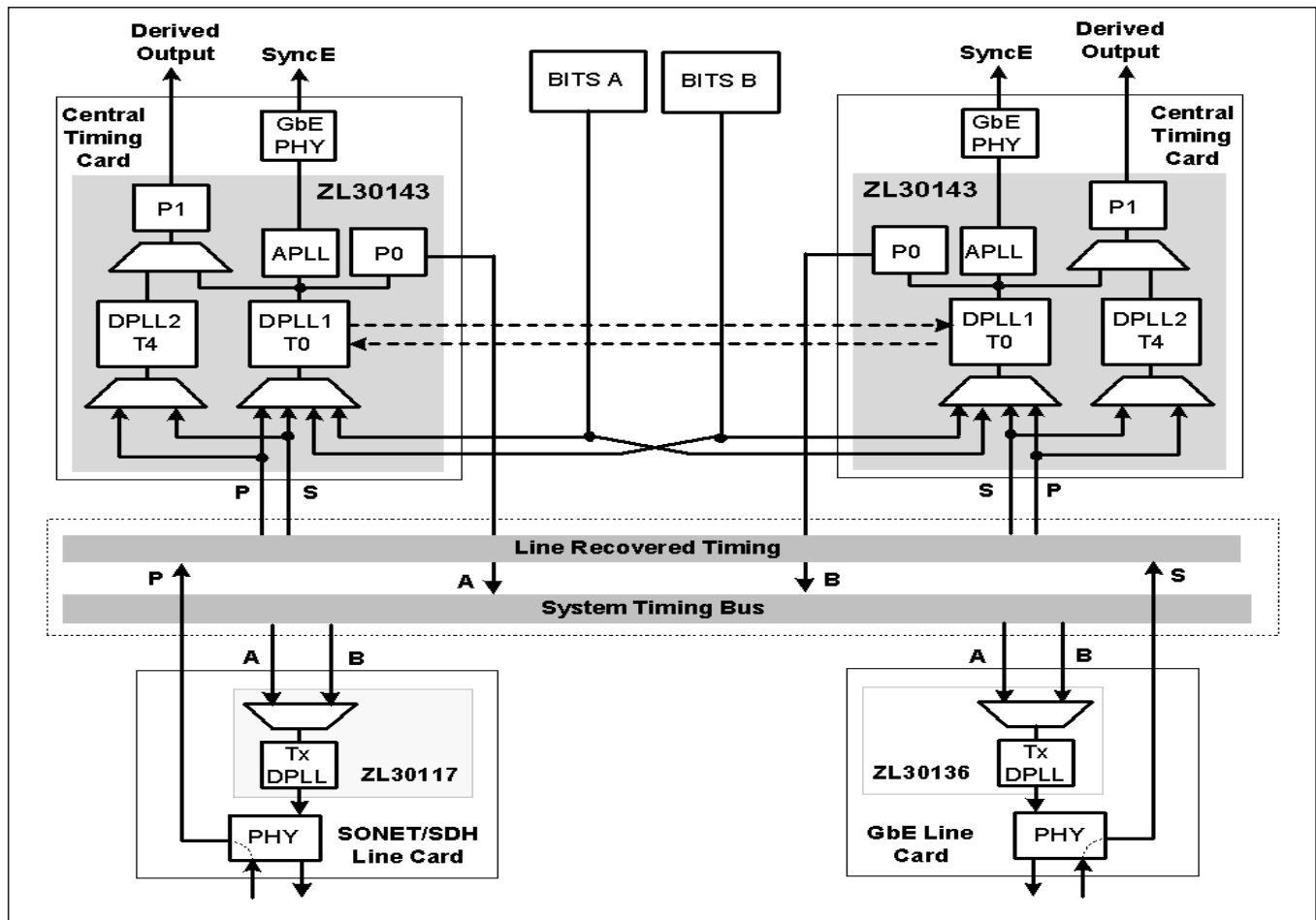


## 1.0 Overview

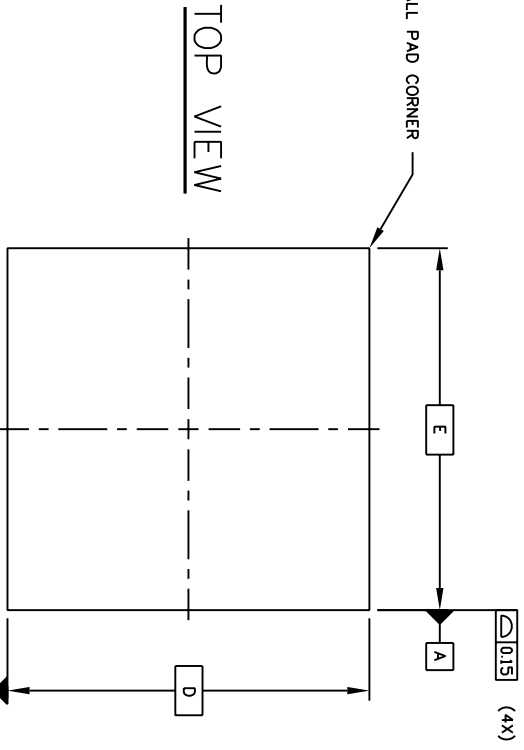
The ZL30143 System Synchronizer and SETS device is a highly integrated device that provides all of the functionality that is required for a central timing card in carrier grade network equipment. The basic functions of a central timing card include:

- Input reference monitoring for both frequency accuracy and phase irregularities
- Automatic input reference selection
- Support of both external timing and line timing modes
- Hitless reference switching
- Wander and jitter filtering
- Master/slave crossover for minimizing phase alignment between redundant timing cards
- Independent derived output timing path for support of the SETS functionality

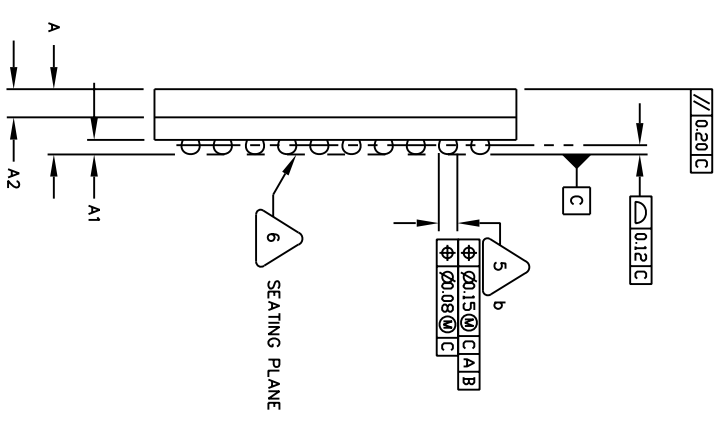
In a typical application, the main timing path uses DPPLL1 to synchronize to either an external BITS source or to a recovered line timed source. DPPLL1 monitors all references and automatically selects the best available reference based on configurable priority and revertive properties. DPPLL1 provides the wander filtering function and the P0 synthesizer generates a jitter filtered clock and frame pulse for the system timing bus which supplies all line cards with a common timing reference. The APPLL is used to generate a reference clock for an Ethernet PHY which can be used to synchronize remote equipment. A derived output timing path using DPPLL2 is available to support the SETS functionality. In this case DPPLL2 uses a filter above 10 Hz to prevent it from filtering wander.



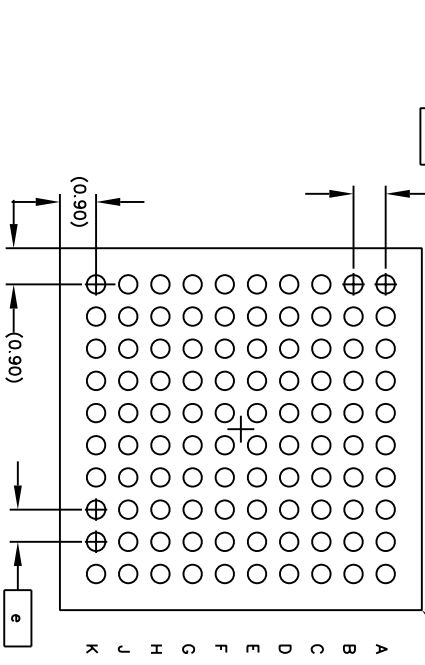
**Figure 2 - Typical Application of the ZL30143**



TOP VIEW



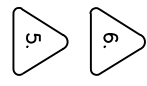
SIDE VIEW



BOTTOM VIEW

100 SOLDER BALLS

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	1.52	1.62	1.72
A1	0.31	0.36	0.41
A2	0.65	0.70	0.75
b	0.46 Typ.		
D	8.85	9.00	9.15
E	8.85	9.00	9.15
e	0.8 Ref		
n	100		



PRIMARY DATUM C AND SEATING PLANE ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.  
DIMENSION b IS MEASURED AT THE MAXIMUM SOLDER BALL DIAMETER, PARALLEL TO PRIMARY DATUM C.

1. THE MAXIMUM ALLOWABLE NUMBER OF SOLDER BALLS IS 100.
  2. Not to Scale.
  3. THE BASIC SOLDER BALL GRID PITCH IS 0.8mm.
  4. ALL DIMENSIONS AND TOLERANCES CONFORM TO ASME Y14.5M-1994.
- NOTES: UNLESS OTHERWISE SPECIFIED

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1	2	3	
CDCA	CDCA	CDCA	
15April05	24Aug05	26Oct06	



Previous package codes		Package Code	GG
N/A		Package Outline for 100ball 9x9mm, 0.8 mm Pitch, 4 layer, CABGA	
		111040	

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**Microsemi Corporate Headquarters**  
One Enterprise, Aliso Viejo CA 92656 USA  
Within the USA: +1 (949) 380-6100  
Sales: +1 (949) 380-6136  
Fax: +1 (949) 215-4996

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