

DESCRIPTION

The PT12919 is a 3 band audio signal processor specially designed for car radio applications. The device includes a high performance audio processor with fully integrated audio filters. The digital control allows programming in a wide range of filter characteristics.

APPLICATION

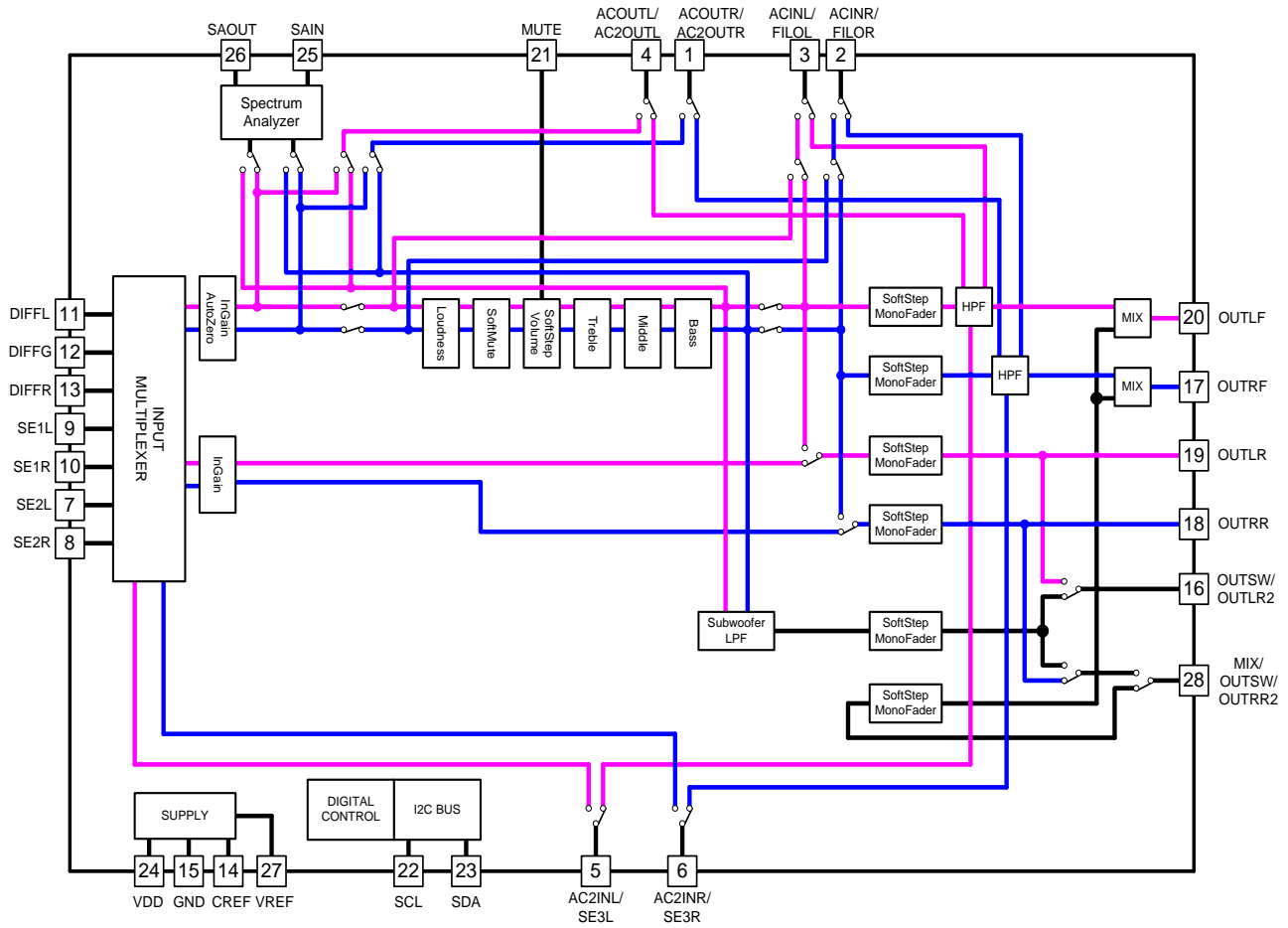
- Car Audio System

FEATURES

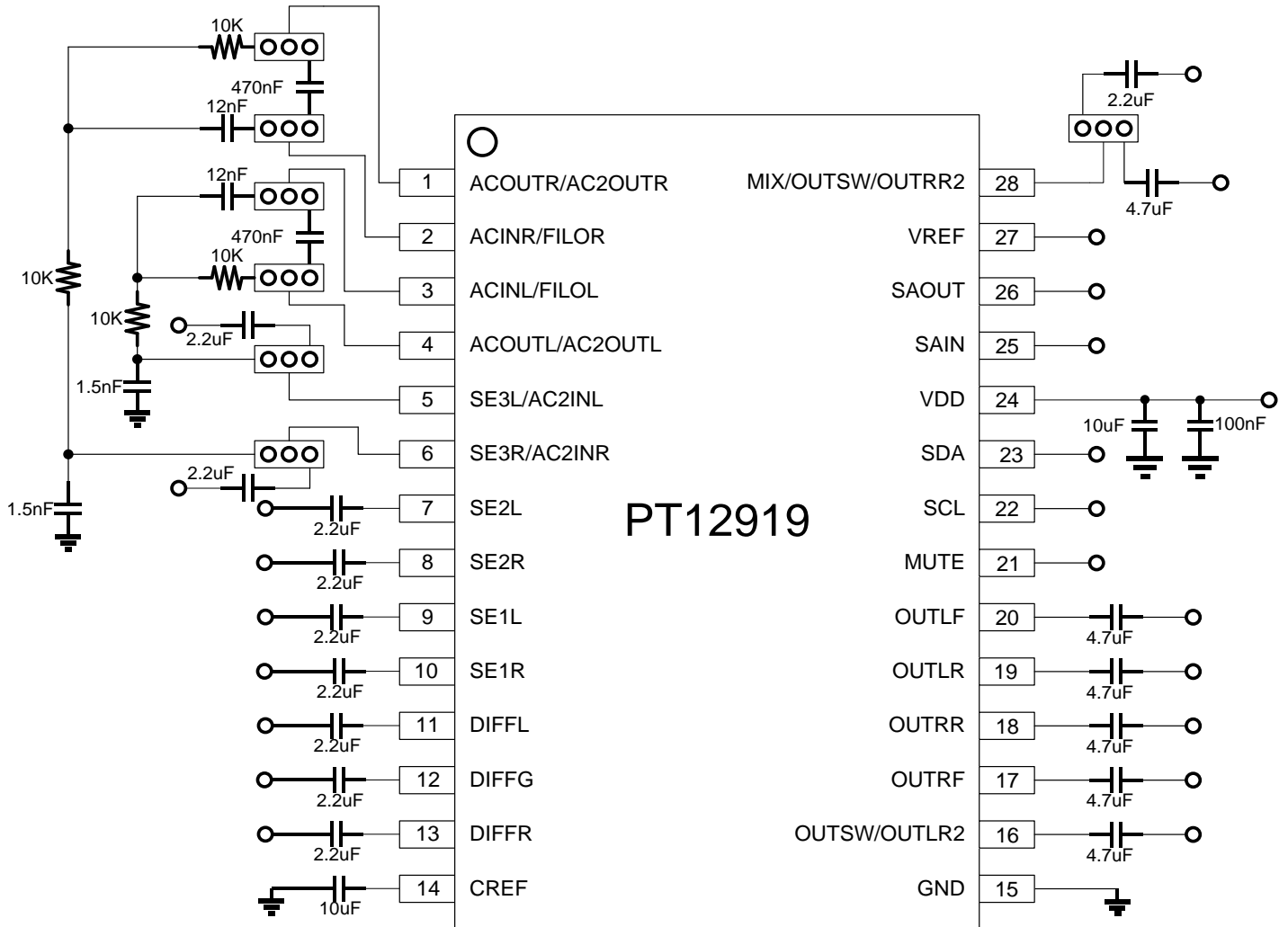
- 4 stereo inputs (including 1 quasi-differential input) with selectable input gain
- Input Gain Control: 0 to +15dB, 1dB/step

- Car Audio System
- 2 channels electronic volume with soft step function: +15 to -79dB with 1dB/step
- Direct mute and soft mute
- 1 subwoofer output with soft step: +15 to -79dB with 1dB/step
- Adjustable crossover frequency for subwoofer
- Tone control (Bass \ Middle and Treble): -15 to +15dB, 1dB/step
- Loudness: 0 to -15dB, 1dB/step
- 4 independent speaker outputs with soft step volume: +15 to -79dB with 1dB/step & independent programmable mix input with 50% mixing ratio for front speakers
- 7 band spectrum analyzer
- Controlled by I²C BUS Interface
- Low distortion and low noise
- 28-pin SOP package

BLOCK DIAGRAM



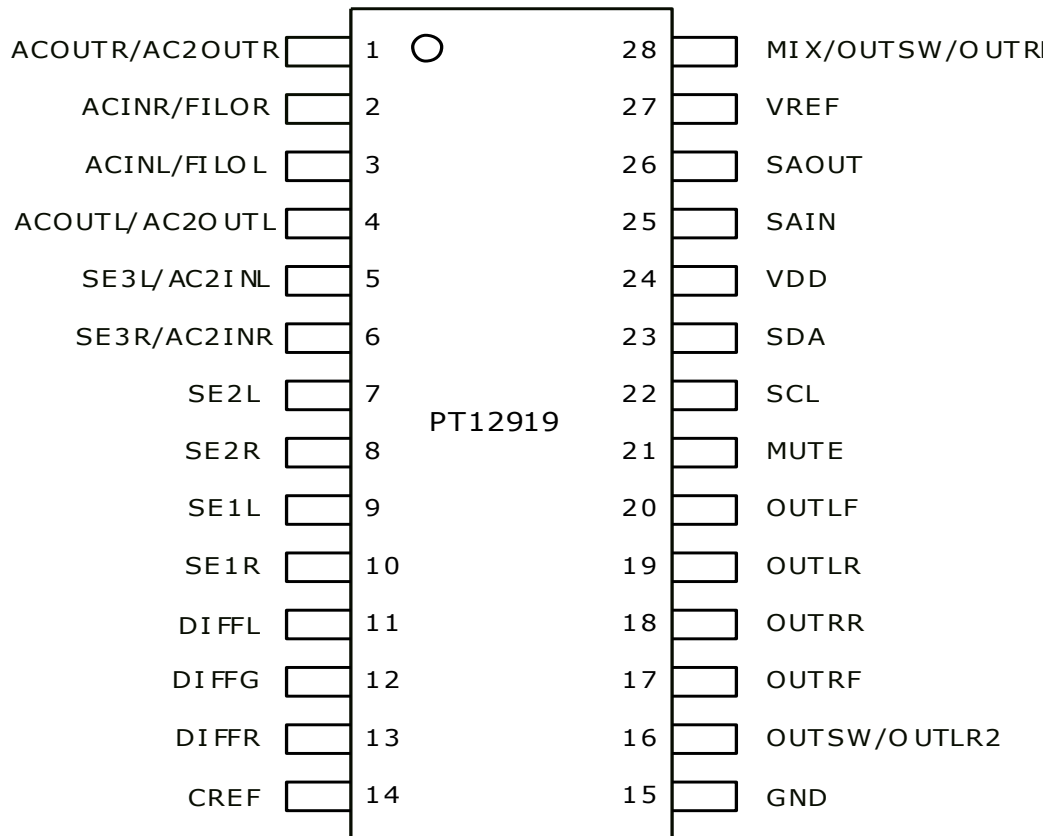
APPLICATION CIRCUIT



ORDER INFORMATION

| Part Number | Package Type | Top Code |
|-------------|----------------------|-----------|
| PT12919-S | 28 Pins, SOP, 300mil | PT12919-S |

PIN CONFIGURATION



PIN DESCRIPTION

| Pin Name | I/O | Description | Pin No. |
|------------------|-----|---|---------|
| ACOUTR/AC2OUTR | O | AC coupling right output/HPF filter AC2OUT right channel | 1 |
| ACINR/FILOR | I/O | AC coupling right input/HPF filter FILO right channel | 2 |
| ACINL/FIOL | I/O | AC coupling left input/HPF filter FILO left channel | 3 |
| ACOUTL/AC2OUTL | O | AC coupling left output/HPF filter AC2OUT left channel | 4 |
| SE3L/ACINL | I | Single-ended input 3 left channel/AC coupling left input | 5 |
| SE3R/ACINR | I | Single-ended input 3 right channel/AC coupling right input | 6 |
| SE2L | I | Single-ended input 2 left channel | 7 |
| SE2R | I | Single-ended input 2 right channel | 8 |
| SE1L | I | Single-ended input 1 left channel | 9 |
| SE1R | I | Single-ended input 1 right channel | 10 |
| DIFFL | I | Quasi-Differential stereo input left | 11 |
| DIFFG | I | Quasi-Differential stereo input common | 12 |
| DIFFR | I | Quasi-Differential stereo input right | 13 |
| CREF | O | Reference capacitor | 14 |
| GND | S | Ground | 15 |
| OUTSW/OUTLR2 | O | Subwoofer output/2 nd rear left output | 16 |
| OUTRF | O | Front right output | 17 |
| OUTRR | O | Rear right output | 18 |
| OUTLR | O | Rear left output | 19 |
| OUTLF | O | Front left output | 20 |
| MUTE | I | External mute pin | 21 |
| SCL | I | I ² C bus clock | 22 |
| SDA | I/O | I ² C bus data | 23 |
| VDD | S | Supply | 24 |
| SAIN | I | Spectrum Analyzer clock input | 25 |
| SAOUT | O | Spectrum Analyzer output | 26 |
| VREF | O | Vref output | 27 |
| MIX/OUTSW/OUTRR2 | I/O | Mix input/Additional subwoofer output/2 nd rear right output | 28 |

IMPORTANT NOTICE

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Princeton Technology Corp.
2F, 233-1, Baociao Road,
Sindian Dist., New Taipei City 23145, Taiwan
Tel: 886-2-66296288
Fax: 886-2-29174598
<http://www.princeton.com.tw>