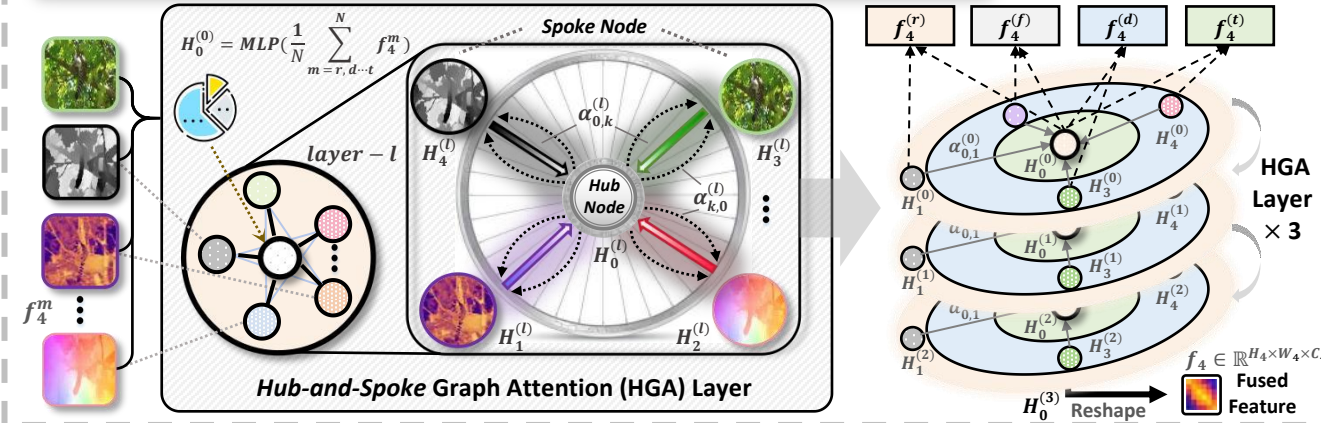


(a) Hub-and-Spoke Graph Attention Module (HGA)

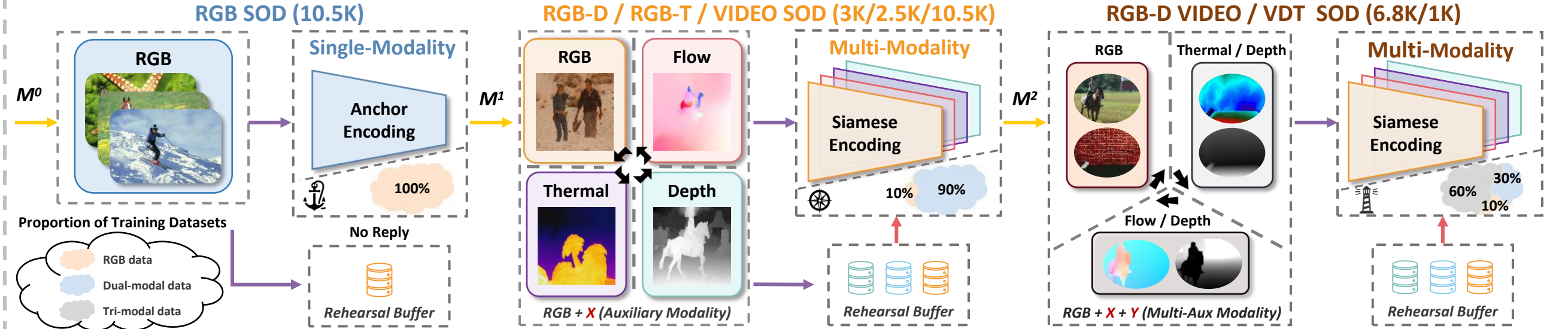


(b) Modality-Anchored Continual Learning Strategy (MACL)

Stage 1: Anchor Modality Pretraining

Stage 2: Single-Auxiliary Modality Expansion

Stage 3: Multi-Auxiliary Modality Generalization



(c) Synergistic Integrity Refinement Module (SIR)

