

6.3. High Level Analog Input Processor - 16 Inputs

MC-PAIH03

Parameter	Specification
FTA Models	MU-TAIH02, TAIH12, TAIH52, TAIH03, TAIH13, TAIH23, TAIH53, TAIH22, TAIH62
Input Type	Voltage, current (2-wire or self-powered transmitters)
Input Channels	16 differential input channels
Common Mode Rejection Ratio, dc to 60 Hz (500 Ω source imbalance)	70 dB
Common Mode Voltage, dc to 60 Hz ⁽¹⁾	-6 to +5 V peak
A/D Converter Resolution	16 bits (14 bits used)
Input Range	0 to 5 V 1 to 5 V 0.4 to 2 V 4-20 mA (through 250 Ω)
Normal Mode Rejection Ratio, at 60 Hz	32 dB
Normal Mode Filter Response	Single-pole RC, -3 dB @ 1 Hz
Maximum Normal Mode Input (differential inputs, no damage)	$\square$ 30 Volts
Crosstalk, dc to 60 Hz (channel-to-channel)	60 dB
Input Impedance (Voltage Inputs)	> 10 M Ω powered
Maximum Input Voltage (any input referenced to common, no damage)	$\square$ 30 Volts
Input Scan Rate	4 samples per second per channel. All channels sampled within a 250 ms window.
Hardware Accuracy (@ CMV = 0 V)	$\square$ 0.075% full-scale (23.5° $\square$ 2°C) $\square$ 0.15% full-scale (0 to 50°C)
Transmitter Power Conditioning MU-TAIH02, TAIH52, TAIH12, TAIH03, TAIH13, TAIH53 MU-TAIH22, TAIH23, & TAIH62	Resistor Current Limited, 145 Ω (not fused) for Class 1, Div 2 interfacing Individually Protected Current Limiting Circuits for Class 1, Div 2 interfacing Maximum current: 30 ma Minimum voltage 23 V
Surge withstand capability (Common mode)	ANSI/IEEE C37.90.1-1978
(1) The low-side input connection is normally connected to system common by a wire jumper on the FTA. This can be removed by the user, subject to operating within the CMV specification.	

6.4. High Level Analog Input Processor Redundancy Option

MU-TAIH12, TAIH52, TAIH13, TAIH53, TAIH22, TAIH23, TAIH62

Parameter	Specification
Input Scan Cycles Missed or Delayed During Swap or Failover	No cycles missed or delayed
Hardware Accuracy Effect of Failure	No effect nominally ☐ 2% of FS maximum (at 0 V Common Mode)

6.32. IOP/FTA Compatibility Matrix

IOP Model Number	FTA Model Number	Description	Red	CE Mark	Term Type ⁽⁶⁾	Circuits	Size ⁽¹⁾
MC-PAIH03		High Level Analog Input	√	□		16	
	MU-TAIH02	HLAI/STI			C	16	A
	MU-TAIH12	HLAI /STI Redundant	□		C	16	B
	MU-TAIH52	HLAI/STI Redundant	□		S	16	B
	MU-TAIH03	HLAI		□	C	16	A
	MU-TAIH13	HLAI Redundant	□	□	C	16	B
	MU-TAIH53	HLAI Redundant	□	□	S	16	B
	MU-TAIH22	Enhanced Power HLA I /STI	□		C	16	B
	MU-TAIH23	Enhanced Power HLA I	□	□	C	16	B
	MU-TAIH62	Enhanced Power HLA I /STI	□		S	16	B
	MU-GAIH13	GI/IS - Aux. Out (4041B)	□	□	C ⁽³⁾	16	B
	MU-GAIH83	GI/IS - Aux. Out (4041B)	□	□	CP ⁽³⁾	16	B
	MU-GAIH14	GI/IS - Aux. & Hi V Out (4041P)	□	□	C ⁽³⁾	16	B
	MU-GAIH84	GI/IS - Aux. & Hi V Out (4041P)	□	□	CP ⁽³⁾	16	B
	MU-GAIH22	GI/IS - Aux. Current Out (4041B)	□	□	C ⁽³⁾	16	B
	MU-GAIH92	GI/IS - Aux. Current Out (4041B)	□	□	CP ⁽³⁾	16	B
MU-PSTX03		Smart Xmtr Int. - Multi-Var.	□	□		16	
	MU-TAIH02	HLAI /STI			C	16	A
	MU-TAIH12	HLAI/STI Redundant	□		C	16	B
	MU-TAIH52	HLAI/STI Redundant	□		S	16	B
	MU-TAIH22	Enhanced Power HLA I/STI	□		C	16	B
	MU-TAIH62	Enhanced Power HLA I/STI	□		S	16	B
	MU-TSTX03	STI		□	C	16	A
	MU-TSTX13	STI Redundant	□	□	C	16	B
	MU-TSTX53	STI Redundant	□	□	S	16	B
	MU-GAIH13	GI/IS - Aux. Out (4041B)	□	□	C ⁽³⁾	16	B

NOTE: The footnotes are located at the end of the table.

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7. Model Numbers

Description	Uncoated Model Number	Coated Model Number (see note)
I/O Processors		
High Level Analog Input Processor (16 Inputs)	n/a	MC-PAIH03
Smart Transmitter Interface (Multivariable) Processor (16 Inputs)	MU-PSTX03	MC-PSTX03
Serial Device Interface Processor (16 Points/Port)	MU-PSDX02	MC-PSDX02
Serial Interface Processor (16 Points/Port)	MU-PSIM11	MC-PSIM11
Low Level Analog Input Processor (8 Inputs)	MU-PAIL02	MC-PAIL02
Low Level Analog Input Multiplexer Processor (32 Inputs)	MU-PLAM02	MC-PLAM02
Remote Hardened Multiplexer IOP (32-Points)	MU-PRHM01	MC-PRHM01
Pulse Input Processor (8 Inputs)	MU-PPIX02	MC-PPIX02
Analog Output Processor (8 Outputs)	n/a	MC-PAOX03
Analog Output 16 Processor (16 Outputs)	n/a	MC-PAOY22
Digital Input Processor (32 Inputs)	MU-PDIX02	MC-PDIX02
Digital Input Processor for Sequence of Events (32 Inputs)	MU-PDIS12	MC-PDIS12
Digital Input 24 Vdc Processor (32 Inputs)	MU-PDIY22	MC-PDIY22
Digital Output Processor (16 Outputs)	MU-PDOX02	MC-PDOX02
Digital Output 32 Processor (32 Outputs)	MU-PDOY22	MC-PDOY22
Blank Filler Plate for I/O Slot	MU-PFPX01	n/a
I/O Link Extender Pair Main Location	MU-IOLM02	MC-IOLM02
I/O Link Extender Pair Remote Location	MU-IOLX02	MC-IOLX02
Long Distance I/O Link Extender Pair	MU-ILDX03	MC-ILDX03
I/O Link Extender Shroud (EC)	MU-ILES01	n/a
NOTE: MC model numbers indicate conformally coated boards. All IOPs are available conformally coated (MC models).		

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