



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



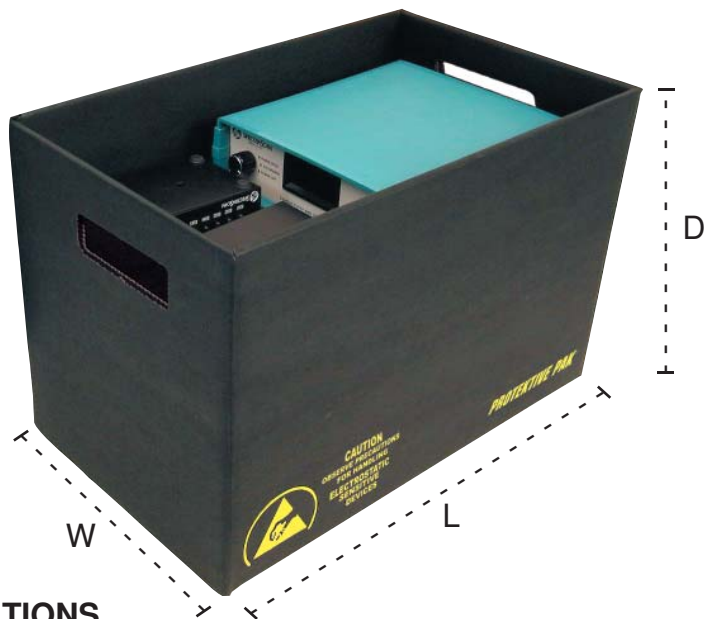
## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





## Features

- Provides ESD and physical protection for ESD sensitive components; with lid in place, shielding creates "Faraday Cage" restricting electrostatic charges to exterior to ship or store ESD sensitive items outside an ESD protected area
- Available with optional lid, steel reinforcing frame for additional strength and durability, ESD handles, and permanently static dissipative bottom foam pad for cushioning
- Impregnated corrugated material; greater durability than coated or printed material
- Constructed with double sides, double (boxes under 6" deep) or triple (boxes over 6" deep) ends, and single (boxes under 6" deep) or double (boxes over 6" deep) thickness bottom for greater durability
- Static dissipative surface of 10E6 - 10E8 ohms - minimizing the potential of rapid discharge or sparking
- Buried shielding layer minimizing the potential of sloughing and rub-off contamination
- Made from 100% recycled material, and is 100% recyclable
- No tooling cost
- Easy assembly without the need for tape, glue, or staples
- Reusable, ensuring low cost

## SPECIFICATIONS

### Properties

#### Electrostatic Decay

#### Surface Resistance

#### Surface Resistance, Low R.H. Cut-off

#### High-Voltage Discharge Resistance

#### Static Shielding

#### Charged Device Model (CDM) Safety

#### Current-Carrying Hazard

#### Corrosivity

#### Antistat Transfer

#### Water & Isopropyl Alcohol Extraction Tests for Antistat Permanence

#### Sloughing Test

#### Recyclability

#### Biodegradability

#### Volume Conductivity

#### Shelf Life

### Typical Values

0.01 seconds at 72°F and 11.8% R.H.

10E6 - 10E8 ohms/sq. after 11 days at 68°F and 12% R.H. for surface. 10E3 - 10E4 ohms/sq. for buried shielding layer 4% R.H.

Failure rate 0/5 (no oxide damage in five consecutive tests)

99.9% attenuation at 10kV; 99.6% attenuation at 30kV

RTG >10E7 ohms at 86% R.H. or less

10E3 mA at 110V; 10E3 mA at 220V

Contains 1-3 ppm reducible sulfur

No transfer

Surface resistance 10E8 - 10E9 ohms/square at 74°F and 36% R.H.

Negligible surface damage at 10 cycles and <5% of surface damage at 200 cycles in Taber Abrasion Test.

No conductive particles abraded from surface

Complete recyclability of package

Biodegradation in or on moist soil

Conductivity from wall to wall as well as across surface to assure permanence of the antistatic property

Indefinite

### Test Procedures/Method

FED-STD-101, Method 4046

ASTM D257

Rockwell International Test Report of December 20, 1991

Rockwell International Test Report of December 20, 1991

EIA 541, appendix E, capacitive probe test

Rockwell International Test Report of December 20, 1991

ESD from A to Z

FED-STD-101, Method 3005 for reducible sulfur

Rockwell International Test Report of January 8, 1992

Rockwell International Test Report of January 8, 1992

ASTM D4060 at 70 rpm with CS-17 abrasive-coated wheels and 1000 grams load

Rockwell International Test Report of January 8, 1992

Rockwell International Test Report of January 8, 1992

Rockwell International Test Report of January 8, 1992

See reverse side for available sizes.



Made in the United States of America

## STORAGE CONTAINERS

**PROTEKTIVE PAK**  
BURIED SHIELDING LAYER

### PROTEKTIVE PAK

13520 MONTE VISTA AVENUE, CHINO, CA 91710  
PHONE (909) 627-2578, FAX (909) 363-7331  
ProtektivePak.com

### DRAWING NUMBER

37500

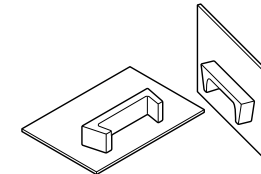
### DATE:

September  
2011

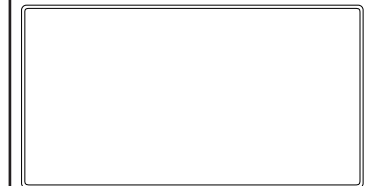
Item No.	REF#	Box Size I.D. - L x W x D	Handles	Lid	Wire	Foam
37508	411-BX	16-7/8 x 10 x 3-1/2 IN (429 x 254 x 89 MM)	N/A	37550	N/A	37451
37501	401-BX	16-7/8 x 10 x 5-3/8 IN (429 x 254 x 137 MM)	N/A	37550	N/A	37451
37509	422-BX	17 x 9-7/8 x 2-1/2 IN (432 x 254 x 137 MM)	N/A	37550	N/A	37451
37500	400-BX	17 x 9-7/8 x 7-1/4 IN (432 x 251 x 184 MM)	37450	37550	N/A	37451
37502	402-BX	17 x 9-7/8 x 11-5/8 IN (432 x 251 x 286 MM)	37450	37550	N/A	37451
37511	436-BX	17 x 13 x 6-3/4 IN (432 x 330 x 171 MM)	37450	37551	37456	37452
37512	438-BX	17 x 13 x 8-3/4 IN (432 x 330 x 222 MM)	37450	37551	37456	37452
37513	439-BX	17 x 13 x 10-3/4 IN (432 x 330 x 273 MM)	37450	37551	37456	37452
37503	403-BX	17 x 13 x 12-5/8 IN (432 x 330 x 321 MM)	37450	37551	37456	37452
37510•	434-BX	17 x 13 x 14-3/4 IN (432 x 330 x 375 MM)	37450	37551	37456	37452
37520•	456-BX	18-3/8 x 12-3/8 x 6-3/4 IN (467 x 314 x 171 MM)	37450	37553	37458	37454
37522•	458-BX	18-3/8 x 12-3/8 x 8-3/4 IN (467 x 314 x 222 MM)	37450	37553	37458	37454
37523•	459-BX	18-3/8 x 12-3/8 x 10-3/4 IN (467 x 314 x 273 MM)	37450	37553	37458	37454
37519•	455-BX	18-3/8 x 12-3/8 x 14-3/4 IN (467 x 314 x 374 MM)	37450	37553	37458	37454
37518	452-BX	18-3/8 x 12-3/8 x 12-3/4 IN (467 x 314 x 324 MM)	37450	37553	37458	37454
37521	457-BX	18-3/8 x 12-3/8 x 17-1/8 IN (467 x 314 x 435 MM)	37450	37553	37458	37454
37505	405-BX	18-1/2 x 12-3/8 x 18-3/4 IN (470 x 314 x 476 MM)	37450	37553	37458	37454
37506	406-BX	18-5/8 x 15 x 5-7/8 IN (473 x 381 x 149 MM)	37450	37554	37459	37455
37527	468-BX	18-5/8 x 15 x 8 IN (473 x 381 x 203 MM)	37450	37554	37459	37455
37524	460-BX	18-5/8 x 15 x 10 IN (473 x 381 x 254 MM)	37450	37554	37459	37455
37525	462-BX	18-5/8 x 15 x 12 IN (473 x 381 x 305 MM)	37450	37554	37459	37455
37526	464-BX	18-5/8 x 15 x 14 IN (473 x 381 x 356 MM)	37450	37554	37459	37455
37516	446-BX	22-7/8 x 12-7/8 x 6 IN (581 x 327 x 152 MM)	37450	37552	37457	37453
37517	448-BX	22-7/8 x 12-7/8 x 8 IN (581 x 327 x 203 MM)	37450	37552	37457	37453
37514	440-BX	22-7/8 x 12-7/8 x 10 IN (581 x 327 x 254 MM)	37450	37552	37457	37453
37504	404-BX	22-7/8 x 12-7/8 x 12-5/8 IN (581 x 327 x 321 MM)	37450	37552	37457	37453
37515	445-BX	22-7/8 x 12-7/8 x 15-1/4 IN (581 x 327 x 387 MM)	37450	37552	37457	37453
37507	408-BX	22-7/8 x 12-7/8 x 18-1/4 IN (581 x 327 x 464 MM)	37450	37552	37457	37453
37530		21-7/8 x 18-7/8 x 4-1/4 IN (556 x 479 x 108 MM)	N/A	37557	N/A	N/A
37532		22 x 18-7/8 x 8 IN (559 x 480 x 203 MM)	N/A	37557	NA	N/A

## ACCESSORIES

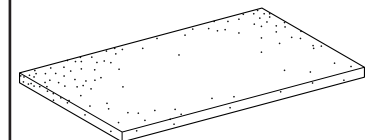
- ESD Handles
- Wire Frames
- Foam Pads



Conductive Plastic Handles



Steel wire perimeter reinforcing frame for extra strength and durability



Permanently static dissipative crosslink bottom foam to cushion circuit boards

Item	Description	Size
37450	ESD Handles	1" x 4"
37451	Bottom Foam	1/4" x 9-3/4" x 16-3/4"
37453	Bottom Foam	1/4" x 12-1/4" x 22-5/8"
37454	Bottom Foam	1/4" x 12-1/2" x 18-1/2"
37452	Bottom Foam	1/4" x 12-5/8" x 16-5/8"
37455	Bottom Foam	1/4" x 14-3/4" x 18-3/8"
37458	Wire Frame	1/4" x 12-1/2" x 18-11/16"
37457	Wire Frame	1/4" x 12-3/4" x 23-1/8"
37456	Wire Frame	1/4" x 13-1/4" x 17-1/4"
37459	Wire Frame	1/4" x 15-1/8" x 18-13/16"

• These items made to order