

---

# **FnIO G-Series :**

# **GT-5444**

**GT-5444 (4CH PWM Output, 0.5A/24Vdc, Push-pull)**

## Table of Contents

Table of Contents.....	2
History.....	3
1. ENVIRONMENT SPECIFICATION.....	4
2. GT-5444(4CH PWM Output, 0.5A/24Vdc, Push-pull).....	5
2.1. GT-5444 Specification.....	5
2.2. GT-5444 Wiring Diagram.....	6
2.3. GT-5444 LED Indicator.....	7
2.3.1. LED Indicator.....	7
2.3.2 Channel Status LED.....	7
2.4. Mapping data from the image table.....	8
2.5. Parameter Data.....	8

**History**

REV.	PAGES	REMARKS	DATE	Editor
1.00	8	New Document	Oct 14, 2019	Soyeong, Park
1.01		Release	Apr 21, 2020	Soyeong, Park

**1. ENVIRONMENT SPECIFICATION**

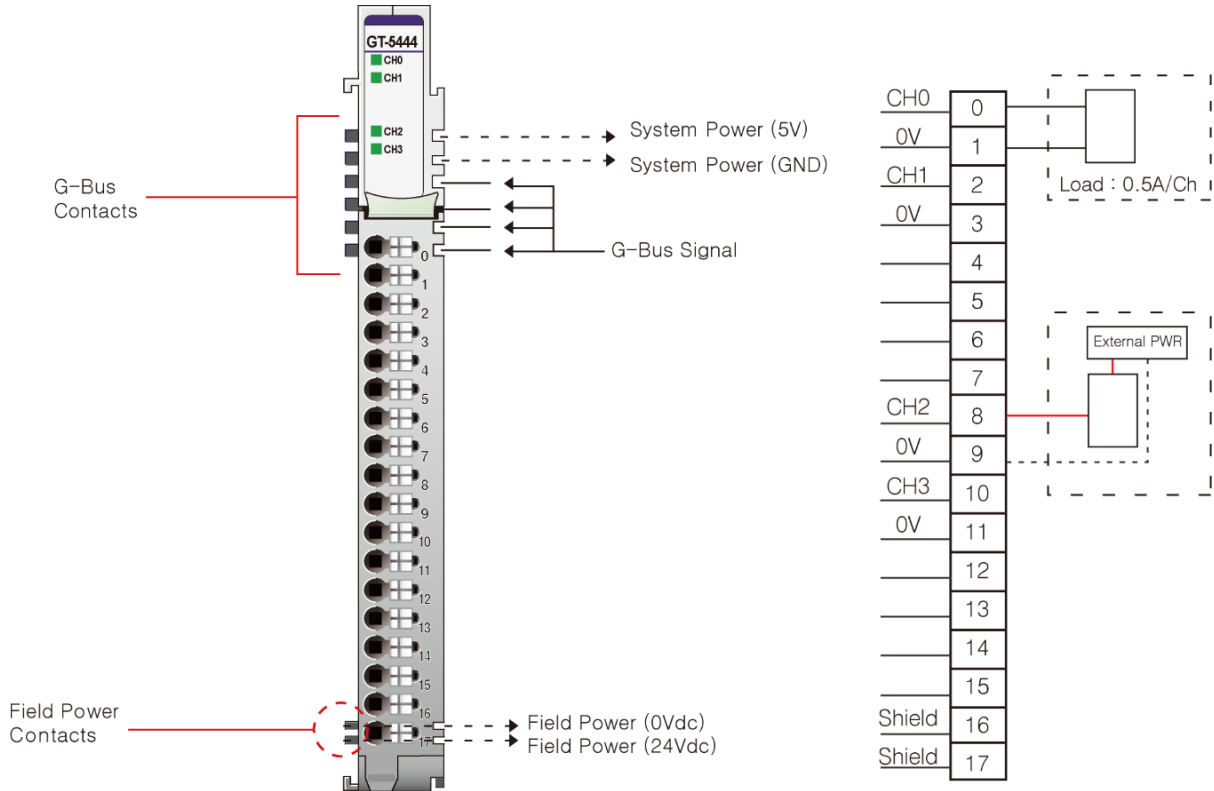
<b>Environmental specification</b>	
Operating Temperature	-40°C~60°C
UL Temperature	-20°C~60°C
Storage Temperature	-40°C~85°C
Relative Humidity	5%~90% non-condensing
Mounting	DIN rail
<b>General Specification</b>	
Shock Operating	IEC 60068-2-27
Vibration Resistance	Based on IEC 60068-2-6 DNVGL-CG-0039 : Vibration Class B, 4g
Industrial Emissions	EN61000-6-4/All : 2011
Industrial Immunity	EN61000-6-2 : 2005
Installation Position	Vertical and horizontal installation is available
Product Certifications	CE, UL, FCC

## 2. GT-5444(4CH PWM Output, 0.5A/24Vdc, Push-pull)

### 2.1. GT-5444 Specification

Items	Specification
<b>Output Specification</b>	
Number of channel	4 channel
Number of output	4 output, push-pull type
Indicators	4 green pulse output status
Output voltage	24Vdc
Output current	0.5A per channel, 2.0A per unit Operating temperature -40°C~45°C : Max. 0.5A per channel 45°C~60°C : Max. 0.3A per channel
Pulse output frequency	1-5kHz $\pm$ 0.5%
Pulse output duty	0.0-100.0% $\pm$ 1.0% (0.1%/1LSB), Ton > 1us, Toff > 1us
Protection	Short protection
Common type	4 common, field power 0V is common
<b>General Specification</b>	
Power dissipation	Max. 75mA @ 5Vdc
Isolation	I/O to Logic : photocoupler isolation Field power : non-isolation
UL field power	Supply voltage : 24Vdc nominal, Class2
Field power	Supply voltage : 24Vdc nominal Voltage range : 15~30Vdc Power dissipation : Max. 15mA @ 24Vdc except load
Wiring	I/O Cable Max. 0.75mm <sup>2</sup> (AWG 18)
Weight	63g
Module size	12mm x 109mm x 70mm
<b>Environment condition</b>	<b>Refer to 'Environment Specification'</b>

## 2.2. GT-5444 Wiring Diagram

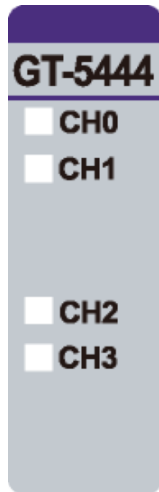


Pin No.	Signal Description
0	PWM Output Channel #0
1	Field Power 0V, Common
2	PWM Output Channel #1
3	Field Power 0V, Common
4	N.C.
5	N.C.
6	N.C.
7	N.C.
8	PWM Output Channel #2
9	Field Power 0V, Common
10	PWM Output Channel #3
11	Field Power 0V, Common
12	N.C.
13	N.C.
14	N.C.
15	N.C.
16	Shield
17	Shield

\*N.C : Not Connected.

## 2.3. GT-5444 LED Indicator

### 2.3.1. LED Indicator



LED No.	LED Function / Description	LED Color
0	PWM Output Channel #0	Green
1	PWM Output Channel #1	Green
2	PWM Output Channel #2	Green
3	PWM Output Channel #3	Green

### 2.3.2 Channel Status LED

Status	LED	To Indicate
No Signal	Off	Normal Operation
On Signal	Green	Normal Operation

## 2.4. Mapping data from the image table

- **Input Image Value - 4Byte**

Bit No	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Byte 0	Reserved							
Byte 1	Reserved							
Byte 2	Reserved							
Byte 3	Reserved							

- **Output Image Value - 16Byte**

Bit No	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Byte 0	Frequency CH#0 Low Byte							
Byte 1	Frequency CH#0 High Byte							
Byte 2	Duty CH#0 Low Byte							
Byte 3	Duty CH#0 High Byte							
Byte 4	Frequency CH#1 Low Byte							
Byte 5	Frequency CH#1 High Byte							
Byte 6	Duty CH#1 Low Byte							
Byte 7	Duty CH#1 High Byte							
Byte 8	Frequency CH#2 Low Byte							
Byte 9	Frequency CH#2 High Byte							
Byte 10	Duty CH#2 Low Byte							
Byte 11	Duty CH#2 High Byte							
Byte 12	Frequency CH#3 Low Byte							
Byte 13	Frequency CH#3 High Byte							
Byte 14	Duty CH#3 Low Byte							
Byte 15	Duty CH#3 High Byte							

- Range of each Duty is 0(0.0%) ~ 1000(100.0%). If Duty value is 365, then duty rate is 36.5%.

## 2.5. Parameter Data

- **Valid Parameter length : 2 Bytes**
- **Parameter Data**

Bit No	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Byte 0	Reserved							
Byte 1	Reserved							