



# uTune™ DIRECTOR

SPARE JUST ONE.



US Patent No.  
**3,391,706 B2**



## KEY FEATURES AND BENEFITS

### Reduced Sparing Requirements

The new uTune™ Director is a unique innovation used to tune DWDM SFP+ and XFP pluggable transceivers and lock the channel so the transceiver can be used as a fixed-channel DWDM solution. This patented technology creates the ability for network operators to reduce the sparing requirements for fixed channel passive DWDM networks, as well as instantly turn up a new DWDM circuit, potentially saving millions of dollars for network operators while increasing network flexibility.

Telecom and datacom providers can now strategically place a uTune Director at their sparing facilities to eliminate the need to spare potentially hundreds of fixed channel DWDM pluggable transceivers. One single tunable transceiver can serve as a spare for any fixed-channel DWDM transceiver.

### Speed to Market & Increased Capacity

Champion ONE's tunable SFP+ and XFP DWDM pluggable transceivers, in conjunction with the uTune Director, can be tuned to any of the standard ITU C-band 50GHz or 100GHz spaced channels. Turn up new circuits instantly.

### Portability

The uTune Director is a simple-to-use, completely portable standalone device, for ultimate convenience.

## FINANCIAL IMPACT

Today's fixed channel DWDM networks are extremely inefficient as it relates to sparing pluggable optics. In order to maintain service levels and protect against potential outages, network operators are required to purchase and inventory a spare transceiver for every channel deployed. For 100GHz based fixed DWDM networks, that could mean investing in as many as 40 spares. Not only does this represent a significant operational challenge, but it is also extremely capital intensive. DWDM XFPs or SFP+s, for example, can cost as much as \$20,000 per pluggable optic.

However, by using a uTune Director and 1 tunable SFP+ or XFP, all of these fixed channel spares can be virtually eliminated. This paradigm shift results in monumental savings that can either be redeployed to further grow the network or booked as savings that translate into bottom line growth. Below is a conservative example of the savings realized by deploying a uTune Director and 1 tunable transceiver to support the sparing needs for a small metro ring.

### DWDM XFP Metro Ring

	Fixed Channel Spare	uTune Director and Tunable XFP
Cost	\$5,000/optic	<\$7,000
Quantity	20	1
Total	\$100,000	<\$7,000
Savings	\$93,000+	
Break-Even	2 Spares	



"This appliance is remarkable. We plan on placing one at all of our sparing facilities for each of our metro rings. It will completely change our entire approach to sparing and save us tens of thousands of dollars."

- Director of Network Engineering,  
Tier 1 Service Provider

## TECHNICAL SPECIFICATIONS

### STANDARDS AND REGULATORY COMPLIANCE

RoHS compliant  
Power supply- UL, FCC

### FORM FACTOR (MSA COMPLIANT)

80 km SFP+  
80 km XFP  
(Champion ONE tunable transceivers required- see below)

### WARRANTY

Limited 1-year warranty

### NOTES

Standalone device: no connection to PC, network or similar device required

Includes wall adapter (power information below).

C1 PN	Dimensions	Storage Temp (°C)	Operating Temp (°C)	Description	Display	Wall Adapter Input	Wall Adapter Output
<b>Multi-protocol 10G (10G LAN/WAN, 10G FC, OC-192)</b>							
DWDM-XS+DIR	9.75"W x 7.88"L x 1.75"H; 3.46lbs	-30 to 80	-20 to 70	SFP+ and XFP DWDM Tuner	3.25"W x 0.75"H backlit LCD	110-120V, 50-60Hz, 0.15A	9V, 0.66A

## COMPATIBLE TRANSCEIVERS

The uTune Director™ is designed for use with the following Champion ONE tunable transceivers:



**SFP+**



**XFP**

	Limiting SFP+	Linear SFP+
<b>Multi-protocol 10G</b>		
Champion ONE part #	10GTSFP+MC80	10GTSFP+NC80
Electrical Interface	Limiting	Linear
Power Consumption (W)	1.65	2.00
Transmit Wavelength (nm)	1528.38 to 1568.77 (ITU ch. 61.5 - 11.0, 50GHz spacing)	
Rated Distance (km)	80	
Output Power (min/max) (dBm)	-1.0 / 3.0	
Receiver Sensitivity (dBm)	-27.0	
Max Input Power (dBm)	-7.0	
Operating Temperature (°C)	-5 to 70	

	XFP
<b>Multi-protocol 10G</b>	
Champion ONE part #	10GTXFP:xxx0DWDM80 (xxx = ITU channel #)
Power Consumption (W)	3.5
Transmit Wavelength (nm)	1528.77 to 1563.86 (ITU ch. 61.0 - 17.0, 50GHz spacing)
Rated Distance (km)	80
Output Power (min/max) (dBm)	-1.0 / 3.0
Receiver Sensitivity (dBm)	-24.0
Max Input Power (dBm)	-8.0
Operating Temperature (°C)	-5 to 70

For more information, consult the respective data sheets for SFP+ and XFP transceivers, available from [www.championone.com](http://www.championone.com)

## SERVICE AND SUPPORT

Running a network or selling network services and products can be a highly competitive endeavor. To help differentiate your business and enable you to provide more cost effective infrastructure, you require a partner that provides competitive pricing and vertical market expertise. At Champion ONE we understand your needs. We leverage our skills and relationships to:

- Provide network design services and help you explore alternative network designs you may not have considered
- Provide technical and sales support when you need it
- Accept orders for same day shipment up to 3:00 PM EST
- Offer some of the longest warranties in the industry
- Offer a 30-day return policy
- Build a long- term supplier partnership with you

You can rely on Champion ONE, not only for the highest levels of availability for the products you need, but the technical support, customer service and cost consideration you deserve. Our goal is your complete satisfaction.

## THE CHAMPION ONE COMMITMENT



For over twenty years, we at Champion ONE have been delivering great value to our customers through high-quality products at competitive prices. As one of the leading suppliers of compatible optical transceivers and a major supplier of optical networking solutions, we take great pride in building long-term relationships as a trusted partner. In this spirit, everything we bring to market bears the Champion ONE Shield™, which strengthens this trust through five core promises: Performance, Availability, Compatibility, Protection, and Value.

All product photos are representative samples only.

Champion ONE and the Champion ONE logo are registered trademarks of Champion Optical Network Engineering, LLC. All other trademarks, service marks, registered marks, or registered service marks are the property of their respective owners, and do not imply any affiliation with Champion ONE. Champion ONE assumes no responsibility for any inaccuracies in this document. Champion ONE reserves the right to change, alter, or otherwise revise this document without notice.

### GLOBAL HEADQUARTERS

Champion ONE  
 23645 Mercantile Road  
 Cleveland, OH 44122  
 Phone: 800-860-7466  
 Fax: 216-831-2541  
 e-mail: [sales@championone.com](mailto:sales@championone.com)  
[www.championone.com](http://www.championone.com)

8.23.2017 – REV 3.6