



**Liverage<sup>®</sup>**  
*Enjoy your life*

# ***Welcom to Liverage***

**Liverage is a leading manufacture of active fiber optical transceiver module for today's Fiber Optic Communications Industry.**

**Our mission is to bring optical broadband into your lives to help you "Enjoy your life" wherever in the world you may live.**

**Liverage's core team members pride themselves on their innovation and dedication to the highest quality learned from more than 20 years in the Optical Fiber Industry.**

**Liverage<sup>®</sup>**  
*Enjoy your life*



## **Pioneering Enabling Technologies for Optical Communications**

Innovation has been the driving force behind Liverage's continuing growth. Initially developing the world's first Fibre Optic Transceiver Modules.

Liverage is now an industry leader for its line of high performance products for inclusion in Enterprise Fiber Communications Systems.

## **Quality Assurance**

Liverage Technology Inc. is an ISO 9001: 2008 Quality Management Standards (QMS) certified fiber optical technology manufacturer based in Taiwan. Liverage is one of the leading experts in optics package technologies, component manufacturing and quality control.

These competitive advantages are fully supported by our advanced processing techniques, laser welding and epoxy packaging, and integrated circuit design technologies.

## **Core Technologies**

The core technologies of Liverage include optics packaging and manufacturing. Our advanced quality control methods utilize state-of-the-art processing techniques, laser welding & epoxy packaging design.

Additionally, our trend-setting Research & Development group has designed high-end products such as the CWDM Metro-Access Fiber Optical Network, Passive Optical Networks (PON) and Gigabit Passive Optical Networks (GPON) applications, bi-directional, and Triplex Modules (FTTX).

*Enjoy your life*

# COMPONENTS

## 10 Gbps

### 10 Gbps SFP+

- Compliant with SFP+ MSA, IEEE802.3ae, RoHS-6
- SR, LRM for MM fiber.
- LR for SM fiber.
- SFF-8472 Digital Diagnostic function
- Laser class 1 product which complies with IEC-60825, FDA 21 CFR 1040.10 and 1040.11.



### 10 Gbps XFP

- Compliant with XFP MSA, IEEE802.3ae, RoHS-6
- SR, LRM for MM fiber.
- LR, ER, ZR for SM fiber.
- Compliant with SONET OC-192 / SDH STM-16, 10G FC
- Low Power Dissipation
- Laser class 1 product which complies with IEC-60825, FDA 21 CFR 1040.10 and 1040.11.



### Dual Fiber Transceiver Module

- Multi-Application form 100Mbps ~ 4.25Gbps
- Compliant with SFP MSA, RoHS-6
- SFF-8472 Digital Diagnostic function
- Fast Ethernet
- SONET OC-3/OC-12/OC-48
- Gigabit Ethernet 1000BASE-SX, LX, LHX, XD, ZX, EZX
- 1x/2x/4x Fiber Channel
- CWDM available.
- Laser class 1 product which complies with IEC-60825, FDA 21 CFR 1040.10 and 1040.11.



## FTTX

### Single Fiber Transceiver Module

- Multi-Application from 100Mbps ~ 4.25Gbps
- Compliant with SFP MSA, RoHS-6
- SFF-8472 Digital Diagnostic function
- Fast Ethernet
- SONET OC-3/OC-12/OC-48
- Gigabit Ethernet 1000BASE-LX, LHX, XD, ZX, EZX
- 1x/2x/4x Fiber Channel.
- LC/SC connector available.
- Laser class 1 product which complies with IEC-60825, FDA 21 CFR 1040.10 and 1040.11.



### Passive Optical Network (PON) Transceiver Module

- G-PON / GE-PON / B-PON ONU Transceiver with Burst Mode Transmitter.
- Compliant with SFF MSA, ITU-T G.984.2, RoHS-6
- Laser class 1 product which complies with IEC-60825, FDA 21 CFR 1040.10 and 1040.11.



### CWDM SFP

- Comply with ITU CWDM standard
- 155Mbps up to 4.25Gbps bi-directional data links
- Comply with SONET OC-48 / SDH STM-16, Gigabit Ethernet 1000BASE-LX and Fibre Channel 4X / 2X / 1X
- Hot-pluggable SFP footprint
- Single 3.3V power supply
- Uncooled DFB laser transmitter in 18 CWDM wavelengths
- Duplex LC connector
- Metal enclosure, for lower EMI
- Digital diagnostic monitor interface SFF-8472 compliant
- Low power dissipation
- Operating temperature range: -40°C to 85°C



**Leverage**<sup>®</sup>  
*Enjoy your life*

# Enjoy your life

## SUBSYSTEM

### Handy Tools

#### Fiber Checker

- Wavelength: 650 nm
- Range: visibility upto 3 Km
- Universally Connector for test different ST, SC, FC
- 2.5 mm to 1.25 mm adaptor for MC, LC interfaces
- Operates in both CW ( Continuous Wave) & Pulse Mode
- Two AAA-size alkaline batteries
- LED indicator for Power, Battery Low indicators
- Compliant with RoHS-6



#### Fiber Meter

- Robust & handy design with LED digits reading.
- Easy to check Multimode 850 nm / 1300 nm output power & Single mode 1310 nm / 1490 nm / 1550 nm output power.
- Universally Connector for test different ST, SC, FC
- 2.5 mm to 1.25 mm adaptor for MC, LC interfaces
- Two AAA-size alkaline batteries
- Compliant with RoHS-6



#### Light Source

- Interchangeable SFP Module design with LC or SC connector.
- Flexible to change any wavelength.
- Compatible to LC / SC connectors.
- Operates in CW ( Continuous Wave) or Pulse Mode 270 Hz / 2 KHz.
- Two AAA-size alkaline batteries
- Compliant with RoHS-6





## Advanced Hubs

### Power Meter Hub

- Receiver designed as SFP Plug-In Module with SC connector.
- High sensitivity for measuring 8 CH different wavelength optical powers.
- USB connection and friendly/customize user graph interface.
- Stackable
- LED indicator for power on and module status.
- Compliant with RoHS-6



### Light Source Hub

- Transmitter designed as SFP Plug-In Module with LC/SC connector.
- Easy and flexible to change wavelength for applications.
- High stability of optical output power
- Three selectable output Levels -3 dBm, 0 dBm, +3 dBm.
- Operates in CW (Continuous Wave) or Pulse Mode 270 Hz / 2 KHz
- LED indicator for power on and module status.
- Compliant with RoHS-6

### SFP Checker

- SFP transceiver link test.
- LEDs and Beeps indicate the test result.
- 1 channel optical power meter for further evaluation.
- Battery inside. Recharge through USB.



### USB 3.0 Extender

- USB 3.0 connection through optical fiber.
- Link distance depends on the pluggable transceiver.
- LC fiber connector for dual fiber.
- LC/SC fiber connector for single fiber.





*Enjoy your life*

**Liverage<sup>®</sup>**  
*Enjoy your life*

**千才科技股份有限公司**  
**www.liverage.com.tw**

新竹縣竹北市台元街30號3樓之5  
3F-5, number 30, Taiyuan Street, Chupei City,  
Hsinchu County 302, Taiwan  
Tel :+886-3-5525268 Fax:+886-3-5525388  
sales@liverage.com.tw