BLOCK DIAGRAM

Receiver Card – Analog Board

8 Ch. Diff Input (±5V) → Diff. Bipolar → PGA (AD8253-ARMZ) → SE Bipolar → 8th order Butterworth LPF (LT16791S) (0-30KHz) → SE Bipolar → Attenuator & SE -> Diff (±10V to ±5V) (LTC6363-0.5) → SE Bipolar → 8 Ch Simul. ΣΔADC 24 bit (AD7768) → Stacked connector

+5V, 0, -5V
Z_m = 10MΩ

20 Vpp

Select Digital gain (00: 1, 01: 10, 10: 100, 11: 1000)

24bit / 250KHz sampling rate

SPI Bus & Control (3.3V)
RECEIVER CARD - ANALOG BOARD
POWER SECTION

REF +2.5V

I = 300mA

REF -2.5V

I = 200mA

POWER SECTION -5V

TPS7A3401DGNR:
216mV DROPOUT FOR 100mA
500 mV DROPOUT FOR 200mA