

## Press release

**For its 10-year Anniversary, Mitsubishi Electric ITE-TCL, the Telecommunications Research Laboratory in Rennes made a demonstration of the FTTH GE-PON manufactured by its parent company in Japan.**

Rennes, February 10<sup>th</sup>, 2006

GE-PON is a passive optical network that is intended to be used in the local access network to provide Internet access at rates exceeding by far technologies currently available. A common Optical Line Termination (OLT) delivers per fibre a capacity of 1 Gbit/s downstream to the Optical Network Units (ONU) located at the users premises and the same capacity of 1 Gbit/s upstream from the users, both shared through a passive optical tree structure between up to 64 users. Instantaneous peak rates offered to users may reach hundreds of megabits per second, depending on other users activity, whilst minimum bit rates are guaranteed to each individual user. ONUs offer Ethernet access via standard 10/100BaseT and/or 10/100/1000BaseT interfaces.

Indeed, such system, which is applying IEEE Giga-Ethernet PON standard, can serve for transmission of voice and video, including high definition digital video. However, this system is even much more suitable for very high-speed Internet applications, where short response times are highly relevant. Typical examples are digital pictures up and downloading, movies retrieval, large file transfers, interactive gaming, etc.

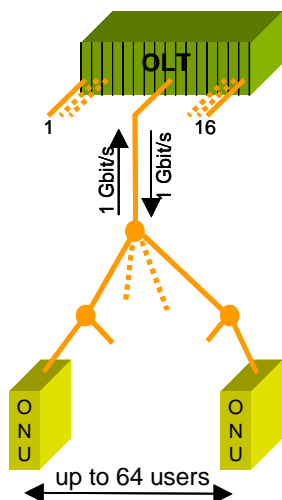
This GE-PON product proposed by Mitsubishi Electric is now mature. It can be proposed, not only for first trials but also for extensive installation in the local access loop. Mitsubishi Electric manufactures both ONU and OLT.

"ITE-TCL will assist the promotion of Mitsubishi Electric GE-PON systems in France and in Europe. Extending delivery of very high bit rate to most of the population is an exciting challenge both for operators and local authorities. With more than 1 million of ONUs delivered in Japan, Mitsubishi Electric is the leading supplier ready for contributing to realisation of the Broadband society in Europe by means of the cost-effective and proven GE-PON systems" said Jean-Pierre Coudreuse, the general manager of ITE-TCL.

Beyond addressing GE-PON extension to cover the very last mile with WiMax-like wireless systems, ITE/TCL is currently active in research in several domains such as Internet security for services using SIP protocol, access modulation and access network architecture for mobile systems beyond 3G. ITE-TCL also investigates new schemes for ultra wide band modulation that would apply both to low data rates (sensing, probing) and for very high data rates (home audiovisual) that are applicable both to radio systems and to optical systems.

For further information, please contact:

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**OLT**



437W \* 177H \* 405D (mm)

**ONU**



42W \* 150H \* 135D (mm)