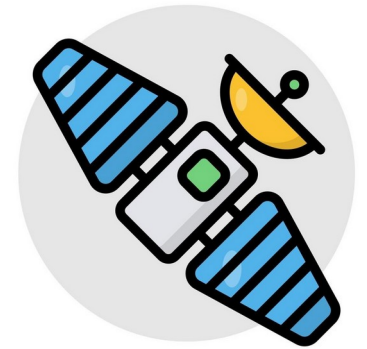
Requirements definition, design support
and system interface coordination

Integration & verification

Payload integration planning, functional
verification and engineering documentation

Launch coordination

Technical coordination with specialist
launch-service partners



Connected devices, cloud & applications



Device & connectivity

Sensors, gateways, BLE, Wi-Fi, cellular, NB-IoT and UWB integration

Application development

Web, iOS and Android interfaces for monitoring, control and workflows

Cloud & data services

Device management, data acquisition, APIs, analytics and remote operations

Deployment support

AWS / Microsoft Azure integration, access control and operational monitoring

Cybersecurity services

IT, OT, cloud and IoT environments

Assess & advise

Architecture, assets, vulnerabilities and remediation priorities

Secure cloud & applications

Identity, cloud configuration, application, API and data security

Monitor & respond

Log analysis, alerts, investigation and recovery support

Protect networks & endpoints

Firewalls, access control, endpoint security and zero-trust design

Protect industrial systems

OT segmentation, boundary controls, protocol monitoring and hardening

Build governance

Policies, risk registers, supplier requirements and staff awareness

Downhole electronics for 175°C and above

175°C+

10+ years of engineer experience

Component screening
High-temperature design
DFM and assembly planning
Reliability validation

Representative design architectures

Sonic logging drive electronics
Resistivity logging PCBA
Density logging PCBA

175°C reference test plan

Temperature cycling: at least 300 cycles
Powered high-temperature soak: 2,000 h
Hot vibration: 20 grms, three axes

Reference validation plan; acceptance follows project-specific test results.

Markets & engagement models

MARKETS

Industrial automation & smart manufacturing
Oil, gas and energy equipment
Semiconductors & reliable electronics
Smart cities, buildings & infrastructure
AI, robotics and edge computing
Medical, smart and consumer devices
Digital transformation & cloud services
Renewables and sustainable technologies

ENGAGEMENT MODELS

Project-based development
Joint development
ODM / OEM support
Sourcing and supply chain services
Cybersecurity projects and support
Technical advisory and project management

One work package or an integrated program,
with agreed scope and delivery milestones.

Discuss your next engineering project

BRYANTECH PTE. LTD.

Singapore project leadership across design, manufacturing, systems and digital services.

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