iDAQ-731
16-ch IDI and 16-ch Universal IDO iDAQ Module

iDAQ-751
48-ch TTL Digital I/O iDAQ Module

iDAQ-763D
16-ch SSR Output iDAQ Module

iDAQ-731   c(UL)us LISTED   CE   FC   RoHS COMPLIANT 2002/95/EC

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Specifications

Isolated Digital Input

Channels	16	
Input type	Sink (NPN)	
Input logic level (referenced to DICOM)	OFF state	0 V ~ +3 V
	ON state	+10 V ~ +40 V
Input current draw	OFF state	1 mA max.
	ON state	3 mA max.
Input protection voltage	+60 V max., -8 V min.	
Response time	100 μs max.	
Debounce filter	10 μs ~ 84 ms, software configurable	
Isolation protection	600 VRMS	
Acquisition type	Instant or buffered, software configurable	
Buffered acquisition	**Sample rate** 10 kHz max., software configurable	
	Internal data buffer (FIFO) size 512 samples, each sample contains state of all channels Interrupt	
Edge detection	Rising edge, falling edge, or both edges, software configurable for each channel independently	
Pattern match detection	By port detection, each channel can be enabled or disabled by software independently	
Frequency	1 kHz max.	
Other feature	Latch digital input states when interrupt occurs	
Timing signal output to chassis	From one of the digital input channels or digital input pattern match event, software configurable	

Universal Isolated Digital Output

Channels	16
Output type	Sink (NPN) or source (PNP), software configurable per port (8-channel)
Load voltage	+10 V ~ +40 V
Load current	350 mA max. per channel
Output impedance	0.2 Ω max.
Response time	100 μs max.
Isolation protection	600 VRMS
Current limit protection	Yes
Flyback diode protection	Yes
Power-on output state	OFF state
Acquisition type	Static or buffered, software configurable
Buffered output	**Update rate** 10 kHz max., software configurable
	Internal data buffer (FIFO) size 512 samples, each sample contains state of all channels

General

Power consumption from chassis	425 mW typ./ 450 mW max.
Dimensions	100 x 80 x 25 mm (3.94 x 3.15 x 0.98 in.)
Operating temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Storage temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Operating humidity	10% to 90% RH, non-condensing
Storage humidity	5% to 95% RH, non-condensing
Vibration	5Grms
Shock	30G
Certification	EMC: CE, FCC Safety: CB, UL

Ordering Information

- **iDAQ-731-AE**   16-ch IDI and 16-ch Universal IDO iDAQ module

Specifications

Channels	48, software configurable for input or output

Digital Input

Input logic level	Logic high	3.5 V min.
	Logic low	1.5 V max.
	Working voltage	-0.25 V ~ 5.25 V
Input protection voltage	-0.5V~6.5V	
Pull-down resistor	50 kΩ	
Response time	5 μs max.	
Debounce filter	5.12 μs ~ 84 ms, software configurable	
Acquisition type	Instant or buffered, software configurable	
Buffered acquisition	**Sample rate** 10 kHz max., software configurable	
	Internal data buffer (FIFO) size 256 samples, each sample contains state of all channels	
Interrupt	**Edge detection** Rising edge, falling edge, or both edges, software configurable for each channel independently	
	Pattern match detection By port detection, each channel can be enabled or disabled by software independently	
	Frequency 1 kHz max.	
Other feature	Latch digital input states when interrupt occurs	
Trigger output to chassis	From one of the digital input channels or pattern match output, software configurable	

Digital Output

Output logic level	Logic high	4.0 V min. @ 2 mA source, 5.2 V max.
	Logic low	0.3 V max. @ 2 mA sink
Output current	One channel	5 mA max.
	All channels summed	64 mA max.
Response time	5 μs max.	
Default output state	Logic low	
Acquisition type	Static or buffered, software configurable	
Buffered output	**Update rate** 10 kHz max., software configurable	
	Internal data buffer (FIFO) size 256 samples, each sample contains state of all channels	

General

Power consumption from chassis	1.05 W typ. / 1.5 W max.
Dimensions	100 x 80 x 25 mm (3.94 x 3.15 x 0.98 in.)
Operating temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Storage temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Operating humidity	10% to 90% RH, non-condensing
Storage humidity	5% to 95% RH, non-condensing
Vibration	5Grms
Shock	30G
Certification	EMC: CE, FCC Safety: CB, UL

Ordering Information

- **iDAQ-751-AE**   48-ch TTL Digital I/O iDAQ module

Optional Accessories

- **PCL-10162-1E**   DB-62 Shielded Cable, 1m
- **PCL-10162-3E**   DB-62 Shielded Cable, 3m
- **ADAM-3962-AE**   DB-62 Wiring Terminal, DIN-rail Mount

Specifications

Solid State Relay (SSR) Output

Channels	16	
Load voltage	60 VDC max.	
Load current	1.3 A max.@ 25 °C / 0.7 A max.@ 60 °C per channel	
Peak load current	4 A (100 ms, 1 pulse)	
Output impedance	0.13 Ω typ./0.5 Ω max.	
OFF-state leakage current	1 μA max.	
Response time	Turn-on time	1.0 ms typ./1.3 ms max.
	Turn-off time	0.6 ms typ./0.8 ms max.
Isolation protection	600 VRMS	
Power-on output state	OFF state	
Acquisition type	Static or buffered, software configurable	
Buffered output	**Update rate** 500 Hz max., software configurable	
	Internal data buffer (FIFO) size 512 samples, each sample contains state of all channels	

General

Power consumption from chassis	225 mW typ./ 800 mW max.
Dimensions	100 x 80 x 25 mm (3.94 x 3.15 x 0.98 in.)
Operating temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Storage temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Operating humidity	10% to 90% RH, non-condensing
Storage humidity	5% to 95% RH, non-condensing
Vibration	5Grms
Shock	30G
Certification	EMC: CE, FCC Safety: CB, UL

Ordering Information

- **iDAQ-763D-AE**   16-ch SSR Output iDAQ module

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