

Specifications — Matrix 100 Series Switcher

Video input — high resolution analog module

| | |
|-------------------------|------------------------------|
| Number/type | 4 or 8 RGBS, RGsB |
| Connectors | 4 or 8 x (3 or 4) BNC female |
| Nominal level(s) | Analog — 1.0V p-p |
| Maximum level(s) | Analog — 0.3V to 1.0V p-p |
| Impedance | 75 ohms |
| Return loss | -20dB @ 10 MHz |
| Maximum DC offset | ±0.3V p-p |

Video throughput — high resolution analog module

| | |
|-----------------------|---------------------------------|
| Routing | 4 X 4, 8 X 4, or 8 X 8 matrix |
| Gain | Unity ± 1% |
| Bandwidth | 175 MHz (-3dB), fully loaded |
| Crosstalk | -50dB @ 10 MHz, -30dB @ 100 MHz |
| Switching speed | 200 nS |

Video output — high resolution analog module

| | |
|--------------------------|------------------------------|
| Number/type/format | 4 or 8 RGBHV, RGBS, RGsB |
| Connectors | 4 or 8 x (3 or 4) BNC female |
| Impedance | 75 ohms |
| DC offset | ± 0.30V maximum |
| Switching type | Triple action |

Video input — composite video module

| | |
|-------------------------------|---|
| Number/type | 4 or 8 NTSC, PAL or SECAM composite video |
| Connectors | 4 or 8 BNC female |
| Nominal level(s) | Analog — 1.0V |
| Maximum level(s) | Analog — 0.5V to 1.3V p-p |
| Impedance | 75 ohms |
| Return loss | -30dB @ 5 MHz |
| Maximum DC offset | ± 0.30V |
| External sync (genlock) | 0.3V to 0.4V p-p |

Video throughput — composite video module

| | |
|-------------------------|-------------------------------|
| Routing | 4 X 4, 8 X 4, or 8 X 8 matrix |
| Gain | Unity |
| Bandwidth | 175 MHz (-3dB), fully loaded |
| Crosstalk | > -40dB @ 5 MHz |
| Propagation delay | 10 nS |
| CMRR | -60dB |

Video output — composite video module

| | |
|--------------------------|------------------------|
| Number/type/format | 4 or 8 composite video |
| Connectors | 4 or 8 BNC female |
| Impedance | 75 ohms |
| DC offset | ±0.30V maximum |
| Switching type | Vertical interval |

Sync — sync module

| | |
|------------------------------|--|
| Input type | Autodetect RGBHV, RGBS |
| Output type | RGBHV, RGBS |
| Connectors | 4 or 8 BNC female |
| Genlock connectors | 2 BNC female |
| Input level | 0.5V to 5V p-p |
| Output level | 4.5V p-p not terminated; 2.2V p-p if terminated at 75 ohms |
| Input impedance | 510 ohms |
| Output impedance | 75 ohms or 510 ohms, selectable |
| Max input voltage | ±5V p-p |
| Max. propagation delay | 64 nS H to L (41 nS L to H) |
| Max. rise/fall time | 8 nS H to L (3.6 nS H to L) |
| Polarity | Positive or negative (follows input) |

Audio input — audio module

| | |
|---------------------|--|
| Number/type | 8 stereo, balanced/unbalanced |
| Connectors | 8 5 mm captive screw terminal, 6 conductor |
| Impedance | High Z (>10 kohms) 20 kohms balanced, 10 kohms unbalanced |
| Minimum level | To 6V p-p into 600 ohms |
| Maximum level | 45V p-p balanced, 22V p-p unbalanced |

Audio throughput — audio module

| | |
|---------------------------------|---|
| Routing | 8 X 8 stereo matrix |
| Gain | Unity, balanced/unbalanced |
| THD + Noise | 0.03% @ 20 kHz at rated maximum output drive, +22dBu input and output |
| Bandwidth | Flat ±0.1dB, 20Hz to 20kHz, balanced |
| S/N | >110dB @ 20 Hz to 20 kHz |
| Adjacent input crosstalk | > -85dB @ 20 kHz, balanced |
| Stereo channel separation | > 60dB @ 20 Hz to 20 kHz, balanced |
| CMRR | > -55dB worst case @ 20 kHz (-65dB typical), balanced |

Audio output — audio module

| | |
|----------------------------|---|
| Number/type | 8 stereo, balanced/unbalanced |
| Connectors | 8 5 mm captive screw terminal, 6 conductor |
| Nominal output level | Same as input level |
| Maximum output level | 45V p-p balanced, 22V p-p unbalanced |
| Impedance | Low, capable of driving 600 ohms, balanced 50 ohms, balanced, 22V p-p unbalanced |

Control/Remote — switcher (BME)

| | |
|---------------------------------|--|
| Serial control port | 1 RS-232 or RS-422, 9-pin female D connector |
| Baud rate and protocol | 9600, 8-bit, 1 stop bit, no parity |
| Pin configurations | 2 = TX, 3 = RX, 5 = GND |
| Extron remote key pad control . | 1 RJ11 female jack |
| Program control | Extron's control program for Windows® Extron's Advanced Instruction Set™ – AIS™ |

Specifications — Matrix 100 Series Switcher (continued)

General

| | | |
|----------------------------|--|----|
| Power | 100VAC to 240VAC, 50/60 Hz, 60 Watts, internal, auto-switchable | |
| Temperature/humidity | Storage -40° to +158°F (-40° to +70°C) / 10% to 90%, non-condensing Operating +32° to +122°F (0° to +50°C) / 10% to 90%, non-condensing | |
| Rack mount | Yes, 4U high | |
| Enclosure type | Metal | |
| Enclosure dimensions | 6.8" H x 17.0" W x 15.0" D 17.3 cm H x 43.2 cm W x 38.1 cm D | |
| Shipping weight | 25 lbs (11.3 kg) DIM weight | 37 |
| Vibration | NSTA 1A in carton (National Safe Transit Association) | |
| Approvals | UL, CUL, CE | |
| Warranty | 2 years parts and labor | |

NOTE Specifications are subject to change without notice.

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