



Spare Support for

Aviation, Industrial, Marine



Shenzhen Guanji Electronics Co., Ltd.



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Shenzhen, Peoples Republic of China

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## What is SGEC-LTD .

### Custom Design & Manufacturing Capabilities

We operate a fully integrated **custom design and manufacturing facility** specializing in **RF modules, DC-DC power converters, and printed circuit boards (PCBs)**. Our facility is equipped to support the complete product lifecycle—from **concept development and circuit design** to **prototype fabrication, testing, and volume production**. This enables us to deliver reliable, application-specific electronic solutions that meet stringent technical and environmental requirements.

### RF Module Design & Manufacturing

Our RF engineering team has extensive experience in the design, development, and manufacturing of RF modules across a wide range of frequencies and power levels. We support applications including wireless communication, telemetry, industrial RF control, and custom RF systems.

Our RF capabilities include:

- \* RF circuit design (LNA, PA, mixers, oscillators, filters)
- \* Frequency ranges from HF, VHF, UHF up to microwave bands (application-dependent)
- \* Impedance matching and RF layout optimization
- \* Low-noise, high-linearity, and high-efficiency RF designs
- \* Integration of RF power transistors, RF MOSFETs, and MMICs
- \* Shielding, grounding, and EMI/EMC control

We utilize advanced simulation and measurement tools to ensure optimal RF performance, including **gain, bandwidth, noise figure, stability, and thermal behavior**. Modules can be supplied as **standalone RF assemblies or fully integrated sub-systems**, depending on customer requirements.

## **DC-DC Converter Design & Power Solutions**

We design and manufacture **\*\*custom DC-DC converters and power management solutions\*\*** tailored to specific voltage, current, efficiency, and environmental requirements. Our power electronics expertise covers both **\*\*isolated and non-isolated converter topologies\*\***, suitable for industrial, telecom, and embedded systems.

### **Our DC-DC converter capabilities include:**

- \* Buck, boost, buck-boost, flyback, forward, and isolated converter designs
- \* Wide input voltage range designs
- \* High-efficiency, low-ripple power conversion
- \* Thermal management and protection circuitry
- \* Short-circuit, over-current, over-voltage, and thermal protection
- \* Custom mechanical packaging and form factors

Each power design is optimized for **\*\*electrical performance, reliability, and long-term stability\*\***, ensuring compliance with operational and environmental conditions specified by the customer.

## **PCB Design, Layout & Manufacturing**

We provide **\*\*end-to-end PCB solutions\*\***, including schematic capture, multilayer PCB layout, fabrication, assembly, and testing. Our PCB designs are optimized for **\*\*signal integrity, power integrity, thermal performance, and manufacturability\*\***.

### **Our PCB services include:**

- \* Single-layer, double-layer, and multilayer PCB design
- \* High-frequency RF PCB layout (controlled impedance, microstrip/stripline)
- \* Power and mixed-signal PCB design
- \* Component sourcing and BOM optimization
- \* SMT and through-hole assembly
- \* Functional testing and inspection

We follow industry-standard design practices to ensure **high reliability, repeatability, and ease of production**, whether for prototypes or full-scale manufacturing.

## **Customization & Engineering Support**

A key strength of our organization is our ability to deliver **fully customized solutions**. We work closely with customers to understand their **functional, electrical, mechanical, and environmental requirements**, and translate them into optimized designs.

### **Our engineering support includes:**

- \* Requirement analysis and feasibility studies
- \* Design optimization for cost, performance, and manufacturability
- \* Prototyping and validation testing
- \* Design modifications and iterative improvements
- \* Support for low-volume and high-volume production

We can **design and manufacture products strictly according to customer specifications**, or collaborate during the development phase to propose optimized technical solutions.

## **Quality, Reliability & Manufacturing Excellence**

Quality and reliability are integral to our design and manufacturing processes. Each product undergoes **electrical testing, functional verification, and quality inspection** to ensure consistent performance and long-term reliability.

Our manufacturing approach emphasizes:

- \* Component traceability and controlled processes
- \* Consistent build quality and documentation
- \* Compliance with customer and industry standards
- \* Continuous improvement and engineering feedback

## **Our Commitment**

With in-house capabilities spanning **RF engineering, power electronics, and PCB manufacturing**, we are well positioned to deliver **custom electronic modules and assemblies** that meet demanding technical requirements. Whether you need a **custom RF module, a specialized DC-DC converter, or a complete PCB solution**, we have the expertise and infrastructure to design and manufacture products **exactly as per your requirements**.

**SGEC-LTD** is a value added distributor of electronic components, specializing in providing RF & Microwave and Wireless Communications for complex system applications.

SGEC-LTD distributes globally and provides local customer service and application support across the Globe. SGEC-LTD delivers technical solutions that are easy to find and easy to buy, providing customers and supplier partners with design services, web commerce enablement and flexible supply chain solutions.

Markets served include communications, computing, industrial, medical, military and consumer electronics.

In today's sensitive electronic and processing environments, measuring, detecting and documenting static electricity is essential to eliminating troublesome damage, costly rework and potential hazards. Successful static control programs rely on current standards, proper procedures and accurate equipment. Find products such as a resistance meter, accessories, bench-top and portable systems, and more throughout our site. .

Low-Price Guarantee • Pricing below our competition • Quantity price breaks on everything • Aggressive bidding on large deals Price Matching For stocked products, we will match advertised pricing down to SGEC-LTD's cost. Credit We are happy to extend credit to our corporate customers and have impressed many with our flexible credit terms. Discount Program For customers who can make quarterly volume commitments, we'll guarantee discounts across the board.

- HDMI Cables
- Integrated Circuits
- Capacitors
- Connectors
- Dc Converters
- Flexible PCB's
- Server Racks
- PDU (Power Distribution Units for racks)

## Services for you

SGEC-LTD has been a leading electronic components distributor for many years. We've helped millions of customers from businesses to educational institutions to hobbyists and along the way we're proud to have built a solid reputation for great prices, great selection, and a great source for hard-to-find electronic components.

SGEC-LTD Is buying expertise allows even the smallest company or individual electronic hobbyist to enjoy the same competitive pricing edge typically reserved for the highest volume buyers.

### Pricing



If you find our pricing not competitive please do not hesitate to let us know your target price so we can endeavor to make some percentage adjustment. Likewise, should you have further question or clarification, please bring it to our attention. In this way we can establish an effective working relationship with you.

### Guarantee



We guarantee what we sell only sell high-quality and reliable products and are committed to exceeding all industry standards. All orders can be tracked online with all details of back order & current shipped parts for the best quality of our services to our clients,

### Insurance



We can ship parts to you with security & insurance keeping in view your money safety & ensure the best against your money.

### BOM



We can generate BOM for your PCB manufacturing needs and help you to finish your complete job list.

### Sourcing



We can source your parts list to ensure that you will get best out of our services & enjoy our complete product line card & support.

### Shipping



We have a rapid shipping service like Fedex , UPS & DHL to ensure the fast & quick delivery of products of our clients.

Product Support Line card



**PCb Hardware  
Terminals**



**Cables  
RF Connt Cables**



**IDC Connector**



**crimp**



**Fans**



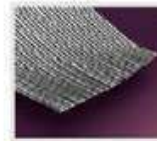
**Cable Accessories  
connectors**



**IDC cables**



**Cable Tele**



**RF Cables**



**Potentio**



**Switches**



**Cooling fans**



**Passive**



**Switches**



**Tele**



**Fuse**



**Potentiometers**



**Chip resistors**



**Protection Fuse**

It's the People The average tenure of a SGEC-LTD employee is over nine years. We bring a level of dedication and professionalism others can't touch. It's the Program We stand behind what we sell and we'll jump through hoops to meet our customer commitments.

When our customers say it's urgent, we're willing to bend the rules.

- Stock to your forecast
- Reserve inventory (JIT)
- Offer the industry's longest warranty

It's the Team Our sales team is trained to be your internal champion. You are not just another number. You always have access to our top SGEC-LTD management team and they are always available to take your call. Call us today! .



## Privacy Policy



### **What information do we collect?**

We collect information from you when you register on our site, place an order, subscribe to our newsletter, respond to a survey or fill out a form.

When ordering or registering on our site, as appropriate, you may be asked to enter your: name, e- mail address, mailing address, phone number, credit card information or social security number. You may, however, visit our site anonymously.

### **What do we use your information for?**

Any of the information we collect from you may be used in one of the following ways:

To personalize your experience

(your information helps us to better respond to your individual needs)

#### **To improve our website**

(we continually strive to improve our website offerings based on the information and feedback we receive from you) To improve customer service (your information helps us to more effectively respond to your customer service requests and support needs)

#### **To process transactions**

We may share or sell information with third parties for marketing or other purposes without your consent.

To administer a contest, promotion, survey or other site feature To send periodic emails

The email address you provide for order processing, may be used to send you information and updates pertaining to your order, in addition to receiving occasional company news, updates, related product or service information, etc.

Note: If at any time you would like to unsubscribe from receiving future emails, we include detailed unsubscribe instructions at the bottom of each email.

### **How do we protect your information?**

We implement a variety of security measures to maintain the safety of your personal information when you place an order or access your personal information.

We offer the use of a secure server. All supplied sensitive/credit information is transmitted via Secure Socket Layer (SSL) technology and then encrypted into our Payment gateway providers database only to be accessible by those authorized with special access rights to such systems, and are required to keep the information confidential.

After a transaction, your private information (credit cards, social security numbers, financials, etc.) will not be kept on file for more than 60 days.

# Sourcing Agents



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