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Standard Incentives Investment Opportunities

GaN RF Transistors and High-Performance Semiconductor Devices

Machinery Components

GaN RF Transistors and High-Performance Semiconductor Devices



Investment Opportunity Description

- **★** Establish local manufacturing capabilities for Gallium Nitride (GaN)based high-performance components and other semiconductor **devices** used in communication and radar systems, as well as energyefficient applications such as electric vehicles, smart grids, and industrial equipment.
- **★ Targeted Products:** GaN RF HEMT transistors for communication applications, GaN power devices including high-voltage transistors and amplifiers, semiconductor transducers for sensing and control.



Investment Rationale

STRATEGIC BENEFITS

- → Foundational Enabler of Digital Industries: Localizing semiconductor manufacturing strengthens the backbone of KSA's ambitions in electronics, computing, renewable energy, and telecommunications
- **★ Advancing National Tech Sovereignty:** Developing in-country capabilities in chip design, assembly, and testing reduces reliance on global supply chains and empowers domestic innovation ecosystems

KEY GROWTH DRIVERS

- **◆ Industrial Applications**: RF and sensing components are essential for precision industrial technologies
- **◆ Telecom and Electronics Expansion**: Increasing investments in 5G infrastructure, consumer electronics, and automotive systems are driving demand for high-performance RF and power semiconductors
- **★ Renewable Energy and Smart Grid Demand:** Deploying solar technologies, smart meters, and energy-efficient systems is increasing the need for PV cells, sensors, and power electronics









