TPIC 8101 Block Diagram

Microcontroller

A/D

Programmable Gain
Programmable Band-Pass Filter
Rectifier
Programmable Integrator

SAR 10-bit ADC

fs = 200 kHz

<1:10>

Programmable

3rd Order AAF

Mux

Knock Sensor 1

Knock Sensor 2

100 nF

3.3 nF

R

R

R

V_DD/2

V_ref

V_DD

GND

OUT

1 MΩ

INT / HOLD

XIN

XOUT

1 kΩ

470 pF

R > 25 kΩ

Note: R > 25 kΩ
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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
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