



Product/Process Change Notification

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Initiation Date	12-OCT-2022	Notification No.	20221006
Implementation Date	TBD	Initiator's Name	Johanns Ocaba
Beginning Date Code of Implemented Change			TBD

CHANGE DESCRIPTION:

Knowles Electronics has qualified Carrier and Cap for FB Microphone Assemblies from internal supplier. Parts meets specification. There is no change in fit, form and functions.

Please continue to work with your local sales manager if you have questions or concerns related to this product change notification.

MATERIAL AFFECTED:

Part Number	Description
FB-174	INTERFACE CAP
FB-175	CARRIER BBN ASSEMBLY

MODELS AFFECTED:





Part Number	Description
VEK-H-30320-000	MICROPHONE

MATERIAL INFORMATION

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PN	Material
FB-174	RTP 683 HB ABS(ABS+Electriplast 25%)
FB-175	ABS 121H Black

MATERIAL PHOTOS

PN	CURRENT	NEW
FB-174		
FB-175		

SUPPORT INFORMATION:

Knowles Qualification Plan Number: R-P-21341

Below parts were used as Qualification representatives. The result of the qualification of this representative is the basis in qualifying the rest of the affected models.

Part Number	Description
FB-174	INTERFACE CAP
FB-175	CARRIER BBN ASSEMBLY

Finished Goods Part Number	Part Description
VEK-H-30320-000	BBN MICROPHONE

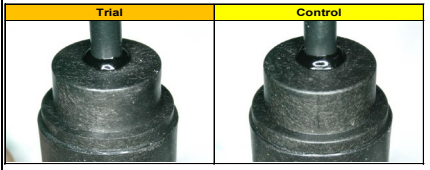
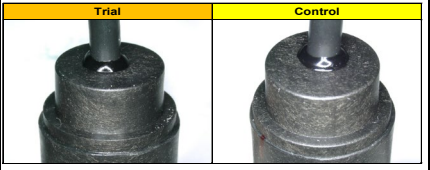
RELIABILITY TEST:

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SUMMARY OF TEST SUITE:

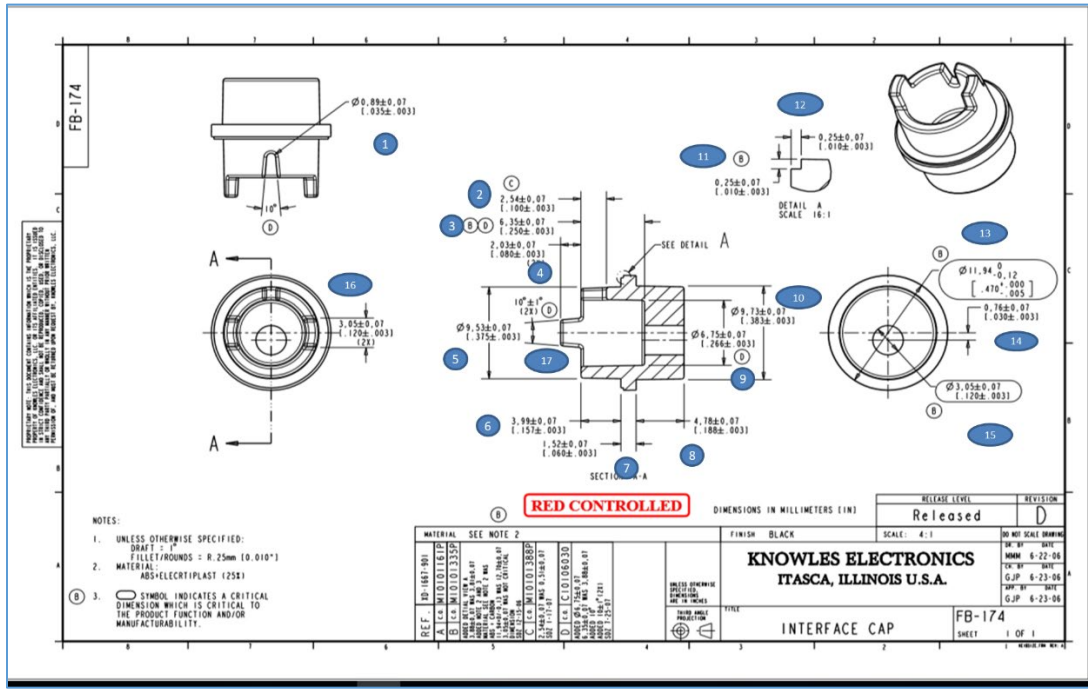
Item	Test item	Test condition	Acceptance Criteria	Sample size	Result
1	Cable wire and FB-174 (interface cap) pull test	Room temperature. Speed = 2.5mm/min Hold cable and Cap, pull to 100N for 1min.	No mechanical damage.	Control 5 Trial 5	PASS (See Appendix A)
2	Cable wire and FB-175 (carrier) pull test	Room temperature. Speed = 2.5mm/min Hold cable and Carrier, pull to 100N for 1min.	No mechanical damage.	Control 5 Trial 5	PASS (See Appendix A)

APPENDIX A:

<u>Test</u>	<u>Acceptance Criteria</u>	<u>Model Tested</u>	<u>Sample Size</u>	<u>Result</u>	<u>Data</u>
Cable wire and FB-174 (interface cap) pull test	Room temperature. Speed = 2.5mm/min Hold cable and Cap, pull to 100N for 1min.	FB-BU-60959-000	Control 5 Trial 5	PASS	<p>Visual Appearance</p> 
Cable wire and FB-175 (carrier) pull test	Room temperature. Speed = 2.5mm/min Hold cable and Carrier, pull to 100N for 1min.	FB-BU-60959-000	Control 5 Trial 5	PASS	<p>Visual Appearance</p> 

MATERIAL DATA:

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Dim No.	Measurements (mm)	Graph	Results										
1	<table border="1"> <tr><td>0.828</td></tr> <tr><td>0.870</td></tr> <tr><td>0.861</td></tr> <tr><td>0.852</td></tr> <tr><td>0.869</td></tr> <tr><td>0.865</td></tr> <tr><td>0.855</td></tr> <tr><td>0.854</td></tr> <tr><td>0.866</td></tr> <tr><td>0.854</td></tr> </table>	0.828	0.870	0.861	0.852	0.869	0.865	0.855	0.854	0.866	0.854	<p>Boxplot of Dimension 1</p> <p>0.96mm USL 0.89mm Nom 0.82mm LSL</p>	PASSED
0.828													
0.870													
0.861													
0.852													
0.869													
0.865													
0.855													
0.854													
0.866													
0.854													

<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>																				
2	<table border="1"> <tr><td>2.530</td></tr> <tr><td>2.515</td></tr> <tr><td>2.526</td></tr> <tr><td>2.537</td></tr> <tr><td>2.512</td></tr> <tr><td>2.516</td></tr> <tr><td>2.515</td></tr> <tr><td>2.515</td></tr> <tr><td>2.515</td></tr> <tr><td>2.520</td></tr> </table>	2.530	2.515	2.526	2.537	2.512	2.516	2.515	2.515	2.515	2.520	<p>Boxplot of Dimension 2</p> <p>2.625 2.600 2.575 2.550 2.525 2.500 2.475 2.450</p> <p>2.61mm USL 2.54mm Nom 2.47mm LSL</p>	PASSED										
2.530																							
2.515																							
2.526																							
2.537																							
2.512																							
2.516																							
2.515																							
2.515																							
2.515																							
2.520																							
3	<table border="1"> <tr><td>6.348</td></tr> <tr><td>6.337</td></tr> <tr><td>6.348</td></tr> <tr><td>6.355</td></tr> <tr><td>6.349</td></tr> <tr><td>6.330</td></tr> <tr><td>6.367</td></tr> <tr><td>6.357</td></tr> <tr><td>6.338</td></tr> <tr><td>6.317</td></tr> </table>	6.348	6.337	6.348	6.355	6.349	6.330	6.367	6.357	6.338	6.317	<p>Boxplot of Dimension 3</p> <p>6.42 6.39 6.36 6.33 6.30</p> <p>6.42mm USL 6.35mm Nom 6.28mm LSL</p>	PASSED										
6.348																							
6.337																							
6.348																							
6.355																							
6.349																							
6.330																							
6.367																							
6.357																							
6.338																							
6.317																							
4	<table border="1"> <tr><td>2.012</td><td>2.051</td></tr> <tr><td>2.008</td><td>2.048</td></tr> <tr><td>2.030</td><td>2.070</td></tr> <tr><td>2.028</td><td>2.068</td></tr> <tr><td>2.010</td><td>2.052</td></tr> <tr><td>2.016</td><td>2.050</td></tr> <tr><td>2.013</td><td>2.052</td></tr> <tr><td>2.010</td><td>2.044</td></tr> <tr><td>2.015</td><td>2.046</td></tr> <tr><td>2.070</td><td>2.054</td></tr> </table>	2.012	2.051	2.008	2.048	2.030	2.070	2.028	2.068	2.010	2.052	2.016	2.050	2.013	2.052	2.010	2.044	2.015	2.046	2.070	2.054	<p>Boxplot of Dimension 4</p> <p>2.100 2.075 2.050 2.025 2.000 1.975 1.950</p> <p>2.10mm USL 2.03mm Nom 1.96mm LSL</p> <p>4-1 4-2</p>	PASSED
2.012	2.051																						
2.008	2.048																						
2.030	2.070																						
2.028	2.068																						
2.010	2.052																						
2.016	2.050																						
2.013	2.052																						
2.010	2.044																						
2.015	2.046																						
2.070	2.054																						

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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>											
5	<table border="1"> <tr><td>9.480</td></tr> <tr><td>9.470</td></tr> <tr><td>9.480</td></tr> <tr><td>9.480</td></tr> <tr><td>9.490</td></tr> <tr><td>9.480</td></tr> <tr><td>9.480</td></tr> <tr><td>9.480</td></tr> <tr><td>9.470</td></tr> <tr><td>9.480</td></tr> </table>	9.480	9.470	9.480	9.480	9.490	9.480	9.480	9.480	9.470	9.480	<p style="text-align: center;">Boxplot of Dimension 5</p>	PASSED	
9.480														
9.470														
9.480														
9.480														
9.490														
9.480														
9.480														
9.480														
9.470														
9.480														
6	<table border="1"> <tr><td>3.982</td></tr> <tr><td>3.985</td></tr> <tr><td>3.978</td></tr> <tr><td>3.983</td></tr> <tr><td>3.982</td></tr> <tr><td>3.987</td></tr> <tr><td>3.982</td></tr> <tr><td>3.989</td></tr> <tr><td>3.980</td></tr> <tr><td>3.991</td></tr> </table>	3.982	3.985	3.978	3.983	3.982	3.987	3.982	3.989	3.980	3.991	<p style="text-align: center;">Boxplot of Dimension 6</p>	PASSED	
3.982														
3.985														
3.978														
3.983														
3.982														
3.987														
3.982														
3.989														
3.980														
3.991														
7	<table border="1"> <tr><td>1.530</td></tr> <tr><td>1.520</td></tr> <tr><td>1.530</td></tr> <tr><td>1.520</td></tr> <tr><td>1.520</td></tr> <tr><td>1.520</td></tr> <tr><td>1.520</td></tr> <tr><td>1.520</td></tr> <tr><td>1.530</td></tr> <tr><td>1.520</td></tr> <tr><td>1.520</td></tr> </table>	1.530	1.520	1.530	1.520	1.520	1.520	1.520	1.520	1.530	1.520	1.520	<p style="text-align: center;">Boxplot of Dimension 7</p>	PASSED
1.530														
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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>										
8	<table border="1"> <tr><td>4.713</td></tr> <tr><td>4.743</td></tr> <tr><td>4.746</td></tr> <tr><td>4.730</td></tr> <tr><td>4.736</td></tr> <tr><td>4.710</td></tr> <tr><td>4.751</td></tr> <tr><td>4.739</td></tr> <tr><td>4.727</td></tr> <tr><td>4.764</td></tr> </table>	4.713	4.743	4.746	4.730	4.736	4.710	4.751	4.739	4.727	4.764	<p style="text-align: center;">Boxplot of Dimension 8</p>	PASSED
4.713													
4.743													
4.746													
4.730													
4.736													
4.710													
4.751													
4.739													
4.727													
4.764													
9	<table border="1"> <tr><td>6.767</td></tr> <tr><td>6.799</td></tr> <tr><td>6.766</td></tr> <tr><td>6.804</td></tr> <tr><td>6.800</td></tr> <tr><td>6.751</td></tr> <tr><td>6.765</td></tr> <tr><td>6.779</td></tr> <tr><td>6.754</td></tr> <tr><td>6.765</td></tr> </table>	6.767	6.799	6.766	6.804	6.800	6.751	6.765	6.779	6.754	6.765	<p style="text-align: center;">Boxplot of Dimension 9</p>	PASSED
6.767													
6.799													
6.766													
6.804													
6.800													
6.751													
6.765													
6.779													
6.754													
6.765													
10	<table border="1"> <tr><td>9.670</td></tr> <tr><td>9.670</td></tr> <tr><td>9.670</td></tr> <tr><td>9.680</td></tr> <tr><td>9.680</td></tr> <tr><td>9.670</td></tr> <tr><td>9.700</td></tr> <tr><td>9.670</td></tr> <tr><td>9.670</td></tr> <tr><td>9.670</td></tr> </table>	9.670	9.670	9.670	9.680	9.680	9.670	9.700	9.670	9.670	9.670	<p style="text-align: center;">Boxplot of Dimension 10</p>	PASSED
9.670													
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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>																														
11	<table border="1"> <tr><td>0.214</td></tr> <tr><td>0.203</td></tr> <tr><td>0.202</td></tr> <tr><td>0.206</td></tr> <tr><td>0.209</td></tr> <tr><td>0.216</td></tr> <tr><td>0.213</td></tr> <tr><td>0.214</td></tr> <tr><td>0.216</td></tr> <tr><td>0.215</td></tr> </table>	0.214	0.203	0.202	0.206	0.209	0.216	0.213	0.214	0.216	0.215		PASSED																				
0.214																																	
0.203																																	
0.202																																	
0.206																																	
0.209																																	
0.216																																	
0.213																																	
0.214																																	
0.216																																	
0.215																																	
12	<table border="1"> <tr><td>0.265</td></tr> <tr><td>0.253</td></tr> <tr><td>0.255</td></tr> <tr><td>0.247</td></tr> <tr><td>0.260</td></tr> <tr><td>0.255</td></tr> <tr><td>0.265</td></tr> <tr><td>0.266</td></tr> <tr><td>0.266</td></tr> <tr><td>0.255</td></tr> </table>	0.265	0.253	0.255	0.247	0.260	0.255	0.265	0.266	0.266	0.255		PASSED																				
0.265																																	
0.253																																	
0.255																																	
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0.255																																	
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0.266																																	
0.266																																	
0.255																																	
13	<table border="1"> <tr><td>11.840</td><td>11.850</td></tr> <tr><td>11.840</td><td>11.850</td></tr> <tr><td>11.840</td><td>11.840</td></tr> <tr><td>11.840</td><td>11.830</td></tr> <tr><td>11.840</td><td>11.840</td></tr> <tr><td>11.840</td><td>11.840</td></tr> <tr><td>11.840</td><td>11.840</td></tr> <tr><td>11.840</td><td>11.860</td></tr> <tr><td>11.840</td><td>11.860</td></tr> <tr><td>11.840</td><td>11.840</td></tr> <tr><td>11.840</td><td>11.830</td></tr> <tr><td>11.840</td><td>11.840</td></tr> <tr><td>11.840</td><td>11.840</td></tr> <tr><td>11.870</td><td>11.870</td></tr> <tr><td>11.870</td><td>11.840</td></tr> </table>	11.840	11.850	11.840	11.850	11.840	11.840	11.840	11.830	11.840	11.840	11.840	11.840	11.840	11.840	11.840	11.860	11.840	11.860	11.840	11.840	11.840	11.830	11.840	11.840	11.840	11.840	11.870	11.870	11.870	11.840		PASSED
11.840	11.850																																
11.840	11.850																																
11.840	11.840																																
11.840	11.830																																
11.840	11.840																																
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11.840	11.840																																
11.840	11.860																																
11.840	11.860																																
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11.840	11.830																																
11.840	11.840																																
11.840	11.840																																
11.870	11.870																																
11.870	11.840																																

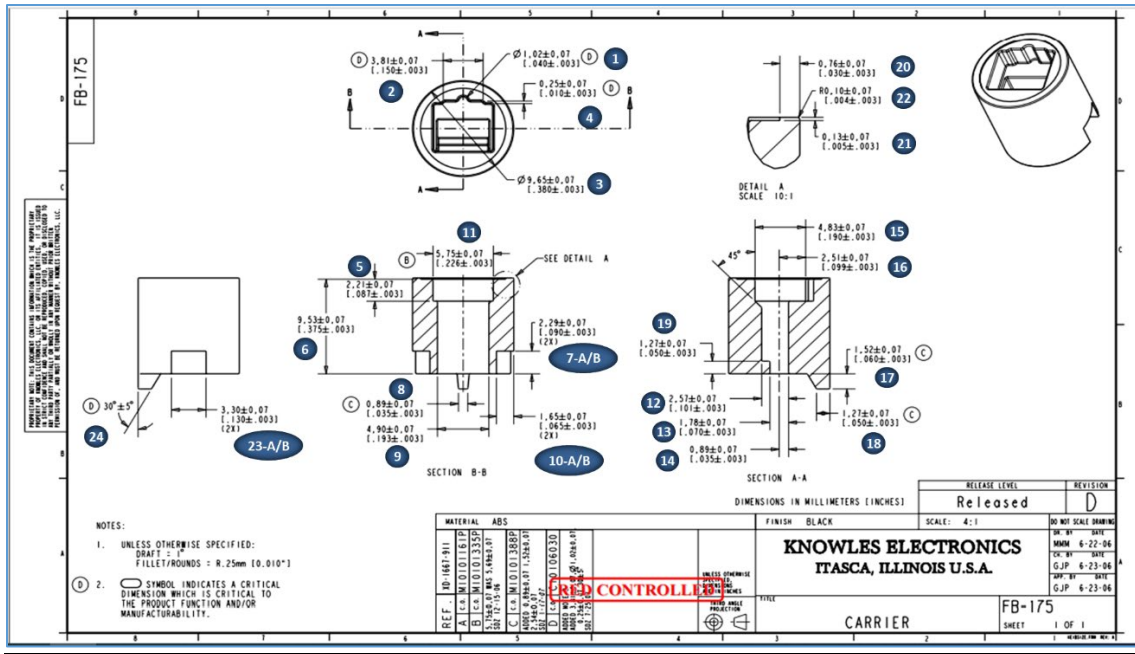
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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>																														
14	<table border="1"> <tr><td>0.761</td></tr> <tr><td>0.768</td></tr> <tr><td>0.772</td></tr> <tr><td>0.777</td></tr> <tr><td>0.770</td></tr> <tr><td>0.769</td></tr> <tr><td>0.769</td></tr> <tr><td>0.775</td></tr> <tr><td>0.796</td></tr> <tr><td>0.785</td></tr> </table>	0.761	0.768	0.772	0.777	0.770	0.769	0.769	0.775	0.796	0.785	<p>Boxplot of Dimension 14</p> <p>0.84 0.82 0.80 0.78 0.76 0.74 0.72 0.70</p> <p>0.83mm USL 0.76mm Nom 0.69mm LSL</p>	PASSED																				
0.761																																	
0.768																																	
0.772																																	
0.777																																	
0.770																																	
0.769																																	
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0.796																																	
0.785																																	
15	<table border="1"> <tr><td>3.079</td><td>3.082</td></tr> <tr><td>3.078</td><td>3.088</td></tr> <tr><td>3.076</td><td>3.086</td></tr> <tr><td>3.078</td><td>3.085</td></tr> <tr><td>3.093</td><td>3.075</td></tr> <tr><td>3.086</td><td>3.091</td></tr> <tr><td>3.086</td><td>3.092</td></tr> <tr><td>3.079</td><td>3.083</td></tr> <tr><td>3.093</td><td>3.084</td></tr> <tr><td>3.079</td><td>3.088</td></tr> <tr><td>3.067</td><td>3.097</td></tr> <tr><td>3.085</td><td>3.082</td></tr> <tr><td>3.076</td><td>3.085</td></tr> <tr><td>3.081</td><td>3.089</td></tr> <tr><td>3.086</td><td>3.085</td></tr> </table>	3.079	3.082	3.078	3.088	3.076	3.086	3.078	3.085	3.093	3.075	3.086	3.091	3.086	3.092	3.079	3.083	3.093	3.084	3.079	3.088	3.067	3.097	3.085	3.082	3.076	3.085	3.081	3.089	3.086	3.085	<p>Boxplot of Dimension 15</p> <p>3.12 3.09 3.06 3.03 3.00</p> <p>3.12mm LSL 3.05mm Nom 2.98mm LSL</p>	PASSED
3.079	3.082																																
3.078	3.088																																
3.076	3.086																																
3.078	3.085																																
3.093	3.075																																
3.086	3.091																																
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3.079	3.083																																
3.093	3.084																																
3.079	3.088																																
3.067	3.097																																
3.085	3.082																																
3.076	3.085																																
3.081	3.089																																
3.086	3.085																																
16	<table border="1"> <tr><td>3.049</td><td>3.015</td></tr> <tr><td>2.994</td><td>3.005</td></tr> <tr><td>3.029</td><td>3.005</td></tr> <tr><td>3.019</td><td>2.995</td></tr> <tr><td>2.998</td><td>3.050</td></tr> <tr><td>3.001</td><td>2.990</td></tr> <tr><td>3.036</td><td>3.000</td></tr> <tr><td>3.037</td><td>2.997</td></tr> <tr><td>3.045</td><td>2.998</td></tr> <tr><td>3.004</td><td>2.999</td></tr> </table>	3.049	3.015	2.994	3.005	3.029	3.005	3.019	2.995	2.998	3.050	3.001	2.990	3.036	3.000	3.037	2.997	3.045	2.998	3.004	2.999	<p>Boxplot of Dimensional 16</p> <p>3.12 3.09 3.06 3.03 3.00</p> <p>3.12mm USL 3.05mm Nom 2.98mm LSL</p> <p>16-1 16-2</p>	PASSED										
3.049	3.015																																
2.994	3.005																																
3.029	3.005																																
3.019	2.995																																
2.998	3.050																																
3.001	2.990																																
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3.037	2.997																																
3.045	2.998																																
3.004	2.999																																

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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>																				
17	<table border="1"> <tr><td>9.566</td><td>9.946</td></tr> <tr><td>9.460</td><td>10.257</td></tr> <tr><td>10.088</td><td>10.234</td></tr> <tr><td>9.715</td><td>10.450</td></tr> <tr><td>10.340</td><td>10.408</td></tr> <tr><td>10.449</td><td>10.687</td></tr> <tr><td>10.639</td><td>10.696</td></tr> <tr><td>10.594</td><td>10.599</td></tr> <tr><td>10.425</td><td>10.451</td></tr> <tr><td>10.536</td><td>10.435</td></tr> </table>	9.566	9.946	9.460	10.257	10.088	10.234	9.715	10.450	10.340	10.408	10.449	10.687	10.639	10.696	10.594	10.599	10.425	10.451	10.536	10.435	<p>Boxplot of Dimension 17</p> <p>Y-axis: mm (9.0 to 11.0)</p> <p>USL: 11.0mm, Nom: 10.0mm, LSL: 9.0mm</p> <p>Subgroups: 17-1, 17-2</p>	PASSED
9.566	9.946																						
9.460	10.257																						
10.088	10.234																						
9.715	10.450																						
10.340	10.408																						
10.449	10.687																						
10.639	10.696																						
10.594	10.599																						
10.425	10.451																						
10.536	10.435																						
18	<table border="1"> <tr><td>9.380</td></tr> <tr><td>9.262</td></tr> <tr><td>9.631</td></tr> <tr><td>9.936</td></tr> <tr><td>9.611</td></tr> <tr><td>9.544</td></tr> <tr><td>9.616</td></tr> <tr><td>9.603</td></tr> <tr><td>9.622</td></tr> <tr><td>9.615</td></tr> </table>	9.380	9.262	9.631	9.936	9.611	9.544	9.616	9.603	9.622	9.615	<p>Boxplot of Dimension 18</p> <p>Y-axis: mm (0 to 20)</p> <p>USL: 20.0mm, Nom: 10.0mm, LSL: 0.0mm</p>	PASSED										
9.380																							
9.262																							
9.631																							
9.936																							
9.611																							
9.544																							
9.616																							
9.603																							
9.622																							
9.615																							

FB-175



Dim No.	Measurements (mm)	Graph	Results										
1	<table border="1"> <tr><td>1.041</td></tr> <tr><td>0.998</td></tr> <tr><td>1.022</td></tr> <tr><td>0.975</td></tr> <tr><td>1.005</td></tr> <tr><td>1.012</td></tr> <tr><td>0.998</td></tr> <tr><td>1.015</td></tr> <tr><td>1.017</td></tr> <tr><td>1.029</td></tr> </table>	1.041	0.998	1.022	0.975	1.005	1.012	0.998	1.015	1.017	1.029	<p>Boxplot of Dimension 1</p> <p>1.100</p> <p>1.075</p> <p>1.050</p> <p>1.025</p> <p>1.000</p> <p>0.975</p> <p>0.950</p> <p>1.09mm USL</p> <p>1.02mm Nom</p> <p>0.95mm LSL</p>	PASSED
1.041													
0.998													
1.022													
0.975													
1.005													
1.012													
0.998													
1.015													
1.017													
1.029													

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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>										
23	<table border="1"> <tr><td>3.762</td></tr> <tr><td>3.775</td></tr> <tr><td>3.770</td></tr> <tr><td>3.766</td></tr> <tr><td>3.768</td></tr> <tr><td>3.767</td></tr> <tr><td>3.774</td></tr> <tr><td>3.771</td></tr> <tr><td>3.765</td></tr> <tr><td>3.774</td></tr> </table>	3.762	3.775	3.770	3.766	3.768	3.767	3.774	3.771	3.765	3.774	<p style="text-align: center;">Boxplot of Dimension 2</p> <p>The boxplot for Dimension 2 shows a distribution of measurements centered around 3.77 mm. The y-axis is labeled 'mm' and ranges from 3.750 to 3.875. The box represents the interquartile range from approximately 3.765 to 3.775 mm. The median is at 3.77 mm. Whiskers extend from 3.76 to 3.78 mm. Three horizontal lines indicate specification limits: 3.74mm LSL, 3.81mm Nom, and 3.88mm USL.</p>	PASSED
3.762													
3.775													
3.770													
3.766													
3.768													
3.767													
3.774													
3.771													
3.765													
3.774													
3	<table border="1"> <tr><td>9.600</td></tr> <tr><td>9.630</td></tr> <tr><td>9.600</td></tr> <tr><td>9.600</td></tr> <tr><td>9.610</td></tr> <tr><td>9.600</td></tr> <tr><td>9.620</td></tr> <tr><td>9.600</td></tr> <tr><td>9.600</td></tr> <tr><td>9.600</td></tr> </table>	9.600	9.630	9.600	9.600	9.610	9.600	9.620	9.600	9.600	9.600	<p style="text-align: center;">Boxplot of Dimension 3</p> <p>The boxplot for Dimension 3 shows a distribution of measurements centered around 9.60 mm. The y-axis is labeled 'mm' and ranges from 9.60 to 9.72. The box represents the interquartile range from approximately 9.60 to 9.61 mm. The median is at 9.60 mm. Whiskers extend from 9.59 to 9.63 mm. Three horizontal lines indicate specification limits: 9.58mm LSL, 9.65mm Nom, and 9.72mm USL.</p>	PASSED
9.600													
9.630													
9.600													
9.600													
9.610													
9.600													
9.620													
9.600													
9.600													
9.600													
4	<table border="1"> <tr><td>0.185</td></tr> <tr><td>0.189</td></tr> <tr><td>0.189</td></tr> <tr><td>0.185</td></tr> <tr><td>0.184</td></tr> <tr><td>0.185</td></tr> <tr><td>0.187</td></tr> <tr><td>0.188</td></tr> <tr><td>0.184</td></tr> <tr><td>0.187</td></tr> </table>	0.185	0.189	0.189	0.185	0.184	0.185	0.187	0.188	0.184	0.187	<p style="text-align: center;">Boxplot of Dimension 4</p> <p>The boxplot for Dimension 4 shows a distribution of measurements centered around 0.185 mm. The y-axis is labeled 'mm' and ranges from 0.18 to 0.32. The box represents the interquartile range from approximately 0.184 to 0.187 mm. The median is at 0.185 mm. Whiskers extend from 0.183 to 0.188 mm. Three horizontal lines indicate specification limits: 0.18mm LSL, 0.25mm Nom, and 0.32mm USL.</p>	PASSED
0.185													
0.189													
0.189													
0.185													
0.184													
0.185													
0.187													
0.188													
0.184													
0.187													

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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>																				
5	<table border="1"> <tr><td>2.268</td></tr> <tr><td>2.265</td></tr> <tr><td>2.262</td></tr> <tr><td>2.266</td></tr> <tr><td>2.265</td></tr> <tr><td>2.263</td></tr> <tr><td>2.270</td></tr> <tr><td>2.269</td></tr> <tr><td>2.263</td></tr> <tr><td>2.260</td></tr> </table>	2.268	2.265	2.262	2.266	2.265	2.263	2.270	2.269	2.263	2.260	<p>Boxplot of Dimension 5</p> <p>2.28mm USL 2.21mm Nom 2.14mm LSL</p>	PASSED										
2.268																							
2.265																							
2.262																							
2.266																							
2.265																							
2.263																							
2.270																							
2.269																							
2.263																							
2.260																							
6	<table border="1"> <tr><td>9.542</td></tr> <tr><td>9.548</td></tr> <tr><td>9.539</td></tr> <tr><td>9.543</td></tr> <tr><td>9.541</td></tr> <tr><td>9.533</td></tr> <tr><td>9.534</td></tr> <tr><td>9.542</td></tr> <tr><td>9.535</td></tr> <tr><td>9.542</td></tr> </table>	9.542	9.548	9.539	9.543	9.541	9.533	9.534	9.542	9.535	9.542	<p>Boxplot of Dimension 6</p> <p>9.60mm USL 9.53mm Nom 9.46mm LSL</p>	PASSED										
9.542																							
9.548																							
9.539																							
9.543																							
9.541																							
9.533																							
9.534																							
9.542																							
9.535																							
9.542																							
7	<table border="1"> <tr><td>2.294</td><td>2.277</td></tr> <tr><td>2.270</td><td>2.272</td></tr> <tr><td>2.280</td><td>2.271</td></tr> <tr><td>2.331</td><td>2.279</td></tr> <tr><td>2.285</td><td>2.265</td></tr> <tr><td>2.264</td><td>2.285</td></tr> <tr><td>2.275</td><td>2.273</td></tr> <tr><td>2.287</td><td>2.272</td></tr> <tr><td>2.276</td><td>2.280</td></tr> <tr><td>2.267</td><td>2.276</td></tr> </table>	2.294	2.277	2.270	2.272	2.280	2.271	2.331	2.279	2.285	2.265	2.264	2.285	2.275	2.273	2.287	2.272	2.276	2.280	2.267	2.276	<p>Boxplot of Dimension 7</p> <p>2.36mm USL 2.29mm Nom 2.22mm LSL</p> <p>7-A 7-B</p>	PASSED
2.294	2.277																						
2.270	2.272																						
2.280	2.271																						
2.331	2.279																						
2.285	2.265																						
2.264	2.285																						
2.275	2.273																						
2.287	2.272																						
2.276	2.280																						
2.267	2.276																						

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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>																				
8	<table border="1"> <tr><td>0.918</td></tr> <tr><td>0.916</td></tr> <tr><td>0.918</td></tr> <tr><td>0.918</td></tr> <tr><td>0.926</td></tr> <tr><td>0.921</td></tr> <tr><td>0.925</td></tr> <tr><td>0.920</td></tr> <tr><td>0.920</td></tr> <tr><td>0.927</td></tr> </table>	0.918	0.916	0.918	0.918	0.926	0.921	0.925	0.920	0.920	0.927	<p style="text-align: center;">Boxplot of Dimension 8</p>	PASSED										
0.918																							
0.916																							
0.918																							
0.918																							
0.926																							
0.921																							
0.925																							
0.920																							
0.920																							
0.927																							
9	<table border="1"> <tr><td>4.896</td></tr> <tr><td>4.892</td></tr> <tr><td>4.895</td></tr> <tr><td>4.898</td></tr> <tr><td>4.898</td></tr> <tr><td>4.900</td></tr> <tr><td>4.895</td></tr> <tr><td>4.883</td></tr> <tr><td>4.880</td></tr> <tr><td>4.888</td></tr> </table>	4.896	4.892	4.895	4.898	4.898	4.900	4.895	4.883	4.880	4.888	<p style="text-align: center;">Boxplot of Dimension 9</p>	PASSED										
4.896																							
4.892																							
4.895																							
4.898																							
4.898																							
4.900																							
4.895																							
4.883																							
4.880																							
4.888																							
10	<table border="1"> <tr><td>1.623</td><td>1.621</td></tr> <tr><td>1.618</td><td>1.615</td></tr> <tr><td>1.630</td><td>1.626</td></tr> <tr><td>1.612</td><td>1.633</td></tr> <tr><td>1.610</td><td>1.630</td></tr> <tr><td>1.621</td><td>1.620</td></tr> <tr><td>1.628</td><td>1.614</td></tr> <tr><td>1.622</td><td>1.617</td></tr> <tr><td>1.623</td><td>1.622</td></tr> <tr><td>1.626</td><td>1.613</td></tr> </table>	1.623	1.621	1.618	1.615	1.630	1.626	1.612	1.633	1.610	1.630	1.621	1.620	1.628	1.614	1.622	1.617	1.623	1.622	1.626	1.613	<p style="text-align: center;">Boxplot of Dimension 10</p>	PASSED
1.623	1.621																						
1.618	1.615																						
1.630	1.626																						
1.612	1.633																						
1.610	1.630																						
1.621	1.620																						
1.628	1.614																						
1.622	1.617																						
1.623	1.622																						
1.626	1.613																						

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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>										
11	<table border="1"> <tr><td>5.817</td></tr> <tr><td>5.806</td></tr> <tr><td>5.816</td></tr> <tr><td>5.815</td></tr> <tr><td>5.804</td></tr> <tr><td>5.803</td></tr> <tr><td>5.817</td></tr> <tr><td>5.806</td></tr> <tr><td>5.803</td></tr> <tr><td>5.804</td></tr> </table>	5.817	5.806	5.816	5.815	5.804	5.803	5.817	5.806	5.803	5.804	<p>Boxplot of Dimension 11</p> <p>5.82mm USL</p> <p>5.75mm Nom</p> <p>5.68mm LSL</p>	PASSED
5.817													
5.806													
5.816													
5.815													
5.804													
5.803													
5.817													
5.806													
5.803													
5.804													
12	<table border="1"> <tr><td>2.634</td></tr> <tr><td>2.596</td></tr> <tr><td>2.592</td></tr> <tr><td>2.605</td></tr> <tr><td>2.602</td></tr> <tr><td>2.597</td></tr> <tr><td>2.583</td></tr> <tr><td>2.601</td></tr> <tr><td>2.600</td></tr> <tr><td>2.587</td></tr> </table>	2.634	2.596	2.592	2.605	2.602	2.597	2.583	2.601	2.600	2.587	<p>Boxplot of Dimension 12</p> <p>2.64mm USL</p> <p>2.57mm Nom</p> <p>2.50mm LSL</p>	PASSED
2.634													
2.596													
2.592													
2.605													
2.602													
2.597													
2.583													
2.601													
2.600													
2.587													
13	<table border="1"> <tr><td>1.795</td></tr> <tr><td>1.804</td></tr> <tr><td>1.792</td></tr> <tr><td>1.783</td></tr> <tr><td>1.791</td></tr> <tr><td>1.798</td></tr> <tr><td>1.782</td></tr> <tr><td>1.789</td></tr> <tr><td>1.779</td></tr> <tr><td>1.768</td></tr> </table>	1.795	1.804	1.792	1.783	1.791	1.798	1.782	1.789	1.779	1.768	<p>Boxplot of Dimension 13</p> <p>1.85mm USL</p> <p>1.78mm Nom</p> <p>1.71mm LSL</p>	PASSED
1.795													
1.804													
1.792													
1.783													
1.791													
1.798													
1.782													
1.789													
1.779													
1.768													

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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>										
14	<table border="1"> <tr><td>0.877</td></tr> <tr><td>0.869</td></tr> <tr><td>0.884</td></tr> <tr><td>0.862</td></tr> <tr><td>0.879</td></tr> <tr><td>0.862</td></tr> <tr><td>0.883</td></tr> <tr><td>0.876</td></tr> <tr><td>0.886</td></tr> <tr><td>0.876</td></tr> </table>	0.877	0.869	0.884	0.862	0.879	0.862	0.883	0.876	0.886	0.876	<p style="text-align: center;">Boxplot of Dimension14</p> <p>mm</p>	PASSED
0.877													
0.869													
0.884													
0.862													
0.879													
0.862													
0.883													
0.876													
0.886													
0.876													
15	<table border="1"> <tr><td>4.877</td></tr> <tr><td>4.884</td></tr> <tr><td>4.880</td></tr> <tr><td>4.883</td></tr> <tr><td>4.889</td></tr> <tr><td>4.890</td></tr> <tr><td>4.875</td></tr> <tr><td>4.884</td></tr> <tr><td>4.881</td></tr> <tr><td>4.879</td></tr> </table>	4.877	4.884	4.880	4.883	4.889	4.890	4.875	4.884	4.881	4.879	<p style="text-align: center;">Boxplot of Dimension 15</p> <p>mm</p>	PASSED
4.877													
4.884													
4.880													
4.883													
4.889													
4.890													
4.875													
4.884													
4.881													
4.879													
16	<table border="1"> <tr><td>2.536</td></tr> <tr><td>2.554</td></tr> <tr><td>2.537</td></tr> <tr><td>2.538</td></tr> <tr><td>2.521</td></tr> <tr><td>2.562</td></tr> <tr><td>2.540</td></tr> <tr><td>2.549</td></tr> <tr><td>2.548</td></tr> <tr><td>2.548</td></tr> </table>	2.536	2.554	2.537	2.538	2.521	2.562	2.540	2.549	2.548	2.548	<p style="text-align: center;">Boxplot of Dimension 16</p> <p>mm</p>	PASSED
2.536													
2.554													
2.537													
2.538													
2.521													
2.562													
2.540													
2.549													
2.548													
2.548													

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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>										
17	<table border="1"> <tr><td>1.521</td></tr> <tr><td>1.526</td></tr> <tr><td>1.524</td></tr> <tr><td>1.525</td></tr> <tr><td>1.519</td></tr> <tr><td>1.513</td></tr> <tr><td>1.513</td></tr> <tr><td>1.517</td></tr> <tr><td>1.515</td></tr> <tr><td>1.522</td></tr> </table>	1.521	1.526	1.524	1.525	1.519	1.513	1.513	1.517	1.515	1.522	<p style="text-align: center;">Boxplot of Dimension 17</p> <p>mm</p> <p>1.600 1.575 1.550 1.525 1.500 1.475 1.450</p> <p>1.59mm USL 1.52mm Nom 1.45mm LSL</p>	PASSED
1.521													
1.526													
1.524													
1.525													
1.519													
1.513													
1.513													
1.517													
1.515													
1.522													
18	<table border="1"> <tr><td>1.270</td></tr> <tr><td>1.270</td></tr> <tr><td>1.258</td></tr> <tr><td>1.263</td></tr> <tr><td>1.273</td></tr> <tr><td>1.271</td></tr> <tr><td>1.263</td></tr> <tr><td>1.259</td></tr> <tr><td>1.255</td></tr> <tr><td>1.262</td></tr> </table>	1.270	1.270	1.258	1.263	1.273	1.271	1.263	1.259	1.255	1.262	<p style="text-align: center;">Boxplot of Dimension 18</p> <p>mm</p> <p>1.34 1.32 1.30 1.28 1.26 1.24 1.22 1.20</p> <p>1.34mm USL 1.27mm Nom 1.20mm LSL</p>	PASSED
1.270													
1.270													
1.258													
1.263													
1.273													
1.271													
1.263													
1.259													
1.255													
1.262													
19	<table border="1"> <tr><td>1.288</td></tr> <tr><td>1.287</td></tr> <tr><td>1.286</td></tr> <tr><td>1.294</td></tr> <tr><td>1.281</td></tr> <tr><td>1.281</td></tr> <tr><td>1.287</td></tr> <tr><td>1.296</td></tr> <tr><td>1.287</td></tr> <tr><td>1.286</td></tr> </table>	1.288	1.287	1.286	1.294	1.281	1.281	1.287	1.296	1.287	1.286	<p style="text-align: center;">Boxplot of Dimension 19</p> <p>mm</p> <p>1.34 1.32 1.30 1.28 1.26 1.24 1.22 1.20</p> <p>1.34mm USL 1.27mm Nom 1.20mm LSL</p>	PASSED
1.288													
1.287													
1.286													
1.294													
1.281													
1.281													
1.287													
1.296													
1.287													
1.286													

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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>										
20	<table border="1"> <tr><td>0.738</td></tr> <tr><td>0.747</td></tr> <tr><td>0.743</td></tr> <tr><td>0.739</td></tr> <tr><td>0.742</td></tr> <tr><td>0.740</td></tr> <tr><td>0.744</td></tr> <tr><td>0.748</td></tr> <tr><td>0.743</td></tr> <tr><td>0.741</td></tr> </table>	0.738	0.747	0.743	0.739	0.742	0.740	0.744	0.748	0.743	0.741	<p>Boxplot of Dimension 20</p>	PASSED
0.738													
0.747													
0.743													
0.739													
0.742													
0.740													
0.744													
0.748													
0.743													
0.741													
21	<table border="1"> <tr><td>0.120</td></tr> <tr><td>0.102</td></tr> <tr><td>0.095</td></tr> <tr><td>0.092</td></tr> <tr><td>0.108</td></tr> <tr><td>0.078</td></tr> <tr><td>0.083</td></tr> <tr><td>0.101</td></tr> <tr><td>0.098</td></tr> <tr><td>0.095</td></tr> </table>	0.120	0.102	0.095	0.092	0.108	0.078	0.083	0.101	0.098	0.095	<p>Boxplot of Dimension 21</p>	PASSED
0.120													
0.102													
0.095													
0.092													
0.108													
0.078													
0.083													
0.101													
0.098													
0.095													
22	<table border="1"> <tr><td>0.125</td></tr> <tr><td>0.119</td></tr> <tr><td>0.125</td></tr> <tr><td>0.124</td></tr> <tr><td>0.113</td></tr> <tr><td>0.128</td></tr> <tr><td>0.108</td></tr> <tr><td>0.125</td></tr> <tr><td>0.134</td></tr> <tr><td>0.123</td></tr> </table>	0.125	0.119	0.125	0.124	0.113	0.128	0.108	0.125	0.134	0.123	<p>Boxplot of Dimension 22</p>	PASSED
0.125													
0.119													
0.125													
0.124													
0.113													
0.128													
0.108													
0.125													
0.134													
0.123													

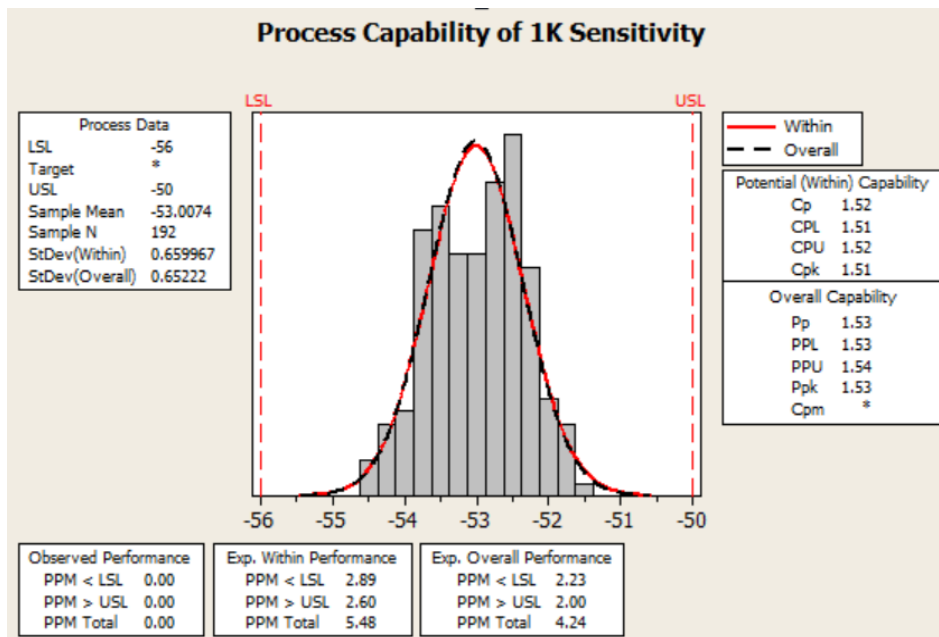
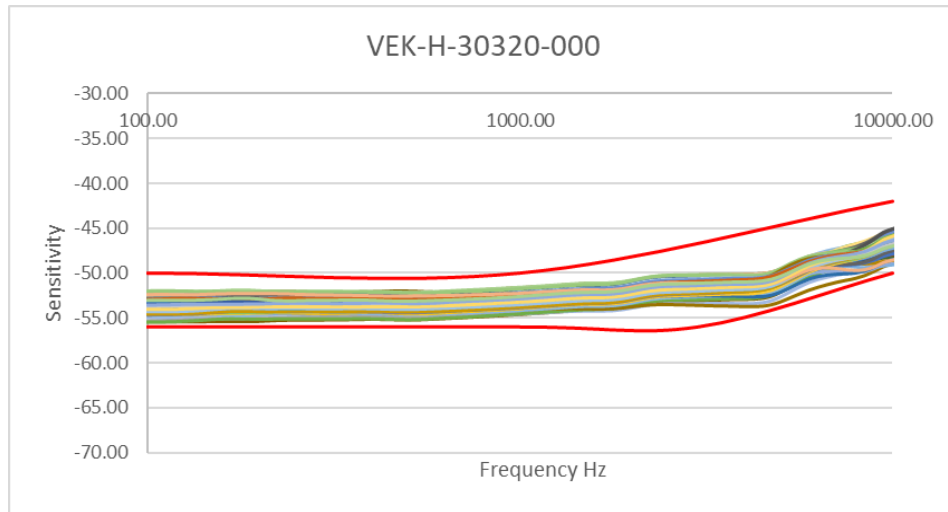
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<u>Dim No.</u>	<u>Measurements (mm)</u>	<u>Graph</u>	<u>Results</u>																				
23	<table border="1"> <tr><td>3.289</td><td>3.307</td></tr> <tr><td>3.294</td><td>3.299</td></tr> <tr><td>3.301</td><td>3.291</td></tr> <tr><td>3.296</td><td>3.293</td></tr> <tr><td>3.306</td><td>3.305</td></tr> <tr><td>3.299</td><td>3.303</td></tr> <tr><td>3.295</td><td>3.297</td></tr> <tr><td>3.322</td><td>3.301</td></tr> <tr><td>3.300</td><td>3.303</td></tr> <tr><td>3.302</td><td>3.293</td></tr> </table>	3.289	3.307	3.294	3.299	3.301	3.291	3.296	3.293	3.306	3.305	3.299	3.303	3.295	3.297	3.322	3.301	3.300	3.303	3.302	3.293	<p>Boxplot of Dimension 23</p>	PASSED
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24	<table border="1"> <tr><td>29.873</td></tr> <tr><td>30.280</td></tr> <tr><td>30.342</td></tr> <tr><td>30.357</td></tr> <tr><td>29.968</td></tr> <tr><td>29.916</td></tr> <tr><td>30.031</td></tr> <tr><td>29.616</td></tr> <tr><td>30.056</td></tr> <tr><td>29.861</td></tr> </table>	29.873	30.280	30.342	30.357	29.968	29.916	30.031	29.616	30.056	29.861	<p>Boxplot of Dimension 24</p>	PASSED										
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FUNCTIONAL DATA:

- Functional data are Passed and Comparable.



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