| *Поз. обозначение* | *Наименование* | *Кол.* | *Примечание* |
| --- | --- | --- | --- |
|  |  |  |  |
|  | *[Устройства]* |  |  |
| *A1* | *VTDU31PI004G-100 SSD 4GB EUSB SLC Virtium Technology Inc* | *1* |  |
|  |  |  |  |
|  | *[Конденсаторы]* |  |  |
| *C1, C2* | *Бамбарбия Киргуду 1nF Murata* | *2* |  |
| *C3-C4,*  *C6-C37,*  *C39-C43,*  *C45-C47,*  *C49-C55,*  *C66,*  *C88-C89,*  *C101-C102,*  *C109-C110,*  *C113,*  *C121-C122,*  *C124-C125,*  *C129-C130,*  *C155, C158,*  *C162,*  *C169-C170,*  *C182-C184,*  *C194-C200,*  *C290-C306,*  *C380-C400,*  *C409,*  *C419-C422,*  *C428,*  *C430-C448,*  *C463,*  *C468-C470,*  *C478-C517,*  *C647-C651,*  *C653-C659,*  *C667-C668,*  *C670-C676,*  *C684-C685,*  *C690,*  *C692-C723,*  *C726,*  *C729-C731,*  *C738-C744,*  *C764-C765,*  *C773-C780,*  *C784-C787,*  *C793-C837,*  *C839-C848* | *GRM155R71C104KA88D CAP CER 0.1uF 16V X7R 0402 100nF Murata* | *321* |  |
| *C5, C48,*  *C65,*  *C67-C75,*  *C78-C80,*  *C115, C117,*  *C126, C128,*  *C134-C135,*  *C171,*  *C203-C207,*  *C311,*  *C366-C367,*  *C379,*  *C423-C427,*  *C429,*  *C452-C462,*  *C471-C473,*  *C522-C545,*  *C638-C639,*  *C666,*  *C677-C679,*  *C682-C683,*  *C687-C688,*  *C732-C737,*  *C746-C748* | *GRM155R61A105K CAP CER 1uF 10V X5R 0402 1uF Murata* | *94* |  |
| *C38, C87,*  *C90-C97,*  *C111-C112,*  *C123,*  *C132-C133,*  *C142-C143,*  *C168, C172,*  *C208-C212,*  *C280,*  *C401-C402,*  *C405,*  *C412-C413,*  *C464-C467,*  *C640,C652,C691* | *GRM188R61E475KE11D CAP CER 4.7UF 25V X7R 0603 4.7uF Murata* | *37* |  |
| *C44,*  *C81-C84,*  *C86, C119,*  *C131, C417,*  *C477, C552,*  *C637, C669,*  *C727, C763,*  *C766-C772,C838* | *GRM1555C1H102JA01D CAP CER 1000pF 50V C0G 0402 1nF Murata* | *23* |  |
| *C56,*  *C76-C77,*  *C85,*  *C377-C378,*  *C403-C404,*  *C418,*  *C475-C476,*  *C641,C660* | *GRM21BR61A106KE19L CAP CER 10UF 10V X5R 0805 10uF Murata* | *13* |  |
| *C59-C60,*  *C116,*  *C153-C154,*  *C176,*  *C233-C237,*  *C364-C365,*  *C406, C474,*  *C664-C665,*  *C790-C791* | *GRM155R71E103KA01D CAP CER 0.01uF 25V X7R 0402 10nF Murata* | *19* |  |
| *C61-C64,*  *C201-C202,*  *C315-C336,*  *C549-C550,*  *C634-C635* | *GRM31CR71A226ME15L CAP CER 22uF 10V X7R 1206 22uF Murata* | *32* |  |
| *C98-C100,*  *C103-C105,*  *C144-C145,*  *C173,*  *C213-C217,*  *C410-C411* | *GRM188R71E104KA02D CAP CER 0.1UF 25V X7R 0603 100nF Murata* | *16* |  |
| *C106,*  *C156-C157,*  *C177,C218-C222* | *T491X107K025AT CAP TANT 100UF 25V 10% 2917 100uF Kemet* | *9* |  |
| *C107-C108,*  *C161,*  *C185-C187,*  *C191-C193,*  *C253-C274,*  *C279,*  *C307-C310,*  *C449-C451,*  *C849-C850* | *C2012X5R0J476M125AC CAP CER 47UF 6.3V X5R 0805 47uF TDK* | *41* |  |
| *C114, C414* | *GRM1555C1H101JA01D CAP CER 100pF 50V C0G 0402 100pF Murata* | *2* |  |
| *C118,C415,C783* | *GRM155R71E153KA61D CAP CER 0.015uF 25V X7R 0402 15nF Murata* | *3* |  |
| *C120, C416* | *GRM1555C1H331JA01D CAP CER 330pF 50V C0G 0402 330pF Murata* | *2* |  |
| *C127* | *GRM155R71H152KA01D CAP CER 1500pF 50V X7R 0402 1.5nF Murata* | *1* |  |
| *C136* | *T491C336K025AT CAP TANT 33UF 25V 10% 2413 33uF Kemet* | *1* |  |
| *C137-C139,*  *C148,C689* | *GRM1555C1H561JA01D CAP CER 560pF 50V C0G 0402 560pF Murata* | *5* |  |
| *C140-C141,*  *C146-C147,*  *C151-C152,*  *C174-C175,*  *C223-C232* | *GRM188R71E224KA88D CAP CER 0.22UF 25V X7R 0603 220nF Murata* | *18* |  |
| *C149* | *GRM1555C1H681JA01D CAP CER 680pF 50V C0G 0402 680pF Murata* | *1* |  |
| *C150,*  *C159-C160,*  *C163-C164,*  *C178-C179,*  *C238-C247* | *GRM32ER71E226KE15L CAP CER 22uF 25V X7R 1210 22uF Murata* | *17* |  |
| *C165-C166,*  *C181,*  *C248-C252,*  *C312-C314* | *T495X477K006ATE030 CAP TANT 470UF 6.3V 10% 2917 470uF Kemet* | *11* |  |
| *C167* | *GRM1555C1H821JA01D CAP CER 820pF 50V C0G 0402 820pF Murata* | *1* |  |
| *C180* | *T495X337K010ATE060 CAP TANT 330UF 10V 10% 2917 330uF Kemet* | *1* |  |
| *C188-C190,*  *C275-C278,*  *C281,C762* | *GRM188R61E225KA12D CAP CER 2.2UF 25V X5R 0603 2.2uF Murata* | *9* |  |
| *C337-C340,*  *C551,C636* | *GRM32EE70G107ME19 CAP CER 100uF 4V X7U 1210 100uF Murata* | *6* |  |
| *C341-C363* | *GRM21BR71A475KA73K CAP CER 4.7UF 10V X7R 0805 4.7uF Murata* | *23* |  |
| *C553-C624,*  *C728,C781-C782* | *GRM155R61A474KE15J CAP CER 0.47uF 10V X5R 0402 470nF Murata* | *75* |  |
| *C680, C681* | *GRM1555C1H8R0DA01D CAP CER 8pF 50V C0G 0402 8pF Murata* | *2* |  |
| *CAGE2* | *747500082 QSFP+ CAGE HEAT SINK ASSEMBLY Molex* | *1* |  |
|  |  |  |  |
|  | *[Микросхемы]* |  |  |
| *D1, D60* | *AT24CS08-MAHM IC EEPROM 8KBIT 1MHZ 8UDFN Microchip* | *2* |  |
| *D2* | *DS1683S+ IC RTC ELAPSED CNT I2C 8-SOIC Maxim Integrated* | *1* |  |
| *D3* | *UCD9081RHB IC PS SEQUENCER/MON 8CH 32-QFN Value Texas Instruments* | *1* |  |
| *D4* | *TMP401AIDGK SENSOR TEMPERATURE SMBUS 8VSSOP Texas Instruments* | *1* |  |
| *D5* | *LTC4281IUFD Hot Swap Controller with I2C Monitoring Linear Technology* | *1* |  |
| *D6* | *Si5345A-D-GM IC CLOCK GEN BUFFER PLL 64QFN Silicon Labs* | *1* |  |
| *D7,D45-D51* | *MT40A512M16HA-083E Micron 8Gb x16 DDR4 SDRAM Micron* | *8* |  |
| *D8* | *MT29F32G08CBCCBH1-12Z 32Gb Micron NAND FLASH Micron* | *1* |  |
| *D9* | *MT28GU01GAAA1EGC-0SIT 1Gb Micron StrataFlash Embedded Memory Micron* | *1* |  |
| *D10, D23,*  *D61,D63,D70* | *SN74LVC1T45DBV IC BUS TRANSCVR TRI-ST SOT23-6 Texas Instruments* | *5* |  |
| *D11* | *JTAG-SMT2-NC JTAG Programming Module Digilent* | *1* |  |
| *D12* | *CP2105-F01-GM SINGLE-CHIP USB TO DUAL UART BRIDGE Silicon Labs* | *1* |  |
| *D13, D15* | *UCD9248PFC Digital PWM System Controller Value Texas Instruments* | *2* |  |
| *D14, D26,*  *D30-D35* | *UCD74120RVFR 25 A Synchronous Buck Power Stage Texas Instruments* | *8* |  |
| *D16, D53* | *TPS54320RHL IC REG BUCK ADJ 3A SYNC 14QFN Texas Instruments* | *2* |  |
| *D17, D18* | *PCA9551BS 8 LED DRIVER I2C NXP* | *2* |  |
| *D19, D66* | *LT1715IMS IC COMPARATOR 150MHZ DUAL 10MSOP Linear Technology* | *2* |  |
| *D20* | *TPS65135RTER IC REG SIMO MULTI OUT 16WQFN Texas Instruments* | *1* |  |
| *D21,D64-D65* | *OPA188AIDBV IC OPAMP ZERO-DRIFT 2MHZ SOT23-5 Texas Instruments* | *3* |  |
| *D22* | *AD5692RACPZ-RL7 IC DAC 14BIT I2C 8-LFCSP Analog Devices* | *1* |  |
| *D24* | *85411AMILF IC CLK BUFFER 1:2 650MHz 8SOIC IDT* | *1* |  |
| *D25* | *TCA6408ARGTR 8 BIT I2C IO EXPANDER INT RST Value Texas Instruments* | *1* |  |
| *D27* | *UCD74106RGM IC REG BUCK 6A SYNC 13VQFN Texas Instruments* | *1* |  |
| *D28, D29* | *CD74HC4051PW IC MUX/DEMUX 8X1 16TSSOP Texas Intsruments* | *2* |  |
| *D36-D43* | *MCP9700AT-E/TT SENSOR TEMP ANLG VOLT SOT-23-3 Microchip* | *8* |  |
| *D44, D55* | *TPS7A4700RGW IC REG LDO ADJ 1A 20VQFN Texas Instruments* | *2* |  |
| *D54* | *XCKU085-2FLVB1760I|FPGA1 Xilinx* | *1* |  |
| *D56* | *Si5328B-C-GM IC CLOCK MULTIPLIER ETH 36QFN Silicon Labs* | *1* |  |
| *D57, D58* | *TPS51200DRC IC REG DDR SINK/SOURCE TERM 10SON Texas Instruments* | *2* |  |
| *D59* | *TS3USB30ERSWR IC SWITCH DPDT USB2.0 10-MINIQFN Texas Instruments* | *1* |  |
| *D62* | *CY7C65642-28LTXC IC CONTROLLER USB 28QFN Cypress Semiconductor* | *1* |  |
| *D68* | *TUSB1210BRHB IC TXRX USB2.0 ULPI ULPI 32QFN Texas Instruments* | *1* |  |
| *D69* | *AD5246BKSZ100-RL7 IC DGTL RES 100K I2C SC70-6 Analog Devices* | *1* |  |
| *D71* | *PCA9545ARGYR 4 channel I2C Switch Texas Instruments* | *1* |  |
| *D72-D79* | *PCA9306DCU IC VOLT LEVEL TRANSLATOR US8 Texas Instruments* | *8* |  |
| *D80-D82* | *HD3SS3412RUA IC MUX 2:1 8 OHM 42WQFN Texas Instruments* | *3* |  |
| *D83-D85,*  *D88,D91* | *SN74AVC4T245RSV IC IC BUS TRANSCVR 4BIT 16-UQFN Texas Instruments* | *5* |  |
| *D86-D87,*  *D89-D90* | *Si53340-B-GM IC BUFFER 2:4 LVDS MUX 16QFN Silicon Labs* | *4* |  |
|  |  |  |  |
|  | *Светодиоды* |  |  |
| *HL1, HL3,*  *HL5,HL8-HL11* | *APHB1608CGKSURKC LED GREEN/RED CLEAR 0603 SMD Kingbright* | *7* |  |
| *HL2, HL4* | *MSL0402RGBU1 LED RGB DIFFUSED SMD Rohm Semiconductor* | *2* |  |
|  |  |  |  |
|  | *Дроссели* |  |  |
| *L1,*  *L8-L13,*  *L15-L16,*  *L43-L45,*  *L51-L62,*  *L66,*  *L68-L69,L93* | *BLM15PD600SN1 FERRITE BEAD 60 OHM 0402 1LN 60 Murata* | *28* |  |
| *L2-L7,*  *L14, L48,*  *L63,L67,L94* | *BLM18PG221SN1 FERRITE BEAD 220 OHM 0603 1LN 220 Murata* | *11* |  |
| *L17-L20,L50* | *IFSC1515AHER4R7M01 FIXED IND 4.7uH 2.2A 90mOHM SMD 4.7uH Vishay* | *5* |  |
| *L21, L24,*  *L26-L28,*  *L31,L33,L35* | *BLE32PN300SN1 FERRITE BEAD 30 OHM 1210 1LN 30 Murata* | *8* |  |
| *L22-L23,*  *L34,L49* | *BLM18PG330SN1 FERRITE BEAD 33 OHM 0603 1LN 33 Murata* | *4* |  |
| *L25* | *LPS3008-222MR FIXED IND 2.2uH 1.1A 175mOHM SMD 2.2uH Coilcraft* | *1* |  |
| *L29-L30,*  *L32,*  *L37-L40,L42* | *744303022 FIXED IND 220nH 31A 0.325mOHM SMD 220nH Wurth* | *8* |  |
| *L36, L41* | *744311068 FIXED IND 680nH 17A 3.1mOHM SMD 680nH Wurth* | *2* |  |
| *L46-L47,*  *L70-L92,*  *L95-L96* | *TCE1608G-900-4P CMC 100MA 4LN 90 OHM SMD ESD 90 TDK* | *27* |  |
| *L64, L65* | *DLP11SA900HL2 CMC 150MA 2LN 90 OHM SMD 90 Murata* | *2* |  |
| *LP* | *515-1064 LIGHT PIPE 2.5MM TRI LEVEL Dialight* | *1* |  |
|  |  |  |  |
|  | *Резисторы* |  |  |
| *R1, R2* | *RC1206JR-0710ML RES SMD 10M OHM 5% 1/4W 1206 10M Yageo* | *2* |  |
| *R3-R5,*  *R7-R11,*  *R14-R15,*  *R93-R95,*  *R97, R99,*  *R102-R104,*  *R106, R108,*  *R132-R133,*  *R340-R342,*  *R356, R409,*  *R422, R424,*  *R434, R447,*  *R455, R471,*  *R685,R691* | *RC0402FR-0720RL RES SMD 20 OHM 1% 1/16W 0402 20 Yageo* | *35* |  |
| *R423, R435,*  *R456,R692* | *RC0402FR-0720RL RES SMD 20 OHM 1% 1/16W 0402 20 Yageo* | *4* |  |
| *R425* | *RC0402FR-0720RL RES SMD 20 OHM 1% 1/16W 0402 20 Yageo* | *1* |  |
| *R6,*  *R17-R18,*  *R21-R23,*  *R39-R40,*  *R42-R44,*  *R71-R74,*  *R110,*  *R117-R119,*  *R121, R123,*  *R130, R134,*  *R213,*  *R311-R316,*  *R337,*  *R345-R347,*  *R427, R429,*  *R432, R436,*  *R445, R448,*  *R450, R459,*  *R481, R500,*  *R502, R504,*  *R506, R508,*  *R510, R512,*  *R514, R516,*  *R518, R520,*  *R522, R524,*  *R656, R672,*  *R674, R681,*  *R687,R714* | *ERJ-2RKF4751X RES THICK FILM 4.75K 1% 0.1W 0402 4.75K Panasonic* | *62* |  |

*изме-*

*ненных*

*Лист регистрации изменений*

*Номера листов (страниц)*

*заме-ненных*

*новых*

*аннули-рован-ных*

*Всего*

*листов*

*(страниц)*

*в докум.*

*№ докум.*

*Входящий*

*№ сопрово-дительного*

*документа*

*и дата*

*Подпись*

*Дата*

*Изм*