

## DCP-M

### Quick Turn-Up Guide



DCP-M

R12.1.1 A

The specifications and information within this manual are subject to change without further notice. All statements, information and recommendations are believed to be accurate but are presented without a warranty of any kind. Users must take full responsibility for their application of any products.

# Contents

<b>1</b>	<b>INTRODUCTION .....</b>	<b>3</b>
1.1	GENERAL .....	3
1.2	IN COMMERCIAL CONFIDENCE .....	3
1.3	DOCUMENT REVISION HISTORY .....	3
1.4	DOCUMENT REFERENCE .....	3
<b>2</b>	<b>DCP-M INITIAL CONFIGURATION.....</b>	<b>4</b>
2.1	INSTALL CHASSIS AND CONNECT POWER.....	4
2.2	CONFIGURATION VIA LOCAL CONSOLE (ETH OR SERIAL) .....	4
2.3	LOGIN TO THE DCP-M CHASSIS .....	4
2.4	SET THE BASIC CONFIGURATION. ....	4
2.5	GENERAL USE STATUS COMMANDS.....	5

# 1 Introduction

## 1.1 General

This guide covers the general Turn-up steps for the DCP-M products.

## 1.2 In commercial confidence

The document is provided in commercial confidence and shall be treated as such.

## 1.3 Document Revision History

Revision	Date	Description of changes
Initial	2023-04-10	New Template
Rev1	2023-04-27	Added NTP disable note with manual Date/Time
Rev 2	2024-12-20	Minor text corrections Updated Document Reference to Services Portal
Rev 3	2025-02-17	Minor text corrections

## 1.4 Document Reference

Reference the following documents for the installation procedures, operation specifics, and CLI command references. All documents are available from the Smartoptics Services Portal <https://services.smartoptics.com/>

### 1.4.1 DCP-M User Manual

### 1.4.2 DCP CLI User Manual

## 2 DCP-M Initial Configuration

### 2.1 Install Chassis and Connect Power

2.1.1 Install chassis and connect power per directions in the associated user manual.

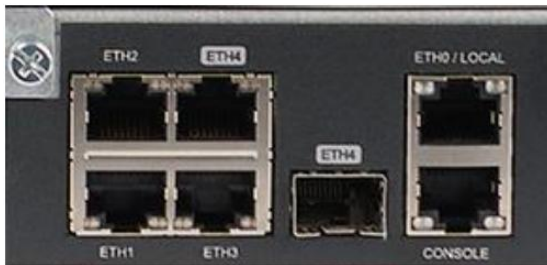
### 2.2 Configuration via Local Console (Eth or Serial)

#### 2.2.1 Connect via Ethernet Local Console (Alternative 1)

2.2.1.1 Configure PC with a static IP address of 192.168.0.10, 255.255.255.0

2.2.1.2 Connect ethernet cable between the PC network port and the Eth0 console port on the rear of the chassis.

2.2.1.3 Start SSH client (putty or similar) and connect to 192.168.0.1, Port 22



#### 2.2.2 Connect via Serial Local Console (Alternative 2)

2.2.2.1 Connect PC serial port to the local Console port on the rear of the chassis.

2.2.2.2 Start and configure the terminal client (putty or similar) with the following serial parameters:

Protocol	Serial
Baud Rate	115200
Data Bits	8
Parity	None
Stop bits	1
Flow Control	None
COM Port	PC Defined

### 2.3 Login to the DCP-M Chassis

Default user/password = admin/admin

### 2.4 Set the Basic configuration.

#### 2.4.1 Configure Hostname

```
admin@smartoptics-dcp> config hostname <tab>
<hostname> - Hostname string. Max length 63 characters.
Valid characters are 0-9, a-z, A-Z, - and .
As long as - and . not as start/end character and digit not as start character.
Note that this is the same as the SNMP sysname.

admin@smartoptics-dcp> config hostname smartoptics-dcp
```

## 2.4.2 Configure Network Interface for Mgmt

```
admin@smartrptics-dcp> config network mgmt ipv4address <tab>
<IPv4 address>      - IPv4 address in dotted decimal format.
<netmask>           - IPv4 netmask in dotted decimal format.
[gateway IPv4 address] - IPv4 gateway address in dotted decimal format.

admin@smartrptics-dcp> config network mgmt ipv4address 10.10.10.2 255.255.255.0 10.10.10.1
```

## 2.4.3 Configure inactivity timeout (optional)

```
admin@smartrptics-dcp> config inactivitytimeout <time in minutes>

<inactivitytimeout> - Time in minutes until automatic logout occurs if there is no activity in CLI
<Time 0-300>.
```

## 2.4.4 Configure NTP (recommend either setting NTP or manual date/time)

Disable NTP when using manual date/time

```
admin@smartrptics-dcp> config ntp <tab>
adminStatus      - Configure NTP adminStatus : up / down
primaryServer    - Configure NTP primary server <primary NTP server IPv4 address>
secondaryServer  - Configure NTP secondary server <secondary NTP server IPv4 address>
```

## 2.4.5 Configure Date (recommend either setting NTP or manual date/time)

```
admin@smartrptics-dcp> config date <tab>
<date> - Date, in format YYYY-MM-DD
<time> - Time, in format HH:MM:SS
```

## 2.5 General Use Status Commands

The following commands will provide the general operating status of the DCP-M device.

### 2.5.1 show linkview detail

```
admin@smartrptics-dcp> show linkview detail
```

Local system				Fiber										Remote system			
Hostname	Interface	Status	Alarm	Power [dBm]	Loss [dB]	Attenuation [dB/km]	Length [km]	Disp. [ps/nm]	Fiber	Direction	Dispersion Comp [ps/nm]	Dispersion Final [ps/nm]	Utilization	Power [dBm]	Interface	Hostname	
dcp-19	if-1/line-tx	up	-	1.8	6.1	0.24	25.0	417	G.652	>>>>	-417	0	32% (13 of 40)	-4.3	if-1/line-rx	dcp-20	
dcp-19	if-1/line-rx	up	-	-4.4	4.8	0.19	25.0	417	G.652	<<<<	-418	0	32% (13 of 40)	0.4	if-1/line-tx	dcp-20	

The detail command gives access to additional fiber link parameters:

- Loss: Calculated fiber loss between the systems.
- Attenuation: Calculated average fiber loss per km.
- Length: Measured fiber length by the local system.
- Dispersion: Displays the calculated dispersion based on the measured fiber length.
- Fiber: Displays the fiber type configured, currently only G.652 is supported.
- Dispersion Comp: Two values may be presented. The first value is the value for the tunable DCM. The second value, if present, is the dispersion compensation for the fixed dispersion compensation module (DCM) in the unit (if applicable).
- Dispersion Final: Residual (remaining) dispersion of the link after the compensation module.
- Utilization: channel utilization of the unit.

## 2.5.2 show interface

```
admin@smartoptics-dcp> show interface active
```

Interface	Status [Rx/Tx]	Alarm	Rx power [dBm]	Tx power [dBm]	Format	Expected wavelength[nm]
if-1/9210	up/up	ok	1.1	-0.5	100G/200G	1560.61
if-1/9450	up/up	ok	-7.7	5.0	100G PAM4	1541.35
if-1/9510	up/up	ok	1.3	-1.1	1-32G	1536.61

Column definitions:

- Interface: Shows the interface name of the system.
- Status: Identifies the status of the Tx and Rx port. Status level can be up, down or idle. Idle is present if the channel has never been utilized.
- Alarm: Identifies the alarm status of the port/interface.
- Rx power: Optical power level received in the client Rx interface.
- Tx power: Optical power level transmitted out of the interface Tx port.
- Format: Traffic format detected by the system. 1-32G, 100G PAM4 and 100G/200G are supported.
- Expected wavelength: ITU channel wavelength (not measured), the measured value is presented using the command “show interface detail”.

## 2.5.3 show network interfaces

```
admin@smartoptics-dcp> show network interfaces
```

```
Mgmt:          if-1/eth1, if-1/eth2, if-1/eth3, if-1/eth4
IP Address:    10.10.72.97
Netmask:       255.255.255.0
Default gateway: 10.10.72.1
MAC address:   94:DE:0E:02:02:17
```

```
eth0 / local:
IP Address:    192.168.0.1
Netmask:       255.255.255.0
MAC address:   94:DE:0E:02:02:16
```

```
DNS primary:   10.10.72.99
DNS secondary: 10.10.72.101
```

## 2.5.4 show alarm active

Displays all currently active alarms

```
admin@smartoptics-dcp> show alarm active
```

Location	Alarm name	Severity	Start time
psu-1/1	Power supply missing	critical	2018-05-30 07:05:16
if-1/2/2	Loss of optical input power	critical	2018-06-19 04:59:52

## 2.5.5 show alarm log

Displays the log of alarms.

```
admin@smartoptics-dcp> show alarm log
```

Location	Alarm name	Severity	Start time	End time
psu-1/1	Power supply missing	critical	2018-05-30 07:05:16	-
if-1/2/3	Loss of optical input power	critical	2018-06-06 08:24:50	2018-06-06 09:28:55
if-1/2/1	Loss of optical input power	critical	2018-06-06 08:24:52	2018-06-06 09:28:55

## 2.5.6 show inventory

Displays the inventory details of the system.

```
admin@smartoptics-dcp> show inventory
```

Location	Part number	Description	HW rev	FW rev	Serial number
Chassis	DCP-M40-C-ZR+	Coherent 40 channel DWDM Open Line System (0-130 km)	R1A	n/a	S1234DCPM1234
psu-1/1	DCP-2-PSU-AC-FB	AC power supply, front-to-back airflow	CP	n/a	L123B12345CPZ
psu-1/2	DCP-2-PSU-AC-FB	AC power supply, front-to-back airflow	CP	n/a	L456B78910CPZ
fan-1/1	DCP-2-FAN-FB	Fan, front-to-back airflow	R1B	n/a	n/a

## 2.5.7 show version

Displays the SW release running on the system.

```
admin@smartoptics-dcp> show version
```

Location	SW version	Bootloader version	FW version	API version
chassis	dcp-release-11.0.1	2016.09.01-DCP-R2.1	n/a	n/a