

1008132010

## TKIE-1

### Turbine Extended IP Kit



- ✓ IP station kit with extended functionality
- ✓ Dual RJ45 for Ethernet connectivity (with switch)
- ✓ Dual relays (DPDT)
- ✓ 6 configurable I/Os (input, output or LED-driving)
- ✓ Line-in/Line-out connectivity for connection to audio devices
- ✓ Possibility for connecting high-power relay module (TA-10)
- ✓ High quality 10W amplifier
- ✓ Powerful audio technology including high sound pressure, automatic volume gain control, and active noise echo canceling

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 Automatic Volume  HD Voice  Automatic Gain Control  Active Noise Cancelling  Open Duplex  Voice Activity Detection

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## Description

The TKIE-1 is the extended version of our Turbine Kit range. It offers the same high quality audio as the TKIS-x kit, but adds to the feature list with an extra RJ45 port for dual Ethernet connectivity, dual relays, and a header for easy connection of audio accessories. For high-power applications, the TKIE-1 may be complemented with the TA-10 Relay Module which offers 2 DPDT relays suited for high-voltage/high-current applications.

See also: [additional documentation on wiki.zenitel.com](#)

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# 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 microphone  Electret microphone
Recommended loudspeaker impedance	8 ohm

## HARDWARE

Ethernet connector	2 x RJ45
All other connectors	Tool less, spring loaded, vibration proof terminals
General inputs and outputs	6 (configurable)
Outputs	12mA as LED drivers
Change-over relays (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, Vingtor-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 + Vingtor-Stentofon Pulse™ 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

## OTHER SPECIFICATIONS

IP address information	Speaks IP address after system boot (requires connected loudspeaker)
Dimensions (HxWxD)	65 x 100 x 25 mm / 2.6" x 4.0" x 1.0"
Weight	0.1 kg / 0.2 lbs
Warranty	2 Years standard warranty, extendible up to total of 5 years (additional fee)

## Accessories

		
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TA-10

Relay Module

TA-16

TA-17