

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0010897381](#)
Status: **Active**
Description: 2.54mm (.100") Pitch C-Grid® Breakaway Header, Dual Row, Vertical, High Temperature, 38 Circuits, Tin (Sn) Plating, 2.72mm (.107") PC Tail Length

Documents:

3D Model	Product Specification PS-70280 (PDF)
Drawing (PDF)	RoHS Certificate of Compliance (PDF)

Agency Certification

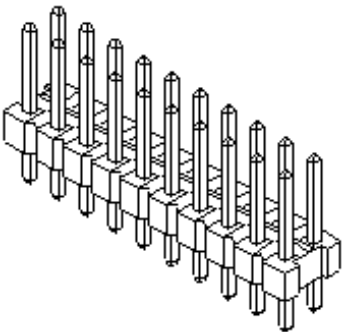
CSA	LR19980
UL	E29179

General

Product Family	PCB Headers
Series	70280
Application	Board-to-Board, Wire-to-Board
Product Name	C-Grid®

Physical

Breakaway	Yes
Circuits (Loaded)	38
Circuits (maximum)	38
Color - Resin	Black
Durability (mating cycles max)	25
First Mate / Last Break	No
Flammability	94V-0
Glow-Wire Compliant	No
Guide to Mating Part	No
Keying to Mating Part	None
Lock to Mating Part	None
Material - Metal	Copper Alloy
Material - Plating Mating	Tin
Material - Plating Termination	Tin
Number of Rows	2
Orientation	Vertical
PC Tail Length (in)	0.110 In
PC Tail Length (mm)	2.79 mm
PCB Locator	No
PCB Retention	None
PCB Thickness Recommended (in)	0.062 In
PCB Thickness Recommended (mm)	1.60 mm
Packaging Type	Bag
Pitch - Mating Interface (in)	0.100 In
Pitch - Mating Interface (mm)	2.54 mm
Plating min: Mating (µin)	150
Plating min: Mating (µm)	3.80
Plating min: Termination (µin)	150
Plating min: Termination (µm)	3.80
Polarized to Mating Part	No
Polarized to PCB	No
Shrouded	No
Stackable	Yes
Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	Through Hole



Series

image - Reference only

EU RoHS

**ELV and RoHS
Compliant**
REACH SVHC
Contains SVHC: No
**Halogen-Free
Status**

China RoHS



**Need more information on product
environmental compliance?**

Email productcompliance@molex.com
For a multiple part number RoHS Certificate of
Compliance, [click here](#)

Please visit the [Contact Us](#) section for any
non-product compliance questions.

Search Parts in this Series
[70280Series](#)

Electrical

Current - Maximum per Contact	3A
Voltage - Maximum	250V

Solder Process Data

Duration at Max. Process Temperature (seconds)	30
Lead-free Process Capability	SMC & Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	3
Process Temperature max. C	245

Material Info

Old Part Number	70280-0019
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Reference - Drawing Numbers

Product Specification	PS-70280
Sales Drawing	SDA-70280-0001-4000

This document was generated on 03/29/2010

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	13		12		11	
	CKT. SIZE	DIM. A REF.		DIM. B REF.		
		(MM)	INCH	(MM)	INCH	
J	4	(5.08)	.200	(2.54)	.100	
	6	(7.62)	.300	(5.08)	.200	
	8	(10.16)	.400	(7.62)	.300	
	10	(12.70)	.500	(10.16)	.400	
I	12	(15.24)	.600	(12.70)	.500	
	14	(17.78)	.700	(15.24)	.600	
	16	(20.32)	.800	(17.78)	.700	
	18	(22.86)	.900	(20.32)	.800	
	20	(25.40)	1.000	(22.86)	.900	
	22	(27.94)	1.100	(25.40)	1.000	
H	24	(30.48)	1.200	(27.94)	1.100	
	26	(33.02)	1.300	(30.48)	1.200	
	28	(35.56)	1.400	(33.02)	1.300	
	30	(38.10)	1.500	(35.56)	1.400	
	32	(40.64)	1.600	(38.10)	1.500	
	34	(43.18)	1.700	(40.64)	1.600	
	36	(45.72)	1.800	(43.18)	1.700	
	38	(48.26)	1.900	(45.72)	1.800	
G	40	(50.80)	2.000	(48.26)	1.900	
	42	(53.34)	2.100	(50.80)	2.000	
	44	(55.88)	2.200	(53.34)	2.100	
	46	(58.42)	2.300	(55.88)	2.200	
	48	(60.96)	2.400	(58.42)	2.300	
F	50	(63.50)	2.500	(60.96)	2.400	
	52	(66.04)	2.600	(63.50)	2.500	
	54	(68.58)	2.700	(66.04)	2.600	
	56	(71.12)	2.800	(68.58)	2.700	
	58	(73.66)	2.900	(71.12)	2.800	
	60	(76.20)	3.000	(73.66)	2.900	
E	62	(78.74)	3.100	(76.20)	3.000	
	64	(81.28)	3.200	(78.74)	3.100	
	66	(83.82)	3.300	(81.28)	3.200	
	68	(86.36)	3.400	(83.82)	3.300	
	70	(88.90)	3.500	(86.36)	3.400	
	72	(91.44)	3.600	(88.90)	3.500	
	74	(93.98)	3.700	(91.44)	3.600	
	76	(96.52)	3.800	(93.98)	3.700	
D	78	(99.06)	3.900	(96.52)	3.800	
	80	(101.06)	4.000	(99.06)	3.900	
	82	(104.14)	4.100	(101.06)	4.000	
	84	(106.68)	4.200	(104.14)	4.100	
	86	(109.22)	4.300	(106.68)	4.200	
C	88	(111.76)	4.400	(109.22)	4.300	
	90	(114.30)	4.500	(111.76)	4.400	
	92	(116.84)	4.600	(114.30)	4.500	
	94	(119.38)	4.700	(116.84)	4.600	
	96	(121.92)	4.800	(119.38)	4.700	
	98	(124.46)	4.900	(121.92)	4.800	
	100	(127.00)	5.000	(124.46)	4.900	

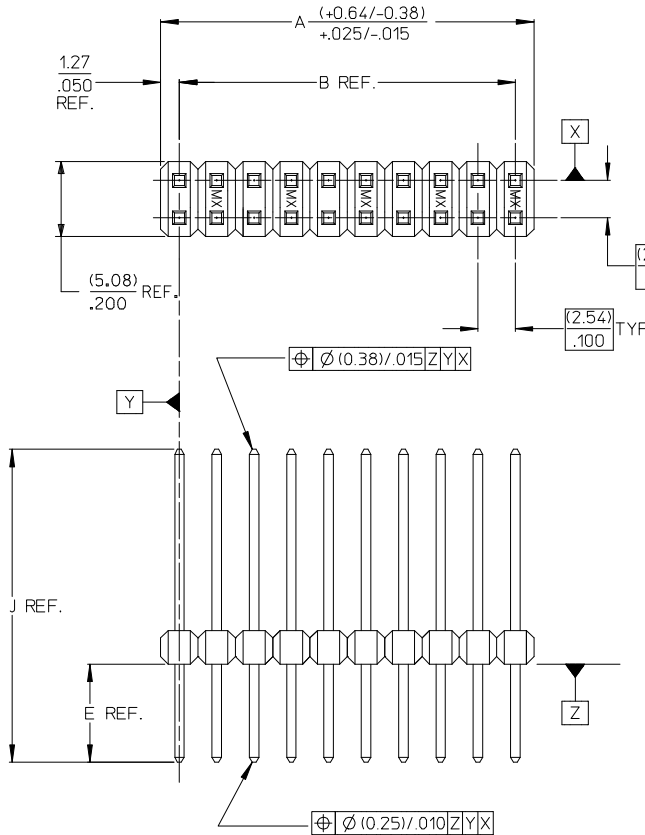
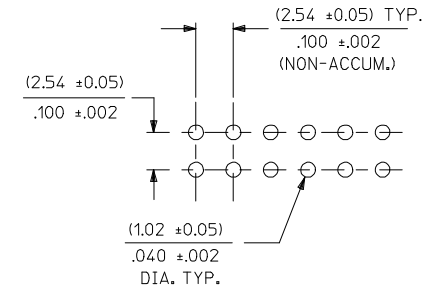
NOTES:

1. MATERIAL:
PIN: COPPER ALLOY
WAFER: GLASS FILLED LCP (LIQUID CRYSTAL POLYMER,
UL 94V-0, COLOR: BLACK.

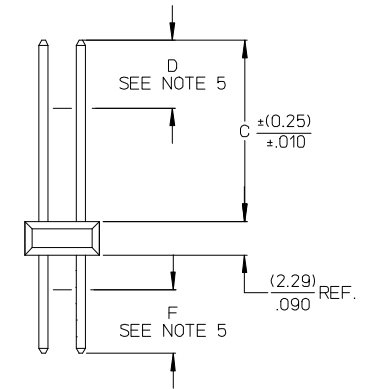
2. FINISH:

- TIN = (0.00380)/.000150 MINIMUM TIN PLATE
OVER (0.00127)/.000050 MINIMUM NICKEL PLATE.
- 15 GOLD = (0.00038)/.000015 MINIMUM GOLD PLATE IN SELECT AREA,
(0.00190)/.000075 MINIMUM TIN PLATE IN SELECT AREA,
OVER (0.00127)/.000050 MINIMUM NICKEL PLATE OVERALL.
- 30 GOLD = (0.00076)/.000030 MINIMUM GOLD PLATE IN SELECT AREA,
(0.00190)/.000075 MINIMUM TIN PLATE IN SELECT AREA,
OVER (0.00127)/.000050 MINIMUM NICKEL PLATE OVERALL.
- GT15 = (0.00038)/.000015 MINIMUM GOLD PLATE IN SELECT AREA,
(0.00254)/.000100 MINIMUM TIN PLATE IN SELECT AREA,
OVER (0.00127)/.000050 MINIMUM NICKEL PLATE OVERALL.

* THE PRIMARY SHIPPING CARTON WILL BE LABELED "COMPLIANT TO
RoHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE 2000/53/EC".
CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT WITH LEAD PLATING.



RECOMMENDED P.C. BOARD HOLE LAYOUT



3. PRODUCT SPECIFICATION NONE
4. PACKAGING INFORMATION: (UNLESS OTHERWISE NOTED IN TABLES)
BULK PACK PER PK-70873-0353.
5. MEASURE POINT FOR PLATING THICKNESS.
6. FOR ASSEMBLIES WITH VOIDED PINS, REFER TO DRAWING NO.
SDA-70280-5001-9999.
7. PIN PUSHOUT FORCE 3 POUNDS MINIMUM IN EITHER DIRECTION.
8. FOR ILLUSTRATION PURPOSES, 20 (DUAL 10) CIRCUIT SIZE IS SHOWN.
9. PINS MEET SOLDERABILITY SPEC SMES-152. ABSENCE OF PLATING
PERMISSIBLE AT BANDOLIER PIN FAYING SURFACE.
(APPROXIMATELY (0.64)/.025 INCH LONG BY (0.15)/.006 INCH WIDE AT
2 LOCATIONS)
10. PARTS CONFORM TO CLASS B OF COSMETIC SPECIFICATION
PS-45499-002

9	G6
8	G5
7	G3
6	G3
5	G3
4	G3
3	G3
2	G3
1	G6
SHT. REV.	

ADD P/N 70280-1254 EC NO: UCP2008-2306 DRWN: J.BELL CHKD: LSCMIDT APPR: FSM/TH 2008/03/31 2008/04/07 2008/04/24	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE MM/IN	SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION																
		<table border="1"> <tr><th></th><th>mm</th><th>INCH</th></tr> <tr><td>4 PLACES</td><td>±---</td><td>±---</td></tr> <tr><td>3 PLACES</td><td>±---</td><td>±.005</td></tr> <tr><td>2 PLACES</td><td>±0.13</td><td>±.01</td></tr> <tr><td>1 PLACE</td><td>±0.25</td><td>±---</td></tr> <tr><td colspan="3">ANGULAR ±1/2°</td></tr> </table>		mm	INCH	4 PLACES	±---	±---	3 PLACES	±---	±.005	2 PLACES	±0.13	±.01	1 PLACE	±0.25	±---	ANGULAR ±1/2°			DRAWN BY SMR	DATE 04/19/1993
	mm	INCH																				
4 PLACES	±---	±---																				
3 PLACES	±---	±.005																				
2 PLACES	±0.13	±.01																				
1 PLACE	±0.25	±---																				
ANGULAR ±1/2°																						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	CHECKED BY DATE	APPROVED BY SMR	DATE 04/19/1993	MOLEX INCORPORATED																		
SIZE C	MATERIAL NO. SEE TABLE	DOCUMENT NO. SDA-70280-0001-4000	SHEET NO. 1 OF 9	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																		

13		12		11		10		9		8		7		6		5		4		3		2		1		
J	ENGINEERING NUMBER A-70280-		RELEASE FOR MANUFACTURE						E REF.		J REF.		C ±(0.25) .010				CONNECTOR END PLATING		P.C. BOARD END PLATING				FOR PACKAGING INFORMATION, SEE NOTE 4, SHEET 1 (UNLESS OTHERWISE SPECIFIED BELOW)			
																	TYPE		D MEAS.				TYPE		F MEAS.	
I	-0001/-0040		R.F.M.						(2.72) .107		(11.10) .437		(6.10) .240				TIN		(2.54) .100				TIN		(1.27) .050	
	-0041/-0080		R.F.M.						(2.72) .107		(11.10) .437		(6.10) .240				15 GOLD		(2.54) .100				TIN		(1.27) .050	
	-0081/-0120		R.F.M.						(2.72) .107		(11.10) .437		(6.10) .240				30 GOLD		(2.54) .100				TIN		(1.27) .050	
H	-0121/-0160		R.F.M.						(2.79) .110		(13.21) .520		(8.13) .320				TIN		(4.57) .180				TIN		(1.27) .050	
	-0161/-0200		R.F.M.						(2.79) .110		(13.21) .520		(8.13) .320				15 GOLD		(4.57) .180				TIN		(1.27) .050	
	-0201/-0240		R.F.M.						(2.79) .110		(13.21) .520		(8.13) .320				30 GOLD		(4.57) .180				TIN		(1.27) .050	
G	-0241/-0280		R.F.M.						(3.94) .155		(12.32) .485		(6.10) .240				30 GOLD		(2.54) .100				TIN		(1.27) .050	
	CKTS	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	EDP NUMBER	ENG NUMBER	CKTS
		N.A.	AX-70280-0001	N.A.	AX-70280-0041	N.A.	AX-70280-0081	N.A.	AX-70280-0121	N/A	AX-70280-0161	N/A	AX-70280-0201	N/A	AX-70280-0241											
F	04	010-89-7041	A-70280-0002	010-89-7042	A-70280-0042	010-89-7040	A-70280-0082	010-97-7045	A-70280-0122	010-97-7046	A-70280-0162	010-89-7043	A-70280-0202	010-87-9045	A-70280-0242	04										04
	06	010-89-7061	A-70280-0003	010-89-7062	A-70280-0043	010-89-7060	A-70280-0083	010-97-7065	A-70280-0123	010-97-7066	A-70280-0163	010-89-7063	A-70280-0203	010-87-9065	A-70280-0243	06										06
	08	010-89-7081	A-70280-0004	010-89-7082	A-70280-0044	010-89-7080	A-70280-0084	010-97-7085	A-70280-0124	010-97-7086	A-70280-0164	010-89-7083	A-70280-0204	010-87-9085	A-70280-0244	08										08
E	10	010-89-7101	A-70280-0005	010-89-7102	A-70280-0045	010-89-7100	A-70280-0085	010-97-7105	A-70280-0125	010-97-7106	A-70280-0165	010-89-7103	A-70280-0205	010-87-9105	A-70280-0245	10										10
	12	010-89-7121	A-70280-0006	010-89-7122	A-70280-0046	010-89-7120	A-70280-0086	010-97-7125	A-70280-0126	010-97-7126	A-70280-0166	010-89-7123	A-70280-0206	010-87-9125	A-70280-0246	12										12
	14	010-89-7141	A-70280-0007	010-89-7142	A-70280-0047	010-89-7140	A-70280-0087	010-97-7145	A-70280-0127	010-97-7146	A-70280-0167	010-89-7143	A-70280-0207	010-87-9145	A-70280-0247	14										14
D	16	010-89-7161	A-70280-0008	010-89-7162	A-70280-0048	010-89-7160	A-70280-0088	010-97-7165	A-70280-0128	010-97-7166	A-70280-0168	010-89-7163	A-70280-0208	010-87-9165	A-70280-0248	16										16
	18	010-89-7181	A-70280-0009	010-89-7182	A-70280-0049	010-89-7180	A-70280-0089	010-97-7185	A-70280-0129	010-97-7186	A-70280-0169	010-89-7183	A-70280-0209	010-87-9185	A-70280-0249	18										18
	20	010-89-7201	A-70280-0010	010-89-7202	A-70280-0050	010-89-7200	A-70280-0090	010-97-7205	A-70280-0130	010-97-7206	A-70280-0170	010-89-7203	A-70280-0210	010-87-9205	A-70280-0250	20										20
C	22	010-89-7221	A-70280-0011	010-89-7222	A-70280-0051	010-89-7220	A-70280-0091	010-97-7225	A-70280-0131	010-97-7226	A-70280-0171	010-89-7223	A-70280-0211	010-87-9225	A-70280-0251	22										22
	24	010-89-7241	A-70280-0012	010-89-7242	A-70280-0052	010-89-7240	A-70280-0092	010-97-7245	A-70280-0132	010-97-7246	A-70280-0172	010-89-7243	A-70280-0212	010-87-9245	A-70280-0252	24										24
	26	010-89-7261	A-70280-0013	010-89-7262	A-70280-0053	010-89-7260	A-70280-0093	010-97-7265	A-70280-0133	010-97-7266	A-70280-0173	010-89-7263	A-70280-0213	010-87-9265	A-70280-0253	26										26
B	28	010-89-7281	A-70280-0014	010-89-7282	A-70280-0054	010-89-7280	A-70280-0094	010-97-7285	A-70280-0134	010-97-7286	A-70280-0174	010-89-7283	A-70280-0214	010-87-9285	A-70280-0254	28										28
	30	010-89-7301	A-70280-0015	010-89-7302	A-70280-0055	010-89-7300	A-70280-0095	010-97-7305	A-70280-0135	010-97-7306	A-70280-0175	010-89-7303	A-70280-0215	010-87-9305	A-70280-0255	30										30
	32	010-89-7321	A-70280-0016	010-89-7322	A-70280-0056	010-89-7320	A-70280-0096	010-97-7325	A-70280-0136	010-97-7326	A-70280-0176	010-89-7323	A-70280-0216	010-87-9325	A-70280-0256	32										32
A	34	010-89-7341	A-70280-0017	010-89-7342	A-70280-0057	010-89-7340	A-70280-0097	010-97-7345	A-70280-0137	010-97-7346	A-70280-0177	010-89-7343	A-70280-0217	010-87-9345	A-70280-0257	34										34
	36	010-89-7361	A-70280-0018	010-89-7362	A-70280-0058	010-89-7360	A-70280-0098	010-97-7365	A-70280-0138	010-97-7366	A-70280-0178	010-89-7363	A-70280-0218	010-87-9365	A-70280-0258	36										36
	38	010-89-7381	A-70280-0019	010-89-7382	A-70280-0059	010-89-7380	A-70280-0099	010-97-7385	A-70280-0139	010-97-7386	A-70280-0179	010-89-7383	A-70280-0219	010-87-9385	A-70280-0259	38										38
Z	40	010-89-7401	A-70280-0020	010-89-7402	A-70280-0060	010-89-7400	A-70280-0100	010-97-7405	A-70280-0140	010-97-7406	A-70280-0180	010-89-7403	A-70280-0220	010-87-9405	A-70280-0260	40										40
	42	010-89-7421	A-70280-0021	010-89-7422	A-70280-0061	010-89-7420	A-70280-0101	010-97-7425	A-70280-0141	010-97-7426	A-70280-0181	010-89-7423	A-70280-0221	010-87-9425	A-70280-0261	42										42
	44	010-89-7441	A-70280-0022	010-89-7442	A-70280-0062	010-89-7440	A-70280-0102	010-97-7445	A-70280-0142	010-97-7446	A-70280-0182	010-89-7443	A-70280-0222	010-87-9445	A-70280-0262	44										44
Y	46	010-89-7461	A-70280-0023	010-89-7462	A-70280-0063	010-89-7460	A-70280-0103	010-97-7465	A-70280-0143	010-97-7466	A-70280-0183	010-89-7463	A-70280-0223	010-87-9465	A-70280-0263	46										46
	48	010-89-7481	A-70280-0024	010-89-7482	A-70280-0064	010-89-7480	A-70280-0104	010-97-7485	A-70280-0144	010-97-7486	A-70280-0184	010-89-7483	A-70280-0224	010-87-9485	A-70280-0264	48										48
	50	010-89-7501	A-70280-0025	010-89-7502	A-70280-0065	010-89-7500	A-70280-0105	010-97-7505	A-70280-0145	010-97-7506	A-70280-0185	010-89-7503	A-70280-0225	010-87-9505	A-70280-0265	50										50
X	52	010-89-7521	A-70280-0026	010-89-7522	A-70280-0066	010-89-7520	A-70280-0106	010-97-7525	A-70280-0146	010-97-7526	A-70280-0186	010-89-7523	A-70280-0226	010-87-9525	A-70280-0266	52										52
	54	010-89-7541	A-70280-0027	010-89-7542	A-70280-0067	010-89-7540	A-70280-0107	010-97-7545	A-70280-0147	010-97-7546	A-70280-0187	010-89-7543	A-70280-0227	010-87-9545	A-70280-0267	54										54
	56	010-89-7561	A-70280-0028	010-89-7562	A-70280-0068	010-89-7560	A-70280-0108	010-97-7565	A-70280-0148	010-97-7566	A-70280-0188	010-89-7563	A-70280-0228	010-87-9565	A-70280-0268	56										56
W	58	010-89-7581	A-70280-0029	010-89-7582	A-70280-0069	010-89-7580	A-70280-0109	010-97-7585	A-70280-0149	010-97-7586	A-70280-0189	010-89-7583	A-70280-0229	010-87-9585	A-70280-0269	58										58
	60	010-89-7601	A-70280-0030	010-89-7602	A-70280-0070	010-89-7600	A-70280-0110	010-97-7605	A-70280-0150	010-97-7606	A-70280-0190	010-89-7603	A-70280-0230	010-87-9605	A-70280-0270	60										60
	62	010-89-7621	A-70280-0031	010-89-7622	A-70280-0071	010-89-7620	A-70280-0111	010-97-7625	A-70280-0151	010-97-7626	A-70280-0191	010-89-7623	A-70280-0231	010-87-9625	A-70280-0271	62										62
V	64	010-89-7641	A-70280-0032	010-89-7642	A-70280-0072	010-89-7640	A-70280-0112	010-97-7645	A-70280-0152	010-97-7646	A-70280-0192	010-89-7643	A-70280-0232	010-87-9645	A-70280-0272	64										64
	66	010-89-7661	A-70280-0033	010-89-7662	A-70280-0073	010-89-7660	A-70280-0113	010-97-7665	A-70280-0153	010-97-7666	A-70280-0193	010-89-7663	A-70280-0233	010-87-9665	A-70280-0273	66										66
	68	010-89-7681	A-70280-0034	010-89-7682	A-70280-0074	010-89-7680	A-70280-0114	010-97-7685	A-70280-0154	010-97-7686	A-70280-0194	010-89-7683	A-70280-0234	010-87-9685	A-70280-0274	68										68
U	70	010-89-7701																								