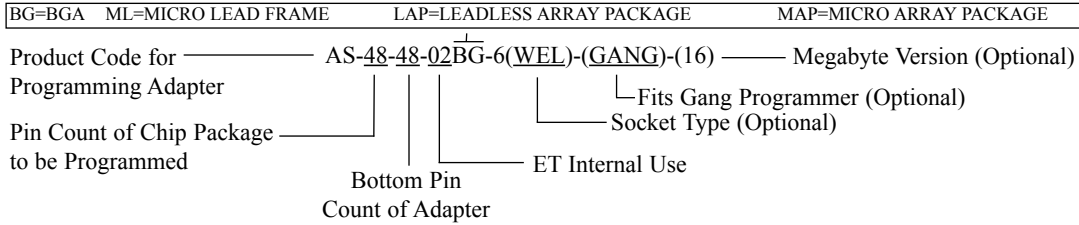


PROGRAMMING ADAPTERS - BGA/ MAP/LAP/TAP/MLF

Ordering Information Example



For a complete list of program adapter specifications, pricing and delivery information, see [Web Link:www.1800adapter.com/067](http://www.1800adapter.com/067)

BGA

Pin Count	DIP Pin Count	Lead Pitch (mm)	Body Size (mm)	Grid Size	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
34	32	0.50	4X6	9X6	SST39VF010/020/040	32-5BG9X6	AS-34-32-01BG-6	F7005
40	40	0.75	7.43x5.69	5X8	GT28F008/016/S3/S5/SC	40-4BG5X8	AS-40-40-01BG-6YAM-8/16	M4229
48	48	0.80	6X8	6x8	INTEL	48-6BG6X8	AS-48-32-01BG-6	F7006
48	48	0.75	9.25X7.13	6X8	INTELTGT28F016B3)	48-4BG6X8	AS-48-40-01BG-6YAM-16	F4334
48	48	0.75	7.48X5.74	6X8	GT28F004/008B3	48-4BG6X8	AS-48-40-01BG-6YAM-8	M5699
48	48	0.75	7.9X6.5	6X8	GT28F016C3/A16B3	48-4BG6X8	AS-48-40-02BG-6TI-16	M5902
48	48	0.75	9.8X7.6	6X8	GT28F0323XA/C3XA	48-4BG6X8	AS-48-40-02BG-6TI-32	M5523
48	48	0.75	9.8X7.6	6X8	GT28F160B3	48-4BG6X8	AS-48-44-01BG-6YAM-16	M4226
48	48	0.75	7.9X6.5	6X8	GT28F800B3/400B3	48-4BG6X8	AS-48-44-01BG-6YAM-8	M5497
48	48	0.75	7.286X10.85	6X8	GT28F160CXA/B3XA	48-4BG6X8	AS-48-48-01BG-6TI-16	M5448
48	48	0.75	7.3X10.85	6X8	GT28F320C3XA/B3XA	48-4BG6X8	AS-48-48-01BG-6TI-32	M5630
48	48	0.50	4X6	11X6	39XF800A/160A/320A/6401	48-5BG11X6	AS-48-48-01BG-6	F7007
48	48	0.80	8X9	6X8	AMD 29LV160BB/BT	48-6BG6X8	AS-48-48-02BG-6WEL-GANG-16	M5505
48	48	0.75	8X9	6X8	FUJ 29DL163TD	48-4BG6X8	AS-48-48-03BG-6WEL-GANG-16	M5893
48	48	0.80	6X8	6X8	SST 39VF160	48-6BG6X8	AS-48-48-04BG-6	M6007
48	48	0.80	8X10	6X8	SST 39VF100	48-6BG6X8	AS-48-48-05BG-6	M6256
48	48	0.80	8X9	6X8	29LV160BB/BT	48-6BG6X8	AS-48-48-06BG-6WEL-GANG-16	F6526
48	48	0.80	6X8	6X8	SST 39VF200A	48-6BG6X8	AS-48-48-07BG-6	F7008
56	40	0.75	7.7X16.4	9x8	INTEL G28F640J5	56-4BG9X8	AS-56-40-01BG-6YAM-64	M4637
56	48	0.75	7.7X16.4	9X8	GT28F640J5	56-4BG9X8	AS-56-48-01BG-6YAM-64	M4638
56	48	0.75	8X10.24	6X10	GT28F160F3/800F3	59-4BG6X10	AS-56-48-02BG-6TI	M5442
56	48	0.80	8X10	8X8	SST 34HF163X/64X	56-6BG8X8	AS-56-48-03BG-6	F6270
63	48	0.80	8X14	8X12	AMD 29LV033C/DL322C/3C	63-6BG8X12	AS-63-48-01BG-6WEL-GANG	M5631
64	48	1.00	10X13	8X8	RC28F16(32,64)0C3XA(C)	64-3BG008	AS-64-48-01EBG-6TI	F5861
64	48	1.00	10X13	8X8	RC28F320J3A	64-3BG008	AS-64-48-02EBG-6TI	M5862
64	48	1.00	10X13	8X8	RC28F160F3	64-3BG008	AS-64-48-03EBG-6TI	F2938

LAP/MLF

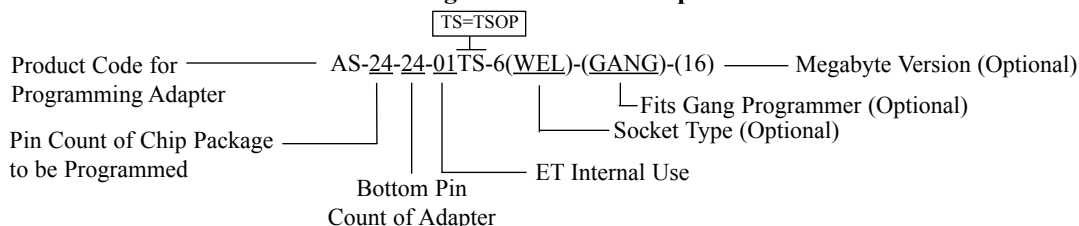
Pin Count	DIP Pin Count	Lead Pitch (mm)	Body Size (mm)	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
8	8	1.27	5.10X8.10	WIRED 1TO1	08-LAP1	AS-08-08-01LAP-3	M6488
8	8	1.27	5.84X4.93	WIRED 1TO1	08-LAP2	AS-08-08-02LAP-3	F6696
8	8	1.27	5.99X5.99	WIRED 1TO1	08-LAP2	AS-08-08-03LAP-3	F6827
8	8	1.27	8.00X6.00	WIRED 1TO1	08-LAP2	AS-08-08-03LAP-3	F6978
8	8	1.27	5X6	WIRED 1TO1	08-ML08	AS-08-08-01ML-3	M6611
8	20	1.27	6X8	ATMEL AT45DB161B	08-LAP4	AS-08-20-01ML-3	F6980
20	20	0.65	5X5	WIRED 1TO1	20-ML02	AS-20-20-01ML-6	F6257
28	28	0.50	5.00X5.00	WIRED 1TO1	28-ML03	AS-28-28-01ML-6	F6258
28	28	0.65	6.00X6.00	PIC16F87XA	28-ML38	AS-28-28-02ML-6	F6712
32	20	0.50	5X5	AT TINY26	32-ML04	AS-32-20-01ML-3	F6772
32	28	0.50	5X5	ATMEGA8, ATTINY28L/V	32-ML04	AS-32-28-01ML-3	F6332
32	28	0.50	5X5	ATTINY28	32-ML04	AS-32-28-01ML-6	F6356
32	40	0.50	5X5	FOR AT90VC8544	32-ML04	AS-32-40-01ML-6	F6666
44	40	0.50	7X7	ATMEL MEGA 16/32 & 8535	44-ML05	AS-44-40-01ML-6	F6842
44	40	0.50	7X7	ATMEL MEGA 162 & 8515	44-ML05	AS-44-40-02ML-6	F6843
44	40	0.50	7X7	8031/51 PINOUT	44-ML05	AS-44-40-03ML-6	F6774
44	40	0.50	7X7	AT MEGA16/32/323/8535	44-ML05	AS-44-40-04ML-6	F6773

MAP/TAP

Pin Count	DIP Pin Count	Lead Pitch (mm)	Body Size (mm)	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
8	8	0.65	3X4.9	WIRED 1TO1	08-MAP01	AS-08-08-01MAP-3	M6698
8	8	0.65	8.4X3.65	WIRED 1TO1	08-LAP2	AS-08-08-01TAP-3	F7047

TSOP - PROGRAMMING ADAPTERS

Ordering Information Example



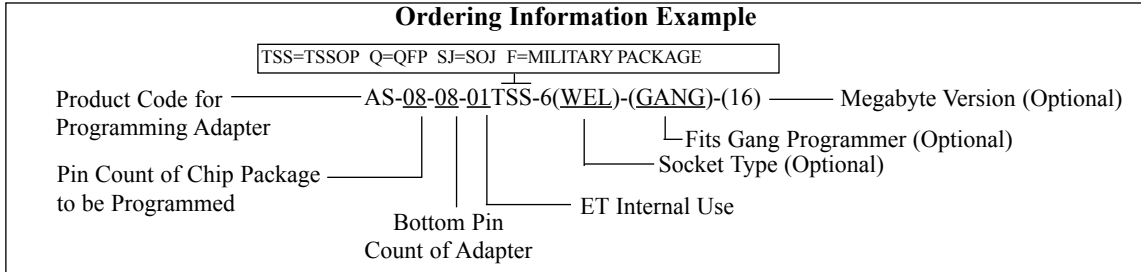
For a complete list of program adapter specifications, pricing and delivery information, see **Web Link: www.1800adapter.com/067**

TSOP

Pin Count	DIP Pin Count	Lead Pitch (mm)	Body Width (mm)	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
24	24	0.65	4.4X7.8	Wired 1 TO 1	024-ST03	AS-24-24-01TSS-6-GANG	M6023
28	28	0.55	11.8	Wired 1 TO 1	028-TS05	AS-28-28-01TS-6YAM-GANG-S	M1133
32	24	0.50	18.4	PIC28C16A	032-TS01	AS-32-24-01TS-6YAM-GANG-S	M4024
32	28	0.50	18.4	27C256	032-TS01	AS-32-28-01TS-6YAM-GANG-S	M2281
32	28	0.50	18.4	27C64/256/512	032-TS01	AS-32-28-02TS-6ENP-GANG-S	F1777
32	28	0.50	12.4	X28(H)C64	032-TS04	AS-32-28-04TS-6ENP-GANG-S	M2152
32	28	0.50	18.4	X28(H)C64	032-TS01	AS-32-28-05TS-6YAM-GANG-S	M3841
32	32	0.50	18.4	F28F010	032-TS01	AS-32-32-01TS-6ENP-GANG-R	M1705
32	32	0.50	18.4	AT49BV020	032-TS01	AS-32-32-01TS-6ENP-GANG-S	M1856
32	32	0.50	18.4	OPEN TOP	032-TS01	AS-32-32-01TS-6YAM-GANG-R	M1794
32	32	0.50	18.4	OPEN TOP	032-TS01	AS-32-32-01TS-6YAM-GANG-S	M2119
32	32	0.50	12.4	HIT29C101T15	032-TS04	AS-32-32-03TS-6ENP-GANG-S	M2115
32	32	0.50	18.4	CLAMSHL	032-TS01	AS-32-32-04TS-6YAM-GANG-S	M4224
32	32	0.50	18.4	F28F020	032-TS01	AS-32-32-05TS-6ENP-GANG-S	M5056
32	32	0.50	18.4	N/A	032-TS01	AS-32-32-06TS-6WEL-GANG-S	F7011
40	32	0.50	18.4	AT27LV040/27C040	040-TS01	AS-40-32-01TS-6YAM-S	M1876
40	32	0.50	12.4	MTSU27C201VP	040-TS04	AS-40-32-02TS-6YAM-R	M4302
40	32	0.50	12.4	MTSU27C201VP	040-TS04	AS-40-32-02TS-6YAM-S	M1366
40	32	0.50	18.4	NEC27C4001GZ	040-TS01	AS-40-32-03TS-6YAM-S	M1367
40	40	0.50	18.4	28F008/16SA/SAL/SC	040-TS01	AS-40-40-01TS-6YAM-GANG-R	F1208
40	40	0.50	18.4	28F008/16SA/SAL/SC	040-TS01	AS-40-40-01TS-6YAM-GANG-S	M1209
40	40	0.50	18.4	E28F002/4/8/BX/BL/BV	040-TS01	AS-40-40-02TS-6YAM-GANG-S	M1308
40	40	0.50	12.4	M5M28F102/27202RV	040-TS04	AS-40-40-03TS-6YAM-GANG-R	M2000
40	40	0.50	12.4	M5M28F102P	040-TS04	AS-40-40-03TS-6YAM-GANG-S	M3831
40	40	0.50	18.4	AT27LV4096	040-TS01	AS-40-40-04TS-6YAM-GANG-S	M3964
44	44	0.80	10.16	Wired 1 TO 1	044-TS12	AS-44-44-01TS2-6ENP-S	M5841
48	40	0.50	18.4	E28F200/400CR/CV	048-TS01	AS-48-40-01TS-6WEL-S	M3269
48	40	0.50	18.4	E28F200/400CR/CV	048-TS01	AS-48-40-01TS-6WEL-S	F5902
48	40	0.50	18.4	E28F200/400/800CR/CV	048-TS01	AS-48-40-02TS-6WEL-S	M3270
48	40	0.50	18.4	MBM29F080/016	048-TS01	AS-48-40-03TS-6WEL-S	M4633
48	42	0.50	16.4	MBM29F080/016	048-TS02	AS-48-42-01TS-6YAM-S	M2147
48	42	0.50	18.4	AMD/FUJ29F016	048-TS01	AS-48-42-02TS-6WEL-S	M3884
48	44	0.50	18.4	E28F200/400/800CV/E/B5	048-TS01	AS-48-44-01TS-6WEL-S	M3272
48	44	0.50	18.4	AMD29LV800B	048-TS01	AS-48-44-01TS-6WEL-R	M5340
48	44	0.50	18.4	AMD/FUJ 29F400AB/T	048-TS01	AS-48-44-02TS-6WEL-S	M3897
48	44	0.50	18.4	AMD/FUJ 29LV400	048-TS01	AS-48-44-03TS-6WEL-S	M3913
48	44	0.50	18.4	MBM29F200/400/800	048-TS01	AS-48-44-04TS-6WEL-S	M4303
48	44	0.50	18.4	TE28F160/400/800B3	048-TS01	AS-48-44-05TS-6YAM-S	M4227
48	44	0.50	18.4	DATA I/O SPRINT ONLY	048-TS01	AS-48-44-06TS-6YAM-S	M6087
48	48	0.50	18.4	AMD 29F400	048-TS01	AS-48-48-01TS-6WEL-S	M3813
48	48	0.50	18.4	AMD29F016 (12,37)(35,36)	048-TS01	AS-48-48-02TS-6WEL-S	M3895
48	48	0.50	18.4	29X/F100/200/400T/B/CX/EC/FC	048-TS01	AS-48-48-03TS-6YAM-S	M3955
48	48	0.50	18.4	TE28F320/160/800C3XA/B3XA	048-TS01	AS-48-48-04TS-6YAM-S	M5091
48	48	0.50	18.4	Wired 1 TO 1	048-TS01	AS-48-48-05TS-6WEL-S	M5504
48	48	0.50	18.4	Wired 1 TO 1	048-TS01	AS-48-48-05TS-6WEL-S-MS	F7009
48	48	0.50	18.4	CHIPMASTER AM29F400	048-TS01	AS-48-48-06TS-6WEL-S	M6295
56	40	0.50	18.4	E28F200/400BV/BX/BL	056-TS01	AS-56-40-01TS-6YAM-GANG-S	M1785
56	40	0.50	18.4	E28F200/400BX/BL/BV	056-TS01	AS-56-40-02TS-6YAM-GANG-S	M1784
56	40	0.50	18.4	E28F016XS/320J5/160S3	056-TS01	AS-56-40-04TS-6YAM-S	M3276
56	40	0.50	18.4	E28F016XD	056-TS01	AS-56-40-04TS-6YAM-S	M3277
56	44	0.50	18.4	E28F200/400BX/BV/BL	056-TS01	AS-56-44-01TS-6YAM-GANG-S	M1709
56	44	0.50	18.4	E28F016SA/SV	056-TS01	AS-56-44-02TS-6YAM-GANG-S	M2043
56	44	0.50	18.4	E28F016/SV	056-TS01	AS-56-44-03TS-6YAM-GANG-S	M2158
56	48	0.50	18.4	E28F016SA/SV,DD28F032SA	056-TS01	AS-56-48-01TS-6YAM-S	M2160
56	48	0.50	18.4	E28F016XS/320J5,TE28F160S3/S5	056-TS01	AS-56-48-02TS-6YAM-S	M3278
56	48	0.50	18.4	TE28F160/800F3	056-TS01	AS-56-48-03TS-6YAM-S	M5515
56	56	0.50	18.4	Wired 1 TO 1	056-TS01	AS-56-56-01TS-6YAM	F7010

PROGRAMMING ADAPTERS - TSSOP/SOJ/FLATPACK/PQFP/TQFP

Ordering Information Example



For a complete list of program adapter specifications, pricing and delivery information, see **Web Link:www.1800adapter.com/067**

TSSOP

Pin Count	DIP Pin Count	Lead Pitch (mm)	Body Width (mm)	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
8	8	0.65	4.40	WIRED 1-1	08-ST03	AS-08-08-01ST-3	M4607
8	8	0.65	4.40	MICROCHIP 24AA64/LC64/C64	08-ST03	AS-08-08-02ST-3	M5300
8	8	0.65	4.40	MICROCHIP HCS362	08-ST03	AS-08-08-03ST-3	M5503
8	8	0.65	3.00	MICROCHIP 24AA52	08-ST36	AS-08-08-04ST-3	M6969
20	20	0.65	4.40	WIRED 1-1	20-ST03	AS-20-20-01TSS-6YAM	M4619
20	20	0.65	4.40	27LV520	20-ST03	AS-20-20-02TSS-6YAM	M5382
28	28	0.65	4.40	Philips	28-ST03	AS-28-28-01TSS-6ENP-GANG	F6511
56	40	0.50	18.4	DD28F032/16SA/SV	TS01	AS-56-40-03TS-6YAM-GANG-S	M2087

SOJ

Pin Count	DIP Pin Count	Lead Pitch (mm)	Body Width (mm)	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
20	20	1.27	.300"	WIRED 1TO1	20-SJ01	AS-20-20-01SJ-3	M3089
20	20	1.27	.300"	WIRED 1TO1	20-SJ01	AS-20-20-01SJ-6	M1476
24	24	1.27	.300"	WIRED 1TO1	24-SJ01	AS-24-24-01SJ-6	M3094
26	26	1.27	.300"	WIRED 1TO1	26-SJ01	AS-26-26-01SJ-3	M3103
26	26	1.27	.300"	WIRED 1TO1	26-SJ01	AS-26-26-01SJ-6	M2208
28	28	1.27	.300"	WIRED 1TO1	28-SJ01	AS-28-28-01SJ-3	M3180
28	28	1.27	.300"	WIRED 1TO1	28-SJ01	AS-28-28-01SJ-6	M2199
28	28	1.27	.300"	WIRED 1TO1	28-SJ01	AS-28-28-03SJ-3	M2240

MILITARY STANDARD FLATPACK

Pin Count	DIP Pin Count	Lead Pitch (mm)	Body Dimensions Inches	Carrier Dimensions Inches	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
16	16	0.50	.280"X.420"	3/4 X 1	Wired 1TO1	16-FL01	AS-16-16-01F-3	M3067
16	16	0.50	.280"X.420"	3/4 X 1	Wired 1TO1	16-FL01	AS-16-16-01F-6	M3068
20	20	0.50	.300"X.520"	3/4 X 1	Wired 1TO1	20-FL02	AS-20-20-01F-3	M3085
24	24	0.50	.400"X.620"	1 1/4 X 1 1/4	Wired 1TO1	24-FL04	AS-24-24-02F-3	M3095
24	24	0.50	.400"X.620"	1 1/4 X 1 1/4	Wired 1TO1	24-FL04	AS-24-24-02F-6	M3096
28	28	0.50	.380"X.740"	1 1/4 X 1 1/4	Wired 1TO1	28-FL03	AS-28-28-01F-3	M3176
28	28	0.50	.380"X.740"	1 1/4 X 1 1/4	Wired 1TO1	28-FL03	AS-28-28-01F-6	M2116
32	32	1.27	N/A	1 1/4 X1 1/4	Wired 1TO1	32-FL07	AS-32-32-01F-6	M2148

PQFP/TQFP

Pin Count	DIP Pin Count	Lead Pitch (mm)	Body Width (mm)	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
32	8	0.80	9.0	EPC1441,1064/E	32-QF59D	AS-032-08-01Q-3ENP	M5450
32	28	0.80	9.0	AT90S/LS2333/4433/MG8	32-QF59D	AS-032-28-01Q-3ENP	M5801
32	28	0.80	9.0	AT90S/LS2333/443	32-QF59D	AS-032-28-01Q-3ENP-MS	M5801
44	28	0.80	12.0	IPLSI 1016/E,2032	44-QF16D	AS-44-28-01Q-3	M4815
44	28	0.80	12.0	IPLSI 1016/E,2032	44-QF16D	AS-44-28-01Q-6	M2197
44	28	0.80	12.0	MACH111/210/211/215	44-QF16D	AS-044-28-01Q-6ENP-SP	M4168
44	28	0.80	12.0	MACH110 ONLY!!!	44-QF16D	AS-44-28-01Q-6ENP	M3878
44	28	0.80	12.0	ISP1016/E,2032/V/LV,2064	44-QF16D	AS-44-28-02Q-6	M4273
44	40	0.80	13.9/13.2	8031/51	44-QF16A/B	AS-044-40-01Q-6ENP	M2272
44	40	0.80	12.6	8031/51	44-QF16C	AS-44-40-01Q-6ENP-2.4	M3915
44	40	0.80	12.0	8051	44-QF16D	AS-44-40-01Q-6ENP-2.0	M6261

PQFP/TQFP - PROGRAMMING ADAPTERS

Ordering Information Example

TSS=TSSOP Q=QFP SJ=SOJ F=MILITARY PACKAGE

Product Code for Programming Adapter: AS-08-08-01TSS-6(WEL)-(GANG)-(16) — Megabyte Version (Optional)

Pin Count of Chip Package to be Programmed: 08 — Fits Gang Programmer (Optional)

Bottom Pin Count of Adapter: 01 — Socket Type (Optional)

ET Internal Use: 6 —

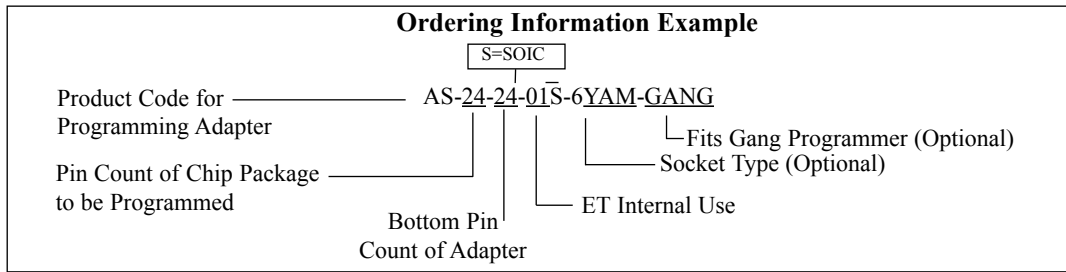
For a complete list of program adapter specifications, pricing and delivery information, see **Web Link: www.1800adapter.com/067**

PQFP/TQFP (cont.)

Pin Count	Pin Count of Adapter	Lead Pitch (mm)	Body Width (mm)	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
44	40	0.80	13.9	68HC705C8	44-QF16A	AS-44-40-02Q-6	M2082
44	40	0.80	13.2	68HC705C8	44-QF16B	AS-44-40-02Q-6	M2082
44	40	0.80	12.0	8051	44-QF16D	AS-44-40-02TQ-6ENP-2.0	M6735
44	40	0.80	13.0	PIC16C64/74	44-QF16B	AS-44-40-03Q-6YAM	M2157
44	40	0.80	12.0	PIC16C64/74/661	44-QF16D	AS-044-40-03TQ-6YAM	M5074
44	40	0.80	13.0	PIC17C42/43/44	44-QF16B	AS-044-40-04Q-6	M3248
44	40	0.80	12.0	17C42(A),44,17CR42,43	QF16D	AS-044-40-04TQ-6YAM	F5927
44	40	0.80	13.9/13.2	EPM7032	44-QF16A/B	AS-044-40-05Q-6	M3843
44	40	0.80	13.9/13.2	PSD311	44-QF16A/B	AS-044-40-06Q-6YAM	M5330
44	40	0.80	12.6	AT90(L)S4434,S8535,MEGA163L	44-QF16C	AS-44-40-07Q-6ENP-2.4	M5805
44	44	0.80	12.0	CY7C371	44-QF16D	AS-044-44-01Q-6	M4087
44	28	0.80	12.0	ISPLSI 2032/LV	44-QF16D	AS-048-28-01Q-6	M4267
52	40	1.00	17.2	PD301/02/03/11/12/13	52-QF37B	AS-052-40-01Q-6ENP	M1249
64	20	0.80	17.2	UPD75P036GC	64-QF29B	AS-064-20-01Q-6ENP	M3864
64	40	0.80	16.0	68HC705C9	64-QF29D	AS-064-40-02Q-6ENP	M4009
64	48	0.80	17.2	68HC711L6/E9	64-QF29B	AS-64-48-01Q-6ENP	M3825
64	48	0.80	17.2	68HC705/B16/B32/X16/BP32/X32	64-QF29B	AS-064-48-02Q-6ENP	M3826
64	48	1.00	23.2/17.2	PD75108F/112F/116F	64QF09B	AS-064-48-03Q-6	M5842
80	28	0.80	23.9/17.9	4074639FS,404638/39FS	80-QF08A	AS-080-28-01Q-6	M4301
100	28	0.50	16.0	IPLSI 1032/2096	100-QF49D	AS-100-28-01Q-6YAM	M1874
100	28	0.65	17.2/23.2	MACH 231SP/445	100-QF06A	AS-100-28-03Q-6	M2171
100	28	0.65	17.2/23.2	MACH 231SP/445	100-QF06B	AS-100-28-03Q-6	M2171
100	28	0.50	16.0	ISP2064V,2128V	100-QF49D	AS-100-28-04Q-6	M4304
100	28	0.50	16.0	ISPLSI 1024	100-QF49D	AS-100-28-05Q-6	M5001
100	28	0.50	16.0	PLSI/ISPLSI 1032/2064/E	100-QF49D	AS-100-28-06Q-6	M5048
100	32	0.50	16.0	HD647343F16	100-QF49D	AS-100-32-01Q-6YAM	M4094
120	28	0.80	31.2	IPLSI 1048	120-QF05B	AS-120-28-01Q-6YAM	M2173
128	28	0.80	31.2	IPLSI 1048/E,2096	128-QF13B	AS-128-28-01Q-6YAM	M2081
128	28	0.80	31.2	ISPLSI 2096V	128-QF13B	AS-128-28-02Q-6	M4274
128	28	0.40	16.0	ISPLSI1048C/E,2096	128-QF27	AS-128-28-03Q-6YAM	M4367
132	28	0.635	27.9	IFX780,EPX780	132-QF03	AS-132-28-01Q-6	M1972
144	28	0.65	31.2	MACH 355	144-QF10B	AS-144-28-01Q-6	M3066
160	28	0.65	31.2	IPLSI2128/3256	160-QF07B	AS-160-28-01Q-6	M1453
160	28	0.65	31.2	IPLSI 3256	160-QF07B	AS-160-28-02Q-6	M4610
160	28	0.65	31.2	ISPLSI/PLSI 2128V	160-QF07B	AS-160-28-03Q-6	M4611
160	48	0.65	31.2	CY7C375	160-QF07B	AS-160-48-01Q-6ENP	M3865
176	28	0.50	26.0	IPLSI 2128	176-QF67D	AS-176-28-01Q-6ENP	M3327
176	28	0.50	26.0	ISPLSI 2128V	176-QF67D	AS-176-28-02Q-6	M4266
176	28	0.50	26.0	ISPGDX120	176-QF67D	AS-176-28-03Q-6	M5050
176	48	0.50	26.0	CY7C375	176-QF67D	AS-176-48-01Q-6ENP	M4032
208	28	0.50	30.6	MACH 465	208-QF21C	AS-208-28-02Q-6	F2218
208	28	0.50	31.2	ISPLSI3160,ISPGDS160	208-QF21B	AS-208-28-04MQ-6ENP	M4270
208	28	0.50	30.6	AMD MACH 256	208-QF21C	AS-208-28-04Q-6YAM	M4621
208	28	0.50	30.6	ISPLSI 2096V	208-QF21C	AS-208-28-05Q-6	M4622
240	28	0.50	34.6	ISPLSI 2096V	240-QF62C	AS-240-28-01Q-6ENP	M4487
304	28	0.50	42.6	ISPLSI 3256E	304-QF61C	AS-304-28-01Q-6YAM	M4265

Searching for a device specific adapter?
Use ET's Cross Reference Guides:
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PROGRAMMING ADAPTERS - SOIC



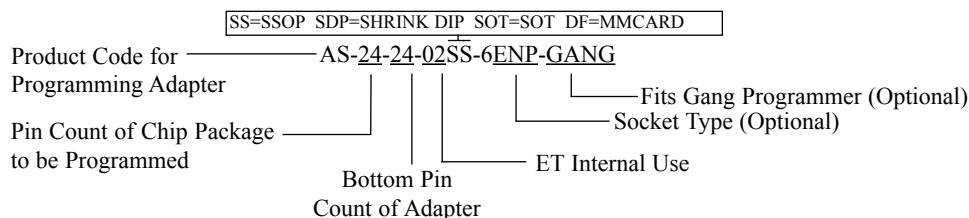
For a complete list of program adapter specifications, pricing and delivery information, see **Web Link: www.1800adapter.com/067**

SOIC

Pin Count	Pin Count of Adapter	Lead Pitch mm	Body Width mm	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
8	8	1.27	3.9	WIRED 1 TO 1	08-SO01	AS-08-08-01S-3	M1229
8	8	1.27	5.28	WIRED 1TO1	08-SO02	AS-08-08-03S-3YAM	M4272
8	8	1.27	5.28	93LC46/56/66B	08-SS02	AS-08-08-02S-3	M4460
14	8	1.27	3.9	MCHIP 93LC46/56/66B	14-SO01	AS-14-08-R1S-3	M4089
16	16	1.27	7.62	WIRED 1TO1	16-SO03	AS-16-16-02S-3	M2045
16	16	1.27	7.62	WIRED 1TO1	16-SO03	AS-16-16-02S-6	M2140
16	16	1.27	3.9	MS-CY3079	16-SO01	AS-16-16-04S-3-MS-CY3079	M5247
16	16	1.27	3.9	MS-CY3079-OT	16-SS01	AS-16-16-04S-3-MS-CY3079-OT	M2704
16	16	1.27	3.9	WIRED 1TO1	16-SO01	AS-16-16-R1S-3	M1803
16	16	1.27	3.9	WIRED 1TO1	16-SO01	AS-16-16-R1S-6	M2137
18	18	1.27	7.62	WIRED 1TO1	18-SO03	AS-18-18-01S-3-GANG	M1990
20	20	1.27	7.62	WIRED 1TO1	20-SO03	AS-20-20-01S-3-GANG	M6264
20	20	1.27	7.62	WIRED 1TO1	20-SO03	AS-20-20-01S-6-GANG	M6263
20	20	1.27	5.6	WIRED 1TO1	20-SO02	AS-20-20-02S-3	M1205
20	20	1.27	5.6	WIRED 1TO1	20-SO02	AS-20-20-02S-6	M2145
24	24	1.27	8.55	WIRED 1TO1	24-SO04	AS-24-24-01S-3	M3093
24	24	1.27	8.55	WIRED 1TO1	24-SO04	AS-24-24-01S-6-GANG	M2242
24	24	1.27	7.62	WIRED 1TO1	24-SO03	AS-24-24-02S-3-GANG	M5689
24	24	1.27	7.62	WIRED 1TO1	24-SO03	AS-24-24-02S-6-GANG	M1195
28	28	1.27	8.55	WIRED 1TO1	28-SO04	AS-28-28-01S-3-GANG	M3179
28	28	1.27	8.55	WIRED 1TO1	28-SO04	AS-28-28-01S-6-GANG	M1057
28	28	1.27	8.89	WIRED 1TO1	28-SO05	AS-28-28-02S-3	M3181
28	28	1.27	8.89	WIRED 1TO1	28-SO05	AS-28-28-02S-6	M2063
28	28	1.27	7.62	WIRED 1TO1	28-SO03	AS-28-28-03S-3-GANG	M2241
28	28	1.27	7.62	WIRED 1TO1	28-SO03	AS-28-28-03S-6-GANG	M2236
28	28	1.27	8.56	WIRED 1TO1	28-SO04	AS-28-28-04S-6-GANG	M4628
28	28	1.27	7.62	68HC705J2	28-SO03	AS-28-28-06S-3-GANG	M4629
28	28	1.27	7.62	68HC705J2	28-SO03	AS-28-28-06S-6-GANG	M4630
32	28	1.27	11.4	WIRED 1TO1	32-SO10	AS-32-32-01S-3	M3225
32	32	1.27	11.4	WIRED 1TO1	32-SO10	AS-32-32-01S-6	M1882
32	32	1.27	10.7	WIRED 1TO1	32-SO08	AS-32-32-02S-6-GANG	M1977
40	40	1.27	11.2	WIRED 1TO1	40-SO06/10	AS-40-40-01S-6YAM	M1991
40	40	1.27	11.2	WIRED 1TO1	40-SO10	AS-40-40-02S-6YAM	M2078
40	40	1.27	10.7	27C4000FEMALE	40-SO08	AS-40-40-03S-6YAM	M2103
40	40	1.27	11.2	TC5XXX00FEMALE	40-SO06/10	AS-40-40-04S-6YAM	M1202
40	40	1.27	10.7	WIRED 1TO1	40-SO08	AS-40-40-05S-6YAM	M1068
40	40	0.50	18.4	AT29C1024	40-TS01	AS-40-40-05TS-6YAM-GANG-S	M4813
40	40	0.50	12.4	28C1024	40-TS04	AS-40-40-06TS-6YAM-GANG-S	M4461
40	40	0.50	12.4	AT49F1025	40-TS04	AS-40-40-07TS-6YAM-GANG-S	M4271
40	40	0.50	18.4	E28F004/008	40-TS01	AS-40-40-08TS-6YAM-S	M5026
40	40	0.50	18.4	FU28F/LV002/4/8/16/80ST	40-TS01	AS-40-40-09TS-6WEL-S	M5075
40	40	0.50	18.4	WIRED 1TO1	40-TS01	AS-40-40-10TS-6WEL-S	M5840
44	40	1.27	13.2	PA28F200	44-SO09	AS-44-40-01S-6YAM-GANG	M1247
44	40	1.27	13.2	PA28F204	44-SO09	AS-44-40-03S-6YAM-GANG	M1638
44	40	1.27	13.2	PA28F200	44-SO09	AS-44-40-04S-6YAM	M1783
44	40	1.27	13.2	28F002/200/400/800	44-SO09	AS-44-40-05S-6YAM	M1782
44	40	1.27	13.2	AMD	44-SO09	AS-44-40-06S-6YAM	M3863
44	40	1.27	13.18	FUJI	44-SO09	AS-44-40-07S-6YAM	M4818
44	42	1.27	13.2	WIRED 1TO1	44-SO09	AS-44-42-01S-6YAM-GANG	M1935
44	42	1.27	13.18	WIRED 1TO1	44-SO09	AS-44-42-02S-6YAM	M2159
44	44	1.27	13.2	28F002/200/400/800, BV, BX, B5	44-SO09	AS-44-44-01S-6YAM-GANG	M1414
44	44	1.27	13.2	WIRED 1TO1	44-SO09	AS-44-44-02S-6YAM	M3844
44	44	1.27	13.2	AM29F200/400/800BX	44-SO09	AS-44-44-03S-6YAM	M4006

SSOP/SDIP/SOT/MMCARD - PROGRAMMING ADAPTERS

Ordering Information Example



For a complete list of program adapter specifications, pricing and delivery information, see **Web Link: www.1800adapter.com/067**

SSOP

Pin Count	Pin Count of Adapter	Lead Pitch (mm)	Body Width (mm)	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
8	8	0.65	3.00	WIRED 1TO1	08-ST36	AS-08-08-04ST-3	F6969
16	16	0.65	5.30	WIRED 1TO1	16-SS34	AS-16-16-01SS-6ENP-GANG	M5778
16	16	0.65	5.30	WIRED 1TO1	16-SS34	AS-16-16-01SS-6ENP-GANG-LONG	F7013
20	18	0.65	5.30	PIC16C54/20/61/22	20-SS34	AS-20-18-01SS-3YAM	M1879
20	18	0.65	5.30	PIC16C54/20/21/22	20-SS34	AS-20-18-01SS-6YAM	M4616
20	18	0.65	4.40	WIRED 1TO1	20-SS34	AS-20-20-01SS-3	M2109
20	20	0.65	5.30	WIRED 1TO1	20-SS34	AS-20-20-01SS-6	M4618
20	20	0.635	300.80	WIRED 1TO1	20-SS01	AS-20-20-02SS-3	M3664
20	20	0.635	300.80	WIRED 1TO1	20-SS01	AS-20-20-02SS-6	M5445
20	20	0.65	4.40	WIRED 1TO1	20-SS03	AS-20-20-03SS-6	M5445
24	24	0.65	4.40	WIRED 1TO1	20-SS03	AS-24-24-01SS-6-GANG	M5704
24	24	0.635	3.90	CY3070,3071,3075	24-SS12	AS-24-24-02SS-6WEL-S	M5105
28	28	0.65	5.30	PIC16C55/57	28-SS34	AS-28-28-01SS-6ENP-GANG	M3820
28	28	0.65	5.30	WIRED 1TO1	28-SS34	AS-28-28-02SS-6ENP-GANG	M3862
40	40	0.65	6.10	WIRED 1TO1	40-SS05	AS-40-40-01SS-6YAM	M5068
48	48	0.635	7.62	WIRED 1TO1	48-SS06	AS-48-48-01SS-6-GANG	M5493
56	4	0.80	13.3	DA28F016SA/SV	56-SS09	AS-56-40-01SS-6TI	M3792
56	40	0.80	13.3	DA28F016XS	56-SS09	AS-56-40-02SS-6TI	M4058
56	44	0.80	13.3	DA28F016SA/SV	56-SS09	AS-56-44-01SS-6TI	M3793
56	44	0.80	13.3	DA28F016SA/SV	56-SS09	AS-56-44-02SS-6TI	M3794
56	48	0.80	13.3	DA28F016SA/SV	56-SS09	AS-56-48-01SS-6TI	M3807
56	48	0.80	13.3	DA28F016SA/SV	56-SS09	AS-56-48-02SS-6TI	M4059
56	48	0.80	13.3	28F160F3 & 28F800F3	56-SS09	AS-56-48-03SS-6TI	M5306
56	56	0.80	13.3	WIRED 1TO1	56-SS09	AS-56-56-01SS-6-YAM	M5307

SDIP

Pin Count	Pin Count of Adapter	Lead Pitch (mm)	Body Width (mm)	Chip Manufacturer	ET Part#	Drawing #
56	48	.070"	16.51X47.79mm	MC68HC05B6	AS-56-48-01SDIP-6	M5519

SOT

Pin Count	Pin Count of Adapter	Lead Pitch (mm)	Body Width (mm)	Chip Manufacturer	ET Part#	Drawing #
6	6	0.95mm	1.62	WIRED 1TO1	AS-06-06-01SOT23-3	F6573
6	8	0.95mm	1.62	NC=4,5	AS-06-08-01SOT23-6	M5649
6	8	0.95mm	1.62	MICROCHIP 24AA01/24LC01B	AS-06-08-02SOT23-6	F6996

MMCARD

Pin Count	Pin Count of Adapter	Lead Pitch (mm)	Body Width (mm)	Chip Manufacturer	ET Part#	Drawing #
7	28	20.50	24X32	ATMEL AT45DB161B	AS-07-28-01DF-6	F6982

PROGRAMMING ADAPTERS - PGA, LGA, LCC, PLCC

Ordering Information Example

PG=PGA LG=LGA L=LCC P=PLCC

Product Code for AS-132-28-1PG(WEL)-(GANG)

Programming Adapter

Pin Count of Chip Package
to be Programmed

Bottom Pin
Count of Adapter

Fits Gang Programmer (Optional)
Socket Type (Optional)

ET Internal Use

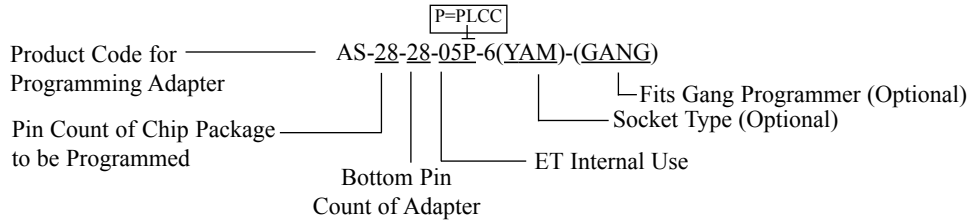
For a complete list of program adapter specifications, pricing and delivery information, see **Web Link:www.1800adapter.com/067**

PLCC

Pin Count	Pin Count of Adapter	Lead Pitch mm	Body Width	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
20	16	1.27	.356"	N/C=1,6,11,16	20-PCC2	AS-20-16-01P-3TEX	M1889
20	16	1.27	.356"	N/C=1,6,11,16	20-PCC2	AS-20-16-01P-6TEX	M1890
20	20	1.27	.356"	WIRED 1TO1	20-PCC2	AS-20-20-01P-3TEX	M1904
20	20	1.27	.356"	WIRED 1TO1	20-PCC2	AS-20-20-01P-3YAM	M1541
20	20	1.27	.356"	WIRED 1TO1	20-PCC2	AS-20-20-01P-6TEX	M1905
20	20	1.27	.356"	WIRED 1TO1	20-PCC2	AS-20-20-01P-6YAM	M1903
28	24	1.27	.454"	N/C= 1,10,15,21	28-PCC6	AS-28-24-02P-3TEX	M3128
28	24	1.27	.454"	N/C=1,10,15,21	28-PCC6	AS-28-24-02P-3YAM	M3129
28	24	1.27	.454"	N/C=1,10,15,21	28-PCC6	AS-28-24-02P-6TEX	M3130
28	24	1.27	.454"	N/C=1,10,15,21	28-PCC6	AS-28-24-02P-6YAM	M1567
28	24	1.27	.454"	N/C=5,8,11,19,NL PKG	28-PCC6	AS-28-24-04P-6YAM	M3140
28	24	1.27	.454"	N/C=1,8,15,22 FN PKG	28-PCC6	AS-28-24-05P-3YAM	M1543
28	24	1.27	.454"	N/C=1,8,15,22 FN PKG	28-PCC6	AS-28-24-05P-6YAM	M3144
28	24	1.27	.454"	N/C=5,11,19,25	28-PCC6	AS-28-24-06P-6TEX	M3148
28	24	1.27	.454"	NC=11,19(14,15)(1,28)	28-PCC6	AS-28-24-07P-6YAM	M3154
28	24	1.27	.454"	N/C=1,11,15,19	28-PCC6	AS-28-24-09P-6YAM	M3166
28	24	1.27	.454"	N/C=5,10,21,22	28-PCC6	AS-28-24-13P-3YAM	M3172
28	24	1.27	.454"	N/C=5,10,21,22	28-PCC6	AS-28-24-13P-6YAM	M3173
28	28	1.27	.454"	WIRED 1TO1	28-PCC6	AS-28-28-01P-3TEX	M2016
28	28	1.27	.454"	WIRED 1TO1	28-PCC6	AS-28-28-01P-3YAM	M2015
28	28	1.27	.454"	WIRED 1TO1	28-PCC6	AS-28-28-01P-6TEX	M2017
28	28	1.27	.454"	WIRED 1TO1	28-PCC6	AS-28-28-01P-6YAM	M1184
28	28	1.27	.454"	90 DEGREE ROTATION	28-PCC6	AS-28-28-05P-6YAM	M1015
32	24	1.27	.450"X.550"	NC=1,2,3,12,17,26,27,30	32-PCC7	AS-32-24-05P-3YAM	M2274
32	24	1.27	.450"X.550"	NC=1,2,3,12,17,26,27,30	32-PCC7	AS-32-24-05P-6YAM	M3203
32	28	1.27	.450"X.550"	N/C=1,12,17,26	32-PCC7	AS-32-28-01P-3YAM-LN	M3208
32	28	1.27	.450"X.550"	N/C=1,12,17,26	32-PCC7	AS-32-28-01P-6YAM-GANG-LN	M1384
32	28	1.27	.450"X.550"	N/C=1,12,17,26	32-PCC7	AS-32-28-01P-6YAM-LN	M1244
32	28	1.27	.450"X.550"	N/C=11,15,18,23	32-PCC7	AS-32-28-02P-6TEX	M3213
32	32	1.27	.450"X.550"	WIRED 1TO1	32-PCC7	AS-32-32-01P-3YAM-LN	M3088
32	32	1.27	.450"X.550"	WIRED 1TO1	32-PCC7	AS-32-32-01P-6YAM-GANG-LN	M1269
32	32	1.27	.450"X.550"	WIRED 1TO1	32-PCC7	AS-32-32-01P-6YAM-LN	M1677
44	28	1.27	.654"	MACH110/111/210/215	44-PCC3	AS-44-28-01P-3YAM	M1111
44	28	1.27	.654"	MACH110/111/210/215	44-PCC3	AS-44-28-01P-6YAM	M1831
44	28	1.27	.654"	IPLSI 1016/2032	44-PCC3	AS-44-28-03P-6YAM	M2093
44	40	1.27	.654"	NC=17,39(22,23)(1,44)	44-PCC3	AS-44-40-03P-6YAM	M1742
44	40	1.27	.654"	N/C=1,17,22,39	44-PCC3	AS-44-40-04P-6YAM	M3247
44	40	1.27	.654"	N/C=1,12,23,34 (8051)	44-PCC3	AS-44-40-07P-6TEX	M2151
44	40	1.27	.654"	NC=1,12,23,34(8051)	44-PCC3	AS-44-40-07P-6YAM-GANG	M1988
44	40	1.27	.654"	N/C=1,12,23,34 (8051)	44-PCC3	AS-44-40-07P-6YAM	M3255
44	40	1.27	.654"	N/C=1,13,23,33	44-PCC3	AS-44-40-08P-6YAM	M1312
44	40	1.27	.654"	NC=40,41,42(1,12,23,34)	44-PCC3	AS-44-40-09P-6YAM	F4343
44	40	1.27	.654"	ATV2500	44-PCC3	AS-44-40-13P-6YAM-LN	M1260
44	40	1.27	.654"	PSD301/2/11/12/13	44-PCC3	AS-44-40-14P-6YAMIC120	M3266
44	40	1.27	.654"	PSD301/2/3/11/12/13	44-PCC3	AS-44-40-14P-6YAMIC51	M1801
44	40	1.27	.654"	PSD301/2/3/11/12/13	BPPROG ONLY	AS-44-40-15P-6YAM	M3267
44	40	1.27	.654"	PIC16C54/64/74/77/F87	44-PCC3	AS-44-40-17P-6YAM	M2150
44	40	1.27	.654"	CY7C259	44-PCC3	AS-44-40-18P-6YAM	M1117
44	40	1.27	.654"	CY7C270	44-PCC3	AS-44-40-19P-6YAM	M1160
44	40	1.27	.654"	68HC711D3	44-PCC3	AS-44-40-20P-6YAM	M3821
44	40	1.27	.654"	68HC705C4/C8	44-PCC3	AS-44-40-21P-6YAM	M3822
44	40	1.27	.654"	68HC705C9/D9	44-PCC3	AS-44-40-22P-6YAM	M3279
44	40	1.27	.654"	PIC17C42	44-PCC3	AS-44-40-28P-6YAM	M3979
44	40	1.27	.654"	AT90(L)S4434,S8535,MEGA163L	44-PCC3	AS-44-40-29P-6YAM-GANG	M5804
44	44	1.27	.654"	WIRED 1TO1	44-PCC3	AS-44-44-01P-6YAM	M3988
44	40	1.27	.654"	N/C=6,7,28,39	44-PCC3	AS-44-40-01P-6TEX	M3238
44	40	1.27	.654"	NC=17,39(22,23)(1,44)	44-PCC3	AS-44-40-03P-6TEX	M3243
44	44	1.27	.654"	CY7C371	44-PCC3	AS-44-44-03P-6YAM	M3845

PLCC - PROGRAMMING ADAPTERS

Ordering Information Example



For a complete list of program adapter specifications, pricing and delivery information, see **Web Link: www.1800adapter.com/067**

PLCC

Pin Count	Pin Count of Adapter	Lead Pitch mm	Body Width mm	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
44	48	1.27	0.654"	CY7C343, EPM5064	44-PCC3	AS-44-48-01P-6YAM	M9452
52	48	1.27	0.654"	68HC705B5/B6/B16	44-PCC3	AS-52-48-01P-6YAM	M3823
52	48	1.27	0.654"	68HC711E9/E20	44-PCC3	AS-52-48-02P-6YAM	M3824
52	52	1.27	.753"X.754"	WIRED ITO1	52-PCC4	AS-52-52-01P-6TEX	M3275
68	28	1.27	0.954"	IPLSI 1024/E	68-PCC1	AS-68-28-03P-3YAM	M4640
68	28	1.27	0.954"	IPLSI 1024/E\	68-PCC1	AS-68-28-03P-6YAM	M3280
68	40	1.27	0.954"	USER CONFIG. WIRE WRAP	68-PCC1	AS-68-40-00P-6YAM	M6193
68	40	1.27	0.954"	PML2552	68-PCC1	AS-68-40-04P-6YAM	M3283
68	40	1.27	0.954"	87C196KB/KC/KD	68-PCC1	AS-68-40-06P-6YAM	M1698
68	48	1.27	0.954"	EP1800	68-PCC1	AS-68-48-01P-6YAM	M1965
68	48	1.27	0.954"	CY7C342, EPM5128	68-PCC1	AS-68-48-02P-6YAM	M3785
68	48	1.27	0.954"	68HC(7)11F1/L6	68-PCC1	AS-68-48-03P-6YAM	M3827
68	48	1.27	0.954"	68HC(7)11KA2/KA4	68-PCC1	AS-68-48-04P-6YAM	M3828
84	28	1.27	1.153"	MACH130/131/230/231/435	84-PCC5	AS-84-28-01P-3YAM	M3285
84	28	1.27	1.153"	MACH130/131/230/231/435	84-PCC5	AS-84-28-01P-6YAM	M1701
84	28	1.27	1.153"	IPLSI 1032/E, 2064	84-PCC5	AS-84-28-02P-6YAM	M3287
84	28	1.27	1.153"	ISP2064V, 2128V	84-PCC5	AS-84-28-05P-6YAM	M4268
84	28	1.27	1.153"	H8/532	84-PCC5	AS-84-28-06P-6YAM	F6675
84	32	1.27	1.153"	H8/536	84-PCC5	AS-84-32-01P-6YAM	F7015
84	40	1.27	1.153"	PML2652	84-PCC5	AS-84-40-01P-6YAM	M1426
84	48	1.27	1.153"	CY7C346, EPM5130	84-PCC5	AS-84-48-01P-6YAM	M3786
84	48	1.27	1.153"	CY7C341, EPM5192	84-PCC5	AS-84-48-02P-6YAM	M3787
84	48	1.27	1.153"	68HC(7)11K4	84-PCC5	AS-84-48-03P-6YAM	M3829
100	52	1.27	.753"X.754"	WIRED ITO1	52-PCC4	AS-52-52-01P-6TEX-MS	M3143

PGA

Pin Count	Pin Count of Adapter	Lead Pitch mm	Body Width mm	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
44	40	.100"	.850" SQR	PSD301/02/03/11/12/13	44-PGA8X8	AS-044-40-12PG-6	M1835
68	40	.100"	.850" SQR	EP-1800	68-PGA1	AS-044-40-12PG-6	M1271
132	28	.100"	N/A	ISPLSI 1048C/E, 2096	132-PGA8	AS-132-28-01PG-6	M1875

LGA

Pin Count	Pin Count of Adapter	Lead Pitch mm	Body Width mm	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
48	48	0.50	4X6	39XF800A/160A/320A/6401	5LG11X6	AS-48-48-01LG-6	F7014

LCC

Pin Count	Pin Count of Adapter	Lead Pitch mm	Body Width mm	Chip Manufacturer	Footprint Code	ET Part#	Drawing #
20	20	1.27	.350"	WIRED ITO1	20-LCC1	AS-20-20-01L-3	M3086
20	20	1.27	.350"	WIRED ITO1	20-LCC1	AS-20-20-01L-6	M3087
28	24	1.27	.450"	N/C=4,11,18,25	28-LCC6	AS-28-24-01L-6	M3123
28	24	1.27	.450"	N/C=1,10,15,21	28-LCC6	AS-28-24-02L-3	M3126
28	24	1.27	.450"	N/C=1,10,15,21	28-LCC6	AS-28-24-02L-6	M3127
28	24	1.27	.450"	N/C=1,10,15,21	28-LCC6	AS-28-24-03L-6	M3132
28	24	1.27	.450"	N/C=1,8,15,22	28-LCC6	AS-28-24-05L-3	M3141
28	24	1.27	.450"	N/C=1,8,15,22	28-LCC6	AS-28-24-05L-6	M1605
28	28	1.27	.450"	WIRED ITO1	28-LCC6	AS-28-28-01L-3	M3178
28	28	1.27	.450"	WIRED ITO1	28-LCC6	AS-28-28-01L-6	M1931
32	28	1.27	13.97x11.43	N/C=1,12,17,26	32-LCC7	AS-32-28-01L-6	M1161
32	32	1.27	13.97x11.43	WIRED ITO1	32-LCC7	AS-32-32-01L-6	M2244
44	40	1.27	0.650"	N/C=1,12,23,34	44-LCC3	AS-44-40-07L-6	M3254
44	40	1.27	0.650"	N/C=1,13,23,33	44-LCC3	AS-44-40-08L-6	M3256
44	40	1.27	0.650"	ATV2500 ONLY	44-LCC3	AS-44-40-13L-6YAM-LN	M3265
52	52	1.27	.750"	WIRED ITO1	52-LCC4	AS-52-52-01L-6	M3274

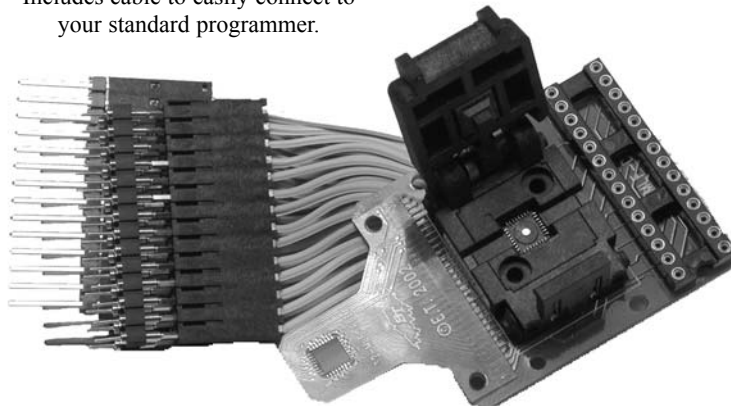


PROGRAMMING ADAPTERS - MLF/QFN

MLF/QFN 3-in-1 Adapter System™

The QFN/MLF 3-in-1 Adapter System™ ensures quick and easy configuring and interfacing to an in-circuit emulator, device programmer, logic analyzer or oscilloscope. The first of its kind, this 3-in-1 system provides the solution for test and design engineers needing QFN (Quad Flat Non-leaded) or MLF (Micro Lead Frame) signal access. This system supports the ATMEL® ATtiny26, ATtiny28, ATmega8, ATmega16 and ATmega32 8-bit AVR® Microcontrollers.

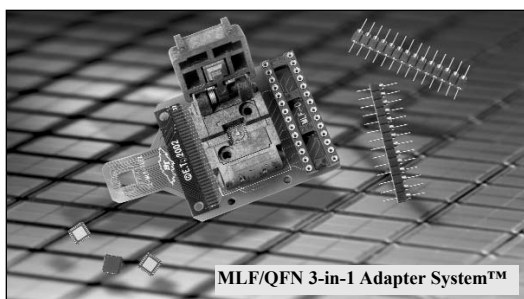
Includes cable to easily connect to your standard programmer.



EMULATE.

ANALYZE.

PROGRAM.



MLF/QFN 3-in-1 Adapter System™

Ordering Information Example

Lead pitch (1=1.5mm, 2 = 1.27mm, 3=1.0mm, 4=.75mm, 5=.50mm, 6=.80mm)

Pin Count of device to be programmed _____ Width of Male DIP Wire Posts
 Product Code AS-08-08-01ML-3 3=.300" 6=.600"

Bottom Pin Count of Adapter _____ Version # of Pin _____ Package to be Programmed:
 ML= MICRO LEAD FRAME, LAP=LAP, TAP=TAP

For a complete list of adapter specifications, pricing and delivery information, please see: Web Link: www.1800adapter.com/060

FEATURES & BENEFITS

- Reduces cost of ownership by 50-66% by eliminating the need for three separate adapters
- Change chip packages rapidly
- Flexible target interconnect minimizes physical strain on target pads
- Excellent for in-circuit or out of circuit programming
- Monitor signals - Logic Analysis
- Quick interface In-Circuit Emulator
- Compact design ensures signal integrity

PROGRAMMING ADAPTERS

Programming Adapter Only

MLF/QFN PROGRAMMING ADAPTER (ONLY) PART NUMBERS

Pin Count	DIP Pin Count	Lead Pitch (mm)	Body Size	Footprint Code	Chip Manufacturer and Notes	ET Part #	Drawing #
8	8	1.27	6X5	08-ML08	WIRED 1 TO 1	AS-08-08-01ML-3	M6611
8	8	1.27	8X5	08-LAP1	WIRED 1 TO 1	AS-08-08-01LAP-3	M6488
8	8	0.65	4.9sq.	08-MAP1	WIRED 1 TO 1 (Load Dead Bug)	AS-08-08-01MAP-3	M6698
8	8	0.65	6.4sq.	08-TAP1	WIRED 1 TO 1	AS-08-08-01TAP-3	F7047
8	8	1.27	5.99X4.93	08-LAP2	WIRED 1 TO 1	AS-08-08-02LAP-3	F6696
8	8	1.27	5.99sq.	08LAP3	WIRED 1 TO 1	AS-08-08-03LAP-3	F6827
8	8	1.27	8X6	08LAP4	WIRED 1 TO 1	AS-08-08-04LAP-3	F6978
8	20	1.27	8X6	08-ML40	ATMEL AT45DB161B	AS-08-20-01ML-3	F6980
8	20	1.27	8X6	08-ML40	ATMEL AT45DB161B	AS-08-20-01ML-6	F7018
20	20	0.65	5X5	20-ML02	WIRED 1 TO 1	AS-20-20-01ML-6	F6257
28	28	0.50	5X5	28-ML03	WIRED 1 TO 1	AS-28-28-01ML-6	F6258
28	28	0.65	6X6	28-ML38	4Pin Off Rotation (See Drawing)	AS-28-28-02ML-6	F6712
32	28	0.50	5X5	32-ML04	ATMEL MEGA 8	AS-32-28-01ML-3	M6332
32	28	0.50	5X5	32-ML04	ATMEL MEGA 8	AS-32-28-01ML-6	M6356
32	20	0.50	5X5	32-ML04	ATMEL TINY 26	AS-32-20-01ML-3	F6772
44	40	0.50	7X7	44-ML05	MEGA16/32, 8535	AS-44-40-01ML-6	F6842
44	40	0.50	7X7	44-ML05	MEGA 162, 8515	AS-44-40-02ML-6	F6843
44	40	0.50	7X7	44-ML05	8031/51	AS-44-40-03ML-6	F6774

Complete 3-in-1 Adapter System

MLF/QFN 3-in-1 ADAPTER SYSTEM PART NUMBERS

- Logic Analyzer Adapter
- Program Adapter
- Emulator Adapter

Pin Count	Pin Map	SMT Lead Pitch (mm)	Body Size	Footprint Code	ET Part #	Drawing #
32	ATMEL MEGA 8	0.50	5X5	32-ML04	BCP-032-ML04Z-MEGA8-3IN1	F6730
32	ATMEL TINY 26	0.50	5X5	32-ML04	BCP-032-ML04Z-TINY26-3IN1	F6727
44	MEGA16/32, 8535	0.50	7X7	44-ML05	BCP-044-ML05Z-MEGA16/32-3IN1	F6728
44	MEGA 162, 8515	0.50	7X7	44-ML05	BCP-044-ML05Z-MEGA162-3IN1	F6729