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**EXHIBIT "A"**  
**Pin-Compatible Alternative OPN; No / Minor Conversion Issues**

<b>Obsolete OPN</b>	<b>Pkg</b>	<b>Pin Cnt</b>	<b>Pin-Compatible Alternative OPN</b>
PALCE16V8H-10JC/4	PLCC	20	GAL16V8D-10LJ
PALCE16V8H-10JI/4	PLCC	20	GAL16V8D-10LJI
PALCE16V8H-10PC/4	PDIP	20	GAL16V8D-10LP
PALCE16V8H-10PI/4	PDIP	20	GAL16V8D-10LPI
PALCE16V8H-10SC/4	SOIC	20	GAL16V8D-10LS
PALCE16V8H-15JC/4	PLCC	20	GAL16V8D-15LJ
PALCE16V8H-15JI/4	PLCC	20	GAL16V8D-15LJI
PALCE16V8H-15PC/4	PDIP	20	GAL16V8D-15LP
PALCE16V8H-15PI/4	PDIP	20	GAL16V8D-15LPI
PALCE16V8H-15SC/4	SOIC	20	GAL16V8D-15LS
PALCE16V8H-25JC/4	PLCC	20	GAL16V8D-25LJ
PALCE16V8H-25JI/4	PLCC	20	GAL16V8D-25LJI
PALCE16V8H-25PC/4	PDIP	20	GAL16V8D-25LP
PALCE16V8H-25PI/4	PDIP	20	GAL16V8D-25LPI
PALCE16V8H-25SC/4	SOIC	20	GAL16V8D-25LS
PALCE16V8H-5JC/5	PLCC	20	GAL16V8D-5LJ
PALCE16V8H-7JC/5	PLCC	20	GAL16V8D-7LJ
PALCE16V8H-7PC/5	PDIP	20	GAL16V8D-7LP
PALCE16V8H-7SC/5	SOIC	20	GAL16V8D-7LS
PALCE16V8Q-10JC/5	PLCC	20	GAL16V8D-10QJ
PALCE16V8Q-15JC/4	PLCC	20	GAL16V8D-15QJ
PALCE16V8Q-15PC/4	PDIP	20	GAL16V8D-15QP
PALCE16V8Q-20JI/4	PLCC	20	GAL16V8D-20QJI
PALCE16V8Q-20PI/4	PDIP	20	GAL16V8D-20QPI
PALCE16V8Q-25JC/4	PLCC	20	GAL16V8D-25QJ
PALCE16V8Q-25JI/4	PLCC	20	GAL16V8D-25QJI
PALCE16V8Q-25PC/4	PDIP	20	GAL16V8D-25QP
PALCE16V8Q-25PI/4	PDIP	20	GAL16V8D-25QPI
PALCE20V8H-10JC/4	PLCC	28	GAL20V8C-10LJ
PALCE20V8H-10PC/4	PDIP	24	GAL20V8B-10LP
PALCE20V8H-15JC/4	PLCC	28	GAL20V8B-15LJ
PALCE20V8H-15JI/4	PLCC	28	GAL20V8B-15LJI
PALCE20V8H-15PC/4	PDIP	24	GAL20V8B-15LP
PALCE20V8H-15PI/4	PDIP	24	GAL20V8B-15LPI
PALCE20V8H-25JC/4	PLCC	28	GAL20V8B-25LJ
PALCE20V8H-25JI/4	PLCC	28	GAL20V8B-25LJI
PALCE20V8H-25PC/4	PDIP	24	GAL20V8B-25LP
PALCE20V8H-25PI/4	PDIP	24	GAL20V8B-25LPI
PALCE20V8H-5JC/5	PLCC	28	GAL20V8C-5LJ
PALCE20V8H-7JC/5	PLCC	28	GAL20V8C-7LJ
PALCE20V8H-7PC/5	PDIP	24	GAL20V8B-7LP
PALCE20V8Q-15JC/4	PLCC	28	GAL20V8B-15QJ
PALCE20V8Q-15PC/4	PDIP	24	GAL20V8B-15QP

**EXHIBIT “A” (Page 2 of 2)**  
**Pin-Compatible Alternative OPN; No / Minor Conversion Issues**

<b>Obsolete OPN</b>	<b>Pkg</b>	<b>Pin Cnt</b>	<b>Pin-Compatible Alternative OPN</b>
PALCE20V8Q-20JI/4	PLCC	28	GAL20V8B-20QJI
PALCE20V8Q-20PI/4	PDIP	24	GAL20V8B-20QPI
PALCE20V8Q-25JC/4	PLCC	28	GAL20V8B-25QJ
PALCE20V8Q-25JI/4	PLCC	28	GAL20V8B-25QJI
PALCE20V8Q-25PC/4	PDIP	24	GAL20V8B-25QP
PALCE20V8Q-25PI/4	PDIP	24	GAL20V8B-25QPI
PALCE22V10H-10JC/5	PLCC	28	GAL22V10D-10LJ
PALCE22V10H-10JI/5	PLCC	28	GAL22V10D-10LJI
PALCE22V10H-10PC/5	PDIP	24	GAL22V10D-10LP
PALCE22V10H-10PI/5	PDIP	24	GAL22V10D-10LPI
PALCE22V10H-10SC/5	SOIC	24	GAL22V10D-10LS
PALCE22V10H-15JC/4	PLCC	28	GAL22V10D-15LJ
PALCE22V10H-15JI/5	PLCC	28	GAL22V10D-15LJI
PALCE22V10H-15PC/4	PDIP	24	GAL22V10D-15LP
PALCE22V10H-15PI/5	PDIP	24	GAL22V10D-15LPI
PALCE22V10H-15SC/4	SOIC	24	GAL22V10D-15LS
PALCE22V10H-20JI/4	PLCC	28	GAL22V10D-20LJI
PALCE22V10H-20PI/4	PDIP	24	GAL22V10D-20LPI
PALCE22V10H-25JC/4	PLCC	28	GAL22V10D-25LJ
PALCE22V10H-25JI/4	PLCC	28	GAL22V10D-25LJI
PALCE22V10H-25PC/4	PDIP	24	GAL22V10D-25LP
PALCE22V10H-25PI/4	PDIP	24	GAL22V10D-25LPI
PALCE22V10H-25SC/4	SOIC	24	GAL22V10D-25LS
PALCE22V10H-5JC/5	PLCC	28	GAL22V10D-5LJ
PALCE22V10H-7JC/5	PLCC	28	GAL22V10D-7LJ
PALCE22V10H-7PC/5	PDIP	24	GAL22V10D-7LP
PALCE22V10Q-10JC/5	PLCC	28	GAL22V10D-10QJ
PALCE22V10Q-10PC/5	PDIP	24	GAL22V10D-10QP
PALCE22V10Q-15JC/5	PLCC	28	GAL22V10D-15QJ
PALCE22V10Q-15PC/5	PDIP	24	GAL22V10D-15QP
PALCE22V10Q-25JC/4	PLCC	28	GAL22V10D-25QJ
PALCE22V10Q-25PC/4	PDIP	24	GAL22V10D-25QP
PALCE26V12H-15JC/4	PLCC	28	GAL26V12C-15LJ
PALCE26V12H-15JI/4	PLCC	28	GAL26V12C-15LJI
PALCE26V12H-15PC/4	PDIP	28	GAL26V12C-15LP
PALCE26V12H-15PI/4	PDIP	28	GAL26V12C-15LPI
PALCE26V12H-20JC/4	PLCC	28	GAL26V12C-20LJ
PALCE26V12H-20JI/4	PLCC	28	GAL26V12C-20LJI
PALCE26V12H-20PC/4	PDIP	28	GAL26V12C-20LP
PALCE26V12H-20PI/4	PDIP	28	GAL26V12C-20LPI

**EXHIBIT “B”**  
**Pin-Compatible Alternative OPNs**  
**With Functional and/or AC/DC Parametric Differences**

<b>Obsolete OPN</b>	<b>Pkg</b>	<b>Pin Cnt</b>	<b>Pin-Compatible Alternative OPN</b>
MACH111SP-10JC	PLCC	44	M4A5-32/32-10JC
MACH111SP-10JI	PLCC	44	M4A5-32/32-10JI
MACH111SP-10VC	TQFP	44	M4A5-32/32-10VC
MACH111SP-12JC	PLCC	44	M4A5-32/32-10JC
MACH111SP-12JI	PLCC	44	M4A5-32/32-12JI
MACH111SP-12VC	TQFP	44	M4A5-32/32-10VC
MACH111SP-14JI	PLCC	44	M4A5-32/32-12JI
MACH111SP-15JC	PLCC	44	M4A5-32/32-10JC
MACH111SP-15VC	TQFP	44	M4A5-32/32-10VC
MACH111SP-18JI	PLCC	44	M4A5-32/32-12JI
MACH111SP-5JC	PLCC	44	M4A5-32/32-5JC
MACH111SP-5VC	TQFP	44	M4A5-32/32-5VC
MACH111SP-7JC	PLCC	44	M4A5-32/32-7JC
MACH111SP-7JI	PLCC	44	M4A5-32/32-7JI
MACH111SP-7VC	TQFP	44	M4A5-32/32-7VC
MACH130-15JC	PLCC	84	M4-128N/64-15JC
MACH130-18JI	PLCC	84	M4-128N/64-18JI
MACH131-10JC/1	PLCC	84	M4-128N/64-10JC
MACH131-10JI/1	PLCC	84	M4-128N/64-10JI
MACH131-12JC/1	PLCC	84	M4-128N/64-12JC
MACH131-12JI/1	PLCC	84	M4-128N/64-12JI
MACH131-14JI/1	PLCC	84	M4-128N/64-14JI
MACH131-15JC/1	PLCC	84	M4-128N/64-15JC
MACH131-18JI/1	PLCC	84	M4-128N/64-18JI
MACH131-7JC/1	PLCC	84	M4-128N/64-7JC
MACH211SP-10JC	PLCC	44	M4A5-64/32-10JC
MACH211SP-10JI	PLCC	44	M4A5-64/32-10JI
MACH211SP-10VC	TQFP	44	M4A5-64/32-10VC
MACH211SP-12JC	PLCC	44	M4A5-64/32-10JC
MACH211SP-12JI	PLCC	44	M4A5-64/32-12JI
MACH211SP-12VC	TQFP	44	M4A5-64/32-10VC
MACH211SP-14JI	PLCC	44	M4A5-64/32-12JI
MACH211SP-15JC	PLCC	44	M4A5-64/32-10JC
MACH211SP-15VC	TQFP	44	M4A5-64/32-10VC
MACH211SP-18JI	PLCC	44	M4A5-64/32-12JI
MACH211SP-6JC	PLCC	44	M4A5-32/32-5JC
MACH211SP-6VC	TQFP	44	M4A5-32/32-5VC
MACH211SP-7JC	PLCC	44	M4A5-64/32-7JC
MACH211SP-7VC	TQFP	44	M4A5-64/32-7VC

**EXHIBIT “B” (Page 2 of 2)**  
**Pin-Compatible Alternative OPNs**  
**With Functional and/or AC/DC Parametric Differences**

<b>Obsolete OPN</b>	<b>Pkg</b>	<b>Pin Cnt</b>	<b>Pin-Compatible Alternative OPN</b>
MACH230-10JC	PLCC	84	M4-128N/64-10JC
MACH230-15JC	PLCC	84	M4-128N/64-15JC
MACH230-18JI	PLCC	84	M4-128N/64-18JI
MACH231-10JC/1	PLCC	84	M4-128N/64-10JC
MACH231-12JC/1	PLCC	84	M4-128N/64-12JC
MACH231-12JI/1	PLCC	84	M4-128N/64-12JI
MACH231-14JI/1	PLCC	84	M4-128N/64-14JI
MACH231-15JC/1	PLCC	84	M4-128N/64-15JC
MACH231-18JI/1	PLCC	84	M4-128N/64-18JI
MACH231-7JC	PLCC	84	M4-128N/64-7JC
MACH435-12JC	PLCC	84	M4-128N/64-12JC
MACH435-15JC	PLCC	84	M4-128N/64-15JC
MACH435-20JI	PLCC	84	M4-128N/64-18JI
MACH435Q-20JC	PLCC	84	M4-128N/64-15JC
MACH445-12YC	PQFP	100	M4A5-128/64-10YC
MACH445-15YC	PQFP	100	M4A5-128/64-10YC
MACH445-20YI	PQFP	100	M4A5-128/64-12YI
PALCE16V8Z-25JC	PLCC	20	GAL16V8Z-15QJ
PALCE16V8Z-25PC	PDIP	20	GAL16V8Z-15QP
PALCE16V8Z-25SC	SOIC	20	GAL16V8Z-15QS
PALCE20RA10H-10JC	PLCC	28	GAL20RA10B-10LJ
PALCE20RA10H-10PC	PDIP	24	GAL20RA10B-10LP
PALCE20RA10H-15JC	PLCC	28	GAL20RA10B-15LJ
PALCE20RA10H-15PC	PDIP	24	GAL20RA10B-15LP
PALCE20RA10H-20JC	PLCC	28	GAL20RA10B-20LJ
PALCE20RA10H-20JI	PLCC	28	GAL20RA10B-20LJI
PALCE20RA10H-20PC	PDIP	24	GAL20RA10B-20LP
PALCE20RA10H-20PI	PDIP	24	GAL20RA10B-20LPI
PALCE20RA10H-7JC	PLCC	28	GAL20RA10B-7LJ
PALCE26V12H-10JC/4	PLCC	28	GAL26V12C-10LJ
PALCE26V12H-10JI/4	PLCC	28	GAL26V12C-10LJI
PALCE26V12H-10PC/4	PDIP	28	GAL26V12C-10LP
PALCE26V12H-10PI/4	PDIP	28	GAL26V12C-10LPI
PALCE26V12H-7JC/4	PLCC	28	GAL26V12C-07LJ
PALLV16V8-10JC	PLCC	20	GAL16LV8C-10LJ
PALLV16V8-10PC	PDIP	20	GAL16LV8C-10LP
PALLV22V10-10JC	PLCC	28	GAL22LV10C-10LJ
PALLV22V10-15JC	PLCC	28	GAL22LV10C-15LJ
PALLV22V10-7JC	PLCC	28	GAL22LV10C-07LJ

**EXHIBIT “C”**  
**No Pin-Compatible Alternative OPNs**

<b>Obsolete OPN</b>	<b>Pkg</b>	<b>Pin Cnt</b>	<b>Pin-Compatible Alternative OPN</b>
M4-96/96-15YC	PQFP	144	None
M4-96/96-20YI	PQFP	144	None
M5-192/160-10YC	PQFP	208	None
M5-192/160-10YI	PQFP	208	None
M5-192/160-12YC	PQFP	208	None
M5-192/160-12YI	PQFP	208	None
M5-192/160-15YC	PQFP	208	None
M5-192/160-15YI	PQFP	208	None
M5-192/160-20YI	PQFP	208	None
M5-192/160-7YC	PQFP	208	None
MACH110-12JC	PLCC	44	None
MACH110-14JI	PLCC	44	None
MACH110-15JC	PLCC	44	None
MACH110-18JI	PLCC	44	None
MACH111-10JC	PLCC	44	None
MACH111-10JI	PLCC	44	None
MACH111-10VC	TQFP	44	None
MACH111-12JC	PLCC	44	None
MACH111-12JI	PLCC	44	None
MACH111-12VC	TQFP	44	None
MACH111-14JI	PLCC	44	None
MACH111-15JC	PLCC	44	None
MACH111-15VC	TQFP	44	None
MACH111-18JI	PLCC	44	None
MACH111-5JC	PLCC	44	None
MACH111-5VC	TQFP	44	None
MACH111-7JC	PLCC	44	None
MACH111-7JI	PLCC	44	None
MACH111-7VC	TQFP	44	None
MACH120-12JC	PLCC	68	None
MACH120-15JC	PLCC	68	None
MACH120-18JI	PLCC	68	None
MACH131-5JC/1	PLCC	84	None
MACH131-7JI/1	PLCC	84	None
MACH131SP-10VC	TQFP	100	None
MACH131SP-10YC	PQFP	100	None
MACH131SP-10YI	PQFP	100	None
MACH131SP-12VC	TQFP	100	None
MACH131SP-12YC	PQFP	100	None
MACH131SP-12YI	PQFP	100	None
MACH131SP-14YI	PQFP	100	None
MACH131SP-15VC	TQFP	100	None
MACH131SP-15YC	PQFP	100	None
MACH131SP-18YI	PQFP	100	None

**EXHIBIT “C” (Page 2 of 4)**  
**No Pin-Compatible Alternative OPNs**

<b>Obsolete OPN</b>	<b>Pkg</b>	<b>Pin Cnt</b>	<b>Pin-Compatible Alternative OPN</b>
MACH131SP-5VC	TQFP	100	None
MACH131SP-5YC	PQFP	100	None
MACH131SP-7VC	TQFP	100	None
MACH131SP-7YC	PQFP	100	None
MACH131SP-7YI	PQFP	100	None
MACH210-12JC	PLCC	44	None
MACH210-14JI	PLCC	44	None
MACH210-15JC	PLCC	44	None
MACH210-18JI	PLCC	44	None
MACH210A-10JC	PLCC	44	None
MACH210A-10VC	TQFP	44	None
MACH210A-12JC	PLCC	44	None
MACH210A-12JI	PLCC	44	None
MACH210A-12VC	TQFP	44	None
MACH210A-14JI	PLCC	44	None
MACH210A-7JC	PLCC	44	None
MACH210A-7VC	TQFP	44	None
MACH210AQ-12JC	PLCC	44	None
MACH210AQ-15JC	PLCC	44	None
MACH210AQ-18JI	PLCC	44	None
MACH211-10JC	PLCC	44	None
MACH211-10JI	PLCC	44	None
MACH211-10VC	TQFP	44	None
MACH211-12JC	PLCC	44	None
MACH211-12JI	PLCC	44	None
MACH211-12VC	TQFP	44	None
MACH211-14JI	PLCC	44	None
MACH211-15JC	PLCC	44	None
MACH211-15VC	TQFP	44	None
MACH211-18JI	PLCC	44	None
MACH211-7JC	PLCC	44	None
MACH211-7VC	TQFP	44	None
MACH215-12JC	PLCC	44	None
MACH215-14JI	PLCC	44	None
MACH215-15JC	PLCC	44	None
MACH215-18JI	PLCC	44	None
MACH220-10JC	PLCC	68	None
MACH220-12JC	PLCC	68	None
MACH220-15JC	PLCC	68	None
MACH220-18JI	PLCC	68	None
MACH221-10JC	PLCC	68	None
MACH221-10JI	PLCC	68	None
MACH221-12JC	PLCC	68	None
MACH221-12JI	PLCC	68	None

**EXHIBIT “C” (Page 3 of 4)**  
**No Pin-Compatible Alternative OPNs**

<b>Obsolete OPN</b>	<b>Pkg</b>	<b>Pin Cnt</b>	<b>Pin-Compatible Alternative OPN</b>
MACH221-14JI	PLCC	68	None
MACH221-15JC	PLCC	68	None
MACH221-18JI	PLCC	68	None
MACH221-7JC	PLCC	68	None
MACH221SP-10YC	PQFP	100	None
MACH221SP-10YI	PQFP	100	None
MACH221SP-12YC	PQFP	100	None
MACH221SP-12YI	PQFP	100	None
MACH221SP-14YI	PQFP	100	None
MACH221SP-15YC	PQFP	100	None
MACH221SP-18YI	PQFP	100	None
MACH221SP-7YC	PQFP	100	None
MACH231-6JC	PLCC	84	None
MACH231SP-10VC	TQFP	100	None
MACH231SP-10YC	PQFP	100	None
MACH231SP-12VC	TQFP	100	None
MACH231SP-12YC	PQFP	100	None
MACH231SP-12YI	PQFP	100	None
MACH231SP-14YI	PQFP	100	None
MACH231SP-15VC	TQFP	100	None
MACH231SP-15YC	PQFP	100	None
MACH231SP-18YI	PQFP	100	None
MACHLV210-12JC	PLCC	44	None
MACHLV210-15JC	PLCC	44	None
MACHLV210-18JI	PLCC	44	None
PALCE16V8Z-12JI	PLCC	20	None
PALCE16V8Z-12PI	PDIP	20	None
PALCE16V8Z-15JI	PLCC	20	None
PALCE16V8Z-15PI	PDIP	20	None
PALCE16V8Z-25JI	PLCC	20	None
PALCE16V8Z-25PI	PDIP	20	None
PALCE16V8Z-25SI	SOIC	20	None
PALCE20RA10H-10JI	PLCC	28	None
PALCE20RA10H-10PI	PDIP	24	None
PALCE20RA10H-15JI	PLCC	28	None
PALCE20RA10H-15PI	PDIP	24	None
PALCE20RA10H-7JI	PLCC	28	None
PALCE22V10Z-15JI	PLCC	28	None
PALCE22V10Z-15PI	PDIP	24	None
PALCE22V10Z-25JC	PLCC	28	None
PALCE22V10Z-25JI	PLCC	28	None
PALCE22V10Z-25PC	PDIP	24	None
PALCE22V10Z-25PI	PDIP	24	None
PALCE22V10Z-25SC	SOIC	24	None
PALCE22V10Z-25SI	SOIC	24	None



**EXHIBIT “C” (Page 4 of 4)**  
**No Pin-Compatible Alternative OPNs**

<b>Obsolete OPN</b>	<b>Pkg</b>	<b>Pin Cnt</b>	<b>Pin-Compatible Alternative OPN</b>
PALCE24V10H-15JC	PLCC	28	None
PALCE24V10H-15PC	PDIP	28	None
PALCE24V10H-25JC	PLCC	28	None
PALCE24V10H-25PC	PDIP	28	None
PALCE29M16H25JC/4	PLCC	28	None
PALCE29M16H25PC/4	PDIP	24	None
PALCE29MA16H25JC/4	PLCC	28	None
PALCE29MA16H25PC/4	PDIP	24	None
PALCE610H-15JC	PLCC	28	None
PALCE610H-15PC	PDIP	24	None
PALCE610H-25JC	PLCC	28	None
PALCE610H-25PC	PDIP	24	None
PALLV16V8-10SC	SOIC	20	None
PALLV16V8Z-20JI	PLCC	20	None
PALLV16V8Z-20PI	PDIP	20	None
PALLV22V10-10PC	PDIP	24	None
PALLV22V10-15JI	PLCC	28	None
PALLV22V10-15PC	PDIP	24	None
PALLV22V10Z-25JI	PLCC	28	None
PALLV22V10Z-25PI	PDIP	24	None