

Vaisala Audio Unit AUD111/211/211M



- Features**
- Supports and generates spoken weather messages over radio, PSTN modem line, handset and speaker
 - Supports voice recording, e.g. recording NOTAMs
 - Two communication options: voice over USB or CompactFlash
 - Wide operating temperature range and industrial level EMI tolerance

Flexible voice generation

Vaisala Audio Units AUD111/211/211M are used for generating spoken weather messages over radio, PSTN modem line, handset and speaker. The units are available in the following configurations:

Vaisala Audio Unit AUD111

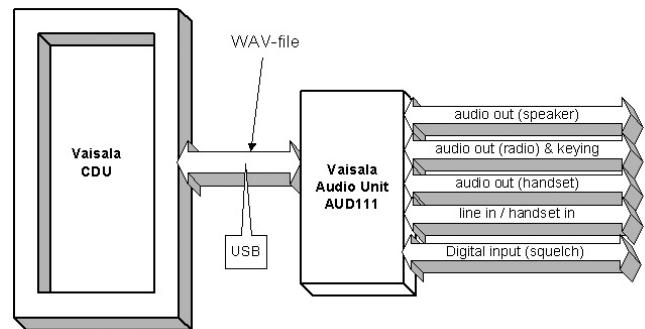
The AUD111 is a USB-soundcard which generates audible voice messages and receives speech data, e.g. NOTAMs, as an input. The voice is transferred between the central data unit (CDU) and AUD111 as WAV-files (8.0 kHz, 8-bit, mono). The voice message is voiced to following audio output channels: radio, handset and speaker. Handset is a local telephone that can be used for listening weather reports and recording NOTAMs. Handset channel has a DTMF receiver.

Vaisala Audio Unit AUD211

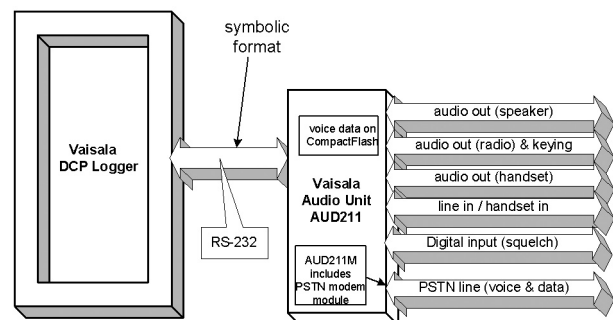
The AUD211 provides voice generation over radio. It communicates with Vaisala DCP Logger through RS-232 port. AUD211 uses the onboard CompactFlash card as a voice data memory. The logger communicates with AUD211 through RS-232 line and controls in symbolic format which words/phrases the AUD211 is voicing out. The voice message is voiced to radio, handset and speaker audio channels.

Vaisala Audio Unit AUD211M

The AUD211M provides voice generation over PSTN modem line with RS-232 interface to Vaisala DCP logger. It includes an integrated 1" x 2.5" PSTN modem module. AUD211M is used when Vaisala DCP Logger is speaking weather reports over PSTN modem line. AUD211M can also speak to radio, handset and speaker channels but not simultaneously when speaking to PSTN modem line.



The AUD111 interfaces.



The AUD211/211M interfaces.

Technical data

Audio interfaces

COMMON CHARACTERISTICS FOR AUDIO OUTPUT CHANNELS

(SPEAKER, RADIO AND HANDSET)

Volume control	i2c potentiometer with 64 pots
Band width	10 ... 3400 Hz
DAC	8 kHz, 8-bit, mono

AUDIO OUTPUT TO SPEAKER (SP)

Power	Max.1.4W (4 Ω),1.0W (8 Ω)
Connector	2-position screw terminal

AUDIO OUTPUT TO RADIO

Max. signal	9 V _{pk-pk} @ R _{load} = 10 k Ω
Connector	RJ45 (pin5-6 audio, pin4-7 keying, pin3 +12V)
Isolation	3880 Vrms, 600 Ω transformer coupling

AUDIO OUTPUT TO HANDSET

Max. signal	0.5 V _{pk-pk}
Supply for handset	19V@0mA, 15V@55mA
Connector	RJ45 (pin4-5 audio)
Isolation	3880 Vrms, 600 Ω transformer coupling

AUDIO INPUT

Source	Either handset or line in
Max. signal	1.25 V _{pk-pk}
Bandwidth	10 ... 3400 Hz
ADC	8 kHz, 8-bit, mono
DTMF detection	In handset line
Line in connector	2-position screw terminal
Handset connector	RJ45 (pin4-5 audio)
Volume control	i2c potentiometer with 64 pots
Isolation in handset line	3880 Vrms, 600 Ω transformer coupling

Other interfaces

POWER INPUT

Supply voltage	9 ... 30 VDC
Power consumption	max. 5 W, 0.5 W in power shutdown
Connector	2-position screw terminal

RS-232

Serial port speed	1200 ... 57 600 baud
Connector	RJ45 (pin6 GND, pin4 Rx/D, pin5 Tx/D)

USB

Speed	USB 1.1, 12 Mbit/s
Connector	Type B

SQ AND RADIO IN DIGITAL INPUTS

Vin low	-0.5 V ... +0.8 V
Vin high	+2.0 V ... +15.0 V
Connector	2-position screw terminal

PSTN, V.90/56K MODEM (AUD211M ONLY)

Modem module	Multitech MT5634SMI-ITP-92
Connector	2-position screw terminal

Mechanical

Dimensions	5 mm (W) x 99 mm (H) x 113 mm (D)
Weight	220 g (without modem and CompactFlash Card)
Case material	Polyamid PA 6.6
Mounting	35 mm Din-rail

Environmental

Operating temperature	-40 ... +60 °C
Humidity	0...100%, non-condensing
EMC emissions	EN 55022 B
EMC susceptibility	Test level Industrial
ESD	EN 61000-4-2
RF Field	EN 61000-4-3
Fast transient bursts	EN 61000-4-4
Transient surges	EN 61000-4-5
Conducted RF	EN 61000-4-6



Vaisala Oyj
Helsinki, Finland
Tel. (+358 9) 894 91
Fax (+358 9) 8949 2227

Vaisala GmbH
Hamburg, Germany
Tel. (+49 40) 839 030
Fax (+49 40) 839 03 110

Vaisala China Ltd
Beijing, P.R. China
Tel. (+86 10) 8526 1199
Fax (+86 10) 8526 1155

**Vaisala Regional Office
Malaysia**
Kuala Lumpur, Malaysia
Tel. (+60 3) 2169 7776
Fax (+60 3) 2169 7775

For other Vaisala locations
visit us at:
www.vaisala.com