



BUMN UNTUK
INDONESIA



Product Catalog



PT Industri Telekomunikasi Indonesia (Persero)

2023

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Manufacture

Identik DL02



Deskripsi

Description

Identik DL02 merupakan perangkat pembaca Kartu Tanda Penduduk Elektronik (KTP-el) dengan layar yang masing-masing komponennya terintegrasi dalam satu kesatuan sehingga dapat digunakan secara mandiri tanpa harus terhubung dengan perangkat komputer. Perangkat Identik DL02 dapat diintegrasikan dengan sistem eksisting lainnya yang memanfaatkan jaringan *ethernet* dengan kabel LAN sebagai konektifitasnya.

Identik DL02 is an Electronic Identity Card (KTP-el) reader device with a screen whose each component is integrated in one unit so that it can be used independently without having to be connected to a computer device. Identik DL02 device can be integrated with other existing systems that utilize Ethernet network with LAN cable as connectivity.

Pembacaan
KTP-el

Verifikasi
Biometrik

Anti-Temper

LED Indikator

Layar Sentuh

Koneksi
Ethernet

Identik DL02

Manfaat & Keuntungan*Benefits*

- Peningkatan *security* dan verifikasi data KTP-el berbasis biometrik
- Dapat diintegrasikan untuk berbagai kebutuhan sistem atau aplikasi eksternal
- Perluasan pemanfaatan KTP-el secara elektronik
- Pelayanan menjadi *paperless*, tanpa adanya dokumen fisik
- Efisiensi dalam proses pelayanan administrasi data kependudukan atau data pelanggan
- Pemanfaatan layar untuk *digital signage* yang menampilkan profil perusahaan maupun informasi marketing lainnya
- *Enhanced security and verification of biometric-based e-KTP data*
- *Can be integrated for various system requirements or external applications*
- *Expansion of the use of e-KTP electronically*
- *Service becomes paperless, without any physical documents*
- *Efficiency in the administrative service process for population data or customer data*
- *Use of screens for digital signage that displays company profiles and other marketing information*

Dimensi*Dimension*

- **Ukuran Perangkat**
180mm x 180mm x 90mm (P x L x T)
- **Ukuran Kemasan**
230mm x 200mm x 150mm (P x L x T)
- **Berat**
1,4 Kg (termasuk kemasan dan aksesoris)
- **Device Size**
180mm x 180mm x 90mm (P x L x T)
- **Packaging Size**
230mm x 200mm x 150mm (P x L x T)
- **Weight**
1,4 Kg (including packaging and accessories)

Spesifikasi Specifications

Smart Card Reader	
Tipe	: Contactless
Standar	: ISO 14443 A and B compliant
Frekuensi	: 13,56 MHz $\pm$ 7 KHz
Kuat Medan Operasi	: 1,5 A/m (rms) to 7,5 A/m (rms)
Jarak Transaksi	: Maksimum 5 cm
Inisialisasi dan anti collision	: ISO/IEC 14443-3
Bit Rate	: fc/128 (~ 106 kbit/s) fc/64 (~ 212 kbit/s) fc/32 (~ 424 kbit/s) fc/16 (~ 848 kbit/s)
Protokol Komunikasi	: T = CL
Slot Secure Access Module (SAM)	: Single SAM slots (SIM Type) (ISO 7816, T=0, T=1)
Otentikasi	: Mendukung otentikasi dua arah antara smart card reader dan chip
Temperatur	: -20 ~ 60° C
Fingerprint Scanner	
Tipe Sensor	: Optical
Luas permukaan sensor	: 15,24 x 20,32 mm
Resolusi Pixel	: 500 dpi
Citra Keluaran	: 8 bit
Standar Sensor	: FBI PIV-071006 & Mobile ID FAP 20, INCITS 378, BioAPI, ISO/IEC 19794-2, ISO/IEC 19794-4, FCC, CE, RoHS, FIPS 201 (HSPD-12), STQC
Standar Minutiae Sidik Jari	: ISO.IEC 19794-2

Perangkat Komputasi	
Prosesor	: 32 Bit ARM Processor Cortex A8 1GHz
Memori	: DDR3 SDRAM 512 MB / Nand Flash 1 GB
Layar Tampilan	: 4.3" TFT 18 bit (RGB) LCD with resistive touch screen
Resolusi Layar Tampilan	: 480 x 272 (RGB)
Data Interface	: Ethernet
Keamanan Perangkat	: Anti Tampering Feature
Catu Daya	
Input Power	: 5V DC, 2A
AC Adapter	: 100 V to 240 V AC, 50 Hz/60 Hz
Battery	: 6800 mAH (up to 4 hours)

Sertifikasi Certification



BPPT (No.48/PTIK/HU/2/2015)



TKDN (No.2039/SJ-IND.8/
TKDN/12/2020)



BSSN (No.011/PI/UJI.01/10/2021)

Identik TL01

Deskripsi

Description

Identik TL01 merupakan perangkat pembaca Kartu Tanda Penduduk Elektronik (KTP-el) tanpa layar yang memiliki ukuran yang lebih minimalis sehingga mudah digunakan dalam kegiatan dengan mobilitas tinggi. Untuk menampilkan hasil pembacaan KTP-el perlu di koneksikan dengan perangkat lain seperti PC Desktop, Laptop, Tablet, atau Smartphone Android menggunakan Kabel USB, Bluetooth, Kabel LAN atau WIFI.

Identik TL01 is a screenless Electronic Identity Card (KTP-el) reader which has a more minimalist size so that it is easy to use in activities with high mobility. To display the results of reading the e-KTP it is necessary to connect it to other devices such as a Desktop PC, Laptop, Tablet, or Android Smartphone using a USB cable, Bluetooth, LAN cable or WIFI.



Pembacaan KTP-el

Verifikasi Biometrik

Dilengkapi API/SDK

Anti-Temper

LED & Audio Indikator

Ukuran Minimalis

Koneksi Wireless

Android App

Manfaat & Keuntungan

Benefits

- Peningkatan *security* dan verifikasi data KTP-el berbasis biometrik
 - Dapat diintegrasikan untuk berbagai kebutuhan sistem atau aplikasi eksternal
 - Perluasan pemanfaatan KTP-el secara elektronik
 - Pelayanan menjadi *paperless*, tanpa adanya dokumen fisik
 - Efisiensi dalam proses pelayanan administrasi data kependudukan atau data pelanggan
 - Konektifitas yang beragam dapat disambungkan dengan berbagai perangkat mobile seperti tablet android atau smartphone android
- *Enhanced security and verification of biometric-based e-KTP data*
 - *Can be integrated for various system requirements or external applications*
 - *Expansion of the use of e-KTP electronically*
 - *Service becomes paperless, without any physical documents*
 - *Efficiency in the administrative service process for population data or customer data*
 - *Various connectivity can be connected with various mobile devices such as android tablets or android smartphones*

Dimensi

Dimension

- **Ukuran Perangkat** (*Device Size*)
176mm x 85mm x 42mm (P x L x T)
- **Ukuran Kemasan** (*Packaging Size*)
100mm x 200mm x 80mm (P x L x T)
- **Berat** (*Weight*)
325g

Sertifikasi

Certification



BPPT (No. 1/PTE/HU/08/2020)



TKDN (No. 11116/SJ-IND.8/
TKDN/12/2021)



BSSN (No. 018/P1/UJI.01/05/2022)

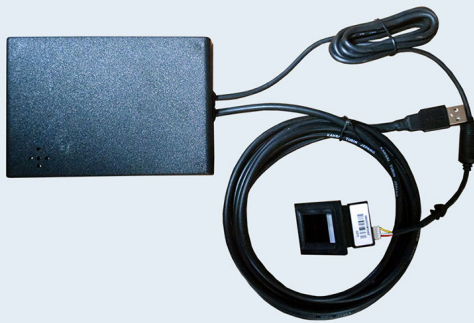
Identik TL01

Spesifikasi Specifications

Smart Card Reader	
Tipe	: <i>Contactless</i>
Standar	: ISO 14443 A and B compliant MIFARE™ ISO 18092 (NFC) DESFire FeliCa®
Frekuensi	: 13,56 MHz ± 7 KHz
Baudrate (kbit/s)	: 106, 212, 424, 848 kbps Up to 424 kbps for NFC communication
Kuat Medan Operasi	: 1,5 A/m (rms) to 7,5 A/m (rms)
Jarak Transaksi	: Maksimum 5 cm
Keamanan	: Memiliki mekanisme perlindungan keamanan terhadap SAM
Otentikasi	: Mendukung otentikasi dua arah antara smart reader dan chip
Protokol Komunikasi	: T=0, T=1, dan T=CL
Host Protocol	: PC/SC, <i>Proprietary</i>
Slot Secure Access Module (SAM)	: Single SAM Slots (SIM Type) (ISO 7816, T=0, T=1)
Indikator	: 2 LEDs
Temperatur	: -10 ~ 60° C
Antena	: <i>Direct matching (embedded)</i>
Fingerprint Scanner	
Tipe Sensor	: Optical
Luas permukaan sensor	: 15,24 x 20,32 mm
Resolusi Pixel	: 500 dpi
Citra Keluaran	: 8 bit
Standar Sensor	: FBI PIV-071006 & Mobile ID FAP 20, INCITS 378, BioAPI, ISO/IEC 19794-2, ISO/IEC 19794-4, FCC, CE, RoHS, FIPS 201 (HSPD-12), STQC

Standar Minutiae Sidik Jari	:	ISO/IEC 19794-2
Perangkat Komputasi		
Prosesor	:	Allwinner H3, Quad-core Cortex-A7 Up to 1.2 GHz
Memory	:	512 MB DDR3 RAM
Storage	:	8GB eMMC Support MicroSD up to 32 GB
Audio Output	:	Speaker dan Buzzer
Data Interface	:	Ethernet USB Mini-A Port Bluetooth Wifi
Supported Operating System	:	Windows, Android
Karakteristik Fisik Perangkat Terintegrasi		
Keamanan Perangkat	:	Anti Tampering Feature
Catu Daya		
Input Power	:	5V (AC Power) dengan USB Mini-A

Identik MD01



Pembacaan
KTP-el

Verifikasi
Biometrik

Dilengkapi
API/SDK
MSVC 2014

Anti-Temper

Audio
Indikator

USB Power
Input

Deskripsi

Description

Identik MD01 merupakan perangkat pembaca Kartu Tanda Penduduk Elektronik (KTP-el) dalam bentuk modul-modul terpisah (*modular*) namun tetap dalam satu kesatuan struktur yang terdiri dari modul *Smartcard Reader* dan modul *Biometric Fingerprint Scanner* yang dihubungkan melalui kabel USB. Manfaat perangkat Identik MD01 agar mudah di implementasikan ke berbagai macam mesin lainnya seperti mesin ATM, *Boarding Pass*, *Barrier Gate*, *Vending Machine*, *Self Service Machine* (Kiosk), dan lain sebagainya.

Identik MD01 is an Electronic Identity Card (KTP-el) reader device in the form of separate modules (modular) but still in a unified structure consisting of a Smartcard Reader module and a Biometric Fingerprint Scanner module connected via a USB cable. The benefits of the Identik MD01 device are that it is easy to implement into various other machines such as ATM machines, Boarding Pass, Barrier Gate, Vending Machines, Self Service Machines (Kiosk), and so on.

Dimensi

Dimension

- **Ukuran Perangkat (Device Size)**
125mm x 85mm x 20mm (P x L x T)
- **Ukuran Kemasan (Packaging Size)**
300mm x 115mm x 75mm (P x L x T)
- **Berat (Weight)**
120g (*hanya modul smartcard*)
254g (*termasuk kemasan dan aksesoris*)

Identik MD01

Spesifikasi Specifications

Smart Card Reader	
Tipe	: Contactless
Standar	: ISO 14443 A and B compliant MIFARE™ ISO 18092 (NFC) DESFire FeliCa®
Frekuensi	: 13,56 MHz ± 7 KHz
Baudrate (kbit/s)	: 106, 212, 424, 848 kbps Up to 424 kbps for NFC communication
Kuat Medan Operasi	: 1,5 A/m (rms) to 7,5 A/m (rms)
Jarak Transaksi	: Maksimum 5 cm
Keamanan	: Memiliki mekanisme perlindungan keamanan terhadap SAM
Otentikasi	: Mendukung otentikasi dua arah antara smart reader dan chip
Protokol Komunikasi	: T=0, T=1, dan T=CL
Host Protocol	: PC/SC, Proprietary
Slot Secure Access Module (SAM)	: Single SAM slots (SIM Type) (ISO 7816, T=0, T=1)
Indikator	: 2 LEDs
Temperatur	: -10 ~ 60° C
Antena	: Direct matching (embedded)
Fingerprint Scanner	
Tipe Sensor	: Optical
Luas permukaan sensor	: 15,24 x 20,32 mm
Resolusi Pixel	: 500 dpi
Citra Keluaran	: 8 bit

Standar Sensor	: FBI PIV-071006 & Mobile ID FAP 20, INCITS 378, BioAPI, ISO/IEC 19794-2, ISO/IEC 19794-4, FCC, CE, RoHS, FIPS 201 (HSPD-12), STQC
Standar Minutiae Sidik Jari	: ISO/IEC 19794-2
Perangkat Komputasi	
Prosesor	: Allwinner H3, Quad-core Cortex-A7 Up to 1.2 GHz
Memory	: 512 MB DDR3 RAM
Storage	: 8GB eMMC Support MicroSD up to 32 GB
Audio Output	: Speaker dan Buzzer
Data Interface	: USB Male Port
Supported Operating System	: Windows
Karakteristik Fisik Perangkat Terintegrasi	
Keamanan Perangkat	: Anti Tampering Feature
Catu Daya	
Input Power	: DC 5V Through USB A, Max Power Consumption 500mA

Sertifikasi Certification



BPPT (No.1/PTE/HU/2/2021)

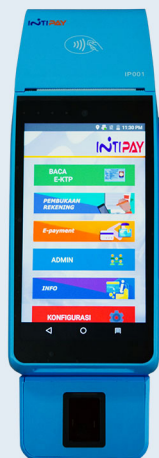


TKDN (No.2842/SJ-IND.08/
TKDN/6/2021)



BSSN (No.007/P1/UJI.01/09/2021)

Identik AE01



Deskripsi Description

Identik AE01 merupakan perangkat pembaca Kartu Tanda Penduduk Elektronik (KTP-el) dalam bentuk perangkat terpadu pembayaran elektronik (perangkat EDC) terintegrasi dengan aplikasi berbasis android. Hal ini memudahkan perangkat dalam proses pembayaran dengan verifikasi KTP-el berbasis biometrik (*fingerprint scanner*).

Identik AE01 is an Electronic Identity Card (KTP-el) reader device in the form of an integrated electronic payment device (EDC device) integrated with an android-based application. This makes it easier for devices to process payments with biometric-based e-KTP verification (fingerprint scanner).

Pembacaan
KTP-el

Verifikasi
Biometrik

Dilengkapi
API/SDK
App Android

Anti-Temper

LED & Audio
Indikator

EDC *Integrated*

Android Based

TMS
(*Terminal
Management
System*)

Payment

Money Transfer

Loyalty Program

Identik AE01

- *Digital payment services*, mendukung berbagai macam *merchant payment*.
- Mobile portable bisa dibawa tanpa kabel, tidak butuh komputer/PC.
- Anti temper (bila casing dibuka atau rusak, maka tidak bisa digunakan).
- *Compact*, mendukung banyak fungsi dalam satu perangkat (*mobile apps, magnetic card, smart card, contactless card, QRCode, biometric, print*).
- *Cashless*, mendukung berbagai jenis pembayaran, Kartu Debit, Kartu Kredit.
- Aplikasi berbasis android dapat ditanam langsung di perangkat.
- *Collected Data* untuk Big Data analitik.
- Bukti pembayaran langsung dapat dicetak di perangkat.
- Peningkatan *Security* dan Verifikasi Data KTP-el berbasis biometrik
- Perluasan pemanfaatan KTP-el secara elektronik
- Pelayanan menjadi *Paperless*, tanpa adanya dokumen fisik
- Efisiensi dalam proses pelayanan administrasi data kependudukan atau data pelanggan

Dimensi Dimension

Manfaat & Keuntungan

Benefits

- *Digital payment services*, supports various types of merchant payments.
- *Mobile portable* can be carried without cables, no need for a computer / PC.
- *Anti-tempered* (if the case is opened or damaged, it cannot be used).
- *Compact*, supports many functions in one device (*mobile apps, magnetic card, smart card, contactless card, QRCode, biometric, print*).
- *Cashless*, supports various types of payments, Debit Card, Credit Card.
- *Android-based applications* can be embedded directly on the device.
- *Collected Data* for Big Data analytics.
- *Proof of payment* can be directly printed on the device.
- *Enhanced Security and Verification of Biometric-based e-KTP Data*
- *Expansion of the use of e-KTP electronically*
- *Service becomes Paperless*, without any physical documents
- *Efficiency in the administrative service process* for population data or customer data
- **Ukuran Perangkat (Device Size)**
200mm x 87mm x 56mm (P x L x T)
- **Ukuran Kemasan (Packaging Size)**
300mm x 115mm x 75mm (P x L x T)
- **Berat (Weight)**
855g (termasuk kemasan dan aksesoris)

Spesifikasi Specifications

Smart Card Reader	
Type	: Contactless
Standard	: ISO 14443 A and B compliant
Frekuensi	: 13,56 MHz $\pm$ 7 KHz
Kuat Medan Operasi	: 1,5 A/m (rms) to 7,5 A/m (rms)
Jarak Transaksi	: Maksimum 7 cm
Inisialisasi dan anti collision	: ISO/IEC 14443-3
Bit rate	: fc/128 (~106kbit/s) fc/64 (~212kbit/s) fc/32 (~424kbit/s) fc/16 (~ 848 kbit/s)
Protokol Komunikasi	: T = CL
Secure Access Module	
Slot Secure Access Module (SAM)	: 4 SAM slots (SIM Type) (ISO 7816, T=0, T=1)
Support Cardtype	: Supports 1.8v 3.3v 5v Card
Magnetic Card Reader	
Magnetic Card Reader	: 1 x Magnetic Card Reader ,Track 1/2/3, Bi-directional, ISO7810, ISO7811, ISO7813.
Smart Card Reader	
Smart Card Reader	: 1 x Smart Card Reader, Supports 1.8V, 3.3V, 5V card, Supports Memory card, CPU card, EMV L1 & L2, PBOC3.0, ISO7816 standard.
Fingerprint Scanner	
Type Sensor	: Optical
Luas permukaan sensor	: 15.24x20.32 mm
Resolusi Pixel	: 500 dpi
Citra Keluaran	: 8 bit
Standar Sensor	: FBI PIV-071006 & Mobile ID FAP 20, INCITS 378, BioAPI, ISO/IEC 19794-2, ISO/IEC 19794-4, FCC, CE, RoHS, FIPS 201 (HSPD-12), STQC
Standar Minutiae Sidik Jari	: ISO/IEC 19794-2
Perangkat Komputasi	
Processor	: A7, Quad-core, 1.1GHz
Memory	: 1GB DDR3 SDRAM, 8GB EMMC
Display/Layar Tampilan	: 5.5" 1280*720 pixel, LCD, backlight control, signal strength, battery status, Support multipoint capacitance touch, and touch operation
WIFI	: Standard: 802.11b/g/n

Mobile Communication	: Support GSM
Printer	: High-speed thermal printer; printing speed: 16lines/s, paper width: (57.5 $\pm$ 0.5)mm
Camera	: Sensor resolution: 5 Megapixel; image frame rate: 15fps or above; support auto-focusing
Physical Key	: 1 ON/OFF key, sound control key
LED	: 4 LED
Audio	: Support built-in speakers and audio play
GPS	: Support built-in GPS and Beidou, GLONASS, Galileo system, LBS positioning
Bluetooth	: Support BT4.0 BLE
Resolusi Layar Tampilan	: 720 x 1280 (RGB)
Port	: 1 Micro USB, USB 2.0HS standard 1 SIM card slot 4 PSAM card slot 1 Micro SD card slot, Supports up to 32GB
Supported Operating System	: Android 5.1 (Lollipop)
Enviromental	: Working temperature: -15° ~ 55°, Relative humidity: 5% ~ 95% (non- condensation), Storage temperature: -20° ~ 60°
Karakteristik Fisik Perangkat Terintegrasi	
Keamanan Perangkat	: Anti Tampering Feature
Catu Daya	
Baterai	: Long lasting lithium battery, 5000mAh, 3.7V
Input Power	: 5V 2A DC; Micro-USB standard charging port
AC Adapter	: 100 V to 240 V AC, 50 Hz/60 Hz

Sertifikasi Certification



BPPT (No.01/PTE/HU/01/2018)



TKDN (No.6473/SJ-IND.08/
TKDN/7/2021)



BSSN (No.14/P1/UJI.01/11/2021)

INTI DVBT2

Deskripsi

Description

INTI DVBT2 merupakan perangkat penerima siaran digital berbasis teknologi DVB-T2 yang merupakan standard *Digital Video Broadcasting Terrestrial* generasi kedua dan ditambahkan fitur EWS (*Early Warning System*).

INTI DVBT2 is a digital broadcast receiving device based on DVB-T2 technology which is the second generation Terrestrial Digital Video Broadcasting standard and has an EWS (Early Warning System) feature added.



Fitur

Features

- Penerima siaran digital berbasis teknologi DVB-T2 ke perangkat lain melalui port HDMI dan AV.
 - Menyimpan lebih dari 1000 saluran Televisi dan Radio secara otomatis dan manual.
 - EPG untuk setiap saluran dengan 8 grup favorit berbeda.
 - Mendukung Logic Channel Number (LCN).
 - Mendukung WiFi Dongle.
 - DLNA WiFi melalui telepon pintar.
 - Mendukung sistem EWS (Early Warning System).
 - USB PVR & Media Display.
 - Mendukung format media player seperti MP4, MKV, AVI, FLV dan lain-lain.
 - Pengaturan waktu secara otomatis dengan GMT dan manual.
 - Youtube
 - Cuaca
- *Digital broadcast receiver based on DVB-T2 technology to other devices via HDMI and AV ports.*
 - *Stores more than 1000 Television and Radio channels automatically and manually.*
 - *EPG for each channel with 8 different favorite groups.*
 - *Supports Logic Channel Number (LCN).*
 - *Support WiFi Dongle.*
 - *DLNA WiFi via smartphone.*
 - *Supports EWS system (Early Warning System).*
 - *USB PVR & Media Display.*
 - *Supports media player formats such as MP4, MKV, AVI, FLV and others.*
 - *Automatic timing with GMT and manual.*
 - *Youtube*
 - *Weather*

Dimensi

Dimension

- **Ukuran Perangkat**
140mm x 80mm x 30mm (P x L x T)
 - **Ukuran Kemasan**
190mm x 171mm x 50mm (P x L x T)
 - **Berat**
0,34 Kg (termasuk kemasan dan aksesoris)
- **Device Size**
140mm x 80mm x 30mm (P x L x T)
 - **Packaging Size**
190mm x 171mm x 50mm (P x L x T)
 - **Weight**
0,34 Kg (including packaging and accessories)

INTI DVBT2

Spesifikasi Specifications

Karakteristik Umum	
Tegangan input	: 100-240 VAC
Frekuensi input tegangan AC	: 50 Hz ± 2%
Temperatur	: 0-50 Celcius
Kelembapan	: 1,5 A/m (rms) to 7,5 A/m (rms)
Tuner	
Jangkauan Frekuensi Input	: 478 – 694 MHz
Demodulation	: ISO.IEC 19794-2
Input signal Level	: -70 dBm s.d -25 dBm
Antena Input Impedance	: 75 Ω
Mode Operasi	
Video Decoder	: MPEG-4 (H.264)
Video Aspect Ratio	: Auto, 16:9 Widescreen, 16:9 Pillar Box, 16:9 Pan Scan, 4:3, 4:3 Pan Scan, 4:3 Letter Box
Resolution Video	: SDTV 720 x 576 HD 1280x720i HD 1280x720p HDTV 1920 x 1080i HDTV 1920 x 1080p
PAL/NTSC	: Otomatis
Audio Decoder	: MPEG I/II, MP3, MPEG4 AAC, HE-AAC, dan DRA decoding
Menu dan Bahasa EPG	: Bahasa Indonesia, Bahasa Inggris
Durasi EPG 4) Input / Output Konektor	: 7 (tujuh) hari
Output RF Konektor	: IEC 61169-2 Male 75 Ω

Composite Video Out	: RCA Jack - 75 Ω
Audio Analog Out	: RCA Jack ≤ 10 kΩ
Output HDMI	: HDMI
Input RF Konektor	: IEC 61169-2 Female; 75 Ω
Input USB	: USB
Firmware	
Firmware upgrade	: USB

Sertifikasi Certification



TKDN (PTKDN-2220-2103203)

Kominfo (80825/SDPPI/2022)

INTI Modem 4G



Deskripsi

Description

R825 is the center of home or office network, and it is particularly designed for several applications : High-speed internet, video on demand etc. This device integrates LTE modem, two GE ports, wireless 802.11b/g/n/ac technology and LTE WAN access via mobile network.

User can take advantage of internet connectivity, and can easily change settings by web based UI, and backup or restore configuration if required. Speaking of SMS (Short Message Service) feature in every cell phone, you can also send and read SMS with R825.

VoLTE / CSFB

Wi-Fi
Dual Band

300 Mbps DL

INTI Modem 4G

Fitur

Features

- Qualcomm X12 (UNISOC SL8563 optional)
 - LTE Cat.6 speed up to 300 Mbps DL / 50 Mbps UL
 - Wi-Fi 2.4G/5G dual Band (DBSC)
 - Support Volte and CSFB Voice
 - Support up to 32 Wi-Fi devices
 - 2 Gigabit Ethernet ports
 - Silicon Lab chipset to adapt all most global regions' telephone standard
 - Support TR-069/FOTA remote manage
 - APP intelligent management
-
- 802.11n/802.11 AC Compliance with 2T2R Technology
 - Max. physical data rate up to 300Mbps/866Mbps
 - Backward compatible to IEEE 802.11b/g standards
 - Support WEP, WPA-PSK, WPA2-PSK encryption
 - Establish secured Wireless Connection via WPS function

Dimensi

Dimension

- Dimension : 132 x 118 x 45mm
- Weight: 195g



Spesifikasi Specifications

Form	LTE Desk Router		
WAN	Chipset	CPU	Qualcomm X12 (UNISOC SL8563 optional)
	Frequency Bands	LTE	B1/B3/B5/B7/B8/B20(28)/B38/B40/B41/B42/B43(depend on request)
		CA	2CA combos
		UMTS	B1/3/5/8
	Antenna	External	Primary and Diversity (*2) (optional)
		Internal	2* Internal Antenna
	RF Power Level	LTE FDD	Power Class 3 (23 +/-2dBm)
		UMTS	Power Class 3 (24 +1.7/-3.7dBm)
	Data Rate	4G	3GPP Cat. 6, Downlink/Uplink up to 300Mbps/50Mbps
		3G	3GPP Downlink/Uplink up to 42Mbps/5.76Mbps
WLAN	Wi-Fi	Frequency	2.4GHz & 5G (DBSC)
		Protocol	IEEE 802.11b/g/n/ac
		Antenna	Internal, 2 x 2
	Data Rate	802.11b	Up to 11 Mbps
		802.11g	Up to 54 Mbps
		802.11n	Up to 300 Mbps
		802.11ac	Up to 867Mbps

Power Supply	AC/DC, 12V1A	
Interface	LAN/WAN	2xRJ45 GE Ports for 2xLANs or 1xWAN+1xLAN
	RJ11/USIM(4FF Nano SIM)/Micro USB2.0/External antenna interface supported	
LED	Power/Wi-Fi 2.4G/Wi-Fi 5.8G/LAN/Internet/Signal Strength(4 Bars)	
Button	Power/WPS/Reset	
Software	Network	Connection Status/Statistics/Network Mode Selection/Auto APN match
	Management	WebUI/FOTA/TR-069
	SMS	SMS/USSD
	WLAN	SSID Broadcast/WEP, WPA,WPA2/MAC filter/WPS
	Router	DHCP Server/IPv4v6/VPN Passthrough/Firewall
		Dynamic IP/Static IP/PPPoE/PPTP(Dual Access)/L2TP(Dual Access)/Traffic Control (IP QoS)
	APP	Andoid/iOS App Management
	OS	Windows 7/8/10, MAC 10.10+,Ubuntu 15.04+
Temperatur	Browser	IE9+, Firefox, Google Chrome, Safari, Opera
	Working Temperature	0°C to 45°C
	Storage Temperature	-20°C to 60°C

INTI-AP102ax (Indoor WI-Fi 6 Acces Point)

Deskripsi

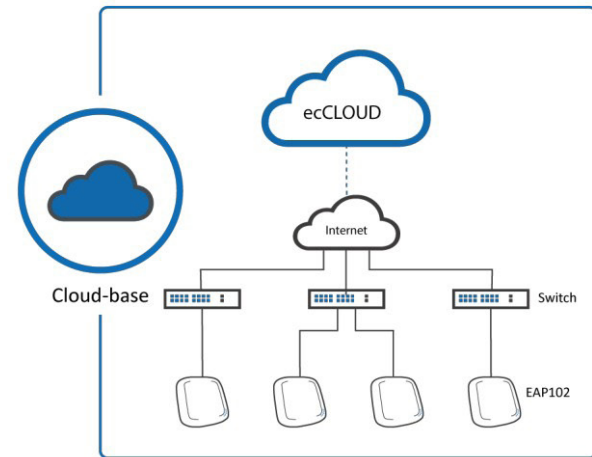
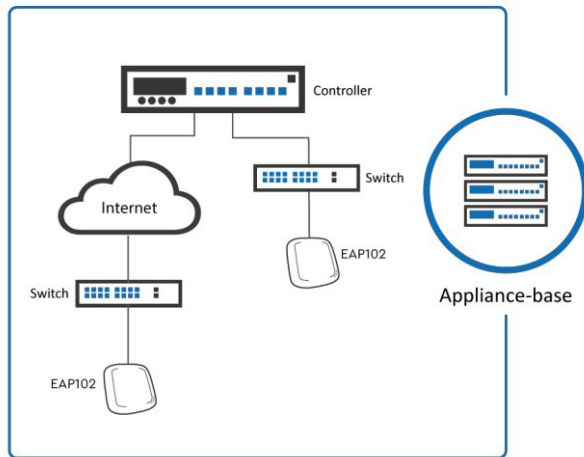
Description

INTI-AP102ax is an enterprise-grade, concurrent dual-band Wi-Fi 6 indoor access point. INTI-AP102ax supports 5G 4 x 4 : 4 uplink and downlink MU-MIMO between the AP and multiple clients, with up to 2.9 Gbps aggregated data rate. INTI-AP102ax is equipped with Bluetooth Low Energy (BLE) radio enabling value-added applications such as iBeacon. INTI-AP102ax can be operated as standalone mode or managed by Edgecore ecCLOUD and EWS-Series controller.

Highlights

- Concurrent Dual-Band 2.4GHz & 5GHz
- 802.11ax 4x4:4 UL MU-MIMO supporting up to 2.9 Gbps data rate
- Support up to 32 ESSIDs.
- Enterprise-Grade Wireless Security
- Bluetooth Low Energy (BLE) 5
- 802.3at Power over Ethernet (PoE)





Spesifikasi

Specifications

Physical	
Power	- DC Input: 12V / 2.0A (Power adapter included) - PoE: 802.3at compliant (PoE injector optional)
Dimensions (L x W x H)	19.5 cm x 20.1 cm x 3.98 cm (7.68 x 7.91 x 1.57 in)
Weight	0.7 kg (1.54 lbs)
Interface	- Uplink: 1 x 10/100/1000/2.5GBase-T Ethernet, Auto MDIX, RJ-45 with 802.3at PoE - LAN: 1 x 10/100/1000/2.5GBase-T Ethernet, Auto MDIX, RJ-45 - Console: 1 x RJ-45 Port - USB: 2 x USB 2.0 Port¹

LED Indicator	: Uplink / 2.4G-WiFi / 5G-WiFi / Power
Buttons	: Restart/ Reset
Environmental Conditions	- Operating Temperature: 0°C (32°F) to 45°C (113°F) - Operating Humidity: 5% to 95% non-condensing
Power Consumption	: 25W max ²
Antenna	- Type: 4 x Built-in antenna (2.4 GHz & 5 GHz) - Gain: 5.5dBi (2.4 GHz, BLE), 7.6 dBi (5 GHz)
Mounting	: Wall/Ceiling/T-bar mount (Mounting kit included)

INTI-AP102ax (Indoor WI-FI 6 Acces Point)

WI-FI	
Standards	: • 802.11ax (Wi-Fi 6) • Concurrent dual-band 2.4 & 5 GHz
Supported Data Rates	: • 802.11b: 1, 2, 5.5, 11 Mbps • 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: 6.5 –300 Mbps (20 / 40 MHz) • 802.11ac: 6.5 –1733 Mbps (20 / 40 / 80 MHz) • 802.11ax: 3.6 –574 Mbps (2.4 GHz, 20 / 40 MHz) • 802.11ax: 3.6 –2400 Mbps (5 GHz, 20 / 40 / 80 MHz)
Radio Chains	: • 2.4 GHz: 2 x 2 • 5 GHz: 4 x 4
Spatial Streams	: • 2.4 GHz: 2; MU-MIMO support • 5 GHz: 4; MU-MIMO support
Aggregate Conducted Transmit Power ³	: • 2.4 GHz: Up to 23 dBm⁴ • 5 GHz: Up to 26 dBm⁴
Channelization	: • 2.4 GHz: 20 / 40 MHz • 5 GHz: 20 / 40 / 80Mhz
Frequency Range	: • 2.400 – 2.483 GHz • 5.150 – 5.850 GHz
Operating Channels	: • 2.4 GHz: 1 –11 (US), 1 –13 (Europe), 1 –13 (Japan) • 5 GHz⁵: 36 –165 (US), 36 –140 (Europe), 36 –144 (Japan)
ESSIDs	: Up to 16 per radio (32 total)
Certifications	: FCC, CE, LVD, NCC, BSMI, VCCI, JATE, TELEC, IC, C-Tick, Philippines, Thailand

Performance	
Physical Data Rate	: • Up to 574 Mbps (2.4 GHz) • Up to 2400 Mbps (5 GHz)

Features	
Wireless	: • 802.11 k/r • Orthogonal Frequency Division Multiple Access (OFDMA) • Client Isolation • Open Mesh
Network	: • Spanning Tree Protocol (STP) • Dynamic Host Configuration Protocol (DHCP) • 802.1q • Access Control List (ACL) • Network Address Translation (NAT) • Dynamic VLAN • Link Layer Discovery Protocol (LLDP)
Security	: • WPA-Personal (AES) • WPA-Enterprise (AES) • WPA2-Personal (AES) • WPA2-Enterprise (AES) • WPA3-Personal (AES) • WPA3-Personal Transition (AES) • WPA3-Enterprise (AES) • WPA3-Enterprise transition (AES) • MAC Address Authentication
Maintenance	: • Network Time Protocol (NTP) • Standalone • Management by ecCLOUD • Management by EWS-Series Controller (Complete tunnel) • SSH • QR Code Onboarding • SNMP v2c • Remote Syslog
QoS	: RSSI Threshold (Optimal Client Filtering)
Others	: iBeacon

*1: One USB port work at a time

*2: 22W when powered by DC

*3: RF output power aggregates across MIMO chains and doesn't contain antenna gain

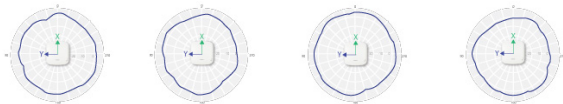
*4: Maximum power is limited by local regulatory requirements

*5: Some channels are restricted by local regulatory requirements and certifications

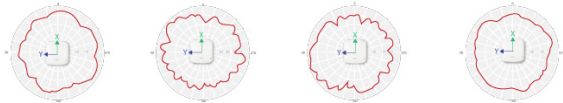
Signal Coverage Pattern

• Azimuth

■ 2.4 Ghz/ BLE



■ 5 Ghz



• Elevation

■ 2.4 Ghz/ BLE



■ 5 Ghz



Receive Sensitivity

Operating Mode	Data Rate	Receive Sensitivity (dBm)
802.11b	1 Mbps	-96
	11 Mbps	-88
802.11a	6 Mbps	-90
	54 Mbps	-72
802.11g	6 Mbps	-91
	54 Mbps	-75
802.11n (2.4 GHz/HT20)	MCS0	-90
	MCS7	-71
802.11n (2.4 GHz/HT40)	MCS0	-87
	MCS7	-68
802.11n (5 GHz/HT20)	MCS0	-89
	MCS7	-70
802.11n (5 GHz/HT40)	MCS0	-86
	MCS7	-67
802.11ac (VHT20)	MCS0	-90
	MCS8	-69
802.11ac (VHT40)	MCS0	-88
	MCS9	-64
802.11ac (VHT80)	MCS0	-85
	MCS9	-61
802.11ax (2.4 GHz/HE20)	MCS0	-92
	MCS11	-62
802.11ax (2.4 GHz/HE40)	MCS0	-89
	MCS11	-60
802.11ax (5 GHz/HE20)	MCS0	-90
	MCS11	-58
802.11ax (5 GHz/HE40)	MCS0	-87
	MCS11	-55
802.11ax (5 GHz/HE80)	MCS0	-85
	MCS11	-56

INTI-AP5410 (Indoor Access Point)

Deskripsi

Description

The INTI-AP5410 is a concurrent dual-band 802.11ac Wave 2 high-density access point. Featuring dual 4x4 Multi-User MIMO (MU-MIMO) radios, the INTI-AP5410 can simultaneously support up to 600 Mbps and 1.73 Gbps data rates for both 2.4GHz and 5GHz bands, far surpassing the throughput of the latest 802.11ac Wave 1 access points. It provides a Gigabit LAN port for Ethernet-capable network devices and a built-in Bluetooth Low Energy (BLE) beacon that can be used for targeted marketing campaigns. The combination 802.11ac Wave 2 MU-MIMO technology and 4x4 spatial streams makes the ECW5410-L a top choice for high-density environments such as stadiums, arenas, and conference rooms.



Wi-Fi

- Concurrent Dual-Band 2.4 & 5 GHz
- 802.11ac 4x4 MU-MIMO supporting up to 2.3 Gbps data rate
- Support up to 32 ESSIDs
- Enterprise-Grade Wireless Security

Management With Controller

- Captive Portal & Guest Provisioning
- Fast Layer 2/Layer 3 Roaming
- User-based Access Management
- Bandwidth Control
- Firewall Policies
- Routing Policies
- Wi-Fi Monetization

Physical

- Wall and ceiling mountable
- High Density Wi-Fi deployment
- 802.3af PoE LAN port
- Bluetooth Low Energy (BLE)

Spesifikasi Specifications

Physical	
Power	• DC Input: 12V / 2.5A (Power adapter optional) • PoE: 802.3at compliant (PoE injector optional)
Dimensions	19.0 cm (L) x 19.0 cm (W) x 3.3 cm (H)
Weight	0.61 kg (1.34 lbs)
Interfaces	• Uplink: 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 with 802.3at PoE • LAN: 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 • Console: 1 x RJ-45 Port • USB: 1 x USB 2.0 Port
LED Indicator	Power / 2.4G-WiFi / 5G-WiFi / ETH 1 (PoE) / ETH 2
Buttons	Restart / Reset
Environmental Conditions	• Operating Temperature: 0°C (32°F) to 45°C (113°F) • Operating Humidity: 5% to 95% non-condensing
Power Consumption	22.5W max.
Antenna	• Type: 5 x Built-in PIFA (4 x 2.4 GHz & 5 GHz, 1 x Bluetooth Low Energy) • Gain: 3 dBi (2.4 GHz), 5 dBi (5 GHz), 3 dBi (BLE)
Mounting	Wall/Ceiling mount (Mounting kit included)

WI-FI

Standards	• 802.11a/b/g/n/ac ; Wave 2 • Concurrent dual-band 2.4 & 5 GHz
Supported Data Rates	• 802.11b: 1, 2, 5.5, 11 Mbps • 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: 6.5 – 144 Mbps (20 MHz) • 802.11n: 13.5 – 300 Mbps (40 MHz) • 802.11ac: 6.5 – 173.4 Mbps (20 MHz) • 802.11ac: 13.5 – 400 Mbps (40 MHz) • 802.11ac: 29.3 – 866.6 Mbps (80 MHz)
Radio Chains	4 x 4
Spatial Streams	4; MU-MIMO support
RF Output Power ¹	• 2.4 GHz: Up to 24 dBm² • 5 GHz: Up to 24 dBm²
Channelization	• 20 MHz • 40 MHz • 80 MHz
Frequency Band	• 2.412 – 2.472 GHz • 5.180 – 5.825 GHz
Operating Channels	• 2.4 GHz: 1 – 11 (US), 1 – 13 (Europe), 1 – 13 (Japan) • 5 GHz*3: 36 – 165 (US), 36 – 140 (Europe), 36 – 140 (Japan)
ESSIDs	Up to 16 per radio (32 total)
Certifications	FCC (United States), CE (Europe)

Performance

Physical Data Rate	• Anti Tampering Feature Up to 600 Mbps (2.4 GHz) • Up to 1733 Mbps (5 GHz)
Concurrent Users	Up to 256 (128 on 2.4 GHz, 128 on 5 GHz)

Quality of Service

Wireless QoS (802.11e/WMM)
DSCP (802.1p)
Airtime Fairness
Band Steering
Multicast to Unicast Conversion
Optimal Client Filtering

INTI-AP5410 (Indoor Access Point)

Security		
Wireless Security	:	• WEP • WPA/WPA2 Mixed (TKIP/AES Mixed) • WPA2-Personal (AES) • WPA2-Enterprise (AES)
VLAN Tagging (802.1Q)		
Station Isolation		
DHCP Snooping		
Layer-2 Firewall		

Management		
Deployment	:	• Standalone • Tunneled management by Controller • IPv4 & IPv6 compatible • LLDP
Configuration	:	• Web User Interface (HTTP/HTTPS) • SNMP v1, v2c, v3

*1 : RF output power aggregates across MIMO chains and doesn't contain antenna gain

*2 : Maximum power is limited by local regulatory requirements

*3 : Some channels are restricted by local regulatory requirements

Receive Sensitivity

Operating Mode	Data Rate	Receive Sensitivity (dBm)
802.11b	1 Mbps	-97
	11 Mbps	-89
802.11a	6 Mbps	-90
	54 Mbps	-73
802.11g	6 Mbps	-91
	54 Mbps	-74
802.11n (HT20)	MCS0	-90
	MCS7	-70
	MCS8	-90
	MCS15	-70
802.11n (HT40)	MCS0	-87
	MCS7	-68
	MCS8	-87
	MSC15	-68
802.11ac (VHT20)	MCS0	-90
	MCS8	-67
802.11ac (VHT40)	MCS0	-87
	MCS9	-61
802.11ac (VHT80)	MCS0	-84
	MCS9	-58

INTI-CAM77B-T1 (Surveillance Camera)



Deskripsi

Description

Applicable to buildings, supermarkets, hotels, banks, road, warehouse, underground parking lot, bar, pipeline, garden and other dark or lightless environment, which require HD image place, suitable for backlighting environment.

1080P

Output

H.265

Video Compression

ONVIF



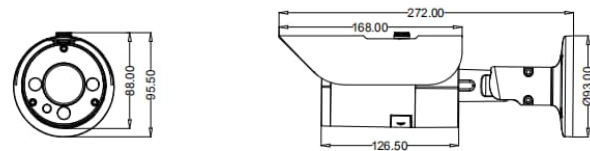
Mobile

INTI-CAM77B-T1 (Surveillance Camera)

Fitur Features

- Use the built-in deep learning algorithm of humanshape and car shape, suitable for traffic statistics
- Only human or vehicle detection and analysis, other moving objects will not be affected by detection
- Support target counting, electronic fence, retrograde detection, off-site detection
- Support to calculate the statistics of import and export persons and vehicle flow
- Support to view daily/monthly report statistics and report to export
- Support Smart IR to prevent infrared overexposure at night
- ICR infrared filter automatic switch, to achieve real day and night monitoring
- Support corridor mode and add longitudinal and narrow monitoring areas in the environment
- Support multi-line OSD, font, size, color, position adjustable
- Support 3D digital noise reduction and TWDR
- Support automatic electronic shutter function, adapt to different monitoring environment
- Support a variety of intelligent alarm linkage output
- Support GB28181 access, support Onvif access
- Support Email, FTP and NTP services
- Supports HTTPS encrypted transport
- Change the password when starting the initial equipment to ensure the security of the password
- Support two-way voice intercom
- Support 2-way alarm input / 1-way alarm output

Dimensi Dimension



Wire Interface



1. Audio Input
2. Power Input
3. Network Interface
4. RS485/ Alarm Output
5. Alarm Input
6. Audio Output

Spesifikasi Specifications

Camera	
Image Sensor	: 1/2.8"SONY 2.07MP progressive scan Exmor CMOS
Min. illumination	: 0Lux/F1.4 (IR on) color: 0.01Lux/F1.4, B/W:0.001Lux/F1.4
IR Distance	: 40-50M (3*array IR leds)
Electronic Shutter	: Auto/ Manual(1/25~1/10000), FLK
Day/Night	: ICR switch, auto, color, B/W, ext
Lens	: 2.8-12mm motorized lens (2.8-12mm DC ICR lens optional)
Lens Interface	: ϕ 14
Auto IRIS	: DC drive
S/N Ratio	: $\geq$ 50db (AGC OFF)
Output	: PAL/NTSC adjustable
WDR	: WDR(Off/Low/Middle/High)
Light Board Control	: Auto/ Manual/Off
3D N/R	: Off/ Low/ Middle/ High/ Higher
Defog	: Off/ Low/ Middle/ High
Mirror	: Off/ Horizontal/ Vertical/ 180° rotation/ Corridor mode (90° rotation, 270° rotation)
Slow Shutter	: /
Exposure Control	: Auto/ Manual
Image Setting	: Brightness, Contrast, Saturation, Sharpness, Hue

Audio/Video Encoding	
Video Compression	: H.265/ H.264
H.265 Encoding	: Main Profile
H.264 Encoding	: BaseLine/Main Profile/High Profile
Encoding Features	: NTSC: main stream: 1920×1080@30fps, sub-stream: D1@30fps PAL: main stream: 1920×1080@25fps, sub-stream: D1@25fps
Max. Resolution	: 1920X1080
Video Bit Rate	: Constant bit rate, variable bit rate (16kbps~8000kbps)
Video Type	: Complex stream/ Video stream
Audio Compression	: G.711u
Audio Bit Rate	: 64Kbps
Audio Control	: Support input/output volume gain control
ROI	: Support 4 zones, multi-stage level
Watermark function	: /

Network	
Network Protocol	: TCP/IP, UDP, HTTP, DHCP, RTSP, DDNS, NTP, PPPoE, UPnP, SMTP, FTP
Access Protocol	: ONVIF, GB28181 (optional)
Browser	: Support IE, Chrome, Firefox, Safari
Video Preview Meanwhile	: 8
User Permission	: User add/modify/delete, permission management

INTI-CAM77B-T1 (Surveillance Camera)

Safe Mode	:	Authorized user name and password, HTTPS encryption and AES link encryption, RTSP verification
Motion Detection	:	Set detection zone, Multi-level sensitivity can be set
Tampering Alarm	:	1 zone
Privacy Mask	:	4 zones
Intelligent Analysis	:	Target Counting, Left/Loss, Area Detection, Line Crossing
Sound Alarm Output	:	Customize the broadcast language content and broadcast times (1-10 times)
Event Linkage	:	Snapshot, TF card video, FTP upload or Email sending, alarm output linkage, preset linkage
Multicast Function	:	Support
ANR	:	Support, match with NVR
Mobile Surveillance	:	Support Apple, Android
Device Exception Detection	:	Support network disconnected, IP conflict, illegal access alarm
OSD	:	Title, time and date overlay, multi-line OSD, OSD color optional
DST	:	Support
Snapshot	:	Support snapshot, snapshot resolution is encoding resolution
System Update	:	Support remote update

Interface	
Network Interface	: RJ45 10M/100M network adaptive
Analog Video Output	: 1CH 1.0Vp-p Composite video output
Audio	: Line input/ output
Alarm Input	: 2CH input
Alarm Output	: 1CH output
Reset	: Support
RS485	: Support
TF Card	: Support Max 128G, Micro SD(SDHC /SDXC) card local-storage

General	
Operating Temperature	: -20°C ~ 55°C
Operating Humidity	: 0% - 90%
Protection Grade	: IP66/ IK09
Power Supply	: DC12V /PoE optional
Power Consumption (Max)	: <8W
Dimensions (mm)	: 272(W)*93(H)*95.5(L)

INTI-CAM77B-T2 (Surveillance Camera)



Deskripsi

Description

Suitable for buildings, supermarkets, hotels, banks, roads, warehouses, underground parking lots, bars, pipelines, parks and other dark or no light environment and high definition picture.

5 MP

Output

H.265

Video Compression

ONVIF



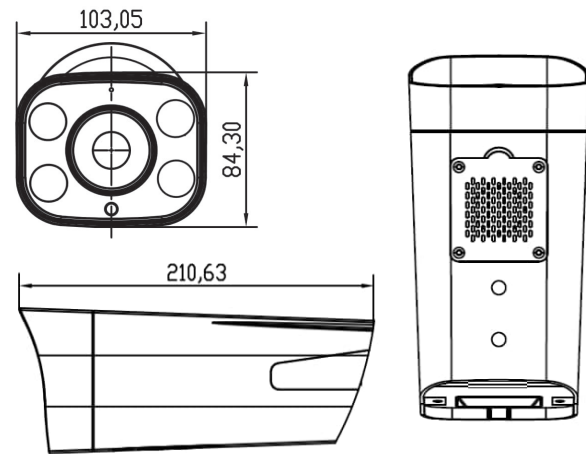
Mobile

INTI-CAM77B-T2 (Surveillance Camera)

Fitur Features

- Maximum resolution up to 5M (2592* 15200 @25fps)
- Supports low bit rate, low latency, ROI enhanced coding
- H.265 efficient compression, save bandwidth and storage space
- Support multi - line OSD, OSD color optional
- High efficiency infrared lamp, long service life, irradiation distance up to 40-50 meters
- Smart IR is supported to prevent night infrared overexposure
- ICR infrared filter type automatic switch, to achieve real day and night monitoring
- Support corridor mode, increase monitoring area in vertical and narrow environment
- Support POE power supply function (optional)
- Support 3D digital noise reduction, support TWDR
- Support automatic electronic shutter function, adapt to different monitoring environment
- Support a variety of intelligent alarms

Dimensi Dimension



Wire Interface



1. Audio Input
2. Power Input
3. Network Interface
4. RS485 / Alarm Output

Spesifikasi Specifications

Camera	
Image Sensor	: 1/2.8" Sony 5 million progressive scan CMOS
Min. illumination	: 0Lux/F1.4 (IR on), Color: 0.1Lux/F1.4 B/W:0.05Lux/F1.4
IR Distance	: 40-50m (4*IR leds)
Electronic Shutter	: Auto/ Manual (1/25~1/10000), FLK
Day/Night	: ICR switch, auto, color, B/W, ext
Lens	: 2.8-12mm motorized zoom lens
Lens Interface	: ϕ 14
S/N Ratio	: ≥ 35 dB (AGC OFF)
Output	: PAL/NTSC (adjustable)
WDR	: TWDR (off/low/medium/high)
Light Board Control	: Auto/Manual/Off
3D N/R	: Close/low/medium/higher/high
Defog	: Close/low/medium/high
Mirror	: Close/Horizontal Mirroring/Vertical Mirroring /180° Rotation
Slow Shutter	: Close/Open
Exposure Control	: Auto/ Manual
Image Setting	: Brightness, Contrast, Saturation, Sharpness, Hue

Audio/Video Encoding	
Video Compression	: H.265/ H.264
H.265 Encoding	: Main Profile
H.264 Encoding	: BaseLine/Main Profile/High Profile
Encoding Features	: NTSC: main stream: 2592*1520 @25fps, 2560*1440 @25fps/sub-stream: D1@25fps PAL: main stream: 2592*1520 @25fps, 2560*1440 @25fps/sub-stream: D1@25fps
Max. Resolution	: 2560X1440
Video Bit Rate	: Constant bit rate, variable bit rate (16kbps-8000kbps)
Video Type	: Composite streaming/video streaming
Audio Compression	: G.711u
Audio Bit Rate	: 64Kbps
Audio Control	: Support input/output volume gain control
ROI	: Support 4 zones, multi-stage level
Watermark function	: /

Network	
Network Protocol	: TCP/IP, UDP, HTTP, DHCP, RTSP, DDNS, NTP, PPPoE, UPnP, SMTP, FTP
Access Protocol	: ONVIF, GB28181 (optional)
Browser	: Internet Explorer 11 and above are supported
Video Preview Meanwhile	: 4
User Permission	: User add/ modify/ delete, permission management

INTI-CAM77B-T2 (Surveillance Camera)

Safe Mode	:	Authorized user name and password, HTTPS encryption and AES link encryption
Motion Detection	:	Set detection area, multi-level sensitivity can be set
Tampering Alarm	:	1 zone
Privacy Mask	:	4 zones
Intelligent Analysis	:	Target Counting, Area Detection, Left/Lost, Line Crossing
Event Linkage	:	Snapshot, TF card video, FTP upload or Email sending, alarm output linkage, preset linkage
Multicast Function	:	Support
ANR	:	Support, match with NVR
Mobile Surveillance	:	Support Apple, Android
Device Exception Detection	:	Support network cable break, IP conflict, illegal access alarm
OSD	:	Title, time and date overlay, multi-line OSD, OSD color/size can be customized
DST	:	Support
Snapshot	:	Supports capture, capture resolution for coding resolution
System Update	:	Support remote update

Interface		
Network Interface	:	RJ45 10M/100M network adaptive
Video Output	:	/

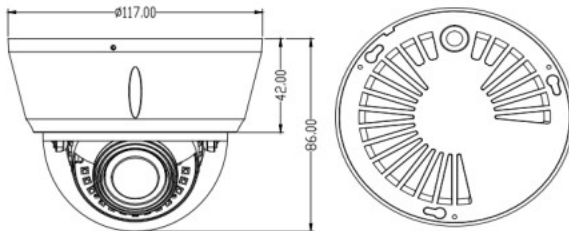
Audio	:	Line input/ output
Alarm Input	:	2CH input
Alarm Output	:	1CH output
Reset	:	Support
RS485 Interface	:	Support
TF Storage	:	Support, max 128G, Micro SD(SDHC /SDXC) card local-storage

General		
Operating Temperature	:	-20°C ~ 55°C
Operating Humidity	:	0% - 90%
Protection Grade	:	IP66
Power Supply	:	DC12V /PoE (optional)
Power Consumption (Max)	:	<8W
Dimensions (mm)	:	103.05(W) * 84.3(H) * 210.63(L) mm
Weight/PCS(g)	:	

INTI-CAM77D-T1 (Surveillance Camera)



Dimensi Dimension



Fitur Features

- 5MP Human vehicle intelligent detection infrared camera max resolution up to 5M (2592 x 1944)
- Support three streams, H.265 efficient compression, low bit rate, low delay, ROI enhancement encoding
- 2.8 12mm electric zoom lens, the picture adjustment is more flexible
- Only human or vehicle detection and analysis, other moving objects will not be affected by detection
- Support the calculation of import and export passenger and vehicle flow statistics, daily / monthly report statistics and report to export
- Support alarm linkage output custom voice broadcast prompt
- Support 3D digital N/R, WDR, Corridor mode
- Support multiple intelligent alarm
- Support GB28181, Onvif access
- Support two way voice intercom, 2 way alarm input / 1 way alarm output
- Support Micro SD card (128G) local storage
- Support PoE power supply

INTI-CAM77D-T1 (Surveillance Camera)

Wire Interface



- 1. Audio Input
- 2. Power Input
- 3. Network Interface
- 4. RS485/ Alarm Output
- 5. Alarm Input
- 6. Audio Output

Spesifikasi Specifications

Camera	
Image Sensor	: 1/2.8"SONY 5 Mega Progressive Scan Exmor CMOS
Min. illumination	: 0Lux/F1.4 (IR ON); Color: 0.1Lux/F1.4,B/W: 0.05Lux/F1.4
IR Distance	: 30M
Electronic Shutter	: Auto/Manual (1/5~1/100000)
Day/Night	: Auto/Color/B/W/Ext
Lens	2.8-12mm motorized lens
	: Focus : Auto/Manual
S/N Ratio	: ≥50db (AGC OFF)
WDR	: WDR (Off/Low/Middle/High)

3D N/R	: Off/Low/Middle/High/Higher
Defog	: Off/Low/Middle/High
Mirror	: Off/Horizontal/Vertical/180° rotation/Corridor mode (90° rotation, 270° rotation)
Slow Shutter	: Off/On, default off
Exposure Control	: Auto/Manual
Image Setting	: Brightness, Contrast, Saturation, Sharpness, Hue and White balance
Backlight Mode	: BLC/HLC/Off

Audio/Video Compression	
Video Compression	: H.265/H.264
H.265 Encoding	: Main Profile
H.264 Encoding	: BaseLine/Main Profile/High Profile
Encoding Features	: NTSC : main:2592X1520@30fps, 2592X1944@20fps, sub: D1@30fps PAL : main: 2592X1520@25fps, 2592X1944@20fps, sub: D1@25fps
Triple Stream	: NTSC/PAL : 2592X1944@10fps
Max. Resolution	: 2592 x 1944
Video Bit Rate	: Constant bit rate, variable bit rate (16kbps~8000kbps)
Video Type	: Complex stream/ Video stream
Audio Compression	: G.711u
Audio Bit Rate	: 64Kbps
Audio Control	: Support input/output volume gain control
ROI	: Support 4 zones, multi-stage level

Network	
Network Protocol	: TCP/IP, UDP, HTTP, DHCP, RTSP, DDNS, NTP, PPPoE, UPnP, SMTP, FTP
Access Protocol	: ONVIF, GB28181 (optional)
Browser	: Plug in supports IE11 or above
Video Preview Meanwhile	: 8

User Permission	:	User add/modify/delete, permission management
Safe Mode	:	Authorized user name and password, HTTPS encryption and AES link encryption, RTSP verification
Motion Detection	:	Set detection zone, Multi-level sensitivity can be set
Tampering Alarm	:	1 zone
Privacy Mask	:	4 zones
Intelligent Analysis	:	Detection and analysis of the behavior of persons or vehicle targets only
Sound Alarm Output	:	Customize the broadcast language content and broadcast times (1-10 times)
Event Linkage	:	Snapshot, TF card video, FTP upload or Email sending, alarm output linkage, preset linkage
Multicast Function	:	Support
ANR	:	Support, match with NVR
Mobile Surveillance	:	Support Apple, Android
Device Exception Detection	:	Support network disconnected, IP conflict, illegal access alarm
OSD Overlay	:	Title, time and date overlay, multi-line OSD, OSD color optional
DST	:	Support
Snapshot (Valid with TF Card)	:	Support linkage capture, capture interval and capture number can be set
System Update	:	Support remote update

Human & Vehicle Shape Detection		
Target Counting	:	Anti Tampering Feature The deployment time period can be set
	:	Defense type: people , vehicles, people and vehicles
	:	Test line can be set up, up to 4
	:	Statistical methods: A—B/B—A, the number of people increased or decreased
Electronic Fence	:	The deployment time can be set
	:	Detection area can be set up, up to 4
	:	Detection type: target entry, exit, wander, or intrusion detection

Retrograde Detection	:	The deployment time can be set
	:	Detection area can be set up, up to 4
Off-Site Detection	:	The deployment time can be set
	:	Detection area can be set up, up to 4
	:	Departure time can be set
Report statistics (valid with TF card)	:	Target count: daily/monthly reports, line charts, bar charts, lists
	:	Electronic fencing: lists
	:	Retrograde detection: lists
	:	Departure detection: lists

Interface		
Network Interface	:	RJ45 10M/100M network adaptive
Audio	:	1ch Line in\1ch Line out
Alarm Input	:	2ch
Alarm Output	:	1ch
RS485	:	Support
TF Card	:	Support, max 128G, Micro SD(SDHC/SDXC) card local-storage

General		
Operating Temperature	:	-20°C ~ 55°C
Operating Humidity	:	0% - 90%
Protection Grade	:	IP66/IK10
Power Supply	:	DC12V /POE
Power Consumption (Max)	:	<8W
Dimensions (mm)	:	117 (D) mm × 86 (H) mm

INTI-CAM77D-T2 (Surveillance Camera)

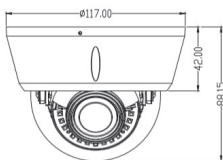
Deskripsi

Description

Applicable to buildings, supermarkets, hotels, banks, road, warehouse, underground parking lot, bar, pipeline, garden and other dark or lightless environment, which require HD image place, suitable for backlighting environment.

Dimensi

Dimension



Wire Interface



1. Audio input
2. Power supply input
3. Network interface
4. RS485/Alarm output
5. Analog video output
6. Alarm input
7. Audio output



1080P

Output

H.265

Video Compression

ONVIF



Mobile

Fitur

Features

- Max. resolution 2MP (1920×1080 @ 30fps)
- Support low bit rate, low delay and ROI enhance encoding
- H. 265 high effective compression, save bandwidth and storage space
- Support multi-line OSD, OSD color can be adjusted
- High effective IR leds, long service life, IR distance can reach 20-30m
- Support smart IR, Prevent IR overexposure at night
- ICR infrared filter plate automatic switch, achieve real D/N monitoring
- Support corridor mode, increase the monitoring area in longitudinal strip environment
- Support PoE (optional)
- Support Micro SD card (128G) local-storage
- Support 3D digital N/R, WDR
- Support auto electronic shutter function, adapt different monitoring environment
- Support various intelligent alarm
- Support bidirectional talk
- Support 2CH alarm input/1CH alarm output

Spesifikasi

Specifications

Camera	
Image Sensor	: 1/2.8"SONY 2.07MP progressive scan Exmor CMOS
Min. illumination	: 0Lux/F1.4 (IR on) color: 0.02Lux/F1.4, B/W:0.002Lux/F1.4
IR Distance	: 20-30M(12"IR leds)
Electronic Shutter	: Auto/ Manual (1/25~1/10000), FLK
Day/Night	: ICR switch, auto, color, B/W, ext
Lens	: 2.8-12mm motorized lens
Lens Interface	: Φ 14
Auto IRIS	: DC drive
S/N Ratio	: $\geq$ 50db (AGC OFF)
Output	: PAL/NTSC adjustable
WDR	: WDR (Off/Low/Middle/High)
Light Board Control	: Auto/ Manual/ Off
3D N/R	: Off/ Low/ Middle/ High/ Higher
Defog	: Off/ Low/ Middle/ High
Mirror	: Off/ Horizontal/ Vertical/ 180° rotation/ Corridor mode (90° rotation, 270° rotation)
Slow Shutter	: /
Exposure Control	: Auto/ Manual
Image Setting	: Brightness, Contrast, Saturation, Sharpness, Hue

Audio/Video Encoding	
Video Compression	: H.265/ H.264
H.265 Encoding	: Main Profile
H.264 Encoding	: BaseLine/ Main Profile/ High Profile
Encoding Features	: NTSC: main stream: 1920×1080@30fps, sub-stream: D1@30fps PAL: main stream: 1920×1080@25fps, sub-stream: D1@25fps

INTI-CAM77D-T2 (Surveillance Camera)

Max. Resolution	:	1920X1080
Video Bit Rate	:	Constant bit rate, variable bit rate (16kbps~8000kbps)
Video Type	:	Complex stream/ Video stream
Audio Compression	:	G.711u
Audio Bit Rate	:	64 Kbps
Audio Control	:	Support input/ output volume gain control
ROI	:	Support 4 zones, multi-stage level
Watermark Function	:	/

Network		
Network Protocol	:	TCP/IP, UDP, HTTP, DHCP, RTSP, DDNS, NTP, PPPoE, UPnP, SMTP, FTP
Access Protocol	:	ONVIF, GB28181 (optional)
Browser	:	Support IE, Chrome, Firefox, Safari
Video Preview Meanwhile	:	8
User Permission	:	User add/ modify/ delete, permission management
Safe Mode	:	Authorized user name & password, HTTPS&AES link encryption, RTSP verification
Motion Detection	:	Set detection zone, Multi-level sensitivity can be set
Tampering Alarm	:	1 zone
Privacy Mask	:	4 zones
Intelligent Analysis	:	Target Counting, Left/Loss, Area Detection, Line Crossing
Event Linkage	:	Snapshot, TF card video, FTP upload or Email sending, alarm output linkage
Multicast Function	:	Support
ANR	:	Support, match with NVR
Mobile Surveillance	:	Support Apple, Android

Device Exception Detection	:	Support network disconnected, IP conflict, illegal access alarm
OSD	:	Title, time and date overlay, multi-line OSD, OSD color optional
DST	:	Support
Snapshot	:	Support snapshot, snapshot resolution is encoding resolution
System Update	:	Support remote update

Interface		
Network Interface	:	RJ45 10M/100M network adaptive
Analog Video Output	:	1CH 1.0Vp-p Composite video output
Audio	:	Line input/ output
Alarm Input	:	2CH input
Alarm Output	:	1CH output
Reset	:	Support
RS485	:	Support
TF Card	:	Support Max 128G, Micro SD (SDHC/ SDXC) card local-storage

General		
Operating Temperature	:	-20°C ~ 55°C
Operating Humidity	:	0% - 90%
Protection Grade	:	IP66/ IK10
Power Supply	:	DC12V /PoE optional
PoE	:	DC12V /PoE optional
Power Consumption (Max)	:	<8W
Dimensions (mm)	:	88.15 (H) * 5 117 (L)mm
Weight/ PCS (g)	:	

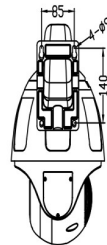
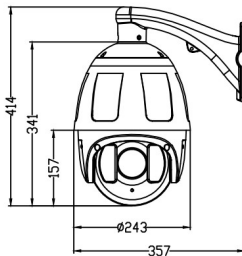
INTI-CPTZ-Type 1 (Surveillance Camera)



Fitur Features

- Support max 1920*1080 @30fps HD video output
- H.264/H.265 encoding
- Low illumination 0.01Lux/F1.6 (Color), 0.001Lux/F1.6 (B/W), 0 Lux (IR on)
- 30X 2MP HD optical zoom auto focus lens
- Support 3DNR, WDR, defog, HLC, anti shake, etc
- Support 360° pan endless: tilt 0°-90°
- Support manual speed: 0.1°-150°/S, preset: 180°/S
- 256 presets, 4 pattern scan, 8 preset cruise
- 3D positioning, privacy mask, PTZ watch
- Support target counting, electronic fence, retrograde detection, off-site detection
- Support face recognition, Human and vehicle shape detection, helmet detection
- 1CH audio input, 1CH audio output
- 2CH alarm input, 1CH alarm output, support alarm linkage
- Support smart IR grouping control, IR distance can reach 150m
- Support max 128G Micro SD card
- SDK, ONVIF, API, GB/T28181 protocol
- Lightning Protection, surging prevention, anti surge, IP66 protection level

Dimensi Dimension



INTI-CPTZ-Type 1 (Surveillance Camera)

Wire Interface



- 1. Power Supply
- 2. Reset
- 3. Audio Output
- 4. Audio Input
- 5. Alarm Input
- 6. Alarm Output/RS485
- 7. Network Interface

Spesifikasi Specifications

Zoom Module		
Image Sensor	:	1/2.8" Sony 2.13M CMOS Sensor
Min. illumination	:	Color: 0.01 Lux@F1.6, B/W: 0.001Lux@F1.6, 0Lux (IR ON)
Effective Pixels	:	2MP
Resolution	:	More than 1000TVL
Optical Zoom	:	33X
Digital zoom	:	/
Focal Length	:	f=5.2mm ~ 156mm
Iris	:	F1.3 (W) ~ F4.8 (T)
Angle of View	:	65.4° (Wide) ~ 2.48° (Tele)

Zoom Speed	:	1-10 level optional
Focus Mode	:	Auto/Manual
S/N Ratio	:	>50dB
Image Adjust	:	Support brightness, contrast, saturation, Hue can be adjusted through web
White Balance	:	Auto/ Custom/ Lock white balance/ incandescent/ warm/ natural/ fluorescen
Image Mode	:	Standard/ gorgeous/ natural
Iris Control	:	Auto/Manual
Electronic Shutter	:	Auto/Manual (1/25 ~ 1/10000)
Auto Slow Shutter	:	On/Off
Gain Control	:	Lower/ Low/ Middle/ High/ Higher
BLC	:	Off/ HLC/ BLC
WDR	:	Off/ TWDR/ DWDR
Day/Night	:	AutoColor/ B/ W/ Extern
Mirror	:	Normal/ Horizontal Mirror/ Vertical Mirror/ 180° rotation
DNR	:	3DNR, Off/ Low/ Middle/High/Higher
Defog	:	Off/Low/ Middle/High
Anti Shake	:	Off/ Low/ Middle/High

Audio/Video Compression		
Video Compression	:	H.265/H.264
H.265 Encoding	:	Main Profile
H.264 Encoding	:	BaseLine/ Main Profile/ High Profile
Frame Rate	:	1 ~ 30fps adjustable 1920×1080, 1280×960, 1280x720, 720×576

Main Stream Resolution	:	1920×1080 (1080p), 1280×960 (960p), 1280×720 (720p), 720×576 (D1), 640×480 (VGA), 352×288 (CIF)
Sub Stream Resolution	:	720×576 (D1), 640×480 (VGA), 352×288 (CIF)
Output Format	:	PAL/NTSC adjustable
Max. Resolution	:	1920X1080
Video Bit Rate	:	Constant bit rate, Variable bit rate (16kbps-8000kbps)
Stream Type	:	Complex stream/ Video stream
Audio Compression	:	G.711u
Audio Bit Rate	:	64 Kbps
Audio Control	:	Input volume (0-100), output volume (0-100)
ROI	:	8 zones (1-6)

Function		
Pan Range	:	360° endless
Tilt Range	:	0°~ 90°
Manual Control	:	0.1° ~ 150°/s
Preset Speed	:	180°/s
Preset Accuracy	:	0.1°
Preset	:	256
Cruise	:	8 groups
Pattern	:	4 groups
Continuous Scan	:	Support
Proportion Zoom	:	Auto
PTZ Watch	:	Off/ Preset/ Cruise/ Pattern

Auto Flip	:	Mechanical Flip
Power off Memory	:	Support
3D Positioning	:	Support
Magnification/ Coordinate	:	Support
IR Irradiation angle	:	Automatically grouping adjusted, depending on the zoom ratio
IR Distance	:	150m
Smart IR	:	IR irradiation brightness and angle can be adjusted depending on the zoom ratio

Network		
Network Protocol	:	IPv4, TCP, UDP, HTTP, HTTPS, SMTP, FTP, NTP, DNS, DDNS, DHCP, ARP, UPnP, RTSP, RTP, RTCP, IGMP, PPPoE, ICMP, SNMP
Access Protocol	:	ONVIF GB/T28181
Browser	:	Support IE11
Video Preview Meanwhile	:	Max 8CH
User Permission	:	User Add/ Delete/ Modify, Administrator/ Operator/Ordinary users
Safe Mode	:	Authorized user name and password
Motion Detection	:	Multi areas, multi-level sensitivity threshold optional
Tampering Alarm	:	1 zone
Privacy Mask	:	8 zones
Smart Analysis	:	Target Counting, Electronic Fence, Retrograde Detection, Off-site Detection
Event linkage	:	Snapshot, TF card video, FTP upload or Email sending , alarm output linkage, Trusted Partner Preset linkage

INTI-CPTZ-Type 1 (Surveillance Camera)

Multicast	:	On/Off
ANR	:	Support, match with the NVR
Mobile Surveillance	:	Support Android, Apple
Device Exception	:	Support network disconnected, IP conflict, illegal access alarm
OSD	:	Title, time and date overlay, OSD color/size adjustable
DST	:	Support
System Upgrade	:	Support online remote upgrade

AI		
Face Detection Number	:	Detect 30 static or 10 dynamic face targets simultaneously
Recognition Face Size	:	Face pixel ≥ 80 pixels
Posture	:	Capture within 20 degrees in vertical, within 20 degrees in horizontal
Face Deduplicate	:	Support
Face Quality Filtering	:	Support
Dynamic Exposure	:	Support
Face Database Capacity	:	Support built-in 10000 faces
Recognition Area	:	Full image recognition, support zone optional setting
Upload Mode	:	FTP, SDK function calling upload
Human and Vehicle Shape Detection	:	Target Counting, Electronic Fence, Retrograde Detection, Off-site Detection
Network Interface	:	RJ45 10M/100M Network Adaptive

Analog Video Output	:	/
Audio	:	1CH input/1CH output, monitoring or bidirectional talk
Alarm Input	:	2 CH input
Alarm Output	:	1CH output, support alarm linkage
Reset	:	Support
RS485 Port	:	Support FSN protocol
TF Card	:	Support Max 128G, Support ANR

General		
Protection Grade	:	IP66
Operating Temperature	:	Outdoor: -30°C ~ 60°C (Support 30 minutes delay to boot up under low temperature)
Operating Humidity	:	10% ~ 90%RH (No condensation)
Power Supply	:	DC12V/5A ($\pm 10\%$)
POE	:	/
Power Consumption (max.)	:	55W
Weight/PCS (Kg)	:	About 9kg

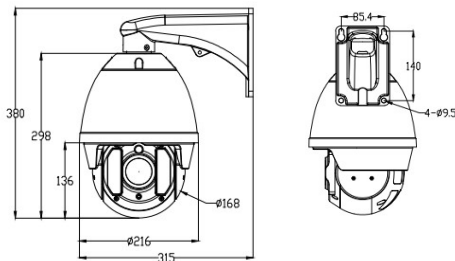
INTI-CPTZ-Type 2 (Surveillance Camera)



Fitur Features

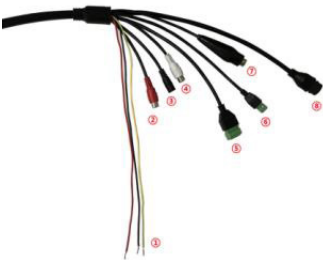
- Support max 1920*1080 @30fps HD video output
- H.264/H.265 encoding
- Low illumination 0.01Lux/F1.6 (Color), 0.001Lux/F1.6 (B/W), 0 Lux (IR on)
- 30 x 2MP HD optical zoom auto focus lens
- Support 3DNR, WDR, defog, HLC, anti shake, etc
- Support 360° pan endless: tilt 0°-90°
- Support manual speed: 0.1°-180°/S, preset:200°/S
- 256 presets, 4 pattern scan, 8 preset cruise
- 3D positioning, privacy mask, PTZ watch
- Support target counting, electronic fence, retrograde detection, off-site detection
- Support face recognition, Human and vehicle shape detection, helmet detection
- 1CH audio input, 1CH audio output
- 2CH alarm input, 1CH alarm output, support alarm linkage
- Support smart IR grouping control, IR distance can reach 120m
- Support max 128G Micro SD card
- SDK, ONVIF, API, GB/T28181 protocol
- Lightning Protection, surging prevention, anti surge, IP66 protection level

Dimensi Dimension



INTI-CPTZ-Type 2 (Surveillance Camera)

Wire Interface



- 1. Power Supply
- 2. Audio Input
- 3. Reset
- 4. Audio Output
- 5. Alarm Input
- 6. Alarm Output
- 7. /
- 8. Network Interface

Spesifikasi Specifications

Zoom Module	
Image Sensor	: 1/2.8" Sony 2.13M CMOS Sensor
Min. illumination	: Color: 0.01 Lux@F1.6, B/W: 0.001Lux@F1.6, 0Lux (IR ON)
Effective Pixels	: 2MP
Resolution	: More than 1000TVL
Optical Zoom	: 33X
Digital zoom	: /
Focal Length	: f=5.2mm ~ 156mm
Iris	: F1.3 (W) ~ F4.8 (T)

Angle of View	: 65.4° (Wide) ~ 2.48° (Tele)
Zoom Speed	: 1-10 level optional
Focus Mode	: Auto/Manual
S/N Ratio	: >50dB
Image Adjust	: Support brightness, contrast, saturation, Hue can be adjusted through web
White Balance	: Auto/ Custom/ Lock white balance/ incandescent/ warm/ natural/ fluorescen
Image Mode	: Standard/ gorgeous/ natural
Iris Control	: Auto/Manual
Electronic Shutter	: Auto/Manual (1/25 ~ 1/10000)
Auto Slow Shutter	: On/Off
Gain Control	: Lower/ Low/ Middle/ High/ Higher
BLC	: Off/ HLC/ BLC
WDR	: Off/ TWDR/ DWDR
Day/Night	: AutoColor/ B/ W/ Extern
Mirror	: Normal/ Horizontal Mirror/ Vertical Mirror/ 180° rotation
DNR	: 3DNR, Off/ Low/ Middle/High/Higher
Defog	: Off/Low/ Middle/High
Anti Shake	: Off/ Low/ Middle/High

Audio/Video Compression	
Video Compression	: H.265/H.264
H.265 Encoding	: Main Profile
H.264 Encoding	: BaseLine/ Main Profile/ High Profile

Frame Rate	:	1 ~ 30fps adjustable 1920×1080, 1280×960, 1280×720, 720×576
Main Stream Resolution	:	1920×1080 (1080p), 1280×960 (960p), 1280×720 (720p), 720×576 (D1), 640×480 (VGA), 352×288 (CIF)
Sub Stream Resolution	:	720×576 (D1), 640×480 (VGA), 352×288 (CIF)
Output Format	:	PAL/NTSC adjustable
Max. Resolution	:	1920X1080
Video Bit Rate	:	Constant bit rate, Variable bit rate (16kbps-8000kbps)
Stream Type	:	Complex stream/ Video stream
Audio Compression	:	G.711u
Audio Bit Rate	:	64 Kbps
Audio Control	:	Input volume (0-100), output volume (0-100)
ROI	:	8 zones (1-6)

Function		
Pan Range	:	360° endless
Tilt Range	:	0°~ 90°
Manual Control	:	0.1° ~ 180°/s
Preset Speed	:	200°/s
Preset Accuracy	:	0.1°
Preset	:	256
Cruise	:	8 groups
Pattern	:	4 groups
Continuous Scan	:	Support

Proportion Zoom	:	Auto
PTZ Watch	:	Off/ Preset/ Cruise/ Pattern
Auto Flip	:	Mechanical Flip
Power off Memory	:	Support
3D Positioning	:	Support
Magnification/ Coordinate	:	Support
IR Irradiation angle	:	Automatically grouping adjusted, depending on the zoom ratio
IR Distance	:	120m
Smart IR	:	IR irradiation brightness and angle can be adjusted depending on the zoom ratio

Network		
Network Protocol	:	IPv4, TCP, UDP, HTTP, HTTPS, SMTP, FTP, NTP, DNS, DDNS, DHCP, ARP, UPnP, RTSP, RTP, RTCP, IGMP, PPPoE, ICMP, SNMP
Access Protocol	:	ONVIF GB/T28181
Browser	:	Support IE11
Video Preview Meanwhile	:	Max 8CH
User Permission	:	User Add/ Delete/ Modify, Administrator/ Operator/Ordinary users
Safe Mode	:	Authorized user name and password
Motion Detection	:	Multi areas, multi-level sensitivity threshold optional
Tampering Alarm	:	1 zone
Privacy Mask	:	8 zones

INTI-CPTZ-Type 2 (Surveillance Camera)

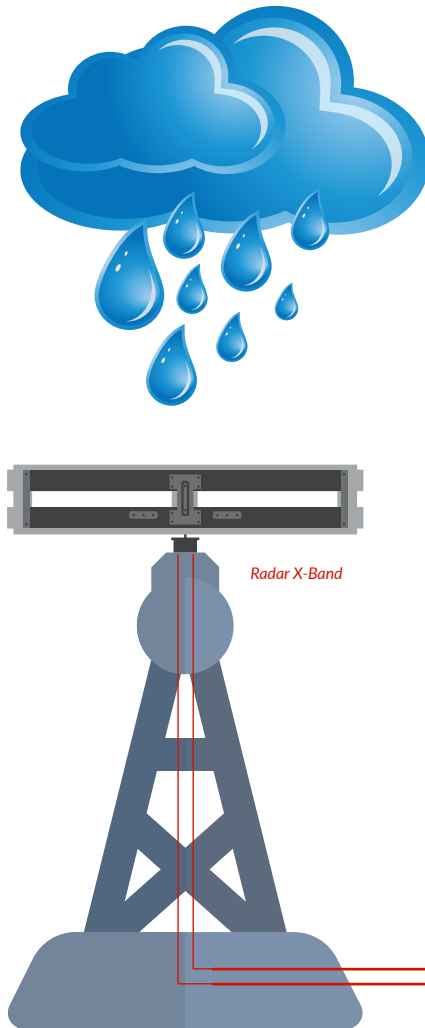
Smart Analysis	:	Target Counting, Electronic Fence, Retrograde Detection, Off-site Detection
Event linkage	:	Snapshot, TF card video, FTP upload or Email sending , alarm output linkage, Trusted Partner Preset linkage
Multicast	:	On/Off
ANR	:	Support, match with the NVR
Mobile Surveillance	:	Support Android, Apple
Device Exception	:	Support network disconnected, IP conflict, illegal access alarm
OSD	:	Title, time and date overlay, OSD color/size adjustable
DST	:	Support
System Upgrade	:	Support online remote upgrade

AI		
Face Detection Number	:	Detect 30 static or 10 dynamic face targets simultaneously
Recognition Face Size	:	Face pixel ≥80 pixels
Posture	:	Capture within 20 degrees in vertical, within 20 degrees in horizontal
Face Deduplicate	:	Support
Face Quality Filtering	:	Support
Dynamic Exposure	:	Support
Face Database Capacity	:	Support built-in 10000 faces
Recognition Area	:	Full image recognition, support zone optional setting

Upload Mode	:	FTP , SDK function calling upload
Human and Vehicle Shape Detection	:	Target Counting, Electronic Fence, Retrograde Detection, Off-site Detection
Network Interface	:	RJ45 10M/100M Network Adaptive
Analog Video Output	:	/
Audio	:	1CH input/1CH output, monitoring or bidirectional talk
Alarm Input	:	2 CH input
Alarm Output	:	1CH output, support alarm linkage
Reset	:	Support
RS485 Port	:	/
TF Card	:	Support Max 128G, Support ANR

General		
Protection Grade	:	IP66
Operating Temperature	:	Outdoor: -30°C ~ 60°C (Support 30 minutes delay to boot up under low temperature)
Operating Humidity	:	10% ~ 90%RH (No condensation)
Power Supply	:	DC12V/1.5A (±10%)
POE	:	Support, (IEEE802.3at standard)
Power Consumption (max.)	:	36W
Dimensions (mm)	:	380(H) * 216(D)mm
Weight/PCS (Kg)	:	About 7kg

SANTANU (Sistem Pemantauan Hujan Spasial)



Deskripsi

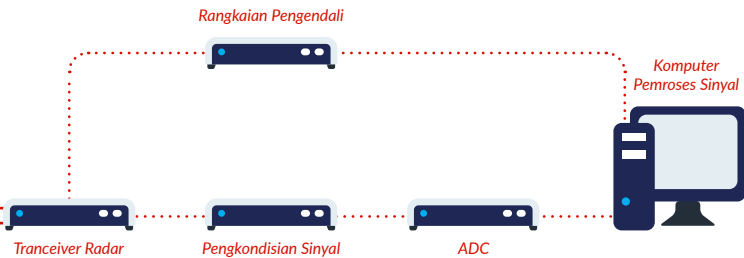
Description

Merupakan sistem pemantau hujan berbasis radar hujan yang dimodifikasi dan dikembangkan dari radar kapal sehingga memiliki biaya yang rendah.

SANTANU dapat memberikan data hujan dengan pemuktahiran data dan informasi setiap dua menit. Radar ini ditujukan untuk mendukung sistem peringatan dini cuaca ekstrim.

It is a rain radar-based rain monitoring system that is modified and developed from ship radars so that it has a low cost.

SANTANU can provide rain data by updating data and information every two minutes. This radar is intended to support an extreme weather early warning system.



SANTANU (Sistem Pemantauan Hujan Spasial)

Manfaat

Benefits

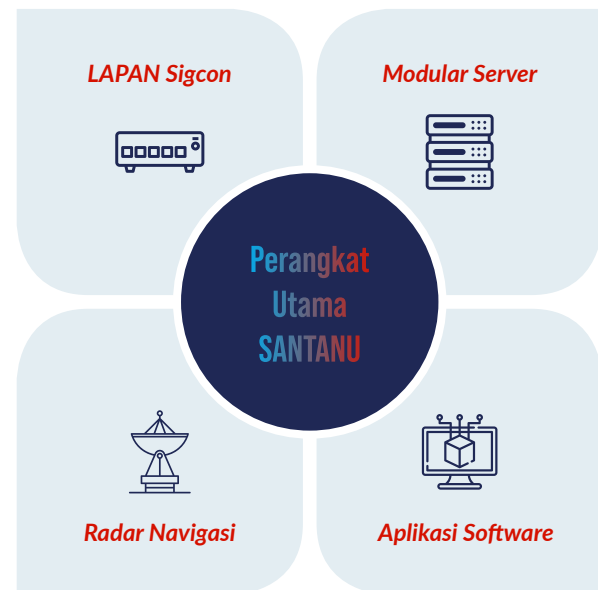
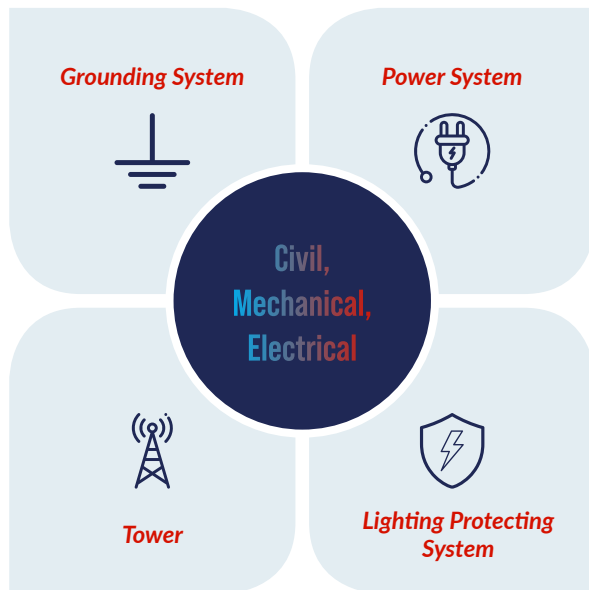
- SANTANU dapat dijadikan perangkat pendukung sistem peringatan dini bencana hidrometeorologi.
- SANTANU dapat mendukung sistem navigasi di Bandara maupun di syahbandar yang memerlukan informasi kondisi hujan di sekitar daerah tersebut.
- Data yang dihasilkan oleh SANTANU juga dapat menjadi data pelengkap radar cuaca yang dimiliki oleh BMKG (Badan Meteorologi, Klimatologi, dan Geofisika).
- Data-data yang direkam dan dihasilkan oleh SANTANU memiliki nilai ekonomi, yang dapat membantu dalam aktivitas industri, tambang, perhubungan, sekaligus mengurangi ketergantungan terhadap impor.
- Menjadi salah satu faktor penunjang bagi industri nasional menghasilkan diversifikasi produk, berperan di dalam rantai pasok, dan berdaya saing global.
- *SANTANU can be used as a supporting device for early warning systems for hydrometeorological disasters.*
- *SANTANU can support the navigation system at the airport as well as the port that requires information on rain conditions around the area.*
- *Data produced by Santanu can also be a complementary weather radar data owned by BMKG (Meteorology, Climatology, and Geophysics).*
- *The data recorded and produced by SANTANU has economic value, which can help in industrial, mining, transportation activities, while reducing dependence on imports.*
- *Being one of the supporting factors for the national industry produces product diversification, plays a role in the supply chain, and is globally competitive.*

Keuntungan & Keunggulan

Advantages

- SANTANU radar cuaca *long range & low cost*
- Resolusi tampilan radar yang tinggi sehingga akurasi tinggi
- Staff dan tenaga ahli dari Indonesia
- Inovasi dan *redevelopment* yang *sustainable*
- *SANTANU long range & low cost weather radar*
- *The radar display resolution is high so the accuracy is high*
- *Staff and experts from Indonesia*
- *Sustainable innovation and redevelopment*

Konfigurasi Configuration



INTIBOOK

Deskripsi

Description

INTIBOOK adalah perangkat laptop yang berbasis Intel Platform, dengan kualitas material yang bagus untuk memenuhi kebutuhan pelanggan kantor & rumah.

INTIBOOK is a laptop device based on Intel Platform, with good quality materials to meet the needs of office & home customers.



Spesifikasi INTIBOOK

Specifications

Processor Type	: Variant: • Intel® Core™ i7 Processor (12M Cache, up to 4.70 GHz) • Intel® Core™ i5 Processor (Quad-core) base frequency 2.4 GHz, 8Mb cache • Intel® Core™ i3 Processor (8M Cache, up to 4.40 GHz)
Memory	: DDR4 8GB, upgradeable to 32GB (Optional)
Harddrive	: SSD 256GB upgradeable to 1TB (Optional)
Port	: 1x HDMI port
Networking	: • Integrated Wifi 802.11 a/b/g/n/ac/ax • Bluetooth
Webcam	: Integrated HD Camera
Audio Ports	: Built-in microphone, Stereo Speaker
Accessories	: USB Type A, USB Type C
Graphic Type	: Integrated Intel Iris Xe Graphic
Display	: 14inch
Operating System	: Windows 11

INTICROMEBOOK

Deskripsi

Description

INTICROMEBOOK dirancang untuk membantu Anda menyelesaikan berbagai aktivitas dengan lebih cepat dan lebih mudah. Chromebook menjalankan ChromeOS, sistem operasi dengan penyimpanan cloud, memiliki fitur bawaan terbaik dari Google, serta keamanan berlapis.

INTICROMEBOOK is designed to help you get things done faster and easier. Chromebooks run ChromeOS, an operating system with cloud storage, have the best built-in features from Google, and layered security.

Spesifikasi

Specifications

Processor Type	:	Minimal Dual core, 1,1 GHz, cache 1M
Memory	:	4GB DDR4
Harddrive	:	32GB
I/O ports	:	USB 3.0
Port	:	1x HDMI port, 1x VGA port
Networking	:	Integrated Wifi (IEEE 802.11ac/b/g/n)
Graphic Type	:	Integrated HD graphic
Audio Ports	:	Integrated



Display	:	11inch LED
Power	:	Maximum 50watt
Operating System	:	Chrome OS
Display	:	14inch
Device Management	:	Ready to activated chrome education upgrade
Warranty	:	1 Years spare part & warranty



Deskripsi

Description

INTI AIO merupakan perangkat All in One PC (AIO PC) yang semua komponennya termasuk monitor terintegrasi dalam satu unit tunggal, kecuali keyboard dan mouse. INTI AIO menawarkan beberapa keunggulan dibandingkan komputer desktop tradisional. Selain menghemat ruang meja, estetika, ringkas, dan mudah diatur dibandingkan dengan komputer desktop, INTI AIO juga dapat mengurangi konsumsi daya dan panas serta ramah lingkungan.

INTI AIO is an All in One PC (AIO PC) device in which all components including the monitor are integrated into a single unit, except the keyboard and mouse. INTI AIO offers several advantages over traditional desktop computers. Apart from saving desk space, being aesthetic, compact, and easy to set up compared to desktop computers, INTI AIO can also reduce power and heat consumption and is environmentally friendly.

Spesifikasi

Specifications

Product type	:	ALL IN ONE PC
Product model	:	P215
Resolution	:	1920 * 1080
CPU	:	intel®core™ i5 11400 Main frequency: 2.6Ghz Turbo frequency: 4.4Ghz
Ram	:	8G DDR4
Rom	:	1T SSD
Graphic card	:	Intel HD 730
Screen size	:	21.5 inch
Interface port	:	Audio In/Out, USB3.0*2, USB3.0*2, RJ45 Gigabit LAN*1 COM*1, HDMI*1, DC*1
External interface	:	USB2.0*2
BT	:	BT 5.2
Adapter power	:	Input 100-240V ~ 50/60Hz 1.8A MAX Output 19VDC-7A
WiFi	:	WIFI6 IEEE802.11a/b/g/n/ac/ax
Sound system	:	Stereo speakers
OS	:	Windows 10/11
Keyboard and mouse	:	Yes
Color	:	White
Package size	:	490*380*290mm
Packing list	:	All-in-one computer machine*1, Adapter*1 Power cord*1, Base*1



Deskripsi

Description

LCVMS (Low Cost Vessel Monitoring System) merupakan perangkat monitoring sistem berbasis sinyal satelit yang berjalan pada jaringan Inmarsat.

LCVMS menawarkan fasilitas komunikasi transmisi data via satelit yang memungkinkan pertukaran data dan informasi kelautan dan perikanan untuk kepentingan nelayan, pemilik kapal maupun penyedia layanan (operator). Produk LCVMS dapat memberikan nilai tambah bagi nelayan berupa efisiensi, keselamatan, dan peningkatan hasil tangkapan ikan.

LCVMS (Low Cost Vessel Monitoring System) is a satellite signal-based system monitoring device that runs on the Inmarsat network.

LCVMS offers data transmission communication facilities via satellite that allows the exchange of marine and fisheries data and information for the benefit of fishermen, ship owners and service providers (operators). LCVMS products can provide added value for fishermen in the form of efficiency, safety, and increase in fish catches.

LCVMS

Fitur
Features

- GPS Location
- Users Active List
- Dynamic Group Configuration
- Emergency Alarm
- Electronic Fencing
- GPS Playback
- Time Stamping
- One to One/Priority Call

Spesifikasi
Specifications

Physical		
External Dimensions	:	p(max) x l(max) x t(max) < (250mm x 200mm x 200mm)
Weight	:	max 5kg
Housing	:	Double shell housing with light color outer shell
Environmental		
Operating Temperature	:	-40°C to +85°C
Storage Temperature	:	-40°C to +85°C
Humidity	:	Relative Humidity 20% - 100%
Dust & Water Ingress	:	IP65 non corrosive materials

Vibration	:	MIL-STD-810G, Tracked Vehicle and Aircraft SAE J1455, Cab Mounted & Transverse Axis
Electrical		
Input Voltage Range	:	5VDC to 15VDC
Nominal Supply Voltage	:	12VDC
Input Current	:	Transmit mode: 750mA @12VDC GPS on: ~70mA Receive mode: ~80mA @12VDC
Back-up Battery	:	Lithium Polymer
Satellite Data Communication		
Network	:	Inmarsat
Frequency	:	Downlink: 1525.0 MHz to 1559.0 MHz Uplink: 1626.5 MHz to 1660.5 MHz
Antenna	:	Passive Antenna
Antenna Specification		
Frequency Range	:	IEEE 802.11b/g/n IEEE 802.11n (2.4 GHz), up to 150 Mbps
Impedance	:	Nominal value 50 ohm
Return Loss	:	Better than 15 dB
Gain	:	7 dBi
Power Rating	:	10W
Polarization & Axial Ratio	:	Right hand circular polarization (RHCP) The axial ratio shall be less than 2 dB

INTI Smart Terminal (IST-28)

Deskripsi

Description

INTI Smart Terminal (IST-28) merupakan produk yang memanfaatkan teknologi *Push To Talk over Cellular* untuk berkomunikasi seperti *Push to Talk* konvensional, namun mempunyai jangkauan yang sangat luas dengan harga terjangkau. IST memanfaatkan jaringan seluler 2G, 3G, atau 4G yang sudah beredar di pasar.

INTI Smart Terminal (IST-28) is a product that utilizes Push To Talk over Cellular technology to communicate like conventional Push to Talk, but has a very wide range at affordable prices. IST utilizes 2G, 3G, or 4G cellular networks that are already circulating in the market.



INTI Smart Terminal (IST-28)

Android 5.1.1

GPS, A-GPS, GLONASS

110 mm * 57 mm * 31 mm
/ 210 gr

4000 mAh Li-Ion / Talk
time 22 hours

GSM Band 2/3/5/8
WCDMA Band 1/2/5/8
FDD-LTE Band 1/2/3/5/7/8/20/28
TDD LTE Band 38/40
BT 4.0
WiFi 802.11 b/g/n

Fitur Features

- GPS Location
- Users Active List
- Dynamic Group Configuration
- Emergency Alarm
- Electronic Fencing
- GPS Playback
- Time Stamping
- One to One/Priority Call



Perbandingan Penggunaan "WhatsApp" dengan "INTI Smart Terminal"

No.	Topik	WhatsApp	IST-28
1	<i>Voice Call or Message</i> (Komunikasi suara dan berita berbentuk suara)	- Setiap kali harus membuka smartphone - Setiap kali harus membuka aplikasi - Setiap kali berpesan dengan menekan tombol <i>softkey</i> untuk merekam	Cukup sekali menekan tombol <i>hardkey</i>
	a. Kecepatan merespon	- Lamban - Mendengar ulang berita rekaman suara	- Sangat Cepat - Mendengar langsung berita tanpa harus membuka aplikasi - Sangat tepat guna ketika kondisi "<i>emergency</i>"
	b. Volume suara	Smartphone menggunakan speaker buzzer dengan volume kecil	- Terminal menggunakan speaker standard outdoor dengan volume besar - Tepat guna untuk pemakaian outdoor
	c. Nada izin berbicara	- Tidak memiliki nada izin berbicara - Semua pemakai smartphone dapat merekam/mengirim pada waktu yang sama - Tidak jelas "urutan" pembicaraan yang bisa menyebabkan "salah pemahaman" - Tidak memiliki kemampuan pembicara ber-hirarki	- Memiliki nada izin berbicara - Hanya satu user yang diizinkan berbicara untuk mengontrol urutan pembicaraan - Memiliki pembicara ber-hirarki agar dapat "interupsi pembicaraan" kalau diperlukan
	d. Pembicaraan suara serentak per group	Terbatas maksimal hanya 4 pengguna (users)	Tidak terbatas (unlimited)
	e. Penampilan Video Call (<i>Video View</i>)	Terbatas maksimal hanya 4 pengguna (users)	Terbatas maksimal untuk 16 pengguna (users)
2	Kekuatan Casing	Smartphone sangat rentan apabila digunakan untuk pemakaian kasar	Khusus diperuntukkan pemakaian kasar/outdoor
3	Kemampuan Baterai	Kemampuan baterai yang terbatas karena ketergantungan pada banyaknya aplikasi yang terpasang didalam Smartphone	Kemampuan baterai yang sangat handal karena penggunaannya hanya dibatasi untuk komunikasi komando/perintah <i>Push To Talk</i> (PTT).
		Kebanyakan Baterai Smartphone sudah menyatu (<i>built-in</i>)	- Baterai dapat di tukar jika diperlukan dan memiliki cadangan baterai - Dapat menggunakan bank baterai (<i>power bank</i>)
4	<i>Command Centre</i> (<i>Command and Control Accessibilities</i>)	Tidak memiliki " <i>Dispatch Console</i> " yang berfungsi sebagai " <i>Command Centre</i> ".	- Memiliki "<i>Dispatch Console</i>" untuk dijadikan sebagai Pusat Komando & Kontrol Komunikasi - Dapat berkomunikasi dengan <i>Command Centre</i> untuk penyampaian informasi dan berkoordinasi
		Tidak memiliki tombol "SOS".	Memiliki tombol SOS dan digunakan ketika darurat. Memberitahukan Pusat Komando & Kontrol Komunikasi untuk melakukan tindakan penyelamatan darurat
		Tidak dapat memantau Lokasi GPS pengguna komunikasi secara real time dan secara bersama	Dapat memantau semua lokasi GPS pengguna komunikasi (Users) secara <i>real time</i> dan serentak
		Tidak bisa merekam jejak untuk setiap pengguna (users)	Dapat merekam jejak untuk semua pengguna (users)
		Tidak dapat membuat " <i>electronic fencing</i> (pagar luas area kerja)"	Dapat membuat "pagar luas area kerja", apabila ada pengguna (users) melintas keluar area, maka sistem akan menginformasikan kepada <i>command center</i>
5	Peyimpanan data (<i>data backup</i>)	Hanya bisa menyimpan untuk rekaman : text, voice message, gambar dan video	Dapat menyimpan rekaman : text, voice message, lokasi GPS, detail pembicaraan, on/off pengguna (users), alarm yang diaktifkan, dsb

4K Android TV OTT Box

Deskripsi

Description

4K Android TV OTT Box merupakan perangkat multimedia yang dapat difungsikan untuk media player, menikmati konten OTT, streaming konten, bermain game, belanja online dll. Pengguna dapat menikmati beragam hiburan yang tersedia di perangkat Android dengan layar lebih besar menggunakan Android Box ini.

4K Android TV OTT Box is a multimedia device that can be used for media players, enjoy OTT content, streaming content, playing games, shopping online etc. Users can enjoy a variety of entertainment available on Android devices with a bigger screen using this Android Box.



Brings endless original content from Google Play, YouTube, Sling and Hulu, etc.

Faster & easier, with better mobile support automatically fill in passwords.

Prioritizes Operator content, channels, and recommendations.

Provides maintenance-free Android TV Platform and cost-saving solution.



Spesifikasi Specifications

Common Features
Quad Core 64-bit CPU
4Kp75 10-bit H.265, VP9 Profile2, AVS2-P2 Decoding
HDMI 2.1, CEC, HDCP2.2
Ultra Low Power
Support HDR 10, HLG, Dolby Vision, TCH PRIME
Support OpenGL ES3.2, Vulkan1.0 and OpenCL2.0
Streaming Protocol: RTCP, RTMP, RTP, RTSP, HLS, Smooth Streaming
DRM: Widevine, Playready, Verimatrix (Optional)
Air Remote: Can using the android and iOS mobile phone to control
System upgrading: Upgrade software via USB or network

Media
Video
Decoder: H.265 10-bit 4K*2K@75fps,VP9 4K*2K @75fps, AVS2-P2 4K*2K@75fps, H.264 AVC 4K*2K@30fps, MPEG1/2/4 ASP, WMV/VC-1, RealVideo8/9/10
Format: MKV, WMV, M2TS, MOV, MP4, AVI, MPG, MPEG1/2/4, DAT, VOB, FLV, 3GP, DIVX, F4V, ASF, M2V etc.
Audio
Decoder: MPEG1/2/4,MVC, MP3, AAC/AAC+, WMA/WMA-pro, FLAC, OGG, (AC3 ,Dolby Vision Optional)
Format: MP3, AAC, WMA, RM, FLAC, OGG, M4A, MP4, AAC, APE, FLAC, MP1/2 etc.
Subtitle Format
SRT, ASS, SSA etc.
Photo Format
HD JPEG/BMP/PNG etc.

Basic Parameter
System
- SoC: Amlogic S905X2 - CPU: ARM Quad 64-bit Cortex-A53 up to 2GHz (DVFS) - GPU: Mali-G31 MP2 850MHz - DRAM: DDR 2GB (1GB,4GB Optional) - Flash: eMMC 8GB (16GB, 32GB, 64GB Optional) - OS: Android™ 9.0 or higher
Network
- RJ45 Interface 10M/100M adaptive (10M/100M/1000M optional) - Wi-Fi 2.4GHz b/g/n (2.4GHz/5.0GHz Optional) - Bluetooth 4.2 or higher - Support most external 3G/4G USB dongle(Optional)

Connectivity
Video Output
HDMI 2.1, AV
Audio Output
S/P DIF
Network
RJ45
Peripheral Interface
USB 3.0x1, USB2.0 x1 , TF card slot
Power Interface
DC
Other Interface
Front Panel: Power Indicator

Others
Input Voltage
DC
Power Consumption
8W Max
Operation Temperature
0~40 °C
Physical Characteristics
Size(L*W*H): 100mm*100mm*23.5mm Material: plastic
Proposed Accessory
Bluetooth Voice Remote control, User manual, Power adapter, HDMI cable

INTI AFIS

Deskripsi
Description

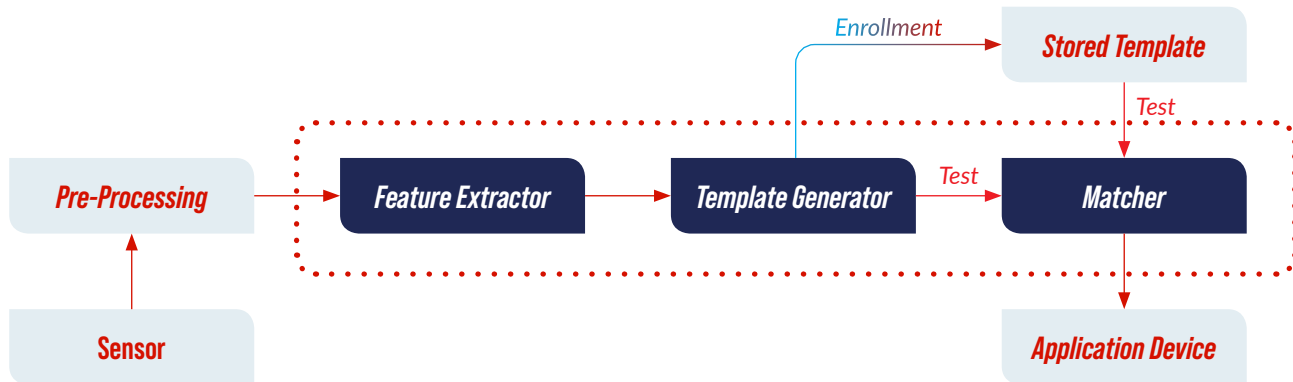
INTI AFIS (INTI Automatic Fingerprint Identification System) adalah identifikasi biometrik fingerprint yang menggunakan teknologi *digital image* untuk mendapatkan, menyimpan, dan menganalisis data sidik jari. INTI AFIS mengintegrasikan perangkat fingerprint scanner dengan aplikasi.

INTI AFIS (INTI Automatic Fingerprint Identification System) is a fingerprint biometric identification that uses digital image technology to obtain, store, and analyze fingerprint data. INTI AFIS integrates a fingerprint scanner with an application.



Fitur Features		Banking	Transaction Authorization	Law Enforcement	Forensics	
Public Service	Population	Access Control	Single Sign On	Attendance	Airport Security Smart Airport with Biometric	Customization According to User Business Processes

Konfigurasi Configuration



Verifikasi/Autentikasi

Sistem akan melakukan pencocokan satu ke satu dari data biometrik sidik jari yang telah diambil (*captured*) dengan template spesifik yang disimpan dalam basis data biometrik, dengan tujuan untuk memverifikasi keabsahan dari seorang pengguna.



Identifikasi

Dimana sistem akan melakukan pencocokan satu ke banyak dari basis data biometrik, dengan tujuan mengetahui identitas dari orang yang tidak dikenal.

INTI AFIS



- Unparalleled performance, speed and accuracy
- ANSI/INCITS 378, ISO 19794-2 and ILO SID compliant
- PIV LEVEL 2: Extractor and Matcher compliant to US Government's Personal Identity Verification standards
- STQ certified
- NIST MINEX III - top performer in all categories
- Optimized performance for low-level embedded devices (scanners, POS terminals)
- ISO compact card template conversions available

Fitur Features

- Kenyamanan dengan protocol SSL/TLS
- Token based authentication
- Fingerprint data protection
- STQC Certification (audit & testing)
- Rejection of false fingerprint

Spesifikasi Specifications

INTI AFIS	
Operating System	Windows (32-bit, 64-bit): 7, 8, 10, Server
	Linux (32-bit, 64-bit): Red Hat, Centos - Version 6 and higher
	Android 2.3.4 and higher, supported architectures: arm, armv7a, mips, x86, arm64-v8a
	Embedded Platforms and other upon request
API	C
Connectors	.NET & Java connectors including sample applications
Coding Environment	C, C++, VB, C#, Java
Template Format	ANSI INCITS 378
	ISO/IEC 19794-2:2005, template version 2.0, 6-byte format for minutiae
	ILO SID template format, specified in Seafarers Identity Documents convention
	ISO/IEC 19794-2:2005, template version 2.0, 3-byte format for minutiae (compact card encoding)
Template Size - ISO Template	200 - 300 B
	Fingerprint Input Image Format
RAW, BMP, ISO 19794-4 (WSQ, PNG, JPEG2K)	

- Convenience with the SSL/TLS protocol
- Token based authentication
- Fingerprint data protection
- STQC Certification (audit & testing)
- Rejection of false fingerprint

i-EWS (Early Warning System)

Deskripsi

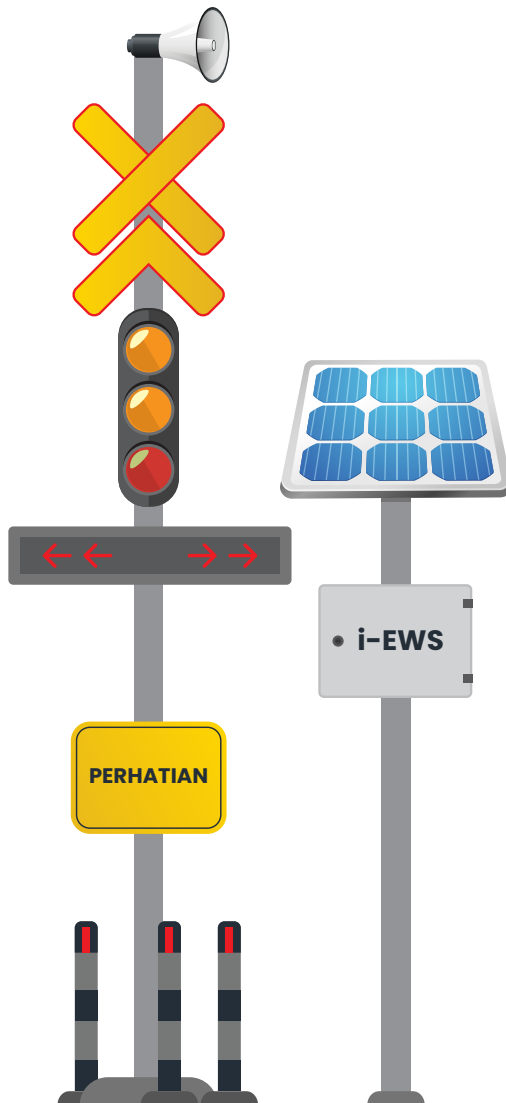
Description

i-EWS merupakan sistem alat bantu keselamatan perlintasan jalan kereta api dan jalan umum, menggunakan sensor deteksi kereta api yang bekerja secara otomatis dan mandiri.

Sistem ini mendukung Kementerian Perhubungan, PT Kereta Api Indonesia dan Pemerintah Daerah dalam pengamanan perlintasan jalur kereta api.

i-EWS is a safety aid system for railroads and public roads, using a train detection sensor that works automatically and independently.

This system supports the Ministry of Transportation, PT Kereta Api Indonesia and the Regional Government in securing railroad crossings.



Keselamatan
Pengguna Jalan

Bersifat Mandiri

Otomatis

Monitoring
Sistem (LCMS)

i-EWS (Early Warning System)

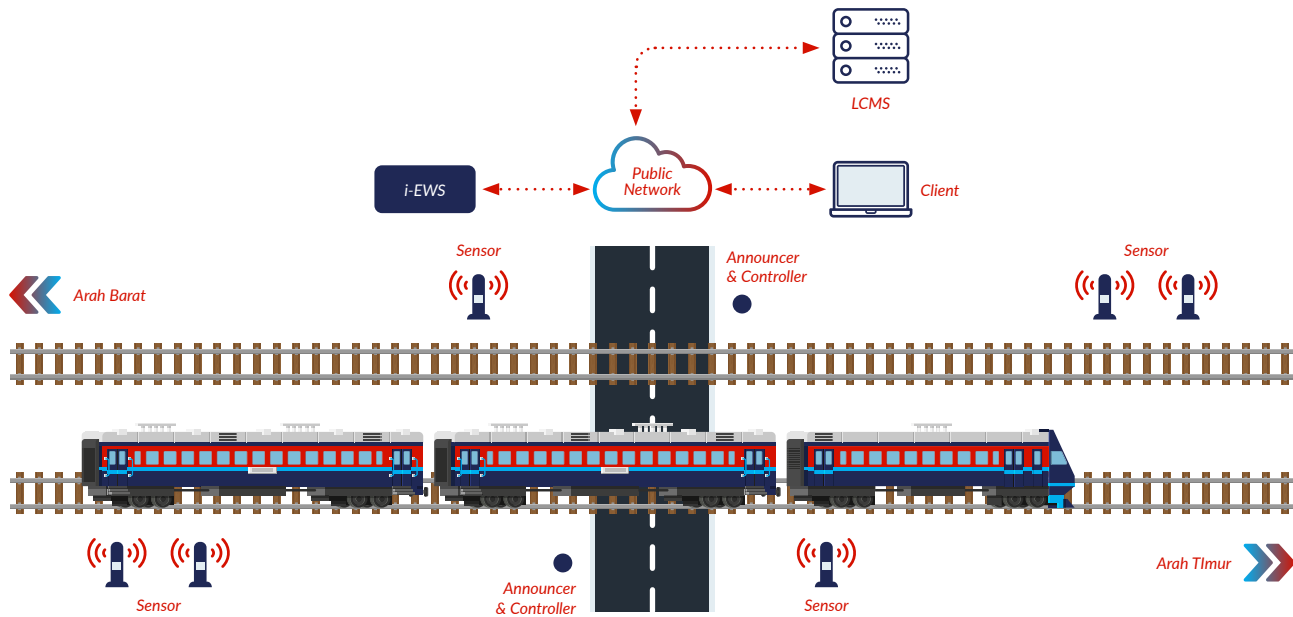
Keuntungan & Keunggulan Advantages

- Beroperasi secara mandiri (tidak bergantung pada sistem pesinyalan yang ada).
- Otomatis (bekerja tanpa perlu operator khusus).
- Interface komunikasi dapat melalui radio ataupun kabel.
- Menggunakan catuan PLN dan Solar system.
- Low cost maintenance.
- Praktis dan mudah dalam instalasi.
- Dapat dimonitor secara terpusat.
- Operates independently (doesn't depend on the existing signaling system).
- Automatic (works without the need for special operators).
- Communication interface can be via radio or cable.
- Using PLN supply and Solar system.
- Low cost maintenance.
- Practical and easy to install.
- Can be monitored centrally.

Spesifikasi Specifications

INTI Early Warning System		
Sumber Daya	:	PLN dan Solar Sistem
Jenis Sensor	:	Wheel Sensor / Radar
Public Announcer	:	• Lampu Peringatan 3 Aspek • Lampu LED Peringatan arah kedatangan kereta api • Sirine, rambu perlintasan dan rambu Perhatian
Box Lampu	:	Alumunium dengan IP65 dilapisi powder coating
Network Monitoring System	:	Ya, LCMS (Level Crossing Monitoring System)
Interface NMS	:	GPRS / 3G Modem
Pondasi Tiang	:	Beton K-250
Tiang dan penyangga Solar Cell	:	Pipa Galvanis

Konfigurasi Configuration



Meter Gas Prabayar (IGM - 1.6Q)

Deskripsi

Description

Meter Gas Prabayar (*Prepaid Gas Meter*) merupakan alat ukur untuk gas yang mengalir, yang dipakai sebagai pengukur volume dan besarnya biaya pemakaian. Alat ini bekerja pada tekanan tertentu dan terpasang keypad yang berfungsi untuk menginput nomor seri token di saat pengisian. Gas meter ini menggunakan sistem prepaid yang berarti penggunaan gas baru bisa dilakukan setelah dilakukan pembayaran.

Meter Gas Prabayar (Prepaid Gas Meter) is a measuring tool for flowing gas, which is used as a measure of the volume and magnitude of usage costs. This tool works at a certain pressure and mounted keypad that serves to input the token serial number when charging. This prepaid gas meter uses a prepaid system which means the use of gas can only be made after payment is made.



Keuntungan & Keunggulan

Advantages

- Pemakaian gas dapat terkendali dan termonitor
- Peluang adanya tunggakan pembayaran dari pelanggan semakin kecil
- User friendly
- Sistem pembelian gas oleh user semakin praktis
- Efisiensi biaya di pihak operator karena tidak diperlukan lagi adanya petugas pencatat di lapangan
- Dapat membantu meningkatkan peluang usaha penjualan token gas di daerah operasi
- Gas usage can be controlled and monitored
- Opportunities for payment arrears from customers are getting smaller
- User friendly
- Gas purchasing system by users is increasingly practical
- Cost efficiency on the part of the operator because there is no need for a recording officer in the field
- Can help improve business opportunities for the sale of gas tokens in the area of operation

Fitur

Features

- Standar STS.
- Menggunakan informasi berbahasa Indonesia.
- Menggunakan LCD sebagai display tampilan informasi status gas.
- LCD backlight untuk area yang minim cahaya.
- Indikator lampu (LED) 3 warna untuk menunjukan kondisi meter gas (operasi normal, tamper, status kredit dan lain-lain).
- Indikator Alarm :
 1. Kredit token rendah
 2. Baterai lemah
 3. Tamper
- Fungsi pengendali valve.
- Serial port untuk pengecekan gas meter.
- Tahan terhadap percikan air dan debu.
- Material body terbuat dari alumunium.

- *STS standard.*
- *Using information in Indonesian.*
- *Using the LCD as a gas status information display display.*
- *LCD backlight for low light areas.*
- *Indicator lights (LED) 3 colors to indicate the condition of the gas meter (normal operation, tamper, credit status and others).*
- *Alarm Indicator:*
 1. *Low token credit*
 2. *Low battery*
 3. *Tamper*
- *Valve controller function.*
- *Serial port for checking gas meters.*
- *Resistant to water and dust splashes.*
- *Body material made of aluminum.*

Spesifikasi Tabung

Tube Specifications

Item	Unit	Parameter
		IGM - 1.6Q
Cyclic Volume	dm ³	0.8
Maximum Flow-Rate (Qmax)	m ³ /h	2.5
Minimum Flow-Rate (Qmin)	m ³ /h	0.016
Total Pressure Loss	Pa	≤ 250
Operation Pressure	kPa	0.5 ~ 20
Minimum Reading	m ³	0.2
Maximum Reading	m ³	99999.999
Operation Temperature	°C	-10 ~ +40
Battery	pcs	1 pcs battery, C size, 3.6V

INTI Premiere 1118

Deskripsi

Description

INTI Premiere 1118 merupakan produk berteknologi meter listrik pintar dua arah. Produk ini diaplikasikan untuk perumahan kecil, akurat dalam pengukuran serta monitoring parameter jaringan dan beban, fungsi anti perusakan/temper. Desain mengacu standar PLN dengan support media komunikasi kabel dan nirkabel yang dapat menangani platform *Advance Metering Infrastructure* (AMI) melalui protocol DLMS/COSEM dan STS untuk fungsi meter prabayar yang aman dan dapat diandalkan.

INTI Premiere 1118 is a product that uses smart two-way electric meter technology. This product is applied to small housing, accurate in measuring and monitoring network parameters and loads, anti-vandal/temper function. The design refers to the PLN standard with support for wired and wireless communication media that can handle the Advanced Metering Infrastructure (AMI) platform through the DLMS/COSEM and STS protocols for safe and reliable prepaid Meter functions.



Sertifikasi

Certification

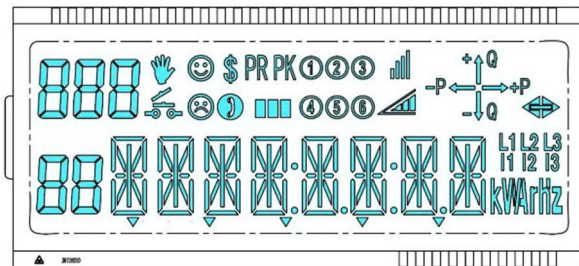


STS ASSOCIATION

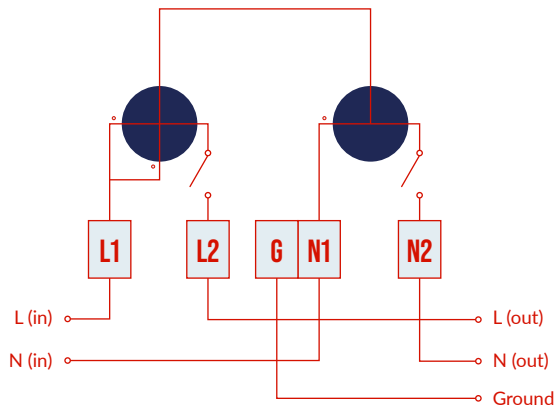


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LCD LCD



Drawing & Wiring Drawing and Wiring



Fungsi Utama Main Function

- | | | | |
|--|-------------------------------|----------------------------|--|
|
4 Quadrant
Measurement |
TOU |
Load Profile |
12 Billing
Periods |
|
Demand
Monitoring |
Load Control |
Neutral
Measurement |
Event & Alarm |
|
PQ Monitoring |
Modular
Communication |
DLMS COSEM
Support |
Interoperability |
|
Anti Tamper |
AES
Encryption |
Real Time Clock |
Firmware
Upgrade |
|
Bidirectional
Measurement
(Solar Panels) |
Multi-Utility
Metering |
RS485 Port |
Hermetically or
Ultrasonic
Sealing |

INTI Premiere 1118

No.	Description	Unit	Technical Parameter
			SM190
1	Wiring		1-phase, 2-wire DC
Electronic Specification			
2	Ratings		
	Nominal Voltage (Un)	V	231
	Operating Range	V	0.7 ~ 1.15 Un
	Limit Operating Range	V	0.5 ~ 1.2 Un
	Reference Frequency	Hz	50, ±4%
	Rated/Max Current : Ib (Imax)	A	5 (60)
	Starting Current	A	0.2% Ib
3	Accuracy		
	Accuracy	Active	1.0 (IEC 6205-21)
		Reactive	2.0 (IEC 62053-23)
4	Power Consumption		
	Voltage Circuit	W/VA	≤ 2W / 10VA
	Current Circuit	VA	≤ 4VA
5	Meter Constant		
	Meter Constant	Active	imp/kWh 1000
		Reactive	imp/kvarh 1000
	Pulse Indicator	Active	LED
		Reactive	LED
6	Internal Load Switch		
	Current Rating	A	90
	Relay Type		UC2
Mechanical Specification			
7	Protection		
	Isolation Protective Class		II
	Ingress Protection Degree		IP54
8	Environment conditions		
	Operating range	°C	-20 ~ + 70
	Storage/transport range	°C	-25 ~ + 85
	Relative Humidity	RH	≤ 95% (no-condensing)
	ESD	kV	Contact: 8 Air: 15

Spesifikasi Umum General Specifications

No.	Description	Unit	Technical Parameter
			SM190
	Surge	kV	6
	Pulse Voltage	kV	8
	EFTB	kV	4
9	Display		
	Display Type		LCD
	No. of digits (integer + decimal)		6+1 (kWh) Maximum 3 decimals configurable
	Character size (HxW)	mm	9.42 x 4.24
10	Button		
	Keyboard		12 keyboard
11	Life Time		
	Super capacitor	hours	48 (for RTC) When fully charged and battery removed
	Battery (operating)	years	≥ 1 (RTC keeps active when mains power off)
	Battery (storage)	years	≥ 10
	Meter life time	years	≥ 10
12	Material		
	Meter Base		PC + GF
	Meter Cover		PC
	Terminal Block		PC + GF
	Terminal Cover		PC + GF
	Sealing		2 (meter cover) 3 (terminal cover)
13	Terminal base and terminal cover		
	Terminal cover type		Transparent
	Terminal size (hole size, for cable accommodation)	mm	7
14	Dimensions		
	Outline Dimension (HWD)	mm	250x130x74.2
	Installation dimension (WH)	mm	105x141

Spesifikasi Fungsi

Function Specifications

No.	Description		Technical Parameter
			SM190
1	Energy Measurement		
	+/-A		O
	+/-R		O
2	Instantaneous Values		
	V, I, F		O
	PF		O
	+/-P, +/-Q		O
	+/-S		O
3	RTC		
	RTC Function		O
	Accuracy		±0.5s/d (23°C)
	Daylight Saving Time		O
	Leap Year		O
	Time Zone		O
	Time Synchronization		O
4	Backup Power Supply		
	Swell, Sag		O
	THD		O
5	Meter Constant		Battery (replaceable)
6	Time of Use		O (4 tariffs)
7	Event and Alarm	Recording	O
		Auto-notification	O
8	Max Demand	Monthly Max. Demand	O
		Cumulative Max. Demand	X
9	End of Billing		Monthly
	Billing date		Configurable, default at 10:00 o'clock of 1st day of each month.
	Manual billing		O
10	Power off function	LCD Display	O
		Terminal Cover open detection	O
		Meter cover open detection	O

No.	Description		Technical Parameter	
			SM190	
11	Load Profile		2000 entries	
12	Communication			
	Port	Local		Optical Port
		Remote		G3-PLC (internal), GPRS/3G/4G (plug)
		Down		X
	Protocols	Data link layer	Local	IEC 62056-46 (HDLC)
			Remote	IEC 62056-46 (HDLC)(PLC) IEC 62056-47 (TCP)(3G)
		Application Layer		IEC 62056-53 (DLMS)
		Object Layer		IEC 62056-61/62 (COSEM)
13	Data Security	Access levels		- Level 1: Public client (Read only) - Level 2: Management client, (Meter Manufacturer) (R&W) - Level 3: Pre-established client (R&W)
		Encryption		AES 128
		Bi-direction Authentication		O
14	Push button	Programming button		X
		Scroll display button		X
15	Anti-tampering	Meter Cover open detection		O
		Terminal Cover open detection		O
		Power reverse		O
		Current Bypass		O
		Earth Load		O
		Wiring inversion		O
		Magnetic field		O
		Load unbalance		X
16	Internal Load Switch			
	Power demand exceeding Management		O	
	Credit limit management		O	
	Remote controllable		O	
	Local controllable		O	
	Customer's manual disconnection		X	
17	Firmware upgrade		Optical Port or Remote Port	
18	Pre-Payment		O	

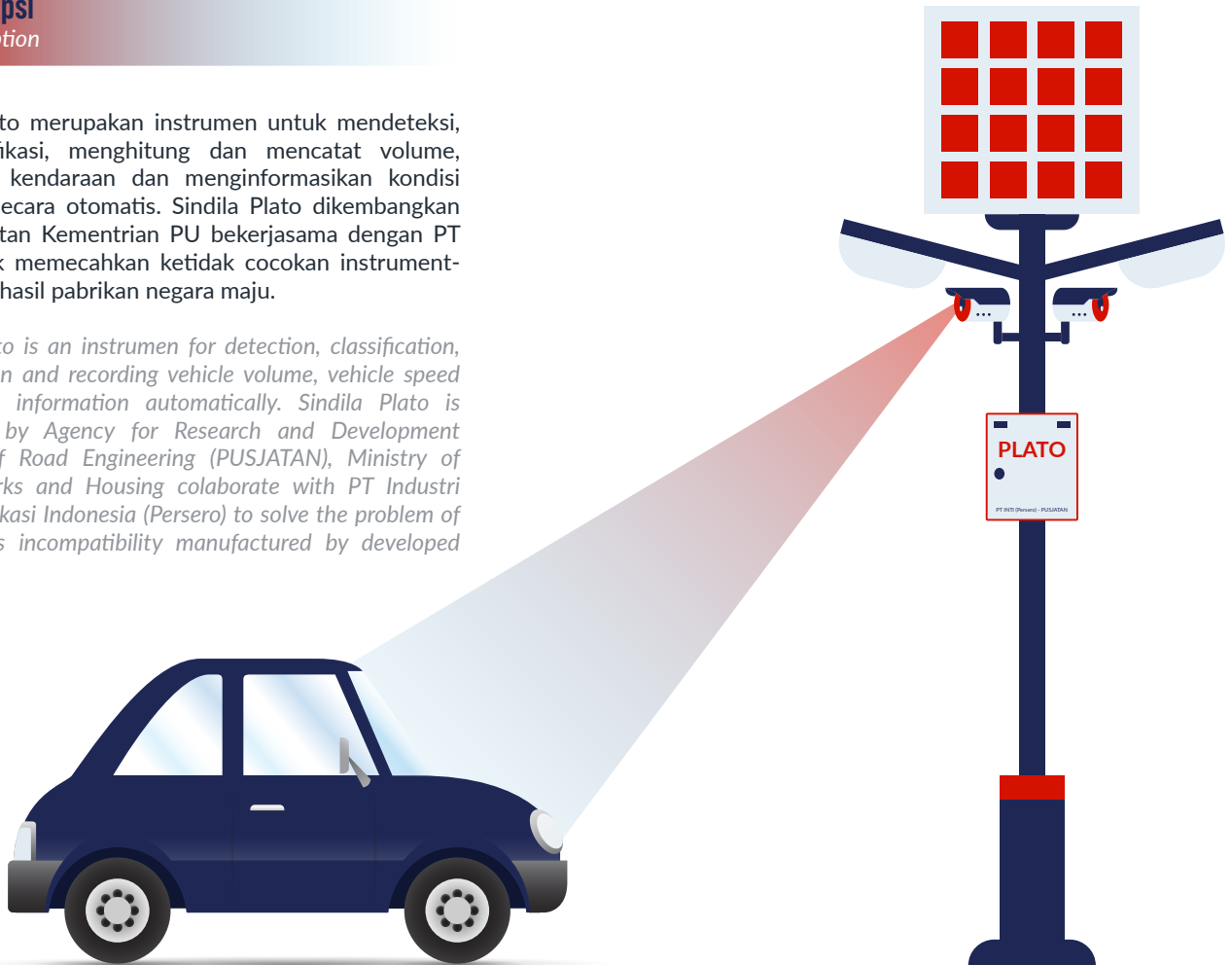
Sindila Plato

Deskripsi

Description

Sindila Plato merupakan instrumen untuk mendeteksi, mengklasifikasi, menghitung dan mencatat volume, kecepatan kendaraan dan menginformasikan kondisi lalu lintas secara otomatis. Sindila Plato dikembangkan oleh Pusjatan Kementerian PU bekerjasama dengan PT INTI untuk memecahkan ketidak cocokan instrument-instrumen hasil pabrikan negara maju.

Sindila Plato is an instrumen for detection, classification, enumeration and recording vehicle volume, vehicle speed and traffic information automatically. Sindila Plato is developed by Agency for Research and Development Institute of Road Engineering (PUSJATAN), Ministry of Public Works and Housing collaborate with PT Industri Telekomunikasi Indonesia (Persero) to solve the problem of instruments incompatibility manufactured by developed countries.



Manfaat Benefits

Data yang dihasilkan oleh Sindila Plato dapat digunakan untuk kebutuhan analisis kapasitas, inputan untuk *Variable Message Sign* (VMS), untuk kendali persimpangan (APILL Actuated) atau untuk memberi notifikasi atau peringatan terkait lokasi kemacetan pada pengguna jalan. Sistem Sindila Plato merupakan terapan dari teknologi video analitik yang mampu memberikan informasi kondisi lalu lintas (lengang, lancar, padat dan macet), kecepatan kendaraan, jumlah kendaraan (berdasarkan tipe), kecelakaan dan pelanggaran lalu lintas.

Sistem ini telah mampu mendukung kinerja pemerintah pusat, provinsi dan kabupaten/kota dalam mengelola lalu lintas jalan dan merencanakan kapasitas jalan secara efektif terkait adanya insiden di jalan seperti kecelakaan serta adanya kegiatan di jalan seperti perbaikan jalan dan fasilitasnya yang menyebabkan terganggunya ruas jalan yang ada.

- Menghitung, mencatat dan menyimpan data volume lalu lintas berdasarkan jenis kendaraan, arah lalu lintas dan interval waktu tertentu.
- Penyimpanan dan transfer data nirkabel.
- Tersedianya data volume lalu lintas berkesinambungan sebagai data dukung untuk perhitungan kapasitas jalan, desain perkerasan jalan serta evaluasi kinerja ruas jalan.

The data can be used for capacity analysis, input for Variable Message Sign (VMS), for controlling the crossroad (APILL actuated), or to provide notifications or warnings the locations of traffic jams to road users. This system is applied from Video Analytic technology which is capable to provide information such as congestion, vehicle speed, vehicle classification, accidents and traffic violations.

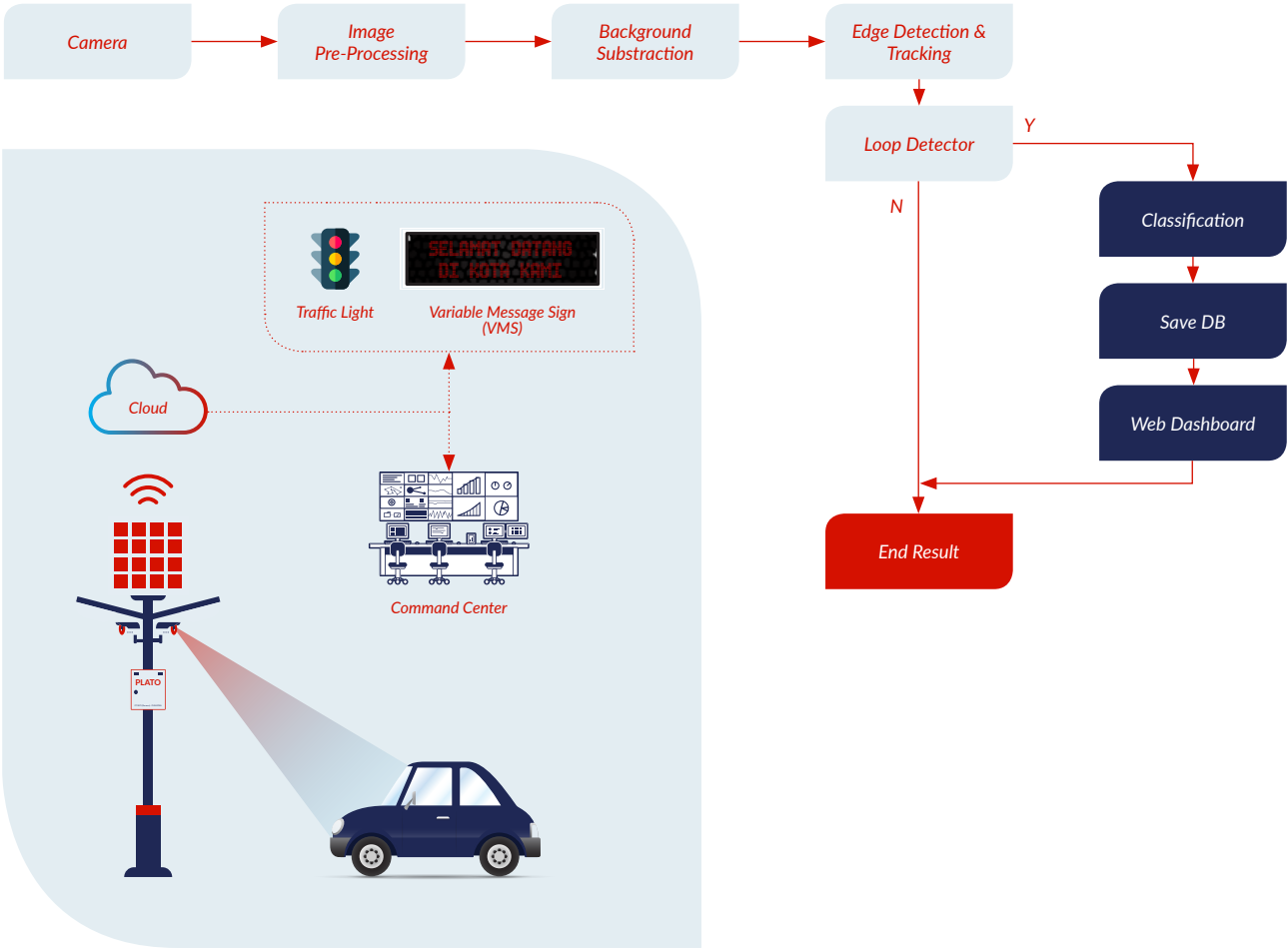
This system is able to support the performance of the central government, local government and district/city government to manage road traffic and road capacity to plan effectively related to the road accidents and other activity in the street like repairs of roads and facilities that cause the disruption of existing roads.

- Counting, recording and store the traffic information based on vehicle classification, traffic directions and specific time interval.
- Wireless data transfer and storage.
- Continues availability of traffic information and data for support calculation of road capacity, road pavement design and road performance evaluation.

CCTV	Plato
Video Streaming dari kamera, <i>Traffic Analysis</i> dilakukan di TMC, baik oleh manusia ataupun menggunakan <i>Video Analytics</i>	Proses <i>Video Analytics</i> dilakukan di kamera, data <i>traffic</i> -nya yang dikirim ke TMC
Perlu bandwidth besar	Bandwidth tidak perlu besar, kecuali bila perlu streaming
	Bisa streaming bila diperlukan
Error analisis besar, karena tidak selamanya video yang diperoleh mulus	Bisa <i>snapshot photo periodic</i> atau per event (<i>speed drop</i> , melawan arah, dll)

Konfigurasi
Configuration

Method of Vehicle Counting and Classification





Deskripsi

Description

SIMBAGAS (Sistem Monitoring Kehandalan Struktur Jembatan) didefinisikan sebagai perangkat untuk mengevaluasi kesehatan struktur jembatan dengan menggunakan beberapa jenis sensor yang dilekatkan atau ditanam pada struktur jembatan. Sensor ini terdiri dari berbagai tipe data yang kemudian dikumpulkan dan disimpan untuk keperluan analisis dan referensi untuk waktu yang akan datang. Data tersebut dapat digunakan untuk menilai kinerja struktur jembatan dan dapat digunakan untuk mengidentifikasi kerusakan awal jembatan.

SIMBAGAS is bridge structure reliability monitoring system, defined as a device to evaluate the health of a bridge structure by using several types of sensors that are attached or embedded in the bridge structure. This sensor consists of various types of data which are then collected and stored for analysis and reference for the future. The data can be used to assess the performance of the bridge structure and can be used to identify the initial damage to the bridge.



Simbagas

Keuntungan & Keunggulan

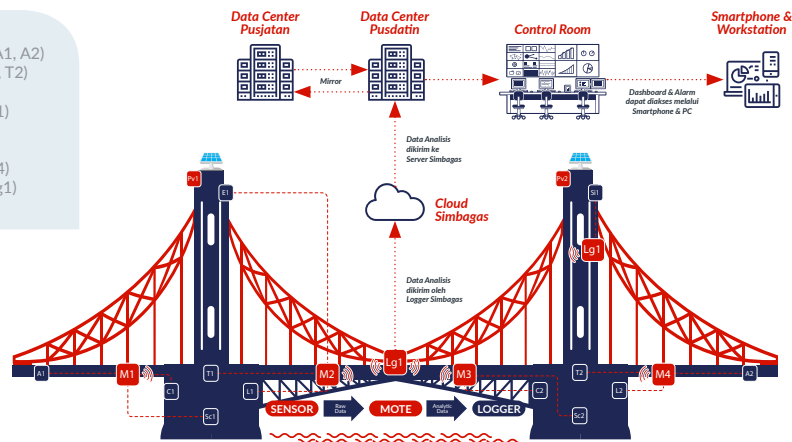
Advantages

- Memantau kondisi struktur jembatan.
 - Menilai kinerja struktur jembatan.
 - Mendeteksi kerusakan atau deteriorasi pada struktur jembatan.
 - Menyediakan data pendukung untuk pemeriksaan dan preservasi jembatan.
 - Menyediakan database kondisi jembatan di Indonesia.
 - Menyediakan *Control and Decision Support System* terkait hasil analisis terhadap kondisi struktur jembatan.
- *Monitor the condition of the bridge structure.*
 - *Assess the performance of bridge structures.*
 - *Detect damage or deterioration in the bridge structure.*
 - *Providing supporting data for bridge inspection and preservation.*
 - *Provides a database of bridge conditions in Indonesia.*
 - *Provide Control and Decision Support System related to the results of the analysis of the condition of the bridge structure.*

Konfigurasi

Configuration

- Sensor Accelerometer (A1, A2)
- Sensor Inclinator (T1, T2)
- Sensor LVDT (L1, L2)
- Sensor Environment (E1)
- CCTV (C1, C2)
- Sindila (Si1)
- MOTE (M1, M2, M3, M4)
- LOGGER SIMBAGAS (Lg1)



Spesifikasi Specifications

Spesifikasi SINDILA

Jenis	: IS-1001
Kelas Kendaraan	: 3 Kelas
Metode Perhitungan	: <i>Video Analytics</i>
Parameter Diukur	: Kecepatan rata-rata, <i>headway</i> , Gap, jumlah kendaraan per kelas, <i>Lane Occupancy</i>
Sumber Daya	: Dicatu Solar Panel, 12 V, 50 Wp
Prosesor	: ARM Cortex A9, 128 MB RAM
Interface	: GPRS/3G Modem Ethernet
Energy Storage	: Baterre 12 V/12 AH
Ingress Protection	: IP 65 (<i>Weatherproof</i>)
Operating Temperature	: 0 - 70° Celcius
Wireless Acces Point	: 802.11 b/g/n 2.4 GHz
Data Storage	: 32 GB

Accelerometer

Jenis	: IA-1201
Sensor Tipe	: MEMS (<i>Micro Electromechanical Sensor</i>) berbasis <i>Capacitive</i> , 3 axis <i>accelerometer</i>
Sumber Daya	: Dicatu solar panel, 6 V, 3.5Wp
Prosesor	: Micro Controller
Energy Storage	: Baterre 3.7 V 4000 mAH
Ingress Protection	: IP 65 (<i>Weatherproof</i>)
Operating Temperature	: 0 - 50° Celcius
Wireless Station	: 802.11 b/g/n 2.4 GHz
Range	: Maksimum -2g sampai +2g, atau -1.5g sampai +1.5g
Frequency Update	: 10 Hz sampai 200 Hz
Parameter Jembatan yang diukur	: Deteksi vibrasi di Pier, bentang panjang jembatan, dan pylon

Scouring Sensor

Jenis	: IS-1601
Sensor Tipe	: Ultrasonic
Sumber Daya	: Dicatu solar panel, 6 V, 3.5Wp
Prosesor	: Micro Controller
Energy Storage	: Baterre 3.7 V 4000 mAH
Ingress Protection	: IP 67
Operating Temperature	: 0 - 125° Celcius
Wireless Station	: 802.11 b/g/n 2.4 GHz
Range	: 40cm sampai 5m
Frequency Update	: 10 Hz sampai 200 Hz
Parameter Jembatan yang diukur	: Kedalaman <i>riverbed</i> dari muka air

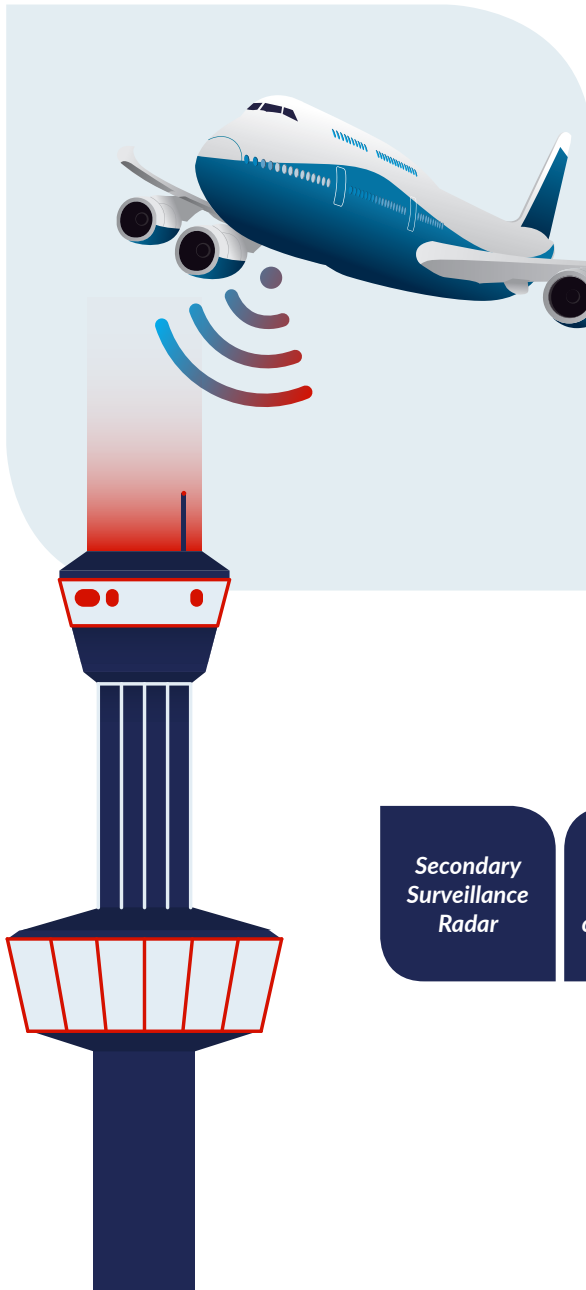
Spesifikasi CCTV

Jenis	: IC-1101
Imaging Device	: 1/3" CCD II, <i>Composite Output</i>
Sumber Daya	: Dicatu solar panel, 12 V, 50Wp
Prosesor	: ARM Cortex A9, 128MB RAM
Energy Storage	: Baterre 12 V 12 AH
Ingress Protection	: IP 65 (<i>Weatherproof</i>) Camera : IP 66 (<i>Weatherproof</i>)
Operating Temperature	: 0 - 50° Celcius
Wireless Station	: 802.11 b/g/n 2.4 GHz
Digital Video Recording	: 8GB Storage

Tilt/Inclinometer	
Jenis	: IT-1401
Sensor Tipe	: MEMS (Micro Electromechanical Sensor) berbasis <i>Capacitive</i> , 3 axis accelerometer dengan <i>damping ration</i> yang besar
Sumber Daya	: Dicatu solar panel, 6 V, 3.5Wp
Prosesor	: Micro Controller
Energy Storage	: Batterie 3.7 V 4000 mAH
Ingress Protection	: IP 65 (Weatherproof)
Operating Temperature	: 0 - 50° Celcius
Wireless Station	: 802.11 b/g/n 2.4 GHz
Range	: Maksimum -90 sampai +90 derajat
Frequency Update	: 10 Hz sampai 200 Hz
Parameter Jembatan yang diukur	: Kemiringan Pier, bentang panjang jembatan, dan pylon, dan defleksi bentang jembatan
Temperature/Humidity/Kecepatan Angin/Arah Angin	
Jenis	: IE-1501
Sensor Tipe	: MEMS (Micro Electromechanical Sensor) Anemometer, dan Arah Angin
Sumber Daya	: Dicatu solar panel, 6 V, 3.5Wp
Prosesor	: Micro Controller
Energy Storage	: Batterie 3.7 V 4000 mAH
Ingress Protection	: IP 65 (Weatherproof)
Operating Temperature	: 0 - 125° Celcius
Wireless Station	: 802.11 b/g/n 2.4 GHz
Range	: Kelembaban 0 sampai 100% RH <i>Temperature</i> -40° Celcius sampai 124° Celcius
Frequency Update	: 10 Hz sampai 200 Hz
Parameter Jembatan yang diukur	: Suhu dan kelembaban lingkungan, yang akan berdampak terhadap laju karat kecepatan dan arah angin

LVDT Sensor	
Jenis	: IL-1701
Sensor Tipe	: <i>Linear Potensionmeter</i>
Sumber Daya	: Dicatu solar panel, 6 V, 3.5Wp
Prosesor	: Micro Controller
Energy Storage	: Batterie 3.7 V 4000 mAH
Ingress Protection	: IP 65 (Weatherproof)
Operating Temperature	: 0 - 125° Celcius
Wireless Station	: 802.11 b/g/n 2.4 GHz
Range	: Sampai 20mm
Frequency Update	: 10 Hz sampai 200 Hz
Parameter Jembatan yang diukur	: <i>Displacement</i> sambungan jembatan

ADS-B (AGS 216)



Deskripsi

Description

ADSB (AGS 216) adalah perangkat *Ground Station* pemantau posisi pesawat teknologi ADS-B yang dikembangkan oleh PT INTI untuk memenuhi kebutuhan teknologi *surveillance* dalam meningkatkan keselamatan penerbangan seiring dengan semakin padatnya penerbangan dan ruang udara yang harus dicover di seluruh wilayah Indonesia.

ADSB (AGS 216) is a ground station device that monitors the position of ADS-B technology developed by PT INTI to meet surveillance technology needs to improve flight and airspace safety that must be covered in all state areas.

Secondary
Surveillance
Radar

Expand
surveillance
coverage area

Low cost
budget
(operation and
maintenance)

Easy and
simple
installation

Indonesian
local content
and support

ADS-B (AGS 216)

Potensi ADS-B ADS-B Potential

Bandara Airport

255 Bandara di Indonesia belum dilengkapi dengan **sistem pengawasan surveillance**,

31 sistem telah **terimplementasi**.

255 Airports in Indonesia have not been equipped with surveillance systems, 31 systems have been implemented.

A-SMGCS & MLAT

Advanced-Surface Movement Guidance and Control System & **Multilateration**

Maskapai Penerbangan Airline

Revenue Assurance pada sekitar 14 maskapai penerbangan milik Indonesia.

Revenue Assurance on about 14 Indonesian-owned airlines.

Meteorologi Penerbangan Flight Meteorology

Potensi ADS-B (AGS 216) •
Sebagai Substitusi Impor •

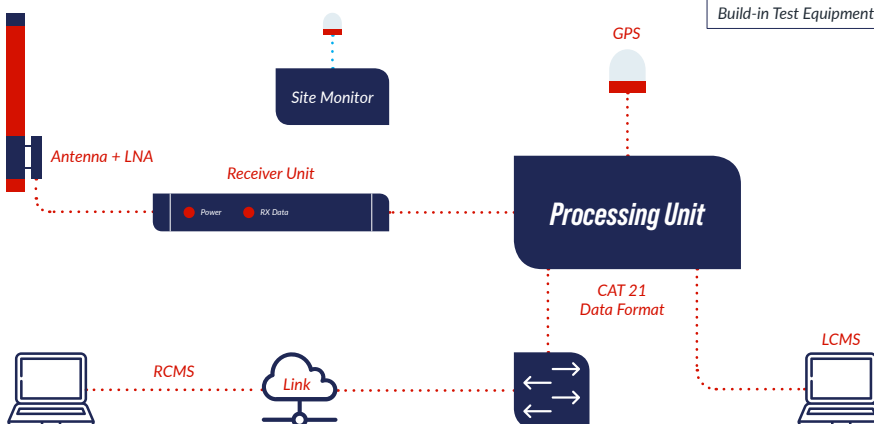
Potential of ADS-B (AGS 216) •
As an Import Substitution •

Conformity
ICAO Annex 10 Vol 4 (Aeronautical Telecommunications - Surveillance Radar and Collision Avoidance System)
ICAO doc 9871 (Technical Provisions for Mode S Services and Extended Squitter)
EUROCAE ED 129 (Technical Specification for a 1090 MHz Extended Squitter ADS-B Ground System)
RTCA DO-260A/B (Minimum Operational Performance Standards for 1090MHz extended squatter Automatic Dependent Surveillance - Broadcast (ADS-B) and Traffic Information Service - Broadcast (TIS-B))
CASR Part 171 (Aeronautical telecommunication service and radio navigation service providers) Dual autonomous Ground Station (Distributed)
Perdirjenhubud KP 331 tahun 2016 (Kategori Tier 1 Separasi 5nm sepadan dengan radar)
Build-in Test Equipment

Spesifikasi Specifications

Operational Specifications	
Processed Signal	: 1090 ES Mode-S DF=17, DF=18 (Non-Transponder)
Target Capacity	: 300
System Latency	: <500ms
Update Rate	: 1 second
Report Generation	: ASTERIX Category 21 version 0.23 dan 2.10
ADS-B System	: Dual Autonomous Ground Station (Distribution)
Range	: >250 NM
MOPS Compliance	: DO-260, DO-260A, DO-260B
Frequency	: 1090 Mhz ±20Mhz
Impedance	: 50 Ω
Monitoring System	: Local and Remote Control Monitoring System based SNMP
Display	: Elang - Flight Tracker
Record and Replay	: Elang - Record and Elang - Replay
Operating System	: Centos 6.10 and Centos 7.0
Build-in Test Equipment	: Intelligent BITE included at LCMS unit

Topologi Topology



SCU (Smart Control Unit)

Deskripsi

Description

SCU (Smart Control Unit) merupakan platform lengkap sebuah *general purpose logger* yang menggunakan telemetri seluler sebagai media transmisi. Sistem ini mengintegrasikan *Logger*, *GSM Modem*, *Solar Charger Controller* dan *cycles use Battery*. Sistem ini dirancang untuk dapat menggunakan sistem catu daya panel surya sebagai energi utama.

SCU dalam aplikasi *Flood Forecasting and Warning System (FFWS)* berguna dalam memberikan informasi pengelolaan sumber daya air dan mencegah bahaya atau penanggulangan bencana yang ditimbulkan akibat banjir/kekeringan.

SCU (Smart Control Unit) is a complete platform of a general purpose logger that uses cellular telemetry as a transmission medium. This system integrates logger, GSM modem, solar charger controller, and battery use cycles. This system is designed to be able to use the solar panel power supply system as the main energy.

SCU in the Flood Forecasting and Warning System (FFWS) application is useful in providing information on water resource management and preventing hazards or disaster management caused by floods or droughts.



SCU (Smart Control Unit)

Keuntungan & Keunggulan

Advantages

- Kompatibel dengan berbagai jenis sensor.
- 8 Analog, 8 Digital input dan 8 I/O.
- Transmisi data melalui jaringan selular.
- Catu daya dengan back up tiga hari otonomi baterai.
- Praktis dan mudah dalam Instalasi
- Perangkat remote : mengumpulkan parameter-parameter pengendalian sumber daya air: tinggi muka air, curah hujan, suhu, kelembaban, kualitas air, dari titik pengamatan (*gauging station*) secara on-line peralatan jarak jauh (*gauging station*, titik pengamatan) tidak perlu operator (*un-attendance*).
- Catuan peralatan menggunakan panel surya (solar panel).
- Pusat pengendali (FFWS Management Center : mengumpulkan, meyimpan, dan mengolah data secara terpusat dengan model : black-box, jaringan syaraf tiruan (JST), *decision support system* (DSS), memberikan peramalan terjadinya banjir, memberikan peringatan secara tepat pada instansi-instansi terkait dan memberikan layanan data pada publik.
- Mudah dalam perawatan dan pengoperasian.
- Biaya telekomunikasi dan perawatan relatif murah.
- Compatible with various types of sensors.
- 8 Analog, 8 Digital inputs and 8 I/O.
- Data transmission through cellular networks.
- Power supply with back up three days battery autonomy.
- Practical and easy to install.
- Remote Device, collect parameters for controlling water resources (water level, rainfall, temperature, humidity, water quality), from the online monitoring point (*gauging station*) remote equipment (*gauging station*, observation point) does not need operator (*un-attendance*).
- The equipment supply uses solar panels.
- Control Center or FFWS Management Center, collecting, storing, and processing data centrally with models (black-box, artificial neural network (ANN), decision support system (DSS)), providing forecasts for flooding, appropriate warnings to agencies related, and data services to the public.
- Easy to maintain and operate.
- Telecommunications and maintenance costs are relatively inexpensive.

SCU (Smart Control Unit)

Spesifikasi
Specifications

Parameter		Spesifikasi
Umum		
Sistem	:	Sistem merupakan integrasi perangkat utama dalam satu box yang terdiri dari Data Logger, Modem GSM, Catu Daya (Solar Charger Controller dan Battery)
Data Logger		
I/O Port		
Analogue Input	:	8 Units, analog input must capable to measure with voltage sensing 0-5VDC or current sensing 4-20mA
ADC	:	10 bits
Digital Input	:	8 Units, optical isolated
Digital Input/Output	:	Input 8, optical isolated output 8, open/close relay max. 30 VDC/AC
Communications Port		
I2C bus	:	2 Units
RS-232	:	2 Units
Ethernet 10 Base-T	:	1 Units
Processor	:	ATMEGA 128 RISC Processor
Memory	:	ATMEGA 128 RISC Processor
Flash	:	128 Kilo Byte
EEPROM	:	4 Kilo Byte
RAM	:	32 Kilo Byte
External Memory	:	1 Giga Byte (Minimum)
Display	:	LCD 2x16 Characters

Support Unit	:	RTC (Real Time Clock) Watchdog timer ISP (In-System Programming) RTOS (Real Time Operating System) Text based console configuration
Optional	:	NMS (Network Management System) SNMP (Simple Network Management Protocol) Multi-trap Server Destination Local & Remote Access
Modem		
Modem	:	Standard AT Command GSM/CDMA with RS-232 interface 6-30 VDC supply
SMS Data Transfer	:	Polling, Scheduling, Event Protocol & Data Format compatible with Tech4Water
Power Supply		
Working Voltage	:	Nominal 12 VDC
Solar Panel	:	50 Wp
Solar Charger Controller	:	10 Amp
Battery	:	Dry Battery 12V/12Ah @20 Hour Rate, and 3 days autonomy without Sun/charging
Mechanical		
Dimension	:	Typical 600x600x300mm
Components Placement	:	DIN Rail System
Cooling System	:	Natural Cooling (tanpa Fan)
Material Box	:	Rugged Metal Painted Powder Coated
Degree of Protection	:	IP54
Operation Temperature	:	10 - 55°C
TKDN		
TKDN	:	37,14%

Hybrid Cable



Deskripsi

Description

Kabel Hybrid memiliki kekuatan tarik (*tensile strength*) dan fleksibilitas yang tinggi dalam ukuran kabel yang ringkas. Kabel ini juga menyediakan kinerja fisik dan transmisi optik yang sangat baik. Kabel Hybrid ini dibagi menjadi dua, yaitu Kabel Hybrid 1 RRU dan Kabel Hybrid 3 RRU.

Hybrid Cables have high tensile strength and flexibility in a compact cable size. This cable also provides excellent physical performance and optical transmission. This Hybrid cable is divided into two types, namely Hybrid Cable 1 RRU and Hybrid Cable 3 RRU.

Keuntungan & Keunggulan

Advantages

- Teknologi ekstrusi yang unik memberikan serat dalam tabung dengan fleksibilitas yang baik dan daya lentur.
- Metode kontrol panjang serat berlebih yang unik menyediakan kabel dengan sifat mekanik dan lingkungan yang sangat baik.
- Mengisi banyak bahan *water blocking* menyediakan fungsi *water blocking* ganda.
- Memberikan ketahanan himpitan yang baik.
- Jaket luar adalah Low Smoke Zero Halogen (LSZH)
- The unique extruding technology provides the fibers in the tube with good flexibility and bending endurance.
- The unique fiber excess length control method provides the cable with excellent mechanical and environmental properties.
- Multiple water blocking material filling provides dual water blocking function.
- Provides good crush resistance.
- Outer jacket is Low Smoke Zero Halogen (LSZH)

Hybrid Cable

Hybrid Cable 1 RRU

Conductors & Optical Specifications

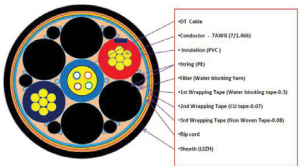
- 7AWG(7/1.35) X 2EA, Φ 6.25mm
 - Cu Tape
 - Single mode @ 1310nm < 0.36 dB/km
@ 1383nm < 0.35 dB/km
@ 1550nm < 0.22 dB/km
@ 1625nm < 0.25 dB/km
- PMD < 0.2dB(ps/km^{1/2}), Cut-off wavelength $\leq$ 1260nm

Characteristics

Item	Outer Diameter (mm)	Weight (Net. kg/km)	Structure	Max. Tensile Load(N)	Min. Bending Radius (mm)	
					Installation	Operation
1 RRU	25.2 $\pm$ 0.5	725	7AWG X 2EA Optical Fiber 4F Filler 4EA	2.900	Cable Dia * 20	Cable Dia * 15

Spesifikasi Specifications

Cross Section



Hybrid Cable 3 RRU

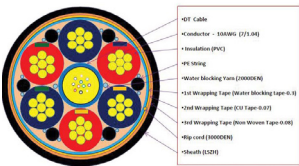
Conductors & Optical Specifications

- 10AWG(7/1.04) X 6EA, Φ 6.2mm
 - Cu Tape
 - Single mode @ 1310nm < 0.36 dB/km
@ 1383nm < 0.35 dB/km
@ 1550nm < 0.22 dB/km
@ 1625nm < 0.25 dB/km
- PMD < 0.2dB(ps/km^{1/2}), Cut-off wavelength $\leq$ 1260nm

Characteristics

Item	Outer Diameter (mm)	Weight (Net. kg/km)	Structure	MAX. Tensile Load(N)	Min. Bending Radius (mm)	
					Installation	Operation
3 RRU	25.2 $\pm$ 0.5	915	10AWG X 6EA Optical Fiber 12F	2.900	Cable Dia * 20	Cable Dia * 15

Cross Section



ISE (INTI Smart Exchange)



Deskripsi

Description

INTI Smart Exchange (ISE) merupakan solusi komunikasi cerdas menggunakan *switching* berbasis Internet Protocol (IP) untuk menyediakan berbagai layanan telekomunikasi dasar maupun tingkat lanjut, baik komunikasi suara maupun video, yang dapat menghemat biaya berkomunikasi anda secara signifikan lebih dari 50%. INTI Smart Exchange dapat melakukan interoperabilitas dengan berbagai jaringan telekomunikasi generasi lama maupun masa depan, seperti Jaringan Telepon Tetap/ Public Switched Telephone Network (PSTN), Jaringan Telepon Seluler/Public Land Mobile Network (PLMN), Satelit, sampai jaringan generasi masa mendatang/Next Generation Network (NGN) dan sebagainya. ISE dapat juga digunakan untuk berintegrasi dengan perangkat sentral (*switching*) eksisting dan memodernisasikan PBX/ PABX lama anda.

INTI Smart Exchange is a smart communication solution using Internet Protocol (IP) based switching to provide a variety of basic and advanced telecommunications services, both voice and video communication, which can significantly save your communication costs by more than 50%. INTI Smart Exchange can interoperate with a variety of old and future generation telecommunications networks, such as the Fixed Telephone Network or Public Switched Telephone Network (PSTN), Cellular Telephone Network or Public Land Mobile Network (PLMN), Satellite, until the Next Generation Network (NGN). INTI Smart Exchange can also be used to integrate with existing central devices (*switching*) and modernize your old Private Automatic Branch Exchange (PABX) or Private Branch Exchange (PBX).

Integrated

Interoperabilities

IP Base

Efficiency

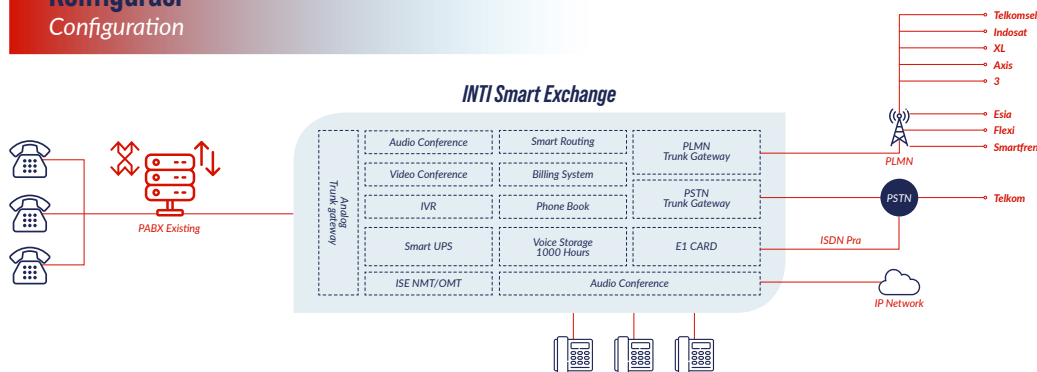
ISE (INTI Smart Exchange)

- Mendukung layanan komunikasi dasar, pita lebar, dan layanan Teknologi dan Informasi (TIK) terkini, seperti *voice call*, *teleconference*, *video call*, *video conference*.
- Dapat menangani layanan suara, data dan video dalam satu jaringan yang sama (konvergensi).
- Mendukung komunikasi di mana saja, kapan saja, dan teknologi apa saja. yang mana dapat menghubungkan pengguna telepon tetap maupun seluler, baik komunikasi berbasis IP maupun *Time-Division Multiplexing*.
- Memiliki keunggulan smart routing yang dapat mengurangi biaya komunikasi secara signifikan.
- Mendukung berbagai protokol standar komunikasi.
- Mudah dalam pemeliharaan.
- Investasi belanja modal (*capex*) yang terjangkau dan dapat mengurangi pengeluaran operasional (*opex*).
- Produk Indonesia dengan dukungan purna jual yang baik.

Keuntungan & Keunggulan Advantages

- Supports basic communication services, broadband, and the latest information and communication technology (ICT) services, such as voice calls, teleconferences, video calls, video conferences.
- Can handle voice, data and video services in the same network (convergence).
- Supports communication anywhere, anytime, and any technology. which can connect fixed and cellular telephone users, both internet protocol and time-division multiplexing based communications.
- Smart routing has the advantage that can reduce communication costs significantly.
- Supports various communication standard protocols.
- Easy to maintain.
- Investment capital expenditure (*capex*) that is affordable and can reduce operational expenditure (*opex*).
- Indonesian products with good after sales support.

Konfigurasi Configuration



Spesifikasi Specifications

No.	Fitur Line Extension	Small Enterprise ≤ 200 ext	Premium Solution ≤ 400 ext	Ultimate Solution ≤ 600 ext
1	Make a call	√	√	√
2	Call by name		√	√
3	Call transfer	√	√	√
4	Conference call	√	√	√
5	Video phone/call	√	√	√
6	Video conference		√	√
7	Mobility phone	√	√	√
8	Call Pickup	√	√	√
9	Call forward (follow me)	√	√	√
10	Automatic call back		√	√
11	Interrupt/intrusion (priority call)			√
12	Personal code/PIN	√	√	√
13	Set locking	√	√	√
14	Substitution (menggunakan profile extension pada pesawat lain)		√	√
15	Popup mini text messaging/mail		√	√
16	CLID (Caller Line Identification)	√	√	√
17	Smart Routing	√	√	√
18	Panggilan ke PTSN	√	√	√
19	Interkoneksi GSM/CDMA	√	√	√
20	Interkoneksi ISDN-Pra		√	√
21	Call waiting		√	√

22	CLIP can CLIR	√	√	√
23	Do not disturb	√	√	√
24	Automatic attendant	√	√	√
25	Outgoing NAT, INAT call blocking		√	√
26	Voice mail		√	√
27	Night service		√	√
28	Access code	√	√	√
29	LDAP phonebook		√	√
30	Send message (SMS)		√	√
31	Billing			√
32	Active standby mode			√
33	Voice recording			√
34	Voucher			√
35	CDR	√	√	√

Sertifikasi Certification



Guymast Tower 32 Meter

Deskripsi

Description

Guy mast atau *guyed tower* adalah jenis menara yang berupa tiang pancang tunggal yang dikaitkan dengan tali-tali baja yang membentang dari tower sampai tanah dengan jarak $\pm 0.5\text{m}$ dari tower dan sudut $\pm 60^\circ$. Menara ini juga disusun atas pola batang sama halnya dengan *self-supporting tower*, akan tetapi menara jenis *guyed tower* memiliki jenis dimensi batang yang lebih kecil dari pada jenis menara *self-supporting tower*.

Guy mast or guyed tower is a type of tower in the form of a single pile associated with steel ropes that stretch from the tower to the ground with a distance of $\pm 0.5\text{m}$ from the tower and an angle of $\pm 60^\circ$. The tower is also arranged in a trunk pattern as well as self-supporting towers, but guyed tower towers have smaller rod dimensions than self-supporting tower towers.



Angkur Tower



Angkur Sling

Finishing
Hot Deep Galvaniz



Accessories



Guymast Tower 32 Meter

Keuntungan & Keunggulan

Advantages

- Proses pabrikasi yang presisi sangat memudahkan dalam ereksi tower di lapangan.
- Kualitas galvaniz yang tersertifikasi menghasilkan ketahanan karat yang baik.
- Produksi atau pabrikasi dapat dilakukan sesuai dengan Spesifikasi Pelanggan atau Operator Telekomunikasi.

- *The precise manufacturing process makes it easy to erect towers in the field.*
- *Certified galvaniz quality results in good rust resistance.*
- *Production or manufacturing can be carried out in accordance with Customer Specifications or Telecommunications Operators.*

Spesifikasi

Specifications

Stage Stage 3 dan 2 Mtr	
Round Bar (polos)	: Ø16
Besi Beton Diag	: Ø8
Besi Beton Hor	: Ø10
Plat Strip	: 5x50 t5
Pin Guide	: Ø½
Plat	: 5x50x500 t5
Angkur Tower	
Round Bar (Besi Beton)	: Ø19
Drat Angkur	: 150mm
Besi Beton Diag	: Ø10
Besi Beton Hor	: Ø10

Angkur Sling	
Dudukan Labrang	: 12x200x200 t12
Besi Plat	: 340x183 t8
Angkur Dudukan Labrang	: Ø20
Aksesories	
Baut M12, M18, M6, M8	: Baut M12, M18, M6, M8
Sling	: 1x7 Ø5
Span Screw	: M12

Tiang Telepon



Deskripsi

Description

Tiang telepon besi dengan sambungan yang terbuat dari pipa besi baja konstruksi bundar dengan teknik sambungan, sesuai standar **STEL L-003-2016 Versi 3.0**.

*Iron telephone poles with connections made of round construction steel iron pipes with connection techniques, according to **STEL L-003-2016 Version 3.0** standards.*

Sertifikasi

Certification



Finishing setiap batang dengan cat dasar (meni besi) dan cat utama berwarna hitam.

Finishing each bar with basic paint (iron meni) and black main paint.

Produksi atau pabrikasi dapat dilakukan sesuai dengan spesifikasi pelanggan atau operator telekomunikasi.

Production or manufacturing can be carried out in accordance with customer specifications or telecommunications operators.

System Integrator

Solar Cell System

Deskripsi

Description

Pembangkit listrik tenaga surya atau PLTS adalah pembangkit listrik yang mengubah energi surya menjadi energi listrik. *Fotovoltaik* mengubah secara langsung energi cahaya menjadi listrik menggunakan efek *fotoelektrik*.

Solar power plants or PLTS are electricity plants that convert solar energy into electrical energy. Photovoltaics directly convert light energy into electricity using the photoelectric effect.

Pembangkit listrik tenaga surya (*Fotovoltaik*) terdiri dari beberapa komponen supaya berfungsi sesuai dengan yang dibutuhkan. Komponen utama secara umum terdiri dari :

- Solar Panel
- Inverter
- Baterai

Solar Panel (*Fotovoltaik*) merupakan komponen utama dalam PLTS, berfungsi untuk mengubah energi cahaya matahari menjadi energi listrik DC.

Inverter merupakan pengubah tegangan searah (DC) dari Solar Panel menjadi tegangan bolak-balik (AC) untuk mensuplai listrik ke pengguna.



Solar power generation (photovoltaic) consists of several components to function according to what is needed. The main constituents generally consist of:

- Solar Panel
- Inverter
- Battery

Solar Panel (Photovoltaics) is a major component in PLTS, serves to convert the sun's light energy into DC electrical energy.

Inverter is a direct voltage converter (DC) from Solar Panels to alternating voltage (AC) to supply electricity to users.

Fast & Easy

Flexible

Modular

*Easy
Operation*

Durable

*Noiseless &
Environmentally
Friendly*

*Save & Does
Not Require
Fuel*

INTI telah membangun PLTS di ratusan lokasi di seluruh Indonesia dengan total kapasitas daya 5.470 Mega Watt Peak. Proyek ini adalah salah satu komitmen INTI untuk mendukung program pemerintah dalam pembangunan 6.500 Mega Watt Peak PLTS pada tahun 2020 dan 1 juta atap PLTS pada tahun 2023.

INTI has built PLTS in hundreds of locations throughout Indonesia with a total power capacity of 5,470 Mega Watt Peak. This project is one of INTI's commitments to support the government program in the construction of 6,500 Mega Watt Peak of PLTS by 2020 and 1 million PLTS roofs in 2023.



PJU PinTer

Deskripsi

Description

PJU PinTeR (Penerangan Jalan Umum dengan Pengendalian dan Monitoring Terpusat) merupakan solusi cerdas berupa *Lighting Automation and Controlling System* pada fasilitas penerangan/pencahayaan yang mampu menghemat penggunaan energi dan biaya pemeliharaan 50-75% serta memudahkan pemeliharaan dan meningkatkan performansinya, dengan menggunakan metode INTI's L4MP® (*Lighting Measuring, Monitoring, Managing to Maintain the Performance*). PJU PinTeR berbasis teknologi ICT terkini yang sangat berguna dalam pengelolaan dan pemeliharaan pencahayaan pada fasilitas Penerangan Jalan Umum (PJU)/*street lighting*. Selain itu juga sangat sejalan dengan program efisiensi energi dalam konsumsi listrik dan rencana aksi nasional dan daerah dalam pengurangan emisi gas rumah kaca (CO₂).

PJU PinTer is public street lighting with centralized control and monitoring. It is a smart solution in the form of lighting automation and controlling system that can save energy use and maintenance costs by 50%-75% and facilitate maintenance and improve performance, using INTI's L4MP® method (Lighting Measuring, Monitoring, Managing to Maintain the Performance). PJU PinTer based on the latest information and communication technology (ICT) which is very useful in the management and maintenance of lighting in street lighting facilities. It is also in line with the national and regional energy efficiency program in electricity consumption and also action plans for reducing greenhouse gas (CO₂) emissions.



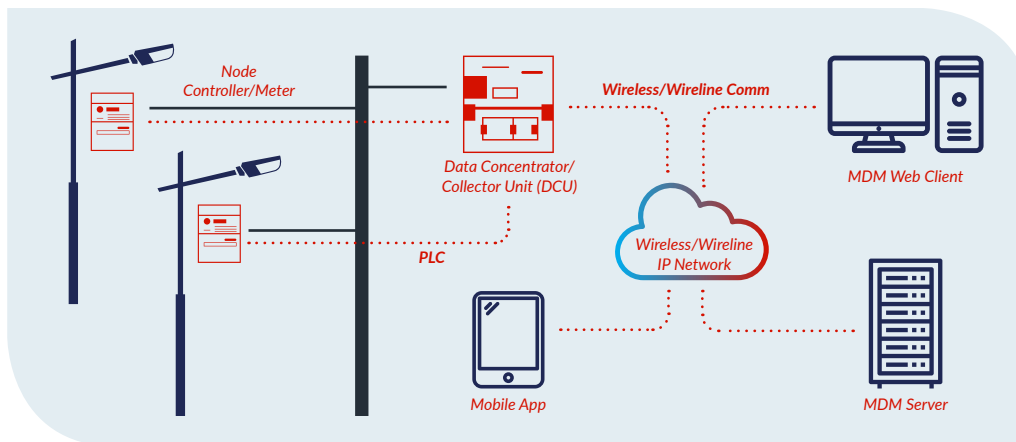
Keuntungan & Keunggulan

Advantages

- Pengendalian penggunaan energi (penghematan energi) : Mengurangi penggunaan energi sampai 40% dan 50%-70% jika menggunakan lampu LED.
- Mengurangi emisi gas rumah kaca (*Green lighting and energy*).
- Sistem manajemen tersentralisasi.
- Kemudahan informasi yang didukung *GIS Map, inventory control*.
- Mengurangi biaya pemeliharaan sampai 50%.
- Memperpanjang umur lampu sampai 25% + umur lampu LED.
- *Control of energy use (energy savings), reduce energy use up to 40% and 50%-70% when using LED lights.*
- *Reducing greenhouse gas emissions (green lighting and energy).*
- *Centralized management system.*
- *Ease of information supported by Geographic Information System (GIS) Mapping, inventory control.*
- *Reduce maintenance costs up to 50%.*
- *Extend lamp life to 25% + LED lamp life.*

Konfigurasi

Configuration



Spesifikasi Specifications

LCU	
Standard	BB-PLC (UPA) atau NB-PLC (EIA-709.1, EIA-709.2, EN50065-1)
Frekuensi Pembawa	2 MHz ~ 30 MHz atau 129 KHz ~ 135 KHz
Multiplexing/ Modulasi PLC	OFDM atau BPSK
PWM Dimming	Frekuensi : 200 Hz ~ 8 KHz atau 400 Hz
1~10V Dimming	Tegangan : 1~10V
Power Meter	Pengukuran Tegangan, Pengukuran Arus, Pengukuran Frekuensi, Pengukuran Power Factor, Pengukuran Daya, Pengukuran Energi Terakumulasi : Wh (per jam)
Standard Box	IP67 atau IP65
DCU	
Standard	BB-PLC (UPA) atau NB-PLC (EIA-709.1, EIA-709.2, EN50065-1)
Frekuensi Pembawa	2 MHz ~ 30 MHz atau 129 KHz ~ 135 KHz
Multiplexing/ Modulasi PLC	OFDM atau BPSK
Keamanan Data	Enkripsi Data DES, 3DES
Protokol Jaringan	NAT, Static Routing dan RIP-1/2, NAT Support PAT dan Multimedia Applications, Transparent Bridging, Virtual Server dan DMZ, SNTP, DNS Relay dan DDNS, IGMP Snooping dan IGMP Proxy
Manajemen Firewall	Built-in NAT Firewall, Stateful Packet Inspection (SPI) : Prevents DoS Attacks including Land Attack, Ping of Death, dll; Remote Access Control untuk Web Base Access; IP, MAC, dan URL Filtering; Proteksi Password untuk Manajemen Sistem; VPN Pass Through
Control QoS (Quality of Service)	Mendukung DiffServ Approach; Traffic Prioritization based on IP Protocol, Port Number dan Address
Manajemen Konfigurasi	Web-based untuk Manajemen Jarak jauh dan Lokal; Upgrade Firmware dan upload/download Data Konfigurasi melalui antarmuka berbasis Web dari Sistem log Monitoring

Wireless Bridge	
Standard	BB-PLC (UPA)
Frekuensi Pembawa	2 MHz ~ 30 MHz
Multiplexing/ Modulasi PLC	OFDM
Keamanan Data	Enkripsi Data DES, 3DES
Wireless Data	Memenuhi standard IEEE 802.11n, 802.11g dan 802.11b; Mendukung 64/128 bits WEP untuk Enkripsi; Mendukung keamanan nirkabel dengan WPA-PSK dan WPA2-PSK
Manajemen Konfigurasi	Web-based untuk manajemen jarak jauh dan lokal; Upgrade firmware dan upload/download Data Konfigurasi melalui antarmuka berbasis Web
Software PMS DC	
Aspek	Spesifikasi
Mengontrol dan monitor PJU sesuai keperluan tertentu	Sistem mampu melakukan kontrol PJU jarak jauh, on/off maupun fungsi dimming dan memonitor terus-menerus status lampu
Tampilan grafis peta dan pin point PJU	Sistem mampu menampilkan perangkat PJU PinTer pada peta, memonitor dan kontrol melalui peta, serta pin point setiap lampu
Penjadwalan on/off/dim per PJU maupun per grup PJU	Sistem mampu melakukan penjadwalan rutin setiap hari dan berkala secara otomatis pada lampu baik on/off/dim yang bisa dilakukan per setiap PJU, maupun sekaligus per grup PJU
Penghematan lebih banyak energi dengan profil dimming tingkat lanjut	Dengan adanya opsi dimming lebih lanjut, sistem dengan pengaturan dari operator maupun meningkatkan penghematan lampu LED, dimana bisa meredupkan lampu di jam-jam lalu lintas jalan yang tidak padat dan sepi
Laporan konsumsi energi disertai informasi emisi CO2	Sistem dilengkapi dengan kemampuan pelaporan berupa data konsumsi energi (Wh), presentase penghematan (jika dibandingkan lampu konvensional, misalnya HPS), dan pengurangan emisi karbon (CO2) secara jelas tanpa perlu pengolahan data lagi di luar perangkat lunak
Perhitungan waktu matahari terbit dan tenggelam dan saran waktu pengontrolan	Sistem dilengkapi dengan metode pengontrolan otomatis berdasarkan data waktu terbit dan tenggelam matahari sesuai area lokasi jaringan PJU, sehingga bisa menyesuaikan dengan kondisi setempat
Laporan alarm sistem melalui email ke administrator secara otomatis	Sistem dilengkapi dengan pelaporan berupa notifikasi alarm sesuai informasi database alarm yang dikirim ke alamat email petugas/operator yang tercatat di sistem secara otomatis

Fiber To The Home

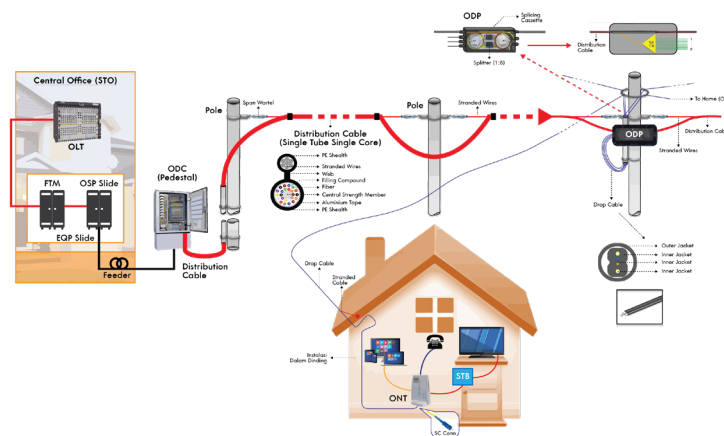
Deskripsi Description

Fiber To The Home adalah salah satu teknologi paling penting untuk jaringan saat ini dan di masa depan, karena tidak hanya itu meningkatkan akses ke bandwidth, tetapi mengurangi biaya peralatan dan pemeliharaan sambil secara intens meningkatkan kualitas layanan. Ini adalah pengiriman sinyal komunikasi melalui serat optik dari peralatan *switching* operator sampai ke rumah atau bisnis, sehingga menggantikan infrastruktur tembaga yang ada seperti kabel telepon dan kabel koaksial. Teknologi ini memungkinkan akses ke layanan internet cepat, suara (jaringan telepon, jaringan telepon umum/ PSTN), dan video (TV kabel) dalam satu infrastruktur unit pelanggan.

Lingkup pekerjaan yang ditawarkan oleh PT INTI (Persero) meliputi sistem perencanaan dan desain, implementasi dan proyek manajemen.

Fiber to the Home is one of the most important technologies for today and future's networks, because not only it increases the access to bandwidth, but reduces equipment and maintenance cost while intensely improving quality of service. It is the delivery of a communications signal over optical fiber from the operator's switching equipment all the way to a home or business, thereby replacing existing copper infrastructure such as telephone wires and coaxial cable. This technology allows access to fast internet services, voice (telephone network, public switched telephone network/ PSTN), and video (cable TV) in one infrastructure of the customer unit.

The scope of work offered by PT INTI (Persero) includes planning system and design, implementation and management project.



Seat Management

Deskripsi

Description

Seat Management adalah suatu metode dalam mengkoordinir semua *workstation* dalam sebuah jaringan yang bekerja dengan cara mengawasi proses instalasi, operasi, serta pemeliharaan perangkat keras dan perangkat lunak di setiap *workstation*.

Seat Management is a term in the information technology (IT) world which is a service providing all IT equipment and/or software and technical support to companies or customer organizations. Seat Management may include services such as installation, operation and maintenance of all hardware and software at each workstation.



Keuntungan & Keunggulan

Advantages

- Mengurangi biaya dalam penyediaan perangkat IT.
- Merubah *Capital Expenditure* (CAPEX) menjadi *Operational Expenditure* (OPEX).
- SDM Perusahaan bisa lebih fokus pada bisnis utama perusahaan.
- Solusi IT perusahaan bisa berjalan lebih efisien dan meningkat kinerjanya.
- Perangkat IT akan selalu *up to date*.
- *Reducing costs in providing information technology (IT) equipment.*
- *Changed Capital Expenditure (CAPEX) to Operational Expenditure (OPEX).*
- *Corporate human resource can focus more on the company's main business.*
- *Enterprise IT solutions can run more efficiently and improve performance.*
- *IT devices will always be up to date.*

Ruang lingkup yang INTI tawarkan dalam *Seat Management* secara umum adalah sebagai berikut:

The scope that INTI offers in *Seat Management* in general is as follows:

Readiness

- *Analysis (Roadmap, Forecast)*
- *Inventory*
- *Compliance*
- *Policy*
- *Compability*

Deployment

- *Hardware Refresh*
- *Software Distribution*
- *OS Deployment*
- *Imaging & Staging*
- *Automated Provisioning*
- *Delivery & Installation*

Seat Management

Retirement

- *Technology Refresh*
- *Transfer Sensitive Data*
- *Complete Removal of Data*
- *License Recovery*
- *Hardware Disposal*
- *Insurance*

Management

- *Dekstop Management*
- *Anti Virus Management*
- *Configuration Management*
- *Disaster Recovery*
- *Helpdesk*
- *Onsite Support*

Spare Part Management System

Deskripsi

Description

Sistem Manajemen Sparelog (Basis Manajemen Rantai Pasokan) adalah suku cadang satu atap dan dukungan pemeliharaan logistik, termasuk layanan manajemen sistem dan layanan pengiriman perangkat modul ke semua wilayah Indonesia sesuai dengan standar perjanjian tingkat layanan yang berlaku.

Layanan ini adalah cara terbaik untuk menangani lingkungan kompleks gudang dengan mengenali dan memahami bagian-bagian komponen hub rantai pasokan ini. Sistem Manajemen Sparelog juga menyediakan manajemen yang efektif dan meminimalkan investasi persediaan. Layanan ini dapat memberikan keunggulan kompetitif bagi perusahaan pelanggan di pasar.

Sistem Manajemen Sparelog memiliki kumpulan persediaan dan titik layanan yang tersebar di 60 lokasi, dengan jangkauan layanan hingga 100 lokasi di Indonesia. Layanan ini menyediakan 24 jam sehari, 7 hari seminggu, 365 hari setahun.

Sparelog Management System (Supply Chain Management Base) is a one stop spare parts and logistics maintenance support, including system management service and module device delivery service to all regions of Indonesia in accordance with applicable service level agreement standards.



This service is the best way to handle the complex environment of the warehouse by recognizing and understanding the component parts of these supply chain hubs. Sparelog Management System also provides effective management and minimizing the inventory investment. This service can provide competitive advantages to customer firms in the marketplace.

Sparelog Management System has stock pools and service points spread across 60 locations, with service coverage up to 100 locations in Indonesia. The service provides 24 hours a day, 7 days a week, 365 days a year.

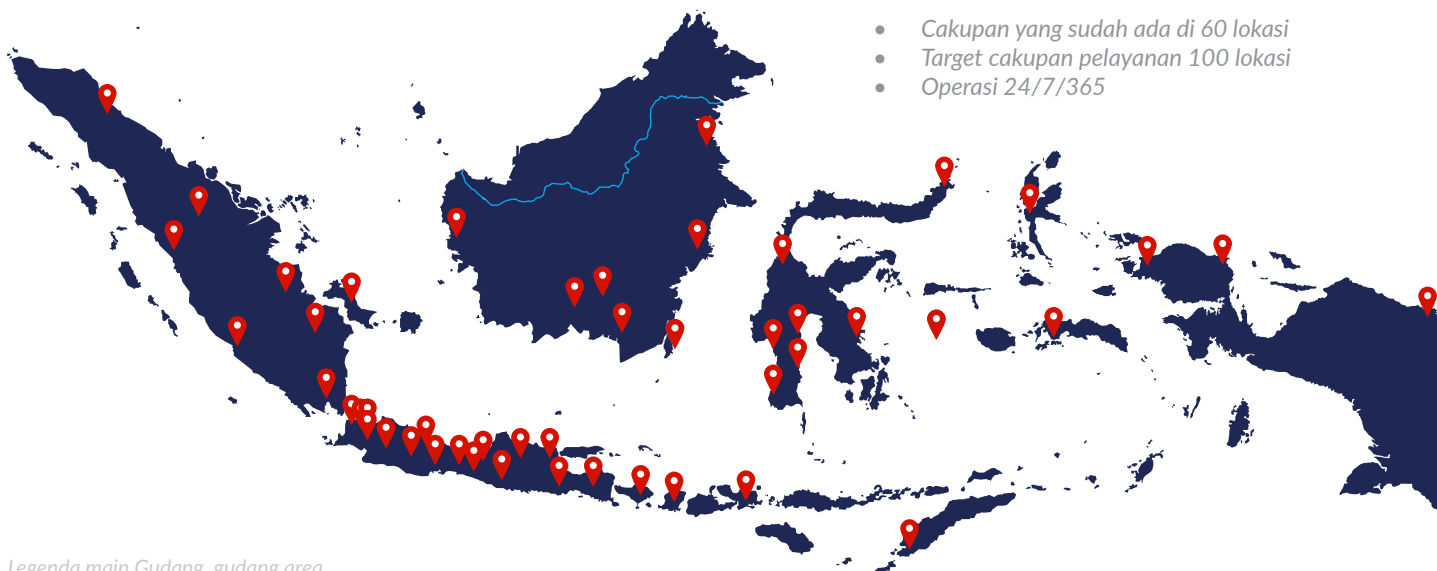
Keuntungan & Keunggulan

Advantages

- Menyediakan Warehousing beserta Stock Management dan Logistic Management
 - Menyediakan Interactive Information System
 - Menyediakan Time to Replace Oriented
 - Menyediakan Expert on Electronics Modules Handling
 - Up to 69 cities coverage With 59 SWH's and 1 CWH
 - Call Center 24 hrs/day, 7 days/week
- Provides warehousing along with stock management and logistics management.
 - Provides interactive information system.
 - Provides time to replace oriented.
 - Provides expert on electronics modules handling.
 - Up to 100 cities coverage with 60 SWH and 1 CWH.
 - Call Center 24 hours/day, 7 days/week.

Stock Pool & Service Point

Stock Pool & Service Point



- Cakupan yang sudah ada di 60 lokasi
- Target cakupan pelayanan 100 lokasi
- Operasi 24/7/365

Legenda main Gudang, gudang area

Shared Service Operation

Deskripsi

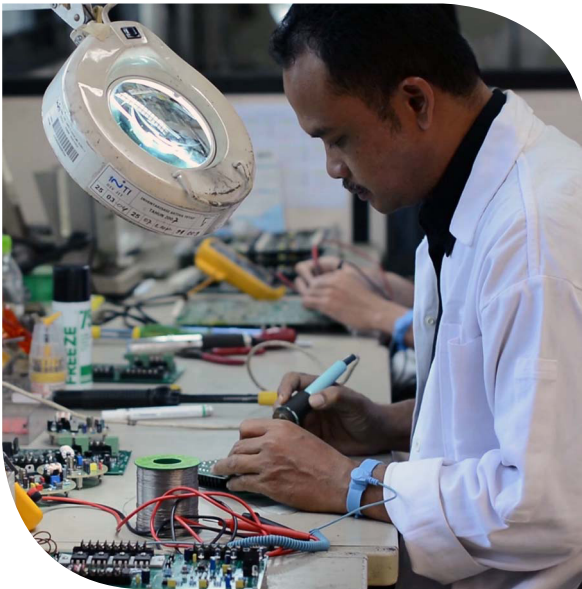
Description

Operasi Layanan Bersama adalah operasi *back office* yang terpusat dan terkonsolidasi melalui digitalisasi proses dengan perjanjian tingkat layanan tinggi (SLA) dan standarisasi proses. Ini memungkinkan konsolidasi operasi bisnis yang digunakan oleh banyak bagian dari organisasi yang sama. Layanan bersama hemat biaya karena memusatkan operasi *back-office* yang digunakan oleh banyak divisi dari perusahaan yang sama dan menghilangkan redundansi. Ini juga mendorong proses yang efektif dan efisien dan mengurangi beban bisnis non-inti dan kompleksitas birokrasi.

Shared Service Operation is centralized and consolidated back office operations through process digitalization with high service level agreements (SLAs) and process standardization. This allows the consolidation of business operations that are used by multiple parts of the same organization. Shared services are cost-efficient because they centralize back-office operations that are used by multiple divisions of the same company and eliminate redundancy. It also drives effective and efficient process and reduce the burden of non-core business and bureaucratic complexities.



Repair & Maintenance



Deskripsi

Description

INTI Repair Center merupakan layanan pemeliharaan perangkat elektronik dengan penyediaan jaminan spare part/suku cadang dan jasa layanan *repair*. Dengan cakupan spare pool di 60 kota lebih, sehingga kastemer dapat fokus pada main business/aktifitasnya, sementara pengelolaan spare part dan perbaikan *module* dapat dilakukan oleh PT INTI.

INTI Repair Center is an electronic device maintenance service by providing guarantees of spare parts/spare parts and repair services. With spare pool coverage in more than 60 cities, so customers can focus on playing their business/activities, while managing spare parts and repairing modules can be done by PT. INTI.

Repairing

*Functional
Test*

*Environmental
Test*

Delivery

Reporting

Bidang Pemeliharaan

Field of Maintenance

- Radio Transmission System
- Fiber Optic Transmission System
- Out Site Plan
- Civil, Mechanical and Electrical
- MSAN
- MSOAN
- Power System



Digital

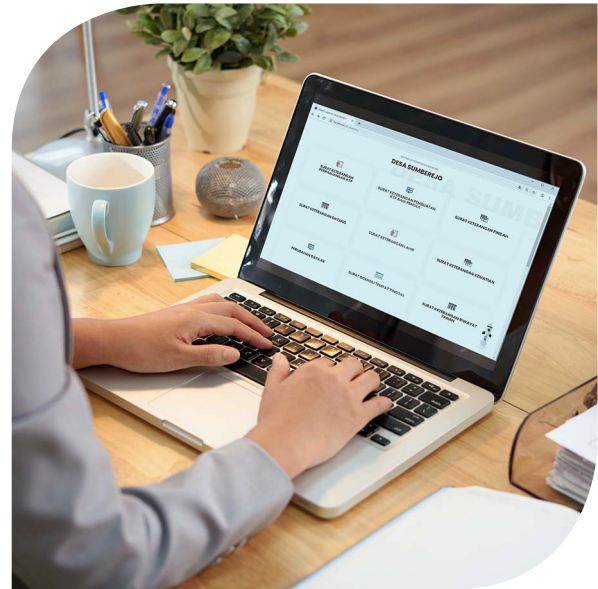
SIMDES (Sistem Informasi Manajemen Desa)

Deskripsi

Description

Sistem Informasi Manajemen Desa merupakan sebuah perangkat lunak yang mendukung sistem pengelolaan data dalam menerbitkan surat keterangan, surat pengantar, informasi tentang potensi daerah, dan informasi mengenai masyarakat.

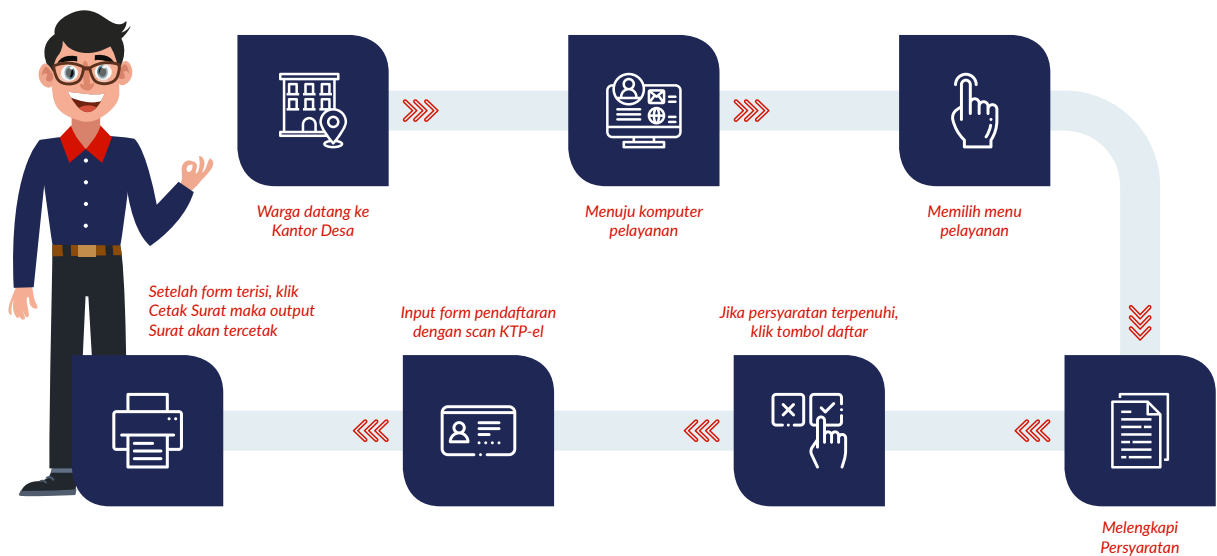
Village Management Information System is a software that supports the data management system in issuing certificates, cover letters, information about the potential of the area, and information about the community.



Meningkatkan pelayanan publik di desa yang berbasis teknologi informasi yang mudah diakses, akurat dan mudah digunakan oleh perangkat desa.

Meningkatkan pelayanan desa dengan menggunakan teknologi pada KTP Elektronik untuk melakukan pendataan pelayanan masyarakat.

Alur Sistem
System Flow



Fitur
Features

Fitur	Fungsi
Menu Pelayanan Surat	Menampilkan list surat yang akan diterbitkan
Halaman Komponen Persyaratan	Memvalidasi kelengkapan komponen persyaratan
Halaman Pendaftaran	Menginputkan data warga
Halaman Daftar dengan KTP Elektronik	Menginputkan data warga dengan scan KTP Elektronik menggunakan perangkat KTP Reader
Halaman Daftar Manual	Mencetak nomor antrian
Halaman Cetak Surat	Menampilkan preview surat keterangan/surat pengantar dan mencetak surat tersebut

e-Voting

Deskripsi

Description

Sistem *Electronic Voting* (e-Voting) adalah sebuah sistem yang memanfaatkan perangkat elektronik dan mengolah informasi digital untuk membuat surat suara, memberikan suara, menghitung perolehan suara, mengirim hasil perolehan suara, menayangkan perolehan suara, memelihara dan menghasilkan perhitungan suara.

Keuntungan yang didapat adalah *paperless*, meminimalisir kecurangan dan *real time result*. Dilengkapi dengan sistem anti hack sehingga aman dan terpercaya.

Electronic Voting system (e-Voting) is a system that utilizes electronic devices and processes digital information to make ballots, cast votes, count votes, send the results of votes, broadcast votes, maintain and produce votes.

The advantages gained are paperless, minimizing cheating and real time result. Equipped with an anti-hack system so it is safe and reliable.



Efisien & Efektif

Penghitungan suara lebih cepat

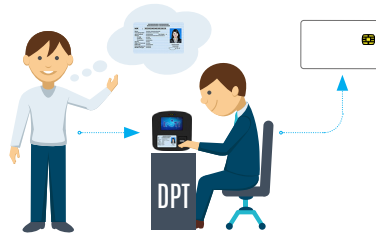
Tidak ada duplikasi data pemilih

Tidak ada suara rusak

Akurasi penghitungan suara tinggi

Menghemat biaya dalam jangka panjang

Alur Sistem System Flow

01

Pembaca KTP-el & Laptop- Aplikasi DPT

Pemilih melakukan pendaftaran
dan verifikasi di meja Petugas
Verifikasi DPT

02

Pemilih memasukkan *smartcard*, melakukan
pilihan di layar sentuh. Hasil Print-out surat
suara dimasukan kedalam kotak suara.

Bilik, Layar Sentuh, Printer, Reader *SmartCard* & Kotak Suara



Laptop (Aplikasi Generator & Reader *Smart Card*)

Pemilih mengambil *smartcard* di petugas
Generator

03

BIG Data Analytics

Deskripsi

Description

Big Data Analytics adalah proses lengkap untuk menguji set besar data melalui berbagai alat dan proses untuk menemukan pola yang tidak diketahui, korelasi tersembunyi, tren yang bermakna, dan wawasan lainnya untuk membuat keputusan yang didorong data dalam mengejar hasil yang lebih baik. Alat *Big Data Analytics* dapat memahami volume data yang sangat besar dan mengubahnya menjadi wawasan bisnis yang berharga.

Big Data Analytics is a complete process of examining large sets of data through varied tools and processes in order to discover unknown patterns, hidden correlations, meaningful trends, and other insights for making data-driven decisions in the pursuit of better results. Big Data Analytics tools can make sense of the huge volumes of data and convert it into valuable business insights.



Cyber Security

Cyber Security adalah praktik keamanan komputer, server, perangkat seluler, sistem elektronik, jaringan, dan data dari serangan jahat. Ini juga dikenal sebagai keamanan teknologi informasi atau keamanan informasi elektronik. Istilah ini berlaku dalam berbagai konteks, dari bisnis ke komputasi mobile, dan dapat dibagi menjadi beberapa kategori umum.

Proyek yang mengadopsi sistem Keamanan Dunia Maya meliputi Penyaringan Konten dan Sistem Manajemen Senjata INTI.

Cyber Security is the practice of defending computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks. It's also known as information technology security or electronic information security. The term applies in a variety of contexts, from business to mobile computing, and can be divided into a few common categories.

Projects that adopt Cyber Security systems include Content Filtering and INTI Weapon Management System.

Content Filtering

Deskripsi Description

Content Filtering adalah sebuah solusi yang terdiri dari sistem pemantauan proaktif & sistem pusat kendali.

Content Filtering is a solution that consists of a proactive monitoring system and a central control system.



Cyber Security

Sistem pemantauan proaktif terdiri dari perangkat lunak yang berfungsi untuk melakukan penelusuran, pengambilan, pencacahan, serta penggalian dan analisis terhadap berbagai jenis publik konten yang ada di Internet. Keluaran perangkat lunak tersebut akan menjadi basis bagi proses pemantauan proaktif secara berkelanjutan, serta untuk melakukan tindakan penanganan, baik secara teknologi, administrasi, maupun penegakan peraturan perundangan yang ada.

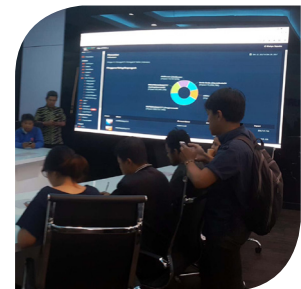
Sedangkan sistem pusat kendali merupakan tempat dimana tim management dan tim kendali melakukan koordinasi, mengambil keputusan, dan memberikan perintah-perintah terkait dengan pengoperasian sistem yang dimonitor. Pengambilan tindakan tidak terbatas pada saat terjadinya insiden terkait sistem, tetapi juga untuk melakukan tindakan-tindakan lain yang dianggap perlu seperti pemutakhiran sistem, monitoring, dan lainnya. Tujuan dari pusat kendali ini adalah untuk mengumpulkan dan memproses semua informasi yang dibutuhkan untuk menangani insiden secara cepat dan efektif.

Portofolio Bisnis : Pengadaan Pemantauan Proaktif & Pusat Kendali (Content Filtering) di Kominfo.

The proactive monitoring system consists of software that functions to search, retrieve, enumerate, extract, and analyze various types of public content on the internet. The software output will be the basis for the ongoing proactive monitoring process, as well as to take action in handling, both technological, administrative, and also enforcement of existing laws and regulations.

Whereas the central control system is a place where the management and control team coordinate, make decisions, and give instructions related to the operation of the monitored system. Action is not limited to the occurrence of incidents related to the system, but also to carry out other actions deemed necessary such as updating the system, monitoring, and others. The purpose of this control center is to collect and process all information needed to handle incidents quickly and effectively.

This Content Filtering has been built and implemented at the Ministry of Communication and Informatics.



i-WMS (INTI Weapon Management System)

Deskripsi *Description*

i-WMS (INTI Weapon Management System) adalah sebuah sistem yang terdiri dari *RFID Tag* dan *RFID Reader* dimana *RFID Tag* ditanam di bagian senjata secara permanen dan tidak mudah dilepas yang berfungsi sebagai identitas senjata dan dapat dibaca oleh Reader dengan menggunakan teknologi gelombang Radio (RF), kemudian data identitas hasil pembacaan tersebut diolah oleh sistem aplikasi sehingga menghasilkan informasi yang sesuai dengan keinginan pengguna.

i-WMS (INTI Weapon Management System) is a system that consists of a Radio Frequency Identification (RFID) Tag and an RFID Reader where the RFID tag is planted on a permanent and non-removable weapon. It functions as a weapon identity and can be read by a RFID Reader using radio wave (RF) technology, then the identity data of the reading results is processed by the application system so that it produces information in accordance with the wishes of the user.



Manfaat

Benefits

- Inventarisasi senjata (S/N, Tipe Senjata, Spesifikasi Senjata dll),
- Data histori pemakaian
- Data pengguna atau pemilik senjata
- Data pemeliharaan dan perbaikan senjata
- Data pemakaian amunisi
- Melacak posisi senjata di dalam gudang penyimpanan
- Data penilaian (*scoring system*) dalam latihan menembak
- *Weapons inventory (serial number, weapon type, weapon specifications, etc.)*
- *Usage history data*
- *User data or weapon owner*
- *Data on maintenance and repair of weapons*
- *Ammunition usage data*
- *Track the position of weapons in the warehouse*
- *Scoring system data in shooting practice*

Smart Hospital Management System



Deskripsi

Description

Smart Hospital Management System merupakan sistem informasi kesehatan terpadu bagi pengelolaan rumah sakit dalam memenuhi kebutuhan pelayanan kesehatan. Sistem ini dirancang untuk mengelola semua aspek operasi rumah sakit serta pengelolaan layanan yang sesuai kebutuhan, untuk mendukung kebutuhan informasi yang komprehensif dari rumah sakit.

Smart Hospital Management System is an integrated health information system for hospital management in meeting the needs of health services. This system is designed to manage all aspects of hospital operations and service management as needed, to support the comprehensive information needs of the hospital.

Meningkatkan
Keamanan
Data Pasien

Meningkatkan
Kualitas
Pelayanan

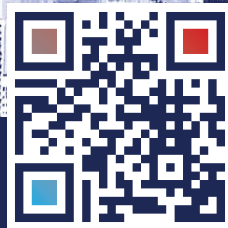
Teknologi
*Software as a
Service (SAAS)*

Smart Hospital Management System

Keuntungan & Keunggulan

Advantages

- Solusi bagi aktivitas dan produktivitas agar lebih optimal dalam upaya untuk memenuhi pelayanan kesehatan (rawat jalan, inap, darurat dan penunjang medik).
- Memberikan kemudahan aktifitas *admission* & billing yang terintegrasi.
- Solusi *medical record* yang terintegrasi.
- Solusi *stockist* obat yang terintegrasi.
- Solusi logistik dan SDM/Kepegawaian yang terintegrasi.
- Pengelolaan penyimpanan arsip data/Informasi yang terorganisir & terpusat dalam satu sistem.
- Meningkatkan keamanan data dan informasi lembaga/organisasi.
- Membangun sistem yang dapat diintegrasikan dengan BPJS.
- Menyediakan Hardware, Software dan Pendampingan yang dibutuhkan dalam menjalankan sistem yang ditawarkan dalam jangka waktu yang disepakati, dengan penawaran model kerja sama *Revenue Sharing*.
- *Solutions for activities and productivity to be more optimal in efforts to meet health services (outpatient, inpatient, emergency and medical support).*
- *Provides ease of integrated admission and billing activities.*
- *Integrated medical record solution.*
- *Integrated drug stockist solution.*
- *Integrated logistics and human resource solutions.*
- *Management of data storage or information organized and centralized in one system.*
- *Improve the security of data and information for institutions or organizations.*
- *Building a system that can be integrated with Health Social Security Administrator (Badan Penyelenggara Jaminan Sosial-BPJS Kesehatan)*
- *Providing hardware, software and assistance needed to run the system offered within the agreed timeframe, by offering a revenue sharing cooperation model.*



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