Synway's Protector™ IMSI Catcher

The Synway's Protector™ IMSI Catcher is a portable or fixed unit designed to extract IMSI or IMEI numbers from mobile devices in its operational zone. Capable of capturing different identifiers for each cellular device, including those using Bluetooth and Wi-Fi, the Synway Protector™ IMSI Catcher can detect the presence of all cellular phones in the restricted areas where it is deployed and issue an alert if a target device is identified.

The Synway Protector™ IMSI Catcher can store captured IMSI and IMEI and adopt simple and easy to use analytic software to provide advanced analytics, and can be easily integrated into other intelligence-gathering systems, and works across all cellular makers, and operating systems, as well as 2G, 3G, 4G and 5G technologies, including most mainstream relevant frequency bands in multi-cell configurations. It is available in various configurations to meet a range of tactical requirements.

With add-on advanced location and firewall technologies, the Synway Protector™ IMSI catcher can capture cellular IMEI or IMSI unique identification and precisely identify cell phone location. The device also can work in "selective blocking mode". In this mode, the authorized mobiles phones can access the public mobile networks normally while the unauthorized ones can't.

Synway designs and builds all its systems in-house, and so configurations can be customized to specific customer needs upon request, Synway Protector™ IMSI Catcher comes in various form factors and flexible configurations: 1) highly compact unit that fits into a jacket pocket; 2) ruggedized suitcase or portable backpack unit; 3) vehicle-mounted for flexible deployments; 4) fixed, rack-mounted unit for long-term operations.

This enhanced utility enables relevant **law enforcement agencies, search and rescue, correctional facility, prison, police and counter terrorism, border security, emergency service and telecommunication** to augment their intelligence on potential targets and, if required, take appropriate action.

● Core Features

Multi-identifier Capture

Extracts unique identifiers from mobile devices in the operational zone, and detects all cellular phones in restricted deployment areas and triggers alerts when target devices are identified.

Precise Location & Selective Blocking

Use advanced location technologies to accurately pinpoint the location of cellular devices via their IMSI/IMEI, and Support "selective blocking mode".

Data Storage & Advanced Analytics

Stores captured IMSI/IMEI data in a database, and adopts simple, user-friendly powerful analytic software to process and analyze stored data.

Broad Compatibility & Integration

Works across all cellular phone brands, operating systems, and network technologies (2G, 3G, 4G, 5G), covering most mainstream frequency bands in multi-cell configurations.

Diverse Form Factors & Customization

Offers flexible configurations for different tactical needs: Highly compact (pocket-sized); Ruggedized suitcase /backpack (portable); Vehicle-mounted; Fixed rack-mounted, or etc.

● Core Benefits

Tactical Flexibility

Diverse form factors (pocket, portable, vehicle-mounted, fixed) adapt to scenarios ranging from covert missions to long-term stationary operations, meeting varied on-site needs.

Targeted & Secure Control

"Selective blocking mode" balances security (blocking unauthorized devices) and normal operation (approving authorized ones), avoiding unnecessary disruption to legitimate communications.

Comprehensive Coverage

Compatibility with 2G-5G, all device brands/OS, and mainstream frequency bands ensures no gaps in detecting devices within the operational zone, even for latest-generation mobile technologies.

Efficient Intelligence Support

Real-time alerts for target devices, precise location data, and actionable analytics help law enforcement agencies quickly identify potential targets and make informed decisions.

Tailored Adaptability

Customizable configurations (via in-house production) let customers tailor the system to unique mission requirements (e.g., specific frequency bands, deployment environments).

Technical Specifications

Main Functions	IMSI and IMEI Catcher, Add-on cellular locator and cellular firewall
Applications	**law enforcement agencies, search and rescue, correctional facility, prison, police and counter terrorism, border security patrol, emergency service and telecommunication**
Base station	Simulates GSM/ UMTS/ LTE/5G NR base stations simultaneously. The supported network protocols can be customized.
Bands	Support 2G, 3G, 4G, 5G, the frequency band include GSM/UMTS/LTE 5G:　N1：uplink：　1920-1980MHz；downlink：2110-2170MHz 　　　N5：uplink：　824-849MHz；downlink：869-894MHz 　　　N8：uplink：　880-915MHz；downlink：925-960MHz 　　　　　N28：uplink：703-748MHz；downlink：758-803MHz 　　　N41：2496-2690MHz 　　　N77/N8：3300-3600MHz 　　　N79：　4400-5000MHzz 　4G:　B1：uplink：　1920-1980MHz；downlink：2110-2170MHz 　　　B3：uplink：　1710-1785MHz；downlink：1805-1880MHz 　　　B5：uplink：824-849MHz；downlink：869-894MHz 　　　B8：uplink：880-915MHz；downlink：925-960MHz 　　　B34：2010-2025MHz 　　　B39：1880-1920MHz 　　　　B40：2300-2390MHz 　　　B41（38）：2496-2690MHz 3G：WCDMA：B1：uplink：　1920-1980MHz；downlink：2110-2170MHz 　　　CDMA：B5：uplink：824-849MHz；downlink：869-894MHz 2G：GSM900：uplink：890-915MHz；downlink：935-960MHz 　　　DCS1800：uplink：1710-1785MHz；downlink：1805-1880MHz Notes: The number of supported bands will continue to be updated and can be customized according to clients' need.
Transmit Power	≤ 47 dBm (50 Watt), stepless adjustment
Sensitivity	≤ -110 dBm
Signal Coverage Radius	50-1000m (Typical / Ideal Environment): With distributed deployment, the coverage area can be expanded via indoor distributed antennas
Antenna Interface	N-Type

Software Features	• Data Export Format: Excel • Multi-User Permissions: Not Supported • Remote Management: Web • Whitelist/Blacklist Capacity: Unlimited • Capture Rate: 50 Entries/Sec • Storage Capacity: 1 Million Records • Control Platform: PC Terminal
Electrical Parameters	• Input Voltage: AC 110-220V, DC Optional • Power Consumption: based on function, usually less than 1,000Watt • Battery Capacity: Optional or based on necessity • Battery Life: based on necessity
Physical Parameters	• Housing Material: ADC12 Die-Cast Part (Die-Cast Aluminum Alloy) • Protection Class: IP67 • Dimensions (Length × Width × Height, mm): The dimensions are related to the number of supported frequency points and coverage range; • Weight: custom-made by needs
Environmental	• Operating Temperature Range: -40 – 55 °C • Storage Temperature Range: -40 – 55 °C • Humidity: 5% – 98% RH • Shock Resistance Class: IEC
Accessories List	• Signal Shielding Main Unit • Main Unit Power Cable • Main Unit Ethernet Cable • Signal Shielding Front-End • Beidou Antennas • Ceiling-Mounted Antenna • Installation Accessories (including feeder cables and hoop accessories)
Scan and set-up	Automatically provides users with the ideal parameter for the most effective attraction of mobile phone subscribers.
Detection	Alarm can be triggered upon the presence of a specific mobile phone.
IDs	Capture and record cellular identifiers (IMSI, IMEI), which are stored in database and analyzed.
White list	Allows a predefined list of devices to work while denying service to all others.
Blacklist	Allows operation in a targeted mode where all phones are released but a predefined list of targets is held / denied.
Downgrade	Ability to downgrade target mobile phone from LTE or UMTS to GSM.
Warranty	3-Years, lifetime technical support for free

Synway Protector™ Cellular Locator

The Synway Cellular Locator, a cellular acquisition and positioning system, is part of the Synway Protector™ suite of products. The system provides tactical acquisition and protocol-based positioning of cellular devices active in its coverage area, as well as enabling last-mile positioning for operational activity.

Completely developed in-house the system excels with a flexible range of capabilities, features, and configurations, the Synway cellular locator supports various positioning methods, including extracting the GPS data directly from the device, and can generate high-accuracy target positioning information, which significantly improves the chances of operational success during last-mile positioning. All positioning information is updated in real-time to fine-tune the calculated location of the target and ensure that once the active stage starts, it will be as short as possible.

With add-on advanced IMSI capturing and firewall technologies, the Synway cellular locator also can capture cellular IMEI or IMSI unique identification and control cellular phone's accessibility to network. When working in "selective blocking mode", the authorized mobiles phones can access the public mobile networks normally while the unauthorized ones can't.

Synway designs and builds all its systems in-house, and so configurations can be customized to specific customer needs upon request, Synway Protector™ cellular locator comes in various form factors and flexible configurations: 1) highly compact unit that fits into a jacket pocket; 2) ruggedized suitcase or portable backpack unit; 3) vehicle-mounted for flexible deployments; 4) fixed, rack-mounted unit for long-term operations.

This enhanced utility enables relevant **law enforcement agencies, search and rescue, correctional facility, prison, police and counter terrorism, border security, emergency service and telecommunication** to augment their intelligence on potential targets and, if required, take appropriate action.

Core Features

Tactical Acquisition & Protocol-Based Positioning
As part of the Synway Protector™ suite, it serves as a cellular acquisition and positioning system, enabling the capture and protocol-driven positioning of active cellular devices in its coverage area.

Last-Mile Efficiency
Supports last-mile positioning for operational activities, focusing on precise location tracking in the final phase of missions.

Multi-Method Positioning & High Accuracy
Developed entirely in-house, with flexible capabilities and configurations; supports various positioning methods; Generates high-accuracy target positioning information for precision requirements.

Real-Time Positioning Update
Updates all positioning information in real time, allowing for dynamic fine-tuning of the calculated target location.

Core Benefits

Enhanced Operational Success Rate
Last-mile positioning and high-accuracy location data directly address the critical "final phase" positioning needs of missions (e.g., law enforcement raids, anti-terrorism operations)

Strong Adaptability to Scenarios
Multiple positioning methods (including GPS data extraction) ensure effectiveness across diverse environments; allow customization to match specific operational requirements

Efficient Mission Execution

Real-time updates of positioning information enable continuous optimization of target location calculations, reducing the risk of target escape or mission exposure.

Seamless Ecosystem Integration

As a component of the Synway Protector™ suite, it can easily integrate with other Synway products (e.g., IMSI catchers, cellular firewalls) to form a unified intelligence-gathering system.

Technical Specification

Main Functions	Cellular locator, Add-on IMSI catcher and cellular firewall
Applications	**law enforcement agencies, search and rescue, correctional facility, prison, police and counter terrorism, border security patrol, emergency service and telecommunication**
Base station	Simulates GSM/ UMTS/ LTE/5G NR base stations simultaneously. The supported network protocols can be customized.
Bands	Support 2G, 3G, 4G, 5G, the frequency band include GSM/UMTS/LTE 5G:　N1：uplink：　1920-1980MHz；downlink：2110-2170MHz 　　　N5：uplink：　824-849MHz；downlink：869-894MHz 　　　N8：uplink：　880-915MHz；downlink：925-960MHz 　　　　N28：uplink：703-748MHz；downlink：758-803MHz 　　　N41：2496-2690MHz 　　　N77/N8：3300-3600MHz 　　　N79：　4400-5000MHzz 　4G:　B1：uplink：　1920-1980MHz；downlink：2110-2170MHz 　　　B3：uplink：　1710-1785MHz；downlink：1805-1880MHz 　　　B5：uplink：824-849MHz；downlink：869-894MHz 　　　B8：uplink：880-915MHz；downlink：925-960MHz 　　　B34：2010-2025MHz 　　　B39：1880-1920MHz 　　　　B40：2300-2390MHz 　　　B41（38）：2496-2690MHz 3G：WCDMA：B1：uplink：　1920-1980MHz；downlink：2110-2170MHz 　　　CDMA：B5：uplink：824-849MHz；downlink：869-894MHz 2G：GSM900：uplink：890-915MHz；downlink：935-960MHz 　　　DCS1800：uplink：1710-1785MHz；downlink：1805-1880MHz Notes: The number of supported bands will continue to be updated and can be customized according to clients' need.
Transmit Power	≤ 47 dBm (50 Watt), stepless adjustment
Sensitivity	≤ -110 dBm
Signal Coverage Radius	50-1000m (Typical / Ideal Environment): With distributed deployment, the coverage area can be expanded via indoor distributed antennas
Antenna Interface	N-Type
	• Data Export Format: Excel • Multi-User Permissions: Not Supported

Software Features	• Remote Management: Web • Whitelist/Blacklist Capacity: Unlimited • Capture Rate: 50 Entries/Sec • Storage Capacity: 1 Million Records • Control Platform: PC Terminal
Electrical Parameters	• Input Voltage: AC 110-220V, DC Optional • Power Consumption: based on function, usually less than 1,000Watt • Battery Capacity: Optional or based on necessity • Battery Life: based on necessity
Physical Parameters	• Housing Material: ADC12 Die-Cast Part (Die-Cast Aluminum Alloy) • Protection Class: IP67 • Dimensions (Length × Width × Height, mm): The dimensions are related to the number of supported frequency points and coverage range; • Weight: custom-made by needs
Environmental	• Operating Temperature Range: -40 – 55 °C • Storage Temperature Range: -40 – 55 °C • Humidity: 5% – 98% RH • Shock Resistance Class: IEC
Accessories List	• Signal Shielding Main Unit • Main Unit Power Cable • Main Unit Ethernet Cable • Signal Shielding Front-End • Beidou Antennas • Ceiling-Mounted Antenna • Installation Accessories (including feeder cables and hoop accessories)
Scan and set-up	Automatically provides users with the ideal parameter for the most effective attraction of mobile phone subscribers.
Detection	Alarm can be triggered upon the presence of a specific mobile phone.
IDs	Capture and record cellular identifiers (IMSI, IMEI), which are stored in database and analyzed.
White list	Allows a predefined list of devices to work while denying service to all others.
Blacklist	Allows operation in a targeted mode where all phones are released but a predefined list of targets is held / denied.
Downgrade	Ability to downgrade target mobile phone from LTE or UMTS to GSM.
Warranty	3-Years, lifetime technical support for free

Synway Protector™ Cellular Firewall

The Synway's cellular firewall is a portable solution designed to selectively block services to designated mobile devices in its operational zone. As a part of the Synway Protector™ suite of products, the Synway Cellular Firewall can be programmed to deny access to the cellular network for some cellular phones while granting access to others.The Synway cellular firewall also allows for uninterrupted cellular service to authorized devices based on their cellular identities. This makes the system ideal for any scenario where cellular communication needs to be controlled or supervised, such as in secure facilities and prisons. Synway's cellular firewall can send and receive target information to and from external sources to keep command and control centers fully appraised of the ongoing operation. It uses its advanced analysis to cross-reference data to provide high-level intelligence to operators and security agencies.

With add-on advanced IMSI capturing and positioning technologies, the Synway cellular firewall also can capture cellular IMEI or IMSI unique identification and locate cellular phones. When working in "selective blocking mode", the authorized mobiles phones can access the public mobile networks normally while the unauthorized ones can't.

Synway designs and builds all its systems in-house, and so configurations can be customized to specific customer needs upon request, Synway Protector™ cellular firewall comes in various form factors and flexible configurations: 1) highly compact unit that fits into a jacket pocket; 2) ruggedized suitcase or portable backpack unit; 3) vehicle-mounted for flexible deployments; 4) fixed, rack-mounted unit for long-term operations.

This enhanced utility enables relevant **law enforcement agencies, search and rescue, correctional facility, prison, police and counter terrorism, border security, emergency service and telecommunication** to augment their intelligence on potential targets and, if required, take appropriate action.

Core Features
Selective Cellular Access Control
Acts as a portable solution to selectively block cellular network services for designated mobile devices, while granting access to authorized ones.

Uninterrupted Service for Authorized Devices
Maintains continuous cellular service for pre-approved devices, avoiding disruption to legitimate communication needs.

Target Information Interaction & Advanced Intelligence Analysis
Sends and receives target-related data to/from external sources; Uses advanced data cross-referencing and analysis to generate high-level intelligence for operators and security agencies.

Portability & Integration with Synway Ecosystem
Designed as a portable solution for flexible on-site deployment; Belongs to the Synway Protector™ product suite, ensuring compatibility with other Synway intelligence-gathering systems.

Core Benefits
Precise & Non-Disruptive
Avoids "one-size-fits-all" network blocking: Only restricts unauthorized devices, preventing unnecessary disruption to critical/authorized communications.

Ideal for High-Security Scenarios
Perfect for environments requiring strict cellular control (e.g., prisons, secure government facilities), balances security and operational efficiency.

Real-Time Operational Synergy

Enables command and control centers to stay fully apprised of on-site conditions via data interaction, supporting timely decision-making and coordinated responses to incidents.

Flexible Deployment & Low Integration Cost

Portability allows deployment across diverse locations (e.g., temporary security checkpoints, mobile operation sites) without fixed infrastructure constraints.

Actionable Intelligence Support

Advanced data analysis and cross-referencing turn raw target data into high-value intelligence, helping security agencies identify patterns, track risks, and optimize operational strategies.

Technical Specification

Main Functions	Cellular firewall, Add-on IMSI catcher and cellular locator
Applications	**law enforcement agencies, search and rescue, correctional facility, prison, police and counter terrorism, border security patrol, emergency service and telecommunication**
Base station	Simulates GSM/ UMTS/ LTE/5G NR base stations simultaneously. The supported network protocols can be customized.
Bands	Support 2G, 3G, 4G, 5G, the frequency band include GSM/UMTS/LTE 5G:　N1：uplink：　1920-1980MHz；downlink：2110-2170MHz 　　　　N5：uplink：　824-849MHz；downlink：869-894MHz 　　　　N8：uplink：　880-915MHz；downlink：925-960MHz 　　　　N28：uplink：703-748MHz；downlink：758-803MHz 　　　　N41：2496-2690MHz 　　　　N77/N8：3300-3600MHz 　　　　N79：　4400-5000MHzz 　4G：B1：uplink：　1920-1980MHz；downlink：2110-2170MHz 　　　　B3：uplink：　1710-1785MHz；downlink：1805-1880MHz 　　　　B5：uplink：824-849MHz；downlink：869-894MHz 　　　　B8：uplink：880-915MHz；downlink：925-960MHz 　　　　B34：2010-2025MHz 　　　　B39：1880-1920MHz 　　　　B40：2300-2390MHz 　　　　B41（38）：2496-2690MHz 　3G：WCDMA：B1：uplink：　1920-1980MHz；downlink：2110-2170MHz 　　　　CDMA：B5：uplink：824-849MHz；downlink：869-894MHz 　2G：GSM900：uplink：890-915MHz；downlink：935-960MHz 　　　　DCS1800：uplink：1710-1785MHz；downlink：1805-1880MHz Notes: The number of supported bands will continue to be updated and can be customized according to clients' need.
Transmit Power	≤ 47 dBm (50 Watt), stepless adjustment
Sensitivity	≤ -110 dBm
Signal Coverage Radius	50-1000m (Typical / Ideal Environment): With distributed deployment, the coverage area can be expanded via indoor distributed antennas

Antenna Interface	N-Type
Software Features	- Data Export Format: Excel - Multi-User Permissions: Not Supported - Remote Management: Web - Whitelist/Blacklist Capacity: Unlimited - Capture Rate: 50 Entries/Sec - Storage Capacity: 1 Million Records - Control Platform: PC Terminal - Custom-made while needed
Electrical Parameters	- Input Voltage: AC 110-220V, DC Optional - Power Consumption: based on function, usually less than 1,000Watt - Battery Capacity: Optional or based on necessity - Battery Life: based on necessity
Physical Parameters	- Housing Material: ADC12 Die-Cast Part (Die-Cast Aluminum Alloy) - Protection Class: IP67 - Dimensions (Length × Width × Height, mm): The dimensions are related to the number of supported frequency points and coverage range; - Weight: custom-made by needs
Environmental	- Operating Temperature Range: -40 – 55 °C - Storage Temperature Range: -40 – 55 °C - Humidity: 5% – 98% RH - Shock Resistance Class: IEC
Accessories List	- Signal Shielding Main Unit - Main Unit Power Cable - Main Unit Ethernet Cable - Signal Shielding Front-End - Beidou Antennas - Ceiling-Mounted Antenna - Installation Accessories (including feeder cables and hoop accessories) - Different configuration may need accessories different from above. Please consult your agent
Scan and set-up	Automatically provides users with the ideal parameter for the most effective attractionof mobile phone subscribers.
Detection	Alarm can be triggered upon the presence of a specific mobile phone.
IDs	Capture and record cellular identifiers (IMSI, IMEI), which are stored in database and analyzed.
White list	Allows a predefined list of devices to work while denying service to all others.
Blacklist	Allows operation in a targeted mode where all phones are released but a predefined list of targets is held / denied.
Downgrade	Ability to downgrade target mobile phone from LTE or UMTS to GSM.
Warranty	3-Years, lifetime technical support for free