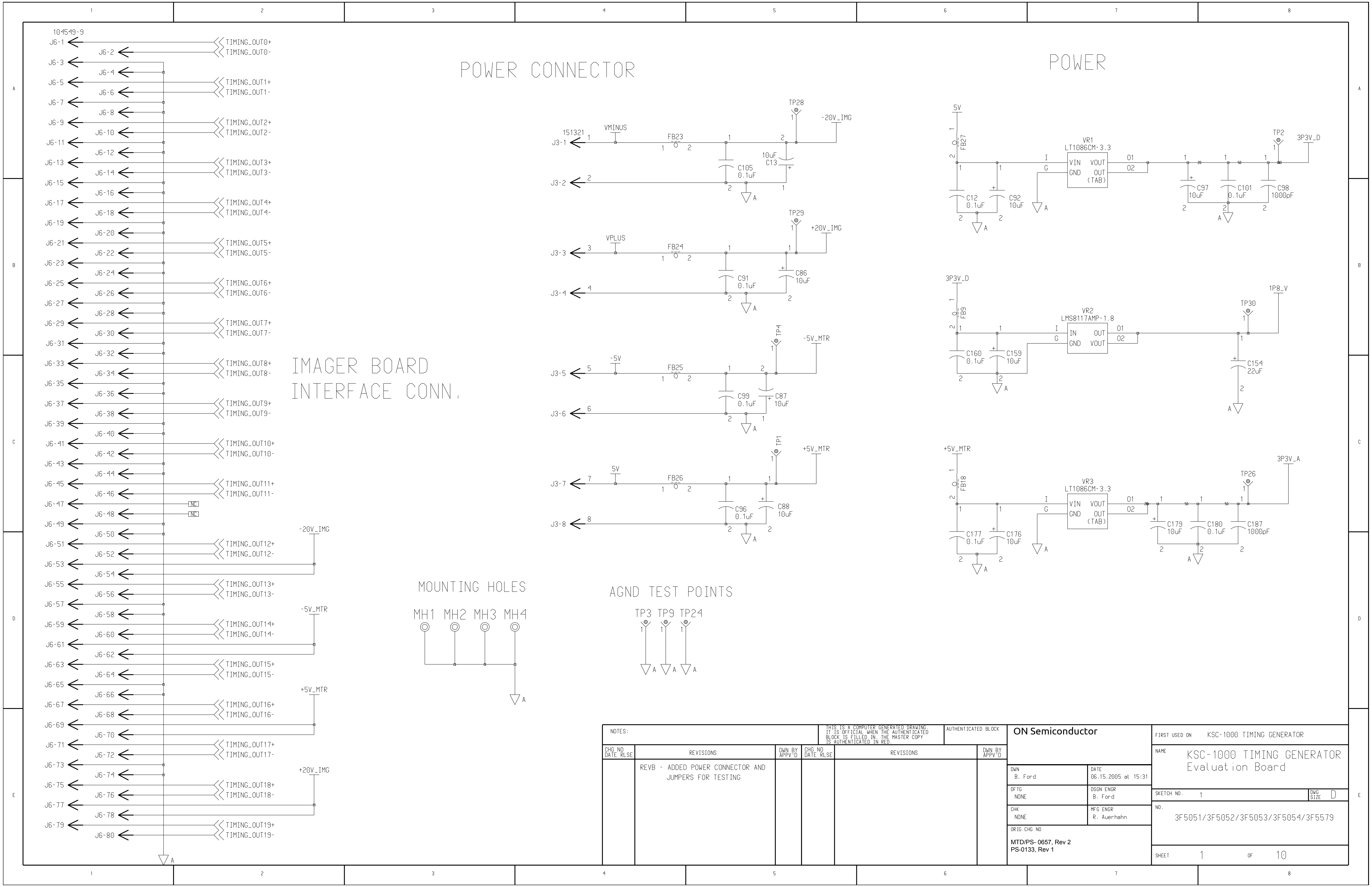


NOTES:		THIS IS A COMPUTER GENERATED DRAWING. IT IS OFFICIAL WHEN THE AUTHENTICATED BLOCK IS FILLED IN. THE MASTER COPY IS AUTHENTICATED IN RED.	AUTHENTICATED BLOCK

CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D	CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D
	REVB - ADDED POWER CONNECTOR AND JUMPERS FOR TESTING				

ON Semiconductor

DWN B. Ford	DATE 06.15.2005 at 15:31
DFTG NONE	DSGN ENGR B. Ford
CHK NONE	MFG ENGR R. Auerhahn

ORIG CHG NO
MTD/PS- 0657, Rev 2
PS-0133, Rev 1

FIRST USED ON KSC-1000 TIMING GENERATOR

NAME KSC-1000 TIMING GENERATOR
Evaluation Board

SKETCH NO. 1 DWG SIZE D

NO. 3F5051/3F5052/3F5053/3F5054/3F5579

SHEET 1 OF 10

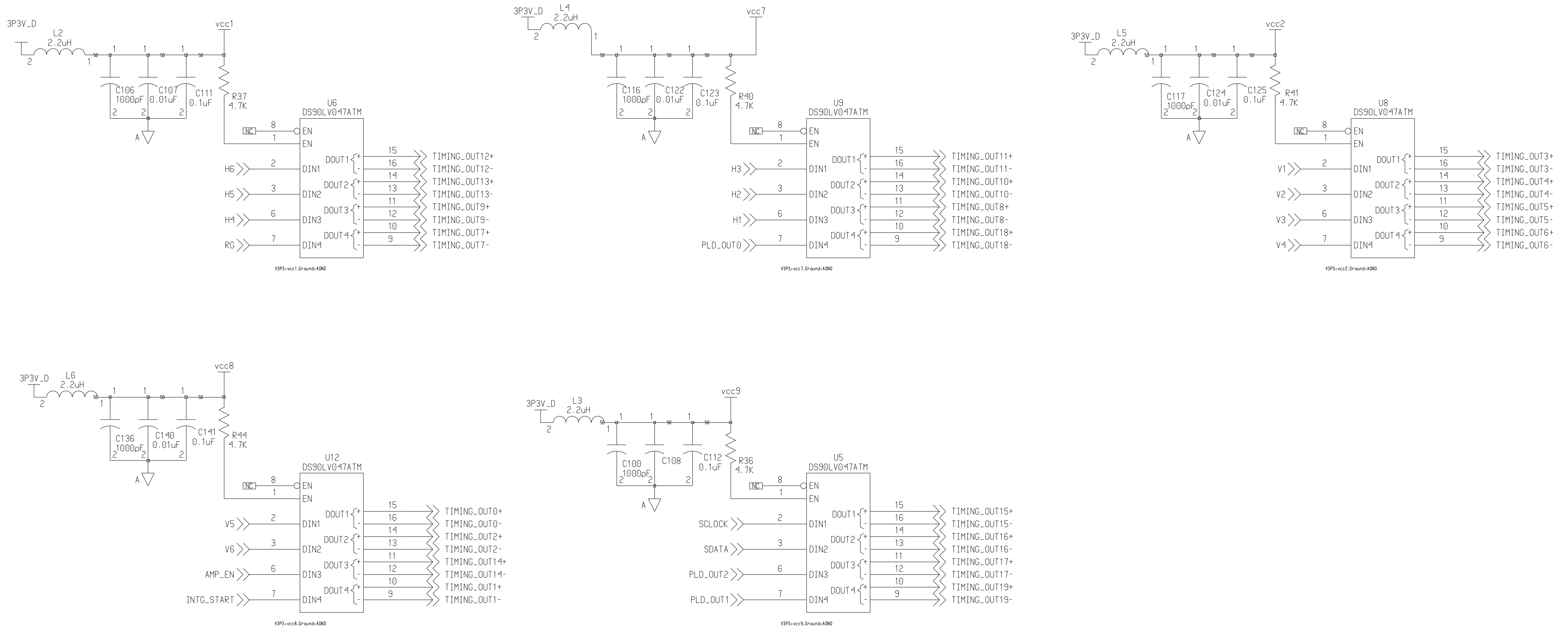


IMAGE SENSOR LVDS

NOTES:

THIS IS A COMPUTER GENERATED DRAWING.
IT IS OFFICIAL WHEN THE AUTHENTICATED
BLOCK IS FILLED IN. THE MASTER COPY
IS AUTHENTICATED IN RED.

AUTHENTICATED BLOCK

CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D	CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D

ON Semiconductor

DWN B. Ford	DATE 06.15.2005 at 15:33
DFTG NONE	DSGN ENGR B. Ford
CHK NONE	MFG ENGR R. Auerhahn
ORIG CHG NO	

FIRST USED ON KSC-1000 TIMING GENERATOR

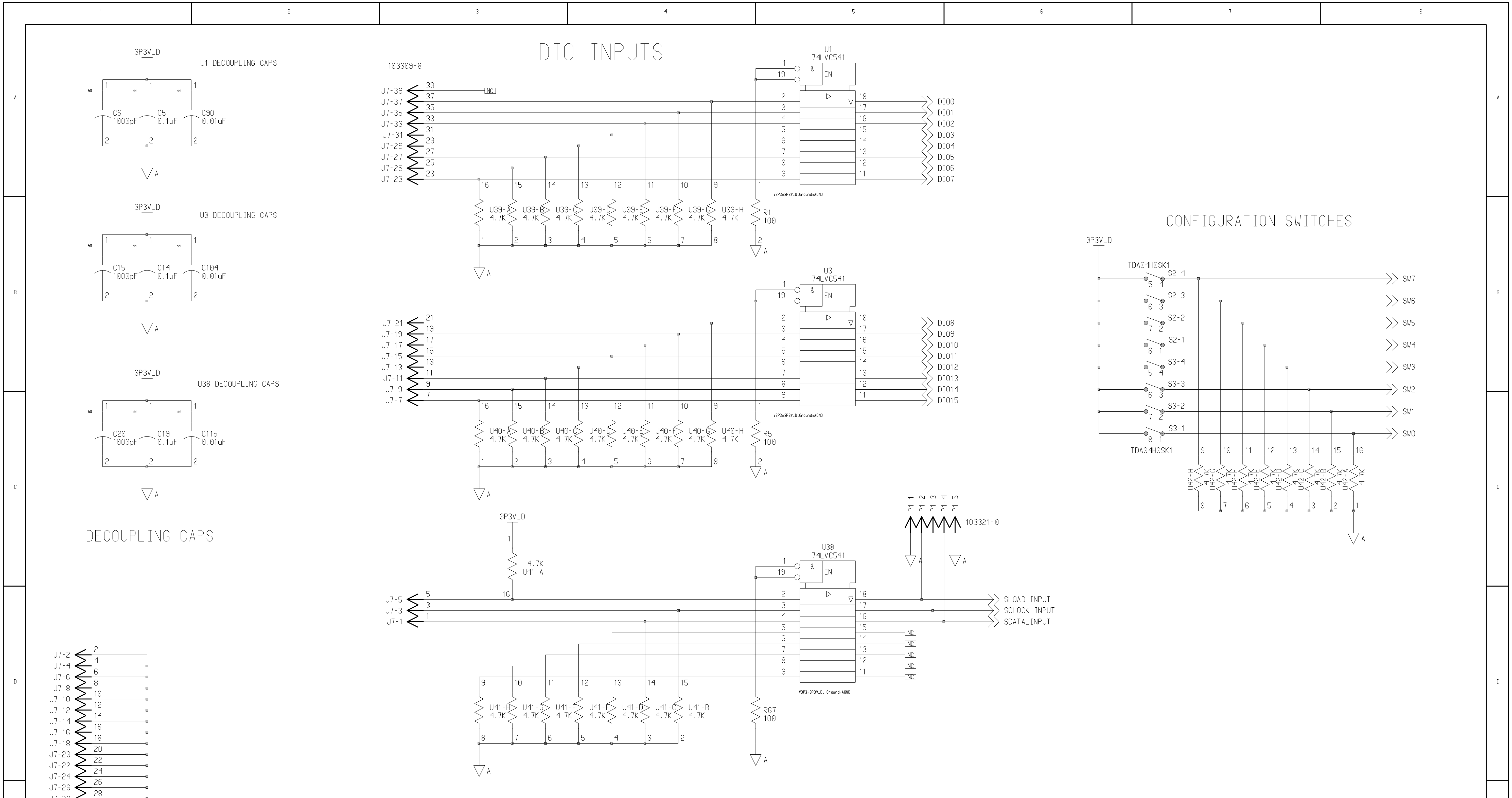
NAME KSC-1000 TIMING GENERATOR EVALUATION BOARD

SKETCH NO.

DWG SIZE D

NO. 3F5051/3F5052/3F5053/3F5054/3F5579

SHEET 2 OF 10



NOTES:	THIS IS A COMPUTER GENERATED DRAWING. IT IS OFFICIAL WHEN THE AUTHENTICATED BLOCK IS FILLED IN. THE MASTER COPY IS AUTHENTICATED IN RED.	AUTHENTICATED BLOCK

CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D	CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D

ON Semiconductor

DWN B. Ford	DATE 06.15.2005 at 15:36
DFTG NONE	DSGN ENGR B. Ford
CHK NONE	MFG ENGR R. Auerhahn
ORIG CHG NO	

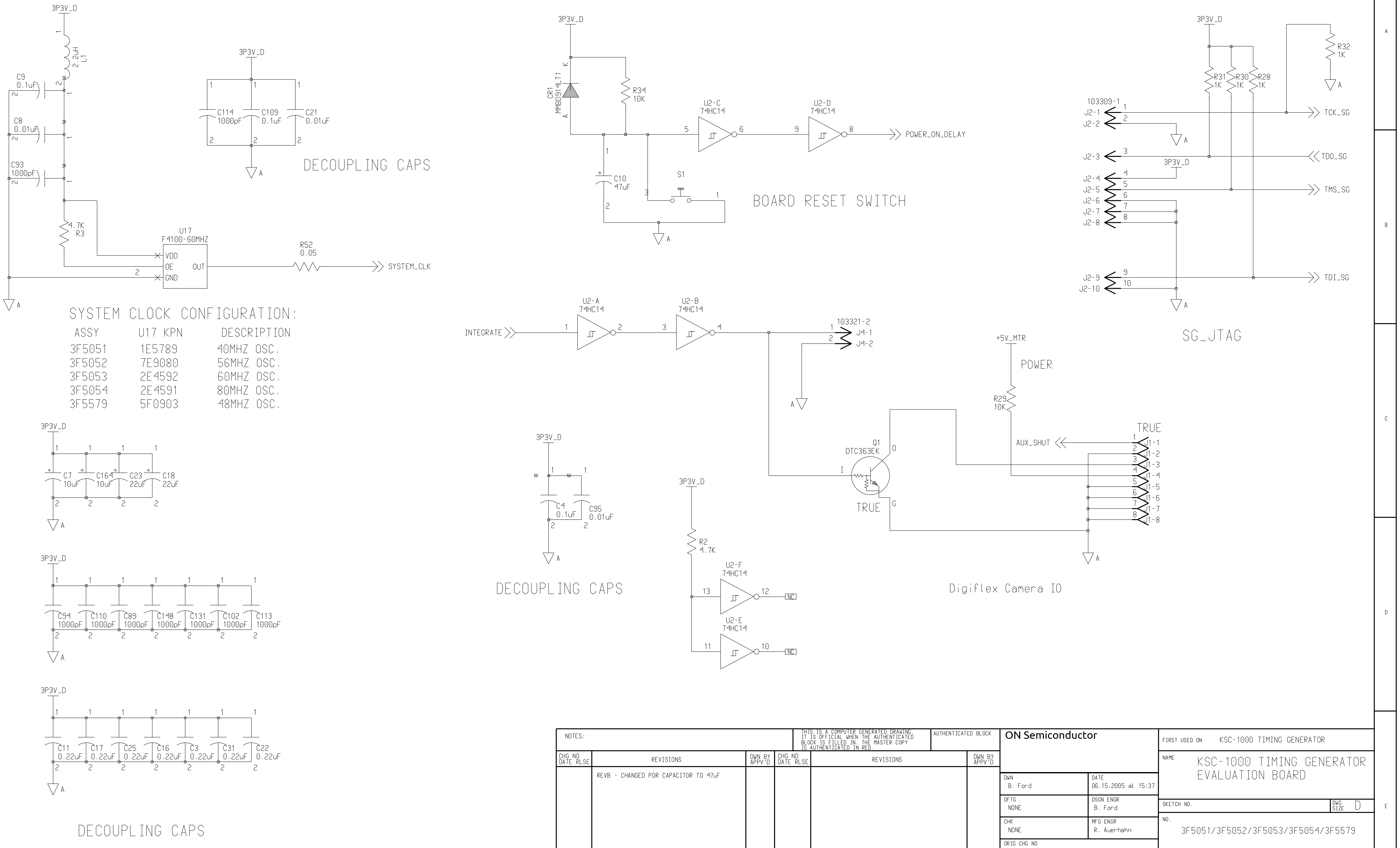
FIRST USED ON KSC-1000 TIMING GENERATOR

NAME KSC-1000 TIMING GENERATOR
EVALUATION BOARD

SKETCH NO. DWG SIZE D

NO. 3F5051/3F5052/3F5053/3F5054/3F5579

SHEET 3 OF 10



SYSTEM CLOCK CONFIGURATION:

ASSY	U17 KPN	DESCRIPTION
3F5051	1E5789	40MHZ OSC.
3F5052	7E9080	56MHZ OSC.
3F5053	2E4592	60MHZ OSC.
3F5054	2E4591	80MHZ OSC.
3F5579	5F0903	48MHZ OSC.

NOTES:

THIS IS A COMPUTER GENERATED DRAWING. IT IS OFFICIAL WHEN THE AUTHENTICATED BLOCK IS FILLED IN. THE MASTER COPY IS AUTHENTICATED IN RED.

AUTHENTICATED BLOCK

CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D	CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D
	REVB - CHANGED POR CAPACITOR TO 47uF				

ON Semiconductor

DWN B. Ford	DATE 06.15.2005 at 15:37
DFTG NONE	DSGN ENGR B. Ford
CHK NONE	MFG ENGR R. Auerhahn
ORIG CHG NO	

FIRST USED ON KSC-1000 TIMING GENERATOR

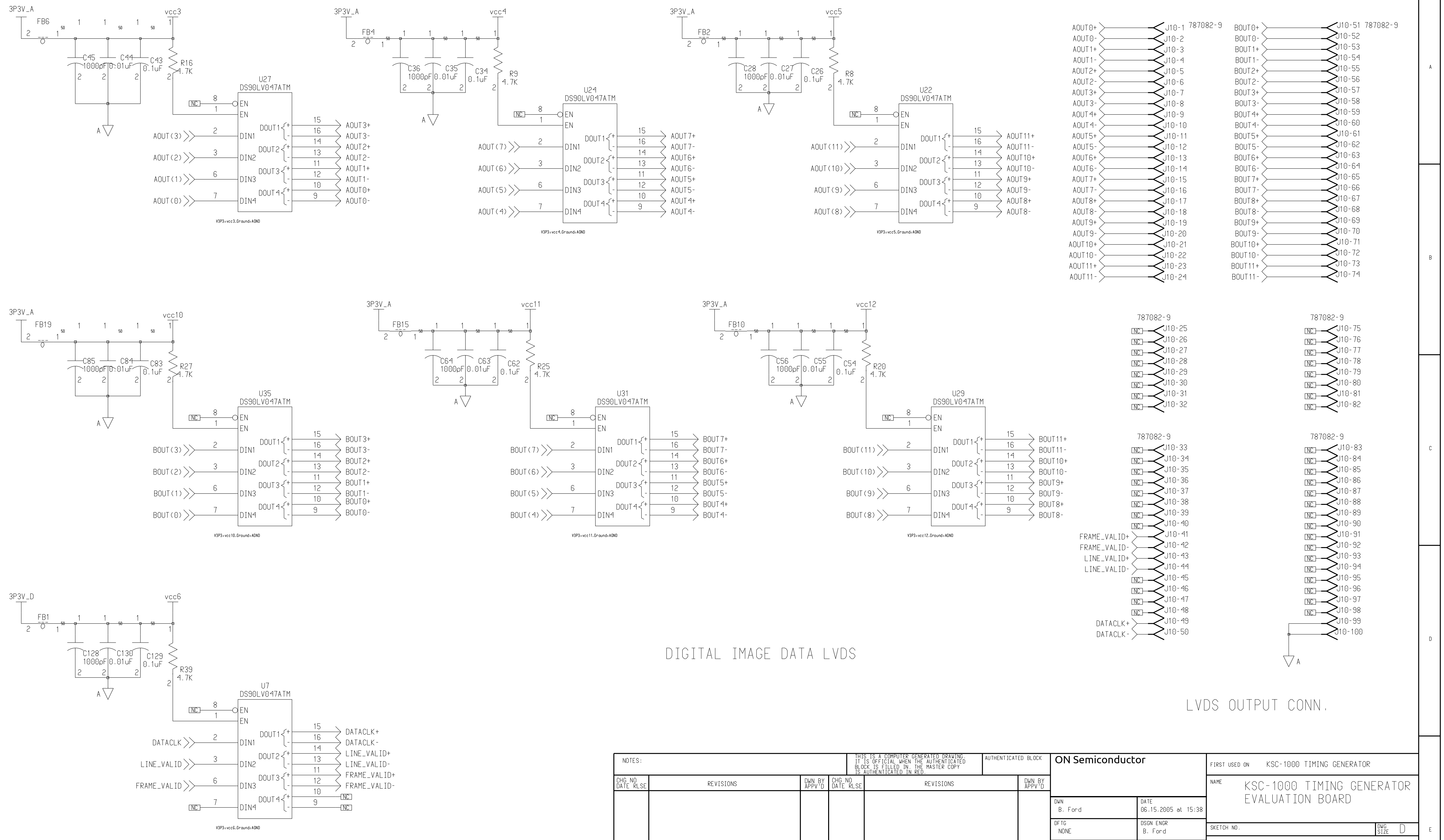
NAME KSC-1000 TIMING GENERATOR
EVALUATION BOARD

SKETCH NO.

DWG SIZE D

NO. 3F5051/3F5052/3F5053/3F5054/3F5579

SHEET 4 OF 10



NOTES:

THIS IS A COMPUTER GENERATED DRAWING. IT IS OFFICIAL WHEN THE AUTHENTICATED BLOCK IS FILLED IN. THE MASTER COPY IS AUTHENTICATED IN RED.

AUTHENTICATED BLOCK

CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D	CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D

ON Semiconductor

DWN B. Ford	DATE 06.15.2005 at 15:38
DFTG NONE	DSGN ENGR B. Ford
CHK NONE	MFG ENGR R. Auerhahn
ORIG CHG NO	

FIRST USED ON KSC-1000 TIMING GENERATOR

NAME KSC-1000 TIMING GENERATOR EVALUATION BOARD

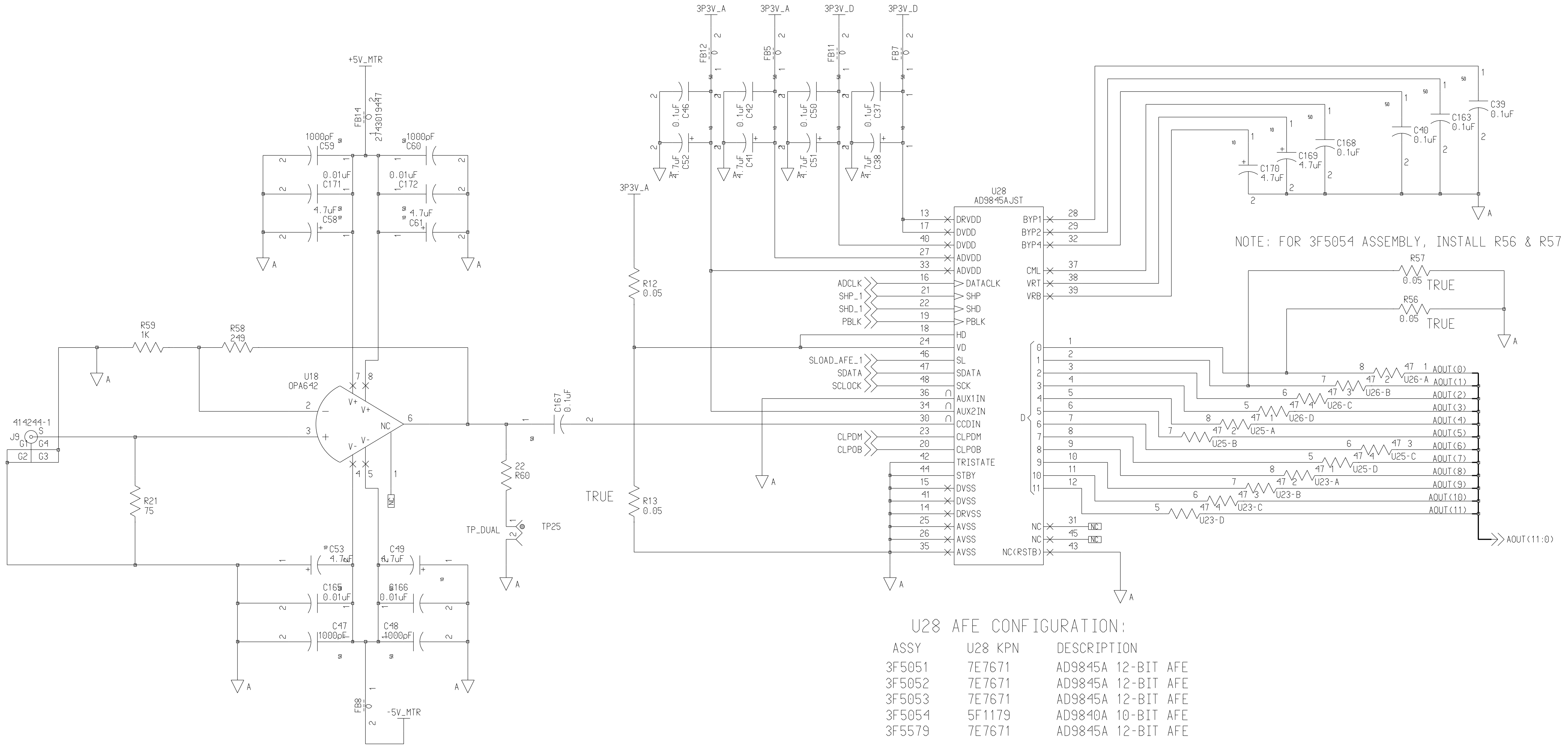
SKETCH NO.

DWG SIZE D

NO. 3F5051/3F5052/3F5053/3F5054/3F5579

SHEET 5 OF 10

CHANNEL A ANALOG SECTION



NOTE: FOR 3F5054 ASSEMBLY, INSTALL R56 & R57

U28 AFE CONFIGURATION:

ASSY	U28 KPN	DESCRIPTION
3F5051	7E7671	AD9845A 12-BIT AFE
3F5052	7E7671	AD9845A 12-BIT AFE
3F5053	7E7671	AD9845A 12-BIT AFE
3F5054	5F1179	AD9840A 10-BIT AFE
3F5579	7E7671	AD9845A 12-BIT AFE

NOTES:

THIS IS A COMPUTER GENERATED DRAWING. IT IS OFFICIAL WHEN THE AUTHENTICATED BLOCK IS FILLED IN. THE MASTER COPY IS AUTHENTICATED IN RED.

AUTHENTICATED BLOCK

CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D	CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D

ON Semiconductor

FIRST USED ON KSC-1000 TIMING GENERATOR

NAME KSC-1000 TIMING GENERATOR EVALUATION BOARD

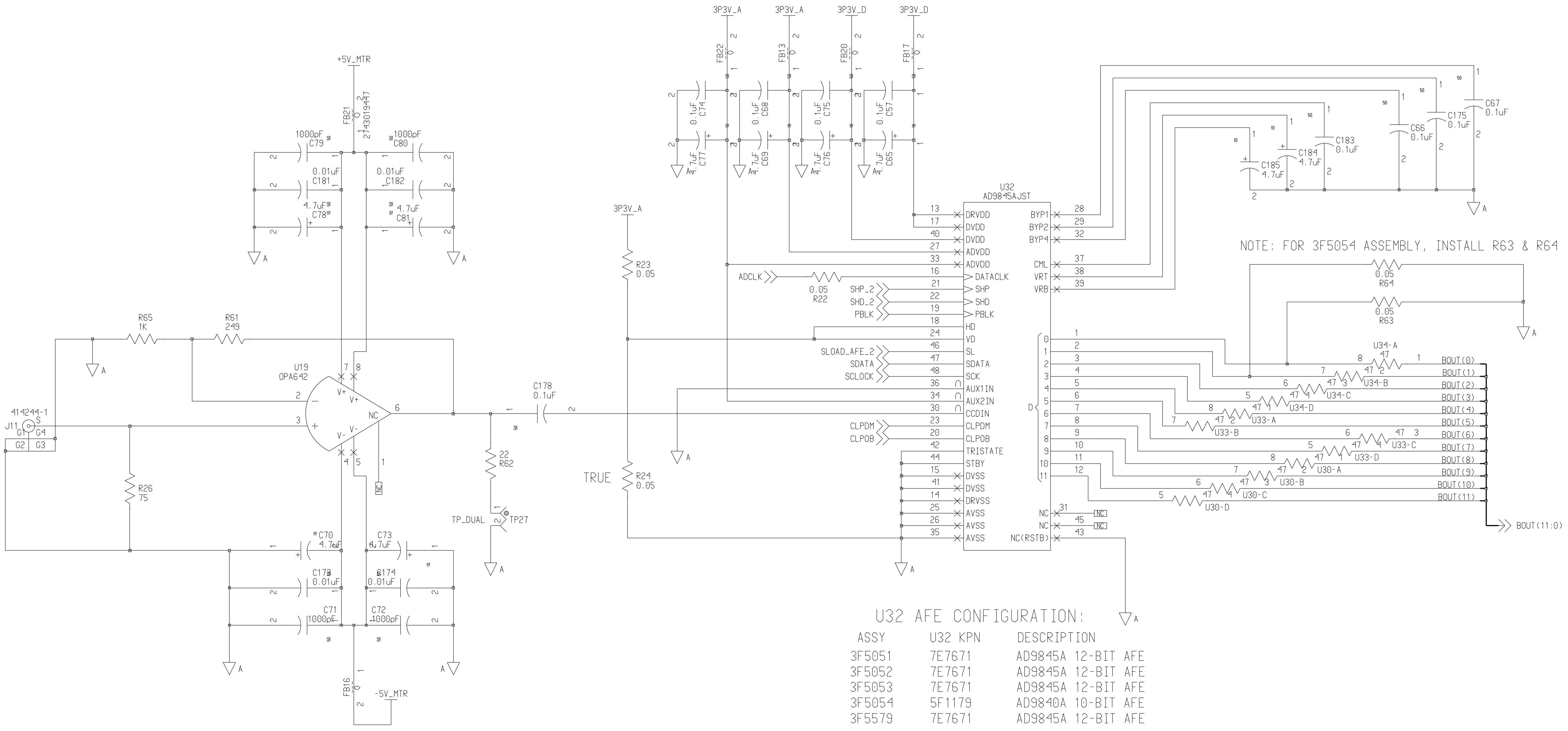
DWN B. Ford
DATE 06.15.2005 at 15:39
DFTG NONE
DSGN ENGR B. Ford
CHK NONE
MFG ENGR R. Auerhahn
ORIG CHG NO

SKETCH NO.
DWG SIZE D

NO. 3F5051/3F5052/3F5053/3F5054/3F5579

SHEET 6 OF 10

CHANNEL B ANALOG SECTION



NOTE: FOR 3F5054 ASSEMBLY, INSTALL R63 & R64

U32 AFE CONFIGURATION:

ASSY	U32 KPN	DESCRIPTION
3F5051	7E7671	AD9845A 12-BIT AFE
3F5052	7E7671	AD9845A 12-BIT AFE
3F5053	7E7671	AD9845A 12-BIT AFE
3F5054	5F1179	AD9840A 10-BIT AFE
3F5579	7E7671	AD9845A 12-BIT AFE

NOTES:

THIS IS A COMPUTER GENERATED DRAWING. IT IS OFFICIAL WHEN THE AUTHENTICATED BLOCK IS FILLED IN. THE MASTER COPY IS AUTHENTICATED IN RED.

AUTHENTICATED BLOCK

CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D	CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D

ON Semiconductor

FIRST USED ON KSC-1000 TIMING GENERATOR

NAME KSC-1000 TIMING GENERATOR EVALUATION BOARD

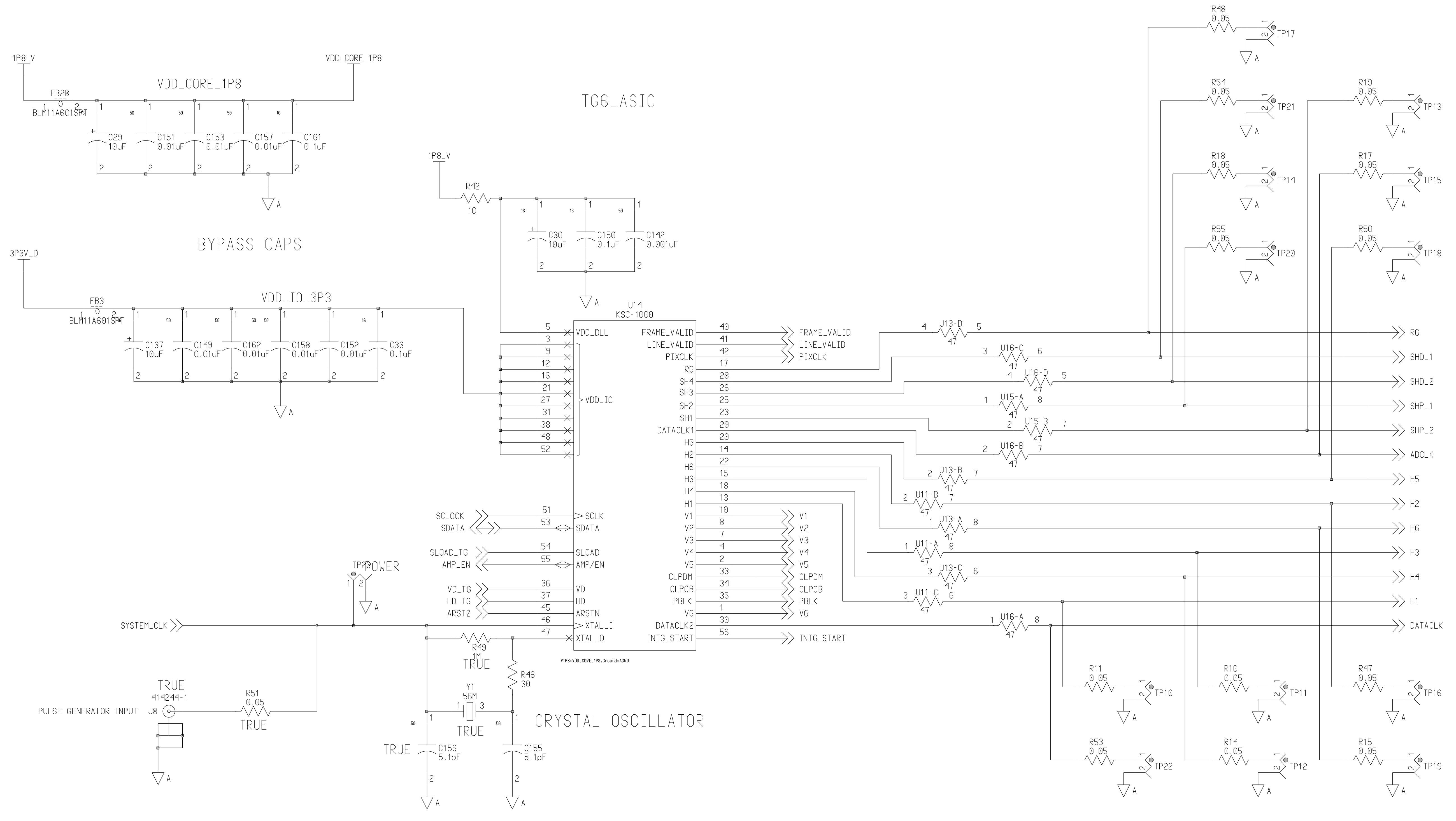
DWN B. Ford	DATE 06.15.2005 at 15:40
DFTG NONE	DSGN ENGR B. Ford
CHK NONE	MFG ENGR R. Auerhahn
ORIG CHG NO	

SKETCH NO.

DWG SIZE D

NO. 3F5051/3F5052/3F5053/3F5054/3F5579

SHEET 7 OF 10



NOTES:

THIS IS A COMPUTER GENERATED DRAWING. IT IS OFFICIAL WHEN THE AUTHENTICATED BLOCK IS FILLED IN. THE MASTER COPY IS AUTHENTICATED IN RED.

AUTHENTICATED BLOCK

CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D	CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D
	REVB - ADDED TEST POINTS W/SERIES RESISTOR FOR TESTING. ADDED SMB CONNECTOR FOR PULSE GENERATOR INPUT				

ON Semiconductor

DWN B. Ford	DATE 06.15.2005 at 15:41
DFTG NONE	DSGN ENGR B. Ford
CHK NONE	MFG ENGR R. Auerhahn
ORIG CHG NO	

FIRST USED ON KSC-1000 TIMING GENERATOR

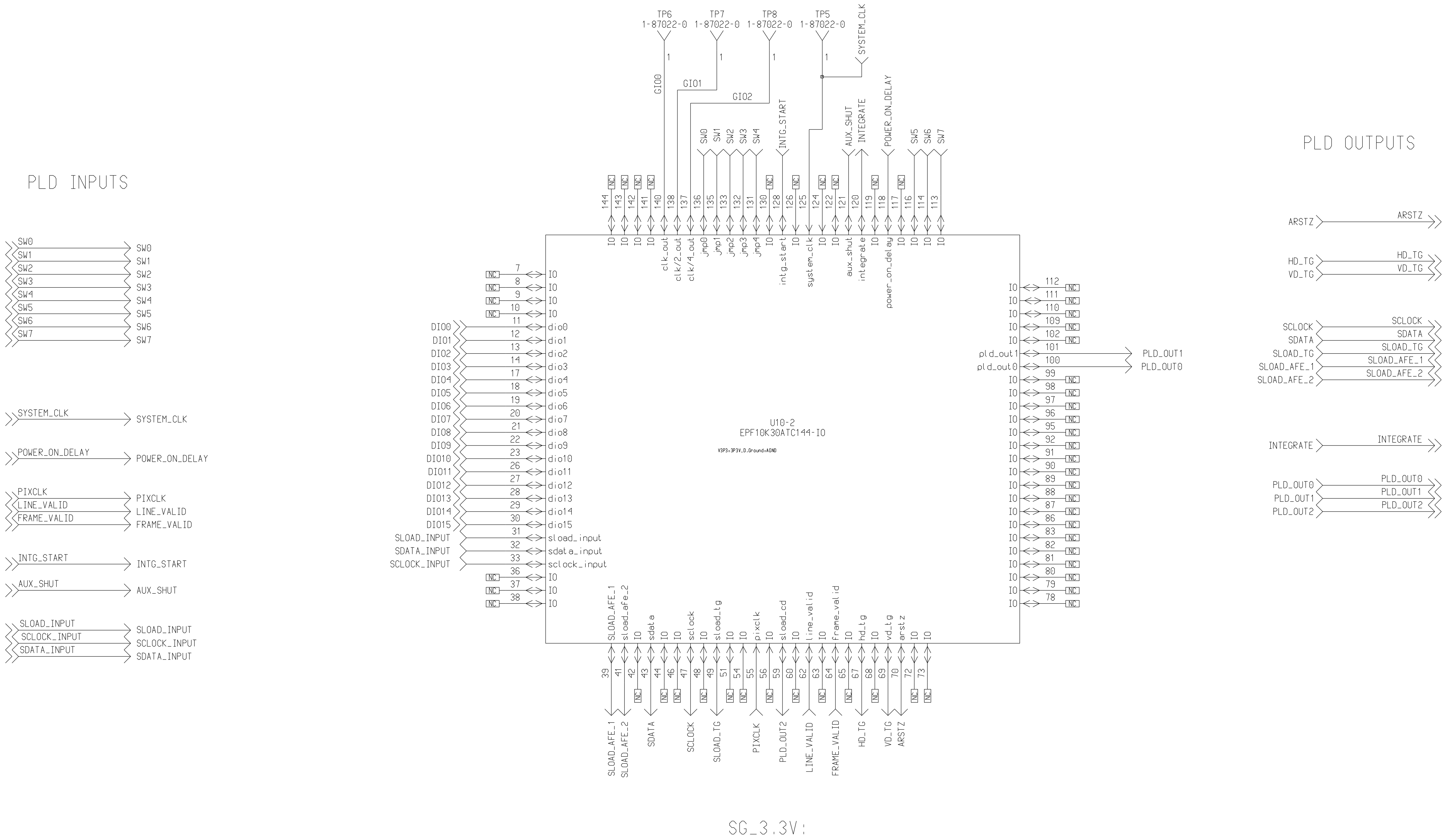
NAME KSC-1000 TIMING GENERATOR EVALUATION BOARD

SKETCH NO.

DWG SIZE D

NO. 3F5051/3F5052/3F5053/3F5054/3F5579

SHEET 8 OF 10



NOTES:

THIS IS A COMPUTER GENERATED DRAWING. IT IS OFFICIAL WHEN THE AUTHENTICATED BLOCK IS FILLED IN. THE MASTER COPY IS AUTHENTICATED IN RED.

AUTHENTICATED BLOCK

CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D	CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D

ON Semiconductor

DWN B. Ford	DATE 06.15.2005 at 15:42
DFTG NONE	DSGN ENGR B. Ford
CHK NONE	MFG ENGR R. Auerhahn
ORIG CHG NO	

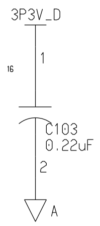
FIRST USED ON KSC-1000 TIMING GENERATOR

NAME KSC-1000 TIMING GENERATOR EVALUATION BOARD

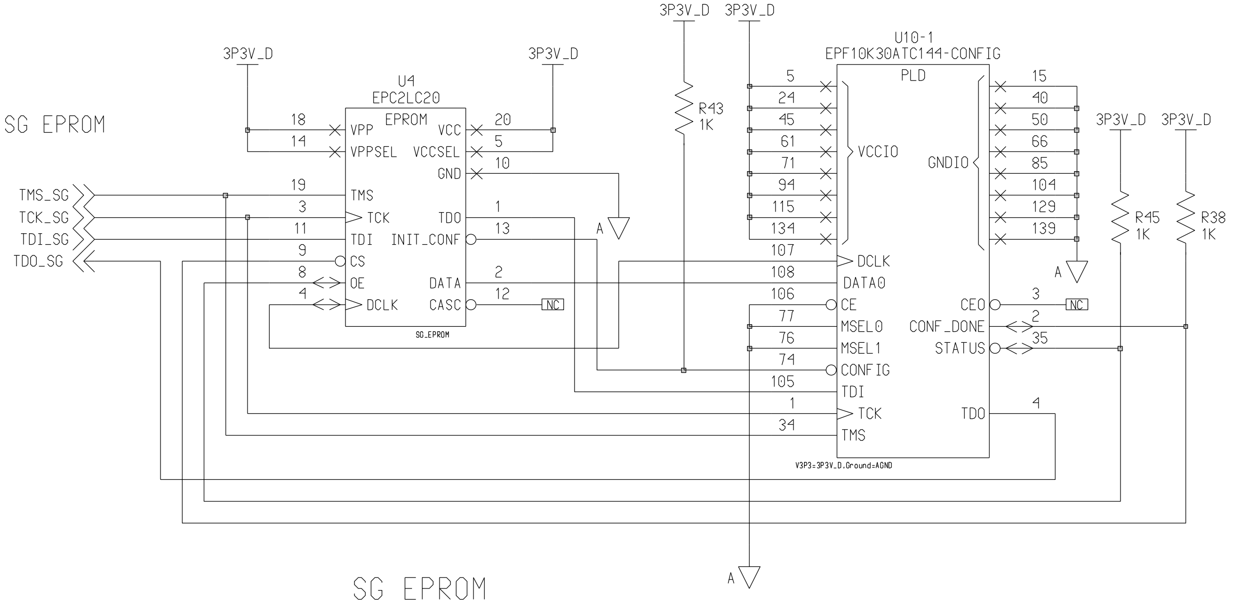
SKETCH NO. DWG SIZE D

NO. 3F5051/3F5052/3F5053/3F5054/3F5579

SHEET 9 OF 10

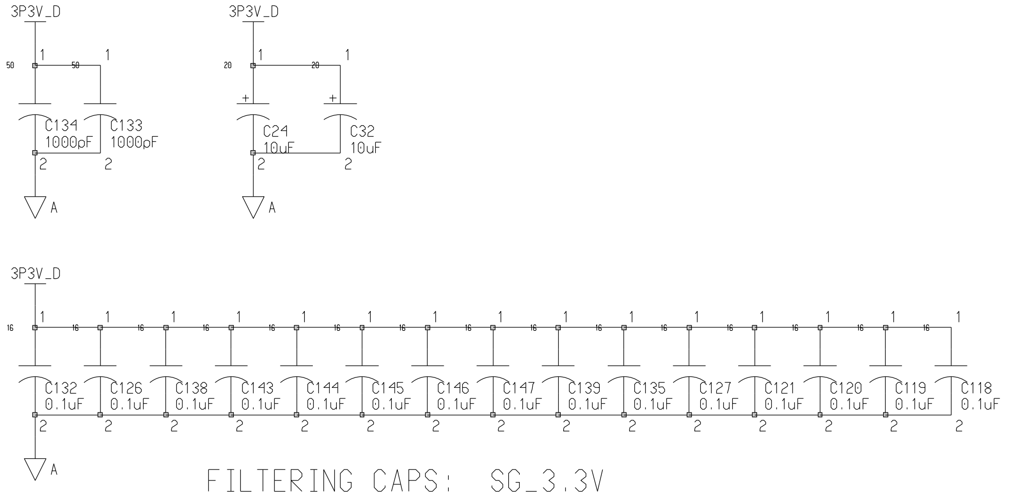


DECOUPLING CAPS: SG EPROM



SG EPROM

SG CONFIG SYMBOL



FILTERING CAPS: SG_3.3V

NOTES:

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AUTHENTICATED BLOCK

CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D	CHG NO DATE RLSE	REVISIONS	DWN BY APPV'D

ON Semiconductor

DWN B. Ford	DATE 06.15.2005 at 15:43
DFTG NONE	DSGN ENGR B. Ford
CHK NONE	MFG ENGR R. Auerhahn
ORIG CHG NO	

FIRST USED ON KSC-1000 TIMING GENERATOR

NAME KSC-1000 TIMING GENERATOR
EVALUATION BOARD

SKETCH NO.

DWG SIZE D

NO. 3F5051/3F5052/3F5053/3F5054/3F5579

SHEET 10 OF 10

Components
For Circuit Board Assembly

NO. 3F5051
SHEET 1 NEXT SHEET 2

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
1	3F5050	HW-T-1	BRD1	1		BARE BOARD REV 1
2	1E3959	TOP-1	C10	1	case_d_h.125	47uF_20V_.20 ELECTROLYTIC TANTALUM CAPACITOR
3	5E6858	TOP-1 BOT-1	C13 C86	2	pcap_6032_c_	10uF_25V_.10 ELECTROLYTIC TANTALUM CHIP
4	1E4710	BOT-1	C142	1	0603_h.035	0.001uF_50V_.10 SMT CERAMIC MONOLITHIC CAPACITOR
5	4B3745	BOT-7	C149 C151 C152 C153 C157 C158 C162	7	0603_h.045	0.01uF_50V_.10 CERAMIC MONOLITHIC CHIP
6	233824	BOT-1	C154	1	case_d_h.130	22uF_16V_.20 TANTALUM ELECTROLYTIC CAPACITOR
7	237927	BOT-1	C155	1	0805_h.055	5.1pF_50V_.50pF MONOLITHIC, CERAMIC CHIP
8	8B0986	TOP-2	C18 C23	2	case_c_h.110	22uF_16V_.20 ELECTROLYTIC TANTALUM CHIP
9	980646	TOP-7 BOT-19	C21 C27 C35 C44 C55 C63 C84 C8 C90 C95 C104 C107 C108 C115 C122 C124 C130 C140 C165 C166 C171 C172 C173 C174 C181 C182	26	0805_h.055	0.01uF_50V_.10 MONOLITHIC, CERAMIC CHIP
10	258541	TOP-2 BOT-7	C24 C32 C87 C88 C92 C97 C159 C176 C179	9	case_c_h.110	10uF_20V_.20 ELECTROLYTIC TANTALUM CHIP
11	7B9272	TOP-7 BOT-1	C3 C11 C16 C17 C22 C25 C31 C103	8	0805_h.055	0.22uF_16V_.10 CERAMIC CHIP
12	4B4011	TOP-1 BOT-17	C33 C118 C119 C120 C121	18	0603_h.035	0.1uF_16V_.20 RECOMMENDED DECOUPLING CAP

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5051

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
DR. XXXX DATE
DES. ENG. BPF PKG. MATL.
CK. DFTG. PCS MFG. ENG.
ORIG. CHG. NO. RELEASED
SKETCH NO. DWG. SIZE B
3F5051
SHEET 1 NEXT SHEET 2

Components
For Circuit Board Assembly

NO. 3F5051
SHEET 2 NEXT SHEET 3

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
			C126 C127 C132 C135 C138 C139 C143 C144 C145 C146 C147 C150 C161			
13	335666	TOP-16 BOT-4	C38 C41 C49 C51 C52 C53 C58 C61 C65 C69 C70 C73 C76 C77 C78 C81 C169 C170 C184 C185	20	case_a_h.075	4.7uF_10V_.20 ELECTROLYTIC, TANTALUM CHIP
14	7B9716	TOP-23 BOT-22	C4 C5 C12 C14 C19 C26 C34 C37 C39 C40 C42 C43 C46 C50 C54 C57 C62 C66 C67 C68 C74 C75 C83 C9 C91 C96 C99 C101 C105 C109 C111 C112 C123 C125 C129 C141 C160 C163 C167 C168 C175 C177 C178 C180 C183	45	0805_h.055	0.1uF_50V_.10 Ceramic Monolithic Chip
15	254471	TOP-8 BOT-3	C47 C48 C59 C60 C71 C72 C79 C80 C93 C98 C187	11	0805_h.055	1000pF_50V_.05 MONOLITHIC, CERAMIC CHIP
16	4B4492	TOP-9 BOT-16	C6 C15 C20 C28 C36 C45 C56 C64 C85 C89 C94 C100 C102 C106 C110 C113 C114 C116 C117 C128 C131 C133 C134 C136 C148	25	0805_h.055	1000pF_50V_.20 MONOLITHIC, CERAMIC CHIP
17	232271	TOP-3 BOT-2	C7 C29 C30 C137 C164	5	case_c_h.110	10uF_16V_.20 ELECTROLYTIC, TANTALUM
18	616293	TOP-1	CR1	1	sot23_akn_sp	MMBD914LT1 DIODE, SWITCHING, 100V, 200mA
19	233152	TOP-21	FB1 FB2 FB4 FB5 FB6 FB7 FB8 FB9 FB10 FB11	26	fb_274301944	2743019447 - FERRITE, SMT BEADS

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5051

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor		FIRST USED ON
		NAME CIRCUIT BOARD ASSEMBLY KSC-1000 TIMING GEN EVAL BD
DR. XXXX	DATE	
DES. ENG. BPF	PKG. MATL.	SKETCH NO. DWG. SIZE B
CK. DFTG. PCS	MFG. ENG.	3F5051
ORIG. CHG. NO. RELEASED		SHEET 2 NEXT SHEET 3

Components
For Circuit Board Assembly

NO. 3F5051
SHEET 3 NEXT SHEET 4

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
		BOT-5	FB12 FB13 FB14 FB15 FB16 FB17 FB18 FB19 FB20 FB21 FB22 FB23 FB24 FB25 FB26 FB27			
20	9B6752	TOP-1 BOT-1	FB3 FB28	2	fb_blm11_h.0	BLM11A601SPT - FERRITE, SMT BEADS
21	5C3152	TOP-1	J10	1	j100ra_78708	787082-9 AMPLIMITE VERTICLE RECEPTICLE CONNECTOR
22	954067	TOP-1	J2	1	p10s_103309-	103309-1 LOW PROFILE STRAIGHT HEADER
23	7E7653	TOP-1	J3	1	p08ra_151321	151321 RIGHT ANGLE HEADER CONNECTOR
24	7E7515	TOP-1	J4	1	p02s_103321-	103321-2 STRAIGHT HEADER CONNECTOR
25	999979	TOP-1	J6	1	p80s_104549-	104549-9 SMT, AMPMODU, SHROUDED HEADER CONNECTOR
26	7E7514	TOP-1	J7	1	p40s_103309-	103309-8 LOW PROFILE STRAIGHT HEADER
27	6C4636	TOP-2	J9 J11	2	j01s_414244-	414244-1 RF COAXIAL RECEPTACLE
28	1E1112	BOT-6	L1 L2 L3 L4 L5 L6	6	ind_1008cs_h	2.2uH SMT WIREWOUND ENCAPSULATED
29	7E7662	TOP-1	P1	1	p05s_103321-	103321-0 STRAIGHT HEADER CONNECTOR
30	283602	TOP-2 BOT-1	R1 R5 R67	3	0805_h.030	100 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
31	7B8917	TOP-10 BOT-6	R10 R11 R12 R14 R15 R17 R18 R19 R22 R23 R47 R48 R50 R53 R54 R55	16	0603_h.025	0.05 Ohms_.063W_.05 Zero Ohm,FLAT, THICK METAL FILM, CHIP
32	253549	TOP-8	R2 R3 R8 R9 R16 R20 R25 R27	14	0805_h.030	4.7K Ohms_.100W_.05 THICK METAL FILM

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5051

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
DR. XXXX DATE
DES. ENG. BPF PKG. MATL.
CK. DFTG. PCS MFG. ENG.
ORIG. CHG. NO. RELEASED
SKETCH NO. DWG. SIZE B
3F5051
SHEET 3 NEXT SHEET 4

Components
For Circuit Board Assembly

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
		BOT-6	R36 R37 R39 R40 R41 R44			
33	954554	TOP-2	R21 R26	2	0805_h.030	75 Ohms_.100W_.01 SMT CHIP FLAT THICK METAL FILM
34	902564	BOT-4	R28 R30 R31 R32	4	0805_h.025	1K Ohms_.100W_.01 FLAT, THICK METAL FILM CHIP
35	2B4333	BOT-1	R29	1	0603_h.025	10K Ohms_.063W_.01 FLAT, THICK METAL FILM, CHIP
36	233981	BOT-1	R34	1	0805_h.025	10K Ohms_.100W_.01 FLAT, THICK METAL FILM CHIP
37	992865	BOT-5	R38 R43 R45 R59 R65	5	0805_h.020	1K Ohms_.100W_.001 FLAT, THIN METAL FILM, CHIP
38	2B1420	BOT-1	R42	1	0603_h.025	10 Ohms_.063W_.05 FLAT, THICK METAL FILM, CHIP
39	G11318	BOT-1	R46	1	0805_h.020	30 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
40	257516	BOT-1	R52	1	0805_h.030	0.05 Ohms_.100W_- ZERO OHM CHIP JUMPER
41	902504	BOT-2	R58 R61	2	0805_h.030	249 Ohms_.100W_.01 SMT CHIP FLAT THICK METAL FILM
42	255345	BOT-2	R60 R62	2	0805_h.030	22 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
43	2E7622	TOP-1	RU4	REF	plcc20_.050_	EPC2LC20 CONFIGURATION EPROM FOR PLDS, 1.6M
44	449610	TOP-1	S1	1	sw_tpa11cgpc	TPA11CGPC0 TP/TPA SERIES PUSHBUTTON SWITCH
45	7E7503	TOP-2	S2 S3	2	sw_tda04_h.0	TDA04H0SK1 DIP SWITCH, TOP SLIDE ACTUATED

Notes: REFER TO CIRCUIT DIAGRAM 3F5051

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

ON Semiconductor

DR. XXXX	DATE
DES. ENG. BPF	PKG. MATL.
CK. DFTG. PCS	MFG. ENG.
ORIG. CHG. NO. RELEASED	

FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
SKETCH NO. DWG. SIZE B
3F5051
SHEET 4 NEXT SHEET 5

NO. 3F5051
SHEET 5 NEXT SHEET 6

Components
For Circuit Board Assembly

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
46	901614	TOP-7	TP1 TP2 TP4 TP26 TP28 TP29 TP30	7	tp_tp104_h.2	TP-104-01-02 PRESS MOUNT TERMINAL - RED
47	TPDUAL	TOP-16	TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP18 TP19 TP20 TP21 TP22 TP23 TP25 TP27	16	tpdual_.1_p4	TP_DUAL DUAL TEST PADS (THRU HOLE)
48	901613	TOP-3	TP3 TP9 TP24	3	tp_tp104_h.2	TP-104-01-00 PRESS MOUNT TERMINAL - BLACK
49	252301	TOP-4	TP5 TP6 TP7 TP8	4	post_1-87022	1-87022-0 AMPMODU Mod I And II Posts
50	3H5151	TOP-3	U1 U3 U38	3	tssop20_.225	74LVC541 BUFFER/DRIVER, OCTAL, W/ 3-STATE OUTPUT
51	1E3736	TOP-1	U10	1	qfp144_.0197	EPF10K30ATC144-10 FPGA, FLEX 10KA, EPF10K30ATC144-3
52	7B9962	TOP-4 BOT-6	U11 U13 U15 U16 U23 U25 U26 U30 U33 U34	10	cn1j8_.048_h	47 Ohms_.05 SMT, 4 ISOLATED RESISTORS
53	7E9108	TOP-1	U14	1	clcc56_.0197	KSC-1000 CUSTOM ASIC, CCD TIMING GENERATOR
54	1E5789	TOP-1	U17	1	xtal_f4100_h	F4100-40MHZ 40.000 MHz 3.3V HCMOS SMD OSC., FIXED FREQ
55	5C2040	TOP-2	U18 U19	2	so08_.210_h.	OPA642 OPAMP, SINGLE, BIPOLAR, WIDEBAND, LOW-DISTORTION
56	263526	TOP-1	U2	1	so14_.210_h.	74HC14 INVERTER, HEX, W/ SCHMITT TRIGGER
57	7E7671	BOT-2	U28 U32	2	qfp48_.0197_	AD9845AJST CCD SIGNAL PROCESSOR, 12-BIT, 30 MSPS
58	283585	BOT-4	U39 U40 U41 U42	4	som16_.250_h	4.7K Ohms_.02 THICK FILM RESISTOR NETWORKS

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5051

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
DR. XXXX DATE
DES. ENG. BPF PKG. MATL.
CK. DFTG. PCS MFG. ENG.
ORIG. CHG. NO. RELEASED
SKETCH NO. DWG. SIZE B
3F5051
SHEET 5 NEXT SHEET 6

Components
For Circuit Board Assembly

NO. 3F5051
SHEET 6 NEXT SHEET 7

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
59	SG_EPROM	TOP-1	U4	1	plcc20_.050_	PROGRAMMED PART RAW 2E7622
60	2E7640	TOP-6 BOT-6	U5 U6 U7 U8 U9 U12 U22 U24 U27 U29 U31 U35	12	so16_.210_h.	DS90LV047ATM DIFFERENTIAL LINE DRIVER, QUAD
61	4B4595	TOP-2	VR1 VR3	2	d2pak_goio_b	LT1086CM-3.3 1.5A_4.5-20V_3.3V VOLTAGE REGULATOR, 3.3V, 1.5A, 3-T
62	6E8811	TOP-1	VR2	1	sot223_goio_	LMS8117AMP-1.8 1A_3.2-10V_1.8V VOLTAGE REGULATOR, 1.8V, 1A, 3-TER
63	237927	BOT-1	C156	1NL	0805_h.055	NO LOAD 5.1pF_50V_.50pF MONOLITHIC, CERAMIC CHIP
64	8B0881	TOP-1	J1	1NL	j08ra_52745-	NO LOAD 52745-0890 FLAT FLEX. CABLE CONN., RIGHT ANGLE RECEPTACL
65	6C4636	BOT-1	J8	1NL	j01s_414244-	NO LOAD 414244-1 RF COAXIAL RECEPTACLE
66	5C3445	TOP-1	Q1	1NL	sot23_iog_sp	NO LOAD DTC363EK TRANSISTOR, NPN, 20V, W/ BUILT-IN RESISTORS
67	7B8917	TOP-2 BOT-5	R13 R24 R51 R56 R57 R63 R64	7NL	0603_h.025	NO LOAD 0.05 Ohms_.063W_.05 Zero Ohm,FLAT, THICK METAL FILM, CHIP
68	254479	BOT-1	R49	1NL	0805_h.030	NO LOAD 1Meg Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
69	G11280	TOP-1	Y1	1NL	xtal_fcx-04_	NO LOAD FCX-04 56M SMD CRYSTAL LOW

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5051

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor		FIRST USED ON
		NAME CIRCUIT BOARD ASSEMBLY KSC-1000 TIMING GEN EVAL BD
DR. XXXX	DATE	
DES. ENG. BPF	PKG. MATL.	SKETCH NO. DWG. SIZE B
CK. DFTG. PCS	MFG. ENG.	3F5051
ORIG. CHG. NO. RELEASED		SHEET 6 NEXT SHEET 7

Components
For Circuit Board Assembly

NO. 3F5052
SHEET 1 NEXT SHEET 2

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
1	3F5050	HW-T-1	BRD1	1		BARE BOARD REV 1
2	1E3959	TOP-1	C10	1	case_d_h.125	47uF_20V_.20 ELECTROLYTIC TANTALUM CAPACITOR
3	5E6858	TOP-1 BOT-1	C13 C86	2	pcap_6032_c_	10uF_25V_.10 ELECTROLYTIC TANTALUM CHIP
4	1E4710	BOT-1	C142	1	0603_h.035	0.001uF_50V_.10 SMT CERAMIC MONOLITHIC CAPACITOR
5	4B3745	BOT-7	C149 C151 C152 C153 C157 C158 C162	7	0603_h.045	0.01uF_50V_.10 CERAMIC MONOLITHIC CHIP
6	233824	BOT-1	C154	1	case_d_h.130	22uF_16V_.20 TANTALUM ELECTROLYTIC CAPACITOR
7	237927	BOT-1	C155	1	0805_h.055	5.1pF_50V_.50pF MONOLITHIC, CERAMIC CHIP
8	8B0986	TOP-2	C18 C23	2	case_c_h.110	22uF_16V_.20 ELECTROLYTIC TANTALUM CHIP
9	980646	TOP-7 BOT-19	C21 C27 C35 C44 C55 C63 C84 C8 C90 C95 C104 C107 C108 C115 C122 C124 C130 C140 C165 C166 C171 C172 C173 C174 C181 C182	26	0805_h.055	0.01uF_50V_.10 MONOLITHIC, CERAMIC CHIP
10	258541	TOP-2 BOT-7	C24 C32 C87 C88 C92 C97 C159 C176 C179	9	case_c_h.110	10uF_20V_.20 ELECTROLYTIC TANTALUM CHIP
11	7B9272	TOP-7 BOT-1	C3 C11 C16 C17 C22 C25 C31 C103	8	0805_h.055	0.22uF_16V_.10 CERAMIC CHIP
12	4B4011	TOP-1 BOT-17	C33 C118 C119 C120 C121	18	0603_h.035	0.1uF_16V_.20 RECOMMENDED DECOUPLING CAP

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5052

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
DR. XXXX DATE
DES. ENG. BPF PKG. MATL.
CK. DFTG. PCS MFG. ENG.
ORIG. CHG. NO. RELEASED
SKETCH NO. DWG. SIZE B
3F5052
SHEET 1 NEXT SHEET 2

Components
For Circuit Board Assembly

NO. 3F5052
SHEET 2 NEXT SHEET 3

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
			C126 C127 C132 C135 C138 C139 C143 C144 C145 C146 C147 C150 C161			
13	335666	TOP-16	C38 C41 C49 C51 C52 C53 C58 C61 C65 C69 C70 C73 C76 C77 C78 C81	20	case_a_h.075	4.7uF_10V_.20 ELECTROLYTIC, TANTALUM CHIP
		BOT-4	C169 C170 C184 C185			
14	7B9716	TOP-23	C4 C5 C12 C14 C19 C26 C34 C37 C39 C40 C42 C43 C46 C50 C54 C57 C62 C66 C67 C68 C74 C75 C83	45	0805_h.055	0.1uF_50V_.10 Ceramic Monolithic Chip
		BOT-22	C9 C91 C96 C99 C101 C105 C109 C111 C112 C123 C125 C129 C141 C160 C163 C167 C168 C175 C177 C178 C180 C183			
15	254471	TOP-8	C47 C48 C59 C60 C71 C72 C79 C80	11	0805_h.055	1000pF_50V_.05 MONOLITHIC, CERAMIC CHIP
		BOT-3	C93 C98 C187			
16	4B4492	TOP-9	C6 C15 C20 C28 C36 C45 C56 C64 C85	25	0805_h.055	1000pF_50V_.20 MONOLITHIC, CERAMIC CHIP
		BOT-16	C89 C94 C100 C102 C106 C110 C113 C114 C116 C117 C128 C131 C133 C134 C136 C148			
17	232271	TOP-3	C7 C29 C30	5	case_c_h.110	10uF_16V_.20 ELECTROLYTIC, TANTALUM
		BOT-2	C137 C164			
18	616293	TOP-1	CR1	1	sot23_akn_sp	MMBD914LT1 DIODE, SWITCHING, 100V, 200mA
19	233152	TOP-21	FB1 FB2 FB4 FB5 FB6 FB7 FB8 FB9 FB10 FB11	26	fb_274301944	2743019447 - FERRITE, SMT BEADS

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5052

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
DR. XXXX DATE
DES. ENG. BPF PKG. MATL.
CK. DFTG. PCS MFG. ENG.
ORIG. CHG. NO. RELEASED

FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
SKETCH NO. DWG. SIZE B
3F5052
SHEET 2 NEXT SHEET 3

Components
For Circuit Board Assembly

NO. 3F5052
SHEET 3 NEXT SHEET 4

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
		BOT-5	FB12 FB13 FB14 FB15 FB16 FB17 FB18 FB19 FB20 FB21 FB22 FB23 FB24 FB25 FB26 FB27			
20	9B6752	TOP-1 BOT-1	FB3 FB28	2	fb_blm11_h.0	BLM11A601SPT - FERRITE, SMT BEADS
21	5C3152	TOP-1	J10	1	j100ra_78708	787082-9 AMPLIMITE VERTICLE RECEPTICLE CONNECTOR
22	954067	TOP-1	J2	1	p10s_103309-	103309-1 LOW PROFILE STRAIGHT HEADER
23	7E7653	TOP-1	J3	1	p08ra_151321	151321 RIGHT ANGLE HEADER CONNECTOR
24	7E7515	TOP-1	J4	1	p02s_103321-	103321-2 STRAIGHT HEADER CONNECTOR
25	999979	TOP-1	J6	1	p80s_104549-	104549-9 SMT, AMPMODU, SHROUDED HEADER CONNECTOR
26	7E7514	TOP-1	J7	1	p40s_103309-	103309-8 LOW PROFILE STRAIGHT HEADER
27	6C4636	TOP-2	J9 J11	2	j01s_414244-	414244-1 RF COAXIAL RECEPTACLE
28	1E1112	BOT-6	L1 L2 L3 L4 L5 L6	6	ind_1008cs_h	2.2uH SMT WIREWOUND ENCAPSULATED
29	7E7662	TOP-1	P1	1	p05s_103321-	103321-0 STRAIGHT HEADER CONNECTOR
30	283602	TOP-2 BOT-1	R1 R5 R67	3	0805_h.030	100 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
31	7B8917	TOP-10 BOT-6	R10 R11 R12 R14 R15 R17 R18 R19 R22 R23 R47 R48 R50 R53 R54 R55	16	0603_h.025	0.05 Ohms_.063W_.05 Zero Ohm,FLAT, THICK METAL FILM, CHIP
32	253549	TOP-8	R2 R3 R8 R9 R16 R20 R25 R27	14	0805_h.030	4.7K Ohms_.100W_.05 THICK METAL FILM

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5052

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor		FIRST USED ON
		NAME CIRCUIT BOARD ASSEMBLY
DR. XXXX	DATE	KSC-1000 TIMING GEN EVAL BD
DES. ENG. BPF	PKG. MATL.	SKETCH NO. DWG. SIZE B
CK. DFTG. PCS	MFG. ENG.	3F5052
ORIG. CHG. NO. RELEASED		SHEET 3 NEXT SHEET 4

Components
For Circuit Board Assembly

NO. 3F5052
SHEET 4 NEXT SHEET 5

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
		BOT-6	R36 R37 R39 R40 R41 R44			
33	954554	TOP-2	R21 R26	2	0805_h.030	75 Ohms_.100W_.01 SMT CHIP FLAT THICK METAL FILM
34	902564	BOT-4	R28 R30 R31 R32	4	0805_h.025	1K Ohms_.100W_.01 FLAT, THICK METAL FILM CHIP
35	2B4333	BOT-1	R29	1	0603_h.025	10K Ohms_.063W_.01 FLAT, THICK METAL FILM, CHIP
36	233981	BOT-1	R34	1	0805_h.025	10K Ohms_.100W_.01 FLAT, THICK METAL FILM CHIP
37	992865	BOT-5	R38 R43 R45 R59 R65	5	0805_h.020	1K Ohms_.100W_.001 FLAT, THIN METAL FILM, CHIP
38	2B1420	BOT-1	R42	1	0603_h.025	10 Ohms_.063W_.05 FLAT, THICK METAL FILM, CHIP
39	G11318	BOT-1	R46	1	0805_h.020	30 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
40	257516	BOT-1	R52	1	0805_h.030	0.05 Ohms_.100W_- ZERO OHM CHIP JUMPER
41	902504	BOT-2	R58 R61	2	0805_h.030	249 Ohms_.100W_.01 SMT CHIP FLAT THICK METAL FILM
42	255345	BOT-2	R60 R62	2	0805_h.030	22 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
43	2E7622	TOP-1	RU4	REF	plcc20_.050_	EPC2LC20 CONFIGURATION EPROM FOR PLDS, 1.6M
44	449610	TOP-1	S1	1	sw_tpa11cgpc	TPA11CGPC0 TP/TPA SERIES PUSHBUTTON SWITCH
45	7E7503	TOP-2	S2 S3	2	sw_tda04_h.0	TDA04H0SK1 DIP SWITCH, TOP SLIDE ACTUATED

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5052

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
DR. XXXX
DATE
DES. ENG. BPF
PKG. MATL.
CK. DFTG. PCS
MFG. ENG.
ORIG. CHG. NO. RELEASED
SKETCH NO.
DWG. SIZE B
3F5052
SHEET 4 NEXT SHEET 5

Components
For Circuit Board Assembly

NO. 3F5052
SHEET 5 NEXT SHEET 6

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
46	901614	TOP-7	TP1 TP2 TP4 TP26 TP28 TP29 TP30	7	tp_tp104_h.2	TP-104-01-02 PRESS MOUNT TERMINAL - RED
47	TPDUAL	TOP-16	TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP18 TP19 TP20 TP21 TP22 TP23 TP25 TP27	16	tpdual_.1_p4	TP_DUAL DUAL TEST PADS (THRU HOLE)
48	901613	TOP-3	TP3 TP9 TP24	3	tp_tp104_h.2	TP-104-01-00 PRESS MOUNT TERMINAL - BLACK
49	252301	TOP-4	TP5 TP6 TP7 TP8	4	post_1-87022	1-87022-0 AMPMODU Mod I And II Posts
50	3H5151	TOP-3	U1 U3 U38	3	tssop20_.225	74LVC541 BUFFER/DRIVER, OCTAL, W/ 3-STATE OUTPUT
51	1E3736	TOP-1	U10	1	qfp144_.0197	EPF10K30ATC144-10 FPGA, FLEX 10KA, EPF10K30ATC144-3
52	7B9962	TOP-4 BOT-6	U11 U13 U15 U16 U23 U25 U26 U30 U33 U34	10	cn1j8_.048_h	47 Ohms_.05 SMT, 4 ISOLATED RESISTORS
53	7E9108	TOP-1	U14	1	clcc56_.0197	KSC-1000 CUSTOM ASIC, CCD TIMING GENERATOR
54	7E9080	TOP-1	U17	1	xtal_f4100_h	56MHZ 56.000 MHz 3.3V HCMOS SMD OSC., FIXED FREQ
55	5C2040	TOP-2	U18 U19	2	so08_.210_h.	OPA642 OPAMP, SINGLE, BIPOLAR, WIDEBAND, LOW-DISTORTION
56	263526	TOP-1	U2	1	so14_.210_h.	74HC14 INVERTER, HEX, W/ SCHMITT TRIGGER
57	7E7671	BOT-2	U28 U32	2	qfp48_.0197_	AD9845AJST CCD SIGNAL PROCESSOR, 12-BIT, 30 MSPS
58	283585	BOT-4	U39 U40 U41 U42	4	som16_.250_h	4.7K Ohms_.02 THICK FILM RESISTOR NETWORKS

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5052

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
DR. XXXX DATE
DES. ENG. BPF PKG. MATL.
CK. PCS DFTG. MFG. ENG.
ORIG. CHG. NO. RELEASED
FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
SKETCH NO. DWG. SIZE B
3F5052
SHEET 5 NEXT SHEET 6

Components
For Circuit Board Assembly

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
59	SG_EPROM	TOP-1	U4	1	plcc20_.050_	PROGRAMMED PART RAW 2E7622
60	2E7640	TOP-6 BOT-6	U5 U6 U7 U8 U9 U12 U22 U24 U27 U29 U31 U35	12	so16_.210_h.	DS90LV047ATM DIFFERENTIAL LINE DRIVER, QUAD
61	4B4595	TOP-2	VR1 VR3	2	d2pak_goio_b	LT1086CM-3.3 1.5A_4.5-20V_3.3V VOLTAGE REGULATOR, 3.3V, 1.5A, 3-T
62	6E8811	TOP-1	VR2	1	sot223_goio_	LMS8117AMP-1.8 1A_3.2-10V_1.8V VOLTAGE REGULATOR, 1.8V, 1A, 3-TER
63	237927	BOT-1	C156	1NL	0805_h.055	NO LOAD 5.1pF_50V_.50pF MONOLITHIC, CERAMIC CHIP
64	8B0881	TOP-1	J1	1NL	j08ra_52745-	NO LOAD 52745-0890 FLAT FLEX. CABLE CONN., RIGHT ANGLE RECEPTACL
65	6C4636	BOT-1	J8	1NL	j01s_414244-	NO LOAD 414244-1 RF COAXIAL RECEPTACLE
66	5C3445	TOP-1	Q1	1NL	sot23_iog_sp	NO LOAD DTC363EK TRANSISTOR, NPN, 20V, W/ BUILT-IN RESISTORS
67	7B8917	TOP-2 BOT-5	R13 R24 R51 R56 R57 R63 R64	7NL	0603_h.025	NO LOAD 0.05 Ohms_.063W_.05 Zero Ohm,FLAT, THICK METAL FILM, CHIP
68	254479	BOT-1	R49	1NL	0805_h.030	NO LOAD 1Meg Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
69	G11280	TOP-1	Y1	1NL	xtal_fcx-04_	NO LOAD FCX-04 56M SMD CRYSTAL LOW

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5052

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
DR. XXXX DATE
DES. ENG. BPF PKG. MATL.
CK. PCS DFTG. MFG. ENG.
ORIG. CHG. NO. RELEASED
SKETCH NO. DWG. SIZE B
3F5052
SHEET 6 NEXT SHEET 7

Components
For Circuit Board Assembly

NO. 3F5053
SHEET 1 NEXT SHEET 2

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
1	3F5050	HW-T-1	BRD1	1		BARE BOARD REV 1
2	1E3959	TOP-1	C10	1	case_d_h.125	47uF_20V_.20 ELECTROLYTIC TANTALUM CAPACITOR
3	5E6858	TOP-1 BOT-1	C13 C86	2	pcap_6032_c_	10uF_25V_.10 ELECTROLYTIC TANTALUM CHIP
4	1E4710	BOT-1	C142	1	0603_h.035	0.001uF_50V_.10 SMT CERAMIC MONOLITHIC CAPACITOR
5	4B3745	BOT-7	C149 C151 C152 C153 C157 C158 C162	7	0603_h.045	0.01uF_50V_.10 CERAMIC MONOLITHIC CHIP
6	233824	BOT-1	C154	1	case_d_h.130	22uF_16V_.20 TANTALUM ELECTROLYTIC CAPACITOR
7	237927	BOT-1	C155	1	0805_h.055	5.1pF_50V_.50pF MONOLITHIC, CERAMIC CHIP
8	8B0986	TOP-2	C18 C23	2	case_c_h.110	22uF_16V_.20 ELECTROLYTIC TANTALUM CHIP
9	980646	TOP-7 BOT-19	C21 C27 C35 C44 C55 C63 C84 C8 C90 C95 C104 C107 C108 C115 C122 C124 C130 C140 C165 C166 C171 C172 C173 C174 C181 C182	26	0805_h.055	0.01uF_50V_.10 MONOLITHIC, CERAMIC CHIP
10	258541	TOP-2 BOT-7	C24 C32 C87 C88 C92 C97 C159 C176 C179	9	case_c_h.110	10uF_20V_.20 ELECTROLYTIC TANTALUM CHIP
11	7B9272	TOP-7 BOT-1	C3 C11 C16 C17 C22 C25 C31 C103	8	0805_h.055	0.22uF_16V_.10 CERAMIC CHIP
12	4B4011	TOP-1 BOT-17	C33 C118 C119 C120 C121	18	0603_h.035	0.1uF_16V_.20 RECOMMENDED DECOUPLING CAP

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5053

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor

FIRST USED ON

NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD

DR. XXXX DATE

DES. ENG. BPF PKG. MATL.

CK. DFTG. PCS MFG. ENG.

ORIG. CHG. NO.
RELEASED

SKETCH NO. DWG. SIZE B

3F5053

SHEET 1 NEXT SHEET 2

Components
For Circuit Board Assembly

NO. 3F5053
SHEET 2 NEXT SHEET 3

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
			C126 C127 C132 C135 C138 C139 C143 C144 C145 C146 C147 C150 C161			
13	335666	TOP-16	C38 C41 C49 C51 C52 C53 C58 C61 C65 C69 C70 C73 C76 C77 C78 C81	20	case_a_h.075	4.7uF_10V_.20 ELECTROLYTIC, TANTALUM CHIP
		BOT-4	C169 C170 C184 C185			
14	7B9716	TOP-23	C4 C5 C12 C14 C19 C26 C34 C37 C39 C40 C42 C43 C46 C50 C54 C57 C62 C66 C67 C68 C74 C75 C83	45	0805_h.055	0.1uF_50V_.10 Ceramic Monolithic Chip
		BOT-22	C9 C91 C96 C99 C101 C105 C109 C111 C112 C123 C125 C129 C141 C160 C163 C167 C168 C175 C177 C178 C180 C183			
15	254471	TOP-8	C47 C48 C59 C60 C71 C72 C79 C80	11	0805_h.055	1000pF_50V_.05 MONOLITHIC, CERAMIC CHIP
		BOT-3	C93 C98 C187			
16	4B4492	TOP-9	C6 C15 C20 C28 C36 C45 C56 C64 C85	25	0805_h.055	1000pF_50V_.20 MONOLITHIC, CERAMIC CHIP
		BOT-16	C89 C94 C100 C102 C106 C110 C113 C114 C116 C117 C128 C131 C133 C134 C136 C148			
17	232271	TOP-3	C7 C29 C30	5	case_c_h.110	10uF_16V_.20 ELECTROLYTIC, TANTALUM
		BOT-2	C137 C164			
18	616293	TOP-1	CR1	1	sot23_akn_sp	MMBD914LT1 DIODE, SWITCHING, 100V, 200mA
19	233152	TOP-21	FB1 FB2 FB4 FB5 FB6 FB7 FB8 FB9 FB10 FB11	26	fb_274301944	2743019447 - FERRITE, SMT BEADS

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5053

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor	FIRST USED ON
DR. XXXX	DATE
DES. ENG. BPF	PKG. MATL.
CK. DFTG. PCS	MFG. ENG.
ORIG. CHG. NO. RELEASED	

NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
SKETCH NO. DWG. SIZE B
3F5053
SHEET 2 NEXT SHEET 3

Components
For Circuit Board Assembly

NO. 3F5053

SHEET 3 NEXT SHEET 4

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
		BOT-5	FB12 FB13 FB14 FB15 FB16 FB17 FB18 FB19 FB20 FB21 FB22 FB23 FB24 FB25 FB26 FB27			
20	9B6752	TOP-1 BOT-1	FB3 FB28	2	fb_blm11_h.0	BLM11A601SPT - FERRITE, SMT BEADS
21	5C3152	TOP-1	J10	1	j100ra_78708	787082-9 AMPLIMITE VERTICLE RECEPTICLE CONNECTOR
22	954067	TOP-1	J2	1	p10s_103309-	103309-1 LOW PROFILE STRAIGHT HEADER
23	7E7653	TOP-1	J3	1	p08ra_151321	151321 RIGHT ANGLE HEADER CONNECTOR
24	7E7515	TOP-1	J4	1	p02s_103321-	103321-2 STRAIGHT HEADER CONNECTOR
25	999979	TOP-1	J6	1	p80s_104549-	104549-9 SMT, AMPMODU, SHROUDED HEADER CONNECTOR
26	7E7514	TOP-1	J7	1	p40s_103309-	103309-8 LOW PROFILE STRAIGHT HEADER
27	6C4636	TOP-2	J9 J11	2	j01s_414244-	414244-1 RF COAXIAL RECEPTACLE
28	1E1112	BOT-6	L1 L2 L3 L4 L5 L6	6	ind_1008cs_h	2.2uH SMT WIREWOUND ENCAPSULATED
29	7E7662	TOP-1	P1	1	p05s_103321-	103321-0 STRAIGHT HEADER CONNECTOR
30	283602	TOP-2 BOT-1	R1 R5 R67	3	0805_h.030	100 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
31	7B8917	TOP-10 BOT-6	R10 R11 R12 R14 R15 R17 R18 R19 R22 R23 R47 R48 R50 R53 R54 R55	16	0603_h.025	0.05 Ohms_.063W_.05 Zero Ohm,FLAT, THICK METAL FILM, CHIP
32	253549	TOP-8	R2 R3 R8 R9 R16 R20 R25 R27	14	0805_h.030	4.7K Ohms_.100W_.05 THICK METAL FILM

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5053

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor		FIRST USED ON
		NAME CIRCUIT BOARD ASSEMBLY KSC-1000 TIMING GEN EVAL BD
DR. XXXX	DATE	
DES. ENG. BPF	PKG. MATL.	SKETCH NO. DWG. SIZE B
CK. DFTG. PCS	MFG. ENG.	3F5053
ORIG. CHG. NO. RELEASED		SHEET 3 NEXT SHEET 4

Components
For Circuit Board Assembly

NO. 3F5053
SHEET 4 NEXT SHEET 5

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
		BOT-6	R36 R37 R39 R40 R41 R44			
33	954554	TOP-2	R21 R26	2	0805_h.030	75 Ohms_.100W_.01 SMT CHIP FLAT THICK METAL FILM
34	902564	BOT-4	R28 R30 R31 R32	4	0805_h.025	1K Ohms_.100W_.01 FLAT, THICK METAL FILM CHIP
35	2B4333	BOT-1	R29	1	0603_h.025	10K Ohms_.063W_.01 FLAT, THICK METAL FILM, CHIP
36	233981	BOT-1	R34	1	0805_h.025	10K Ohms_.100W_.01 FLAT, THICK METAL FILM CHIP
37	992865	BOT-5	R38 R43 R45 R59 R65	5	0805_h.020	1K Ohms_.100W_.001 FLAT, THIN METAL FILM, CHIP
38	2B1420	BOT-1	R42	1	0603_h.025	10 Ohms_.063W_.05 FLAT, THICK METAL FILM, CHIP
39	G11318	BOT-1	R46	1	0805_h.020	30 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
40	257516	BOT-1	R52	1	0805_h.030	0.05 Ohms_.100W_- ZERO OHM CHIP JUMPER
41	902504	BOT-2	R58 R61	2	0805_h.030	249 Ohms_.100W_.01 SMT CHIP FLAT THICK METAL FILM
42	255345	BOT-2	R60 R62	2	0805_h.030	22 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
43	2E7622	TOP-1	RU4	REF	plcc20_.050_	EPC2LC20 CONFIGURATION EPROM FOR PLDS, 1.6M
44	449610	TOP-1	S1	1	sw_tpa11cgpc	TPA11CGPC0 TP/TPA SERIES PUSHBUTTON SWITCH
45	7E7503	TOP-2	S2 S3	2	sw_tda04_h.0	TDA04H0SK1 DIP SWITCH, TOP SLIDE ACTUATED

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5053

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor		FIRST USED ON
		NAME CIRCUIT BOARD ASSEMBLY KSC-1000 TIMING GEN EVAL BD
DR. XXXX	DATE	
DES. ENG. BPF	PKG. MATL.	SKETCH NO. DWG. SIZE B
CK. DFTG. PCS	MFG. ENG.	3F5053
ORIG. CHG. NO. RELEASED		SHEET 4 NEXT SHEET 5

Components
For Circuit Board Assembly

NO. 3F5053

SHEET 5 NEXT SHEET 6

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
46	901614	TOP-7	TP1 TP2 TP4 TP26 TP28 TP29 TP30	7	tp_tp104_h.2	TP-104-01-02 PRESS MOUNT TERMINAL - RED
47	TPDUAL	TOP-16	TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP18 TP19 TP20 TP21 TP22 TP23 TP25 TP27	16	tpdual_.1_p4	TP_DUAL DUAL TEST PADS (THRU HOLE)
48	901613	TOP-3	TP3 TP9 TP24	3	tp_tp104_h.2	TP-104-01-00 PRESS MOUNT TERMINAL - BLACK
49	252301	TOP-4	TP5 TP6 TP7 TP8	4	post_1-87022	1-87022-0 AMPMODU Mod I And II Posts
50	3H5151	TOP-3	U1 U3 U38	3	tssop20_.225	74LVC541 BUFFER/DRIVER, OCTAL, W/ 3-STATE OUTPUT
51	1E3736	TOP-1	U10	1	qfp144_.0197	EPF10K30ATC144-10 FPGA, FLEX 10KA, EPF10K30ATC144-3
52	7B9962	TOP-4 BOT-6	U11 U13 U15 U16 U23 U25 U26 U30 U33 U34	10	cn1j8_.048_h	47 Ohms_.05 SMT, 4 ISOLATED RESISTORS
53	7E9108	TOP-1	U14	1	clcc56_.0197	KSC-1000 CUSTOM ASIC, CCD TIMING GENERATOR
54	2E4592	TOP-1	U17	1	xtal_f4100_h	F4100-60MHZ 60.000 MHz 3.3V HCMOS SMD OSC., FIXED FREQ
55	5C2040	TOP-2	U18 U19	2	so08_.210_h.	OPA642 OPAMP, SINGLE, BIPOLAR, WIDEBAND, LOW-DISTORTION
56	263526	TOP-1	U2	1	so14_.210_h.	74HC14 INVERTER, HEX, W/ SCHMITT TRIGGER
57	7E7671	BOT-2	U28 U32	2	qfp48_.0197_	AD9845AJST CCD SIGNAL PROCESSOR, 12-BIT, 30 MSPS
58	283585	BOT-4	U39 U40 U41 U42	4	som16_.250_h	4.7K Ohms_.02 THICK FILM RESISTOR NETWORKS

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5053

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor

FIRST USED ON

NAME CIRCUIT BOARD ASSEMBLY

KSC-1000 TIMING GEN EVAL BD

DR. XXXX DATE

DES. ENG. BPF PKG. MATL.

CK. DFTG. PCS MFG. ENG.

ORIG. CHG. NO. RELEASED

SKETCH NO. DWG. SIZE B

3F5053

SHEET 5 NEXT SHEET 6

Components
For Circuit Board Assembly

NO. 3F5053
SHEET 6 NEXT SHEET 7

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
59	SG_EPROM	TOP-1	U4	1	plcc20_.050_	PROGRAMMED PART RAW 2E7622
60	2E7640	TOP-6 BOT-6	U5 U6 U7 U8 U9 U12 U22 U24 U27 U29 U31 U35	12	so16_.210_h.	DS90LV047ATM DIFFERENTIAL LINE DRIVER, QUAD
61	4B4595	TOP-2	VR1 VR3	2	d2pak_goio_b	LT1086CM-3.3 1.5A_4.5-20V_3.3V VOLTAGE REGULATOR, 3.3V, 1.5A, 3-T
62	6E8811	TOP-1	VR2	1	sot223_goio_	LMS8117AMP-1.8 1A_3.2-10V_1.8V VOLTAGE REGULATOR, 1.8V, 1A, 3-TER
63	237927	BOT-1	C156	1NL	0805_h.055	NO LOAD 5.1pF_50V_.50pF MONOLITHIC, CERAMIC CHIP
64	8B0881	TOP-1	J1	1NL	j08ra_52745-	NO LOAD 52745-0890 FLAT FLEX. CABLE CONN., RIGHT ANGLE RECEPTACL
65	6C4636	BOT-1	J8	1NL	j01s_414244-	NO LOAD 414244-1 RF COAXIAL RECEPTACLE
66	5C3445	TOP-1	Q1	1NL	sot23_iog_sp	NO LOAD DTC363EK TRANSISTOR, NPN, 20V, W/ BUILT-IN RESISTORS
67	7B8917	TOP-2 BOT-5	R13 R24 R51 R56 R57 R63 R64	7NL	0603_h.025	NO LOAD 0.05 Ohms_.063W_.05 Zero Ohm,FLAT, THICK METAL FILM, CHIP
68	254479	BOT-1	R49	1NL	0805_h.030	NO LOAD 1Meg Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
69	G11280	TOP-1	Y1	1NL	xtal_fcx-04_	NO LOAD FCX-04 56M SMD CRYSTAL LOW

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5053

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor

DR. XXXX	DATE	FIRST USED ON
DES. ENG. BPF	PKG. MATL.	NAME CIRCUIT BOARD ASSEMBLY KSC-1000 TIMING GEN EVAL BD
CK. DFTG. PCS	MFG. ENG.	SKETCH NO. 3F5053 — DWG. SIZE B
ORIG. CHG. NO. RELEASED		SHEET 6 NEXT SHEET 7

Components
For Circuit Board Assembly

NO. 3F5054
SHEET 1 NEXT SHEET 2

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
1	3F5050	HW-T-1	BRD1	1		BARE BOARD REV 1
2	1E3959	TOP-1	C10	1	case_d_h.125	47uF_20V_.20 ELECTROLYTIC TANTALUM CAPACITOR
3	5E6858	TOP-1 BOT-1	C13 C86	2	pcap_6032_c_	10uF_25V_.10 ELECTROLYTIC TANTALUM CHIP
4	1E4710	BOT-1	C142	1	0603_h.035	0.001uF_50V_.10 SMT CERAMIC MONOLITHIC CAPACITOR
5	4B3745	BOT-7	C149 C151 C152 C153 C157 C158 C162	7	0603_h.045	0.01uF_50V_.10 CERAMIC MONOLITHIC CHIP
6	233824	BOT-1	C154	1	case_d_h.130	22uF_16V_.20 TANTALUM ELECTROLYTIC CAPACITOR
7	237927	BOT-1	C155	1	0805_h.055	5.1pF_50V_.50pF MONOLITHIC, CERAMIC CHIP
8	8B0986	TOP-2	C18 C23	2	case_c_h.110	22uF_16V_.20 ELECTROLYTIC TANTALUM CHIP
9	980646	TOP-7 BOT-19	C21 C27 C35 C44 C55 C63 C84 C8 C90 C95 C104 C107 C108 C115 C122 C124 C130 C140 C165 C166 C171 C172 C173 C174 C181 C182	26	0805_h.055	0.01uF_50V_.10 MONOLITHIC, CERAMIC CHIP
10	258541	TOP-2 BOT-7	C24 C32 C87 C88 C92 C97 C159 C176 C179	9	case_c_h.110	10uF_20V_.20 ELECTROLYTIC TANTALUM CHIP
11	7B9272	TOP-7 BOT-1	C3 C11 C16 C17 C22 C25 C31 C103	8	0805_h.055	0.22uF_16V_.10 CERAMIC CHIP
12	4B4011	TOP-1 BOT-17	C33 C118 C119 C120 C121	18	0603_h.035	0.1uF_16V_.20 RECOMMENDED DECOUPLING CAP

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5054

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor	FIRST USED ON
DR. XXXX DATE	NAME CIRCUIT BOARD ASSEMBLY KSC-1000 TIMING GEN EVAL BD
DES. ENG. BPF PKG. MATL.	SKETCH NO. DWG. SIZE B
CK. DFTG. PCS MFG. ENG.	3F5054
ORIG. CHG. NO. RELEASED	SHEET 1 NEXT SHEET 2

Components
For Circuit Board Assembly

NO. 3F5054

SHEET 2 NEXT SHEET 3

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
			C126 C127 C132 C135 C138 C139 C143 C144 C145 C146 C147 C150 C161			
13	335666	TOP-16	C38 C41 C49 C51 C52 C53 C58 C61 C65 C69 C70 C73 C76 C77 C78 C81	20	case_a_h.075	4.7uF_10V_.20 ELECTROLYTIC, TANTALUM CHIP
		BOT-4	C169 C170 C184 C185			
14	7B9716	TOP-23	C4 C5 C12 C14 C19 C26 C34 C37 C39 C40 C42 C43 C46 C50 C54 C57 C62 C66 C67 C68 C74 C75 C83	45	0805_h.055	0.1uF_50V_.10 Ceramic Monolithic Chip
		BOT-22	C9 C91 C96 C99 C101 C105 C109 C111 C112 C123 C125 C129 C141 C160 C163 C167 C168 C175 C177 C178 C180 C183			
15	254471	TOP-8	C47 C48 C59 C60 C71 C72 C79 C80	11	0805_h.055	1000pF_50V_.05 MONOLITHIC, CERAMIC CHIP
		BOT-3	C93 C98 C187			
16	4B4492	TOP-9	C6 C15 C20 C28 C36 C45 C56 C64 C85	25	0805_h.055	1000pF_50V_.20 MONOLITHIC, CERAMIC CHIP
		BOT-16	C89 C94 C100 C102 C106 C110 C113 C114 C116 C117 C128 C131 C133 C134 C136 C148			
17	232271	TOP-3	C7 C29 C30	5	case_c_h.110	10uF_16V_.20 ELECTROLYTIC, TANTALUM
		BOT-2	C137 C164			
18	616293	TOP-1	CR1	1	sot23_akn_sp	MMBD914LT1 DIODE, SWITCHING, 100V, 200mA
19	233152	TOP-21	FB1 FB2 FB4 FB5 FB6 FB7 FB8 FB9 FB10 FB11	26	fb_274301944	2743019447 - FERRITE, SMT BEADS

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5054

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor		FIRST USED ON
		NAME CIRCUIT BOARD ASSEMBLY
DR. XXXX	DATE	KSC-1000 TIMING GEN EVAL BD
DES. ENG. BPF	PKG. MATL.	SKETCH NO. DWG. SIZE B
CK. DFTG. PCS	MFG. ENG.	3F5054
ORIG. CHG. NO. RELEASED		SHEET 2 NEXT SHEET 3

Components
For Circuit Board Assembly

NO. 3F5054
SHEET 3 NEXT SHEET 4

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
		BOT-5	FB12 FB13 FB14 FB15 FB16 FB17 FB18 FB19 FB20 FB21 FB22 FB23 FB24 FB25 FB26 FB27			
20	9B6752	TOP-1 BOT-1	FB3 FB28	2	fb_blm11_h.0	BLM11A601SPT - FERRITE, SMT BEADS
21	5C3152	TOP-1	J10	1	j100ra_78708	787082-9 AMPLIMITE VERTICLE RECEPTICLE CONNECTOR
22	954067	TOP-1	J2	1	p10s_103309-	103309-1 LOW PROFILE STRAIGHT HEADER
23	7E7653	TOP-1	J3	1	p08ra_151321	151321 RIGHT ANGLE HEADER CONNECTOR
24	7E7515	TOP-1	J4	1	p02s_103321-	103321-2 STRAIGHT HEADER CONNECTOR
25	999979	TOP-1	J6	1	p80s_104549-	104549-9 SMT, AMPMODU, SHROUDED HEADER CONNECTOR
26	7E7514	TOP-1	J7	1	p40s_103309-	103309-8 LOW PROFILE STRAIGHT HEADER
27	6C4636	TOP-2	J9 J11	2	j01s_414244-	414244-1 RF COAXIAL RECEPTACLE
28	1E1112	BOT-6	L1 L2 L3 L4 L5 L6	6	ind_1008cs_h	2.2uH SMT WIREWOUND ENCAPSULATED
29	7E7662	TOP-1	P1	1	p05s_103321-	103321-0 STRAIGHT HEADER CONNECTOR
30	283602	TOP-2 BOT-1	R1 R5 R67	3	0805_h.030	100 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
31	7B8917	TOP-10 BOT-10	R10 R11 R12 R14 R15 R17 R18 R19 R22 R23 R47 R48 R50 R53 R54 R55 R56 R57 R63 R64	20	0603_h.025	0.05 Ohms_.063W_.05 Zero Ohm,FLAT, THICK METAL FILM, CHIP
32	253549	TOP-8	R2 R3 R8 R9 R16 R20 R25 R27	14	0805_h.030	4.7K Ohms_.100W_.05 THICK METAL FILM

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5054

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
DR. XXXX DATE
DES. ENG. BPF PKG. MATL.
CK. DFTG. PCS MFG. ENG.
ORIG. CHG. NO. RELEASED
SKETCH NO. DWG. SIZE B
3F5054
SHEET 3 NEXT SHEET 4

Components
For Circuit Board Assembly

NO. 3F5054
SHEET 4 NEXT SHEET 5

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
		BOT-6	R36 R37 R39 R40 R41 R44			
33	954554	TOP-2	R21 R26	2	0805_h.030	75 Ohms_.100W_.01 SMT CHIP FLAT THICK METAL FILM
34	902564	BOT-4	R28 R30 R31 R32	4	0805_h.025	1K Ohms_.100W_.01 FLAT, THICK METAL FILM CHIP
35	2B4333	BOT-1	R29	1	0603_h.025	10K Ohms_.063W_.01 FLAT, THICK METAL FILM, CHIP
36	233981	BOT-1	R34	1	0805_h.025	10K Ohms_.100W_.01 FLAT, THICK METAL FILM CHIP
37	992865	BOT-5	R38 R43 R45 R59 R65	5	0805_h.020	1K Ohms_.100W_.001 FLAT, THIN METAL FILM, CHIP
38	2B1420	BOT-1	R42	1	0603_h.025	10 Ohms_.063W_.05 FLAT, THICK METAL FILM, CHIP
39	G11318	BOT-1	R46	1	0805_h.020	30 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
40	257516	BOT-1	R52	1	0805_h.030	0.05 Ohms_.100W_- ZERO OHM CHIP JUMPER
41	902504	BOT-2	R58 R61	2	0805_h.030	249 Ohms_.100W_.01 SMT CHIP FLAT THICK METAL FILM
42	255345	BOT-2	R60 R62	2	0805_h.030	22 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
43	2E7622	TOP-1	RU4	REF	plcc20_.050_	EPC2LC20 CONFIGURATION EPROM FOR PLDS, 1.6M
44	449610	TOP-1	S1	1	sw_tpa11cgpc	TPA11CGPC0 TP/TPA SERIES PUSHBUTTON SWITCH
45	7E7503	TOP-2	S2 S3	2	sw_tda04_h.0	TDA04H0SK1 DIP SWITCH, TOP SLIDE ACTUATED

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5054

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor		FIRST USED ON
		NAME CIRCUIT BOARD ASSEMBLY
DR. XXXX	DATE	KSC-1000 TIMING GEN EVAL BD
DES. ENG. BPF	PKG. MATL.	SKETCH NO. DWG. SIZE B
CK. DFTG. PCS	MFG. ENG.	3F5054
ORIG. CHG. NO. RELEASED		SHEET 4 NEXT SHEET 5

Components
For Circuit Board Assembly

NO. 3F5054
SHEET 5 NEXT SHEET 6

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
46	901614	TOP-7	TP1 TP2 TP4 TP26 TP28 TP29 TP30	7	tp_tp104_h.2	TP-104-01-02 PRESS MOUNT TERMINAL - RED
47	TPDUAL	TOP-16	TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP18 TP19 TP20 TP21 TP22 TP23 TP25 TP27	16	tpdual_.1_p4	TP_DUAL DUAL TEST PADS (THRU HOLE)
48	901613	TOP-3	TP3 TP9 TP24	3	tp_tp104_h.2	TP-104-01-00 PRESS MOUNT TERMINAL - BLACK
49	252301	TOP-4	TP5 TP6 TP7 TP8	4	post_1-87022	1-87022-0 AMPMODU Mod I And II Posts
50	3H5151	TOP-3	U1 U3 U38	3	tssop20_.225	74LVC541 BUFFER/DRIVER, OCTAL, W/ 3-STATE OUTPUT
51	1E3736	TOP-1	U10	1	qfp144_.0197	EPF10K30ATC144-IO FPGA, FLEX 10KA, EPF10K30ATC144-3
52	7B9962	TOP-4 BOT-6	U11 U13 U15 U16 U23 U25 U26 U30 U33 U34	10	cn1j8_.048_h	47 Ohms_.05 SMT, 4 ISOLATED RESISTORS
53	7E9108	TOP-1	U14	1	clcc56_.0197	KSC-1000 CUSTOM ASIC, CCD TIMING GENERATOR
54	2E4591	TOP-1	U17	1	xtal_f4100_h	F4100-80.00MHZ 80.000 MHz 3.3V HCMOS SMD OSC., FIXED FREQ
55	5C2040	TOP-2	U18 U19	2	so08_.210_h.	OPA642 OPAMP, SINGLE, BIPOLAR, WIDEBAND, LOW-DISTORTION
56	263526	TOP-1	U2	1	so14_.210_h.	74HC14 INVERTER, HEX, W/ SCHMITT TRIGGER
57	5F1179	BOT-2	U28 U32	2	qfp48_.0197_	AD9840AJST CCD SIGNAL PROCESSOR, 10-BIT, 40 MSPS
58	283585	BOT-4	U39 U40 U41 U42	4	som16_.250_h	4.7K Ohms_.02 THICK FILM RESISTOR NETWORKS

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5054

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
DR. XXXX DATE
DES. ENG. BPF PKG. MATL.
CK. DFTG. PCS MFG. ENG.
ORIG. CHG. NO. RELEASED

FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
SKETCH NO. DWG. SIZE B
3F5054
SHEET 5 NEXT SHEET 6

Components
For Circuit Board Assembly

NO. 3F5054
SHEET 6 NEXT SHEET 7

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
59	SG_EPROM	TOP-1	U4	1	plcc20_.050_	PROGRAMMED PART RAW 2E7622
60	2E7640	TOP-6 BOT-6	U5 U6 U7 U8 U9 U12 U22 U24 U27 U29 U31 U35	12	so16_.210_h.	DS90LV047ATM DIFFERENTIAL LINE DRIVER, QUAD
61	4B4595	TOP-2	VR1 VR3	2	d2pak_goio_b	LT1086CM-3.3 1.5A_4.5-20V_3.3V VOLTAGE REGULATOR, 3.3V, 1.5A, 3-T
62	6E8811	TOP-1	VR2	1	sot223_goio_	LMS8117AMP-1.8 1A_3.2-10V_1.8V VOLTAGE REGULATOR, 1.8V, 1A, 3-TER
63	237927	BOT-1	C156	1NL	0805_h.055	NO LOAD 5.1pF_50V_.50pF MONOLITHIC, CERAMIC CHIP
64	8B0881	TOP-1	J1	1NL	j08ra_52745-	NO LOAD 52745-0890 FLAT FLEX. CABLE CONN., RIGHT ANGLE RECEPTACL
65	6C4636	BOT-1	J8	1NL	j01s_414244-	NO LOAD 414244-1 RF COAXIAL RECEPTACLE
66	5C3445	TOP-1	Q1	1NL	sot23_iog_sp	NO LOAD DTC363EK TRANSISTOR, NPN, 20V, W/ BUILT-IN RESISTORS
67	7B8917	TOP-2 BOT-1	R13 R24 R51	3NL	0603_h.025	NO LOAD 0.05 Ohms_.063W_.05 Zero Ohm,FLAT, THICK METAL FILM, CHIP
68	254479	BOT-1	R49	1NL	0805_h.030	NO LOAD 1Meg Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
69	G11280	TOP-1	Y1	1NL	xtal_fcx-04_	NO LOAD FCX-04 56M SMD CRYSTAL LOW

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5054

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor		FIRST USED ON
		NAME CIRCUIT BOARD ASSEMBLY KSC-1000 TIMING GEN EVAL BD
DR. XXXX	DATE	
DES. ENG. BPF	PKG. MATL.	SKETCH NO. DWG. SIZE B
CK. DFTG. PCS	MFG. ENG.	3F5054
ORIG. CHG. NO. RELEASED		SHEET 6 NEXT SHEET 7

Components
For Circuit Board Assembly

NO. 3F5579
SHEET 1 NEXT SHEET 2

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
1	3F5050	HW-T-1	BRD1	1		BARE BOARD REV 1
2	1E3959	TOP-1	C10	1	case_d_h.125	47uF_20V_.20 ELECTROLYTIC TANTALUM CAPACITOR
3	5E6858	TOP-1 BOT-1	C13 C86	2	pcap_6032_c_	10uF_25V_.10 ELECTROLYTIC TANTALUM CHIP
4	1E4710	BOT-1	C142	1	0603_h.035	0.001uF_50V_.10 SMT CERAMIC MONOLITHIC CAPACITOR
5	4B3745	BOT-7	C149 C151 C152 C153 C157 C158 C162	7	0603_h.045	0.01uF_50V_.10 CERAMIC MONOLITHIC CHIP
6	233824	BOT-1	C154	1	case_d_h.130	22uF_16V_.20 TANTALUM ELECTROLYTIC CAPACITOR
7	237927	BOT-1	C155	1	0805_h.055	5.1pF_50V_.50pF MONOLITHIC, CERAMIC CHIP
8	8B0986	TOP-2	C18 C23	2	case_c_h.110	22uF_16V_.20 ELECTROLYTIC TANTALUM CHIP
9	980646	TOP-7 BOT-19	C21 C27 C35 C44 C55 C63 C84 C8 C90 C95 C104 C107 C108 C115 C122 C124 C130 C140 C165 C166 C171 C172 C173 C174 C181 C182	26	0805_h.055	0.01uF_50V_.10 MONOLITHIC, CERAMIC CHIP
10	258541	TOP-2 BOT-7	C24 C32 C87 C88 C92 C97 C159 C176 C179	9	case_c_h.110	10uF_20V_.20 ELECTROLYTIC TANTALUM CHIP
11	7B9272	TOP-7 BOT-1	C3 C11 C16 C17 C22 C25 C31 C103	8	0805_h.055	0.22uF_16V_.10 CERAMIC CHIP
12	4B4011	TOP-1 BOT-17	C33 C118 C119 C120 C121	18	0603_h.035	0.1uF_16V_.20 RECOMMENDED DECOUPLING CAP

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5579

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor

DR. XXXX	DATE	FIRST USED ON
DES. ENG. BPF	PKG. MATL.	NAME CIRCUIT BOARD ASSEMBLY KSC-1000 TIMING GEN EVAL BD
CK. DFTG. PCS	MFG. ENG.	SKETCH NO. DWG. SIZE B
ORIG. CHG. NO. RELEASED		3F5579
		SHEET 1 NEXT SHEET 2

Components
For Circuit Board Assembly

NO. 3F5579
SHEET 2 NEXT SHEET 3

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
			C126 C127 C132 C135 C138 C139 C143 C144 C145 C146 C147 C150 C161			
13	335666	TOP-16 BOT-4	C38 C41 C49 C51 C52 C53 C58 C61 C65 C69 C70 C73 C76 C77 C78 C81 C169 C170 C184 C185	20	case_a_h.075	4.7uF_10V_.20 ELECTROLYTIC, TANTALUM CHIP
14	7B9716	TOP-23 BOT-22	C4 C5 C12 C14 C19 C26 C34 C37 C39 C40 C42 C43 C46 C50 C54 C57 C62 C66 C67 C68 C74 C75 C83 C9 C91 C96 C99 C101 C105 C109 C111 C112 C123 C125 C129 C141 C160 C163 C167 C168 C175 C177 C178 C180 C183	45	0805_h.055	0.1uF_50V_.10 Ceramic Monolithic Chip
15	254471	TOP-8 BOT-3	C47 C48 C59 C60 C71 C72 C79 C80 C93 C98 C187	11	0805_h.055	1000pF_50V_.05 MONOLITHIC, CERAMIC CHIP
16	4B4492	TOP-9 BOT-16	C6 C15 C20 C28 C36 C45 C56 C64 C85 C89 C94 C100 C102 C106 C110 C113 C114 C116 C117 C128 C131 C133 C134 C136 C148	25	0805_h.055	1000pF_50V_.20 MONOLITHIC, CERAMIC CHIP
17	232271	TOP-3 BOT-2	C7 C29 C30 C137 C164	5	case_c_h.110	10uF_16V_.20 ELECTROLYTIC, TANTALUM
18	616293	TOP-1	CR1	1	sot23_akn_sp	MMBD914LT1 DIODE, SWITCHING, 100V, 200mA
19	233152	TOP-21	FB1 FB2 FB4 FB5 FB6 FB7 FB8 FB9 FB10 FB11	26	fb_274301944	2743019447 - FERRITE, SMT BEADS

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5579

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
DR. XXXX DATE
DES. ENG. BPF PKG. MATL.
CK. DFTG. PCS MFG. ENG.
ORIG. CHG. NO. RELEASED
SKETCH NO. DWG. SIZE B
3F5579
SHEET 2 NEXT SHEET 3

Components
For Circuit Board Assembly

NO. 3F5579
SHEET 3 NEXT SHEET 4

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
		BOT-5	FB12 FB13 FB14 FB15 FB16 FB17 FB18 FB19 FB20 FB21 FB22 FB23 FB24 FB25 FB26 FB27			
20	9B6752	TOP-1 BOT-1	FB3 FB28	2	fb_blm11_h.0	BLM11A601SPT - FERRITE, SMT BEADS
21	5C3152	TOP-1	J10	1	j100ra_78708	787082-9 AMPLIMITE VERTICLE RECEPTICLE CONNECTOR
22	954067	TOP-1	J2	1	p10s_103309-	103309-1 LOW PROFILE STRAIGHT HEADER
23	7E7653	TOP-1	J3	1	p08ra_151321	151321 RIGHT ANGLE HEADER CONNECTOR
24	7E7515	TOP-1	J4	1	p02s_103321-	103321-2 STRAIGHT HEADER CONNECTOR
25	999979	TOP-1	J6	1	p80s_104549-	104549-9 SMT, AMPMODU, SHROUDED HEADER CONNECTOR
26	7E7514	TOP-1	J7	1	p40s_103309-	103309-8 LOW PROFILE STRAIGHT HEADER
27	6C4636	TOP-2	J9 J11	2	j01s_414244-	414244-1 RF COAXIAL RECEPTACLE
28	1E1112	BOT-6	L1 L2 L3 L4 L5 L6	6	ind_1008cs_h	2.2uH SMT WIREWOUND ENCAPSULATED
29	7E7662	TOP-1	P1	1	p05s_103321-	103321-0 STRAIGHT HEADER CONNECTOR
30	283602	TOP-2 BOT-1	R1 R5 R67	3	0805_h.030	100 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
31	7B8917	TOP-10 BOT-6	R10 R11 R12 R14 R15 R17 R18 R19 R22 R23 R47 R48 R50 R53 R54 R55	16	0603_h.025	0.05 Ohms_.063W_.05 Zero Ohm,FLAT, THICK METAL FILM, CHIP
32	253549	TOP-8	R2 R3 R8 R9 R16 R20 R25 R27	14	0805_h.030	4.7K Ohms_.100W_.05 THICK METAL FILM

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5579

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
DR. XXXX DATE
DES. ENG. BPF PKG. MATL.
SKETCH NO. DWG. SIZE B
CK. DFTG. PCS MFG. ENG.
3F5579
ORIG. CHG. NO. RELEASED
SHEET 3 NEXT SHEET 4

Components
For Circuit Board Assembly

NO. 3F5579
SHEET 4 NEXT SHEET 5

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
		BOT-6	R36 R37 R39 R40 R41 R44			
33	954554	TOP-2	R21 R26	2	0805_h.030	75 Ohms_.100W_.01 SMT CHIP FLAT THICK METAL FILM
34	902564	BOT-4	R28 R30 R31 R32	4	0805_h.025	1K Ohms_.100W_.01 FLAT, THICK METAL FILM CHIP
35	2B4333	BOT-1	R29	1	0603_h.025	10K Ohms_.063W_.01 FLAT, THICK METAL FILM, CHIP
36	233981	BOT-1	R34	1	0805_h.025	10K Ohms_.100W_.01 FLAT, THICK METAL FILM CHIP
37	992865	BOT-5	R38 R43 R45 R59 R65	5	0805_h.020	1K Ohms_.100W_.001 FLAT, THIN METAL FILM, CHIP
38	2B1420	BOT-1	R42	1	0603_h.025	10 Ohms_.063W_.05 FLAT, THICK METAL FILM, CHIP
39	G11318	BOT-1	R46	1	0805_h.020	30 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
40	257516	BOT-1	R52	1	0805_h.030	0.05 Ohms_.100W_- ZERO OHM CHIP JUMPER
41	902504	BOT-2	R58 R61	2	0805_h.030	249 Ohms_.100W_.01 SMT CHIP FLAT THICK METAL FILM
42	255345	BOT-2	R60 R62	2	0805_h.030	22 Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
43	2E7622	TOP-1	RU4	REF	plcc20_.050_	EPC2LC20 CONFIGURATION EPROM FOR PLDS, 1.6M
44	449610	TOP-1	S1	1	sw_tpa11cgpc	TPA11CGPC0 TP/TPA SERIES PUSHBUTTON SWITCH
45	7E7503	TOP-2	S2 S3	2	sw_tda04_h.0	TDA04H0SK1 DIP SWITCH, TOP SLIDE ACTUATED

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5579

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
DR. XXXX DATE
DES. ENG. BPF PKG. MATL.
CK. DFTG. PCS MFG. ENG.
ORIG. CHG. NO. RELEASED
SKETCH NO. DWG. SIZE B
3F5579
SHEET 4 NEXT SHEET 5

Components
For Circuit Board Assembly

NO. 3F5579
SHEET 5 NEXT SHEET 6

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
46	901614	TOP-7	TP1 TP2 TP4 TP26 TP28 TP29 TP30	7	tp_tp104_h.2	TP-104-01-02 PRESS MOUNT TERMINAL - RED
47	TPDUAL	TOP-16	TP10 TP11 TP12 TP13 TP14 TP15 TP16 TP17 TP18 TP19 TP20 TP21 TP22 TP23 TP25 TP27	16	tpdual_.1_p4	TP_DUAL DUAL TEST PADS (THRU HOLE)
48	901613	TOP-3	TP3 TP9 TP24	3	tp_tp104_h.2	TP-104-01-00 PRESS MOUNT TERMINAL - BLACK
49	252301	TOP-4	TP5 TP6 TP7 TP8	4	post_1-87022	1-87022-0 AMPMODU Mod I And II Posts
50	3H5151	TOP-3	U1 U3 U38	3	tssop20_.225	74LVC541 BUFFER/DRIVER, OCTAL, W/ 3-STATE OUTPUT
51	1E3736	TOP-1	U10	1	qfp144_.0197	EPF10K30ATC144-I0 FPGA, FLEX 10KA, EPF10K30ATC144-3
52	7B9962	TOP-4 BOT-6	U11 U13 U15 U16 U23 U25 U26 U30 U33 U34	10	cn1j8_.048_h	47 Ohms_.05 SMT, 4 ISOLATED RESISTORS
53	7E9108	TOP-1	U14	1	clcc56_.0197	KSC-1000 CUSTOM ASIC, CCD TIMING GENERATOR
54	5F0903	TOP-1	U17	1	xtal_f4100_h	F4100-48MHZ 48.000 MHz SMD CHRYSTAL
55	5C2040	TOP-2	U18 U19	2	so08_.210_h.	OPA642 OPAMP, SINGLE, BIPOLAR, WIDEBAND, LOW-DISTORTION
56	263526	TOP-1	U2	1	so14_.210_h.	74HC14 INVERTER, HEX, W/ SCHMITT TRIGGER
57	7E7671	BOT-2	U28 U32	2	qfp48_.0197_	AD9845AJST CCD SIGNAL PROCESSOR, 12-BIT, 30 MSPS
58	283585	BOT-4	U39 U40 U41 U42	4	som16_.250_h	4.7K Ohms_.02 THICK FILM RESISTOR NETWORKS

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5579

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor		FIRST USED ON
		NAME CIRCUIT BOARD ASSEMBLY KSC-1000 TIMING GEN EVAL BD
DR. XXXX	DATE	
DES. ENG. BPF	PKG. MATL.	SKETCH NO. DWG. SIZE B
CK. DFTG. PCS	MFG. ENG.	3F5579
ORIG. CHG. NO. RELEASED		SHEET 5 NEXT SHEET 6

Components
For Circuit Board Assembly

NO. 3F5579
SHEET 6 NEXT SHEET 7

Item No	Part no	Assy. Side	Item Reference Designators	Qty	Package style	Notes/Comp Description
59	SG_EPROM	TOP-1	U4	1	plcc20_.050_	PROGRAMMED PART RAW 2E7622
60	2E7640	TOP-6 BOT-6	U5 U6 U7 U8 U9 U12 U22 U24 U27 U29 U31 U35	12	so16_.210_h.	DS90LV047ATM DIFFERENTIAL LINE DRIVER, QUAD
61	4B4595	TOP-2	VR1 VR3	2	d2pak_goio_b	LT1086CM-3.3 1.5A_4.5-20V_3.3V VOLTAGE REGULATOR, 3.3V, 1.5A, 3-T
62	6E8811	TOP-1	VR2	1	sot223_goio_	LMS8117AMP-1.8 1A_3.2-10V_1.8V VOLTAGE REGULATOR, 1.8V, 1A, 3-TER
63	237927	BOT-1	C156	1NL	0805_h.055	NO LOAD 5.1pF_50V_.50pF MONOLITHIC, CERAMIC CHIP
64	8B0881	TOP-1	J1	1NL	j08ra_52745-	NO LOAD 52745-0890 FLAT FLEX. CABLE CONN., RIGHT ANGLE RECEPTACL
65	6C4636	BOT-1	J8	1NL	j01s_414244-	NO LOAD 414244-1 RF COAXIAL RECEPTACLE
66	5C3445	TOP-1	Q1	1NL	sot23_iog_sp	NO LOAD DTC363EK TRANSISTOR, NPN, 20V, W/ BUILT-IN RESISTORS
67	7B8917	TOP-2 BOT-5	R13 R24 R51 R56 R57 R63 R64	7NL	0603_h.025	NO LOAD 0.05 Ohms_.063W_.05 Zero Ohm,FLAT, THICK METAL FILM, CHIP
68	254479	BOT-1	R49	1NL	0805_h.030	NO LOAD 1Meg Ohms_.100W_.05 FLAT, THICK METAL FILM, CHIP
69	G11280	TOP-1	Y1	1NL	xtal_fcx-04_	NO LOAD FCX-04 56M SMD CRYSTAL LOW

CHG.NO DATE	REVISIONS	DR. BY APPS.
REV 1	INITIAL RELEASE	PCS
REV 2	ECO D0837	PCS

SEE SHEET FOR ADD'L REVISIONS

Notes: REFER TO CIRCUIT DIAGRAM 3F5579

PROGRAMMED PART SOFTWARE PART NUMBER IS THE PPID NUMBER WITH THE APPROPRIATE EXTENSION.

ON Semiconductor
FIRST USED ON
NAME CIRCUIT BOARD ASSEMBLY
KSC-1000 TIMING GEN EVAL BD
DR. XXXX
DATE
DES. ENG. BPF
PKG. MATL.
CK. DFTG. PCS
MFG. ENG.
ORIG. CHG. NO. RELEASED
SKETCH NO.
DWG. SIZE B
3F5579
SHEET 6 NEXT SHEET 7

REVISION BLOCK

ZONE	REV	DESCRIPTION	ESC#/DATE	APVD/DWN

PRIMARY SIDE

REF: DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994

DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE IS .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.

DEVIATIONS FROM INTENDED SHAPE (FLATNESS, ROUNDNESS, SQUARENESS ETC), MUST BE WITHIN STATED DIMENSIONAL TOLERANCES

NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY
APPLICATION		QUANTITY REQD	

MATERIAL:

UNLESS OTHERWISE SPECIFIED
DATUM PRECEDENCE PRI A SEC B TER C
DIMENSIONS ARE IN INCHES
TOLERANCES
ANGLES ± 5° | 1 PL ± N/A
2 PL ± 0.010 | 3 PL ± 0.005
THIRD ANGLE PROJECTION

DWN	B.FORD	12/22/03
DFTG	B.NOEL	12/22/03
ENGR	B.FORD	12/22/03
ENGR	X.XXXXXX	XX-XX-XX
CHK	X.XXXXXX	XX-XX-XX
APVD	X.XXXXXX	XX-XX-XX
APVD	X.XXXXXX	XX-XX-XX
APVD	X.XXXXXX	XX-XX-XX
APVD	X.XXXXXX	XX-XX-XX
CONTRACT #		

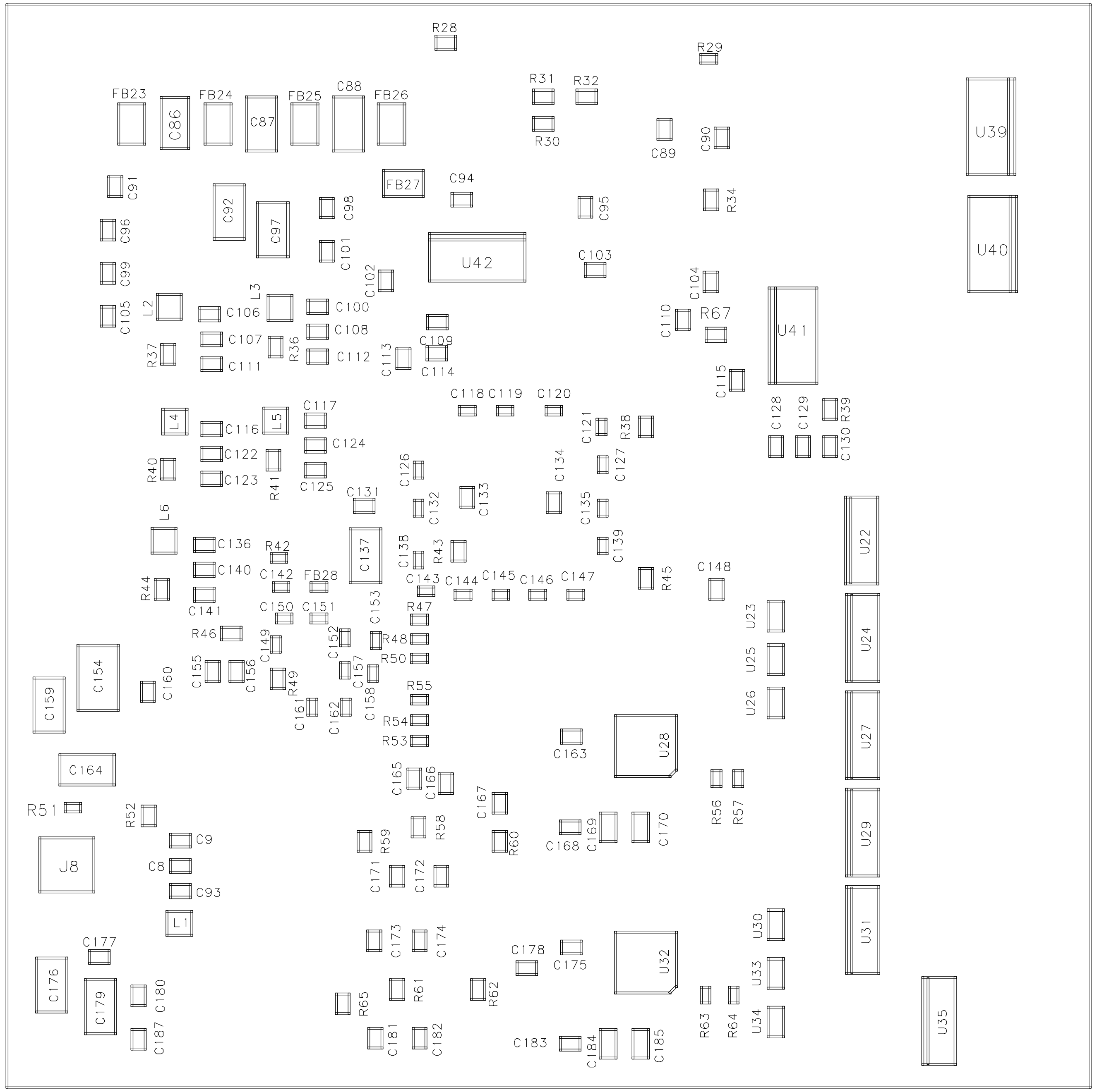
ON Semiconductor

TITLE
ASSY, TIMING GEN,
EB, KSC-1000

SIZE D
ITEM NO 3F5051/3F5052/3F5053/3F5054/3F5579
REV 1
CODE
WT
SCALE NONE
SH 1 OF 2

REVISION BLOCK

ZONE	REV.	DESCRIPTION	ESC#/DATE	APVD/DWN



SECONDARY SIDE

REF: DIMENSIONING AND TOLERANCING
PER ANSI Y14.5M-1994.

DIMENSIONS APPLY AFTER FINISH
WHERE TOTAL TOLERANCE IS .001
INCHES OR LESS AND ON ALL THREADS.
IN ALL OTHER PLACES DIMENSIONS
APPLY BEFORE FINISH.

DEVIATIONS FROM INTENDED SHAPE
(FLATNESS, ROUNDNESS, SQUARE-
NESS ETC), MUST BE WITHIN STATED
DIMENSIONAL TOLERANCES

NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY
APPLICATION		QUANTITY REQD	

MATERIAL:

UNLESS OTHERWISE SPECIFIED
DATUM PRECEDENCE PRI A SEC B TER C
DIMENSIONS ARE IN INCHES

TOLERANCES	
ANGLES ± 5°	1 PL ± N/A
2 PL ± 0.010	3 PL ± 0.005

THIRD ANGLE PROJECTION

DWN
DFTG
ENGR
ENGR
CHK
APVD
APVD
APVD
APVD
CONTRACT #

ON Semiconductor

TITLE ASSY, TIMING GEN, EB, KSC-1000

SIZE	ITEM NO	REV
D	3F5051/3F5052/3F5053/3F5054/3F5579	1

CODE	WT	SCALE	SH
		NONE	2 OF 2

1

REVISION BLOCK

ZONE	REV.	DESCRIPTION	ESC#/DATE	APVD/DWN

NOTES:

1. PERFORMANCE CLASS
   1.1 MANUFACTURE BOARD IN ACCORDANCE WITH CLASS 2 LEVEL B PER IPC-2221.

2. MATERIAL SPECIFICATIONS:
   2.1 CORE MATERIAL: FR4, SIZE AND CONSTRUCTION PER DETAIL A.
   2.2 PRE-PREG MATERIAL: FR4 B STAGE, SIZE AND CONSTRUCTION PER DETAIL A.
   2.3 MODIFICATIONS TO THE LAYER STACKUP AS SHOWN IN DETAIL A ARE PERMISSIBLE WITH THE FOLLOWING CONSTRAINTS:
      2.3.1 CONDUCTIVE LAYERS SHALL BE EVENLY SPACED THROUGHOUT.
      2.3.2 OVERALL THICKNESS SHALL BE UNCHANGED.

3. COPPER PLATE:
   3.1 HOLES: COPPER PLATING ON WALL OF HOLES SHALL BE 0.0015 MIN. UNLESS OTHERWISE SPECIFIED

4. FINISH PLATE:
   4.1 SURFACE AND HOLES: EXPOSED LANDS AND LINES, EXCLUDING CONTACT FINGERS, SHALL BE TIN-LEAD COATED IN ACCORDANCE WITH THE SOLDERABILITY REQUIREMENTS OF J-STD-003.

5. CONDUCTOR WIDTH AND SPACING:
   5.1 WIDTH: 0.008 MIN
   5.2 SPACING: 0.007 MIN
   5.3 DESIGN FABRICATION PATTERN ALIGNMENT ALLOWANCE IS 0.015.

6. HOLE REQUIREMENTS:
   6.1 ANNULAR RING: 0.002 MIN
   6.2 HOLE LOCATIONS TO BE 0.003 (DTP - DIAMETRICAL TRUE POSITION)
   6.3 HOLE SIZES APPLY AFTER SOLDER PLATING, REFLOW OR DEPOSITION
   6.4 HOLE SIZES MAY BE LESS THAN MINIMUM SIZE

7. SOLDERMASK:
   7.1 SOLDERMASKING OF PRIMARY AND SECONDARY SIDES OF THE BOARD SHALL BE PER MASKING ARTWORK OVER BARE COPPER (SMOBC) USING LIQUID PHOTOIMAGEABLE SOLDER MASK MATERIAL PER IPC-SM-840.
   7.2 RESIZING FOR MINIMAL LAND TO MASK CLEARANCE PERMISSIBLE.

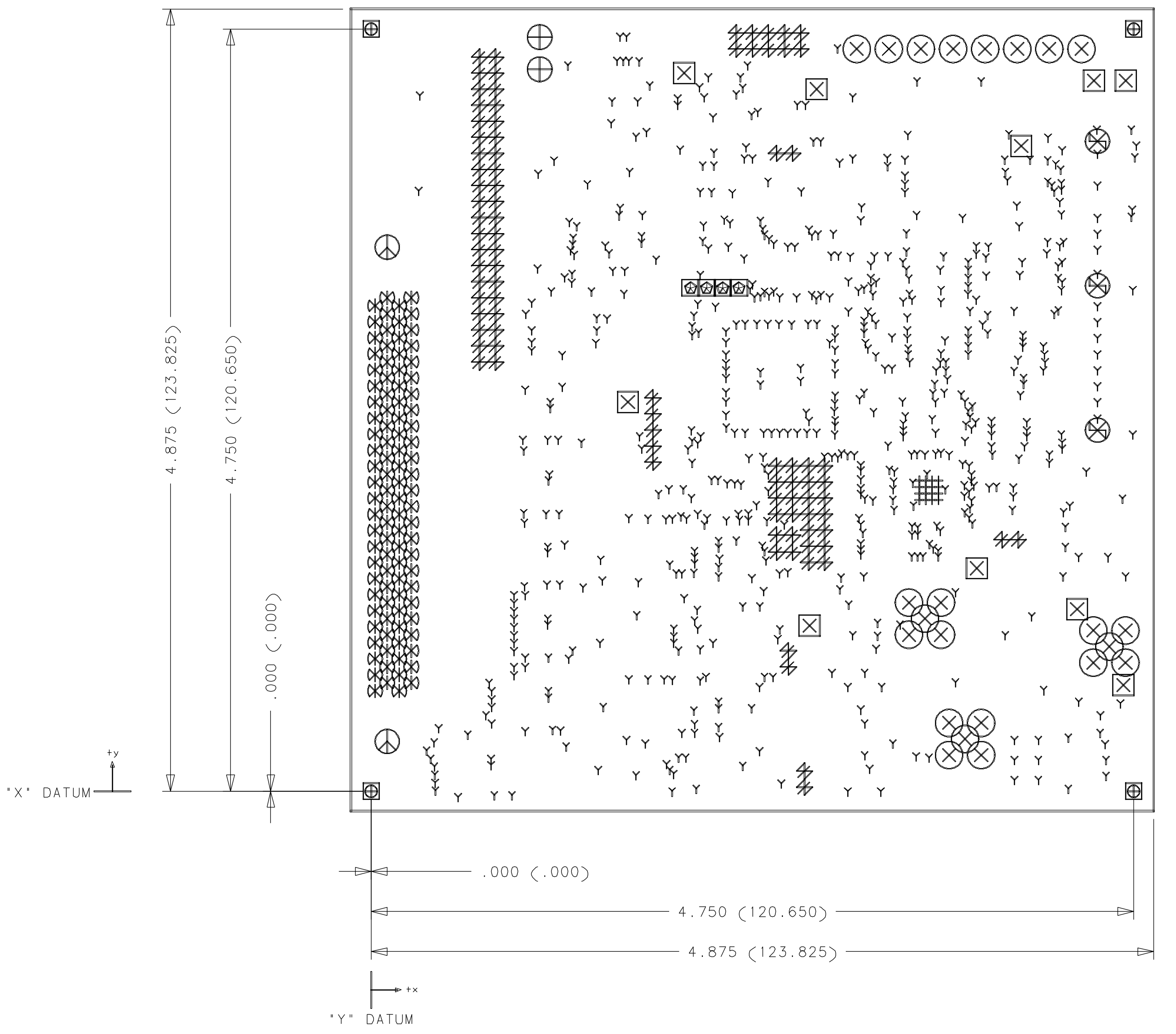
8. MARKING:
   8.1 MARKING OF PRIMARY AND SECONDARY SIDES SHALL BE PER MARKING ARTWORK USING WHITE NON-CONDUCTIVE EPOXY INK.

9. BOARD WARPAGE:
   9.1 BOARD WARPAGE 0.75% MAX.

10. TESTING:
   10.1 BOARDS SHALL BE TESTED USING CAD SUPPLIED IPC-D-356 FORMAT NET LIST. ELECTRICAL TESTING SHALL FOLLOW GUIDELINES ESTABLISHED BY IPC-9252.

11. SIGNAL INTEGRITY / IMPEDANCE REQUIREMENTS
   11.1 NONE REQUIRED

12. MISCELLANEOUS NOTES:
   12.1 X,Y DATUMS INDICATE DRILL ORIGIN
   12.2 TEST COUPONS TO BE MADE AVAILABLE UPON REQUEST

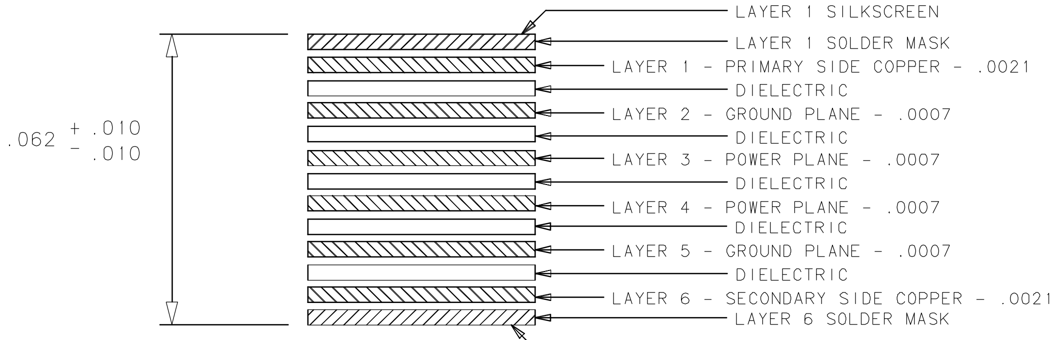


DWG. NO. 3F5050
CAD: MENTOR v8.9_2.3 C&GS
KSC-1000 TIMING GEN EVAL BD
HOLE SYMBOLOGY
REV 1
VIEWED FROM PRIMARY SIDE
Dec 18 2003

BOARD's DRILL SCHEDULE

DRILL SIZE	DRILL SYMBOL	PLATED	COUNT	
.305	+	YES	16	
.330	Y	YES	653	VIA
.864	⋈	YES	100	
.914	⬠	YES	4	
1.067	ϟ	YES	89	
1.168	⊕	YES	2	
1.270	⊗	YES	3	
1.321	⊗	YES	23	
1.651	⊠	YES	10	
2.794	☮	YES	2	
3.175	⊞	YES	4	

TOTAL DRILL COUNT ON BOARD: 906



DETAIL A
LAYER STACKING CONFIGURATION
SCALE = NONE

REF: DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1994.					MATERIAL:	DWN B.FORD 12/18/03	ON Semiconductor	
						DFTG B.NOEL 12/18/03		
DIMENSIONS APPLY AFTER FINISH WHERE TOTAL TOLERANCE IS .001 INCHES OR LESS AND ON ALL THREADS. IN ALL OTHER PLACES DIMENSIONS APPLY BEFORE FINISH.						ENGR B.FORD 12/18/03	TITLE PCB, TIMING, KSC-1000	
	3F5051/3F5052				UNLESS OTHERWISE SPECIFIED	ENGR X.XXXXXX XX-XX-XX		
	3F5053/3F5054		1		DATUM PRECEDENCE PRI A SEC B TER C	CHK X.XXXXXX XX-XX-XX		
	3F5579		1		DIMENSIONS ARE IN INCHES (mm)	APVD X.XXXXXX XX-XX-XX		
DEVIATIONS FROM INTENDED SHAPE (FLATNESS, ROUNDNESS, SQUARENESS ETC), MUST BE WITHIN STATED DIMENSIONAL TOLERANCES	NEXT ASSY	USED ON	NEXT ASSY	FINAL ASSY	TOLERANCES	APVD X.XXXXXX XX-XX-XX	SIZE D	ITEM NO 3F5050 REV 1
	APPLICATION		QUANTITY REQD		ANGLES ± 5° 1 PL ± N/A THIRD ANGLE PROJECTION	APVD X.XXXXXX XX-XX-XX		
					2 PL ± 0.010 3 PL ± 0.005	CONTRACT #	CODE WT SCALE NONE	SH 1 OF 3