

# NK7000

## Optical Cable Identifier Series

ISO9001 CE Certification



**120 Km** | **12** | **36 dB** | **20H**  
Optical Cable Survey Scope | 12 Functional Modules | OTDR Dynamic Range | Super-long standby

**12** 12 Functional modules  
satisfy varied testing

**High sensitivity**  
无须成端 不惧斜头

**OTDR** OTDR  
Full function OTDR

**AUTO** One-key test  
without other settings

**Remote upgrade**  
latest technical support

**NovKer** | OCID Serials

NovKer--- Quality assurance promises, technology to create future

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## Product Profile

NK7000 Series Optical Cable Identifier is an intelligent instrument designed for the construction and maintenance of optical cable lines in optical communication system. According to optical elastic effect, the bending or sloshing signals of optical fibers are converted into visual and audio signals by coherent demodulation of optical fibers. It is a new non-destructive identification technology for optical fibers to accurately locate and identify the target optical cables laid in the environment of wells, tunnels, pipelines and overhead poles.

In view of the complex wiring environment and the difficulty of locating faults during the construction and long-term use of optical cables, NK7000 series optical cable identifier can provide fast, effective and accurate fault solutions. When the target optical cable is bent or shaken, the optical cable census instrument can quickly capture the vibration signal and display it through waveform and sound, so as to locate the target optical cable quickly. It provides the simplest method for Telecommunication Engineers and technicians to track and identify the target optical fiber or cable clearly. Optical cable census instrument has the advantages of friendly interface, simple and practical, non-toxic and harmless, and does not damage optical cable. It is suitable for accurate identification of optical cable in the environment of manhole, tunnel, overhead, pipeline and so on. It is a new instrument tailored for optical cable construction, acceptance and operation and maintenance technicians.

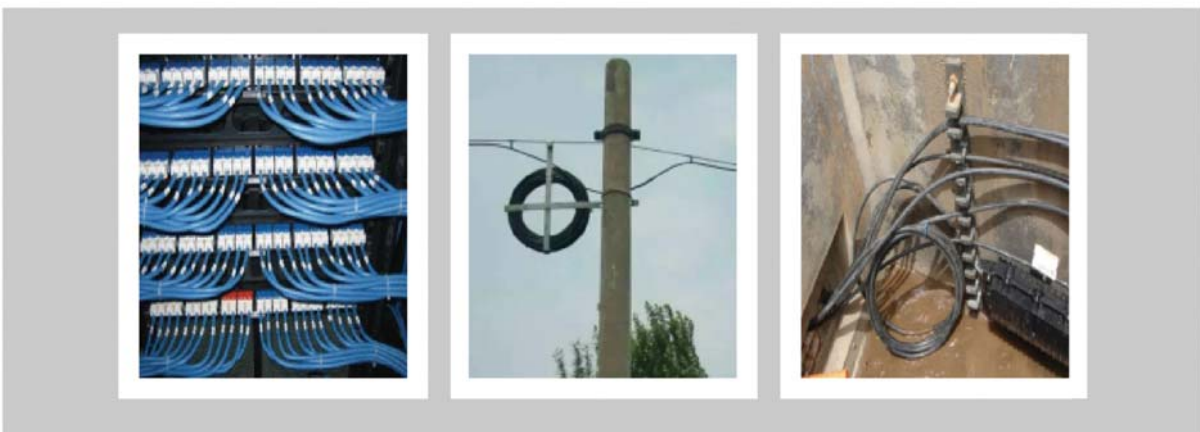
## Product characteristics

- ◆ All kinds of breakpoint, APC or UPC optical cable end can be easily identified
- ◆ Integrating full-function OTDR
- ◆ One-key intelligent test and without tedious parameter settings
- ◆ Locate the target optical cable through audio or visual signals in complex environments
- ◆ Single-fiber test, no looping at the distal end
- ◆ Intelligent optical fiber link detection, graphical results show, clear and easy to understand
- ◆ Integrated light source, optical power meter and optical loss test functions
- ◆ Multi-functional test platform to meet diversified test requirements

## Applications

Single-core optical fibers are used to accurately identify distal optical cables in pipelines, tunnels, manholes and overhead environments.

Construction of computer rooms, line transformation, cable splicing, standardized management, resource survey and on-duty maintenance of telecommunication operators.



## Why do we need OCID ?

Nowadays, the demand for optical cables is increasing day by day, and the optical cables are expanding from single core to the largest 2096 core. However, the more the optical cables are laid, the more complicated the laying lines are, the more problems they will bring. With the rapid development of communication, the integration of power, radio and television and other cutting-edge forces, and the merger of operators, a large number of optical cables need to be maintained, so how to correctly distinguish optical cables has become an urgent problem to be solved.



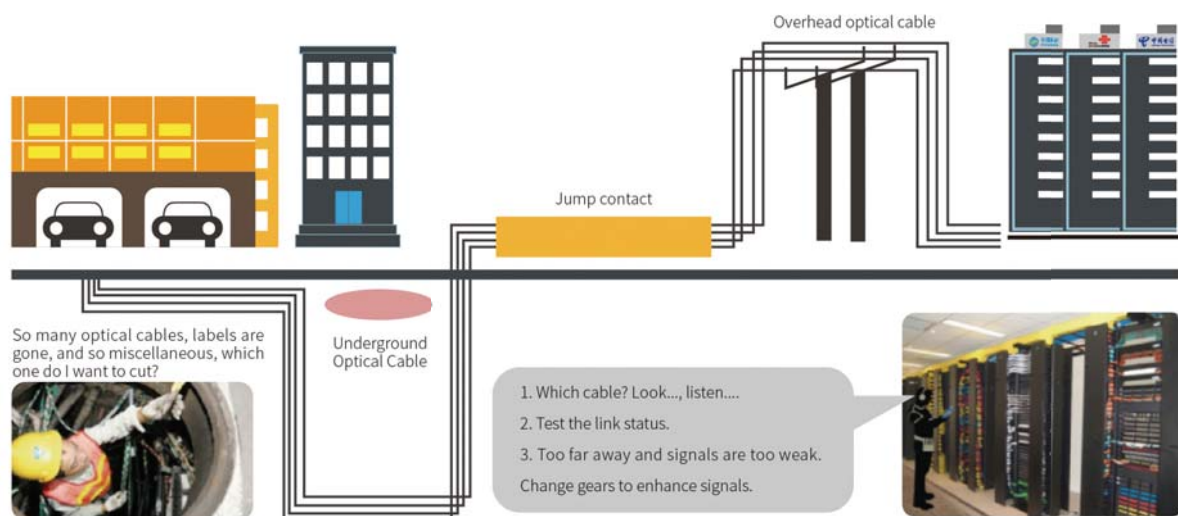
## If there is no OCID:

In the face of these chaotic fibers, the common construction methods and drawbacks of the constructors are as follows:

- ⊗ Dragging one by one from known places---takes a lot of time, the binding can't be separated, and the accuracy is limited.
- ⊗ Using OTDR and bending optical cables--- causing damage to optical cables
- ⊗ The way of OTDR plus quick---frozen liquid is difficult to operate and potentially harmful.
- ⊗ Radio Frequency Detection Method---Partial Buried Optical Cable Removal Reinforcement Core, Can't Detect
- ⊗ Fiber optic identifier---need to peel the optical cable, which has a certain impact on the transmission of the line; if not peel, only two ends of the tail can be found.
- ⊗ Red light source --- unable to detect routing, short test distance

## How to use OCID?

With this test instrument, the line maintenance personnel only need to connect the cable to the test end of the optical cable census instrument, and then bend or shake the optical cable at the far end. Then the test instrument can quickly and accurately find the target optical cable through audio and video signals. Its powerful application function can greatly reduce the emergency repair of optical cable. Maintenance time, reduce the cost of construction and management, greatly improve work efficiency.



## Technical Specifications

OCID						
Model	NK7000-AS1	NK7000-AS2	NK7000-AS3	NK7000-BS1	NK7000-BS2	NK7000-BS3
Measurement method	Single Fiber Testing (No Loop)					
Wavelength	1550nm±20nm					
Test distance	60km			120km		
Unidirectional Optical Cable Loss	14dB			24dB		
Mode	Real-time waveform display	Possess			Possess	
	Real-time audio prompt	Possess			Possess	
Initial Blind Zone	No Blind Zone					
SNR	>10dB					
Fiber Type	G.652					
Connector	APC (Interchangeable FC、SC、ST)					
OTDR						
Fiber Type	G.652					
Wavelength	1550nm±20nm					
Max Dynamic Range <sup>①</sup>	30dB	32dB	36dB	30dB	32dB	36dB
Event Blind Zone <sup>②</sup>	1m					
ATT Blind zone	6m					
Test Range	500m/1km/2km/4km/8km/16km/32km/64km/128km/256km					
Pulse Width	3ns/5ns/10ns/50ns/80ns/160ns/320ns/500ns/ 800ns/1000ns/3000ns/5000ns/8000ns/10000ns/20000ns					
Ranging accuracy	± (0.75m+ Sample interval +0.005%×Test distance)					
Loss accuracy	±0.05dB/dB					
Sample Points	16k~128k					
Sample Resolution	0.05m~16m					
Reflection Accuracy	±3dB					
File Format	SOR Standard File Format					
Loss Analysis	4-point method /5-point method					
Laser Safety Level	Class II					
Refresh Rate	3Hz (Typ.)					
Data Storage	Internal storage: 100M (≤3000 curves); External storage: 4G bit					
Connector	FC/UPC (Interchangeable SC、ST)					
Data Interface	USB、Mini-USB、10M/100M Ethernet Port					
OPM						
Wavelength range	800nm~1700nm					
Connector	Universal FC/SC/ST					
Test scope	-50dBm~+26dBm					

Uncertainty	±5%
Calibration wavelength	850nm/980nm/1300nm/1310nm/1490nm/1550nm/1625nm/1650nm
<b>LS</b>	
Wavelength	Consistent with OTDR output wavelength
Output power	≥-5dBm
Stability	CW, ±0.5dB/15min (Test after 15 minutes of boot-up preheating)
Connector	FC/UPC (Interchangeable SC、ST)
<b>VFL</b>	
Wavelength	650nm±20nm
output power	≥2mW
Mode	CW/1Hz/2Hz
Connector	FC/UPC (Interchangeable SC、ST)

**The Optical Loss Test index refers to the above light source and optical power meter index.**

<b>Others</b>	
Display	5.6 inch color LCD + touch screen
Power supply	AC/DC adapter: Input: 100V~240V, 50/60Hz, 0.6A, Output: 12V~19V, 1.5A Lithium battery: 7.4V, 5000mAh
working temperature	-10℃~+50℃
Storage temperature	-40℃~+70℃
relative humidity	0~95%, Non Condensing
Weight	≤1.5kg
Size	227mm×160mm×70mm

**Functions of Host:**

**OCID/OTDR/OPM/VFL/LS/Event Map/Fiber End Detection (Additional purchase detector) /Optical Loss Test**

**Note:**

- ① Test temperature is 25℃±2℃, maximum pulse width, the average time is more than 3 minutes.
- ② Test conditions of Event Blind Zone are minimum range, minimum pulse width, reflection loss of optical fiber end (> 45dB), typical value.

## Configuration List

NO.	Name	Quantity	Remarks
1	Host	1	Battery included
2	AC/DC power adapter	1	
3	U disk (Analysis Software/ User's Manual included)	1	
4	Touch pen	1	
5	Data Line	1	
6	APC-UPC Jumper	1	
7	OCID/OTDR SC adapter	1	
8	OPM SC adapter	1	
9	User's Manual	1	
10	Calibration certification	1	
11	Certificate/ Warranty card	1	
12	Clean cotton piece	10	
13	Leather knob	1	
14	Special backpack for instrument	1	