

PRODUCT SPECIFICATION SHEET

SERIES **D•CLASS** DESCRIPTION **D•CLASS ACCESSORIES** CATEGORY **DIGITAL SIGNAL PROCESSING**

ACCESSORIES



AI01



AI02



DI01



DN1

AI01 FEATURES

- > Analog Input/Output Module utilizing high quality AD/DA converters
- > 100 db of dynamic range
- > Operates at 96k sample rates
- > Balanced XLR Inputs and Outputs

AI02 FEATURES

- > Analog Input/Output Module utilizing premium AD/DA converters
- > 112 db of dynamic range
- > Operates at 96k sample rates
- > Balanced XLR Inputs and Outputs

DI01 FEATURES

- > Digital Interface Module featuring AES/EBU and S/PDIF inputs and outputs
- > Gold plated XLR and RCA connectors
- > Standard BNC word clock connector

DN01 FEATURES

- > Module for controlling multiple D Class units
- > High speed, Bi-Directional network protocol using standard XLR cable and connectors
- > Allows the D•1500 RTA to monitor up to 15 D•2500 equalizers on the LED display

MM01

GENERAL DESCRIPTION

The MM01 is a fixed charged condenser microphone designed especially for critical test and measurement applications. Manufactured with extreme care, superior electronics and the highest quality craftsmanship, the microphone delivers an exceptionally clear, accurate sound, with precision pattern control. The MM01 is a perfect compliment to any Real Time Analyzer, such as the D•1500 Digital RTA from Samson Audio. The microphone exhibits an extremely flat frequency response providing accurate results when measuring individual drivers or complete sound systems. Thanks to it's low noise and linier frequency response, MM01 can also be used for miking acoustic instruments, or as ambient room mics for studio recording applications. In addition, the high SPL capability and omni-directional pick-up pattern makes the MM01 an excellent choice for a variety of specialty miking applications in live sound situations.

FEATURES

- > Precision, fixed charged condenser measurement microphone.
- > Extremely flat frequency response.
- > Linear, omni-directional pick-up pattern.

- > +9 to 48 Volt phantom power operation.
- > Gold plated XLR connector.
- > The industrial designed is attractive while maintaining a compact and rugged construction.
- > A perfect compliment to any Real Time Analyzer, such as the D•1500 Digital RTA from Samson Audio.
- > Includes ABS carry case.

MM01 SPECIFICATIONS

Type	Fixed charged Condenser microphone
Polar Pattern	Omni-directional
Frequency Response	20 Hz to 20000 Hz
Sensitivity	-37 dBV/pa (14mv/pa)
Rated Impedance	200Ω
Max. SPL	132 dB (THD less than or equal to 0.5% 1000 Hz)
S/N Ratio	71 dB, 1K, 1PA
Power Supply	9 52V Phantom power (IEC 268-15/DIN 45596)
Weight	130 g

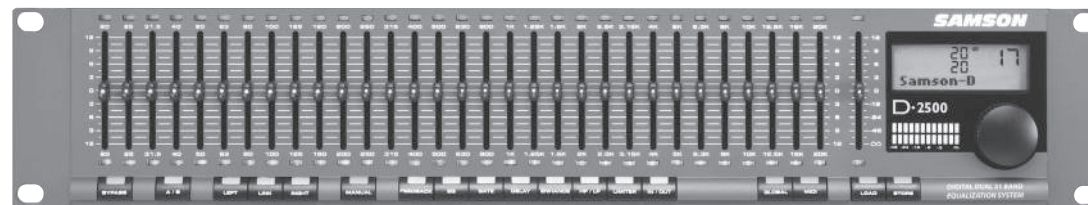
PRO
PROCESSORS
PRODUCT SPECIFICATION SHEET
TYPE:
DIGITAL SIGNAL
PROCESSORS

PRODUCT D•2500

DESCRIPTION
DIGITAL EQUALIZER

SERIES
D•CLASS

CATEGORY
DIGITAL SIGNAL PROCESSING



GENERAL DESCRIPTION

The D•2500 is a dual channel, 1/3 Octave, 31 Band Digital Graphic Equalizer featuring cutting edge DSP and analog-to-digital conversion technology, together with a simple to use, traditional analog user interface. The D•2500's robust, 2 rack-space steel and aluminum extruded chassis design is not only road worthy, but it also provides a large front panel layout which is extremely easy to use and already familiar to audio engineers. The beauty of the D•2500 Graphic Equalizer is that it has 31 bands of real hands-on faders! You may forget that that you are using a digital EQ; just press the MANUAL button and "look mom, I'm equalizing the system!" And, with the high-end 24 Bit AD and DA converters and 96K sampling rate, you'll enjoy pristine audio quality. Thanks to the powerful DSP engine and clever software, the D•2500 is capable of producing EQ curves with more accurate and precise filters, far exceeding the capabilities of even the best analog equalizers. What you won't get is the accumulating additive hiss noise that you get from an analog equalizer when you push up the high frequency bands.

In addition to being a simple to use digital equalizer, the D•2500 is packed with all the goodies including HIGH & LOW PASS FILTER, NOISE GATE, LIMITER, ENHANCER, DELAY and FEED BACK MANAGEMENT. All these digital effects are programmable and their associated parameters can be stored, and recalled, as part of the 99 available user pre-sets. The HIGH and LOW PASS FILTERS allow you to quickly apply an EQ contour for rolling off the high and low end frequencies, for example, when equalizing vocal monitors. The D•2500's NOISE GATE allows you to set a threshold level in order to mute any system hums and buzzes during silent sections keeping your system super clean. With the D•2500's LIMITER you can control the level that you are sending to your power amplifiers to help you insure good protection for your loudspeakers. The onboard ENHANCER will actually add high frequency to the system when there is program material at those frequencies,

adding extra sparkle to the mix. The ENHANCER will also automatically turn down the high frequencies when there is no high frequency signal content, which, by eliminating system noise and hiss, making the D•2500 a very effective noise reduction system. In addition, the D•2500 also offers on onboard DELAY for time aligning speakers. Another powerful feature of the D•2500 is feedback suppression. The D•2500's feedback management system can be set to AUTO which will automatically find the frequency that's feeding back and lower the associated filter. Or, you can use the feedback management system in MANUAL mode where the D•2500 will automatically find, and then display, the frequency that's feeding back, showing which fader you should pull down manually. All settings and parameters for the equalizer and digital effects can be stored in 99 pre-set locations. Using the large, easy to read, LCD display and convenient data wheel, it's possible to save your favorite equalization curves and recall them in the future. Or, when using the D•2500 together with the D•1500 Real Time Analyzer, you can auto-correct the room to a flat response, and then apply your favorite system curve on top. In addition, the powerful LOAD MASK allows you to recall certain effects or EQ curves from any preset independently, so you can add pre-set effects settings with real time changes.

The D•2500 features standard MIDI implementation and Samson's D•Net, enabling device-to-device linking for creating larger audio systems or for interfacing to a personal computer. When linking the units you see the full power of the D•Class system. With a basic MIDI connection, the fader positions of the D•2500 digital EQ can be displayed on the D•1500 Real Time Analyzer, giving you the power of digital processing with a unique analog feel. For systems using many D•Class units, the D•2500 can be fitted with the DN1 D•Net network card. Samson's D•Net is a high-speed communication protocol for connected multiple D•Class units, like the D•2500 digital equalizer, D•1500 RTA or D•3500 feedback management system. In addition to being 10 times faster than MIDI, the error rate is so close to zero, it's difficult to measure. All settings and parameters can be stored in any of the 99 preset locations providing instant recall of your favorite setups. Like all D•Class models, the

continues>

PRODUCT SPECIFICATION SHEET

SERIES **D•CLASS** DESCRIPTION **DIGITAL EQUALIZER**

CATEGORY **DIGITAL SIGNAL PROCESSING**

D•2500

GENERAL DESCRIPTION (continued)

D•2500 features an advanced 32-bit point floating processor DSP interface and high quality converters with 24-bit audio resolution and sample rates up to 96kHz for pristine audio quality. You can even upgrade your D•Class units to premium Analog-to-Digital and Digital-to-Analog I/O (Input/Output) converter boards, keeping your D•Class system up to date with the best technology and sound, far into the future.

The D•2500 is perfectly at home in the studio or on the road. The fact is, you would use the D•2500 equalizer for its precise filtering and superb audio quality alone, but you get the power of all the features, and then some, expected from a high quality digital equalizer. Whether you are a recording or a live sound engineer you'll get a better sound using the D•2500 Digital Equalizer!

FEATURES

- > The D•2500 is a stereo or two channel digital equalizer with each channel providing 31 bands of equalization, each frequency band representing 1/3 of an octave, on ISO standards, in the 20 Hz to 20 kHz range.
- > The front panel provides 32 analog 45mm LED faders for instant filter adjustment and true analog feel.
- > Custom Liquid Crystal Display is easy to read and provides critical parameter information.
- > Advanced 32 bit floating point DSP with high-end, 24 Bit 96K sample rate Analog-to-Digital and Digital-to-Analog converters provides a pristine sound quality with low distortion and wide dynamic range.
- > Variable Q Filters with programmable bandwidth (1/4, 1/3 and 1/2 octave) ensures that the filter of the selected frequency area stays the same even when approaching maximum boost or attenuation. Plus, Auto Bandwidth allows individual filters to have different filter cues. As a result, the frequency response of the D•2500 will as close as possible to your faders settings.
- > Automated Feedback recognition, indication and suppression (Manual or Auto mode) with Automated Filter Restoration.
- > The D•2500's fader can be set for either 3, 6 or 12 dB of gain and attenuation for each of the frequency bands.
- > An onboard programmable Delay is included for time aligning speakers.

- > The D•2500 offers programmable High and Low Pass Filters for setting contour curves or for removing low-end stage rumble.
- > To help keep the over all system noise level low, the D•2500 includes a programmable Noise Gate with variable threshold control.
- > An added layer of speaker protection is accomplished by using the D•2500's programmable brick wall Limiter.
- > The programmable Enhancer can be used to add extra highs or as a noise reduction system by lowering the high frequency bands when no high end content is present.
- > Equalization curves plus all digital effects can be stored or recalled using the 99 Preset Locations.
- > Configure larger systems using multiple D•Class units which communicate over standard MIDI, or with Samson's optional high-speed D•Net interface card.
- > Electronically balanced XLR inputs and outputs.
- > Internal power supply ensures reliability and trouble-free operation.
- > Standard 19", 2 rack-space design for easy integration into any traveling or fixed installation audio system.
- > Aluminum extruded front panel and steel chassis makes the D•2500 eminently road-worthy.
- > Three year extended warranty.

ARCHITECT'S & ENGINEER'S SPECIFICATIONS

The D•2500 shall be a stereo 31 band digital graphic equalizer for the purpose of equalizing an audio system. It shall have 31 faders to adjust the levels of the 31 bands of audio. The D•2500 shall also have automatic feedback reduction filters, gate, delay, enhancer, HP/LP filters and a limiter for the purpose of equalizing and balancing an audio system. The D•2500 shall have balanced XLR inputs and outputs. The inputs and outputs shall be on cards so that they can be removed and upgraded. A slot shall also be provided for a D•Net card so that the unit can communicate with other D•Class units at a faster speed than from the included midi connections. There shall be 99 digital memory locations to store and recall user program information. The D•2500 is one of a series of 3 digital processors that can operate separately or together as a single piece of analyzing equipment.

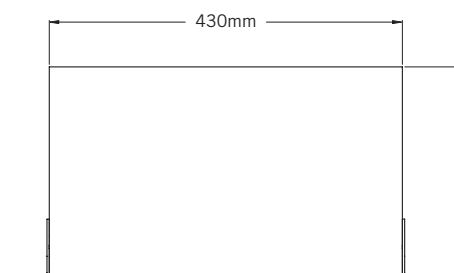
D•2500 SPECIFICATIONS

Inputs	Type electronically balanced
	Connector XLR
	Impedance 22 kΩ at 1 kHz
Max. input level	+22
AIO1	+14dBu
AIO2	+20dBu
Outputs	Type electronically balanced
	Connector XLR
	Impedance 100 Ohms at 1 kHz
Max. output level	AIO1 +14dBu
	AIO2 +20dBu
Frequency Response	10 Hz to 35 kHz (-1dB) @ 96 kHz sampling rate
Signal-to-noise-ratio	AIO1 Noise floor (unweighted) < -92 dBFS (-78 dBU) Noise floor (A-weighted) < -100 dBFS (-86 dBU)
	AIO2 Noise floor (unweighted) < -106 dBFS (-86 dBU) Noise floor (A-weighted) < -112 dBFS (-92 dBU)
THD	0.005 % typ. @ +4 dBu, 1 kHz, unity gain
Digital Processing	Converter 24-bit Delta-Sigma, 64/128-oversampling
Sample Rate	AIO1 & AIO2 32, 44.1, 48, 64, 88.2, 96 kHz
	DIO1 96 kHz Type digital 31-band equalizer
Frequency Range	20 Hz to 20 kHz, 31 bands on ISO standard frequencies
Display	Type Custom LCD for parameter control
Memory	Presets 100 memory locations, 99 user programable
Midi Interface	Type 5-pin. DIN jacks In/Out/Thru

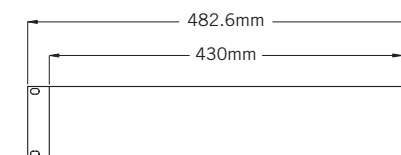
Power supply
Mains voltage 115 V, 60 Hz, 230 V, 50 Hz
Power consumption 20 W typ.
Fuse T 630mA for 100- 120 Volt /
T315mA for 220 - 240 Volt
Mains connector Standard IEC receptacle

Dimensions (W x D x H) 19 in. x 10.5 x 3.5
482 mm x 267 x 89

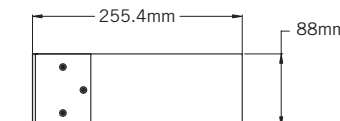
Weight 5.1 lb.(2.31 kg)



TOP

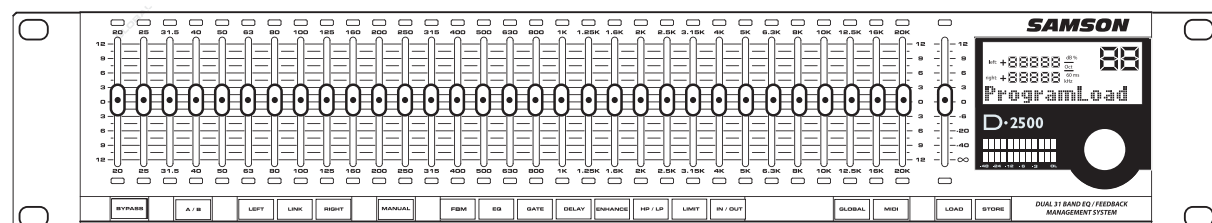


FRONT



SIDE

FRONT PANEL



BACK PANEL

