

## PRESS RELEASE

# 10 Pb/s: CAILabs' multiplexer helps achieve a new fiber-capacity world record over a multimode fiber

Rennes, September 28, 2017

The Japanese operator, KDDI, leader of telecommunications in Asia for more than 60 years, just set the world record of 10 Pb/s (10 million Gb/s) over a multimode fiber in a laboratory, thanks to the optical components of the French startup, CAILabs.

### Bandwidth requirements for larger and larger networks

Over the course of the past 10 years, bandwidth requirements have been consistently increasing in order to support, among other things, the rise of video viewing, VR, cloud gaming, IOT and now, ultra-high 4K resolution. In order to respond to these major changes and new capacity requirements, researchers are working intensively on the matter, as is the case of KDDI, one of the leading Japanese telecom operators.

### A new record of 10 Pb/s per second

In September 2017, KDDI set a new fiber-capacity world record over an optical fiber, due in large part to the 6-mode multiplexers manufactured by CAILabs: 10 Pb/s over a single fiber. In 2015, KDDI had already set a fiber-capacity world record of 2 Pb/s over an optical fiber using CAILabs' components. This record was made possible through CAILabs' PROTEUS-6B system. KDDI combined two different innovations to multiply spatial diversity by 114 and attain this record. The fibers used by the operator are both multicore (19 cores) and multimode (6 modes). PROTEUS-6B enabled the simultaneous transmission of 6 multiplexed modes in each fiber core.

*"The record is really impressive! 10 Pb/s, that is the equivalent of 30 times the world's fiber network capacity or 500 million Europeans all watching Netflix in 4K at the same time,"* explains Jean-François Morizur, CEO of CAILabs.

CAILabs' light-shaping technology already allows corporate network capacities to be multiplied by 300. CAILabs achieved a 6-fold increase in KDDI's new record: a ready-made path for generating the fiber of the future.

---

### About KDDI

KDDI, a comprehensive communications company offering fixed-line and mobile communications services, strives to be a leading company for changing times. For individual customers, KDDI offers its mobile communications (mobile phone) and fixed-line communications (broadband Internet/telephone) services under the brand name au, helping to realize Fixed Mobile and Broadcasting Convergence (FMBC). For business clients, KDDI provides comprehensive Information and Communications services, from Fixed Mobile Convergence (FMC) networks to data centers, applications, and security strategies, which help clients strengthen their businesses. For more information: <http://www.kddi.com/english>

### About CAILabs

Created in June 2013, spin-off of the Kastler Brossel Laboratory, the company CAILabs has developed an innovative technology for the processing of light beams. The start-up has raised 8.6 million. Since 2014, they have been marketing innovative products which increase fiber optic flow. In 2015 and in 2017, the Japanese operator KDDI set the world record for fiber optic flow using CAILabs' components. Since 2016, the AROONA solution for fiber optic LANs has obtained numerous innovation awards including the Huawei Digital-In-Pulse award.

### Press contact

Cécile Barbier, CAILabs  
Cell. +33 (0)6 27 61 58 06  
[cecile@cailabs.com](mailto:cecile@cailabs.com)

### For more information:

[www.cailabs.com](http://www.cailabs.com)  
Follow @CAILabs on Twitter