

Direct Digital Synthesizer Assembly

BACKGROUND INFORMATION

Task: Modernization, Obsolescence Mitigation.
Design Form, Fit and Functional Replacement

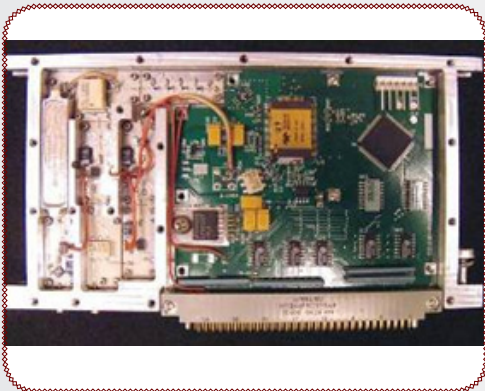
System Used in: AN/TPN-22

Brief Description: This unit accepts 32-bit information word and generates a 1275-1500 MHz stepped frequency. It has an ECL to CMOS translator circuit and logic decoder with DDS chipset and outputs to an up-converting mixing stage.

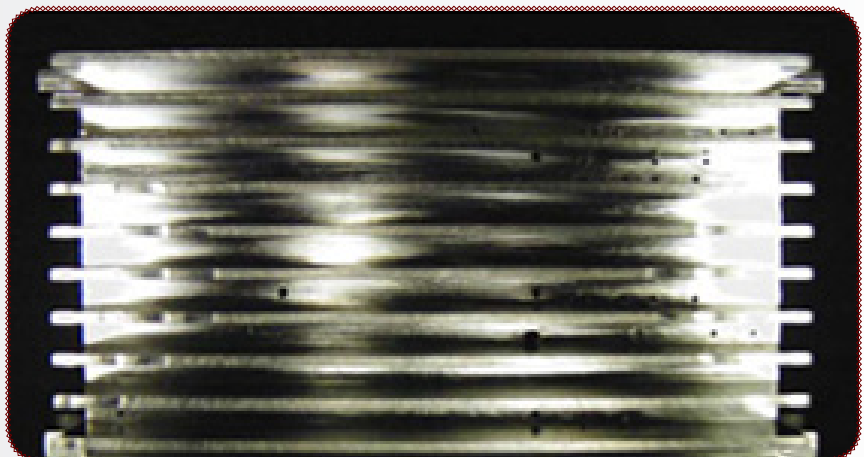
Program: MATCALs

Customer: SSC Pacific

Results: Designed and built within budget.



Top View Open



Bottom View

Specifications

- IF input: 1575 MHz at +4 dBm \pm 3
- Frequency: 1275-1500 MHz at -6 dBm \pm 4
- Spurious level in-band: -40 dBc max
- Signal: 32-bit ECL input
- 3.3 V DDS control logic
- Voltage: 5 V and -5.2 V \pm 0.3
- Impedance: 50 Ω nominal
- VSWR in-band: 2.5:1 maximum
- Dimensions: 6.65 x 3.5 x 1.26 inches
- Unit weight: less than 2.5 lbs

Features:

Manufacturer: Micro USA, Inc.

Cage Code: 02UU8