



P6-PASSIVE

PICSIX Passive GSM Interception System



PICSIX System

PICSIX offers a large suite of solutions for interception of Cellular calls and SMS. One of our most popular configurations is a vehicular 19" rack hosting:

- 96 or 128 Channel passive Front End
- P6 Central management station
- Central deciphering device
- PICSIX P6-322 shifting 3G traffic to GSM serving as an IMSI catcher as well
- Additional 48CH backpack passive system carried by a SWAT member

Our systems offer various modes of operations:

- Target mode
- Random mode or Chase mode used in pursuit
- Border monitoring

Solution for any need

- P6-Passive - in a Pelican Storm 2400, or similar hosting 144 to 240 channels RF Front End (P6-FE-144) and a 10Kc/sec Deciphering unit.
This Unit can connect to several more RF Front End (P6FE) located in remote locations thereby providing monitoring of all sites requiring attention.
- PICSIX remote Front End (P6FE) with a battery pack geared for carrying cases.

A 48 to 80 channel RF FRONT-END of P6 passive Interception System in a standard 2U high enclosure with 7 hours battery time.



All intercepted calls are recorded and can be played back by the P6-System operator or by any P6 Analysis-Stations even while being recorded.

- Once a call is intercepted in one of the pre-programmed cells (base-stations) being monitored, the system would follow ALL HAND OVERS even if not in the pre-programmed list.
- A silent SMS can be generated to any cellphone number for the purpose of obtaining its TMSI Identifier.

P6-Passive 144CH Passive Interception system including decipher and analysis station



Passive System Features

(synchronized transmission features inclusive)

Feature	Spec	Description
Undetectable	Not detectable	System monitors the GSM channels for activity, intercepts calls in target and random modes without transmitting, (except for optional Synctransmit features which require transmission but are unlikely to be detected as well).
High Range	Yes	P6-Passive sports ultra-high ranges thanks to sensitive narrowband receiver technology. Calls and SMS can be intercepted from a distance of tens of Kilometers.
Number of cells monitored in Target Mode	1 to 24	Depending on the system size (number of channels) P6-Passive smaller configurations of 48 channels can monitor from 1 to a dozen cells in Target mode not missing a target. Larger configurations can monitor 24 base station cells and more.
Number of Cells monitored in Random Mode	1 to 30	P6 Intercept can randomly intercept calls/SMS initiated in dozens of cells simultaneously. 30 cells or more can be monitored for call commencing by a single P6-FE. As a function of the number of channels deployed and the number of local and remote Front Ends used (P6FEs) the system can intercept the ENTIRE TRAFFIC (not missing a call).
Number of channels per system	48 to hundreds of channels	P6-Passive minimum systems size is a 48 channels configuration where the Front End (P6FE) can either be remotely located or bundled into the same enclosure with the P6-DU and P6-Passive APP Laptop. Larger configuration can offer a host of solutions including 19" Front Ends with as many as 100 Channels per 1U 19" enclosure and/or multiple 48CH remote P6FEs totaling hundreds (and even thousands) of channels per system.
A51 Deciphering	YES	Either locally packaged within the same case (Pelican Storm 2400 or similar) or office based remotely connected to support several systems.
A52 Deciphering	YES	Same as A51 above.
Real time Recording	YES	All intercepted call/SMS are recorded and saved in a database.
Real time Playback	YES	All recorded calls, completed or while being recorded can be played back by the P6-System_operator or by any P6_Analysis_Stations.
Flexible Assignment of resources	YES	P6FE receivers are dynamically assigned to UPLINK or DOWNLINK tasks depending on the need and situation.
Dynamic Allocation	YES	System resources are dynamically allocated so the busiest cells get the most resources.
Hand Over	YES	Once a call is intercepted in one of the pre-programmed cells (base-stations) being monitored, the system would follow ALL HAND OVERS even if not included the pre-programmed list.
SMS interception	YES	Texting is captured and displayed.
Interception while on move (Chase Mode)	YES (Optional)	In cases where a suspected target is being followed, either by foot or car chase, the system would adapt itself dynamically to the new cells environment and intercept new calls.
TMSI Reallocation	YES	The systems monitors TMSIs that are being changed by the network and updates those in the Target List Table.
Decipher spec	2 to 20 Kc/sec	P6-Passive systems use a variety of decipherers in our P6-DU solutions. Depending on the system size and configuration PICSIX supplies very fast top of the line decipherers.

Synchronous Transmission Features in Passive Systems

Feature	Spec	Description
Silent SMS	YES	A silent SMS can be generated to any cellphone number for the purpose of obtaining its TMSI Identifier.
Spoofed SMS	YES (Optional)	An SMS can be generated on behalf of any Target MS-ISDN to any cellphone.
A53 Class-mark Change	YES (Optional)	Where A53 is deployed a system module can downgrade the classmark to A52/1/0 as permitted by the specific provider.
Decipher Boost	YES (Optional)	In countries where operators permit class-mark change down to A50, separate CMC module can be used to downgrade most, if not all, traffic of selected cells to A50.
MSISDN Extraction	YES (Optional)	The system can extract the Public Number of a cellphone given that its current TMSI is known.
OSINT Enrichment	YES (Optional)	Enrich regarding intercepted MSISDNs by scrapping social networks and other open source intelligence sources.

Electrical and Mechanical

Feature	Spec	Description
Power	YES	P6 Front End Units (P6FEs) can be mounted on walls and powered by regular power outlets of 110 or 220 volts. When carried in backpacks or side-bags, P6Fes can be equipped with rechargeable battery packs permitting for up to several hours of continuous operation.
P6FE Power	110/220 or optional rechargeable 5V/12V	
Redundant Power supply	YES (Optional)	Available in 19" rack enclosures and in Pelican Case type installations.
Typical Power consumption of a P6FE	Max 50 watts at 12Vdc	This power consumption is typical of continuous use of a 48CH P6FE. Better power consumption over time is achieved by certain sleep modes.
Example of System Dimensions	37.3 X 14.5 X 8.3 cm 48CH - 3kg Battery - 2.5kg	Mechanical characteristics of the various enclosures used to host P6-Passive systems in Pelican Case, 19" enclosures, wall mount, backpack and side-bags, and custom covert can be provided.



P6-F15

PICSIX' 2G/3G/4G/5G CELLULAR INTERCEPTION SOLUTION



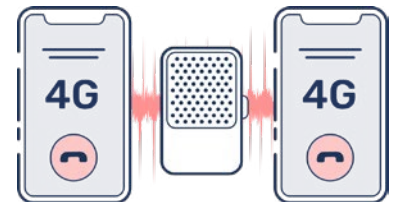
Key Features

IMSI Catching and cellular identity resolution

Supporting classic tactical intelligence operations on advanced GSM technologies, P6-Fi5 enables device interrogation including IMSI/IMEI/TMSI/MSISDN extraction, Identity analytics and suspect alerts as well as direction finding with silent call and PD manipulation.

Native Interception of UMTS/ LTE sessions

- Standard CS & VoLTE Voice calls, SMS, Packet Data
- Supports both guest mode and target mode operations
- Full horizontal scalability of concurrent call analysis with mass subscriber servicing and scalable & remote web client access



Smart Jamming and Packet Shaping

Utilizing a proprietary DPI engine and unique subscriber control capabilities, P6-Fi5 supports real-time control of subscriber traffic. Smart jamming via latency and disturbance injection within select services, acts as a low signature social attack funneling target traffic towards intercept-able services, such as non-encrypted cellular calls or applications.



Supporting selective controls on over 400 protocols and applications, P6-Fi5 packet shaping provides a highly reliable, cost efficient and mission flexible solution for intelligence on encrypted traffic.



Technical Spec (standard configuration)

System Specifications	Description	Comments
Configurations	Up to 10 BTS's	Multi system mesh supported
Cellular bands	All GSM, UMTS, LTE FDD & LTE and NSA TDD Bands Supported	By customer's requirements
Power O/P	45W per band	Peak power up to 400Watt
Active Users	32 per BTS / 10K per system	
User Types	National, International – Pre and post-paid subscriber	Services may vary by subscriber package
Backhaul Channel	Ethernet/Cellular/SAT	QOS groups supported
PTT	PTT over Cellular (POC) and LMR migration supported	ICOM, Motorola, Hytera, Kenwood, Radiotek, Winnertech, Alinco LMR's supported
Mechanical & Electrical Specifications		
Dimensions	TBD –(Customer's requirements)	
Weight	TBD –(Customer's requirements)	
Environmental Spec	-20 to +45°C / IP55	
Power Supply	110-220vAC and 24-60vDC	
Extension Application layers		
Intelligence – target enrichment	OSINT, Cell ID, SS7/Dimeter (MSISDN-IMSI, IMSI-MSISDN)	
Secure Comms - PTT Command & Control	Location on Map, Chats, Images, Video Streaming	
Security & Policy Enforcement	Call flow & Packed Data control of more than 400 apps and services. Embedded DPI, Information & Cyber Security analytics and alerts.	



P6-CATCHER

PICSIX Vehicular IMSI-Catching Solution

2G 3G 4G 5G



General Description

The P6-CATCHER Pretends to be a legitimate Mobile Network Base Station, which attracts nearby mobile devices and registers them. Once this registration occurs, the P6-CATCHER Extracts and records device identities: IMSI, IMEI, TMSI, and MSISDN (optional).

Highly-portable, the P6-CATCHER can be positioned covertly in a surveillance vehicle - offering valuable law enforcement or intelligence gathering opportunity anywhere, anytime.

- **WEB based GUI**
- **Remote Operation**
- **Several systems Centrally controlled**

General Features

Scan: Gets information about all the base stations of all the operators

Configuration: The system informs of the best cells to pass as a legitimate operator.

Base Stations: Emulates GSM/UMTS/LTE (NSA 5G upgradeable) base stations on SDR (each base station supports simulation of any RAT and any band).

Capture: Presence verification of specific mobile devices/targets.

Identities: Captures and records identifiers of mobile devices in the cellular traffic (such as IMSI, IMEI, TMSI).

Downgrading: Ability to downgrade targets/ all traffic from LTE or UMTS (or NSA) to GSM (complemented by the passive system capabilities to intercept GSM).

Block list: Allows operation in a target-oriented mode, where all phones are released but a pre-defined list of targets is held/denied service and vice-versa.

Beacon / Silent Call: Can cause targeted phone to transmit an RF-beacon in a clear channel. The frequency that is being transmitted by the device can then be calibrated into a directional finder, enabling finding of the target device, either for arrest or search and rescue purposes. Multiple simultaneous silent calls supported.

Use cases

Suspect arrest

The P6-CATCHER alerts the system operator of target's presence, the operator can then initiate a transmission on target's phone, thus enabling a tactical team to home in on the signal's origin and make an arrest.

Search and rescue

Identification, quantification, and location of trapped individuals following a natural disaster, terror attack, etc.

Identity collection

Identity collection at border crossings, border fences, airports, and other transport hubs.

Prison

Enable guards and other prison personnel to communicate freely, whereas any other unauthorized cellular device will automatically be blocked. Prison personnel can then precisely locate the location of the unauthorized device for confiscation.

Technical Spec (sample configuration)

System Specifications	Description	Comments
Configurations	Up to 10 BTS's	2~10 BTS's
Cellular bands	All GSM, UMTS, LTE FDD & LTE (NSA) TDD Bands Supported	By customer's requirements
Power Amplifier (PA)	PA for each band Average RF power 45 Watt Peak RF Power 400 Watt (LTE)	Automatic Level Control (ALC) available on all amps Monitor, Control, and protection
Active Users	Each BTS can hold dozens of devices	GSM UMTS LTE (5G NSA)
User Types	Cellphones, Cellular MODEMS	
Backhaul Channel	Ethernet/Cellular/SAT	For remote control operation
Mechanical & Electrical Specifications		
Dimensions	H150xW330xD440 mm - Backpack H480xW430xD395 mm (other options available)	
Weight	22 to 52 Kg. Configuration dependent.	
Environmental Spec	-20°C to +45°C / IP55	
Power Supply	220\110 V up to 1200Watt Configuration dependent	
Extension Application layers / HW Modules		
OPTIONAL MSISDN Extraction	Available on some networks	
OPTIONAL OSINT Queries	MSISDN to Identity	
OPTIONAL Vehicular Amplification Unit	>400 watts peak power per band	