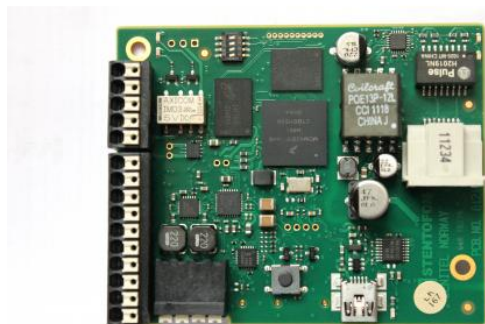


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## TKIS-1

### Turbine Kit IP Standard



- ✓ Build your own IP Intercom station or Help-Point
- ✓ Make your own 10W IP Speaker
- ✓ Control relay and I/Os over IP
- ✓ Supports a wide set of IP networking standards
- ✓ DIN-rail mountable clips included
- ✓ Add VoIP/CCoIP to your parking solution, cash point, vending machine, et al
- ✓ Advanced audio technology like automatic gain and volume adjustment, background noise cancellation, open duplex, etc.

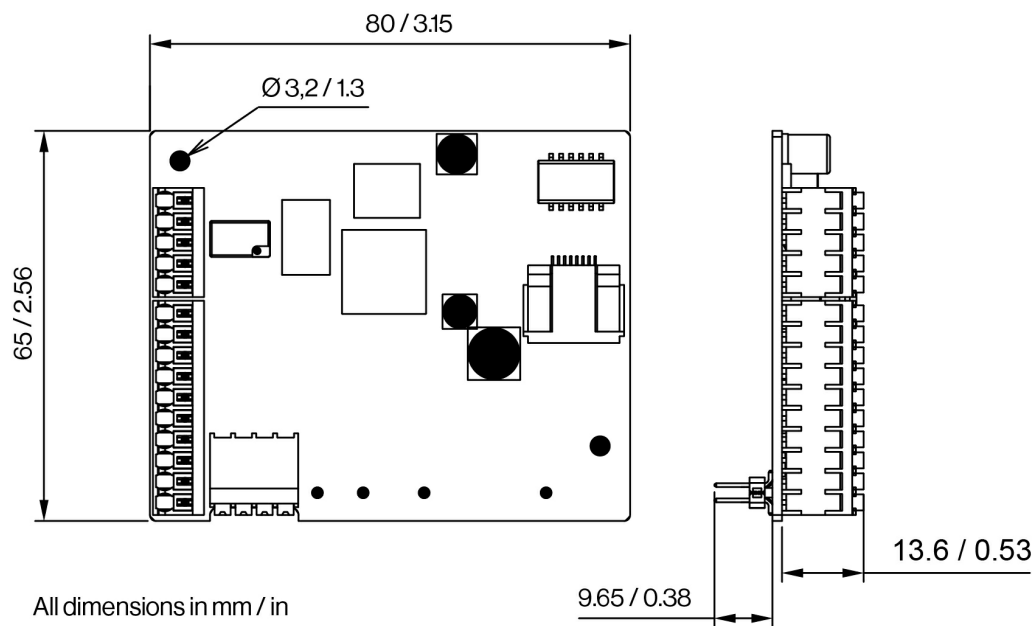
 UL Certified Intercom
  ICX-AlphaCom
  Exigo

## Description

The TKIS-1 Turbine Kit IP Standard utilizes the latest technology to create unparalleled audio quality. Some of the many features include: HD voice quality, Open Duplex, Active Noise Cancellation, Automatic Volume Adjustment, MEMS microphone support, and a 10W Class D amplifier. These features, in conjunction with over 70 years of experience with acoustic technology are only a few of the many factors that make our audio quality second to none.

See also: [additional documentation on wiki.zenitel.com](http://wiki.zenitel.com) (Note that this refers to the TKIS-2, which is the TKIS-1 in a plastic encapsulation)

## Technical Dimensions



# Specifications

## AUDIO

Noise cancelling - suppression of musical noise	YES
Noise cancelling - suppression of static noise	YES
Noise cancelling - suppression of rapidly changing noise	YES
Codecs	G.711, G.722, G.729
Frequency range, G.722 Codec	200 Hz – 7000 Hz
Audio technology	Modes: Full open duplex, switched open duplex, Adaptive jitter filter, Local tone generator, Audio mixing - 3 channels, Sound level detection (scream alarm), Automatic gain control (microphone), Automatic volume adjustment
Internal speaker amplifier	10 W class D
Supported microphone technologies	Digital MEMS, omnidirectional microphone. Electret omnidirectional microphone
Recommended loudspeaker impedance	8 ohm

## HARDWARE

Ethernet connector	1 x RJ 45
All other connectors	Tool less, spring loaded, vibration proof terminals
General inputs and outputs	6 (configurable)
Outputs	12mA as LED drivers
Change-over relay (NO+NC+COM)	Max: 250VAC/220VDC, 2A, 60W
Power options	PoE and or external power supply
PoE (power over Ethernet)	IEEE 802.3af standard, Class 0 (0.44W to 12.95 W)
External power supply	24 VDC (16 – 48 V)
Power consumption	Idle 1.8W, max 12W (depending on volume)
Audio line out / induction loop signal	600 Ohm

## NETWORKING AND PROTOCOLS

Protocols	IPv4 (with DiffServ), SIP, TCP, UDP, HTTPS, TFTP, RTP, DHCP, SNMP, STENTOFON CCoIP®, NTP
LAN protocols	Power over Ethernet (IEEE 802.3 a-f) Network Access Control (IEEE 802.1x)
Management and operation	HTTP/HTTPS (Web configuration) DHCP and static IP + IC-EDGE. Remote automatic software upgrade. Centralized monitoring
Advanced supervision functions	E.g. network test, tone test, status reports
SIP support	RFC 3261 (SIP base standard), RFC 3515 (SIP refer), RFC 2976 (SIP info)
DTMF support	RFC 2833, 2976 (SIP info)

## ENVIRONMENT AND COMPLIANCES

Operating temperature range	-40° to 70° C / -40° to 158 ° F
Storage temperature range	-40° to 70° C / -40° to 158 ° F
Relative humidity	< 95% not condensing
EMC	CE and FCC Part 15
Certificates	UL 60950-1, cUL 60950-1, CB to IEC 60950-1

## OTHER SPECIFICATIONS

IP address information	Speaks IP address after system boot (requires connected loudspeaker)
Country of manufacture	Poland
Dimensions (HxWxD)	32 x 117 x 71 mm
Weight	0.1 kg / 0.2 lbs
Warranty	2 Years standard warranty, extendible up to total of 5 years (additional fee)

## Accessories



TA-16



TA-17