antenna

gnd

+5v

R3
10k

C2
.1µF

R4
10k

gnd

R1
see text

C1
10nF

+5v

Optional
CM1213A

R2
47Ω

C3
22pF

R5
220Ω

+5v

C4
.1µF

3

7

2

LTC6226

1 fb

6

8

4

Optional Lowpass filter
(If not used replace L1&2 w/ zero ohm)

L1

L2

C5

C6

C7

SMA out to QSD2

R5 & C3 determine LPF cutoff
$1/(2 * pi * 220 * 22e\text{-}12) = 30$ mHz

R2 & R5 determine gain
$220/47 = 5x$ gain
$20 * log10(220/47) = 13dB$ gain
NOTE: R1 no used.(add if no preamp)

Optional lowpass filter values
(see 101 Things for details)
16-30 mHz C5&C7=330pF C6=470pF L1&L2=220nH
8-16 mHz   C5&C7=680pF C6=1nF   L1&L2=330nH
4-8 mHz   C5&C7=1nF   C6=1nF   L1&L2=1uH
2-4 mHz   C5&C7=1.5nF C6=2.2nF L1&L2=2.2uH
1-2 mHz   C5&C7=3.3nF C6=4.7nF L1&L2=4.7uH

Co:	Little Boards	
Title:	101 Things Preamp/filter	
Board:	PicoPreamp	Revision: A
Author:	Jim Reagan	Size: A
Date:	9/18/2024	Sheet 1 of 1