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Data Sheet

August 15, 2026

ADVANCED SIMULATION TECHNOLOGY

Advanced Simulation Technology ACU2-04-01 ACE Communication Unit

The Advanced Simulation Technology ACE Communication Unit facilitates seamless data exchange and communication within industrial simulation environments. It ensures reliable and accurate data transfer between simulation components, enhancing the overall fidelity and effectiveness of simulation exercises.



MODEL

**Advanced
Simulation
Technology ACU2-
04-01**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

ACU2-04-01

LISTING

[https://aumictechlabs.c
om/products/acu2-04-
01-2/](https://aumictechlabs.com/products/acu2-04-01-2/)

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The ACU2-04-01 ACE Communication Unit is a compact digital audio distribution device engineered for industrial simulation environments. It has four-channel stereo support in a reduced form factor, connecting remotely located operator headsets, speakers, control panels, and peripherals to a central system via the ACENet architecture. The unit functions as a real-time data transport mechanism, passing audio between devices without storage capability. Technical Specifications Audio I/O Input: 48 kHz sample rate, 4.6 kΩ impedance, 6.5 Vpp maximum level Input gain: -8 dB to +57 dB (software configurable); 1 dB steps available from +2 dB to +57 dB

Microphone power: +12.5 VDC (software-enabled) Frequency response: 20 Hz to 20 kHz, ± 1.5 dB
Output impedance: 10 Ω at 700 mA; -25 dB to +10 dB gain Output level: 2.24 Vpp (0.78 VAC RMS)
into 8 Ω ; 5.1 Vpp maximum Output power: 0.08 W at 8 Ω Memory Volatile (SRAM): 69 KB for
internal MCU operation Non-volatile (Flash): 8 Mb for user-modifiable firmware No media storage
capability Interfaces ACENet port: 100 Mbps full duplex, Category 5e or better; direct connection
via crossover cable to Telestra or Voisus servers Serial ports: Two RS-422/RS-232 ports (RJ-12)
for HHT and control panel connectivity Audio/PTT: Four DB-15 connectors supporting stereo
operation per connector

Key Features Ethernet-based hub-and-spoke architecture over extended
distances Synchronized 48 kHz digital audio distribution with extremely low transport latency
Dedicated network segment requirement for ultra-low latency performance Software-configurable
input gain with flexible range selection Reduced form factor evolution from earlier ACU
models

Typical Applications Operator communication networks in distributed simulation exercises,
multi-channel audio routing for tactical training systems, and remote peripheral control in Telestra
and Voisus environments.

Compatibility & Integration The ACU2-04-01 integrates with Telestra and
Voisus platforms via ACENet architecture, supporting synchronized audio distribution across
simulation networks requiring sub-millisecond latency characteristics.

ACU204 Characteristics / Specifications

PARAMETER	VALUE
Model	ACU2-04-01
Instrument Type	ACE communication unit
Manufacturer	Advanced Simulation Technology
Literature	Advanced Simulation Technology ACU2-04-01 ACE communication unit listing
Family	ASTi ACE ACU2
Form Factor	ACE comms interface unit
System Role	ACE communication unit
Brand Lineage	ASTi
Queue Title	Advanced Simulation Technology ACU2-04-01 ACE Communication Unit
Documentation Type	OEM ACU2-04-01 listing
Use Case	Simulator intercom/radio audio in ASTi ACE systems that specify ACU2-04-01
Vendor Path	Advanced Simulation Technology
Year Class	ACU2-04-01 generation
Application Class	ACE communication unit
Module Class	ACE communication unit
Host Class	instrument host per drawing
Connector Class	connectors on the ACU2-04-01 drawing
Ate Class	simulator comms
Control Class	ACU2-04-01 front panel / firmware
Environment Class	ambient on the ACU2-04-01 sheet
Mains Class	mains on the ACU2-04-01 nameplate
Voltage Class	volts on the ACU2-04-01 nameplate
Current Class	amperes on the ACU2-04-01 nameplate
Config	04-01 remaining-queue suffix

PARAMETER	VALUE
Channel Class	audio channels on the ACU2-04-01 datasheet
Network Class	network ports on the ACU2-04-01 datasheet
Sample Class	sample rate on the ACU2-04-01 datasheet

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Notes

From remaining-queue title (ASTi ACU2-04-01 ACE communication unit). Channel count, sample rate, and network ports are on the ACU2-04-01 datasheet.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.