

ON Semiconductor Logic Date Code and Traceability Marking

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ON Semiconductor™

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APPLICATION NOTE

INTRODUCTION

This is a summary of ON Semiconductor MOS Logic Device, Date Code, and Traceability Marking. We want to provide our customers with easy access to this information on the web. This applications note summarizes and explains the Date Code and Traceability Marking for Logic packages. Refer to the appropriate Logic data sheet for the specific device naming/ordering information.

DEVICE MARKING

MOS Logic Families

The standard Logic abbreviations are:

14xxx	= Metal Gate CMOS Logic
AC, ACT, JLC	= Fairchild Advanced CMOS Technology (FACT)
AS	= Analog Switches
HC, HCT	= High Speed CMOS Logic
LCX, WZ, Z	= Low-Voltage CMOS Logic
LS	= Low Power Schottky Logic
LVX, LVXT	= Low-Voltage Very High Speed CMOS
VCX	= Advanced Low-Voltage CMOS Logic
VHC, VHCT, WH	= Very High Speed CMOS Logic

MOS Logic Packages

The standard Logic package suffixes are:

D	= 8/14/16 SOIC Narrow Body
DF	= SOT-353/363 or SC-88A/SC-88
DT	= 8/10/14/16/20/24/48/56 TSSOP or TSOP5 or TSOP6
DW	= 16/20/24 SOIC Wide Body
F	= EIAJ Plastic Mini Flat Pack
M	= EIAJ Plastic Mini Flat Pack
MN	= 16/Quad Flat No-Lead
N	= Plastic Dual-In-Line

P	= Metal Gate CMOS Plastic Dual-In-Line
S	= VTSSOP-8/SM8
US	= VSOP8/VTSOP8/US8

All of the above, except DF, F, M, and US can be combined with an R2 suffix for tape and reel. The tape and reel suffixes for EIAJ Plastic Mini Flat Pack include EL, F1, F2, L1, and L2 depending upon the type of tape and the orientation of the part in the tape pocket. The DF package can be combined with a T1, T2, or R2 tape and reel suffix that specifies the orientation of the part in the tape pocket and the number of devices per reel.

MOS Logic Device Marking

Typical Device naming in Logic consists of the following:

<u>Brand</u>	<u>Temp Rating</u>	<u>Logic Family</u>	<u>Logic Function</u>	<u>Package</u>	<u>Tape and Reel</u>
MC	74	VHC	T138A	DT	R2

<u>ON Brand</u>	<u>Logic</u>	<u>2 Gate</u>	<u>Temp Rating</u>	<u>Logic Family</u>	<u>Function</u>	<u>Pkg</u>
N	L	2	7	WZ	00	US

Plastic dual-in-line packages and larger SOIC packages can accommodate the entire device name excluding the tape and reel suffix.

Smaller package types with limited space on package for marking are either truncated or abbreviated. The SOT packages use a code for the Logic family and device type.

On TSSOP and some SOIC, the device name will be truncated by removing the MC74 prefix and any package suffixes.

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Example:

<u>Device</u>	<u>Marking</u>
MC74HC04ADR2	HC04A
<u>Device</u>	<u>Marking</u>
MC74LCX244DTR2	LCX 244
<u>Device</u>	<u>Marking</u>
NL27WZ00US	L1
NL27WZ04DFT2	L5
MC74VHC1GT50DFT1	VL

Date and Traceability Code Markings

TSSOP PACKAGES

8 Id TSSOP = "YWW" front side and "AWL" back side

Device Marking

Front
XXXX
643

Back
X23

Marking Decoded

XXXX = Part number
643 = "YWW" front side
|||
6|| = 1996
||
43 = WW43
"Y" - One character that indicates the Year Assembled.
"WW" - Two characters that indicate the Work Week Assembled.
X23 = "AWL" back side
|||
X|| = ASE Chung-Li, Taiwan
Assy Location
||
23 = Serialized lot count for that Work Week
"A" - One or two characters that indicate the Assembly Location.
"WL" - Two characters that indicate the Wafer Lot Tracking Code.

14/16/20/24 Id TSSOP = "ALYW"

Device Marking

VHCT
244A
ALYW

Marking Decoded

VHCT
244A = MC74VHCT244ADT - Two lines representing device family and logic function
XAA643 = "ALYW"
|||||
X|||| = ASE Chung-Li, Taiwan
Assy Location
|||||
AA||| = Serialized lot count for that Work Week
|||
6|| = 1996
||
43 = WW43
"A" - Assembly Location.
"L" - Wafer Lot Tracking Code.
"Y" - Year Assembled.
"W" - Work Week Assembled.

48/56 Id TSSOP = "AWLYYWW"

Device Marking

MC74LCX16244
PAA9646

Marking Decoded

MC74LCX16244 = MC74LCX16244DT
PAA9646 = "AWLYYWW"
|||||||
P||||||| = ON Semiconductor Carmona, Philippines
Assy Location
|||||||
AA||| = Serialized lot count for that Work Week
|||||
96|| = 1996
||
46 = WW46
"A" - One or two characters that indicate the Assembly Location.
"WL" - Two characters that indicate the Wafer Lot Tracking Code.
"YY" - Two characters that indicate the Year Assembled.
"WW" - Two characters that indicate the Work Week Assembled.

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SOT Packages

5 Id SOT-353/SC-88A/SC-70 and 6 Id SOT-363/SC-88/SC-70

Package	Top Width	Device Marking Height	Date Code Height
SC88A/ SOT353/SC70	.045" – .053"	.016" – .025"	.014" – 0.20"

Figures 1a and 1b illustrate the marking format for SOT-353, and SC88A devices. The laser marking is to appear on the top of the package and be oriented per Figures 1a and 1b.

“ABC” illustrates the location of the Device Code which is specified below. “D” illustrates the location of the Date Code, the orientation of which depends upon the assembly factory. With the device as shown, the assembly factory is SMP.

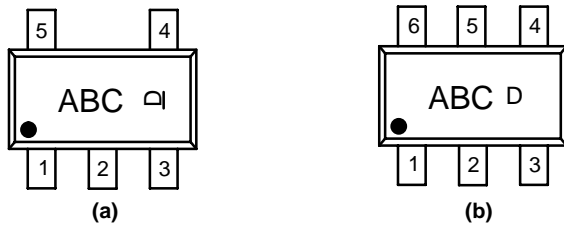


Figure 1.

5 Id TSOP5/SOT-23/SC-89 and 6 Id TSOP6/SOT-23/SC-89

Package	Top Width	Device Marking Height	Date Code Height
TSOP5/ SOT23/SC59	.051" – .067"	.016" – .025"	.014" – 0.20"

Figures 1c and 1d illustrate the marking format for TSOP5 and TSOP6 devices. The laser marking is to appear on the top of the package and be oriented per Figure 1c and 1d.

“AB” illustrates the location of the Device Code which is specified below. “D” illustrates the location of the Date

Code, the orientation of which depends upon the assembly factory. With the device as shown, the assembly factory is Seremban 1.

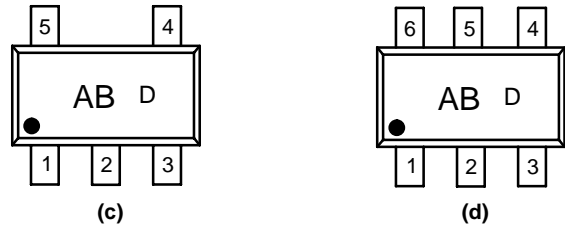


Figure 1. (Continued)

8 Id VSOP8/VTSOP8/US8

Package	Top Width	Device Marking Height	Date Code Height
VSOP8/ VTSOP8/US8	.087" – .094"	.016" – .025"	.014" – 0.20"

Figure 1e illustrates the marking format for VSOP8 devices. The laser marking is to appear on the top of the package and be oriented per Figure 1e.

“AB” illustrates the location of the Device Code which is specified below. “D” illustrates the location of the Date Code, the orientation of which depends upon the assembly factory. With the device as shown, the assembly factory is Hana.

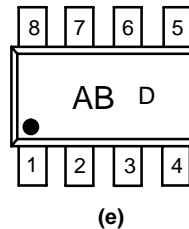


Figure 1. (Continued)

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DATE CODES:

SOT-23/TSOP5/SC59, SOT-23/TSOP6/SC59, SC88A/SC70/SOT-353, SC88/SC70/SOT-363, VSOP8/VTSOP8/US8

	<u>MONTH</u>	<u>DATE CODE</u>		<u>MONTH</u>	<u>DATE CODE</u>		<u>MONTH</u>	<u>DATE CODE</u>		<u>MONTH</u>	<u>DATE CODE</u>
1994	JAN	Y	1995	JAN	M	1996	JAN	E	1997	JAN	1
	FEB	Z		FEB	N		FEB	F		FEB	2
	MAR	C		MAR	O		MAR	H		MAR	3
	APR	D		APR	P		APR	J		APR	4
	MAY	E		MAY	R		MAY	K		MAY	5
	JUN	F		JUN	T		JUN	L		JUN	6
	JUL	G		JUL	U		JUL	N		JUL	7
	AUG	H		AUG	V		AUG	P		AUG	8
	SEP	I		SEP	9		SEP	U		SEP	9
	OCT	J		OCT	X		OCT	X		OCT	T
	NOV	K		NOV	Y		NOV	Y		NOV	V
	DEC	L		DEC	Z		DEC	Z		DEC	C
1998	JAN	E	1999	JAN	1	2000	JAN	E	2001	JAN	1
	FEB	F		FEB	2		FEB	F		FEB	2
	MAR	H		MAR	3		MAR	H		MAR	3
	APR	J		APR	4		APR	J		APR	4
	MAY	K		MAY	5		MAY	K		MAY	5
	JUN	L		JUN	6		JUN	L		JUN	6
	JUL	N		JUL	7		JUL	N		JUL	7
	AUG	P		AUG	8		AUG	P		AUG	8
	SEP	U		SEP	9		SEP	U		SEP	9
	OCT	X		OCT	T		OCT	X		OCT	T
	NOV	Y		NOV	V		NOV	Y		NOV	V
	DEC	Z		DEC	C		DEC	Z		DEC	C

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DEVICE CODES:

5L SOT-23/TSOP5/SC59, SC88A/SC70/SOT-353
 6L SOT-23/TSOP6/SC59, SC88/SC70/SOT-363
 8L VSOP8/VTSOP8/US8

One Gate Functions

Family ID

HSL : H
 VHC : V & W
 LCX : L & M
 VL : C & D
 NLAS : A

Device Function

FUNC	ID	<u>1</u>	<u>1</u>	<u>2</u>	<u>2/3</u>	<u>1</u>	<u>2</u>	<u>2/3</u>	<u>1</u>	<u>1</u>
		GATE HSL	GATE VHC	GATE VHC/WH	GATE VHC/WH	GATE LCX/SZ	GATE LCX/WZ	GATE LCX/WZ	GATE VL	GATE AS
00	1	H1	V1	-	V1	L1	-	L1	C1	-
T00	H	-	VH	-	VH	-	-	-	-	-
01	0	-	V0	-	V0	L0	-	L0	C0	-
02	3	H3	V3	-	V3	L3	-	L3	C3	-
T02	J	-	VJ	-	VJ	-	-	-	-	-
03	P	-	VP	-	VP	LP	-	LP	CP	-
04	5	H5	V5	W5	V5	L5	M5	L5	C5	-
T04	K	-	VK	WK	VK	-	-	-	-	-
U04	6	H6	V6	W6	V6	L6	M6	L6	C6	-
05	F	-	VF	WF	VF	-	-	-	CF	-
06	F	-	-	-	-	LF	MF	LF	-	-
07	7	-	V7	W7	V7	L7	M7	L7	C7	-
08	2	H2	V2	-	V2	L2	-	L2	C2	-
T08	T	-	VT	-	VT	-	-	-	-	-
09	X	-	VX	-	VX	-	-	-	-	-
14	A	HA	VA	WA	VA	LA	MA	LA	CA	-
T14	C	-	VC	WC	VC	-	-	-	-	-
16	R	-	-	-	-	LR	MR	LR	-	-
17	X	-	-	-	-	LX	MX	LX	-	-
32	4	H4	V4	-	V4	L4	-	L4	C4	-
T32	N	-	VN	-	VN	-	-	-	-	-
50	R	-	VR	WR	VR	-	-	-	CR	-
T50	L	-	VL	WL	VL	-	-	-	-	-
323	4	-	-	-	-	-	-	-	-	A4
T323	6	-	-	-	-	-	-	-	-	A6
324	7	-	-	-	-	-	-	-	-	A7
T324	8	-	-	-	-	-	-	-	-	A8
325	9	-	-	-	-	-	-	-	-	A9
T325	A	-	-	-	-	-	-	-	-	AA
1053	C	-	-	-	-	-	-	-	-	AC
T1053	D	-	-	-	-	-	-	-	-	AD
4599	0	-	-	-	-	-	-	-	-	A0
T4599	1	-	-	-	-	-	-	-	-	A1
4501	2	-	-	-	-	-	-	-	-	A2
T4501	3	-	-	-	-	-	-	-	-	A3
66	9	-	V9	-	V9	L9	-	L9	C9	-
T66	E	-	VE	-	VE	-	-	-	-	-
86	8	H8	V8	-	V8	L8	-	L8	C8	-
T86	M	-	VM	-	VM	-	-	-	-	-
125	0	-	W0	-	W0	M0	-	M0	D0	-
T125	1	-	W1	-	W1	M1	-	M1	-	-
126	2	-	W2	-	W2	M2	-	M2	D2	-
T126	3	-	W3	-	W3	M3	-	M3	-	-
132	D	-	VD	-	-	-	-	-	CD	-
T132	U	-	VU	-	-	-	-	-	-	-
135	Z	-	VZ	-	-	-	-	-	CZ	-
373	D	-	-	-	-	MD	-	-	-	-
374	E	-	-	-	-	ME	-	-	-	-
Package Leads		5L	5L	6L	8L	5L	6L	8L	5L	5/6/8L

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SOIC Packages

8 Id SOIC = "ALYW"

Device Marking

HEP08

PANS

Marking Decoded

HEP08 = MC10EP08D

PANS = "ALYW"

||||

P||| = ON Semiconductor Carmona,
Philippines
Assy Location

|||

A|| = First Lot Assembled for that
Device Type in that Alpha Code
(Work Week)

||

N| = 1995 Second 6 months, WW27 - WW52

|

S = WW45 (Y95 WW45)

"A" - Indicates the location of Assembly
Location.

"L" - Indicates the Wafer Lot Tracking
Code.

"Y" - Indicates an "ALPHA CODE" of the
Year assembled.

"W" - Indicates an "ALPHA CODE" of the
Work Week assembled.

A = 1989 First 6 months, WW01 - WW26

B = 1989 Second 6 months, WW27 - WW52

C = 1990 First 6 months, WW01 - WW26

D = 1990 Second 6 months, WW27 - WW52

E = 1991 First 6 months, WW01 - WW26

F = 1991 Second 6 months, WW27 - WW52

G = 1992 First 6 months, WW01 - WW26

H = 1992 Second 6 months, WW27 - WW52

I = 1993 First 6 months, WW01 - WW26

J = 1993 Second 6 months, WW27 - WW52

K = 1994 First 6 months, WW01 - WW26

L = 1994 Second 6 months, WW27 - WW52

M = 1995 First 6 months, WW01 - WW26

N = 1995 Second 6 months, WW27 - WW52

O = 1996 First 6 months, WW01 - WW26

P = 1996 Second 6 months, WW27 - WW52

Q = 1997 First 6 months, WW01 - WW26

R = 1997 Second 6 months, WW27 - WW52

S = 1998 First 6 months, WW01 - WW26

T = 1998 Second 6 months, WW27 - WW52

U = 1999 First 6 months, WW01 - WW26

V = 1999 Second 6 months, WW27 - WW52

W = 2000 First 6 months, WW01 - WW26

X = 2000 Second 6 months, WW27 - WW52

Y = 2001 First 6 months, WW01 - WW26

Z = 2001 Second 6 months, WW27 - WW52

The "W" Work Week Alpha Codes are:

First 6 months

WW01 - WW26

A = 01

B = 02

C = 03

D = 04

E = 05

F = 06

G = 07

H = 08

I = 09

J = 10

K = 11

L = 12

M = 13

N = 14

O = 15

P = 16

Q = 17

R = 18

S = 19

T = 20

U = 21

V = 22

W = 23

X = 24

Y = 25

Z = 26

Second 6 months

WW27 - WW52

A = 27

B = 28

C = 29

D = 30

E = 31

F = 32

G = 33

H = 34

I = 35

J = 36

K = 37

L = 38

M = 39

N = 40

O = 41

P = 42

Q = 43

R = 44

S = 45

T = 46

U = 47

V = 48

W = 49

X = 50

Y = 51

Z = 52

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From this information, you can determine the date codes.

Examples:

PANS

||||

P||| = ON Semiconductor Carmona,
Philippines
Assy Location

|||

A|| = First Lot Assembled for that
Device Type in that Alpha Code
(Work Week)

||

N| = 1995 Second 6 months, WW27 - WW52

|

S = WW45 (Y95 WW45)

XBST

||||

X||| = ASE Chung-Li, Taiwan
Assy Location

|||

B|| = Second Lot Assembled for that
Device Type in that Alpha Code
(Work Week)

||

S| = 1998 First 6 months, WW01 - WW26

|

T = WW20 (Y98 WW20)

14/16 Id SOIC Narrow Body = "AWLYWW"

Device Marking

LCX00

XAA643

Marking Decoded

LCX00 = MC74LCX00D

XAA643 = "AWLYWW"

|||||

X||||| = ASE Chung-Li, Taiwan
Assy Location

|||||

AA||| = First Lot Assembled for that
Device Type in that (Work Week)

|||

6|| = 1996

||

43 = WW43

"A" - One or two characters that
indicate the Assembly Location.

"WL" - Two characters that indicate the
Wafer Lot Tracking Code.

"Y" - Two characters that indicate the
Year Assembled.

"WW" - Two characters that indicate the
Work Week Assembled.

16/20/24 Id SOIC Wide Body = "AWLYYWW"

Device Marking

VHCT244A

PAA9646

Marking Decoded

VHCT244A = MC74VHCT244ADW

PAA9646 = "AWLYYWW"

|||||||

P||||||| = ON Semiconductor Carmona,
Philippines
Assy Location (S.O.P.7-19)

|||||||

AA||| = First Lot Assembled for that
Device Type in that (Work Week)

|||

96|| = 1996

||

46 = WW46

"A" - One or two characters that
indicate the Assembly Location.

"WL" - Two characters that indicate the
Wafer Lot Tracking Code.

"YY" - Two characters that indicate the
Year Assembled.

"WW" - Two characters that indicate the
Work Week Assembled.

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EIAJ Mini Flat Pack Packages

8/14/16 Id MFP = "ALYW"

Device Marking

VHCT00A

PANS

Marking Decoded

VHCT00A = MC74VHCT00AM

PANS

||||

P||| = ON Semiconductor Carmona,
Philippines
Assy Location

|||

A|| = First Lot Assembled for that
Device Type in that Alpha Code
(Work Week)

||

N| = 1995 Second 6 months, WW27 - WW52

|

S = WW45 (Y95 WW45)

"A" - Indicates the location of Assembly
Location.

"L" - Indicates the Wafer Lot Tracking
Code.

"Y" - Indicates an "ALPHA CODE" of the
Year assembled.

"W" - Indicates an "ALPHA CODE" of the
Work Week assembled.

The "Y" YEAR Alpha Codes are:

A = 1989 First	6 months,	WW01 - WW26
B = 1989 Second	6 months,	WW27 - WW52
C = 1990 First	6 months,	WW01 - WW26
D = 1990 Second	6 months,	WW27 - WW52
E = 1991 First	6 months,	WW01 - WW26
F = 1991 Second	6 months,	WW27 - WW52
G = 1992 First	6 months,	WW01 - WW26
H = 1992 Second	6 months,	WW27 - WW52
I = 1993 First	6 months,	WW01 - WW26
J = 1993 Second	6 months,	WW27 - WW52
K = 1994 First	6 months,	WW01 - WW26
L = 1994 Second	6 months,	WW27 - WW52
M = 1995 First	6 months,	WW01 - WW26
N = 1995 Second	6 months,	WW27 - WW52

O = 1996 First	6 months,	WW01 - WW26
P = 1996 Second	6 months,	WW27 - WW52
Q = 1997 First	6 months,	WW01 - WW26
R = 1997 Second	6 months,	WW27 - WW52
S = 1998 First	6 months,	WW01 - WW26
T = 1998 Second	6 months,	WW27 - WW52
U = 1999 First	6 months,	WW01 - WW26
V = 1999 Second	6 months,	WW27 - WW52
W = 2000 First	6 months,	WW01 - WW26
X = 2000 Second	6 months,	WW27 - WW52
Y = 2001 First	6 months,	WW01 - WW26
Z = 2001 Second	6 months,	WW27 - WW52

The "W" Work Week Alpha Codes are:

First 6 months	Second 6 months
<u>WW01 - WW26</u>	<u>WW27 - WW52</u>
A = 01	A = 27
B = 02	B = 28
C = 03	C = 29
D = 04	D = 30
E = 05	E = 31
F = 06	F = 32
G = 07	G = 33
H = 08	H = 34
I = 09	I = 35
J = 10	J = 36
K = 11	K = 37
L = 12	L = 38
M = 13	M = 39
N = 14	N = 40
O = 15	O = 41
P = 16	P = 42
Q = 17	Q = 43
R = 18	R = 44
S = 19	S = 45
T = 20	T = 46
U = 21	U = 47
V = 22	V = 48
W = 23	W = 49
X = 24	X = 50

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Y = 25

Z = 26

Y = 51

Z = 52

From this information, you can determine the date codes.

Example:

XBST

||||

X||| = ASE Chung-Li, Taiwan
Assy Location

|||

B|| = Second Lot Assembled for that
Device Type in that Alpha Code
(Work Week)

||

S| = 1998 First 6 months, WW01 - WW26

|

T = WW20 (Y98 WW20)

20 Id MFP = "AWLYWW"

Device Marking

LVX240

XAA643

Marking Decoded

LVX240 = MC74LVX240M

XAA643 = "AWLYWW"

|||||

X|||| = ASE Chung-Li, Taiwan
Assy Location

||||

AA||| = First Lot Assembled for that
Device Type in that (Work Week)

|||

6|| = 1996

||

43 = WW43

"A" - One or two characters that
indicate the Assembly Location.

"WL" - Two characters that indicate the
Wafer Lot Tracking Code.

"Y" - Two characters that indicate the
Year Assembled.

"WW" - Two characters that indicate the
Work Week Assembled.

EIAJ Mini Flat Pack Packages (OLD)

Per PCN 10111, issued by NML-GPPD on 10 January
2000, all parts in the SO EIAJ T2 package prior to 1
April 2000 were marked to the following specification:

8 Id MFP/SOEIAJ = "YWXX"

Device Marking

HEP08

PANS

Marking Decoded

HEP08 = MC10EP08D

NSAE = YWXX

|||

N||| = 1995 Second 6 months, WW27 - WW52

|||

S|| = WW45 (Y95 WW45)

||

AE = Serialized lot count for that Work
Week

"Y" - Indicates an "ALPHA CODE" of the
Year assembled.

"W" - Indicates an "ALPHA CODE" of the
Work Week assembled.

"XX" - Two characters that indicate the
Wafer Lot Tracking Code.

The "Y" YEAR Alpha Codes are:

A = 1989 First 6 months, WW01 - WW26

B = 1989 Second 6 months, WW27 - WW52

C = 1990 First 6 months, WW01 - WW26

D = 1990 Second 6 months, WW27 - WW52

E = 1991 First 6 months, WW01 - WW26

F = 1991 Second 6 months, WW27 - WW52

G = 1992 First 6 months, WW01 - WW26

H = 1992 Second 6 months, WW27 - WW52

I = 1993 First 6 months, WW01 - WW26

J = 1993 Second 6 months, WW27 - WW52

K = 1994 First 6 months, WW01 - WW26

L = 1994 Second 6 months, WW27 - WW52

M = 1995 First 6 months, WW01 - WW26

N = 1995 Second 6 months, WW27 - WW52

O = 1996 First 6 months, WW01 - WW26

P = 1996 Second 6 months, WW27 - WW52

Q = 1997 First 6 months, WW01 - WW26

R = 1997 Second 6 months, WW27 - WW52

S = 1998 First 6 months, WW01 - WW26

T = 1998 Second 6 months, WW27 - WW52

U = 1999 First 6 months, WW01 - WW26

V = 1999 Second 6 months, WW27 - WW52

W = 2000 First 6 months, WW01 - WW26

X = 2000 Second 6 months, WW27 - WW52

Y = 2001 First 6 months, WW01 - WW26

Z = 2001 Second 6 months, WW27 - WW52

AND8004/D

The "W" Work Week Alpha Codes are:

First 6 months WW01 – WW26	Second 6 months WW27 – WW52
A = 01	A = 27
B = 02	B = 28
C = 03	C = 29
D = 04	D = 30
E = 05	E = 31
F = 06	F = 32
G = 07	G = 33
H = 08	H = 34
I = 09	I = 35
J = 10	J = 36
K = 11	K = 37
L = 12	L = 38
M = 13	M = 39
N = 14	N = 40
O = 15	O = 41
P = 16	P = 42
Q = 17	Q = 43
R = 18	R = 44
S = 19	S = 45
T = 20	T = 46
U = 21	U = 47
V = 22	V = 48
W = 23	W = 49
X = 24	X = 50
Y = 25	Y = 51
Z = 26	Z = 52

From this information, you can determine the date codes.

Example:

XBST

|||

X||| = ASE Chung-Li, Taiwan
Assy Location

|||

B|| = Second Lot Assembled for that
Device Type in that Alpha Code
(Work Week)

||

S| = 1998 First 6 months, WW01 – WW26

|

T = WW20 (Y98 WW20)

14/16 Id MFP/SOEIAJ = "YWWXX"

Device Marking

MC14066B

945AE

Marking Decoded

MC14066B = MC14066BF

945AE = YWWXX

||||

9|||| = 1999

|||

45|| = WW45

||

AE = Serialized lot count for that
Work Week

"Y" - Indicates the last digit of the Year
assembled.

"WW" - Indicates the Work Week assembled.

"XX" - Two characters that indicate
the Wafer Lot Tracking Code.

20 Id MFP/SOEIAJ = "YWWXX"

Device Marking

MC74HC374A

818ET

Marking Decoded

MC74HC374A = MC74HC374AF

818ET = YWWXX

||||

8|||| = 1998

|||

18|| = WW18

||

ET = Serialized lot count for that
Work Week

"Y" - Indicates the last digit of the Year
assembled.

"WW" - Indicates the Work Week assembled.

"XX" - Two characters that indicate the
the Wafer Lot Tracking Code.

Plastic Dual-In-Line(PDIP) Packages

14/16/18/20/24 Id PDIP = "AWLYYWW"

Device Marking

Example 1: 14-ld PDIP

MC74HC00AN
CPAA9646

Example 2: 20-ld PDIP

MC74HCT244AN
CPAA9646

Marking Decoded

Example 1: 14-ld PDIP

MC74HC00AN = MC74HC00AN
CPAA9646 = "AWLYYWW"
| | | | | | | |
ZR | | | | | = AAPI Manila, Philippines
Assy Location

| | | | |
DK | | | | = Lot Assembled for that Device
Type in that (Work Week)

| | | |
99 | | = 1998

| |
02 = WW02

Example 2: 20-ld PDIP

MC74HCT244AN = MC74HCT244AN
CPAA9646 = "AWLYYWW"
| | | | | | | |
CP | | | | | = Astra(AMT) Batam Island,
Indonesia
Assy Location

| | | | | |
AA | | | | = First Lot Assembled for
that Device Type in that
(Work Week)

| | | |
98 | | = 1998

| |
21 = WW21

- "A" - One or two characters that indicate the Assembly Location
- "WL" - Two characters that indicate the Wafer Lot Tracking Code.
- "YY" - Two characters that indicate the Year Assembled.
- "WW" - Two characters that indicate the Work Week Assembled.

QFN Packages

16 Id QFN = "ALYW"

Device Marking

C
9ANS

Marking Decoded

C = NLAS44599MN
9ANS = "ALYW"
| | | |
9 | | | = ASAT
Hong Kong
Assy Location

| | |
A | | = First Lot Assembled for that
Device Type in that Alpha Code
(Work Week)

| |
N | = 1995 Second 6 months, WW27 - WW52

|
S = WW45 (Y95 WW45)
"A" - Indicates the location of Assembly
Location.
"L" - Indicates the Wafer Lot Tracking
Code.
"Y" - Indicates an "ALPHA CODE" of the
Year assembled.
"W" - Indicates an "ALPHA CODE" of the
Work Week assembled.

- A = 1989 First 6 months, WW01 - WW26
- B = 1989 Second 6 months, WW27 - WW52
- C = 1990 First 6 months, WW01 - WW26
- D = 1990 Second 6 months, WW27 - WW52
- E = 1991 First 6 months, WW01 - WW26
- F = 1991 Second 6 months, WW27 - WW52
- G = 1992 First 6 months, WW01 - WW26
- H = 1992 Second 6 months, WW27 - WW52
- I = 1993 First 6 months, WW01 - WW26
- J = 1993 Second 6 months, WW27 - WW52
- K = 1994 First 6 months, WW01 - WW26
- L = 1994 Second 6 months, WW27 - WW52
- M = 1995 First 6 months, WW01 - WW26
- N = 1995 Second 6 months, WW27 - WW52
- O = 1996 First 6 months, WW01 - WW26
- P = 1996 Second 6 months, WW27 - WW52

AND8004/D

Q = 1997 First	6 months,	WW01 – WW26	V = 1999 Second	6 months,	WW27 – WW52
R = 1997 Second	6 months,	WW27 – WW52	W = 2000 First	6 months,	WW01 – WW26
S = 1998 First	6 months,	WW01 – WW26	X = 2000 Second	6 months,	WW27 – WW52
T = 1998 Second	6 months,	WW27 – WW52	Y = 2001 First	6 months,	WW01 – WW26
U = 1999 First	6 months,	WW01 – WW26	Z = 2001 Second	6 months,	WW27 – WW52

AND8004/D


APPENDIX – Location Codes

Codes used in the previous pages to denote site location.			
Code	Site	Location	Notes
9	ASAT	HONG KONG	
B	ON SEMICONDUCTOR PHX	PHOENIX, ARIZONA (52ND ST)	
BG	PANTRONIX, INC	SAN JOSE, CALIFORNIA	
C	CARSEM (M) (old plant)	IPOH, MALAYSIA	
CB	PHENITEC / TOREX (T/T)	IBARA, JAPAN	
CK	ASE (M) OR ASE	PENANG, MALAYSIA	or "1" for SOIC 8 LD or smaller packages
CM	ON SEMICONDUCTOR MSL	SINGAPORE	
CP	ASTRA (AMT)	BATAM ISLAND, INDONESIA	or "2" for SOIC 8 LD or smaller packages
CV	MITSUI SHAH ALAM (MSA)	SHAH ALAM, MALAYSIA	
DJ	CARSEM (S)	IPOH, MALAYSIA	or "3" for SOIC 8 LD or smaller packages
DQ	SMP (SEMICONDUCTOR MINIATURE PRODUCTS)	SEREMBAN, MALAYSIA	
DX	ANAM K3 (BUPYUNG)	BUPYUNG, KOREA	
DZ	HANA SEMICONDUCTOR CO., LTD.	AYUTTHAYA, THAILAND	
F	ON SEMICONDUCTOR MPI	MANILA, PHILIPPINES	
I	ANAM K1 (HWAYANG-DONG)	SEOUL, KOREA	
J	ON SEMICONDUCTOR NML	AIZU, JAPAN	
K	ASE-MKL	SEOUL, KOREA	
MC	AMD (Assembly)	BANGKOK, THAILAND	
MD	AMD (Test)	PENANG, MALAYSIA	
MI	CHARTERED SEMICONDUCTOR	SINGAPORE	
MX	MITSUI-KUMAMOTO (formerly TAIWAN LITEON ELEC)	KIKUCHI-GUN, KUMAMOTOKEN, JAPAN	
ND	TOSHIBA IWATE	IWATE-KITAKAMI, JAPAN	
NG	TOWER SEMICONDUCTOR LTD.	MIGDAL HAEMEK, ISRAEL	
NL	TESLA-SEZAM	ROSNOV, CZECH REPUBLIC	
NP	TOSHIBA OHITA	OHITA-KITAKYUSHU, JAPAN	
NR	LANSDALE/PRIMARIAN	TEMPE, ARIZONA	
P	ON SEMICONDUCTOR MPC	CARMONA, PHILIPPINES	
PR	AAP3	LAGUNA, PHILIPPINES	
QW	ASE (P)	MANILA, PHILIPPINES	or "1" for SOIC 8 LD or smaller packages
R	ON SEMICONDUCTOR SBN	SEREMBAN, MALAYSIA	
SB	ANAM K4 (KWANG JU)	KWANG JU, KOREA	
SE	BEST ELECTRONICS (BECCI)	METRO MANILA, PHILIPPINES	
TE	STM	SINGAPORE	
TF	SLOVAKIAN ELECTRONICS	PIESTANY, SLOVAKIA INC.	
V	ON SEMICONDUCTOR SBN II	SEREMBAN, MALAYSIA	
W	ON SEMICONDUCTOR GDL	GUADALAJARA, MEXICO	
X	ASE-METL	CHUNG-LI, TAIWAN	
ZK	ASE (K) OR ASE	KAOHSIUNG, TAIWAN	
ZQ	ANAM K2 (BUCHON)	BUCHON, KOREA	
ZR	AAP1 (FORMERLY: AAPI)	MANILA PHILIPPINES	or "5" for SOIC 8 LD or smaller packages
ZS	MITSUI HI-TECH (MHT)	FUKUOKA-KUROSAKI, JAPAN	
ZV	AAP2 (FORMERLY: AME)	MANILA, PHILIPPINES	

NOTE: THE SINGLE DIGIT NUMBER ASSIGNED TO SOME SUBCONTRACTORS IS TO BE USED FOR MARKING PURPOSES ONLY, WHEN PACKAGE SIZE IS VERY SMALL.

Notes

Notes

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