



INTELLIPORT DATA SHEET

40 Channel 100G PAM4 Open Line System (80 or 120km)

Champion ONE's 40 channel Open Line System is a complete, high-reliability active DWDM line system for long-distance, high-bandwidth applications. It provides all of the optical grooming necessary for transmission of up to 40x 100G DWDM PAM4 channels while maintaining the simplicity of automated zero-touch provisioning.

The 40 channel system comes in two versions: 80km and 120km. Both versions are composed of a mux/demux, optical amplifiers, dispersion compensation modules, and an optical supervisory channel. The 80km version spans distances from 5km to 80km, while the 120km reaches 60km to 120km via additional gain from a Raman counter pump.

Key Features and Benefits

- · Zero-Touch Provisioning
- Turns up within 4-5 minutes
- · Supports between 1 and 40 PAM4 QSFP28 channels
- · Automatic link distance measurement and fault location with OTDR
- · Automatically performs all the necessary dispersion compensation adjustments based on integrated OTDR input
- · Automatic input balancing via VOA integration into mux to optimize distance
- Fiber Integrity Monitor System for laser safety, enabling automatic laser shutdown (ALS) in the event of a fiber break or connector disconnect, and automatic laser restart (ALR) when the condition is recovered
- · Remote monitoring of far end unit
- Performance Monitoring to track max/min/average of key parameters on 15min/daily/weekly basis
- CLI, Web GUI interface, SNMP v2/v3 management interfaces
- · Field-replaceable optical service channel SFP
- Dual field-replaceable 110VAC power supplies
- 3 field-replaceable fans for front-to-back airflow for multiple cooling options for superior performance
- 2RU enclosure including 1RU internal heat-sink (see Figure A at right) for improved performance and durability





Technical Specifications

Parameter	80km Version	120km Version
DWDM Channel Count (min/max)	1 / 40	
DWDM Channel Wavelengths (min/max, THz)	192.0 / 195.9 (ITU ch. 20 / 59)	
Client Interface Average Input Power/Channel (min/max, dBm) Client Interface Average Input Power/Lane (min/max, dB)	-8 / -5 -11 / -8	
Link Loss Budget (min/max, dB)	1 / 16¹	13 / 23¹
Client Interface Input OSNR (dB)	58	
Client Interface Output OSNR (dB)	30.5	
Client Interface Output Power/Channel (min/max, dB)	-2 / 6	
Input Voltage Range (min/max, VAC)	90 / 264	
Input Frequency Range (Hz)	47 / 63	
Input Current @ 90 VAC (A) Input Current @ 264 VAC (A)	0.7 2	
Operating Temperature Range (min/max, °C) Storage Temperature Range (min/max, °C)	0 to 70 -40 to 70	
Dimensions (WxDxH, mm)	16 7/8" x 36 1/8" x 3 1/2" (19" wide w/ brackets)	

^{1.} Includes 3dB EOL margin.

Ordering Information

C1 Part Number	Description	
ZAD-40-TDC-120-V-AC-P	40 ch Active DWDM Open Line System, 120km, AC only, PS included, E2000 connectors on OSP	
ZAD-40-TDC-80-V-AC-P	40 ch Active DWDM Open Line System, 80km, AC only, PS included	
ZAD-40-X-X-AC-X	AC Power Supply for 40 ch OLS (spare/replacement)	
ZAD-40-X-X-X-FAN-X	Fan module for 40 ch OLS (spare/replacement)	
ZAD-40-X-X-X-RLS-X	Slide (Rails) for 40 ch OLS	
SERVICE AND SUPPORT		
ZAD-247-W-S	Hotline Support: 24 hours/day, 7 days/week	
ZAD-3-W-S	36-Month Extended Warranty (inclusive of standard 12-month warranty)	
ZAD-5-W-S	60-Month Extended Warranty (inclusive of standard 12-month warranty)	