

Digital Series Stage Rack

The Cadac Digital Series Stage Rack (DSSR) brings a unique solution of audio control and distribution to a wide range of applications. By providing a comprehensive audio distribution system, in both the analogue and digital domains, and incorporating Cadac's renowned and superior audio performance, the DSSR provides an efficient and cost effective solution to the challenges faced by many when considering multi-channel audio distribution systems.

Core components of the DSSR consist of the Cadac M16 Remote Controlled Microphone Amplifier and X16 MADI Merge Unit.



M 16

The M16 has, in its own right, made a serious impact in critical performance spaces throughout the world by providing significant enhancements in terms of overall system performance and control.

X 16

In combination with the Cadac X16 MADI Merge Unit, the M16 provides an exceptionally elegant solution for the provision of superior audio performance over distributed audio systems.



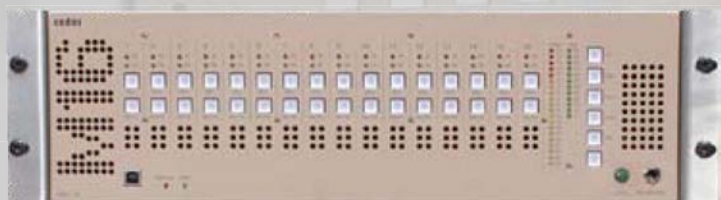
- Live Sound - for distributing mic/line sources to FOH, Monitors, DAW live acquisition and broadcast feeds.
- TV and Radio broadcast - for providing feeds from studio production floors to live to air consoles, in-house recording facilities, OB Vehicles and routing systems.
- Fixed Installations - for providing multiple audio feeds to control rooms, mix positions and recording studio facilities, mobile stage rack systems.
- Recording - for locating multiple microphone amplifiers within orchestral/choral recording spaces, mobile recording rigs.

M 16

M16 Remote Controlled Microphone Amplifier

The M16 builds on Cadac's 30+ years' history at the forefront of high-end professional audio development. Utilising Cadac's much acclaimed microphone amplifiers, the M16 incorporates both analogue and digital audio technology and is found in constant use within theatres, tour sound, houses of worship, broadcast production and music recording.

Jerry Springer The Opera, Phantom of the Opera, Yonsei Baptist Church, Katie Melua and the National Orchestra of Wales (through the BBC) are just a few of the world class performances/venues that have benefited from using the Cadac M16.



Parameter Control

Each of the 16 microphone amplifiers provide:

- Adjustable gain from 10dB to 60dB in 5dB steps
- 20dB Pad
- 48V Phantom Power
- Polarity Reverse
- High Pass Filter, 60Hz @ 12dB/Octave
- Signal level indication
- Channel Mute



Features

- The only remote mic-pre available featuring 16 superior microphone amplifiers, with module/motherboard construction, in a 3U chassis.
- 3-way active analogue splits per channel with hand-tuned balanced output circuitry, capable of driving signal over 500m cable lengths.
- Optical MADI output at 96kHz/48kHz operation as standard.
- Features both Normal and Extended MADI protocol as standard.
- Analogue extended frequency response down to 1Hz (-3dB) @60dB gain, 3Hz (-0.6dB) @10dB gain, with phase shift of just 6° @ 10Hz.
- Discrete component front end, input headroom up to +24dBu, with hand tuned common mode rejection @ -86dBu.
- Optional RM16 remote head to control up to 32 x M16 (providing remote control of up to 512 channels of pristine quality microphone amplifiers).
- Internal modular design with USB upgradeable firmware providing easy maintenance.

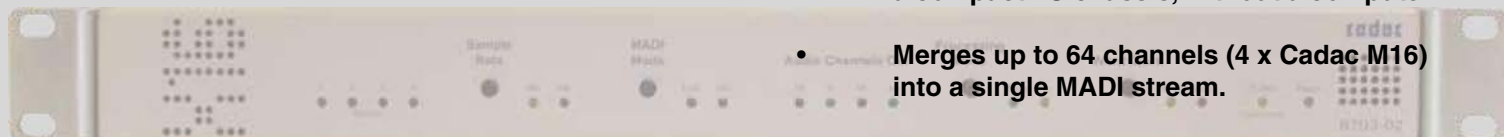
Local and Remote Access

Control over the microphone amplifiers is provided either directly from the M16 front panel, or from the optional RM16 remote head. The RM16 allows control over all M16 parameters (from a distance of up to 100m) in addition to providing 16 channels of bar graph metering. Being both compact and light, the RM16 is well suited for mounting on console control surfaces or script tables.

Integrated Monitoring

Facilities are provided to enable the PFL Bus to be linked through multiple M16s, enabling monitoring of all available microphone channels from a single M16's PFL headphone socket.

X16 MADI Merge Unit



Housed in a single 1U 19" rackmount chassis with internal power supply, the X16 is a compact unit capable of merging multiple optical MADI streams. Designed with both M16 integration and standalone operation in mind, the X16 can receive a total of four optical MADI input streams, combine the channels* and redistribute them to 8 available outputs (four SC Optical connections and four Coaxial BNC connections) making it ideal for integration into OB Vehicles, broadcast infrastructure, fixed installations, recording facilities and live sound.

The X16 is the first unit of its kind to offer such features, and affords systems designers the ability to merge and distribute concurrent MADI sources to multiple destinations, both over optical fibre and copper.

Additional functionality within the X16 enables format conversion of up to four independent MADI streams, in addition to providing a 1:2 split for each MADI input stream.

Features

- The only MADI unit currently available that provides both merge, conversion and comprehensive distribution facilities within a compact 1U chassis, without a computer.
- Merges up to 64 channels (4 x Cadac M16) into a single MADI stream.
- Distributes MADI to eight destinations (four SC Optical and four BNC coaxial).
- Operates at either 48kHz or 96kHz as standard.
- Features both Normal and Extended (56/64) MADI protocol as standard.
- Provides two independent MADI output streams (either 32 or 28 channels) when operating at 96kHz.
- 96kHz operation enables each output MADI stream to be distributed over four output connectors (two SC Optical and two BNC coaxial per stream).
- *Thru* mode enables four independent MADI sources to each be made available on a single SC optical and BNC coaxial connector.
- Comprehensive and accurate Wordclock system provided as standard.
- Wordclock Master/Slave provided with regenerated Wordclock input to maximise system performance.
- Four additional buffered Wordclock outputs provided in a star topology, for connection to M16s or other digital devices.



* the first 16 channels of each MADI stream are merged together to form a contiguous MADI stream consisting of up to 64 channels .

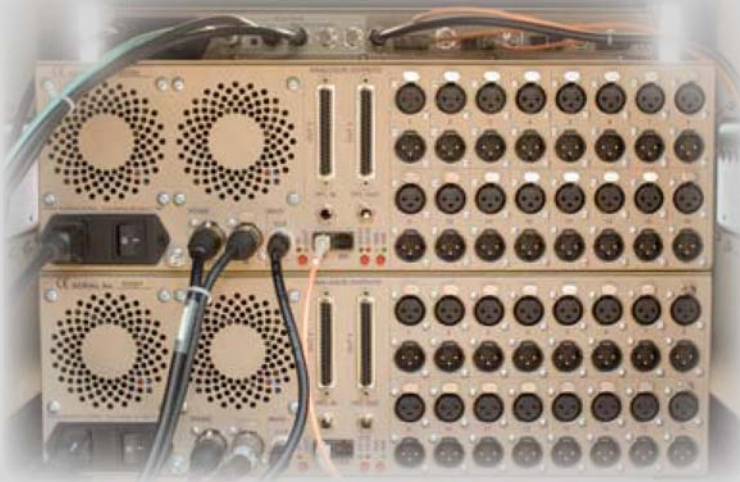
Unique Solutions to Common Problems

Utilising the comprehensive facilities found in the M16 and X16, the Cadac Digital Series Stage Rack provides a unique and versatile solution to the problems and limitations so often encountered when dealing with professional audio production. No longer are numerous splitters, mic pre-amp units, audio convertors and distribution systems required. The Cadac DSSR provides all this, within a scaleable system that can be flight cased for portability.

As an example, a system comprising of four M16s, an RM16 and an X16 not only provides 64 remote controlled mic pre-amps, but three analogue sends per pre-amp, in addition to eight MADi sends covering all 64 channels (irrespective of sample rate).

If that wasn't enough, you also benefit from the highly regarded and pristine quality of Cadac's analogue AND digital technology.

To find out more, or audition the DSSR and its components, please contact your nearest Cadac distributor or dealer. Further information is also available for download from the Cadac website (<http://www.cadac-sound.com>).



Distribution Hub

With the proven reliability of Cadac, the DSSR is an ideal distribution hub enabling simultaneous feeds in both the analogue and digital domains. If a theatre, or other venue requires a remote MADi feed for OB use for example, then the DSSR can ably provide this. In addition,

position the DSSR stage-side and distribute out to all consoles. With so many analogue and digital sends, there are no end of applications where the DSSR can reduce the time and expense of routing to multiple destinations.

Analogue Backup in a Digital World

With the increasing popularity of digital consoles, and the concern of many for requiring a backup system, the DSSR provides the ultimate solution. Benefiting from using Cadac's renowned mic pre-amps, the DSSR can simultaneously provide both digital and analogue sends to the main, and backup systems. Gain structure and front-end quality remain constant, providing reassurance that a reliable analogue backup system is provided, in effect, at no extra cost!

MADi Connectivity

The MADi (Multitrack Audio Digital Interface) format can be received by a large number of digital audio products, including those from Digico, Yamaha, Studer, Harrison, LAWO, Calrec, MADiCorder and many others. A number of quality MADi interface units are also available on the market to allow those products that do not accept MADi directly to interface seamlessly to the DSSR. MADi interface products from RME are a good example.

Cadac Electronics Plc
One New Street
Luton, Bedfordshire
LU1 5DX, England
Tel: +44 1582 404 202
Fax: +44 1582 412 799
email: info@cadac-sound.com
web: <http://www.cadac-sound.com>

