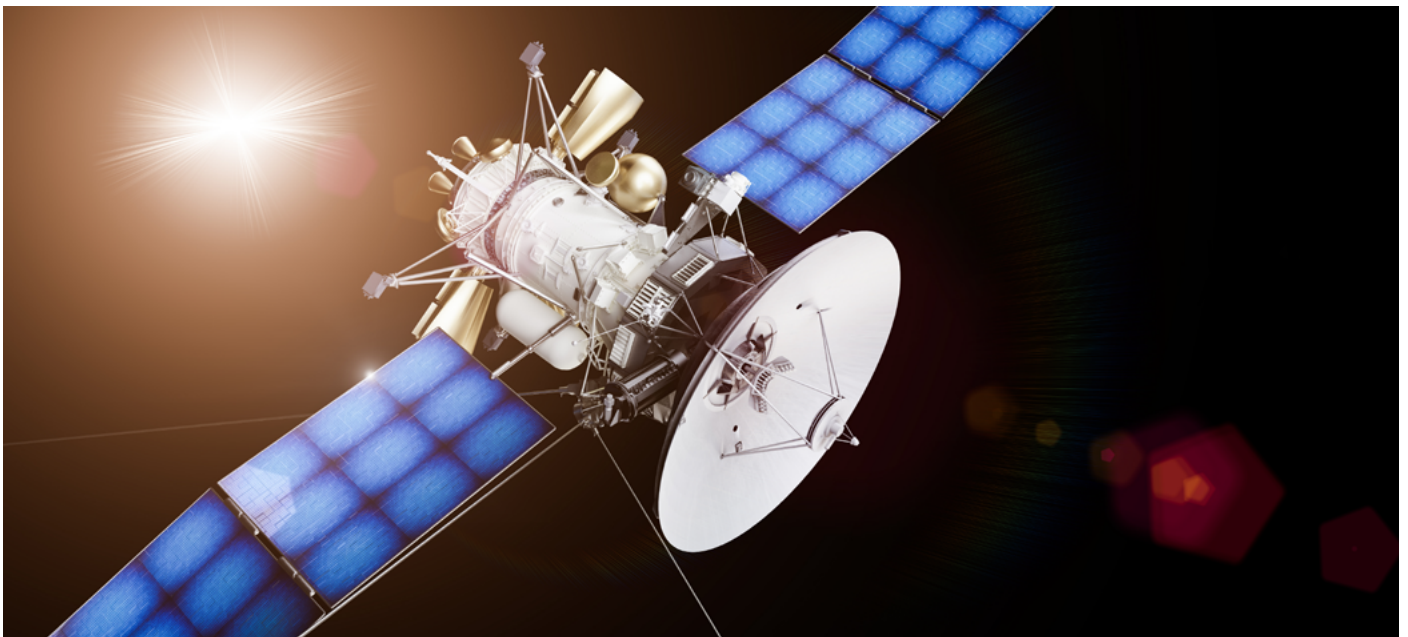


PAT 617 | POWER CONTROL IN A SPREAD-SPECTRUM UNSLOTTED RANDOM ACCESS COMMUNICATION



CONTEXT

One of the main problems in data communications is to share among various users a unique communications channel in order to manage different communications at the same time. This is possible thanks to different methods based on Code Division Multiple Access (CDMA).

The current invention provides an improved and more efficient packets power distribution for incoming signals at the input of the detector, in comparison with conventional interference cancellation systems for CDMA.

APPLICATIONS

The current invention can benefit applications based on multi-user communications, such as:

M2M/IOT

MOBILE COMMUNICATIONS

TRAFFIC MONITORING

SEARCH AND RESCUE SERVICES

ENVIRONMENT MONITORINGS

TECHNOLOGY SUMMARY

The invention optimizes the power distribution of packets in order to maximize the capacity of the Enhanced Spread Aloha (E-SSA) technique. This technology comprises a methodology to optimize the user terminal power distribution at the gateway input.

BENEFITS

MORE EFFICIENT: (Quasi-) Optimum power distribution of the devices.

LESS CONSUMPTION: Up to 10% economical saving, especially in bursty communications that use Direct Sequence – Spread Spectrum (DS-SS) in an asynchronous fashion and in a decentralized user power selection.

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IP STATUS

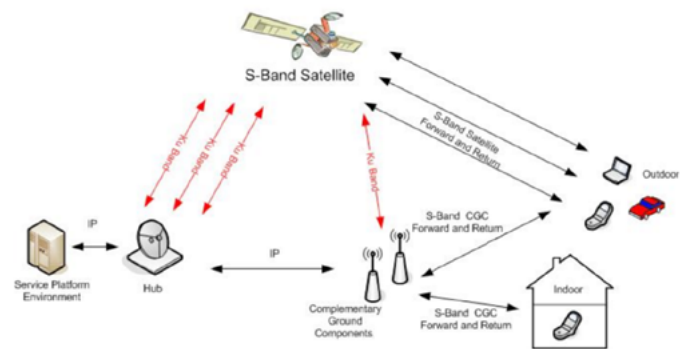
This invention is currently protected by a patent but not national phases have been enforced yet.

TECHNOLOGY READINESS LEVEL AND TIME TO MARKET

This technology is in a pre-commercial stage and only adjustment depending on the frequency of the final application are needed.

ORGANIZATION PROFILE

European intergovernmental organization with patents in many sectors, especially in telecommunications, new materials and structures.



BUSINESS OPPORTUNITY

Technology transfer via IP licensing/ patent transference.

Product co-development agreement.

KEYWORDS

SPREAD-SPECTRUM

RANDOM ACCESS

ALOHA

MULTIPLE ACCESS

DATA TRANSMISSION

CONTACT INFORMATION

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