## 1008132035

TKIE-3CC
Turbine Extended IP Kit with Keyscan


MIf Automatic Volume


HD Voice
Automatic Gain Control
․․․ Active Noise CancellingOpen Duplex

Voice Activity Detection

## DESCRIPTION

The TKIE-3CC 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)
- $5 \times 5$ 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 ${ }^{m \mathrm{~m}}$ class output with 10 W amplifier
- Full open duplex and digital noise reduction

See also: additional documentation on wiki.zenitel.com

## SPECIFICA TIONS

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 | $200 \mathrm{~Hz}-7000 \mathrm{~Hz}$ |
| 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) |
| Internal speaker amplifier | Automatic volume adjustment |
| Supported microphone technologies | 10 W class D |
|  | Digital MEMS microphone |
| Recommended loudspeaker impedance | Electret microphone |

## HARDWARE

| Ethernet connectors | $2 \times$ RJ45 |
| :--- | :--- |
| I/O connectors | Tool less, spring loaded, vibration proof terminals |
| Keyboard | $5 \times 5$ keyscan matrix |
| General inputs and outputs | 6 (configurable) |
| Outputs | 12 mA as LED drivers |
| Change-over relays (NO+NC+COM) | Max: $250 \mathrm{VAC} / 220 \mathrm{VDC}, 2 \mathrm{~A}, 60 \mathrm{~W}$ |
| Power options | PoE and or external power supply |
| PoE (power over Ethernet) | IEEE 802.3 af standard, Class 0 ( 0.44 W to 12.95 W$)$ |
| External power supply | $24 \mathrm{VDC}(16-48 \mathrm{~V})$ |
| Power consumption | Idle 1.8 W, max 12 W (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 ${ }^{\text {mw }}$ <br> 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 | $-40^{\circ}$ to $70^{\circ} \mathrm{C} /-40^{\circ}$ to $158^{\circ} \mathrm{F}$ |
| :--- | :--- |
| Storage temperature range | $-40^{\circ}$ to $70^{\circ} \mathrm{C} /-40^{\circ}$ to $158^{\circ} \mathrm{F}$ |
| 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 $(H \times W \times D)$ | $65 \times 100 \times 25 \mathrm{~mm} / 2.6^{\prime \prime} \times 4.0^{\prime \prime} \times 1.0^{\prime \prime}$ |
| Weight | $0.1 \mathrm{~kg} / 0.2 \mathrm{lbs}$ |
| Encapsulation material | $\mathrm{N} / \mathrm{A}$ |



TA-23
Item number: 1008140230


TA-10
Item number: 1008140100


TA-16
Item number: 1008140160


TA-17
Item number: 1008140170

