



## Product Change Notification

Current Date: 18-Nov-2015

## TE Connectivity

Product Change Notification: P-15-011639

PCN Date: 14-MAY-15

TE would like to inform you of the following change(s) to the listed TE Connectivity Product. In case of any further questions about this change(s), please contact your TE Connectivity Sales Engineer. Affected part, drawing and/or specification numbers are listed on the attached sheet(s).

## General Product Description:

Single Wire Seal

## Description of Changes

North America customers only - TE Connectivity is informing you of a new capacity mold to produce the below listed PN. The new mold will be located at TE Pegg Road facility in NC. Please contact your TE Sales Engineer or Customer Service Representative if you have additional questions.

## Reason for Changes:

Product improvement. Dear North America customer, as a result of our continuous strive for improving our delivery and meet our customers' demand needs, we hereby inform you about the addition of new capacity mold that will support North America customers only. If you require a PPAP, please contact your TE Sales Engineer so that one can be requested on your behalf. SAP team, please do not place delivery block on this PN so as not to interrupt existing deliveries.

## Estimated Dates:

Last Order Date (Obsolete Parts Only):

First Date To Ship (Changed Parts Only):

05-OCT-2015

Last Ship Date (Obsolete Parts Only):

Last Date for Mixed Shipments: (Changed Parts Only):

No Mixed Shipments

## Part Number(s) being Modified:

Part Number	Part Discontinued per PCN	Customer Drawing	Alias Part Number (s)	Substitute Part Number	Substitute Alias Part Number(s)	Description Of Difference
<a href="#">964972-1</a>	NO					

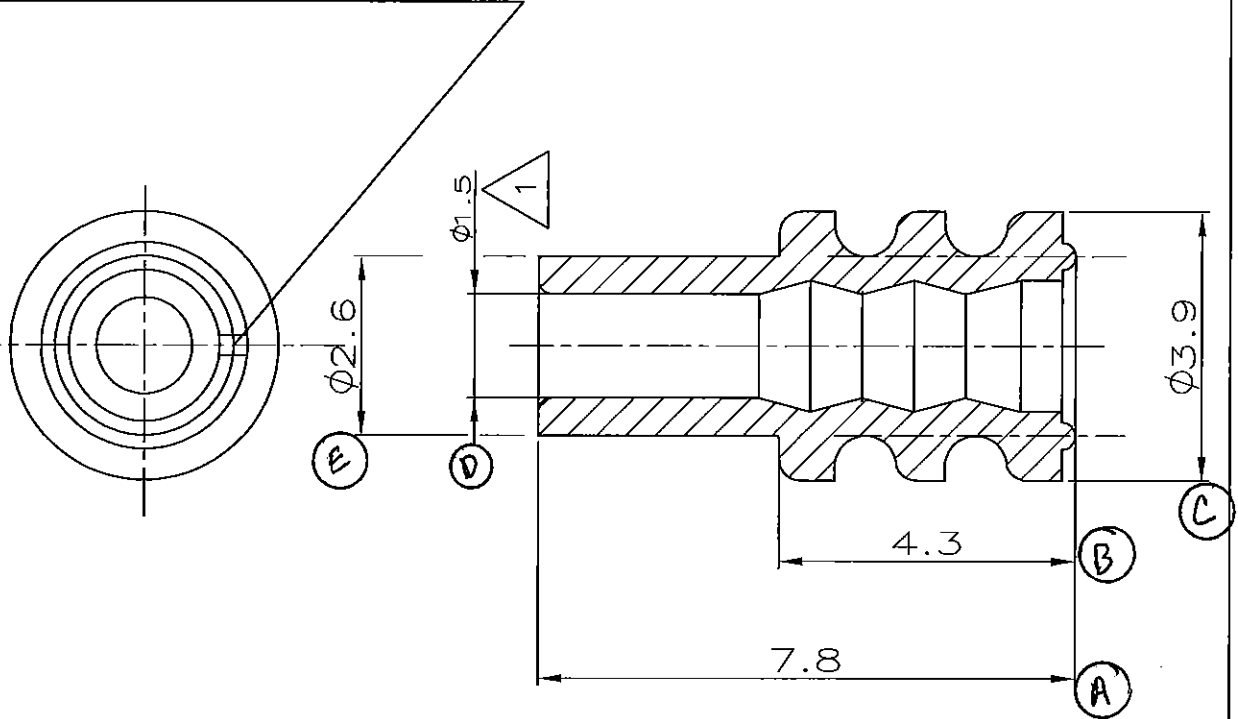
WAR NR. PASSEND ZU	LOC	DIST	REVISIONS			DATE	DWN	APVD
	A1		P	LTR	ÄNDERUNGEN DESCRIPTION BESCHREIBUNG			
VERWENDET FÜR			A2	REVISED PER ECO-11-005150		21MAR11	RK	HMR

ÄNDERUNGEN, DIE DEM TECHNISCHEN FORTSCHRITT DIENEN, BEHALTEN WIR UNS VOR



M 1:1

wahlweise unterbrochen



1 Für Isolationsø 1.9-2.4mm (1mm<sup>2</sup> und 1.5mm<sup>2</sup> FLR)

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964972-1	SILIKON SHORE A 50' lubriziert	gelb
BESTELL-NR.	WERKSTOFF	OBERFLÄCHE FARBE

DIMENSIONS: MASSENVHEITEN mm TOLERANCES UNLESS OTHERWISE SPECIFIED: ALLGEMEINTOLERANZEN 0 PLC ± - 1 PLC ± 0.2 mm 2 PLC ± - 3 PLC ± - 4 PLC ± - ANGLES / WINKEL ± -	DWN R. Schäfer 01-Apr-96	MATERIAL SILIKON	FINISH OBERFLÄCHE/FARBE -
	CHK U. Münk 01-Apr-96		
	APVD -	NAME Einzelleiterdichtung für Flachkontakt u. Flachstecker 1,5mm (Mikro-Timer 2 Kontaktsystem)	
	PRODUCT SPEC PRODUKTSPEZ. -	SIZE A4	RESTRICTED TO NUR FUER -
	APPLICATION SPEC VERARBEITUNGSSPEZ. -	CAGE CODE 00779	DRAWING NO ZEICHNUNGS-NR. G=964972
	WEIGHT GEWICHT -	CUSTOMER DRAWING/KUNDENZEICHNUNG	
		SCALE MASSSTAB 10:1	SHEET BLATT 1 OF VON 1
			REV A2

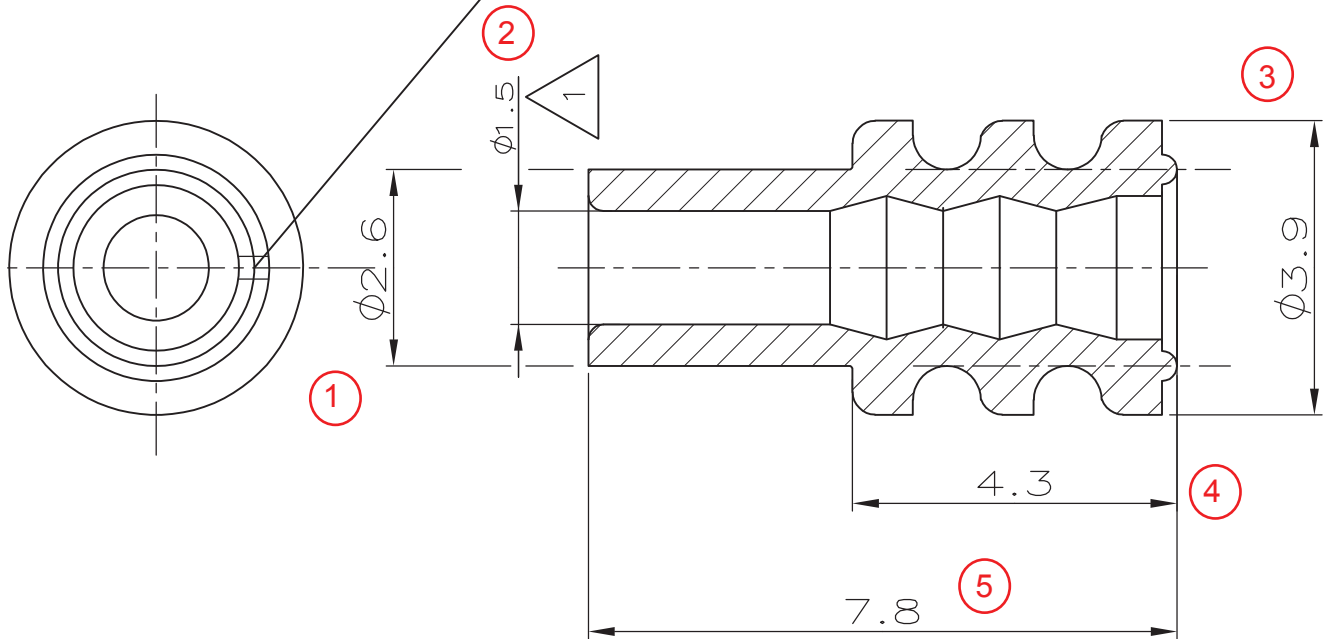
WAR NR. PASSEND ZU	LOC A1	DIST —	REVISIONS			DATE	DWN	APVD
			P	LTR	AENDERUNGEN DESCRIPTION BESCHREIBUNG	21MAR11	RK	HMR
VERWENDET FÜR			A2		REVISED PER ECO-11-005150			

ÄNDERUNGEN, DIE DEM TECHNISCHEN FORTSCHRITT DIENEN, BEHALTEN WIR UNS VOR



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wahlweise unterbrochen



1 Für Isolations $\phi$  1.9–2.4mm (1mm<sup>2</sup> und 1.5mm<sup>2</sup> FLR)

964972-1	SILIKON SHORE A 50° lubriziert	gelb
BESTELL-NR.	WERKSTOFF	OBERFLÄCHE FARBE

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DIMENSIONS: MASSENEHTEIN mm  TOLERANCES UNLESS OTHERWISE SPECIFIED: ALLGEMEINTOLERANZEN  0 PLC ± - 1 PLC ± 0.2 mm 2 PLC ± - 3 PLC ± - 4 PLC ± - ANGLES /WINKEL ± -	DWN R. Schäfer 01-Apr-96	MATERIAL SILIKON	FINISH OBERFLAECHE/FARBE -
	CHK U. Münk 01-Apr-96	TE Connectivity	
APVD -	NAME Einzelleiterdichtung für Flachkontakt u. Flachstecker 1,5mm (Mikro-Timer 2 Kontaktsystem)		
PRODUCT SPEC PRODUKTSPEZ. -	SIZE A4	CAGE CODE 00779	DRAWING NO ZEICHNUNGS-NR. G-964972
APPLICATION SPEC VERARBEITUNGSSPEZ. -	WEIGHT GEWICHT -	RESTRICTED TO NUR FÜR -	
CUSTOMER DRAWING/KUNDENZEICHNUNG		SCALE MASSTAB 10:1	SHEET BLATT 1 OF VON 1
		REV A2	

	C1	C2	C3	C4	C5
	<b>7.80</b>	<b>4.30</b>	<b>3.90</b>	<b>1.50</b>	<b>2.60</b>
1	7.765	4.299	3.825	1.488	2.646
2	7.773	4.307	3.829	1.488	2.640
3	7.783	4.299	3.832	1.488	2.632
4	7.810	4.314	3.836	1.486	2.634
5	7.803	4.324	3.833	1.487	2.622
6	7.847	4.380	3.833	1.491	2.641
7	7.824	4.339	3.833	1.491	2.641
8	7.780	4.317	3.831	1.488	2.636
9	7.778	4.316	3.822	1.484	2.637
10	7.775	4.304	3.826	1.491	2.630
11	7.815	4.346	3.830	1.484	2.641
12	7.770	4.305	3.829	1.484	2.643
13	7.788	4.329	3.831	1.486	2.646
14	7.788	4.303	3.831	1.486	2.645
15	7.798	4.309	3.831	1.485	2.631
16	7.801	4.316	3.829	1.487	2.634
17	7.820	4.347	3.831	1.489	2.630
18	7.803	4.330	3.821	1.487	2.634
19	7.790	4.312	3.822	1.481	2.632
20	7.767	4.304	3.816	1.484	2.629
21	7.808	4.332	3.829	1.481	2.625
22	7.792	4.326	3.829	1.489	2.649
23	7.767	4.300	3.829	1.487	2.643
24	7.805	4.336	3.835	1.487	2.645
25	7.783	4.318	3.834	1.486	2.640
26	7.786	4.313	3.832	1.486	2.648
27	7.777	4.295	3.834	1.488	2.631
28	7.772	4.304	3.828	1.489	2.627
29	7.793	4.324	3.826	1.488	2.627

	C1	C2	C3	C4	C5
	<b>7.80</b>	<b>4.30</b>	<b>3.90</b>	<b>1.50</b>	<b>2.60</b>
30	7.783	4.316	3.822	1.484	2.632
31	7.794	4.321	3.827	1.493	2.621
32	7.775	4.294	3.825	1.492	2.625
33	7.776	4.300	3.833	1.491	2.645
34	7.827	4.357	3.833	1.492	2.651
35	7.802	4.338	3.837	1.492	2.645
36	7.762	4.293	3.835	1.494	2.640
37	7.824	4.346	3.830	1.490	2.640
38	7.796	4.316	3.838	1.496	2.634
39	7.818	4.347	3.837	1.493	2.639
40	7.795	4.313	3.822	1.494	2.626
41	7.780	4.296	3.813	1.493	2.642
42	7.779	4.312	3.824	1.491	2.634
43	7.779	4.308	3.828	1.491	2.637
44	7.770	4.310	3.824	1.490	2.637
45	7.789	4.333	3.832	1.493	2.639
46	7.788	4.327	3.838	1.491	2.635
47	7.776	4.307	3.824	1.488	2.626
48	7.778	4.293	3.832	1.490	2.630
49	7.779	4.302	3.826	1.489	2.638
50	7.777	4.315	3.835	1.491	2.645
51	7.778	4.304	3.827	1.493	2.631
52	7.790	4.303	3.825	1.493	2.635
53	7.795	4.326	3.829	1.492	2.635
54	7.788	4.313	3.837	1.490	2.635
55	7.823	4.340	3.841	1.493	2.643
56	7.779	4.287	3.837	1.494	2.626
57	7.776	4.299	3.830	1.493	2.641
58	7.794	4.305	3.836	1.496	2.648

	C1	C2	C3	C4	C5
	<b>7.80</b>	<b>4.30</b>	<b>3.90</b>	<b>1.50</b>	<b>2.60</b>
59	7.765	4.311	3.832	1.490	2.644
60	7.763	4.297	3.828	1.491	2.634
61	7.794	4.336	3.823	1.494	2.625
62	7.805	4.339	3.829	1.497	2.626
63	7.781	4.323	3.827	1.496	2.630
64	7.782	4.300	3.827	1.490	2.618
65	7.788	4.322	3.829	1.495	2.647
66	7.794	4.329	3.837	1.495	2.643
67	7.788	4.312	3.838	1.497	2.647
68	7.781	4.311	3.834	1.493	2.647
69	7.777	4.331	3.834	1.493	2.633
70	7.792	4.330	3.825	1.497	2.628
71	7.780	4.308	3.819	1.493	2.619
72	7.811	4.342	3.827	1.494	2.626
73	7.792	4.321	3.825	1.491	2.638
74	7.787	4.311	3.831	1.491	2.642
75	7.784	4.316	3.836	1.490	2.641
76	7.794	4.326	3.832	1.493	2.640
77	7.815	4.338	3.838	1.493	2.648
78	7.790	4.335	3.837	1.496	2.633
79	7.798	4.325	3.834	1.492	2.635
80	7.749	4.289	3.825	1.494	2.618
81	7.772	4.292	3.821	1.492	2.635
82	7.803	4.332	3.829	1.496	2.631
83	7.781	4.314	3.835	1.491	2.641
84	7.774	4.307	3.834	1.493	2.641
85	7.798	4.328	3.835	1.493	2.641
86	7.790	4.326	3.836	1.495	2.634
87	7.787	4.314	3.834	1.493	2.633

	C1	C2	C3	C4	C5
	<b>7.80</b>	<b>4.30</b>	<b>3.90</b>	<b>1.50</b>	<b>2.60</b>
<b>88</b>	7.776	4.292	3.830	1.491	2.619
<b>89</b>	7.808	4.337	3.830	1.493	2.648
<b>90</b>	7.784	4.311	3.833	1.493	2.636
<b>91</b>	7.752	4.273	3.811	1.494	2.627
<b>92</b>	7.768	4.312	3.829	1.491	2.636
<b>93</b>	7.789	4.349	3.832	1.494	2.627
<b>94</b>	7.797	4.335	3.833	1.494	2.632
<b>95</b>	7.800	4.318	3.831	1.494	2.629
<b>96</b>	7.787	4.293	3.836	1.492	2.629
<b>97</b>	7.775	4.308	3.828	1.493	2.646
<b>98</b>	7.754	4.299	3.835	1.497	2.641
<b>99</b>	7.828	4.342	3.839	1.494	2.645
<b>100</b>	7.772	4.308	3.827	1.491	2.635
<b>101</b>	7.793	4.330	3.823	1.495	2.628
<b>102</b>	7.788	4.328	3.825	1.493	2.614
<b>103</b>	7.788	4.310	3.827	1.491	2.627
<b>104</b>	7.775	4.281	3.833	1.493	2.624
<b>105</b>	7.774	4.300	3.830	1.490	2.637
<b>106</b>	7.794	4.326	3.839	1.493	2.640
<b>107</b>	7.778	4.310	3.835	1.492	2.626
<b>108</b>	7.798	4.328	3.834	1.493	2.651
<b>109</b>	7.814	4.345	3.834	1.494	2.636
<b>110</b>	7.791	4.321	3.838	1.493	2.631
<b>111</b>	7.796	4.315	3.823	1.493	2.615
<b>112</b>	7.785	4.288	3.824	1.494	2.617
<b>113</b>	7.774	4.293	3.832	1.492	2.635
<b>114</b>	7.782	4.308	3.837	1.495	2.641
<b>115</b>	7.781	4.307	3.833	1.494	2.637
<b>116</b>	7.786	4.312	3.852	1.492	2.635

	C1	C2	C3	C4	C5
	<b>7.80</b>	<b>4.30</b>	<b>3.90</b>	<b>1.50</b>	<b>2.60</b>
<b>117</b>	7.791	4.328	3.834	1.475	2.634
<b>118</b>	7.808	4.325	3.834	1.492	2.619
<b>119</b>	7.777	4.299	3.834	1.487	2.633
<b>120</b>	7.770	4.271	3.831	1.493	2.612
<b>121</b>	7.788	4.315	3.856	1.493	2.629
<b>122</b>	7.750	4.279	3.864	1.496	2.634
<b>123</b>	7.780	4.310	3.856	1.493	2.625
<b>124</b>	7.779	4.309	3.867	1.491	2.643
<b>125</b>	7.789	4.331	3.870	1.497	2.640
<b>126</b>	7.794	4.321	3.852	1.494	2.625
<b>127</b>	7.772	4.301	3.858	1.492	2.629
<b>128</b>	7.775	4.286	3.851	1.494	2.628
<b>129</b>	7.802	4.324	3.865	1.487	2.647
<b>130</b>	7.765	4.294	3.861	1.489	2.639
<b>131</b>	7.793	4.318	3.849	1.495	2.625
<b>132</b>	7.768	4.302	3.857	1.494	2.631
<b>133</b>	7.791	4.327	3.859	1.489	2.631
<b>134</b>	7.803	4.320	3.844	1.494	2.626
<b>135</b>	7.786	4.293	3.850	1.488	2.618
<b>136</b>	7.792	4.290	3.851	1.490	2.625
<b>137</b>	7.774	4.304	3.863	1.492	2.645
<b>138</b>	7.799	4.330	3.859	1.495	2.639
<b>139</b>	7.780	4.311	3.867	1.494	2.645
<b>140</b>	7.767	4.300	3.860	1.491	2.637
<b>141</b>	7.786	4.317	3.856	1.492	2.628
<b>142</b>	7.783	4.320	3.844	1.493	2.613
<b>143</b>	7.774	4.295	3.851	1.495	2.624
<b>144</b>	7.766	4.281	3.841	1.495	2.617
<b>145</b>	7.780	4.313	3.860	1.494	2.635



	<b>C1</b>	<b>C2</b>	<b>C3</b>	<b>C4</b>	<b>C5</b>
	<b>7.80</b>	<b>4.30</b>	<b>3.90</b>	<b>1.50</b>	<b>2.60</b>
<b>146</b>	7.764	4.306	3.859	1.494	2.631
<b>147</b>	7.780	4.303	3.858	1.494	2.639
<b>148</b>	7.773	4.302	3.870	1.494	2.644
<b>149</b>	7.811	4.331	3.866	1.491	2.634
<b>150</b>	7.789	4.305	3.844	1.493	2.615
<b>151</b>	7.765	4.298	3.848	1.494	2.613
<b>152</b>	7.784	4.298	3.855	1.490	2.620
<b>153</b>	7.774	4.314	3.859	1.492	2.625
<b>154</b>	7.793	4.311	3.870	1.495	2.644
<b>155</b>	7.791	4.313	3.867	1.492	2.638
<b>156</b>	7.781	4.322	3.868	1.493	2.627
<b>157</b>	7.825	4.348	3.866	1.493	2.635
<b>158</b>	7.806	4.330	3.854	1.488	2.628
<b>159</b>	7.793	4.314	3.857	1.495	2.622
<b>160</b>	7.837	4.350	3.860	1.497	2.625





## DESIGN VERIFICATION PLAN AND REPORT

DVPR Number:		Dept Number:	7294
Plan Date:	22-Sep-2015	Plan Originator:	Sam Mankaryos / 336-665-3255
COMPONENT/ASSEMBLY	P/N	UPG Number	Concurrence
Single Wire Seal for 1.5mm Contact System	964972-1 (2M5T-14603-CA)		Manager Approval
Model Year	Applications	ODD Box	Source
		TE Connectivity	TE Connectivity
			Report Date
			11-Nov-2015
			Reporting Engineer
			Sam Mankaryos

<b>PROCEDURE</b> Specify the governing Test Procedure or Standard	<b>TEST DESCRIPTION</b> Provide a brief description of each test.	<b>ACCEPTANCE CRITERIA</b> Specify test targets and/or pass/fail criteria, e.g., cycles, miles, volts, minimum value, no failure, etc.	<b>TARGET REQUIREMENTS</b> State required Reliability or Probability of meeting acceptance criteria at 90% Confidence, e.g., R90, C90, P80 C90, etc.	<b>TEST STAGE</b> ED = Engineering Development DV = Design Validation PV = Production Validation CC = Continuing Conformance	<b>SAMPLE TYPE</b> A = Prototype (hand made) B = Prototype (tooled) C = Program level D = Initial production E = Full volume production	<b>SAMPLES TESTED</b> List quantity tested, sample type, and design phase, e.g. I, II, etc.	<b>ACTUAL RESULTS</b> List results in terms of Reliability of Probability as appropriate, e.g., R85 C90, P70 C90, etc.	<b>NOTES</b> Describe or elaborate on unique criteria, results, etc.
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TEST PLAN							TEST REPORT							NOTES	
Item No.	Procedure or Standard	Test Description	Acceptance Criteria	Target Requirements	Test Responsibility	Test Stage	Sample		Timing		Samples Tested				Actual Results
							Qty	Type	Start	Complete	Qty	Type	Phase		
<b>Mold 1046822 Capacity Tool - Pegg Road, Greensboro, NC</b>															
<b>Start of USCAR-2, Revision 6 Dated August 2012</b>															
<b>Start of Required Performance and Durability Tests (Capacity Tool - Cable Seal)</b>															
1	<b>Stand Alone Pressure / Vacuum - Test Sequence W</b>													Test # 20150612ACS 16AWG wire with OD of 2.25mm	
1	a	USCAR 2 5.1.8	Visual Inspection	Inspect for defects	No defect	TE	PV	10	E	25Sep15	06Oct15	10	E	Pass	
1	b	USCAR 2 5.1.7	Connector cycling	Conditioning	No failures	TE	PV	10	E	25Sep15	06Oct15	10	E	Complete	
1	c	USCAR 2 5.5.1	Insulation Resistance	R > 100 Mohms @ 500 VDC	No failures	TE	PV	10	E	25Sep15	06Oct15	10	E	Pass >50GΩ	
1	d	USCAR 2 5.6.6	Pressure / Vacuum Leak	No visible bubbles @ 7psi	No failures	TE	PV	10	E	25Sep15	06Oct15	10	E	PASS	Do not unmate Connectors yet
1	e	USCAR 2 5.5.1	Insulation Resistance	R > 100 Mohms @ 500 VDC	No failures	TE	PV	10	E	25Sep15	06Oct15	10	E	Pass >50GΩ	
1	f	USCAR 2 5.6.6	Heat Age 70hrs @ 125C	Conditioning	No failures	TE	PV	10	E	25Sep15	06Oct15	10	E	Complete	

TEST PLAN							TEST REPORT								NOTES	
Item No.	Procedure or Standard	Test Description	Acceptance Criteria	Target Requirements	Test Responsibility	Test Stage	Sample		Timing		Samples Tested			Actual Results		
							Qty	Type	Start	Complete	Qty	Type	Phase			
1	g	USCAR 2 5.5.1	Insulation Resistance	R > 100 Mohms @ 500 VDC	No failures	TE	PV	10	E	25Sep15	06Oct15	10	E		Pass >50GΩ	
1	h	USCAR 2 5.6.6	Pressure / Vacuum Leak	No visible bubbles @ 4psi	No failures	TE	PV	10	E	25Sep15	06Oct15	10	E		PASS	Do not unmate Connectors yet
1	i	USCAR 2 5.5.1	Insulation Resistance	R > 100 Mohms @ 500 VDC	No failures	TE	PV	10	E	25Sep15	06Oct15	10	E		Pass >50GΩ	
1	j	USCAR 2 5.1.8	Visual Inspection	Inspect for defects	No defect	TE	PV	10	E	25Sep15	06Oct15	10	E		PASS	
<b>End of Required Performance and Durability Tests (Capacity Tool - Cable Seal)</b>																



## DESIGN VERIFICATION PLAN AND REPORT

DVPR Number:		Dept Number:	7294
Plan Date:	22-Sep-2015	Plan Originator:	Sam Mankaryos / 336-665-3255
CONCURRENCE		Manager Approval	
Source	TE Connectivity	Report Date	17-Nov-2015
Reporting Engineer	Sam Mankaryos		

COMPONENT/ASSEMBLY	P/N	UPG Number	
Single Wire Seal for 1.5mm Contact System	964972-1		
Model Year	Applications	ODD Box	
		TE Connectivity	

<b>PROCEDURE</b> Specify the governing Test Procedure or Standard	<b>TEST DESCRIPTION</b> Provide a brief description of each test.	<b>ACCEPTANCE CRITERIA</b> Specify test targets and/or pass/fail criteria, e.g., cycles, miles, volts, minimum value, no failure, etc.	<b>TARGET REQUIREMENTS</b> State required Reliability or Probability of meeting acceptance criteria at 90% Confidence, e.g., R90, C90, P80 C90, etc.	<b>TEST STAGE</b> ED = Engineering Development DV = Design Validation PV = Production Validation CC = Continuing Conformance	<b>SAMPLE TYPE</b> A = Prototype (hand made) B = Prototype (tooled) C = Program level D = Initial production E = Full volume production	<b>SAMPLES TESTED</b> List quantity tested, sample type, and design phase, e.g. I, II, etc.	<b>ACTUAL RESULTS</b> List results in terms of Reliability of Probability as appropriate, e.g., R85 C90, P70 C90, etc.	<b>NOTES</b> Describe or elaborate on unique criteria, results, etc.
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TEST PLAN								TEST REPORT							NOTES
Item No.	Procedure or Standard	Test Description	Acceptance Criteria	Target Requirements	Test Responsibility	Test Stage	Sample		Timing		Samples Tested			Actual Results	
							Qty	Type	Start	Complete	Qty	Type	Phase		
<b>Mold 1046822 Capacity Tool - Pegg Road, Greensboro, NC</b>															
<b>Start of LV214, PG 23 Group 2</b>															
1	<b>Water Leak Tightness - Group 2</b>														
1 a	LV214 PG23 E0.1	Visual Inspection	Inspect for defects DIN EN 60512-1-1	No defect	TE	DV	5	E	16Oct15	04Nov15	5	E		Pass	Test # 20150295ACL using 16AWG TXL wire
1 b	LV214 PG23 B19.3	Aging in Dry Heat (plugged state) 120 Hrs @ 130°C	Conditioning DIN EN 60068-2-2 Test B	No failures	TE	DV	5	E	16Oct15	04Nov15	5	E		Complete	
1 c	LV214 PG23 B19.3	Temperature Shock 144 cycles (1 cycle = 15mins @ -40°C / 15 mins @ 130°C), 10s Max acclimization period	Conditioning DIN EN 60068-2-14 Test Na	No failures	TE	DV	5	E	16Oct15	04Nov15	5	E		Complete	
1 d	LV214 PG23 E0.1	Visual Inspection	Inspect for defects DIN EN 60512-1-1	No defect	TE	DV	5	E	16Oct15	04Nov15	5	E		Pass	

TEST PLAN Number: DVPR_LV214_964972-1_US_Localization_20151117.xls							TEST REPORT							NOTES	
Item No.	Procedure or Standard	Test Description	Acceptance Criteria	Target Requirements	Test Responsibility	Test Stage	Sample		Timing		Samples Tested				Actual Results
							Qty	Type	Start	Complete	Qty	Type	Phase		
1 e	LV214 PG23 B23.1	Immersion with Pressure Difference a) Normal Pressure b) -10 kPa, hold time 5 mins. c) -50 kPa, hold time 5 mins d) Normal Pressure Change in pressure 10kPa/min	Conditioning DIN EN 60512-14-15 DIN EN 60068-2-13	No failures	TE	DV	5	E	16Oct15	04Nov15	5	E		Pass	
1 f	LV214 PG23 B23.2	Wire Movement during Immersion with Pressure Difference a) -10 kPa, hold time 5 mins. b) -50 kPa, hold time 5 mins Change in pressure 10kPa/min	Conditioning DIN EN 60512-14-15 DIN EN 60068-2-13	No failures	TE	DV	5	E	16Oct15	04Nov15	5	E		Pass	
1 g	LV214 PG23 E0.1	Visual Inspection	Inspect for defects DIN EN 60512-1-1	No defect	TE	DV	5	E	16Oct15	04Nov15	5	E		Pass	
1 h	LV214 PG23 B23.3	Thermal Shock 5 cycles (1 cycle = 30mins @ 120°C air temp / 15 mins @ 0°C 5% NaCl solution)	Conditioning	No failures	TE	DV	5	E	16Oct15	04Nov15	5	E		Complete	
1 i	LV214 PG23 E0.1	Visual Inspection	Inspect for defects DIN EN 60512-1-1	No defect	TE	DV	5	E	16Oct15	04Nov15	5	E		Pass	
1 j	LV214 PG23 B23.4	Degree of Protection Test / Pressure Washer - IPX9K - duration: 15sec - distance, nozzle - DUT: 100-150mm - pressure: 80bar - temperature: 80°C - performed 3 times	Conditioning DIN 40050-9	No defect	TE	DV	5	E	16Oct15	04Nov15	5	E		Complete	

TEST PLAN							TEST REPORT								NOTES	
Item No.	Procedure or Standard	Test Description	Acceptance Criteria	Target Requirements	Test Responsibility	Test Stage	Sample		Timing		Samples Tested			Actual Results		
							Qty	Type	Start	Complete	Qty	Type	Phase			
1	k	LV214 PG23 E0.3	Insulation Resistance	R ≥ 100MΩ; 500V DC DIN EN 60512-1-1	No defect	TE	DV	5	E	16Oct15	04Nov15	5	E		Pass	
1	l	LV214 PG23 E0.1	Visual Inspection	Inspect for defects DIN EN 60512-1-1	No defect	TE	DV	5	E	16Oct15	04Nov15	5	E		Pass	

**End of LV214, PG 23 Group 2**



# DESIGN VERIFICATION PLAN AND REPORT

DVPR Number:	Dept Number: 7294
Plan Date: 22-Sep-2015	Plan Originator: Sam Mankaryos / 336-665-3255
Concurrence <i>Sam Mankaryos 10/30/15</i> JPUREV2	Manager Approval
Source TE Connectivity	Report Date
	Reporting Engineer Sam Mankaryos

COMPONENT/ASSEMBLY Single Wire Seal for 1.5mm Contact System	P/N 964972-1 (2M5T-14603-CA)	UPG Number
Model Year	Applications TE Connectivity	ODD Box

<b>PROCEDURE</b> Specify the governing Test Procedure or Standard	<b>TEST DESCRIPTION</b> Provide a brief description of each test.	<b>ACCEPTANCE CRITERIA</b> Specify test targets and/or pass/fail criteria, e.g., cycles, miles, volts, minimum value, no failure, etc.	<b>TARGET REQUIREMENTS</b> State required Reliability or Probability of meeting acceptance criteria at 90% Confidence, e.g., R90, C90, P80 C90, etc.	<b>TEST STAGE</b> ED = Engineering Development DV = Design Validation PV = Production Validation CC = Continuing Conformance	<b>SAMPLE TYPE</b> A = Prototype (hand made) B = Prototype (tooled) C = Program level D = Initial production E = Full volume production	<b>SAMPLES TESTED</b> List quantity tested, sample type, and design phase, e.g. I, II, etc.	<b>ACTUAL RESULTS</b> List results in terms of Reliability of Probability as appropriate, e.g., R85 C90, P70 C90, etc.	<b>NOTES</b> Describe or elaborate on unique criteria, results, etc.
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TEST PLAN						TEST REPORT							NOTES		
Item No.	Procedure or Standard	Test Description	Acceptance Criteria	Target Requirements	Test Responsibility	Test Stage	Sample		Timing		Samples Tested			Actual Results	
							Qty	Type	Start	Complete	Qty	Type			Phase
<b>Mold 1046822 Capacity Tool - Pegg Road, Greensboro, NC</b>															
<b>Start of USCAR-2, Revision 6 Dated August 2012</b>															
<b>Start of Required Performance and Durability Tests (Capacity Tool - Cable Seal)</b>															
1		<b>Stand Alone Pressure / Vacuum - Test Sequence W</b>													
1	a	USCAR 2 5.1.8	Visual Inspection	Inspect for defects	No defect	TE	PV	10	E						
1	b	USCAR 2 5.1.7	Connector cycling	Conditioning	No failures	TE	PV	10	E						
1	c	USCAR 2 5.5.1	Insulation Resistance	R > 100 Mohms @ 500 VDC	No failures	TE	PV	10	E						
1	d	USCAR 2 5.6.6	Pressure / Vacuum Leak	No visible bubbles @ 7psi	No failures	TE	PV	10	E					Do not unmate Connectors yet	
1	e	USCAR 2 5.5.1	Insulation Resistance	R > 100 Mohms @ 500 VDC	No failures	TE	PV	10	E						
1	f	USCAR 2 5.6.6	Heat Age 70hrs @ 125C	Conditioning	No failures	TE	PV	10	E						
1	g	USCAR 2 5.5.1	Insulation Resistance	R > 100 Mohms @ 500 VDC	No failures	TE	PV	10	E						



TEST PLAN							TEST REPORT							NOTES	
Item No.	Procedure or Standard	Test Description	Acceptance Criteria	Target Requirements	Test Responsibility	Test Stage	Sample		Timing		Samples Tested				Actual Results
							Qty	Type	Start	Complete	Qty	Type	Phase		
1	h	USCAR 2 5.6.6	Pressure / Vacuum Leak	No visible bubbles @ 4psi	No failures	TE	PV	10	E						Do not unmate Connectors yet
1	i	USCAR 2 5.5.1	Insulation Resistance	R > 100 Mohms @ 500 VDC	No failures	TE	PV	10	E						
1	j	USCAR 2	Visual Inspection	Inspect for	No defect	TE	PV	10	E						
<b>End of Required Performance and Durability Tests (Capacity Tool - Cable Seal)</b>															



# Scan Request Form (Internal & external request)

Scan # (filled by TE)

Request type

Preliminary scan request

FOR\_EMEA\_085\_3\_2

## Request from:

Organization : Automotive NA  
 Contact name / surname Ron Fortner  
 e-mail address: ron.fortner@te.com  
 Phone number: 336-727-5942  
 Location : 67-60  
 Date : 10/8/2015

## Project Description :

Project number : M210  
 TE Control Report Nr.:  
 TE Tool & Die coordinator : David Murray  
 TE Product Engineer : Michael Lenis  
 Cost center (for TE request only):

## Part description:

TE Part Description : Wire Seal, 1.5 Mm MDP No  
 TE Part Number : 964972-1 TE Drawing Number : 964972  
 TE Part Nr. Revision : A6 TE Drawing Revision : A6  
 TE Tool Number : M1046822 Tool Type: Serial  
 Nber of mold cavities : 160 Process approval status \*: (27P... approved)  
 Production date:  
 Resin grade <sup>(1)</sup>: LSR (select material number for dual sourcing)

## Reason for request:

New mold  Resin change  Quality issue  
 Mold conditioning (loop number)  Modified Drawing  Mold transfer  
 Other (to be indicated in comment field)

Comments:

Parts to be scanned in Winston-Salem. PTA Lab Request Number 201509.070.

## Scan requested:

Number of scans requested:

No scan requested, template and inspection report only. See comments.

Specific scan request (features, part calibrated,...):

Create and apply template per production drawing. Create inspection report.

## Instructions:

This request has to be filled and:

1. Send the request (mail subject: "Preliminary scan request: Project # / PN #"), as a preliminary version (green fields have to be completed, except the ones with a \*), by e-mail 2 weeks before part molding to :

[indiadigitalmetrology@te.com](mailto:indiadigitalmetrology@te.com)

Tool & Die Coordinator, Purchasing

You will receive the by return the scan location.

2. Scan location: Winston Salem Defined by Digital Center India

3. As a final version (all green field completed), send the complete form by e-mail (mail subject: "Confirmed scan request: Project # / PN #") with the parts to be scanned to :

Mail: Todd Vogler  
 TE Connectivity USA  
 3800 Reidsville Rd  
 Winston Salem, NC 27101  
 Todd Vogler

e-mails: tvogler@te.com

<sup>(1)</sup> In case of several resins, one request has to be issued by resin

<sup>(2)</sup> Cavity number has to be indicated separated in different identified bags  
 Do not use a pen to mark the parts

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.1		CAVITY 4.2		CAVITY 4.3		CAVITY 4.4		CAVITY 4.5		CAVITY 4.6		CAVITY 4.7		CAVITY 4.8	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.765		7.773		7.783		7.810		7.803		7.847		7.824		7.790	
2		4.30	0.20	0.20	MAE	CT/VG	4.299		4.307		4.299		4.314		4.324		4.380		4.339		4.317	
3		3.90	0.20	0.20	MAE	CT/VG	3.825		3.829		3.832		3.836		3.833		3.833		3.833		3.831	
4		1.50	0.20	0.20	MAE	CT/VG	1.488		1.488		1.488		1.486		1.487		1.491		1.491		1.491	
5		2.60	0.20	0.20	MAE	SCOP	2.646		2.640		2.632		2.634		2.622		2.641		2.641		2.636	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.9		CAVITY 4.10		CAVITY 4.11		CAVITY 4.12		CAVITY 4.13		CAVITY 4.14		CAVITY 4.15		CAVITY 4.16	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.778		7.775		7.815		7.770		7.788		7.788		7.788		7.794	
2		4.30	0.20	0.20	MAE	CT/VG	4.316		4.304		4.346		4.305		4.329		4.303		4.308		4.316	
3		3.90	0.20	0.20	MAE	CT/VG	3.822		3.826		3.830		3.829		3.831		3.831		3.829		3.831	
4		1.50	0.20	0.20	MAE	CT/VG	1.484		1.491		1.484		1.484		1.486		1.486		1.487		1.489	
5		2.60	0.20	0.20	MAE	SCOP	2.637		2.630		2.641		2.643		2.646		2.645		2.631		2.634	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.17		CAVITY 4.18		CAVITY 4.19		CAVITY 4.20		CAVITY 4.21		CAVITY 4.22		CAVITY 4.23		CAVITY 4.24	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.820		7.803		7.790		7.767		7.808		7.792		7.767		7.805	
2		4.30	0.20	0.20	MAE	CT/VG	4.347		4.330		4.312		4.304		4.332		4.326		4.300		4.336	
3		3.90	0.20	0.20	MAE	CT/VG	3.821		3.822		3.816		3.829		3.829		3.829		3.829		3.835	
4		1.50	0.20	0.20	MAE	CT/VG	1.487		1.481		1.484		1.481		1.489		1.487		1.487		1.486	
5		2.60	0.20	0.20	MAE	SCOP	2.634		2.630		2.634		2.632		2.629		2.625		2.649		2.643	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.25		CAVITY 4.26		CAVITY 4.27		CAVITY 4.28		CAVITY 4.29		CAVITY 4.30		CAVITY 4.31		CAVITY 4.32	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.783		7.786		7.777		7.772		7.793		7.783		7.794		7.775	
2		4.30	0.20	0.20	MAE	CT/VG	4.318		4.313		4.295		4.305		4.324		4.316		4.321		4.294	
3		3.90	0.20	0.20	MAE	CT/VG	3.835		3.834		3.832		3.834		3.828		3.826		3.822		3.827	
4		1.50	0.20	0.20	MAE	CT/VG	1.486		1.488		1.489		1.488		1.488		1.484		1.484		1.492	
5		2.60	0.20	0.20	MAE	SCOP	2.640		2.648		2.631		2.627		2.627		2.632		2.621		2.625	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.33		CAVITY 4.34		CAVITY 4.35		CAVITY 4.36		CAVITY 4.37		CAVITY 4.38		CAVITY 4.39		CAVITY 4.40	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.776		7.827		7.802		7.762		7.824		7.796		7.818		7.795	
2		4.30	0.20	0.20	MAE	CT/VG	4.300		4.357		4.338		4.293		4.346		4.316		4.347		4.313	
3		3.90	0.20	0.20	MAE	CT/VG	3.825		3.833		3.833		3.837		3.830		3.838		3.837		3.822	
4		1.50	0.20	0.20	MAE	CT/VG	1.491		1.492		1.492		1.494		1.490		1.496		1.493		1.494	
5		2.60	0.20	0.20	MAE	SCOP	2.645		2.651		2.645		2.640		2.640		2.634		2.639		2.626	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.41		CAVITY 4.42		CAVITY 4.43		CAVITY 4.44		CAVITY 4.45		CAVITY 4.46		CAVITY 4.47		CAVITY 4.48	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.780		7.779		7.779		7.770		7.789		7.788		7.778		7.779	
2		4.30	0.20	0.20	MAE	CT/VG	4.296		4.312		4.308		4.310		4.333		4.327		4.303		4.293	
3		3.90	0.20	0.20	MAE	CT/VG	3.813		3.824		3.828		3.824		3.832		3.832		3.838		3.824	
4		1.50	0.20	0.20	MAE	CT/VG	1.493		1.491		1.491		1.490		1.493		1.491		1.488		1.490	
5		2.60	0.20	0.20	MAE	SCOP	2.642		2.634		2.637		2.637		2.639		2.635		2.626		2.630	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.49		CAVITY 4.50		CAVITY 4.51		CAVITY 4.52		CAVITY 4.53		CAVITY 4.54		CAVITY 4.55		CAVITY 4.56	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.779		7.777		7.778		7.790		7.795		7.788		7.823		7.779	
2		4.30	0.20	0.20	MAE	CT/VG	4.302		4.315		4.304		4.303		4.326		4.313		4.340		4.287	
3		3.90	0.20	0.20	MAE	CT/VG	3.832		3.835		3.827		3.825		3.829		3.837		3.814		3.837	
4		1.50	0.20	0.20	MAE	CT/VG	1.489		1.491		1.493		1.493		1.492		1.490		1.493		1.494	
5		2.60	0.20	0.20	MAE	SCOP	2.638		2.645		2.631		2.635		2.636		2.635		2.643		2.626	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.57		CAVITY 4.58		CAVITY 4.59		CAVITY 4.60		CAVITY 4.61		CAVITY 4.62		CAVITY 4.63		CAVITY 4.64	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.776		7.794		7.765		7.763		7.794		7.805		7.781		7.782	
2		4.30	0.20	0.20	MAE	CT/VG	4.299		4.305		4.311		4.297		4.336		4.339		4.323		4.300	
3		3.90	0.20	0.20	MAE	CT/VG	3.830		3.836		3.832		3.828		3.823		3.829		3.827		3.827	
4		1.50	0.20	0.20	MAE	CT/VG	1.489		1.491		1.493		1.493		1.492		1.490		1.493		1.494	
5		2.60	0.20	0.20	MAE	SCOP	2.641		2.648		2.644		2.634		2.625		2.626		2.630		2.618	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.65		CAVITY 4.66		CAVITY 4.67		CAVITY 4.68		CAVITY 4.69		CAVITY 4.70		CAVITY 4.71		CAVITY 4.72	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.788		7.794		7.788		7.794		7.788		7.781		7.777		7.792	
2		4.30	0.20	0.20	MAE	CT/VG	4.322		4.329		4.312		4.311		4.331		4.330		4.320		4.308	
3		3.90	0.20	0.20	MAE	CT/VG	3.829		3.837		3.838		3.834		3.834		3.834		3.819		3.827	
4		1.50	0.20	0.20	MAE	CT/VG	1.493		1.496		1.490		1.491		1.494		1.497		1.496		1.490	
5		2.60	0.20	0.20	MAE	SCOP	2.647		2.643		2.647		2.647		2.633		2.628		2.619		2.626	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.73		CAVITY 4.74		CAVITY 4.75		CAVITY 4.76		CAVITY 4.77		CAVITY 4.78		CAVITY 4.79		CAVITY 4.80	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.792		7.787		7.784		7.794		7.815		7.790		7.780		7.749	
2		4.30	0.20	0.20	MAE	CT/VG	4.342		4.321		4.311		4.316		4.326		4.338		4.335		4.325	
3		3.90	0.20	0.20	MAE	CT/VG	3.825		3.831		3.826		3.832		3.838		3.837		3.834		3.825	
4		1.50	0.20	0.20	MAE	CT/VG	1.491		1.491		1.491		1.490		1.493		1.493		1.496		1.494	
5		2.60	0.20	0.20	MAE	SCOP	2.638		2.642		2.641		2.640		2.648		2.633		2.635		2.618	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.81		CAVITY 4.82		CAVITY 4.83		CAVITY 4.84		CAVITY 4.85		CAVITY 4.86		CAVITY 4.87		CAVITY 4.88	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.772		7.803		7.781		7.774		7.798		7.790		7.787		7.776	
2		4.30	0.20	0.20	MAE	CT/VG	4.289		4.292		4.332		4.314		4.307		4.328		4.326		4.314	
3		3.90	0.20	0.20	MAE	CT/VG	3.821		3.829		3.835		3.834		3.835		3.837		3.834		3.830	
4		1.50	0.20	0.20	MAE	CT/VG	1.492		1.496		1.491		1.493		1.493		1.495		1.493		1.491	
5		2.60	0.20	0.20	MAE	SCOP	2.635		2.631		2.641		2.641		2.641		2.634		2.633		2.619	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.89		CAVITY 4.90		CAVITY 4.91		CAVITY 4.92		CAVITY 4.93		CAVITY 4.94		CAVITY 4.95		CAVITY 4.96	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.808		7.784		7.752		7.768		7.789		7.797		7.800		7.787	
2		4.30	0.20	0.20	MAE	CT/VG	4.292		4.337		4.311		4.312		4.349		4.335		4.318		4.293	
3		3.90	0.20	0.20	MAE	CT/VG	3.830		3.833		3.811		3.829		3.832		3.833		3.831		3.836	
4		1.50	0.20	0.20	MAE	CT/VG	1.493		1.493		1.494		1.491		1.494		1.494		1.494		1.492	
5		2.60	0.20	0.20	MAE	SCOP	2.648		2.636		2.627		2.632		2.629		2.646		2.641		2.645	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.97		CAVITY 4.98		CAVITY 4.99		CAVITY 4.100		CAVITY 4.101		CAVITY 4.102		CAVITY 4.103		CAVITY 4.104	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.775		7.754		7.828		7.772		7.793		7.788		7.788		7.775	
2		4.30	0.20	0.20	MAE	CT/VG	4.308		4.299		4.342		4.308		4.330		4.328		4.310		4.281	
3		3.90	0.20	0.20	MAE	CT/VG	3.828		3.835		3.839		3.827		3.823		3.825		3.827		3.833	
4		1.50	0.20	0.20	MAE	CT/VG	1.493		1.497		1.494		1.491		1.495		1.493		1.491		1.493	
5		2.60	0.20	0.20	MAE	SCOP	2.646		2.641		2.645		2.635		2.638		2.614		2.627		2.624	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.105		CAVITY 4.106		CAVITY 4.107		CAVITY 4.108		CAVITY 4.109		CAVITY 4.110		CAVITY 4.111		CAVITY 4.112	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.774		7.794		7.778		7.798		7.814		7.791		7.796		7.785	
2		4.30	0.20	0.20	MAE	CT/VG	4.300		4.326		4.310		4.326		4.345		4.321		4.315		4.288	
3		3.90	0.20	0.20	MAE	CT/VG	3.830		3.839		3.834		3.834		3.838		3.823		3.824		3.832	
4		1.50	0.20	0.20	MAE	CT/VG	1.490		1.493		1.492		1.493		1.494		1.493		1.493		1.494	
5		2.60	0.20	0.20	MAE	SCOP	2.637		2.640		2.626		2.636		2.631		2.615		2.617		2.635	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.113		CAVITY 4.114		CAVITY 4.115		CAVITY 4.116		CAVITY 4.117		CAVITY 4.118		CAVITY 4.119		CAVITY 4.120	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.774		7.782		7.781		7.786		7.791		7.808		7.777		7.770	
2		4.30	0.20	0.20	MAE	CT/VG	4.293		4.308		4.307		4.312		4.328		4.325		4.299		4.271	
3		3.90	0.20	0.20	MAE	CT/VG	3.856		3.864		3.856		3.867		3.870		3.852		3.858		3.851	
4		1.50	0.20	0.20	MAE	CT/VG	1.492		1.495		1.494		1.494		1.492		1.475		1.492		1.493	
5		2.60	0.20	0.20	MAE	SCOP	2.641		2.637		2.635		2.634		2.619		2.633		2.633		2.612	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.121		CAVITY 4.122		CAVITY 4.123		CAVITY 4.124		CAVITY 4.125		CAVITY 4.126		CAVITY 4.127		CAVITY 4.128	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.788		7.750		7.780		7.779		7.789		7.794		7.772		7.775	
2		4.30	0.20	0.20	MAE	CT/VG	4.315		4.279		4.310		4.309		4.331		4.321		4.301		4.296	
3		3.90	0.20	0.20	MAE	CT/VG	3.865		3.861		3.849		3.857		3.859		3.849		3.850		3.851	
4		1.50	0.20	0.20	MAE	CT/VG	1.493		1.496		1.493		1.491		1.497		1.494		1.492		1.494	
5		2.60	0.20	0.20	MAE	SCOP	2.629		2.634		2.625		2.643		2.640		2.625		2.629		2.628	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.129		CAVITY 4.130		CAVITY 4.131		CAVITY 4.132		CAVITY 4.133		CAVITY 4.134		CAVITY 4.135		CAVITY 4.136	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.802		7.765		7.793		7.768		7.791		7.803		7.784		73.792	
2		4.30	0.20	0.20	MAE	CT/VG	4.324		4.294		4.318		4.302		4.327		4.320		4.293		4.290	
3		3.90	0.20	0.20	MAE	CT/VG	3.863		3.859		3.867		3.860		3.856		3.844		3.851		3.841	
4		1.50	0.20	0.20	MAE	CT/VG	1.487		1.489		1.495		1.494		1.489		1.494		1.488		1.490	
5		2.60	0.20	0.20	MAE	SCOP	2.647		2.639		2.625		2.631		2.631		2.626		2.618		2.625	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.137		CAVITY 4.138		CAVITY 4.139		CAVITY 4.140		CAVITY 4.141		CAVITY 4.142		CAVITY 4.143		CAVITY 4.144	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.774		7.799		7.780		7.767		7.786		7.783		7.774		7.766	
2		4.30	0.20	0.20	MAE	CT/VG	4.304		4.330		4.311		4.300		4.317		4.320		4.295		4.281	
3		3.90	0.20	0.20	MAE	CT/VG	3.860		3.859		3.858		3.870		3.866		3.844		3.848		3.855	
4		1.50	0.20	0.20	MAE	CT/VG	1.492		1.495		1.494		1.491		1.492		1.493		1.495		1.495	
5		2.60	0.20	0.20	MAE	SCOP	2.645		2.639		2.645		2.637		2.638		2.613		2.624		2.617	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.145		CAVITY 4.146		CAVITY 4.147		CAVITY 4.148		CAVITY 4.149		CAVITY 4.150		CAVITY 4.151		CAVITY 4.152	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.780		7.764		7.780		7.773		7.811		7.789		7.765		7.784	
2		4.30	0.20	0.20	MAE	CT/VG	4.313		4.306		4.303		4.302		4.331		4.305		4.298		4.298	
3		3.90	0.20	0.20	MAE	CT/VG	3.859		3.870		3.867		3.868		3.866		3.844		3.848		3.855	
4		1.50	0.20	0.20	MAE	CT/VG	1.494		1.494		1.494		1.494		1.491		1.493		1.494		1.490	
5		2.60	0.20	0.20	MAE	SCOP	2.635		2.631		2.639		2.644		2.634		2.615		2.613		2.620	

LABEL	DESC	NOMINAL	UPPER	LOWER	FN	HM	CAVITY 4.153		CAVITY 4.154		CAVITY 4.155		CAVITY 4.156		CAVITY 4.157		CAVITY 4.158		CAVITY 4.159		CAVITY 4.160	
							ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL	ACTUAL	DEV>TOL
1		7.80	0.20	0.20	MAE	SCOP	7.774		7.793		7.791		7.781		7.825		7.806		7.793		7.837	
2		4.30	0.20	0.20	MAE	CT/VG	4.314		4.311		4.313		4.322		4.348		4.330		4.314		4.350	
3		3.90	0.20	0.20	MAE	CT/VG	3.859		3.870		3.867		3.868		3.866		3.854		3.857		3.860	
4		1.50	0.20	0.20	MAE	CT/VG	1.492		1.495		1.492		1.493		1.488		1.488		1.495		1.497	
5		2.60	0.20	0.20	MAE	SCOP	2.625		2.644		2.638		2.627		2.635		2.628		2.622		2.625	

Delivery Address	Print Date 14.10.2015	Page 1/ 2		
	Customer Order Number			
	Sales Order Number			
Certificate Recipient	Delivery Number			
	Shipment Number			
	Container Number			
Product Name : 7874 LSR 3286/50 TP4224 - drum kit (400kg)				
Customer code :				
This confirmation does not relieve your company from its obligation to inspect goods upon receipt. This shall at least include a visual check of the product's identity such as product designation, batch number, quality supplied, product form and transportation damage as well as visual inspection of goods for obvious defects.				
Batch 15FLVL392		Production Date 22.06.2015	Use before 13.12.2016	
Characteristic	Unit	Result	Lower Limit	Upper Limit
<b>Viscosity A-Component</b> Method QM01 VISC0012 / 2 DIN 53019 Rotationviscosity Cone(1°/20mm)/plate	Pas	410	250	550
<b>Viscosity B-Component</b> Method QM01 VISC0012 / 2 DIN 53019 Rotationviscosity Cone(1°/20mm)/plate	Pas	290	250	550
<b>Prep. Mixing</b> Method QM01 PRLEV006 / 1 Mixing Components		OK		
<b>Reactivity 110°C T60</b> Method QM01 CROS0006 / 1 DIN 53529-3 B Vulcanometer	min	1,6	1,1	2,1
<b>Prep. Cure</b> Method QM01 PRLEV010 / 1 Vulcanisation 10 min 175°C		OK		
<b>Elongation at Break</b> Method QM01 MECH0001 / 1 DIN 53504 S-2 Elongation	%	510	400	
Storage conditions: Product should be stored below 43 C	Contact person: Momentive Performance Materials QC Office (mail): QCRelease.EMEA@momentive.com			
This document is generated by electronic means and therefore does not need to be signed.				

It is hereby stated that the material above has been inspected and tested in accordance with the conditions and requirements of our specification referenced by the Momentive Performance Materials Technical Delivery Term(TDT) above. The reported properties are a summary of the lot data on file at Momentive Performance Materials, drawn from complete lot. Deviations as a result of standard production variables may occur. This document is subject to our general terms of sale.

Delivery Address	Print Date 14.10.2015	Page 2 / 2		
	Customer Order Number			
	Sales Order Number			
Certificate Recipient	Delivery Number			
	Shipment Number			
	Container Number			
Product Name : 7874 LSR 3286/50 TP4224 - drum kit (400kg)				
Customer code :				
This confirmation does not relieve your company from its obligation to inspect goods upon receipt. This shall at least include a visual check of the product's identity such as product designation, batch number, quality supplied, product form and transportation damage as well as visual inspection of goods for obvious defects.				
Batch 15FLVL392		Production Date 22.06.2015	Use before 13.12.2016	
Characteristic	Unit	Result	Lower Limit	Upper Limit
<b>Tensile strength</b> Method QM01 MECH0005 / 1 DIN 53504 S-2 Tensile Strength	N/mm <sup>2</sup>	8,0	7,0	
<b>Hardness Shore A</b> Method QM01 MECH0008 / 2 ISO 7619		49	46	54
<b>Density</b> Method QM01 DENS0003 / 2 ISO 1183	g/cm <sup>3</sup>	1,118	1,100	1,140
<b>Tear strength Crescent</b> Method QM01 MECH0012 / 1 ASTM D-624 Die B tear strength	N/mm	42	38	
<b>Oil content</b>	%	2,00	1,95	2,15
<b>Compression Set ( DIN ISO 815 )</b> Method QM01 MECH0007 / 3 Compression Set 22h 175°C DIN ISO 815 BU-Q 30.041	%	18		25
Storage conditions: Product should be stored below 43 C	Contact person: Momentive Performance Materials QC Office (mail): QCRelease.EMEA@momentive.com			
This document is generated by electronic means and therefore does not need to be signed.				

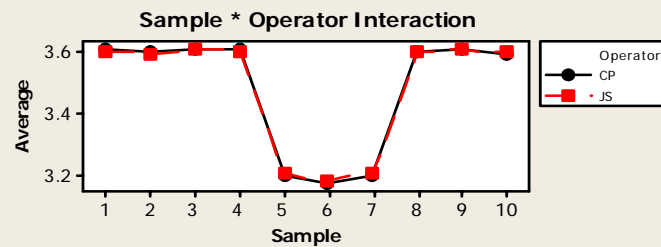
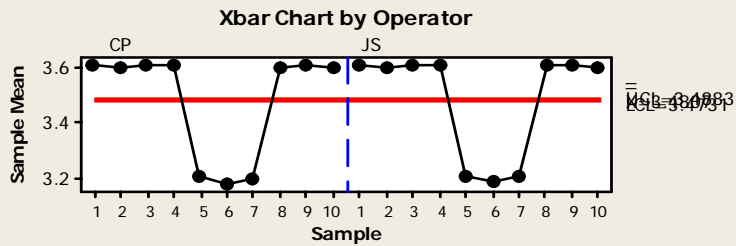
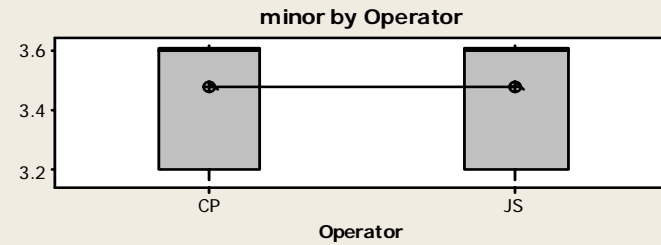
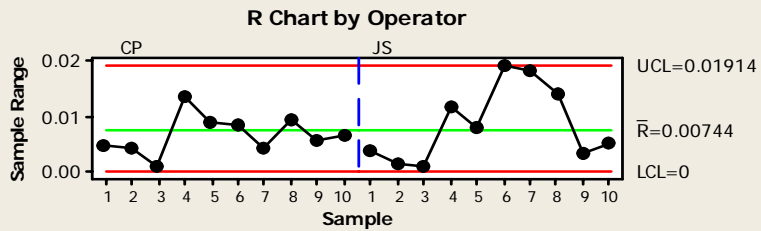
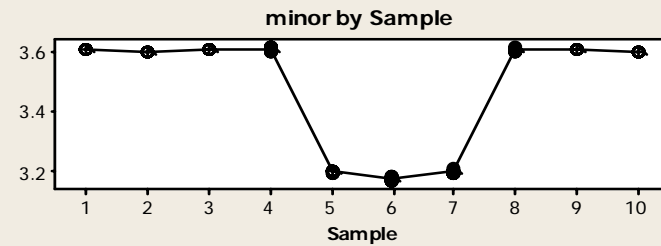
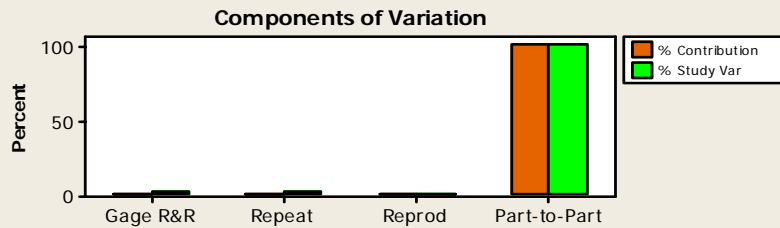
It is hereby stated that the material above has been inspected and tested in accordance with the conditions and requirements of our specification referenced by the Momentive Performance Materials Technical Delivery Term(TDT) above. The reported properties are a summary of the lot data on file at Momentive Performance Materials, drawn from complete lot. Deviations as a result of standard production variables may occur. This document is subject to our general terms of sale.



# Gage R&R (ANOVA) for minor

Gage name: Micro Vu  
 Date of study: 6/1/2013

Reported by: J Stine  
 Tolerance: 0.005  
 Misc:



## Gage R&R Study - ANOVA Method

Gage R&R for minor

Gage name: Micro Vu  
Date of study: 6/1/2013  
Reported by: J Stine  
Tolerance: 0.005  
Misc:

### Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
Sample	9	2.14290	0.238100	7842.77	0.000
Operator	1	0.00007	0.000073	2.41	0.155
Sample * Operator	9	0.00027	0.000030	1.30	0.265
Repeatability	40	0.00093	0.000023		
Total	59	2.14418			

Alpha to remove interaction term = 0.25

### Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
Sample	9	2.14290	0.238100	9688.46	0.000
Operator	1	0.00007	0.000073	2.97	0.091
Repeatability	49	0.00120	0.000025		
Total	59	2.14418			

## Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0.0000262	0.07
Repeatability	0.0000246	0.06
Reproducibility	0.0000016	0.00
Operator	0.0000016	0.00
Part-To-Part	0.0396792	99.93
Total Variation	0.0397054	100.00

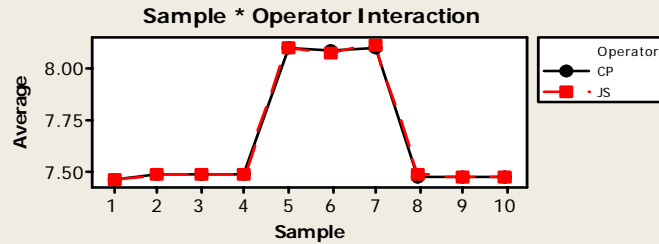
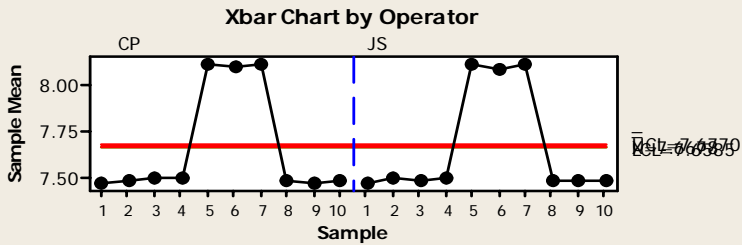
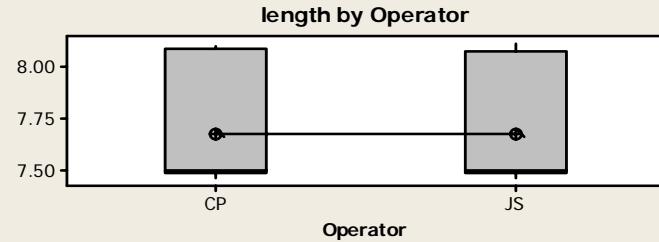
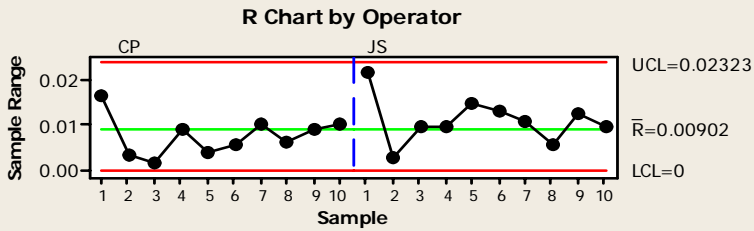
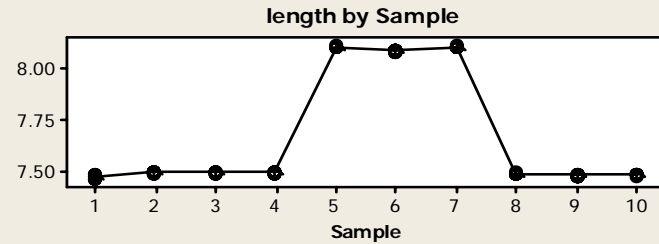
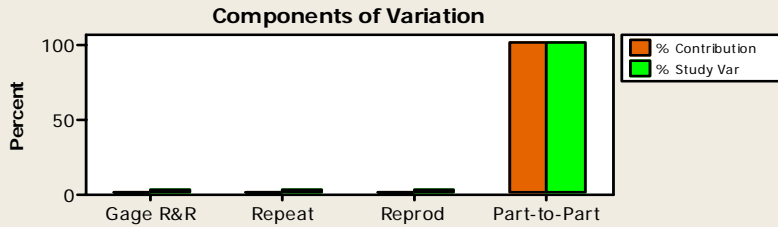
Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)
Total Gage R&R	0.005118	0.03071	2.57
Repeatability	0.004957	0.02974	2.49
Reproducibility	0.001271	0.00763	0.64
Operator	0.001271	0.00763	0.64
Part-To-Part	0.199196	1.19518	99.97
Total Variation	0.199262	1.19557	100.00

Number of Distinct Categories = 54

# Gage R&R (ANOVA) for length

Gage name: Micro V u  
 Date of study: 6/1/2013

Reported by: J Stine  
 Tolerance: 0.005  
 Misc:





Certificate of Analysis

Date 081815	Page 1 / 1	
Delivery Address TYCO ELECTRONICS 8000 Piedmont Triad Pkwy GREENSBORO NC 27409	Customer No. 218142	
	Customer Order Number 2491169857	
	Sales Order Number 3568551/000010	
Certificate Recipient TYCO ELECTRONICS 8000 Piedmont Triad Pkwy GREENSBORO NC 27409	Delivery Number 86464398/900001	
	Shipment Number C286143/0001	Ship Date 08/19/2015
	Container Number N/A	

Product Name : 7874 LSR 3286/50 TP4224 - drum kit (400kg)  
Customer Code : 704813-1

Specification :  
LSR 3286/50 TP4224 - DRUM KIT (400KG) COAXP0527 | 7874

The material identified on this document was made and tested according to Momentive Performance Materials Inc. procedures. Tests are conducted on each batch or on a frequency basis. This test report has been transcribed from original test reports of such data. These reports are available by retrieval from data stored electronically and can be requested for inspection during normal business hours for a period of one year from the date of shipment.

Batch 15FLVL392	Inspection Lot	Quantity 6 EA	Mfg Date 06/22/2015	Use before 12/13/2016
Characteristics	UOM	Result	Min Spec.	Max Spec.
Viscosity A-Component	Pas	410	250	550
Viscosity B-Component	Pas	290	250	550
Prep. Mixing		OK		
Reactivity 110°C T60	min	1.6	1.1	2.1
Prep. Cure		OK		
Elongation at Break	%	510	400	
Tensile strength	N/mm2	8.0	7.0	
Hardness Shore A		49	46	54
Density, 20°C	g/cm3	1.118	1.100	1.140
Tear strength Crescent	N/mm	42	38	
Oil content	%	2.00	1.95	2.15
Compression Set ( DIN ISO 815 )	%	18		25

It is hereby certified that the product indicated above conforms to our standard specifications for the designated material. This certification is subject to our standard conditions of sale applying to products sold by Momentive Performance Materials Inc. or its Affiliate

Storage conditions:	The Quality Department certifies the data on this electronically	Customer Service Ph: 800-332-3390 Please contact your Customer Service Rep
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## Gage R&R Study - ANOVA Method

Gage R&R for length

Gage name: Micro Vu  
 Date of study: 6/1/2013  
 Reported by: J Stine  
 Tolerance: 0.005  
 Misc:

### Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
Sample	9	4.85334	0.539260	10755.5	0.000
Operator	1	0.00000	0.000000	0.0	0.976
Sample * Operator	9	0.00045	0.000050	1.8	0.109
Repeatability	40	0.00114	0.000029		
Total	59	4.85494			

Alpha to remove interaction term = 0.25

### Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0.0000358	0.04
Repeatability	0.0000286	0.03
Reproducibility	0.0000072	0.01
Operator	0.0000000	0.00
Operator*Sample	0.0000072	0.01
Part-To-Part	0.0898684	99.96
Total Variation	0.0899042	100.00

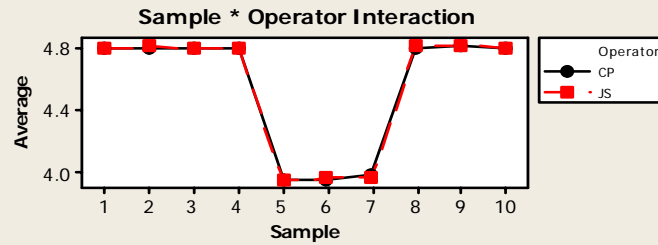
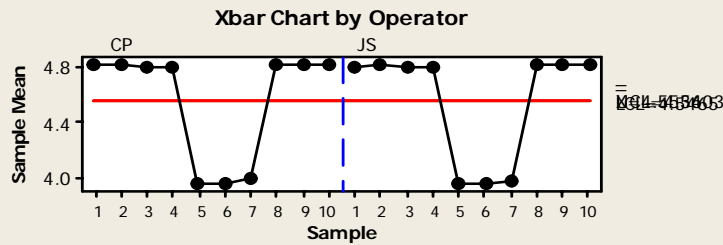
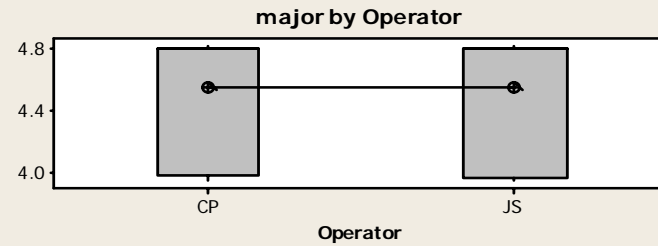
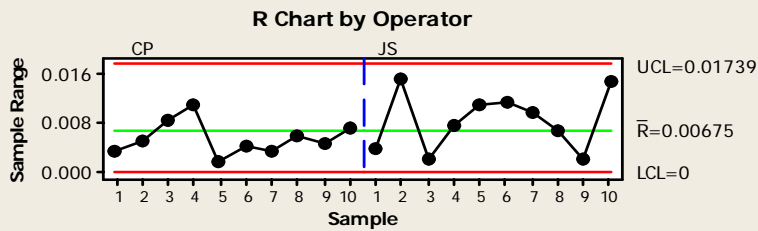
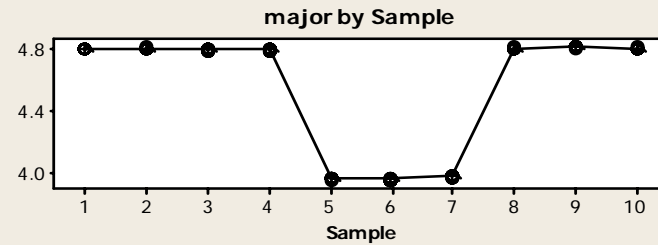
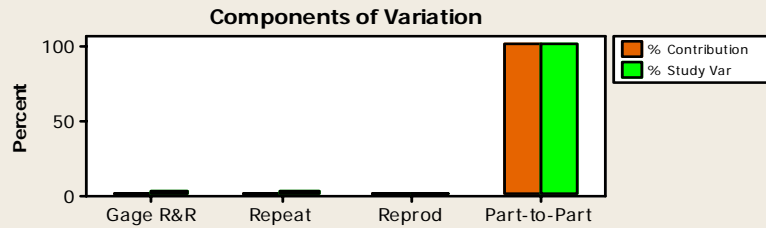
Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)
Total Gage R&R	0.005982	0.03589	1.99
Repeatability	0.005348	0.03209	1.78
Reproducibility	0.002679	0.01608	0.89
Operator	0.000000	0.00000	0.00
Operator*Sample	0.002679	0.01608	0.89
Part-To-Part	0.299781	1.79868	99.98
Total Variation	0.299840	1.79904	100.00

Number of Distinct Categories = 70

# Gage R&R (ANOVA) for major

Gage name: Micro Vu  
 Date of study: 6/1/2013

Reported by: J Stine  
 Tolerance: 0.005  
 Misc:



## Gage R&R Study - ANOVA Method

Gage R&R for major

Gage name: Micro Vu  
Date of study: 6/1/2013  
Reported by: J Stine  
Tolerance: 0.005  
Misc:

### Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
Sample	9	8.86373	0.984859	18409.6	0.000
Operator	1	0.00000	0.000002	0.0	0.856
Sample * Operator	9	0.00048	0.000053	3.0	0.008
Repeatability	40	0.00071	0.000018		
Total	59	8.86493			

Alpha to remove interaction term = 0.25

### Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0.000030	0.02
Repeatability	0.000018	0.01
Reproducibility	0.000012	0.01
Operator	0.000000	0.00
Operator*Sample	0.000012	0.01
Part-To-Part	0.164134	99.98
Total Variation	0.164164	100.00

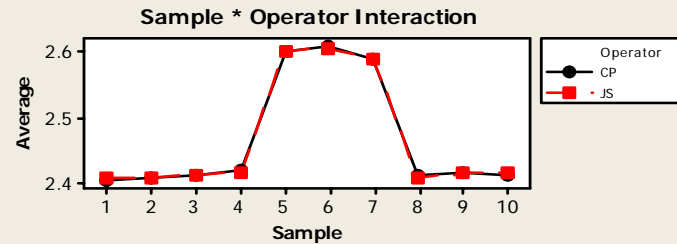
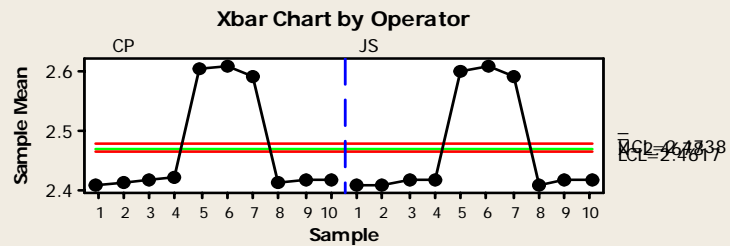
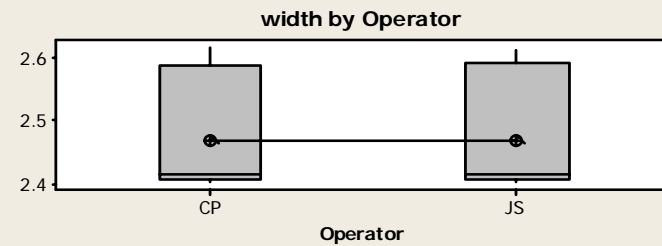
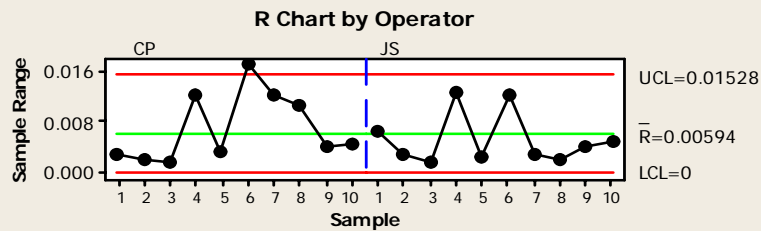
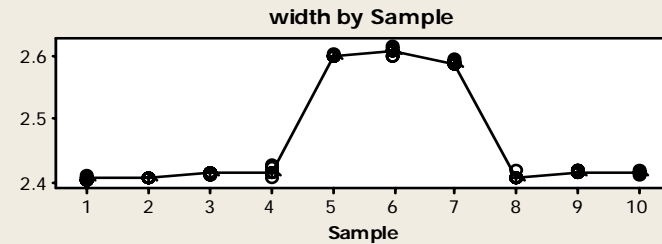
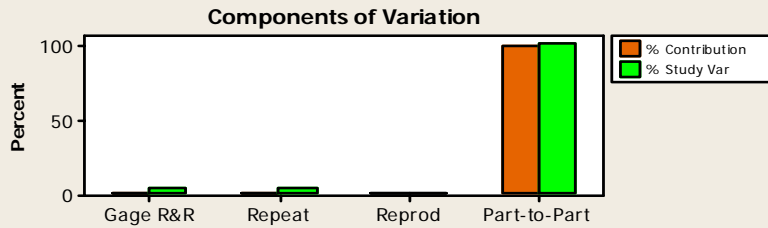
Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)
Total Gage R&R	0.005450	0.03270	1.35
Repeatability	0.004220	0.02532	1.04
Reproducibility	0.003449	0.02070	0.85
Operator	0.000000	0.00000	0.00
Operator*Sample	0.003449	0.02070	0.85
Part-To-Part	0.405135	2.43081	99.99
Total Variation	0.405172	2.43103	100.00

Number of Distinct Categories = 104

# Gage R&R (ANOVA) for width

Gage name: Micro Vu  
 Date of study: 6/1/2013

Reported by: J Stine  
 Tolerance: 0.005  
 Misc:





## Gage R&R Study - ANOVA Method

Gage R&R for width

Gage name: Micro Vu  
 Date of study: 6/1/2013  
 Reported by: J Stine  
 Tolerance: 0.005  
 Misc:

### Two-Way ANOVA Table With Interaction

Source	DF	SS	MS	F	P
Sample	9	0.442595	0.0491772	8993.11	0.000
Operator	1	0.000014	0.0000139	2.55	0.145
Sample * Operator	9	0.000049	0.0000055	0.34	0.958
Repeatability	40	0.000653	0.0000163		
Total	59	0.443310			

Alpha to remove interaction term = 0.25

### Two-Way ANOVA Table Without Interaction

Source	DF	SS	MS	F	P
Sample	9	0.442595	0.0491772	3433.01	0.000
Operator	1	0.000014	0.0000139	0.97	0.329
Repeatability	49	0.000702	0.0000143		
Total	59	0.443310			

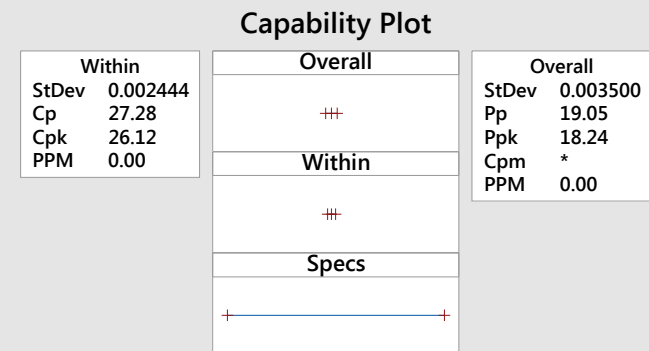
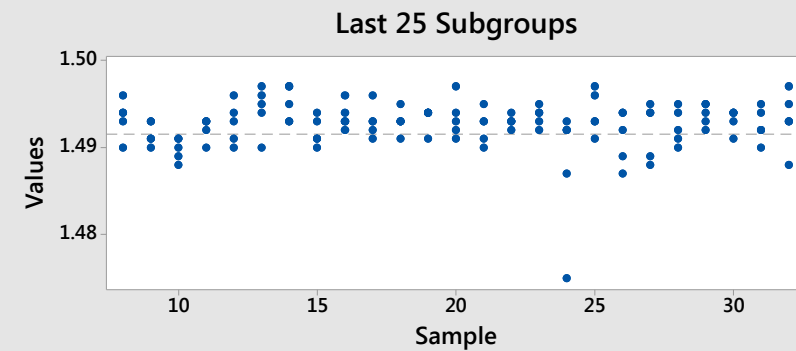
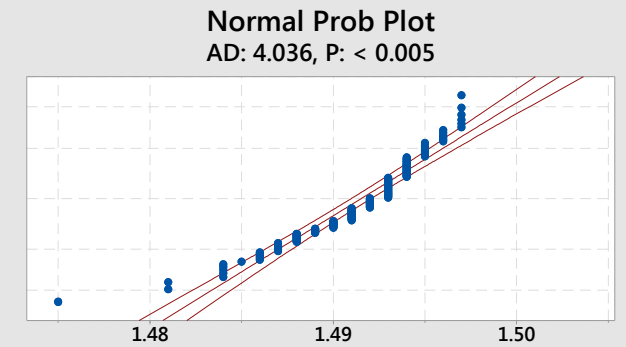
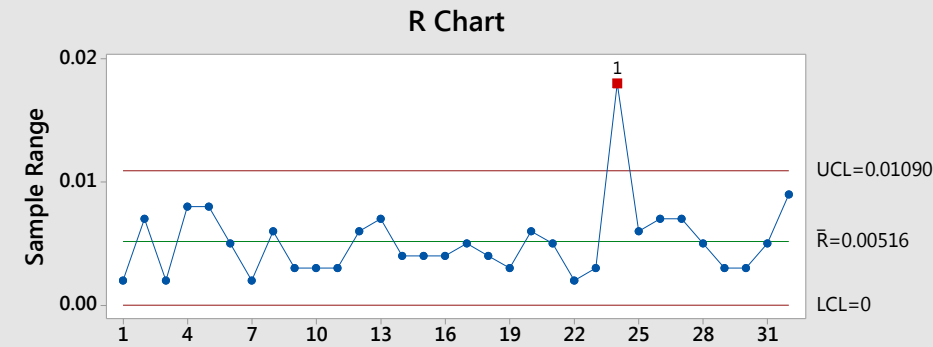
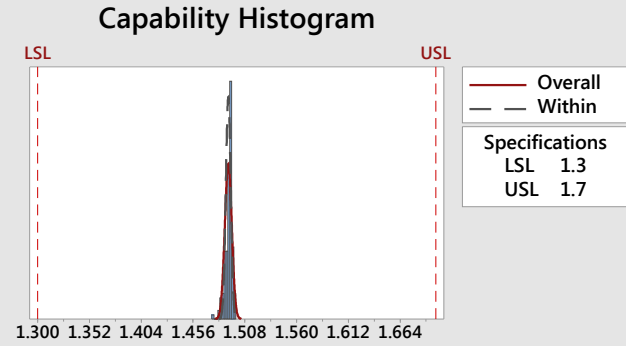
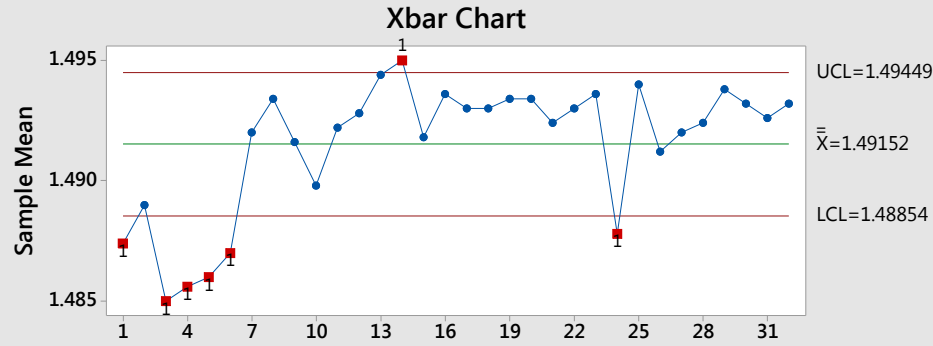
## Gage R&R

Source	VarComp	%Contribution (of VarComp)
Total Gage R&R	0.0000143	0.17
Repeatability	0.0000143	0.17
Reproducibility	0.0000000	0.00
Operator	0.0000000	0.00
Part-To-Part	0.0081938	99.83
Total Variation	0.0082081	100.00

Source	StdDev (SD)	Study Var (6 * SD)	%Study Var (%SV)
Total Gage R&R	0.0037848	0.022709	4.18
Repeatability	0.0037848	0.022709	4.18
Reproducibility	0.0000000	0.000000	0.00
Operator	0.0000000	0.000000	0.00
Part-To-Part	0.0905197	0.543118	99.91
Total Variation	0.0905987	0.543592	100.00

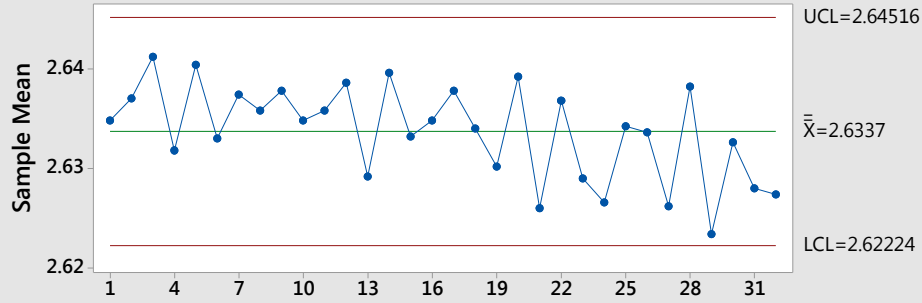
Number of Distinct Categories = 33

# 964972. 1.50 +/- 0.20, CS01912, 10/10/15

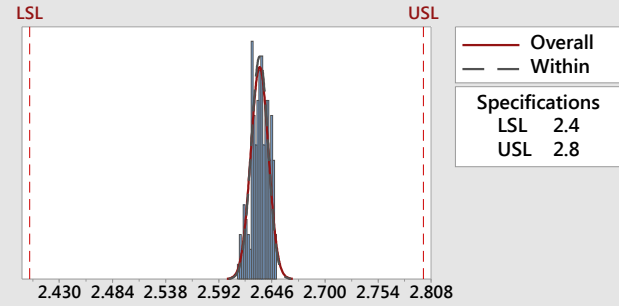


964972. 2.60 +/- 0.20, CS01912, 10/10/15

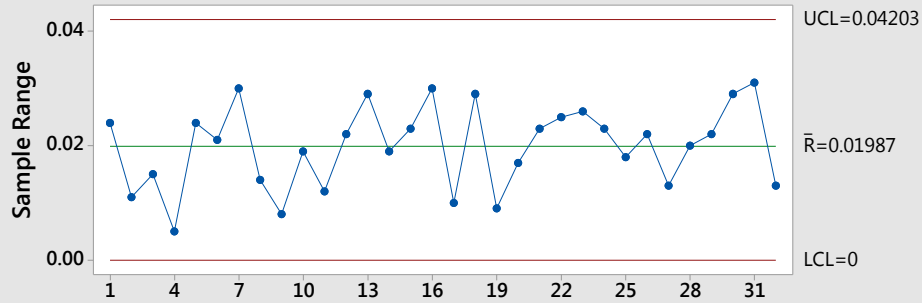
Xbar Chart



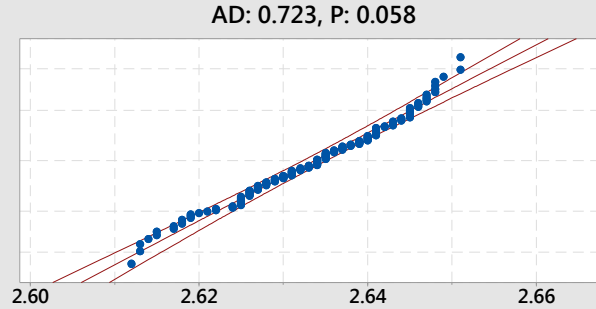
Capability Histogram



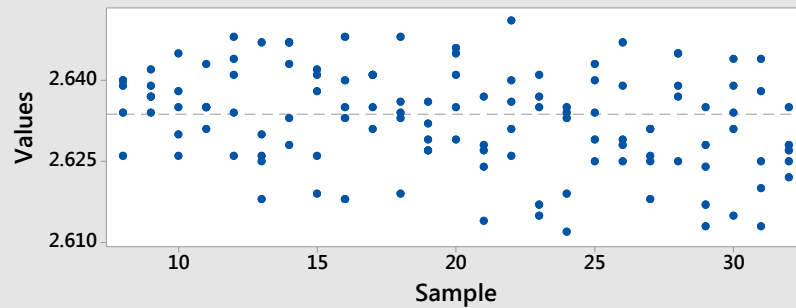
R Chart



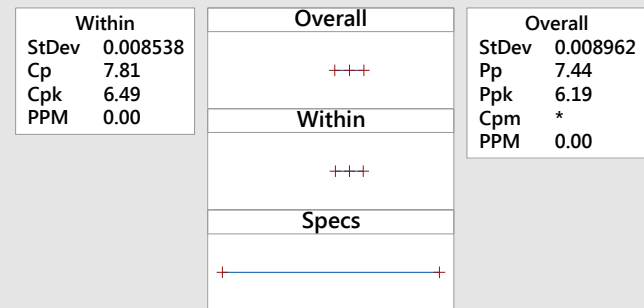
Normal Prob Plot



Last 25 Subgroups

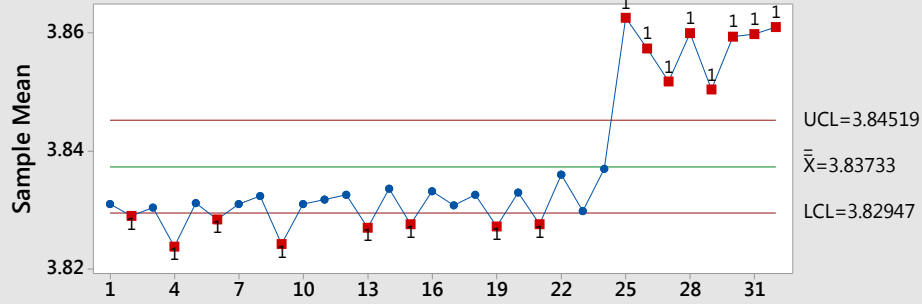


Capability Plot

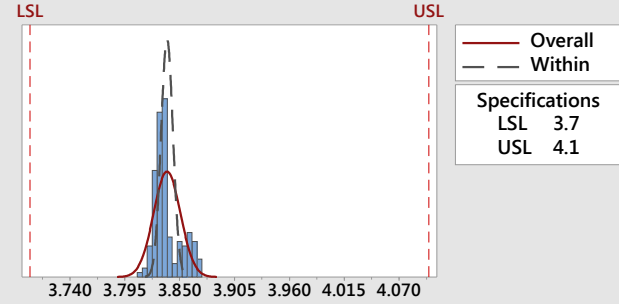


964972. 3.90 +/- 0.20, CS01912, 10/10/15

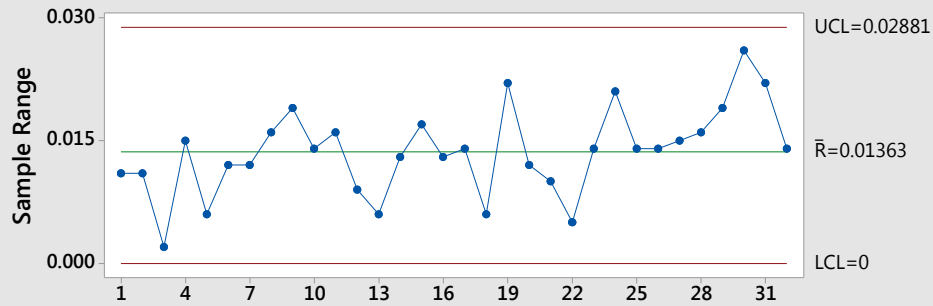
Xbar Chart



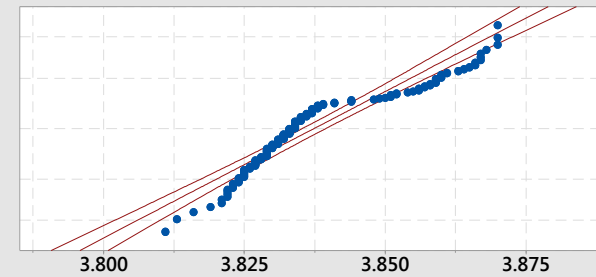
Capability Histogram



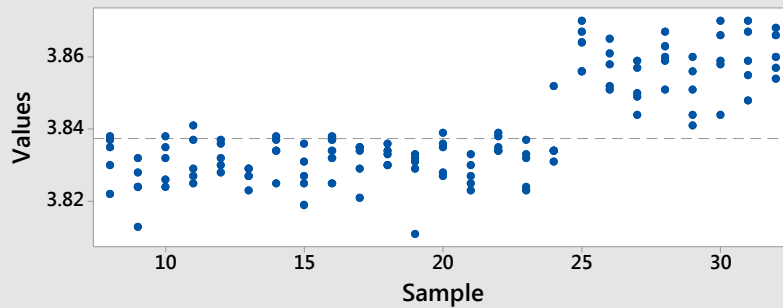
R Chart



Normal Prob Plot  
 AD: 7.732, P: < 0.005



Last 25 Subgroups

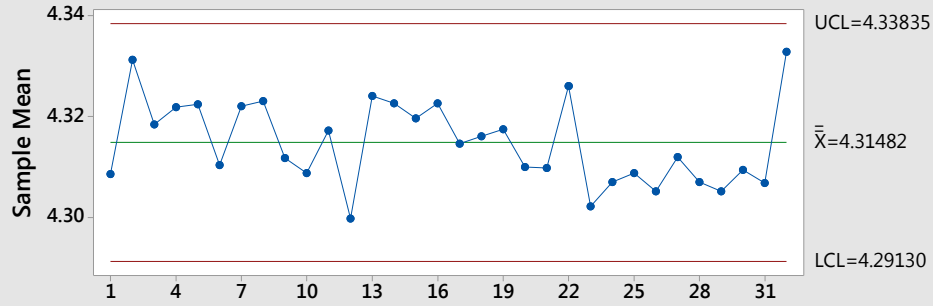


Capability Plot

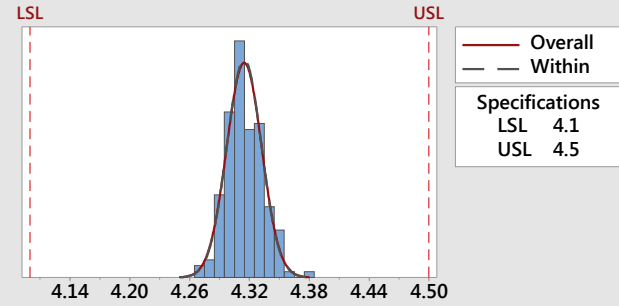


964972. 4.30 +/- 0.20, CS01912, 10/10/15

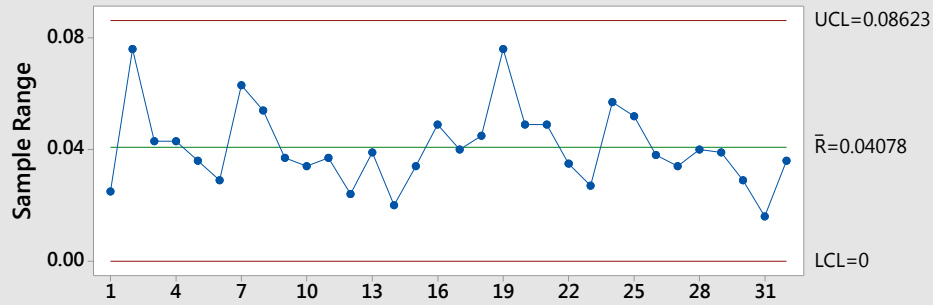
Xbar Chart



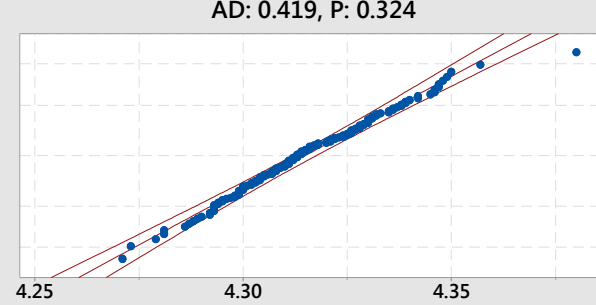
Capability Histogram



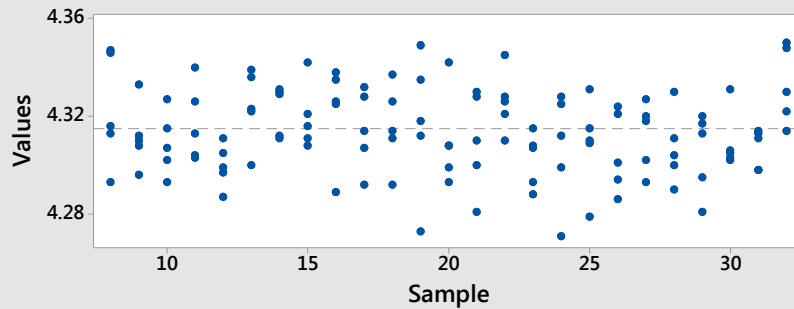
R Chart



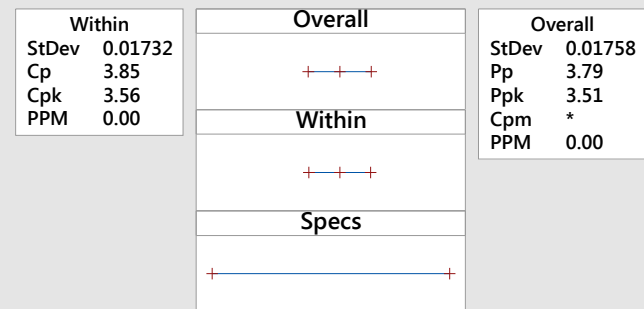
Normal Prob Plot



Last 25 Subgroups

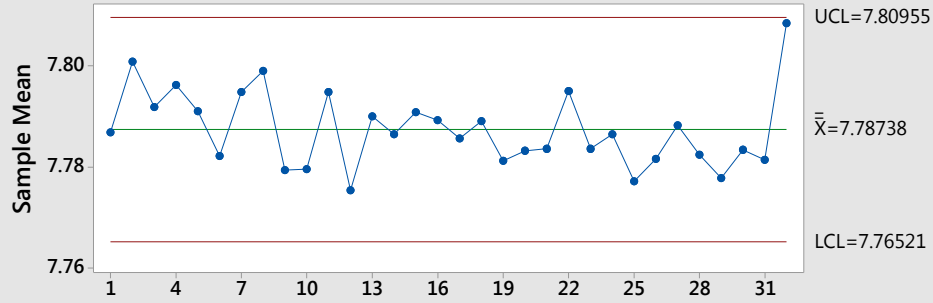


Capability Plot

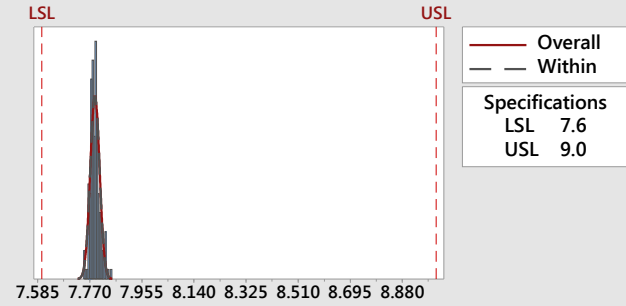


964972. 7.80 +/- 0.20, CS01912, 10/10/15

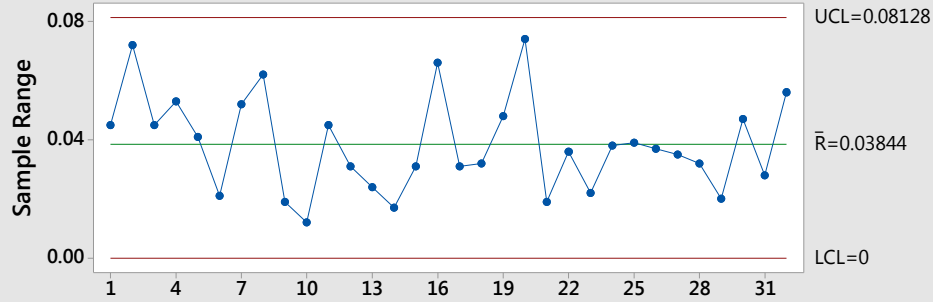
Xbar Chart



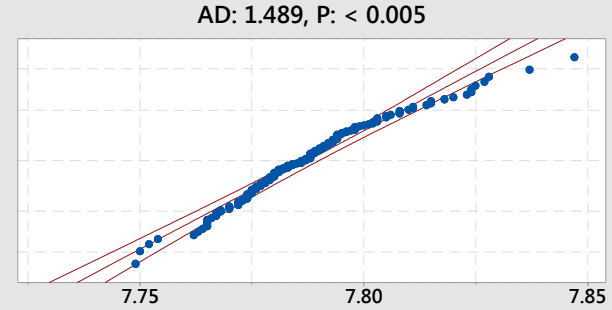
Capability Histogram



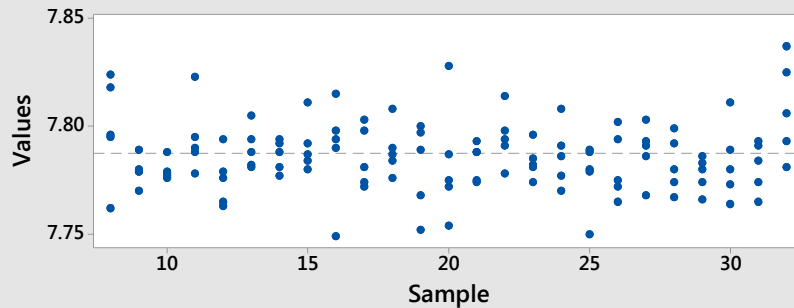
R Chart



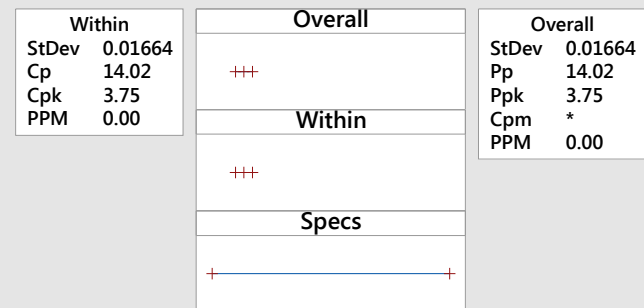
Normal Prob Plot



Last 25 Subgroups



Capability Plot



# Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2004

This is to certify that:

TE Connectivity  
719 Pegg Road  
Greensboro  
North Carolina  
27409  
USA

Holds Certificate No:

**EMS 68453**

and operates an Environmental Management System which complies with the requirements of ISO 14001:2004 for the following scope:

The environmental management system designed to manage the environmental risks occurring from processes of molding, plating and mechatronics assembly for the manufacture of electrical/electronic components.



For and on behalf of BSI:

Reg Blake, VP Regulatory Affairs, BSI Group America Inc.

Original Registration Date: 05/21/2003

Latest Revision Date: 11/04/2015

Effective Date: 12/06/2014

Expiry Date: 12/05/2017

Page: 1 of 1



...making excellence a habit.™

# Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO/TS 16949:2009

This is to certify that:

TE Connectivity  
Global Automotive Division  
Americas North  
719 Pegg Road  
Greensboro  
North Carolina  
27409  
USA

Holds Certificate No:

**TS 514458-001**

and operates a Quality Management System which complies with the requirements of ISO/TS 16949:2009 for the following scope:

Design and manufacture of electrical interconnecting devices.



For and on behalf of BSI:

Reg Blake, VP Regulatory Affairs, BSI Group America Inc.

Issue Date: 01/06/2016

Latest Issue: 01/06/2016

Expiry Date: 09/14/2018

IATF Number: 0228236

Page: 1 of 3



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An electronic certificate can be authenticated [online](http://www.bsigroup.com/ClientDirectory). Printed copies can be validated at [www.bsigroup.com/ClientDirectory](http://www.bsigroup.com/ClientDirectory)

To be read in conjunction with the scope above or the attached appendix.

Further clarifications regarding the scope of this certificate and the applicability of ISO/TS16949 requirements may be obtained by consulting the organization.

IATF Contracted Office: BSI Group Americas Inc., 12950 Worldgate Drive, Suite 800, Herndon, VA 20170-6007 USA.

A Member of the BSI Group of Companies.



Certificate No: **TS 514458-001**

Location	Registered Activities
TE Connectivity Global Automotive Division Americas North 719 Pegg Road Greensboro North Carolina 27409 USA	Plating, molding and mechatronics.  Including the following remote support functions:  TE Connectivity Global Automotive Division Americas North 900 Wilshire Boulevard Suite 150 Troy, MI 48064 Design and Development.  TE Connectivity Global Automotive Division Americas North 1901 Fulling Mill Road Middletown, PA 17057 Design and Development, Product Testing and Customer Service.  TE Connectivity Global Automotive Division Americas North 3800 Reidsville Road Winston-Salem, NC 27102 Design and Development, Product Testing and Calibration, Business Office (Quote Process) and Purchasing.  TE Connectivity Global Automotive Division Americas North 20 Esna Park Drive Markham, Ontario L3R 1E1 Canada Design and Development and product testing (optics lab).  TE Connectivity Global Automotive Division Americas North 2100 Paxton Street Harrisburg, PA 17111 Provision of Product Testing to TE Connectivity Manufacturing Sites.

Issue Date: 01/06/2016

Latest Issue: 01/06/2016

Expiry Date: 09/14/2018

IATF Number: 0228236

Page: 2 of 3

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To be read in conjunction with the scope above or the attached appendix.  
Further clarifications regarding the scope of this certificate and the applicability of ISO/TS16949 requirements may be obtained by consulting the organization.

IATF Contracted Office: BSI Group Americas Inc., 12950 Worldgate Drive, Suite 800, Herndon, VA 20170-6007 USA.  
A Member of the BSI Group of Companies.

Certificate No: **TS 514458-001**

Location

Registered Activities

TE Connectivity  
North Carolina Distribution Center  
8000 Piedmont Triad Parkway  
Greensboro, North Carolina 27409  
Shipping, Receiving, Receiving Inspection, Packaging,  
Storage/Inventory.



Issue Date: 01/06/2016

Latest Issue: 01/06/2016

Expiry Date: 09/14/2018

IATF Number: 0228236

Page: 3 of 3

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To be read in conjunction with the scope above or the attached appendix.

Further clarifications regarding the scope of this certificate and the applicability of ISO/TS16949 requirements may be obtained by consulting the organization.

IATF Contracted Office: BSI Group Americas Inc., 12950 Worldgate Drive, Suite 800, Herndon, VA 20170-6007 USA.  
A Member of the BSI Group of Companies.

# Part Submission Warrant

Part Name EINZELLEITERDICHTNG Cust. Part Number 61H4519  
 Shown on Drawing No. C-964972 Org. Part Number 964972-1  
 Engineering Change Level A2 Dated 21.Mar.2011  
 Additional Engineering Changes NA Dated NA  
 Safety and/or Government Regulation  Yes  No Purchase Order No. Not Provided Weight (kg) 0.00005  
 Checking Aid Number NA Checking Aid Engineering Change Level NA Dated NA

**ORGANIZATION MANUFACTURING INFORMATION**

TE Connectivity / 825043995  
 Supplier Name & Supplier/Vendor Code  
719 PEGG RD BLDG 253  
 Street Address  
GREENSBORO NC 27409 USA  
 City Region Postal Code Country

**CUSTOMER SUBMITTAL INFORMATION**

Newark Electronics  
 Customer Name/Division  
 Buyer/Buyer Code  
Various  
 Application

**MATERIALS REPORTING**

Reporting of all materials, not just Substances of Concern, may be required by certain OEMs or other customers.  
 Has customer-required Substances of Concern information been reported?  Yes  No  
 Submitted by IMDS or other customer format: 4988907  
 Are polymeric parts identified with appropriate ISO marking codes?  Yes  No  N/A

**REASON FOR SUBMISSION**

- Initial submission
- Engineering Change(s)
- Tooling: Transfer, Replacement, Refurbishment, or additional
- Correction of Discrepancy
- Tooling Inactive > than 1 year
- Change to Optional Construction or Material
- Sub-Supplier or Material Source Change
- Change in Part Processing
- Parts produced at Additional Location
- Other - please specify \_\_\_\_\_

**REQUESTED SUBMISSION LEVEL (Check one)**

- Level 1 - Warrant only (and for designated appearance items, an Appearance Approval Report) submitted to customer.
- Level 2 - Warrant with product samples and limited supporting data submitted to customer.
- Level 3 - Warrant with product samples and complete supporting data submitted to customer.
- Level 4 - Warrant and other requirements as defined by customer.
- Level 5 - Warrant with product samples and complete supporting data reviewed at supplier's manufacturing location.

**SUBMISSION RESULTS**

The results for  dimensional measurements  material and functional tests  appearance criteria  statistical process package  
 These results meet all design record requirements:  YES  NO (If "NO" - Explanation Required)  
 Mold / Cavity / Production Process SEAL

**DECLARATION**

I affirm that the samples represented by this warrant are representative of our parts, which were made by a process that meets all Production Part Approval Process Manual 4th Edition Requirements. I further affirm these samples were produced at a production rate of 181818 /8 hours.  
 I also certify that the documented evidence of such compliance is on file and available for review. I have noted any deviation from the declaration below.

EXPLANATION/COMMENTS: PCN : P-15-011639

Is each Customer Tool properly tagged and numbered?  Yes  No  N/A

Organization Authorized Signature  Date 05-May-2016

Print Name Dhilippan V R Phone No. +91 080 67022720 Fax No. NA

Title Quality Engineer E-mail dhilippan.vr@te.com

**FOR CUSTOMER USE ONLY (IF APPLICABLE)**

Part Warrant Disposition:  Approved  Rejected  Other \_\_\_\_\_  
 Customer Signature \_\_\_\_\_ Date \_\_\_\_\_  
 Print Name \_\_\_\_\_ Customer Tracking Number (optional) \_\_\_\_\_