



Specifiche Hardware

IOT-BOX-EVO-01				
XX		-01	-02	-03
PROCESSOR	CPU	Quad 64-bit Arm® Cortex®-v8 A72, 1600MHz	Quad 64-bit Arm® Cortex®-v8 A72, 1400MHz	Dual 64-bit Arm® Cortex®-v8 A72, 1200MHz
	MEMORY	RAM	8GB (DDR4 2100 MHz)	8GB (DDR4 2100 MHz)
	expansion	Yes	Yes	Yes
STORAGE	Embedded	32GB eMMC	16GB eMMC	8GB eMMC
	Integrated	Factory option: Integrated n. 2 2.5" SSD SATA III RAID 0/1/JBOD		
	Other	1x microSD Slot (Service panel)		
Ethernet	Fiber	2 SFP+ Cage for GBIC modules 1000Base-SX MMD o 1000Base-LX SMD		
	Copper	1 WAN GbE 6KV isolated, 8 LAN GbE 1.5KV isolated		
	POE+ (Option)	1 WAN PD (Powered Device) type Up to 8 LAN PSE (Power Sourcing Equipment) type with external 48V power source		
I/O INTERFACES	USB	2x USB 3.0 Noise and Surge Protected		
	Serial	1x TTL Console		
	Contacts	1x Input isolated, 1x output isolated		
CELLULAR	LTE Category	1x LTE Global Cat 4 o superiore, 2G/3G Fallback GSM/GPRS/EDGE/UMTS/HSPA/HSPA+/LTE/LTE advanced		
OTHER RADIOS	GNSS	GPS/GLONASS/BeiDou/Galileo		
	Wi-Fi / BT (Option)	WiFi 802.11 a/b/g/n, BLE 4.0		
	LoRaWAN (Option)	Gateway 8 channels 868-874MHz / 915-921MHz 27dBm		
	LoRaWAN 2.4GHz (Option)	Gateway 3 channels 2.4GHz 20dBm		
	Antennas (External)	2x SMA (Cellular with Antenna Diversity) - 2x RP-SMA (Wi-Fi/BT) - 1x SMA (GPS) – 1x SMA LoRaWAN – 1x SMA LoRaWAN 2.4GHz		
OTHER	RTC	Yes, with SuperCAP (up up 2 Months Retain), Fast Reboot Support		
	System Watchdog	Yes		

	LEDs	1x Power – 2x 4 MiniPCIe Slot – 16x Ethernet – 3x User Programmable
MISC	Buttons	1x Reset, 1x Programmable by user
	SIM Slot	SIM Slot (2x microSIM)
POWER	Input	9 to 60VDC 1.5KV isolated
	Consumption	10W Typ., 45W Max
	Internal backup	Hold-up circuit with supercapacitor backup for proper system shutdown and power fail alarm
ENVIRONMENT	Operating Temp.	-20 to +70° C
	Storage Temp.	-40 to +85° C
CERTIFICATIONS	Regulatory	CE
	Safety	EN62368
	Environmental	RoHS3 - REACH
	Radios	RED
	Ingress	IP40
MECHANICAL	Enclosure	Material Aluminum – Color Black Anodized – Fanless
	Mounting Options	Mounting possibilities: DIN rail, Accessories available for Wall-mount / 19" rack-mount
	Dimensions / Weight	100x132x125mm, weight 2.5kg
SOFTWARE		
SOFTWARE	OS	Embedded Linux ProEsys OpenWRT
	Web Interface	Multi user ProEsys OpenWRT based (HTTPS / SSH remote access with digital certificate)
	Edge computing	Container Docker, Kubernetes
NETWORKING		
NETWORK	Switching Matrix band	10Gbps
	Internal components management	Activation/Deactivation on Multi users Web interface (HTTPS / SSH remote access with digital certificate) and command line with SSH protocol
	VPN Support	Crypto Tunneling on LTE module with GRE encapsulation endpoint mode compatible with Cisco VPN concentrator 3845 (supported source tunneling, destination tunnel, encryption, authentication CHAP, default route on tunnel)
	Standards	IEEE 802.1D Bridge and switching definition

		IEEE 802.1Q Virtual LANs
		IEEE 802.1p Class of Service
		IEEE 802.1w Rapid Scanning Tree
		IEEE 802.3 Ethernet
		IEEE 802.3u Fast Ethernet
		IEEE 802.3z Gigabit Ethernet
		IEEE 802.3ab Gigabit Ethernet over Copper
		IEEE 802.ad Link Aggregation
		IEEE 802.1x Port Based Network Access Control
		IEEE 802.1s Multiple Spanning Tree
		IEEE 802.3af Power over Ethernet
		IEEE 802.3at Power over Ethernet Plus
		IEEE 802.3z 1000BASE-X specification
		IEEE 1588 Precision Time Protocol and SyncE
		RFC 1166 IP Addresses
		RFC 1492 TACACS+
		RFC 2131, 2132 DHCP
		RFC 3580 802.1x RADIUS
	Protocols	SNMPv2 / SNMPv3
		Snooping IGMPv.2 / IGMPv3
		RFC 4250-4252 SSH Protocol
		NTP/SNTP

VIDEO RECORDING

Capacità di gestire e memorizzare localmente le immagini acquisite tramite protocollo TCP/IP e i video in digitale

Possibilità di visualizzazione delle immagini e dei video sia in modalità live che di consultazione in registrato dal centro

Memorizzazione su supporti flash drive/ssd cioè non meccanici e senza elementi rotativi

Memorizzazione in configurazione di mirroring (raid 1) con gestione delle registrazioni in-rolling sia per immagini che per il video con un'archiviazione di almeno 7 giorni su 5 flussi video, ciascuno da 4Megapixel, a 25fps. Disponibili N°2 dischi da 1TB in configurazione raid 1

Le registrazioni possono essere salvate su disco e criptate. E' possibile estrarle in formati video standard fruibili senza l'ausilio di software proprietari

Il sistema è in grado di comunicare con altri sistemi utilizzando protocolli standard non proprietari e per la quale sono disponibili SDK per l'interfacciamento

Il sistema di videorecording potrà essere completamente integrato nella soluzione con il sistema di videosorveglianza centralizzato di Terna