

P-RBTSE-99FX

Accutronics 99 FX DSP Module

Overview

The BTSE-99FX Effect board provides 99 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.

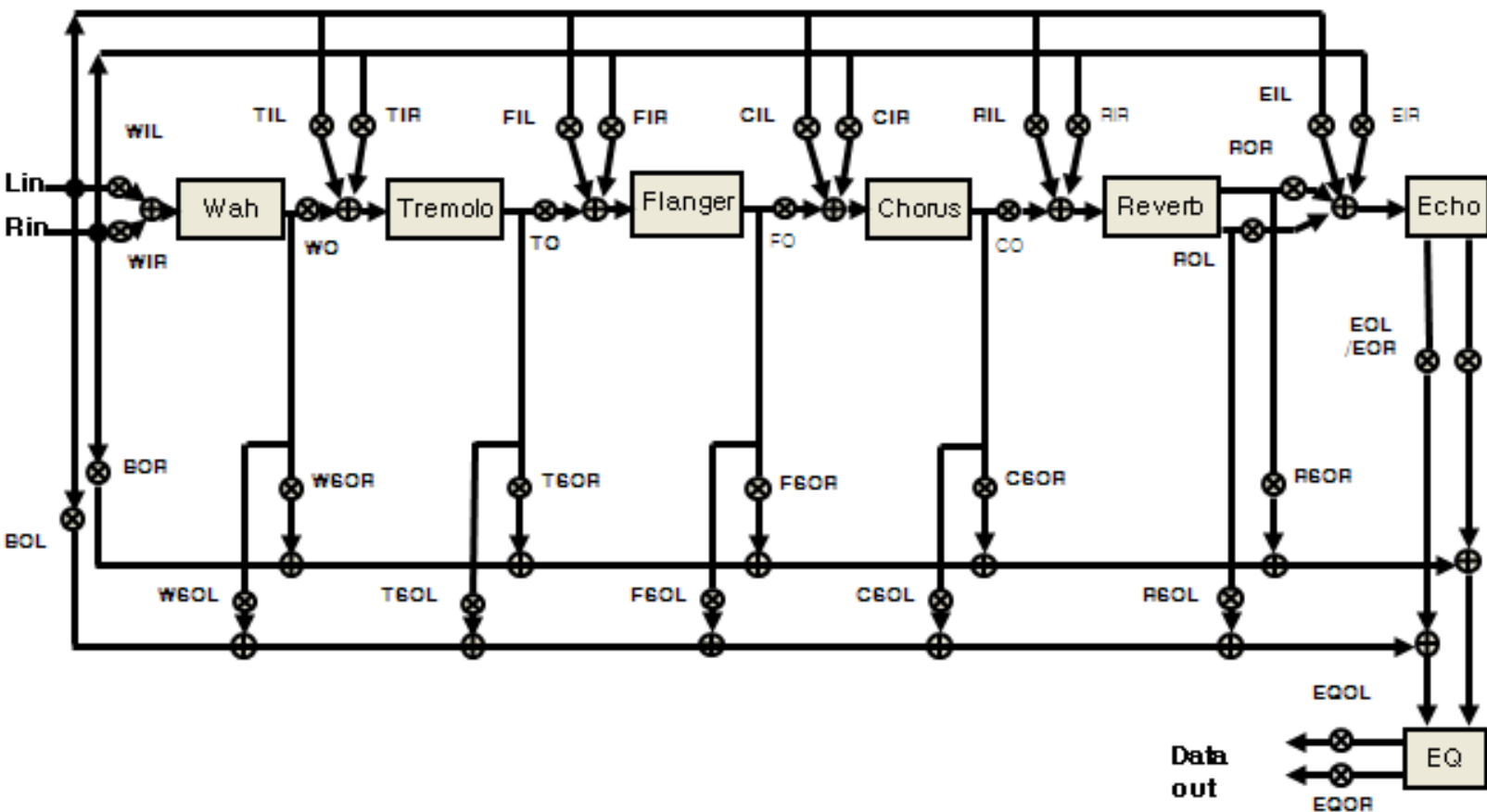
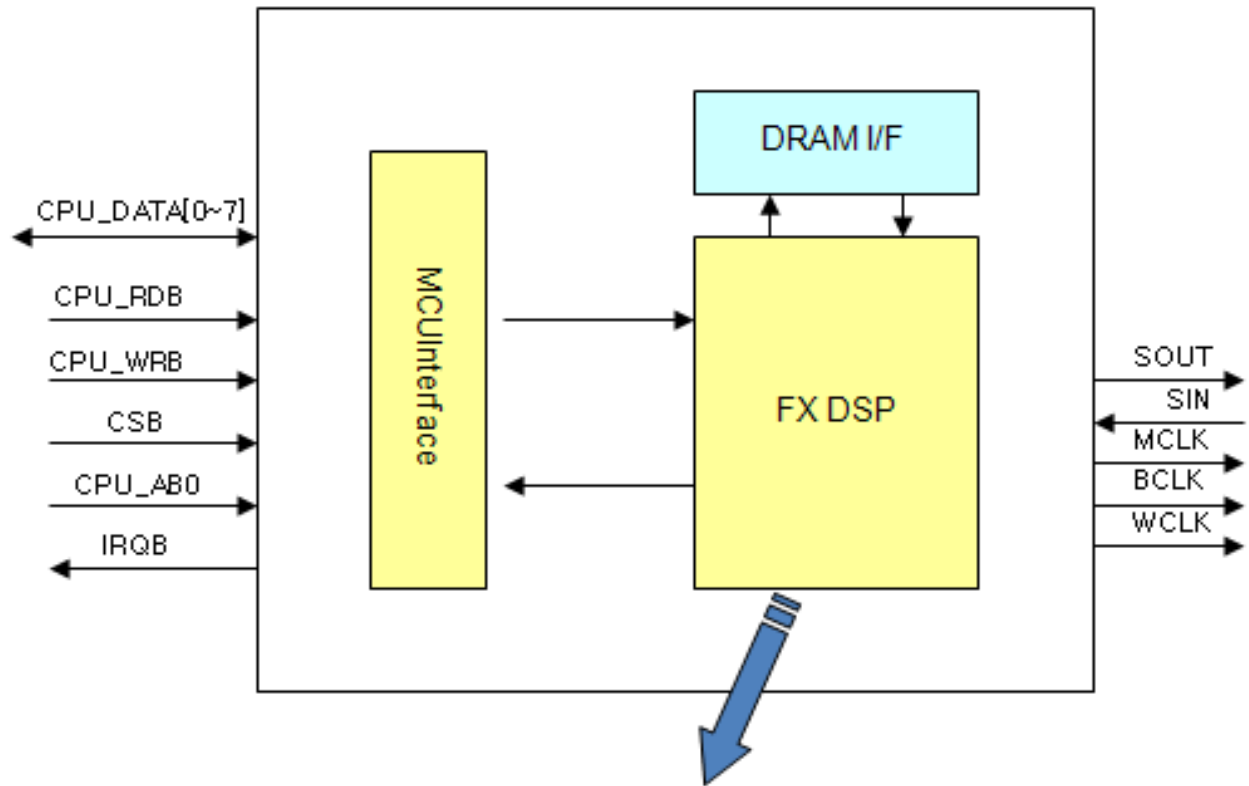
Specifications

FX Presets	99
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
RoHS (PB free)	O
Dimensions (w x l)	50 x 49 mm

Applications

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

Block Diagram



Effects Program Chart

Reverb

1	Hall	2.0 sec
2	Hall	2.5 sec
3	Hall	3.0 sec
4	Hall	4.0 sec
5	Hall	5.0 sec
6	Hall	6.0 sec
7	Hall	8.0 sec
8	Hall	10.0 sec
9	Room	1.0 sec
10	Room	1.5 sec
11	Room	2.0 sec
12	Room	2.5 sec
13	Room	3.0 sec
14	Room	4.0 sec
15	Plate	1.0 sec
16	Plate	1.5 sec
17	Plate	2.0 sec
18	Plate	2.5 sec
19	Plate	3.0 sec
20	Plate	4.0 sec
21	Ambient	0.5 sec
22	Ambient	0.7 sec
23	Ambient	1.0 sec
24	Ambient	1.3 sec
25	Ambient	1.6 sec
26	Gated	75 ms
27	Gated	100 ms
28	Gated	125 ms
29	Gated	150 ms
30	Gated	200 ms
31	Gated	300 ms
32	Reverse	75 ms
33	Reverse	100 ms
34	Reverse	125 ms
35	Reverse	150 ms
36	Reverse	200 ms
37	Reverse	300 ms

Delay

38	Echo	100 ms	+Room	1.0 sec
39	Echo	150 ms	+Room	1.5 sec
40	Echo	200 ms	+Hall	2.0 sec
41	Echo	250 ms	+Hall	2.5 sec
42	Echo	300 ms	+Hall	3.0 sec
43	Echo	350 ms	+Hall	3.5 sec
44	Echo	400 ms	+Hall	4.0 sec
45	Echo	500 ms	+Hall	5.0 sec
46	Voice Doubler	60 ms		
47	Voice Doubler	80 ms		
48	Voice Doubler	100 ms		
49	Voice Double	120 ms		
50	Voice Doubler	140 ms		
51	Signal Delay	50 ms		
52	Signal Delay	100 ms		
53	Signal Delay	150 ms		
54	Signal Delay	200 ms		
55	Signal Delay	250 ms		
56	Signal Delay	300 ms		
57	Signal Delay	400 ms		
58	Signal Delay	500 ms		
59	Echo	50.00%	+F.B	100 ms
60	Echo	50.00%	+F.B	125 ms
61	Echo	50.00%	+F.B	150 ms
62	Echo	50.00%	+F.B	200 ms
63	Echo	50.00%	+F.B	250 ms
64	Echo	50.00%	+F.B	300 ms
65	Echo	50.00%	+F.B	350 ms
66	Echo	50.00%	+F.B	400 ms
67	Echo	50.00%	+F.B	500 ms
68	Echo	50.00%	+F.B	350 ms
69	Echo	50.00%	+F.B	800 ms

Chorus

70	Chorus	fast		
71	Chorus	fast	+Echo	100 ms
72	Chorus	fast	+Room	1.0 sec
73	Chorus	medium		
74	Chorus	medium	+Echo	200 ms
75	Chorus	medium	+Hall	2.0 sec
76	Chorus	slow		
77	Chorus	slow	+Echo	300 ms
78	Chorus	slow	+Hall	4.0 sec

Flanger

79	Flanger	fast		
80	Flanger	fast	+Echo	100 ms
81	Flanger	fast	+Room	1.0 sec
82	Flanger	medium		
83	Flanger	medium	+Echo	200 ms
84	Flanger	medium	+Hall	2.0 sec
85	Flanger	slow		
86	Flanger	slow	+Echo	300 ms
87	Flanger	slow	+Hall	4.0 sec

Tremolo

88	Tremolo	fast		
89	Tremolo	fast	+Room	1.0 sec
90	Tremolo	medium		
91	Tremolo	medium	+Hall	2.0 sec
92	Tremolo	slow		
93	Tremolo	slow	+Hall	4.0 sec

Wah Wah

94	Wah Wah	fast		
95	Wah Wah	fast	+Room	1.0 sec
96	Wah Wah	medium		
97	Wah Wah	medium	+Hall	2.0 sec
98	Wah Wah	slow		
99	Wah Wah	slow	+Hall	4.0 sec

Pin Descriptions

Part	Pin	Case	Name	Function
CN1	1	1	L-OUT	Audio Out Left
	2	2	R-OUT	Audio Out Right
	3	3	AGND	Analog Ground
	4	4	IN	Audio Input
	5	5	3.6V	+3.6V Out
	6	6	AGND	Analog Ground
	7	7	FND-STB	FND Strobe
	8	8	N.C	(not used)
CN2	1		DB0	Serial data
	2		DB1	Serial clock
	3		RSTC	Rest
	4		GND	Ground
	5		3.6V	+3.6V Out
CN3	1	9	JOG-A	Encoder A
	2	10	JOG-B	Encoder B
	3	11	JOG-MUTE	Encoder Push S/W
	4	12	FND-DATA	FND Data out
	5	13	FND-CLK	FND clock out
	6	14	DGND	Digital Ground
	7	15	N.C	(not used)
	8	16	5V	+5V power supply
CN4	1		ISP-CLK	ISP Clock
	2		ISP-SD	Analog Ground
	3		RSTB	Rest
	4		GNS	Ground
	5		3.6V	Analog Ground
	6		TEST	Test

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

