

ELECTRONICS & Wireless World

JUNE 1986 £1.25



**Frequency
allocations
wallchart
inside**

Faster Fourier transforms • Low-cost filter design

VHF preamplifier • Relativity simplified

Automatic coin recognition • Digital altimeter

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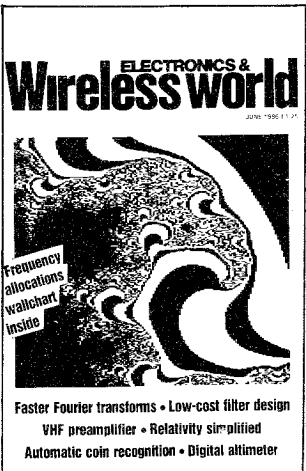
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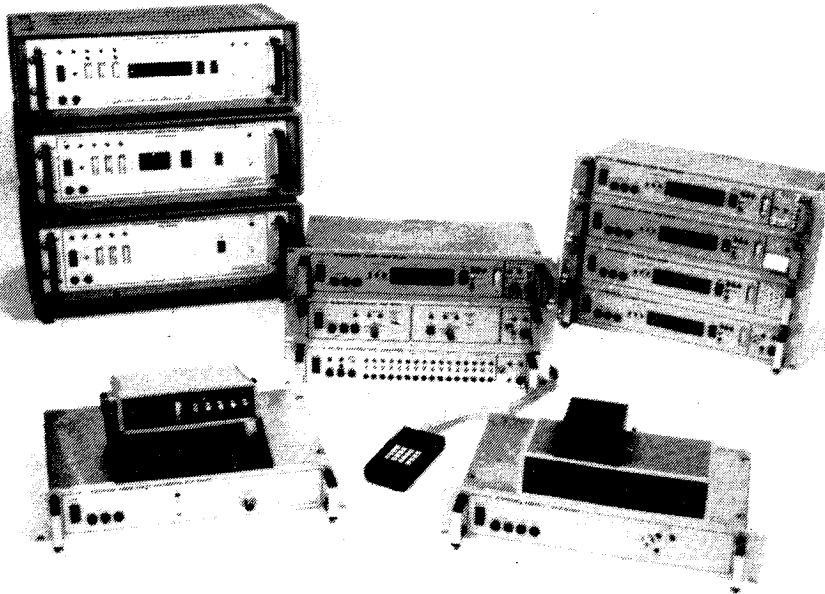
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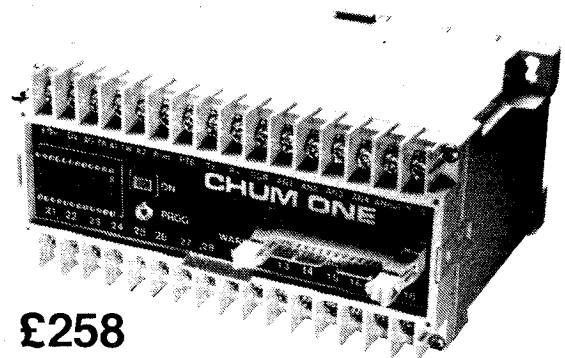
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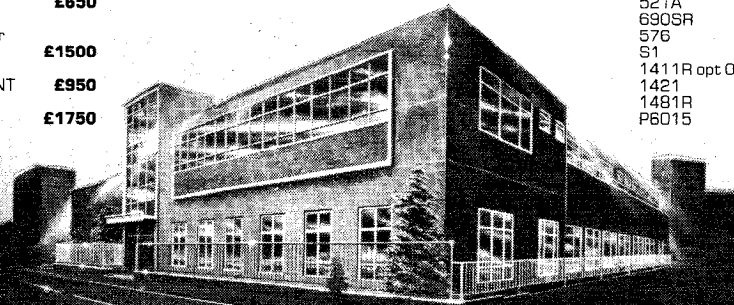
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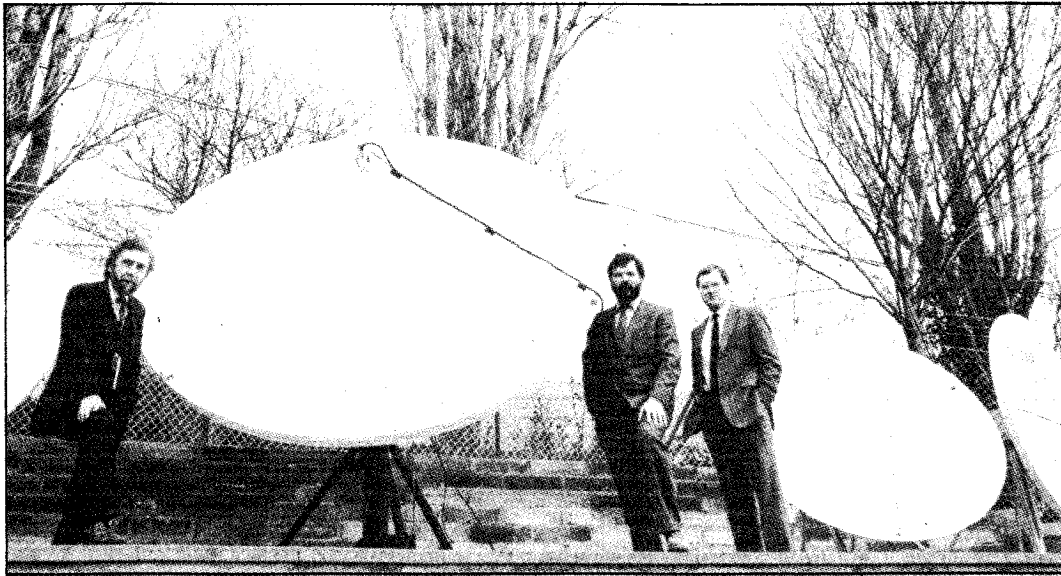
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CIRCLE 95 FOR FURTHER DETAILS

NEWS COMMENTARY



STS founding directors left to right: Mike Stone, Roger Ashby and Nick Heckford.

Satellite tv company aims for 25% share

Satellite Technology Systems are set to capture 25% of the UK market for satellite tv and data reception equipment. The company, formed in 1983 and who made their first sale a year ago, hope to sell at least 1,500 systems by the end of the year. They estimate the UK market size this year to be 8,000 units, give or take 2,000, with a value of £9 million and expect that to double in 1987. Speaking at the company's recent product launch, m.d. Roger Ashby expected STS turnover would be £1 million within a year, rising to £10 million after five years. At this sort of level prices could be

expected to fall to £600 for a domestic equipment set-up.

The STS 300 'entry level' domestic system costs around £1000 and comprises a 1.2m dish (for SE England) with 42dB gain, down-converter with a noise figure of typically 1.9 to 2.3dB (2.5dB max) and 50dB gain, and a receiver with 40 preset channel positions, subcarrier tuning from 5 to 8MHz, remote polarization control, and both v.h.f. and baseband video outputs.

"Our domestic product offers very high quality reception" says technical director Mike Stone, "far better than anything else at a comparable

price."

The '600 series' for commercial and educational use has a larger dish diameter and a different receiver, operating with voltage synthesized tuning in 20MHz steps and wide/narrow bandwidth selection. For hotel and club installations receivers would be individually tuned to permit simultaneous reception, and could feed up to 600 tv sets.

The company disclosed that Television South plc had acquired a 47% shareholding in STS with an investment of £440,000.

Good idea – shame about the business sense

"British inventors still don't understand the needs of a start-up business" says Keith Gummery, from Spicer & Pegler, one of the judges in the Internecon IDEA '86 award scheme for new electronic designs or applications. The 100 entrants showed the breadth of creativity available but: "The judges were greatly disappointed by the quality of the plans seen. In spite of the guidelines provided by the organisers, few seemed to take seriously the need to set out the supporting facts for their plan to convince other of their business priorities," he said.

Mr Gummery's company of chartered accountants will be advising the four winners: Brian Payne of Electronics Aids for the Blind for a telecommunications system for the blind/deaf; Mark Hawood of Enigma Electronics for a secure seal for vehicles; John McKechnie, MTS Cambridge for a secure voice transmission system; and Steven Parkes for a Transputer-based music synthesizer.

Radio waves that don't radiate: a new resource?

Research being conducted at Bradford University could lead to a hitherto unused part of the radio spectrum being opened up for public use. The idea is to exploit wavelengths in 4.5 – 5.5mm region (about 55-65 GHz) which normally suffer strong atmospheric absorption by molecular oxygen. At 60GHz, signals suffer an additional propagation loss factor of 20 for each kilometre traversed.

Professor Peter Watson and Dr Andrew Richardson plan to

exploit this limited range in such a way that the same frequency can be re-used more or less *ad infinitum* for short range wideband links. Such links, for local area networks, ENG applications, etc. would for all practical purposes be non-interfering, analogous perhaps with a number of human conversations going on simultaneously in the same room.

Watson believes that these properties make 60GHz uniquely suitable for an

entirely new form of regulation based on land ownership. As with a garden hosepipe, it would be possible to spray one's own property, taking only slight care to avoid it going over the fence.

Their work is directed toward eliminating the bulky precision components at present in use. Gunn oscillators and antennas fabricated with microstrip technology are just two examples of the approach currently being explored.

Fibre Network

London University is to get an interactive video network based on fibre optic links. It will link seven of the University sites, allowing meetings, tutorials, seminars, lectures and conferences to take place between remote sites. The system will use switched-star techniques and the latest generation of optical fibre equipment, developed for transmission in BT networks; each fibre can carry four colour tv channels with the associated sound and an addition 2Mbit/s data channel. The network will be developed by the university in collaboration with the BT Research Labs, Martlesham.