ACE600S

Release February 2019

Professional 600 Preset Audio-Effect Module

Features

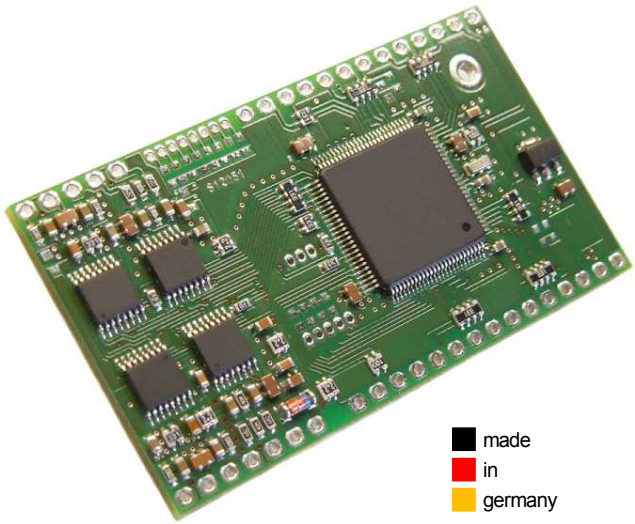
Powerful and Precision 32-Bit DSP with Floating-Point Process Arithmetic
Fitted with 33 Precisely Modeled Standart- and Combined-Effect Types
Various Preset Selection Methods with Immediate Auto-Store Function
Audio-Input and Audio-Output by On-Board 24-Bit Stereo ADC & DAC
75dB Wide Range Audio-Input Level Meter with Peak & Hold Function
4-Wire Serial-Data to 8-Bit SR Interface for Standard Character LCDs
Effect-Sound Mute Input for Momentary- or Push/Push-Switch Types
Clock-Sync & Power-Up Trigger Outputs for External Circuit Control
4 Different Operating Applications Selectable by On-Board Jumper
2 Audio-Signal Free Control Inputs for FX-Volume & Parameter
2 Different LC-Display Sizes Selectable by On-Board Jumper
Click-Free Automatic Audio-Mute Function at Preset Change
Excellent Signal to Noise Distance @ +15 dBu Headroom
Firmware Update Possibility via USB & PC Software
Audio-Signal Overload Indicator Output (Clip-LED)
Special Adaptions and Extensions on Request

Effect Program & Parameter Selection Methods

Rotary Quadrature Encoder
Momentary- and Push/Push-Switches
Potentiometer-Control for FX-Volume
Potentiometer-Control for Parameters (Pedal)

Effect Name & Parameter Indication Methods

Character LC-Display 2x8, 2x16



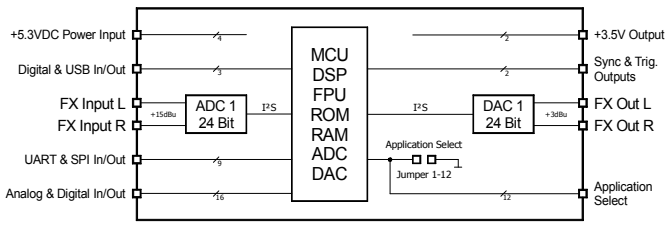
Technical Data

DSP Arithmetic	:	32-Bit Floating-Point
Audio AD/DA Conversion	:	24/24-Bit
S/N A-Weighted	:	116dB @ 1KHz
Dynamic Range	:	116dB
Frequency Response	:	50Hz - 15KHz @ 32.0K fs
Audio Input Impedance	:	5.0 Kohm
Audio Input Level max.	:	+15 dBu (12.3Vpp)
Audio Output Level max.	:	+15 dBu (with 12dB buffer)
Power Supply Analog	:	min. +5.2VDC / max. +5.4VDC
Power Supply Digital	:	min. +5.2VDC / max. +9.0VDC
Power Consumption	:	105 mA (without LCD backlight)
Module Dimension	:	59 x 33 x 3.4 mm

Applications

Guitar- / Keyboard-Amplifiers / Combos
Mixing- and Powered Mixing- Consoles
Mixing Consoles Single Input Insertion
Karaoke Equipment
Stand Alone Stereo Effect Units

Simplified Diagram



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Effect Sound Preset Listing

88 REVERB EFFECT - SOUNDS											
	HALL	CATH	ROOM	PLATE	SPRING	TUBE	CHAMBER	AMBIENT	VOICE	GATED	REVERSE
PARAMETER	2.0 sec	3.0 sec	1.0 sec	1.0 sec	0.5 sec	0.5 sec	0.5 sec	0.20 sec	60 ms	75 ms	75 ms
	2.5 sec	4.0 sec	1.5 sec	1.5 sec	1.0 sec	1.0 sec	0.6 sec	0.25 sec	70 ms	100 ms	100 ms
	3.0 sec	5.0 sec *	2.0 sec	2.0 sec	1.5 sec	1.5 sec	0.7 sec	0.30 sec	80 ms	125 ms	125 ms
	3.5 sec	6.0 sec	2.5 sec *	2.5 sec *	2.0 sec *	2.0 sec *	0.8 sec *	0.40 sec *	90 ms *	150 ms *	150 ms *
	4.0 sec *	7.0 sec	3.0 sec	3.0 sec	2.5 sec	2.5 sec	1.0 sec	0.50 sec	100 ms	175 ms	175 ms
	5.0 sec	8.0 sec	3.5 sec	3.5 sec	3.0 sec	3.0 sec	1.2 sec	0.60 sec	120 ms	200 ms	200 ms
	6.0 sec	10.0 sec	4.0 sec	4.0 sec	4.0 sec	3.5 sec	1.4 sec	0.70 sec	140 ms	250 ms	250 ms
	8.0 sec	12.0 sec	5.0 sec	5.0 sec	5.0 sec	4.0 sec	1.6 sec	0.80 sec	160 ms	300 ms	300 ms

← Effect-Type Amount: 33
← LCD Arrow-Position 1 (AP1)
← LCD Arrow-Position 2 (AP2)
Total Preset Count: 600

320 MIXED & MODULATED EFFECT - SOUNDS														
	ECH & REV	DLY & REV	CHORUS	CHO & REV	CHO & ECH	FLANGER	FLA & REV	FLA & ECH	TREMOLO	TRE & REV	TRE & ECH	WAH WAH	WAH & REV	WAH & ECH
	100ms & 1.0 s	100ms & 1.0 s	0.25 Hz	0.25Hz & 6.0 s	0.25Hz & 412ms	0.25 Hz	0.25Hz & 6.0 s	0.25Hz & 412ms	0.25 Hz	0.25Hz & 6.0 s	0.25Hz & 412ms	0.25 Hz	0.25Hz & 6.0 s	0.25Hz & 412ms
	125ms & 1.0 s	125ms & 1.0 s	0.50 Hz	0.50Hz & 6.0 s	0.50Hz & 400ms	0.50 Hz	0.50Hz & 6.0 s	0.50Hz & 400ms	0.50 Hz	0.50Hz & 6.0 s	0.50Hz & 400ms	0.50 Hz	0.50Hz & 6.0 s	0.50Hz & 400ms
	150ms & 1.5 s	150ms & 1.5 s	0.75 Hz	0.75Hz & 6.0 s	0.75Hz & 387ms	0.75 Hz	0.75Hz & 6.0 s	0.75Hz & 387ms	0.75 Hz	0.75Hz & 6.0 s	0.75Hz & 387ms	0.75 Hz	0.75Hz & 6.0 s	0.75Hz & 387ms
	175ms & 1.5 s	175ms & 1.5 s	1.00 Hz	1.00Hz & 5.0 s	1.00Hz & 375ms	1.00 Hz	1.00Hz & 5.0 s	1.00Hz & 375ms	1.00 Hz	1.00Hz & 5.0 s	1.00Hz & 375ms	1.00 Hz	1.00Hz & 5.0 s	1.00Hz & 375ms
*	200ms & 2.0 s	200ms & 2.0 s	1.25 Hz	1.25Hz & 5.0 s	1.25Hz & 362ms	1.25 Hz	1.25Hz & 5.0 s	1.25Hz & 362ms	1.25 Hz	1.25Hz & 5.0 s	1.25Hz & 362ms	1.25 Hz	1.25Hz & 5.0 s	1.25Hz & 362ms
	225ms & 2.0 s	225ms & 2.0 s	1.50 Hz	1.50Hz & 5.0 s	1.50Hz & 350ms	1.50 Hz	1.50Hz & 5.0 s	1.50Hz & 350ms	1.50 Hz	1.50Hz & 5.0 s	1.50Hz & 350ms	1.50 Hz	1.50Hz & 5.0 s	1.50Hz & 350ms
	250ms & 2.5 s	250ms & 2.5 s	1.75 Hz	1.75Hz & 4.0 s	1.75Hz & 337ms	1.75 Hz	1.75Hz & 4.0 s	1.75Hz & 337ms	1.75 Hz	1.75Hz & 4.0 s	1.75Hz & 337ms	1.75 Hz	1.75Hz & 4.0 s	1.75Hz & 337ms
	275ms & 2.5 s	275ms & 2.5 s	* 2.00 Hz	2.00Hz & 4.0 s	2.00Hz & 325ms	* 2.00 Hz	2.00Hz & 4.0 s	2.00Hz & 325ms	2.00 Hz	2.00Hz & 4.0 s	2.00Hz & 325ms	2.00 Hz	2.00Hz & 4.0 s	2.00Hz & 325ms
	300ms & 3.0 s	300ms & 3.0 s	2.25 Hz	2.25Hz & 4.0 s	2.25Hz & 312ms	2.25 Hz	2.25Hz & 4.0 s	2.25Hz & 312ms	2.25 Hz	2.25Hz & 4.0 s	2.25Hz & 312ms	2.25 Hz	2.25Hz & 4.0 s	2.25Hz & 312ms
PARAMETER	325ms & 3.0 s	325ms & 3.0 s	2.50 Hz	2.50Hz & 4.0 s	2.50Hz & 300ms	2.50 Hz	2.50Hz & 4.0 s	2.50Hz & 300ms	* 2.50 Hz	2.50Hz & 4.0 s	2.50Hz & 300ms	* 2.50 Hz	2.50Hz & 4.0 s	2.50Hz & 300ms
	350ms & 3.5 s	350ms & 3.5 s	2.75 Hz	2.75Hz & 3.0 s	2.75Hz & 287ms	2.75 Hz	2.75Hz & 3.0 s	2.75Hz & 287ms	2.75 Hz	2.75Hz & 3.0 s	2.75Hz & 287ms	2.75 Hz	2.75Hz & 3.0 s	2.75Hz & 287ms
	375ms & 3.5 s	375ms & 3.5 s	3.00 Hz	3.00Hz & 3.0 s	3.00Hz & 275ms	3.00 Hz	3.00Hz & 3.0 s	3.00Hz & 275ms	3.00 Hz	3.00Hz & 3.0 s	3.00Hz & 275ms	3.00 Hz	3.00Hz & 3.0 s	3.00Hz & 275ms
	400ms & 4.0 s	400ms & 4.0 s	3.25 Hz	3.25Hz & 3.0 s	3.25Hz & 267ms	3.25 Hz	3.25Hz & 3.0 s	3.25Hz & 267ms	3.25 Hz	3.25Hz & 3.0 s	3.25Hz & 267ms	3.25 Hz	3.25Hz & 3.0 s	3.25Hz & 267ms
	450ms & 4.5 s	450ms & 4.5 s	3.50 Hz	3.50Hz & 3.0 s	3.50Hz & 250ms	3.50 Hz	3.50Hz & 3.0 s	3.50Hz & 250ms	3.50 Hz	3.50Hz & 3.0 s	3.50Hz & 250ms	3.50 Hz	3.50Hz & 3.0 s	3.50Hz & 250ms
	500ms & 5.0 s	500ms & 5.0 s	3.75 Hz	3.75Hz & 3.0 s	3.75Hz & 237ms	3.75 Hz	3.75Hz & 3.0 s	3.75Hz & 237ms	3.75 Hz	3.75Hz & 3.0 s	3.75Hz & 237ms	3.75 Hz	3.75Hz & 3.0 s	3.75Hz & 237ms
	550ms & 5.5 s	550ms & 5.5 s	4.00 Hz	4.00Hz & 2.0 s	4.00Hz & 225ms	4.00 Hz	4.00Hz & 2.0 s	4.00Hz & 225ms	4.00 Hz	4.00Hz & 2.0 s	4.00Hz & 225ms	4.00 Hz	4.00Hz & 2.0 s	4.00Hz & 225ms
	600ms & 6.0 s	600ms & 6.0 s	4.25 Hz	4.25Hz & 2.0 s	4.25Hz & 212ms	4.25 Hz	4.25Hz & 2.0 s	4.25Hz & 212ms	4.25 Hz	4.25Hz & 2.0 s	4.25Hz & 212ms	4.25 Hz	4.25Hz & 2.0 s	4.25Hz & 212ms
	650ms & 6.5 s	650ms & 6.5 s	4.50 Hz	4.50Hz & 2.0 s	4.50Hz & 200ms	4.50 Hz	4.50Hz & 2.0 s	4.50Hz & 200ms	4.50 Hz	4.50Hz & 2.0 s	4.50Hz & 200ms	4.50 Hz	4.50Hz & 2.0 s	4.50Hz & 200ms
	700ms & 7.0 s	700ms & 7.0 s	4.75 Hz	4.75Hz & 2.0 s	4.75Hz & 187ms	4.75 Hz	4.75Hz & 2.0 s	4.75Hz & 187ms	4.75 Hz	4.75Hz & 2.0 s	4.75Hz & 187ms	4.75 Hz	4.75Hz & 2.0 s	4.75Hz & 187ms
	750ms & 7.5 s	750ms & 7.5 s	5.00 Hz	5.00Hz & 2.0 s	5.00Hz & 175ms	5.00 Hz	5.00Hz & 2.0 s	5.00Hz & 175ms	5.00 Hz	5.00Hz & 2.0 s	5.00Hz & 175ms	5.00 Hz	5.00Hz & 2.0 s	5.00Hz & 175ms
	800ms & 8.0 s	800ms & 8.0 s	5.25 Hz	5.25Hz & 1.0 s	5.25Hz & 167ms	5.25 Hz	5.25Hz & 1.0 s	5.25Hz & 167ms	5.25 Hz	5.25Hz & 1.0 s	5.25Hz & 167ms	5.25 Hz	5.25Hz & 1.0 s	5.25Hz & 167ms
	850ms & 8.5 s	850ms & 8.5 s	5.50 Hz	5.50Hz & 1.0 s	5.50Hz & 150ms	5.50 Hz	5.50Hz & 1.0 s	5.50Hz & 150ms	5.50 Hz	5.50Hz & 1.0 s	5.50Hz & 150ms	5.50 Hz	5.50Hz & 1.0 s	5.50Hz & 150ms
	900ms & 9.0 s	900ms & 9.0 s	5.75 Hz	5.75Hz & 1.0 s	5.75Hz & 137ms	5.75 Hz	5.75Hz & 1.0 s	5.75Hz & 137ms	5.75 Hz	5.75Hz & 1.0 s	5.75Hz & 137ms	5.75 Hz	5.75Hz & 1.0 s	5.75Hz & 137ms
	1000ms & 10 s	1000ms & 10 s	6.00 Hz	6.00Hz & 1.0 s	6.00Hz & 125ms	6.00 Hz	6.00Hz & 1.0 s	6.00Hz & 125ms	6.00 Hz	6.00Hz & 1.0 s	6.00Hz & 125ms	6.00 Hz	6.00Hz & 1.0 s	6.00Hz & 125ms

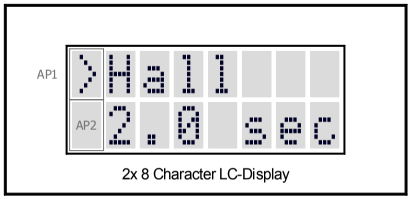
192 DELAY EFFECTS	AP1
ECHO 30	←
ECHO 40	
ECHO 50	
ECHO LR	
ECHO 3T	
DELAY	
DLY LR	
DLY 3T	←
PARAMETER 50 ms	← AP2
75 ms	
100 ms	
125 ms	
150 ms	
175 ms	
200 ms *	
225 ms	
250 ms	
275 ms	
300 ms	
325 ms	
350 ms	
375 ms	
400 ms	
450 ms	
500 ms	
550 ms	
600 ms	
650 ms	
700 ms	
800 ms	
900 ms	
1000 ms	

Abbreviations:

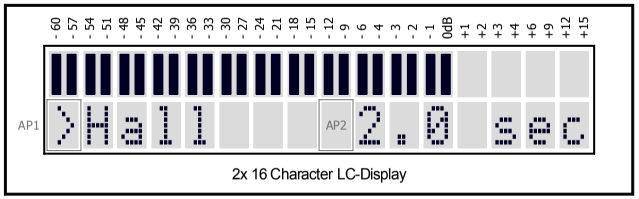
ECH & REV = Echo and Reverb (40% FB)
DLY & REV = Delay and Reverb (0% FB)
CHO & REV = Chorus and Reverb
CHO & ECH = Chorus and Echo 40% FB
FLA & REV = Flanger and Reverb
FLA & ECH = Flanger and Echo 40% FB
TRE & REV = Tremolo and Reverb
TRE & ECH = Tremolo and Echo 40% FB
WAH & REV = Wah-Wah and Reverb
WAH & ECH = Wah-Wah and Echo 40% FB

ECHO 30 = Delay with 30% Feedback
ECHO 40 = Delay with 40% Feedback
ECHO 50 = Delay with 50% Feedback
ECHO LR = Left / Right Delay with 40% FB
ECHO 3T = 3 Tap Pan. Delay with 40% FB
DLY LR = Left / Right Delay with 0% FB
DLY 3T = 3 Tap Pan. Delay with 0% FB
CATH = Cathedral Reverb

* Factory default selected presets at delivery



2x 8 Character LC-Display



2x 16 Character LC-Display