# ASSURED Q® SYSTEMS

# ACCES I/O PRODUCTS, INC.

# IOB-96
## 96 Isolated FET Outputs Data Sheet

## FEATURES

**MODELS IOB-96, IOB-48**

- 96 OR 48 HIGH-SIDE POWER MOSFET OUTPUTS
- TRU-ISO™ I/O-TO-PC 3.75kVRMS OPTO-ISOLATED
- 5.5" × 5.75" BOARD MATES DIRECTLY TO USB-DIO-96-OEM
- 48-OUTPUT VERSION MATES DIRECTLY TO USB-DIO-48-OEM AND ETH-DIO-48-OEM
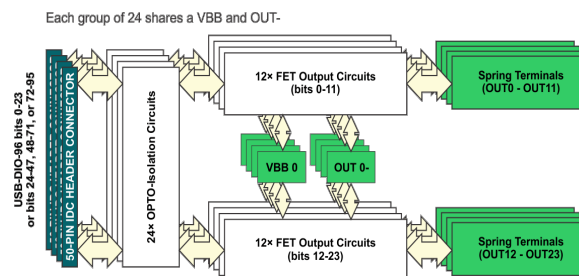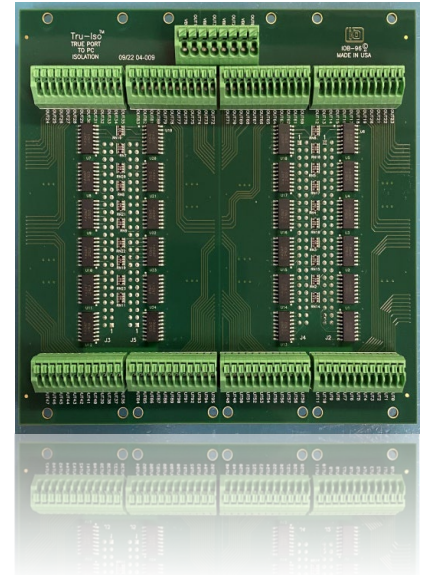- INDUSTRIAL OPERATING TEMPERATURE (-25°C TO +85°C) STANDARD

## FUNCTIONAL DESCRIPTION

The IOB-96 and IOB-48 optically isolated FET output accessory board is designed to add wide voltage and flexible current output signaling to existing TTL/CMOS DIO signals in a compact high-density accessory.

Each 24-bit group has its own FET supply voltage (Vbb) and return terminal (OUT-) for flexible isolation and signal voltages.

This handy accessory board plugs directly on top of the USB-DIO-96-OEM, USB-DIO-48-OEM, and ETH-DIO-48-OEM boards.

These cards are well suited to complex environments, mitigating otherwise challenging ground-loops, common in electrically-noisy industrial or factory locations. Easy to use spring cage terminals included for each FET output for simplified wiring in the field.



Each group of 24 shares a VBB and OUT-

## SPECIAL ORDER

Please contact ACCES with your precise requirement. Examples of special orders would be conformal coating, custom product labeling, and more. We will work with you to provide *exactly* what is required.

## SOFTWARE

No software is needed for this isolated FET accessory board.

## SPECIFICATIONS

### FET Outputs

| | |
|---|---|
| Number | 96 (or 48) |
| Type | High Side Power MOSFET Switch. Protected against short-circuit, over-temp, overvoltage, overload, reverse battery, ESD; drives resistive, inductive and capacitive loads. |
| Voltage Range | 11-45VDC (customer supplied). One Vbb per 24 FETs |
| Current Rating | 0.2A maximum, each FET |
| Turn On time | 50 $\mu$ sec (typical) |
| Turn Off time | 75 $\mu$ sec (typical) |
| Tru-Iso™ I/O-to-PC | Isolation: 3.75kVrms |

| | |
|---|---|
| Opto-isolator per IPC-22B | 700V Isolation I/O-to-Computer on all signals |

### Environmental

| | |
|---|---|
| Temperature | Operating  -25° to +85°C |
| | Storage  -55° to +85°C |
| Humidity | 90% max RH, without condensation |
| Power required | +5VDC @ 450mA typical with all FETs ON |

### Physical

| | | |
|---|---|---|
| Size | Length | 139.7mm (5.5") |
| | Width | 146.05mm (5.75") |
| I/O connections | FET Outputs | Terminal Block. Phoenix 1989845; 20-24AWG |
| | Vbb & Rtn | Terminal Block. Phoenix 1985027; 16-24AWG |
| | Inputs | 50-pin Female IDC headers (×4 for IOB-96, x2 for IOB-48) with OPTO/GORDOS pinout |

## ORDERING GUIDE

| | |
|---|---|
| IOB-96 | Isolated FET Output Accessory, 96-channels |
| IOB-48 | Isolated FET Output Accessory, 48-channels |

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*MADE IN THE USA*

# Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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