ip access

The S60z is an unbanded 4G/3G small cell integration module for specialist applications

S60z

Unbanded AP Module for Vertical Applications

5G
4G
3G
2G

The S60z Integration Module

The S60z AP module is a compact Small Cell Access Point platform which allows integrators to quickly build a full small cell system. The S60z AP is targeted at specialist integration applications including security and surveillance, private networks and research and development.

Multi-band support

The S60z is frequency agile from 625MHz up to 3.8GHz, supporting all standard 3GPP bands, both FDD and TDD LTE. Supports both 3G and LTE in a single product. GSM support is to be added in phases, followed by 5G support.

Based on the S60 family

The S60z AP module is based on the S60 LTE AP platform, and runs the same carrier-grade 3GPP stack and application software. This makes it easy for integrators to work with the family of S60 products in a unified way.

The S60z comes with fully managed flexible cellular software stacks and presents 3GPP compliant S1 and IuH interfaces.

High-performance synchronisation

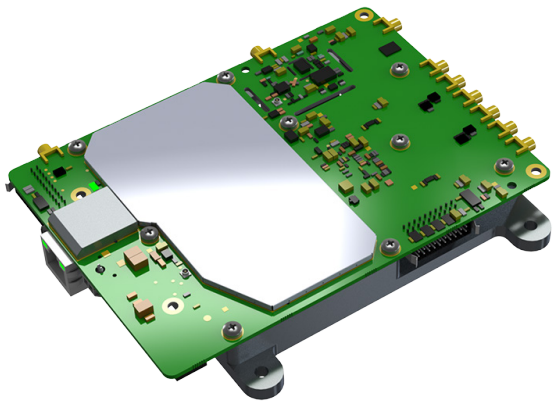
The S60z AP module includes a high-performance OCXO to deliver excellent frequency stability, as well as integrated GPS and IEEE1588 support, providing a multi-layered synchronisation mechanism for robust and accurate timing in both FDD and TDD modes.

Versatile RF solution for different applications

The S60z AP module allows switching between frequency bands in only a few seconds, so allowing integrators to build frequency-agile APs and receivers at low cost. The RF output power at +5dBm has been specified to give a useful input level for whatever PA chain the integrator chooses to add, extending the range up to 10km. Connectorised Tx and Rx ports for 2x2 MIMO are provided, allowing the option to separate the antennas for best performance.

Compact module

The S60z AP module is very compact, measuring only 140mm x 123mm, and drawing only 10W of DC power it provides a quick drop-in solution for integrators. The MCX connectors allow easy snap-on attachment of RF cables without the need for physical space to tighten with a spanner.



S60z LTE/3G AP

Maximum flexibility for specialist applications.

S60z Access Point Module

Radio

- Connectorised Low band: 625MHz to 2.8GHz
- Connectorised High band: 3.3GHz to 3.8GHz
- Band switching: < 5sec
- Max Tx power: +5dBm

LTE

- Supports all standard EARFCNs up to 3.8GHz
- 2 x 2 MIMO
- 3 / 5 / 10 / 15 / 20 MHz channel bandwidths
- Up to 32 active users
- Up to 150/50Mbps (bandwidth dependent)
- 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

3G

- Supports all standard ARFCNs up to 2.8GHz
- Up to 24 active users (option for 30)
- HSPA 21/5.75 Mbps
- CS voice: AMR & WB-AMR
- Multi-RAB to each UE. any combination of:
  CS voice and/or up to 3 HSDPA/HSUPA or
- Iu-Flex and MOCN support
- Cell broadcast

LTE and 3G 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

Interfaces

- LTE S1 (S1-Flex via gateway), X2
- 3G Iuh
- Uu LTE and 3G air interfaces to standard LTE and 3G UEs

Network Listen

- LTE Network listen to support radio synchronisation and RF planning
  LTE: Scans LTE and 3G neighbours
  3G: Scans 3G and 2G neighbours

Synchronisation

- High stability OCXO
- NTP support
- IEEE1588v2 support
- 1PPS port
- Network Listen
- GPS

Physical interfaces

Ethernet port	1Gbps
MCX connectors	TX1, TX2, RX1/Network Listen, RX2, GPS Antenna, 1 PPS input, External clock input
I/O port	Control signalling

Environmental & physical

Dimensions	140 x 123 x 20.6mm
Temp. range	0° to 45°C
Operating	10 to 70% non-condensing
Power input	12V DC

Future support

GSM Phase 1	Signalling only
GSM Phase 2	Adds CS & GPRS
5G	Signalling for OpenAir API support

S60z Dimensions