(a) GTNet

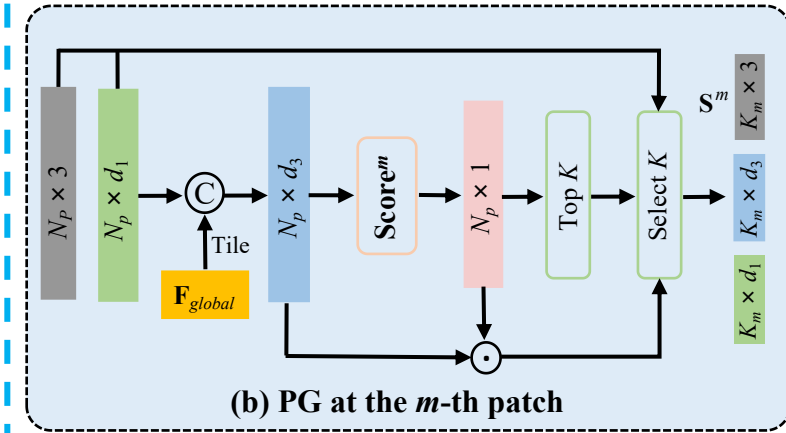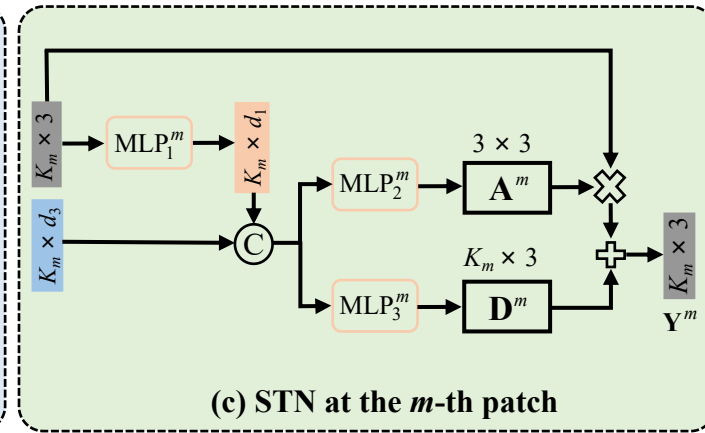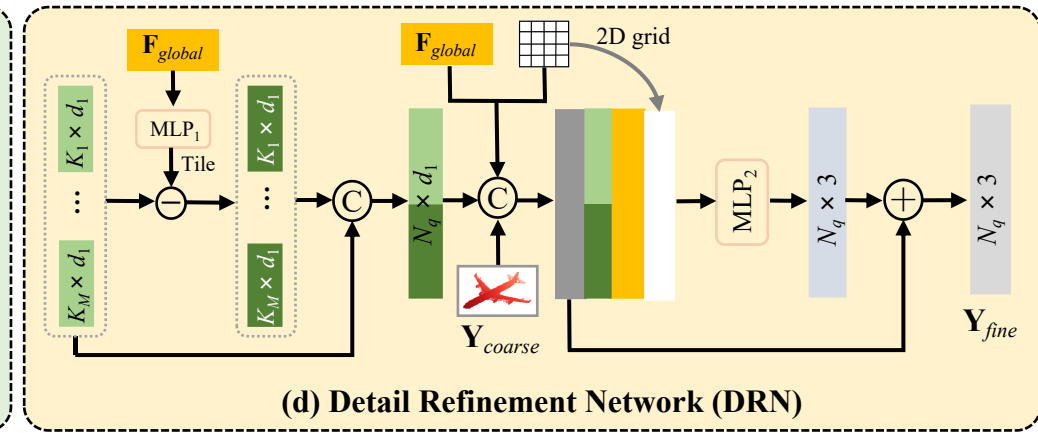**(b) PG at the *m*-th patch**

(c) STN at the *m*-th patch

(d) Detail Refinement Network (DRN)

⊖ Element-wise Subtraction ⊙ Element-wise multiplication ⊞ Matrix Addition ▢ Structure Transformation Network ▢ Geometric Patch Network ▢ Patch Generator

⊕ Element-wise Addition ⊗ Matrix Multiplication ⓒ Concatenation $\mathbf{A}^m$ Spatial Transformation Matrix $\mathbf{D}^m$ Translation Matrix ⠿ Offset-Attention