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m /		EXAR CORPORATION	RPORAT	NOL
New Dire	ection in Mixed-Signal	LQFP PA	LQFP PACKAGE OUTLINE	
ıckaç	ackaging Approval:	Drawing No:	POD-00000002	002
Ď	Date: 10/30/13 Revision:	Revision: A	Sheet: 2	2 OF 3

A New Direction in Mixed-Signed

θ 23 23 IS

0.08 — — 0.20 0.08 — 0.20 0° 3.5° 7° 0° — — — 11° 12° 13°

0.003 — 0.003 — 0° 3.5°

0.008

В У.:

z	θ2	θ1	θ	R2	R1	12		_	Ф	E	m	D1	0	c	ь	A2	A1	Α	
	11.	0.	o.	0.08	0.08	0		0.45		2	2	2	2	0.09	0.17	1.35	0.05	_	MIIM
144	12°	1	3.5	ı	ı	0.25 BSC	1.00 REF	0.60	0.50 BSC	20.00 BSC	22.00 BSC	20.00 BSC	22.00 BSC	I	0.22	1.40	I		NOM
	13°	1	7.	0.20	I			0.75		C	0	C	C	0.20	0.27	1.45	0.15	1.60	NIA.
	11*	0.	o.	0.003	0.003	0.	0.	0.018	0	0		0	0	0.004	0.007	0.053	0.002	_	MIN
144	12°		3.5	ı	ı	0.010 BSC	0.039 REF	0.024	0.020 BSC	0.787 BSC	0.866 BSC	0.787 BSC	0.866 BSC	I	0.009	0.055	-	_	NOM
	13°	I	7.	0.008	I		<u> </u>	0.030	C	C	C	C	C	0.008	0.011	0.057	0.006	0.063	NAM

SYMBOLS

MIN NOM MAX

MIN NOM MAX DIMENSIONS IN INCH (Reference Unit)

DIMENSIONS IN MM (Control Unit)

120 Pin 14x14 LQFP JEDEC MS-026 Variation BEE

z | 8

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0.08

0.20

0.003 0.003 0°

0.008

_			_	_	_		_	_	_	_	_	_	_	_	_		_		_		
Z	92	91	θ	R2	R1	12	=	_	Ф	므	ш	D1	0	c	6	A2	A1	Α		SYMBOLS	144 Pir
	11:	o.	0.	0.08	0.08	0		0.45		2	2	2	2	0.09	0.17	1.35	0.05	-	MIN	DIMEN (C	144 Pin 20x20 LQFP JEDEC MS-026 Variation BFB
-	12"	1	3.5	ı	1	0.25 BSC	.00 REF	0.60	0.50 BSC	20.00 BSC	22.00 BSC	20.00 BSC	22.00 BSC	I	0.22	1.40	I	_	MON	DIMENSIONS II (Control U	LQFP J
	13*	1	7.	0.20	I			0.75		C	C	0	C	0.20	0.27	1.45	0.15	1.60	MAX	Unit)	EDEC M
	11:	o.	o.	0.003	0.003	0.		0.018	0	0	0		0	0.004	0.007	0.053	0.002	_	M N	DIMENSIONS (Reference	S-026
-++	12"	1	3.5	ı	ı	0.010 BSC	0.039 REF	0.024	0.020 BSC	0.787 BSC	0.866 BSC	0.787 BSC	0.866 BSC	I	0.009	0.055	ı	_	NOM	l [∞] =	Variation
	13°		4	0.008	ı		''	0.030	0	C	C	l°	C	0.008	0.011	0.057	0.006	290.0	MAX	Unit)	BFB

z	θ2	10	θ	R2	R1	12	L1	۲	e	E1	т	D1	c
	11:	o.	o.	0.08	0.08			0.45		_	_	1	
128	12*	I	3.5	ı	ı	0.25 BSC	1.00 REF	0.60	0.40 BSC	14.00 BSC	16.00 BSC	14.00 BSC	10.00 BSC
	13.	I	7.	0.20	ı			0.75	С	C	C	С	(
	11:	o.	o.	0.003	0.003	0.	0.	0.018	0	0	0	0	0
128	12*	ı	3.5	ı	-	0.010 BSC	0.039 REF	0.024 0.030	0.016 BSC	0.551 BSC	0.630 BSC	0.551 BSC	U.00U BSC
	4:	I	7:	0.008	ı			0.030	0	0	C	С	ſ

SYMBOLS

100 Pin 14x14 LQFP JEDEC MS-026 Variation

_					_						_				S C	2		Pin	l		ľ			ľ		<u> </u>													
0.08			0.45						0.09	0.17	1.35	0.05	١	S Z	1 -	DIME					-	1.	5 0	2 6	0.0			0.45						0.09	0.22	1.35	0.05	I	NIII.A
I	0.25 BSC	1.00 REF	0.60	0.50 BSC	14.00 BSC	16.00 BSC	14.00 BSC	16.00 BSC	1	0.22	1.40	ı	ı	NOM	Control office	DIMENSIONS IN MM		14x14 LQFP ,		9	8	1,	ان ا	7	ļ	0.25 BSC		0.60	0.65 BSC	14.00 BSC	16.00 BSC	14.00 BSC	16.00 BSC	ı	0.32	1.40			- ACIV
I			0.75	Ö	č	č	č		0.20	0.27	1.45	0.15	1.60	MAX	TIIO	Z MM		JEDEC MS-026			ā	1 %	`	7.0	3 1		"	0.75	Ô	C	č	č	č	0.20	0.38	1.45	0.15	1.60	100.00
0.003	0	0.	0.018	0	0	0	0	0	0.004	0.007	0.053	0.002	١	S Z	(70	DIMENS		S-026			-	1.	, c	2.00	0.003	200	0	0.018	0	0	0	0	0	0.004	0.009	0.053	0.002	1	MILIA
I	0.010 BSC	0.039 REF	0.024 0.030	0.020 BSC	0.551 BSC	0.630 BSC	0.551 BSC	0.630 BS	1	0.009	0.055	I	1	NOM		(Befores I SH)		Variation BED		c	8	10.	٥.5	Z F:		0.010 BSC	0.039 REF	0.024	0.026 BSC	0.551 BSC	0.630 BSC	0.551 BSC	0.630 BSC	-	0.013	0.055	_	-	NON
I			0.030	C	С	С	С	C	0.008	0.011	0.057	0.006	0.063	MAX	OIIIO	I NCH	2	BED			ō	1 7.	`	7.000	8 1			0.030	С	С	С	С	С	0.008	0.015	0.057	0.006	0.063	N/S
					_																										_								
>		SYMBOLS		144 711				z	θ2	θ1	θ	R2	R1	L2	L1	L	e	E1	ш	91	0	0	ь	A2	Α1	⊳		SYMBOLS		120 FIN						Γ			_
I	N N	<u> </u>	DIME	70X70	2020				1:	o.	o,	0.08	0.08)		0.45				_		0.09	0.13	1.35	0.05	I	X N	<u> </u>	DIME	n 14X14 LUFF						_			
I	MON	(Control Unit)	DIMENSIONS IN	בעדד				128	12*		3.5	I		0.25 BSC	1.00 REF	0.60	0.40 BSC	14.00 BSC	16.00 BSC	14.00 BSC	16.00 BSC	I	0.18	1.40		I	MON	(Control Unit)	II SNOISNEMIN										
1 60	MAX	nit)	MM	טבטבט M					13.	1	7.	0.20		.,	1	0.75	С	C	С	C	C	0.20	0.23	1.45	0.15	1.60	MAX	nit)	MM	JEDEC W									
I	MN	(Refe	DIMENS	M2-070					11:	o.	o	0.003	0.003	.0	.0	0.018	0	0	0	0		0.004	0.005	0.053	0.002	I	MN.	(Refe	SNJMID	MS-UZ6 Variation	200								
-	MON	(Reference Unit)	DIMENSIONS IN INCH	Adulation	/aciation			128	12*	I	3.5	I	1	0.010 BSC		0.018 0.024	0.016 BSC	0.551 BSC	0.630 BSC	0.551 BSC	0.630 BSC	ı	0.007	0.055	ı	I	MON	(Reference Unit)	DIMENSIONS IN INCH	variation									
0 063	MAX	nit)	NCH	סיס	070				13.	-	7.	0.008	1	• •		0.030	0	C	0	O		0.008	0.009	0.057	0.006	0.063	MAX	nit)	INCH	ВПВ	2								

8	2.	ľ	Ωį	ı		BSC	굒	60	BSC) BSC) BSC) BSC) BSC	1	22	40	ı		Š	ol Unit)	E
	13.	ı	7.	0.20	1			0.75					O	0.20	0.27	1.45	0.15	1.60	MAX	nit) MM	EC MS-
	1:	o.	o.	0.003	0.003	0	0	0.018	0				0	0.004	0.007	0.053	0.002	1	<u>K</u>	DIMENS (Ref	-026 Vo
48	12"	ı	3.5	1	1	0.010 BSC	0.039 REF	0.024	0.020 BSC	0.276 BSC	0.354 BSC	0.276 BSC	0.354 BSC	ı	0.009	0.055	ı	1	MON	DIMENSIONS IN INCH (Reference Unit)	JEDEC MS-026 Variation BBC
	13*	1	7.	0.008	1	10		0.030	C	C	C	C	С	0.008	0.011	0.057	0.006	0.063	MAX	Jnit)	BBC
Ξ																					_
z	θ2	θ1	θ	R2	R1	12	ニ	_	đ	Ē	m	21	0	o	ъ	A2	A1	Α		SYMBOLS	80 Pin
	1:	0°	o,	0.08	0.08			0.45						0.09	0.17	1.35	0.05	I	<u>N</u>	DIME!	12×12
80	12*	-	3.5	ı	ı	0.25 BSC	1.00 REF	0.60	0.50 BSC	12.00 BSC	14.00 BSC	12.00 BSC	14.00 BSC	ı	0.22	1.40	1	I	MON	DIMENSIONS IN MM (Control Unit)	80 Pin 12×12 LQFP JEDEC MS-026 Variation BDD
	13*	-	7.	0.20	I			0.75		С	0	0	C	0.20	0.27	1.45	0.15	1.60	MAX	nit)	DEC MS
	11:	0.	o,	0.003	0.003	0.	0	0.018		0			0	0.004	0.007	0.053	0.002	ı	MZ.	DIMENS (Ref	-026 V
80	12°	_	3.5	1	I	0.010 BSC	0.039 REF	0.024	0.020 BSC	0.472 BSC	0.551 BSC	0.472 BSC	0.551 BSC	I	0.009	0.055		-	NOM	DIMENSIONS IN INCH (Reference Unit)	'ariation
	13°	I	7.	0.008	I			0.030	0	C	0		0	0.008	0.011	0.057	0.006	0.063	MAX	Jnit)	BDD

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9.00 BSC 7.00 BSC 7.00 BSC 7.00 BSC 7.00 BSC 7.00 BSC 0.50 BSC 0.45 0.60 1 1.00 REF 0.25 BSC

0.08 — 0.08 — 0° 3.5° 0° — 11° 12°

SYMBOLS

DIMENSIONS IN MM (Control Unit)

MN

NOM MAX

0.05 1.35 0.17 0.09

1.40 0.22

48 Pin 7x7 LQFP JEDEC MS-026 Variation

_				_	_	_	_	_	_	_	_	_									
z	θ2	θ1	θ	R2	R1	L2	=	_	Ф	Ē	m	D1	D	С	Ь	A2	A1	Α		SYMBOLS	64 Pin
	1	o,	o.	0.08	0.08		_	0.45		_			_	0.09	0.17	1.35	0.05	1	MIN	DIMEN (C	10×10 LQFP
64	12"	ı	3.5	ı	ı	0.25 BSC	1.00 REF	0.60	0.50 BSC	10.00 BSC	12.00 BSC	10.00 BSC	12.00 BSC	I	0.22	1.40	ı	I	MOM	DIMENSIONS IN (Control Un	
	13°	1	7:	0.20	I			0.75	()	C	C	C	C	0.20	0.27	1.45	0.15	1.60	MAX	Unit)	JEDEC M
	11:	O,	o.	0.003	0.003	0	0	0.018	0	0			0	0.004	0.007	0.053	0.002	1	MIN	DIMENSIONS (Referenc	S-026
64	12"		3.5	ı	I	0.010 BSC	0.039 REF	0.024	0.020 BSC	0.394 BSC	0.472 BSC	0.394 BSC	0.472 BSC	I	0.009	0.055	ı	-	NOM	Φ =	MS-026 Variation
	13.	ı	7.	300.0	ı		''	0.03	0	0	<u>ا</u>	ľ	C	0.008	0.011	0.057	0.006	0.063	MAX	Unit)	n BCD

ВСВ			13:	ı	7.	0.008	ı	C	71	0.030	ñ	ñ	ñ	ñ	ñ	0.008	0.018	0.057	0.006	0.063	MAX	
_	1	_		_		_			_	_	_									_		
64 Pin		z	92	91	θ	R2	R2	12	_	_	æ	뜨	т	D1	0	c	σ	Α2	A1	ъ		
64 Pin 10x10 LQFP JEDEC MS-026 Variation BCD			1:	o.	o.	0.08	0.08	0	_	0.45		_		_		0.09	0.22	1.35	0.05	1	MN	
LQFP JE		52	12*	I	3.5	Ι	I	0.25 BSC	1.00 REF	0.60	0.65 BSC	10.00 BSC	12.00 BSC	10.00 BSC	12.00 BSC	١	0.32	1.40	1	1	MON	
DEC M			13.	I	7.	0.20	ı			0.75		0	0	С	0	0.20	0.38	1.45	0.15	1.60	MAX	
S-026 \			11:	o.	o.	0.003	0.003	0.	0	0.018	0	0	0	0	0	0.004	0.009	0.053	0.002	1	MIN	
/ariation		52	12*	ı	3.5°	1	ı	0.010 BSC	0.039 REF	0.024 0.030	0.026 BSC	0.394 BSC	0.472 BSC	0.394 BSC	0.472 BSC	ı	0.013	0.055	1	1	MON	
BCD			13:	ı	7.	0.008	ı			0.030	0	ြ	C	C	C	0.008	0.015	0.057	0.006	0.063	MAX	

_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_		_
z	θ2	θ1	θ	R2	R1	L2	=	۲	æ	드	m	D1	0	c	ь	A2	A1	Α		SYMBOLS	44 Pin
	<u>-</u> :	o,	o.	0.08	0.08	_		0.45		_				0.09	0.30	1.35	0.05	1	MN.	DIMEN (C	10×10
44	12°	ı	3.5	ı	I	0.25 BSC	1.00 REF	0.60	0.80 BSC	10.00 BSC	12.00 BSC	10.00 BSC	12.00 BSC	I	0.37	1.40	I	I	MON	DIMENSIONS IN M (Control Unit)	10x10 LQFP JEDEC
	13*	I	7.	0.20	1			0.75	()	C	C	С	C	0.20	0.45	1.45	0.15	1.60	MAX	N MM	
	11:	0°	0.	0.003	0.003	0.	0.	0.018	0	0	0	0	0	0.004	0.012	0.053	0.002	1	MZ	DIMENS (Ref	MS-026 Variation
44	12"	ı	3.5	ı	I	0.010 BSC	0.039 REF	0.024	0.031 BSC	0.394 BSC	0.472 BSC	0.394 BSC	0.472 BSC	I	0.015	0.055	I	I	MON	DIMENSIONS IN (Reference L	/ariation
	13*	I	7.	0.008	I		"	0.030	0	0	C	C	C	0.008	0.018	0.057	0.006	0.063	MAX	u INCH Unit)	всв

z	62	91	θ	R2	R1	L2	L1	۲	æ	E1	П	D1	D	С	ь	A2	A1	Α		SYMBOLS	32 P
	11.	o.	0.	0.08	0.08	0		0.45						0.09	0.30	1.35	0.05	1	MZ.	DIMEN (C	32 Pin 7x7 LQFP JEDEC MS-026 Variation BBA
32	12*	ı	3.5	I	I	0.25 BSC	1.00 REF	0.60	0.80 BSC	7.00 BSC	9.00 BSC	7.00 BSC	9.00 BSC	١	0.37	1.40	1	1	MON	DIMENSIONS IN (Control Un	LQFP JE
	13*	ı	7.	0.20	I			0.75		C	C	С	С	0.20	0.45	1.45	0.15	1.60	MAX	IN MM Unit)	DEC MS
	11"	o.	o.	0.003	0.003	0.	0.	0.018			0	0	0	0.004	0.012	0.053	0.002	1	MIN	DIMENSIONS (Referenc	-026 V
32	12*	ı	3.5	I	I	0.010 BSC	0.039 REF	0.024	0.031 BSC	0.276 BSC	0.354 BSC	0.276 BSC	0.354 BSC	ı	0.015	0.055	1	1	MON	о <u>—</u>	ariation
	13*	ı	7.	0.008	I		ľ	0.030	0	C	C	0	C	0.008	0.018	0.057	0.006	0.063	MAX	Unit)	BBA
_																				S	

		Ш			Ш	Ц				L	Ш	Ш					Ш		رح ا		סרן
1	o.	.0	0.08	0.08			0.45						0.09	0.30	1.35	0.05	П	MIN	(C		in 7x7
1,	ı	3.5°	1		0.25 BSC	1.00 REF	0.60	0.80 BSC	7.00 BSC	9.00 BSC	7.00 BSC	9.00 BSC	ı	0.37	1.40	1	1	MON	(Control Unit)		LQFP JE
1 7.	I	7.	0.20				0.75	C	С	C	С	C	0.20	0.45	1.45	0.15	1.60	MAX	Unit)	2	DEC MS
•	o.	0°	0.003	0.003	0.	0.	0.018				0		0.004	0.012	0.053	0.002	1	MIN	(Ref	סוגופעוס	Pin 7x7 LQFP JEDEC MS-026 Variation BBA
,	1	3.5	1		0.010 BSC	0.039 REF	0.024	0.031 BSC	0.276 BSC	0.354 BSC	0.276 BSC	0.354 BSC	ı	0.015	0.055	1		MON	(Reference Unit)	N ONC	ariation
1 7.		7.	0.008				0.030	0	C	C	С	0	0.008	0.018	0.057	0.006	0.063	MAX	Jnit)	25	ABB
20	91	θ	R2	R1	12	디	_	е	E1	т	D1	D	С	ь	A2	A1	Α		SYMBOLS		52 Pin
1 1 1	0.	.0	0.08	0.08		l . I	0.45				1		0.09	0.22	1.35	0.05		MIN	(C	פועות	52 Pin 10x10 LQFP JEDEC
,	I	3.5	1		0.25 BSC	1.00 REF	0.60	0.65 BSC	10.00 BSC	12.00 BSC	10.00 BSC	12.00 BSC	ı	0.32	1.40	1	1	MON	(Control Unit)		LQFP ,
1 7.		7.	0.20				0.75	C	Ö	Ö	Ċ	C	0.20	0.38	1.45	0.15	1.60	MAX	Unit)	٤	JEDEC

JEDEC MS-026 Variation BCC

80

Pin 14x14 LQFP JEDEC MS-026 Variation

BDD

REV.

DISCRIPTION

REVISION HISTORY

DRAWING ORIGINATION

10/30/13 DATE

APP'D Ð

DIMENSIONS IN INCH (Reference Unit)

SYMBOLS

DIMENSIONS IN MM (Control Unit)

DIMENSIONS IN INCH (Reference Unit) <u>s</u>

MAX

NOM MAX

	Α	REV.	
	DRAWING ORIGINATION	DISCRIPTION	REVISION HISTORY
	10/30/13	DATE	
	AD	APP'D	

z	θ2	θ1	θ	R2	R1	L2		_	е	E1	ш	D1	D	0	Б	A2	A1	D		SYMBOLS		176 Pin
	11.	oʻ	ó	0.08			0.45				N)		0.09	0.17	1.35	0.05		<u>s</u>	<u></u>	DIMEN	24×24	
176	12°		3.5.			0.25 BSC	1.00 REF	0.60	0.50 BSC	24.00 BSC	26.00 BSC	24.00 BSC	26.00 BSC		0.22	1.40			MOM	(Control Unit)	DIMENSIONS IN MM	176 Pin 24x24 LQFP JEDEC MS-026 Variation BGA
	13°	1	7.	0.20	1			0.75	0	С	С	С	С	0.20	0.27	1.45	0.15	1.60	MAX	nit)	Z M M M	EDEC M
	1	o.	ó	0.003	0.003	0	0	0.018				0		0.004	0.007	0.053	0.002		M Z	(Ref	DIMENS	IS-026
176	12°		3.5.			0.010 BSC	0.039 REF	0.024 0.030	0.020 BSC	0.945 BSC	1.024 BSC	0.945 BSC	1.024 BSC		0.009	0.055			MON	Reference Unit)	DIMENSIONS IN INCH	Variation
	13°	1	7°	0.008		0	TI	0.030	Ö	Č	č	õ	Õ	0.008	0.011	0.057	0.006	0.063	MAX	Jnit)	NCH	n BGA
z	62	θ 1	θ	R2	R1	L2		_	Ф	E1	Е	D1	D	0	Ь	A2	A1	⊳		SYMBOLS		208 Pin
Z	θ2 11°	01 0°	θ 0°	R2 0.08	R1 0.08			L 0.45			E			c 0.09	b 0.17	A2 1.35	A1 0.05	A	MIN		DIMEN	208 Pin 28x28
N 208		_					L1 1.00 REF				E 30.00 BS							A	MIN NOM		DIMENSIONS II	208 Pin 28x28 LQFP J
		_	O.			L2 0.25 BSC	L1 1.00 REF	L 0.45 0.60 0.75	e 0.50 BSC	E1 28.00 BSC	E 30.00 BSC	D1 28.00 BSC	D 30.00 BSC		0.17	1.35		A — 1.60		SYMBOLS (Control Unit)	DIMENSIONS IN MM	208 Pin 28x28 LQFP JEDEC M
	11° 12°	_	O.	0.08 —		0.25 BSC		0.60 0.75 0.018	0.50 BSC	1 28.00 BSC		28.00 BSC	30.00 BSC	0.09 —	0.17 0.22	1.35 1.40	0.05 —		NOM	(Control Unit)		208 Pin 28x28 LQFP JEDEC MS-026
	11° 12° 13°	0° — —	0. 3.5. 7.	0.08 — 0.20	0.08 — —		L1 1.00 REF 0.039 REF	0.60 0.75			E 30.00 BSC 1.181 BSC			0.09 — 0.20	0.17 0.22 0.27	1.35 1.40 1.45	0.05 — 0.15		NOM MAX		DIMENSIONS IN MM DIMENSIONS IN INCH	208 Pin 28x28 LQFP JEDEC MS-026 Variation BJB

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