DESCRIPTION

The PT2358 is a multiple inputs audio processor designed for Car Audio purpose. Using I²C interface controls all of the functions. Thanks for highly integration most of peripheral sub-circuits and components, it provides up to 9 inputs and equips outputs includes front, rear channel outputs. For highly enhanced audio performance and experience, PT2358 volume controller has Soft-Step function to eliminate click noise during volume step changes. Adjustable input gain, adaptive loudness, subwoofer filter, treble and bass tone control are all included.

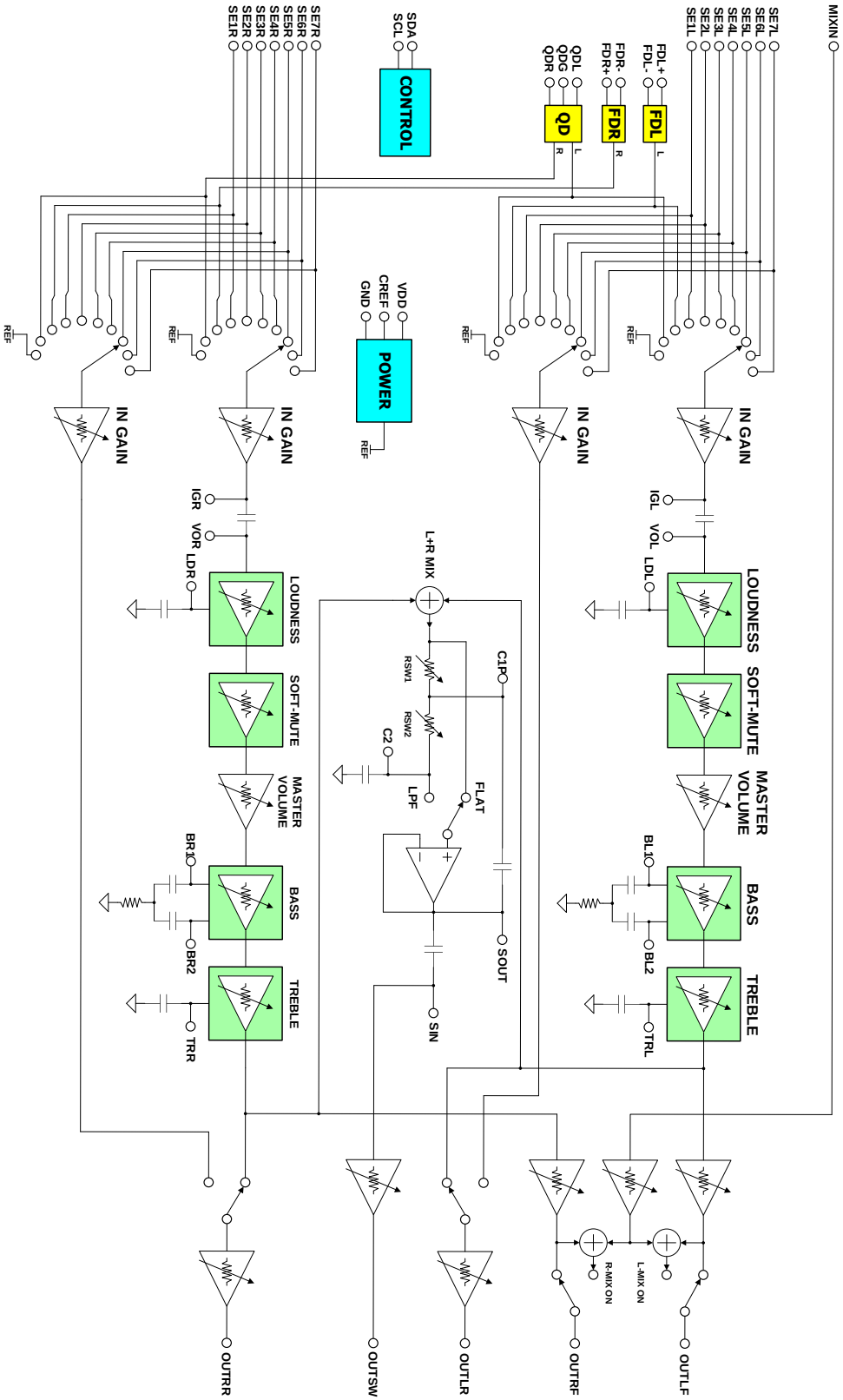
APPLICATIONS

- Car Audio

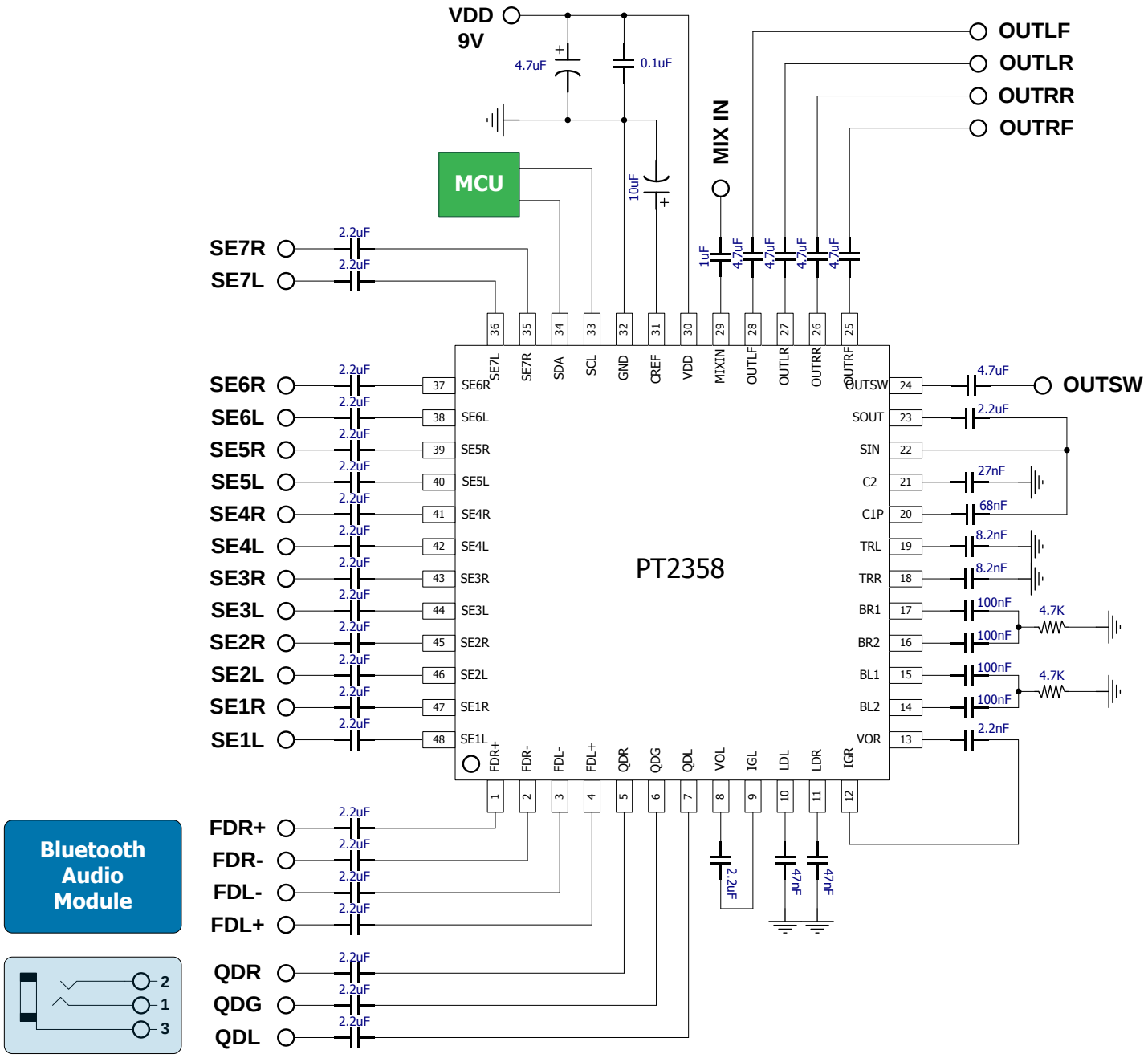
FEATURES

- Operation voltage 6~10V
- 7 single-ended stereo Inputs
- 1 quasi-differential (QD) input for AUX
- 1 fully-differential (FD) input for Bluetooth® audio module.
- Input gain from 0 ~+15dB in 1dB step
- Main volume gain from +15 to -79dB in 1dB step with Soft-Step function.
- Soft-Mute and Soft-Step function for preventing audible click during volume and sources changing.
- 1 subwoofer output with 3-band crossover frequency selection and gain from +15 to -79dB in 1dB step
- Tone Control (Bass and Treble): -15 to +15dB in 1dB step
- Loudness: gain from 0 to -15dB in 1dB step
- Mixing input with 50% mixing ratio for front speakers, gain from -79 to +15dB in 1dB step.
- 4 independent outputs for front and rear speakers, output gain from +15 to -79dB with 1dB step
- Controlled by I²C Interface
- Low Distortion and Low Noise
- 48-pin LQFP package

BLOCK DIAGRAM



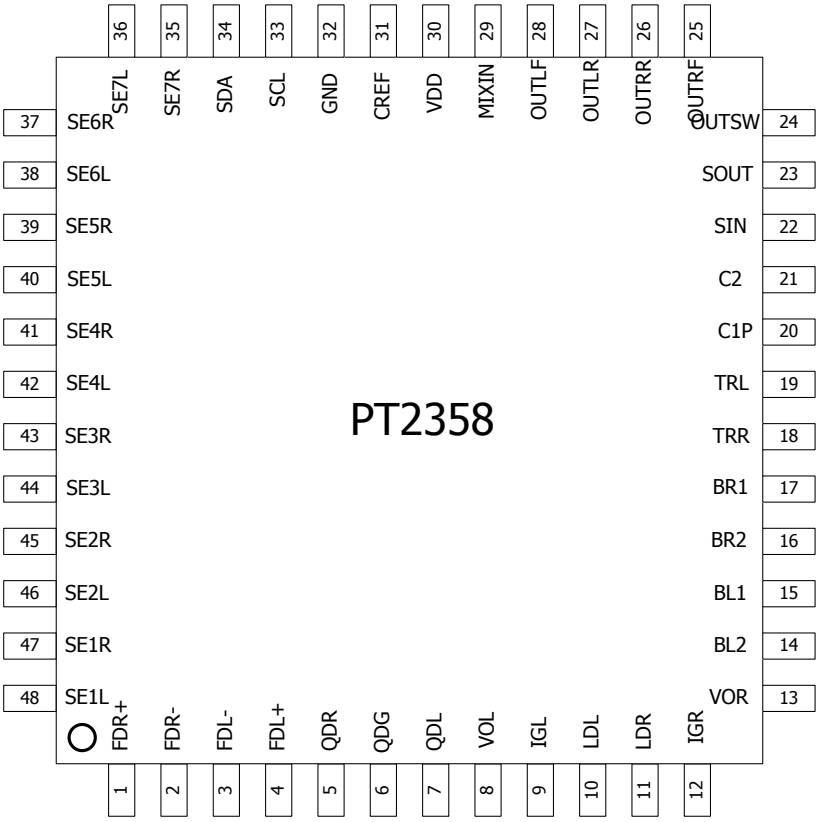
APPLICATION CIRCUIT



ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT2358	48-Pin, LQFP	PT2358-LQ

PIN CONFIGURATION



PIN DESCRIPTION

Pin Name	I/O	Description	Pin No.
FDR+	I	Fully-Differential left input +	1
FDR-	I	Fully-Differential left input -	2
FDL-	I	Fully-Differential right input -	3
FDL+	I	Fully-Differential right input +	4
QDR	I	Quasi-Differential right input	5
QDG	I	Quasi-Differential ground input	6
QDL	I	Quasi-Differential left input	7
VOL	I	Left channel volume input	8
IGL	O	Left channel in-gain output	9
LDL	I	Left channel loudness cap	10
LDR	I	Right channel loudness cap	11
IGR	O	Right channel in-gain output	12
VOR	I	Right channel volume input	13
BL2	I	Left channel bass cap 2	14
BL1	O	Left channel bass cap 1	15
BR2	I	Right channel bass cap 2	16
BR1	O	Right channel bass cap 1	17
TRR	I	Right channel treble cap	18
TRL	I	Left channel treble cap	19
CIP	I	Subwoofer low pass filter cap 1	20
C2	I	Subwoofer low pass filter cap 2	21
SIN	I	Subwoofer gain control input	22
SOUT	O	Subwoofer low pass filter output	23
OUTSW	O	Subwoofer output	24
OUTRF	O	Right channel front output	25
OUTRR	O	Right channel rear output	26
OUTLR	O	Left channel rear output	27
OUTLF	O	Left channel front output	28
MIXIN	I	Mixer input for front channel	29
VDD	-	Power supply	30
CREF	I	Reference voltage bypass cap, normally stay on half of VDD	31
GND	-	Ground	32
SCL	I	Control bus SCL input	33
SDA	I	Control bus SDA input	34

Pin Name	I/O	Description	Pin No.
SE7R	I	Single-ended right channel input 7	35
SE7L	I	Single-ended left channel input 7	36
SE6R	I	Single-ended right channel input 6	37
SE6L	I	Single-ended left channel input 6	38
SE5R	I	Single-ended right channel input 5	39
SE5L	I	Single-ended left channel input 5	40
SE4R	I	Single-ended right channel input 1	41
SE4L	I	Single-ended left channel input 1	42
SE3R	I	Single-ended right channel input 3	43
SE3L	I	Single-ended left channel input 3	44
SE2R	I	Single-ended right channel input 2	45
SE2L	I	Single-ended left channel input 2	46
SE1R	I	Single-ended right channel input 1	47
SE1L	I	Single-ended left channel input 1	48

IMPORTANT NOTICE

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