

JACQUES ACI-8 UNIVERSAL INTERFACE

Description

The JACQUES ACI-8 is a Universal Communications and Controller Interface module, which incorporates the following features:

- RS-485 data controlled inputs
- Eight (8) user defined inputs
- Eight (8) user defined outputs
- Onboard DTMF Transceiver

Designed for use with the JACQUES Networked Intercom System, they incorporate functions to use the Intercom Auxiliary Audio Channels and switching/monitoring of external equipment via eight relays and DTMF (Dual-Tone-Multi-Frequency).



Features

The ACI-8 module can be used for a multitude of functions including:

- Control of external equipment using the eight on-board relays.
 - Either COM and Normally Closed (NC)
 - or Normally Open (NO) switched outputs.
- Monitoring of external equipment using the eight Opto-Isolated inputs.
- Interface and control functions to third party devices such as digital voice loggers and other audio recording devices.
- DTMF communication using balanced audio lines to search and retrieve information from digital recording devices, such as a digital voice loggers, etc.

Applications

The ACI-8 Module is available in a 6T wide Eurocard module, as three different versions. They are:

- **Denon DN770R tape deck controller (Jacques part# 50306).**

This version ACI-8 is used specifically for use with the *Denon DN770R* model cassette deck. These cassette decks are a dual tape unit, and are used in many of JACQUES installations as a reliable analogue recording medium.

RS-485 data is used to switch on/off the eight on-board relays. These relays switch DC through a resistor chain network – which converts to the correct DC levels to the Denon DN770R deck for remote switching functions.

Up to eight Opto-isolated inputs can also be used as other input control lines. They can be used as an indication that a particular function has occurred, such as “End of tape” in a voice-logger system.

Two Auxiliary Audio channels are also incorporated, used as either intercom Audio channel#1 and #2, or Send and Receive.

- **General Purpose controller (Jacques part# 50309).**

This version ACI-8 is used for any general-purpose I/O control work. RS-485 data is used to switch on/off the eight on-board relays. These relays can be set for NC or NO switched outputs, to control external equipment.

Up to eight Opto-isolated inputs can also be used as other input control lines. They can be used as an indication that a particular function has occurred, such as “End of tape” in a voice-logger system.

- **DTMF controller (Jacques part# 50322).**

(see block diagram – next page)

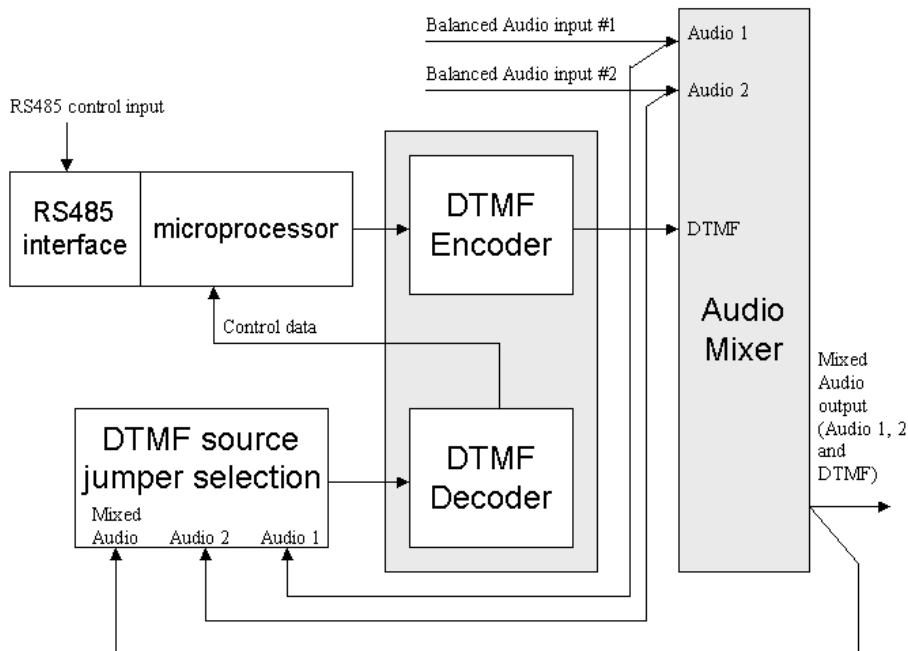
This version ACI-8 is used for DTMF (Dual-Tone-Multi-Frequency) control work. RS-485 data controls the DTMF communication, using balanced audio lines to search and retrieve information from digital recording devices, such as a digital voice loggers, etc.

It has an onboard dedicated DTMF encoder/decoder, with a DIP-switch setting that allows the user to select the origin of the DTMF signal (Audio channel#1, Audio channel#2, Mixed Audio).

The ACI-8 50322 does not have the output relays or the Opto-isolated input components mounted on the board.

Applications (continued)

Block-diagram of the ACI-8 DTMF transceiver (#50322)

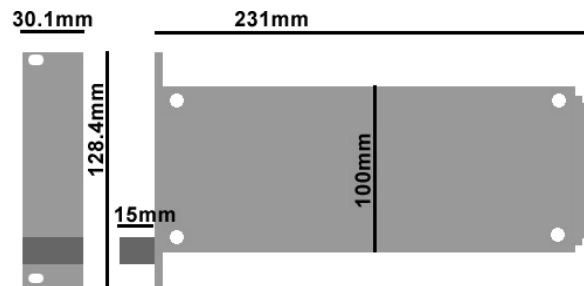


The ACI-8 Universal Interface is ideal for any applications that require RS-485 data to control/switch on-off external equipment and to monitor other inputs, such as:

- Monitoring of Input devices
- Control Outputs
- Input Switching such as Lights, Air Conditioning and remote equipment
- External lighting control
- Plant Control
- Duress/Help points
- Alarm inputs
- Monitoring of Audio Inputs. The system provides two (2) inputs and a balance output for direct connection with Audio Logging System such as the *Arunta Audiolog Digital recorder*, the *Multisuns BRS-2000* Digital recording system and standard cassette recorders (*Denon DN-770R*).
- Audio Monitoring and control using DTMF requirements

Specifications

Control Inputs	8 user definable Opto-Isolated Digital inputs (each input is rated at 3V d.c to 14V d.c.)
Control Outputs	8 user definable isolated relay contacts (Reed relay types) (NO/NC SPDT) (each relay contact is rated at 200 m.A. @ 30 V d.c.)
Audio Inputs	2 balanced audio inputs 0 dBu@ 20 k ohms impedance typical
Audio Output	<ul style="list-style-type: none"> • 1 balanced audio output max level +17 dBu into 600 ohms • Mix of 2 balanced audio inputs • DTMF (with level adjustment)
DTMF Signal	DTMF input and output with signal level adjustment
Status Indication LED's	Seven front panel LEDs indicate: CPU pulse, RS-485, +5V, -5V, Recording status, End tape indicators (2).
Memory resident with CPU	E ² ROM 2kB
Communications	RS-485
Power Requirements	+12 V d.c. to +32 V d.c. 24 V d.c. nominal
Dimensions	The ACI-8 is available in a standard Eurocard 3RU high x 6T wide module, which slots into a standard 3RU high 19-inch card frame assembly.



Part numbers	<ul style="list-style-type: none"> • Denon DN770R tape deck controller version: JACQUES part# 50306 • General Purpose IO controller version: JACQUES part# 50309 • DTMF controller version: JACQUES part# 50322
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