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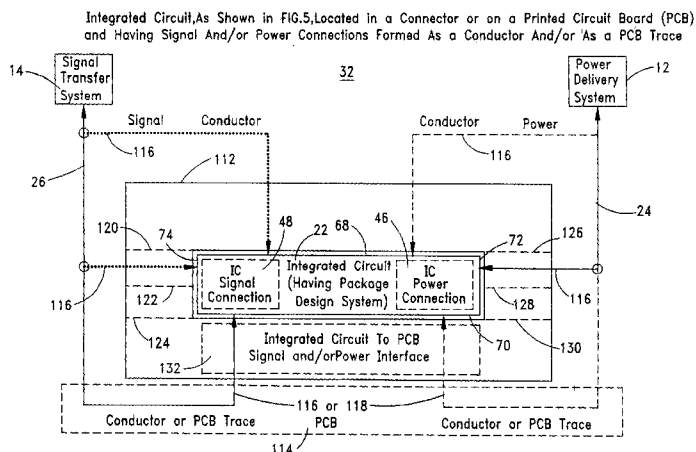
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(54) Title: POWER DELIVERY AND OTHER SYSTEMS FOR INTEGRATED CIRCUITS



(57) Abstract: Systems for power delivery, signal transfer, package design, thermal management, and electromagnetic interference ("EMI") control are provided to support an integrated circuit ("IC"). The power delivery system includes a power supply, a voltage regulator module and a decoupling capacitance in the form of discrete and/or integral capacitors. The voltage regulator module and decoupling capacitance are located in a connector that may be formed as a cover, socket or a frame for the IC. The power delivery system delivers power to the IC along top, bottom or sides of the IC. The signal transfer system couples signals from the IC to one or more circuits on a circuit board. The package design system for the IC permits signals and/or power to be coupled to selected sides of the IC at connections outside, flush with, recessed or inside the IC package. The package design system also permits the transferred signals to have different frequencies, such as high and low frequencies, and to utilize different types of signal interfaces, such as galvanic, capacitive or the like. The thermal management system utilizes a heat sink, a fan and/or a heat spreader to dissipate heat generated by the IC and/or voltage regulator module. The EMI control system blocks EMI generated by the IC.



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