

Product/Process Change Notification

This document contains confidential, proprietary, trade secret information of Knowles Electronics, LLC or its affiliated entities. Any unauthorized use or dissemination is strictly prohibited

Initiation Date	05/01/2017	Notification No.	20170501
Implementation Date	August 1, 2017 or upon customer approval	Initiator's Name	Aaron Dayupay
Beginning Date Code of Implemented Change			317

CHANGE DESCRIPTION:

Knowles is updating the 2.1 sheet product specification of HODVTEC-61342-000, HODVTEC-61553-000 and HODVTEC-31618-000 for 500Hz Impedance to reflect actual long-term product performance. Knowles anticipates that this specification changes will have a minimal impact on customer's application. Please continue to work with your local sales manager if you have questions or concerns related to this product change notification.

MODELS AFFECTED:

Model	Impedance	
	Current Specification(500Hz)	Proposal Specification(500Hz)
HODVTEC-61342-000	28.5 Ohm \pm 15%	28.0 Ohm \pm 20%
HODVTEC-61553-000	31.0 Ohm \pm 20%	28.0 Ohm \pm 20%
HODVTEC-31618-000	25.0 Ohm \pm 15%	28.0 Ohm \pm 20%

SUPPORT INFORMATION:

See page 2 to 4 of this PCN for the process capability study for the current 2.1 sheet specification and the proposed specifications.

All 3 HODVTEC models stated above share the same single receivers with reference model HODVTEC-61033-000 and should have the same impedance parameters:

Reference Model	Impedance
	Specification(500Hz)
HODVTEC-61033-000	28.0 Ohm \pm 20%

KNOWLES CONFIDENTIAL AND PROPRIETARY

The following qualification tests have been performed:

Test	Acceptance Criteria	Model Tested	Sample Size	Result
Acoustical Characteristics	Performance to be comparable to current product	HODVTEC-61342-000	381	Pass
	500Hz impedance (Ohms)			
		SPEC	CPK	Average
	Current	28.5 Ohm \pm 15%	0.54	25.49 Ohm
	Proposal	28.0 Ohm \pm 20%	1.28	25.49 Ohm

Test	Acceptance Criteria	Model Tested	Sample Size	Result
Acoustical Characteristics	Performance to be comparable to current product	HODVTEC-61553-000	211	Pass
	500Hz impedance (Ohms)			
		SPEC	CPK	Average
	Current	31.0 Ohm \pm 20%	0.84	27.73 Ohm
	Proposal	28.0 Ohm \pm 20%	1.53	27.73 Ohm

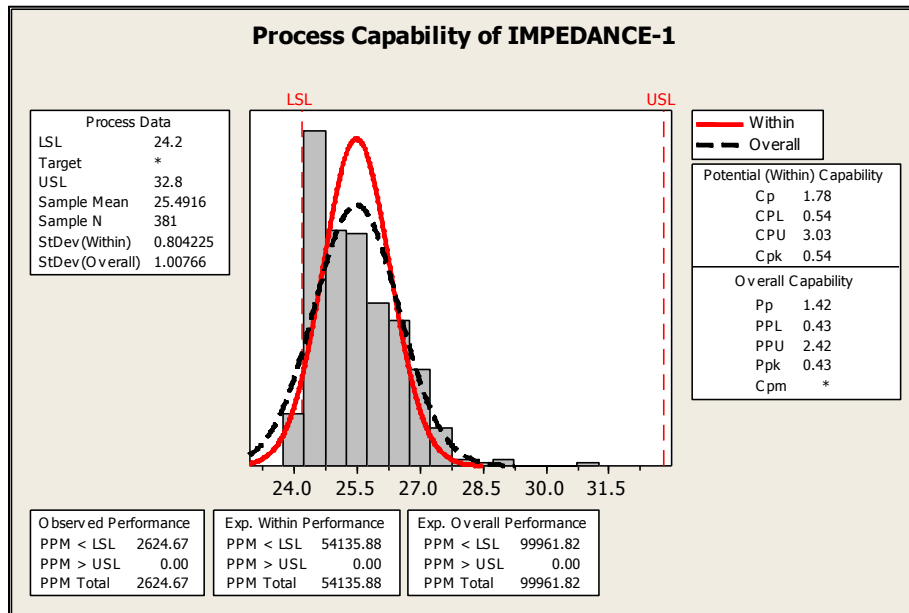
Test	Acceptance Criteria	Model Tested	Sample Size	Result
Acoustical Characteristics	Performance to be comparable to current product	HODVTEC-31618-000	519	Pass
	500Hz impedance (Ohms)			
		SPEC	CPK	Average
	Current	25.0 Ohm \pm 15%	0.26	28.02 Ohm
	Proposal	28.0 Ohm \pm 20%	1.83	28.02 Ohm

KNOWLES CONFIDENTIAL AND PROPRIETARY

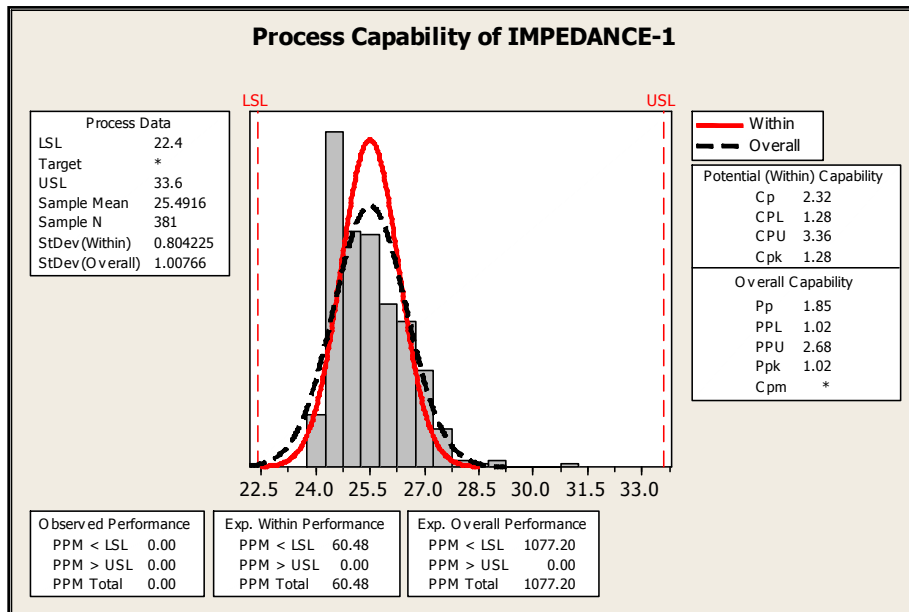
CPK:

HODVTEC-61342-000

Current 2.1 sheet specification:



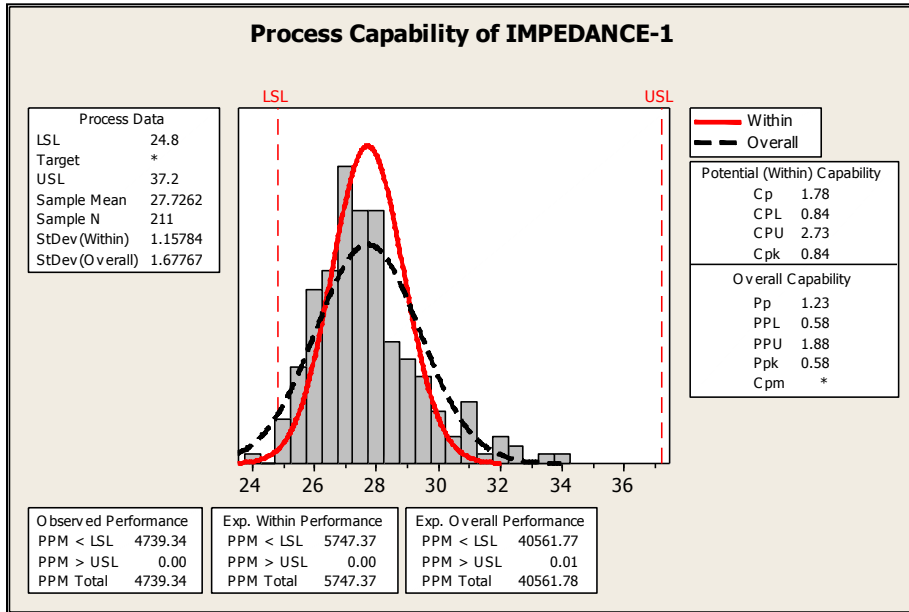
Proposed 2.1 sheet specification:



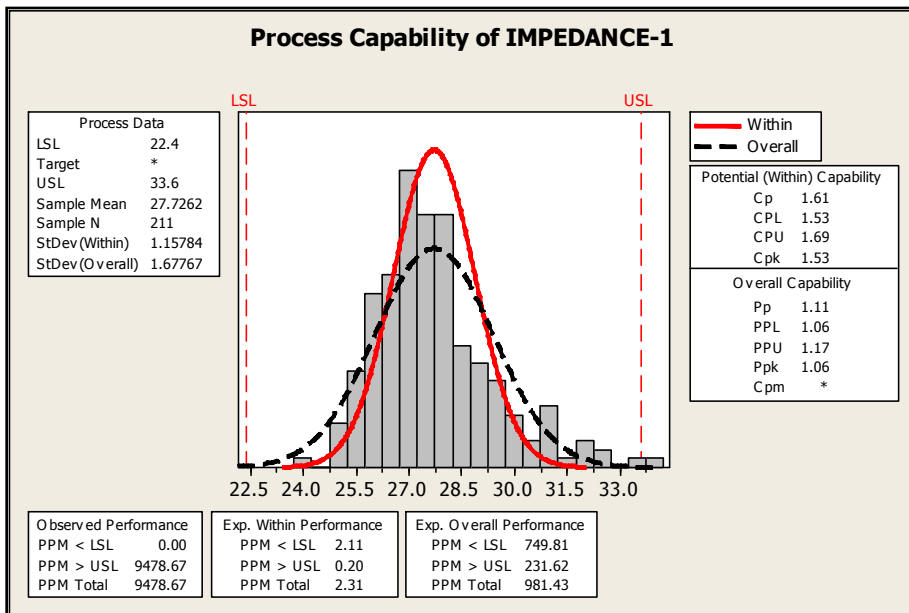
KNOWLES CONFIDENTIAL AND PROPRIETARY

HODVTEC-61553-000

Current 2.1 sheet specification:



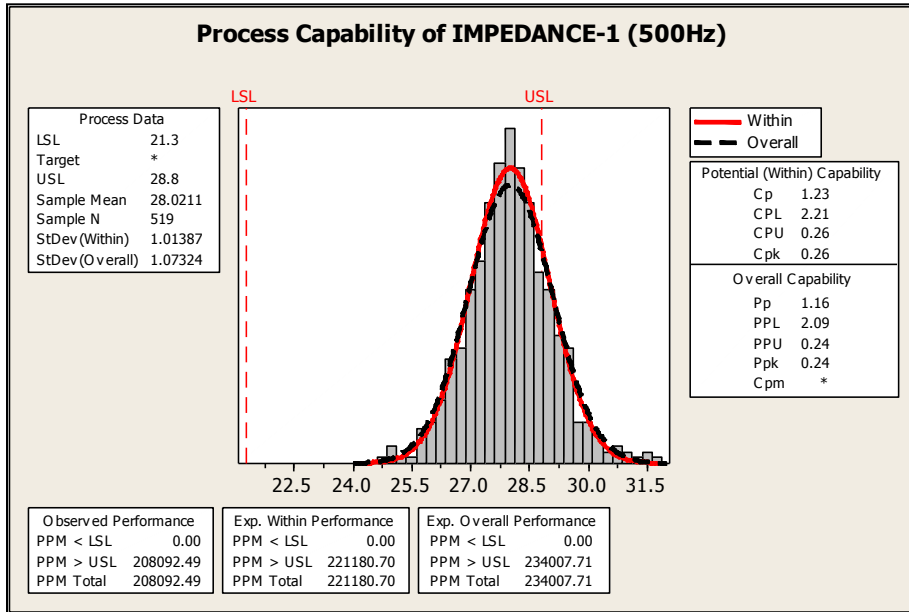
Proposed 2.1 sheet specification:



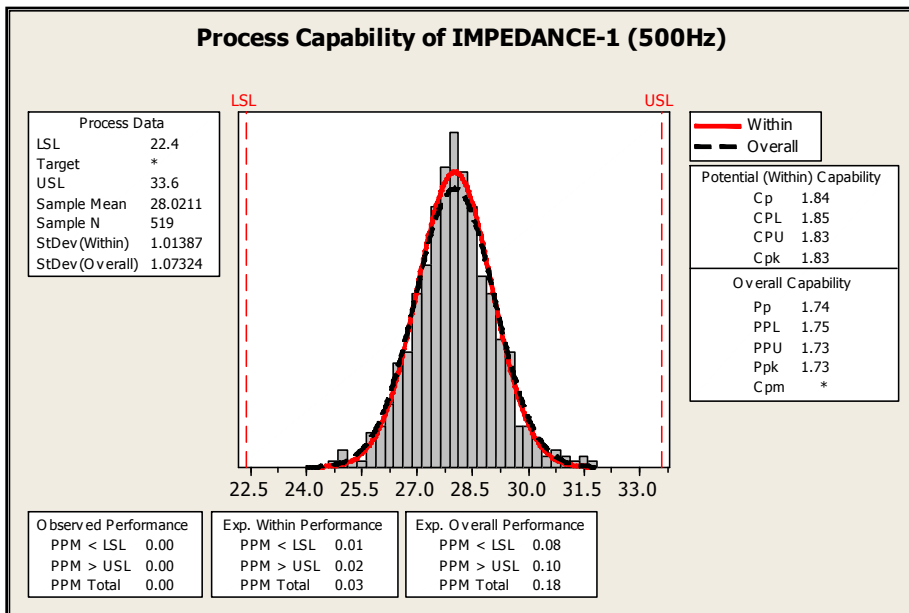
KNOWLES CONFIDENTIAL AND PROPRIETARY

HODVTEC-31618-000

Current 2.1 sheet specification:



Proposed 2.1 sheet specification:



KNOWLES CONFIDENTIAL AND PROPRIETARY