

# Fiberoptic DPSK Demodulator

(Patent Pending)

## Product Description

The Optical DPSK demodulator converts a phase modulated signal to an amplitude signal at a data transmission rate 40Gb/s. This is achieved based on a patent pending configuration featuring ultra-stable peak wavelength, ultra-low power consumption for peak wavelength tuning, low FSR Error, low IL and PDL, high ER, and low fabrication cost. The DPSK demodulator is designed to meet the most demanding requirements of telecommunication to improve signal quality and performance at very high data rate.



## Performance Specifications

DPSK Demodulator	Min	Typical	Max	Unit
Wavelength	C Band 1527-1567 L Band 1567-1607			nm
Insertion Loss <sup>1</sup>		1.1	2.0	dB
FSR Spectral Range		50		GHz
FSR Error			0.5	%
Extinction Ratio	18			dB
Polarization Insertion Loss			0.2	dB
Return Loss	50			dB
Optical Path Delay			2	ps
Wavelength Tuning Speed			2	Sec*
Tuning Current			50	mA
Power Consumption			50	mW
Tuning Range	0.6			nm
Maximum Input Optical Power			500	mW
Operating Temperature		0 ~ 70		°C
Storage Temperature		-40 ~ 85		°C
Fiber Type		SFM-28		
Package Dimension		81.0L x 38.0W X 8H		mm

Notes:

\*: Defined as the time required to reach half-way from the starting to ending points

1. Excluding connectors

## Features

- High Stability
- Low FSR Error
- High ER
- Low IL & PDL
- Low PDFS
- Epoxy-Free Optical Path
- Low Cost

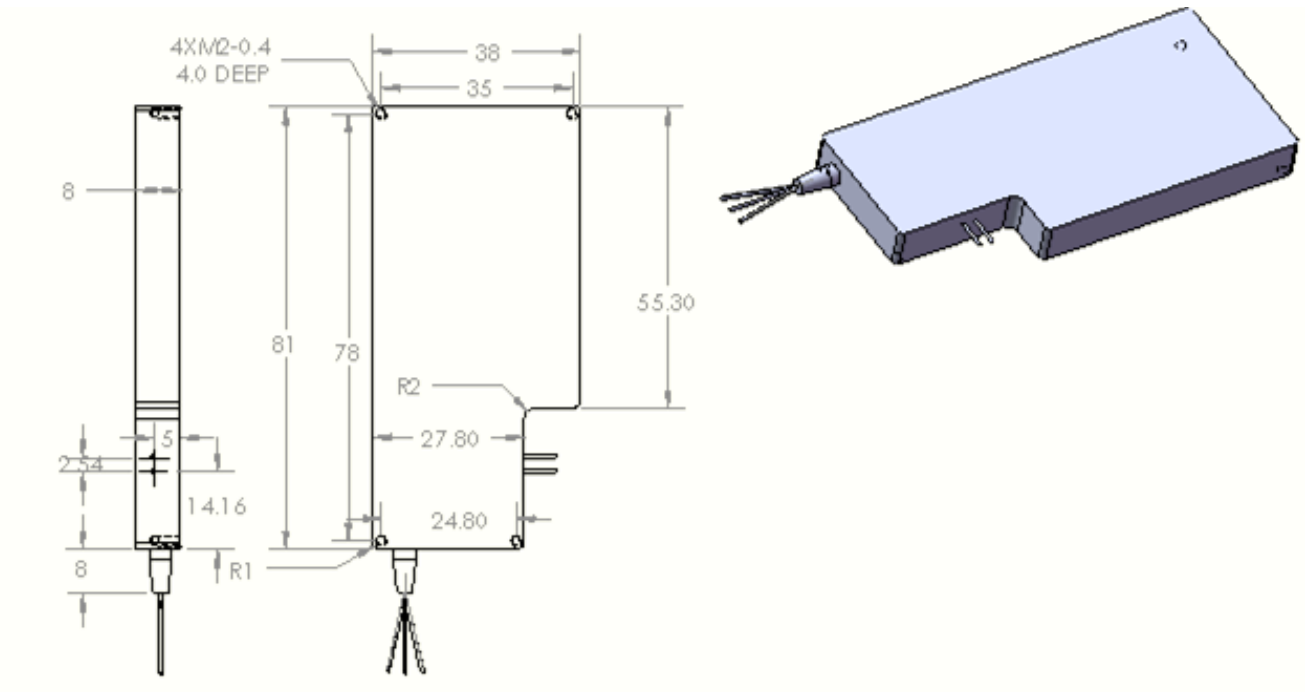
## Applications

- Telecommunication
- Instrumentation



# Optical DPSK Demodulator

## Mechanical Dimensions (Unit:mm)



## Ordering Information

DPSK-	<input type="checkbox"/> 1 <input type="checkbox"/> 1	<input type="checkbox"/>	<input type="checkbox"/> 1	<input type="checkbox"/> 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Type	Wavelength	Configuration	Package	Fiber Type	Fiber Length	Connector	
		C Band=1 L Band=2 Special=0			SMF-28=1 Special=0	Bare fiber=1 900um tube=3 Special=0	0.25m=1 0.5m=2 1.0m=3 Special=0	None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC=7 Duplex LC=8 Special=0