

## ■ CXD2554P : Digital Filter

### 1. Outline

The CXD2554P is a 4- and 8-times oversampling digital filter LSI for a compact disc player. It has the following functions.

- 4- and 8-times digital filter
- De-emphasis function
- Attenuating function (Built-in 1st noise shaper)
- Digital offset function
- I/O format

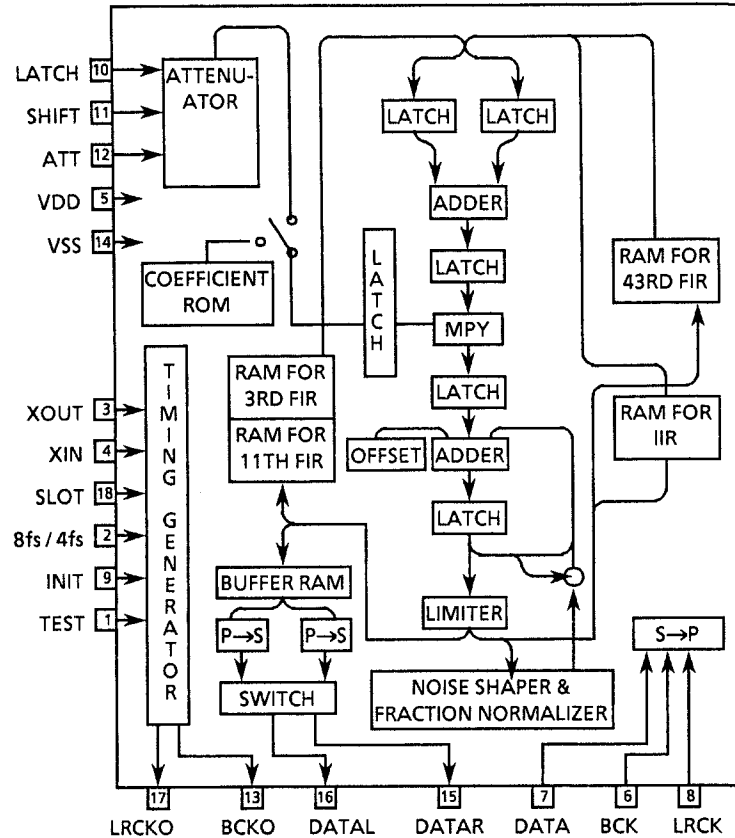
Input: 2's complement MSB first (serial)

Output: 2's complement MSB first (serial)  
(16-or18-bit slot selectable)

### 2. Terminal Layout

TEST	1	18 SLOT
8fs / 4fs	2	17 LRCKO
XOUT	3	16 DATAL
XIN	4	15 DATAR
VDD	5	14 VSS(GND)
BCK	6	13 BCKO
DATA	7	12 ATT
LRCK	8	11 SHIFT
INIT	9	10 LATCH

### 3. Block Diagram



### 4. Pin Function Description

Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	TEST	I	Test pin. Fixed at "L" level in normal operation mode.	10	LATCH	I	Latch clock input
2	8fs/4fs	I	To specify FIR 3. "H" : 8fs "L" : 4fs	11	SHIFT	I	Shift clock input
3	XOUT	O	Master clock output (f = 384fs)	12	ATT	I	Attenuator data input
4	XIN	I	Master clock input (f = 384fs)	13	BCKO	O	BCK output
5	VDD	-	Power supply(+ 5V)	14	VSS	-	Power supply (GND)
6	BCK	I	BCK input	15	DATAR	O	4fs mode: WCK output 8fs mode : RCH serial data output (2's complement)
7	DATA	I	Serial data input (2's complement)	16	DATAL	O	4fs mode:LCH and RCH time division serial data output(2's complement) 8fs mode : LCH serial data output (2's complement)
8	LRCK	I	LRCK input	17	LRCKO	O	LRCK output
9	INIT	I	Re-synchronized by rising edge of this signal	18	SLOT	I	To specify output slot. "H": 18-bit slot "L": 16-bit slot

TEST, 8fs / 4fs and SLOT pins : Pull down resistance