

The race is on to install 5G sites all over the world. But a 5G access point requires two to three times more power than a 4G site - and every engineer knows that more power consumption means more heat is generated. Active cooling is expensive and can be difficult to implement at the remote sites typical for telecom applications.

It may seem counterintuitive to start thinking about heat control at the integrated circuit level rather than at the board level. However, telecom infrastructure uses components in sufficient quantities that a small improvement in thermal management during construction can create big aggregate improvements.

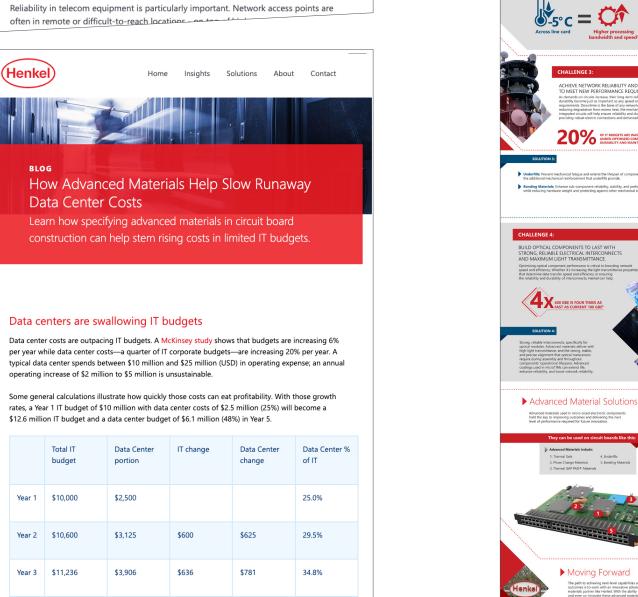
More power means more heat

(Figures are in thousands)

5G promises vastly more network speed and connectivity than 4G, and the transition is happening now. But to get the greatest benefits and bandwidth from 5G, telecom companies need to install many additional access points. Industry estimates say that each telecom site will require two to three times more power. Furthermore, 5G calls for 10 times the data processing speeds of 4G circuitry.

With increased power demand, more access points, and data processing speeds an order of magnitude greater than the previous generation, controlling heat on components and boards is a more important concern than ever.

Heat is the enemy of efficiency and reliability















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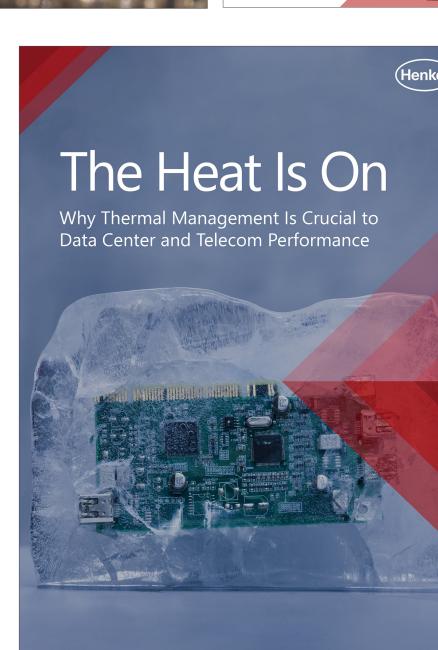
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Turning Up

the Heat



