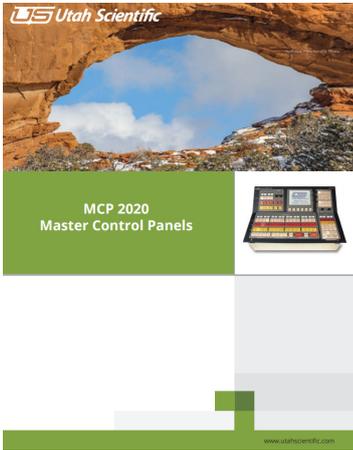


# UTAH-100/3

## MADI Terminal



# Utah 100/3 MADI Terminal

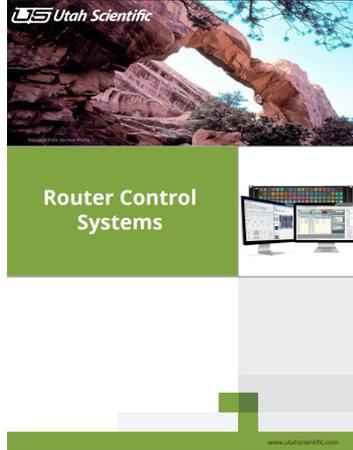


Utah Scientific

MCP 2020  
Master Control Panels



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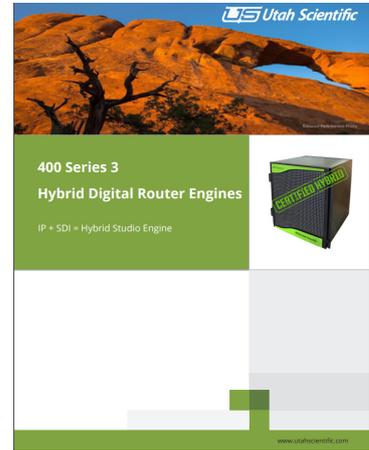


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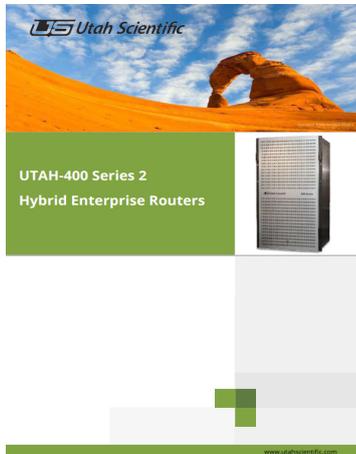
Utah Scientific

400 Series 3  
Hybrid Digital Router Engines

IP + SDI = Hybrid Studio Engine



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UTAH-400 Series 2  
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## About Utah Scientific

Utah Scientific was born to serve the broadcast industry. Since delivering our first analog video router the AVS-1 to Salt Lake City's KUED-TV in 1978, Utah Scientific has become the world's leader in video routers, master control switchers, and related control software. We have more experience with those products than any other manufacturer, and we take pride in our innovation knowing that our reliability and performance is unmatched by any product line in the industry.

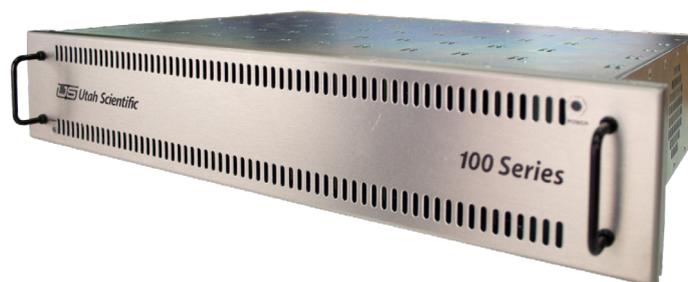
From the beginning, Utah Scientific has been on the leading edge of advancing routing technology, and we've passed some significant milestones along the way. Utah Scientific was the first to offer a large-scale digital router and pioneered many of the features that have become commonplace in the industry today. Multi-format routing, integrated A/D and D/A conversions on inputs and outputs, integrated fiber-optic conversion, and 300 megabit switching. We were also the first to offer a single-link 12G routing switcher. Our routers are the most energy-efficient on the market, and we offer the industry's widest range of control panels. We also set the benchmark for the broadcast industry with the industry's only 10-year hardware warranty.

Utah Scientific's customers include television stations and broadcast operations worldwide. Thanks to incomparable performance and reliability, high standards, and uncompromised integrity, our industry-leading products and best-in-class service and support have been recognized three times by Frost & Sullivan with its global Customer Service Leadership Award.

## UTAH-100/3 MADI Terminal

Multiple Audio Digital Interface (MADI or AES-10) is increasingly being used as a simple and reliable means of audio signal transport for high-density installations in studio and mobile production applications.

The UTAH-100/3 MADI Terminal offers a compact, flexible, and cost-effective means of converting audio signals, both analog and digital, to and from the MADI signal format. Each 2-RU frame can house one or two MADI channels, and each channel can carry up to 64 individual audio signals (32 AES or stereo pairs) with full 24-bit, 48KHz resolution.

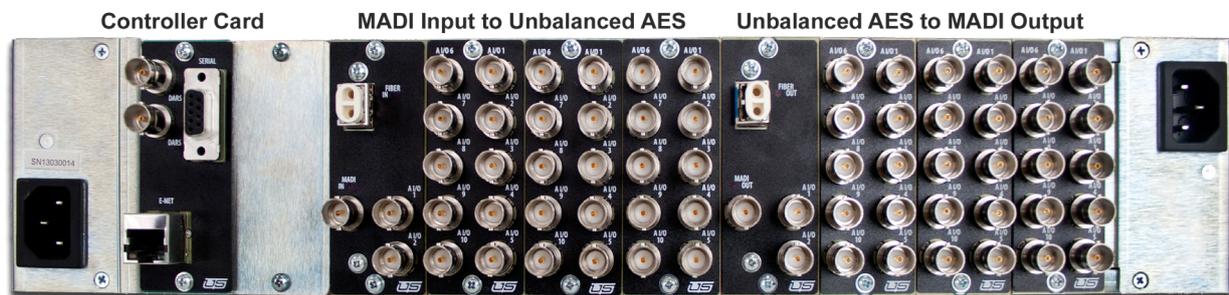
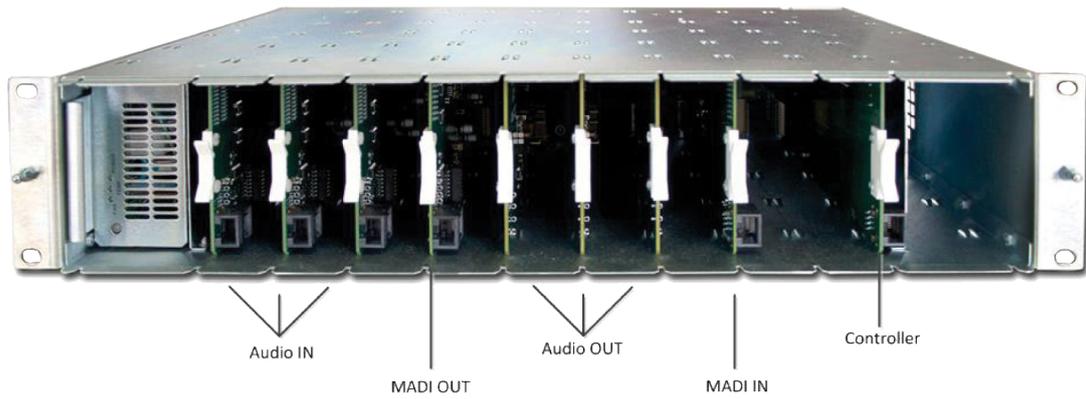


The UTAH-100/3 MADI Terminal frame includes internal power supplies and optional redundancy, with a controller card that accepts a DARS reference signal for synchronizing the audio elements. The frame includes two bays for the installation of MADI card sets. Each card set consists of four cards that provide connection for one MADI stream (in coax or optical format) and 32 AES signals (balanced or unbalanced). Analog card sets are also available, providing A-to-D or D-to-A conversion for 64 mono signals or 32 stereo pairs.

### Features

- Ability to transport 32 stereo pairs on a single cable
- Companion audio terminal for Utah Scientific video routers
- Balanced and unbalanced AES combinations
- Analog audio support with built-in A-D and D-A conversion
- Fiber and coax MADI connections
- Redundant power supply option
- Compact 2-RU frame

# UTAH-100/3 MADI Terminal



## Specifications

### MADI (AES10)

I/O impedance:	75 ohms
Capacity:	Up to 32 pairs of 24-bit, 48 KHz audio
Cable range:	Coax - 100 meters Fiber - 2,000 meters

### Digital Audio I/O

Balanced or unbalanced	
Balanced impedance:	110 ohms
Unbalanced impedance:	75 ohms
Input level:	Minimum: 200 mV p-p Maximum: 7 V p-p
Maximum common mode level:	±7 V (DC-20 kHz)

### Analog Audio I/O

Converter resolution:	24 bits (20 or 16 selectable)
Total harmonic distortion:	0.1% (30 Hz to 20 KHz, +24dBm)
Hum and noise:	-85dBm (15KHz weighting)
Crosstalk:	-85 dB (20 KHz, +24dBu)
Gain uniformity:	+/- 0.15dB
Frequency response:	+/- .25dB (20 Hz to 20 KHz)
Input impedance:	>100K ohms
Output source impedance:	<50 ohms
Common mode rejection:	70 dB (50/60 Hz)

### Power

All supplies are UL-listed and IEC950-approved  
100-240 VAC, 50-60 Hz  
Power consumption: 100 watts max

### Physical

Width:	19" rack-mount (48.26cm)
Depth:	14" (35.6cm)
Height:	2-RU, 3.50" (8.9cm)
Weight:	12 lb (5.4kg)

### Environmental

Operating temperature:  
32-113 degrees F, (0-45 degrees C)  
Relative humidity range:  
0-90%, non-condensing

### Warranty

10-year limited hardware warranty

Specifications are subject to change without notice

## Ordering Information

100/3 MADI RFPS	Rack frame with power supply and MADI controller card. Holds 2 MADI card sets.
100/3PS	Redundant power supply
AES UNBAL IN SET	MADI card set - 32 coax AES inputs, MADI output on coax and fiber (SFP not included)
AES UNBAL OUT SET	MADI card set - 32 coax AES outputs, MADI input on coax and fiber (SFP not included)
AES BAL IN SET	MADI card set - 32 balanced AES Inputs, MADI output on coax and fiber (SFP not included)
AES BAL OUT SET	MADI card set - 32 balanced AES outputs, MADI input on coax and fiber (SFP not included)
ANALOG IN SET	MADI card set - 64 analog mono Inputs, MADI output on coax and fiber (SFP not included)
ANALOG OUT SET	MADI card set - 64 analog mono outputs, MADI input on coax and fiber (SFP not included)

Since the introduction of our first analog router over three decades ago, Utah Scientific has been an industry leader in the design and manufacture of world-class signal routing and processing solutions.

Our hybrid technologies enable integrated frame sync, clean-quiet outputs, SMPTE ST 2022, A/D and D/A conversions, fiber-optic conversion, audio embedding/de-embedding, and MADI transport. By design, Utah Scientific products are the most energy-efficient on the market.

Utah Scientific has market-leading experience in the design and manufacture of routing switchers and associated distribution products. We take pride in knowing that the reliability and performance of our products are second to none, backed by industry-leading service and support.



Specifications are subject to change without notice

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10-year limited hardware warranty

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[sales@utahscientific.com](mailto:sales@utahscientific.com)

**10**  
Year  
Warranty