

Cellular Network Scanner Modules

Fast multi-RAT (2/3/4G) cellular network scanner modules

The EXSINE Cellular Network Scanner modules allow system integrators to easily add cellular network scanning features to a wide range of products. The scanner modules provide rapid parallel cell detection and system information decode of live GSM, UMTS and LTE cellular network cells.

Flexible configuration allows the scanner to sweep individual frequencies, frequency ranges, whole bands or any combination of these. Results are made available immediately as each cell is detected or decoded.

The scanner is available on two different hardware platforms. The SC5020 provides a more compact form-factor with a wide frequency range and no band filtering, while the SC5124 adds band filtering in a larger form-factor to provide improved sensitivity performance for the supported bands.

Applications include network planning and monitoring, network coverage reporting, managed access systems, rogue cell detection and base station development.

In addition to operating as a scanner, each module can operate as a GSM, UMTS and/or LTE base station. Please refer to the EXSINE Base Station Modules datasheet.

KEY FEATURES

- Support for GSM, UMTS and LTE (FDD/TDD)
- Support for all 3GPP bands up to 6 GHz
- Parallel cell detect phase to identify potential cells
- Flexible configuration to balance run time against scan requirements
- Parallel cell decode phase to confirm cell presence and decode system information
- Lightweight management API
- Full system information decode
- Linux kernel with support for running third-party software on-board
- Real-time output of results
- Type-A USB for mass storage device or WiFi/cellular dongle for remote management
- Continual scan mode with GPS tracking
- On-board GPS receiver

APPLICATIONS

- Security and law enforcement
- Network performance monitoring
- Managed access systems
- Network coverage reporting
- Rogue cell detection
- Base station development
- Cellular network planning

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

FEATURES – GSM

- Scan parameters
 - Any combination of single frequencies, frequency ranges, ARFCNs or bands
 - List of System Information messages (SIs) to decode
- Scan results
 - Lists of detected/decoded GSM cells
 - Frequency, ARFCN, RSSI (dBm) and C/I (dB)
 - GSM band, NCC and BCC (BSIC)
 - Decoded system information
 - SI1, 2, 2bis, 2ter, 2qtr, 3, 13
 - Software upgradeable to allow decode of all SIs

FEATURES – UMTS

- Scan parameters
 - Any combination of single frequencies, frequency ranges, UARFCNs or bands
 - List of System Information Blocks (SIBs) to decode
- Scan results
 - Lists of detected/decoded UMTS cells
 - Frequency and Primary Scrambling Code
 - RSSI (dBm), RSCP (dBm) and Ec/N0 (dB)
 - Decoded system information
 - SIB1, 2, 3, 4, 5, 5bis, 6, 7, 11, 15-2ter, 19, 20, 21, 22
 - Software upgradeable to allow decode of all SIBs

FEATURES – LTE

- Scan parameters
 - Any combination of single frequencies, frequency ranges, EARFCNs or bands
 - List of System Information Blocks (SIBs) to decode
- Scan results
 - Lists of detected/decoded LTE cells
 - Frequency, FDD/TDD, bandwidth and Physical Cell ID
 - RSSI (dBm), RSRP (dBm) and RSRQ (dB)
 - CSRS configuration
 - Decoded system information
 - SIB1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
 - Software upgradeable to allow decode of all SIBs

INTERFACES

- Command line interface (CLI) for manual configuration and control
- Machine-friendly TCP version of CLI enables easy automation/integration
- Web front-end and Windows/MacOS/Linux GUI

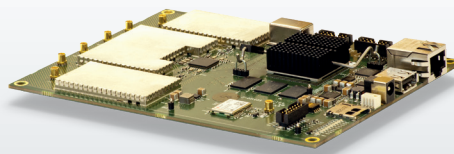
HARDWARE OPTIONS

SC5020 – OPEN RF MODULE



- Frequency agile: 70 MHz – 6 GHz
- RF antennas: 2 x SMA
- Dimensions: 120 mm x 75 mm x 19 mm

SC5124 – MULTI-BAND MODULE



- Frequency agile: 70 MHz – 4 GHz
- Plus 5 filtered bands:
 - EU: Bands 1, 3, 7, 8 and 20
 - US: Bands 2, 4, 5, 7 and 12
- RF antennas: 2 x MMCX
- Dimensions: 160 mm x 123 mm x 19 mm

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