

	RS-232 PORT SNIFFER OVER RS-485 SNIE-42	CHARACTER GENERATOR OSD FG-50HD	MODULE NANO-V3/CH340	CHARACTER GENERATOR OSD-50HD	CHARACTER GENERATOR CONVERTER OSD PORT-22	USB - UART 3.3V INTERFACE CH340C	PROGRAMMER DT-PG1 VIDOS	USB - UART 3.3V INTERFACE ESP-01-CH340- ESP8266	WIFI MODULE ESP-12F ESP8266 Espressif	PROGRAMMER ESP-P- WROOM32 FOR MODULES OF THE ESP32-WROOM-32 SERIES	WIFI MODULE ESP- WROOM-02 ESP8266EX Espressif	WIFI + BLUETOOTH + BLUETOOTH LE MODULE ESP-WROOM-32 Espressif	PROGRAMMER ESP32 FOR MODULES OF THE ESP- WROOM-02 SERIES	DEVELOPMENT KIT ESP32- ESP-WROOM-32 Espressif	PROGRAMMER ESP8266 FOR MODULES OF THE ESP12 SERIES	UTC CONTROLLER FOR CAMERAS PFM820 DAHLIA	RELAY MODULE 2R-D7 Modbus RTU	RELAY MODULE 4R-D7 Modbus RTU	RELAY MODULE ESP12-2R- D8 Wi-Fi	RELAY MODULE ESP12-4R- M5 Wi-Fi	RELAY MODULE ESP12-8R- D8 Wi-Fi	MODBUS DIGITAL OUTPUT MODULE RD-8	COMPUTER CABLE DB9- W/DB9-G-1.8M
																							
	19.46 EUR 19.46 EUR	207.25 EUR 207.25 EUR	5.96 EUR 5.96 EUR	113.55 EUR 113.55 EUR	23.54 EUR 23.54 EUR	5.61 EUR 5.61 EUR	28.62 EUR 28.62 EUR	6.20 EUR 6.20 EUR	3.05 EUR 3.05 EUR	16.22 EUR 16.22 EUR	3.93 EUR 3.93 EUR	4.90 EUR 4.90 EUR	18.70 EUR 18.70 EUR	8.97 EUR 8.97 EUR	13.74 EUR 13.74 EUR	31.25 EUR 31.25 EUR	9.54 EUR 9.54 EUR	12.21 EUR 12.21 EUR	11.07 EUR 11.07 EUR	14.72 EUR 14.72 EUR	20.99 EUR 20.99 EUR	29.65 EUR 29.65 EUR	3.53 EUR 3.53 EUR
Input	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
RS-232 capturing data line	TXD (pin 3)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1 pcs BNC	---	---	---	---	---	---
Connectors	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	female and male (9 PINs)
Length of the cable	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.8 m
PTZ control	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
WiFi chipset	---	---	---	---	---	---	---	---	ESP8266	---	---	---	---	---	---	---	RS-485 / UART TTL	RS-485 / UART TTL	Wi-Fi	Wi-Fi	Wi-Fi	RS-485	
Processor	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Color	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Black
Supported transmission speeds	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Frequency fsk	---	---	16 MHz	---	---	---	---	---	---	---	---	---	---	max. 150 Mbps	---	---	---	---	---	---	---	---	---
Outputs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8 pcs	---
Compatibility	---	---	---	---	---	ESP01, ESP01S, ESP8266, ESP32 and others	U1014-2	ESP01, ESP01 and others	---	ESP32-WROOM-32	---	---	ESP-WROOM-02D, ESP-WROOM-02U, ESP8684, ESP32 and others	---	ESP-12F, ESP-12E, ESP-12S, ESP-07 ESP-07S	---	---	---	---	---	---	---	---
Protocol	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Modbus RTU	Modbus RTU	IEEE 802.11 b/g/n/e/6, Wi-Fi Direct (P2P), TCP, UDP	IEEE 802.11 b/g/n/e/6, Wi-Fi Direct (P2P), TCP, UDP	IEEE 802.11 b/g/n/e/6, Wi-Fi Direct (P2P), TCP, UDP	MODBUS	---
Transmission speed	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	4800 / 9600 / 19200 b/s (default: 9600 b/s)	4800 / 9600 / 19200 b/s (default: 9600 b/s)	---	---	---	115200 b/s	---
Main features	• Data capturing from TXD line of the RS-232 cable • Applies to data transmission from PC to the fiscal printer	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Number of inputs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2 pcs	4 pcs	---	---	2	---	---
Operation modes	---	---	---	---	---	---	---	Station / Soft AP / Station + Soft AP	---	---	Station / Soft AP / Station + Soft AP	Station / Soft AP / Station + Soft AP	---	Station / Soft AP / Station + Soft AP	---	---	---	---	---	---	---	---	---
Number of relay outputs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2 pcs	4 pcs	2 pcs	4 pcs	8 pcs	---	---
Antenna type	---	---	---	---	---	---	---	Indoor	---	---	Indoor	Indoor	---	Indoor	---	---	2 pcs	4 pcs	2 pcs	4 pcs	8 pcs	---	---
Current efficiency	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Built-in KF protocols (cash registers)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	• 2 A (single output), • 8 A (total)	---
Memory	---	---	• 32 kB - Flash • 2 kB - SRAM • 1 kB - EEPROM	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Inputs protection	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	✓	---
Possibility to add KF protocols (cash registers)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
I/O ports	---	---	22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Supported standards	---	• PAL, • 720p, • 1080p, • HD-CVI - 720p / 1080p, • HD-TVI - 720p / 1080p	---	AHD, HD-CVI, HD-TVI	---	---	---	---	IEEE 802.11 b/g/n/e/6	---	---	IEEE 802.11 b/g/n	IEEE 802.11 b/g/n, Bluetooth LE	---	IEEE 802.11 b/g/n, Bluetooth LE	---	---	---	---	---	---	---	---
Connectors type	---	---	---	---	---	• 1 x USB-A plug, • 1 x 8x goldpin socket (dedicated to ESP01 / ESP01S), • 8 x goldpin plug - Leading out the pins	SW+ / SW- socket	• 1 x USB-A plug, • 1 x 8x goldpin socket (dedicated to ESP01 / ESP01S), • 8 x goldpin plug - Leading out the pins	---	• 1 x micro USB socket, • Place of temporary installation of the board with spring pins • 42 x goldpin plug - Leading out the pins	---	---	• 1 x micro USB socket, • Place of temporary installation of the board with spring pins (dedicated to ESP-WROOM-02D/02U), • 20 x goldpin plug - Leading out the pins	---	• 1 x micro USB socket, • Place of temporary installation of the board with spring pins (dedicated to ESP-12E/12F/12S), • 30 x goldpin plug - Leading out the pins	---	---	---	---	---	---	---	
Vector graphics support	---	---	---	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TTL voltage	---	---	---	---	---	---	---	---	3.3 V	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Inputs	---	8 ADC	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
USB <-> TTL Converter	---	---	---	---	---	CH340	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Raster graphics support	---	---	---	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PWM outputs	---	---	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Number of video inputs	---	1 x BNC socket	---	---	---	1 x Cable terminals	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Relay maximal load	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Output	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10 A / 250 V AC , 10 A / 30 V DC	10 A / 250 V AC , 10 A / 30 V DC	10 A / 250 V AC , 10 A / 30 V DC	10 A / 250 V AC , 10 A / 30 V DC	10 A / 250 V AC , 10 A / 30 V DC	---	---
Output signal level	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1 pcs BNC	2 x NO/NC	4 x NO/NC	2 x NO/NC	4 x NO/NC	8 x NO/NC	---
PCB casing	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Number of video outputs	---	1 x BNC socket	---	---	---	1 x Cable terminals	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Power output	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Range RS-485	1200 m	1200 m	---	---	1200 m terminal connector	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Built-in stabilizer	---	---	✓	---	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Video signal amplification	---	0 dB	---	0 dB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
LED indicators	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Camera operation mode indication: • Blue - AHD, • Orange - HD-CVI, • Green - HD-TVI, • Red - CVBS	---	---	---	---	---	---
Maximal number of characters in one line	---	50	---	50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Communication	---	---	• UART, • mini USB - B type	UART 3.3 V	---	• RS-485, • RS-485 TTL, • MODBUS, • Arduino, • STM Nucleo, • Service buttons - 6 pcs	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximal number of lines	---	40	---	40	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Interface	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maximum number of characters on the screen	---	2000	---	2000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Frequency range	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
The ability to change font size	---	✓	---	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
The ability to change the position of the titles	---	✓	---	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
The ability to change the font and create own table of graphic characters	---	✓	---	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

The ability to firmware upgrade	---	✓	---	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Keyboard lock	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Communication using optional devices	---	---	---	PORT-22	• RS-485 switch • Micro SD - Card	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cross generator	---	---	---	✓	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Current consumption	---	---	---	240 mA (both inputs: 3V3A and 3V3D)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	60 mA @ 12 V DC	---
Power supply	12 V DC / 0.1 A (power adapter not included)	12 V DC / 200 mA (power adapter not included)	• 7 ... 12 V DC, • 5 V DC - Port USB	• 3.3 V DC • Powering from PORT-22	12 V / 200 mA (power adapter not included)	5 V - from USB port	1 x CR2032	5 V - from USB port	---	5 V - from USB port	---	5 V - from USB port	---	5 V - from USB port	---	5 V - from USB port	2 x Battery type : LR03, AAA	7 V ... 24 V DC (power adapter not included)	7 V ... 24 V DC (power adapter not included)	7 V ... 30 V DC or 5 V DC (power adapter not included)	• 7 V ... 30 V DC, • 5 V DC, • 90 V ... 250 V AC (power adapter not included)	7 V ... 28 V DC or 5 V DC (power adapter not included)	7 V ... 26 V DC (power adapter not included)	---
Receiver sensitivity	---	---	---	---	---	---	---	---	• 11b 11M : -91 dBm • 11g 54M : -75 dBm • 11n MCS7 : -72 dBm	---	• 11b 11M : -91 dBm • 11g 54M : -75 dBm • 11n MCS7 : -72 dBm	---	• 11b 11M : -88 dBm • 11g 54M : -75 dBm • 11n HT20 MCS0 : -93 dBm • 11n HT20 MCS7 : -70 dBm • 11n HT40 MCS0 : -90 dBm • 11n HT40 MCS7 : -70 dBm • Bluetooth : -94 dBm	---	• 11b 11M : -88 dBm • 11g 54M : -75 dBm • 11n HT20 MCS0 : -93 dBm • 11n HT20 MCS7 : -70 dBm • 11n HT40 MCS0 : -90 dBm • 11n HT40 MCS7 : -70 dBm • Bluetooth : -94 dBm	---	---	---	---	---	---	---	---	---
Security measures	---	---	---	---	---	---	---	---	WEP / TKIP / AES, WPA-PSK/WPA2-PSK	---	WEP / TKIP / AES, WPA-PSK/WPA2-PSK	WEP / TKIP / AES, Hash (SHA-2), RSA, ECC	---	WEP / TKIP / AES, Hash (SHA-2), RSA, ECC	---	---	---	---	---	---	---	---	---	---
Main features	---	---	---	---	---	RESET button	• DIP SWITCH for configuration and addressing, • Programming key	RESET button	---	• ON/OFF button, • RESET button, • PROGRAM button	---	• ON/OFF button, • RESET button, • PROGRAM button	• Built-in USB -> UART interface (chip CP2102) • Buttons for operating the device in programming mode	---	• ON/OFF button, • RESET button, • PROGRAM button	---	• LED indication • The control inputs protected with optocouplers, which allows the use of control signals with voltages in the range of 3.3 V DC ... 30 V DC • The UART interface input is adapted to the installation of gold-pins for signals with voltages adapted to the TTL level (3.3 V DC / 5 V DC) • Possibility to configure the device address (with saving the settings after a power failure) in the range of 1 - 255 (default address 255) • Possibility to set the delay of the relay operation (base unit: 0.1 s, value range: 0.1 s ... 6553.5 s) • Protection against reverse polarity of the input voltage	• LED indication • The control inputs protected with optocouplers, which allows the use of control signals with voltages in the range of 3.3 V DC ... 30 V DC • The UART interface input is adapted to the installation of gold-pins for signals with voltages adapted to the TTL level (3.3 V DC / 5 V DC) • Possibility to configure the device address (with saving the settings after a power failure) in the range of 1 - 255 (default address 255) • Possibility to set the delay of the relay operation (base unit: 0.1 s, value range: 0.1 s ... 6553.5 s) • Protection against reverse polarity of the input voltage	• LED indication • Programming with Arduino IDE or Eclipse tools • The module can be used as an element of IoT (Internet of Things) systems • The Wi-Fi module works in the 2.4 GHz band	• LED indication • Programming with Arduino IDE or Eclipse tools • The module can be used as an element of IoT (Internet of Things) systems • The Wi-Fi module works in the 2.4 GHz band	• LED indication • Programming with Arduino IDE or Eclipse tools • The module can be used as an element of IoT (Internet of Things) systems • The Wi-Fi module works in the 2.4 GHz band	---	---	
Operation temp	---	---	---	---	---	---	---	---	0 °C ... 40 °C	---	-40 °C ... 85 °C	-40 °C ... 85 °C	---	-40 °C ... 85 °C	---	---	---	---	---	---	---	---	---	---
Support	---	• printers compatible with POSNET, THERMAL, THERMAL (pharmacy) protocols • cash registers compatible with POSNET ("operations monitor" mode) • fiscal printers compatible with ELZAB, ELZAB (pharmacy, cash stand) protocols • NOVITUS, NOVITUS (pharmacy) fiscal printers • Alcotector fiscal printers • Innova fiscal printers • Detecs fiscal printers • Soehnle-professional fiscal printers • Epson fiscal printers • Tysoo fiscal printers • fiscal printers compatible with UPOS protocol • other fiscal printers based on above protocols • money counters (eg.: Detectalia NEWTON), SORTER mode • the scales supporting the cougar 8530 protocol, eg.: METTLER TOLEDO 8530 • the AXIS, RADWAG, RHEWA scales • time & attendance recorders, eg.: EVR-2 • Communication via the RS-485 bus • the SG-1 mode - the protocol of SG-1 device operating in symbols display mode, ability to implement custom protocols • character terminal mode and hexadecimal displaying	PORT-22	• the SG-1 mode - the protocol of SG-1 device operating in symbols display mode, ability to implement custom protocols • character terminal mode and hexadecimal displaying • You can customize the software to your needs, such as adding a new communication protocol that supports other devices than specified	OSD-50HD	---	---	---	---	---	---	---	---	AHD / HD-CVI / HD-TVI / CVBS cameras - DAHUA max. 2 Mpx	---	---	---	---	---	---	---	---	---	---
Weight	0.076 kg	0.095 kg	0.005 kg	0.02 kg	0.03 kg	0.004 kg	0.02 kg	0.004 kg	0.001 kg	0.02 kg	0.001 kg	0.001 kg	0.02 kg	0.01 kg	0.02 kg	0.05 kg	0.046 kg	0.092 kg	0.04 kg	0.09 kg	0.14 kg	0.09 kg	---	---
Dimensions	119 x 63 x 30 mm	100 x 62 x 28 mm	45 x 18 x 6 mm	91 x 36 x 11 mm	90 x 48 x 20 mm	50 x 14 x 12 mm	64 x 46 x 18 mm	50 x 14 x 12 mm	24 x 16 x 3.2 mm	50 x 47 x 15 mm	20 x 18 x 2.8 mm	25.5 x 18 x 3.2 mm	47 x 41 x 18 mm	55 x 29 x 13 mm	50 x 47 x 15 mm	90 x 42 x 20 mm	85 x 49 x 19 mm	93 x 91 x 20 mm	78 x 47 x 19 mm	93 x 90 x 19 mm	148 x 80 x 19 mm	120 x 90 x 36 mm	---	
Manufacturer / Brand	DELTA	DELTA	---	DELTA	DELTA	VIDOS	---	---	Espressif	Espressif	Espressif	Espressif	---	Espressif	---	DAHUA	---	---	---	---	---	DELTA	---	
Guarantee	3 years	3 years	2 years	3 years	3 years	2 years	3 years	2 years	2 years	2 years	2 years	2 years	2 years	2 years	2 years	3 years	2 years	2 years	2 years	2 years	2 years	2 years	2 years	