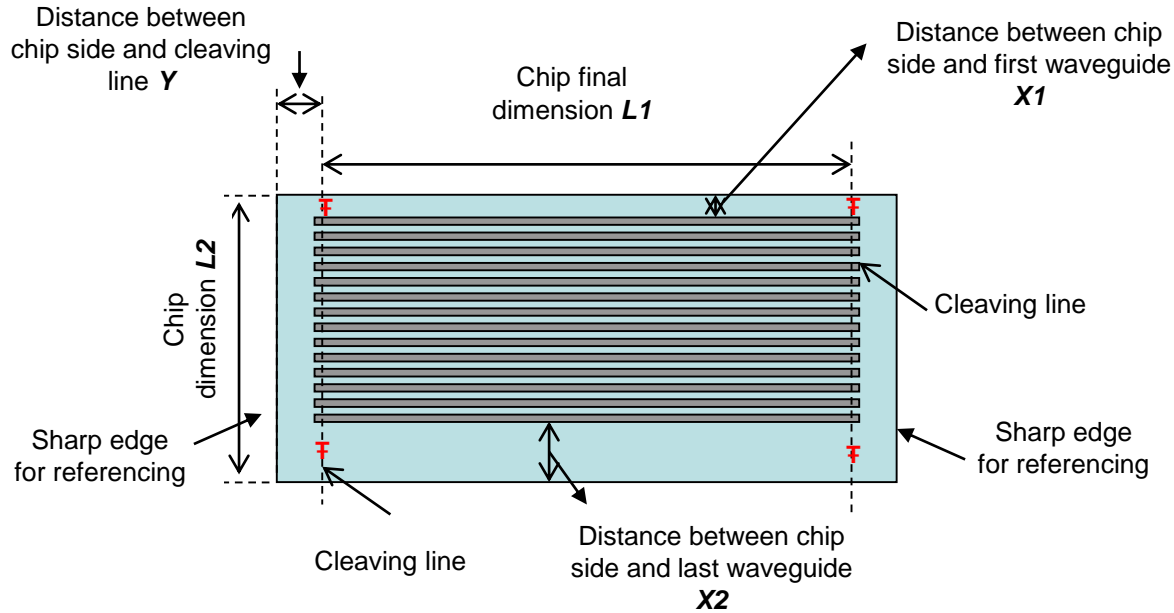
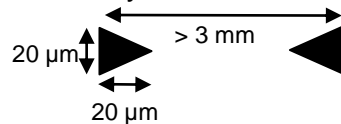


Guidelines for Laser Assisted Cleaving

(parallel cleaves)



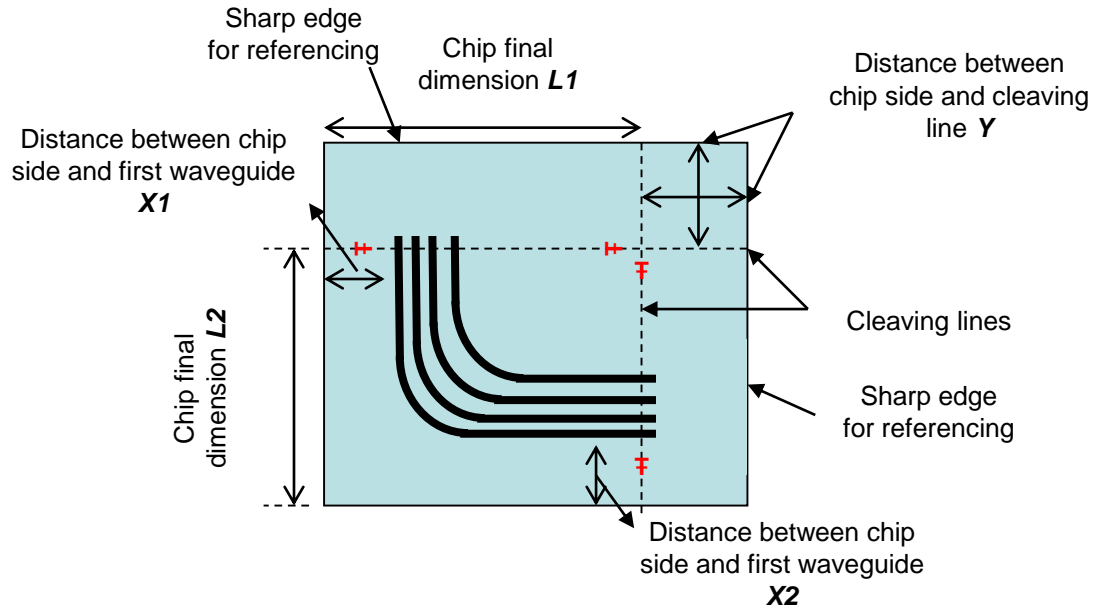
- $L1$: Chip final dimension (along waveguides) shall be $L1 > 4$ mm
- $L2$: Chip final dimension (across waveguides) shall be 4 mm $< L2 < 10$ mm
- Y : Distance from chip side to cleaving line shall be 1 mm $< Y < 2$ mm
- $X1$ and $X2$: Distances between chip side and waveguide shall be > 0.7 mm for one and shall be > 0.2 mm for the other.
- The sides along the cleaving lines shall be sharp enough for referencing. (Predicting can be done to meet those requirements.)
- At least two marks along each cleaving line spaced by at least 3 mm are required for alignment.(∇)
- Alignment marks should clearly indicate the line to be cleaved with an accuracy of ± 2 μ m. For example,



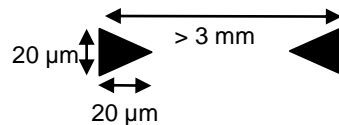
Accuracy on the position of the cleaved line with respect to the waveguide is ± 15 μ m. Thus, permitted zone for cleaving should be at least **30 μ m wide.**

Guidelines for Laser Assisted Cleaving

(perpendicular cleaves)



- **$L1$ and $L2$:** Chip final dimension shall be > 4 mm and < 10 mm
- **Y :** Distance from chip side to cleaving line shall be 1 mm $< Y < 2$ mm
- **$X1$ and $X2$:** Distances between chip side and waveguide shall be > 0.7 mm.
- The sides along the cleaving lines shall be sharp enough for referencing. (Predicting can be done to meet those requirements.)
- At least two marks along each cleaving line spaced by at least 3 mm are required for alignment. (F)
- Alignment marks should clearly indicate the line to be cleaved with an accuracy of ± 2 μ m. For example,



Accuracy on the position of the cleaved line with respect to the waveguide is ± 15 μ m. Thus, permitted zone for cleaving should be at least **30 μ m wide.**