

Marconi Microelectronics

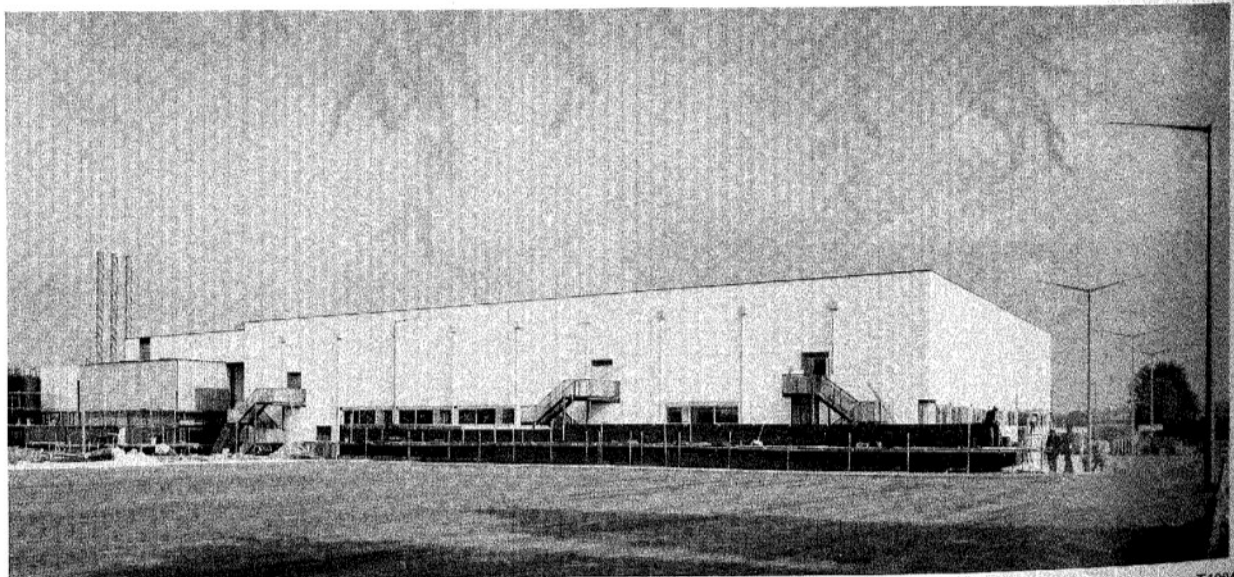
The Microelectronics Division of the Marconi Company was formed to exploit the rapidly expanding market for thin film and semiconductor integrated circuits.

The new factory at Witham represents a very substantial investment by English Electric in this vital market. The factory has been planned for the 1970's and with over 100,000 square feet of floor area, it will provide the Microelectronics Division with the largest and most modern microelectronics plant in Europe, with all the facilities for design, development, and production of integrated circuits.

Since its formation in 1964, the Microelectronics Division has maintained a rapid rate of expansion, particularly in the production sections. A substantial research programme of continuous investigation into new and improved circuits and techniques is aimed at expanding the Division's product range.

A specialist applications engineering service exists to deal with particular enquiries. Customers' senior engineering personnel can be trained in integrated circuit design by the Applications Group.

For the latest information on products, prices, deliveries, special requirements or applications service, contact the address given on page 68/380.



The new microelectronics factory at Witham, Essex

T1004

The Argument for Microelectronics

Integrated circuits are immediately attractive because of their small size and weight. However, these are by no means the only benefits to be obtained by using Marconi microelectronic circuits. The other main advantages are in over-all reliability, low cost of manufacture, installation and maintenance of systems; or the equipment in which they are incorporated.

Reliability is vastly increased as all stages of manufacture are subject to rigorous control and inspection. The use of extremely pure materials and stringent anti-contamination procedures maintains purity. Low mass circuits reduce the effect of shock vibration and unreliable connections to a minimum.

Reliability and small size will be all-important in contemporary and next-generation electronic equipment which will become more and more complex and sophisticated.

The range of products now offered by the Division includes:

Diodes and Diode Assemblies: A range of silicon diodes is available, including high-speed computer diodes and such devices as pairs matched for capacitance and voltage.

Transistors: Currently available are a range of J.E.D.E.C. registered types for V.H.F., high voltage, and switching applications, as well as a range of high-speed core driver and general purpose switching transistors, available as singles, duals, or quads.

Digital Integrated Circuits:

502 Series—High speed, high noise immunity logic gates as used in the Myriad computers.

Micronor II Series—A complete Diode Transistor Logic series including gates, power gates, flip-flops and inverters. Available in 8, or 10-pin T 05 package, or the 14-lead T 088 (flat pack) and dual-in-line package.

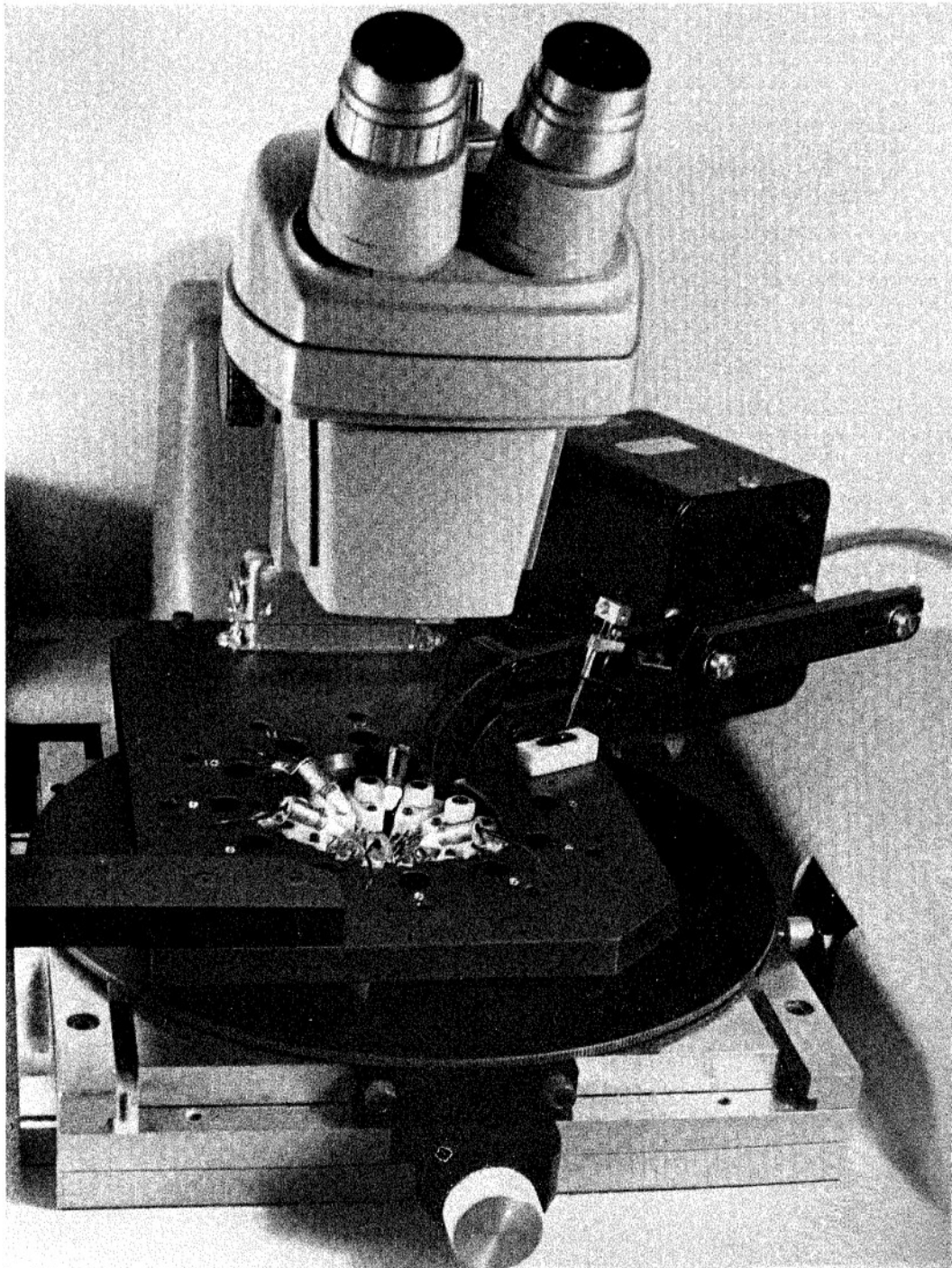
930 Series—Also a D.T.L series, the 930 series includes a range of gates, expanders, monostables and flip-flops. In 14-lead, dual-in-line package.

HLTTL—A wide range of High-Level Transistor Transistor Logic functions, including gates and flip-flops, available in two speed ranges, for both military and industrial use. In 14-lead, dual-in-line package.



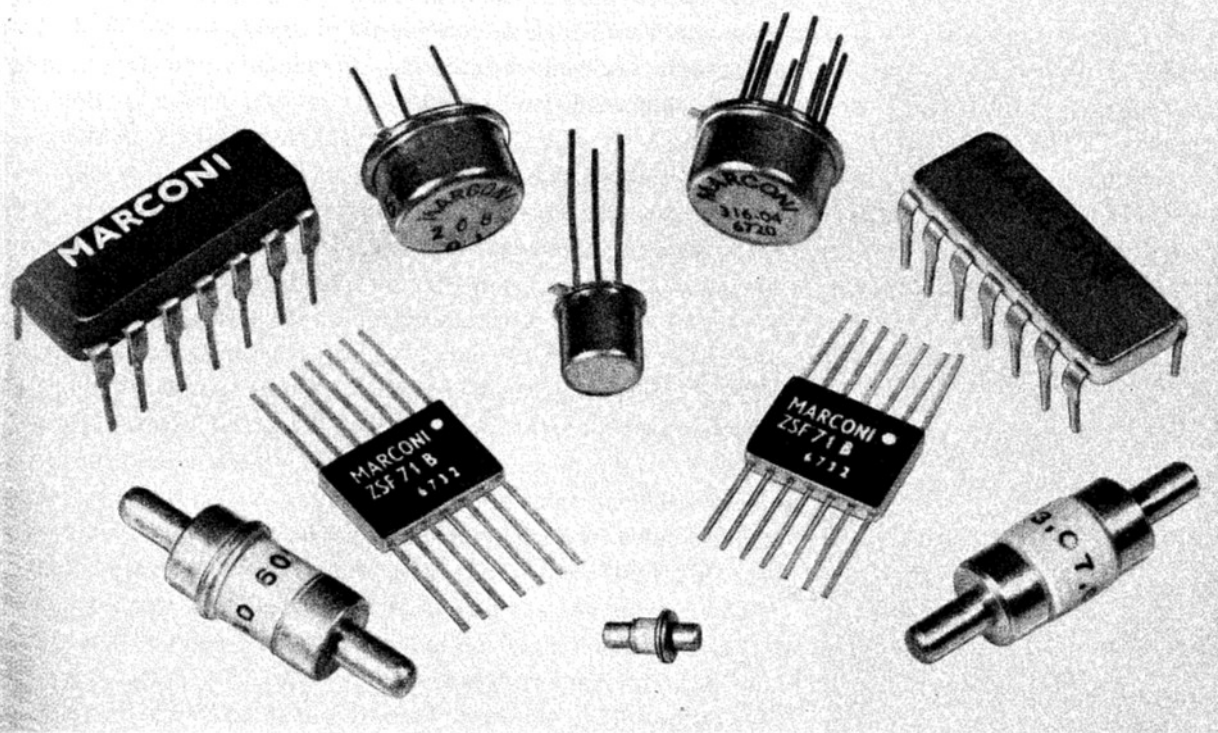
General view of part of the production area for microcircuit assembly at Witham.

T1001



T1002

12-point multiprobe instrument for checking d.c. parameters of microcircuits while in slice form



T1003

Linear Integrated Circuits: High-frequency cascode amplifier, Darlington transistor pairs, multipurpose 'N' element circuit. Also the 700 series of Differential and Operational amplifiers and Comparators.

Microwave Diodes: A very wide range of varactor diodes is available for harmonic generation and microwave switching applications. All types can be selected to customers' special requirements.

The full range of Sylvania microwave diodes have been made available under the Marconi U.K. Distributorship Agreement. These include mixer, detector, harmonic generator, step recovery, parametric amplifier, tunnel and switching diodes.

Tunistors: A range of Tunistors is available, offering a high capacitance and wide range of capacitance swing.

MOS FET's: A range of these are offered as experimental devices, both ladder arrays and complex logic subsystems.

Miscellaneous: Other circuits include cross-ring modulators, h.f. bridge rectifiers.

A design consultancy service is available for a customer's particular requirements. For further information on this service, Application Reports, Data Sheets, or any of the Division's products, please contact: The Marconi Company Limited, Microelectronics Division, Witham, Essex.

THE MARCONI COMPANY LIMITED Microelectronics Division

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