



Technologies, Inc.

PROVIDING NEXT GENERATION WIRELESS SOLUTIONS

FORTIS Collect Lite

2G/3G/4G/5G Cellular Network Collection Software



Collect Lite

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Overview

Introducing FORTIS Collect Lite, G3T's cutting-edge cellular collection capability now available as dockerized software—delivering unmatched visibility across GSM, CDMA, UMTS, LTE, and 5G networks. With full-spectrum monitoring, real-time geolocation, and broad PTT support, Collect Lite empowers mission-critical operations. Its modular, scalable design integrates seamlessly with third-party receivers, offering high-performance intelligence for SIGINT, COMINT, TSCM, and dynamic network analysis—anytime, anywhere.

Key Features

Tuner Optimization

Collect Lite supports GSM, CDMA, UMTS, LTE, and 5G NR monitoring across all active bands, optimizing resources per technology for efficient multi-cell coverage. It tracks downlink and uplink activity with a user-friendly web interface for streamlined status and control.

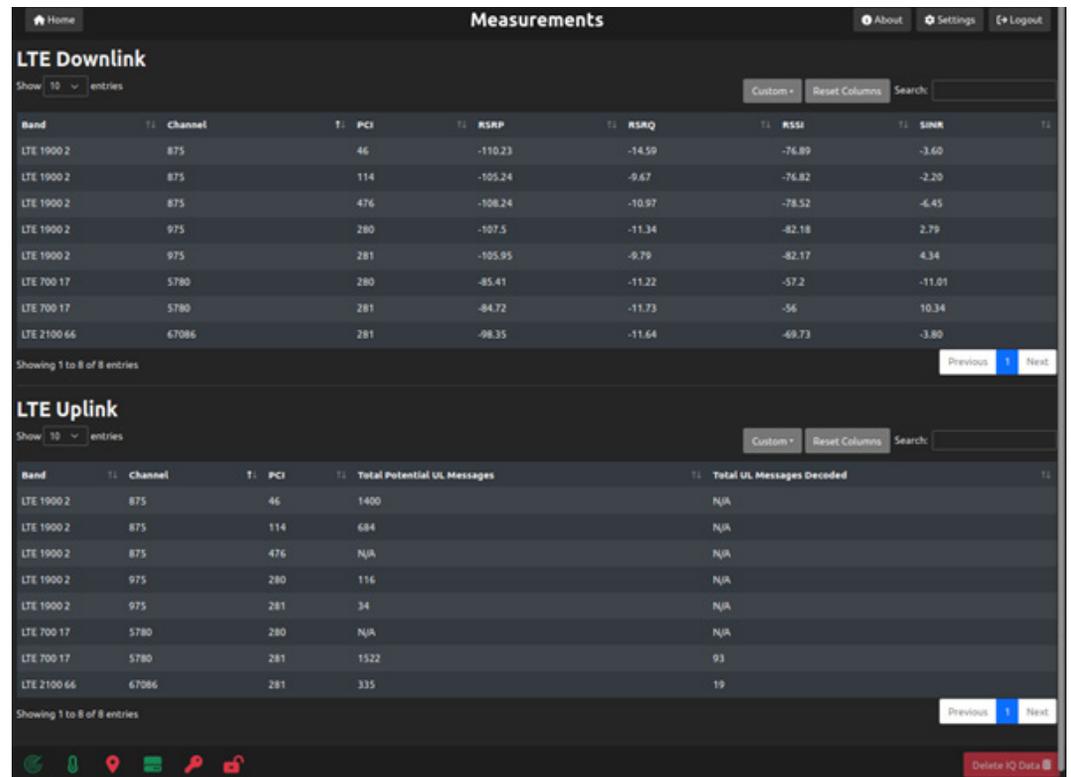


Intuitive User Interface

Collect's intuitive GUI, especially its Configuration Interface, simplifies Tuner setup and management. Its guided pages streamline importing survey results and automatically adjust configuration steps based on the selected cellular technology, ensuring a smooth, efficient setup process for any deployment.

Measurements

Collect Lite delivers powerful, technology-specific views for real-time analysis of monitored cells and connected UEs. Its dynamic "Measurements" tab reveals cell and signal quality.



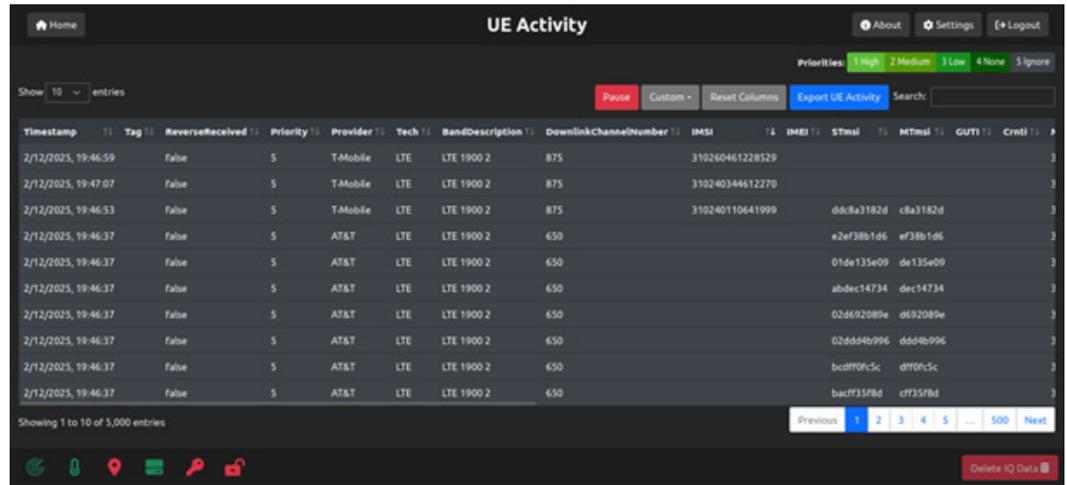
The screenshot displays the 'Measurements' tab in the Collect Lite application. It features two main data tables: 'LTE Downlink' and 'LTE Uplink'. The 'LTE Downlink' table lists various cellular parameters such as Band, Channel, PCI, RSRP, RSRQ, RSI, and SINR for different LTE bands. The 'LTE Uplink' table shows Total Potential UL Messages and Total UL Messages Decoded for the same bands. The interface includes navigation buttons like 'Home', 'About', 'Settings', and 'Logout', as well as search and filter options for each table.

| Band | Channel | PCI | RSRP | RSRQ | RSI | SINR |
|-------------|---------|-----|---------|--------|--------|--------|
| LTE 1900 2 | 875 | 46 | -110.23 | -14.59 | -76.89 | -3.60 |
| LTE 1900 2 | 875 | 114 | -105.24 | -9.67 | -76.82 | -2.20 |
| LTE 1900 2 | 875 | 476 | -108.24 | -10.97 | -78.52 | -6.45 |
| LTE 1900 2 | 975 | 280 | -107.5 | -11.34 | -82.18 | 2.79 |
| LTE 1900 2 | 975 | 281 | -105.95 | -9.79 | -82.17 | 4.34 |
| LTE 700 17 | 5780 | 280 | -85.41 | -11.22 | -57.2 | -11.01 |
| LTE 700 17 | 5780 | 281 | -84.72 | -11.73 | -56 | 10.34 |
| LTE 2100 66 | 67086 | 281 | -98.35 | -11.64 | -69.73 | -3.80 |

| Band | Channel | PCI | Total Potential UL Messages | Total UL Messages Decoded |
|-------------|---------|-----|-----------------------------|---------------------------|
| LTE 1900 2 | 875 | 46 | 1400 | N/A |
| LTE 1900 2 | 875 | 114 | 684 | N/A |
| LTE 1900 2 | 875 | 476 | N/A | N/A |
| LTE 1900 2 | 975 | 280 | 116 | N/A |
| LTE 1900 2 | 975 | 281 | 34 | N/A |
| LTE 700 17 | 5780 | 280 | N/A | N/A |
| LTE 700 17 | 5780 | 281 | 1522 | 93 |
| LTE 2100 66 | 67086 | 281 | 335 | 19 |

UE Activity

Collect Lite's "UE Activity" tab showcases detailed insights on every detected UE device—fast, clear, and actionable.



UE Activity

Home About Settings Logout

Priorities: 1 High 2 Medium 3 Low 4 None 5 Ignore

Show 10 entries

Pause Custom - Reset Columns Export UE Activity Search:

| Timestamp | Tag | ReverseReceived | Priority | Provider | Tech | BandDescription | DownlinkChannelNumber | IMSI | IMEI | STMSI | MTMSI | GUTI | Crnt |
|---------------------|-----|-----------------|----------|----------|------|-----------------|-----------------------|-----------------|------------|----------|-------|------|------|
| 2/12/2025, 19:46:59 | | false | 5 | T-Mobile | LTE | LTE 1900 2 | 875 | 310260461228529 | | | | | 3 |
| 2/12/2025, 19:47:07 | | false | 5 | T-Mobile | LTE | LTE 1900 2 | 875 | 310240344612270 | | | | | 3 |
| 2/12/2025, 19:46:53 | | false | 5 | T-Mobile | LTE | LTE 1900 2 | 875 | 310240110641999 | d4c8a3182d | c8a3182d | | | 3 |
| 2/12/2025, 19:46:37 | | false | 5 | AT&T | LTE | LTE 1900 2 | 650 | | e2ef38b1d6 | e738b1d6 | | | 3 |
| 2/12/2025, 19:46:37 | | false | 5 | AT&T | LTE | LTE 1900 2 | 650 | | 01de135e09 | de135e09 | | | 3 |
| 2/12/2025, 19:46:37 | | false | 5 | AT&T | LTE | LTE 1900 2 | 650 | | abdec14734 | dec14734 | | | 3 |
| 2/12/2025, 19:46:37 | | false | 5 | AT&T | LTE | LTE 1900 2 | 650 | | 026692089e | d692089e | | | 3 |
| 2/12/2025, 19:46:37 | | false | 5 | AT&T | LTE | LTE 1900 2 | 650 | | 02dd64b996 | ddd4b996 | | | 3 |
| 2/12/2025, 19:46:37 | | false | 5 | AT&T | LTE | LTE 1900 2 | 650 | | bc0ff0c5c | dff0c5c | | | 3 |
| 2/12/2025, 19:46:37 | | false | 5 | AT&T | LTE | LTE 1900 2 | 650 | | ba0ff35f8d | cff35f8d | | | 3 |

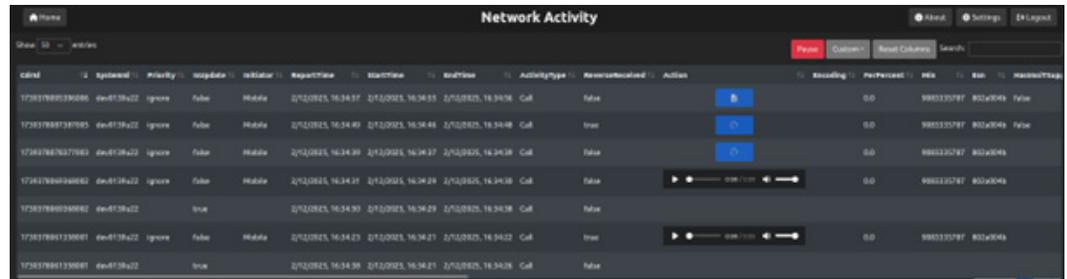
Showing 1 to 10 of 5,000 entries

Previous 1 2 3 4 5 ... 500 Next

Delete IQ Data

Network Activity

Collect Lite's "Network Activity" tab delivers real-time message capture and decoding, with instant pop-up views. For LTE and 5G-NR, users can easily toggle



Network Activity

Home About Settings Logout

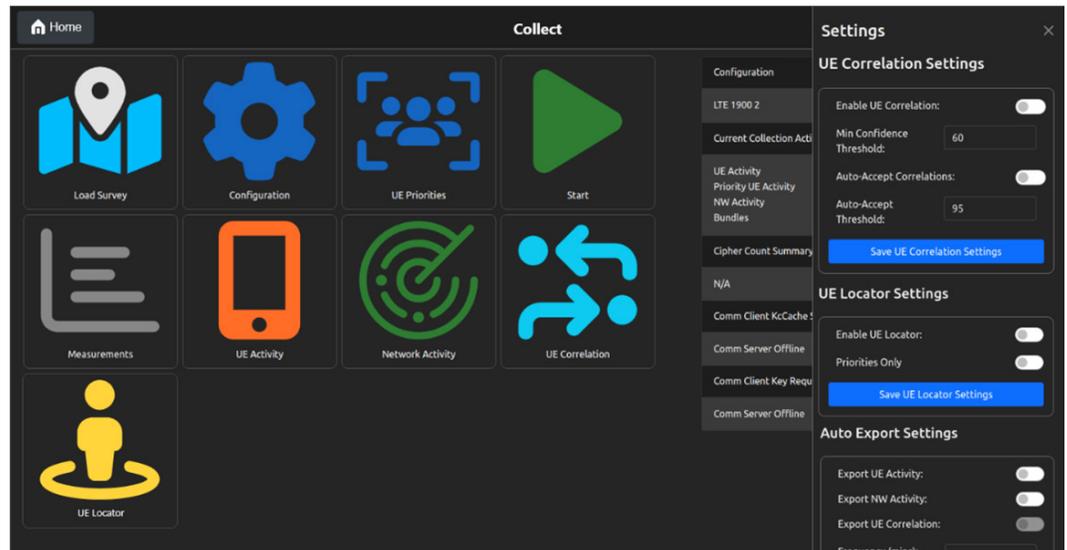
Show 50 entries

Pause Custom - Reset Columns Search:

| CellID | SystemInfo | Priority | Decodeable | Relational | ReportTime | StartTime | EndTime | ActivityType | ReverseReceived | Action | Encoding | PerPercent | IMSI | IMEI | NetworkType |
|-----------------|--------------|----------|------------|------------|---------------------|---------------------|---------------------|--------------|-----------------|--------|----------|------------|------------|----------|-------------|
| 172837869239086 | dev-87138a02 | ignore | false | Mobility | 2/12/2025, 16:34:37 | 2/12/2025, 16:34:35 | 2/12/2025, 16:34:38 | Call | false | ▶ | | 0.0 | 9883232787 | 802a0049 | False |
| 172837869239085 | dev-87138a02 | ignore | false | Mobility | 2/12/2025, 16:34:40 | 2/12/2025, 16:34:46 | 2/12/2025, 16:34:48 | Call | true | ▶ | | 0.0 | 9883232787 | 802a0049 | False |
| 172837869239083 | dev-87138a02 | ignore | false | Mobility | 2/12/2025, 16:34:36 | 2/12/2025, 16:34:37 | 2/12/2025, 16:34:38 | Call | false | ▶ | | 0.0 | 9883232787 | 802a0049 | False |
| 172837869239082 | dev-87138a02 | ignore | false | Mobility | 2/12/2025, 16:34:31 | 2/12/2025, 16:34:29 | 2/12/2025, 16:34:30 | Call | false | ▶ | | 0.0 | 9883232787 | 802a0049 | False |
| 172837869239082 | dev-87138a02 | ignore | true | Mobility | 2/12/2025, 16:34:30 | 2/12/2025, 16:34:29 | 2/12/2025, 16:34:30 | Call | false | ▶ | | 0.0 | 9883232787 | 802a0049 | False |
| 172837869239081 | dev-87138a02 | ignore | false | Mobility | 2/12/2025, 16:34:25 | 2/12/2025, 16:34:21 | 2/12/2025, 16:34:22 | Call | true | ▶ | | 0.0 | 9883232787 | 802a0049 | False |
| 172837869239081 | dev-87138a02 | ignore | true | Mobility | 2/12/2025, 16:34:30 | 2/12/2025, 16:34:21 | 2/12/2025, 16:34:26 | Call | false | ▶ | | 0.0 | 9883232787 | 802a0049 | False |

UE Correlation

UE Correlation has traditionally be a very labor intensive task. Collect Lite, when paired with a Tetley HYDRA, can perform these operations automatically, correlating temporary identifiers to permanent identifiers. These permanent identifiers can then be setup as triggers for a collection event for the receivers monitoring the network.



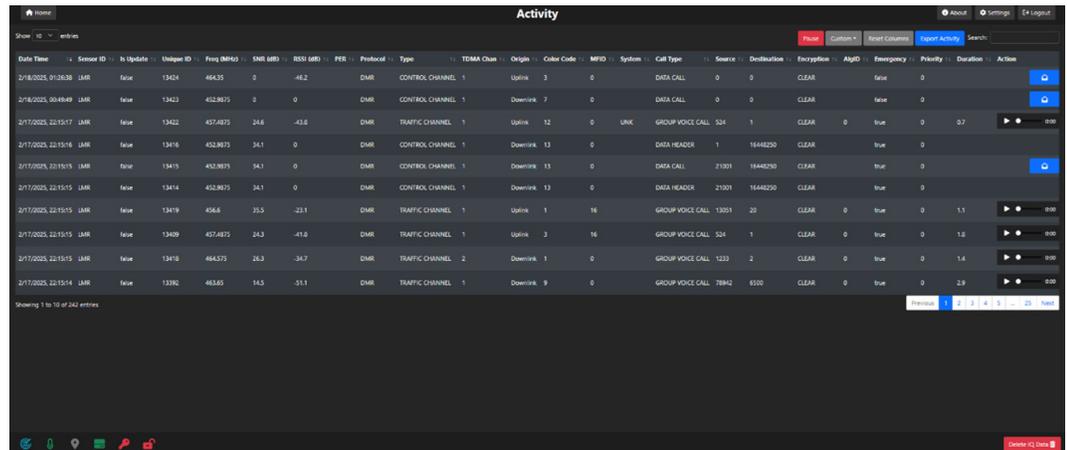
UE Locator

Collect Lite's UE Locator enables you to visually estimate the location of UE's that are actively being monitored. Collect Lite actively monitors all UE uplink activity, collecting the necessary data to compute range/distance estimates to the UE device.



PTT Monitoring

Collect Lite provides extensive support for monitoring a wide range actively used PTT technologies and bands. Select PTT technologies and bands of interest and Collect Lite will actively monitor, decode and captures activity and corresponding data for any PTT signals it detects. Support for: DMR, P25 Phase 1, P25 Phase 2, NXDN 4800, NXDN 9600, D-STARS, Tetra, FM, & AM in VHF and UHF bands.



| Date Time | Sensor ID | Is Update | Unique ID | Freq (MHz) | SMR (dB) | RSSI (dB) | PER | Protocol | Type | TDMA Chan | Origin | Color Code | MFO | System | Call Type | Source | Destination | Encryption | AgID | Emergency | Priority | Duration | Action | |
|---------------------|-----------|-----------|-----------|------------|----------|-----------|-----|----------|-----------------|-----------|----------|------------|-----|--------|------------------|------------------|-------------|------------|-------|-----------|----------|----------|--------|--|
| 2/18/2025, 01:26:36 | LMR | false | 13424 | 464.35 | 0 | -62 | | DMR | CONTROL CHANNEL | 1 | Uplink | 3 | 0 | | DATA CALL | 0 | 0 | CLEAR | | false | 0 | 0 | | |
| 2/18/2025, 00:49:49 | LMR | false | 13423 | 452.9675 | 0 | 0 | | DMR | CONTROL CHANNEL | 1 | Downlink | 7 | 0 | | DATA CALL | 0 | 0 | CLEAR | | true | 0 | 0 | | |
| 2/17/2025, 22:15:17 | LMR | false | 13422 | 457.4575 | 246 | -43.8 | | DMR | TRAFFIC CHANNEL | 1 | Uplink | 12 | 0 | | LINK | GROUP VOICE CALL | 534 | 1 | CLEAR | 0 | true | 0 | 0:7 | |
| 2/17/2025, 22:15:16 | LMR | false | 13416 | 452.9675 | 341 | 0 | | DMR | CONTROL CHANNEL | 1 | Downlink | 13 | 0 | | DATA HEADER | 1 | 16448250 | CLEAR | | true | 0 | 0 | | |
| 2/17/2025, 22:15:15 | LMR | false | 13415 | 452.9675 | 341 | 0 | | DMR | CONTROL CHANNEL | 1 | Downlink | 13 | 0 | | DATA CALL | 21001 | 16448250 | CLEAR | | true | 0 | 0 | | |
| 2/17/2025, 22:15:15 | LMR | false | 13414 | 452.9675 | 341 | 0 | | DMR | CONTROL CHANNEL | 1 | Downlink | 13 | 0 | | DATA HEADER | 21001 | 16448250 | CLEAR | | true | 0 | 0 | | |
| 2/17/2025, 22:15:15 | LMR | false | 13419 | 456.6 | 355 | -23.1 | | DMR | TRAFFIC CHANNEL | 1 | Uplink | 1 | 16 | | GROUP VOICE CALL | 13051 | 20 | CLEAR | 0 | true | 0 | 1:1 | | |
| 2/17/2025, 22:15:15 | LMR | false | 13409 | 457.4575 | 243 | -41.8 | | DMR | TRAFFIC CHANNEL | 1 | Uplink | 3 | 16 | | GROUP VOICE CALL | 534 | 1 | CLEAR | 0 | true | 0 | 1:8 | | |
| 2/17/2025, 22:15:15 | LMR | false | 13418 | 464.575 | 263 | -34.7 | | DMR | TRAFFIC CHANNEL | 2 | Downlink | 1 | 0 | | GROUP VOICE CALL | 1233 | 2 | CLEAR | 0 | true | 0 | 1:4 | | |
| 2/17/2025, 22:15:14 | LMR | false | 13392 | 463.65 | 145 | -51.1 | | DMR | TRAFFIC CHANNEL | 1 | Downlink | 9 | 0 | | GROUP VOICE CALL | 78942 | 6500 | CLEAR | 0 | true | 0 | 2:9 | | |

PTT Activity

While monitoring PTT activity, Collect captures key parameters like handset IDs, connection details, encryption types, and call records, including audio, data payloads, and call duration—delivering complete, actionable communication insights across technologies.



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Minimum Host Requirements

| | |
|----------------|---|
| Storage | <i>512 GB</i> |
| Memory | <i>32GB</i> |
| OS | <i>Debian or RHEL Based Linux Distributions (Tested on Debian Based Ubuntu, RHEL Based Rocky Linux)</i> |
| Browser | <i>Mozilla Firefox v133.0 or higher</i> |
| Docker | <i>Docker version 19.03.8 or higher</i> |
| CPU | <i>Intel CPU, (Performance will match the Processing Capabilities).</i> |

Note: *Processing required scales proportionally to Tuner capabilities and interfaces as well as number of simultaneous active channels per technology required to support.*

Supported Receivers

- *Ettus B205 mini (option G3 DDCs supported in the FPGA)*
- *Epiq SideKIQ NV100*
- *Signal Hound SM200B*
- *Signal Hound SM200C*
- *3 dB Sceptre API /command line (headless) support*



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G3T is the Original Equipment Manufacturer (OEM) of the products listed above. For more information regarding these or any other G3 Technologies capabilities, please email us at sales@g3ti.net or, contact the following:

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