

about US

WHAT WE DO

Specializing in the R&D of optical gyroscopes, fiber optics, sensors and related optical components.

OUR MISSION

To design and develop the manufacturing of advanced inertial sensors with enhanced performance, smaller size, capable of supporting your needs in harsh environments or GPS denied conditions.

OUR TEAM

We have over 35 years experience developing world-class optical gyros and integrated photonics devices poised to offer breakthrough solutions for future requirements.

Infibertech, Corp.
Harnessing the Speed of Light

As the inertial market demands broaden,

Infibertech

- *delivers better components for tomorrow's high accuracy IMUs*
- *achieves improved performance with significant cost & size reduction**

**NASA and the DoD roadmaps have identified low cost & size as the most important factors in future applications*



*optical gyros
&
inertial systems*

Pioneering Gyro Technology

*Cutting Edge Sensor Coils
Revolutionary Light Source Design
Photonic Integrated Technology*



Smallest size with best performance

Advancing Military & Commercial demand

on land



on sea



In the air



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Infibertech, Corp.
Harnessing the Speed of Light

Infibertech, Corp.

fiber optics sensors & systems

Infibertech offers the best performance per size gyros and systems in the market

ADVANCED TECHNOLOGY

- > *Cutting edge gyro coils* enable lowest bias over extended temperature range
- > *Revolutionary light source design* - lowest noise (RIN) with excellent long term wavelength stability
- > *Photonic integrated Technology (PIC)* for enhanced reliability, smaller size and lower cost
- > *Rugged construction* compatible with demanding applications

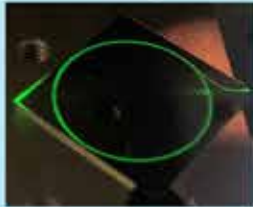
KEY PERFORMANCE FEATURES

- > *An unparalleled, lowest noise (ARW) per gyro size*
- > *Zero quantization noise (AWN) within the operating bandwidth*
- > *Exceptionally large bandwidth, up to 10 kHz*
- > *Excellent bias residual over temperature*

PHOTONIC INTEGRATED CIRCUIT PLATFORMS

A Complete Gyro on a Chip

Smaller, better, lighter & more reliable compared to any technology today



All gyro components, including the gyro coil, splitters, modulator and detectors are fully integrated as part of the gyro wafer

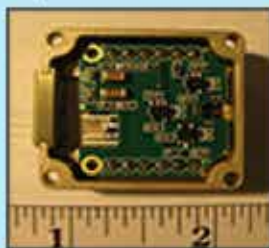
Revolutionary Technology
(in development)

Photonic Detector Module (PDM)

- > Fully qualified
- > Replacing most of the three axis IMU optical components with small, ruggedized, and low-cost optical circuit on Silica platform



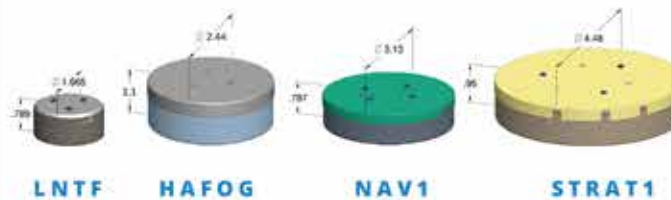
PIC Wafer



PDM Assembly

GYRO PRODUCTS

Specially designed closed loop technology



	Diameter	ARW range	Bias residual
	inch	milli-deg/hr	deg/hr
LNTF	1.6	2 to 8	0.1
HAFOG	2.4	0.4 to 0.8	0.008
NAV1	3.1	0.6 to 1.2	0.008
STRAT1	4.5	0.2 to 0.4	0.004

Our gyros may be supplied as separate sensor heads (with remote electronics), dual axis or three axis sensor cluster



SYSTEM PRODUCTS

SMALLEST TACTICAL IMU

- > 7 inch³ inertial sensor assembly with < 1 deg/hr bias and < 0.01 deg/rt-hr ARW
- > IMU in development (NASA SBIR)

COMPACT HIGH ACCURACY IMU

- > Best in existence IMU for survey and land navigation
- > Developed under USMC SBIR phase II
- > Prototype system integrated and performance validated
- > Final INS expected to be < 320 inch³ and < 12 lb.



INS prototype

LOW NOISE LIGHT SOURCE FOR GYROS AND OPTICAL TOMOGRAPHY APPLICATIONS

- > Broad band emission with lowest Relative Intensity Noise (RIN) of -144 dB/Hz
- > Miniaturized, ruggedized assembly, including electronics
- > < 3.6 x 1.5 x 0.5 inch

