

Accutronics DIGITAL SOUND EFFECTOR

Model: BTSE-16FX

1. Overview

The BTSE-16FX Effect board provides 16 different digital audio effects to be used for mixers or other audio applications that require sound enhancement. Equipped with the superb quality digital effects processing engine which it adds that extra punch needed to make audio presentations truly stand out.

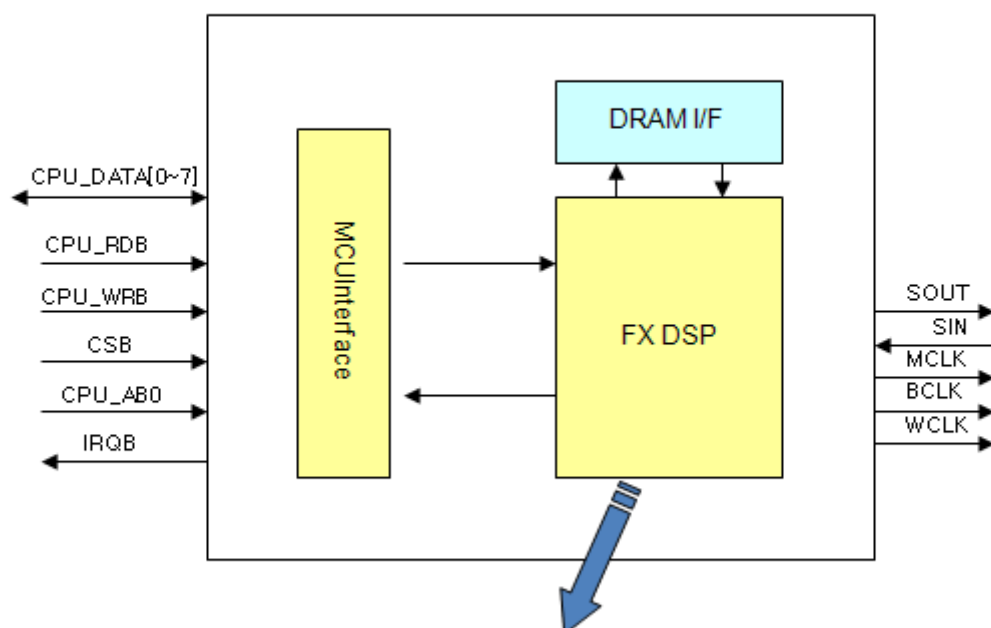
2. Specifications

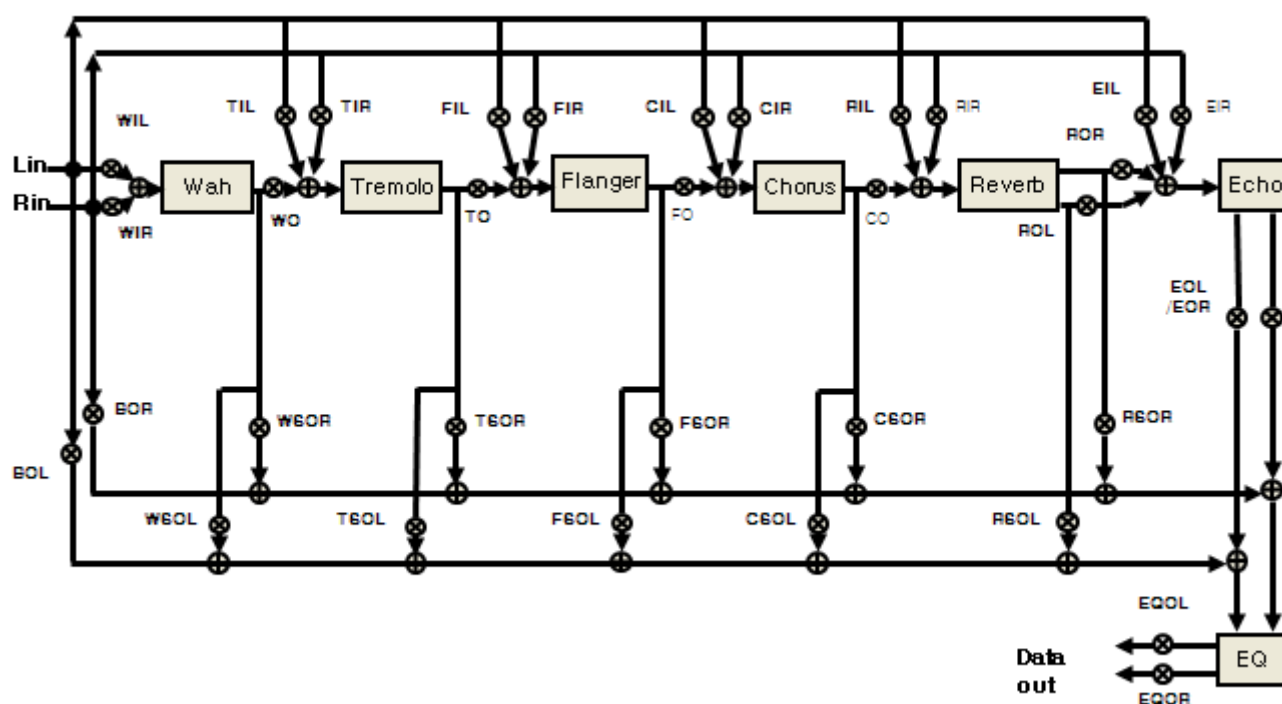
FX Presets	16
Passband Frequency	20hz ~ 20khz
DSP arithmetic	24 bit
S/N (A-weighted)	90 dB
Dynamic Range	90 dB
Sampling Rate	48 khz
Power Supply	DC 5V
Dimensions (w x l)	4 x 35 mm

3. Applications

- Guitar and keyboard Amplifiers/ Combos
- Audio mixing consoles / Powered Mixing Console
- Karaoke systems
- Stand -alone stereo Effect units for studio and PA usage

4. Block Diagram





5. Effects Program Chart

Program List	Name	Description
1100	Hall 1	Bright hall reverb for drum, guitar and vocals.
1110	Hall 2	Warm hall for acoustic guitars, pianos and vocals.
0110	Room 1	Hardwood studio for acoustic instusment.
0100	Room 2	Ambience for acoustic mixers and synth sounds.
0000	Room 3	Warm room for guitars and rhythm.
0010	Plate 1	Classic plate reverb for lead vocals and drums.
0011	Plate 2	Sizzling bright plate reverb for vc.
0001	Plate 3	Short vintage plate reverb for snares and guitars.
0101	Chorus	Stereo chorus for guitars and pianos.
0111	Flanger	Stereo flanger for jet wash effects.
1111	Delay 1	125ms snapback delay for vocals and guitars.
1101	Delay 2	190ms delay for percussive arpeggios.
1001	Chorus/Room1	Chorus with reverb for guitars, synths, and pianos.
1011	Chorus/Room2	Auto wah guitar effect with reverb for lead instuments.
1010	Chorus/Delay	Chorus Delay for guitars, synths, and pianos.
1000	Rotay Speaker	Rotary speaker emulation for organs and guitars.

6. Pin Descriptions

Part	Pin	Name	Function
CN1	1	L-Out	Audio Out Left
	2	R-Out	Audio Out Right
	3	AGND	Analog Ground
	4	IN	Auido Input
	5	3.6V	+3.6V Out
	6	AGND	Analog Ground
	7	MUTE	Mute (SW 5 bit)
	8	FND-DATA	FND Data out
CN2	1	DB0	Serial data
	2	DB1	Serial clock
	3	RSTC	Rest
	4	GND	Ground
	5	3.6V	+3.6V Out
CN3	1	SW1	SW 0 bit
	2	SW2	SW 1 bit
	3	SW3	SW 2 bit
	4	SW4	SW 3 bit
	5	BANK	SW 4 bit
	6	DGND	Digtial Ground
	7	FND-CLK	FND clock out
	8	5V	+5V power supply
CN4	1	ISP-CLK	ISP Clock
	2	ISP-SD	Analog Ground
	3	RSTB	Rest
	4	GND	Ground
	5	3.6V	Analog Ground
	6	TEST	Test

※ CN2, CN4 Pin is only used download firmware on MCU, EEPROM

※ Suggestion for control: CTS code switch (BTDS20H-116)

7. Circuit Diagram

