**Anexa 2**

**Fisa - caracteristici tehnice minime pentru piese de schimb, subansambluri si accesorii**

**SISTEM SUPRAVEGHERE VIDEO**

1. **Camera supraveghere video de interior**

## Specificatii

* Rezolutie video: 2 megapixel
* Senzor: CMOS image sensor
* Lentila fixa: 3.6 mm
* Distanta iluminator IR: 80 m
* Functii speciale: DNR, ICR, Day&Night, Smart IR
* Sensibilitate: 0 Lux
* Unghi de vizualizare: 82.2 grade
* Ajustarea unghiului: PAN (stanga-dreapta): 0-360 grade, TILT (sus-jos): 0-180 grade, Rotire: 0-360 grade
* Cadre/secunda: 25-30 FPS
* Iesire video: 1x analogic HD
* Temperatura de functionare: de la -40 grade pana la +60 grade Celsius
* Alimentare: 12 VDC±15%
* Consum: 6 W
* Grad de protectie: IP66
* Dimensiune: 86.22 x 82.05 x 220.13 mm
* Greutate: 430 g

1. **Camera supraveghere video de exterior**

## Specificatii

* Rezolutie: 1920 x 1080 pixeli
* Senzor: 2 Megapixeli CMOS
* Lentila fixa: 3.6 mm
* Unghi vizual: 82.2 grade
* Cadre/secunda: 30 FPS
* Distanta iluminator IR: 80 m
* Sensibilitate: 0.01 Lux (F1.2, AGC pornit), 0 Lux cu IR pornit
* Functii speciale: ICR, [WDR](http://securitateprivata.ro/sisteme-de-securitate-supraveghere-antiefractie/supraveghere-video/functia-wdr-wide-dynamic-range-la-camerele-de-supraveghere-video-cctv/), [AGC](http://securitateprivata.ro/sisteme-de-securitate-supraveghere-antiefractie/supraveghere-video/functia-agc-automatic-gain-control-la-camerele-de-supraveghere-video-cctv/), [BLC](http://securitateprivata.ro/sisteme-de-securitate-supraveghere-antiefractie/supraveghere-video/functia-blc-back-light-compensation-la-camerele-de-supraveghere-video-cctv/), [WDR](http://securitateprivata.ro/sisteme-de-securitate-supraveghere-antiefractie/supraveghere-video/functia-wdr-wide-dynamic-range-la-camerele-de-supraveghere-video-cctv/), [DNR](http://securitateprivata.ro/sisteme-de-securitate-supraveghere-antiefractie/supraveghere-video/functia-dnr-digital-noise-reduction-la-camerele-de-supraveghere-video-cctv/), [AWB](http://securitateprivata.ro/sisteme-de-securitate-supraveghere-antiefractie/supraveghere-video/functia-awb-automatic-white-balance-la-camerele-de-supraveghere-video-cctv/), [OSD](http://securitateprivata.ro/sisteme-de-securitate-supraveghere-antiefractie/supraveghere-video/meniul-osd-on-screen-display-la-camerele-de-supraveghere-video-cctv/), Oglinda, Smart-IR
* Iesire video: Analog HD
* Rotire PAN (stanga-dreapta): 360 grade
* Rotire TILT (sus-jos): 0 - 90 grade
* Sincronizare interna
* Comunicare: Up the COAX
* Protocol: Hikvision-C (TVI)
* Alimentare: 12 VDC / 24 VAC
* Consum: max 5 W
* Grad de protectie: IP66
* Temperatura de functionare: de la -40 grade pana la +60 grade Celsius
* Dimensiuni: 86.7 x 81.6 x 226 mm
* Greutate: 680 g

1. **Camera video speed dome**

Specificatii

* Rezolutie video: 1.3 megapixeli Turbo HD (1280 x 720p)
* Senzor: 1/3 inch Progressive Scan CMOS
* Lentila varifocala: 4 - 92 mm
* Distanta iluminator IR: 120 m
* Functie speciala: [DNR](http://securitateprivata.ro/sisteme-de-securitate-supraveghere-antiefractie/supraveghere-video/functia-dnr-digital-noise-reduction-la-camerele-de-supraveghere-video-cctv/)=, [WDR](http://securitateprivata.ro/sisteme-de-securitate-supraveghere-antiefractie/supraveghere-video/functia-wdr-wide-dynamic-range-la-camerele-de-supraveghere-video-cctv/)
* Sensibilitate: Color: 0.02 Lux la (F1.6,AGC ON); B/W: 0.002 Lux la (F1.6,AGC ON); 0 lux with IR
* Zoom optic 23x
* Zoom digital 16x
* Rotire PAN (stanga-dreapta): 360 grade
* Rotire TILT (sus-jos): 15 - 90 grade (auto flip)
* Rotatie continua
* Unghi vizualizare: 49-2.2 grade (Wide-Tele)
* Distanta minima de focalizare: 10 - 1000 mm
* Viteza de presetare: Pan: 0.1 -160/s, Tilt: 0.1 -120/s
* 256 de puncte presetate
* Mod PTZ: 8 tururi, 4 tipare
* Grad de protectie carcasa: IP66 (carcasa rezistenta la praf si intemperii, pentru o instalare usoara in exterior)
* Protocol RS-485: Half-duplex mode, Self-adaptive HIKVISION, Pelco-P, Pelco-D protocol
* Temperatura de functionare: de la -30 pana la +65 grade Celsius
* Alimentare: 24VAC(for –A moel)
* Consum: 30W(IR: 9W, Heater: 6W)
* Dimensini: diametru 220 x 353.4 mm
* Greutate: 4.5 Kg

1. **Monitor LED**

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| --- | --- |
| Contrast: | Static: 600:1  Dinamic: 5.000.000:1 |
| Rezolutie optima: | 1920x1080 |
| Tip Panel: | TN |
| Tip display: | LED backlit |
| Timp de raspuns: | 5 |
| Diagonala: | 21.5 inch (54.6 cm) |
| Intensitate luminoasa | 200 cd/m |
| Unghi maxim vizibilitate orizontala/verticala (grade): | 90/65 grade |
| Dimensiune punct (mm): | 0.248 mm |
| Rezolutii suportate | 1920 x 1080 pixeli |
| Touchscreen: | Fara Touchscreen |
| 3D: | Fara 3D |
| Rata orizontala de refresh (KHz): | 30 - 83 kHz |
| Rata verticala de refresh (Hz): | 56 - 75 Hz |

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| --- | --- |
| Conectivitate | |
| Plug & Play: | Da |
| Conectivitate: | 1 x D Sub |
| Facilitati | |
| Tuner TV: | Nu |
| Boxe integrate: | Fara Boxe |
| Functii: | Anti Glare  Hard Coating 3H |
| Montare pe perete | VESA ( 75 x 75 mm) |
| Altele | |
| Dimensiuni (W x H x D mm): | Cu suport: 508.5 mm x 386.5 mm x 186.7 mm  Fara suport: 508.5 mm x 315.7 mm x 56.8 mm |
| Greutate (Kg): | Cu suport: 2.4 kg  Fara suport: 2.1 kg |
| Putere consumata (W): | Nomal: 18 W  Off: 0.5W  Saving on: 0.5W |

1. **DVR**

Numar canale: 16

Intrare video IP: 2 canale/ 1080p

Compresie video: H.264+ / H.264

Camere compatibile: HD-TVI, AHD, IP sau analogice

Iesiri video: 1-ch HDMI 4K / 1-ch VGA 2K

Rezolutie inregistrare: 1920 x 1080 pixeli

Cadre/secunda: 1080p / 25fps, 720p / 30fps

Numar maxim de conexiuni la distanta: 128

Protocol: TCP/IP, PPPoE, DHCP, Hik Cloud P2P, DNS, DDNS, NTP, SADP, NFS, iSCSI, UPnP™, HTTPS

Retea: RJ45 10M/100M/1000M self-adaptive

Stocare HDD: 2 SATA pana la 6 TB

Rezolutie de redare: 4K (3840 x 2160 pixeli)

Interfata serial: Standard RS-485 serial interface, half-duplex

Port USB: 1 x USB 2.0/ 1 x USB 3.0

Intrari/iesiri audio: 1/1

Compresie audio: G.711u

Alimentare: 12 VDC

Consum: 30 W

Temperatura de functionare: de la - 10 pana la + 55 grade Celsius

Dimensiune: 380 x 320 x 48 mm

Greutate: max.2 Kg

Cablare: Cablu coaxial pana la 500 m

1. **Switch date**

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| --- | --- |
| Porturi: | 24 |
| Standarde: | RFC 768 - UDP  RFC 783 - TFTP  RFC 791 - IP  RFC 792 - ICMP  IEEE 802.1ab (LLDP)  IEEE 802.3ad  IEEE 802.3af and IEEE 802.3at  IEEE 802.1s  IEEE 802.1w  IEEE 802.1X  IEEE 802.3ae 10Gigabit Ethernet  IEEE 802.1ax  IEEE 802.3ah (100BASE-X single/multimode fiber only)  IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports  IEEE 802.3 10BASE-T  IEEE 802.3u 100BASE-TX  IEEE 802.3ab 1000BASE-T  IEEE 802.3z 1000BASE-X  RFC 1166 - IP Addresses  RFC 1256 - Internet Control Message Protocol (ICMP) Router Discovery  RFC 1305 - NTP  RFC 1492 - TACACS+  RFC 1493 - Bridge MIB  RFC 1542 - BOOTP extensions  RFC 1643 - Ethernet Interface MIB  RFC 1757 - RMON  RFC 1901 - SNMP v2C  RFC 1902-1907 - SNMP v2  RFC 1981 - Maximum Transmission Unit (MTU) Path Discovery IPv6  FRC 2068 - HTTP  RFC 2131 - DHCP  RFC 2138 - RADIUS  RFC 2233 - IF MIB v3  RFC 2373 - IPv6 Aggregatable Addrs  RFC 2460 - IPv6  RFC 2461 - IPv6 Neighbor Discovery  RFC 2462 - IPv6 Autoconfiguration  RFC 2463 - ICMP IPv6  RFC 2474 - Differentiated Services (DiffServ) Precedence  RFC 2597 - Assured Forwarding  RFC 2598 - Expedited Forwarding  RFC 2571 - SNMP Management  RFC 3046 - DHCP Relay Agent Information Option  RFC 3376 - IGMP v3  RFC 3580 - 802.1X RADIUS  RFC 793 - TCP  RFC 826 - ARP  RFC 854 - Telnet  RFC 951 - Bootstrap Protocol (BOOTP)  RFC 959 - FTP  RFC 1112 - IP Multicast and IGMP  RFC 1157 - SNMP v1  RMON I and II standards  SNMP v1, v2c, and v3  IEEE 802.3az  IEEE 802.1D Spanning Tree Protocol  IEEE 802.1p CoS Prioritization  IEEE 802.1Q VLAN |
| Management | Cu Management |
| Conectivitate: | 10BASE-T ports: RJ-45 connectors, 2-pair Category 3, 4, or 5 unshielded twisted-pair (UTP) cabling  1000BASE-T ports: RJ-45 connectors, 4-pair Category 5 UTP cabling  1000BASE-T SFP-based ports: RJ-45 connectors, 4-pair Category 5 UTP cabling  100BASE-TX ports: RJ-45 connectors, 2-pair Category 5 UTP cabling |
| PoE | Fara PoE |
| Rutare IP: | Advanced IP unicast routing protocols (OSPF for Routed Access)  Equal-cost routing  Hot Standby Routing Protocol (HSRP) and Virtual Router Redundancy Protocol (VRRP)  Policy-based routing (PBR)  Protocol Independent Multicast (PIM)  IP unicast routing protocols (Static, Routing Information Protocol Version 1 [RIPv1], and RIPv2, RIPng |
| LED Indicators | System status: System, RPS, Stack link status, link duplex, PoE, and link speed  Per-port status: Link integrity, disabled, activity, speed, and full duplex |
| Montabile in rack: | Da |
| Viteza de transfer: | Forwarding bandwidth - 50 Gbps  Switching bandwidth - 100 Gbps  Forwarding Rate: 64-Byte L3 Packets - 68.5 Mpps |
| Alimentare (V/Hz) | 100 to 240 VAC, 1A - 0.5A, 50 to 60Hz |
| Putere consumata (W): | Average : 32.0W |
| Greutate (Kg): | 3.7 kg |
| Dimensiuni (W x D x H mm): | 4.5 x 27.9 x 44.5 cm |
| MTBF: | 622,350 |
| VLANs: | VLAN IDs available 4096  Maximum active VLANs 64 |

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| Securitate: | Bridge protocol data unit (BPDU) Guard  Spanning Tree Root Guard (STRG)  IGMP filtering  Dynamic VLAN assignment  Threat Defense  Private VLANs  Unicast Reverse Path Forwarding (RPF)  Comprehensive 802.1X  IPv6 First-Hop Security  Device Sensor and Device Classifier  Trust Anchor Technology (TAT)  Multidomain Authentication  Access Control Lists for Pv6 and IPv4 for security and QoS ACEs  Secure Shell (SSH) Protocol, Kerberos, and Simple Network Management Protocol Version 3 (SNMPv3)  Switched Port Analyzer (SPAN)  TACACS+ and RADIUS authentication  MAC Address Notification  Multilevel security on console access |
| Management: |  |
| Caracteristici speciale: | Operational Simplicity Features :  Automatic media-dependent interface crossover (MDIX)  Unidirectional Link Detection Protocol (UDLD)  Switching Database Manager (SDM)  VLAN Trunking Protocol (VTP)  Remote Switch Port Analyzer (RSPAN)  Remote Monitoring (RMON)  Cross-stack QoS  Rate limiting  Dynamic Host Configuration Protocol (DHCP)  Stacking master configuration management  Autonegotiation  Dynamic Trunking Protocol (DTP)  Port Aggregation Protocol (PAgP)  Link Aggregation Control Protocol (LACP)  Flow-based rate limiting  802.1p class of service (CoS)  Differentiated Services Code Point (DSCP  Internet Group Management Protocol (IGMP)  Multicast VLAN Registration (MVR)  Per-port broadcast, multicast, and unicast storm control  Voice VLAN  Layer 2 trace route  Trivial File Transfer Protocol (TFTP)  Network Timing Protocol (NTP)  Local Proxy Address Resolution Protocol (ARP)  VLAN1 minimization  Smart Multicast, with FlexStack-Plus technology  Enhanced Quality of Service :  eight egress queues per port  Shaped Round Robin (SRR)  Weighted Tail Drop (WTD) |
| Altele: | DRAM 512 MB  Flash memory : 64 MB  CPU : APM86392 600MHz dual core |

1. **UPS 950VA/480W**

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| --- | --- |
| Putere (VA): | 950 |
| Montabile in rack: | Nu |
| Intrari: | Capacitate disjunctor alimentare: 7 A  Tip de protecţie necesară la intrare: 3-pole breaker  Frecvenţă de intrare: 50/60 Hz +/- 3 Hz (detectare automată)  Conexiuni de intrare: IEC-320 C14  Interval tensiune de intrare pentru operaţii principale: 150 - 280V  Curent maxim de intrare: 4A |
| Iesiri: | Capacitate putere de ieşire: 480 Watts / 950 VA  Tensiune nominală la ieşire: 230V  Frecvenţă de ieşire (sincronizată cu alimentarea de la reţea): 50/60 Hz +/-1 Hz  Conexiuni de ieşire: 6 x IEC 320 C13 (Battery Backup) |
| Conectori iesire: | IEC |
| Baterie: | Baterie cu plăci de plumb şi acid, etanșată, care nu necesită întreţinere, cu electrolit suspendat: etanş  Module baterie incluse : 1 |

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| Backup time: | Load (watts): 480W / Standard runtime:1.3 min  Load (watts): 202.5W / Standard runtime:9.8 min  Load (watts): 48W / Standard runtime: 50.7 min |
| Timp reincarcare: | 8 h |
| Protectie: | Capacitate nominală supratensiune: 273 Joules  Protecţie date în linie: Protecţie RJ-11 pentru modem/fax |
| Altele: | Topologie: Linie interactivă  Tip formă de undă : Aproximaţie pas cu pas pentru o sinusoidă  Lungime cablu : 1.22 m |
| Culoare: | Negru |
| Alarma: | Alarmă când funcţionează pe baterie: alarmă distinctă pentru baterie descărcată: alarmă sub formă de ton continuu la suprasarcină |
| Indicatori: | Afişaj stare LED cu indicatoare on line: Pe baterie: Înlocuire baterie şi indicatoare de suprasarcină |
| Dimensiuni (W x D x H mm): | 215 x 130 x 336 mm |
| Greutate (Kg): | 8 Kg |
| Tensiune de alimentare (V): | Tensiune nominală de intrare: 230V |

1. **UPS 950VA/480W**

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| --- | --- |
| Putere (VA): | 1500 |
| Montabile in rack: | Nu |
| Intrari: | Cord Length 1.83 meters  Input Connections Schuko CEE 7/7P  Input Frequency 50/60 Hz +/- 3 Hz (auto sensing)  Input voltage range for main operations 160 - 286V  Nominal Input Voltage 230V |
| Iesiri: | (3) Schuko CEE 7 (Surge Protection)  Nominal Output Voltage 230V  Output Connections :  (3) Schuko CEE 7 (Battery Backup)  Output Frequency (sync to mains) 50/60Hz +/- 3 Hz  Output Power Capacity 865 Watts / 1500 VA |
| Conectori iesire: | Schuko |

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| --- | --- |
| Tip conectori: | Interface Port(s) USB |
| Timp reincarcare: | 8 hour(s) |
| Protectie: | Data Line Protection RJ-11 Modem/Fax/DSL protection (two wire single line),RJ-45 Modem/Fax/DSL protection (four wire dual line)  Surge energy rating 420 Joules |
| Altele: | Audible noise at 1 meter from surface of unit 45.00 dBA  Operating Elevation 0-900 meters  Operating Relative Humidity 0 - 95%  Storage Elevation 0-4500 meters  Storage Relative Humidity 0 - 95%  Storage Temperature -15 - 45 grade C  Operating Environment 0 - 40 grade C |
| Indicatori: | Multi-function LCD status and control console |
| Dimensiuni (W x D x H mm): | 301.00 mm x 112.00 mm x 382.00 mm |
| Greutate (Kg): | 13.00 KG |

1. **Unitate control acces**

- cititor de proximitate si tastatura iluminata de tip TOUCH-PANEL

- posibilitate de lucru STANDALONE sau RETEA

- capacitate: 3000 cartele in regim standalone

- memorie: 1500 de tranzactii

- permite conectarea suplimentara a unui cititor pentru operare in AntiPassback

- 3 moduri de acces: cu card, card + PIN, card sau PIN

1. **Hard disk**

specificatii minime

* Capacitate 2TB
* Viteza de rotatie: IntelliPower
* Cache: 64MB
* Interfata: SATA 3
* Rata de transfer: Buffer catre host: 6 Gb/s;
* Host catre drive: 145 Mb/s
* Format: 3.5 inch
* SATA III, 3.5"
* NAS dedicated