

H-GW-IP

Feature

- Full-Duplex RF module
- Electronic anti-vandalism
- OSSl (Open Smart Sensor Interface) Protocol Supported
- Highly Programmable Zone/group and Detecting logic Settings
- Support up to 9 bamboo modules stacking
- Support up to 5 Wireless Remote controls, 10 wireless Magnetic Door Sensors, 1 Wireless Siren
- Supported vive(camera)remote monitoring
- One Gateway Topology expands with up to 54 Bamboo Hubs
- RJ45 Ethernet Interface for LAN 10/100Mbps
- With optional Module for PSTN uplink, GSM/3G/LTE Module for Radio Cell Network
- Mobile APP: support IOS and Android Platform
- Zone Mode: Armed, Armed at home, Disarmed(APP)
- Zone Setting: NO/NC/At home
- Support arm/disarm Timer(APP)

- Alarming Duration (BUZZER): 0-30 MINS
- Alarm Event Interval (SMS): 1-30 MINS
- Support alarm mode : TCP/IP, APP
- Data Check: Status/Log/Events/Parameters/Setting
- Support Friendly Rename of Device and Zone

Parameters

- Dimension: 69.8mm(Dia.) × 37.8mm (H)
- Operating voltage: DC9 ~ 26V 1A
- Operating current: ≤ 100mA(Single main module)
- Maximum support power: 10W (DC 5V2A OSSl) (with stacking modules)
- Radio frequency: Full-Duplex RF 433MHz
- Transmitting power: 19.8dbm
- Receiving sensitivity: -123dbm
- Receiving bandwidth: 30.5 KHz

- Communication rate: 9600bps
- Spring-Type antenna gain: 2dBi
- Transmission distances: 200m (LOS:Line of sight)
- Alarm output: RF/IP Uplink
- Protocol: TCP/IP
- Working temperature: -10°C~55°C
- Relative humidity: ≤ 95%
- Red LED: ON(Tamper Alarming),Blinking (Sensing Alarming)
- Green LED: ON (Disarmed), Blinking (Communication Error)
- Blue LED: Blinking (Arm postponed (15sec), ON (Armed))
- Alarm LED: NO/NC(APP)



H-HUB-RF

Feature

- Full-Duplex RF module
- Electronic anti-vandalism
- Support up to 9 bamboo modules stacking
- OSSl (Open Smart Sensor Interface) Supported
- OSSl Bus Power Supply: DC5V2A
- Support SUB-System Management and Setting
- Highly Programmable Zone/group and Detecting logic Settings
- Zone Setting: ON/NC/At Home (APP)
- Support Friendly Rename of Device and Zone

Parameters

- Dimension: 69.8mm (Dia.) × 37.8mm(H)
- Operating voltage: DC 9 ~ 26V
- Operating current: ≤ 100mA (submodule)
- Maximum support power: 10W (OSSl DC 5V2A) (with stacking modules)
- Radio frequency: Full-Duplex RF module
- Transmitting power: 19.8dbm
- Receiving sensitivity: -123dbm
- Receiving bandwidth: 30.5 KHz
- Communication rate: 9600bps
- Spring-Type antenna gain: 2dBi

- Transmission distance: 200m (Open area, LOS)
- Alarm output: RF/485/NC
- Anti-tamper output: RF/ NC
- Working temperature: - 10°C ~ 55°C
- Relative humidity: ≤ 95%
- Elegant ring LED
- Red LED: ON(Tamper alarming), blinking (Sensing Alarming)
- Green LED: ON(Power), Blinking (Communication Error),
- Alarm LED: NO/NC(APP)

H-COM-GSM

Feature

- Supporting system to realize GSM communication, GSM card can be installed to achieve data transmission, receiving the alarm signal
- OSSl Open Sensor Protocol Supported
- Works with H-GW-IP
- Alarm mode: Voice message, Telephone, Message
- Report Mode: CID

Parameters

- Dimension: 69.8mm (Dia.) × 37.8mm(H)
- Operating voltage: OSSl DC 5V1A
- Operating current: ≤ 80mA
- Operating peak current ≤ 1A
- GSM working frequency : 3G UMTS/HSDPA (EU)900/2100@UMTS, 900/1800@GSM (US) 850/1900@UMTS, 850/900/1800/1900@GSM

- (TH) 850/2100@UMTS, 850/900/1800/1900@GSM
- SIM card type: Micro SIM
- Built in voice: built-in voice module, telephone voice prompt operation
- Operation temperature: -10°C~55°C
- Relative humidity: ≤95%
- Alarm LED: NO/NC(APP)

H-COMM-PSTN

Feature

- Upload the alarm center and telephone alarm, alarm center through the CID protocol to upload function
- Alarm mode: Voice message, Telephone,Message
- Report Mode: CID
- OSSl (Open Smart Sensor Interface) Supported
- Works with H-GW-IP

Parameters

- Dimension: 69.8mm (Dia.) × 37.8mm(H)
- Operating voltage: 5V 1A
- Static current: ≤80mA
- Maximum operating current: ≤500mA
- Built in voice: built-in voice module, telephone voice prompt
- LED: NO/NC(APP)

INNOPRO: Smart Sensing Wise Living

An IOT sensors and platform vendor and services provider, dedicates in sensing and cognition services for decades, solutions includes smart and modular sensors for intrusion detection, environmental sensors like weather, air and varieties of industrial specific event sensing and detection.

Services covers open IOT platform operation, hosted security services and advanced sensing application for customized market and industry like smart living, health care and elders hospitality with its sensing big data and AI expertise.

Innopro is well recognized by industrial leaders like Wanke, Huawei, ZTE, Emerson and China Tower. Innopro commits to build a Open and Smart Ecosystem for Sensing and More.

Listed in China NEEQ with code 870457

BAMBOO

Is an all-new sensing and cognition system. A Whole intelligence platform. A great ecosystem for Living

With Smart service essentials.

Smart Sensing and Services, this is the Bamboo: the beginning of a new era.

OPEN

This is an open sensor system

Bamboo is with open architecture.

Bamboo comes with OSSI I/F---the world first Interface spec & Protocol for open sensor system, any vendor with OSSI Certification can instantly have OSSI-Ready Sensor.

Plug into Bamboo system with smooth integration.

Essential from sensing, with openness bamboo creates a sensor ecosystem with infinite.

Possible and opportunities across industries, it's not only for security, but also to more living application, for better Living and converged experiences.



SMART

This is a smart system

Bamboo comes with intuitive UI and auto-configuration & Provisioning ability.

Bamboo can remotely managed by APK/APP.

Bamboo supports native IP for better networking .

Bamboo provides advanced programming function set for better logic and scenario support.

Bamboo supports visual event re-visit for case verification, greatly eliminate the false alarm.

MODULAR

this is a modular system

Bamboo design with true modular architecture essentially, Customer can define, design and deploy as per their case requested freely with varies of Bamboo modules. The great extension of the sensor and sensing ability Serves your growing needs and wants over time without replacement.



S-PIR

Feature

- Based on passive infrared for heat radiation detection.
- Equipped with INNOPROASE (Advanced Sensing Engine)
- Ambient temperature and illuminance adaptation ability
- Anti-white light: $\geq 10000\text{Lux}$
- Combined with S-MW (microwave) to become a dual-tech detector
- Combined with S-VIVE to greatly reduce the false alarm, achieve Pre-Event monitoring etc.
- Supporting APP/APK for remote management
- OSSI (Open Smart Sensor Interface)Protocol Supported
- Work with H-GW-IP / H-HUB-RF

Parameters

- Dimension: 69.8mm (Dia.) \times 78mm (H)
- Operating voltage: OSSI DC 5V
- Operating current: $\leq 30\text{mA}$
- Installation height: 2.2M~2.4M
- Detecting distance: 18m(25°C)
- Sensitivity adjustable: High/Low(APP)
- Detecting angle: 130°
- Adjustable angle: Free rotation of 340° adjustable
- Working temperature: $-10^{\circ}\text{C} \sim 55^{\circ}\text{C}$
- Relative humidity: $\leq 95\%$
- Long, middle, short distance are available, 4 layers, 52 detecting areas
- Detecting speed: 0.3m/s ~ 3m/s
- Pulse Test: $\pm 2\text{kV}$ Repeat RF: 5kHz
- Surge test: $\pm 2\text{kV}$ Impedance: 2 Ω



- Static test: 8KV
- RF test: 10V/M
- Triggering Response Time: 5s
- Alarming Logic: positive/negative
- Alarm LED: NO/NC(APP)
- Power on self-Test time: 60s
- Green LED: Infrared is triggered

S-PIR-MW

Feature

- Based on passive infrared detection and Doppler radar detection technology
- Works with S-VIVE to reduce the false alarm, to achieve Pre-Event monitoring etc.
- Supporting APP/APK for remote management
- OSSI (Open Smart Sensor Interface)Protocol Supported
- Works with H-GW-IP /H-HUB(H-HUB-RF)
- Equipped with INNOPROASE (Advanced Sensing Engine)
- Anti-white light: $\geq 10000\text{Lux}$

Parameters

- Dimension: 69.8mm (Dia.) \times 78mm (H)
- Operating voltage: OSSI DC 5V
- Operating current: $\leq 30\text{mA}$
- Installation height: 2.2M~2.4M
- Detecting distance: 15m (25 °C)
- Sensitivity adjustable: High/Low(APP)
- Detecting angle: 130°

- Adjustable angle: Free rotation of 340° adjustable
- Microwave frequency: 10.525GHz
- Working temperature: $-10^{\circ}\text{C} \sim 55^{\circ}\text{C}$
- Relative humidity: $\leq 95\%$
- Long, middle, short distance are available, 4 layers, 52 detecting areas
- Detecting speed: 0.3m/s ~ 3m/s
- Pulse Test: $\pm 2\text{kV}$ Repeat RF: 5kHz
- Surge test: $\pm 2\text{kV}$ Impedance: 2 Ω
- Static test: 8KV
- RF test: 10V/M
- Triggering response time: 5s
- Alarming Logic: positive/negative(APP)
- LED: NO/NC(APP)
- Power on self-inspection time: 60s
- Elegant ring LED
- Red LED: alarming
- Green LED: infrared is triggered
- Blue LED: MW is triggered



H-RC

Feature

- Remote control system, armed and disarmed system, emergency calls.

Parameters

- Dimension: 76mm (L) \times 50mm (W) \times 5mm (H)
- Battery style: CR2025
- Radio frequency: 2-Way RF 433MHz
- Transmitting power: 19.8dbm

- Receiving sensitivity: -123dbm
- Receiving bandwidth: 30.5 KHz
- Communication rate: 9600bps
- Transmission distances: 50m (Open area)
- Static current: $\leq 8\mu\text{A}$
- Operating current: $\leq 30\text{mA}$
- Yellow: Operation succeeds.
- Blue: Operation indicator



S-SR

Feature

- Siren
- Supporting wireless OSSI protocol

Parameters

- Operating voltage: 220VAC
- Operating current: $\leq 150\text{mA}$

- Sound pressure: $\geq 85\text{db}$ (distance 300mm)
- Flashing rate: 280s/m ($\pm 10\%$)
- Radio frequency: 2-Way RF 433MHz
- Transmission distances: 150m (Open area)
- Working temperature: $-10^{\circ}\text{C} \sim 55^{\circ}\text{C}$
- Relative humidity: $\leq 95\%$

S-MW

Feature

- Based on Doppler radar detecting technology,
- Combined with S-PIR to work as dual-tech detector
- Supporting APP/APK for remote management
- OSSI (Open Smart Sensor Interface) Protocol Supported
- Work with H-GW-IP / H-HUB-RF

Parameters

- Dimension: 69.8mm (Dia.) × 66.8mm (H)
- Operating voltage: OSSI DC 5V
- Operating current: ≤ 30mA
- Installation height: 2.2M~2.4M
- Detecting distance: 15m (25 °C)

- Sensitivity adjustable: High/Low(APP)
- Microwave frequency: 10.525GHz
- Working temperature: - 10°C ~ 55°C
- Relative humidity: ≤ 95%
- Adjustable angle: Free rotation of 340° adjustable
- Triggering Response Time: 5s
- Alarming Logic: positive/negative
- Alarm LED: NO/NC(APP)
- Power on self-inspection time: 10s
- Elegant round lighting
- Blue LED: Microwave triggered



S-VIVE



Feature

- Wi-Fi connection 802.11b/g
- Time machine feature (triggered event video clip/picture automatically upload to up system/platform with FTP/HTTP protocol, open to 3rd party system with additional adaptation development)
- Real-time Monitoring
- OSSI (Open Smart Sensor Interface) Protocol Supported
- Works with H-GW-IP

Parameters

- Dimension: 69.8mm (Dia.) x 78mm (H)
- Operating voltage: OSSI DC 12V 1A
- Operating current: ≤ 100mA
- Maximum operating current: ≤ 500mA
- Resolution: 720P (1280 720)
- Video settings: CIF / 720P
- Focal length: 18mm
- Frame rate: 25 fps
- Working temperature: - 10°C ~ 55°C
- Relative humidity: ≤ 95%

N-RFLINK

Feature

- Convert wired Detector to Wireless
- Wired control can be achieved through the N-RFLINK ON/OFF output

Parameters

- Operating voltage: 12V
- Static current: ≤ 100mA
- Radio frequency: 2-Way RF 433MHz

- Transmitting power: 19.8dbm
- Receiving sensitivity: -123dbm
- Receiving bandwidth: 30.5 KHz
- Communication rate: 9600bps
- Spring-Type antenna gain: 2dBi
- Transmission distances: 50m (LOS:Line of sight)
- Switch output: 2 route IN-1, IN-2
- Switch input: 2 route IN-1, IN-2



BAMBOO Mounting Bracket

Feature

- For the H-GW-IP / H-HUB-RF module of ceiling mounted and wall mounted
- Adjustable Angle
- Vertical angle adjustment of bracket: 90° / 10° per grid
- Horizontal angle adjustment of module: 340° / 5° per grid
- Installation Method: Wall Mounted, ceiling mounted, pedestal

INNOPRO

Smart Sensing Wise Living

BAMBOO

Open Smart Modular Sensor System



Android

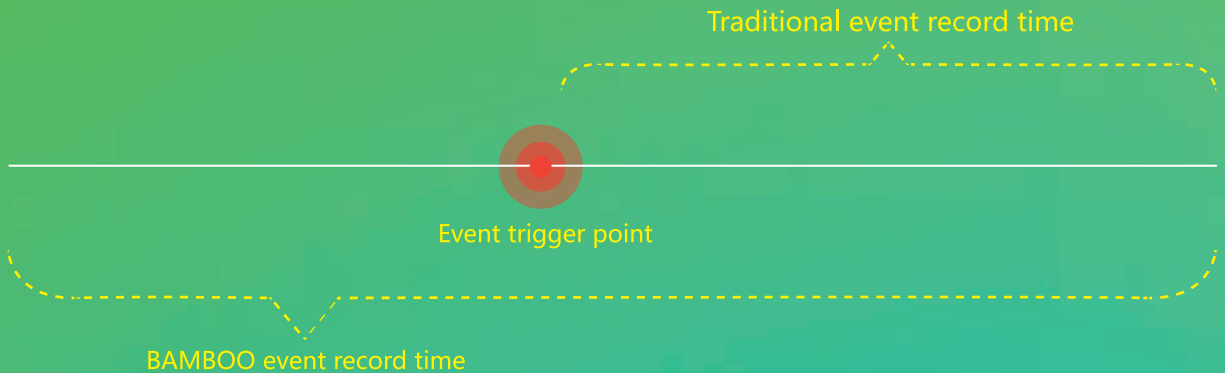


IOS

Perfect support

VIVE (Visual Verification)

The pre and post-event Monitoring and verification Bamboo constantly Captures and records live video-clip for visually event verification, comparing to traditional system, bamboo provide pre-event video-clip for eye visual verification, this can greatly reduce the false alarm, and meanwhile, comparing with traditional video surveillance system, bamboo VIVE greatly reduce the OPEX by saving storage and bandwidth cost significant.



BAMBOO APP

Bamboo provide APP on Android & IOS, Bamboo Assistant (BA) allow user to manage system remotely.



ADVANCED GROUPING AND EVENT COLLABORATION

Configuration: Platform and Gateway parameter, Settings and sensor parameter Tuning.

Group: Sensor modules can be instantly grouped, it creates virtual security Zone for better fit into field requirement, better support to advanced security application.

Event: Query and visual verification of alarm event over time.

Log: Query for all access and system parameter configuration info.



Industry Solutions



SOLUTION TO COMPLETELY SOLVE THE FALSE-ALARM ISSUE IN OPERATION

Why Bamboo S-VIVE module can address false-alarm issue? The S-VIVE Model with Camera has ability to do pre-event monitoring, in case of event incurs, S-VIVE can provide 5 seconds pre-event video clip for eye visual verification, Operator can easily identify the event by this video visual evidence, S-VIVE also provide 10 seconds post-event video clip as well. Unlike traditional Video surveillance that is very costly with huge bandwidth and Storage requirement, Bamboo S-VIVE solve false alarm issue only when case happens, greatly reduce the OPEX for Security Operators.



BUILDING A TRUE CASE-ADAPTIVE SOLUTION TO SUIT FOR THE GROWING COMPLEX FIELD CONDITION

- A: For certain case, customer can first just install the S-PIR sensor. Then monitor with result, if in case there is false alarm occurs, then to add S-MW module. combined with existing S-PIR, it transformed into a dual detection sensor. The Total solution cost is much lower than the traditional approach which is to deploy all node with the dual-detection sensors. Because not all case need dual-detection sensor at all time, Bamboo allows deploy expensive Dual sensor only in case the condition needs, this can smartly reduce the total owner cost and maintenance fee over time.
- B. Base on scenario A, if the false alarm still occurs occasionally, then we can install a S-VIVE Module into the Bamboo system, this is to provide visual video clips. It can achieve as possible as Zero false alarms result.
- C. With Bamboo's module and open architecture, case like above mentioned, customer can also initially install S-PIR sensor, and then for where the node comes with false-alarm happening, instead of adding S-MW, customer can choose to install S-VIVE straightly, this can save the cost of adding S-MW.
- D. S-VIVE can also work standalone, logically co-logic with any S-PIR within one Bamboo Gateway network, customer can certainly choose to install the S-VIVE at very beginning for achieving the total False-Alarm elimination.



IP INTEGRATION WITH EXISTING VIDEO PLATFORM WITHOUT EXTRA CMS HOST

In traditional solution, in order to add Video to security system, it has to combine two separated system together. It's costly and certainly a hassle process, often cost of waste of bandwidth and storage for stand-by times.

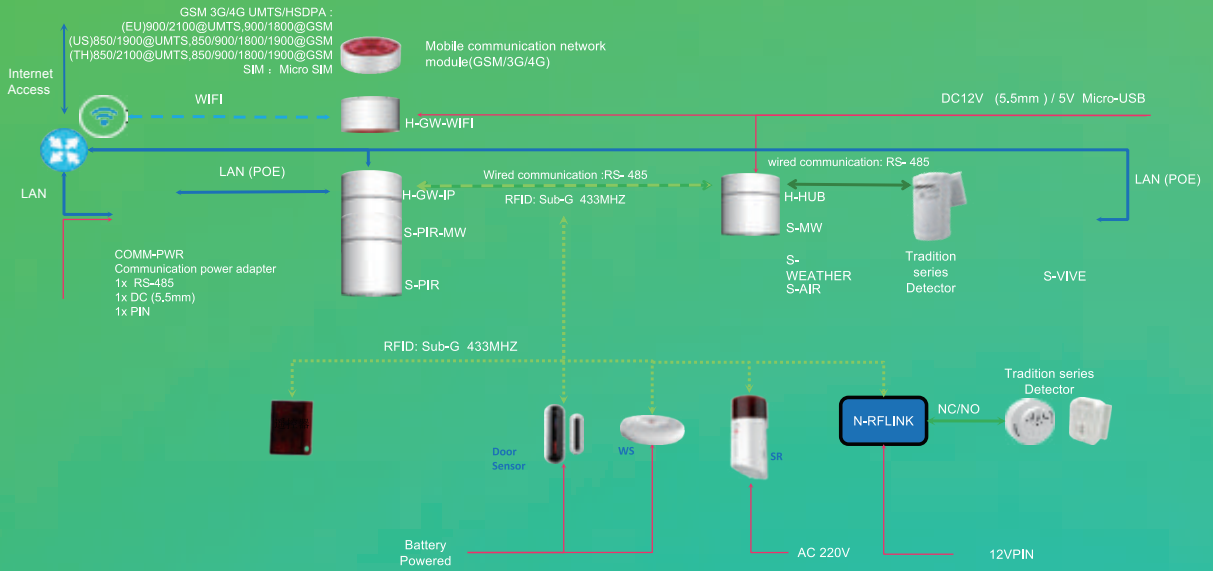
Now with Bamboo, video visual can be integrated into Bamboo system over time seamlessly, Bamboos supports IP protocol, with open protocol ability, customer has option also to integrate VIVE into existing video platform with minimum protocol adaption development work, S-VIVE module works in case only event occurs, it drastically reduces the bandwidth and storage cost.

EASE OF DEPLOY ONSITE, HASSLE-FREE INSTALLATION

No more hassle onsite installation process
Traditional deployment require multiple Hosts installation and integration work,
With Bamboo system, it has no Host required, only Sensor unit alone, and all sensor are modular based, installation can be as easy as LEGO toy, Plug and play.
Bamboo comes with less cabling requirement, supports POE, only IP Networking will do (for wireless deployment it requires no cabling at all), for future extension over time, All sensors are also modular-based without any mounting effort.



Bamboo Topology Briefing 2.0



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