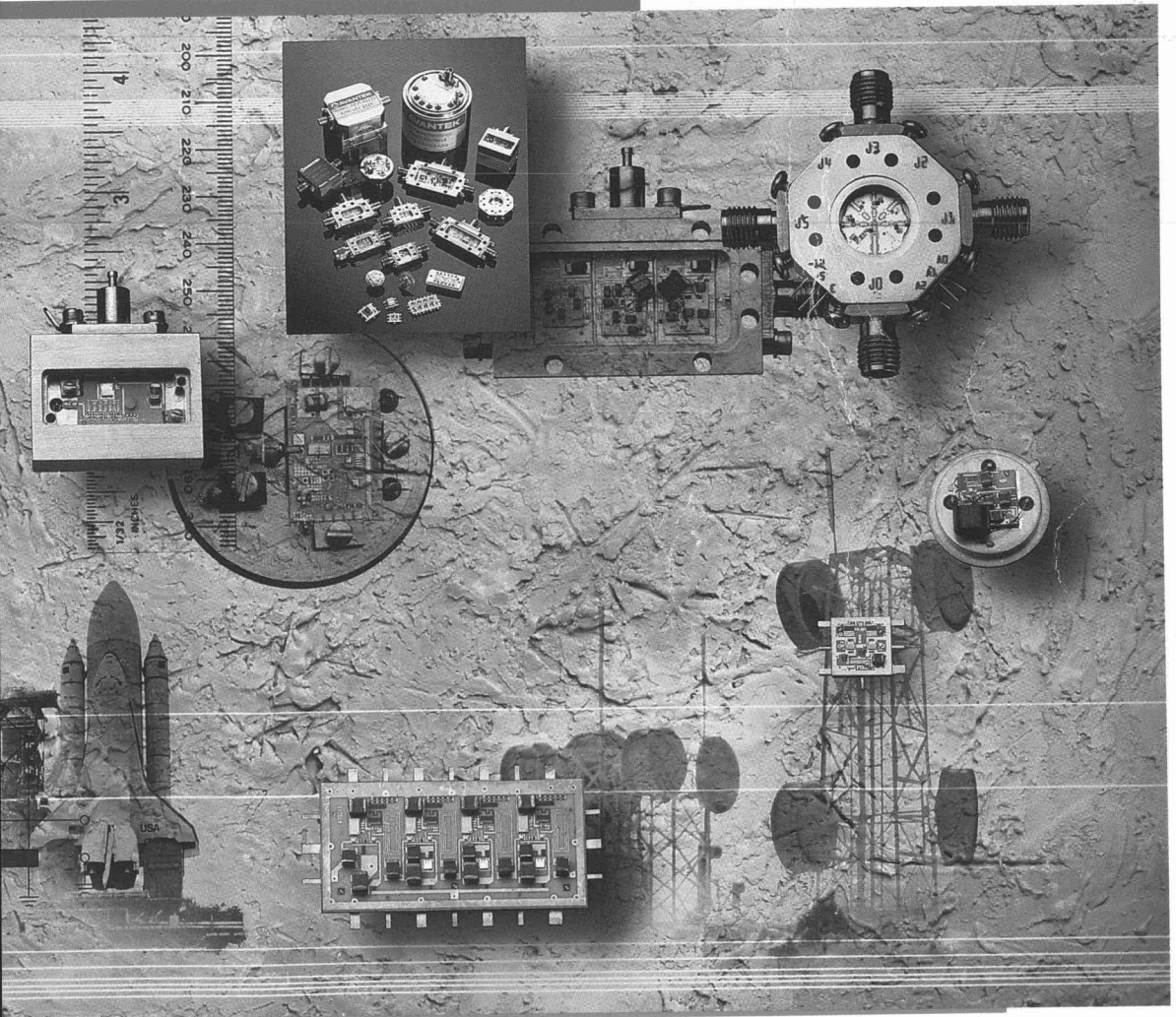


Modular and Oscillator Components



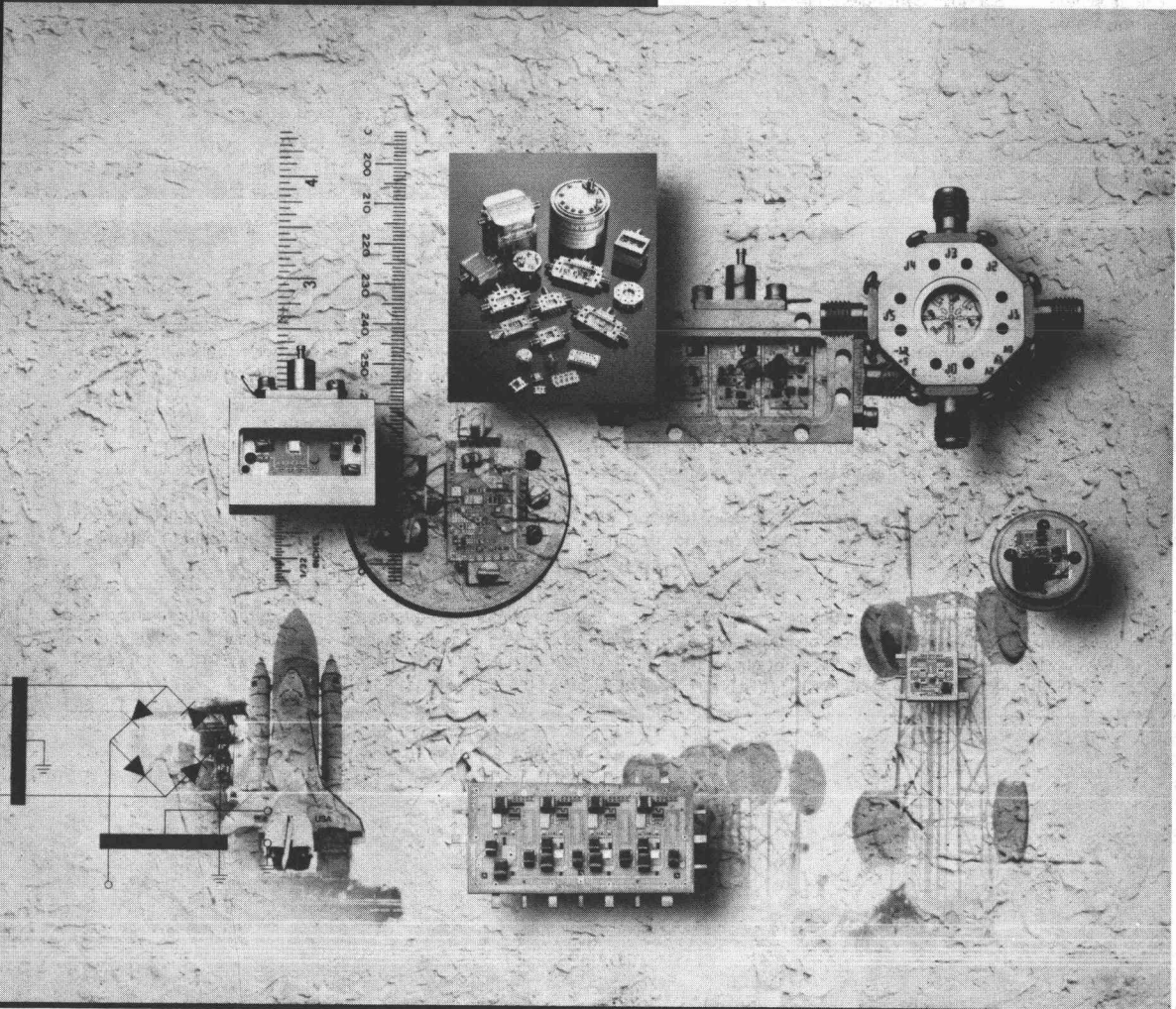
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About The Cover

The modular and oscillator product line in this Data Book ranges from low-cost, TO-12 packaged amplifier modules for commercial applications to military- and space- qualified amplifiers, signal sources and signal-processing components. Shown (clockwise from lower left): Double-balanced mixer schematic, dielectric-resonator and YIG-tuned oscillator circuits, typical products and packages, Avantek™ flatpack amplifier, PIN-diode switch, TO-8 amplifier module, PlanarPak™ surface-mount amplifier.

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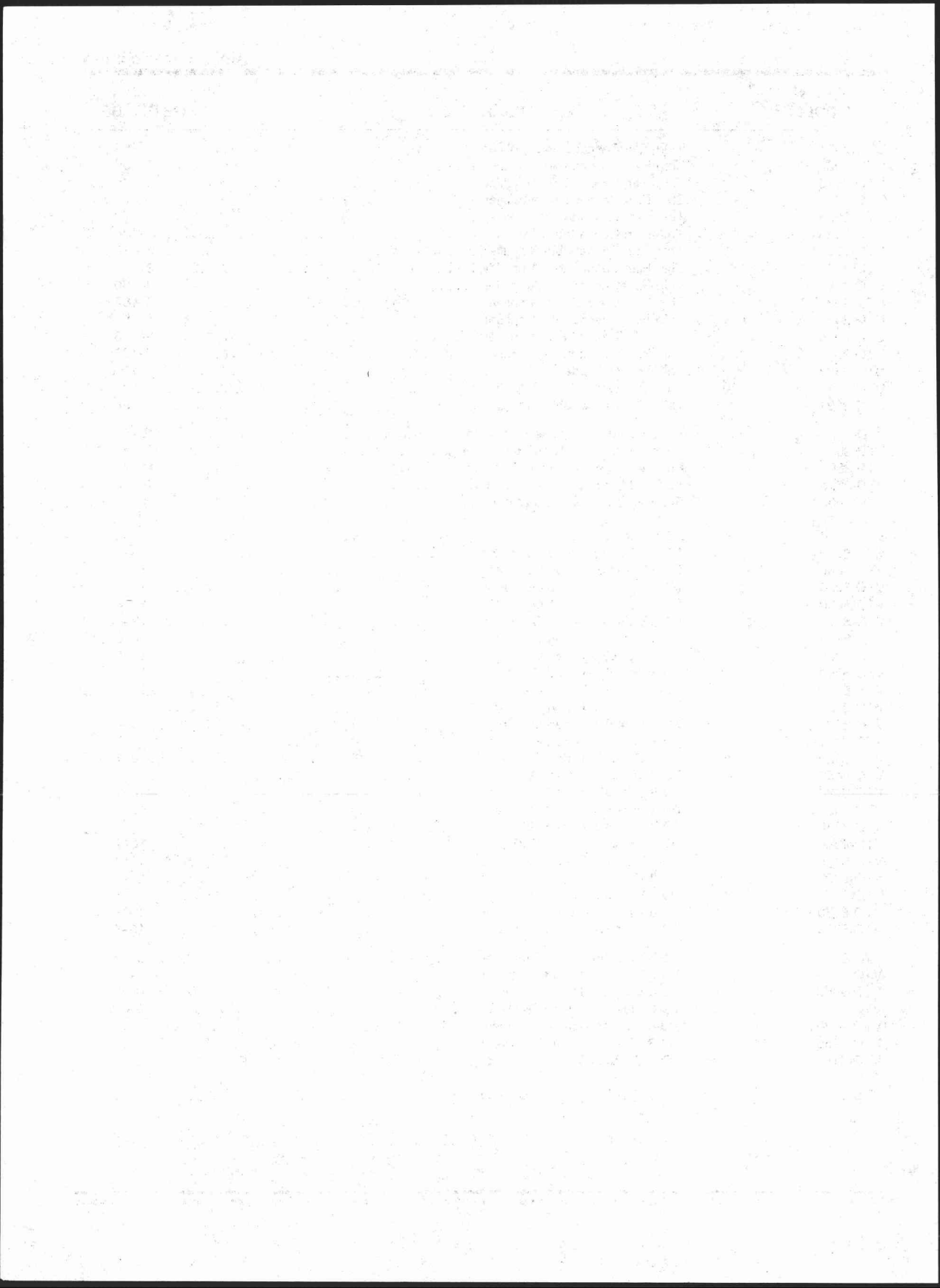
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SOME INFORMATION ABOUT THIS DATA BOOK

Standard Modular and Oscillator Components

Avantek's *Modular and Oscillator Components Data Book* contains detailed information on our full line of standard modular and oscillator products. This book includes all Avantek products in TO-8, TO-39 and TO-12 metal cans, in the *PlanarPak* surface mount package, the *Avanpak* miniature microwave flatpack, and the Avantek RF dual-inline package, as well as functional cascades (UTC Series) in aluminum cases with connectors, and all YIG-tuned oscillator and YIG filter packages.

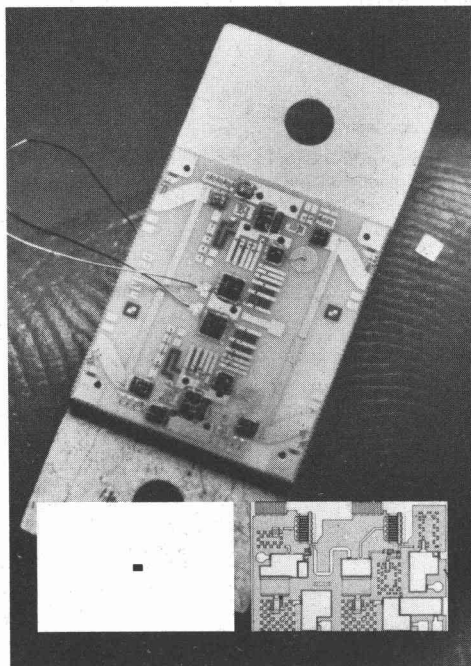
This Data Book is divided into sections, based on the following definitions of product functions:

1. **IF Products**—all amplifiers, variable attenuators, detectors and related components.
2. **Mixer Products**—all thin-film and soft-substrate mixers, mixer preamplifiers and frequency multipliers.
3. **Control Device Products**—reflective and non-reflective switches and limiters
4. **Oscillator Products**—voltage-controlled oscillators, dielectric resonator oscillators, YIG-tuned oscillators, YIG-tuned oscillators with drivers, YIG-tuned filters and YIG filter-driver assemblies.

Available Through Distribution

All products in this data book which operate at frequencies up to 26 GHz are available through Avantek's network of authorized distributors. For pricing information or to place an order, please contact any Avantek field sales office, sales representative or distributor listed at the back of this book.

AVANTEK VERTICAL INTEGRATION



The tiny GaAs monolithic microwave integrated circuit performs the same basic function as the similar hybrid circuit in 1/25th the area and eliminates most circuit adjustments. Insets: The same MMIC shown actual size and enlarged 35 times.

From Transistors and MMICs to Advanced Integrated Subassemblies

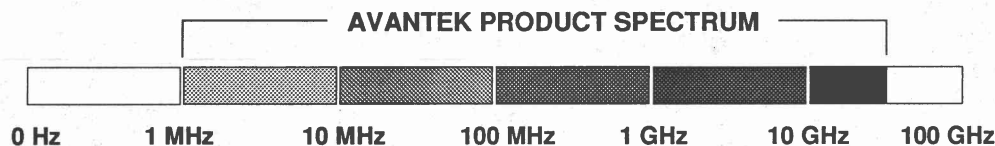
1. Space-Age Technology:

- Silicon and GaAs transistors
- Silicon and GaAs Monolithic Microwave Integrated Circuits (MMICs)
- Thin-film hybrid Microwave Integrated Circuits (MICs)
- Mixers and RF switches
- Advanced fabrication technology
- Proprietary packaging

2. Premium Product Performance:

- GaAs FETs operating beyond 60 GHz
- GaAs MMICs through 20 GHz
- Widest oscillator and amplifier bandwidths
 - Only available 2-18, 18-40 GHz transistor amplifiers
 - Only available 18-26, 26-40 and 33-50 GHz transistor YTOs
- Lowest amplifier noise figures

Frequency Spectrum Chart



RADIO COMMUNICATIONS



SATELLITE COMMUNICATIONS



MICROWAVE RELAY



ELECTRONIC DEFENSE