# TXW82x FPV SDK ReleaseNote

## Revision History

| Date | Version | Description | Revised By |
|---|---|---|---|
| 2025-12-18 | v2.7.0.7-39347 | SDK Official Release: Fixed known issues. | TX |
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Content

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# 1. SDK V2.7.0 Update Version

## 1.1. TXW82x_FPV-v2.7.0.7-39347

**Note:** SDK files increased; update to **CDK v2.24.5** is required for development.

[ System ]
1. **Optimized**: AT commands (AT+xxx for CPU0, AT1+xxx for CPU1).
2. **Optimized**: malloc no longer handles cache issues (applications must handle cache issues separately).
3. **Optimized**: Support PSRAM frequency modification; psram_auto_init interface parameter configuration.
4. **Optimized**: Support Flash frequency modification; ll_xip_clock_init interface parameter configuration; use with caution.
5. **Optimized**: Support application query for CPU usage within 100ms (os_cpuloading query); task statistics now display total usage instead of idle_task.
6. **Optimized**: FPV adds a high-priority workqueue (handles non-time-consuming high-priority tasks to save SRAM).
7. **Optimized**: Firmware generation unified back to APP.bin (previous versions might have generated build_app.bin depending on macros).
8. **Added**: Log saving to SD card (controlled by DEBUG_LOG_FILE_SAVE_EN); feature is functional but does not support SD hot-swapping, and interrupt prints are currently not saved.

[ Network ]
1. **Upgraded**: LwIP version updated to 2.2.1.

[ Drivers ]
1. **Optimized**: SD driver; enhance compatibility.
2. **Optimized**: SD filesystem write performance; requires extra PSRAM space (disabled by default).
3. **Optimized**: LCD kick sequence to resolve flickering on specific panels.
4. **Optimized**: MIPI CSI sampling points for better sensor compatibility.
5. **Added**: Support for configurable RF frequency points.

[ Image ]
1. **Fixed**: WDR calculation error causing hazy images.
2. **Optimized**: Improved ISP image quality.
3. **Added**: Support for H.264 encoding after 720P to 1080P interpolation.
4. **Added**: Support for Full Range configuration (controlled by VIDEO_YUV_RANGE_TYPE, default).

[ Application ]
1. **Recording and Playback**:
   (1) **Fixed**: Intermittent crash during SD card formatting in **Viidure**.

(2) **Fixed**: MJPEG encoding freeze under low memory; Optimized: Memory allocation (node-based allocation to prevent fragmentation failures).

(3) **Fixed**: MP4 decoding anomalies.

(4) **Fixed**: MJPEG decoding exception caused by continued decoding with insufficient SRAM.

(5) **Fixed**: Crash caused by incorrect LCD `line_buf` allocation size.

(6) **Fixed**: Intermittent H.264 encoding crash (due to insufficient space for large images).

(7) **Fixed**: 720P camera failure to correctly encode sub-stream/VGA (introduced in build 38216).

(8) **Optimized**: Audio processing buffer relocated to PSRAM to save SRAM.

(9) **Added**: Support for saving **Viidure** parameter settings to Flash.

(10) **Added**: Time-lapse and Normal recording support for MP4 (consolidated function, distinguished by parameters).