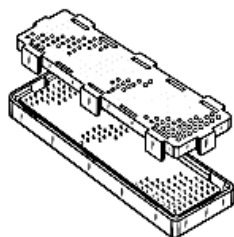


**84512-102LF - MEG-ARRAY®**  
**: 100 Position BGA Plug,**  
**0mm Component Height,**  
**1.27mm x 1.27mm Array, Lead-**  
**free**



[www.fci.com](http://www.fci.com)

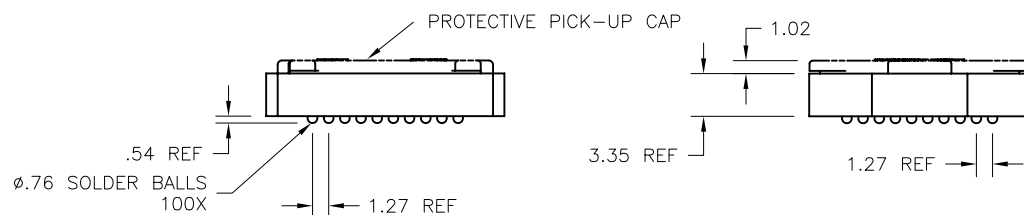
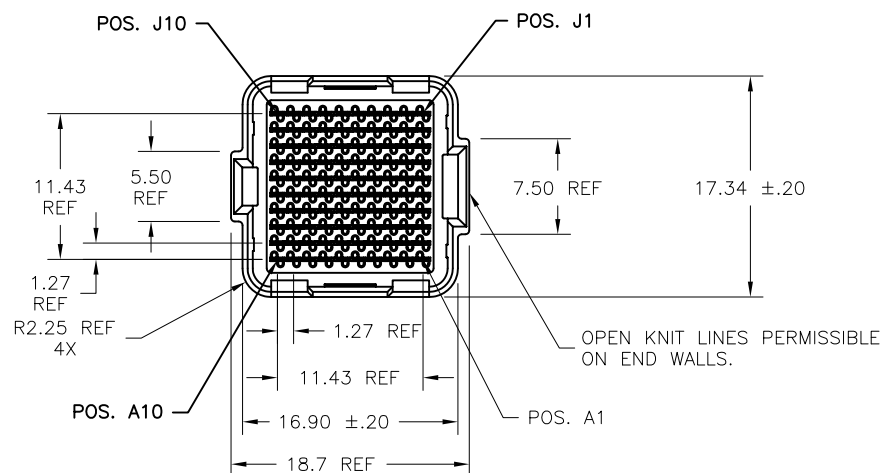
## Mating Half

- ▶ 84513-101LF
- ▶ 84513-001LF
- ▶ 84513-201LF

## Specifications

<b>General</b>	
<b>Gender</b>	Plug
<b>Number of contacts (Total)</b>	100
<b>Quantity (per reel)</b>	250
<b>Dimensional</b>	
<b>Height (Mated)</b>	4mm
<b>Spacing (Board - approx. after soldering)</b>	4 mm (0.157 in.)
<b>Electrical</b>	
<b>Current rating</b>	0.45 amps
<b>Resistance (Contact)</b>	20 to 25 m ohms max. (Initial), 10 m ohms max. increase (After testing)
<b>Resistance (Insulation)</b>	1000 M ohms
<b>Voltage rating</b>	200V AC
<b>Mechanical</b>	
<b>Durability (Mating cycles)</b>	50
<b>Withdrawal Force</b>	20 grams Per contact average
<b>Mating force</b>	30 grams Per contact average
<b>Physical</b>	
<b>Material (Contact)</b>	Copper Alloy
<b>Material (Tail)</b>	Lead-free solder balls: 95.5Sn / 4Ag / 0.5Cu
<b>Material (Housing)</b>	LCP
<b>Plating (Contact area)</b>	0.76 µm (30 µin.) Gold over 0.76 µm (30 µin.) Nickel
<b>Temperature (Operating - range)</b>	-40°C to +85°C
<b>Approvals / Certifications</b>	
<b>UL File Number</b>	E66906
<b>CSA File Number</b>	E66906
<b>Approvals / Certifications</b>	UL and CSA Approved
<b>Other Features</b>	
<b>Most Popular Configuration</b>	-

Packaging (Type)	Tape and Reel
Literature	950554-001
Pick-up Cap	Yes



PRODUCT No.	PICK-UP CAP (NATURAL OR BLACK COLOR)	CONTACT PLATING AND THICKNESS	SOLDER BALL	NOTES
84512-002	YES	15u" (.38um) Au	SnPb	
84512-002LF	YES	15u" (.38um) Au	LEAD FREE	5
84512-092	YES	15u" (.38um) GXT	SnPb	
84512-092LF	YES	15u" (.38um) GXT	LEAD FREE	5
84512-102	YES	30u" (.76um) Au	SnPb	
84512-102LF	YES	30u" (.76um) Au	LEAD FREE	5
84512-192	YES	30u" (.76um) GXT	SnPb	
84512-192LF	YES	30u" (.76um) GXT	LEAD FREE	5
84512-202	YES	Au SPECIAL	SnPb	3
84512-202LF	YES	Au SPECIAL	LEAD FREE	3 AND 5
84512-292	YES	GXT SPECIAL	SnPb	3
84512-292LF	YES	GXT SPECIAL	LEAD FREE	3 AND 5
<del>84512-302</del>	<del>YES</del>	<del>15u" (.38um) Au SPECIAL</del>	<del>SnPb</del>	<del>6</del>
<del>84512-302LF</del>	<del>YES</del>	<del>15u" (.38um) Au SPECIAL</del>	<del>LEAD FREE</del>	<del>5 AND 6</del>
<del>84512-402</del>	<del>YES</del>	<del>30u" (.76um) Au SPECIAL</del>	<del>SnPb</del>	<del>6</del>
<del>84512-402LF</del>	<del>YES</del>	<del>30u" (.76um) Au SPECIAL</del>	<del>LEAD FREE</del>	<del>5 AND 6</del>
<del>84512-502</del>	<del>YES</del>	<del>Au SPECIAL</del>	<del>SnPb</del>	<del>3 AND 6</del>
<del>84512-502LF</del>	<del>YES</del>	<del>Au SPECIAL</del>	<del>LEAD FREE</del>	<del>3, 5 AND 6</del>

mat'l. code				surface	tolerance	projection	product family
-				ASME Y14.5	ASME Y14.5		MEG-Array
ltr	ecp no.	dr	date	tolerances unless otherwise specified			title
H	V12-0030	RE	2012-08-06	angles	X ±3	MM	Omm PLUG ASSY. 10 X 10 = 100 POSITION
J	V12-0035	PK	2012-09-27	0° ±2'	XX ±10	scale 1:1	
K	V12-0043	DCH	2012-11-15	dr	XXX ±050		dwg no
-	-	-	-	D.WAUGHEN	2000-03-08		sheet 1 of 3
E	V04-0940	VS	2004-10-18	enr	B.SPINK	2000-03-08	size
F	V06-0560	LP	2006-07-14	chr	B.SPINK	2000-03-08	84512
G	V07-0663	LP	2007-10-29	appd	B.SPINK	2000-03-08	A4
sheet	revision	K	K	K			type
index	sheet	1	2	3			CUSTOMER Drawing

## NOTES:

## ①. MAT'L

HOUSING: LCP  
CONTACT: COPPER ALLOY

## PLATING

CONTACT: (SEE TABLE ON SHEET1)  
SOLDER BALL: (SEE TABLE ON SHEET1)  
EUTECTIC SnPb OR LEAD FREE  
95.5Sn/4Ag/0.5Cu

2. OVERALL BOARD-TO-BOARD STACK  
HEIGHT WHEN MATED TO P/N 84513  
100 POSITION 4.0mm RECPT. IS 4.0mm REF.




3. PLATING FOR -2XX SERIES PRODUCT NUMBERS MEET  
THE REQUIREMENTS OF CENTRAL OFFICE ENVIRONMENT, 25 YEAR LIFE EXPECTANCY.  
THE CONTACT GEOMETRY IN THESE PRODUCT NUMBERS IS SPECIAL, ALSO

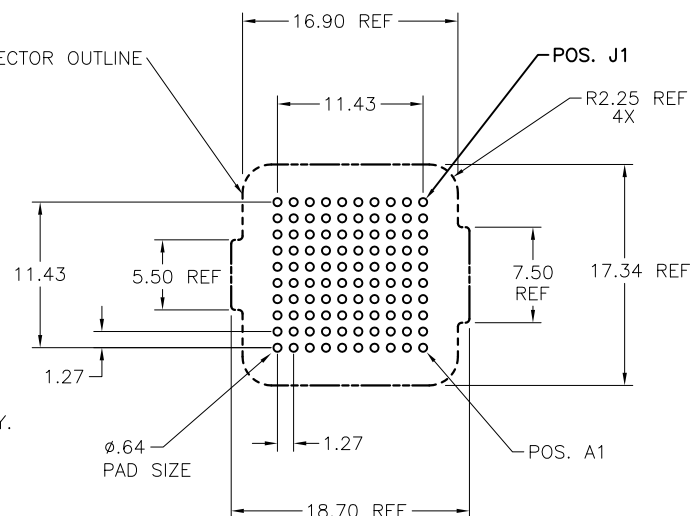
- ④. FOR PROPER APPLICATION FOLLOW FCI APPLICATION  
SPECIFICATION GS-20-033 LEAD FREE SOLDER BALLS WILL  
NOT SOLDER PROPERLY IN A LEADED SOLDER PROCESS  
DUE TO A HIGHER REFLOW TEMPERATURE. LEAD FREE  
PRODUCT IS THEREFORE NOT BACKWARDS COMPATIBLE WITH  
LEADED OR SOME SOLDERING APPLICATIONS. REFERENCE  
FCI APPLICATION SPECIFICATION

- ⑤. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND  
OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-47-0004  
PRODUCT MEETING THIS DIRECTIVE IS IDENTIFIED IN THE LOT  
CODE NUMBER MARKED ON EACH PART BY HAVING AN "X"  
IN THE SEVENTH CHARACTER POSITION

- ⑥. 84512-302, -302LF, -402, -402LF, -502 AND -502LF ARE OBSOLETE

8. A  SYMBOL WILL BE NEXT TO ANY DIMENSION, NEW VIEW OR  
NOTE WHICH HAS BEEN MODIFIED WITH THE CURRENT DRAWING REVISION

ONTO BOARD.  
STENCIL MATED CONNECTOR OUTLINE



BOARD PATTERN

mat'l. code				surface	tolerance	projection	product family
-				ASME Y14.5	ASME Y14.5		MEG-Array
ltr	ecr no	dr	date	tolerances unless otherwise specified		MM	title
k				angles	X ±3 XX ±10 XXX ±050		0mm PLUG ASSY. 10 X 10 = 100 POSITION
				dr	D.VAUGHEN 2000-08-03	scale 1:1	dwg no
				engr	B.SPINK 2000-09-08		sheet 2 of 3
				chr	B.SPINK 2000-09-08	FCI	size
				appd	B.SPINK 2000-09-08		A4
sheet index	revision sheet						type
							CUSTOMER Drawing

ROUND SPROCKET HOLES

LARGE KEY ON CONNECTOR



CONNECTOR  
POS. A1

ELONGATED HOLES

28.00

32.00

DE-REEL DIRECTION  
→

mat'l. code				surface	tolerance	projection	product family
—				ASME Y14.5	ASME Y14.5		MEG-Array
ltr	ecr no	dr	date	tolerances unless otherwise specified		MM →	title
K				angles	X ±3		Omm PLUG ASSY. 10 X 10 = 100 POSITION
				0° ±2°	XX ±10		
					XXX ±050	scale 1:1	dwg no
				dr	D.WAUGHEN 2000-03-08		sheet 3 of 3
				enr	B.SPINK 2000-03-08		size
				chr	B.SPINK 2000-03-08		84512
				appd	B.SPINK 2000-03-08		A4
sheet index	revision sheet						type
							CUSTOMER Drawing