

# **BOX MODE #21**

7439 Bx

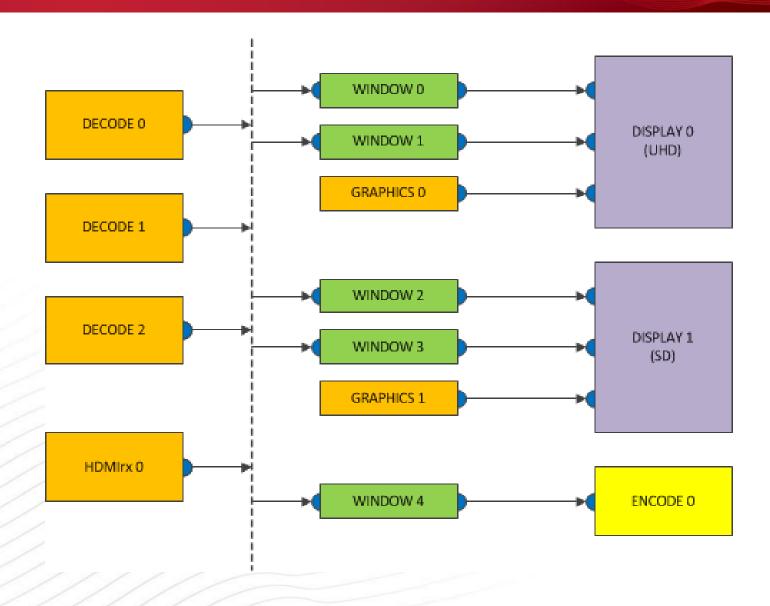
### **BOX MODE #21 – SUMMARY**



- Required memory speed: 2x 32-bit DDR4-2380
  - No high-temperature refresh
- Features:
  - One 3840x2160p60 10-bit decode
  - Two 1080p30/60i decodes
  - One 720p60 encode
  - UHD + SD display
  - MAIN + PIP support
  - Multi-PIP (3+1)
  - 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

- 3840x2160p60 10-bit HEVC
- 3840x2160p60 8-bit VP9
- 1920x1080p60 8-bit AVC / MPEG
- Multi-PIP (3x)
  - 1080p30/60i 8-bit HEVC/VP9/AVC/MPEG2
- MTG disabled

#### Decode 1

- 1920x1080p30/60i 10-bit HEVC
- 1920x1080p30/60i 8-bit VP9 / AVC / MPEG2
- MTG disabled

#### Decode 2

- 1920x1080p30/60i 10-bit HEVC
- 1920x1080p30/60i 8-bit VP9 / AVC / MPEG2
- MTG disabled

- HDMIrx 0
  - **3840x2160p60**
- Graphics 0 (UHD)
  - 1080p60 32-bit ARGB
- Graphics 1 (SD)
  - 480p60 32-bit ARGB
  - 576p50 32-bit ARGB

# HARDWARE RESOURCE MAPPING



Decoder	MFD	Hardware
Decode 0	MFD0	HVD0
Decode 1	MFD1	HVD1
Decode 2	MFD2	HVD1

#### WINDOW LIMITATIONS



#### Window 0 (MAIN / UHD)

- Up to full-screen display (smooth scaling)
- 1080i60 de-interlacing
- Multi-PIP (3x)
  - 480i60 de-interlacing
  - Up to 25% canvas coverage per window.

#### Window 1 (PIP / UHD)

- Up to full-screen display (smooth scaling)
- 1080i60 de-interlacing

### Window 2 (MAIN / SD)

- Up to full-screen display (smooth scaling)
- Multi-PIP (3x)
  - Up to 25% canvas coverage per window.

### Window 3 (PIP / SD)

Up to full-screen display (smooth scaling)

#### Window 4 (Transcode 0)

- Full-screen only
- 1080i60 8-bit de-interlacing

# **DISPLAY AND ENCODE LIMITATIONS**



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

- Encode 0
  - 720p60 8-bit