# ip access

## 

4G Enterprise Access Point for mid-size enterprises

The E40 4G small cell Access Point (AP) generates a high quality LTE signal inside enterprise and public spaces

#### The E40 Access Point

The E40 AP is a multi-band indoor LTE (4G) AP, targeted at indoor enterprise environments such as offices, retailers, and indoor public spaces.

The E40 significantly improves indoor 4G coverage and capacity. The E40 AP can be installed by end-users in an unplanned simple "plug-andplay" installation model, leveraging ip.access' Self Organising Network (SON) and Network Listen features (deployed in over 2 million small cells worldwide). Alternatively, the E40 AP can be installed by qualified technicians and service partners in a more complex planned deployment.

With up to 75/25 Mbps LTE FDD performance, the E40 supports up to 16 active 4G users.

The E40 AP has quad-band support, with three regional variants covering the US, EU & other markets. Bands can be changed in the field to support spectrum refarming.

Full mobility is provided between the E40 AP and neighbouring 2G, 3G and 4G cells, allowing seamless handover of calls to or from the macro network. Voice calls are supported with VoLTE, or using CSFB to offload voice service to 2G or 3G macro networks.

Standard Ethernet IP backhaul is used. Power is provided from an external DC supply.

E40 nanoLTE AP

4G

The E40 is designed for wall mounting, and is supplied with integrated SMA antennas, which can be removed to enable connectivity into external antennas, DAS systems or an external PA for long range extension up to 4km.

### Viper™ virtualised enterprise RAN platform

The E40 is part of ip.access' Viper end-to-end small cell platform for enterprise RAN, which integrates the following components:

- A range of plug-and-play 2G, 3G and 4G APs for small, medium and large enterprise deployments
- Virtualised Gateways which securely handle and route all traffic between the APs and the operator's core network
- SUMO<sup>™</sup> Multi-Operator technology for nanoLTE, allow a single access point to provide coverage for all networks

**ACCESS** E-class Enterprise APs are designed for enterprises, providing flexible in-building mobile coverage and capacity.

#### E40 nanoLTE Access Point

#### LTE radio

2 x 2 MIMO, 21dBm per port 5, 10, 15 and 20MHz channel bandwidths Local Area Base Station class Integrated detachable SMA antennas

#### 4G services

#### Up to 16 users

Up to 75/25 Mbps depending on the bandwidth configured

VoLTE or CSFB to GERAN/ UTRAN for voice

Warning system broadcast -

CMAS and ETWS supported Full GBR and non-GBR support with QoS aware scheduler

#### 4G mobility

Reselection to/from macro layer & APs

Intra-frequency, inter-frequency, inter-RAT Handover to/from macro layer & between APs Intra-frequency, inter-frequency, inter-RAT S1 based

Enterprise nanoBTSs

#### Interfaces

S1 (S1-Flex via gateway) Uu 4G air interfaces to standard 4G UEs

#### **Band options**

LTE FDD (US Bands) 2, 4, 13, 17 (12) LTE FDD (EU / other) 1. 3. 7. 20 LTE FDD (EU / other) 3, 7, 8, 20

#### Network Listen

LTE and 3G Network Listen to support radio synchronisation and RF planning

#### Synchronisation

OCXO for high stability internal frequency

#### Security

3GPP air interface security IPsec IKEv2 on AP to IPsec GW links X.509 certificate authentication with CRL Secure boot and code signing

#### Environmental & physical

#### Dimensions

266 x 202 x 41mm

Weight

1.2kg Temperature range 0° to 45°C Operating humidity 10 to 70% non-condensing

Ingress protection

IP40

Mounting

Wall mounted

Power input 12V DC



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to-end small cell platform