

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

Bill Of Mat Page1

Item	Quantity	Reference Part	Part_Number
1	3	C1	100nF/10VLSCA104N2X70
		C3	100nF/10VLSCA104N2X70
		C13	100nF/10VLSCA104N2X70
2	1	C2	10uF/6.3V,LSCC106N1X70
3	10	C4	100nF/10VLSCA104N2X70
		C5	100nF/10VLSCA104N2X70
		C6	100nF/10VLSCA104N2X70
		C7	100nF/10VLSCA104N2X70
		C8	100nF/10VLSCA104N2X70
		C9	100nF/10VLSCA104N2X70
		C10	100nF/10VLSCA104N2X70
		C11	100nF/10VLSCA104N2X70
		C12	100nF/10VLSCA104N2X70
		C16	100nF/10VLSCA104N2X70
4	2	C14	330pF/X LSCA330N5X70
		C15	330pF/X LSCA330N5X70
5	4	C17	10nF LSCA103N5X70
		C18	10nF LSCA103N5X70
		C19	10nF LSCA103N5X70
		C20	10nF LSCA103N5X70
6	25	C21	1nF LSCA102N5X70
		C22	1nF LSCA102N5X70
		C23	1nF LSCA102N5X70
		C24	1nF LSCA102N5X70
		C25	1nF LSCA102N5X70
		C26	1nF LSCA102N5X70
		C27	1nF LSCA102N5X70
		C28	1nF LSCA102N5X70

		C29	1nF	LSCA102N5X70
		C30	1nF	LSCA102N5X70
		C31	1nF	LSCA102N5X70
		C32	1nF	LSCA102N5X70
		C33	1nF	LSCA102N5X70
		C34	1nF	LSCA102N5X70
		C35	1nF	LSCA102N5X70
		C36	1nF	LSCA102N5X70
		C37	1nF	LSCA102N5X70
		C38	1nF	LSCA102N5X70
		C39	1nF	LSCA102N5X70
		C40	1nF	LSCA102N5X70
		C41	1nF	LSCA102N5X70
		C42	1nF	LSCA102N5X70
		C43	1nF	LSCA102N5X70
		C44	1nF	LSCA102N5X70
		C45	1nF	LSCA102N5X70
7	1	D1	SBA130AS	LSDSBA130AS0
8	6	D2	AIES12U02	LSL12U020R20
		D3	AIES12U02	LSL12U020R20
		D4	AIES12U02	LSL12U020R20
		D5	AIES12U02	LSL12U020R20
		D8	AIES12U02	LSL12U020R20
		D25	AIES12U02	LSL12U020R20
9	2	D6	PESD1LIN/	LSDPESD1LIN0
		D7	PESD1LIN/	LSDPESD1LIN0
10	16	D9	LFMRD-YP	LSDIREYP3000
		D10	LFMRD-YP	LSDIREYP3000
		D11	LFMRD-YP	LSDIREYP3000
		D12	LFMRD-YP	LSDIREYP3000
		D13	LFMRD-YP	LSDIREYP3000
		D14	LFMRD-YP	LSDIREYP3000
		D15	LFMRD-YP	LSDIREYP3000
		D16	LFMRD-YP	LSDIREYP3000
		D17	LFMRD-YP	LSDIREYP3000
		D18	LFMRD-YP	LSDIREYP3000
		D19	LFMRD-YP	LSDIREYP3000
		D20	LFMRD-YP	LSDIREYP3000
		D21	LFMRD-YP	LSDIREYP3000
		D22	LFMRD-YP	LSDIREYP3000
		D23	LFMRD-YP	LSDIREYP3000
		D24	LFMRD-YP	LSDIREYP3000

11	2	EC1	EBF624746LDSE15244K80
		EC2	EBF624746LDSE15244K80
12	10	JP1	JIG POINT
		JP2	JIG POINT
		JP3	JIG POINT
		JP4	JIG POINT
		JP5	JIG POINT
		JP6	JIG POINT
		JP7	JIG POINT
		JP8	JIG POINT
		JP9	JIG POINT
		JP10	JIG POINT
13	1	J1	05002HR-1LSJ02HR10N20
14	1	R1	82R/F LSRA082RF100
15	1	R2	100R/F LSRA100RF100
16	1	R3	120R/F LSRA120RF100
17	1	R4	150R/F LSRA150RF100
18	1	R5	180R/F LSRA180RF100
19	1	R6	240R/F LSRA240RF100
20	1	R7	300R/F LSRA300RF100
21	1	R8	430R/F LSRA430RF100
22	1	R9	620R/F LSRA620RF100
23	1	R10	1K/F LSRA1001F100
24	4	R11	10K LSRA1002J100
		R12	10K LSRA1002J100
		R13	10K LSRA1002J100
		R14	10K LSRA1002J100
25	24	R15	3.6K/1608 LSRC3601J200
		R16	3.6K/1608 LSRC3601J200
		R18	3.6K/1608 LSRC3601J200
		R19	3.6K/1608 LSRC3601J200
		R21	3.6K/1608 LSRC3601J200
		R22	3.6K/1608 LSRC3601J200
		R24	3.6K/1608 LSRC3601J200
		R25	3.6K/1608 LSRC3601J200
		R27	3.6K/1608 LSRC3601J200
		R28	3.6K/1608 LSRC3601J200
		R30	3.6K/1608 LSRC3601J200
		R31	3.6K/1608 LSRC3601J200
		R33	3.6K/1608 LSRC3601J200
		R34	3.6K/1608 LSRC3601J200
		R36	3.6K/1608 LSRC3601J200

		R37	3.6K/1608 LSRC3601J200
		R39	3.6K/1608 LSRC3601J200
		R40	3.6K/1608 LSRC3601J200
		R42	3.6K/1608 LSRC3601J200
		R43	3.6K/1608 LSRC3601J200
		R45	3.6K/1608 LSRC3601J200
		R46	3.6K/1608 LSRC3601J200
		R48	3.6K/1608 LSRC3601J200
		R49	3.6K/1608 LSRC3601J200
26	12	R17	3.6K/1608, LSRC3601J200
		R20	3.6K/1608, LSRC3601J200
		R23	3.6K/1608, LSRC3601J200
		R26	3.6K/1608, LSRC3601J200
		R29	3.6K/1608, LSRC3601J200
		R32	3.6K/1608, LSRC3601J200
		R35	3.6K/1608, LSRC3601J200
		R38	3.6K/1608, LSRC3601J200
		R41	3.6K/1608, LSRC3601J200
		R44	3.6K/1608, LSRC3601J200
		R47	3.6K/1608, LSRC3601J200
		R50	3.6K/1608, LSRC3601J200
27	8	SW1	SKPMAPEC LSSPMAPE0100
		SW2	SKPMAPEC LSSPMAPE0100
		SW3	SKPMAPEC LSSPMAPE0100
		SW4	SKPMAPEC LSSPMAPE0100
		SW5	SKPMAPEC LSSPMAPE0100
		SW6	SKPMAPEC LSSPMAPE0100
		SW7	SKPMAPEC LSSPMAPE0100
		SW8	SKPMAPEC LSSPMAPE0100
28	1	SW9	SKSUA AEO LSSSUA AEO100

BD[AV] Revised: Thursday, January 02, 2020

[01] Title Revision: 0.2

Bill Of MatPage1

Item	Quantity	Reference	Part
1	1	ANT500	ACS2450HBAGN4
2	1	C300	1uF/10V
3	8	C301	100nF/16V
		C304	100nF/16V
		C308	100nF/16V
		C503	100nF/16V
		C504	100nF/16V
		C505	100nF/16V
		C507	100nF/16V
		C600	100nF/16V
4	5	C302	10uF/6.3V/1608
		C303	10uF/6.3V/1608
		C309	10uF/6.3V/1608
		C506	10uF/6.3V/1608
		C601	10uF/6.3V/1608
5	2	C305	10pF/X
		C306	10pF/X
6	2	C307	10nF
		C508	10nF
7	1	C310	10uF/10V/2012
8	1	C311	10uF/10V/2012/X
9	3	C312	220nF/25V/1608
		C315	220nF/25V/1608
		C316	220nF/25V/1608
10	4	C313	10uF/25V/3216
		C314	10uF/25V/3216
		C405	10uF/25V/3216
		C406	10uF/25V/3216
11	4	C400	100nF/25V

		C402	100nF/25V
		C414	100nF/25V
		C421	100nF/25V
12	1	C401	4.7uF/25V/2012
13	1	C403	1nF
14	7	C404	100nF/50V/1608
		C407	100nF/50V/1608
		C409	100nF/50V/1608
		C410	100nF/50V/1608
		C411	100nF/50V/1608
		C412	100nF/50V/1608
		C416	100nF/50V/1608
15	2	C408	1uF/50V/1608
		C417	1uF/50V/1608
16	1	C413	8.2nF/50V/1608
17	1	C415	4.7uF/10V/2012
18	2	C418	330P/50V
		C420	330P/50V
19	1	C419	1uF/50V/2012
20	1	C500	100pF
21	1	C501	1.2pF
22	1	C502	1pF/X
23	4	D300	ESD7361P2T5G
		D301	ESD7361P2T5G
		D302	ESD7361P2T5G
		D303	ESD7361P2T5G
24	1	D304	RB160M-30
25	1	D400	RB160M-60TR
26	3	D401	BAT54S
		D402	BAT54S
		D403	BAT54S
27	6	D600	AIES12U020R2/X
		D601	AIES12U020R2/X
		D602	AIES12U020R2/X
		D603	AIES12U020R2/X
		D604	AIES12U020R2/X
		D605	AIES12U020R2/X
28	4	H400	H-TH-3-3_8-1
		H401	H-TH-3-3_8-1
		H402	H-TH-3-3_8-1
		H403	H-TH-3-3_8-1
29	3	I400	DRAM_A14

	I401	DRAM_A14
	I402	DRAM_A14
30	90 JP300	JIG POINT
	JP301	JIG POINT
	JP302	JIG POINT
	JP303	JIG POINT
	JP304	JIG POINT
	JP305	JIG POINT
	JP306	JIG POINT
	JP307	JIG POINT
	JP308	JIG POINT
	JP309	JIG POINT
	JP310	JIG POINT
	JP311	JIG POINT
	JP312	JIG POINT
	JP313	JIG POINT
	JP314	JIG POINT
	JP315	JIG POINT
	JP316	JIG POINT
	JP317	JIG POINT
	JP318	JIG POINT
	JP319	JIG POINT
	JP320	JIG POINT
	JP321	JIG POINT
	JP322	JIG POINT
	JP323	JIG POINT
	JP324	JIG POINT
	JP325	JIG POINT
	JP326	JIG POINT
	JP327	JIG POINT
	JP328	JIG POINT
	JP329	JIG POINT
	JP330	JIG POINT
	JP331	JIG POINT
	JP332	JIG POINT
	JP333	JIG POINT
	JP334	JIG POINT
	JP335	JIG POINT
	JP336	JIG POINT
	JP337	JIG POINT
	JP338	JIG POINT
	JP339	JIG POINT

JP340	JIG POINT
JP341	JIG POINT
JP342	JIG POINT
JP343	JIG POINT
JP344	JIG POINT
JP345	JIG POINT
JP346	JIG POINT
JP347	JIG POINT
JP348	JIG POINT
JP349	JIG POINT
JP350	JIG POINT
JP351	JIG POINT
JP352	JIG POINT
JP353	JIG POINT
JP354	JIG POINT
JP355	JIG POINT
JP356	JIG POINT
JP357	JIG POINT
JP358	JIG POINT
JP359	JIG POINT
JP360	JIG POINT
JP361	JIG POINT
JP362	JIG POINT
JP363	JIG POINT
JP364	JIG POINT
JP365	JIG POINT
JP366	JIG POINT
JP367	JIG POINT
JP368	JIG POINT
JP600	JIG POINT
JP601	JIG POINT
JP602	JIG POINT
JP603	JIG POINT
JP604	JIG POINT
JP605	JIG POINT
JP606	JIG POINT
JP607	JIG POINT
JP608	JIG POINT
JP609	JIG POINT
JP610	JIG POINT
JP611	JIG POINT
JP612	JIG POINT

	JP613	JIG POINT
	JP614	JIG POINT
	JP615	JIG POINT
	JP616	JIG POINT
	JP617	JIG POINT
	JP618	JIG POINT
	JP619	JIG POINT
	JP620	JIG POINT
31	1 J300	501951-6010
32	1 J301	05002HR-50N2
33	1 J302	10031HR-06
34	1 J600	501951-2410
35	1 J601	05002HR-10N2
36	3 L300	CB1608PK121T
	L401	CB1608PK121T
	L500	CB1608PK121T
37	2 L301	CB2012PK121T
	L303	CB2012PK121T
38	1 L302	YCDM5040CT-2R2NS
39	1 L400	EMC4020-100M
40	1 L501	3.9nH
41	1 Q400	SI2305
42	1 Q401	MMBT3904
43	14 R300	0R
	R301	0R
	R302	0R
	R303	0R
	R304	0R
	R305	0R
	R306	0R
	R409	0R
	R412	0R
	R503	0R
	R504	0R
	R505	0R
	R506	0R
	R507	0R
44	1 R307	330R/F
45	6 R308	4.7K
	R309	4.7K
	R311	4.7K
	R312	4.7K

		R313	4.7K
		R316	4.7K
46	4	R310	4.7K/X
		R314	4.7K/X
		R315	4.7K/X
		R317	4.7K/X
47	2	R318	0R/X
		R324	0R/X
48	1	R319	100/F/1608
49	2	R320	200K/F
		R415	200K/F
50	1	R321	10K/F
51	1	R322	33R
52	1	R323	0.82R/2012
53	1	R325	33R/X
54	2	R326	1K
		R408	1K
55	2	R400	100K
		R411	100K
56	1	R401	2.2K
57	2	R402	10K/X
		R600	10K/X
58	1	R403	44.2K/F
59	1	R404	91K/F
60	1	R405	200R/F
61	1	R406	12K/F
62	1	R407	28K/F
63	1	R410	6.8K
64	1	R413	82K/F
65	2	R414	12.7K/F
		R416	12.7K/F
66	1	R500	47KR
67	1	R501	10KR
68	1	R502	10R
69	2	TP500	TP1.0
		TP501	TP1.0
70	1	U300	RP114N331D
71	1	U301	MP3305/QFN8
72	1	U400	MPQ1530DQ-LF-Z
73	1	U401	LM8261A
74	1	U500	ADB-20713
75	1	Y500	ZK13867_221SR_32.768KHz

ADB-20713-000 Part lists

NO	Discription	품 명	규 격	Location	Maker	Quantity	비 고
1	Band pass Filter	BPF2520B2R4CAC	2.5*2.0	BPF1	ACX	1	
2	Bluetooth Chip	BCM20713A1KUBG	UFBGA-42ball	U1	Cypress	1	
3	Chip Bead	WLBD1005Z0J601TB	1005, 600R	BD1	Walsin	1	
4	Chip Inductor	WLCM1005Z0J2N2TB	1005, 2.2nH	L1	Walsin	1	
5	Chip capacitor	0603B225M100CT	1608, 2.2uF	C1, C9	Walsin	2	
6	Chip capacitor	0402B103K100CT	1005, 10nF	C2, C3, C4, C6	Walsin	4	
7	Chip capacitor	0402B105M100CT	1005, 1uF	C5	Walsin	1	
8	Chip capacitor	RF15N100J100CT/ 0402N100J100CT	1005, 10pF	C7, C8, C12, C13	Walsin	4	
9	Chip capacitor	RF15N220J100CT/ 0402N220J100CT	1005, 22pF	C10, C11	Walsin	2	
10	Chip capacitor	NG	1005, NG	C14			
11	Chip capacitor	NG	1005, NG	C15			
12	Chip Resistor	NG	1005, NG	R4			
13	Chip Resistor	WR04X1502FTL	1005, 15kΩ, 1%	R1	Walsin	1	
14	Chip Resistor	WR04X000PTL	1005, 0Ω	R5	Walsin	1	
15	Chip Resistor	WR04X754JTL	1005, 750kΩ, 5%	R2	Walsin	1	
16	Chip Resistor	WR04X100JTL	1005, 10Ω, 5%	R3	Walsin	1	
17	X-Tal, 26MHz	DSX211G_26M_10PPM_-20	2.0*1.6	Y1	KDS	1	
18	X-Tal, 32.768KHz	NG	NG	Y2			
19	PCB, 6-Layer Build-up	PCB	13*11mm*0.8T	PCB	(주)크리트	1	
20	Shield CAN				(주)삼흥 하이텍	1	