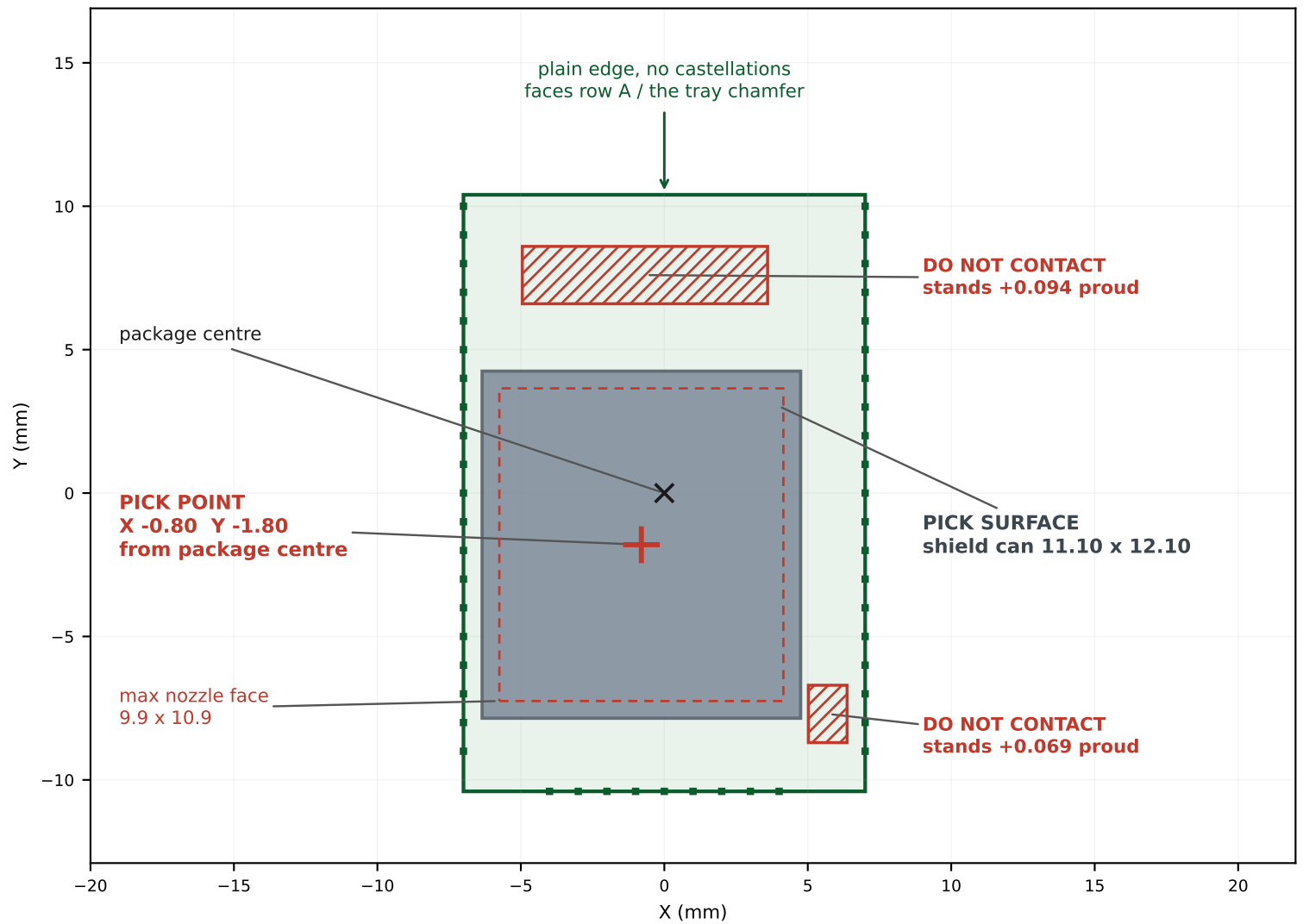


MB01B - Component Pick Data

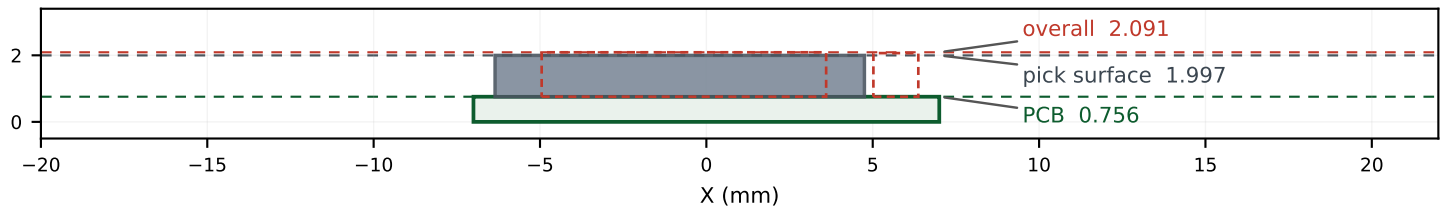
Part number	MB01B
Document revision	2.0
Date	2026-08-26
3D model	https://docs.iscatek.com/downloads/MB01B_3D_Model.step

Data for programming automated placement equipment. All dimensions are in millimetres and are derived from the 3D model referenced above.

MB01B - plan, components up, as seated in the tray pocket



Elevation - heights above the board underside, to scale



1. Component

Package outline	14.00 x 20.80
PCB thickness	0.756
Overall height	2.091
Underside	Flat; no components mounted below the board
Terminations	Castellations on three edges; the remaining short edge is plain

2. Pick surface and pick point

The pick surface is the shield can. The shield can is NOT concentric with the package outline, and the pick point is therefore offset from the package centre.

Pick surface	11.10 x 12.10, flat
Pick surface height above board underside	1.997
Pick point, from package centre	X -0.80, Y -1.80
Maximum nozzle face	9.9 x 10.9, centred on the pick point

A nozzle centred on the package outline is offset 1.97 from the pick point. The maximum nozzle face is the pick surface reduced by the module's positional freedom within the tray pocket (+/-0.60 in each axis), so that the nozzle remains wholly on the pick surface at the limits of that tolerance.

3. Keep-out zones

The components below stand proud of the pick surface and must not be contacted by the nozzle. Coordinates are relative to the package centre.

Zone	X extent	Y extent	Height	Proud of pick surface
U.FL connectors	-4.95 to +3.60	+6.60 to +8.60	2.091	0.094
Capacitors	+5.02 to +6.37	-8.70 to -6.70	2.066	0.069

4. Heights

PCB thickness	0.756
Pick surface above board underside	1.997
Overall component height	2.091
Pick surface below the tray's top face	0.503

The nozzle descends 0.503 below the tray's top face to reach the pick surface.

5. Orientation

Modules are supplied components up, with the plain edge - the short edge carrying no castellations - toward row A of the tray, the end identified by the chamfered corner. The castellation pattern is the only orientation feature; modules carry no marking.

6. Tray

Matrix	5 columns x 4 rows = 20 pockets
Pitch	16.70 X, 23.50 Y
Pocket	14.70 x 21.50, 2.50 deep
Datum	Virtual corner at the -X / +Y outer faces
A1 pocket centre, from datum	X +14.85, Y -13.25
A1 pick point, from datum	X +14.05, Y -15.05

The tray's 5 mm corner chamfer removes the physical datum corner; set up against the two outer faces and work from their intersection. The pick point offset given in section 2 applies to every pocket, so a single correction covers the tray.

Modules may sit up to +/-0.60 from the pocket centre at the limits of tolerance. This is within the correction range of post-pick vision centring; the nozzle face limit in section 2 accounts for it.

Trays are supplied as shipping and storage carriers. They are not JEDEC matrix trays and provide no tray-changer or fixturing features: the first pick position is taught and the matrix indexes from it, and trays picked from directly should be located and retained on the machine bed. Each tray holds 20 modules.