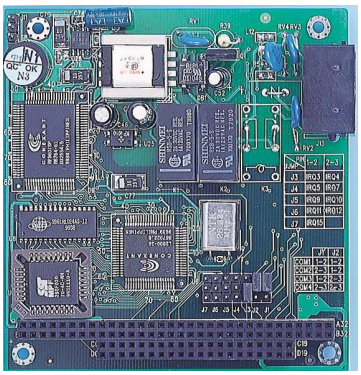
# PCM-3601

## PC/104 56K V.90 FAX/Modem Module



CTR21

FCC CE

The PCM-3601 uses Rockwell®DSP, which meets standard 56K bps maximum data transmission speed without additional CPU loading. It also supports the G3 fax standard of 14.4 K fax transmission rate and full duplex functionality. The PC/104 form factor makes it a great fit for space-limited and harsh environment applications.

### Features

- 56 K data/voice/fax modem
- Rockwell modem data pump
- Full duplex speakerphone
- High-speed 16C550 UART

### Specifications

- **Control chipset**: Rockwell R6764-61 & L2800
- **Data Mode**: K56Flex, V.90, ITU-T, V.34, V.32bis, V.32, V.23, V.22 bis, V.22, V.21, Bell 212A/103
- **Fax mode:** ITU-T G3 fax modulation, T.30, V.17, V.29, V.27ter, V.21 CH2. Support Class 1 & Class 2 command
- **Max. modem speed**: 56K bps
- **Max. Fax Speed**: 14.4 Kbps
- **Hardware error correction and data compression**: ITU-T V. 42 & V.42 bis, MNP class 2-5
- **EMC & PTT Support**: FCC Part 15 & Part 68/CE/CTR21 (Optional)

**Physical**

- **Dimensions: (L x W):** 96 mm x 90 mm (3.8" x 3.5")
- **Weight:** 90 g (.198 lb)

**Environment**

- **Operating temperature:** 0° ~ 70° C (32 ~ 158 ° F)
- **Storage temperature:** -40° ~ 85° C (-40 ~ 185 ° F)
- **Operating humidity:** 0 % to 95 % relative humidity, noncondensing
- **Power requirements:** + 5 V ± 5 % tolerance on power supply
- **Power consumption:** + 5 V @ 350 mA (typical)

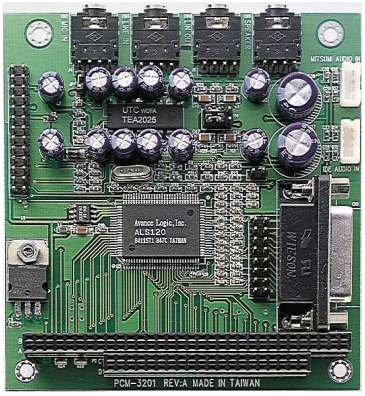
### Ordering Information

❑**PCM-3601-0000: PC/104 56K V.90 FAX/ Modem Module (FCC)**

❑**PCM-3601-CTR: PC/104 56K V.90 FAX/ Modem Module (CTR21)**

# PCM-3201

## PC/104 Sound Module



FCC CE

The kernel of PCM-3201 is the ALS120 chip that are industry standard music synthesizers found in most personal computer audio boards. The PCM-3201 brings cost-effective Wave Table synthesis capability to the PC/104 form factor. The ALS120 single chip audio solution integrates audio CODEC and DOS games compatibility, plus, minimizes support and installation issues.

### Features

- Single, mixed-signal, high performance VLSI sound ASIC
- Three software selectable DMA lines (0,1,3)
- Software selectable interrupts lines (5,7,9,10,11)
- Supports 8-bit ISA Plug & Play bus interface
- Supports 16-bit CD-ROM interface
- DMA interface with FIFO for full duplex
- Supports Enhance Game port
- MIDI port with input and output FIFO
- 8-bit or 16-bit monaural/stereo digital audio from 4 KHz to 48 KHz
- Software master volume control
- 3D Sound Effect processor

### Specifications

- **Control chipset:** Realtek®ALS120
- **Computer Bus:** PC/104 (ISA) Standard
- **Bus Width:** 16-bit

**Physical**

- **Dimensions: (L x W):** 96 mm x 90 mm (3.8" x 3.5")
- **Weight:** 82 g (.180 lb)

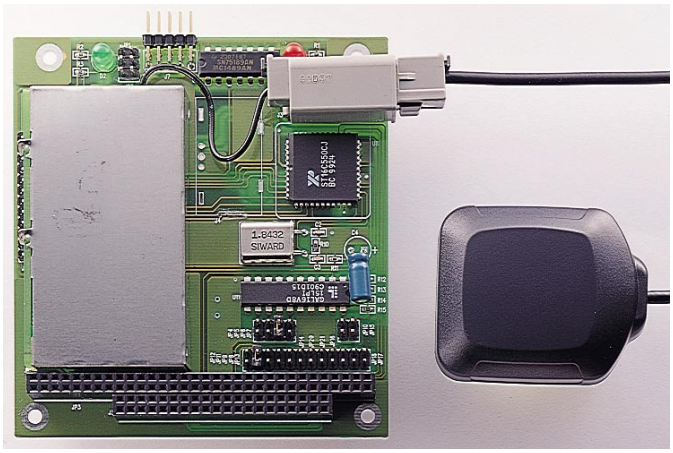
**Environment**

- **Operating temperature:** 0° ~ 70° C (32 ~ 158 ° F)
- **Storage temperature:** -40° ~ 85° C (-40 ~ 185 ° F)
- **Operating humidity:** 0 % to 95 % relative humidity, noncondensing
- **Power requirements:** + 5 V, + 12 V ± 5 % tolerance on power supply
- **Power consumption:** + 5 V @ 180 mA, + 12 V @ 100 mA (typical)

### Ordering Information

❑**PCM-3201-00A1: PC/104 Sound Module**

# PCM-3291 12 Channel Global Positioning System Receiver Module



FCC CE

The PCM-3291 GPS module is designed with sophisticated satellite technology to locate and track any location in the world, in real-time. Using a Rockwell®12-channel GPS engine that provides differential input for use of DGPS to assure pinpoint accuracy, the PCM-3291 offers a wide range of GPS functions such as position, navigation, satellite and timing information for use in embedded-PC navigation systems.

The PCM-3291 demonstrates Advantech's focus on built-in quality and reliability. The most notable difference between the PCM-3291 and its competitors is that the operating temperature range has now been extended to cover from **-30° C ~ 75° C**. Advantech has made significant investments to improve production line testing and quality control. These investments are realized in product improvements like this extended operating temperature range. Combine this new temperature capability with the rugged industrial grade construction and the new application possibilities become apparent.

## Features

- **Extended operating temperatures**: -30° C ~ 75° C
- **Industrial grade construction:** Designed to reliably operate in the harshest environments.
- **Cost-effective GPS solution:** Product improvements made without significant price increase from previous product.
- Solid and proven Rockwell 12-channel GPS engine
- Compact and rugged
- Low voltage/low noise operation
- Accurate performance

## Specifications

- **Control chipset:** Rockwell®Jupiter
- **Receiving channel:** 12 channel parallel
- **Receiving frequency:** 1575.42 MHz ± 1 MHz (C/A code)
- **Receiving sensitivity:** under -130 dBm
- **Accuracy (position):** 2D RMS (PDOP= 3 or less), spherical position error probability 95 %, 100 m. with SA, 50 m. without SA
- **Accuracy (velocity):** 1 m./sec (PDOP= 3 or less) with SA
- **Accuracy (time mark pulse):** 1 second ± 500 ns (typical)
- **Position update rate:** 1 second velocity- .1 km/h, bearing- .1 degree
- **Tracking performance:** velocity- up to 950 m/s, acceleration- up to 4 G
- **Time to first fix:** cold start- 3 min., warm start 1 min
- **Positioning mode:** 2D positioning- 3 satellites: HDOP <10, 3D positioning- 4 satellites: PDOP < 7

**Physical**

- **Dimensions: (L x W x H):** 96 mm x 90 mm x 28.6 mm (3.77" x 3.54" x 1.12")
- **Weight:** 102 g (.224 lb)

**Environment**

- **Operating temperature:** -30° ~ 75° C (-22 ~ 167 ° F)
- **Storage temperature:** -40° ~ 85° C (-40 ~ 185 ° F)
- **Operating humidity:** 0% to 95% relative humidity, noncondensing
- **Power requirements:** + 5 V ± 5 %, ripples within 50 $mV_{p-p}$
- **Power consumption:** + 5 V @ 300 mA (typical)

## Ordering Information

❑**PCM-3291-00A1: PC/104 GPS Module**