



Remote Fiber Test System

Ascentac OCAMS2000

Pinpointing the fault location on GIS-map within 90 seconds & Managing all your network in the most efficient way

| Feature

- Modular hardware design for easy expansion and maintenance
- Plug & Play with graphical management interface
- Real-time alarms within 60 seconds of a fault occurring
- 24/7 detection, location and tracking for realtime fiber-optic status
- Accurate fault location on GIS map & detailed information
- Proactively instant alarm notification via APP, e-mail or SMS
- Highly customized web interface
- Module and test interface resource management
- Fiber network resource management
- Comprehensive performance report and trends analysis

| Application

- FTTH (Fiber To The Home)
- CATV network
- Railway fiber-optic backbone
- High-speed railway optical fiber transmission backbone
- Highway traffic system engineering
- Slope safety monitoring

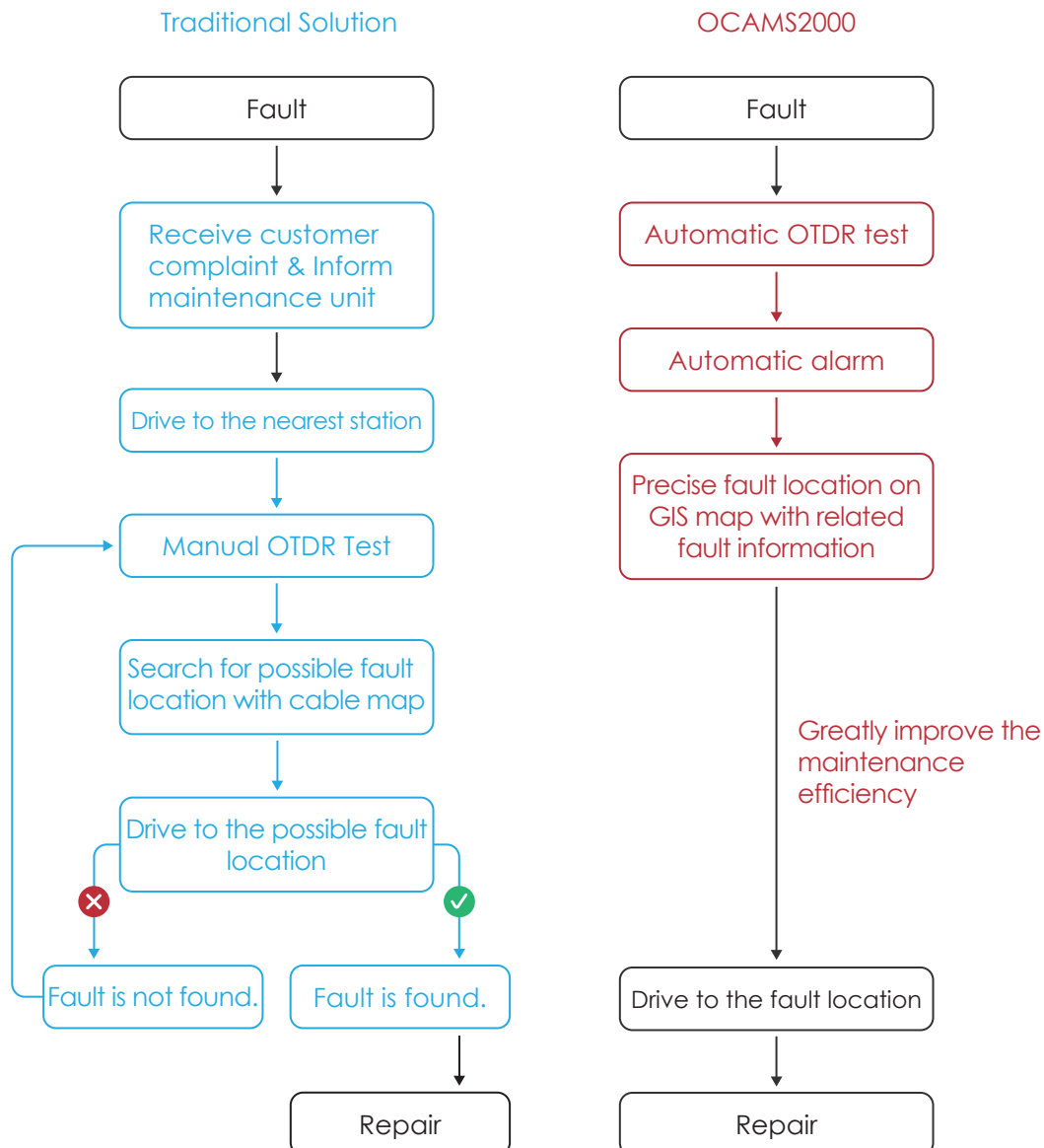
Description

Ascentac FiberTrace OCAMS2000 Series is an intelligent and integrated system which automatically and continuously monitors optical fibers 24 hours a day without interrupting transmission. It also provides comprehensive test and analysis of optical fibers, precise fault location based on GIS map interface, practical cable management and kinds of instant alarm notification.

The series with modularized design solves the concerns about the increasing bandwidth on demand afterwards. The scalable design features reduction in the investment of equipment cost and easy upgrade for the extension of network scale.

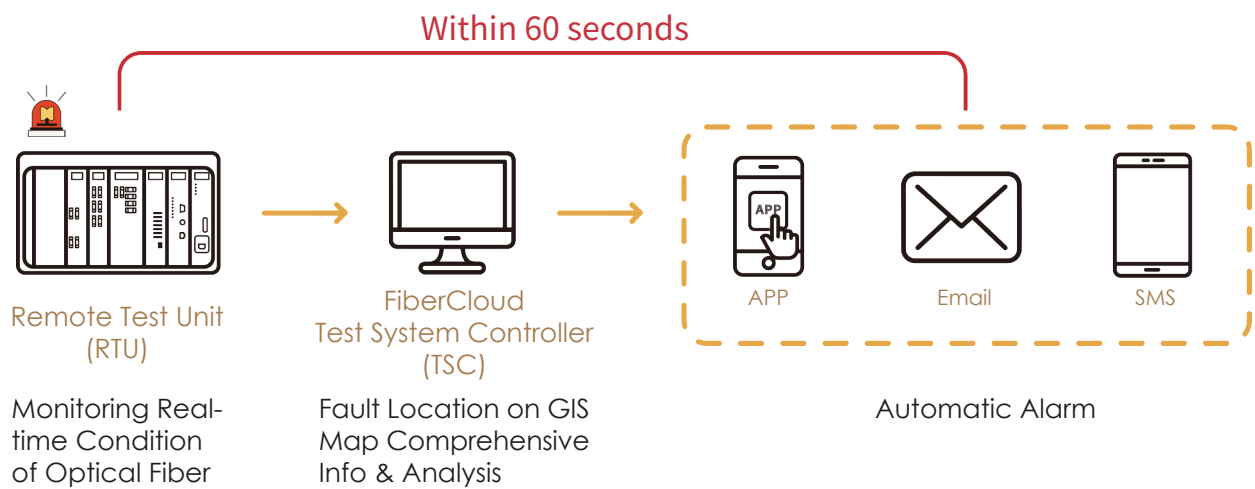
It enables users to integrate all network operations and maintenance activities to achieve the highest levels of QoS and control conditions of optical fiber networks.

Product Advantage



Item \ Method	Traditional Solution (Manual Test)	OCAMS2000 Series (Automatic Test)
Construction Cost	Middle 	Higher
Expansion Cost	High	Low 
Labor Cost	High	Low 
Operation Cost	High	Low 
Operation Range	Single & small area	All areas can be integrated 
Reaction Capability	Slow	Fast 
Statistical Analysis Capability	Not Available	Available 

Reaction in the Shortest Time



Physical Facilities

Ascentac FiberTrace OCAMS2000 Series consists of FiberCloud Test System Controller (TSC), Remote Test Unit (RTU) and Client Software.



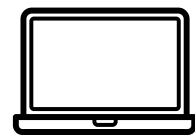
**FiberCloud
Test System Controller**

- Installed in the system controlling center
- Manage all RTUs



Remote Test Unit

- Installed in equipment rooms to monitor fibers
- RTU can operate independently without connecting to TSC

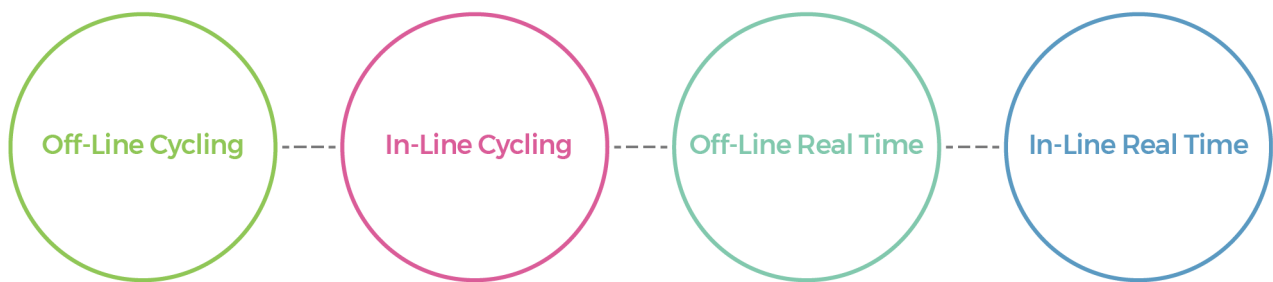


Client Software

- Use a web browser to access the FiberCloud Test System Controller (TSC) over a network connection for optical fiber monitoring, querying, and testing.

Testing Structure

Ascentac FiberTrace OCAMS2000 Series offers four testing structure, including Off-Line Cycling, In-Line Cycling, Off-Line Real-Time and In-Line Real-Time. The off-line structure uses the dark/spare fiber for monitoring while the in-line structure uses the active fiber for monitoring. For cycling monitoring, users can decide how often the system executes the monitoring. For real-time monitoring, it can shorten the reaction time of detecting faults because of added Power Monitoring Unit (PMU) which constantly monitors whether the optical power value is under the threshold users set up. The above mentioned structures will not influence communication of transmission system. They have been verified by many application cases.



Accurate Fault Location on GIS Map & Detailed Information

Ascentac FiberTrace OCAMS2000 Series accurately pinpoints the fault location on GIS map and generate alarm details via FiberCloud TSC (Test System Controller). Users can read all related information on Ascentac OCAMS TSC Web.

In general, the actual length of the optical cable is longer than the geographical distance. There are reserved length of optical cable for further uses. Ascentac initiates the function of averaging the actual length of the optical cable to increase the accuracy.

The screenshot displays the Ascentac FiberTrace OCAMS2000 Series software interface. The top navigation bar includes icons for Alarm, Monitor, Map, Report, System, and Message. The left sidebar shows a tree view of the system components. The main area is divided into two panels. The top panel displays event details for a 'Reference Event' and a 'Current Event'. The bottom panel shows a GIS map with a fault location marked by a blue dot.

Reference Event - Total Loss: 10.33 dB					
No.	Category	Distance (m)	Insertion Loss (dB)	Return Loss (dB)	Optical Cable Name
1	Starting Point	0.26	-41.57	47.59	
2	Reflection	1055.55	3.93	47.16	Please choose
3	Terminal Point	2114.17	0.20	90.00	Please choose

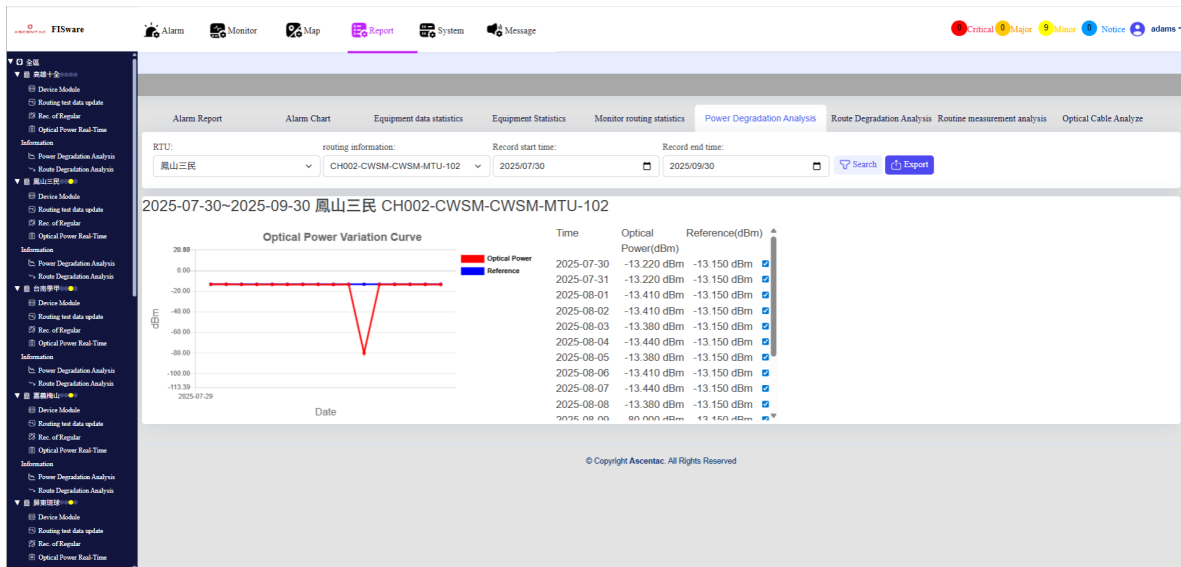
Current Event - Total Loss: dB					
No.	Category	Distance (m)	Insertion Loss (dB)	Return Loss (dB)	Optical Cable Name
No Event					

GIS Map

16x16

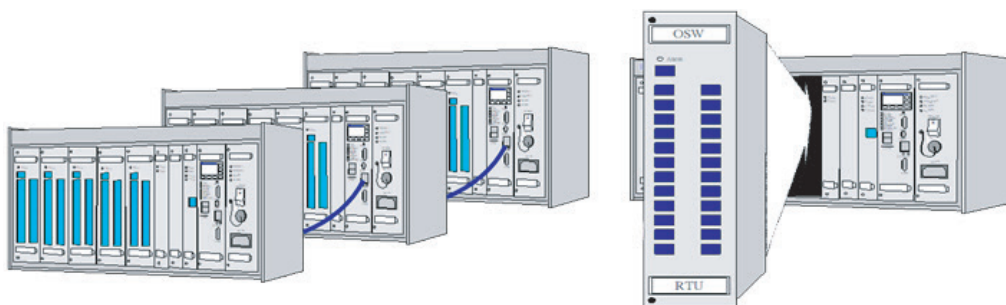
Comprehensive Performance Report & Trends Analysis

FiberCloud is useful for data collection and management. All data like history of fault, fiber degradation or alarm report will be stored and be the sources of database. Users can refer to these data to make right decisions in advance for preventive maintenance and trends analysis of optical cable. Data can be transferred to statistical analysis, including Alarm Statistic Analysis, Trace Deterioration Analysis, Power Deterioration Analysis, Equipment Usage and Route Usage. All analysis can also be exported to file (Excel).



Flexible & Scalable Modular Design for Easy Maintenance and Upgrade

Ascentac FiberTrace OCAMS2000 Series can be easily upgraded and maintained owing to its modular design when customers would like to extend the scale of their network because of the increase of bandwidth demands. One RTU can accommodate 116 fibers. It is also extendable to 600 fibers.



Practical Data Management

Ascentac FiberTrace OCAMS2000 Series can generate an all-inclusive view of the fiber-optic network with graphs and GIS map. Users are allowed to establish details of cable information such as geographic nodes & paths and landmarks which correspond to their fiber-optic network.

Data management of Geographic Path(s)

Territory:

*Name:

Brief Name:

Description:

Geographic path display width:

Geographic path display color:

Update by:

Latest Update Time:

Management of Geographic Node

Territory:

Type of geographic node:

*Name:

Code:

Latitude:

Longitude:

Address:

Comment:

Update by:

Latest Update Time:

Data management of Optical Cable(s)

Territory:

*Geographic Path:

Path length:

Code:

*Name of Optical Cable:

Brief Name:

Number of total cores:

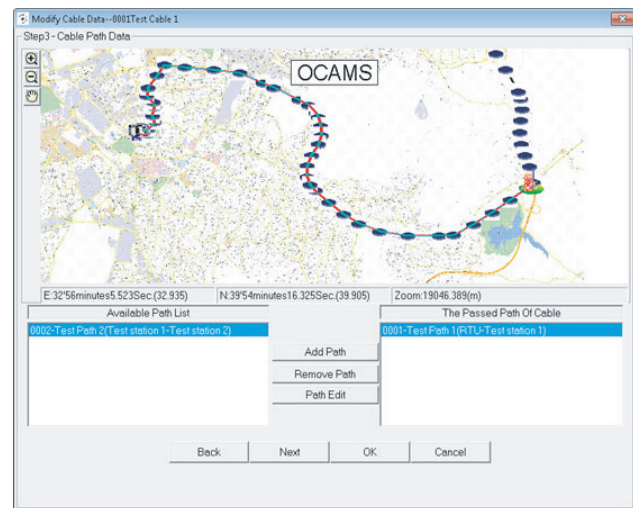
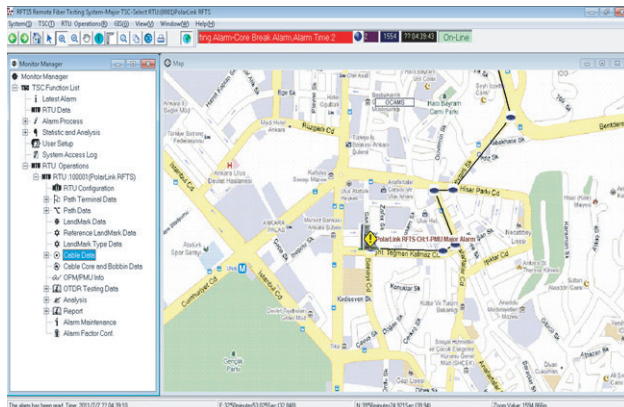
Constructed date:

Trunk cable: ☐

Comment:

Update by:

Latest Update Time:



Database Backups

The Redundant Server, which has a database and platform similar to the Main Server, will be installed together with the Main Server via the LAN connection. The database in the Local Redundant Server will be configured as the backup server. In addition, the Remote Redundant Server will be configured via a WAN connection. Using a high speed connection is necessary for the Remote Redundant Server.

Ascentac FiberTrace OCAMS2000 Series eliminates the possibility of data loss and allows fast restoration without requiring any significant changes to your private network configuration in case of an emergency.

