



MP3 Audio Decoder IC

PT8402B

DESCRIPTION

The PT8402B is a single chip MPEG audio decoder capable of decoding all layers compressed elementary streams, as specified in MPEG 1 and MPEG 2 ISO standards, including the so called MP3. In addition to decoding function, this chip also includes a high-performance D/A converter and headphone driver, so user can eliminate the need of external DAC and output circuit. With external A/D converter, it can also compress incoming signal by using ADPCM algorithm, therefore it can also playback ADPCM bitstream.

FEATURES

- Support all the sampling frequency of MPEG1 (32/44.1/48KHz), MPEG2(16/22.05/24KHz) and MPEG2.5(12/11.025/8KHz).
- Parallel/Serial bit stream input interface
- I²S/Normal audio data output format delivered via a serial bus
- Power save mode support
- DAC master clock (256*fs / 384*fs for 16 / 24 bit DAC) is supported
- Build-in DAC and headphone amp.
- Build-in Volume and Digital Equalizer Control
- Aux input for additional analog music source through AUXR and AUXL ports
- Bass Booster, 3D Sound.
- Low Operating Voltage, 2.5V.
- Available in 100 pins and 80 pins, TQFP and LQFP Package

APPLICATIONS

- Portable MP3 player
- PDA
- CD/MP3 player
- All other MP3 applications.



PT8402B

Pin	Signal	IO Type	Signal	IO Type
1	VCC	P	100	NC
2	GND	P	I/O	P
3	GPIO0	I/O		
4	NC			
5	GPIO15	I/O		
6	NC			
7	GPIO14	I/O		
8	NC			
9	VCC	P		
10	GND	P		
11	GPIO13	I/O		
12	NC			
13	GPIO12	I/O		
14	NC			
15	VCC	P		
16	GND	P		
17	GPIO11	I/O		
18	NC			
19	GPIO10	I/O		
20	NC			
21	GPIO9	I/O		
22	NC			
23	GPIO8	I/O		
24	VCC	P		
25	GND	P		
26	NC	O		
27	PD REQ	P		
28	NC	P		
29	VCC	P		
30	GND	O		
31	PD ACK	I		
32	PD ENA	I		
33	B ENA1	P		
34	VCC	P		
35	GND	I		
36	BD1	I		
37	BCK1	I		
38	MCLKIN	I/O		
39	IICC	I/O		
40	IICD	P		
41	VCC	O		
42	MCLKO	P		
43	GND	O		
44	ADQO	O		
45	ALRQO	O		
46	ACKO	P		
47	VCC	P		
48	GND	I		
49	TE	P		
50	DVDD	O		

Figure 1. 100 Pin Assignment (P: Power pins, I/O: IO pins)



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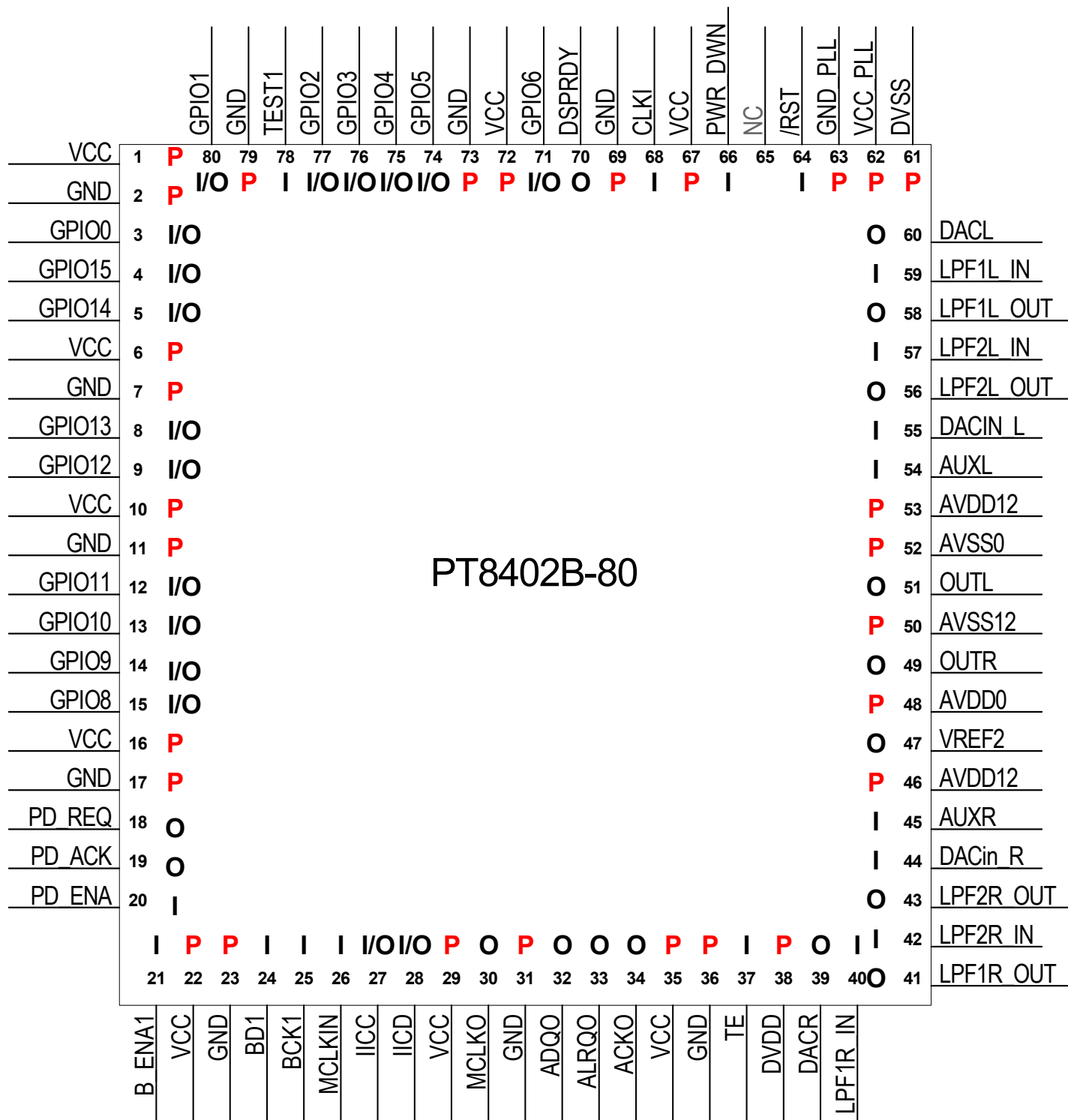


Figure 2. 80 Pin Assignment (P: Power pins, I/O: IO pins)

APPLICATION CIRCUIT

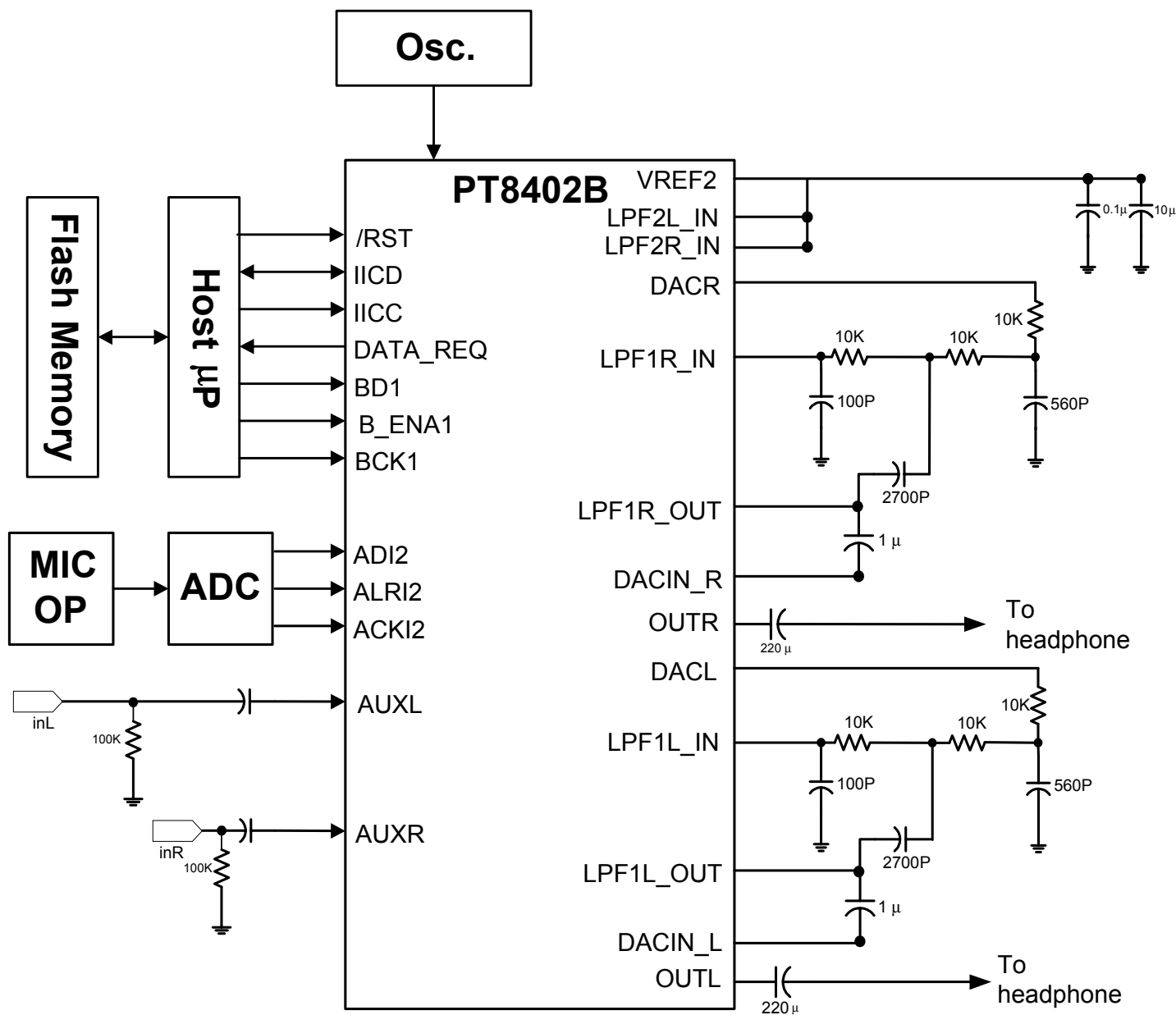


Figure 3. PT8402B Typical Connection Diagram



ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT8402B-80LQ	80Pins, LQFP	PT8402B-80LQ
PT8402B-LQ	100Pins, LQFP	PT8402B-LQ
PT8402B-TQ	100Pins, TQFP	PT8402B-TQ