VSC7177YI FIRST LEVEL PRODUCT QUALIFICATION REPORT

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Manufacturer:	Vitesse		
Device Type:	VSC7177YI		
Fab:	TSMC	**Process:**	0.18µm
Assembler:	AMKOR	**Package Type:**	MLF (Micro-lead Frame)
Test Location:	Camarillo, CA		

1.0 Package

1.1 Package Type	MLF
1.2 Pin/Lead Count	32
1.3 Body Dimensions	7.0x7.0x1.0mm
1.4 Mold Compound	G700
1.5 Cavity Orientation	Cavity Up
1.6 Leadframe Material	C19400
1.7 Bond Wire Material	Au
1.8 Wire Diameter	1.0 mil
1.9 Bonding Method	Thermosonic Ball Bonding
1.10 Die Attach Material	8290 (Electrically Conductive)
1.11 Moisture Sensitivity Level	3
1.12 Recommended Baking Procedure	24 Hours @ 125°C

2.0 Wafer/Die

2.1 Technology	0.18µm CMOS
2.2 Die Dimensions	1918.08 x 1393.92µm
2.3 Metallization Material	Al, Cu 0.5%
2.4 Metallization Layers	6
2.5 Dielectric Material	SiO_2
2.6 Passivation Material	SiON

3.0 Qualification Information

Table 1: Summary of Device Qualification Results

Test	Conditions	Quantity	Results
3.1 Temperature Cycle	MS883, Method 1010, Cond C (-65°C to +150°C), 500 cycles; Performed by similarity to vsc7175YI	45	All Passed
3.2 THB	JESD22-A101, 85°C/85%R.H., 1000 hours; Performed by similarity to vsc7175YI	45	All Passed
3.3 Thermal Shock	MS883, Method 1011, Cond B (-55°C to +125°C), 100 cycles; Performed by similarity to vsc7175YI	45	All Passed

3.4 Autoclave	JESD22-A102C, 100% Saturated Steam, 121C, 2 Atmos, 168 hours; Performed by similarity to vsc7175YI	45	All Passed
3.5 Preconditioning	JESD22-A113, Level 3; Performed by similarity to vsc7175YI	45	All Passed
3.6 ESD (HBM)	JESD22-A114B +/-4000V	3	All Passed
3.7 ESD (CDM)	JESD22-C101 +/-1000V	2	All Passed
3.8 Latch-up	JESD78	6	All Passed
3.9 HTOL	MS883, Method 1005, 1000 Hours	45	All Passed

4.0 Reliability Data

The reliability results are documented in the *" TSMC 0.18um CMOS Reliability Report" report number: VQUR-00239*