







1008132030

TKIE-3

Turbine Extended IP Kit with Keyscan



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

DESCRIPTION

The TKIE-3 is an extended version of our Turbine Kit range. It offers the same high quality audio as the TKIS-2 kit, but adds to the feature list with an extra RJ45 port for dual Ethernet connectivity, dual relays, keyscan matrix, and a header for easy connection of audio accessories. For high-power applications, the TKIE-3 may be complemented with the TA-10 Relay Module which offers 2 DPDT relays suited for high-voltage/high-current applications.

FEATURES

- 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)
- 5x5 keyscan matrix
- Line-in/Line-out connectivity for connection to audio devices
- Header for connecting audio accessories
- Possibility for connecting high-power relay module (TA-10)
- High quality Turbine™ class output with 10W amplifier
- Full open duplex and digital noise reduction

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

SPECIFICATIONS

AUDIO

Noise cancelling - suppression of musical noise	YES
Noise cancelling - suppression of static noise	YES

AUDIO	
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 connectors	2 x RJ45
I/O connectors	Tool less, spring loaded, vibration proof terminals
Keyboard	5x5 keyscan matrix
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
Encapsulation material	N/A

ACCESSORIES



TA-23

Item number: 1008140230



TA-10

Item number: 1008140100



TA-16

Item number: 1008140160



TA-17

Item number: 1008140170