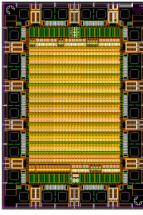
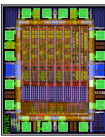
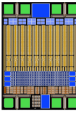

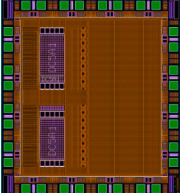
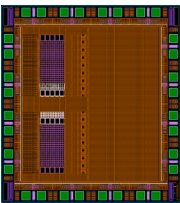


Feature Overview

	MD100	MD300	MD400	MD450	MD500	MD550
						
	Not recommended for new designs.					
Technology	2µ SACMOS (S2SC)	1µ SACMOS (C175SCe)	1µ SACMOS (C175SCe)	0.9µ SACMOS (C175SCs)	0.9µ SACMOS (C175SCs)	0.9µ SACMOS (C175SCs)
Process owner	NXP Semiconductors	NXP Semiconductors	NXP Semiconductors	NXP Semiconductors	NXP Semiconductors	NXP Semiconductors
Fab	TSMC, Taiwan	TSMC, Taiwan	TSMC, Taiwan	TSMC, Taiwan	TSMC, Taiwan	TSMC, Taiwan
Available since	1992	2000	2002	2011	2004	2009
Chipsize (pitch)	1.61 x 2.3 mm, 3.70mm ²	1.20 x 1.44 mm, 1.73mm ²	0.90 x 1.20 mm, 1.08mm ²	1.07 x 1.56 mm, 1.67mm ²	2.00 x 2.18 mm, 4.36mm ²	2.00 x 2.18 mm, 4.36mm ²
Max. chips per wafer	4'100	9'060	14'200	9'200	3'500	3'500
Customizable masks	1 metal	2 metal, 1 contact	2 metal, 2 contact	2 metal, 2 contact	2 metal, 2 contact	2 metal, 2 contact
Multiple chip units pos-	✓	✓	✓	✓	✓	✓
EPROM	n.a.	32 OTP cells	32 OTP cells	32 OTP cells	64 OTP cells	64 OTP cells
VDD core	1.2 .. 6V	1 .. 5.5V	1 .. 5.5V	1 .. 5.5V	1 .. 5.5V	1 .. 5.5V
VDD periphery	Max. 7V	Max. 9V	Max. 9V	Max. 8V	Max. 8V (outputs)	Max. 8V (outputs + LS)
ESD protection	✓	✓	✓	✓	✓	✓
Digital gates	722 (2-input equivalent)	1168 (2-input equivalent)	1104 (2-input equivalent)	2244 (2-input equivalent)	5728 (2-input equivalent)	5728 (2-input equivalent)
Analogue transistors	336	807	256	320	2304	2304
Linear capacitors	40	192	146	188	524	524
Resistors	288 x 1k (PS) 96 x 30k (N-well) 25 x 300k (N-well) 10 x 550k (N-well)	384 x 1k (PS) 16 x 2k7(PS) 48 x 55k (N-well) 23 x 275k (N-well)	407k total (PS) 6M5 total (N-well)	1M2 total (PS) 9M3 total (N-well)	2M7 total (PS) 20M5 total (N-well)	2M7 total (PS) 20M5 total (N-well)
I/O-pads	28 (configurable)	16 (configurable)	4 Input + 4 Output	12 (configurable)	32 (configurable)	32 (configurable)
Handbook (pdf)	Not available	v1.0 (2001-07)	v1.0 (2007-04)	Not yet available	v1.2 (2008-02)	Not yet available
Design rules (pdf)	Not available	v1.2 (2000-07)	v1.0 (2008-01)	Not yet available	v1.2 (2008-02)	Not yet available
Layout library (pdf)	Not available	vC2 (2001-07)	vB1 (2008-01)	Not yet available	v1.2 (2008-02)	Not yet available
Array (gds2)	BAS100D1 (1998-06)	BAS300B4 (2005-03)	BAS400B5 (2007-12)	BAS450A1 (2011-01)	BAS500C3 (2008-09)	BAS550A1 (2008-02)
Layout library (gds2)	LIB100C1 (1999-04)	LIB300C5 (2008-01)	LIB400B1 (2008-04)	LIB450A1 (2011-02)	LIB500C1 (2008-01)	LIB550A1 (2008-11)
Letters for marking	LET100A1 (1998-02)	LET300A1 (2000-02)	LET400A2 (2002-08)	LET450A1 (2003-10)	LET500A1 (2004-12)	LET550A1 (2004-12)