8-ch Isolated High Voltage Analog Input Module with ISOW7841 Reference Design

**Block Diagram**

Power

- +5V
- +15V
- -15V
- GNDiso
- GND

Signal Chain

- SN74AHC 594
- TS 5A23157
- INA149
- MUX36S08
- OPA192
- ADS8681
- ISOW 7841

To BeagleBone

- SPI and +5V supply

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for damping of voltage spikes at initial powering

R15, R16 => set UVLO to 3.5V, operation starts at 4.5V
C17 => set slow start to 35ms
R20, R23 => set operating switching frequency to 400kHz
C20, C22, R28 => compensation
R26 => set operating switching frequency to 400kHz

R20, R23 = set UVLO to 3.5V, operation starts at 4.5V
C22 = set slow start to 35ms
R20, R23 = set UVLO to 3.5V, operation starts at 4.5V
C20, C22, R28 = compensation
8-ch Isolated High Voltage Analog Input Module with ISOW7841 Reference Design

Project Title:

Designed for:

Public Release

Assembly Variant:

001

Contact:

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Version control disabled

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Number:

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- **Sheet Title:**
- **Size:**
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**Components:**

- **D11_NoCMCh3**
- **C32_NoCMCh3**
- **D12_NoCMCh3**
- **SM6T36CA**
- **K2_NoCMCh3**
- **CPC1017N**
- **C32_NoCMCh3**

**Other References:**

- **PIC320NoCMCh301**
- **PIC320NoCMCh302**
- **COC32**
- **PID110NoCMCh301**
- **PID110NoCMCh302**
- **COD11**
- **PIK20NoCMCh301**
- **PIK20NoCMCh302**
- **PIK20NoCMCh303**
- **PIK20NoCMCh304**
- **COK2**
- **PIR310NoCMCh301**
- **PIR310NoCMCh302**
- **COR31**
- **PIR320NoCMCh301**
- **PIR320NoCMCh302**
- **COR32**

**POCH0IN00NoCMCh3**
**POCH0OUT0NoCMCh3**
**POCH0V0C0SWITCH0NoCMCh3**
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