

ATOM Range

GPIO INSERTERS/EXTRACTORS



Overview:

- Insert and extract General Purpose Input/Output (GPIO) signals within SDI video
- Supports 3G-SDI, HD-SDI and SD-SDI video formats
- General Purpose Inputs (GPI) are Opto Isolated
- General Purpose Outputs (GPO) are Relay Contacts both N.O and N.C.
- Up to 64 GPI signals can be inserted.
- Each GPIO signal can be independently set as a GPI or GPO for maximum flexibility

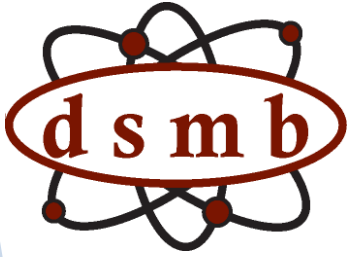
Application:

- Remote control of local program insertion or automation trigger
- Control of Video Changeover Cards
- Remote switching of on-air indication
- Detection of video signal failure
- Miscellaneous applications that require simple DC signals to be inserted in to video

DSMB Technology

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Description:

The ATOM GPIO compact 1RU units provide versatile GPI Insertion and GPO Extraction to and from 3G/HD/SD-SDI Video, carried in one of the vertical blanking lines selectable for lines 1 to 30. A further selection enables the data to be encoded within an OP-47 or CEA-702 format.

Up to 64 GPI signals can be inserted into the video signal and units can be cascaded. GPI's are simple contact closures to ground and the GPO outputs are presented as both normally open and normally closed voltage-free changeover contacts.

The unit is also compatible with the ELECTRON GP16 standalone GPIO inserter/extractor.

The video input is passively switched to the video output in the event of a failure so that video integrity is maintained.

An additional fiber optic interface is also available by the insertion of a compatible SFP module.

An integrated display for control, monitoring and diagnostics is provided enabling internal parameters to be monitored and an Ethernet interface allows remote control via an in-built web interface.

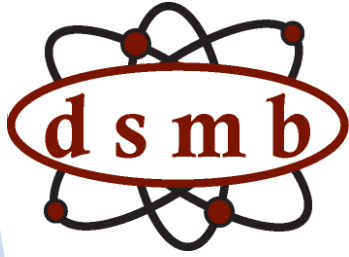
The unit has dual power supply inputs providing full power redundancy for critical applications.

Ordering Information:

| | |
|----------|---|
| ATOMGP16 | 3G/HD/SD-SDI 16 GPIO Inserter/Extractor |
| ATOMGP32 | 3G/HD/SD-SDI 32 GPIO Inserter/Extractor |
| ATOMGP48 | 3G/HD/SD-SDI 48 GPIO Inserter/Extractor |
| ATOMGP64 | 3G/HD/SD-SDI 64 GPIO Inserter/Extractor |
| SFPTRFIB | Singlemode fiber optic transceiver SFP module |

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Specification:

| | | |
|-------------------|-------------|---|
| Power | | Dual, 90-250VAC 50/60Hz, 40W maximum. IEC Connectors |
| Control | | Ethernet 10/100BaseT, Internal Webserver |
| GPIO | Channels | 16, 32, 48 or 64. |
| | Connectors | 1 x DB25 per 8 GPIO's |
| | Input | Contact closure to ground, 40ms hold time |
| | Output | One normally open (NO) and one normally closed (NC) contact pair per GPO. 48V, 120mA maximum contact rating. |
| | Format | Inserted into video signal as either OP-47 or CEA-708 frames in within video blanking. Selectable from lines 1 to 22. |
| SDI | Channels | 1 x Input, 1 x Output. Input passively switched to output when power off or failure detected. |
| | Connectors | BNC |
| | Impedance | 75Ω ±0.1% |
| | Return Loss | <15dB 270MHz - 1.5GHz, <10dB 3GHz |
| | Data Rates | 2.97Gb/s, 2.97/1.001Gb/s, 1.485Gb/s, 1.485/1.001Gb/s, 270Mb/s |
| | Standards | SMPT 424M/292M/259M |
| | Receiver | Cable Equalization (Belden 1694A) = 120m [365ft] @ 2.97Gb/s , 200m [665ft] @ 1.485Gb/s, 400m [1310ft] @ 270Mb/s |
| Fiber (Option) | Channels | 1 x Input, 1 x Output |
| | Connector | Duplex LC, FOCIS-10-A-2-1-2 |
| | Receiver | Sensitivity = -25dB typical, -21dB maximum |
| | Transmitter | Power = -2dB typical, -5dB minimum |
| Physical | Size | 1RU 19" Rack Mounting Unit, 200mm[4"] deep excluding connectors |
| | Weight | 1.85kg [4.2lb] fully loaded |
| Environmental | Temperature | 0 - 40°C [32-104°F], fan-less |
| | Humidity | 5% - 95% non-condensing |
| | EMC | EN55103-1, EN55103, FCC Part 15 |
| | Safety | EN60950 |

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