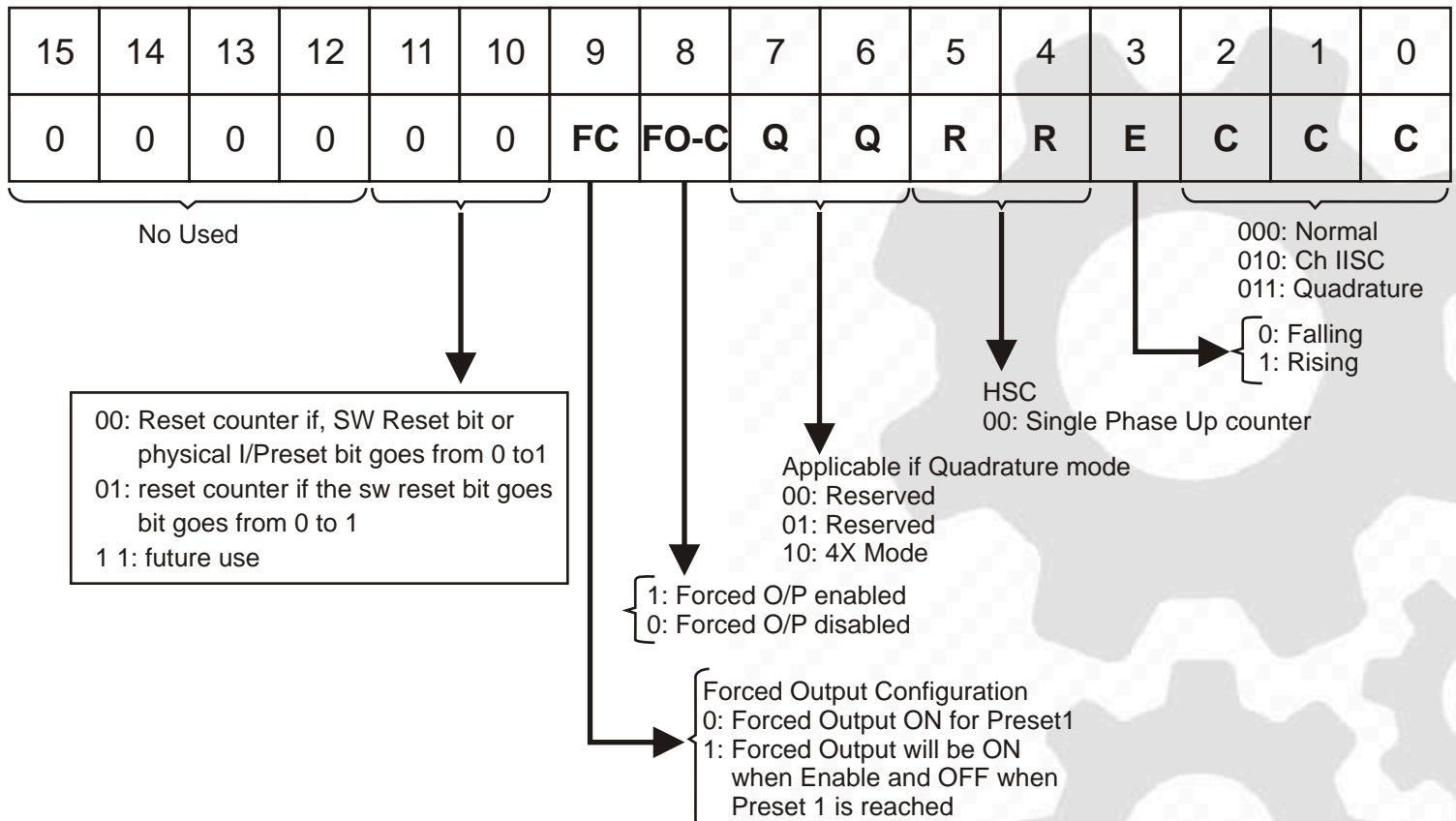


CONFIGURATION REGISTERS FOR HIGH SPEED COUNTER INPUTS : ALL FPEM MODELS

Note : xx refers to slot number . E.g. for first slot replace xx with 01
X refers to channel number . E.g. for first channel replace X with 1

Register Description	Register Number		Attribute	Value in Register / Range
	Y0 (Ch1)	Y1(CH2)		
Slotxx_CHX_HSC Configuration register	MWxx00	MWxx30	Read/Write	2 (Single Phase Counter) 387(4X Quadrature) *
Slotxx_CHX_High Speed Counter (HSC) Register	Mwxx01	MWxx31	Read Only	4294967295(32-bit data)
Slotxx_CHX_HSC Preset Register	Mwxx03	MWxx33	Read/Write	4294967295(32-bit data)
Slotxx_CHX_HSC Enable Bit	Mxx080	Mxx577	Read/Write	Output is enabled when ON
Slotxx_CHX_HSC Reset Bit	Mxx081	Mxx471	Read/Write	Count Reset (ON/OFF)
Slotxx_CHX_HSC Preset Reached Bit	Mxx083	Mxx472	Read Only	ON/OFF
Slotxx_CHX_Rate register	XWxx01	Mxx472	Read Only	4294967295(32-bit data)
Slotxx_CHX_Rate_Span_register	MWxx12	Mxx472	Read/Write	0.1 to 71.5 sec
Slotxx_CHX_RateSpanSettingErrFlag	Mxx184	Mxx472	Read Only	ON/OFF



ANALOG I/O CONFIGURATION FOR FPEM ALL MODELS

Note : xx refers to slot number . E.g. for first slot replace xx with 01
X refers to channel number . E.g. for first channel replace X with 1

CONFIGURATION REGISTERS FOR ANALOG INPUTS

Register Description	Register Number				Attribute	Value in Register / Range
	CH1	CH2	CH3	CH4		
Slotxx_CHX_Analog Input Type	MWxx60	MWxx62	MWxx63	MWxx64	Read/Write	1: Voltage input 0-10V 6: Voltage input 0-5V 18: Voltage input -10 to +10V 5: milivolt input 0-50mV 4: milivolt input 0-100mV 3: Current input 0-20mA 2: Current input 4-20mA 7: RTD input alpha1:(-200 to 850°C) 8: RTD input alpha2:(-100 to 457°C) 9: PT 1000 14: Thermocouple J:(-210 to 1200°C) 15: Thermocouple K:(-200 to 1373°C)
Slotxx_CHX_Analog Input Register	XWxx11	MWxx13	MWxx15	MWxx17	Read Only	Reads voltage/current input
Slotxx_CHX_Analog_IP_NormalisationFactor	MWxx64	MWxx65	MWxx66	MWxx67	Read/Write	0 to 100

CONFIGURATION REGISTERS FOR ANALOG OUTPUTS : FPEM 0808RP0401U, FPEM 0808P0401U, FPEM 1210RP0201L, FPEM 1210P0201L

Register Description	Register Number	Attribute	Value in Register / Range
	Vout/Iout		
Slotxx_CHX_Analog Output Type	MWxx68	Read/Write	2: Voltage output 0-10V 1 : 0 -5V 5: Current output 4-20mA 6: Current output 0 -20mA
Slotxx_CHX_Analog Output Current Register	XWxx02	Read/Write	0 to 4095
Slotxx_CHX_Analog Output voltage Register	MWxx01	Read/Write	0 to 4095

CONFIGURATION REGISTERS FOR PWM OUTPUTS

Note : xx refers to slot number . E.g. for first slot replace xx with 01

NORMAL PWM MODE CONFIGURATION

Register Description	Register Number		Attribute	Value in Register / Range
	Y0 (Ch1)	Y1(CH2)		
PWM Configure Reg	MWxx24	MWxx30	Read/Write	Put value 1 *
Frequency /Min Freq Setting Reg	MWxx25	MWxx31	Read/Write	Data range: 1 to 200000
ON duty /Max Freq Setting Reg	MWxx27	MWxx33	Read/Write	Data range: 0 to 100
Pulse Enable Flag	Mxx576	Mxx577	Read/Write	Output is enabled when ON
ON duty setting error flag	Mxx466	Mxx471	Read Only	ON at error (reset OFF automatically)
Frequency Setting error flag	Mxx467	Mxx472	Read Only	ON at error (reset OFF automatically)

* If user put config value 2: User can change frequency even if pulse enable flag is ON.

CW/CCW MODE CONFIGURATION

Register Description	Register Number		Attribute	Value in Register / Range
	Y0 (Ch1)	Y1(CH2)		
PWM Configure Reg	MWxx24	MWxx30	Read/Write	Put value 2 *
Frequency /Min Freq Setting Reg	MWxx25	MWxx31	Read/Write	Data range: -100000 to -1 and 1 to 100000
Pulse Enable Flag	Mxx576	Mxx577	Read/Write	Output is enabled when ON
Frequency Setting error flag	Mxx467	Mxx472	Read Only	ON at error (reset OFF automatically)

* If user put config value 4: User can change frequency even if pulse enable flag is ON.

PULSE/DIR MODE CONFIGURATION

Register Description	Register Number		Attribute	Value in Register / Range
	Y0 (Ch1)	Y1(CH2)		
PWM Configure Reg	MWxx24	MWxx30	Read/Write	Put value 7 *
Frequency /Min Freq Setting Reg	MWxx25	MWxx31	Read/Write	Data range: -100000 to -1 and 1 to 100000
Pulse Enable Flag	Mxx576	Mxx577	Read/Write	Output is enabled when ON
Frequency Setting error flag	Mxx467	Mxx472	Read Only	ON at error (reset OFF automatically)

* If user put config value 8: User can change frequency even if pulse enable flag is ON.

FIXED PULSE MODE CONFIGURATION:

Register Description	Register Number		Attribute	Value in Register / Range
	Y0 (Ch1)	Y1(CH2)		
PWM Configure Reg	MWxx24	MWxx30	Read/Write	Put value 1 *
Frequency /Min Freq Setting Reg	MWxx25	MWxx31	Read/Write	Data range: 1 to 100000
ON duty /Max Freq Setting Reg	MWxx27	MWxx33	Read/Write	Data range: 1 to 100000
Pulse Enable Flag	Mxx576	Mxx577	Read/Write	Output is enabled when ON
Acceleration Time	MWxx37	MWxx38	Read/Write	0 to 65535 (x10mSec base)
Deceleration Time	MWxx39	MWxx43	Read/Write	0 to 65535 (x10mSec base)
Total Pulses	MWxx41	MWxx43	Read/Write	0 to 4294967295
Elapsed Value	MWxx45	MWxx47	Read Only	0 to 4294967295
Frequency Setting error flag	Mxx467	Mxx472	Read Only	ON at error (reset OFF automatically)
Acceleration Time Setting error flag	Mxx468	Mxx473	Read Only	Turns ON at error
Deceleration Time Setting error flag	Mxx468	Mxx474	Read Only	Turns ON at error
No of Total Pulses Setting error flag	Mxx470	Mxx475	Read Only	Turns ON at error
End of Total Pulses flag	Mxx784	Mxx785	Read Only	Turns ON at error
Trapezoidal Min.Pulse Count Register	Mwxx50	Mwxx52	Read Only	0 to 4294967296

* If user put config value 10: User can change frequency even if pulse enable flag is ON.

PWM O/p Specifications	FPEM-1616P	FPEM-1614RP	FPEM-1212P-A0200L	FPEM 1210P -A0201L	FPEM1210RP-A0201L	FPEM -1210P -A0200U	FPEM -0808P -A0401U	FPEM -0808RP -A0401U
Number of O/p	2 pnp open collector							
O/p channels	Y0, Y1							
Isolation	Isolated from 24VDC power, Communication and USB ground							
Max. O/p frequency	1 KHz for PWM mode and up to 5 KHz for PTO					200 KHz		