






DiSPLAY

PROTECTING THE FUTURE

MICRO DISPLAY SYSTEMS



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UNCASED VERSION			

FOR MORE THAN 35 YEARS «DISPLAY» DESIGN OFFICE», JSC, HAS BEEN SPECIALIZING IN ENGINEERING AND MANUFACTURE OF DISPLAY DEVICES DESIGNED FOR OPERATION IN SEVERE CONDITIONS AND IS CONSIDERED TO BE ONE OF THE MARKET LEADERS IN THIS INDUSTRY.

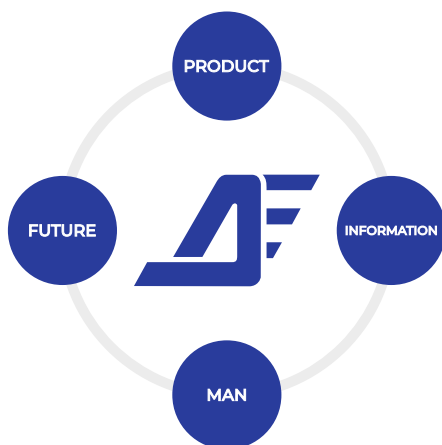
COMPANY PROFILE:

- DESIGN AND PRODUCTION OF RUGGED VIDEO MONITORS;
- DESIGN AND PRODUCTION OF RUGGED PANEL AND LAPTOP COMPUTERS;
- DESIGN AND PRODUCTION OF AVIONIC DISPLAYS;
- DESIGN AND PRODUCTION OF MICRO DISPLAY SYSTEMS;
- LCD RUGGEDIZATION.

OUR PRODUCTS OPERATE SUSTAINABLY IN THE FOLLOWING CONDITIONS:

- LOW TEMPERATURES, -55 °C;
- HIGH TEMPERATURES, до +70 °C;
- 100% HUMIDITY, FOG, SPATTER, RAIN;
- AGGRESSIVE ENVIRONMENT INFLUENCE, SALT SPRAY FOG, FUNGI, SAND;
- VIBRATION UP TO 6 g;
- SINGLE SHOCKS UP TO 500 g;
- HIGH AMBIENT ILLUMINATION (UP TO 100,000 LUX).

DESIGNING OUR PRODUCTS FOR OPERATION IN SEVERE CONDITIONS WE PROTECT THEM FROM ENVIRONMENTAL EXPOSURE. BY THAT WE PROTECT THE DISPLAYED INFORMATION AND THE PEOPLE WHO RECEIVE THE INFORMATION. PROTECTING THE PERSON, GIVING THE CHANCE TO IT TO MORE OPERATIVELY CORRECT DECISIONS, ON THE BASIS OF THE RECEIVED INFORMATION, **WE PROTECT THE FUTURE.**



BEING AWARE OF ALL THE RESPONSIBILITY, IN OUR ACTIVITY WE ARE GUIDED BY THE FOLLOWING PRINCIPLES:

- PERSONAL APPROACH TO EVERY CUSTOMER.
- UNIQUE TECHNOLOGIES, DEVELOPED BY OUR HIGHLY SKILLED SPECIALISTS.
- RESPONSIBILITY FOR MANUFACTURED PRODUCTS.

OUR KEY COMPETENCE:
HIGH PRODUCTS CUSTOMIZATION TO APPLICATION ENVIRONMENT.

«DISPLAY» DESIGN OFFICE», JSC, IS OPEN FOR COOPERATION, PARTICIPATION IN NEW PROJECTS. R&D WORK IS ALWAYS OF GREAT INTEREST TO OUR COMPANY.

CUSTOMIZED OPTIONS ARE PROVIDED UPON REQUEST

ENGINEERING AND MASTERING MANUFACTURING TECHNIQUES OF OLED-MICRODISPLAY CONTROLLER ENABLED US TO DEVELOP A FUTURE-ORIENTED PRODUCT – **MICRO DISPLAY SYSTEMS (MDS)**.

MDS IS A PERSONAL SMALL-SIZE DISPLAY DEVICE DESIGNED FOR FUTURE-ORIENTED SOLDIER'S ELECTRON-OPTICAL COMPLEX.



MAJOR FIELDS OF APPLICATION:

- INCREASING OF SITUATION AWARENESS AND SOLDIER'S SAFETY IN COMBAT CONDITIONS. THERE IS A POSSIBILITY TO MONITOR THE OPERATIONAL SITUATION AND COMBAT ACTIONS BEING IN SHELTER.
- THE USE OF MDS AS INSPECTION KITS BY BORDER CONTROL AUTHORITIES, CUSTOMS AND OTHER NATIONAL SECURITY ORGANIZATIONS.
- QUICK DISPLAY OF NAVIGATIONAL AND CARTOGRAPHIC INFORMATION WHEN OPERATING WITH TABLET PC-17. AT THE SAME TIME IT IS NOT A GIVEAWAY FACTOR IN THE DARK.
- USING IN TARGETING DEVICES AND SIMULATORS.
- INTEGRATED MICRODISPLAY SYSTEMS.



ADVANTAGES	MDS	MONITOR / TABLET
THE IMAGE DISPLAYED ON A MDS IS EQUIVALENT TO A 19-INCH MONITOR. OBSERVED AT A DISTANCE OF 1 METER.		
LOW WEIGHT LESS THAN 0.3kg. LIGHTER IN 40 TIMES!	0,3 kg	12 kg
LOW POWER CONSUMPTION - 1W. IN 40 TIMES MORE ECONOMIC!	1 W	40 W
WARM-UP TIME AT TEMPERATURE -40°C IS 0.1 SEC. FASTER IN 300 TIMES!	0,1 SEC	5 MIN
IDEAL READOUT PERFORMANCE OF INFORMATION!	OPERATION ON SUNLIGHT, NO REFLECTANCE OR FLECKS, IDEAL READOUT PERFORMANCE OF INFORMATION.	REQUIRES INCREASING OF BRIGHTNESS UP TO 1000 NIT.
GIVE-AWAY FACTOR IS ABSENT! COMPATIBLE WITH NIGHT – VISION GLASSES.	 MONITOR OR PANEL PC COMPATIBLE WITH NIGHT – VISION GLASSES.	 STANDARD MONITOR OR PANEL PC NOT COMPATIBLE WITH NIGHT – VISION GLASSES.
FREEDOM OF MOVING! HANDS – FREE.		NOT CONVINIENT FOR MOBILE APPLICATION.



NSI-04

BEING ENGINEERED AS A PART OF A PERSONAL ELECTRO-OPTICAL COMPLEX, HELMET-MOUNTED DISPLAY **NSI-04** IS DESIGNED FOR QUICK DISPLAY OF SIGHTING, NAVIGATIONAL AND MAP INFORMATION. COMPACT DESIGN OF **NSI-04** ALLOWS TO MOUNT IT ON A SOLDIER'S HELMET FOR INFORMATION RECEIVING. THE DESIGN OF AN OPTICAL PART GIVES THE OPPORTUNITY TO ADAPT DIOPTRIS WITHIN THE RANGE ± 4 DIOPTRIS.



MODEL	NSI-04
MATRIX TYPE	OLED
RESOLUTION	800x600
MATRIX NATIVE CONTRAST, NOT LESS THAN	100:1
BRIGHTNESS, cd/m², NOT LESS THAN	150
OPTICAL SYSTEM TYPE	CLOSED-TYPE MONOCULAR (NON-ILLUMINATED)
INTERFACE	VGA, BLACK AND WHITE FULL TV SIGNAL, COLOR FULL TV SIGNAL (PAL, SECAM, NTSC)
POWER SUPPLY, V	+9...+27
POWER CONSUMPTION, W, NOT MORE THAN	1,5
TEMPERATURE, °C:	
OPERATING	-40...+55
STORAGE	-50...+65



NSI-06

THIS MODIFICATION DIFFERS FROM NSI-04 IN ITS COMPACT DESIGN (WITHOUT EXTERNAL CONTROLLER UNIT) AND LESS NUMBER OF INTERFACES.



MODEL	NSI-06
MATRIX TYPE	OLED
RESOLUTION	800x600
MATRIX NATIVE CONTRAST, NOT LESS THAN	100:1
BRIGHTNESS, cd/m², NOT LESS THAN	150
OPTICAL SYSTEM TYPE	CLOSED-TYPE MONOCULAR (NON-ILLUMINATED)
INTERFACE	VGA
POWER SUPPLY, V	+5...+17
POWER CONSUMPTION, W, NOT MORE THAN	0,7
TEMPERATURE, °C: OPERATING STORAGE	-40...+55 -50...+65

CUSTOMIZED OPTIONS ARE PROVIDED UPON REQUEST



NSI-06.1

DESIGNED FOR INTEGRATION INTO DEVICES AS MICRO-DISPLAY UNIT.
ALSO CAN BE USED FOR IMITATION AS SIGHT OPTICAL CHANNEL IN
SIMULATORS.



MODEL	NSI-06.1
MATRIX TYPE	OLED
RESOLUTION	1280x1024
MATRIX NATIVE CONTRAST, NOT LESS THAN	100:1
BRIGHTNESS, cd/m², NOT LESS THAN	70
OPTICAL SYSTEM TYPE	CLOSED-TYPE MONOCULAR (NON-ILLUMINATED)
INTERFACE	DVI (THE IMAGE IS A CIRCLE INSCRIBED IN A MICRODISPLAY MATRIX)
POWER SUPPLY, V	+5
POWER CONSUMPTION, W, NOT MORE THAN	2,5
TEMPERATURE, °C:	
OPERATING	-40...+55
STORAGE	-50...+65



NSI-06.2

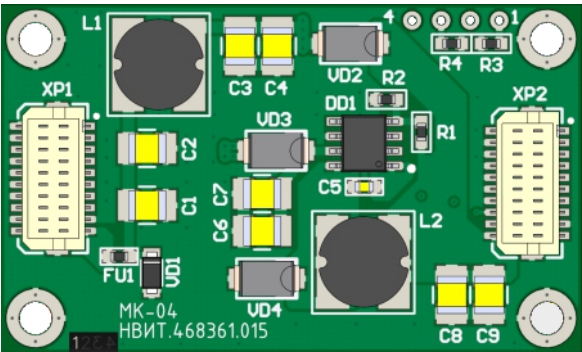
DESIGNED TO DISPLAY GRAPHICAL AND VIDEO INFORMATION IN THE USER'S FIELD OF VIEW.



MODEL	NSI-06.2
MATRIX TYPE	OLED
RESOLUTION	800x600
MATRIX NATIVE CONTRAST, NOT LESS THAN	100:1
BRIGHTNESS, cd/m², NOT LESS THAN	150
OPTICAL SYSTEM TYPE	CLOSED-TYPE MONOCULAR (NON-ILLUMINATED)
EYE RELIEF, MM	15
VIEWING ANGLE	28
DIOPTRICS ADJUSTMENT	±4
INTERFACE	HDMI
POWER SUPPLY, V	+4,5...+5,5
POWER CONSUMPTION, W, NOT MORE THAN	0,7
TEMPERATURE, °C:	
OPERATING	-40...+55
STORAGE	-50...+65

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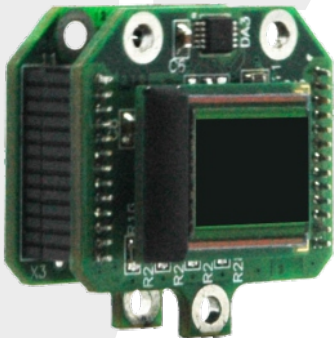
NSI-04



NSI-04 / NSI-06

UNCASED VERSION OF NSI-04 AND NSI-06 FOR OEM.

NSI-06



MODEL	NSI-04	NSI-06
MATRIX TYPE	OLED	
RESOLUTION	800x600	
MATRIX NATIVE CONTRAST, NOT LESS THAN	100:1	
BRIGHTNESS, cd/m², NOT LESS THAN	150	
INTERFACE	SVGA, BLACK AND WHITE FULL TV SIGNAL, COLOR FULL TV SIGNAL (PAL, SECAM, NTSC)	SVGA, BLACK AND WHITE FULL TV SIGNAL (OPTIONAL)
POWER SUPPLY, V	+9...+27	+5...+17
POWER CONSUMPTION, W, NOT MORE THAN	1,5	0,7
WEIGHT, g	40 (CONTROLLER) 5 (MICRODISPLAY BOARD)	10
DIMENSIONS: WIDTH / HEIGHT / DEPTH, MM	65 / 45 / 9 (MONITORING AND CONTROL UNIT) 29 / 24 / 12 (MICRODISPLAY UNIT)	30 / 29 / 20
TEMPERATURE, °C: OPERATING STORAGE	-40...+55 -50...+65	

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