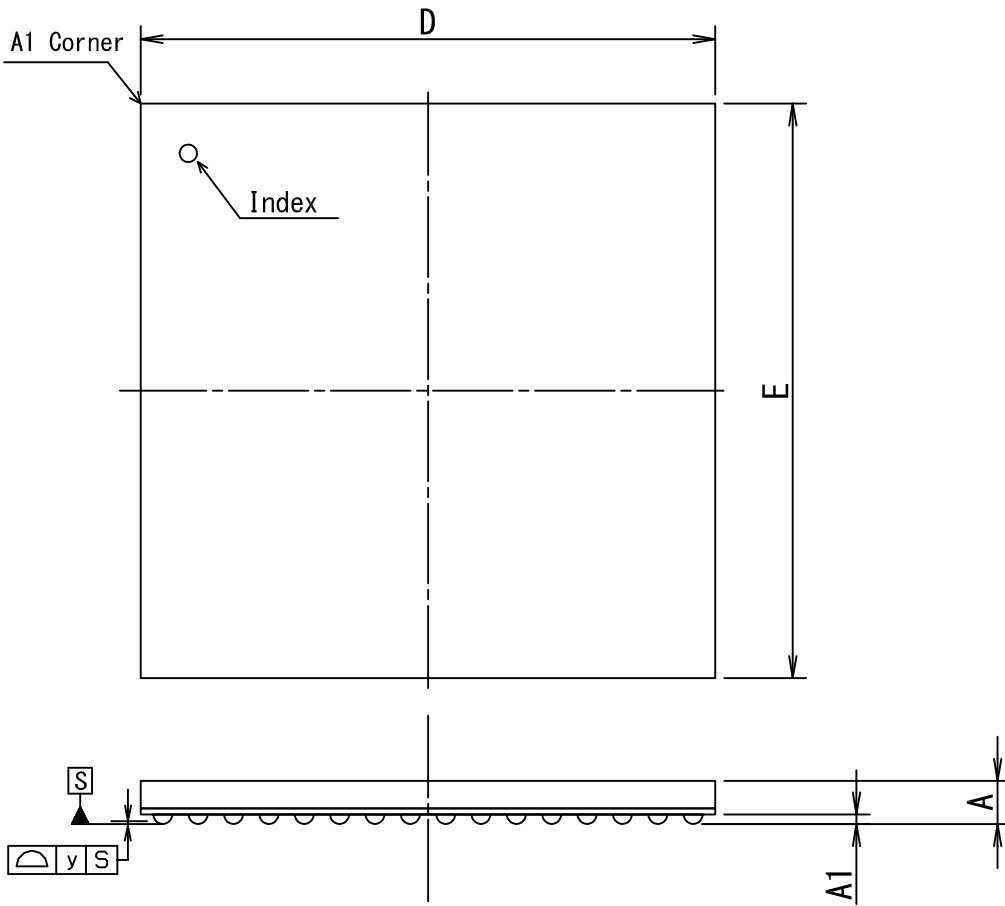
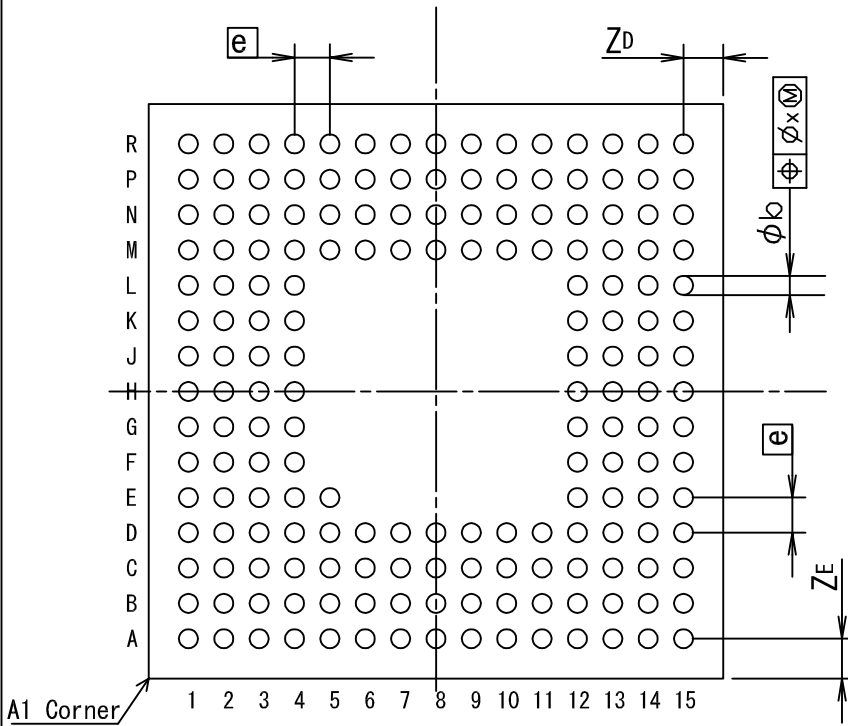


# Top View



# Bottom View



Symbol	Dimension in Millimeters		
	Min	Nom	Max
D	12.90	13.00	13.10
E	12.90	13.00	13.10
A	-	-	1.20
A <sub>1</sub>	0.25	0.30	0.35
e	-	0.80	-
b	0.38	0.43	0.48
x	-	-	0.08
y	-	-	0.10
Z <sub>D</sub>	0.80	0.90	1.00
Z <sub>E</sub>	0.80	0.90	1.00

Unit : mm

TITLE

P-TFBGA-177-1313-0.80 (PFBGA13U-177)

**SEIKO EPSON CORP.**