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## Researchers create 26 terabitper-second connections with just a single laser

By Terrence O'Brien ₱ posted May 23rd 2011 7:22PM



Remember that pair of 100 terabit-per-second connections we told you about earlier this moth? Impressive? Sure, but not entirely practical thanks to the massive banks of lasers (370 to be exact) that guzzled several kilowatts of electricity. Researchers at the Karlsruhe Institute of Technology in Germany haven't hit 100Tbps yet, but they were able push 26Tbps using just one, lonely laser. The new single-laser fiber-optic speed record was set using a technique called fast Fourier transform that pulses light at an incredibly high rate with data encoded in 325 distinct colors across the spectrum. A detector at the receiving end is able to distinguish between the various colored data streams, based on tiny differences in arrival time, and recombine them into a high-speed torrent of ones and zeros. The scientists behind the project believe that, eventually, the technology could make its way into commercial use and be integrated into silicon chips. Now, someone needs to hurry up and jack our FiOS connection into this thing -- all this talk of terabits-per-second and graphene modulators, yet we're still jealous of grandma Löthberg.



26 terabits per second, 26TerabitsPerSecond, data, fiber, fiber optic, fiber optics, FiberOptic, FiberOptics, germany, internet, Karlsruhe Institute of Technology, KarlsruheInstituteOfTechnology, KIT, laser, lasers, record, records, research, speed record, SpeedRecord



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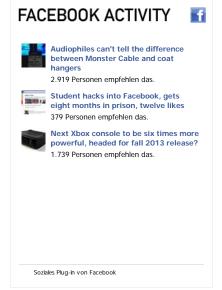


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