

# Box mode #4

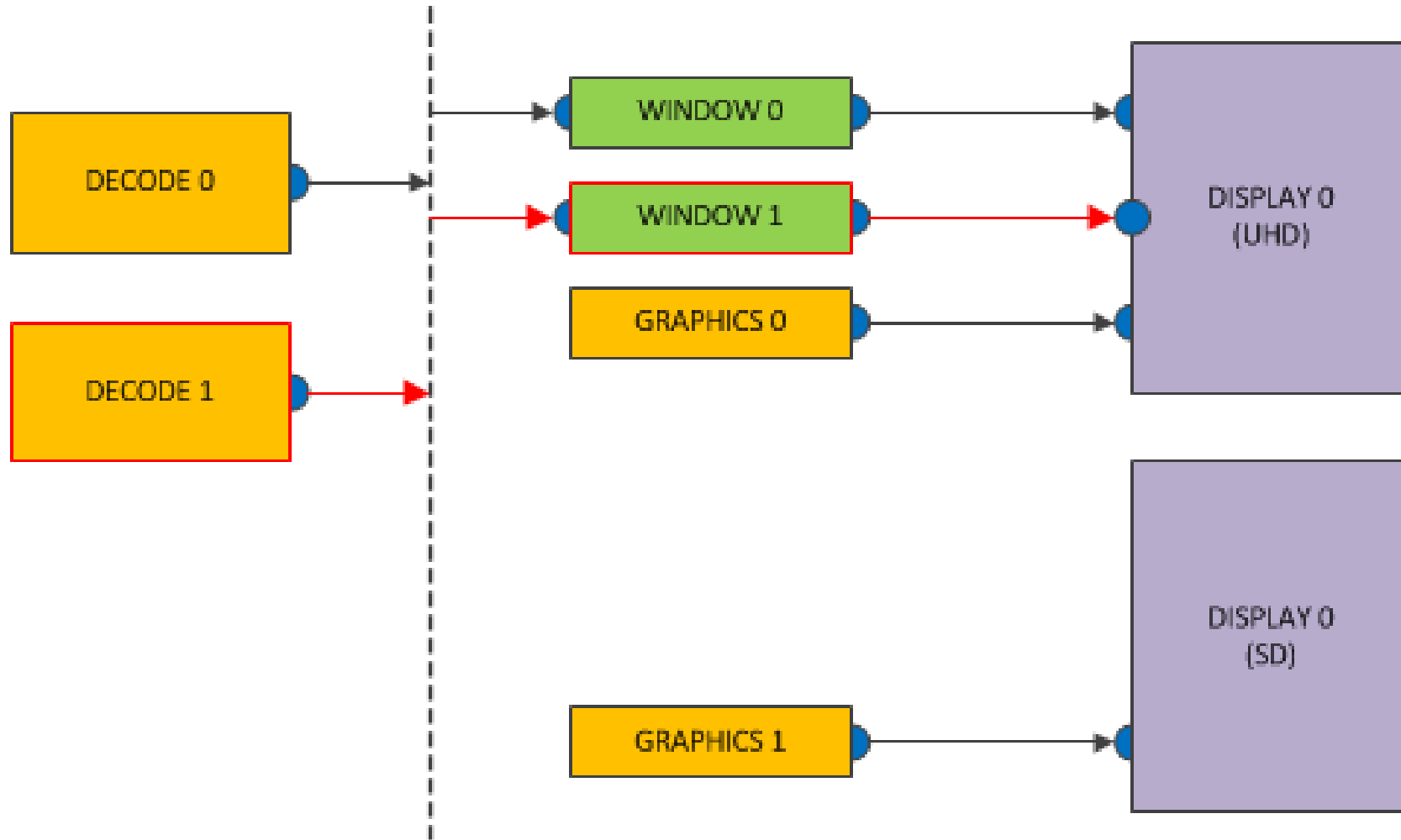
7260



## Box mode #4 – Summary

- Required memory speed: 1x 32-bit DDR4-2400
  - No high-temperature refresh
- Features:
  - Single 3840x2160p60 decode or dual 1080p60 decode
  - UHD display
  - Main + limited PIP
    - Decode and MAIN window display limitations for 3840x2160p cases.
  - Multi-PIP (3x) supported
  - Independent SD display supported (graphics only – no video)
  - No HDMI input
  - No transcoding

# Possible video routings



# Source limitations

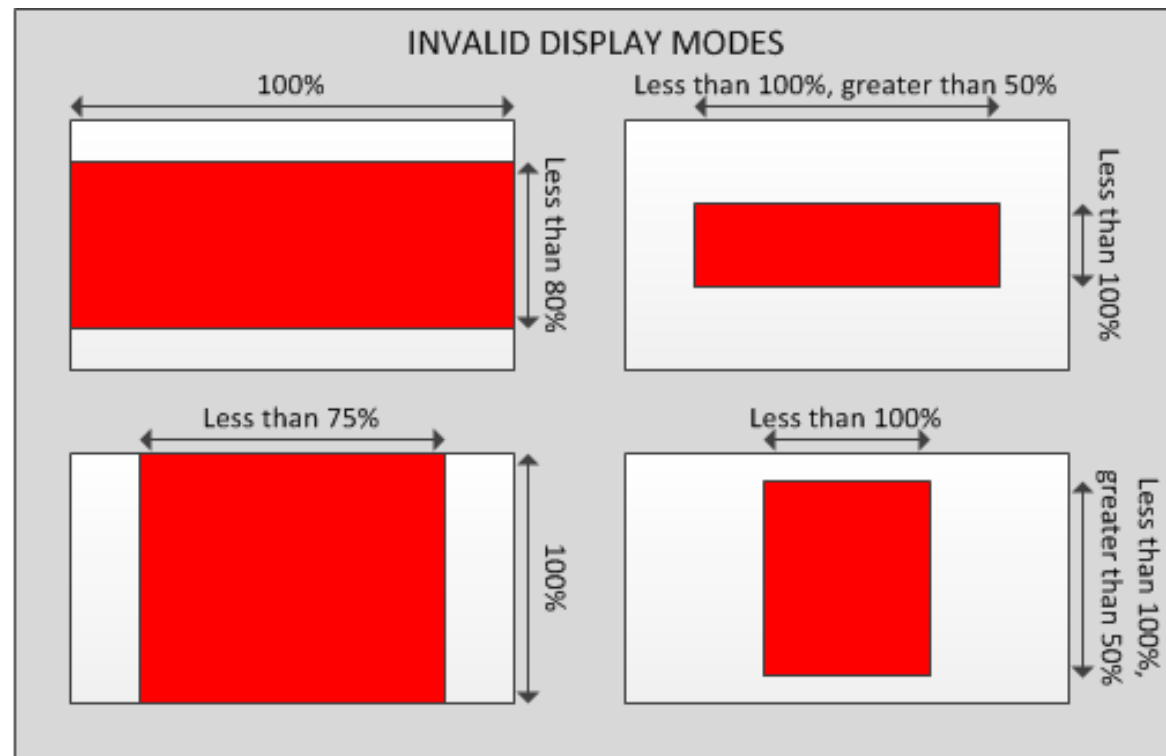
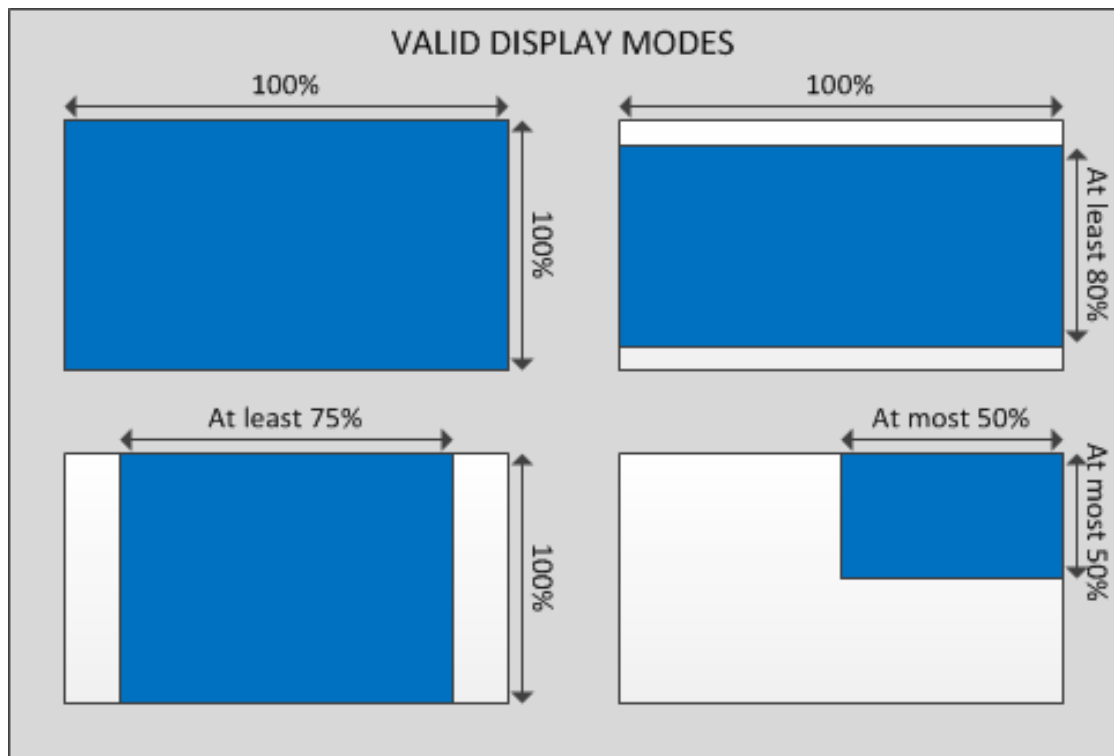
- Decode 0
  - 3840x2160p60 10-bit HEVC / VP9
  - 3840x2160p30 8-bit AVC
  - 1920x1080p30/60i 8-bit MPEG2
  - Multi-PIP mode (3x)
    - 1920x1080p30/60i 10-bit HEVC / VP9
    - 1920x1080p30/60i 8-bit AVC / MPEG2
  - No MTG support
  - Sources larger than 1080p must have an aspect ratio less than or equal to 2.21:1
- Decode 1
  - Must be inactive when Decode 0 is handling any source greater than 1080p.
  - 1920x1080p60 10-bit HEVC / VP9
  - 1920x1080p60 8-bit AVC
  - 1920x1080p30/60i 8-bit MPEG2
- Graphics 0 (UHD)
  - 1080p60 32-bit ARGB
- Graphics 1 (SD)
  - 480p60 32-bit ARGB

# HARDWARE RESOURCE MAPPING

Decoder	MFD	Hardware
Decode 0	MFD0	HVD0
Decode 1	MFD1	HVD0

# Window 0 (MAIN) limitations

- Window 0 (MAIN / UHD)
  - 1080i60 de-interlacing
  - When the display format is less than or equal to 1080p:
    - Up to full-screen (smooth-scaling)
  - When the display format is greater than 1080p, the below diagram specifies the limits:
- Multi-PIP (3x) support
  - 480i60 de-interlacing
  - Up to 50%x50% display rectangle per multi-PIP.



# Window 1 (PIP) limitations

- Window 1 (PIP / UHD)
  - Must be inactive when Decode 0 is handling any source greater than 1080p
  - Up to full-screen (smooth-scaling)
  - No de-interlacing

# Display and encode limitations

- Display 0 (UHD)
  - 3840x2160p60
  - Displays larger than 1080p must have an aspect ratio greater than or equal to 16:9
- Display 1 (SD)
  - 480i60