
Programming Vendors

Atmel Corporation works closely with major suppliers of programming equipment that support our family of Flash microcontrollers.

Atmel has a program in place which certifies the programming vendors, and a complete list can be found on our Bulletin Board at (408) 436-4309. This list will be updated frequently to reflect additional support.

The following is a list of vendors that currently offer support for the Atmel Flash based microcontroller family. If a vendor of your choice does not appear on this list, please contact Atmel at (408) 436-4364, to enroll them in Atmel's certification program.



Microcontroller Programmer Support

0515B-A-12/97





Programmer	Address	Telephone & Fax	Programmer Model #'s	Software Revision #	Product
ACD	Larry Wood 21018 Northeast 92nd St. Redmond, WA 98053	Tel: 206-868-9444 Fax: 206-868-9444			
Advantech	Jiheng Ha Product Marketing Jeff Chen Business Manager 4F No.108-3, Ming-Chuan Road Shing-Tien City Taipei, Taiwan, R.O.C.	Tel: 011-886-2-218-4567 Fax: 011-886-2-218-8478 BBS: 011-886-2-218-5434 EMail: intl- sales@acl.advantech.com.tw http://www.advantech.com.tw/	PC-UPROG from Advantech CM3000 from Logical Devices 9860from American Reliance M1880 from Minato OMPRO-II from Dataman Labtool-48	V1.83 V2.2 V1.0 V1.0 V2.0	AT89C51, AT89S8252 AT89C52, AT89S53 AT89C2051 AT89C1051 AT89C55 AT89LV51 AT89LV52 AT90S1200 AT90S8515
Advantest	Osamu Kasama 77-1 Miyako, Namekawa-cho Hikigunn, Saitama 355, Japan	Tel: 011-81-493-56-4433 Fax: 011-81-493-57-1092 EMail: noguchi@adc.advantest.co.jp	R4945 VerH00		AT89C51
Advin Systems	Wing Hui VP Engineering 1050-L East Duane Avenue Sunnyvale, CA 94086	Tel: 408-243-7000 Fax: 408-736-2503 Sales: 800-627-2456 BBS: 408-737-9200 EMail: sales@advin.com http://www.advin.com	PILOT-U40 PILOT-U84 PILOT-145 PILOT-U32 PILOT-MVP	10.85E	AT89C51, AT89S8252 AT89C52, AT89LV51 AT89C2051, AT89LV52 AT89C1051 AT89C55 (10.85E)
Allen Systems	2346 Brandon Road Columbus, OH 43221	Tel: 614-488-7122 Fax: 614-488-7122	PB-51/11		AT89C51 AT89C55 AT89LV51 AT89LV52 AT89S8252
American Reliance	11801 Goldring Rd. Arcadia, CA 91006	Tel: 800-654-9839 Fax: 818-303-5838 EMail: amrel@amrel.com http://www.amrel.com	Spectrum-48	2.0	AT89C51, AT89S8252 AT89C52, AT89S53 AT89C2051, AT90S1200 AT89C1051, AT90S8515 AT89LV51 AT89LV52 AT89C55
Ando Electronics	Yoshihiro Homma 4-19-7 Kamata, Ohta-Ku Tokyo 144, Japan 7617 Standish Place Rockville, MD 20855 USA	Tel: 011-81-3-3733-1151 Fax: 011-81-3-3739-7363 http://www.ando.com USA Tel: 301-294-3365 Fax: 301-294-3359	AF9705 AF9810 AF9704 AF9780		AT89C51
Ashling Micro Systems Inc.	Michael Healey Managing Director Plassey Technological Park Limerick, Ireland	Tel: 011-44-1489-577516 Fax: 011-353-61334477 EMail: ashling@iol.ie http://www.ashling.com	CTP51	4.6.3	AT89C51 AT89C52
Aval Data Corp.	Satoru Mikuni 1-1-2 Manpukuji, Asou-ku, Kawasaki Kanagawa 215, Japan	Tel: 011-81-44-952-1322 Fax: 011-81-44-952-1332 EMail: LDU01574@niftyserve.or.jp http://www.avaldata.com	PECKER-50		AT89C51
AX Elektronika d.o.o	Jure Mikeln p.p. 5127 1001 Ljubljana Slonenija	Tel: 011-386-61-485-914 Fax: 011-386-61-485-688 EMail: stik@svet-el.si http://www.svet-el.si/se/			AT89C2051 AT89C1051
B & C Microsystems	Cesar Hernandez Application Engineer 750 North Pastoria Avenue Sunnyvale, CA 94086	Tel: 408-730-5511 Fax: 408-730-5521 BBS: 408-730-2317 EMail: cc@bcmicro.com	PROTEUS (single device)	3.7K 3.7P	AT89C51 AT89C52
BP Microsystems	Tracy Wilson Bill Cates Julir Wallace Manager of Software Support 1000 N. Post Oak RD., Suite 225 Houston, TX 77055-7237	Tel: 713-688-2620 Fax: 713-688-0920 Tel: 800-225-2102 Oliver x520 BBS: 713-688-9283 up to 14.4 KBPS EMail: hank_cortez@bpmicro.com http://www.bpmicro.com	BP-1200/40 EP-1140 BP 1148	2.26 3.03 3.05b 3.08	AT89C51, AT90S1200 AT89C52 AT89C2051 AT89C1051 AT89LV51 AT89LV52 AT89C55

Programmer	Address	Telephone & Fax	Programmer Model #'s	Software Revision #	Product
Bytek	<i>Joe Martiello/John Swain</i> 543 North West 77th Street Boca Raton, FL 33487-1323	Tel: 407-994-3520 Fax: 407-994-3615	EZ Writer Multitrk 4000 Multitrk 2000 Multitrk 1000		AT89C51
CEIBO	<i>Leor Weinstein</i> <i>Victor Waiman</i> 32 Maskit St - P.O. Box 2106 Herzeliya 46120, Israel <i>Roly Schwartzman</i> 7 Edgestone Ct. Florissant, MO 63033	Tel: 011-972-9-9555-387 Fax: 011-972-9-9553-297 EMail: 76131.1415@compuserve.com 100274.2131@compuserve.com ceibo@trendline.co.il http://www.ceibo.com Tel: 314-830-4084 Fax: 314-830-4083	MP-51 ET-PIC 4000 ET-PIC 12000 (gang programmer) ET-PIC 5000 ET-PIC 1000 ET-SEPROG ET-PIC 51	2.26 4.14 1.68 3.07 2.1 1.01	AT89C51 AT89C52 AT89C2051 AT89C1051 AT89C55
CEIBO Deutschland	<i>Menachem Kimron</i> Hausweg 1a D-64347 Griesheim Germany	Tel: 0049-6155-61005 Fax: 0049-6155-61009			
Celectronic	<i>Klaus Leistner</i> <i>Volker Czmok</i> Nordlichtstrasse 63-65 D-13405 Berlin, Germany	Tel: 011-49-30-4136075 Fax: 011-49-30-4136078	Promicron 1000	5.61	AT89C51 AT89C52
Data I/O Corp	<i>Kody Todd (Mfg. interface)</i> P.O. Box 97046 10525 Willows Rd NE Redmond, WA 98073-9746 <i>Margaret Liddiard</i> Corporate Communications	Technical Assistance 800-247-5700 Service 800-735-6070 Sales 800- 332-8246 Margaret: 425-867-6884 Fax: 425-882-1043 Mfg: 425-867-6841 Kody: 425-867-6841 BBS: 425-882-3211 KeepCurrent: 425-881-3465 EMail: Kody@data-io.com EMail: techhelp@data-io.com http://www.data-io.com ftp.data-io.com	UNISITE site 48 UNISITE pinsite UNISITE 48HS 2900 3900 UNISITE chipsite Auto site 2500 Chip Lab-48 PSX500 PSX1000	4.3 4.7 3.5 2.4 3.0 3.3 3.3 4.9 4.9 5.4 5.5	AT89C51 AT89C52 AT89C51 AT89C52 AT89C55 AT89C2051 AT89C1051 AT89S8252 AT89S53
Dataman Programmers, LTD.	<i>Gary Comer</i> Technical Support Manager Station Road Maiden Newton Dorchester, Dorset, DT2 OAE United Kingdom USA Office: 22 Lake Beauty Drive, Suite 101 Orlando, FL 32806 USA	Tel: 011-44-0-1300-320719 Fax: 011-44-0-1300-321012 BBS: 011-4-4-0-1300-321095 Modem:v.34/v.FC/v.32bis EMail: info@dataman.com http://www.dataman.com Tel: 407-649-3335 Tel: 407-649-3310 BBS: 407- 649-3159	S4 S4 MCS-51 (module) Dataman-48	1.20 1.21 2.0	AT89C51, AT90S1200 AT89C52, AT90S8515 AT89C2051 AT89C1051 AT89C55 AT89LV51 AT89LV52 AT89S8252 AT89S53
Datatech Int. Inc.	<i>Dan Ho</i> ON319 Stanley St. Winfield, IL 60190 P.O. Box 549 Villa Park, IL 60181	Tel: 708-832-8818 Fax: 708-653-9087	PROMA-3		
Elan Digital Systems Limited	<i>Julian Hartridge</i> Device Support Engineer Little Park Farm Rd. Segensworth West Fareham Hants Po15 5SJ United Kingdom	Tel: 011-44-489-579-799 Fax: 011-44-189-577-516	6000APS	K2.07	AT89C51 AT89C52
Electronic Engineering Tools	<i>John Kim</i> 544 Weddell Dr., Ste. 6 Sunnyvale, CA 94089 <i>gsh Systemtechnik</i> Postfach 600511 81025 Munchen	Tel: 408-734-8184 Fax: 408-734-8185 EMail: johnkim@tdl.com Tel: 089-8343047 Fax: 089-8340448	ALLMAX ALLMAX PLUS PROMAX TOPMAX	1.6 2.0 2.1	AT89C51, AT89S8252 AT89C52, AT89S53 AT89C2051, AT90S1200 AT89C1051, AT90S8515 AT89C55 AT89LV51 AT89LV52
Electronix Corp.	<i>Jason Clinger</i> 900 South 300 West Salt Lake City, UT 84115	Tel: 801-486-2825 Fax: 801-484-9285	X0SI Programmer	1.0	AT89C2051 AT89C1051



Programmer	Address	Telephone & Fax	Programmer Model #'s	Software Revision #	Product
EHAtronik GmbH	<i>Walter Hacklander</i> Hittorfstr. 17 50735 Koln Germany	Tel: 011-49-221-9762470 Fax: 011-49-221-7762471 EMail: ehagmbh@t-online.de	PROGCHIP89/S	3.0 3.0	AT89C51, AT89LV51 AT89C52, AT89LV52 AT89C2051, AT89C55 AT89C1051, AT89S8252 AT89S8252
Emulation Technology	<i>Don Krenn</i> 2344 Walsh Ave., Bldg F Santa Clara, CA 95051	Tel: 408-982-0660 x118 Fax: 408-982-0664 BBS: 408-982-9044 EMail: krissy@emulation.com http://www.emulation.com	ET-PIC 51 ET-PIC 12000 ET-PIC 10000 ET-PIC 4000 AS-20-20-01S-6 (SOIC to DIP programming adaptor)	4.02 8.69 2.3 3.0	AT89C51 AT89C52 AT89C2051 AT89C1051
Equinox Technologies	<i>John Marriott</i> Atlas House St. Georges Square Bolton BL1 2HB United Kingdom	Tel: 011-44-1204-529000 Fax: 011-44-1204-535555 EMail: sales@equinox-tech.com http://www.equinox-tech.com	Atmel Micro Pro Programmer	2.60 (DOS) 1.23 (Win 95, 3.x)	AT89C51, AT90S1200 AT89C52 AT89C2051 AT89C1051 AT89LV51 AT89LV52, AT89S53 AT89C55, AT89S8252
Ertec	<i>Hr. Nickel</i> Am Pestalozzining 24 91058 Erlangen Germany	Tel: 011-49-9131-77000 Fax: 011-49-9131-110010 EMail: ertec@t-online.de			
GTEK, Inc.	<i>Cal Edmonds</i> RAM# 1916 399 Highway 90 Bay St. Louis, MS 39520	Tel: 601-467-8048 Fax: 601-467-0935 EMail: pot@gtek.com http://www.gtek.com			AT89C51
Hi-Lo System Research Co., LTD	<i>Grason Kirk</i> 4F, No. 2, Sec. 5, Ming-Shen E. Rd. Taipei, Taiwan ROC	Tel: 011-886-2-7640215/7633931 Fax: 011-886-2-7566403/7601559 Email: 101400.1555@compuserve.com Sales: hilosys@fit.ivnet.com.tw Tech Support: support@hilosystems.com.tw http://www.hilosystems.com.tw	ALL03A ALL07+ PAC-DIP 40	3.30 3.40A 3.33 3.40	AT89C51, AT89S8252 AT89C52, AT89S53 AT89C55 AT89C2051, AT90S1200 AT89C1051, AT90S8515 AT89LV51 AT89LV52
ICE Technology	<i>Sheila Boakes</i> Managing Director - Commercial <i>John Lamb</i> Technical Support Unit 4, Penistone Court Station Buildings Penistone, S. Yorkshire S30 6HG UK	Tel: 011-44-01226-767404 Fax: 011-44-01226-3704.34 BBS: 011-44-01226-761181	Micromaster 1000/1000E Micromaster LV	3.07 3.07	AT89C51 AT89C52 AT89C2051 AT89C1051
International Microsystems Inc.	<i>Mason Tom</i> <i>Peter A. Schade/ President</i> 521 Valley Way Milpitas, CA 95035	Tel: 408-942-1001 Fax: 408-942-1051 EMail: imtest@ix.netcom.com http://www.imtest.com	Eprom 1 (single device) M4016 (gang programmer)	2.64 2.74	AT89C51 AT89C52 AT89C55 AT89C2051 AT89C1051
iSYSTEMS The Tool Company	<i>Hr. Gerd Punsmann</i> Einsteinstrasse 5 85221 Dachau Germany	Tel: 011-49-8131-25083 Fax: 011-49-8131-14024 BBS: 011-49-8131-1687 EMail: 100632.42@compuserve.com http://www.isystem.com/de	iUP8000 SEPROG	2.5 5.44	AT89C51 AT89C52
Kanda Systems, Ltd.	Kevin Kirk P.O. Box 2 Ystrad Mewig Ceredigion SY25 6DX United Kingdom	Tel: 011-44-1974-282670 Fax: 011-44-1974-282356 EMail: support@kanda-systems.com http://www.kanda-systems.com	AVR/51 Series Programmer	4.0	AT89C51 AT89C52 AT89C2051 AT89C1051 AT89S8252 AT89S53
Leap Electronic Co. Ltd.	Lillian Huang 6F, No 4, Lane 609 Chung Hsin Rd., Sec. 5 San Chung City Taipei Hsien, Taiwan, R.O.C. P.O. Box 91-249 Taipei	Tel: 011-886-999-1860 Fax: 011-886-999-0015 EMail: leap@ms7.hinet.net	Leap-U1 Leaper-5 Leaper-10 LP-U4	3.12 1.20 1.80	AT89C52, AT89S8252 AT89C51 AT89C2051 AT89C1051 AT89LC51 AT89LV52

Programmer	Address	Telephone & Fax	Programmer Model #'s	Software Revision #	Product
Link Instruments	<i>Bill Lam</i> Sales Manager 369 Passaic Ave., Suite 100 Fairfield, NJ 07004	Tel: 201-808-8990 Fax: 201-808-8786 EMail: blam@linkinstruments.com http://www.linkinstruments.com	CLK-3100 (w/ 875X adapter)	4.55 4.95 4.98 4.98	AT89C51 AT89C52 AT89C2051 AT89C1051 AT89LV51 AT89LV52
Logical Devices	<i>David Mot/John Santangelo</i> 264 South West 12th Ave. Deerfield Beach, FL 33442 <i>Bill Hall/ Software Engineer</i> <i>Jeff Williams</i> 1221 South Clarkson, Suite 200 Denver, CO 80202	Tel: 800-331-7766 Tel: 305-428-6868 Fax: 305-428-1811 BBS: 305-428-8014 Tel: 303-722-6868 x215 Fax: 303-733-6868 EMail: logdev@henge.com http://www.logicaldevices.com	ALLPRO-88 ALLPRO-88/XR ALLPRO-40 GANGPRO-8 GANGPRO- SII CM3000 Chipmaster 2000 XPRO CM 6000 ALLPRO-96 (Eclipse)	ver2.4 rev 0 2.4 2.5 2.0	AT89C51 AT89C52 AT89C55 AT89C2051 AT89C1051 AT89LV51 AT89LV52 AT89C55
Logical Systems	<i>Lynn Burko</i> PO Box 6184 Syracuse, NY 13217	Tel: 315-478-0722 Fax: 315-475-6753	PA51-FC (adapter) Sunshine EW901BN		AT89C51
Magnadata	<i>HR. Schuster</i> Hauptstabe 1 61389 Schmitten	Tel: 011-06082-7421615 Fax: 011-06082-7423448			
Micropross	5, Rue Denis Papin 59650 Villeneuve D'Ascq France	Tel: 011-33-204-79040 Fax: 011-33-204-79369	ROM 3000U		
Mid-Tech Computing Devices	<i>John Dybowski</i> Technical Director P.O. Box 218 Stafford, CT 06075 45 Monson Rd. Stafford Springs, Connecticut 06076	Tel: 860-684-2442 Fax: 860-684-2442	2051 Design Center Complete design environment	1.4 1.4	AT89C2051 AT89C1051
MQP Electronics	<i>Pat Crowe</i> Technical Director Unit 2 Park Road Centre Malmesbury Wilts SN16 0BX England	Tel: 011-44-1666-825666 Fax: 011-44-1666-825141 EMail: 100447.1124@compuserve.com http://www.mqp.com	200P Adapter AD3 (PLCC pin converter AD45) System 2000 (Gang Programmer) Model S2510 PIN-MASTER 48	PROMDRIVE V8.10 V8.69 V1.24	AT89C51, AT89LV52 AT89LV51 AT89C52 AT89C2051 AT89C1051 AT89S8252 AT89C55
Mandeno Granville	<i>Jim Granville</i> 128 Grange Rd. Mt. Eden 3 Auckland, New Zealand	Tel: 011-649-6300-558 Fax: 011-649-6301720 EMail: designtools@xtra.co.nz US Disti: johnkim@tdl.com Europe Disti: ksc@iae.dtu.dk	ICEP2051	DBGX51 V4.65B	AT89C51 AT89C52 AT89C2051 AT89C1051
MCT PROMA3	<i>Gilbert</i> Atmel Hong Kong				
Minato Electronics	<i>Matsatoshi Koyama</i> 4105 Minami Yamada-cho Kouhoku-ku Yokohama, Kanagawa 223 USA 3628 Madison Ave., Suite 5 North Highlands, CA 95660	Tel: 011-81-45-591-5611 Fax: 011-81-45-591-6451 EMail: 74721.1555@compuserve.com USA Tel: 916-348-6066 Fax: 916-348-0926	M1880 1890A 1891 M1881		AT89C51 AT89C55 AT89LV51 AT89LV52
Needham's Electronics	<i>Brian Neal</i> 4630 Beloit Dr. Ste 20 Sacramento, CA 95838	Tel: 916-924-8037 Fax: 916-924-8065 BBS: 916-924-8094 EMail: needhams@quiknet.com http://www.needhams.com	EMP-20	V1.45 V1.92 V2.16 V2.16 V3.27	AT89C51, AT89S8252 AT89C52, AT89S53 AT89C55 AT89C2051, AT90S1200 AT89C1051, AT90S8515 AT89LV51 AT89LV52
Owen	Ringstr 11 Postfach 1104 D-6798 Kusel Germany	Tel: 011-49-6381-5085	AP-II	V3.10	AT89C55



Programmer	Address	Telephone & Fax	Programmer Model #'s	Software Revision #	Product
Phyton Inc.	<i>Isaak Grinberg</i> President 7206 Bay Parkway, 2nd Floor Brooklyn, NY 11204	Tel: 718-259-3191 Fax: 718-259-3191 EMail: 73232.251@compuserve.com	MultyProg picPROG+	1.2 2.7	AT89C52, AT89C55 AT89LV51, AT89C2051 AT89C52, AT89C1051 AT89LV52
Prologic Systems	<i>Frank Deines</i> 557-p Burbank St. Broomfield, CO 80020	Tel: 303-460-0103 Fax: 303-469-5565	UNIV-DBM	15.50	AT89C52 AT89C51
Rhombus	David Lawrence P.O. Box 871 Mauldin, SC 29662	Tel: 864-676-0012 Fax: 864-676-0015	2051-PD Programmer	1.0	AT89C2051 AT89C1051
SMS GmbH	<i>Martin Hinz</i> Product Manager Im Grund 15 D-88239 Wangen Germany	Tel: 011-49-7522-97280 Fax: 011-49-7522-972850 BBS: 49-7522-9728-88 EMail: info@sms-sprint.com http://www.sms-sprint.com	SPRINT EXPERT SPRINT OPTIMA PLUS 48 MULTISITE	C/93 A/95 B/94 B/94 A/95 A/95 B/96	AT89C51 AT89LV51 AT89C52 AT89LV52 AT89C2051 AT89C1051 AT89C55
Stag Programmers LTD.	Paul Chanel Director of Sales Silver Court, Watchmead Welwyn Garden City Herts AL7 1LT U.K. Richard Hough Applications Engineer Chris Humphreys Engineering Manager	UK: 011-44-1707-332148 Fax: 011-44-1707-371503 EMail: sales@stagprog.demon.co.uk	Stag Quasar 1040 (Advin) Stag Quasar 1084 (Advin) Eclipse (EPU84P PLCC & EPU48D modules)	2.0 21-12-94 4.7.29 4.4.22 4.12.22	AT89C51 AT89C52 AT89C55 AT89C2051 AT89C1051 AT89LV51 AT89LV52 AT89S8252
Sunshine Systems	<i>James Huang</i> Managing Director RM. 304, 3F, No 2, Lane 137 Sec. 5, Ming Shen E. RD., Taipei, Taiwan, R.O.C.	Tel:011-02-7633732/7660206 /7685370 Fax: 011-02-886-2-7654065	EW901BN Power 100	8.32.26 8.32.26	AT89C51 AT89C52
Sunrise Electronics	<i>Anh Le</i> Director of Engineering <i>Joe Petralia</i> Sales Manager 675 Brea Canyon Rd. Suite 6 Walnut, CA 91789	Tel: 909-595-7774 Fax: 909-594-7009 EMail: kking@sowest.periodnet	T-10 Z-3000 (Gang Programmer)	3.15 1.4 (gang programmer) 3.22 3.32 3.32	AT89C51 AT89C52 AT89C2051 AT89C1051
System General	<i>Alvin Apvan</i> Technical Support 1603 A South Main St. Milpitas, Calif. 95035	Tel: 408-263-6667 Fax: 408-262-9220 BBS: 408-262-6438 Sales: 1-800-967-4776 EMail: sga@inreach.com sgt@sg.com.tw http://www.sg.com.tw	TURPRO-1/FX (v2.15) TURPRO-1 (v2.15) TURPRO-840 (v2.21B) APRO (v1.24) MULTIAPRO	2.21 2.21 2.01 1.19 2.15 2.21 Blevel 1 2.21 Blevel1	AT89C51, AT89S8252 AT90S1200 AT90S8515 AT89C52 AT89C2051 AT89C1051
Strebor	1008 N Nob Hill Dr. America Fork, UT 84003	Tel: 801-756-3605	PLP-SI		
Teradyne	<i>Dominic Haigh</i> 2625 Shadelands Dr. Walnut Creek, CA 94598	Tel: 510-932-6900 Fax: 510-932-7965 Email: WWWmail-mktg@atb.teradyne.com	Z1800 Series Incircuit Tester		AT89C52 AT89C51
Tribal Microsystems	<i>Robert Kruger</i> 44388 S. Grimmer Blvd. Fremont, CA 94538	Tel: 510-623-8859 Fax: 510-623-9925 BBS: 510-623-0430 EMail: sales@tribalmicro.com tmitools@aol.com http://www.tribalmicro.com	FLEX-700 UNIVERSAL TUP-400 UNIVERSAL 4 GANG MODULE TUP-51F (PDIP) TUP-51F-PL (PLCC)	3.29 3.33 4.22 3.35	AT89C51, AT90S1200 AT89S8252, AT90S8515 AT89C52 AT89C55 AT89C2051 AT89C1051 AT89LV51 AT89LV52, AT89S53
Xeltek	Jason Roth (programmer support) 3563 Ryder St. Santa Clara, CA 95051	Tel: 408-524-1929 Fax: 408-245-7084 BBS: 408-245-7082 EMail: xeltek@worldnet.att.net http://www.xeltek.com	SUPERPRO II SUPERPRO III	2.2A	AT89C55, AT89C51 AT89C52 AT89S8252 (v 2.5c) AT89C2051 AT89C1051 AT90S1200