

## Base Station Modules for 2/3/4G & Cat-M1

Highly integrated, frequency agile 2/3/4G and Cat-M1 IoT base station modules

The EXSINE range of GSM, UMTS, LTE and Cat-M1 Internet-of-Things base station modules are designed for integration into third-party products and systems including managed access and security solutions, test equipment, production line testing, military communications and conventional 3GPP-compliant cells.

All modules support rapid switching between radio-access technologies and multiple 3GPP frequency bands up to 6 GHz. Variants are available that support all bands and add multi-band filtering.

All signalling and user plane backhaul interfaces are standards-based (3GPP). Simple APIs are provided for management and fault reporting, allowing rapid and reliable integration. The modules may be supplied with on-board core network software for completely standalone operation.

In addition to operating as a base station, each module can run dedicated high-performance cellular network scanning software to provide rapid GSM, UMTS and LTE cell detection and system information decode of local cells. Please refer to the EXSINE Network Scanner Modules datasheet.

### KEY FEATURES

- Designed for integration into products by OEMs and system integrators
- Rapid switching between 2G, 3G, 4G/IoT and scanning modes
- All 3GPP bands up to 6 GHz
- Region-specific band filtering options (custom banding available)
- Lightweight management APIs for rapid and reliable integration
- Linux kernel with support for running third-party software on-board
- Custom form-factors and protocol modifications/impairments available
- May be supplied with core network on-board for standalone operation
- Compatible with Quortus, Druid, AttoCore and other standards-compliant core networks
- Type-A USB for mass storage device or WiFi/cellular dongle for backhaul or remote management
- On-board GPS receiver with external antenna (MMCX)
- DC powered 6.5 – 16v

For further information please contact sales on +44 (0) 1223 755 115 or email [sales@cellXica.net](mailto:sales@cellXica.net)

## APPLICATIONS

- Managed access systems
- Security and law enforcement
- Cellular network and mobile phone test equipment
- Production line testing
- Military communications
- Conventional cellular network base stations

## KEY FEATURES – LTE

- 3GPP release 8/9 FDD/TDD eNodeB
- 2x2 MIMO, transmission modes 1 & 2
- Bandwidths: 3, 5, 10 and 20 MHz (upgradeable to 1.4 MHz and 15 MHz)
- Standard S1 backhaul interface
- 15 km cell radius
- 32 simultaneous users

## KEY FEATURES – IoT

- 3GPP release 13 IoT support
- eMTC Cat-M1 for test and measurement applications (Q2 2018)
- Software upgradeable to NB-IoT

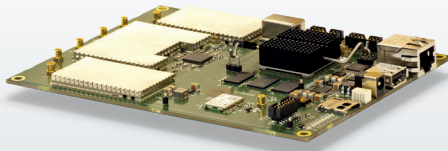
## KEY FEATURES – UMTS

- 3GPP release 6 NodeB
- Standard lu or luh backhaul interface
- 5 km cell radius
- 16 simultaneous users
- HSDPA 7.2 Mbps
- HSUPA 1.46 Mbps

## KEY FEATURES – GSM

- Industry standard A-over-IP (BSS) or Abis-over-IP (BTS) backhaul interface
- 7 simultaneous FR voice/GPRS users
- 14 simultaneousa HR voice users
- Multi-slot CS1-4 GPRS

### SC5020 – OPEN RF MODULE



- Frequency agile: 70 MHz – 6 GHz
- RF antennas: 2 x TX, 2 x RX external MMCX (MIMO)
- RF output power: +15 dBm (GSM), +5 dBm (UMTS/LTE)
- Dimensions: 120 mm x 75 mm x 19 mm

### SC5124 / SC5135 – MULTI-BAND MODULE



- Frequency agile: 70 MHz – 4 GHz
- Plus filtered bands:
  - SC5124-EU: Bands 1, 3, 7, 8 and 20
  - SC5124-US: Bands 2, 4, 5, 7 and 12
  - SC5135 global GSM/UMTS: Bands 1, 2, 3, 5, 8, 10
- RF antennas: 2 x TX, 2 x RX external MMCX (MIMO)
- RF output power: +25 dBm (GSM), +15 dBm (UMTS/LTE)
- Dimensions: 160 mm x 123 mm x 19 mm

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