**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**

|  |  |
| --- | --- |
| Contrast: | Static: 600:1Dinamic: 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 GlareHard 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 mmFara suport: 508.5 mm x 315.7 mm x 56.8 mm |
| Greutate (Kg): | Cu suport: 2.4 kgFara suport: 2.1 kg |
| Putere consumata (W): | Nomal: 18 WOff: 0.5WSaving 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**

|  |  |
| --- | --- |
| Porturi: | 24 |
| Standarde: | RFC 768 - UDPRFC 783 - TFTPRFC 791 - IPRFC 792 - ICMPIEEE 802.1ab (LLDP)IEEE 802.3adIEEE 802.3af and IEEE 802.3atIEEE 802.1sIEEE 802.1wIEEE 802.1XIEEE 802.3ae 10Gigabit EthernetIEEE 802.1axIEEE 802.3ah (100BASE-X single/multimode fiber only)IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T portsIEEE 802.3 10BASE-TIEEE 802.3u 100BASE-TXIEEE 802.3ab 1000BASE-TIEEE 802.3z 1000BASE-XRFC 1166 - IP AddressesRFC 1256 - Internet Control Message Protocol (ICMP) Router DiscoveryRFC 1305 - NTPRFC 1492 - TACACS+RFC 1493 - Bridge MIBRFC 1542 - BOOTP extensionsRFC 1643 - Ethernet Interface MIBRFC 1757 - RMONRFC 1901 - SNMP v2CRFC 1902-1907 - SNMP v2RFC 1981 - Maximum Transmission Unit (MTU) Path Discovery IPv6FRC 2068 - HTTPRFC 2131 - DHCPRFC 2138 - RADIUSRFC 2233 - IF MIB v3RFC 2373 - IPv6 Aggregatable AddrsRFC 2460 - IPv6RFC 2461 - IPv6 Neighbor DiscoveryRFC 2462 - IPv6 AutoconfigurationRFC 2463 - ICMP IPv6RFC 2474 - Differentiated Services (DiffServ) PrecedenceRFC 2597 - Assured ForwardingRFC 2598 - Expedited ForwardingRFC 2571 - SNMP ManagementRFC 3046 - DHCP Relay Agent Information OptionRFC 3376 - IGMP v3RFC 3580 - 802.1X RADIUSRFC 793 - TCPRFC 826 - ARPRFC 854 - TelnetRFC 951 - Bootstrap Protocol (BOOTP)RFC 959 - FTPRFC 1112 - IP Multicast and IGMPRFC 1157 - SNMP v1RMON I and II standardsSNMP v1, v2c, and v3IEEE 802.3azIEEE 802.1D Spanning Tree ProtocolIEEE 802.1p CoS PrioritizationIEEE 802.1Q VLAN |
| Management | Cu Management |
| Conectivitate: | 10BASE-T ports: RJ-45 connectors, 2-pair Category 3, 4, or 5 unshielded twisted-pair (UTP) cabling1000BASE-T ports: RJ-45 connectors, 4-pair Category 5 UTP cabling1000BASE-T SFP-based ports: RJ-45 connectors, 4-pair Category 5 UTP cabling100BASE-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 routingHot 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 speedPer-port status: Link integrity, disabled, activity, speed, and full duplex |
| Montabile in rack: | Da |
| Viteza de transfer: | Forwarding bandwidth - 50 GbpsSwitching bandwidth - 100 GbpsForwarding 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 4096Maximum active VLANs 64 |

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| Securitate: | Bridge protocol data unit (BPDU) GuardSpanning Tree Root Guard (STRG)IGMP filteringDynamic VLAN assignmentThreat DefensePrivate VLANsUnicast Reverse Path Forwarding (RPF)Comprehensive 802.1XIPv6 First-Hop SecurityDevice Sensor and Device ClassifierTrust Anchor Technology (TAT)Multidomain AuthenticationAccess Control Lists for Pv6 and IPv4 for security and QoS ACEsSecure Shell (SSH) Protocol, Kerberos, and Simple Network Management Protocol Version 3 (SNMPv3)Switched Port Analyzer (SPAN)TACACS+ and RADIUS authenticationMAC Address NotificationMultilevel 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 QoSRate limitingDynamic Host Configuration Protocol (DHCP)Stacking master configuration managementAutonegotiationDynamic Trunking Protocol (DTP)Port Aggregation Protocol (PAgP)Link Aggregation Control Protocol (LACP)Flow-based rate limiting802.1p class of service (CoS)Differentiated Services Code Point (DSCPInternet Group Management Protocol (IGMP)Multicast VLAN Registration (MVR)Per-port broadcast, multicast, and unicast storm controlVoice VLANLayer 2 trace routeTrivial File Transfer Protocol (TFTP)Network Timing Protocol (NTP)Local Proxy Address Resolution Protocol (ARP)VLAN1 minimizationSmart Multicast, with FlexStack-Plus technologyEnhanced Quality of Service :eight egress queues per portShaped Round Robin (SRR)Weighted Tail Drop (WTD) |
| Altele: | DRAM 512 MBFlash memory : 64 MBCPU : APM86392 600MHz dual core |

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

|  |  |
| --- | --- |
| Putere (VA): | 950 |
| Montabile in rack: | Nu |
| Intrari: | Capacitate disjunctor alimentare: 7 ATip de protecţie necesară la intrare: 3-pole breakerFrecvenţă de intrare: 50/60 Hz +/- 3 Hz (detectare automată)Conexiuni de intrare: IEC-320 C14Interval tensiune de intrare pentru operaţii principale: 150 - 280VCurent maxim de intrare: 4A |
| Iesiri: | Capacitate putere de ieşire: 480 Watts / 950 VATensiune nominală la ieşire: 230VFrecvenţă de ieşire (sincronizată cu alimentarea de la reţea): 50/60 Hz +/-1 HzConexiuni 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: etanşModule baterie incluse : 1 |

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| Backup time: | Load (watts): 480W / Standard runtime:1.3 minLoad (watts): 202.5W / Standard runtime:9.8 minLoad (watts): 48W / Standard runtime: 50.7 min |
| Timp reincarcare: | 8 h |
| Protectie: | Capacitate nominală supratensiune: 273 JoulesProtecţie date în linie: Protecţie RJ-11 pentru modem/fax |
| Altele: | Topologie: Linie interactivăTip formă de undă : Aproximaţie pas cu pas pentru o sinusoidăLungime 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 metersInput Connections Schuko CEE 7/7PInput Frequency 50/60 Hz +/- 3 Hz (auto sensing)Input voltage range for main operations 160 - 286VNominal Input Voltage 230V |
| Iesiri: | (3) Schuko CEE 7 (Surge Protection)Nominal Output Voltage 230VOutput Connections :(3) Schuko CEE 7 (Battery Backup)Output Frequency (sync to mains) 50/60Hz +/- 3 HzOutput Power Capacity 865 Watts / 1500 VA |
| Conectori iesire: | Schuko |

|  |  |
| --- | --- |
| 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 dBAOperating Elevation 0-900 metersOperating Relative Humidity 0 - 95%Storage Elevation 0-4500 metersStorage Relative Humidity 0 - 95%Storage Temperature -15 - 45 grade COperating 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