Abstract

Method for managing HF frequencies in broadband use

Method for managing the HF frequencies in a broadband communication network, comprising the following steps:

- determining the range of passing frequencies for a user for a given link and SLA service,
- establishing the set of authorised frequencies S" in the transmission range of the user with the different power and modulation configurations for each frequency,
- analysing the received spectrum in order to determine the frequency or frequencies already used and deciding, on the basis of their associated usage type, whether they must be excluded,
- for each possible frequency fl of the set S"', determining the necessary power $\widetilde{P_i^j}, i=1..N, j=1..m$ for each of the m possible rate/waveform configurations, taking into account the power limit on each frequency fl,
- allocating the frequencies fl of the set S"' to the different users, their modulation and their power, by taking account of multi-carrier constraints.

Figure 2