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(54) Title: MODULATING SATELLITE CAPACITY

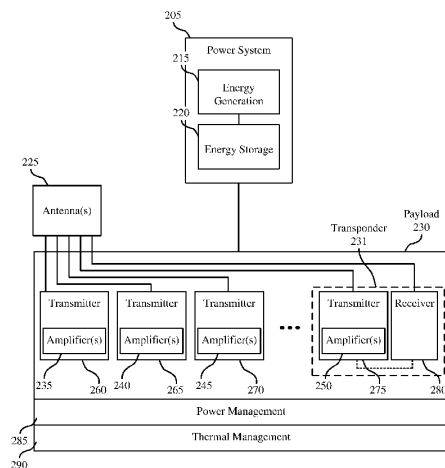


FIG. 2

(57) Abstract: Methods, systems, and devices for satellite operations are described. A system for satellite communications may include a payload, a power system, and a thermal management component. The payload may be configured to provide a service with varying levels of capacity based on a demand profile. The payload may consume electrical energy at a peak rate when a level of demand indicated by the demand profile is above a threshold and at a lower, off-peak rate when a level of demand indicated by the demand profile is below a threshold. The peak rate may exceed a rate at which electrical energy is generated by the power system. The thermal management component may process excess thermal energy generated by the payload when the payload operates at the peak rate. Processing the excess thermal energy may include storing thermal energy while the payload operates at the peak rate.

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