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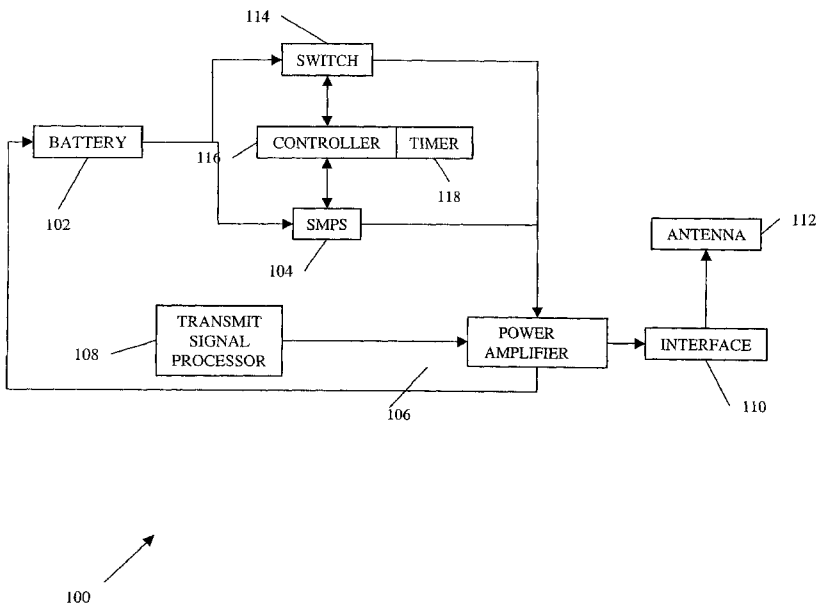
(54) Title: DUAL MODE POWER SUPPLY



(57) Abstract: A battery (102) powers a wireless telephone's power amplifier (106) through a Switch Mode Power Supply (SMPS) (104). The SMPS has a capacity lower than the maximum power requirements of the amplifier. When a controller (116) senses that an amplifier power-requirements threshold has been exceeded, it closes a switch (114) parallel to the SMPS, allowing power to flow from the battery to the amplifier without passing through the SMPS. This architecture allows the use of a smaller SMPS, and eliminates SMPS-generated noise to the amplifier when the amplifier is least able to tolerate such noise, namely, under high power conditions.

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