

Your European Source for Microwave Components, Assemblies and Sub-systems



SMS

Specialist Microwave **Solutions**

Design Capabilities

What circuit functions do SMS design? Most basic microwave designs, including amplifiers, PIN & GaAsFET based switches, attenuators and phase shifters, fast switched crystal oscillators and VCOs, limiters for receiver protection and mixers and detectors for receivers, together with associated passive elements and logic functions.

In what form are these products supplied? Designs are offered as individual components, as assemblies of two or more functions and complete sub-systems. Packaging styles range from open carriers and sealed drop-in devices to fully hermetic units with coaxial connectors or rack mounted trays.

Do SMS have a standard product range? SMS do not have a catalogue of standard parts because for the requirements that they service, tailored designs are generally the most cost effective solution. Basic designs in standard packages are offered when appropriate.

Who are SMS's customers? Customers range from small R & D companies that require practical support for new designs to the major OEMs in the UK and also a cross-section of users in Europe and North America.

How do SMS work with their customers? SMS are happy to work with customers on many levels: Prototyping or design proving pilot production of customer generated designs: Designing and manufacturing the initial quantities then transferring drawing packages, if required, for in-house serial production by the customer: Designing and undertaking series production within their UK facilities.

Manufacturing Capability

What are SMS's core manufacturing technologies? SMS manufacture microwave hybrid products using alumina, soft board and FR4 type microstrip designs. Capabilities include bare die handling and fine wire bonding, chip and SMT component assembly, alumina and FR4 based logic control circuits, machined and plated housings, hermetic sealing, and painting to Def Stan 80-161.

What product testing is routinely undertaken? Electrically - vector and scalar network analyser measurements, 10MHz to 40 GHz, spectrum analysis, standard switching speed, video breakthrough and RF generation, noise figure measurement: Mechanically - wire pull testing; leak testing, temperature cycling and burn-in.

What are the minimum order requirements? SMS do not set any minimum order quantities or values. Emphasis is on customer service and producing the most appropriate product for the need in the required timescale.

What are SMS's target markets? SMS service the Aerospace & Defence, Communication, Industrial and Instrumentation market sectors. Our aim is not to compete with high volume suppliers but to offer small to medium quantity requirements where individual attention makes the difference.

Where is the manufacturing undertaken? SMS are situated in the Cranfield Technology Park, attached to Cranfield University in Bedfordshire, UK, where all the design and manufacturing is undertaken. The company is certified to ISO9001 2008, approved since March 2000. All staff members have a strong heritage in the professional microwave industry.

Repairs Service

What do SMS repair? Microwave components and assemblies: Capabilities including coaxial, hybrid and chip and bond technologies, nominally operating within the frequency range 500MHz to 40GHz

Why use Specialist Microwave Solutions? Experience and high quality service: The staff at SMS have many years experience in both the design and manufacture of hybrid microwave products and in repairing and refurbishing products from most of the heritage suppliers to the Aerospace, Defence and Industrial market sectors.

Where will the repairs be undertaken? At SMS' premises in the Cranfield Technology Park; attached to Cranfield University, in the UK.

What about qualification? By adhering to original manufacturing techniques wherever possible, any necessary requalification can be kept to a minimum. All basic electrical and environmental testing is carried out in-house: Where more extensive proving is required SMS will work with the customer or experienced partner companies to fulfil these needs.

What if it cannot be repaired? If repair is not possible or cost effective, SMS can usually reproduce a similar product, either from drawings or if these do not exist from a representative example of the product. Failing this it is often possible to manufacture a form, fit and function alternative design.

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Approved to ISO 9001:2008 FM54333

All products designed and
manufactured in the UK

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