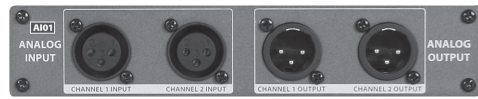


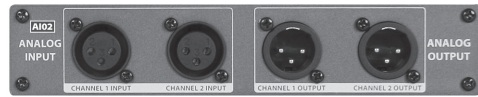
PRODUCT SPECIFICATION SHEET

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

ACCESSORIES



AI01



AI02



DI01



DN01

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 its low noise and linear 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

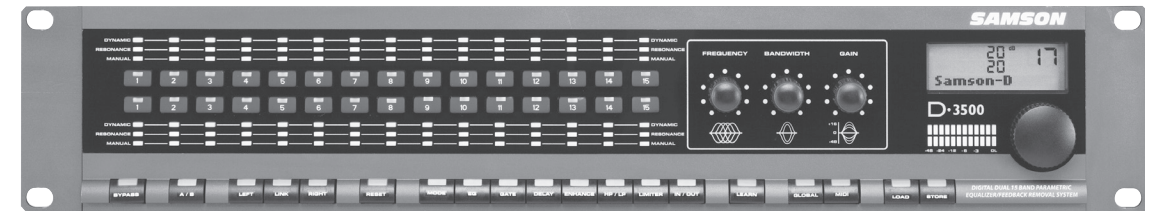
SAMSON

PRODUCT **D•3500**

DESCRIPTION **PARAMETRIC EQ & FEEDBACK MANAGEMENT SYSTEM**

SERIES **D•CLASS**

CATEGORY **DIGITAL SIGNAL PROCESSING**



GENERAL DESCRIPTION

The D•3500 is an advanced parametric equalizer featuring cutting edge DSP and analog-to-digital conversion technology, together with a simple to use, traditional analog user interface. The D•3500'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.

Thanks to the powerful DSP engine and clever software, the D•3500 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 add a lot of gain at high frequency bands. And, with the high-end 24 Bit AD and DA converters and 96K sampling rate, you'll enjoy pristine audio quality.

The beauty of the D•3500 is that while it is a sophisticated, advanced featured parametric equalizer, it can also work as a one-button automatic feedback management system. For feedback management, the D•3500 can employ up to 30 filters for a mono mix, like on stage monitors, or 2 times 15 bands for stereo PA applications. The LEARN mode let's you press a single button and have the D•3500 "ring out" your system automatically (as if there were a professional monitor mix engineer inside moving all the knobs for you). You just get a louder PA with less feedback! The feedback filters work in three modes; Resonance finds feedback problems inherent in the room then automatically sets, Dynamic constantly scan the frequency range looking for feedback problems, and Manual which are set by using the EQ control knobs. Plus, the D•3500's feedback filters are intelligent. They know that often feedback occurs because performers move around on stage, so the problems can be a temporary ones. Other feedback systems that can destroy your sound because they just keep cutting more and more frequency until you're

left with everything cut. Thanks to the Auto Restore Filter technology, the D•3500's filters are constantly monitoring the signal and will try to sneak back to the original positions so that the feedback reduction has a minimum effect on the sound of your mix.

For you "tweakazoids" out there, the D•3500 has 30 dedicated switches, which allow you to quickly access the filters that work together with the physical EQ control knobs located in the master section. You may forget that that you are using a digital EQ; simply press a filter button and grab a knob to tweak the equalizer.

In addition to being a simple to use feedback management system and digital equalizer, the D•3500 is packed with all the goodies including HIGH & LOW PASS FILTER, NOISE GATE, LIMITER, ENHANCER and DELAY. All these digital effects are programmable and their associated parameters can be stored and recalled, as part of the 100 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•3500's NOISE GATE allows you to set a threshold level so you can mute any system hums and buzzes during silent sections keeping your system super clean. With the D•3500's LIMITER you can control the level being sent 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, eliminating system noise and hiss, making the D•3500 a very effective noise reduction system. In addition, the D•3500 also offers an onboard DELAY for time aligning speakers. All settings and parameters for the equalizer and digital effects can be stored in 100 user 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. In addition, the powerful LOAD MASK allows you to recall certain effects or

continues>

PRODUCT SPECIFICATION SHEET

SERIES D•CLASS	DESCRIPTION PARAMETRIC EQ & FEEDBACK MANAGEMENT SYSTEM	CATEGORY DIGITAL SIGNAL PROCESSING
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D•3500

GENERAL DESCRIPTION (continued)

EQ curves from any preset independently, so you can add pre-set effects settings with real time changes.

The D•3500 features standard MIDI implementation and Samson's D•Net enabling device-to-device linking for creating larger audio systems, for interfacing to a personal computer. When linking the units you see the full power of the D•Class system. For systems using many D•Class units, the D•3500 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 D2500 digital equalizer, D1500 RTA or more D•3500s. 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 D•3500 features an advanced 32-bit point floating processor DSP interface to 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 onto the future.

The D•3500 is perfectly at home in the studio or on the road. The fact is, you would use the D•3500 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 recordist or a live sound engineer, you'll get a better sound using the D•3500 Digital Equalizer!

FEATURES

- > The D•3500 is a sophisticated digital equalizer combined with an advanced, and easy to use, automatic feedback management system providing 30 bands of parametric filters.
- > For stereo PA systems, the D•3500 can operate with 15 filter bands per side, or for mono operation (like stage monitors), you can use all 30 bands at once.
- > The D•3500 offers three filter modes, Resonance for reducing feedback due to room acoustic problems, Dynamic for feedback problems caused when microphone are moving around on stage, and Manual for adjusting the parametric filters by hand using the Filter Control Knobs.

- > For temporary feedback problems like those caused by microphones moving on stage, a unique AFR, Auto Filter Release, mode lets the EQ filters gradually restore themselves to the original levels once the feedback problem goes away thereby restoring not destroying your sound.
- > 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.
- > The LEARN mode allows the D•3500 to perform a single-button push, automatic feedback reduction system that will automatically "ring-out" your speaker system to remove feedback.
- > An onboard programmable Delay is included for time aligning speakers.
- > The D•3500 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•3500 includes a programmable Noise Gate with variable threshold control.
- > An added layer of speaker protection is accomplished by using the D•3500'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 frequency content is present.
- > Equalization curves plus all digital effects can be stored or recalled using the 99 User Preset Locations.
- > Optional DI01 Digital interface card for connecting to AES/EBU or S/PDIF.
- > The D•3500 takes advantage of the latest technology with upgradable Analog-to-Digital and Digital-to-Analog converters.
- > Electronically Balanced XLR Inputs and Outputs.
- > 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•3500 eminently road-worthy.
- > Three year extended warranty.

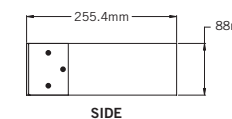
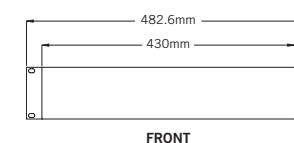
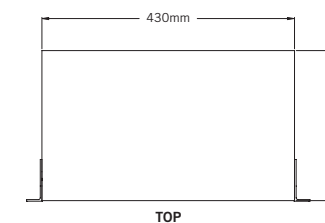
ARCHITECT'S & ENGINEER'S SPECIFICATIONS

The D•3500 shall be a stereo 15 band digital parametric equalizer for the purpose of equalizing an audio system and removing feedback. It shall have 15 filters per channel to adjust the levels of the audio. The D•3500 shall also have 2 types of automatic feedback reduction filters called Dynamic and Resonance. The unit shall also have a gate, delay, enhancer, HP/LP filters and a limiter for the purpose of equalizing and balancing an audio system. The D•3500 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•3500 is one of a series of 3 digital processors that can operate separately or together as a single piece of analyzing equipment.

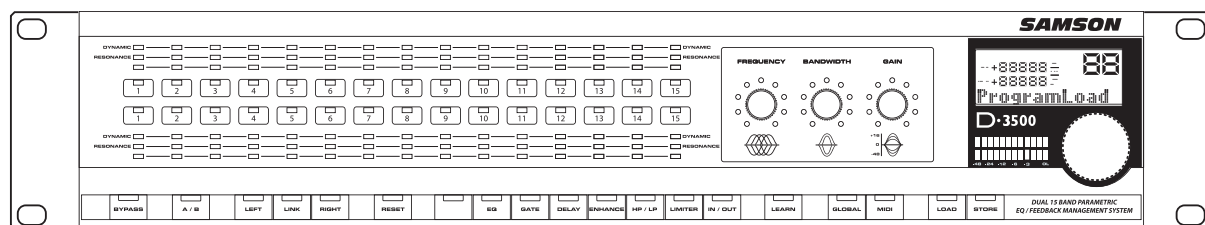
D•3500 SPECIFICATIONS

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 DI01 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" x 10.5" x 3.5" 482mm x 267mm x 89mm
Weight	5.1 lb.(2.31 kg)



FRONT PANEL



BACK PANEL

