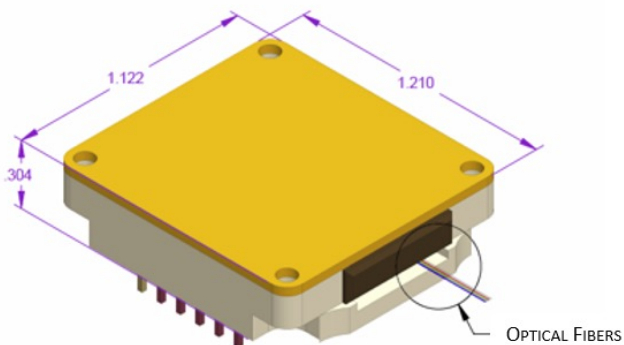


# Northstar Photonics PIC Detector Module



The Photonic Integrated Circuit Detector Module (PDM) designed and developed by Northstar Photonics provides a compact, light-weight, distribution and detection solution for fiber optic gyroscope (IFOG) applications. The standard configuration provides three well-isolated channels with built-in TIAs for simple integration into a 3-axis IMU. The product is backed by qualification testing to MIL-STD requirements and a lifetime of more than 30 years.

Parameter	PIC Detector Module
Package Dimensions 1)	1.122 in x 1.210 in x 0.304 in
Weight	12 g (0.026 lbm)
Electrical Interface	Au/Ni plated 2x6-pin on 0.100 in pitch
Power consumption	< 400 mW
Operating Range	-55 C to + 85 C
Fiber Pigtail Length	> 1.5 m
Optical Fiber MFD 2)	$6.5 \pm 1.0 \mu\text{m}$
Optical Fiber Coating/Cladding 2)	$165 \pm 5 \mu\text{m} / 80 \pm 2 \mu\text{m}$
Insertion Loss (IL)	> -12.0 dB
Insertion Loss Uniformity	$\pm 0.75 \text{ dB}$
Temperature Dependent IL -55 C to +85 C	< 0.5 dB
Polarization Dependent Loss	< 0.4 dB
Channel to Channel Isolation	< -50 dB
Detector Circuit Response	$18 \pm 5 \text{ mV}/\mu\text{W}$
Maximum input optical power	> 100 mW

- 1) Does not include fiber pigtails or pins
- 2) Custom fiber configurations available upon request