TriQuint Portfolio Supports Industry’s Move to More Efficient Base Station Networks

TriQuint Semiconductor showcased an extensive portfolio of integrated RF products for base transceiver station (BTS) radios at the European Microwave Conference.

TriQuint products reduce the size and complexity of RF circuitry by integrating multiple functions into modules. This enables migration to smaller, more ‘green’ remote radio head (RRH) base stations, a plan network operators are deploying to expand networks for 3G / 4G smartphones and other mobile devices.

TriQuint’s new base station modules offer designers four levels of RF integration to reduce board space, lower bill of materials, and improve efficiency. Level 1 TriQuint solutions include high gain products that can replace one or more discrete components with a single module.

At the highest level of integration, TriQuint’s new Level 4 modules such as the TQM879006, replace multiple discrete products with one module that incorporates two amplifiers, a digital step attenuator and all input/output matching circuitry.

“Global mobile networks are transitioning to base stations that use remote radio head designs. TriQuint’s newest products simplify RF connectivity in these systems. TriQuint devices enable manufacturers to focus on competitive system performance instead of dedicating valuable resources toward RF component matching issues,” said Brian P. Balut, TriQuint Vice President.

Huawei Networks touts the benefits of remote radio head designs in both trial and operational systems. In work with international mobile operator Vodaphone, Huawei notes in an article entitled, “Network Deployment; it’s all in the mind,” that the cost savings from increased efficiency in the links between the base station and the rest of the network are very significant.

Remote radio head innovations are central to moving all key radio components closer to the antenna while reducing the size of radio housings; these advances reduce power consumption directly and through lower overall thermal mitigation requirements.

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