

new Part no.	Programer PIN	Device Pin	Device Number	Description
PA20PL20D-YA	DIP32	PLCC20	ALTERA EPC1 / EPC2 / EPC1441 ATMEL AT17C65(A) / AT17C128(A) /	
PA20PL20D-YC	DIP32	PLCC20	Dead-Bug ALTERA EPC1 / EPC2 / EPC1441	
PA28PL24D1P6-YA	DIP24	PLCC28	PLCC 28 PIN TO DIP 24 PIN / 5, 8, 11, 19 skips	Skip 5, 8, 11, 19
PA28PL24D2P6-YA	DIP24	PLCC28	PLCC 28 PIN TO DIP 24 PIN / 1, 8, 15, 22 skips	Skip 1, 8, 15, 22
PA28PL24D3P6-YA	DIP24	PLCC28	Skip 5, 10, 21, 22	Skip 5, 10, 21, 22
PA28PL24D4P6-YA	DIP24	PLCC28	Skip 4, 11, 18, 25	Skip 4, 11, 18, 25
PA28PL24D5P6-YA	DIP24	PLCC28	Skip 1, 10, 15, 21	Skip 1, 10, 15, 21
PA28PL24D7P6-YA	DIP24	PLCC28	Skip 1, 11, 15, 19, (28-1), (14-15)	Skip 1, 11, 15, 19, (28-1), (14-15)
PA28PL28D-YA	DIP28	PLCC28	ICT PA7540 LATTICE GAL20VP8B /	
PA32PL28D-YA	DIP28	PLCC32		
PA32PL28D-YC	DIP28	PLCC32		
PA32PL32D-YA	DIP32	PLCC32	AMD AM28F256 / AM28F512 / AM28F010 / Am28F020	
PA32PL32D-YC	DIP32	PLCC32		
PA44PL40D-YA	DIP40	PLCC44		
PA44PL40D-YC	DIP40	PLCC44		
PA44PL40DA-YC	DIP40	PLCC44	Microchip PIC16C64(A) / 16CR64 / 16C65(A B) / 16CR65 / 16C67 / 16C74(A B) /	
PA44PL42D-YC	DIP42	PLCC44	ST M28W160	
PA44PL48D-YA	DIP48	PLCC44		
PA44PL48D-YC	DIP48	PLCC44		
PA52PL40DC-YC	DIP40	PLCC52	INTEL 87C196JQ / 87C196JR / 87C196JT / 87C196JV	
PA52PL48DA-YC	DIP48	PLCC52	MOTOROLA MC68HC11A1-FN / MC68HC11A8-FN / MC68HC11E1-FN /	
PA52PL48DA-YA	DIP48	PLCC52	MOTOROLA MC68HC11A1-FN / MC68HC11A8-FN / MC68HC11E1-FN /	
PA68PL40DA-YC	DIP48	PLCC68	ALTERA EPM7064	
PA68PL40DB-YC	DIP40	PLCC68	ALTERA EPM7096	
PA68PL48DC-YC	DIP40	PLCC68	INTEL 87C196KQ / 87C196KR / 87C196KS / 87C196KT	
PA68PL40DD-YC	DIP40	PLCC68	INTEL 87C196KB / 87C196KC / 87C196KD	
PA68PL40DE-YC	DIP40	PLCC68	INTEL 87C196CA	
PA68PL40DF-YC	DIP40	PLCC68	Microchip PIC16C923, PIC16C924, PIC17C752, PIC17C756	

PA68PL40DG-YC	DIP40	PLCC68	ATMEL AT89C51ED2 / AT89C51ID2 / AT89C51RD2	
PA68PL48D-YC	DIP48	PLCC68	ATMEL EPM7064 / EPM7064S / EPM7096	
PA68PL48DA-YC	DIP48	PLCC68	XILINX XC7272A	
PA68PL48DB-YC	DIP48	PLCC68	XILINX XC7354	
PA68PL48DC-YC	DIP48	PLCC68	XILINX XC7372	
PA68PL48DD-YC	DIP48	PLCC68	MOTOROLA MC68HC11L6-FN / MC68HC711L6-FN	
PA68PL48DE-YC	DIP48	PLCC68	MOTOROLA MC68HC11F1-FN	
PA68PL48DH-YC	DIP48	PLCC68	MOTOROLA MC68HC711KS2V-FN	
PA84PL40DA-YC	DIP40	PLCC84	ALTERA EPM7064	
PA84PL40DB-YC	DIP40	PLCC84	ALTERA EPM7096	
PA84PL40DC-YC	DIP40	PLCC84	INTEL 87C196MC / 87C196MD / 87C196MH	
PA84PL40DD-YA	DIP40	PLCC84	HITACHI H8/532 / H8/534 / H8/536	IC120-0844-103
PA84PL48D-YC	DIP48	PLCC84	ALTERA EPM7064 / EPM7064S / EPM7096	
PA84PL48DA-YC	DIP48	PLCC84	XILINX XC7272A	
PA84PL48DB-YC	DIP48	PLCC84	XILINX XC7372 / XC73108A / XC95108	
PA84PL48DC-YC	DIP48	PLCC84	MOTOROLA MC68HC11K4-FN / MC68HC711K4-FN	
PA84PL48DD-YC	DIP48	PLCC84	MOTOROLA MC68HC11P2-FN / MC68HC711P2-FN	
PA32ST32D-NO	DIP32	STSOP32		Pitch 0.5mm, Body 13.4mm
PA32ST32D-WO	DIP32	STSOP32	ATMEL AT49BV001A AMIC A29L040X / A29L004TX / A29L004UX	Pitch 0.5mm, Body 14mm
PA40ST40D-WO	DIP40	STSOP40	ATMEL AT49F1024	Pitch 0.5mm, Body 14mm
PA32TS32D-WO	DIP32	TSOP32	SANYO LE28F1101T / LE28FV1101T AMIC A29512V / A29010V / A29040V / A29040AV / A29040BV / A29L040V /	
PA40TS40D-WO	DIP40	TSOP40	ATMEL AT45DB642	
PA44TS44D-TO	DIP44	TSOP44	MACRONIX MX26LV008BTC / OKI MR27V402D / MR27V402E / MR27V3202E	
PA48TS48D-TO	DIP48	TSOP48	29X100/200/400/800	
PA48TS48D-WO	DIP48	TSOP48	29X100/200/400/800	
HA48TS48D1-WO	DIP48	TSOP48	Macronix MX29LV160ABTC, MX29LV160ATTC, ST M29F800AB.	648-0482211-A01
PA48TS48D1-WO	DIP48	TSOP48	Macronix MX29LV160ABTC, MX29LV160ATTC, ST M29F800AB.	648-0482211-A01
PA48TS48D1-WO-R	DIP48	TSOP48	Macronix MX29LV160ABTC, MX29LV160ATTC, ST M29F800AB.	648-0482211-A01

PA48TS48DC-WO	DIP48	TSOP48	SAMSUNG K9F2808U0C / K9F5616U0C / K9K1G08U0M / K9F1208U0M	648-0482211-A01
PA48TS48DD-WO	DIP48	TSOP48	SAMSUNG K9F5216U0C	648-0482211-A01
PA48TS48D-YC	DIP48	TSOP48	29X100/200/400/800	
PA48TS48DF			ST NAND01GW3A0AN6 / NAND512W3A0AN6	648-0482211-A01
PA52TS48DA-EO	DIP48	TSOP52	mitsubishi m6mgb32j54 / m6mgt32j54	
PA52TS48DB-EO	DIP48	TSOP52	mitsubishi m6mgd137	
PA54TS48D-YO	DIP48	TSOP54	mitsubishi m6mgj927y66jfp	IC363-0542-015x
PA56TS48D-YO	DIP48	TSOP56	INTEL E28F160S3 / E28F160S5 INTEL E28F320J3A / E28F640J3A /	
PA56TS48D-WO	DIP48	TSOP56	INTEL E28F160S3 / E28F160S5 INTEL E28F320J3A / E28F640J3A /	648-0562211-A01
PA56TS48DB-WO	DIP48	TSOP56	AMD Am29LV128MH	648-0562211-A01
PA56TS48DC-WO	DIP48	TSOP56	AMD AM29LV256MH SPANSION S29GL256M	
PA56TS48DD-WO future	DIP48	TSOP56	SPANSION S29GL512M	
HA56TS48DE-WO future			SPANSION S29GL512N -for FMT	
PA28TSS28D-EO	DIP28	TSSOP28	PHILIPS P89LPC930 / P89LPC931 / P89LPC932	OTS-28-0.65-01
PA24TSS24D-EO	DIP24	TSSOP24	ATMEL AT24C128 / AT24C256 / AT24C512 / AT24RF08CT	
PA8TSS8DA-EO	DIP8	TSSOP8	MICROCHIP 25LC040	
PA28SS28D-EO	DIP28	SSOP28	ATMEL T87C5103	
PA28SS28DA-EO	DIP28	SSOP28	Microchip PIC16C55 / PIC16C57 / PIC16CR57	
PA20SS18D-EO	DIP18	SSOP20	MICROCHIP PIC16F54 / PIC16F87 / PIC16F88 / PIC16F627A / PIC16F628A /	
PA56SS48DA-TO	DIP48	SSOP56	AMD Am29BL802CB	CSP056-054
PA56SS48D-B6	DIP48	SSOP56	CIC-56SS-48D-B6-TI, INTEL DT28F160S3/320S3/320J5/640J5. Sharp	
PA56SS48D-C6	DIP48	SSOP56	CIC-56SS-48D-C6-TI, INTEL DT28F160F3	
PA56SS48DB-TO	DIP48	SSOP56	INTEL DA28F320J5 / DA28F640J5 / DT28F160S3 / DT28F320S3	
PA56SS48DC-TO	DIP48	SSOP56	INTEL DT28F160F3-B / DT28F160F3-T	
PA8SO8D-EO-150	DIP8	SOP8	ATMEL AT17N256 / AT24RF08CN / AT25F1024	8
PA16SO16D-EO-150	DIP16	SOP16	MICROCHIP PIC16F636 / PIC16F684 / PIC16F688	8/14/16
PA20SO20D-EO-210	DIP20	SOP20	SST SST25LF080A	8/14/16/18/20
PA16SO16D-EO-300	DIP16	SOP16	ST M25P16VMJ / M25P32VMJ / M25P64VMJ	

PA28SO28D-EO-300	DIP28	SOP28	MICROCHIP PIC16F737 / PIC16F767 / PIC18F2220 / PIC18F2320	14/16/18/20/24/28
PA28SO28D-EC-300	DIP28	SOP28	MICROCHIP PIC16F737 / PIC16F767 / PIC18F2220 / PIC18F2320	14/16/18/20/24/28
PA28SO28DA-EO-330	DIP28	SOP28	MACRONIX MX25L802MC / MX25L1602MC / MX25L6402AMC	OTS-28-1.27-23
PA28SO28DA-EC-330	DIP28	SOP28	MACRONIX MX25L802MC / MX25L1602MC / MX25L6402AMC	14/16/18/20/24/28, FP-28-1.27-06
PA28SO28DB-EC-350	DIP28	SOP28	ATMEL AT45D021 / AT45D041 / AT45D081 / AT45D161	14/16/18/20/24/28, FP-28-1.27-15B
PA32SO32D-EO-450	DIP32	SOP32	HOLTEK HT27C010 / HT27C040 MACRONIX MX25L3202MC / MX25L6402MC	
PA40SO40D-EO-450	DIP40	SOP40	MITSUBISHI M5M27C102K	32/40
PA44SO44D-EO-520	DIP44	SOP44	ALLIANCE AS29LV800B / AS29LV800T AMD Am29DL400B / Am29DL800B	
PA32TQ32D-YC	DIP32	QFP32	ATMEL ATtiny28L / ATtiny28V	
PA44TQ40D-EO	DIP40	QFP44	TIP TO TIP : 12.4) 8748 / 8749 / 8751H / 87C51 / 87C52 / 87C51-FA / 87C51-FB /	
PA44VQ40D-YC	DIP40	QFP44	ATMEL AT89C51	
PA44TQ48D-EO	DIP44	QFP44	TIP TO TIP : 12.4)	
PA44VQ44D-YC	DIP44	QFP44	ATMEL AT89LS51 GENCORE GC87C520A0	
PA44MQ40D-EC	DIP40	QFP44	TIP TO TIP : 12.6)	
PA44MQ48D-EC	DIP48	QFP44	TIP TO TIP : 12.6)	
PA44PQ48D-EC	DIP48	QFP44	TIP TO TIP : 13.9) GMS97C51 / GMS7C52 / GMS97C54 / GMS97C56 / GMS97C58	
PA44TQ40D-EO-PIC	DIP40	QFP44	TIP TO TIP : 12.4) PIC 16F8xx	
PA44PQ40D-EC-PIC	DIP40	QFP44	TIP TO TIP : 13.9) PIC 16F8xx	
PA64TQ40D-YC	DIP40	QFP64	MICROCHIP PIC18F6520 / PIC18LF6520 / PIC18F6620 / PIC18LF6620 / PIC18F6720 /	
PA80TQ40D-YC	DIP40	QFP80	MICROCHIP PIC18F8520 / PIC18F8620 / PIC18F8720 / PIC18LF8520 / PIC18LF8620 /	
PA100TQ28D-YC	DIP28	QFP100	LATTICE LC4064V / LC4064B / LC4064C / LC4128V / LC4128B / LC4128C / LC4128ZC	
PA100TQ48D-YC	DIP40	QFP100	ALTERA EPM3064A / EPM3128A	
PA5SOT8D-MC	DIP8	SOT5	Microchip 24LC08B	MCS SH028G-KA
PA8MSOP8D-MC	DIP8	MSOT8	MICROCHIP 25AA080 / 25LC080 / 25C080	MCS TT008S-MA
PA8SON48D-MC	DIP48	SON8	ATMEL AT45DB161B, select TSOP28	MCS TA008TMA
PA8SON48DA-MC	DIP48	SON8	ATMEL AT45DB161B, LabTools select TSOP28	MCS TA008TMA
PA14BG28D-MC			ATMEL AT45DB041B (wire BGA 14pin to SOIC 28 signal)	MC-14BG
HA44BG48D-YO-8X11	DIP48	BGA44	SAMSUNG K8F5616ETM / K8S5615ETA - for FMT	NP383-04440 (8X11, PITCH 0.5)

PA48WFB48D	DIP48	BGA48	SST39WF400A	
PA48BGA48DA-YO-9X9	DIP48	BGA48	SAMSUNG K8D1616UTM / K8D1616UBM	NP351-0482-P (9X9)
PA48BGA48DB-3O-6X8	DIP48	BGA48	SST39L(V)F160/200/400/800(A)	248-9063-00-2401 (6X8)
PA48BGA48DC-3O-8X10	DIP48	BGA48	SST36VF1601/1602	248-9057-00-2401 (8X10)
PA48BGA48DD-3O-6X8	DIP48	BGA48	SST36VF1601/1602	248-9063-00-2401 (6X8)
PA48BGA48DE-3O-10X12	DIP48	BGA48	SST32HF162/164	248-9110-92-1001 (10X12)
PA48BGA48DE1-WC-10X12	DIP48	BGA48	SST32HF162/164	654048229010812 (10X12)
PA48BGA48DF-3O-6X8	DIP48	BGA48	SST32HF162/164	248-9063-00-2401 (6X8)
PA48BGA48DG-3O-8X10	DIP48	BGA48	SST39L(V)F160/200/400/800(A)	248-9057-00-2401 (8X10)
PA48BGA48DH-3O-6X8	DIP48	BGA48	SST34HF1621 / SST34HF1622 / SST34HF1641 / SST34HF1642	248-9063-00-2401 (6X8)
PA48BGA48DI-YO-6X8.5	DIP48	BGA48	SAMSUNG K8D1616UTA / K8D1616UBA / K8D1716UTA / K8D1716UBA	NP351-048-279 (6X8.5)
PA48BGA48DJ-YO-10X12	DIP48	BGA48	SAMSUNG K8S641581M / K5U644181M / K5U648181M	NP383-04010 (10X12, 0.5)
PA48BGA48DM-WO-6.15X8.15	DIP48	BGA48	AMD Am29LV400B	703-1048-01
PA48BGA32DN-3O-6X8	DIP32	BGA48	SST39L(V)F512/010/020/040	248-9063-00-2401 (6X8)
PA48BGA48DT-MO-7X7	DIP48	BGA48	ATMEL AT49BV8192A(T) / AT49LV8192A(T)	48BGA B.1 Socket (7x7), Pitch 0.75mm
PA48BGA48DU-MO-6.37X6.39	DIP48	BGA48	ST M28W800CT / M28W800CB	45TFBGA B.1 Socket (6.37x6.39)
PA48BG48DV-MC-6X9	DIP48	BGA48	SAMSUNG K8D6x16UTM / K8D6x16UBM (LabTool Programmer TSOP48)	TB048E-GA (6X9)
PA48BG48DW-WO-6.15X8.15	DIP48	BGA48	AMD Am29LV400BT / Am29LV400BB	same PA48BGA48DM PCB
PA48BG48DAA-TO-7.286X6.964	DIP48	BGA48	INTEL GT28F160B3 / GT28F160C3 CIC-48uBGA-44D-A6-YAM □□□□	
PA48BG48DAB-TO-7.286X10.850	DIP48	BGA48	INTEL GT28F320B3-B / GT28F320B3-T / GT28F320C3-B / GT28F320C3-T	
HA48BG48DAD-MO-6X8.5	DIP48	BGA48	SAMSUNG K8D3216UTC / K8D3216UBC / K8D3316UTC / K8D3316UBC	MCS MO-48BG-6X8.5 (6X8.5)
HA48BG48DAF-WO-8X10	DIP48	BGA48	SST S36VF1601 / SST36VF1602	703-1048-13-S
PA48BG48DAG-MC-6X8	DIP48	BGA48	FUJITSU MBM29LV160TE / MBM29LV160BE / MBM29LV400BC /	
PA48BG48DAG1-MO-6X8	DIP48	BGA48	FUJITSU MBM29LV160TE / MBM29LV160BE / MBM29LV400BC / MBM29LV400TC	
PA48BG48DAH-MC-8X9	DIP48	BGA48	FUJITSU MBM29DL161TD / MBM29DL161BD	
HA48BG48DAI-MO-6X8	DIP48	BGA48	SST S36VF1601 / SST39VF3201/ SST39VF1602 / SST39VF3202	MO-48BG-6X8-0.45
HA48BG48DAO-WO-8X9	DIP48	BGA48	AMD Am29DL161D / Am29DL162D / Am29DL163D / Am29DL164D	703-1048-14 (8X9)
HA48BG48DAO1-WO-8X9 - shinateck	DIP48	BGA48	AMD Am29DL161D / Am29DL162D / Am29DL163D / Am29DL164D	703-1048-14 (8X9)

HA48BG48DAP-WO-6X9	DIP48	BGA48	AMD Am29DL800BB / AM29DL800BT / AM29LV800BB / AM29LV800BT	703-1048-15 (6X9)
HA48BG48DAQ-YO-7X10	DIP48	BGA48	MICRON MT28F322P3	NP291-04877-* (7X10, 0.75)
HA48BG48DAR-MO-7X10	DIP48	BGA48	ATMEL AT49BV322A / AT49BV322AT	MO-48BG-7X10-0.4
HA48BG48DAS-WO-6.15X8.15	DIP48	BGA48	SPANSION S29PL032J	777A1048H111C (6.15X8.15)
PA48BG48DAC-3O-6X8	DIP48	BGA48	AMIC A29L400	248-9063-00-2401 (6X8)
PA56BGA48DA-YO-8X13	DIP48	BGA56	SAMSUNG K5A3240YTM / K5A3240YBM / K5A3340YTM / K5A3380YBM	NP351-056-197
PA56BGA48DB-3O-8X10	DIP48	BGA56	SST34HF1621 / SST34HF1622 / SST34HF1641 / SST34HF1642	256-9057-00-2401
PA56BGA48D-1-3O	DIP48	BGA56	SST SST34HF1601C / SST34HF1621C / SST34HF1641C / SST34HF1641D /	#pin is 64 in 3M socket
PA56BGA48DC-TO-7.7X9	DIP48	BGA56	INTEL GE28F3204W30 / 28F3208W30 / 28F6408W30	CBG056-050F (7.7X9)
PA56BGA48DD-YO-9X9	DIP48	BGA56	SAMSUNG KM5AU1620 / KM5AU1621	NP351-05673-1
PA56BGA48DE-TO-7.7X9	DIP48	BGA56	INTEL 28F320W18 / 28F640W18 / 28F128W18 - 1.8V	
PA56BG48DG-TO-7X9	DIP48	BGA56	FUJITSU MB84VD23381HJ	CBG056-077AM (7X9)
HA56BG48DH-MO-7X9	DIP48	BGA56	AMD S71PL032J	MO-56BG-7X9
PA63BGA48DA-WO-8X14	DIP48	BGA63	AMD Am29DL322D / Am29DL323D / Am29DL324D / Am29DL32xG	703-1063-01
PA63BGA48DB-TO-9X11	DIP48	BGA63	SAMSUNG K9F5608U0B / K9F5608D0C	CBG048-A70N63 (9X11)
HA63BG48DH-MO-7X9	DIP48	BGA63	ST M29W320DT / M29W320DB	MO-48BG-7X11
HA63BG48DI-TO-9X11	DIP48	BGA63	INTEL GE28F256L18 - for FMT	FBGA063-021F (9X11, PITCH 0.75)
PA63BGA48DC-TO-9X11	DIP48	BGA63	SAMSUNG K9F5608Q0B-D - for 1.8V	CBG048-A70N63 (9X11)
HA63BG48DE-TO-9.5X12	DIP48	BGA63	KEF00F0000CM - 2.6V	CBG048-A70W63 (9.5X12)
PA64BGA48D-TO-10X13	DIP48	BGA64	INTEL RC28F320J3A / RC28F640J3A / RC28F128J3A	CBG064-052A (10X13)
HA64BGA48D-TO-10X13			INTEL RC28F320J3A / RC28F640J3A / RC28F128J3A	CBG064-052A (10X13)
PA64BGA48DA-TO-10X15	DIP48	BGA64	INTEL RC28F256K3 / RC28F128K3 / RC28F640K3 BGA Guide 10X15 (Pitch	CBG064-087B (10X15)
HA64BG48DF-MO-8X11.6	DIP48	BGA64	AMD S71PL127JB0 / S71PL129JB0 (check Ball size 0.4mm)	MO-56BG-8X11.6-0.38
PA65BGA48DA-YO-9X9	DIP48	BGA65	FUJITSU MB84VD23381FJ / MB84VD23280FA	NP351-05673-1 (9X9)
PA66BGA48DA-TO-8X11	DIP48	BGA66	SAMSUNG K5D3241YTA / K5D3241YBA	CBG064-A70K72 (8X11)
HA66BG48DB-TO-8X14	DIP48	BGA66	INTEL RD38F1010C0ZTL0 / RD38F1010C0ZBL0 / RD38F1020C0ZTL0 /	FBGA072-003C (8X14)
PA69BGA48DA-TO-8X11	DIP48	BGA69	TOSHIBA TH50VSF2580 / TH50VSF2581	FBGA056-012H73 (8X11)
PA69BGA48DB-TO-8X11	DIP48	BGA69	SAMSUNG K5F3264YTM / K5F3264YBM	FBGA056-012H73 (8X11)

PA69BGA48DC-TO-8X11	DIP48	BGA69	FUJITSU MB84VD2118XA / MB84VD2119XA	FBGA056-012H73 (8X11)
PA69BGA48DD-TO-8X11	DIP48	BGA69	AMD DS42514 / DS42515 / DS42546	FBGA056-012H73 (8X11)
PA69BGA48DE-TO-8X11	DIP48	BGA69	SAMSUNG K5A3240YTA / 3280YBA / 3380YTA / 3380YBA / 3240YTB / 3280YBB /	FBGA056-012H73 (8X11)
PA69BGA48DF-TO-9X12	DIP48	BGA69	TOSHIBA TH50VSF3680AASB / TH50VSF3681AASB / TH50VSF3682AASB /	CBG056-051G (9X12)
PA69BGA48DG-YO-8X13	DIP48	BGA69	SAMSUNG KAC070010M	NP351-056-197 (8X13)
PA69BGA48DH-TO-8X11	DIP48	BGA69	HYNIX HY96U1602M / HY96U1604M	CBG064-A70K72 (8X11)
PA69BGA48DI-3O-10X12	DIP48	BGA69	TOSHIBA TH50VSF4682AASB / TH50VSF4683AASB / TH50VSF4682BCSB /	269-9064-00-2401 (10X12)
PA69BGA48DJ-YO-8X11.6	DIP48	BGA69	SAMSUNG KADxx0300M? / KAD070300B	NP351-069-336 (8X11.6)
PA69BGA48DK-TO-9X12	DIP48	BGA69	TOSHIBA TH50VPF6782AASB / TH50VPF6783AASB / TH50VPF6784AASB	CBG099-051AY-H / CBG056-051G(+4BGA PIN)
PA69BGA48DL-TO-9X12	DIP48	BGA69	M-Systems MD3331-D64 / MD4331-D1G / MD3831-D32	CBG056-051G (9X12)
HA69BGA48DL-TO-9X12	DIP48	BGA69	M-Systems MD3331-D64 / MD4331-D1G / MD3831-D32	CBG056-051G (9X12)
PA69BGA48DM-TO-7X10	DIP48	BGA69	TOSHIBA THPV057022BCBB / THPV057023BCBB	CBG060-051AU (7X10)
PA71BGA48DA-YO-7X12	DIP48	BGA71	FUJITSU MB84VD2228XEA / MB84VD2229XEE	NP351-056-161-1 (7X12)
PA72BGA48D-A8-WO-8X8	DIP48	BGA72	SHARP LRS1336 / LRS1350	703-1064-02
PA72BGA48D-A11-WO-8X11	DIP48	BGA72	SHARP LRS1311 / LRS1325A / LRS1329A / LRS1349	703-1064-01
PA72BGA48D-B10-TO-8X10	DIP48	BGA72	INTEL 28F1602C3	FBGA072-003A
PA72BGA48D-B11-WO-8X11	DIP48	BGA72	SHARP LRS1383 / LRS1805A LRS1806A HYNIX HY91U3204 / HY91U3208	703-1064-01
PA72BGA48D-B12-TO-8X12	DIP48	BGA72	INTEL 28F1604C3 / 28F3202C3 / 28F3204C3	FBGA072-003B
PA72BGA48D-B14-TO-8X14	DIP48	BGA72	INTEL 28F3208C3	FBGA072-003C
PA72BGA48D-BB-TO-8X11	DIP48	BGA72	SHARP LRS1815 / LRS1816 / LRS1825 / LRS1826 / LRS1828	CBG064-A70K72 (8X11)
PA72BGA48D-BC-TO-8X11	DIP48	BGA72	SHARP LRS1863	CBG064-A70K72 (8X11)
PA72BGA48D-BD-TO-8X11	DIP48	BGA72	SHARP LRS1806A	CBG064-A70K72 (8X11)
PA72BGA48D-BE-TO-8X11	DIP48	BGA72	SHARP LRS1850	CBG064-A70K72 (8X11)
PA72BGA48D-C11-WO-8X11	DIP48	BGA72	SHARP LRS1316A	703-1064-01
PA72BGA48DD-TO-8X11	DIP48	BGA72	SILICON SV5C3238UBA / SV5C3238UTA / SV5C6416UDA	CBG064-A70K72 (8X11)
PA72BGA48DE-TO-8X11	DIP48	BGA72	SILICON SV5C2832UCA / SV5C2832UDA / SV5C2832UCR / SV5C2832UDR /	CBG064-A70K72 (8X11)
HA72BGA48DF-MO-8.5X10.8	DIP48	BGA72	Mitsubishi M6MGD13VW34DWG	MO-64BG-8.5X10.8
PA73BGA48DA-YO-8X11.6	DIP48	BGA73	AMD DS42516 / DS42553 / DS42585 / DS42587	NP351-056-178-1 (8X11.6)

PA73BGA48DB-YO-8X11.6	DIP48	BGA73	FUJITSU MB84VD2218XEC / EE/2219XEC/EE	NP351-056-178-1 (8X11.6)
PA73BGA48DC-YO-8X11.6	DIP48	BGA73	AMD Am42DL640AG / Am45DL6408G / Am49DL640BG / Am50DL128BG	NP351-056-178-1 (8X11.6)
HA73BGA48DC-YO-8X11.6			AMD Am42DL640AG / Am45DL6408G / Am49DL640BG / Am50DL128BG	NP351-056-178-1 (8X11.6)
HA73BGA48DC1-MO-8X11.6	DIP48	BGA73	Fujitsu MB84VP24491HK	MO-56BG-8X11.6 (8X11.6)
PA73BGA48DE-TO-7X10	DIP48	BGA73	TOSHIBA TH50VPF5682CDSB / TH50VF5683CDSB	CBG060-051AU (7X10)
PA73BGA48DF-TO-9X12	DIP48	BGA73	TOSHIBA THPV068022AABB / THPV068023AABB	CBG056-051G (9X12)
PA73BG48DG-WO-9X13	DIP48	BGA73	AMD Am50PDL193BH / Am50PDL193CH SPANSION S99PL193JC0	777E1064-104 (9X13)
PA73BG48DI-3O-9X12	DIP48	BGA73	TOSHIBA TV00670002AABB / TV00670003AABB	CBG056-051G (9X12) + 4 PIN
PA80BGA48D-TO-8X14	DIP48	BGA80	INTEL RD28F3208W30 / RD28F6408W30	FBGA096-003F (8X14)
PA80BGA48DA-TO-10X14	DIP48	BGA80	INTEL RD28F128J3AM / RD28F192SJ3AM / RD28F256SJ3AM	FBGA096-003K (10X14)
PA80BGA48DB(-A)-YO-8X12	DIP48	BGA80	SAMSUNG KAB01C100M / KAB01D100M	NP351-080-314 (8X12)
PA80BGA48DC-YO-8X12	DIP48	BGA80	SAMSUNG KBB05A300M / KBB06A300M	NP351-080-314 (8X12)
PA80BGA48DD-YO-8X13	DIP48	BGA80	SAMSUNG KBB05A500M / KBB06B400M	NP351-080-396 (8X13)
HA84BG48D-MO-8X11.6			SPANSION S71WS512NC	MO-84BG-8X11.6
PA85BGA48DA-TO-7X10	DIP48	BGA85	TOSHIBA THPV357022BCBB / THPV357023BCBB	CBG060-051AU (7X10)
HA85BGA48DB-TO-7X10	DIP48	BGA85	M-Systems MD4832-D512	CBG060-051AU (7X10)
PA88BGA48DA-TO-8X10	DIP48	BGA88	INTEL RD38F2030W0ZBQ1 / RD38F2040W0ZBQ0 / RD38F2230WWZBQ0	FBGA096-003N (8X10)
HA88BGA48DA1-MO-8X11	DIP48	BGA88	INTEL RD38F4050L0YBQ	
HA88BGA48DA2-TO-8X10	DIP48	BGA88	INTEL RD38F2040W0ZBQ / RD38F3350WWZQ1	FBGA096-003N (8X10)
HA88BGA48DA3-TO-8X10	DIP48	BGA88	INTEL RD38F2040W0ZBQ / RD38F3350WWZQ1	FBGA096-003N (8X10)
HA88BGA48DA4			INTEL RD48F4400L0ZDQ0	
HA88BGA48DA5-TO-8X10			INTEL RD38F2040W0ZBQ	FBGA096-003N (8X10)
HA88BGA48DA6			INTEL RD38F2040W0YBQ0 / RD38F2240WWYDQ0 / ST M36W0R6050B0	FBGA096-003N (8X10)
PA107BGA48DB-YO-10.5X13	DIP48	BGA107	SAMSUNG K5D5629ACA / KAG00E007M - 1.8V	NP351-107-361 (10.5X13)
PA107BGA48DC-YO-10.5X13	DIP48	BGA107	SAMSUNG KAG00J007M / KAG00H001A / KAG00H008M / K5D5629DCA /	NP351-107-361 (10.5X13)
PA107BGA48DD-YO-10.5X16	DIP48	BGA107	SAMSUNG KAG00L008M / KAG00K007M / KBE00J006M / KBE00F003M - 3V	NP351-107-373 (10.5X16)
HA107BG48DE-MO-9X12	DIP48	BGA107	TOSHIBA TV00678003AABD	MO-99BG-9X12
HA107BG48DF-MO-9X12	DIP48	BGA107	TOSHIBA THPV067Z02AABD / THPV067Z03AABD	MO-99BG-9X12

HA110BG48D-MO-8X8	DIP48	BGA110	SAMSUNG KAH250L00M	MO-110BG-8X8
PA127BGA48DA-YO-10.5X12	DIP48	BGA127	SAMSUNG K5D57298CM / KAG00E006M	NP351-127-307 (10.5X12)
PA127BGA48DB-YO-10.5X12	DIP48	BGA127	SAMSUNG K5D5729YCM - 3.0V	NP351-127-307 (10.5X12)
PA127BG48DC-YO-10.5X12	DIP48	BGA127	will support SAMSUNG KBD07C001M, KAK01A001M	NP351-127-307 (10.5X12)
HA132BG48D-MO-8X8	DIP48	BGA132	Lattice ispMACH4128ZC	MO-132BG-8X8 (8X8)
PA137BG48DA-YO-10.5X13	DIP48	BGA137	SAMSUNG KBE00D002M - 1.8V	NP351-137-368 (10.5X13)
PA26XBG48D	DIP48	BGA264	INTEL PXA262	NP378-29456-G4_BF
PA26XBG48DA	DIP48	BGA264	INTEL PXA263	NP378-29456-G4_BF
HA63BGA48DB-TO-9X11	DIP48	BGA63	SAMSUNG K9F5608U0B / K9F5608D0C	CBG048-A70N63 (9X11)
HA63BGA48DC-TO-9X11	DIP48	BGA63	will support SAMSUNG K9F5608U0B-D - 1.8V	CBG048-A70N63 (9X11)
HA63BGA48DD-TO-9X11	DIP48	BGA63	SAMSUNG K9F1216U0A / K9K1216D0C	CBG048-A70N63 (9X11)
HA80BGA48DB-YO-8X12	DIP48	BGA80	SAMSUNG KAB01C100M / KAB01D100M	NP351-080-314 (8X12)
HA80BGA48DC-YO-8X12	DIP48	BGA80	SAMSUNG KBB05A300M / KBB06A300M	NP351-080-314 (8X12)
HA80BGA48DD-YO-8X13	DIP48	BGA80	SAMSUNG KBB05A500M / KBB06B400M	NP351-080-396 (8X13)
HA107BGA48DB-YO-10.5X13	DIP48	BGA107	SAMSUNG K5D5629ACA, KAG00E007M - 1.8V	NP351-107-361 (10.5X13)
HA107BGA48DC-YO-10.5X13	DIP48	BGA107	SAMSUNG KAG00J007M / KAG00H001A / KAG00H008M / K5D5629DCA /	NP351-107-361 (10.5X13)
HA107BGA48DD-YO-10.5X13	DIP48	BGA107	SAMSUNG KAG00L008M / KAG00K007M / KBE00J006M / KBE00F003M	NP351-107-373 (10.5X16)
HA107BG48DG-YO-12X14			SAMSUNG KBE00S003M	NP351-107-448 (12X14)
HA127BGA48DA-YO-10.5X12	DIP48	BGA127	SAMSUNG K5D57298CM / KAG00E006M - 1.8V	NP351-127-307 (10.5X12)
HA127BGA48DB-YO-10.5X12	DIP48	BGA127	SAMSUNG K5D5729YCM - 3.0V	NP351-127-307 (10.5X12)
HA127BG48DC-YO-10.5X12	DIP48	BGA127	SAMSUNG KBD07C001M / KAK01A001M □□	NP351-127-307 (10.5X12)
HA137BG48DA-YO-10.5X13	DIP48	BGA137	SAMSUNG KBE00D002M - 1.8V	NP351-137-368 (10.5X13)
HA137BG48DB-YO-10.5X16	DIP48	BGA137	SAMSUNG KBE00F005M	NP351-137-415 (10.5X16)
HA137BG48DC-YO-10.5X13	DIP48	BGA137	SAMSUNG KBE00M005M	NP351-137-368 (10.5X13)
HA137BG48DD-YO-11.5X13			SAMSUNG KBE00H005M	NP351-137-414 (11.5X13)
HA137BG48DE-YO-12X14			SAMSUNG KBE00S005M	NP351-137-449 (12X14)
HA149BG48D-TO-10X13.5	DIP48	BGA149	TOSHIBA TY80009000AMBF	
HA167BG48DD	DIP48	BGA167	SAMSUNG KBJ10KB00M	MO-167BG-10.5X14

HA167BG48DC	DIP48	BGA167	SAMSUNG KBJ10KB00M / for FTM	MO-167BG-10.5X14
HA167BG48DA	DIP48	BGA167	SAMSUNG KBJ17KC00M	MO-167BG-10.5X14
HA167BG48DB			SAMSUNG KAP17SG00M	MO-167BG-10.5X14

P=Programming
H=Automatic Handler
A=Adapter
48=Device pin count
TS=Device package type
48= Conversion Pin count
D=Dip package type
C=Adapter Update Version
W=Socket manufacture
O=Socket type (O:Open Top)
R=receptacle

















