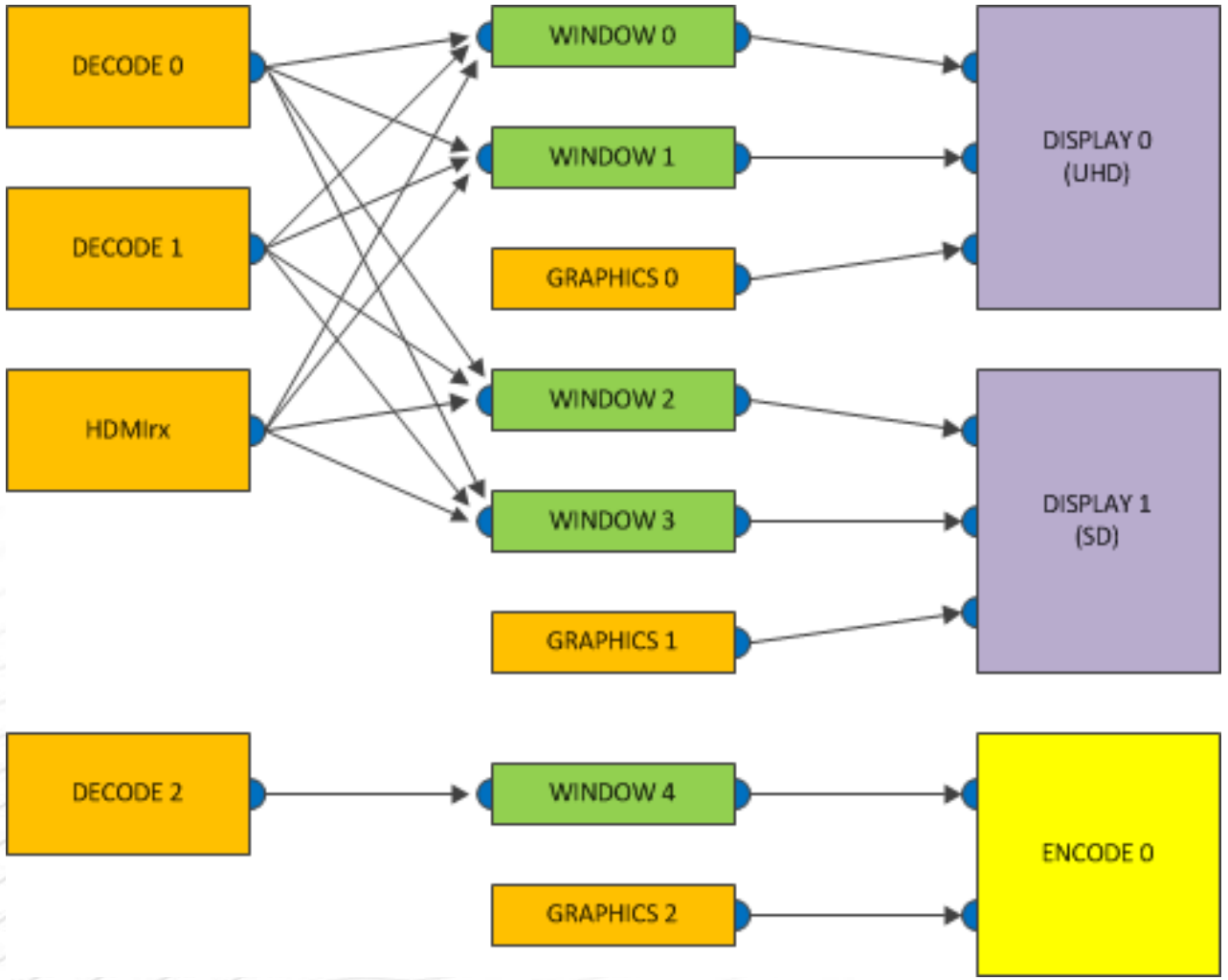
BOX MODE #5

7439 Bx

BOX MODE #5 – SUMMARY

- **Required memory speed: 2x 32-bit DDR3-2133**
  - High-temperature refresh not supported
- **Features**
  - 3840x2160p60 10-bit HEVC for main
  - 1080p30/60i 10-bit HEVC for PIP
  - Quad multi-PIP
  - One transcode:
    - 1080p30/60i 8-bit HEVC/AVC decode
    - 1080p30 8-bit AVC encode
  - UHD + SD display
  - HDMI input

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**
  - Single decode mode:
    - 3840x2160p60 10-bit HEVC
    - 3840x2160p60 8-bit VP9
    - 1920x1080p60 8-bit AVC
  - Multi-PIP mode (3x):
    - 1920x1080p30 / 60i 10-bit HEVC
    - 1920x1080p30 / 60i 8-bit VP9 or AVC
- **Decode 1**
  - 1920x1080p30 / 60i 10-bit HEVC
  - 1920x1080p30 / 60i 8-bit VP9 / AVC
- **Decode 2**
  - 1920x1080p30 / 60i 10-bit HEVC
  - 1920x1080p30 / 60i 8-bit VP9 / AVC
- **Graphics 0 (UHD)**
  - 1080p60 32-bit ARGB
- **Graphics 1 (SD)**
  - 480p60 32-bit ARGB
  - 576p50 32-bit ARGB
- **Graphics 2 (Transcode 0)**
  - 720p60 32-bit ARGB
- **HDMIrx**
  - 3840x2160p60

HARDWARE RESOURCE MAPPING

Decoder	MFD	Example Usage	Hardware
Decode 0	MFD0	Primary decode	HVD0
Decode 1	MFD1	Secondary decode	HVD1
Decode 2	MFD2	Transcoding	HVD1

WINDOW LIMITATIONS

- **Window 0 (MAIN / UHD)**
  - Up to full-screen display (smooth scaling)
  - 10-bit support / 1080i60 10-bit de-interlacing
  - Multi-PIP mode (3x):
    - Up to 25% of the display canvas used for each window.
    - 480i60 8-bit de-interlacing
- **Window 1 (PIP / UHD)**
  - Up to ½ screen display
  - 480i60 8-bit de-interlacing
- **Window 2 (MAIN / SD)**
  - Up to full-screen display (smooth scaling)
  - Multi-PIP mode (3x);
    - Up to 25% of the display canvas used for each window.
- **Window 3 (PIP / SD)**
  - Up to ½ screen display
- **Window 4 (Transcode 0)**
  - Full-screen display
  - 1080i60 8-bit de-interlacing

DISPLAY AND ENCODE LIMITATIONS

- **Display 0 (UHD)**
  - 3840x2160p60
- **Display 1 (SD)**
  - 480i60
  - 576i50

- **Encode 0**
  - 1080p30 8-bit