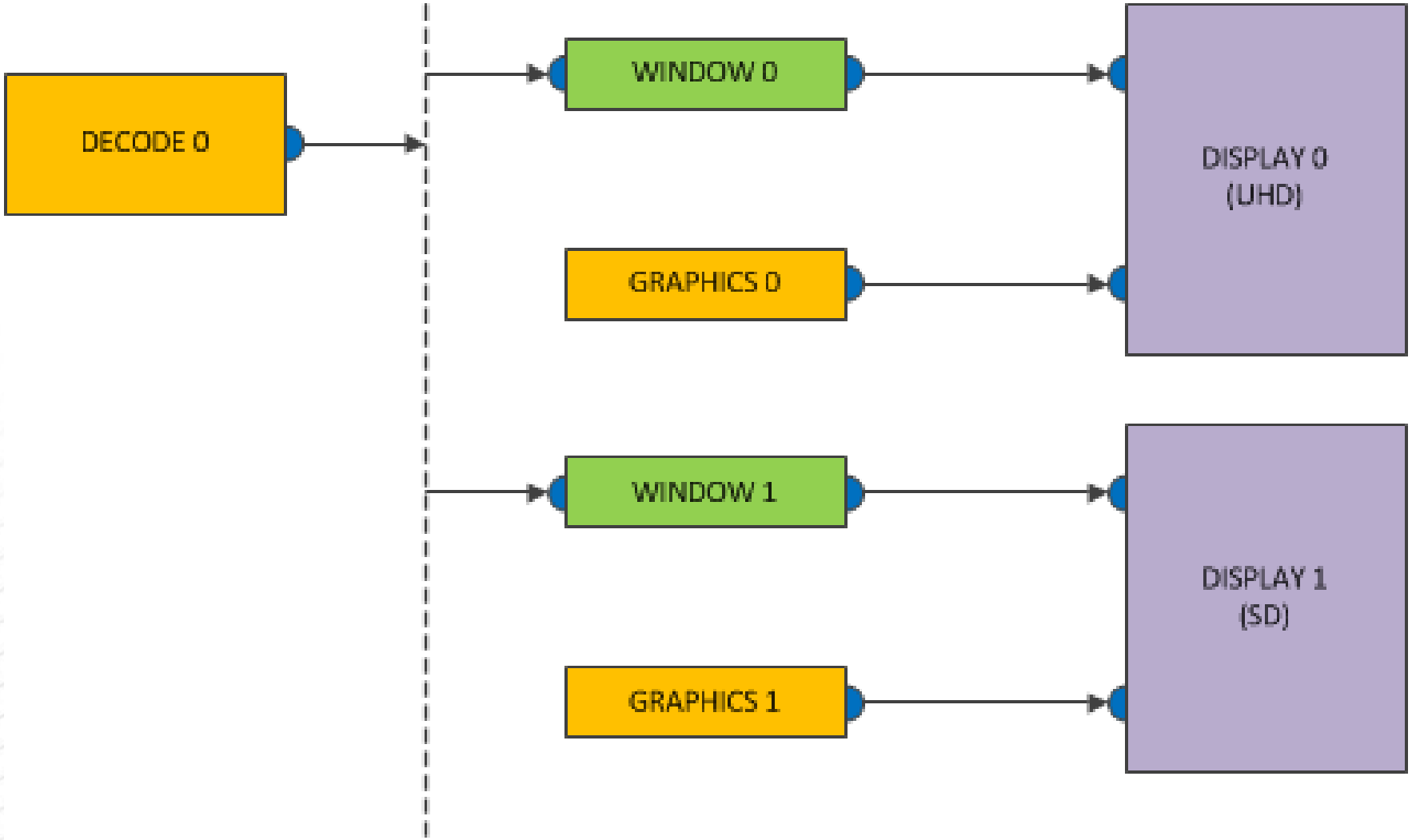
BOX MODE #8

7250

BOX MODE #8 – SUMMARY

- **Required memory speed: 1x 16-bit DDR3-2133**
  - No high-temperature refresh
- **Features**
  - Multi-PIP decode (2x)
    - 1080p30/60i 8-bit HEVC / AVC / MPEG
  - UHD + SD display
  - No transcode

POSSIBLE VIDEO ROUTINGS



SOURCE LIMITATIONS

- **For each source, you may toggle between any of the provided options.**
  - Only one option enabled at a given time.
- **Decode 0**
  - Multi-PIP mode (2x):
    - 1080p30/60i 8-bit HEVC / AVC / MPEG
- **Graphics 0 (UHD)**
  - 1080p60 32-bit ARGB
- **Graphics 1 (SD)**
  - 480p60 32-bit ARGB
  - 576p50 32-bit ARGB

WINDOW LIMITATIONS

- **Window 0 (MAIN / UHD)**
  - Multi-PIP mode (2x)
    - First context (lowest Z-order)
      - 1080i60 de-interlacing
      - Up to full-screen display
    - Second context
      - No de-interlacing
      - Up to ½ x ½ screen
- **Window 1 (MAIN / SD)**
  - Multi-PIP mode (2x)
    - Up to full-screen for first context
    - Up to ½ x ½ screen for second context

- **The use of multi-PIP to replace MAIN + PIP is very restrictive.**
  - The API for multi-PIP does not give the same controls as available for MAIN + PIP
    - Limited clipping, no aspect-ratio correction, …
  - There are also limits in hardware on what can be done in this mode as we have to share a single video path to support both video paths
    - No blending, no brightness/contrast/saturation controls, no letterbox detection, ...
- **Only use this box mode if application is capable of limiting themselves to the controls defined with the current multi-PIP APIs.**

DISPLAY AND ENCODE LIMITATIONS

- **Display 0 (HD)**
  - 3840x2160p60
    - Through 1920x1080p60 up-scaling
- **Display 1 (SD)**
  - 480i60
  - 576i50