

Claim(s)

1. A communication apparatus comprising:
 - at least one controller module;
 - a plurality of unit modules, the plurality of unit modules being coupled to the controller module,
 - wherein each of the unit module is capable of being coupled to a plurality of antennas, and
 - wherein the plurality of antennas coupled to the unit modules form an antenna array, the antenna array capable of being arranged in a manner so as to form an effective multi-path receiver/transmission group assembly.
2. The communication apparatus as in claim 1,
 - wherein at least one unit module from the plurality of unit modules comprises at least one radio module which comprises a plurality of antenna ports, and
 - wherein the unit module is capable of being coupled to a plurality of antennas via the plurality of antenna ports.
3. The communication apparatus as in claim 2,
 - wherein the at least one unit module from the plurality of unit modules further comprises at least one central processing unit (CPU), and
 - wherein the at least one unit module is capable of being coupled to the at least one CPU.
4. The communication apparatus as in claim 2,
 - wherein the plurality of antennas are associable with a plurality of antenna types, and
 - wherein one antenna type in the plurality of antenna types is different from another antenna type in the plurality of antenna types.

5. The communication apparatus as in claim 2,
wherein the plurality of antennas are associable with a plurality of antenna types, and
wherein one antenna type in the plurality of antenna types is the same as another antenna type in the plurality of antenna types.
6. The communication apparatus as in claim 2,
wherein the communication apparatus is associable with signal communication coverage, and
wherein the plurality of antenna are associable with a plurality of antenna types and the antenna types are positioned in a manner so as to enhance signal communication coverage.
7. The communication apparatus as in claim 1,
wherein a unit module from the plurality of unit modules can correspond to, and function as, a relay unit with respect to another unit module from the plurality of unit modules,
wherein each unit module is associable with at least one communication route which can be stored in a relay unit.