User Guide

CD-4000

Clock Data Recovery

www.EXFO.com

Copyright © 2022 EXFO Inc.All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form, be it electronically, mechanically, or by any other means such as photocopying, recording or otherwise, without the prior written permission of EXFO Inc.(EXFO).

Information provided by EXFO is believed to be accurate and reliable. However, no responsibility is assumed by EXFO for its use nor for any infringements of patents or other rights of third parties that may result from its use. No license is granted by implication or otherwise under any patent rights of EXFO.

EXFO's Commerce And Government Entities (CAGE) code under the North Atlantic Treaty Organization (NATO) is 0L8C3.

The information contained in this publication is subject to change without notice.

Trademarks

EXFO's trademarks have been identified as such. However, the presence or absence of such identification does not affect the legal status of any trademark.

Where applicable, the Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc.and any use of such marks by EXFO Inc. is under license. Other third party trademarks and trade names are those of their respective owners.

Units of Measurement

Units of measurement in this publication conform to SI standards and practices.

Patents

The exhaustive list of patents is available at EXFO.com/patent.

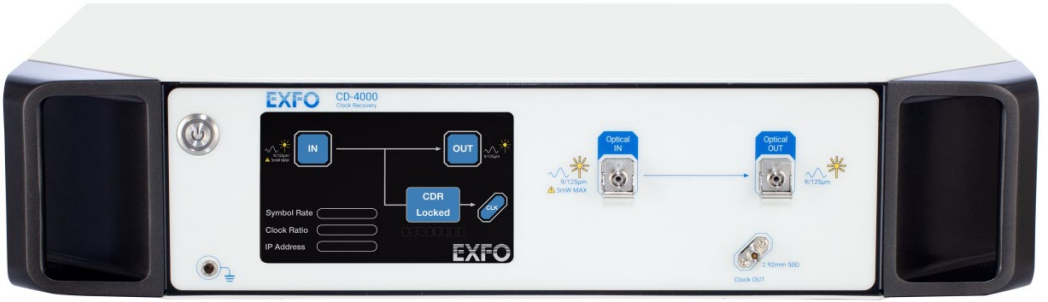
Version number: 1.0.0.1

Contents

1 Introduction 1
Key Features 1
Getting Connected 2
Clock Recovery Procedure 3
2 Quick Start Guide 5
Index 7

1 Introduction

The CD-4000 Clock Data Recovery is an optical/electrical box for 28/56 GBd.



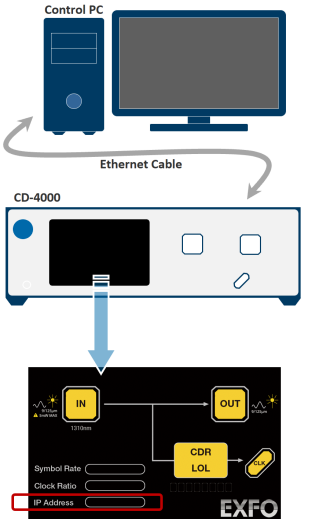
Key Features

- Supports NRZ and PAM4 signals
- Integrated O/E with optical splitter (optional)
- Supports singlemode or multimode
- Ultra low random jitter
- Auto-locking
- Can test 400G transceivers

Getting Connected

To power on and get connected:

1. Connect the Ethernet cable from the control PC to the RJ45 port on the rear of the CD chassis.
2. Push the power button on the front panel to initialize the CD-4000.
3. Wait for initialization including checking receiver, detecting network, etc. Once initialization is complete, the IP address appears.



Note: *If the IP does not appear after 5 min, it means the instrument is NOT yet connected to any network.*

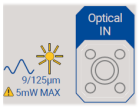
Please check the cable and RJ45 ports, and consider the following actions:

- If loose connection, then reconnect.
- If broken cable, then replace.

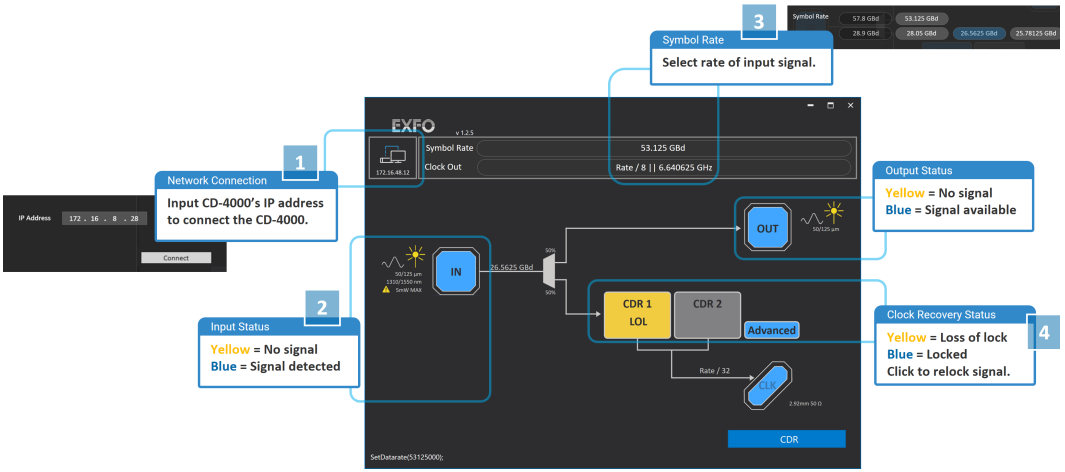
Clock Recovery Procedure

To start the clock recovery:

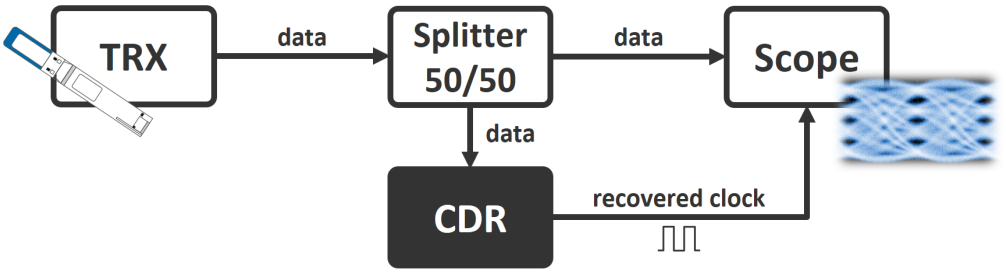
1. Input the CD-4000's IP address and click **Connect** button.
2. Connect data signal to **Optical IN** port.



3. Select symbol rate of data signal.
4. Click **CDR** button to lock data signal and recover clock.



2 Quick Start Guide



Index

A

auto-locking 1

I

initialization 2

J

jitter 1

M

modes 1

O

optical in 3
optical splitter 1

P

port
    optical IN 3
    RJ45 2
power on 2

R

RJ45 2

S

signals 1
symbol rate 3

T

tranceivers 1

P/N: 1.0.0.1

www.EXFO.com · info@EXFO.com

CORPORATE HEADQUARTERS	400 Godin Avenue	Quebec (Quebec) G1M 2K2 CANADA Tel.: 1 418 683-0211 · Fax: 1 418 683-2170
TOLL-FREE	(USA and Canada)	1 800 663-3936

© 2022 EXFO Inc. All rights reserved.
Printed in Canada (2022-05)