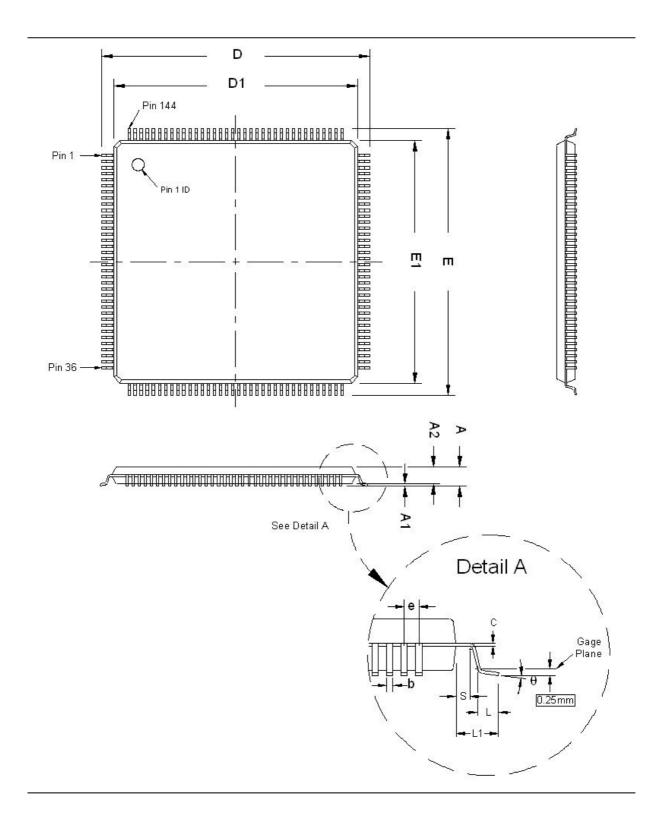
144-Pin Plastic Thin Quad Flat Pack (TQFP)—Wire Bond

- All dimensions and tolerances conform to ASME Y14.5M 1994.
- Controlling dimension is in millimeters.
- Pin 1 may be indicated by an ID dot, or a special feature, in its proximity on package surface.

Package Information			
Description	Specification		
Ordering Code Reference	Т		
Package Acronym	TQFP		
Leadframe Material	Copper		
Lead Finish (Plating)	Regular: 85Sn:15Pb (Typ.) Pb-free: Matte Sn		
JEDEC Outline Reference	MS-026 Variation: BFB		
Lead Coplanarity	0.003 inches (0.08mm)		
Weight	1.1 g (Typ.)		
Moisture Sensitivity Level	Printed on moisture barrier bag		

Package Outline Dimension Table				
Symbol	Millimeters			
	Min.	Nom.	Max.	
А		_	1.60	
A1	0.05	_	0.15	
A2	1.35		1.45	
D	22.00 BSC			
D1	20.00 BSC			
Е	22.00 BSC			
E1	20.00 BSC			
L		0.60	0.75	
L1	1.00 REF			
S	0.20	_	_	
b		0.22	0.27	
С	0.09	_	0.20	
е	0.50 BSC			
θ	0°	3.5°	7°	



Package Information Datasheet for Mature Altera Devices

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