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ELECTRONICS

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Jameco Part Number 455582

## FEATURES AND SPECIFICATIONS

### Features and Benefits

- Sizes 2 to 15 circuits
- Large lead-in chamfers
- Bottom entry mount
- Polarizing key available
- Mating headers must be long enough to accommodate board thickness

### Reference Information

Product Specification: PS-08-50

Packaging: Bag

UL File No.: E29179

CSA File No.: LR19980

Mates With: Molex KK 3.96mm (.156") locking headers or

1.14mm (.045") staked pins

Designed In: Inches

### Electrical

Voltage: 250V AC max.

Current: 5.0A max.\*

Contact Resistance: 6mΩ max.

Dielectric Withstanding Voltage: 1500V AC

Insulation Resistance: 50K MΩ min.

### Physical

Housing: Polyester, UL 94V-0

Contact: Brass or Phosphor Bronze

Plating: See Table

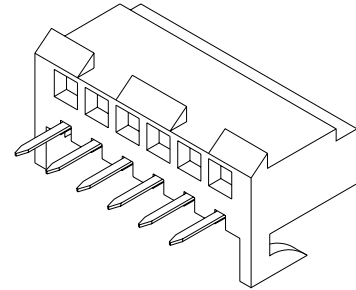
Operating Temperature: 0 to +75°C

**molex®** 3.96mm (.156") Pitch  
KK®

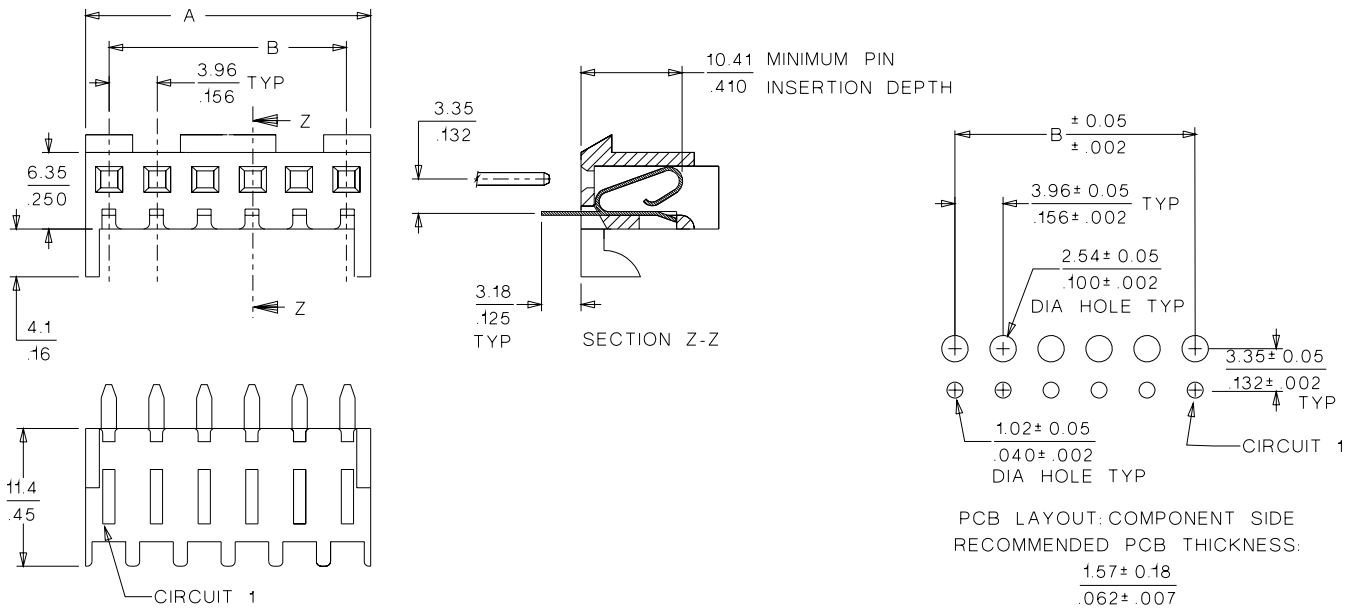
**PC Board Connector**

**41815**

**Bottom Entry**



## CATALOG DRAWING (FOR REFERENCE ONLY)



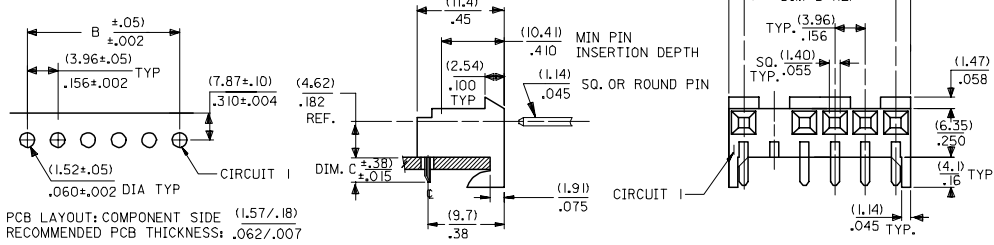
## ORDERING INFORMATION AND DIMENSIONS

Circuits	Order No.		Dimension	
	Tin	Select Gold	A	B
2	• 09-48-4029	• 09-48-3024	7.82 (.308)	3.96 (.156)
3	• 09-48-4039	• 09-48-3034	11.79 (.464)	7.92 (.312)
4	• 09-48-4049	• 09-48-3044	15.75 (.620)	11.89 (.468)
5	• 09-48-4059	• 09-48-3054	19.70 (.776)	15.85 (.624)
6	• 09-48-4069	• 09-48-3064	23.67 (.932)	19.81 (.780)
7	• 09-48-4079	• 09-48-3074	27.64 (1.088)	23.77 (.936)
8	• 09-48-4089	• 09-48-3084	31.60 (1.244)	27.74 (1.092)
9	• 09-48-4099	• 09-48-3094	35.56 (1.400)	31.70 (1.248)
10	• 09-48-4109	• 09-48-3104	39.52 (1.556)	35.66 (1.404)
11	• 09-48-4119	• 09-48-3114	43.48 (1.712)	39.62 (1.560)
12	• 09-48-4129	• 09-48-3124	47.45 (1.868)	43.59 (1.716)
13	• 09-48-4139	• 09-48-3134	51.41 (2.024)	47.55 (1.872)
14	• 09-48-4149	• 09-48-3144	55.37 (2.180)	51.51 (2.028)
15	• 09-48-4159	• 09-48-3154	59.33 (2.336)	55.47 (2.184)

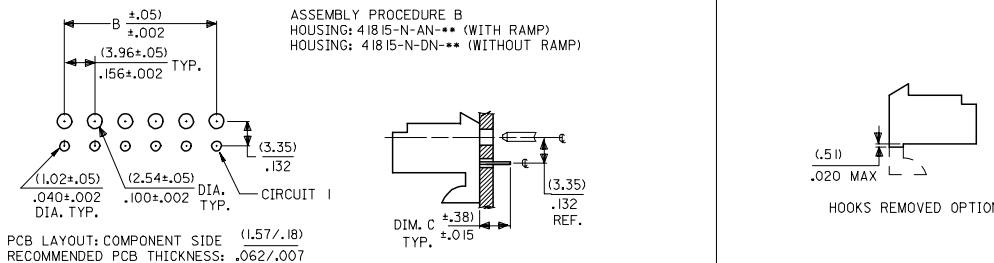
\* US Standard Product, available through Molex franchised distributors

\* Dependent upon PC board

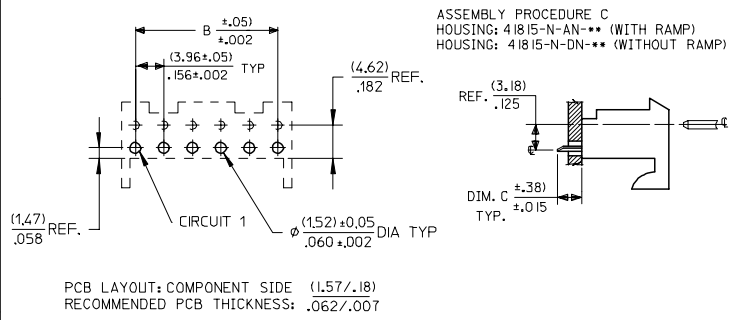
ASSEMBLY PROCEDURE A  
HOUSING: 41815-N-AN-\*\* (WITH RAMP)  
HOUSING: 41815-N-DN-\*\* (WITHOUT RAMP)



ASSEMBLY PROCEDURE B  
HOUSING: 41815-N-AN-\*\* (WITH RAMP)  
HOUSING: 41815-N-DN-\*\* (WITHOUT RAMP)



ASSEMBLY PROCEDURE C  
HOUSING: 41815-N-AN-\*\* (WITH RAMP)  
HOUSING: 41815-N-DN-\*\* (WITHOUT RAMP)



DIM. B	DIM. A	NO. OF CKTS
(3.96)	(7.82±.25)	2
.156	.308±.010	2
(7.92)	(11.79±.25)	3
.312	.464±.010	3
(11.89)	(15.75±.25)	4
.468	.620±.010	4
(15.85)	(19.71±.25)	5
.624	.776±.010	5
(19.81)	(23.67±.25)	6
.780	.932±.010	6
(23.77)	(27.64±.30)	7
.936	1.088±.012	7
(27.74)	(31.60±.25)	8
1.092	1.244±.012	8
(31.70)	(35.56±.30)	9
1.248	1.400±.012	9
(35.66)	(39.52±.30)	10
1.404	1.556±.012	10
(39.62)	(43.48±.30)	11
1.560	1.712±.012	11
(43.59)	(47.45±.30)	12
1.716	1.868±.012	12
(47.55)	(51.41±.30)	13
1.872	2.024±.012	13
(51.51)	(55.37±.36)	14
2.028	2.180±.014	14
(55.47)	(59.33±.36)	15
2.184	2.336±.014	15

NOTES:

- SOLDERABILITY: WHEN PARTS ARE SOLDERED AT A TEMPERATURE OF 230°C OR 446°F FOR 5 SECONDS EACH SOLDERED SURFACE SHALL BE A MINIMUM OF 95% COVERED WITH A SMOOTH CONTINUOUS ADHERENT COATING. FOR ADDITIONAL INFORMATION SEE ES-152.
- MATERIAL: HOUSING: POLYESTER, 94V-0 COLOR NATURAL (WHITE)
- PRODUCT SPECIFICATION: PS-08-50
- PARTS ARE STACKABLE END TO END ON (3.96)/.156 @
- FOR TOP ENTRY AND RIGHT ANGLE ASSEMBLIES WITH LOWER INSERTION FORCE USE SINGLE BEAM CONTACT. (TERMINAL NO. 4244)
- FINISH PER ES-88
  - (102) OVERALL TIN: 0.00508/.000200 MIN OVER 0.00254/.000100 MIN COPPER.
  - (208) SELECT GOLD: 0.00038/.000015 MIN.
  - \* SELECT TIN: 0.00254/.000100 MIN.
  - OVERALL NICKEL UNDERPLATE: 0.00127/.000050 MIN.
  - (228) SELECT GOLD: 0.00076/.000030 MIN.
  - \* SELECT TIN: 0.00254/.000100 MIN.
  - OVERALL NICKEL UNDERPLATE: 0.00127/.000050 MIN.

\*THE PRIMARY SHIPPING CARTON WILL BE LABELED 'COMPLIANT TO ROHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE 2002/53/EC'. CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT WITH TIN-LEAD PLATING.

UPDATED PER ECN EC NO: UCP2005-2495 DRWN: ADERR 2005/05/12 CHKD: LSCHMI DT 2005/05/12 APPR: FSWI TH 2005/05/13	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM/IN		SCALE ---	DESIGN UNITS INCH	THIRD ANGLE PROJECTION	
			mm	INCH	DRAWN BY SAMIEC	DATE 01/28/87	TITLE		KK 156 HOUSING PCB 41815 SERIES
		4 PLACES	± ---	± ---	CHECKED BY	DATE 01/28/87	MOLEX INCORPORATED		
		3 PLACES	± ---	± .010	APPROVED BY LENZ	DATE 01/28/87			MATERIAL NO. SEE CHART
		ANGULAR ±1/2°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					

2-10	AL1
1	AL2
SHT.	REV.



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

Assy. Proc:	RIGHT ANGLE
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-BA-A1AA-102B
Term Matl:	PHOS BRONZE
Plating:	102 TIN
Dim C:	(3.68) / .145
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	RIGHT ANGLE
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-BA-A1AA-208B
Term Matl:	PHOS BRONZE
Plating:	208 – 15 GOLD
Dim C:	(3.68) / .145
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	6298-1-102
Term Matl:	PHOS BRONZE
Plating:	102 – TIN
Dim C:	(3.18)/. 125
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	6298-1-208
Term Matl:	PHOS BRONZE
Plating:	208 – 15 GOLD
Dim C:	(3.18)/. 125
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Ckts	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number
2	09-48-1024	A-41815-0002	09-48-5024	A-41815-0016	09-48-4029	A-41815-0030	09-48-5026	A-41815-0044
3	09-48-1034	A-41815-0003	09-48-5034	A-41815-0017	09-48-4039	A-41815-0031	09-48-5036	A-41815-0045
4	09-48-1044	A-41815-0004	09-48-5044	A-41815-0018	09-48-4049	A-41815-0032	09-48-5046	A-41815-0046
5	09-48-1054	A-41815-0005	09-48-5054	A-41815-0019	09-48-4059	A-41815-0033	09-48-5056	A-41815-0047
6	09-48-1064	A-41815-0006	09-48-5064	A-41815-0020	09-48-4069	A-41815-0034	09-48-5066	A-41815-0048
7	09-48-1074	A-41815-0007	09-48-5074	A-41815-0021	09-48-4079	A-41815-0035	09-48-5076	A-41815-0049
8	09-48-1084	A-41815-0008	09-48-5084	A-41815-0022	09-48-4089	A-41815-0036	09-48-5087	A-41815-0050
9	09-48-1094	A-41815-0009	09-48-5094	A-41815-0023	09-48-4099	A-41815-0037	09-48-5096	A-41815-0051
10	09-48-1104	A-41815-0010	09-48-5104	A-41815-0024	09-48-4109	A-41815-0038	09-48-5106	A-41815-0052
11	09-48-1114	A-41815-0011	09-48-5114	A-41815-0025	09-48-4119	A-41815-0039	09-48-5116	A-41815-0053
12	09-48-1124	A-41815-0012	09-48-5124	A-41815-0026	09-48-4129	A-41815-0040	09-48-5126	A-41815-0054
13	09-48-1134	A-41815-0013	09-48-5134	A-41815-0027	09-48-4139	A-41815-0041	09-48-5136	A-41815-0055
14	09-48-1144	A-41815-0014	09-48-5144	A-41815-0028	09-48-4149	A-41815-0042	09-48-5146	A-41815-0056
15	09-48-1154	A-41815-0015	09-48-5154	A-41815-0029	09-48-4159	A-41815-0043	09-48-5156	A-41815-0057

<b>REV:</b> <b>AL1</b>	SEE SHEET ONE <b>4/15/2005</b>	<b>TITLE:</b> <b>KK 156 HOUSING ASSY PCB 41815 SERIES DWG</b>	<b>SHEET No.</b>
		<b>- 2 -</b>	
<b>DOCUMENT NUMBER:</b> <b>SDA-41815</b>		<b>CREATED / REVISED BY:</b> <b>ADERR</b>	<b>CHECKED BY:</b> <b>SSOUSEK</b>
		<b>APPROVED BY:</b> <b>FSMITH</b>	



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

Assy. Proc:	TOP ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-BA-A1AA-102B
Term Matl:	PHOS BRONZE
Plating:	102 – TIN
Dim C:	(3.05) / .120
VOIDS:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	TOP ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-BA-A1AA-208B
Term Matl:	PHOS BRONZE
Plating:	208 – 15 GOLD
Dim C:	(3.05) / .120
VOIDS:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Ckts	Material No	Engineer Number
2	09-48-4028	A-41815-0058
3	09-48-4038	A-41815-0059
4	09-48-4048	A-41815-0060
5	09-48-4058	A-41815-0061
6	09-48-4068	A-41815-0062
7	09-48-4078	A-41815-0063
8	09-48-4088	A-41815-0064
9	09-48-4098	A-41815-0065
10	09-48-4108	A-41815-0066
11	09-48-4118	A-41815-0067
12	09-48-4128	A-41815-0068
13	09-48-4138	A-41815-0069
14	09-48-4148	A-41815-0070
15	09-48-4158	A-41815-0071

Material No	Engineer Number
09-48-5025	A-41815-0072
09-48-5035	A-41815-0073
09-48-5045	A-41815-0074
09-48-5055	A-41815-0075
09-48-5065	A-41815-0076
09-48-5075	A-41815-0077
09-48-5085	A-41815-0078
09-48-5095	A-41815-0079
09-48-5105	A-41815-0080
09-48-5115	A-41815-0081
09-48-5125	A-41815-0082
09-48-5135	A-41815-0083
09-48-5145	A-41815-0084
09-48-5155	A-41815-0085

<b>REV:</b> <b>AL1</b>	SEE SHEET ONE <b>4/15/2005</b>	<b>TITLE:</b> <b>KK 156 HOUSING ASSY PCB 41815 SERIES DWG</b>	<b>SHEET No.</b> <b>- 3 -</b>
<b>DOCUMENT NUMBER:</b> <b>SDA-41815</b>		<b>CREATED / REVISED BY:</b> <b>ADERR</b>	<b>CHECKED BY:</b> <b>SSOUSEK</b>
		<b>APPROVED BY:</b> <b>FSMITH</b>	



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2188-1-P909
Term Matl:	BRASS
Plating:	P909 – TIN
Dim C:	(3.18) / .125
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	TOP ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-AA-A1AA-P909B
Term Matl:	BRASS
Plating:	P909 – TIN
Dim C:	(3.05) / .120
Voids:	NONE
Hooks Cut:	YES
Packaging:	PK-41815-001 TRAY

Assy. Proc:	RIGHT ANGLE
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-AA-A1AA-122B
Term Matl:	BRASS
Plating:	122 – TIN
Dim C:	(3.68) / .145
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2188-1-102
Term Matl:	BRASS
Plating:	102 – TIN
Dim C:	(3.18) / .125
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Ckts	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number
2	09-48-2022	A-41815-0100	09-48-2025	A-41815-0114	41815-0128	A-41815-0128	09-48-4022	A-41815-0142
3	09-48-2032	A-41815-0101	09-48-2035	A-41815-0115	41815-0129	A-41815-0129	09-48-4032	A-41815-0143
4	09-48-2042	A-41815-0102	09-48-2045	A-41815-0116	41815-0130	A-41815-0130	09-48-4042	A-41815-0144
5	09-48-2052	A-41815-0103	09-48-2055	A-41815-0117	41815-0131	A-41815-0131	09-48-4052	A-41815-0145
6	09-48-2062	A-41815-0104	09-48-2065	A-41815-0118	41815-0132	A-41815-0132	09-48-4062	A-41815-0146
7	09-48-2072	A-41815-0105	09-48-2075	A-41815-0119	41815-0133	A-41815-0133	09-48-4072	A-41815-0147
8	09-48-2082	A-41815-0106	09-48-2085	A-41815-0120	41815-0134	A-41815-0134	09-48-4082	A-41815-0148
9	09-48-2092	A-41815-0107	09-48-2095	A-41815-0121	41815-0135	A-41815-0135	09-48-4092	A-41815-0149
10	09-48-2102	A-41815-0108	09-48-2105	A-41815-0122	41815-0136	A-41815-0136	09-48-4102	A-41815-0150
11	09-48-2112	A-41815-0109	09-48-2115	A-41815-0123	41815-0137	A-41815-0137	09-48-4112	A-41815-0151
12	09-48-2122	A-41815-0110	09-48-2125	A-41815-0124	09-48-1122	A-41815-0138	09-48-4122	A-41815-0152
13	09-48-2132	A-41815-0111	09-48-2135	A-41815-0125	41815-0139	A-41815-0139	09-48-4132	A-41815-0153
14	09-48-2142	A-41815-0112	09-48-2145	A-41815-0126	41815-0140	A-41815-0140	09-48-4142	A-41815-0154
15	09-48-2152	A-41815-0113	09-48-2155	A-41815-0127	41815-0141	A-41815-0141	09-48-4152	A-41815-0155

REV: <b>AL1</b>	SEE SHEET ONE 4/15/2005	TITLE: <b>KK 156 HOUSING ASSY PCB 41815 SERIES DWG</b>	SHEET No. <b>- 4 -</b>
DOCUMENT NUMBER: <b>SDA-41815</b>		CREATED / REVISED BY: <b>ADERR</b>	CHECKED BY: <b>SSOUSEK</b>
		APPROVED BY: <b>FSMITH</b>	



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

Assy. Proc:	
Housing No:	
Options	
Terminal No:	
Term Matl:	
Plating:	
Dim C:	
Voids:	
Hooks Cut:	
Packaging:	

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	6298-1-102
Term Matl:	PHOS BRONZE
Plating:	102 – TIN
Dim C:	(4.60) / .160
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2188-1-228
Term Matl:	BRASS
Plating:	228 – GOLD
Dim C:	(3.18) / .125
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	RIGHT ANGLE
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-AA-A1AA-P909B
Term Matl:	BRASS
Plating:	P909 – TIN
Dim C:	(3.68) / .145
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Ckts	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number
2			09-48-4021	A-41815-0170	41815-0184	A-41815-0184	09-48-2021	A-41815-0198
3			09-48-4031	A-41815-0171	09-48-5030	A-41815-0185	09-48-2031	A-41815-0199
4			09-48-4041	A-41815-0172	09-48-5040	A-41815-0186	09-48-2041	A-41815-0200
5			09-48-4051	A-41815-0173	09-48-5050	A-41815-0187	09-48-2051	A-41815-0201
6			09-48-4061	A-41815-0174	41815-0188	A-41815-0188	09-48-2061	A-41815-0202
7			09-48-4071	A-41815-0175	41815-0189	A-41815-0189	09-48-2071	A-41815-0203
8			09-48-4081	A-41815-0176	09-48-5090	A-41815-0190	09-48-2081	A-41815-0204
9			09-48-4091	A-41815-0177	41815-0191	A-41815-0191	09-48-2091	A-41815-0205
10			09-48-4101	A-41815-0178	09-48-5100	A-41815-0192	09-48-2101	A-41815-0206
11			09-48-4111	A-41815-0179	41815-0193	A-41815-0193	09-48-2111	A-41815-0207
12			09-48-4121	A-41815-0180	41815-0194	A-41815-0194	09-48-2121	A-41815-0208
13			09-48-4131	A-41815-0181	41815-0195	A-41815-0195	09-48-2131	A-41815-0209
14			09-48-4141	A-41815-0182	41815-0196	A-41815-0196	09-48-2141	A-41815-0210
15			09-48-4151	A-41815-0183	41815-0197	A-41815-0197	09-48-2151	A-41815-0211

REV: <b>AL1</b>	SEE SHEET ONE 4/15/2005	TITLE: <b>KK 156 HOUSING ASSY PCB 41815 SERIES DWG</b>	SHEET No. <b>- 5 -</b>
DOCUMENT NUMBER: <b>SDA-41815</b>		CREATED / REVISED BY: <b>ADERR</b>	CHECKED BY: <b>SSOUSEK</b>
		APPROVED BY: <b>FSMITH</b>	



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

Assy. Proc:	RIGHT ANGLE
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-AA-A1AA-228B
Term Matl:	BRASS
Plating:	228 – GOLD
Dim C:	(3.68) / .145
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-DN
Options	NO RAMPS
Terminal No:	2188-P909
Term Matl:	BRASS
Plating:	P909 – TIN
Dim C:	(4.06) / .160
Voids:	NONE
Hooks Cut:	YES
Packaging:	PK-41815-001 TRAY

Assy. Proc:	RIGHT ANGLE
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-AA-A1AA-505B
Term Matl:	BRASS
Plating:	505 – GOLD
Dim C:	(3.68) / .145
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	TOP ENTRY
Housing No:	41815-N-DN
Options	NO RAMPS
Terminal No:	2144-AA-A1AA-P909B
Term Matl:	BRASS
Plating:	P909 – TIN
Dim C:	(3.05) / .120
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Ckts	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number
2	09-48-5023	A-41815-0313	41815-0327	A-41815-0327	41815-0341	A-41815-0341	41815-0355	A-41815-0355
3	09-48-5033	A-41815-0314	41815-0328	A-41815-0328	09-48-3037	A-41815-0342	41815-0356	A-41815-0356
4	09-48-5043	A-41815-0315	41815-0329	A-41815-0329	41815-0343	A-41815-0343	09-48-2047	A-41815-0357
5	09-48-5053	A-41815-0316	09-48-2056	A-41815-0330	41815-0344	A-41815-0344	41815-0358	A-41815-0358
6	09-48-5063	A-41815-0317	41815-0331	A-41815-0331	41815-0345	A-41815-0345	41815-0359	A-41815-0359
7	09-48-5073	A-41815-0318	41815-0332	A-41815-0332	41815-0346	A-41815-0346	41815-0360	A-41815-0360
8	09-48-5083	A-41815-0319	09-48-2086	A-41815-0333	41815-0347	A-41815-0347	41815-0361	A-41815-0361
9	09-48-5093	A-41815-0320	41815-0334	A-41815-0334	41815-0348	A-41815-0348	41815-0362	A-41815-0362
10	09-48-5103	A-41815-0321	09-48-2106	A-41815-0335	41815-0349	A-41815-0349	09-48-2107	A-41815-0363
11	09-48-5113	A-41815-0322	41815-0336	A-41815-0336	41815-0350	A-41815-0350	41815-0364	A-41815-0364
12	09-48-5123	A-41815-0323	41815-0337	A-41815-0337	41815-0351	A-41815-0351	41815-0365	A-41815-0365
13	09-48-5133	A-41815-0324	41815-0338	A-41815-0338	41815-0352	A-41815-0352	41815-0366	A-41815-0366
14	09-48-5143	A-41815-0325	41815-0339	A-41815-0339	41815-0353	A-41815-0353	41815-0367	A-41815-0367
15	09-48-5153	A-41815-0326	41815-0340	A-41815-0340	41815-0354	A-41815-0354	41815-0368	A-41815-0368

REV: <b>AL1</b>	SEE SHEET ONE 4/15/2005	TITLE: <b>KK 156 HOUSING ASSY PCB 41815 SERIES DWG</b>	SHEET No. <b>- 6 -</b>
DOCUMENT NUMBER: <b>SDA-41815</b>		CREATED / REVISED BY: <b>ADERR</b>	CHECKED BY: <b>SSOUSEK</b>
		APPROVED BY: <b>FSMITH</b>	





# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

Assy. Proc:	RIGHT ANGLE
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	4244-A-102A
Term Matl:	PHOS BRONZE
Plating:	102 – TIN
Dim C:	(3.68) / .145
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2188-1-122
Term Matl:	BRASS
Plating:	TIN – 122
Dim C:	(3.18) / .125
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	RIGHT ANGLE
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-AA-A1AA-208B
Term Matl:	BRASS
Plating:	208 – 15 GOLD
Dim C:	(3.68) / .145
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2188-1-208
Term Matl:	BRASS
Plating:	208 – 15 GOLD
Dim C:	(3.18) / .125
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Ckts	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number
2	09-48-1023	A-41815-0369	09-48-4025	A-41815-0383	09-48-3025	A-41815-0425	09-48-3024	A-41815-0439
3	09-48-1033	A-41815-0370	09-48-4035	A-41815-0384	09-48-3035	A-41815-0426	09-48-3034	A-41815-0440
4	09-48-1043	A-41815-0371	09-48-4045	A-41815-0385	09-48-3045	A-41815-0427	09-48-3044	A-41815-0441
5	09-48-1053	A-41815-0372	09-48-4055	A-41815-0386	09-48-3055	A-41815-0428	09-48-3054	A-41815-0442
6	09-48-1063	A-41815-0373	09-48-4065	A-41815-0387	09-48-3065	A-41815-0429	09-48-3064	A-41815-0443
7	09-48-1073	A-41815-0374	09-48-4075	A-41815-0388	09-48-3075	A-41815-0430	09-48-3074	A-41815-0444
8	09-48-1083	A-41815-0375	09-48-4085	A-41815-0389	09-48-3085	A-41815-0431	09-48-3084	A-41815-0445
9	09-48-1093	A-41815-0376	09-48-4095	A-41815-0390	09-48-3095	A-41815-0432	09-48-3094	A-41815-0446
10	09-48-1103	A-41815-0377	09-48-4105	A-41815-0391	09-48-3105	A-41815-0433	09-48-3104	A-41815-0447
11	09-48-1113	A-41815-0378	09-48-4115	A-41815-0392	09-48-3115	A-41815-0434	09-48-3114	A-41815-0448
12	09-48-1123	A-41815-0379	09-48-4125	A-41815-0393	09-48-3125	A-41815-0435	09-48-3124	A-41815-0449
13	09-48-1133	A-41815-0380	09-48-4135	A-41815-0394	09-48-3135	A-41815-0436	09-48-3134	A-41815-0450
14	09-48-1143	A-41815-0381	09-48-4145	A-41815-0395	09-48-3145	A-41815-0437	09-48-3144	A-41815-0451
15	09-48-1153	A-41815-0382	09-48-4155	A-41815-0396	09-48-3155	A-41815-0438	09-48-3154	A-41815-0452

REV: <b>AL1</b>	SEE SHEET ONE 4/15/2005	TITLE: <b>KK 156 HOUSING ASSY PCB 41815 SERIES DWG</b>	SHEET No. <b>- 7 -</b>
DOCUMENT NUMBER: <b>SDA-41815</b>		CREATED / REVISED BY: <b>ADERR</b>	CHECKED BY: <b>SSOUSEK</b>
		APPROVED BY: <b>FSMITH</b>	



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

Assy. Proc:	TOP ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-AA-A1AA-P909B
Term Matl:	BRASS
Plating:	P909 – TIN
Dim C:	(3.05) / .120
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	TOP ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-AA-A1AA-208B
Term Matl:	BRASS
Plating:	208 – 15 GOLD
Dim C:	(3.05) / .120
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	RIGHT ANGLE
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-BA-A1AA-P909B
Term Matl:	PHOS BRONZE
Plating:	P909 – TIN
Dim C:	(3.68) / .145
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	6298-1-P909
Term Matl:	PHOS BRONZE
Plating:	P909 – TIN
Dim C:	(3.18) / .125
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Ckts	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number
2	09-48-2023	A-41815-0453	09-48-3026	A-41815-0467	09-48-2020	A-41815-0481	09-48-2029	A-41815-0495
3	09-48-2033	A-41815-0454	09-48-3036	A-41815-0468	09-48-2030	A-41815-0482	09-48-2039	A-41815-0496
4	09-48-2043	A-41815-0455	09-48-3046	A-41815-0469	09-48-2040	A-41815-0483	09-48-2049	A-41815-0497
5	09-48-2053	A-41815-0456	09-48-3056	A-41815-0470	09-48-2050	A-41815-0484	09-48-2059	A-41815-0498
6	09-48-2063	A-41815-0457	09-48-3066	A-41815-0471	09-48-2060	A-41815-0485	09-48-2069	A-41815-0499
7	09-48-2073	A-41815-0458	09-48-3076	A-41815-0472	09-48-2070	A-41815-0486	09-48-2079	A-41815-0500
8	09-48-2083	A-41815-0459	09-48-3086	A-41815-0473	09-48-2080	A-41815-0487	09-48-2089	A-41815-0501
9	09-48-2093	A-41815-0460	09-48-3096	A-41815-0474	09-48-2090	A-41815-0488	09-48-2099	A-41815-0502
10	09-48-2103	A-41815-0461	09-48-3106	A-41815-0475	09-48-2100	A-41815-0489	09-48-2109	A-41815-0503
11	09-48-2113	A-41815-0462	09-48-3116	A-41815-0476	09-48-2110	A-41815-0490	09-48-2119	A-41815-0504
12	09-48-2123	A-41815-0463	09-48-3126	A-41815-0477	09-48-2120	A-41815-0491	09-48-2129	A-41815-0505
13	09-48-2133	A-41815-0464	09-48-3136	A-41815-0478	09-48-2130	A-41815-0492	09-48-2139	A-41815-0506
14	09-48-2143	A-41815-0465	09-48-3146	A-41815-0479	09-48-2140	A-41815-0493	09-48-2149	A-41815-0507
15	09-48-2153	A-41815-0466	09-48-3156	A-41815-0480	09-48-2150	A-41815-0494	09-48-2159	A-41815-0508

<b>REV:</b> <b>AL1</b>	SEE SHEET ONE <b>4/15/2005</b>	<b>TITLE:</b> <b>KK 156 HOUSING ASSY PCB 41815 SERIES DWG</b>	<b>SHEET No.</b> <b>- 8 -</b>
<b>DOCUMENT NUMBER:</b> <b>SDA-41815</b>		<b>CREATED / REVISED BY:</b> <b>ADERR</b>	<b>CHECKED BY:</b> <b>SSOUSEK</b>
		<b>APPROVED BY:</b> <b>FSMITH</b>	



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

Assy. Proc:	TOP ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-BA-A1AA-P909B
Term Matl:	PHOS BRONZE
Plating:	P909 – TIN
Dim C:	(3.05) / .120
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	TOP ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-BA-A1AA-102B
Term Matl:	PHOS BRONZE
Plating:	102 – TIN
Dim C:	(3.05) / .120
Voids:	NONE
Hooks Cut:	YES
Packaging:	PK-41815-001 TRAY

Assy. Proc:	TOP ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2144-BA-A1AA-208B
Term Matl:	PHOS BRONZE
Plating:	208 – 15 GOLD
Dim C:	(3.05) / .120
Voids:	NONE
Hooks Cut:	YES
Packaging:	PK-41815-001 TRAY

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-AN
Options	WITH RAMP
Terminal No:	2188-1-208
Term Matl:	BRASS
Plating:	208 – 15 GOLD
Dim C:	(3.18) / .125
Voids:	TERMINAL VOID 2
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Ckts	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number
2	09-48-2028	A-41815-0509	09-48-5028	A-41815-0523	09-48-1025	A-41815-0537		
3	09-48-2038	A-41815-0510	09-48-5038	A-41815-0524	09-48-1035	A-41815-0538	41815-0551	41815-0551
4	09-48-2048	A-41815-0511	09-48-5048	A-41815-0525	09-48-1045	A-41815-0539	41815-0552	41815-0552
5	09-48-2058	A-41815-0512	09-48-5058	A-41815-0526	09-48-1055	A-41815-0540	41815-0553	41815-0553
6	09-48-2068	A-41815-0513	09-48-5068	A-41815-0527	09-48-1065	A-41815-0541	41815-0554	41815-0554
7	09-48-2078	A-41815-0514	09-48-5078	A-41815-0528	09-48-1075	A-41815-0542	41815-0555	41815-0555
8	09-48-2088	A-41815-0515	09-48-5088	A-41815-0529	09-48-1085	A-41815-0543	41815-0556	41815-0556
9	09-48-2098	A-41815-0516	09-48-5098	A-41815-0530	09-48-1095	A-41815-0544	41815-0557	41815-0557
10	09-48-2108	A-41815-0517	09-48-5108	A-41815-0531	09-48-1105	A-41815-0545	41815-0558	41815-0558
11	09-48-2118	A-41815-0518	09-48-5118	A-41815-0532	09-48-1115	A-41815-0546	41815-0559	41815-0559
12	09-48-2128	A-41815-0519	09-48-5128	A-41815-0533	09-48-1125	A-41815-0547	41815-0560	41815-0560
13	09-48-2138	A-41815-0520	09-48-5138	A-41815-0534	09-48-1135	A-41815-0548	41815-0561	41815-0561
14	09-48-2148	A-41815-0521	09-48-5148	A-41815-0535	09-48-1145	A-41815-0549	41815-0562	41815-0562
15	09-48-2158	A-41815-0522	09-48-5158	A-41815-0536	09-48-1155	A-41815-0550	41815-0563	41815-0563

<b>REV:</b> <b>AL1</b>	SEE SHEET ONE <b>4/15/2005</b>	<b>TITLE:</b> <b>KK 156 HOUSING ASSY PCB 41815 SERIES DWG</b>	<b>SHEET No.</b> <b>- 9 -</b>
<b>DOCUMENT NUMBER:</b> <b>SDA-41815</b>		<b>CREATED / REVISED BY:</b> <b>ADERR</b>	<b>CHECKED BY:</b> <b>SSOUSEK</b>
		<b>APPROVED BY:</b> <b>FSMITH</b>	



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-DN
Options	WITHOUT RAMPS
Terminal No:	6298-1-102
Term Matl:	PHOS BRONZE
Plating:	102
Dim C:	3.18 / .125
Voids:	NONE
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	BOTTOM ENTRY
Housing No:	41815-N-DN
Options	WITHOUT RAMPS
Terminal No:	6298-1-102
Term Matl:	PHOS BRONZE
Plating:	102
Dim C:	3.18 / .125
Voids:	TERMINAL VOID 2
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	RIGHT ANGLE
Housing No:	41815-N-A15-7
Options	WITH RAMP
Terminal No:	2144-BA-A1AA-102B
Term Matl:	PHOS BRONZE
Plating:	102 TIN
Dim C:	(3.68) / .145
Voids:	TERMINAL VOID 7
Hooks Cut:	NO
Packaging:	PK-41815-001 TRAY

Assy. Proc:	RIGHT ANGLE
Housing No:	41815-N-AN
Options	WITHOUT RAMP
Terminal No:	2144-BA-A1AA-102B
Term Matl:	PHOS BRONZE
Plating:	102 TIN
Dim C:	(3.05)/.120
Voids:	NONE
Hooks Cut:	YES
Packaging:	PK-41815-001 TRAY

Ckts	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number	Material No	Engineer Number
2	41815-0564	A-41815-0564						
3	41815-0565	A-41815-0565	41815-0579	A-41815-0579				
4	41815-0566	A-41815-0566	41815-0580	A-41815-0580				
5	41815-0567	A-41815-0567	41815-0581	A-41815-0581				
6	41815-0568	A-41815-0568	41815-0582	A-41815-0582			41815-0605	A-41815-0605
7	41815-0569	A-41815-0569	41815-0583	A-41815-0583				
8	41815-0570	A-41815-0570	41815-0584	A-41815-0584				
9	41815-0571	A-41815-0571	41815-0585	A-41815-0585				
10	41815-0572	A-41815-0572	41815-0586	A-41815-0586				
11	41815-0573	A-41815-0573	41815-0587	A-41815-0587				
12	41815-0574	A-41815-0574	41815-0588	A-41815-0588				
13	41815-0575	A-41815-0575	41815-0589	A-41815-0589				
14	41815-0576	A-41815-0576	41815-0590	A-41815-0590				
15	41815-0577	A-41815-0577	41815-0591	A-41815-0591	41815-0600	A-41815-0600		

REV: <b>AL1</b>	SEE SHEET ONE 4/15/2005	TITLE: <b>KK 156 HOUSING ASSY PCB 41815 SERIES DWG</b>	SHEET No. <b>- 10 -</b>
DOCUMENT NUMBER: <b>SDA-41815</b>		CREATED / REVISED BY: <b>ADERR</b>	CHECKED BY: <b>SSOUSEK</b>
		APPROVED BY: <b>FSMITH</b>	



# PRODUCT SPECIFICATION

## 1.0 SCOPE

This Product Specification covers the 3.96 mm (.156 inch) centerline (pitch) 1.14mm (.045) square pin headers when mated with either printed circuit board (PCB) connectors or connectors terminated with 18 to 26 AWG wire using crimp technology.

## 2.0 PRODUCT DESCRIPTION

### 2.1 PRODUCT NAME AND SERIES NUMBERS

Crimp Terminals: 2478,2578,2878,2477,

Crimp Housings: 2139, 41695

PCB Connectors: 2145, 41815

Headers: 41771, 41772, 41791, 41792, 42471, 42472, 42491, 42492, 41661, 41662, 41671, 61672, 41681, 41682

Other products conforming to this specification are noted on the individual drawings.

### 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Terminal Material: Brass or Phos. Bronze (for Max performance use phos bronze material.)

Housing: Nylon or Polyester

Pins: Brass or Phos. Bronze

For more information on dimensions, materials, and plating see the individual drawings.

### 2.3 SAFETY AGENCY APPROVALS

UL File Number ..... E29179

CSA .....LR19980

## 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

None

## 4.0 RATINGS

### 4.1 VOLTAGE

250 Volts

**4.2 CURRENT** (Current is dependent on connector size, contact material, plating, ambient temperature, printed circuit board characteristics and related factors. Actual current rating is application dependent and should be evaluated for each application.)

#### a. For Crimp Terminals- and Applicable Wires

Wire Awg	Amps (Max) With Brass	Amps (Max) With Phos Bronze	Wire Insulation Dia
18	5.00	7.00	See terminal drawings
20	4.75	6.25	See terminal drawings
22	4.50	5.50	See terminal drawings
24	4.25	5.00	See terminal drawings
26	4.00	4.50	See terminal drawings

<b>REVISION:</b> <b>R</b>	<b>ECR/ECN INFORMATION:</b> <b>EC No: UCR2002-0299</b> <b>DATE: 2001 / 09 / 18</b>	<b>TITLE:</b> <b>PRODUCT SPECIFICATION</b> <b>.156 CENTER KK CONNECTORS</b>	<b>SHEET No.</b> <b>1 of 5</b>
<b>DOCUMENT NUMBER:</b> <b>PS-08-50</b>	<b>CREATED / REVISED BY:</b> <b>SAMIEC</b>	<b>CHECKED BY:</b> <b>MUELLER</b>	<b>APPROVED BY:</b> <b>MARGULIS</b>



# PRODUCT SPECIFICATION

## 4.2 CURRENT (cont)

### b. For Printed Circuit Board Connectors

Connector Style	Amps (Max) With Brass	Amps (Max) With Phos Bronze
Top Entry	4.50	5.00
Right Angle	4.50	5.00
Bottom Entry	4.00	4.50

## 4.3 TEMPERATURE (ambient + 30°C temp rise)

	Brass	Phos Bronze
Operating Temperature	0°C to +50°C	0°C to +75°C
Non Operating Temperature	-40°C to +105°C	-40°C to +105°C

## 5.0 PERFORMANCE

### 5.1 ELECTRICAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT
Contact Resistance (Low Level)	Mate connectors: apply a maximum voltage of 20 mV and a current of 100 mA.	10 milliohms MAXIMUM [initial]
Contact Resistance of Wire Termination (Low Level)	Terminate the applicable wire to the terminal and measure wire using a voltage of 20 mV and a current of 100 mA.	2 milliohms MAXIMUM [initial]
Insulation Resistance	Unmate & unmount connectors: apply a voltage of 500 VDC between adjacent terminals and between terminals to ground.	1000 Megohms MINIMUM
Dielectric Withstanding Voltage	Unmate connectors: apply a voltage of {two times the rated voltage plus 1000 volts} VAC for 1 minute between adjacent terminals and between terminals to ground.	No breakdown
Capacitance	Measure between adjacent terminals at 1 MHz.	1.2 picofarads MAXIMUM
Temperature Rise (via Current Cycling)	Mate connectors: measure the temperature rise at the rated current after: 1) 96 hours (steady state) 2) 240 hours (45 minutes ON and 15 minutes OFF per hour) 3) 96 hours (steady state)	Temperature rise: +30°C MAXIMUM

REVISION: <b>R</b>	ECR/ECN INFORMATION: EC No: <b>UCR2002-0299</b> DATE: <b>2001 / 09 / 18</b>	TITLE: <b>PRODUCT SPECIFICATION .156 CENTER KK CONNECTORS</b>	SHEET No. <b>2 of 5</b>
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# PRODUCT SPECIFICATION

## 5.2 MECHANICAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT
Connector Mate and Unmate Forces	Per circuit when mated to an .045 Sq. pin. Mate and unmate connector (male to female) at a rate of $25 \pm 6$ mm ( $1 \pm \frac{1}{4}$ inch) per minute.	10.0 N (2.25 lbf) MAXIMUM insertion force & 3.7 N (0.84 lbf) MINIMUM withdrawal force
Terminal Insertion Force (into Housing)	Apply an axial insertion force on the terminal at a rate of $25 \pm 6$ mm ( $1 \pm \frac{1}{4}$ inch). (Forces will change with platings and materials.)	17.8 N (4.0 lbf) MAXIMUM insertion force
Terminal Retention Force (in Housing)	Axial pullout force on the terminal in the housing at a rate of $25 \pm 6$ mm ( $1 \pm \frac{1}{4}$ inch) per minute. (Forces will change with platings and materials.)	35.6 N (8.0 lbf) MINIMUM withdrawal force
Durability	Mate connectors up to 25 cycles at a maximum rate of 10 cycles per minute prior to Environmental Tests.	10 milliohms MAXIMUM (change from initial)
Vibration (Random)	Mate connectors and vibrate per EIA 364-28, test condition VII.	10 milliohms MAXIMUM (change from initial) & Discontinuity < 1 microsecond
Shock (Mechanical)	Mate connectors and shock at 50 g's with $\frac{1}{2}$ sine wave (11 milliseconds) shocks in the $\pm X, \pm Y, \pm Z$ axes (18 shocks total).	10 milliohms MAXIMUM (change from initial]) & Discontinuity < 1 microsecond
Wire Pullout Force (Axial)	Apply an axial pullout force on the wire at a rate of $25 \pm 6$ mm ( $1 \pm \frac{1}{4}$ inch). (For maximum performance use Molex application tooling with stranded tinned copper wire)	18 awg = 89 N (20 lbf) 20 awg = 66 N (15 lbf) 22 awg = 53 N (12 lbf) 24 awg = 35 N (8 lbf) 26 awg = 22 N (5 lbf)
Normal Force	Apply a perpendicular force.	7.34 N (748 grams) average

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# PRODUCT SPECIFICATION

## 5.3 ENVIRONMENTAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT										
Shock (Thermal)	Mate connectors; expose to 5 cycles of: <table border="1"> <thead> <tr> <th>Temperature °C</th> <th>Duration (Minutes)</th> </tr> </thead> <tbody> <tr> <td>-40 +0/-3</td> <td>30</td> </tr> <tr> <td>+25 ±10</td> <td>5 MAXIMUM</td> </tr> <tr> <td>+105 +3/-0</td> <td>30</td> </tr> <tr> <td>+25 ±10</td> <td>5 MAXIMUM</td> </tr> </tbody> </table>	Temperature °C	Duration (Minutes)	-40 +0/-3	30	+25 ±10	5 MAXIMUM	+105 +3/-0	30	+25 ±10	5 MAXIMUM	10 milliohms MAXIMUM (change from initial) & Visual: No Damage
Temperature °C	Duration (Minutes)											
-40 +0/-3	30											
+25 ±10	5 MAXIMUM											
+105 +3/-0	30											
+25 ±10	5 MAXIMUM											
Thermal Aging	Mate connectors; expose to: 96 hours at 105 ± 2°C	10 milliohms MAXIMUM (change from initial]) & Visual: No Damage										
Humidity (Steady State)	Mate connectors: expose to a temperature of 40 ± 2°C with a relative humidity of 90-95% for 96 hours.  Note: Remove surface moisture and air dry for 1 hour prior to measurements.	10 milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at 500 VAC & Insulation Resistance: 1000 Megohms MINIMUM & Visual: No Damage										
Humidity (Cyclic)	Mate connectors: cycle per EIA-364-31: 24 cycles at temperature 25 ± 3°C at 80 ± 5% relative humidity and 65 ± 3°C at 50 ± 5% relative humidity; dwell time of 1.0 hour; ramp time of 0.5 hours.  {Note: Remove surface moisture and air dry for 1 hour prior to measurements.}	10 milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at 500 VAC & Insulation Resistance: 1000 Megohms MINIMUM & Visual: No Damage										
Solderability	Per SMES-152	Solder coverage: 95% MINIMUM (per SMES-152)										

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# PRODUCT SPECIFICATION

## 5.3 ENVIRONMENTAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT
Solder Resistance	Dip connector terminal tails in solder: Solder Duration: $5 \pm 0.5$ seconds; Solder Temperature: $230 \pm 5^\circ\text{C}$	Visual: No Damage to insulator material
Salt Spray	Mate connectors: Duration: 48 hours exposure; Atmosphere: salt spray from a 5% solution; Temperature: $35 +1/-2^\circ\text{C}$	10 milliohms MAXIMUM (change from initial) & Visual: No Damage
Cold Resistance	Mate connectors: Duration: 96 hours; Temperature: $-40 \pm 3^\circ\text{C}$	10 milliohms MAXIMUM (change from initial) & Visual: No Damage
Corrosive Atmosphere: Flowing Mixed Gas (FMG)	Mate connectors: Test per EIA-364-65, method 2A	10 milliohms MAXIMUM (change from initial) & Visual: No Damage

## 6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.

## 7.0 GAGES AND FIXTURES

## 8.0 OTHER

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