**Definition.** Given a graph  $\langle \mathcal{V}, \mathcal{E} \rangle$  and a labeling of each edge  $e \in \mathcal{E}$  with a poset  $\mathbf{R}_e$ , the *design complexity*  $\mathrm{DC}(\langle \mathcal{V}, \mathcal{E} \rangle)$  is defined as

 $DC(\langle \mathcal{V}, \mathcal{E} \rangle) = \min_{F \text{ is an AFS}} width(\prod_{-\Gamma} \mathbf{R}_e).$