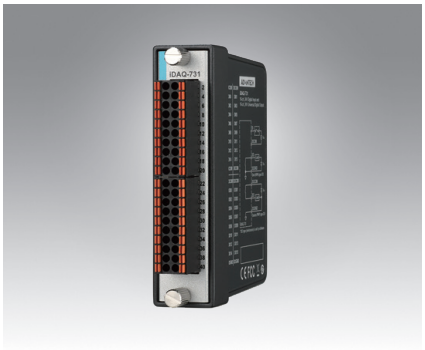
iDAQ-731
iDAQ-751
iDAQ-763D

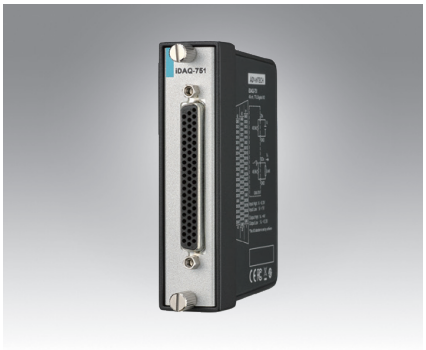
16-ch IDI and 16-ch Universal IDO iDAQ Module

48-ch TTL Digital I/O iDAQ Module

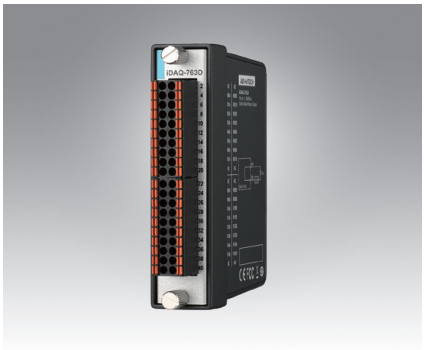
16-ch SSR Output iDAQ Module



iDAQ-731



iDAQ-751



iDAQ-763D

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

Last updated: 7-Apr-2022