## SKY-3540

3G/HD/SD-SDI Keyer and Logo Inserter

2024 Datasheet


The SKY-3540 is a configurable four layer keyer compatible with SRM frames. The module includes two layers of luminance / self key, a layer of static logo insertion, and a layer of animated logo insertion. It accepts one 3G/HD/SD-SDI input as the background and two pairs of key / fill inputs. Additionally, it comes equipped with internal storage for two high-quality logo inserters. The module features four identical outputs making it easy to integrate into the signal chain.
Users can easily manage the module and logo files through the intuitive web-based user interface. Besides UI, the GPI interface allows for the turning on and off of keyer layers, while GPOs reveal the state of each layer.
Other essential components of the module include a reference input, line synchronizer, relay protection, and priority selection, which further enhance its capabilities.

## Key Features

- Four layer keyer and logo inserter with transparency support
- Animated logo up to 400 frames
- 2.5GB internal storage, lossless logo file compression for efficient storage
- Luminance or self key with configurable thresholds
- Embedded audio and ancillary data transparency
- Adjustable line synchronizer with Tri-level / Bi-level reference input
- Bypass relay protection on first output
- Four identical outputs
- User-definable priority for layers
- GPIO control \& monitoring
- Web interface remote control
- Remote Firmware Upgrade


## Back Panel



Block Diagram


Specifications

| Digital Video Input |  | Digital Video Output |  |
| :---: | :---: | :---: | :---: |
| Signal type | 3G/HD/SD-SDI | Signal type | 3G/HD/SD-SDI |
| Standards | SMPTE 292M, SMPTE 259M, SMPTE 424M | Standards | SMPTE 292M, SMPTE 259M, SMPTE 424M |
| Number of inputs | 5 | Number of outputs | 4 |
| Impedance | $75 \Omega$ | Connector | BNC |
| Connector | BNC | Impedance | $75 \Omega$ |
| Voltage level | $800 \mathrm{mV} \pm 10 \%$ | Jitter | $\begin{aligned} & \text { <0.2 UI (HD, SD) } \\ & \text { <0.3 UI (3G) } \end{aligned}$ |
| Cable length | Automatic Compensation <br> 3G/HD/SD: <br> 70/110/250 m <br> (Belden 1694A) | Rise and fall time | $\begin{array}{\|l} \text { <0.3 UI (3G) } \\ \hline 0.4 \text { to } 1.5 \mathrm{~ns} \text { (SD) } \\ \text { <135 ps (HD) } \\ \text { <135 ps (3G) } \end{array}$ |
| Reference Signal Input |  | Voltage level | $800 \mathrm{mv} \pm 10 \%$ |
| Signal Type | HD: Tri-level, SD: Black Burst (PAL) | Overshoot | <10\% Amplitude |
|  |  | DC-Offset | $0 \mathrm{~V} \pm 0.5 \mathrm{~V}$ |
| Number of inputs | 1 | Electrical |  |
| Impedance | $75 \Omega$ | Voltage | +12 VDC (from frame) |
| Connector | BNC | Power | <18W |
| GPI/O |  | Environmental |  |
| Connector | 15 Position D-Sub (3-Row, | Temperature | $5^{\circ} \mathrm{C}$ to $40^{\circ} \mathrm{C}$ |
|  |  | Humidity | 0\% to 90\% |
| GPIO voltage | 12V |  |  |
| GPI Type | Active level and trigger type are user selectable |  |  |
| Number of GPIs | 4 |  |  |
| Number of GPOs | 4 |  |  |
| Max. GPO current | 1.2 mA |  |  |
| Other pins | 5x GND, $2 \times$ RESERVED |  |  |

System Requirements

| Type | Product | Description |
| :--- | :--- | :--- |
| Frame | SRM-0655 | 3RU Frame with Controller |

Ordering Information

| Order Code | Description | Type |
| :--- | :--- | :--- |
| SKY-3540 | 3G/HD/SD-SDI Keyer and Logo Inserter Main Board | Main Board |
| SKY-3540-3DRP-R | Back-panel for SKY-3540 with relay protection <br> (compatible with SRM-0655) | Back Panel |

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