

FEATURES AND SPECIFICATIONS

Features and Benefits

- Sizes 4 to 80 circuits
- Easy breakaway to smaller sizes
- Contact and plating orientation according to DIN 41651
- North/south contact orientation avoids overstress
- High pin retention and high mechanical stability after soldering
- Stackable side-to-side

Reference Information

Product Specification: PS-99020-0001

Packaging: Bag

Mates With: C-Grid III Housing and Connectors

Designed In: Inches

Electrical

Voltage: 350V

Current: 3.0A

Contact Resistance: 20mΩ max.

Insulation Resistance: 5000 MΩ min.

Mechanical

Contact Retention to Housing: 20N (2.0kgf) min.

Mating Force: 1N max. Gold and 3N max. Tin

Unmating Force: 0.2N min. Gold and 0.2N min. Tin

Normal Force: 1N

Physical

Housing: Black glass-filled polyester, UL 94V-0

Contact: Copper Alloy, 0.64mm (.025") square pins

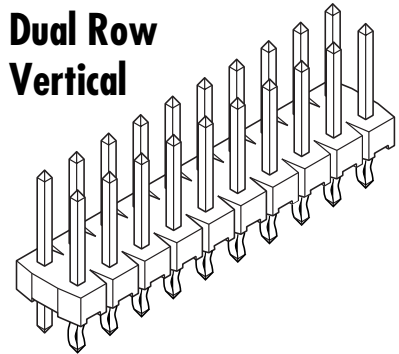
Plating: See Table

Operating Temperature: -55 to +125°C

molex® 2.54mm (.100") Pitch C-Grid III™ Kinked Pin Header

90628

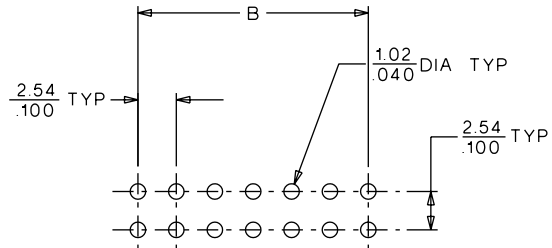
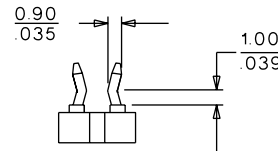
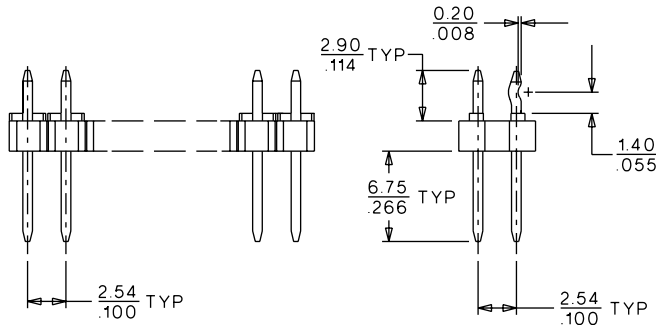
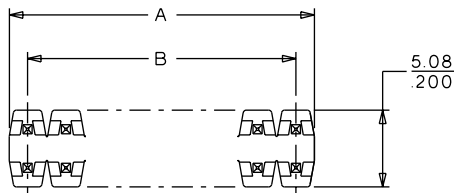
Dual Row Vertical



2.54mm (.100") Pitch

CATALOG DRAWING (FOR REFERENCE ONLY)

Not For Use With Molex SL™ Components



PCB LAYOUT: COMPONENT SIDE

RECOMMENDED PCB THICKNESS: 1.55/.061

ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.			Dimension	
	Plating A	Plating E	Plating F	A	B
4	90628-0122	90628-0762	90628-0922	5.08 (.200)	2.54 (.100)
6	90628-0123	90628-0763	90628-0923	7.62 (.300)	5.08 (.200)
8	90628-0124	90628-0764	90628-0924	10.16 (.400)	7.62 (.300)
10	90628-0125	90628-0765	90628-0925	12.70 (.500)	10.16 (.400)
12	90628-0126	90628-0766	90628-0926	15.24 (.600)	12.70 (.500)
14	90628-0127	90628-0767	90628-0927	17.78 (.700)	15.24 (.600)
16	90628-0128	90628-0768	90628-0928	20.32 (.800)	17.78 (.700)
18	90628-0129	90628-0769	90628-0929	22.86 (.900)	20.32 (.800)
20	90628-0130	90628-0770	90628-0930	25.40 (1.000)	22.86 (.900)
22	90628-0131	90628-0771	90628-0931	27.94 (1.100)	25.40 (1.000)
24	90628-0132	90628-0772	90628-0932	30.48 (1.200)	27.94 (1.100)
26	90628-0133	90628-0773	90628-0933	33.02 (1.300)	30.48 (1.200)
28	90628-0134	90628-0774	90628-0934	35.56 (1.400)	33.02 (1.300)
30	90628-0135	90628-0775	90628-0935	38.10 (1.500)	35.56 (1.400)
32	90628-0136	90628-0776	90628-0936	40.64 (1.600)	38.10 (1.500)
34	90628-0137	90628-0777	90628-0937	43.18 (1.700)	40.64 (1.600)
36	90628-0138	90628-0778	90628-0938	45.72 (1.800)	43.18 (1.700)
38	90628-0139	90628-0779	90628-0939	48.76 (1.900)	45.72 (1.800)
40	90628-0140	90628-0780	90628-0940	50.80 (2.000)	48.76 (1.900)

Circuits	Order No.			Dimension	
	Plating A	Plating E	Plating F	A	B
42	90628-0141	90628-0781	90628-0941	53.34 (2.100)	50.80 (2.000)
44	90628-0142	90628-0782	90628-0942	55.88 (2.200)	53.34 (2.100)
46	90628-0143	90628-0783	90628-0943	58.42 (2.300)	55.88 (2.200)
48	90628-0144	90628-0784	90628-0944	60.46 (2.400)	58.42 (2.300)
50	90628-0145	90628-0785	90628-0945	63.50 (2.500)	60.46 (2.400)
52	90628-0146	90628-0786	90628-0946	66.04 (2.600)	63.50 (2.500)
54	90628-0147	90628-0787	90628-0947	68.58 (2.700)	66.04 (2.600)
56	90628-0148	90628-0788	90628-0948	71.12 (2.800)	68.58 (2.700)
58	90628-0149	90628-0789	90628-0949	73.66 (2.900)	71.12 (2.800)
60	90628-0150	90628-0790	90628-0950	76.20 (3.000)	73.66 (2.900)
62	90628-0151	90628-0791	90628-0951	78.24 (3.100)	76.20 (3.000)
64	90628-0152	90628-0792	90628-0952	81.28 (3.200)	78.24 (3.100)
66	90628-0153	90628-0793	90628-0953	83.82 (3.300)	81.28 (3.200)
68	90628-0154	90628-0794	90628-0954	86.36 (3.400)	83.82 (3.300)
70	90628-0155	90628-0795	90628-0955	88.90 (3.500)	86.36 (3.400)
72	90628-0156	90628-0796	90628-0956	91.44 (3.600)	88.90 (3.500)
74	90628-0157	90628-0797	90628-0957	93.98 (3.700)	91.44 (3.600)
76	90628-0158	90628-0798	90628-0958	96.52 (3.800)	93.98 (3.700)
78	90628-0159	90628-0799	90628-0959	99.06 (3.900)	96.52 (3.800)
80	• 90628-0160	• 90628-0800	• 90628-0960	101.60 (4.000)	99.06 (3.900)

• Molex European standard product, usually available within shorter lead times

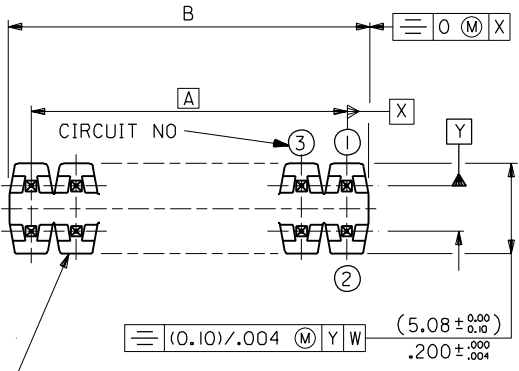
For other available versions contact Molex

Plating A: 4µm (160µ") Tin/Lead over Nickel

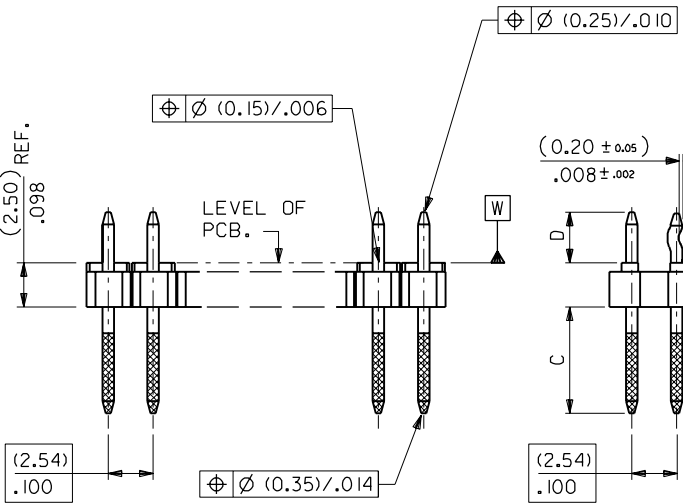
Plating E: 0.38µm (15µ") selective Gold over Nickel and 4µm (160µ") Tin/Lead over Nickel

Plating F: 0.76µm (30µ") selective Gold over Nickel and 4µm (160µ") Tin/Lead over Nickel

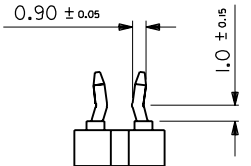
PART NO. SEE CHART
 DWG. NO. SDA-90628



WAFER: 15% G.F. POLYESTER
 TO UL 94V-0.
 COLOUR: BLACK.



OPPOSING KINKS
 VIEW SHOWS 2 X 1 CCT ONLY



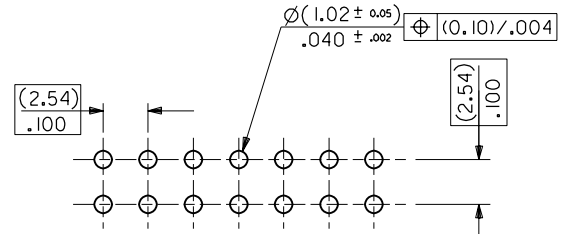
STRAIGHT PINS
 OMITTED FROM VIEW

FOR PREVIOUS
 DRAWING ISSUES
 SEE MRI.

CKT SIZE	DIM. "A"		DIM. "B" (± 0.20 / $\pm .008$)		CKT SIZE	DIM. "A"		DIM. "B" (± 0.20 / $\pm .008$)	
2X 1			(2.54)	.100	2X21	(50.80)	2.000	(53.34)	2.100
2X 2	(2.54)	.100	(5.08)	.200	2X22	(53.34)	2.100	(55.88)	2.200
2X 3	(5.08)	.200	(7.62)	.300	2X23	(55.88)	2.200	(58.42)	2.300
2X 4	(7.62)	.300	(10.16)	.400	2X24	(58.42)	2.300	(60.96)	2.400
2X 5	(10.16)	.400	(12.70)	.500	2X25	(60.96)	2.400	(63.50)	2.500
2X 6	(12.70)	.500	(15.24)	.600	2X26	(63.50)	2.500	(66.04)	2.600
2X 7	(15.24)	.600	(17.78)	.700	2X27	(66.04)	2.600	(68.58)	2.700
2X 8	(17.78)	.700	(20.32)	.800	2X28	(68.58)	2.700	(71.12)	2.800
2X 9	(20.32)	.800	(22.86)	.900	2X29	(71.12)	2.800	(73.66)	2.900
2X10	(22.86)	.900	(25.40)	1.000	2X30	(73.66)	2.900	(76.20)	3.000
2X11	(25.40)	1.000	(27.94)	1.100	2X31	(76.20)	3.000	(78.74)	3.100
2X12	(27.94)	1.100	(30.48)	1.200	2X32	(78.74)	3.100	(81.28)	3.200
2X13	(30.48)	1.200	(33.02)	1.300	2X33	(81.28)	3.200	(83.82)	3.300
2X14	(33.02)	1.300	(35.56)	1.400	2X34	(83.82)	3.300	(86.36)	3.400
2X15	(35.56)	1.400	(38.10)	1.500	2X35	(86.36)	3.400	(88.90)	3.500
2X16	(38.10)	1.500	(40.64)	1.600	2X36	(88.90)	3.500	(91.44)	3.600
2X17	(40.64)	1.600	(43.18)	1.700	2X37	(91.44)	3.600	(93.98)	3.700
2X18	(43.18)	1.700	(45.72)	1.800	2X38	(93.98)	3.700	(96.52)	3.800
2X19	(45.72)	1.800	(48.26)	1.900	2X39	(96.52)	3.800	(99.06)	3.900
2X20	(48.26)	1.900	(50.80)	2.000	2X40	(99.06)	3.900	(101.60)	4.000

NOTES

- FOR ASSY NUMBERS WITH FINISH OPTIONS AND DIMS C & D SEE SUBSEQUENT SHEETS.
- PCB THICKNESS: (1.37-1.80) / .054-.071.



RECOMMENDED P.C. BOARD HOLE PATTERN

2	B
1	B
SH.	REV.

REVISE ONLY ON CAD SYSTEM

CAD/CAM FILENAME: SA90628X1 DGN

TITLE: C-GRID III DUAL ROW KINKED PIN HEADER

MOLEX MOLEX EUROPE

SHEET NO. DATE: 10F2 90/09/11

PART NO. SEE CHART DWG. NO. SDA-90628 SIZE B

DRWG BY: RD

CHK'D BY:

APP'D BY:

SCALE: 4:1

DIMENSIONS SHOWN (METRIC) INCH	
3 PLACE	± .
2 PLACE	± .004 ± .10
1 PLACE	± .25

DESIGN DIMENSION (PRIMARY) (MM) IN.

EQUIVALENT DIMENSION (SECONDARY) (MM) IN.

NEW RELEASE
 ECR E00166
 11 SEPTEMBER 1990 RD

	10	9	8	7	6	5	4	3	2	1																																																																																																																																																																																																																	
F	PART NO. SEE CHART DWG. NO. SDA-90628 DIM C (±0.25) ±.010 (6.75) .266 DIM D (±0.30) ±.012 (2.90) .114	<table border="1"> <thead> <tr> <th>CIRCUIT SIZE</th> <th>PLATING TYPE A PART NO.</th> <th>PLATING TYPE E PART NO.</th> <th>PLATING TYPE F PART NO.</th> <th>KINKED PIN POSITIONS</th> </tr> </thead> <tbody> <tr><td>2 X 1</td><td>90628 -0121</td><td>90628 -0761</td><td>90628 -0921</td><td>1</td></tr> <tr><td>2 X 2</td><td>↑ -0122</td><td>↑ -0762</td><td>↑ -0922</td><td>1,3</td></tr> <tr><td>2 X 3</td><td>-0123</td><td>-0763</td><td>-0923</td><td>1 & 5</td></tr> <tr><td>2 X 4</td><td>-0124</td><td>-0764</td><td>-0924</td><td>3 & 5</td></tr> <tr><td>2 X 5</td><td>-0125</td><td>-0765</td><td>-0925</td><td>3 & 7</td></tr> <tr><td>2 X 6</td><td>-0126</td><td>-0766</td><td>-0926</td><td>5 & 7</td></tr> <tr><td>2 X 7</td><td>-0127</td><td>-0767</td><td>-0927</td><td>5 & 9</td></tr> <tr><td>2 X 8</td><td>-0128</td><td>-0768</td><td>-0928</td><td>7 & 9</td></tr> <tr><td>2 X 9</td><td>-0129</td><td>-0769</td><td>-0929</td><td>7 & 11</td></tr> <tr><td>2 X 10</td><td>-0130</td><td>-0770</td><td>-0930</td><td>9 & 11</td></tr> <tr><td>2 X 11</td><td>-0131</td><td>-0771</td><td>-0931</td><td>1,11 & 21</td></tr> <tr><td>2 X 12</td><td>-0132</td><td>-0772</td><td>-0932</td><td>1,12 & 23</td></tr> <tr><td>2 X 13</td><td>-0133</td><td>-0773</td><td>-0933</td><td>1,13 & 25</td></tr> <tr><td>2 X 14</td><td>-0134</td><td>-0774</td><td>-0934</td><td>1,15 & 27</td></tr> <tr><td>2 X 15</td><td>-0135</td><td>-0775</td><td>-0935</td><td>1,15 & 29</td></tr> <tr><td>2 X 16</td><td>-0136</td><td>-0776</td><td>-0936</td><td>1,15 & 31</td></tr> <tr><td>2 X 17</td><td>-0137</td><td>-0777</td><td>-0937</td><td>1,17 & 33</td></tr> <tr><td>2 X 18</td><td>-0138</td><td>-0778</td><td>-0938</td><td>1,17 & 35</td></tr> <tr><td>2 X 19</td><td>-0139</td><td>-0779</td><td>-0939</td><td>1,19 & 37</td></tr> <tr><td>2 X 20</td><td>-0140</td><td>-0780</td><td>-0940</td><td>1,19 & 39</td></tr> <tr><td>2 X 21</td><td>-0141</td><td>-0781</td><td>-0941</td><td>1,21 & 41</td></tr> <tr><td>2 X 22</td><td>-0142</td><td>-0782</td><td>-0942</td><td>1,21 & 43</td></tr> <tr><td>2 X 23</td><td>-0143</td><td>-0783</td><td>-0943</td><td>1,23 & 45</td></tr> <tr><td>2 X 24</td><td>-0144</td><td>-0784</td><td>-0944</td><td>1,23 & 47</td></tr> <tr><td>2 X 25</td><td>-0145</td><td>-0785</td><td>-0945</td><td>1,25 & 49</td></tr> <tr><td>2 X 26</td><td>-0146</td><td>-0786</td><td>-0946</td><td>1,25 & 51</td></tr> <tr><td>2 X 27</td><td>-0147</td><td>-0787</td><td>-0947</td><td>1,27 & 53</td></tr> <tr><td>2 X 28</td><td>-0148</td><td>-0788</td><td>-0948</td><td>1,27 & 55</td></tr> <tr><td>2 X 29</td><td>-0149</td><td>-0789</td><td>-0949</td><td>1,29 & 57</td></tr> <tr><td>2 X 30</td><td>-0150</td><td>-0790</td><td>-0950</td><td>1,29 & 59</td></tr> <tr><td>2 X 31</td><td>-0151</td><td>-0791</td><td>-0951</td><td>1,31 & 61</td></tr> <tr><td>2 X 32</td><td>-0152</td><td>-0792</td><td>-0952</td><td>1,31 & 63</td></tr> <tr><td>2 X 33</td><td>-0153</td><td>-0793</td><td>-0953</td><td>1,33 & 65</td></tr> <tr><td>2 X 34</td><td>-0154</td><td>-0794</td><td>-0954</td><td>1,33 & 67</td></tr> <tr><td>2 X 35</td><td>-0155</td><td>-0795</td><td>-0955</td><td>1,35 & 69</td></tr> <tr><td>2 X 36</td><td>-0156</td><td>-0796</td><td>-0956</td><td>1,35 & 71</td></tr> <tr><td>2 X 37</td><td>-0157</td><td>-0797</td><td>-0957</td><td>1,37 & 73</td></tr> <tr><td>2 X 38</td><td>-0158</td><td>-0798</td><td>-0958</td><td>1,37 & 75</td></tr> <tr><td>2 X 39</td><td>↓ -0159</td><td>↓ -0799</td><td>↓ -0959</td><td>1,39 & 77</td></tr> <tr><td>2 X 40</td><td>90628 -0160</td><td>90628 -0800</td><td>90628 -0960</td><td>1,39 & 79</td></tr> </tbody> </table>				CIRCUIT SIZE	PLATING TYPE A PART NO.	PLATING TYPE E PART NO.	PLATING TYPE F PART NO.	KINKED PIN POSITIONS	2 X 1	90628 -0121	90628 -0761	90628 -0921	1	2 X 2	↑ -0122	↑ -0762	↑ -0922	1,3	2 X 3	-0123	-0763	-0923	1 & 5	2 X 4	-0124	-0764	-0924	3 & 5	2 X 5	-0125	-0765	-0925	3 & 7	2 X 6	-0126	-0766	-0926	5 & 7	2 X 7	-0127	-0767	-0927	5 & 9	2 X 8	-0128	-0768	-0928	7 & 9	2 X 9	-0129	-0769	-0929	7 & 11	2 X 10	-0130	-0770	-0930	9 & 11	2 X 11	-0131	-0771	-0931	1,11 & 21	2 X 12	-0132	-0772	-0932	1,12 & 23	2 X 13	-0133	-0773	-0933	1,13 & 25	2 X 14	-0134	-0774	-0934	1,15 & 27	2 X 15	-0135	-0775	-0935	1,15 & 29	2 X 16	-0136	-0776	-0936	1,15 & 31	2 X 17	-0137	-0777	-0937	1,17 & 33	2 X 18	-0138	-0778	-0938	1,17 & 35	2 X 19	-0139	-0779	-0939	1,19 & 37	2 X 20	-0140	-0780	-0940	1,19 & 39	2 X 21	-0141	-0781	-0941	1,21 & 41	2 X 22	-0142	-0782	-0942	1,21 & 43	2 X 23	-0143	-0783	-0943	1,23 & 45	2 X 24	-0144	-0784	-0944	1,23 & 47	2 X 25	-0145	-0785	-0945	1,25 & 49	2 X 26	-0146	-0786	-0946	1,25 & 51	2 X 27	-0147	-0787	-0947	1,27 & 53	2 X 28	-0148	-0788	-0948	1,27 & 55	2 X 29	-0149	-0789	-0949	1,29 & 57	2 X 30	-0150	-0790	-0950	1,29 & 59	2 X 31	-0151	-0791	-0951	1,31 & 61	2 X 32	-0152	-0792	-0952	1,31 & 63	2 X 33	-0153	-0793	-0953	1,33 & 65	2 X 34	-0154	-0794	-0954	1,33 & 67	2 X 35	-0155	-0795	-0955	1,35 & 69	2 X 36	-0156	-0796	-0956	1,35 & 71	2 X 37	-0157	-0797	-0957	1,37 & 73	2 X 38	-0158	-0798	-0958	1,37 & 75	2 X 39	↓ -0159	↓ -0799	↓ -0959	1,39 & 77	2 X 40	90628 -0160	90628 -0800	90628 -0960	1,39 & 79									
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2 X 3		-0123	-0763	-0923	1 & 5																																																																																																																																																																																																																						
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2 X 5		-0125	-0765	-0925	3 & 7																																																																																																																																																																																																																						
2 X 6		-0126	-0766	-0926	5 & 7																																																																																																																																																																																																																						
2 X 7		-0127	-0767	-0927	5 & 9																																																																																																																																																																																																																						
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2 X 18		-0138	-0778	-0938	1,17 & 35																																																																																																																																																																																																																						
2 X 19		-0139	-0779	-0939	1,19 & 37																																																																																																																																																																																																																						
2 X 20		-0140	-0780	-0940	1,19 & 39																																																																																																																																																																																																																						
2 X 21		-0141	-0781	-0941	1,21 & 41																																																																																																																																																																																																																						
2 X 22		-0142	-0782	-0942	1,21 & 43																																																																																																																																																																																																																						
2 X 23		-0143	-0783	-0943	1,23 & 45																																																																																																																																																																																																																						
2 X 24		-0144	-0784	-0944	1,23 & 47																																																																																																																																																																																																																						
2 X 25		-0145	-0785	-0945	1,25 & 49																																																																																																																																																																																																																						
2 X 26		-0146	-0786	-0946	1,25 & 51																																																																																																																																																																																																																						
2 X 27		-0147	-0787	-0947	1,27 & 53																																																																																																																																																																																																																						
2 X 28		-0148	-0788	-0948	1,27 & 55																																																																																																																																																																																																																						
2 X 29		-0149	-0789	-0949	1,29 & 57																																																																																																																																																																																																																						
2 X 30		-0150	-0790	-0950	1,29 & 59																																																																																																																																																																																																																						
2 X 31		-0151	-0791	-0951	1,31 & 61																																																																																																																																																																																																																						
2 X 32		-0152	-0792	-0952	1,31 & 63																																																																																																																																																																																																																						
2 X 33		-0153	-0793	-0953	1,33 & 65																																																																																																																																																																																																																						
2 X 34		-0154	-0794	-0954	1,33 & 67																																																																																																																																																																																																																						
2 X 35		-0155	-0795	-0955	1,35 & 69																																																																																																																																																																																																																						
2 X 36		-0156	-0796	-0956	1,35 & 71																																																																																																																																																																																																																						
2 X 37		-0157	-0797	-0957	1,37 & 73																																																																																																																																																																																																																						
2 X 38		-0158	-0798	-0958	1,37 & 75																																																																																																																																																																																																																						
2 X 39	↓ -0159	↓ -0799	↓ -0959	1,39 & 77																																																																																																																																																																																																																							
2 X 40	90628 -0160	90628 -0800	90628 -0960	1,39 & 79																																																																																																																																																																																																																							
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NOTES:
 I. FOR PLATING VARIATIONS SEE ENG.STD. SDES-99000-0003.

FOR PREVIOUS DRAWING ISSUES SEE MRI.

SEE SHEET I.

REVISIONS	DIMENSIONS SHOWN (METRIC) INCH	
	UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2°	
	INCH	(METRIC)
	3 PLACE ± .	
	2 PLACE ± .	±
	1 PLACE ±	±
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	
	DESIGN DIMENSION (PRIMARY)	<input checked="" type="checkbox"/> (MM) <input type="checkbox"/> IN.
	EQUIVALENT DIMENSION (SECONDARY)	<input type="checkbox"/> (MM) <input checked="" type="checkbox"/> IN.

DRWG BY	RD
CHK'D BY	
APP'D BY	
SCALE	

REVISE ONLY ON CAD SYSTEM		SH.	REV.
CAD/CAM FILENAME SA90628X2 DCN	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. & SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
C-GRID III DUAL ROW KINKED PIN HEADER			
MOLEX EUROPE		SHEET NO. 20F	DATE 90/09/11
PART NO. SEE CHART	DWG NO. SDA-90628	SIZE B	