| **Позиционное обозначение** | **Обозначение**  ("Part Number" "Производитель" "Описание" "Корпус") | **Кол.** | **Прим.** |
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|  | *Излучатель звука* |  |  |
| B1 | KPX-G1205B; Kepo Electronics Co.; Магнитный 5VDC D12 H7.5; Radial LS=7.6 | 1 |  |
| K1, K2, K3, K6 | FTR-B4GA012Z; Fujitsu; 250VAC 1A DPDT 12VDC; SMD | 4 |  |
|  | *Кварцевый резонатор* |  |  |
| BQ1 | 7A-12.000MAAJ-T; TXC; 12MHz 30ppm 18pF 3ppm; SMD | 1 |  |
|  |  |  |  |
|  | *Конденсатор SMD* |  |  |
| C1, C2 | GRM1885C1H220JA01; muRata; 22pF 50V 5% NP0; SMD0603 | 2 |  |
| C3, C34, C114, C160, C170, C176, C182 | GRM21BR61E475M; muRata; 4.7uF 25V 20% X5R; SMD0805 | 7 |  |
| C4, C5, C6, C7, C8, C9, C10, C11, C12, C15, C16, C17, C18, C19, C20, C24, C25, C29, C33, C37, C39, C40, C44, C46, C47, C49, C50, C53, C54, C55, C56, C58, C59, C60, C65, C68, C73, C81, C82, C83, C84, C85, C86, C87, C88, C91, C92, C96, C97, C100, C101, C104, C105, C110, C111, C113, C115, C124, C133, C137, C138, C143, C144, C148, C152, C155, C157, C161, C162, C169, C171, C172, C175, C177, C181 | GRM188R71H104K; muRata; 0.1uF 50V 10% X7R; SMD0603 | 75 |  |
| C13, C38, C80, C90 | GRM188R71E105KA12; muRata; 1uF 25V 10% X7R; SMD0603 | 4 |  |
| C14, C21 | GRM21BR61H225M; muRata; 2.2uF 25V 10% X7R; SMD0805 | 2 |  |
| C22, C23, C26, C27, C67, C69, C72, C98, C103 | GRM31MR61E106M; muRata; 10uF 25V 20% X5R; SMD1206 | 9 |  |
| C28, C30, C31 | GRM21BR60J107M; muRata; 100uF 6.3V 20% X5R; SMD0805 | 3 |  |
| C32, C149, C153, C158 | GRJ188R72A103KE11#; muRata; 10nF 100V 10% X7R; SMD0603 | 4 |  |
| C35, C45, C150, C154, C159 | GRM1885C1H102JA01; muRata; 1nF 50V 5% NP0; SMD0603 | 5 |  |
| C36, C41, C48, C51, C52, C57, C61, C62, C63, C64, C66, C70, C71, C74, C75, C76, C77, C78, C79, C89, C93, C94, C95, C99, C102, C106, C107, C108, C109, C112, C116, C117, C118, C119, C120, C121, C122, C123, C125, C126, C127, C128, C129, C130, C131, C132, C134, C135, C136, C139, C140, C141, C142, C145, C146, C163, C164, C165, C166, C167, C168, C173, C174, C178, C179, C180 | GRM1885C2A101JA01; muRata; 100pF 100V 5% NP0; SMD0603 | 66 |  |
| C42, C43 | GRM1885C1H330JA01; muRata; 33pF 50V 5% NP0; SMD0603 | 2 |  |
|  |  |  |  |
|  | *Конденсатор танталовый* |  |  |
| C147, C151, C156 | TAJD107K020RNJ; AVX; TECAP 100uF 20VDC +-10%; SMD D | 3 |  |
|  |  |  |  |
|  | *Преобразователь DC-DC* |  |  |
| DA1 | TPSM84205; Texas Instrument; 1.5A 5Vout up to 28 Vin StepDown module; EAB | 1 |  |
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|  | *Преобразователь AC-DC* |  |  |
| DA2 | IRM-20-12; Mean Well; 20W 12VDC 1.8A PCB; | 1 |  |
|  |  |  |  |
|  | *Микросхема* |  |  |
| DA3 | TLV1117-33IDCY; Texas Instruments; Voltage regulator 3.3V 800mA; SOT-223 | 1 |  |
| DA4 | 6N139-X007; VISHAY; Optocoupler darlingron 5.3kV 100 kbit/s; SMD | 1 |  |
| DD1 | STM32F767ZI; STMicroelectronics; MCU 32-bit ARM Cortex-M7 + FPU; LQFP144 | 1 |  |
| DD2, DD5, DD12, DD23, DD31, DD32 | SN74LVC1G00DBV; Texas Instruments; 2-in NAND; SOT-23-5 | 6 |  |
| DD3 | FT232RL; FTDI; USB to UART BRIDGE; SSOP28 | 1 |  |
| DD4 | TPD2E001DRLR; Texas Instruments; ESD-protection array 2-ch; SOT-553 | 1 |  |
| DD6, DD7, DD9, DD13, DD15 | SN74LVC1G08DBV; Texas Instruments; 2-in AND; SOT-23-5 | 5 |  |
| DD8 | ADM3251EARWZ; Analog Device; Isolated RS-232 with dc-dc; WSO-20 | 1 |  |
| DD10, DD16 | 74HC00PW; NXP; 4x(2-in NAND); TSSOP-14 | 2 |  |
| DD11 | 74HC08PW; NXP; 4x(2-in AND); TSSOP-14 | 1 |  |
| DD14 | SN74LVC1G32DBV; Texas Instruments; 2-in OR Gate; SOT-23-5 | 1 |  |
| DD17 | AT24C08C-STUM; Atmel; Serial EEPROM 8Kbit; SOT-23 | 1 |  |
| DD18, DD19, DD20, DD22 | ISO1410DW; Texas Instruments; Isolated RS-485/RS-422 half-duplex 5-kVRMS; SO-16 | 4 |  |
| DD21 | ISO1412DW; Texas Instruments; Isolated RS-485/RS-422 full-duplex 5-kVRMS; SO-16 | 1 |  |
| DD24 | 74HC244PW; NXP; 8-in buffer 3-state; TSSOP-20 | 1 |  |
| DD25 | 74HCT245PW; NXP; 8-in bus tranceiver 3-state; TSSOP-20 | 1 |  |
| DD26, DD27, DD28, DD29 | SN74AHCT1G08DBV; Texas Instruments; 2-in AND; SOT-23-5 | 4 |  |
| DD30 | 74HC14PW; NXP; 6x(INVERTING SCHMITT TRIGGER); TSSOP-14 | 1 |  |
| DD33 | TCA9517DGKR; Texas Instruments; I2C Level-Shifting Bus Repeater; VSSOP8 | 1 |  |
|  |  |  |  |
|  | *Предохранитель самовост. SMD* |  |  |
| F1 | MF-MSMF010; Bourns; 0.1A 60VDC 15R; SMD1812 | 1 |  |
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|  | *Предохранитель самовост. выводной* |  |  |
| F2, F3 | C250-400; SEA & LAND ELECTRONI; 0.4A 240VAC 1.9R; | 2 |  |
|  |  |  |  |
|  | *Реле* |  |  |
| K1, K2, K3, K6 | FTR-B4GA012Z; Fujitsu; 250VAC 1A DPDT 12VDC; SMD | 4 |  |
| K4, K5, K7 | G2RL-24 DC12; OMRON; 440VAC 8A DPDT 12VDC; PCB | 3 |  |
|  |  |  |  |
|  | *Резистор SMD* |  |  |
| CRCW08051M00FK | CRCW08051M00FK; VISHAY; 1M +-1%; SMD0805 | 1 |  |
| R1, R84, R98, R102, R106, R111, R118 | CRCW0603619RFK; VISHAY; 619R +-1%; SMD0603 | 7 |  |
| R2, R26, R33 | CRCW0805150RFK; VISHAY; 150R +-1%; SMD0805 | 3 |  |
| R3, R4, R6, R7 | CRCW120618K7FK; VISHAY; 18K7 +-1%; SMD1206 | 4 |  |
| R5, R11, R12, R14, R15, R25, R27, R29, R30, R31, R49, R52, R57, R58, R60, R81, R88, R91, R96, R99, R100, R103, R104, R105, R110, R112, R113, R115, R116, R117, R146, R153, R169, R175 | CRCW060310K0FK; VISHAY; 10K +-1%; SMD0603 | 34 |  |
| R8, R20 | CRCW080510K0FK; VISHAY; 10K +-1%; SMD0805 | 2 |  |
| R9, R17, R18, R19, R21, R24, R28, R35, R36, R37, R38, R39, R40, R44, R45, R46, R47, R48, R50, R51, R53, R54, R73, R74, R75, R77, R79, R82, R83, R87, R97, R101, R107, R108, R109, R114, R119, R120, R121, R122, R123, R124, R125, R126, R127, R128, R129, R130, R131, R132, R133, R134, R135, R136, R137, R138, R141, R144, R145, R148, R150, R152, R156, R157, R158, R159, R162, R163, R165, R166, R168, R170, R171, R172, R173, R174, R176, R177 | CRCW0603100RFK; VISHAY; 100R +-1%; SMD0603 | 78 |  |
| R10, R32, R43, R56, R65 | CRCW06031K00FK; VISHAY; 1K +-1%; SMD0603 | 5 |  |
| R13 | CRCW080510R0FK; VISHAY; 10R +-1%; SMD0805 | 1 |  |
| R16, R76 | CRCW08054K70FK; VISHAY; 4K7 +-1%; SMD0805 | 2 |  |
| R22, R23, R34, R41 | CRCW0805390RFK; VISHAY; 390R +-1%; SMD0805 | 4 |  |
| R42, R55, R62, R69, R71, R72, R164, R167 | CRCW12061K00FK; VISHAY; 1K +-1%; SMD1206 | 8 |  |
| R59, R61, R66, R67 | CRCW08051K00FK; VISHAY; 1K +-1%; SMD0805 | 4 |  |
| R63, R64, R80 | CRCW1206510RFK; VISHAY; 510R +-1%; SMD1206 | 3 |  |
| R70 | CRCW0805200KFK; VISHAY; 200K +-1%; SMD0805 | 1 |  |
| R78 | CRCW08052K00FK; VISHAY; 2K +-1%; SMD0805 | 1 |  |
| R85, R86, R89, R90, R92, R93, R94, R95 | CRCW06030000Z0; VISHAY; 0R; SMD0603 | 8 |  |
| R139, R140, R142 | CRCW06035K60FK; VISHAY; 5K6 +-1%; SMD0603 | 3 |  |
| R143, R147, R149, R151 | CRCW06032K20FK; VISHAY; 2K2 +-1%; SMD0603 | 4 |  |
| R154, R155, R160, R161 | CRCW06032K00FK; VISHAY; 2K +-1%; SMD0603 | 4 |  |
|  |  |  |  |
|  | *Фильтр* |  |  |
| L1, L4 | BLM31PG601SN1; muRata; 600R 1.5A (100MHz); SMD1206 | 2 |  |
| L3 | 744231091; Wurth Elektronik; WE-CNSW common line mod filter 90R 370mA; SMD0805 | 1 |  |
| L6, L7, L9, L10, L11, L12, L13, L14 | BLM21AG102SN1; muRata; 1000R 0.6A (100MHz); SMD0805 | 8 |  |
|  |  |  |  |
|  | *Дроссель SMD* |  |  |
| L2 | DLW5BSM351SQ2; muRata; 350R (100MHz) 2A 0.04R common mode; SMD | 1 |  |
| L5, L8 | DLW5BSM302SQ2; muRata; 3000R (100MHz) 0.5A 0.3R common mode; SMD | 2 |  |
|  |  |  |  |
|  | *Резисторная сборка SMD* |  |  |
| RN1, RN2 | CRA06S083100RF; VISHAY; 4x100R +-1%; SMD | 2 |  |
|  |  |  |  |
|  | *Кнопка* |  |  |
| SW1 | B3F-1025; OMRON; 6x6mm h=5m black; | 1 |  |
|  |  |  |  |
|  | *Светодиод SMD* |  |  |
| VD1, VD3, VD4, VD7, VD8, VD9, VD13, VD16, VD19, VD21, VD23, VD33 | LL-S172GC-2A; Lucky Light; Зеленый 570нм 2x1.25мм; SMD0805 | 12 |  |
| VD6, VD25, VD32 | LL-S172SC-2S; Lucky Light; Красный 640нм 2x1.25мм; SMD0805 | 3 |  |
|  |  |  |  |
|  | *Диод SMD* |  |  |
| VD2, VD10, VD15, VD17, VD18, VD20, VD22, VD24 | PMLL4148L; NXP; Vr=75V If=0.2A; SOD80C | 8 |  |
|  |  |  |  |
|  | *Диод шоттки SMD* |  |  |
| VD5 | MBR0540T; ON Semiconductor; Vr=40V If=0.5A; SOD-123 | 1 |  |
|  |  |  |  |
|  | *Диод TVS SMD* |  |  |
| VD11, VD12, VD14 | SMAJ12CA; Littelfuse; 400W Vr=12V; DO-214CA(SMA) | 3 |  |
| VD26, VD27, VD28, VD29, VD30, VD31 | PSM712; ProTek Devices; 600W Vr=12V Vr=7V; SOT-23 | 6 |  |
|  |  |  |  |
|  | *Транзистор SMD* |  |  |
| VT1 | PDTA114ET; NXP; PNP Vce=-50V Ic=0.1A 10k; SOT-23 | 1 |  |
| VT2, VT3, VT5, VT6, VT8, VT9, VT10, VT11, VT12, VT13, VT14, VT15 | PDTC114ET; NXP; NPN Vce=50V Ic=0.1A 10k; SOT-23 | 12 |  |
| VT4, VT7 | BC817; NXP; NPN Vce=-45V Ic=0.5A; SOT-23 | 2 |  |
|  |  |  |  |
|  | *Вилка* |  |  |
| X1 | 63849-1; TE Connectivity; Ножевая Латунь Луженая 6.3х0.8 PCB hole; | 1 |  |
| X2 | B03P-NV; JST; NV 3 конт LS=5.0 10A 250V PCB; | 1 |  |
| X3, X22, X23, X24 | 35362-0550; Molex; Sherlock 5 конт LS=2 2A 125V PCB; | 4 |  |
| X4 | 09185106904; Harting; IDC 10P LS=2.54 2A 250VAC PCB long levers; | 1 |  |
| X5, X17, X18 | 35362-0650; Molex; Sherlock 6 конт LS=2 2A 125V PCB; | 3 |  |
| X6 | 53253-0470; Molex; Micro-Latch 4 конт LS=2 2A 125V PCB; | 1 |  |
| X7, X9 | 35362-0350; Molex; Sherlock 3 конт LS=2 2A 125V PCB; | 2 |  |
| X8, X10, X19, X20, X21 | 35362-0450; Molex; Sherlock 4 конт LS=2 2A 125V PCB; | 5 |  |
| X11 | B04P-NV; JST; NV 4 конт LS=5.0 10A 250V PCB; | 1 |  |
| X12 | B02P-NV; JST; NV 2 конт LS=5.0 10A 250V PCB; | 1 |  |
| X13, X14 | 09185166324; Harting; IDC 16P LS=2.54 2A 250VAC PCB (BH-16); | 2 |  |
| X15 | 35362-0850; Molex; Sherlock 8 конт LS=2 2A 125V PCB; | 1 |  |
| X16 | 53313-1265; Molex; Mi II 12 конт (6конт x 2) LS=2 2A 125V PCB; | 1 |  |
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