

# PACKAGE INFORMATION - PIN COUNT/PACKAGE TYPE (Page 1 of 3)

		A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
		DIP (P)	PLCC (LJP)	**QFP	*TQFP	*VTQFP	BGA	FBGA	VFBGE1 (4x4mm)	VFBGE1 (3x3mm)	SSOP	DSE1	UFBGE1	*STQFP	***QFNE3 (4x4mm)	LBGA	**MQFP
A	16	AA	AB	AC	AD	AE	AF	AG	AH	AJ	AK	AL	AM	AN	AP	AQ	AR
B	20	BA	BB	BC	BD	BE	BF	BG	BH	BJ	BK	BL	BM	BN	BP	BQ	BR
C	24	CA	CB	CC	CD	CE	CF	CG	CH	CJ	CK	CL	CM	CN	CP	CQ	CR
D	28	DA	DB	DC	DD	DE	DF	DG	DH	DJ	DK	DL	DM	DN	DP	DQ	DR
E	32	EA	EB	EC	ED	EE	EF	EG	EH	EJ	EK	EL	EM	EN	EP	EQ	ER
F	40	FA	FB	FC	FD	FE	FF	FG	FH	FJ	FK	FL	FM	FN	FP	FQ	FR
G	25	GA	GB	GC	GD	GE	GF	GG	GH	GJ	GK	GL	GM	GN	GP	GQ	GR
H	48	HA	HB	HC	HD	HE	HF	HG	HH	HJ	HK	HL	HM	HN	HP	HQ	HR
J	64	JA	JB	JC	JD	JE	JF	JG	JH	JJ	JK	JL	JM	JN	JP	JQ	JR
K	12	KA	KB	KC	KD	KE	KF	KG	KH	KJ	KK	KL	KM	KN	KP	KQ	KR
L	132	LA	LB	LC	LD	LE	LF	LG	LH	LJ	LK	LL	LM	LN	LP	LQ	LR
M	100	MA	MB	MC	MD	ME	MF	MG	MH	MJ	MK	ML	MM	MN	MP	MQ	MR
N	128	NA	NB	NC	ND	NE	NF	NG	NH	NJ	NK	NL	NM	NN	NP	NQ	NR
P	144	PA	PB	PC	PD	PE	PF	PG	PH	PJ	PK	PL	PM	PN	PP	PQ	PR
Q	160	QA	QB	QC	QD	QE	QF	QG	QH	QJ	QK	QL	QM	QN	QP	QQ	QR
R	176	RA	RB	RC	RD	RE	RF	RG	RH	RJ	RK	RL	RM	RN	RP	RQ	RR
S	208	SA	SB	SC	SD	SE	SF	SG	SH	SJ	SK	SL	SM	SN	SP	SQ	SR
T	292	TA	TB	TC	TD	TE	TF	TG	TH	TJ	TK	TL	TM	TN	TP	TQ	TR
U	324	UA	UB	UC	UD	UE	UF	UG	UH	UJ	UK	UL	UM	UN	UP	UQ	UR
V	328	VA	VB	VC	VD	VE	VF	VG	VH	VJ	VK	VL	VM	VN	VP	VQ	VR
W	420	WA	WB	WC	WD	WE	WF	WG	WH	WJ	WK	WL	WM	WN	WP	WQ	WR
X	492	XA	XB	XC	XD	XE	XF	YG	XH	XJ	XK	XL	XM	XN	XP	XQ	XR
Y	560	YA	YB	YC	YD	YE	YF	YG	YH	YJ	YK	YL	YM	YN	YP	YQ	YR
Z	134	ZA	ZB	ZC	ZD	ZE	ZF	<del>ZG</del>	ZH	ZJ	ZK	ZL	ZM	ZN	ZP	ZQ	ZR
AA	256	AAA	AAB	AAC	AAD	AAE	AAF	AAG	AAH	AAJ	AAK	AAL	AAM	AAN	AAP	AAQ	AAR
AB	56	ABA	ABB	ABC	ABD	ABE	ABF	ABG	ABH	ABJ	ABK	ABL	ABM	ABN	ABP	ABQ	ABR
AC	8	ACA	ACB	ACC	ACD	ACE	ACF	ACG	ACH	ACJ	ACK	ACL	ACM	ACN	ACP	ACQ	ACR
AD	80	ADA	ADB	ADC	ADD	ADE	ADF	ADG	ADH	ADJ	ADK	ADL	ADM	ADN	ADP	ADQ	ADR
AE	36	AEA	AEB	AEC	AED	AEE	AEF	AEG	AEH	AEJ	AEK	AEL	AEM	AEN	AEP	AEQ	AER
AF	6	AFA	AFB	AFC	AFD	AFE	AFF	AFG	AFH	AFJ	AFK	AFL	AFM	AFN	AFP	AFQ	AFR
AG	5	AGA	AGB	AGC	AGD	AGE	AGF	AGG	AGH	AGJ	AGK	AGL	AGM	AGN	AGP	AGQ	AGR
AH	124	AHA	AHB	AHC	AHD	AHE	AHF	AHG	AHH	AHJ	AHK	AHL	AHM	AHN	AHP	AHQ	AHR
AI	10	AIA	AIB	AIC	AID	AIE	AIF	AIG	AIH	AIJ	AIK	AIL	AIM	AIN	AIP	AIQ	AIR
AJ	156	AJA	AJB	AJC	AJD	AJE	AJF	AJG	AJH	AJJ	AJK	AJL	AJM	AJN	AJP	AJQ	AJR

Orange highlighted package designations are currently qualified at SMSC

### KEY FOR 2-DIGIT CODE

1<sup>st</sup> Letter = Pin Count  
2<sup>nd</sup> Letter = Package Type

### KEY FOR 3-DIGIT CODE (If 2nd letter is A or B, then:)

1<sup>st</sup> & 2<sup>nd</sup> Letter = Pin Count  
3<sup>rd</sup> Letter = Package Type

### KEY FOR 3-DIGIT CODE (If 2nd letter is Z, then)

1<sup>st</sup> Letter = Pin Count  
2<sup>nd</sup> & 3<sup>rd</sup> Letter = Package Type

### KEY FOR 4-DIGIT CODE

1<sup>st</sup> & 2<sup>nd</sup> Letter = Pin Count  
3<sup>rd</sup> & 4<sup>th</sup> Letter = Package Type

Part Number to be used for Part Marking and Ordering = Base Part Number - 2 (or 3) Digit Code

Examples:

USB97CFDC-MN = USB97CFDC in 100 STQFP package  
LPC47N253-AAQ = LPC47N253 in 256 LBGA package

*Note 1:		
Package Type	Thickness (Nominal)	Body Size (Nominal) - varies depending on Pin Count
TQFP	1.4mm	Current Range: 7.0 x 7.0 mm to 28.0 x 28.0 mm
VTQFP	1.0mm	Current Range: 14.0 x 14.0 mm to 20.0 x 20.0 mm
STQFP	1.4mm	Current Range: 12.0 x 12.0 mm

**Note 2:	
Package Type	Footprint
MQFP	3.2mm
QFP	3.9mm

### Exceptions

LPC47M192-NC, LPC47M112-MC will not have MR or NR code.

Due to space limitations on 8-pin QFNN packages, AEZG was shrunk to only ZG for top marking purposes  
EMC2710P-ABZS will not have ABZJ code.

***Note 3:	
New Lead-Free Package Designations	
QE3: Lead Free QFP Pkg.	STQE3: Lead Free STQFP Pkg.
TQE3: Lead Free TQFP Pkg.	MQE3: Lead Free MQFP Pkg.
VTQE3: Lead Free VTQFP Pkg.	LBGE3: Lead Free LBGA Pkg
PLE3: Lead Free PLCC Pkg	SSOE3: Lead Free SSOP pkg
QFNE3: Lead Free QFN Pkg.	LFBGE3: Lead free LFBGA
SOTE3: Lead Free SOT pkg	SOIE3: Lead Free SOIC pkg
DQFNE3: Lead Free DQFN pkg	TSSOE3: Lead Free TSSON pkg

## PACKAGE INFORMATION - PIN COUNT/PACKAGE TYPE (Page 2 of 3)

		S	T	U	V	W	X	Y	Z	ZA	ZB	ZC	ZD	ZE	ZF	ZG
		***QE3	***TQE3	***VTQE3	***STQE3	***MQE3	QFN (5x5mm)	QFN (6x6mm)	***QFNE3 (3x3mm)	***LBGE1	TSSOP / MSOP	***SSOE3	***PLE3	QFN (7x7mm)	QFN (8x8mm)	***QFNE3 (6x6mm)
A	16	AS	AT	AU	AV	AW	AX	AY	AZ	AZA	AZB	AZC	AZD	AZE	AZF	AZG
B	20	BS	BT	BU	BV	BW	BX	BY	BZ	BZA	BZB	BZC	BZD	BZE	BZF	BZG
C	24	CS	CT	CU	CV	CW	CX	CY	CZ	CZA	CZB	CZC	CZD	CZE	CZF	CZG
D	28	DS	DT	DU	DV	DW	DX	DY	DZ	DZA	DZB	DZC	DZD	DZE	DZF	DZG
E	32	ES	ET	EU	EV	EW	EX	EY	EZ	EZA	EZB	EZC	EZD	EZE	EZF	EZG
F	40	FS	FT	FU	FV	FW	FX	FY	FZ	FZA	FZB	FZC	FZD	FZE	FZF	FZG
G	25	GS	GT	GU	GV	GW	GX	GY	GZ	GZA	GZB	GZC	GZD	GZE	GZF	GZG
H	48	HS	HT	HU	HV	HW	HX	HY	HZ	HZA	HZB	HZC	HZD	HZE	HZF	HZG
J	64	JS	JT	JU	JV	JW	JX	JY	JZ	JZA	JZB	JZC	JZD	JZE	JZF	JZG
K	12	KS	KT	KU	KV	KW	KX	KY	KZ	KZA	KZB	KZC	KZD	KZE	KZF	KZG
L	132	LS	LT	LU	LV	LW	LX	LY	LZ	LZA	LZB	LZC	LZD	LZE	LZF	LZG
M	100	MS	MT	MU	MV	MW	MX	MY	MZ	MZA	MZB	MZC	MZD	MZE	MZF	MZG
N	128	NS	NT	NU	NV	NW	NX	NY	NZ	NZA	NZB	NZC	NZD	NZE	NZF	NZG
P	144	PS	PT	PU	PV	PW	PX	PY	PZ	PZA	PZB	PZC	PZD	PZE	PZF	PZG
Q	160	QS	QT	QU	QV	QW	QX	QY	QZ	QZA	QZB	QZC	QZD	QZE	QZF	QZG
R	176	RS	RT	RU	RV	RW	RX	RY	RZ	RZA	RZB	RZC	RZD	RZE	RZF	RZG
S	208	SS	ST	SU	SV	SW	SX	SY	SZ	SZA	SZB	SZC	SZD	SZE	SZF	SZG
T	292	TS	TT	TU	TV	TW	TX	TY	TZ	TZA	TZB	TZC	TZD	TZE	TZF	TZG
U	324	US	UT	UU	UV	UW	UX	UY	UZ	UZA	UZB	UZC	UZD	UZE	UZF	UZG
V	328	VS	VT	VU	VV	VW	VX	VY	VZ	VZA	VZB	VZC	VZD	VZE	VZF	VZG
W	420	WS	WT	WU	WV	WW	WX	WY	WZ	WZA	WZB	WZC	WZD	WZE	WZF	WZG
X	492	XS	XT	XU	XV	XW	XX	XY	XZ	XZA	XZB	XZC	XZD	XZE	XZF	XZG
Y	560	YS	YT	YU	YV	YW	YX	YY	YZ	YZA	YZB	YZC	YZD	YZE	YZF	YZG
Z	134	ZS	ZT	ZU	ZV	ZW	ZX	ZY	ZZ	ZZA	ZZB	ZZC	ZZD	ZZE	ZZF	ZZG
AA	256	AAS	AAT	AAU	AAV	AAW	AAX	AAZ	AAZ	AAZA	AAZB	AAZC	AAZD	AAZE	AAZF	AAZG
AB	56	ABS	ABT	ABU	ABV	ABW	ABX	ABY	ABZ	ABZA	ABZB	ABZC	ABZD	ABZE	ABZF	ABZG
AC	8	ACS	ACT	ACU	ACV	ACW	ACX	ACY	ACZ	ACZA	ACZB	ACZC	ACZD	ACZE	ACZF	ACZG
AD	80	ADS	ADT	ADU	ADV	ADW	ADX	ADY	ADZ	ADZA	ADZB	ADZC	ADZD	ADZE	ADZF	ADZG
AE	36	AES	AET	AEU	AEV	AEW	AEX	AEY	AEZ	AEZA	AEZB	AEZC	AEZD	AEZE	AEZF	AEZG
AF	6	AFS	AFT	AFU	AFV	AFW	AFX	AFY	AFZ	AFZA	AFZB	AFZC	AFZD	AFZE	AFZF	AFZG
AG	5	AGS	AGT	AGU	AGV	AGW	AGX	AGY	AGZ	AGZA	AGZB	AGZC	AGZD	AGZE	AGZF	AGZG
AH	124	AHS	AHT	AHU	AHV	AHW	AHX	AHY	AHZ	AHZA	AHZB	AHZC	AHZD	AHZE	AHZF	AHZG
AI	10	AIS	AIT	AIU	AIV	AIW	AIX	AIY	AIZ	AIZA	AIZB	AIZC	AIZD	AIZE	AIZF	AIZG
AJ	156	AJS	AJT	AJU	AJV	AJW	AJX	AJY	AJZ	AJZA	AJZB	AJZC	AJZD	AJZE	AJZF	AJZG

## PACKAGE INFORMATION - PIN COUNT/PACKAGE TYPE (Page 3 of 3)

		ZH	ZJ	ZK	ZL	ZM	ZN	ZP	ZQ	ZR	ZS	ZT	ZU	ZV	ZW
		***QFNE3 (7x7mm)	QFNE3 (8x8mm)	***QFNE3 (5x5mm)	***TSSOE3	SOT	SIP	***LFBGE1	***SOTE3	DQFN	***DQFNE6	***SOIE3	BGE1	XTQE3	TFBGE1
A	16	AZH	AZJ	AZK	AZL	AZM	AZN	AZP	AZQ	AZR	AZS	AZT	AZU	AZV	AZW
B	20	BZH	BZJ	BZK	BZL	BZM	BZN	BZP	BZQ	BZR	BZS	BZT	BZU	BZV	BZW
C	24	CZH	CZJ	CZK	CZL	CZM	CZN	CZP	CZQ	CZR	CZS	CZT	CZU	CZV	CZW
D	28	DZH	DZJ	DZK	DZL	DZM	DZN	DZP	DZQ	DZR	DZS	DZT	DZU	DZV	DZW
E	32	EZH	EZJ	EZK	EZL	EZM	EZN	EZP	EZQ	EZR	EZS	EZT	EZU	EZV	EZW
F	40	FZH	FZJ	FZK	FZL	FZM	FZN	FZP	FZQ	FZR	FZS	FZT	FZU	FZV	FZW
G	25	GZH	GZJ	GZK	GZL	GZM	GZN	GZP	GZQ	GZR	GZS	GZT	GZU	GZV	GZW
H	48	HZH	HZJ	HZK	HZL	HZM	HZN	HZP	HZQ	HZR	HZS	HZT	HZU	HZV	HZW
J	64	JZH	JZJ	JZK	JZL	JZM	JZN	JZP	JZQ	JZR	JZS	JZT	JZU	JZV	JZW
K	12	KZH	KZJ	KZK	KZL	KZM	KZN	KZP	KZQ	KZR	KZS	KZT	KZU	KZV	KZW
L	132	LZH	LZJ	LZK	LZL	LZM	LZN	LZP	LZQ	LZR	LZS	LZT	LZU	LZV	LZW
M	100	MZH	MZJ	MZK	MZL	MZM	MZN	MZP	MZQ	MZR	MZS	MZT	MZU	MZV	MZW
N	128	NZH	NZJ	NZK	NZL	NZM	NZN	NZP	NZQ	NZR	NZS	NZT	NZU	NZV	NZW
P	144	PZH	PZJ	PZK	PZL	PZM	PZN	PZP	PZQ	PZR	PZS	PZT	PZU	PZV	PZW
Q	160	QZH	QZJ	QZK	QZL	QZM	QZN	QZP	QZQ	QZR	QZS	QZT	QZU	QZV	QZW
R	176	RZH	RZJ	RZK	RZL	RZM	RZN	RZP	RZQ	RZR	RZS	RZT	RZU	RZV	RZW
S	208	SZH	SZJ	SZK	SZL	SZM	SZN	SZP	SZQ	SZR	SZS	SZT	SZU	SZV	SZW
T	292	TZH	TZJ	TZK	TZL	TZM	TZN	TZP	TZQ	TZR	TZS	TZT	TZU	TZV	TZW
U	324	UZH	UZJ	UZK	UZL	UZM	UZN	UZP	UZQ	UZR	UZS	UZT	UZU	UZV	UZW
V	328	VZH	VZJ	VZK	VZL	VZM	VZN	VZP	VZQ	VZR	VZS	VZT	VZU	VZV	VZW
W	420	WZH	WZJ	WZK	WZL	WZM	WZN	WZP	WZQ	WZR	WZS	WZT	WZU	WZV	WZW
X	492	XZH	XZJ	XZK	XZL	XZM	XZN	XZP	XZQ	XZR	XZS	XZT	XZU	XZV	XZW
Y	560	YZH	YZJ	YZK	YZL	YZM	YZN	YZP	YZQ	YZR	YZS	YZT	YZU	YZV	YZW
Z	134	ZZH	ZZJ	ZZK	ZZL	ZZM	ZZN	ZZP	ZZQ	ZZR	ZZS	ZZT	ZZU	ZZV	ZZW
AA	256	AAZH	AAZJ	AAZK	AAZL	AAZM	AAZN	AAZP	AAZQ	AAZR	AAZS	AAZT	AAZU	AAZV	AAZW
AB	56	ABZH	ABZJ	ABZK	ABZL	ABZM	ABZN	ABZP	ABZQ	ABZR	ABZS	ABZT	ABZU	ABZV	ABZW
AC	8	ACZH	ACZJ	ACZK	ACZL	ACZM	ACZN	ACZP	ACZQ	ACZR	ACZS	ACZT	ACZU	ACZV	ACZW
AD	80	ADZH	ADZJ	ADZK	ADZL	ADZM	ADZN	ADZP	ADZQ	ADZR	ADZS	ADZT	ADZU	ADZV	ADZW
AE	36	AEZH	AEZJ	AEZK	AEZL	AEZM	AEZN	AEZP	AEZQ	AEZR	AEZS	AEZT	AEZU	AEZV	AEZW
AF	6	AFZH	AFZJ	AFZK	AFZL	AFZM	AFZN	AFZP	AFZQ	AFZR	AFZS	AFZT	AFZU	AFZV	AFZW
AG	5	AGZH	AGZJ	AGZK	AGZL	AGZM	AGZN	AGZP	AGZQ	AGZR	AGZS	AGZT	AGZU	AGZV	AGZW
AH	124	AHZH	AHZJ	AHZK	AHZL	AHZM	AHZN	AHZP	AHZQ	AHZR	AHZS	AHZT	AHZU	AHZV	AHZW
AI	10	AIZH	AIZJ	AIZK	AIZL	AIZM	AIZN	AIZP	AIZQ	AIZR	AIZS	AIZT	AIZU	AIZV	AIZW
AJ	156	AJZH	AJZJ	AJZK	AJZL	AJZM	AJZN	AJZP	AJZQ	AJZR	AJZS	AJZT	AJZU	AJZV	AJZW