RFHIC®

rfhic.com

Visit us on Linkedin

RFHIC®

Experts in RF & Microwave technology
for Space applications

Earth, Pale Blue Dot

Pioneers in GaN Solid-State Microwave

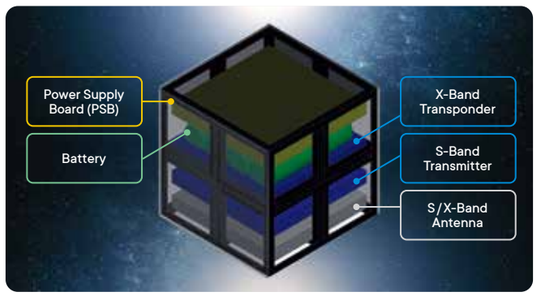
RFHIC is a leading pioneer in designing and manufacturing GaN-based Microwave components for space applications. With our state-of-the-art GaN technology – we continue to reimagine industries and make the impossible possible.

Space Applications

GEO

- GEO KOMPSAT-3
- Korea Positioning System
- Core Tech. for Satellite Payload

LEO



- NEXTSat-2
- 6G Communications / Cubesat
- Compact Advance Satellite 500 - 5

MEO

- Fully Matched GaN Transistor for MEO Sat.

Etc.

- Satellite Plasma Thruster
- Wireless Power Transfer

Advantages of GaN Solid-State Microwave

Why GaN in Space?

- Alternatives to "New Space"
- Improving the disadvantages of existing power devices

	GaN SSPA	TWTA
Average Lifetime	50,000 ~ 100,000hrs	Limited Durability
OPEX Costs	Low	High
Stability	High	Low
Size	Compact	Large
Operating Voltage	Low	High
Operating Temperature	Low	High
Spurious	Low	High

Active Units for Payload

SSPA

K band 40W SSPA

X band 120W SSPA

X band 120W SSPA + EPC

Up/Down Converter

S band Up Converter

LNA

Ka band LNA

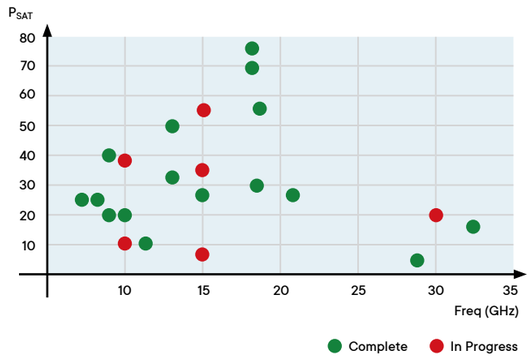
GaN / GaAs MMICs (for small SAT.)

Power Amplifier

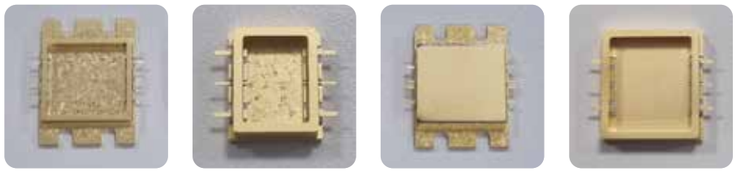
GaN PA MMIC

LNA / DA MMIC

Core-chip MMIC



High Frequency Packages



Features

- Up to 35GHz
- High Thermal Performance
- Hermetic Structure