

# SOLID STATE PLC

TRUSTED TECHNOLOGY FOR DEMANDING APPLICATIONS

## GROUP CAPABILITY BROCHURE



TRUSTED TECHNOLOGY FOR  
DEMANDING APPLICATIONS



SYSTEMS



COMPONENTS



# SOLID STATE GROUP

Solid State Plc is a value added electronics group supplying commercial, industrial and military markets with durable components, assemblies and manufactured systems for use in critical applications, with a particular emphasis on specialist and harsh operational environments.

The company has particular expertise in industrial and ruggedised computing, battery power solutions, antennas, secure radio systems, imaging technologies, electronic components and displays.

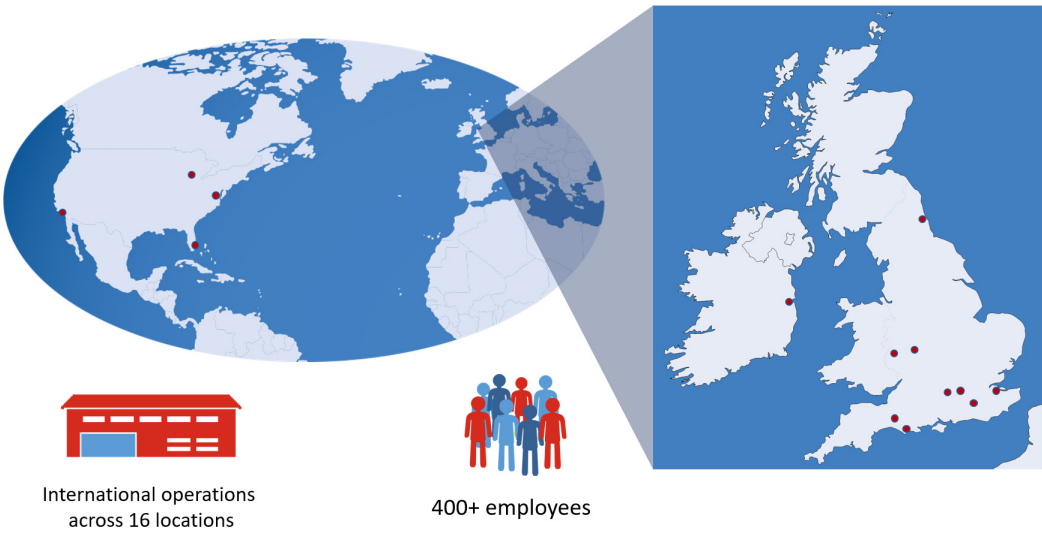
Serving industries with demands for complex, performance-critical products, the Solid State trading brands have become recognised industry leaders through consistently delivering product quality, high service standards and comprehensive technical support.

With a focus on the development and supply of performance technologies for extreme environments, the Solid State name, and that of its trading companies, has become synonymous with high quality and reliability.

The company operates through 2 trading divisions, Steatite Ltd, which focuses on system design and manufacturing, and Solsta Ltd, a technical component distributor serving the needs of the electronics community.

Solid State Plc was founded in 1971 and is listed on AIM (AIM:SOLI), part of the London Stock Exchange. The company has been profitable every year since being admitted to AIM in 1996 and has consistently grown through a mix of strategic acquisition and organic growth to become a leader of performance technologies.

Today, the company employs over 400 people across 16 sites in the United Kingdom, European Union and United States of America. Solid State is a truly international company, with customers in over 50 countries and in excess of 200,000sq ft of office and scalable production floor space around the world.



“WE DO THE DIFFICULT THINGS SMALL COMPANIES CAN’T DO AND THE LARGE COMPANIES DON’T WANT TO DO”

“BRITISH RESEARCH, DESIGN AND ENGINEERING AT ITS VERY FINEST”



Steatite is the systems manufacturing division of the Solid State group. Established in 1938, the company is a market leader in the design, development and supply of rugged and industrial computers, imaging and embedded vision systems, custom battery solutions, secure communication systems, antennas & subsystems.

Headquartered in Redditch, Worcestershire, Steatite operates a secure, modern facility dedicated to design, engineering, manufacturing, testing and service support.

In addition to our main Redditch site, Steatite has two large battery design and assembly facilities. One of these is located in Crewkerne, Somerset, whilst the second is located in Fountain Valley, California. In addition, the company has a world-class development facility in Leominster, Herefordshire, dedicated to antenna design, production and testing.

Iver, Buckinghamshire, is home to the company's imaging technologies business unit, Active Silicon. Here the focus is on embedded vision systems for image processing, data acquisition and transmission.

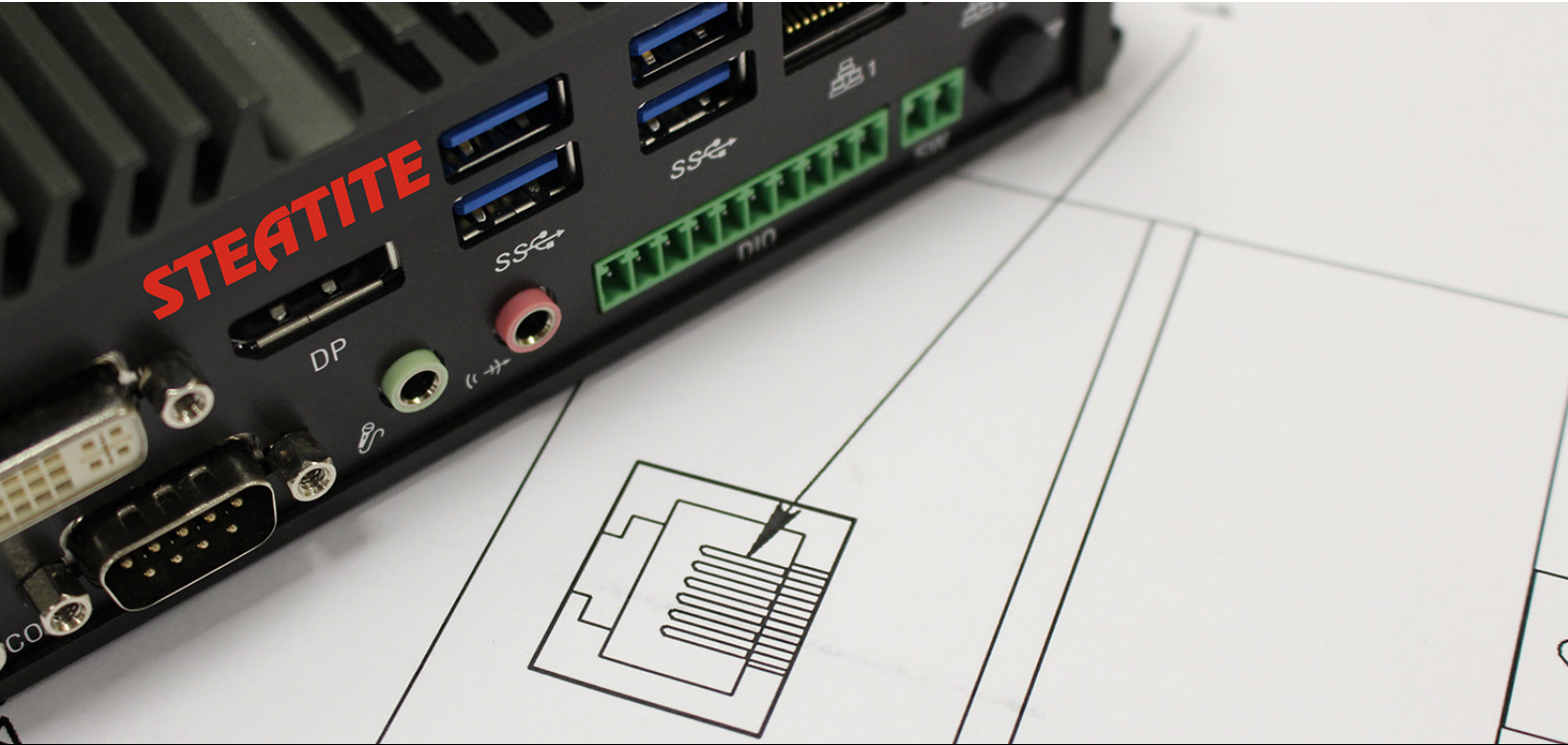
Active Silicon's operations facility is located in nearby Langley, and a sales office for the North America market can be found in Severna Park, Maryland, around 30 miles north east of Washington DC.

Steatite has extensive in-house testing capabilities including a large anechoic RF test chamber and a smaller semi-anechoic EMC chamber, in addition to environmental test equipment.

The Redditch based compact EMC chamber provides agility and efficiency for the engineering function by speeding up product development as a result of being able to quickly test different engineering configurations without the reliance on an external test facility.

The Leominster facility houses the company's state-of-the-art spherical near-field RF test chamber (**pictured below**). This 7m x 5m chamber is able to accommodate antennas from hand-held horns to 3m diameter dishes and enables full far-field measurements to be derived without the difficulties of a large scale external test range facility.

As a part of the Solid State Group, Steatite benefits from its association and close working relationship with the other companies in the group, and accompanying resources.



"A MARKET LEADER IN THE PROVISION OF COMPUTING, POWER AND COMMUNICATIONS TECHNOLOGY"



"PRODUCTS THAT PUSH THE BOUNDARIES TO THE LIMITS OF TECHNICAL CAPABILITY"





STEATITE SYSTEMS CAPABILITIES

PRODUCT AREAS			OUR ENGINEERING CAPABILITY								
	System Build & Design	Electrical & Mechanical Design & Customisation	Windows Integration	System Branding	Documentation & Qty Control	Stock Holding & Service	Encrypted Hard Drives	COTs and MOTs	Custom / Bespoke	Repair & Refurbishment	Radio, Voice, Video, Cloud Relay Data Links
COMPUTING											
Rack Mounted PCs & Fanless Servers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Military Grade Printers		✓	✓	✓	✓	✓	✓	✓		✓	
KVM (Keyboard, Video, Mouse)	✓	✓		✓	✓		✓	✓	✓	✓	
Rugged Laptops & Tablets	✓	✓	✓	✓	✓		✓	✓		✓	
Edge AI Systems & Accelerators	✓				✓		✓	✓		✓	
Computer Boards & Modules	✓	✓	✓	✓	✓	✓	✓	✓		✓	
Fanless Computers	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Panel PCs and Monitors	✓	✓	✓	✓	✓		✓	✓	✓	✓	
GNSS Time & Positioning (PNT)		✓		✓	✓			✓		✓	
POWER											
Battery Packs	✓	✓		✓	✓	✓			✓	✓	
UPS Batteries	✓	✓								✓	
Battery Management System	✓	✓								✓	
COMMUNICATIONS											
Embedded Module (MANET)	✓	✓									✓
Radio MANET (Mob to MESH)											✓
GVRS Vehicle Radio MANET											✓
Mobile Command & Control Unit	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
ANTENNAS											
EMC & HIRF	✓	✓			✓	✓		✓	✓	✓	
Horn	✓	✓			✓	✓		✓	✓	✓	
Omnidirectional	✓	✓			✓	✓		✓	✓	✓	✓
Reflector	✓	✓			✓	✓		✓	✓	✓	
Spiral & Sinuous	✓	✓			✓	✓		✓	✓	✓	
ELINT Spinning DF	✓	✓			✓	✓		✓	✓	✓	
Positioner	✓	✓			✓	✓		✓	✓	✓	
Waveguide Adapters	✓	✓			✓	✓		✓	✓	✓	
IMAGING											
Frame Grabbers	✓	✓	✓	✓	✓	✓		✓	✓		
Autofocus-zoom Cameras	✓	✓	✓	✓	✓	✓		✓	✓		
Embedded Vision Systems	✓	✓	✓	✓	✓	✓		✓	✓		

OUR BUSINESS UNITS													
BATTERIES			COMPUTING			COMMUNICATIONS			ANTENNAS		IMAGING		
EXAMPLES OF TESTING & QUALIFICATION CAPABILITY	Design & Testing CE Standards, UL, TUV and UKCA Standard.	Testing Capability EMC Directive 2014/30/ EU.	Testing Low Voltage Directive LVD 2014/35/ EU.	REACH Regulation EC 1907/2006.	Manage Climatic Testing (in house ex).	Project Manage Shock & Vibration Testing	Near field Spherical RF Chamber Testing Freq Range of 500 MHz to 40 GHz.	IP Rating & Salt Mist Testing.	Re-coating	TEMPEST Pre Qualification.	Project Manage Using PRINCE2 Method	Battery Cycling : Positive Thermal Cycling.	Programme & Write Battery Management System.
													
INDUSTRY PARTNERS & AFFILIATIONS													
EXAMPLES OF PRODUCTS OFFERED BY STEATITE													
	Battery Packs	Industrial Computers / AI Edge Computing / Position / Navigation / Time (PNT)					Communications	Antennas	Imaging				



## COMPUTING PRODUCTS



### Industrial Computing

Industrial Rack Mount PCs



Fanless PCs



Touch Screen Panel PCs



### Rugged Computing

Rugged Laptops



Rugged Handheld



Printers



### Time & Positioning

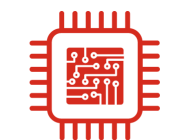
Timing & Frequency



Positioning

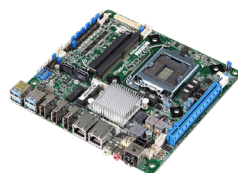


GNSS Simulators



### Motherboards & Modules

Motherboards & SBCs



Computer Modules



## COMMUNICATIONS PRODUCTS



### Wave Relay Products

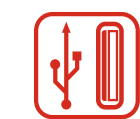
MPU5 Radio



Embedded Module



GVR5



### Peripherals

Dual PTT



Rugged Display & Controller



Auto Tracking Antenna



### Custom Products

CRiB



MMCu



### Training

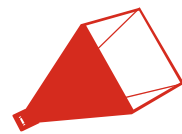


"METICULOUS DESIGN AND ENGINEERING FROM COMPONENT LEVEL TO FINISHED PRODUCT"

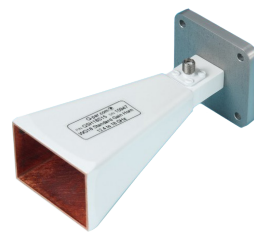
"DEPENDABLE COMMUNICATIONS SOLUTIONS THAT SURPASS EXPECTATIONS"



## ANTENNA PRODUCTS



Horn  
Antennas



EMC & HiRF  
Antennas



Spiral  
Antennas



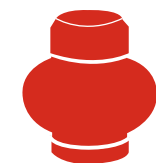
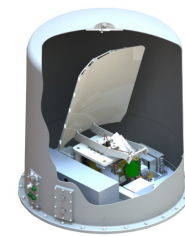
Reflector  
Antennas



Sinuous  
Antennas



ELINT  
Antennas



Omnidirectional  
Antennas



Positioner  
Antennas



## BATTERIES & IMAGING PRODUCTS



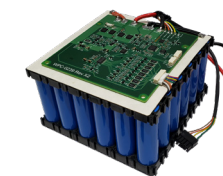
Primary Battery  
Packs

Custom Lithium Battery Packs   Standard Lithium Battery Packs   Other Chemistry Battery Packs



Secondary Battery  
Packs

Custom Lithium Battery Packs   Standard Lithium Battery Packs   Other Chemistry Battery Packs



Portable Power

Battery Modules



Energy Storage



Pelican Batteries



Imaging Solutions

Autofocus-Zoom Cameras



Frame Grabber Cards



Embedded Systems



"AT THE FOREFRONT OF ANTENNA DESIGN,  
TEST AND MANUFACTURING"

"HIGH PERFORMANCE TECHNOLOGIES FOR APPLICATIONS  
WHERE FAILURE ISN'T AN OPTION"



**Solid State Supplies Ltd (trading as Solsta) is a technical distributor serving the needs of the electronics community in the UK. We provide a comprehensive range of technical, commercial, value-added, training and support services.**

The company supplies semiconductors, related components and modules for embedded processing, control and communications (both wireless and wired), sensing and switching, power management, and LED lighting. Solsta offers particular expertise in high-reliability components for mil/aero applications and the company's Quality Management System is in accordance with the International Aerospace standard AS9120. In addition, we have expertise in sensing and switching for electric vehicles, and end-to-end IoT solutions using modules, finished products and cloud connectivity.

#### Value added services

Key to our success has been the development of our Value Added Services - going above and beyond our core business of component distribution to offer additional services designed to solve problems for customers. As well as providing the best components for particular applications, we assist in integrating these parts into successful new products, working hand-in-hand with customers as projects progress from R&D to volume production.

- Sourcing & Obsolescence Solutions
- Optoelectronics Design & Manufacture
- End-to-End IoT Solutions
- 4G/5G Router Configuration Service & Consultancy
- Device Programming
- Firmware Version Control
- Tape & Reel and Mini Reel
- Bake & Seal

Services are carried out in our secure, bespoke, ESD facility in line with our AS9100 certification. UK warehousing and multiple logistics services ensure on time delivery through buffer stocks, consignment stocks and VMI programmes.

#### End-to-end IoT solutions

Solsta helps customers with IoT projects by offering both hardware and software solutions. Having established partnerships with leading IoT experts, the company is able to offer end-to-end solutions from hardware to plug-and-play applications for device management and data insights through its '5 Stages of IoT' framework:

1. The 'Thing'
2. Connect
3. Collect
4. Learn
5. Do

A dedicated team of industry experts guide customers through the IoT landscape - step by step, from concept, design and development through to execution of their IoT ecosystem, helping them to move from a "Product" to an intelligent "Connected Product" and realising the value of data to their business.

#### Custom display solutions

Solsta provides high quality display components, monitors, panels, signage and power components to the commercial, retail, industrial and military markets throughout the UK and Europe.

Offering bespoke display solutions to a variety of markets, many of our display panels, monitors and components can be found in high-reliability applications such as fighter jets, bomb disposal vehicle systems, helicopters, industrial control systems and broadcast units.

#### Willow Technologies & AEC

The Solsta offering is further enhanced by the addition of Willow Technologies Ltd and its US subsidiary American Electronic Components Inc, specialising in switching, sensing, resistive and hermetic seal solutions for customers around the world.

Combining a heritage of designing and building high current switching devices, the companies provide enhanced capability to Solsta as well as additional access to growth markets and own brand components Hermaseal® and Durakool®.



**"ONE OF THE UK'S LEADING TECHNICAL, FRANCHISED DISTRIBUTORS"**



**"SERVING THE NEEDS OF THE ELECTRONICS OEM COMMUNITY"**




## Premium product portfolio

We distribute a wide range of best-in-class semiconductors and related components and modules from a carefully selected stable of leading edge suppliers. Our portfolio contains the components you need to unlock vital innovation in your concepts and designs.



**WIRELESS**

- 2J Antennas
- Antenova
- Asus
- Avalue Technology
- CTI Antennas
- D-Link
- Digi
- Embedded Antenna Designs
- IEI Technology
- Inseego
- Laird
- Microchip
- Pacer
- Pulse Electronics
- Quectel
- Robustel
- Silicon Labs
- Synzen
- TechNexion
- Winmate



**DISPLAYS**

- Astrodesign
- Avalue Technology
- BOE Varitronix
- Crystal Clear Technology
- Crystal IS
- Digital View
- DMC
- IEE Displays
- IEI Technology
- Kingtech
- Kyocera Display
- Lumineq
- Open China Gateway
- Orient Display
- Pacer
- Planar Systems
- Raystar Optronics
- RiTDisplay
- Unigraf
- Winmate



**OPTO & IMAGING**

- Access Laser
- Axetris
- Brimrose Corporation
- Espros Photonics
- Excelitas
- Kodenshi Corporation
- Luminus
- Mitsubishi Electric
- New Infrared Technologies
- OmniVision Technologies
- Optotune
- Pacer
- Polymer Optics TechNexion
- Ushio Opto Semiconductor



**PROCESSING**

- AAEON
- Asus
- Digi
- e-peas
- GigaDevice
- Holtek
- Laird
- Microchip
- Pacer
- Silicon Labs
- Skyworks/IsoLink
- TechNexion
- Variscite
- Winmate



**POWER**

- Durakool
- Fulham
- Microchip
- Minmax Technology
- Orion Fans
- Pico Electronics
- PulseR
- VPT Inc.




**SENSORS**

- Adeunis
- Excelitas
- InnoSent
- Laird
- Microchip
- Pacer
- Sensolute
- Silicon Labs
- Silicon Microstructure Inc.



**STORAGE**

- Alliance Memory
- AMIC Technology
- ATP Electronics
- Avalue Technology
- Digi
- GigaDevice
- IEI Technology
- Innopeta
- Transcend
- Winmate



**SERVICES**

- Asus
- Digi
- Inseego
- IoThink Solutions
- IQRF Tech
- Pacer
- Robustel
- Winmate

## Accreditations & Memberships



**Solid State Plc**

**T:** +44 (0)1527 830666

**E:** [investor.information@solidstateplc.com](mailto:investor.information@solidstateplc.com)

**W:** [www.solidstateplc.com](http://www.solidstateplc.com)

**Solsta Ltd**

**T:** +44 (0)1527 830800

**E:** [sales@solsta.co.uk](mailto:sales@solsta.co.uk)

**W:** [www.solsta.co.uk](http://www.solsta.co.uk)

**Steatite Ltd**

**T:** +44 (0)1527 512400

**E:** [sales@steatite.co.uk](mailto:sales@steatite.co.uk)

**W:** [www.steatite.co.uk](http://www.steatite.co.uk)

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SSPLC\_Group\_Capabilities\_Brochure\_Rev1

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DEMANDING APPLICATIONS

**WWW.SOLIDSTATEPLC.COM**