

5.6. Counter/Frequency/PWM Modules

• Selection Guide

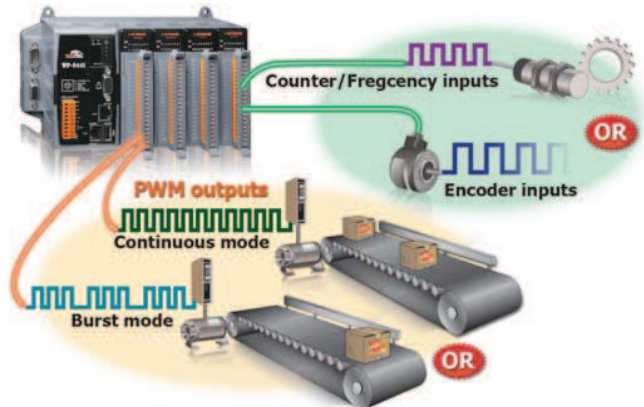
■ PWM Introduction

PWM (Pulse width modulation) is a powerful technique for controlling analog circuits. It uses digital outputs to generate a waveform with variant duty cycle and frequency to control analog circuits. I-8088W and I-87088W have 8 PWM output channels and 8 digital inputs. It can be used to develop powerful and cost effective analog control system.

■ PWM Features

- Automatic generation of PWM outputs by hardware, without software intervention.
- Software and hardware trigger mode for PWM output
- Individual and synchronous PWM output
- Burst mode PWM operation for standby
- DI channel can be configured as simple digital input channel or hardware trigger source of the PWM output.

■ Applications



Counter/Frequency/PWM Module (Parallel/Serial Bus)					
Models	I-87082W	I-8084W	I-87084W	I-8088W	I-87088W
Pictures			NEW		Available soon
Digital Input					
Channels	2	8		8	8
Type	Isolated or Non-isolated		Isolated or Non-isolated (Jumper Selectable)		Isolated
on	3.5 ~ 30 Vdc (isolated) 2.4 ~ 5 Vdc (Non-isolated)		3.5 ~ 30 Vdc (isolated) 2.4 ~ 5 Vdc (Non-isolated)		5 ~ 30 Vdc
off	1 Vdc Max. (isolated) 0 ~ 0.8 Vdc (Non-isolated)		1 Vdc Max. (isolated) 0 ~ 0.8 Vdc (Non-isolated)		0.8 Vdc Max.
Threshold Voltage	Programmable		Fixed		Fixed
Counter	Up		Up/Down		-
Max.Counts	32-bits (4,294,967,295)		32-bits (4,294,967,295)		-
Max. Counter Speed	100 kHz		250 kHz (isolated) 1 MHz (Non-isolated)		-
Digital Filter	2 ~ 65000 µs		1 ~ 32767 µs		-
Virtual Battery Backup for Counter Value	-		Yes		-
Max. Frequency	100 kHz		250 kHz		-
Frequency Accuracy	1Hz or 10Hz		±0.4% of Input Frequency		-
Encoder	-		CW/CCW, Dir/Pulse, AB Phase		-
Digital Output					
Channels	2	-		8	
Type	Sink, Open Collector		-		Source, PWM
Output Voltage	5 ~ 30 Vdc		-		5 Vdc
Output Current	30 mA		-		1 mA
Alarm Output	Yes		-		-
PWM Frequency	-		-		1 ~ 500 kHz
PWM Duty Cycle	-		-		0.1 ~ 99.9%
PWM Mode	-		-		Burst, Continuous
Burst Count	-		-		1 ~ 65535
Trigger Start	-		-		Hardware, Software
System					
Dual Watchdog	Yes	-	Yes	-	Yes
Data Bus	Serial	Parallel	Serial	Parallel	Serial
Isolation	3750 Vrms	1000 Vrms	2000 Vdc	3000 Vdc	2500 Vrms
Power Consumption	0.5 W	0.6 W	0.6 W	1.8 W	1.8 W
Connector	Terminal Block			Terminal Block	
Optional Accessories	-			-	