

| Main Board   |    |   |
|--|----|---|
| CR2032 BS-2032-8KC 0.7 SMT(BS-08-B2AA016)  | 1  | B1  |
| Φ6.3x5.3mm 220uF 6.3V ±20% -55 to 105°C VES221M0JTR-0605                                 | 1  | C48   |
| 1.5pF(Max) 3.3Vrwm 4Vbr 13.9Vc(Ipp=8A, tp=8/20 μs) 350W TUSD03FB SOD-323                 | 2  | D2, D66   |
| SOT23 0.2A 1Vf 30Vr 2uA 10PF BAT54S  | 2  | D14, D5   |
| SOD323 0.35A 0.6Vf 40Vr 5uA 50PF SD103AWS  | 2  | D17, D6   |
| SOT23-6L 4 5Vrwm 6Vbr 22Vc 1.5PF 120W WE05-4RVLCS  | 5  | D10, D45, D7, D9, RV7   |
| DSO-10 4 5Vrwm 6Vbr 25Vc 0.8PF TUSD05L4U   | 5  | D33, D59, D8, D80, D81  |
| 300PFCj 5Vrwm 6.2Vbr 18.6Vc NC 350W SEN0511D3 SOD-323                                    | 1  | D11   |
| SOD-523 5Vrwm 6Vbr 12Vc 10PF TESD05EB  | 1  | D27   |
| 15pF(Max) 3.3Vrwm 3.7Vbr 8Vc(Ipp=7A, tp=8/20 μs) 70W WE3.3DF-B 0402-DFN                  | 5  | D34, D61, D64, D65, D67   |
| SOD323 225mA 1.2Vf 80Vr 0.1uA 3PF 1SS355   | 4  | D42, D54, D55, D56  |
| 0603 2 12Vrwm 200Vbr 30Vc 0.2PF 150W WEP120RF0603  | 4  | D73, D74, D75, D76  |
| 0805 120 Ω@100MHZ ±25% 5A HCB2012KF-121T50   | 10 | FB1, FB17, FB30, FB31, FB32, FB34, FB35, FB56, FB62, FB63   |
| 0603 60 Ω@100MHZ ±25% 3A HCB1608KF-600T30  | 19 | FB13, FB14, FB18, FB19, FB2, FB20, FB21, FB22, FB23, FB24, FB25, FB27, FB28, FB33, FB36, FB42, FB43, FB44, FB60 |
| 0603 600 Ω@100MHZ ±25% 1A HCB1608KF-601T10   | 9  | FB10, FB11, FB12, FB15, FB16, FB29, FB4, FB61, FB9  |
| (Ferrite chip bead) 0402 1000 Ω ±25% 400mA FCM1005KF-102T04                              | 6  | FB26, FB41, FB5, FB6, FB7, FB8  |
| 2.0mm 2x20Pin FH2.0 2X20P H4.3 SMT   | 1  | J1  |
| SATA/SAS 7+15PIN 15uSATA7+15PH8.9SMT(1.4 1.5)PC2.42.5                                    | 1  | J4  |
| 4PIN 12M-4P 90 PC2.5 24/H  | 4  | J5, J7, J8, J9  |
| 6PIN 12M-6P W1.3X1mm, L3mm 90 PC2.5 24H  | 1  | J6  |
| FPC 0.5mm FPC05040-43201 40pin   | 1  | J10   |
| USB USB JS-AF9-001   | 1  | J12   |
| SHIELD CAN CLIP 10*1.9*3mm PTC4944H  | 16 | J16, J17, J18, J19, J20, J21, J22, J23, J37, J41, J42, J43, J44, J45, J46, J47                                  |
| (SMD Power Inductor) 2.5*2.0*1.2mm 1.0uH ±20% 3.2Arms 4.0Asat 49mΩ GDIM252012-1ROMTF     | 3  | L1, L4, L6  |
| 7.3*6.8*3.2mm 2.2uH ±20% 8Arms 14Asat 18mΩ MS0603-2R2M                                   | 1  | L2  |
| (SMD Power Inductor) 7.4*6.6mm 4.7uH ±20% 5A 6.5A 38mΩ , GDIM0630-4R7MTF                 | 2  | L14, L3   |
| (SMD Power Inductor) 7.0X6.6X3mm 10uH ±20% 3.5A 4.5A 68mR , SMPA0603-100MT-P             | 2  | L11, L5   |
| (Multilayer Inductor) 0603 ±10% 1.8uH 25mA 0.95 Ω 50MHZ FCI1608F-1R8KT                   | 4  | L10, L7, L8, L9   |
| NPN BJT SOT23 0.1A 50Vcb 45Vce 0.2W S9014 RANGE: 200-450 (L)                             | 7  | Q1, Q13, Q15, Q16, Q2, Q27, Q28   |
| PMOS FET SOT-23 -5A -20Vds ±12Vgs 28mR (Vgs=-4.5V) 0.9W 15nC SSC8025GS6 (marking: 3415.) | 2  | Q14, Q17  |
| 10pF 12Vrwm 13.3Vbr(Min) 24Vc(Max) 120W mSD12CME SOD523                                  | 4  | RV10, RV6, RV8, RV9   |
| 8.89x9.53x2.29mm 1500V M3380NL   | 2  | T1, T4  |
| DC/DC MOS SOT23-5 2.6~7V 1.5A 3MHz 20uA ETA3416S2F                                       | 2  | U1, U10   |
| DC/DC MOS TSOT-23-6 4.5-28Vin 3A 700 Iq=45uA SGM61235A                                   | 3  | U2, U27, U8   |
| LD0 SOT-23-5 1.6-5.5V 0.8-5.0V 300mA 154mV 25uA SGM2036S-ADJXN5G/TR                      | 2  | U3, U32   |
| SOT143-4 1.2-5.5V 2.63Vrst 240ms SGM811-RXKA4/TR (Isource=500uA)                         | 1  | U4  |
| SOIC-8 485 3V~5.5V TP8485E-SR  | 1  | U5  |
| 8-lead SOIC 4.5 kb 1 EEPROM IIC 1 MHz ATSHA204A-SSHDA-T                                  | 1  | U6  |
| QFN 68 5 4*PHY TMII/MII/RMII IP175LLF  | 1  | U7  |
| SOT23-6 2.85V~5.5V 9MHz/-3dB TPF110U-TR  | 1  | U11   |
| QFN24 USBS 1*USB2.0 1*SD GL835-OGY03   | 1  | U14   |
| SOT23 3.1V~5.5V 40MH/-3dB SGM9155AYN6G/TR  | 1  | U31   |
| DC/DC MOS SOT23-5 2.6~7V 2.5A 3MHz 32uA ETA3417  | 1  | U33   |
| / / TSSOP-20 1.8-5.5V 2*4bit SGM7S244XTS20G/TR   | 1  | U38   |
| AD/DA 88 eQF N CVBS/COMET BT656, BT1120 4*AHD 2*BT656 NVP6158C                           | 1  | U39   |
| DVR TFBGA448 ARM Cortex CA53 NT98332BG   | 1  | U46   |
| SSOP-28 USB-HUB 1*USB2.0 3*USB2.0+1*SDIO GL857L-HHY20                                    | 1  | U49   |
| 96FBGA 4Gb 16bit DDR4-2666 K4A4G165WF-BCTD   | 2  | U55, U56  |
| SD/MicroSD Push-Push PJS008-2005-0-VE 4U   | 2  | UND1, UND2  |
| AD/DA QFN_40 BT656/BT1120/SMPTE-296M CVBS/HD-TVI/AHD 1 TTL TP2803-FE                     | 1  | UND3  |
| NanoSIM FUS006-3210-0(FUA006-3220-0Nano) 4U  | 1  | UND4  |
| 3225 12MHz ±10PPm -40~+85°C JF12.000MSM3212F1020D4TNR                                    | 1  | Y1  |
| FR-4 MIN2.0 213*155mm/2 2662   | 1  | PCB   |

Communication Board

|   |    |   |
|---|----|---|
| (Electric Double Layer Cap)   12.5*22mm   1000h   10F   2.7V   -10% ~ +30%   -40~85 °C   HT-2R7-J106MTA38(C15)(Z20) | 6  | C100, C81, C82, C83, C84, C99   |
| Φ12.5X20   470uF   63V   -40°C ~ +105°C   3000h   EGF477M1J120RR  | 1  | C273  |
| (DIP Ecap)   Φ8X16   7000h   100uF   63V   ±20%   -40°C ~ +105°C   EGT107M1JF16TVSHP-R                              | 1  | C341  |
| Φ10X16   1000uF   25V   -40°C ~ 105°C   3000h   EGF108M1EG16TCS9P   | 1  | C401  |
| Φ6.3X7.7mm   10000h   ESR=30mΩ/100k   100uF   25V   ±20%   -55°C ~ +105°C   HBV101MIETR                             | 1  | C402  |
| SOD323   15mA   1Vf   60Vr   0.2uA   2PF   SD101AWS   | 12 | D1, D2, D22, D23, D24, D25, D28, D4, D44, D5, D66, D9   |
| 300PFC   5Vrwm   6.2Vbr   18.6Vc   NC   350W   SEN0511D3   SOD-323  | 3  | D11, D3, D7   |
| SOT23-6L   4   5Vrwm   6Vbr   22Vc   1.5PF   120W   WE05-4RVLCS   | 1  | D6  |
| SOD-123FL   2A   0.7Vf   60Vr   500uA   80PF   DSK26  | 3  | D13, D14, D8  |
| SMB   6Vdrum   9.5Vbr   Vs   4Vt   70PF   WES806S   | 2  | D10, D16  |
| SMB   5A   0.7Vf   60Vr   500uA   300PF   B560B   | 5  | D12, D26, D27, D32, D40   |
| 30pF   2   36Vrwm   40Vbr   75Vc   /   300W   SEN3602S2   SOT23   | 2  | D17, D18  |
| 10pF   12Vrwm   13.3Vbr (Min)   24Vc (Max)   120W   mSD12CME   SOD523   | 2  | D19, D56  |
| 15pF (Max)   3.3Vrwm   3.7Vbr   8Vc (Ipp=7A, tp=8/20 μs)   70W   WE3.3DF-B   0402-DFN                               | 11 | D20, D49, D54, D55, D57, D58, D59, D60, D61, D63, D64   |
| SMA   3A   0.5Vf   40Vr   0.5mA   250PF   B340A   | 1  | D21   |
| 1   36   40   58.1   600W   SMBJ36A   SMB   | 1  | D29   |
| 33Vrwm   36.7Vbr   54.7Vc   12KW   12KP33CA   P600  | 1  | D31   |
| SOD323F   0.25A   0.71Vf   100Vr   120uA   39PF   BAT46WJ   | 3  | D33, D39, D46   |
| 15Vrwm   16.7Vbr   600W   SMBJ15CA   SMB  | 2  | D35, D38  |
| SMB/DO-214AA   58Vrwm   71.4Vbr   93.6Vc   600W   SMBJ58A   | 1  | D36   |
| SOD323F   1A   0.57Vf   60Vr   11uA   60PF   PMEG6010CEJ  | 1  | D37   |
| 0.05pF   3.3Vrwm   40Vc   PESD0402MS03   0402   | 3  | D42, D78, D82   |
| SMB   15Vrwm   16.7Vbr   24.4Vc   PF   600W   SMBJ15A   | 1  | D43   |
| Side View LED   1206   Green   3.0~3.6V   @20mA   522nm   500~1000mcd   120°   ZC-1204ZGFD520E/171125-2             | 3  | D51, D52, D69   |
| Side View LED   1206   Red   1.8~2.4V   @20mA   625nm (Typ)   100~200mcd   120°   ZC-1204ZRUK620S/171125-1          | 2  | D53, D62  |
| SOT23   0.2A   1Vf   30Vr   2uA   10PF   BAT54S   | 1  | D65   |
| LED   1206   20mA   3V   468nm   100-250mcd   ZC-1204ZBKP465G/171125-3  | 1  | D71   |
| SOD-523   5Vrwm   6Vbr   12Vc   10PF   TESD05EB   | 5  | ESD1, ESD2, ESD3, ESD4, ESD5  |
| PTC   0805   15V   200mA   LP-ISM020/15   | 2  | F3, F4  |
| 0603   60 Ω @100MHZ   ±25%   3A   HCB1608KF-600T30  | 9  | FB1, FB10, FB29, FB30, FB31, FB32, FB37, FB6, FB60  |
| 0805   120 Ω @100MHZ   ±25%   5A   HCB2012KF-121T50   | 14 | FB2, FB21, FB4, FB5, FB51, FB52, FB54, FB56, FB58, FB62, FB63, FB7, FB8, FB9  |
| 0603   1000 Ω @100MHZ   ±25%   400mA   FCM1608KF-102T04   | 23 | FB11, FB13, FB14, FB15, FB16, FB17, FB18, FB19, FB20, FB22, FB23, FB24, FB25, FB26, FB3, FB33, FB34, FB36, FB39, FB41, FB49, FB50, FB55 |
| 0603   600 Ω @100MHZ   ±25%   1A   HCB1608KF-601T10   | 9  | FB27, FB28, FB35, FB40, FB42, FB45, FB46, FB47, FB61  |
| (Ferrite chip bead)   0402   1000 Ω   ±25%   400mA   FCM1005KF-102T04   | 3  | FB38, FB48, FB53  |
| 2.0mm   2X20   2.02X20PSMTH2.025.3L26.8PA9T1.5U   | 1  | J1  |
| 2.0mm   2x11Pin   501876-2240   | 1  | J2  |
| 50   FAKRA   1   ZDXVFKM14-L234W-D  | 2  | J3, J7  |
| 50   FAKRA   1PIN   ZDXVFKM14-L234W-I   | 1  | J4  |
| 2.0mm   20PIN   33-1402-1387   JSK-20P 90   | 1  | J6  |
| 5264   2.5mm   1x7Pin   7Pin-2.5Pitch, 180°   | 1  | J8  |
| TJC3   1.5mm   2Pin   1.5T-2Pin   | 1  | J9  |
| FPC   0.5mm   FPC05040-43201   40pin  | 1  | J10   |
| WAFER   3.0mm   2x2Pin   Wafer3.0mm 2*2P DIP 90deg   AWF-300202P-D09  | 1  | J11   |
| 2.54mm   2x2PIN   FH2.54 2X2P 90 Y H8.5 3P PC3.0 PA6T   | 1  | J14   |
| TJC3   2.0mm   2Pin   PH-NA   | 1  | J15   |
| TJC3   1.25mm   8Pin   1.25T-2-8PWB   | 1  | J38   |
| (SMD Power Inductor)   7.4*6.6mm   4.7uH   ±20%   5A   6.5A   38m Ω   , GDIM0630-4R7MTF                             | 3  | L1, L2, L8  |
| 13.5*12.5*4.8mm   10uH   ±20%   9Arms   16Asat   25.5m Ω   TMPC1205HP-100MG-D                                       | 2  | L13, L4   |
| (SMD Power Inductor)   7.0X6.6X3mm   10uH   ±20%   3.5A   4.5A   68mR   , SMPA0603-100MT-P                          | 1  | L10   |
| (SMD Power Inductor)   7.3*6.8*3.0mm   1uH   ±20%   12A   15A   7.4m Ω   FMPA0603S-1ROMN-D                          | 1  | L18   |
| (Multilayer Inductor)   1608   560nH   ±10%   35mA   1.7 Ω   80MHz   FCI1608F-R56KT                                 | 1  | L42   |

|  |    |   |
|--|----|---|
| (Multilayer Inductor)   2012   ±10%   0.68uH   150mA   0.8 Ω<br>105MHz   FCI2012F-R68KT                      | 1  | L43   |
| (Multilayer Inductor)   1608   330nH   ±10%   35mA   0.85 Ω<br>125MHz   FCI1608F-R33KT                       | 1  | L45   |
| (Multilayer Inductor)   0603   ±10%   1.8uH   25mA   0.95 Ω   50MHz   FCI1608F-1R8KT                         | 1  | L46   |
| NPN BJT   SOT23   0.5A   80Vcb   80Vce   0.2W   2SD1782   RANGE: 180-390 (R)                                 | 4  | Q1, Q10, Q3, Q9   |
| NMOS FET   DFN5x6   20A@70° C   60VDS   ±20VGS   < 6.3m Ω<br>3.5W   65nC(10V)   AON6268                      | 3  | Q2, Q26, Q5   |
| NPN BJT   SOT23   0.1A   50Vcb   45Vce   0.2W   S9014   RANGE: 200-450 (L)                                   | 20 | Q12, Q15, Q18, Q19, Q20, Q22, Q24, Q25, Q27, Q28, Q30, Q31, Q32, Q33, Q34, Q35, Q36, Q6, Q7, Q8 |
| PMOS FET   SOT-23   -5A   -20Vds   ±12Vgs   28mR (Vgs=-4.5V)<br>0.9W   15nC   SSC8025GS6 (marking: 3415.)    | 3  | Q11, Q21, Q23   |
| PMOS FET   SOIC-8   -4A   -30Vds   ±20Vgs   74m Ω (Vgs=-4.5V)<br>1.3W   16nC   A04803A                       | 1  | Q29   |
| ComParator IC   SOIC14   2-36V   2mVio   LM2901DR  | 2  | U1, U20   |
| 14-Pin TSSOP   2.7-5.5Vin   10MHz   ±4mV   TPF632C-TR  | 1  | U2  |
| /   3+3   LGA14   I2C/SPI/I3C   QMI8658A   | 1  | U4  |
| DC/DC MOS   TSOT-23-6   4.5-28Vin   3A   700   Iq=45uA   SGM61235A   | 2  | U17, U5   |
| LDO   SOT-23-5   1.6-5.5V   0.8-5.0V   300mA   154mV   25uA   SGM2036S-ADJXN5G/TR                            | 1  | U7  |
| SOP-16   232   3V to 5.5V   TPT3232E-S03R  | 2  | U37, U8   |
| /LED   TSOT23-6   4.2-24v   2A   1MHz   MOS   0.9mA   MP2340   | 1  | U10   |
| MOS   SOT-23   2.7-6.5Vin   1.5A   Iq=120uA   TPS2553DDBVR   | 1  | U12   |
| LQFP100   Cortex@M33, 180MHz, CAN FD   512KB   1.7V~3.6V   GD32E508VET6                                      | 1  | U13   |
| DC/DC MOS   QFN-20   4-60V   2.6W   100K--1MHz   25uA   MP9928GL   | 1  | U16   |
| MSOP8   1-5.5V   2.63V   200ms   SGM706B-RXMS8G/TR   | 1  | U21   |
| MOS   DFN (6-Lead 2×3mm)   4V to 80V   Iq=15uA   LTC4359HDCB#TRPBF   | 1  | U30   |
| ComParator IC   SOP-8   3V-32V   LM358G-S08-R  | 1  | U33   |
| DC/DC   SOT23-5L   2.5V-5.5V   3A   1.5-2.5MHz   MOS   10uA   ETA3448S2F                                     | 1  | U35   |
| LCC   32*29*2.4mm   4G   LTE10   USB/UART/SIM/PCM   EC25ECGAR06A14M1G_20.20<br>0.20.200   EC25-ECGR-128-SNNS | 1  | U40   |
| SOP8   CAN FD   4.5V~5.5V   SIT1042AQT/3   | 2  | U41, U42  |
| 1.6V~5.0V   < ±5ppm @ -40°C ~ +85°C   I2C   INS5699S   | 1  | U45   |
| WiFi/LCC   12.2*13*1.8mm   IEEE 802.11 a/b/g/n/ac/ax&BT5.3   WiFi<br>USB2.0   SKI.WB800D80U.2   1T1R 80MHZ   | 1  | U58   |
| 3225   16MHz   ±10PPm   -40~85°C   JF16.000MSM3215F1020D4TNR   | 1  | Y3  |
| SOD323   5mA   0.9Vf   5.6Vz   1uA   MM3Z5V6   | 3  | Z1, Z2, Z3  |
| 3.7*1.6mm   9.2mA   1.0Vf   43Vz   0.1uA   BZV/ZMM55C43  | 1  | Z4  |
| FR-4   M1N2.0   114*148mm/1   2663   | 1  | PCB   |
| <b>SSD Board</b>   |    |   |
| 0402   X7R   100nF   16V   ±10%   -55 to 125°C   | 6  | C1, C11, C13, C17, C2, C23  |
| 0402   COG   47PF   50V   ±5%   -55 to 125°C   | 1  | C3  |
| 0603   X5R   22uF   6.3V   ±20%   -55 to 85°C  | 4  | C12, C4, C6, C9   |
| 0402   X5R   1uF   16V   ±10%   -55 to 85°C  | 1  | C8  |
| 0603   X5R   22uF   10V   ±20%   -55 to 85°C   | 1  | C10   |
| 0402   X5R   10uF   6.3V   ±20%   -55 to 85°C  | 4  | C15, C16, C19, C24  |
| 3.5*2.8*1.9mm   100uF   6.3V   ±20%   35mR   -55~105°C   6TPE100MAZB   | 1  | C159  |
| SMA   3A   0.5Vf   40Vr   0.5mA   250PF   B340A  | 1  | D1  |
| 1.5pF (Max)   3.3Vrwm   4Vbr   13.9Vc (Ipp=8A, tp=8/20 μs)   350W   TUSD03FB   SOD-323                       | 2  | D2, D3  |
| JEDEC DO-214AC   5Vrwm   6.4Vbr   9.2Vc   400W   WS5.0P4SMA-B  | 1  | D4  |
| DSON-10   4   5Vrwm   6Vbr   25Vc   0.8PF   TUSD05L4U  | 2  | D5, D8  |
| SOD323   15mA   1Vf   60Vr   0.2uA   2PF   SD101AWS  | 1  | D6  |
| SOT23-6L   4   5Vrwm   6Vbr   22Vc   1.5PF   120W   WE05-4RVLCS  | 1  | D9  |
| SMB   5A   0.7Vf   60Vr   500uA   300PF   B560B  | 1  | D12   |
| PTC   R2920   24V   2.6A   FSMD260-24-2920R  | 1  | F1  |
| 0603   1000 Ω @100MHZ   ±25%   400mA   FCM1608KF-102T04  | 1  | FB1   |
| SATA/SAS   7+15PIN   SATA7+15P0.9SMTLCP15U   | 1  | J1  |
| M.2   Standard   AS0BC26-S30BB-7H   M.2 Bkey   10U   | 1  | J5  |
| (SMD Power Inductor)   2.5*2.0*1.2mm   1.0uH   ±20%   3.2Arms   4.0Asat   49m Ω   GDIM252012-1R0MTF          | 1  | L4  |
| NPN BJT   SOT23   0.1A   50Vcb   45Vce   0.2W   S9014   RANGE: 200-450 (L)                                   | 1  | Q6  |
| TDFN-2×2-8AL   I2C   SGM459TTDE8G/TR   | 1  | U1  |
| PCBA   +   I215MS   φ5.6*M3*H1.5+1mm   | 1  | X1  |
| FR-4   M1N2.0   165.5*199.6mm/6   2693   | 1  | PCB   |