Standardized Information for Process/Product Change Notification (PCN)

1. PCN basic data				
1.1 Company	Melexis INSPIRED ENGINEERING	**BELGIUM** Melexis NV Rozendaalstraat 12 8900 IEPER BELGIUM ☑	**GERMANY** Melexis GmbH Konrad-Zuse-Strasse 15 99099 ERFURT GERMANY ☐	**BULGARIA** Melexis Bulgaria Ltd. 2, Samokovsko Shosse Gorubliane 1138 SOFIA BULGARIA ☐

1.2 PCN No.	31256141614
1.3 Title of PCN	Move to green mold XDLF
1.4 Product Category	semiconductor components
1.5 Issue date	2016/09/30

1.6 PCN revision history (optional)	1.7 Issue date of previous revision (optional)	1.8 Delta to previous revision (optional)

2. PCN Team		
2.1 Contact supplier		
2.1.1 Name	Jurgen Deketelaere	
2.1.2 Phone	+32 (0) 57 226 166	
2.1.3 Email	jud@melexis.com	
2.2 Team supplier (optional)		
2.2.1 Name (optional)	2.2.2 Phone (optional)	2.2.3 Email (optional)
Davy Lahoutte	+32 (0)57226143	dll@melexis.com

3. Changes		
	3.1 Category	**3.2 Type of change**
Change #1	Process - Assembly	Change of mold compound
Change #2	Process - Assembly	Change in leadframe dimensions
Change #3		
Change #4		
Change #5		

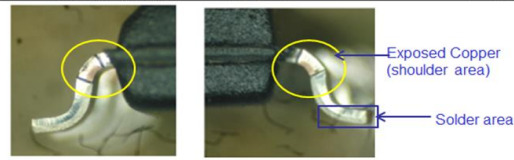| 4. Description of change		
	Old	**New**
Change #1	6600H-mold lead free	Green mold lead free
Change #2	High Density LeadFrame	eXtreme Density LeadFrame
Change #3		
Change #4		
Change #5		
4.6 Anticipated impact on form, fit, function, reliability or processability?	Form: Exposed copper on leads Fit, Function, Reliability and Processability: No impact	
4.7 Reference parts with customer number (optional)		

5. Reason / motivation for change

5.1 Motivation	Capacity extension / stop of old type lead-frame (6600H-mold-HDLF)
5.2 Additional explanation (optional)	

6. Marking of parts / traceability of change

6.1 Description	ERP lot traceability

7. Timing / schedule

7.1 Date of qualification results	2016/06/06	
7.2 Last order date (optional)	2017/02/01	
7.3 Last delivery date (optional)		
7.4 Intended start of delivery	2017/06/01	
7.5 Qualification samples available?	Yes, available (date and/or types):	
	Dummy samples available upon customer request	
7.6 Customer feedback required until	2016/12/01	

8. Qualification / validation

8.1 Description (e.g. qual. plan/report, AEC-Q...)	Qualification report from Melexis based on AEC-Q100. Qualification report from Assembly based on Amkor World Wide Qualification Specification # 001-0234-2981.		
8.2 Qualification report and qualification results	available (see attachement)	issue date	2016/06/06

9. Input to customer for risk assessment process

Change #1. The risk for Green mold package is mitigated with below qualification plan. Besides, this mold compound is already in use for several years on other devices using the same package and no issues were noted.
Change #2. As consequence of using XDLF, there is exposed Cu at the shoulder - assessed by MLX and Assembly supplier as low risk. It is already in use for other products and no issues are observed

10. Attachments (e.g. new datasheet, additional documentation, pictures, process flow, sample plan, ...)

Qualification report by Melexis is shown in below attachment:

Green mold qualification report

Qualification report by Assembly supplier is shown on the picture below:

11. Affected parts

11.1 Current						11.2 New (if applicable)			
11.1.1 Customer Part No.	11.1.2 Supplier Part Name	11.1.3 Supplier Part No. (optional)	11.1.4 Package Name	11.1.5 Part Description (optional)	11.1.6 Additional Part Information (optional)	11.2.2 Supplier Part Name	11.2.3 Supplier Part No. (optional)	11.2.4 Package Name	11.2.6 Additional Part Information (optional)
MLX90109	MLX90109CDC-AAA-000-RE		SOIC8						
MLX90109	MLX90109CDC-AAA-000-TU		SOIC8						
MLX90109	MLX90109EDC-AAA-000-RE		SOIC8						
MLX90109	MLX90109EDC-AAA-000-TU		SOIC8						