

DATASHEET

# DCP-F-DE22

**Dual Equalizer, EDFA amplifier with 22 dB Gain, 2-Port Optical Channel Monitor, 1RU plug-in unit, with support for 2 x Passive Plug-in Modules (PPM's)**

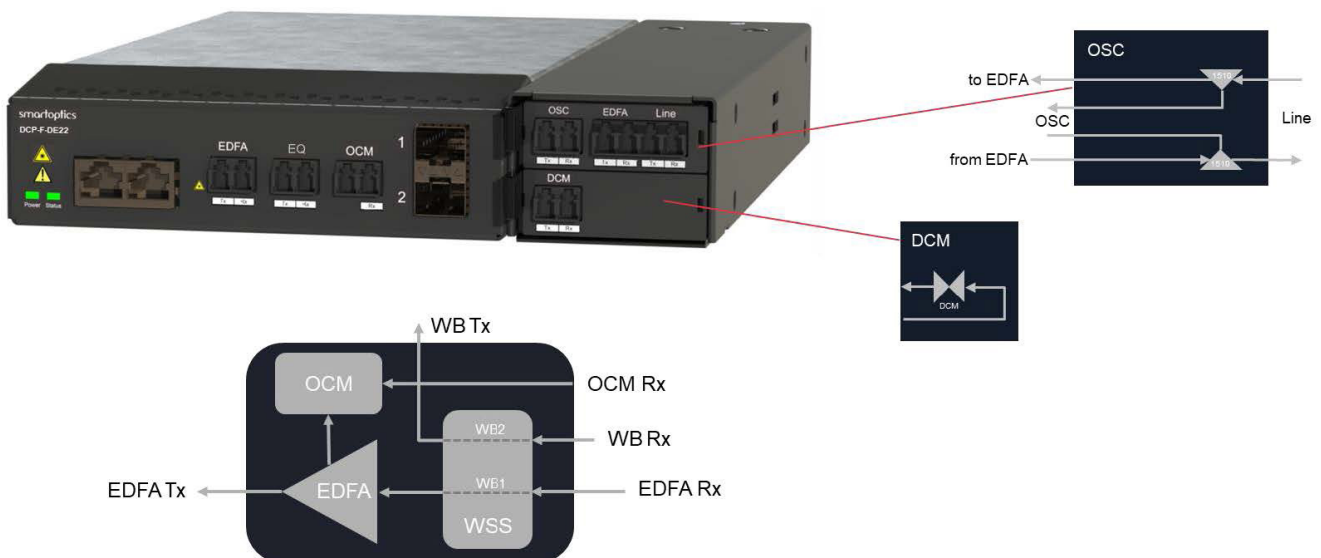
## DUAL EQUALIZER WITH EDFA AMPLIFIER AND CHANNEL MONITOR

The DCP-F-DE22 is a member of the DCP-F family that is designed for maximum configuration flexibility with the active units available as individual modules plugged directly into the standard Smartoptics DCP-2 chassis, each module occupying one slot. The module also has an integrated expansion field for optional passive plug-in modules (PPM), used for example for dispersion compensation. The small footprint of the DCP-2 chassis and the pluggable configuration allows for excellent flexibility in various applications and in all types of network topologies. By combining one or more DCP-F units they can be used for different types of point-to-point applications, 2-degree ROADM applications and active/passive ring applications.



## DCP-F-DE22 IN SHORT

- EDFA Amplifier with an optimum gain of 22 dB
- 2-Port Optical Channel Monitor, one built in and one external
- 2-Port Optical Equalizer, one built in and one external
- Fits into one slot of the DCP-2 chassis
- One unit can equalize two directions when combined with a DCP-F-A22
- Support for 2 x Passive Plug-In modules (PPM)
- Available PPM modules
  - PPM for dual fiber 1510nm OSC filter (optional)
  - PPM's for 20, 40 & 80 km DCM module (optional)
  - PPM's for 3% & 50% Optical couplers (optional)



## ORDERING INFORMATION

### DCP Series product codes

DCP-F-DE22 Dual Equalizer, EDFA amplifier, 2-Port OCM, with support for 2 x Passive Plug-in Modules (PPM's), 1RU plug-in unit

## TECHNICAL SPECIFICATIONS

**PRODUCT CONFIGURATION** Active optical slot-in unit that is used to form an open line system for metro DWDM, DCI and dark fiber connectivity.

**Supported encodings:**

- NRZ (1-16G)
- Coherent (QPSK/8QAM/16QAM)

**Supported protocols:**

- 1/10/40/100/200/400G Ethernet
- 1/2/4/8/16G Fiber Channel
- Other protocols may be supported, contact Smartoptics for more information.

**FRONT SIDE CONNECTIONS** All optical ports are of LC connector type

- 1 x EDFA input/output port
- 1 x Wavelength Blocker (WB) input/output port
- 1 x Monitor input port

- 2 x RJ45 Management ports 10/100/1000 Base-T
- 2 x SFP Management port 1000 Base-X

**VISUAL INDICATORS** Status LED Power & Alarm status  
Line LED: Line Tx/Rx

**REAR SIDE CONNECTIONS** Management and console ports (On the DCP-2 chassis)  
4 x RJ45 management ports 10/100/1000 Base-T  
1 x SFP management port 1000 Base-X  
1 x RS-232 serial port  
1 x RJ-45 local craft 10/100/1000 Base-T

**MANAGEMENT PROTOCOLS** SSH/CLI, SNMP, NTP, TFTP, TACACS+, Syslog, Radius

**In future release:** REST, NetConf

**SOFTWARE UPGRADES** Traffic hitless software upgrades

**DIMENSIONS** Size (WxDxH)  
1.73 x 8.07 x 10.63"  
44 x 205 x 270mm  
**Weight:** 1.8 Kg / 4 lbs

**POWER CONSUMPTION** **Typical consumption at 220VAC:**  
**Normal operation:** 40W  
**Max during power up:** 45W

**ENVIRONMENTAL** **Operating temp:** 0°C to +45°C  
**Cooling:** Front to back  
**Humidity:** 5% to 85%  
**Altitude:** 3000 m (10.000 ft)

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**OPTICAL SPECIFICATION**

**Amplifier:**  
**Maximum total output Power:** 20 dBm  
**Gain flattened optimized gain:** 22 dB  
**Settable gain:** 20-28 dB  
**Input power range:** -2 to -30 dBm  
**Noise figure:** 5,5 dB  
**Laser Class:** 1

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**WSS**

**WSS resolution:** 6,25 GHz (Flexgrid)  
**WSS Min channel width:** 37,5 GHz  
**WSS Min center freq:** 191,25 THz  
**WSS Max center freq:** 196,125 THz  
**WSS No channels (50 GHz):** 96 (191,35 – 196,10 THz)  
**WSS No channels (100 GHz):** 48 (191,3 – 196,1 THz)  
**WSS typical IL EDFA port:** 4 dB  
**WSS typical IL WB port:** 4 dB

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**OCM**

**OCM resolution:** 3,125 GHz (Flexgrid)  
**Power resolution:** 0,1 dB  
**Min detection level (50 GHz):** -40 dBm  
**Accuracy:** +/-0,7 dB

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Compliant to NEBS Level 3



\*\* The information in this document is valid from release R6.0