

CLAIMS

1. A satellite comprising:
 - a body (210);
 - at least one generally planar structure (220) extending from the body (210);
 - one or more radio frequency "RF" antennas (106), an amplification system (107) for RF signals, and a power distribution system (108) for supplying power to the amplification system (107) mounted on the generally planar structure (220);
 - wherein:
 - the one or more RF antennas (106) and the amplification system (107), and the power distribution system (108), are arranged on respective parallel boards (310, 312, 314) forming part of the generally planar structure (220); and
 - the one or more antennas (106) are connected via RF connectors (331-335) to one or more amplifiers of the amplification system (107);
 - characterised in that the boards (310, 312, 314) are positioned in a spaced apart arrangement with support elements (316, 318) maintaining the spacing between the boards (310, 312, 314); and
 - the support elements contact at least the board supporting the amplification system to act as a heat sink for the amplification system.
2. The satellite of any preceding claim wherein one or more of the parallel boards (310, 312, 314) and the components mounted thereon is connected to another similar board to form, respectively a larger power distribution system, antenna array or amplification system.
3. The satellite of any preceding claim wherein the generally planar structure (220) comprises an assembly comprising a plurality of modules (221), each module comprising at least one antenna (106), at least one power distribution system (108) and at least one amplifier (107) supported on at least two respective boards.
4. The satellite of claim 3 wherein the generally planar structure comprises at least two panels each comprising at least two modules, wherein the panels are hinged with respect to each other to enable the generally planar structure to be folded.
5. The satellite of claim 3 or 4 wherein the modules (221) are adjacent to each other in a linear arrangement.
6. The satellite of claim 3, 4 or 5 wherein each module (221) is configured to operate independently of the other modules (221).
7. The satellite of any preceding claim wherein the antennas (106) are radar antennas and the RF signals are radar signals.