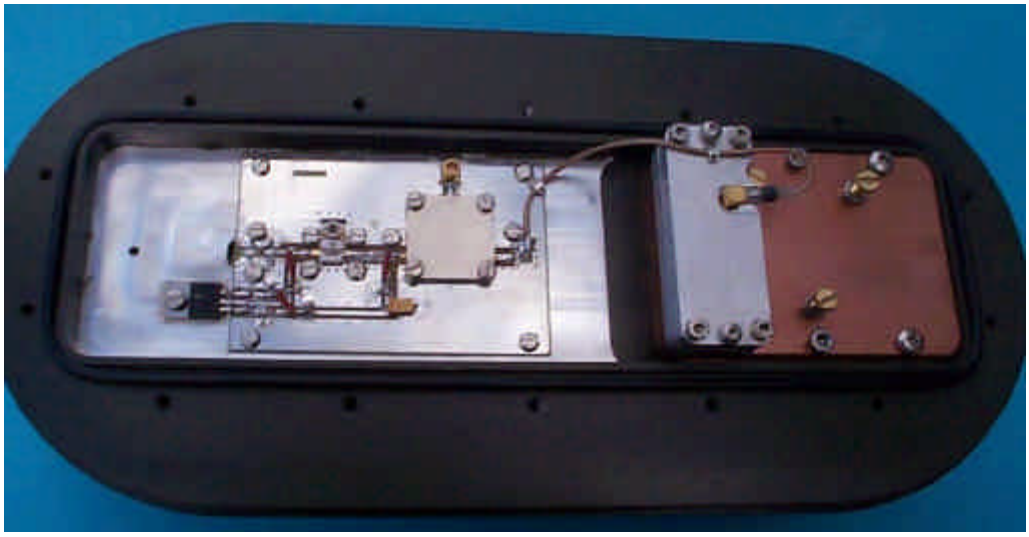

Figure A2. Plate showing layout of components within AD510 base. The interdigital filter and LNA are to the right, the circulator and TX amplifier and ancillary components are mounted on the PCB centre left (see figure A3 for detail).

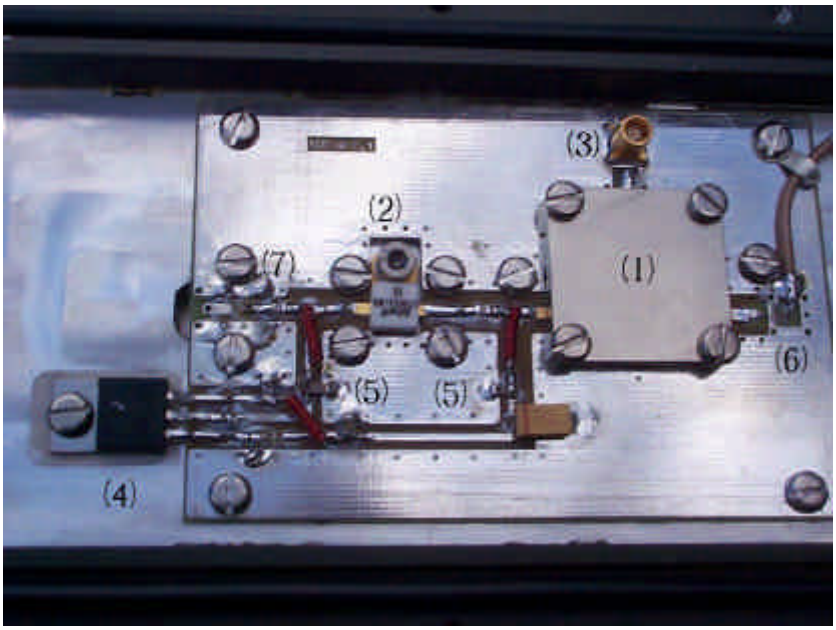

Figure A3. Plate showing circuit board with circulator (1) and transmit amplifier (2). DC power for the amplifier is fed from the MCX input/output connector (3), through the circulator to a LM317T voltage regulator (4). RF is blocked by LC components (5). The

RX signal is fed from the filter and LNA into the remaining port of the circulator (6), whilst the TX amplifier output is coupled through the PCB (7) and antenna base plate to the radiating element. The MCX connector (3) is attached to the N-Type connector on the antenna bottom case with a short flying lead.

AD510-40 DC voltage supply regulator components

The internal components of the DC supply regulator are shown in figure A4.

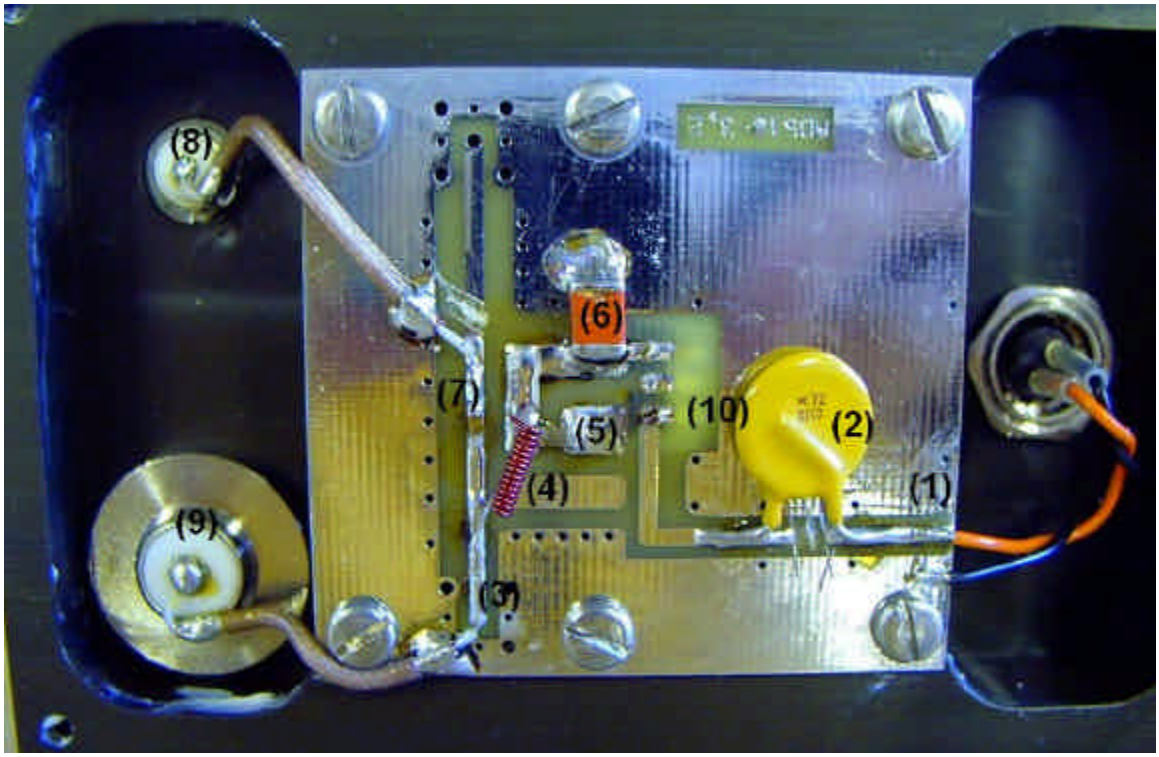

Figure A4. Plate showing circuit board carrying DC voltage regulator and ancillary components used in AD510-40. DC supply is via orange lead (1) and auto-reset fuse (2) to the voltage regulator pin input (10). The voltage regulator is a standard package (Texas Instruments PT5102A) and mounted on the reverse of the board. The stabilised supply is connected to 50 Ohm strip-line (3) with a coil inductor (4). (5), (6) are and (7) are capacitors, the latter providing a DC block to the Iridium handset connected via TNC (8). (9) is an N-type connector for the 40m antenna down-lead.