SEMICON West 2011 – San Francisco

XTREME technologies GmbH Product Positioning

Comparison between Traditional EUV Concepts and XTREME EUV Concept

Traditional EUV Light Source Concept		
	LPP: Laser Produced Plasma	Scalable but unstable
	DPP: Discharge Produced Plasma	Stable but unscalable
XTREME technologies EUV Light Source Concept		
	LDP: Laser Assisted Discharge Plasma	Stable and scalable

The current sources can be differentiated according to their respective level of maturity

Beta Sources for the pre HVM (High Volume Manufacturing) market:

There are two types of sources for the pre-HVM market:

- Pre-Beta sources refer to sources that have yet to demonstrate sufficient stability and high duty cycle operation. This is where LPP currently is.
- Beta sources refer to sources that have demonstrated the required stability and high duty cycle operation, and are now ramping up to moderate power. This is where XTREME's LDP currently is.

Gamma Sources for the HVM (High Volume Manufacturing) market

Gamma sources refer to sources that have demonstrated the power, the stability and the availability required to operate under a mass manufacturing environment.

	Feasibility $^{\alpha}$ Source	Pre $^{\beta}$ Source	$^{\beta}$ Source	$^{\gamma}$ Source
Process feasibility	XTREME Source(ADT)	N.A.	XTREME Source (NXE3100)	XTREME Source (NXE3300)
Process research				
Process development				
Pilot lin				
HVM line				

	Feasibility $^{\sigma}$ Source	Pre $^{\sigma}$ Source	$^{\sigma}$ Source
Adoption Year	2007	2010	2011
Target Market	Process feasibility	Process research	Process development Pilot line
Currently Available Source	XTREME's LDP		
Source Requirements			
Clean Power (W)	< 10 w	100 w	100 w
Out Of Band Rad. (DUV & IR)	NA	NA	Negligible
Duty Cycle (%)	None	< 70 %	> 80 %
Dose Stability (%)	None	< 0.5 %	< 0.2 %

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