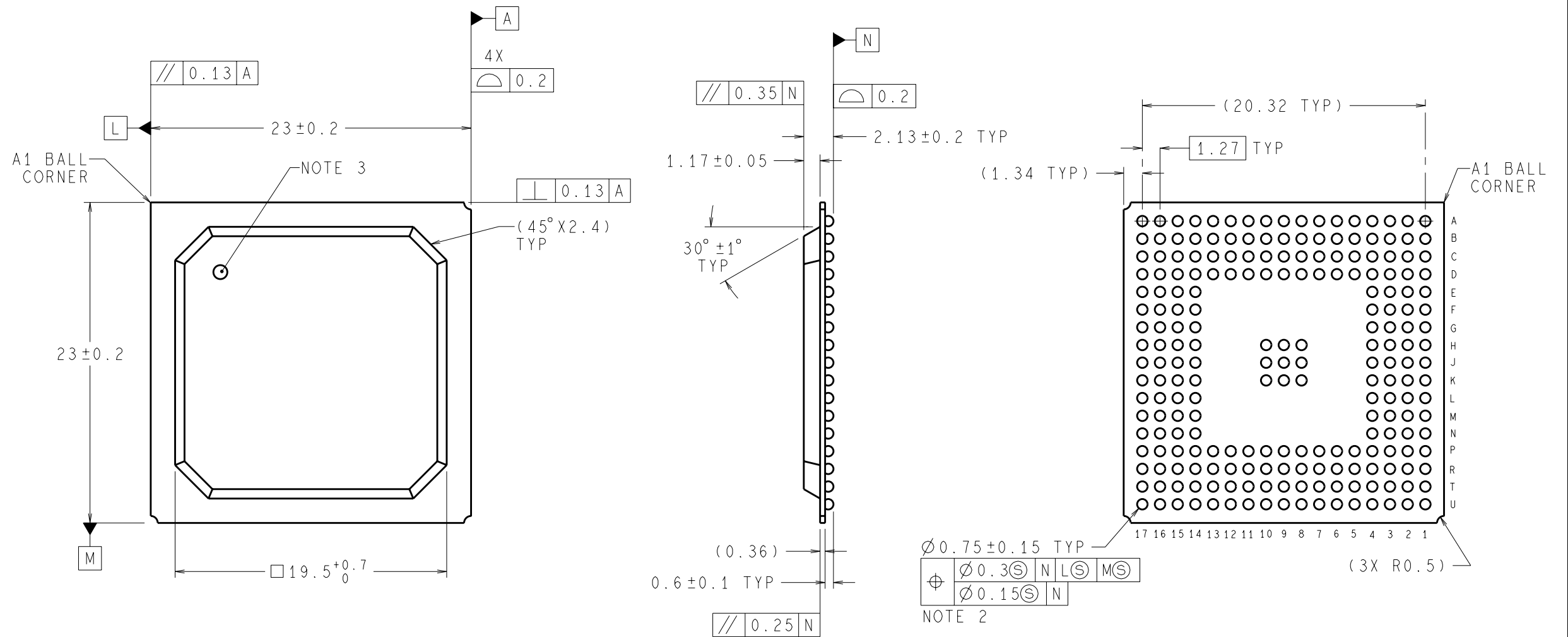


REVISIONS				
LTR	DESCRIPTION	E.C.N.	DATE	BY/APP'D
A	RELEASE TO DOCUMENT CONTROL	12221	06/02/1999	MS/MJL
B	REVISE GEOM TOL'S; BALL DIM $\varnothing 0.75 \pm 0.15$ WAS $0.76 + 0.14 / - 0.16$; DIM 2.13 ± 0.2 WAS 2.32 MAX; REVISE NOTE 4.	217	12/04/2000	MS/AP



DIMENSIONS ARE IN MILLIMETERS

NOTES: UNLESS OTHERWISE SPECIFIED

- SOLDER BALL COMPOSITION: Sn 63%, Pb 37%.
- DIMENSION IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM N.
- THE MOLD SURFACE AREA MAY INCLUDE DIMPLE FOR A1 BALL CORNER IDENTIFICATION.
- REFERENCE JEDEC REGISTRATION MO-151, VARIATION BAJ-2.

APPROVALS		DATE	National Semiconductor		
DRAWN MARTA SUCHY		06/02/1999	2900 Semiconductor Dr., Santa Clara, CA 95052-8090		
DFTG. CHK. THANH LEQUANG		12/05/2000	PBGA, 23 X 23 X 2.13mm, 217 BALL, 1.27mm PITCH		
ENGR. CHK. ANINDYA PODDAR		12/05/2000			
		SCALE	SIZE	DRAWING NUMBER	REV
		N/A	C	(SC)MKT-UDD217A	B
DO NOT SCALE DRAWING				SHEET 1 of 1	