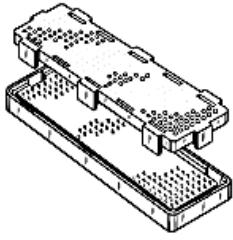


**84500-102LF - MEG-ARRAY®**  
**: 300 Position BGA Plug,**  
**0mm Component Height,**  
**1.27mm x 1.27mm Array, Lead-**  
**free**



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



## Mating Half

- ▶ 84501-001LF
- ▶ 84501-101LF
- ▶ 84501-201LF
- ▶ 84553-001LF
- ▶ 84553-101LF

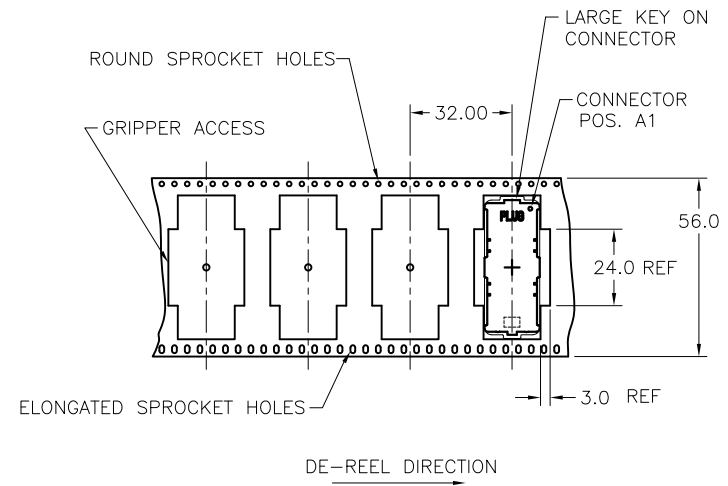
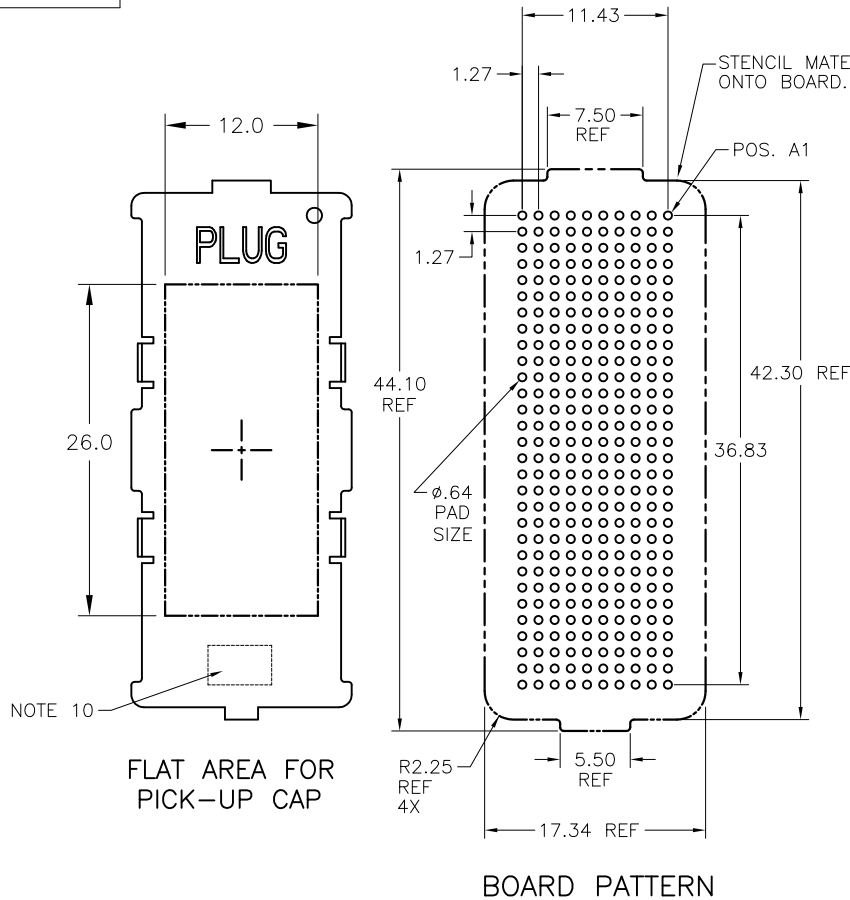
## Specifications

<b>General</b>	
<b>Gender</b>	Plug
<b>Number of contacts (Total)</b>	300
<b>Quantity (per reel)</b>	250
<b>Dimensional</b>	
<b>Height (Mated)</b>	5.5mm 4mm 8mm
<b>Spacing (Board - approx. after soldering)</b>	4 mm (0.157 in.) or 5.5 mm (0.217 in.) or 8 mm (0.315 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>	-
<b>Packaging (Type)</b>	Tape and Reel
<b>Literature</b>	950554-001
<b>Pick-up Cap</b>	Yes



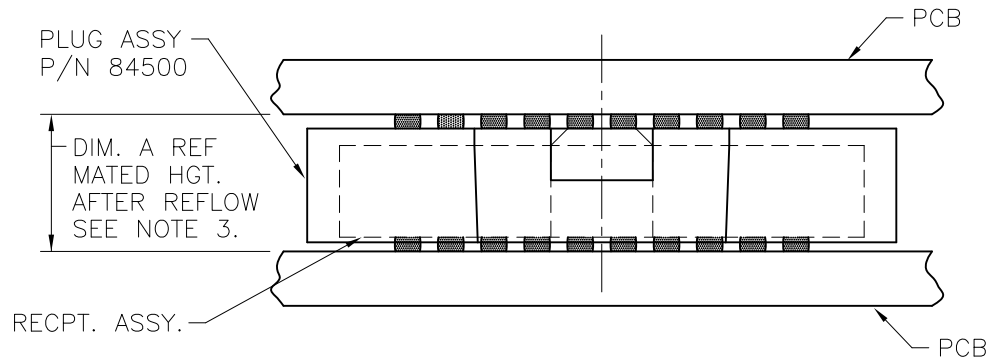
PRODUCT NUMBER  
SEE TABLE



TAPE & REEL PACKAGING SCALE: NONE  
PER EIA 481-3

mat'l. code		surface		tolerance		projection		product family		
SEE NOTE 1		ASME Y14.5		ASME Y14.5		MM		MEG-ARRAY		
ltr	ecn no	dr	date	tolerances unless otherwise specified		MM		title		
N				angles	XX+0.13	MM		0mm PLUG ASSEMBLY		
				0° ±2'	XXX+0.051	scale 2:1		10 X 30 = 300 POSITIONS		
		dr	D. WAUGHEN		1998-12-16	FCI		dwg no		
		enr	D. HARPER		1998-12-16			sheet 2 of 5		size
		chr	D. HARPER		1998-12-16			84500		A4
		appd	D. HARPER		1998-12-16			type		CUSTOMER Drawing
sheet index	revision sheet									

PRODUCT NUMBER  
SEE TABLE



MATED HEIGHT TABLE		
DIM. A	RECPT. ASSY. P/N	-2XX PLATING
4.0	84501	SEE NOTE 4.
5.5	84502	*
8.0	84553	SEE NOTE 5.

\* 84502 NOT AVAILABLE IN TELCORDIA/NORTEL VERSION.

MATED HEIGHT AFTER REFLOW IS BASED ON  $\phi$  .64mm PAD (METAL-DEFINED) AND .13mm SOLDER PASTE STENCIL THICKNESS. SEE NOTE 3.

END VIEW – MATED CONNECTORS SCALE: NONE

mat'l. code SEE NOTE 1		surface ASME Y14.5	tolerance ASME Y14.5	projection 	product family MEG-ARRAY
ltr	ecn no	dr	date	tolerances unless otherwise specified	title
N				angles x*3 .XX*.13 0° ±2'	10mm MM 10 X 30 = 300 POSITION
				XXX+.051	scale 2:1
		dr	D. WAUGHEN	1998-12-16	dwg no
		engr	D. HARPER	1998-12-16	sheet 3 of 5
		chr	D. HARPER	1998-12-16	size
		appd	D. HARPER	1998-12-16	84500
sheet index	revision sheet				A4
					type CUSTOMER Drawing

PRODUCT NUMBER	PICK-UP CAP (NATURAL OR BLACK IN COLOR)	CONTACT PLATING AND THICKNESS	SOLDER BALL	NOTES
84500-002	YES	15µ" (.38µm) Au	SnPb	
84500-002LF	YES	15µ" (.38µm) Au	LEAD FREE	7 & 8
84500-092	YES	15µ" (.38µm) GXT	SnPb	
84500-092LF	YES	15µ" (.38µm) GXT	LEAD FREE	7 & 8
84500-102	YES	30µ" (.76µm) Au	SnPb	
84500-102LF	YES	30µ" (.76µm) Au	LEAD FREE	7 & 8
84500-192	YES	30µ" (.76µm) GXT	SnPb	
84500-192LF	YES	30µ" (.76µm) GXT	LEAD FREE	7 & 8
84500-202	YES	50µ" (1.27µm) Au SPECIAL	SnPb	4, & 5
84500-202LF	YES	50µ" (1.27µm) Au SPECIAL	LEAD FREE	4, 5, 7 & 8
84500-292	YES	50µ" (1.27µm) GXT SPECIAL	SnPb	4, & 5
84500-292LF	YES	50µ" (1.27µm) GXT SPECIAL	LEAD FREE	4, 5, 7, & 8
84500-A02	YES	30µ" (.76µm)	SnPb	9
84500-A02LF	YES	30µ" (.76µm)	LEAD FREE	7, 8 & 9
<del>84500-302</del>	<del>YES</del>	<del>15µ" (.38µm) Au SPECIAL</del>	<del>SnPb</del>	<del>9</del>
<del>84500-302LF</del>	<del>YES</del>	<del>15µ" (.38µm) Au SPECIAL</del>	<del>LEAD FREE</del>	<del>8 &amp; 9</del>
<del>84500-402</del>	<del>YES</del>	<del>30µ" (.76µm) Au SPECIAL</del>	<del>SnPb</del>	<del>9</del>
<del>84500-402LF</del>	<del>YES</del>	<del>30µ" (.76µm) Au SPECIAL</del>	<del>LEAD FREE</del>	<del>8 &amp; 9</del>
<del>84500-502</del>	<del>YES</del>	<del>Au SPECIAL</del>	<del>SnPb</del>	<del>4, 5 &amp; 9</del>
<del>84500-502LF</del>	<del>YES</del>	<del>Au SPECIAL</del>	<del>LEAD FREE</del>	<del>4, 5, 8, &amp; 9</del>


mat'l. code		SnPb		surface		tolerance		projection		product family	
SEE NOTE 1				ASME Y14.5		ASME Y14.5				MEG-ARRAY	
ltr	ecn no	dr	date	tolerances unless otherwise specified						title	
N				angles	xxx+051	MM				0mm PLUG ASSEMBLY	
				0° ±2'	xxx+051	scale 2:1				10 X 30 = 300 POSITIONS	
				dr	T. BREWBAKER	2011-06-06				dwg no	
				engr	T. BREWBAKER	2011-06-06				sheet 4 of 5 size	
				chr	T. BREWBAKER	2011-06-06				84500 A4	
				appd	D. HORCHLER	2011-06-06				type CUSTOMER Drawing	
sheet	revision										
index	sheet										


PRODUCT NUMBER  
SEE TABLE

NOTES:

- ① MATERIAL:  
HOUSING: LCP  
CONTACT: COPPER ALLOY  
  
PLATING:  
CONTACT: (SEE TABLE)  
SOLDER BALL: (SEE TABLE)  
EUTECTIC SnPb OR LEAD FREE  
95.5Sn/4Ag/0.5Cu
- ② SOLDER BALLS WILL NOT BE PERFECT SPHERICAL SHAPE DUE TO REFLOW ATTACHMENT.
- ③ MATED HEIGHT EFFECTED BY CUSTOMER'S PCB PAD SIZE, PLATING, SOLDER REFLOW PROFILE, & SOLDER PASTE.
- ④ PLATING FOR INDICATED -2XX SERIES PRODUCT NUMBERS MEET THE REQUIREMENTS OF (GR-1217-CORE, CENTRAL OFFICE ENVIRONMENT, 25 YEAR LIFE EXPECTANCY).
- ⑤ PLATING FOR INDICATED -2XX SERIES PART NOS. IS Au OVER Ni WITH SPECIAL CONTACT GEOMETRY TO MEET REQUIREMENTS OF TELCORDIA GR-1217-CORE: CENTRAL OFFICE ENVIRONMENT.
- ⑥ KNIT LINE: SLIGHT VISIBLE MARKS (USUALLY A LINE) INDICATING THE DIRECTION AND MEETING POINT OF PLASTIC RESIN FLOW FRONTS TRAVELING AROUND ANY OBSTRUCTIONS TO THE RESIN FLOW VIA THE REQUIRED MOLD TOOLING.

- ⑦ 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.
- ⑧ 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.
- ⑨ 84500-A02 AND -A02LF ARE CUSTOMER SPECIALS.
- ⑩ CURRENT COMPANY LOGO TO BE VISIBLE IN APPROXIMATE AREA SHOWN.

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

mat'l. code		surface		tolerance		projection		product family	
SEE NOTE 1		ASME Y14.5		ASME Y14.5				MEG-ARRAY	
ltr	ecn no	dr	date	tolerances unless otherwise specified				title	
N				angles	mm	MM		0mm PLUG ASSEMBLY	
				0° ±2'	XXX±0.01	scale 2:1		10 X 30 = 300 POSITIONS	
		dr	T. BREWBAKER	2011-06-06			dwg no		sheet 5 of 5
		engr	T. BREWBAKER	2011-06-06			84500		A4
		chr	T. BREWBAKER	2011-06-06			type		CUSTOMER Drawing
		appd	D. HORCHLER	2011-06-06					
sheet index	revision sheet								