Instructions for iFOGMonitor

iFOGMonitor is a software for TA7774 series which is supplied by TAMAGAWA SEIKI CO., LTD. The software operates under required environment as below.

1. Enabled device
   TA7774N4, TA7774N6, TA7774N8
2. Environmental Requirement
   PC (Windows 7 or later)

Please start up the software by following instruction.

COM Port setting

Supply the required voltage to i-FOG, and connect i-FOG to PC with a specified cable. If you need to convert RS232C to USB, please use RS232C-USEB conversion cable available in the market.　Ex) BUFFALO　BSUSRC06 series.

Confirm the COM port# which you are currently connected. Open the Device Manager and check the port COM and LPT. If you are using a USB cable, "USB Serial Port #" is added.
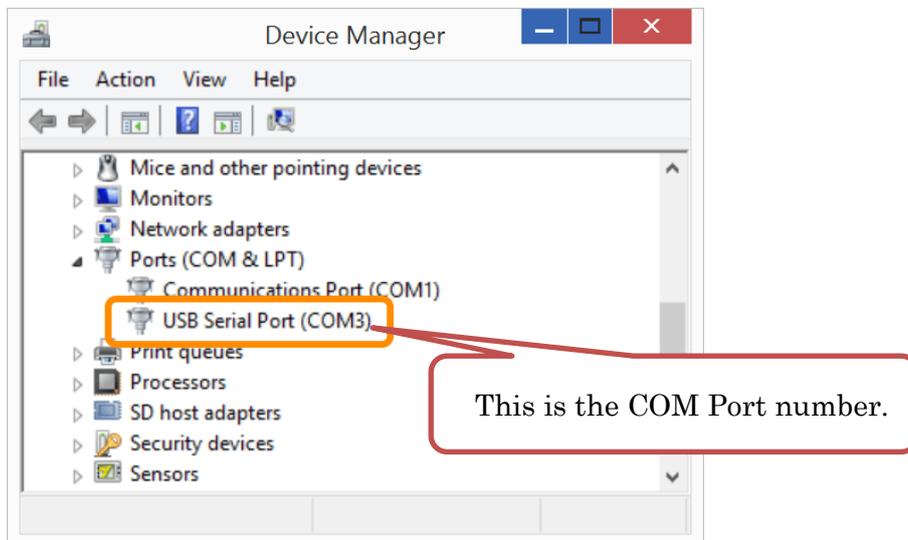
Note: if COM port # is not displayed, you may need to install RS232C-USB driver.

1) Download iFOGMonitor and unzip it to desktop or My Documents, etc. Then, double-click .exe file and start up the software.

2) [Tools] Tab -> [Opiton]: open Config monitor to make software setting.
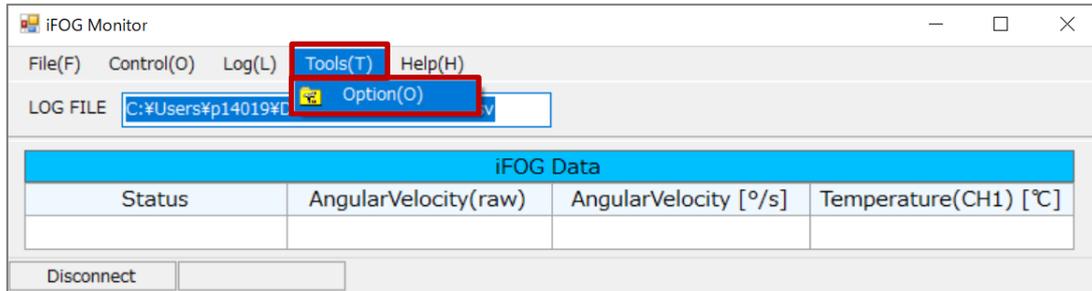
Figure 1   iFOG Monitor (1)

3) In Config monitor, please make settings of COM port#, Scale and BIAS. The values of Scale and BIAS is written in the inspection data sheet attached to the product.
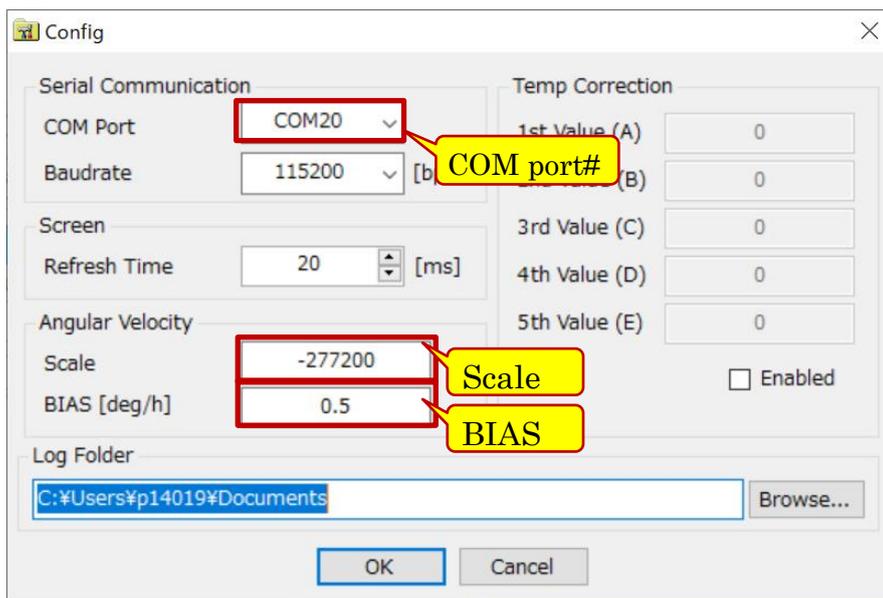
Figure 2   Config Monitor

*You can change the refresh rate of iFOGMonitor by changing Refresh Time in Screen section.

*Log Folder can be changed from Browse button.

干渉型光ファイバジャイロ 検査成績書 (i-FOG Inspection Data Sheet)

形式 (Type)	TA7774N4	製品番号 (S/N)	S00001	検査結果 (Inspection Result)	PASSED
検査日 (Date of inspection)	Oct. 3. 2019	温度 (Temperature during inspection)	25℃	検査者 (Inspector)	
		湿度 (Humidity during inspection)	60%Rh		

No.	検査項目 (Items of inspection)	判定基準 (Inspection criteria)	測定結果 (Measurements)	単 位 (Unit)
1	外観 (Exterior)	傷、汚れ等のないこと。 (Free from stains and scratches)	good	–
2	角速度 (Angular velocity)	検出範囲:±200°/sec以上 (Dynamic Range : larger than 200deg/s) スケールファクタ精度:±100ppm以下 (Scale factor accuracy: within ±100ppm) スケールファクタ直線性:±100ppmFS以下 (Scale factor linearity: within ±100ppmFS)	−0.23	ppm
			2.51	ppmFS
3	アラン分散 (Allan variance)	バイアス不安定性:0.1°/h以下 (Bias instability :within 0.1deg/h) ランダムウォーク:0.01°/√h以下 (Angle random work: within 0.01deg/√h)	0.03	°/h
			0.008	°/√h

No.	角速度出力変換式 (Angular velocity output conversion formula)	補正項目 (Correction item)	補正係数 (Correction factor)	単 位 (Unit)
–	角速度出力(4BYTE,HEX) ⇒ rate[deg/s] (Angular velocity output(4BYTE,HEX) ⇒ rate[deg/s])	scale	−285156	–
	・角速度出力を2の補数に変換:dr (Convert angular velocity output to 2's complement: dr) ・dr / scale + (bias / 3600) = rate[deg/s]	bias	−1.2	

Input value for Scale

Input value for BIAS

Figure 3　Inspection Data Sheet

Measurement without data logging

4) Click iFOG Monitor -> Control Tab -> Start, or press F5 key start measurement.

You can stop measuring in the same procedure, Click iFOG Monitor -> Control Tab -> Stop, or press F5 key.
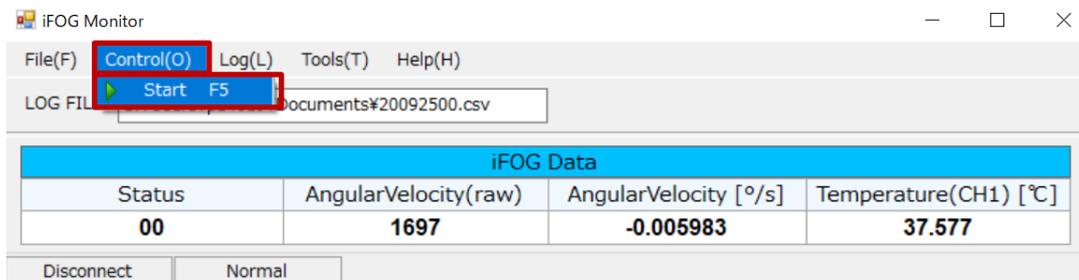
Figure 4　　iFOG Monitor (2)

Measurement with data logging

Click iFOG Monitor -> Log Tab -> Start, or press F9 key start data logging. The log data is save in csv file. Log Folder can be changed from Browse button in Config Monitor. (Please see section 3 in this manual)

You can stop data logging in the same procedure, Click iFOG Monitor -> Log Tab -> Stop, or press F9 key.
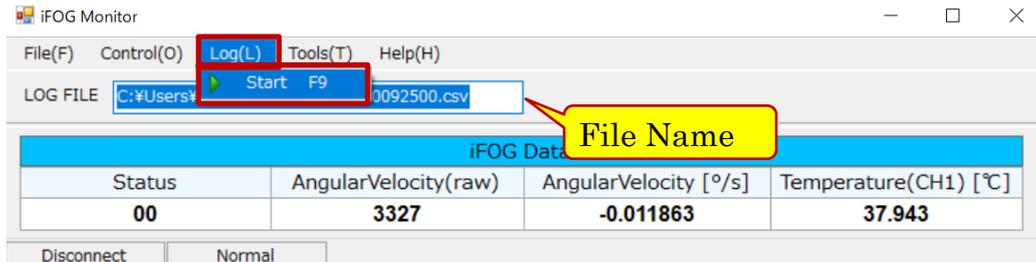
Figure 5   iFOG Monitor (3)

*You can change the file name in iFOG Monitor -> LOG FILE area.