

## 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.

🛃 iFOG Monitor			_		×	
File(F) Control(O) Log(L)	Tools(T) Help(H)					
LOG FILE C:¥Users¥p14019¥E C:¥Users¥p14019¥E						
iFOG Data						
Status	AngularVelocity(raw)	AngularVelocity [°/s]	Temperature(	CH1) [°	C]	
Status	AngularVelocity(raw)	AngularVelocity [°/s]	Temperature(	CH1) [°	C]	

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.

d Config		X
Serial Communication	Temp Correction	
COM Port COM20 ~	1st Value (A)	0
Baudrate 115200 ~ [b CO	M port# (B)	0
Screen	3rd Value (C)	0
Refresh Time 20 🛉 [ms]	4th Value (D)	0
Angular Velocity	5th Value (E)	0
Scale -277200 Scale   BIAS [deg/h] 0.5 D		Enabled
Log Folder		
C:¥Users¥p14019¥Documents		Browse
ОК	Cancel	

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.



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°C	検査者	
		湿度 (Humidity during inspection)	60%Rh	(Inspector)	
No.	検査項目 (Items of inspection)	判定基準 (Inspection criteria)		測定結果(Measurem	nents) 単位(Unit)
1	外観(Exterior)	傷、汚れ等のないこと。 (Free from stains and scratches)		good	-
2	検出範囲: ±2 (Dynamic Range : la スケールファクタ精		200°/sec以上 larger than 200deg/s) l度:±100ppm以下	-0.23	ppm
2 (Angular velocity)		(Scale factor accuracy: within ±100ppm) スケールファクタ直線性: ±100ppmFS以下 (Scale factor linearity: within ±100ppmFS)		2.51	ppmFS
3 (AI	アラン分散	パイアス不安定性: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
	(Allan variance)			0.008	° /√h

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

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	-	
- (Conve	・列速度出力を201冊数に変換;dr Convert angular velocity output to 2's complement:dr) ・dr / scale + (bias / 3600) = rate[deg/s]	bias	-1.2	Input value	e for Scale
	1		-	<mark>Input value</mark>	e for BIAS

Figure 3 Inspection Data Sheet

## Measurement without data logging

 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.

🛃 iFOG Monitor			$ \Box$ $\times$		
File(F) Control(O) Log	(L) Tools(T) Help(H)				
LOG FIL					
iFOG Data					
Status	AngularVelocity(raw)	AngularVelocity [°/s]	Temperature(CH1) [℃]		
00	1697	-0.005983	37.577		
Disconnect No	rmal				
Figure 4 iFOG Monitor (2)					

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## 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.

🛃 iFOG Monitor			- 🗆 X		
File(F) Control(O) Log(L)	Tools(T) Help(H)				
LOG FILE C:¥Users¥ Start F9 0092500.csv					
iFOG Data File Name					
Status	AngularVelocity(raw)	AngularVelocity [°/s]	Temperature(CH1) [℃]		
00 3327 -0.011863		37.943			
Disconnect Normal					

Figure 5 iFOG Monitor (3)

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