ABSTRACTS

Use of the Minicomputer in the Production of Hybrid Circuits: Automatic Hybridising Equipment†

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This paper describes the application of a mini-computer to the automatic assembling of hybrid circuits. It is shown how problems such as precision positioning and orientation of components can be solved, whilst allowing operation at high working speed and using a wide variety of circuit layouts.

CAD-Design of a Thick-Film UHF-VHF Branching Filter†

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The coils and capacitors of a UHF-VHF branching filter for use in the initial stages of commercial television receivers, have been realised using planar rectangular coils and capacitors, constructed either using thick film dielectrics and thick film conductors in planar construction, or by using inter-digitated thick film conductor electrodes directly on the ceramic substrates. The coil layout has been designed using a calculator programme. The frequency dependence of the coils and capacitors has been investigated with an equivalent H.F. model.
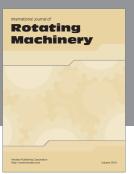
The difference between the calculated model and the measured data has been found to be smaller than 10% for all coils and capacitors. Details are given of a special test jig which has been constructed in order to measure the Q factor of the coils and the capacitors.

The final filters which have been realised have been screened on to a 1 x 1 x 0.025 alumina substrate and the design has resulted in a considerably reduced volume compared with currently used filters.
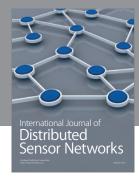
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†*Editor's Note:* These papers have been published in their entirety in the Proceedings of the First European Conference on Hybrid Microelectronics (Bad Homburg, Germany, 2-4 May, 1977) but unfortunately, the manuscripts were 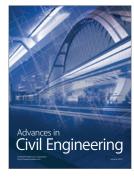not received in time for publication in this issue.