



FINAL PRODUCT/PROCESS CHANGE NOTIFICATION #20067Generic Copy

Issue Date: 23-Apr-2013**TITLE:** Datasheet change for 0W619-004-XDI, 0W619-006-XDS and 0W672-001-XDS**PROPOSED FIRST SHIP DATE:** 23-Jul-2013**AFFECTED CHANGE CATEGORY(S):** Specification/datasheet Change**FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:**

Contact your local ON Semiconductor Sales Office or <christophe.waelchli@onsemi.com>

SAMPLES: Contact your local ON Semiconductor Sales Office**ADDITIONAL RELIABILITY DATA:** Available

Contact your local ON Semiconductor Sales Office or < christophe.waelchli @onsemi.com>

NOTIFICATION TYPE:

Final Product/Process Change Notification (FPCN)

Final change notification sent to customers. FPCNs are issued at least 90 days prior to implementation of the change.

ON Semiconductor will consider this change approved unless specific conditions of acceptance are provided in writing within 30 days of receipt of this notice. To do so, contact <quality@onsemi.com>.

DESCRIPTION AND PURPOSE:

For the Input Referred Noise (IRN) and the Input Dynamic Range (IDR) (datasheet of 0W619-004-XDI, 0W619-006-XDS and 0W672-001-XDS, table 2: Electrical Specifications), the following changes should be applied:

- Condition is not set properly: The Analog Input Reference (AIR) pin connection is not defined. AIR must be connected to GND.
- We are currently testing the IRN with 30dB of preamplifier gain. We propose to change this test by a test with 18dB of preamplifier gain because hearing aid manufacturers are using mostly 18dB of preamplifier gain since this amplification is required by hearing aid microphone.
 - ⇒ The "screened" check note for the IRN test should be changed to the 18dB line in the datasheets
 - ⇒ The datasheet maximum limits for the IRN test at 30dB, 27dB, 24dB and 21dB should be slightly relaxed: since we are no longer testing at 30dB, we cannot ensure that older maximum limit for 30dB, 27dB, 24dB and 21dB are fulfilled. For these preamplifier gains, the new limits are set-up such as we are sure, by statistical analysis and design, that no parts with higher IRN noise are shipped.



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Correction to the 0W619-004-XDI and 0W619-006-XDS datasheet (shown in red):

Description	Symbol	Conditions	Min	Typ	Max	Units	Screened
Input referred noise	IN _{IRN}	AIR connected to GND Unweighted, 100 Hz to 10 KHz BW Preamplifier settings:				μVrms	
		0 dB	-	39	50		
		12 dB	-	10	12		
		15 dB	-	7	9		
		18 dB	-	6	8		√
		21 dB	-	4.5	5.57		
		24 dB	-	4	5.6		
		27 dB	-	3.5	4.55.5		
		30 dB	-	3	45.5		
Input dynamic range	IN _{DR}	AIR connected to GND 1 kHz, 20 Hz to 8 kHz bandwidth Preamplifier settings:				dB	
		0 dB	85	89	-		
		12 dB	84	88	-		
		15 dB	84	88	-		
		18 dB	83	87	-		
		21 dB	82	86	-		
		24 dB	81.80	85	-		
		27 dB	80.78	83	-		
		30 dB	78.75	81	-		



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Correction to the 0W672-001-XDS (shown in red):

Description	Symbol	Conditions	Min	Typ	Max	Units	Screened
Input referred noise	IN _{IRN}	AIR connected to GND Unweighted, 100 Hz to 10 KHz BW Preamplifier settings:				μVrms	
		0 dB	-	39	50		
		12 dB	-	10	12		
		15 dB	-	7	9		
		18 dB	-	6	8		√
		21 dB	-	4.5	5.57		
		24 dB	-	4	5.6		
		27 dB	-	3.5	4.55.5		
		30 dB	-	3	45.5		√
		30 dB, Vbat=2V	-	3	45.5		
Input dynamic range	IN _{DR}	AIR connected to GND 1 kHz, 20 Hz to 8 kHz bandwidth Preamplifier settings:				dB	
		0 dB	85	89	-		
		12 dB	84	88	-		
		15 dB	84	88	-		
		18 dB	83	87	-		
		21 dB	82	86	-		
		24 dB	84.80	85	-		
		27 dB	80.78	83	-		
		30 dB	78.75	81	-		



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RELIABILITY DATA SUMMARY:

Reliability Test Results:

Test	Conditions	Results
Wafer level test production	No changes on conditions	Spec change results in higher yield

ELECTRICAL CHARACTERISTIC SUMMARY: Nothing has changed

CHANGED PART IDENTIFICATION: None

List of affected General Parts:

0W619-004-XDI
0W619-006-XDS
0W672-001-XDS