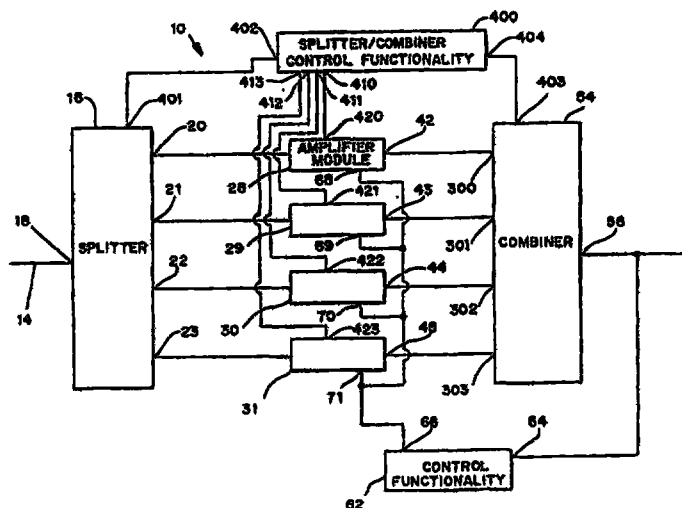




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(54) Title: POWER AMPLIFICATION SYSTEM WITH INTELLIGENT CONTROL OF AMPLIFIER MODULES



(57) Abstract

A product and system are disclosed for intelligently controlling the number of amplifier modules that are active in a linear amplification system. By exercising such control, the system can avoid using unnecessary power. The invention monitors the system and gathers information from signals associated with the system, particularly information concerning signal power. A control functionality evaluates the gathered information to decide how many modules are necessary to sufficiently operate the amplification system or to decide if it has been commanded to perform certain functions. Once this decision is made, the control functionality communicates control signals to the power amplification modules to activate the needed or desired number of modules and deactivate the unneeded or undesired number of modules. Likewise, the control functionality configures the splitter and the combiner according to the number of needed or desired amplifier modules. This gathering, evaluation, and control are conducted continuously.