

NATIONAL PRODUCTS Analog ICs

National Products
from Texas Instruments

RoHS Compliant This product is RoHS compliant.

ANALOG-TO-DIGITAL CONVERTERS (ADCS)

| MOUSER STOCK NO. | National Products Part No. | Package Style | Res. | No. of Input Chan. | Architecture | INL (Max.) (±LSB) | DNL (Max.) (±LSB) | Sample Rate | Power Consumption (Typ.) (mW) | Price Each | | |
|-----------------------|----------------------------|---------------|------|--------------------|--------------|-------------------|-------------------|-------------|-------------------------------|------------|-------|-------|
| | | | | | | | | | | 1 | 25 | 100 |
| 926-ADC0804LCN/NOPB | ADC0804LCN/NOPB | DIP-20 | 8 | 1 | SAR | --- | --- | 10 kSPS | --- | 3.92 | 3.15 | 2.87 |
| 926-ADC0831CCN/NOPB | ADC0831CCN/NOPB | DIP-8 | 8 | 1 | SAR | --- | --- | 31 kSPS | 15 | 2.79 | 2.25 | 2.02 |
| 926-ADC0809CCN/NOPB | ADC0809CCN/NOPB | DIP-28 | 8 | 8 | SAR | --- | --- | 10 kSPS | 15 | 4.59 | 3.69 | 3.36 |
| 926-ADC0838CCVW/NOPB | ADC0838CCVW/NOPB | SOIC-20 | 8 | 8 | SAR | --- | --- | 31 kSPS | 15 | 3.39 | 2.72 | 2.48 |
| 926-ADC0848CCN/NOPB | ADC0848CCN/NOPB | DIP-24 | 8 | 8 | SAR | --- | --- | 25 kSPS | 15 | 5.99 | 4.81 | 4.38 |
| 926-ADC0848CCV/NOPB | ADC0848CCV/NOPB | PLCC-28 | 8 | 8 | SAR | --- | --- | 25 kSPS | 15 | 6.43 | 5.26 | 4.75 |
| 926-C104S021CIMM/NOPB | ADC104S021CIMM/NOPB | MiniSOIC-10 | 10 | 4 | SAR | 0.13 | 0.13 | 200 kSPS | 6.9 | 4.14 | 3.38 | 3.03 |
| 926-C108S022CIMT/NOPB | ADC108S022CIMT/NOPB | TSSOP-16 | 10 | 8 | SAR | 0.1 | 0.1 | 200 kSPS | 6.4 | 4.79 | 3.84 | 3.50 |
| 926-C121S021CIMF/NOPB | ADC121S021CIMF/NOPB | SOT-23-6 | 12 | 1 | SAR | +0.45; -0.4 | +0.45; -0.25 | 200 kSPS | 7.9 | 3.30 | 2.69 | 2.42 |
| 926-C121S101CIMF/NOPB | ADC121S101CIMF/NOPB | SOT-23-6 | 12 | 1 | SAR | 0.4 | +0.5; -0.3 | 1000 kSPS | 10 | 4.56 | 3.72 | 3.34 |
| 926-ADC57476A1MF/NOPB | ADC57476A1MF/NOPB | SOT-23-6 | 12 | 1 | SAR | 0.4 | --- | 1000 kSPS | 10 | 4.17 | 3.40 | 3.05 |
| 926-C124S021CIMM/NOPB | ADC124S021CIMM/NOPB | MiniSOIC-10 | 12 | 4 | SAR | 0.35 | +0.4; -0.2 | 200 kSPS | 7.9 | 5.13 | 4.18 | 3.76 |
| 926-ADC12048CIVF/NOPB | ADC12048CIVF/NOPB | PQFP-44 | 12 | 8 | --- | 1 | --- | 278 kSPS | 34 | 12.50 | 11.24 | 9.25 |
| 926-DC12138CIMSANO | ADC12138CIMSANO | SSOP-28 | 12 | 8 | SAR | 2 | --- | 114 kSPS | 33 | 7.87 | 6.45 | 5.82 |
| 926-C128S022CIMT/NOPB | ADC128S022CIMT/NOPB | TSSOP-16 | 12 | 8 | SAR | 0.4 | +0.5; -0.3 | 200 kSPS | 7.5 | 5.99 | 4.81 | 4.38 |
| 926-C128S102CIMT/NOPB | ADC128S102CIMT/NOPB | TSSOP-16 | 12 | 8 | SAR | 0.5 | +0.7; -0.4 | 1000 kSPS | 10.7 | 6.53 | 5.35 | 4.82 |
| 926-ADC78H90CIMT/NOPB | ADC78H90CIMT/NOPB | TSSOP-16 | 12 | 8 | SAR | 1 | 1 | 500 kSPS | 8.3 | 6.78 | 5.44 | 4.96 |
| 926-LM12458CIV/NOPB | LM12458CIV/NOPB | PLCC-44 | 12 | 8 | --- | 1 | --- | 114 kSPS | 30 | 24.40 | 20.74 | 19.21 |
| 926-C161S626CIMM/NOPB | ADC161S626CIMM/NOPB | MiniSOIC-10 | 16 | 1 | SAR | 1 | +2; -1 | 250 kSPS | 10.7 | 12.59 | 10.45 | 9.50 |

DIGITAL-TO-ANALOG CONVERTERS (DACs)

| MOUSER STOCK NO. | National Products Part No. | Package Style | Res. | DAC Chan. | Architecture | INL (Max.) (±LSB) | DNL (Max.) (±LSB) | Settling Time | Sample/Update Rate (MSPS) | Power Consumption (Typ.) (mW) | Price Each | | |
|----------------------|----------------------------|---------------|------|-----------|--------------|-------------------|-------------------|---------------|---------------------------|-------------------------------|------------|-------|------|
| | | | | | | | | | | | 1 | 25 | 100 |
| 926-DAC0800LCM/NOPB | DAC0800LCM/NOPB | SOIC-16 | 8 | 1 | --- | --- | --- | 100 | --- | 33 | 1.61 | 1.28 | 1.12 |
| 926-DAC081S101CIMKNO | DAC081S101CIMKNO | TSOT-6 | 8 | 1 | String | 0.2 | 0.04 | 3000 | --- | 1.41 | 1.83 | 1.41 | 1.28 |
| 926-DAC0830LCN/NOPB | DAC0830LCN/NOPB | DIP-20 | 8 | 1 | R-2R | 0.05 | 0.1 | 1000 | --- | 20 | 7.03 | 5.76 | 5.19 |
| 926-DAC082S085CIMMNO | DAC082S085CIMMNO | MiniSOIC-10 | 8 | 2 | String | 0.14 | +0.04; -0.02 | 4500 | --- | 1.6 | 2.87 | 2.21 | 2.01 |
| 926-DAC084S085CIMMNO | DAC084S085CIMMNO | MiniSOIC-10 | 8 | 4 | String | 0.5 | +0.18; -0.13 | 8500 | --- | 2.5 | 3.09 | 2.52 | 2.26 |
| 926-DAC121S101CIMKNO | DAC121S101CIMKNO | TSOT-6 | 12 | 1 | String | 2.6 | +2.5; -0.1 | 8000 | --- | 1.43 | 3.27 | 2.67 | 2.39 |
| 926-DAC122S085CIMMNO | DAC122S085CIMMNO | MiniSOIC-10 | 12 | 2 | String | 2.4 | +2.0; -0.15 | 8500 | --- | 1.6 | 5.28 | 4.31 | 3.87 |
| 926-DAC124S085CIMMNO | DAC124S085CIMMNO | MiniSOIC-10 | 12 | 4 | String | 8 | +0.7; -0.5 | 8500 | --- | 2.4 | 7.82 | 6.49 | 5.90 |
| 926-DAC128S085CIMTNO | DAC128S085CIMTNO | TSSOP-16 | 12 | 8 | String | 8 | +0.75; -0.4 | 8000 | --- | 4.85 | 12.12 | 10.19 | 9.36 |

FREQUENCY-TO-VOLTAGE CONVERTERS

| MOUSER STOCK NO. | National Products Part No. | Package Style | Supply Voltage (V) | Supply Current (mA) | Input Voltage Range | | Offset Voltage (Max.) (mV) | | Linearity (Typ.) (%) | Operating Temperature (°C) | Price Each | | |
|--------------------|----------------------------|---------------|--------------------|---------------------|---------------------|----------------|----------------------------|--------------|----------------------|----------------------------|------------|------|--------------|
| | | | | | Tach. | Op Amp/Comp. | Tach. | Op Amp/Comp. | | | 1 | 25 | 100 |
| | | | | | 926-LM2907M-8/NOPB | LM2907M-8/NOPB | SOIC-8 | 28 | | | 25 | ±28 | 0.0V to +28V |
| 926-LM2907N/NOPB | LM2907N/NOPB | DIP-14 | 28 | 25 | 0.0V to +28V | 0.0V to +28V | 10 | 10 | ±0.3 | -40 to 85 | 2.02 | 1.62 | 1.46 |
| 926-LM2907N-8/NOPB | LM2907N-8/NOPB | DIP-8 | 28 | 25 | ±28 | 0.0V to +28V | 15 | 10 | ±0.3 | -40 to 85 | 1.86 | 1.50 | 1.35 |
| 926-LM2917M/NOPB | LM2917M/NOPB | SOIC-14 | 28 | 25 | 0.0V to +28V | 0.0V to +28V | 10 | 10 | ±0.3 | -40 to 85 | 2.02 | 1.62 | 1.46 |
| 926-LM2917N/NOPB | LM2917N/NOPB | DIP-14 | 28 | 25 | 0.0V to +28V | 0.0V to +28V | 10 | 10 | ±0.3 | -40 to 85 | 2.11 | 1.70 | 1.53 |
| 926-LM2917N-8/NOPB | LM2917N-8/NOPB | DIP-8 | 28 | 25 | ±28 | 0.0V to +28V | 15 | 10 | ±0.3 | -40 to 85 | 2.11 | 1.70 | 1.53 |

VOLTAGE-TO-FREQUENCY CONVERTERS

| MOUSER STOCK NO. | National Products Part No. | Package Style | Supply Voltage (V) | VFC Non-Lin (Max.) (%) | Conversion Accuracy Scale Factor (kHz/V) | | | Temperature Stability of Gain (ppm/°C) | | Offset Voltage (Max.) (mV) | Input Bias Current (Max.) (nA) | Output Current (Max.) (µA) | Operating Temp. (°C) | Price Each | | |
|------------------|----------------------------|---------------|--------------------|------------------------|--|-------------|-------|--|------|----------------------------|--------------------------------|----------------------------|----------------------|------------|------|------|
| | | | | | Min. | Typ. | Max. | Typ. | Max. | | | | | 1 | 25 | 100 |
| | | | | | 926-LM231N/NOPB | LM231N/NOPB | DIP-8 | 4/40 | 0.01 | | | | | 0.95 | 1.00 | 1.05 |
| 926-LM331AN/NOPB | LM331AN/NOPB | DIP-8 | 4/40 | 0.01 | 0.90 | 1.00 | 1.10 | ±20 | ±50 | 10 | 500 | 156 | 0 to 70 | 8.93 | 7.31 | 6.60 |
| 926-LM331N/NOPB | LM331N/NOPB | DIP-8 | 4/40 | 0.01 | 0.90 | 1.00 | 1.10 | ±20 | ±50 | 14 | 1000 | 156 | 0 to 70 | 2.80 | 2.25 | 2.05 |

ANALOG AUDIO SUBSYSTEM

| MOUSER STOCK NO. | National Products Part No. | Package Style | Power @ 5V 8Ω (W) | Speaker | | | Headphone | | | Audio MUX | Audio Mode Control | Analog Inputs | | Price Each | | |
|------------------|----------------------------|---------------|-------------------|--------------------|----------------|----------|-----------|-----------|----------|-----------|--------------------|---------------|--------|------------|----|-----|
| | | | | THD+N (%) | PSSR (dB) | SNR (dB) | THD+N (%) | PSSR (dB) | SNR (dB) | | | Mono | Stereo | 1 | 25 | 100 |
| | | | | 926-LM49155TL/NOPB | LM49155TL/NOPB | MicroSMD | 1.35 | 0.015 | 72 | | | 94 | 0.01 | 94 | 95 | Yes |

AUDIO ATTENUATORS

| MOUSER STOCK NO. | National Products Part No. | Package Style | THD (%) | SNR (dB) | Supply Voltage (V) | | Interface Type | Equivalent Input Noise (µV/root) (Hz) | Special Features | Price Each | | |
|------------------|----------------------------|---------------|---------|----------|--------------------|--------------|----------------|---------------------------------------|------------------|------------|--------|-----|
| | | | | | Min. | Max. | | | | 1 | 25 | 100 |
| | | | | | 926-LM1971M/NOPB | LM1971M/NOPB | | | | SOIC-8 | 0.0008 | 115 |

ANALOG FRONT END

| MOUSER STOCK NO. | National Products Part No. | Package Style | Input Chan. | ADC Res. (bits) | ADC Sampling (MSPS) | Supply Voltage (V) | PGA Gain (dB) | | DAC Offset Resolution (bits) | DAC Offset Range | Power Diss. (W) | Output Type | Price Each | | |
|-------------------------------|----------------------------|---------------|-------------|-----------------|---------------------|--------------------|----------------------|------------------|------------------------------|------------------|-----------------|--|------------|----|-----|
| | | | | | | | Min. | Max. | | | | | 1 | 25 | 100 |
| | | | | | | | 926-LM98714BCMT/NOPB | LM98714BCMT/NOPB | | | | | TSSOP-48 | 3 | 16 |
| Development/Evaluation Boards | | | | | | | | | | | | Description | | | |
| 926-LMP90100EB/NOPB | | | | | | | | | | | | Evaluation board for the LMP90XXX family of Sensor Analog Front End (AFE) | | | |
| 926-SPIO-4 | | | | | | | | | | | | Digital controller board for the evaluation of the LMP90XXX family of Analog Front End (AFE) | | | |
| | | | | | | | | | | | | Price Each | | | |
| | | | | | | | | | | | | 128.41 | | | |
| | | | | | | | | | | | | 168.91 | | | |

LVDS PHYS <800MBPS

| MOUSER STOCK NO. | National Products Part No. | Package Style | Supply Voltage | I _{CC} (Max.) (mA) | Signaling Rate (Mbps) | Description | Input Signal | Output Signal | Price Each | | |
|------------------------|----------------------------|---------------|----------------|-----------------------------|-----------------------|--|-------------------|-------------------|------------|-------|-------|
| | | | | | | | | | 1 | 25 | 100 |
| 926-DS64BR401SQENOPB | DS64BR401SQE/NOPB | LLP-54 | 2.5 | --- | 6400 | Quad Bi-Direct Repeater w/Equalization | CML | CML | 21.74 | 18.42 | 17.01 |
| 926-DS90LV019TMC/NOPB | DS90LV019TMC/NOPB | SOIC-14 | 3.3 | 20 | 100 | 3.3 or 5V Driver/Receiver | TTL, LVTTTL, LVDS | TTL, LVTTTL, LVDS | 2.97 | 2.38 | 2.17 |
| 926-S90LV019TMC/NOPB | DS90LV019TMC/NOPB | TSSOP-14 | 3.3 | 20 | 100 | 3.3 or 5V Driver/Receiver | TTL, LVTTTL, LVDS | TTL, LVTTTL, LVDS | 2.97 | 2.38 | 2.17 |
| 926-S90LV110TMTCPNO | DS90LV110TMTCPNO | SOT-23-8 | 3.3 | 195 | 400 | 1 to 10 Data/Clock Distributor | LVDS, LVPECL, CML | LVDS | 7.73 | 6.33 | 5.71 |
| 926-S90LV011ATMFC/NOPB | DS90LV011ATMFC/NOPB | SOT-23-5 | 3.3 | 8 | 400 | Single High Speed Differential Driver | LVTTTL | LVDS | 1.52 | 1.19 | 1.07 |
| 926-DS90LV049TMTNO | DS90LV049TMTNO | TSSOP-16 | 3.3 | 35 | 400 | 3V Dual Line Driver w/Dual Line Receiver | LVTTTL, LVDS | LVTTTL, LVDS | 2.51 | 2.02 | 1.82 |
| 926-DS90LV031ATMTCNO | DS90LV031ATMTCNO | TSSOP-16 | 3.3 | 8 | 400 | Quad CMOS Differential Line Driver | LVTTTL | LVDS | 2.97 | 2.38 | 2.17 |
| 926-DS90LV047ATMNO | DS90LV047ATMNO | SOIC-16 | 3.3 | 8 | 400 | Quad CMOS Differential Line Driver | LVTTTL | LVDS | 3.25 | 2.61 | 2.37 |
| 926-DS90LV047ATMTCNO | DS90LV047ATMTCNO | TSSOP-16 | 3.3 | 8 | 400 | Quad CMOS Differential Line Driver | LVTTTL | LVDS | 3.25 | 2.61 | 2.37 |
| 926-S90LV012ATMFCNO | DS90LV012ATMFCNO | SOT-23-5 | 3.3 | 9 | 400 | Single CMOS Differential Line Receiver | LVDS | LVTTTL | 1.25 | .99 | .891 |