



## 2/3/4G & Cat-M1 Functional Device Tester

SC5000-FDT desktop functional device tester for GSM, UMTS, LTE and eMTC Cat-M1 UEs and IoT devices

The EXPLORE SC5000-FDT emulates complete GSM, UMTS and LTE networks for functional and end-to-end cellular device testing, ideal for day-to-day developer testing, device validation, production line testing and more.

The SC5000-FDT operates as a standalone network-in-a-box supporting GSM, UMTS (release 6), LTE (release 8/9) and eMTC Cat-M1 (release 13). In addition, low-level analysis tools, deep packet inspection via Wireshark/tcpdump and RF/protocol impairment features are supported. Custom impairment features may be added at little or no extra cost.

Configuration, control and monitoring is accessed via a Command Line Interface (CLI). This same API is made available in a machine-friendly form over TCP allowing rapid progress from manual control to test automation.

The same hardware is capable of running other software in the EXPLORE range to provide a compact and cost effective test and measurement solution.

### KEY FEATURES

- Designed for daily use by test and development engineers
- Equally at home as part of automated production line test equipment
- May be supplied with core network on-board for standalone operation
- Frequency agile, covers all 3GPP bands up to 6 GHz
- Rapid switching between 2G, 3G and 4G/IoT modes
- Lightweight management API
- Linux kernel with support for running third-party software on-board
- Custom protocol modifications/impairments available
- Type-A USB for mass storage device or WiFi/cellular dongle for backhaul or remote management
- On-board GPS receiver



SC5000-FDT

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

## APPLICATIONS

- UE and IoT device validation
- End-to-end UE/device testing
- Production line testing

## 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 and 15 MHz)
- Standard S1 backhaul interface
- Physical layer data rate up to 50 Mbps
- Deep protocol/packet inspection of signalling and data at PHY, MAC, RLC, PDCP, RRC, S1AP and EMM using tcpdump/Wireshark
- Real-time graphing of up/downlink resource grid RB allocations and uplink RSSI

## KEY FEATURES – IoT

- 3GPP release 13 IoT support
- eMTC CAT-M1 (Q2 2018)
- Software upgradeable to NB-IoT

## KEY FEATURES – UMTS

- 3GPP release 6 NodeB
- Standard lu or luh backhaul interface
- 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 simultaneous HR voice users
- Multi-slot CS1-4 GPRS

### SC5000



- Frequency agile: 70 MHz – 6 GHz
- RF antennas: 2 x TX, 2 x RX SMA external (MIMO)\*
- RF output power: +15 dBm (GSM), +5 dBm (UMTS/LTE)
- GPS receiver with external antenna (SMA)
- Keypad and LCD display for basic control and status monitoring
- Lithium-Ion battery and external PSU
- Machined aluminium
- Dimensions: 140 mm (w) x 70 mm (h) x 140 mm (d)

\* For regulatory and spectrum-ownership compliance, devices must be RF cable-connected to the tester

[www.cellXica.net](http://www.cellXica.net)

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

Building 7200, Cambridge Research Park,  
CB25 9TL, United Kingdom