Taikan

USER MANUAL

Optical Receiver

OR4x-S

Please read this manual thoroughly before use.
Retain this manual for future reference.

Taikan Optical Receiver Owner's Manual

This manual is intended for use by purchasers of Taikan's Optical Receiver and their qualified technicians. This document is the property of Taikan Company Inc. ("**Taikan**") and embodies proprietary subject matter.

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Optical Receiver units may emit harmful laser radiation
when the product is powered on or when the case is opened.

Please be cognizant of all safety guidelines and
adhere to the recommendations listed.

> Read the user manual carefully before proceeding with any part of the installation.

> Installation and operation of the product must be performed only by qualified personnel and always in accordance with applicable electrical codes.

> All warnings on the product and in the operating instructions should be adhered to.

> Unplug the product from the power outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth. For the optical connector it is recommended that you use RIFOCS CO. , Ltd's 945/946.

> Do not block or cover openings . These are provided for ventilation and protection from overheating. The maximum operating temperature is 50 °C (122 °F)

> This product should be operated only from the type of power sources indicated on the marking label.

> This product may be equipped with a polarized AC line plug (a plug having one blade wider than the other or a different shape). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug into the outlet, try reversing the plug. Contact your electrician to replace the obsolete outlet if this still does not work. Do not compromise the safety purpose of the polarized plug.

> For added protection during a lightning storm or when the equipment is left unattended or unused for long periods, unplug it from the power outlet and disconnect the cables between the equipment and the fiber subsystem. These precautions will prevent damage to the equipment that could be caused by lightning strikes or power line surges.

> Do not attempt to service this equipment yourself as opening or removing the cover may expose you to dangerous voltage or other hazards, refer all servicing to Taikan. A Taikan representative can be reached at support@taikan.com If any parts need to be replaced notify a Taikan representative at support@taikan.com

> Unauthorized alteration or inappropiate repair is *NOT* allowed and may cause irreparable damage to product. Taikan does not as sume any responsibility for these modifications.

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// INTRODUCTION

PRODUCT SUMMARY

The OR4x-S (a 4 port optical receiver) receives optically transmitted CATV signals This unit is primarily used in upgraded cable television and fiber distribution systems.

The OR4x-S unit is available with an optional LCD screen, ensuring ease of navigation through the menu system. Optical power indicators and RF test ports on the front panel are conveniently accessible to monitor the receiver's operating status.

Each receiver is designed to fit into a standard 19" rack and supports 4 optical receiver modules.

ST• Headend 19" rack mount enclosure

- Supports four optical receiver modules
- LED status monitor indicators for each module
- RF test point provided on back panel
- Adjustable RF output level
- Adjustable attenuator located on front panel.
- Power of 135 ~ 250 V AC
- 5-200 MHz bandwidth
- 1200-1600 nm wavelength
- Available with SC/APC or FC/APC connectors

NOMINAL SPECIFICATIONS

OPTICAL FEATURES

Optical Wavelength:	1200 ~ 1600 nm
Optical Input Range:	-22 ~ 0 dBm
Optical Connector Type:	Std: SC/APC
	Option: FC/APC

GENERAL FEATURES

Power:	135 - 250 VAC
Weight:	3 kg (6 lb)
Dimension (LxWxH):	483 x 385 x 44 mm
	(19 x 15 x 1.75 in)

RF FEATURES

RF Bandwidth:	5 ~ 200 MHz
Adjustable Output Level Attenuation:	0 ~ -20 dB
Connector Type:	F type

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SECTION TWO
// INSTALLATION

1 UNPACKING

Carefully open the package and adhere to all safety guidelines outlined in the safety section.
Check the packaging material for the following components.

> OR4x-S

> User Manual

> Power Cord

2 MOUNTING

Carefully slide the optical receiver inside a standard 19" headend rack.
Make sure that the rack is in a secure and clean environment.

3 OPTICAL CONNECTIONS

Before removing the dust cap from the receiver's SC/APC bulkhead connector, clean the
SC/APC ferrule on the optical jumper cable that will eventually connect to the receiver
module. This can be done using a commercial cleaning tape or isopropyl alcohol, and lint
free tissues.

Once the optical jumper cable's ferrule has been cleaned, it is recommended that you
measure the optical power using an optical power meter.

4 RF CONNECTIONS

The RF output jacks on the receiver's rear panel are female. There is a total of 4 ports and
a corresponding -12dB test point. Connect a test jumper from one of these ports to a signal
level meter or spectrum analyzer. Ensure that all unused RF outputs are terminated with a
75 ohm terminator.

5 CONNECTING THE POWER CORD

Attach the power cord to the outlet on the rear panel. Upon powering the receiver, the
display will say: "Return Path Optical Receiver".*

*Applies to OR4L-S unit only.

6 INDICATOR LIGHTS

The 4 Port Optical Receiver is built with four indicator lights and a display screen to assist
in identifying problems that may occur*. Upon successful set up, all of the lights on the front
panel will be green.**

*Applies to OR4L-S unit only.
**If the Red Indicator Light is on, detach the fiber line for the Optical connector, clean the port with an approved fiber
cleaner and reattach the lines. Please contact a Taikan representative at support@taikan.com if the indicator light
remains red.

7 LCD SCREEN

Toggle through the LCD screen by pushing the 'up' and 'down' arrows next to the screen. The
'state' button is equivalent to an 'enter' button.

8 MENU DEFINITION

Menu #1 Serial Number: displays the product serial number
Menu #2 Input: displays the input optical power in dBm
Menu #3 Unit Temp: displays the system temperature in °C
Menu #4 +5V Reads; displays the voltage +5V
Menu #5 -5V Reads: displays the voltage -5V
Menu #6 +24V Reads: displays the voltage +24V
Menu #7 IP, displays the IP address of SNMP
Menu #8 Submask: displays the address of the net mask
Menu #9 Gateway: displays the gateway address of SNMP
Menu #10 Trap Addr 1: displays the TRAP1 address of SNMP
Menu #11 Trap Addr 2: displays the TRAP2 address of SNMP

9 ADJUSTING IP ADDRESS

To change the IP address' last digit (IP: 192.168.000.015) from a '5' to a '6' do the following:

1.) Use the 'status' button to toggle to the place of the '5'
2.) Use the 'up'/'down' arrows to select the number you'd like
3.) Select 'status' button.

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MAINTENANCE

Clean and vacuum the cooling fans periodically (recomended monthly).

Confirm that all of the power LED's are green.

Check the cooling fans on a weekly basis to ensure that they are operating properly and are unobstructed.

PRODUCT RETURN PROCEDURE

If you need to return the product for repair, please follow these steps:

1. Contact a Taikan Representative at support@taikan.com to obtain a Return Authorization Number

2. When returning the product for repair include the following information:
> Return Authorization Number
> Model Number
> Serial Number
> Reason for Return

3. Prior to repairing the device, Taikan will inform you about the test results and/or any additional repair charges that may apply. Once we have received your confirmation we will proceed with the repair.

4. The repair period will depend on the severity of the problem.

5. After it is returned, the product will still be under its original warranty. The repair component(s) is under warranty for 90 days after you have received the repaired product. (see below)

STANDARD TAIKAN PRODUCT WARRANTY

Taikan provides a limited three year Warranty ("Warranty") to original purchaser on its product against manufacturing defect and workmanship under normal use and service. During the Warranty period Taikan will repair or replace the product to correct defects in material and workmanship.

This Warranty shall not apply to a product which has been altered in any way so as to affect its stability or durability, nor which has been subject to misuse or negligence. This Warranty does not cover a product which has been damaged by severe weather conditions such as extreme wind, ice, storms, lightning, or other natural weather conditions over which Taikan has no control.

Claimants under this Warranty shall present their claim along with the defective product to Taikan Non-compliance with any part of this claim procedure may invalidate this Warranty in whole or part.

This Warranty is expressly in lieu of all other agreements and warranties, expressed or implied. Taikan does not authorize any person to assume for it the obligations contained in this warranty and neither assumes nor authorizes any representative or other person to assume for it any other liabilities in connection with the product delivered or provided.

In no event shall Taikan be liable for any loss of profits, loss of use, interruption of business, or indirect, consequential damages of any kind. Taikan will not be liable for damages in any amount greater than the purchase price of the product.

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