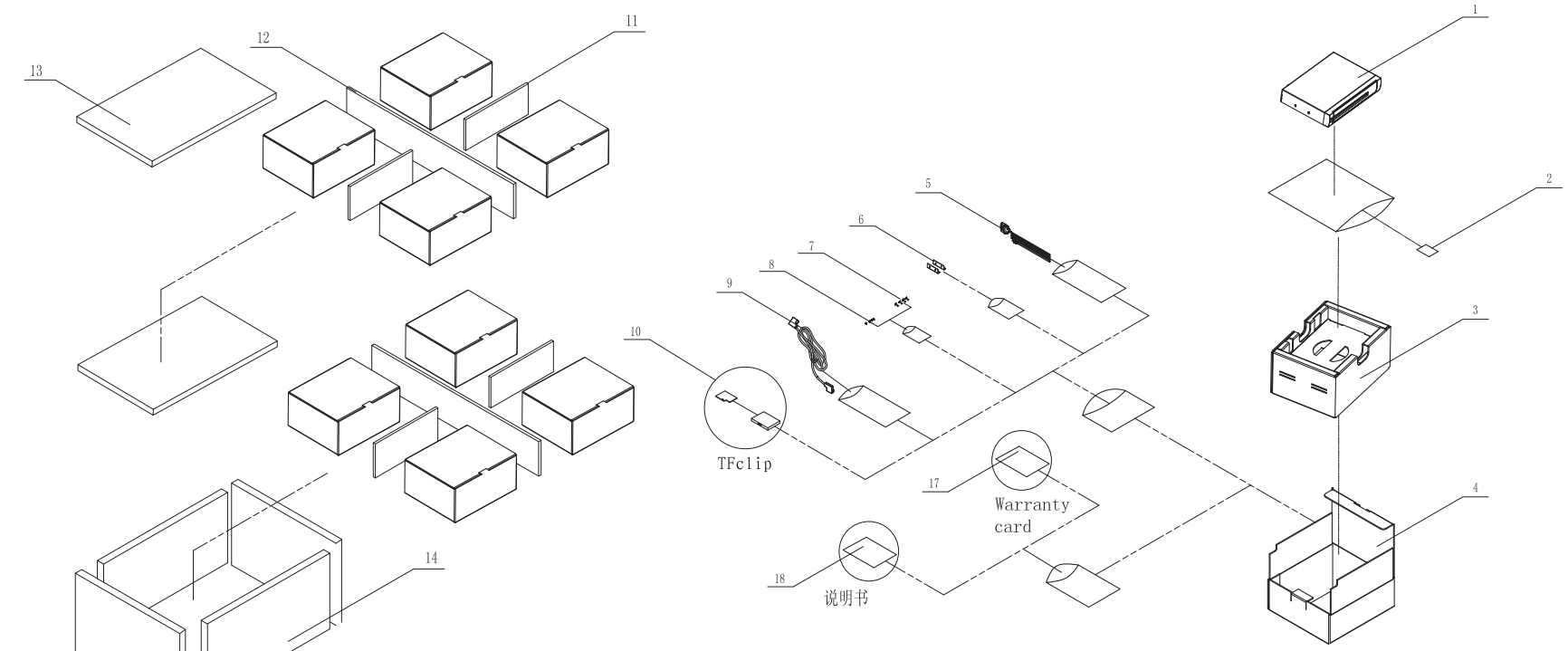
DO NOT SCALE | A2

TOLERANCE				
SIZE	A	B	C	D
0~5	±0.07	±0.10	±0.15	±0.20
≥5~20	±0.10	±0.15	±0.20	±0.30
≥20~50	±0.15	±0.20	±0.30	±0.40
≥50~100	±0.20	±0.30	±0.40	±0.60
≥100	±0.30	±0.50	±0.60	±1.00
ANGLE	±20′	±40′	±90′	±180′

No	Revision record	Date	Designed	Approved

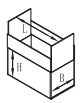


NO	NAME	P/N	CESCRIPTZON	QUANITY	PACKZNG-PAG P/N
1	UNIT	NAV-3015A-CL		1pcs	7-9301-1006-00-00
2	Silica moisture beads	7-8202-1019-00-00		1pcs	
3	Lnner box	7-9301-8004-00-00		1pcs	
4	Color box	7-9301-8002-00-03		1pcs	
5	GPS antenna	3-Z800-GPS0-08-02		1pcs	7-9301-1006-00-00
6	Mouting bracket	1-8202-2003-00-00		2pcs	7-9301-1006-00-00
7	Mouting bolt	1-2701-6012-00-05	M2.6X5.3	4pcs	7-9301-1006-00-00
8	Mouting bolt	1-8202-6002-00-01	M3.0X10	4pcs	7-9301-1006-00-00
9	Output line	B99990035		1pcs	7-9301-1006-00-00
10	TF clip	3-Z400-TF4G-00-00		1pcs	
11	Pearl cotton 5	7-9301-2008-00-00		1/2pcs	
12	Pearl cotton 4	7-9301-2007-00-00		1/4pcs	
13	Pearl cotton 3	7-9301-2006-00-00		3/8pcs	
14	Pearl cotton 2	7-9301-2005-00-00		1/4pcs	
15	Pearl cotton 1	7-9301-2004-00-00		1/4pcs	
16	Cartoon box	7-9301-8003-00-03		1/8pcs	
17	Warranty card	7-9820-8508-00-00		1pcs	7-9301-1006-00-00
18	Machine specifications	7-9301-1012-00-02		1pcs	



Color box

Shape: : 200*151*104mm



Cartoon box

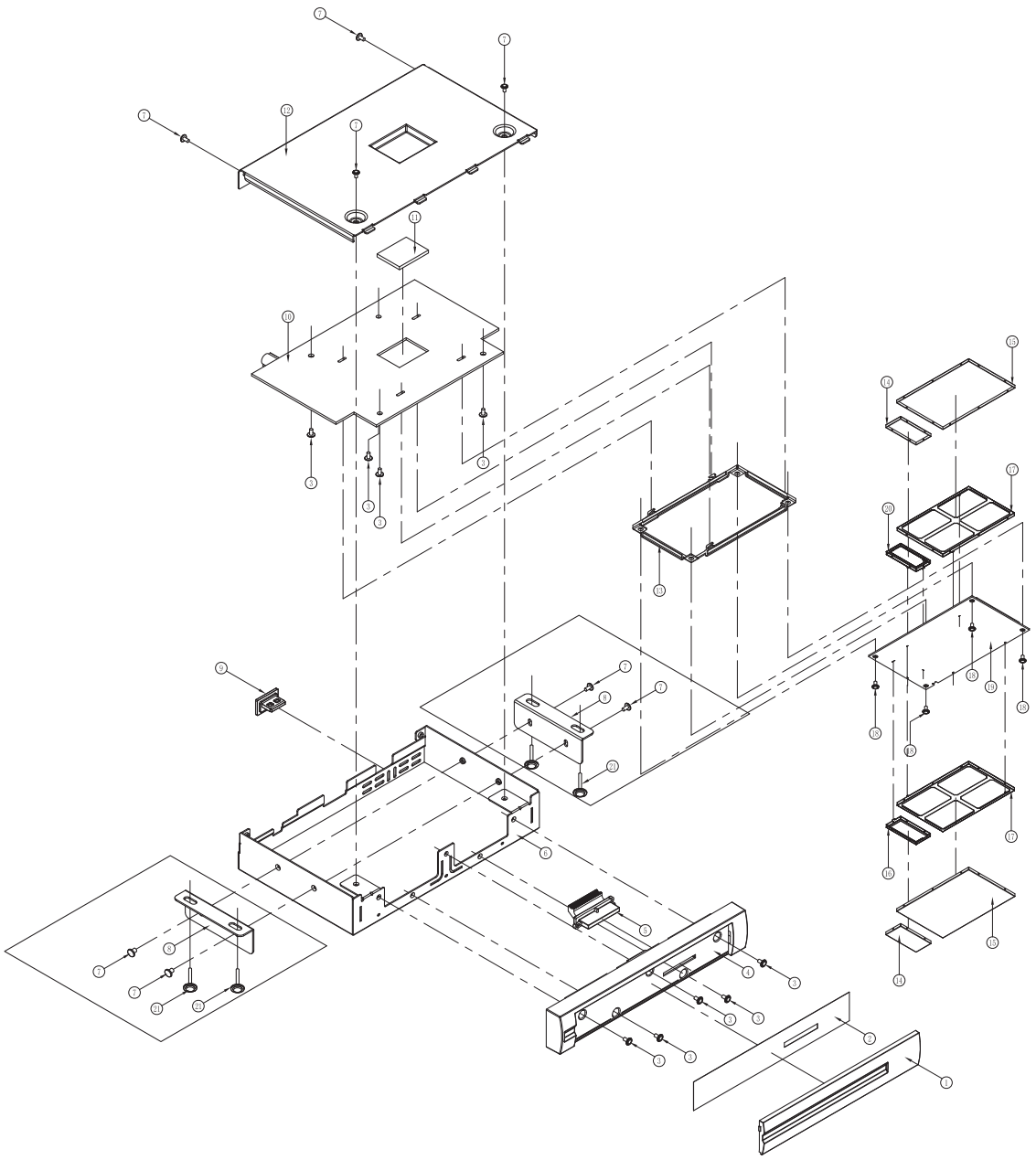
Shape: : 427*328*237mm

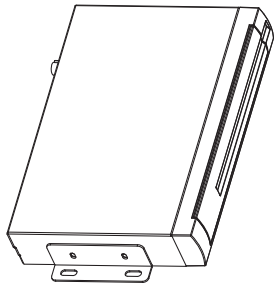
Tolerance	Approved	Material	Model NAV-3015A-CL
Quantity		Finished	Name Packaging
	Checked	Scale	No
Unit mm	Designed	SKYPINE	

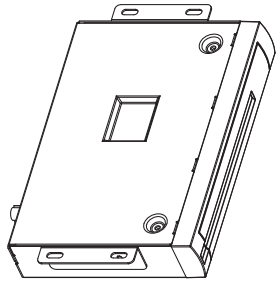
DO NOT SCALE | A2

TOLERANCE				
SIZE	A	B	C	D
0~5	±0.07	±0.10	±0.15	±0.20
≥5~20	±0.10	±0.15	±0.20	±0.30
≥20~50	±0.15	±0.20	±0.30	±0.40
≥50~100	±0.20	±0.30	±0.40	±0.60
≥100	±0.30	±0.50	±0.60	±1.00
ANGLE	±20'	±40'	±90'	±180'

No	Revision record	Date	Designed	Approved







30	P/N	NAME	QUANTITY	Description
20	1-9300-0000-00-01	Screw M3.0X10.0mm	4	
20	1-9810-2301-01-00	Bkt_shield_small_2	1	
19	2-2000-0001-17-XX	Nut+gasket+screw-Assy	1	
18	1-2651-0000-00-01	Screw M2.0X5.2mm	4	
17	1-9810-2300-01-00	Bkt_shield_big	1	
16	1-9810-2300-01-00	Bkt_shield_small_1	1	
15	1-9810-2310-01-00	Cover_shield_1	2	
14	1-9810-2310-02-00	Cover_shield_2	2	
13	1-9810-2400-01-00	Nut_Unit	1	
12	1-9301-2201-01-01	Bottom_cover	2	
11	1-9301-0201-01-00	Heat_sheet_1	1	
10	2-8825-0707-10-00	Base_Board	1	
9	1-9301-3304-01-00	USB plug	1	
8	1-9300-2003-01-00	HKT	2	
7	1-2701-0012-01-03	Screw M2.0X3.5mm	8	
6	1-9301-2201-01-01	Top_cover	1	
5	1-9301-3300-01-00	Lightpipe	1	
4	1-9301-3201-01-01	Panel	1	
3	1-2701-0012-01-01	Screw M2.0X4.0mm	9	
2	1-9301-0202-01-00	Double_face	1	
1	1-9301-3205-01-01	Lens	1	

Tolerance	Approved	Material	Model SN-3015-CL
Quantity 1	Checked	Finished	Name UINT
		Scale	No B-9301-1001-00-00
Unit mm	Designed	SKYPINE	

PARTS LIST

Parts Number	Components	Number	Designator
3-CC35-0100-30-0S	0603 10pF/16V NPO ±5%	1	C178
3-CC35-0103-4X-0S	0603 10nF/16V X7R ±10%	1	C175
3-CC35-0104-4X-0S	0603 0.1uF/16V X7R ±10%	6	C1 C3 C4 C5 C7 C6022
3-CC35-0105-6Y-0S	0603 1uF/16V Y5V -20%～+80%	2	C425 C6003
3-CC67-0226-6Y-0S	1210 22uF/25V Y5V -20%～+80% TDK	5	C6002 C6005 C6006 C6007 C6
3-CC52-0226-44-0S	1206 22uF/6.3V X5R ±10%	2	C9 C10
3-CES2-0227-52-0S	6.3X5.3 220uF/6.3V 105℃ ±20%	3	TC6004 TC6005 C11
3-CES2-0108-52-0S	8X10.5 1000uF/6.3V 105℃ ±20%	1	TC6003
3-RS31-0000-J0-0S	0603 0Ω 1/16W ±5%	3	R18 R19 R23
3-RS31-022R-J0-0S	0603 22Ω 1/16W ±5%	7	R26 R50 R51 R52 R53 R54 R55
3-RS31-100R-J0-0S	0603 100Ω 1/16W ±5%	3	R2 R17 R20
3-RS31-001K-F0-0S	0603 1K 1/16W ±1%	1	R6007
3-RS31-02K2-J0-0S	0603 2K2 1/16W ±5%	3	R5 R13 R817
3-RS31-003K-F0-0S	0603 3K 1/16W ±1%	1	R6008
3-RS31-04K7-J0-0S	0603 4K7 1/16W ±5%	13	R3 R11 R14 R16 R27 R57 R58 R59 R60 R61 R62 R818 R819
3-RS31-010K-J0-0S	0603 10K 1/16W ±5%	5	R4 R10 R15 R21 R24
3-RS31-020K-J0-0S	0603 20K 1/16W ±5%	2	R12 R816
3-RS95-100R-J0-0S	2010 100Ω 1/2W ±5%	1	R25
3-DKA0-4148-00-0S	1N4148WS 300mA 200mW SOD-323	16	D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15 D38 D39 D40
3-DED0-BLUE-01-0S	19-217 BHC-XL2M2TY 3T 25mA 110mW 0603	1	LD1 LD2 LD3
3-DZA3-05V1-00-0S	5.1V 1mA SOD-323	4	ZD2 ZD4 ZD5 ZD6
3-L4S0-0950-H1-25	CDH125 95uH 2A ±20%	1	L6002
3-L7XX-1420-EE-0S	EE5(T-1420) 220uH ≤300mA ±25%	1	ACCOM1
3-LA6X-060R-00-0S	1206 60R ≤1000mA ±25%	1	FB182
3-F300-00A5-02-0S	1206 FSMD050 0.5A	1	FU1
3-J180-00R8-08-20	SOCKET 80PIN 0.8mm 3mm AXN380038J	1	CON1
3-JDTP-TF01-07-20	TFCARD	1	J1
3-J126-E52A-00-30	26PIN SMT	1	CON6001
3-QMBT-3904-0N-6S	mmBT3904LT1 SOT-23 NPN	6	Q2 Q4 Q5 Q6 Q801 Q802
3-U0LM-2576-5A-0S	LM2576_TO-263_DC/DC_HXD	1	U6001
3-U0LD-1117-33-0S	LD1117_3.3V_SOT-223	1	U6002
3-J104-UFLR-00-00	RF-HEAD U.FL-R-SMT(01)	1	G_J2
3-B325-0767-R5-00	SN-3015-CL_FR-4_1_6mm_45*111mm	1	
3-DRX0-SK34-00-1S	SK34 3A SMC 8*5.9mm DO-214	1	D6003

PARTS LIST

Parts Number	Components	Number	Designator
3-B383-0727-R1-00	SN-3015-CL_FR-4_FR-4_1.0mm_204*108mm/4_ROHS	1	
3-CC22-0105-44-0S	0402 1uF/6.3V X5R ±10%	5	C136 C76 C77 C78 C79
3-CC23-0010-30-0S	0402 10PF/10V NPO ±5%	3	C106 C107 C91
3-CC23-0101-4X-0S	0402 100PF/10V X7R ±10%	5	C1 C3 C6 C8 C9
3-CC23-0103-4X-0S	0402 10nF/16V X7R ±10%	10	C126 C130 C141 C143 C144 C147 C42 C44 C46 C48
3-CC23-0104-4X-0S	0402 100nF/16V X5R ±10%	73	C10 C11 C110 C114 C117 C12 C121 C128 C129 C13 C133 C134 C135 C137 C138 C139 C14 C140 C145 C146 C148 C149 C15 C151 C16 C17 C18 C19 C2 C20 C21 C22 C23 C24 C25 C26 C27 C28 C31 C35 C36 C37 C4 C40 C41 C43 C45 C47 C49 C5 C50 C52 C53 C55 C57 C58 C61 C62 C65 C66 C69 C7 C71 C73 C75 C85 C88 C89 C92 C93 C94 C95
3-CC23-0150-30-0S	0402 15PF/10V NPO ±5%	2	C29 C32
3-CC23-0220-80-0S	0402 22PF/10V NPO ±0.25P	7	C30 C33 C59 C60 C63 C64 C90
3-CC23-0331-4X-0S	0402_330PF/50V_C0G_5%	4	C100 C102 C104 C98
3-CC23-0472-4X-0S	0402 4.7nF/10V X7R ±10%	4	C80 C81 C82 C83
3-CC25-0104-4X-6S	0402,0.1UF/16V/X7R±10%,GRM155R7 IC 104KA88D_MVRATA	3	G_C15 G_C2 G_C21
3-CC25-0271-4X-0S	0402 270P/16V X7R ±10%	4	C101 C103 C97 C99
3-CC25-0470-30-0S	CHIP-CAP_0402_47PF/16V_NP0_±5%	1	C105
3-CC29-0101-3C-6S	SN-6605-Z_0402,100PF/50V±5%,COG,GRM1555C1H101JZ01D_MVRATA	2	G_C19 G_C3
3-CC29-0102-4X-6S	SN-6605-Z_0402.1NF/50V_±10%_X7R_GRM36X7R_102K50PT	1	G_C22
3-CC29-0103-4X-6S	CHIP-CAP_SN-6605-Z_0402_10nF_X7R_10%_50V_GRM155R71H103KA88D	10	G_C1 G_C11 G_C14 G_C16 G_C17 G_C18 G_C24 G_C25 G_C5 G_C7
3-CC29-01P8-84-6S	CHIP-CAP_SN-6605-Z_0402_1.8PF_COG_±0.25PF_50V_GRM1555C1H1R8CZ01D	1	G_C12
3-CC29-0220-3C-6S	SN-6605-Z_0402,22PF/50V,±5%,COG,GRM1555C1H220HZ01D_MVRATA	3	G_C10 G_C4 G_C9
3-CC29-0221-4X-6S	CHIP-CAP_SN-6605-Z_0402_220PF_X7R_10%_50V_GRM155R71H221KA01D	1	G_C8
3-CC29-08P2-85-6S	CHIP-CAP_SN-6605-Z_0402_8.2PF_COG_±0.25PF_50V_GRM1555C1H8R2CZ01D	1	G_C6
3-CC33-02U2-44-6S	CHIP-CAP_SN-6605-Z_0603_2.2uF_X5R_10%_10V_GRM188R61A225KE34D	4	C150 C152 G_C20 G_C23
3-CC35-0105-4X-1S	0603 1uF/16V X7R ±10%	13	C112 C113 C119 C120 C122 C123 C34 C38 C39 C54 C67 C68 C74
3-CC42-0106-44-0S	0805 10uF/6.3V X5R ±10%	13	C111 C118 C124 C125 C127 C142 C51 C56 C70 C72 C84 C86 C87

PARTS LIST

Parts Number	Components	Number	Designator
3-CC43-0475-44-0S	0805 4.7uF/10V X5R ±10%	2	C108 C115
3-CTB2-0107-54-0S	100uF/6.3V ±20%	2	TC4 TC5
3-CTB2-0476-54-0S	47uF/6.3V ±20%	3	TC6 TC7 TC8
3-CTBX-0227-50-0S	SN-6605-Z_220UF/4V±20%,SIZEB	3	TC1 TC2 TC3
3-J280-00R8-08-20	SOCKET_80PIN_0.8mm_3mm_AXN480330J_SMT	1	J3
3-L220-010N-J0-6S	CHIP-INDUCTANCE_SN-6605-Z_0402_10nH_±5%_LQG15HS10NJ02D	1	G_L2
3-L220-01N8-K0-6S	SN-6605-Z_0603,1.8NH±10%,LQM18NN1R8K00D_MVRATA	4	L2 L3 L4 L5
3-L220-047N-J0-6S	CHIP-INDUCTANCE_SN-6605-Z_0402_47nH_±5%_LQG15HS47NJ02D	2	G_L1 G_L3
3-L4S0-04R7-3B-16	POWER_INDUCTANCE_CDH3B164R7_0.1R_885mA	2	L6 L7
3-LA34-600R-00-6S	CHIP-BEAD_SN-6605-Z_0603_BLM18HG601SN1D_600Ω _100MHZ_200mA	2	G_BD1 G_BD2
3-LA38-120R-00-6S	CHIP-BEAD_SN-6605-Z_0603_BLM18PG121SN1_120Ω _100MHZ_2000mA	1	L1
3-LA58-120R-00-0S	BLM21PG121SH1_0805_120ohm at 100MHz_2000mA	1	L9
3-LA69-120R-X0-0S	BLM31PG121SH_1206_3A_120Ω_±25％	1	L10
3-QIRL-6402-PM-6S	IRLML6402 MICRO3	2	Q2 Q3
3-QMBT-3904-0N-6S	mmBT3904LT1 SOT-23 NPN	1	Q1
3-RN21-010K-J0-0S	0402 10K*4 1/16W ±5%	2	RA7 RP11
3-RN21-022R-J0-0S	0402 22R*4 1/16W ±5%	8	RA1 RA12 RA13 RA2 RA3 RA4 RA5 RA6
3-RN21-100R-J0-0S	0402 100R*4 1/16W ±5%	3	RA14 RA16 RA17
3-RS21-0000-J0-0S	0402 0Ω 1/16W ±5%	25	G_R1 G_R2 R113 R114 R115 R116 R118 R124 R154 R155 R157 R159 R174 R177 R178 R179 R180 R22 R23 R26 R42 R51 R52 R65 R66
3-RS21-001K-F0-0S	0402 1K 1/16W ±1%	1	R83
3-RS21-001M-J0-0S	0402 1M 1/16W ±5%	1	R27
3-RS21-001R-J0-0S	0402 1Ω 1/16W ±5%	3	R20 R21 R50
3-RS21-002M-J0-0S	0402 2M 1/16W ±5%	1	R28
3-RS21-010K-F0-0S	0402 10K 1/16W ±1%	16	R1 R10 R12 R18 R2 R3 R35 R38 R4 R44 R46 R5 R60 R62 R67 R97
3-RS21-010R-J0-0S	0402 10Ω 1/16W ±5%	2	R170 R64
3-RS21-0113-F0-00	0402 11K 1/16W ±1%	2	R126 R84
3-RS21-015K-J0-0S	0402 15K 1/16W ±5%	4	R122 R45 R7 R8
3-RS21-01K5-F0-0S	0402 1.5K 1/16W ±1%	5	G_R4 R41 R74 R75 R9
3-RS21-022R-J0-0S	0402 22Ω 1/16W ±5%	18	R103 R105 R110 R112 R127 R128 R129 R130 R131 R132 R175 R176 R24 R31 R32 R54 R55 R89

PARTS LIST

Parts Number	Components	Number	Designator
3-RS21-030K-F0-0S	0402 30K 1/16W ±1%	2	R125 R82
3-RS21-033K-F0-0S	0402 33K 1/16W ±1%	1	G_R3
3-RS21-033R-J0-0S	0402 33Ω 1/16W ±5%	19	R139 R140 R141 R142 R153 R156 R158 R160 R49 R57 R58 R59 R61 R68 R69 R70 R71 R72 R73
3-RS21-03K3-J0-0S	0402 3.3K 1/16W ±5%	1	R47
3-RS21-047K-F0-0S	0402 47K 1/16W ±1%	4	R123 R39 R43 R63
3-RS21-04K7-J0-0S	0402 4.7K 1/16W ±5%	10	G_R5 R119 R121 R163 R164 R40 R90 R91 R98 R99
3-RS21-075R-F0-0S	0402 75R 1/16W ±1%	7	R86 R87 R88 R93 R94 R95 R96
3-RS21-100K-F0-0S	0402 100K 1/16W ±1%	7	R13 R14 R15 R16 R166 R53 R6
3-RS21-100R-J0-0S	0402 100Ω 1/16W ±5%	21	G_R6 G_R7 G_R8 R133 R134 R136 R137 R138 R143 R144 R145 R146 R147 R148 R149 R150 R151 R152 R169 R171 R173
3-RS21-200K-F0-0S	0402 200K 1/16W ±1%	1	R30
3-RS21-499R-J0-0S	0402 499Ω 1/16W ±5%	1	R29
3-RS21-510R-J0-0S	0402 510Ω 1/16W ±5%	1	R56
3-RS31-001R-F0-0S	0603 1Ω 1/16W ±1%	1	R165
3-U002-4C02-AF-9S	AT24C02A_SOP8__ATMEL	1	U23
3-U0BH-7240-AK-XS	BH7240AKV_VQFP48_ZORAN	1	U12
3-U0RT-8009-33-DS	SN-6605-Z_RT8009-33PJ5,SOT23-5	1	U14
3-U0RT-9179-PB-XS	RT9179PB_SOT-23-5_DC/DC IC_RICHTEK	2	U11 U19
3-U0SN-74LV-86-XS	SN74LVC1G86DCKR_SC-70_TEXAS	1	U13
3-U0WM-9715-LG-QS	IC_SN-6605-Z_WM9715LGEFL,QFN48	1	U10
3-U0XC-6219-22-XS	XC6219B322MR_SOT23-5_LDO_IC_TOREX	1	U15
3-U0XC-6219-B1-XS	XC6219B132MR_SOT23-5_LDO_IC_TOREX	1	U18
3-U0XC-9216-A1-XS	XC9216A13CM_SOT-25_DC/DC_IC_TOREX	1	U16
3-UATL-AS37-2M-XS	SOC-CPU_SN-6605-Z_ATLAS_372M_TF232_BGA	1	U1
3-UK9F-1G08-0B-9S	K9F1G08U0B-P_TSOP_SAMSUNG	1	U5
3-UPIC-10F2-00-XS	MCU_SN-6605-Z_PIC10F200T_8Bit_SOT-23-6	1	U6
3-USE4-110L-00-XS	GPS IC GPSIC_GPS-RECEIVER-IC_SN-6605-Z_SE4110L_QFN-24	1	G_U1
3-UTLV-3257-PW-TS	ELEC-SW_SN-3015-CL_SN74CBTLV3257PWR_TSS0P16	1	U20
3-UTPS-7303-3D-DS	IC_SN-6605-Z_TPS73033DBVR SOT23-5	1	G_U2
3-UTS5-A231-57-MS	SN-6605Z_TS5A23157DGSR,DGS-10	1	U21
3-UXC6-219B-12-DS	IC_SN-6605-Z_XC6219B122MR,SOT23-5	1	U17
3-XFC0-SB90-16-0S	SN-6625-Z_EPC0S-B9016_EPCOS	1	FL1
3-XQ01-24M5-45-5S	SN-6605-Z_24.545MHZ,+/-30PPM,22PF,5032	1	Y4
3-XQ07-012M-00-5S	SN-6605-Z_12MHz,15PF±30PPM,5032	1	Y1

PARTS LIST

Parts Number	Components	Number	Designator
3-XQ0X-16M3-67-XS	DSB321SD_16.367667MHZ_±1PPmm	1	G_Y1
3-XQ0X-32K7-68-4S	32.768KHz SMD 12.5PF ±20PPM -40℃+85℃	1	Y2
3-U0DS-2516-AF-0S	SDRAM 16*16M DS2516AFTA-6B-E ELPIDA	1	
3-USDI-N4C2-4G-XS	INANDIC_CNE-6828K_SDIN4C2-4G_12*16*1.2mm SanDisk	1	
3-J104-IPEX-00-00	I-PEX_1.13MM_20279-001E-01	1	G_J1