

# **BOX MODE #13**

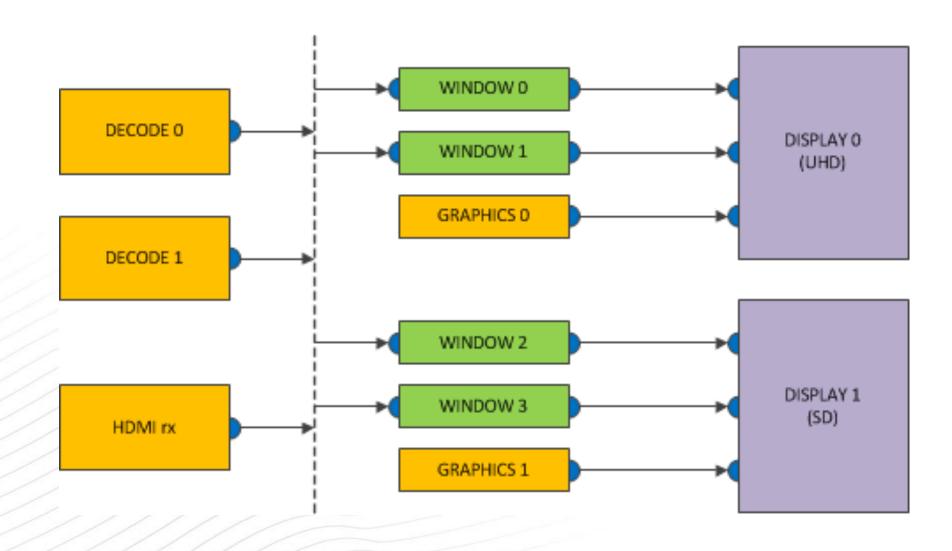
7439 Bx

#### **BOX MODE #13 – SUMMARY**



- Required memory speed: 1x 32-bit DDR3-2133 or 1x 32-bit DDR4-2400
  - No high-temperature refresh
- Features:
  - 3840x2160p50 10-bit HEVC decode or 1080p25/50i MAIN+PIP mode.
  - 3 Multi-PIP support.
  - UHD + SD display
  - MAIN (4K) or MAIN+PIP (1080p)
  - HDMI input supported up to 3840x2160p50
  - No transcoding





#### **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-source mode:
    - 3840x2160p50 10-bit HEVC
    - 3840x2160p50 8-bit VP9
    - 1920x1080p50 8-bit AVC / MPEG2
  - MAIN + PIP mode:
    - 1920x1080p25/50i 10-bit HEVC
    - 1920x1080p25/50i 8-bit VP9 / AVC / MPEG2
  - Multi-PIP mode (3x)
    - 1920x1080p25/50i 10-bit HEVC
    - 1920x1080p25/50i 8-bit VP9 / AVC / MPEG2
- Decode 1
  - Must be inactive in single-source mode and multi-PIP mode.
  - MAIN + PIP mode:
    - 1920x1080p25/50i 10-bit HEVC
    - 1920x1080p25/50i 8-bit VP9 / AVC / MPEG2

- HDMI rx
  - 3840x2160p50
- Graphics 0 (HD)
  - 1080p50 32-bit ARGB
- Graphics 1 (SD)
  - 576p50 32-bit ARGB

## HARDWARE RESOURCE MAPPING



Decoder	MFD	Hardware
Decode 0	MFD0	HVD0
Decode 1	MFD1	HVD0

#### WINDOW LIMITATIONS



#### Window 0 (MAIN / UHD)

- Up to full-screen display (smooth scaling)
- 1080i50 de-interlacing
- Multi-PIP mode (3x)
  - Up to 25% of the canvas for each window.
  - Up to 576i50 de-interlacing

#### Window 1 (PIP / UHD)

- Must be inactive in single-source mode and multi-pip mode.
- Up to ½ x ½ display (smooth scaling)
- 1080i50 de-interlacing

#### Window 2 (MAIN / SD)

- Up to full-screen display (smooth scaling)
- Multi-PIP mode (3x)
  - Up to 25% of the canvas display for each window.

#### Window 3 (PIP / SD)

- Must be inactive in single-source mode and multi-pip mode.
- Up to ½ x ½ display (smooth scaling)

### **DISPLAY AND ENCODE LIMITATIONS**



- Display 0 (UHD)
  - **3840x2160p50**
- Display 1 (SD)
  - **576i50**