A6 Dipole Processor Assembly 400074-76

The Dipole Processor assembly 400074-76 is used in DF2100 Receiver family as the antenna commutator and DF spike amplitude measurement unit.
It calculates the average value of a DF spike associated with a particular dipole and sends it to the Bearing Processor.
The DF spike voltage is measured at a very specific moment for a very short period of time.
The alignment of the width and timing of this window is extremely important.
In short the procedure calls for attaching the scope probes to TP3, TP4 and synchronizing the scope to the signal at TP5.
The alignment is done with R20 and R21.
The window should coincide with the DF spike and should be wide enough to it pass thru.
If it is too wide the bearing will be more noisy than necessary and if time correlation is not correct the bearing value will be incorrect.
More information on this procedure can be found in the DF2100 manual under Time Domain Filter index.
The board also contains some support circuitry for Bearing Processor that is not related to its operation.
The board's firmware is contained in U2 PROM and it controls:

- Number of antenna dipoles (4,8 or 16)
- VHF or UHF mode of operation

The board is powered from +5V DC Supply.
The board plugs into DF2100 A6 slot via DB-90 connector.

Revision history:
400074-76 original design using leaded components (obsolete)
400074-76-1 original design with updated surface mount components (July 2009)

Note: Both boards have the same Input/Output pinout and characteristics.
They are fully compatible with all DF2100 systems.

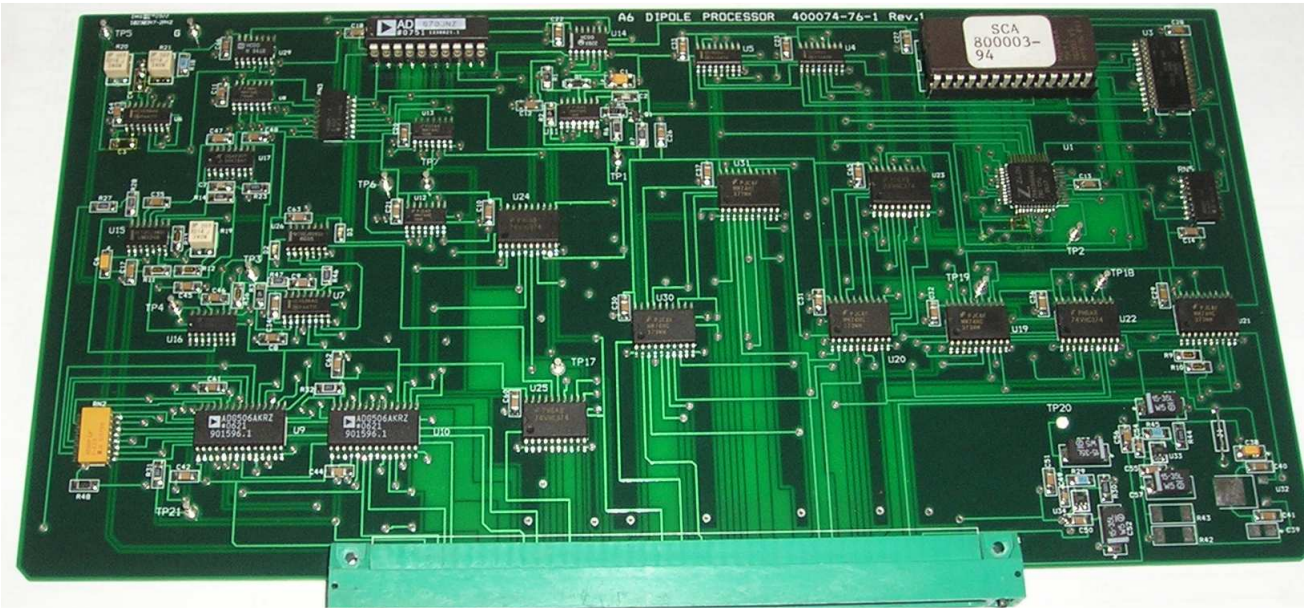

Fig.1 A6 Dipole Processor Assembly 400074-76