

# Firmware Program Release Notes

## Overview

Program Type (General or Customized)	General
Applicable Receiving Card	A7sPlus
PCB Version	S12C_B1

## Chip List

Program Package	Driver IC	Decoding Chip	Note
DATA_A7s Plus_V4.9. 1.0	<p><i>Common:</i></p> <p><i>MBI series:</i></p> <p><i>MBI5124 (excluding MBI5124DPWM),</i> <i>MBI502x, MBI5034—MBI5039</i></p> <p><i>MY series:</i></p> <p><i>MY9862</i></p> <p><i>ICN series:</i></p> <p><i>ICN2038S, ICN2047, DP5125H (ICN2038S),</i> <i>ICND1069, ICND2055S</i></p> <p><i>SM series:</i></p> <p><i>SM16207, SM16237</i></p> <p><i>DP series:</i></p> <p><i>DP3246</i></p> <p><i>Others:</i></p> <p><i>Common chips, RT5938ss_Common</i></p> <p><i>ICN series:</i></p> <p><i>ICN2055 (ICN1069) / ICN2065 / ICN2069</i> <i>(FM6565), ICN1065, ICN1065S (ICN2065),</i> <i>ICN3065, ICN2153s, ICN2055s (ICN2055),</i> <i>ICN3069</i></p> <p><i>MBI series:</i></p> <p><i>MBI5264, MBI5268</i></p> <p><i>SM series:</i></p> <p><i>SM16389SF, SM16389, SM16169SH</i> <i>(SM16380SH), SM16380SW (SM16380SH),</i></p>	<p><i>Static, direct, 138, 5958, 5953,</i> <i>595, SM5266, SM5366,</i> <i>SM5368, DP32020, DP32019,</i> <i>D7266, HX6158H, FM7519,</i> <i>CFD2138s</i></p> <p><i>ICN2018 / ICN2019 / ICN3018,</i> <i>RT5958 / RT5988 / RT5960 /</i> <i>RT5990 / RT5992 / RT5929</i></p>	<p><i>The 16169SH</i> <i>series does</i> <i>not support</i> <i>special modes.</i></p>

	<p>SM16169SW (SM16380SH), SM16386 (SM16380SH)</p> <p>DP series:</p> <p>DP3264, DP3265, DP3368, DP3256 (DP3264), DP3356 (DP3265), DP3364 (DP3265), DP3254, DP3252 (DP3254), DP3153 (DP3254), DP3269s</p> <p>CFD series:</p> <p>CFD555A, CFD555B, CFD535A (CFD555B), C8385, CFD955B</p> <p>HX:</p> <p>HX8863, HX8864, HX8865, HX8964 (HX8864+Register group count)</p> <p>FM series:</p> <p>FM6864 (MBI5264), FM6373</p>		
<p>DATA_A7s Plus_V4.9.1.3</p>	<p><i>MY series:</i></p> <p>MY9266, MY9269, MY9366</p> <p><i>MBI series:</i></p> <p>MBI5030, MBI5031, MBI5041 (B), MBI5043, MBI505x, MBI5252, MBI5353, MBI5153 (FM6153), MBI5353B, MBI5253B, MBI5754B</p> <p><i>ICN series:</i></p> <p>ICN2153 (FM6353), ICN2159, ICN2263</p> <p><i>SM series:</i></p> <p>SM16169, SM16380, SM16388, SM16369, SM16359</p> <p><i>CFD series:</i></p> <p>CFD435A, CFD455A, CFD335A</p> <p><i>CS series:</i> CS2033, CS2066</p> <p><i>Others:</i></p> <p>TLC5958, TLC59581, SCL8060</p>	<p>Static, direct, 138, 5958, 5953, 595, SM5266, SM5366, SM5368, DP32020, DP32019, D7266, HX6158H, FM7519, CFD2138s,</p> <p>ICN2018 / ICN2019 / ICN3018, RT5958 / RT5988 / RT5960 / RT5990 / RT5992 / RT5929</p>	<p>ICN2263 does not support dead pixel removal.</p>
<p>DATA_A7s Plus_V4.9.1.4</p>	<p><i>LS-PWM:</i></p> <p>LS9935, LS9935B, LS9936</p> <p><i>LS-Common:</i></p> <p>LS9917, LS9919, LS9920, LS9926, LS9928, LS9929, LS9930, LS9931, LS9961</p>	<p>Direct, 7258/2012, 2013, 9739, 9737, 9736, 9735, 5958, 2018, 5266, 5366, 7266, 32019, 32020, 5368, 6158, 9708, 9716</p>	

## Features

Supported Features	Note
Max load capacity: 512x512 (PWM, Shixin PWM IC) 512x384 (Common, Shixin common IC)	
Up to 1/128 scan	
Up to 32 groups of parallel data; 64 groups of serial data (expandable to 128 groups of serial data)	Refer to logical load capacity. Support 8, 16, or 32 groups of parallel data. Support 16, 32, or 64 groups of serial data. Support dual clock extension by default.
Pixel-level brightness calibration	
Quick seam correction	Support displaying test pattern when there is no signal source.
Support 3D	Load capacity reduced by half.
Bit error detection	
Individual gamma adjustment for RGB	
90° image rotation	
Display of 3-color 16-point serial input	
Stable uploading of calibration coefficients	Calibration acceleration supported
Mapping 1.1	
Temperature & voltage monitoring	
Cabinet LCD	Only 5-Pin LCD is supported
Firmware program readback	
Configuration parameter readback	
Loop backup	
Dual program backup	
No rectangle restriction	Work with specific sending cards.

## Others

The main improvements in the A7s Plus v4.9 include:

1. Seamless switching: In backup mode, the system can perform primary-backup switching without any noticeable interruption.

2. System optimization: Improved system stability.

## Change History

Change History		
Program Version	Release Date	Description
V4.9.1.0		
V4.9.0.0		

## V4.9.1.0 Updates

New Features
<ul style="list-style-type: none"><li>• Improved bit error detection with a new mechanism to track the number of Ethernet cable disconnections:</li><li>• Added support for ICND1069 and ICND2055S driver ICs.</li></ul>
Bug Fixes
<ul style="list-style-type: none"><li>• Improved display performance for screen unplugging and re-plugging of Ethernet cables.</li><li>• Fixed compatibility issues with dual-card backup.</li><li>• Fixed occasional screen distortion with FM6373 after power cycling.</li><li>• Fixed occasional display synchronization issues when working with the MCTL660 sending card.</li><li>• Fixed lighting anomalies with DP3269S and DP3246.</li></ul>

## V4.9.0.0 Updates

New Features
<ul style="list-style-type: none"><li>• Seamless switching: In backup mode, the system can perform primary-backup switching without any noticeable interruption.</li><li>• System optimization: Improved system stability.</li></ul>
Improvements
<ul style="list-style-type: none"><li>• Optimized the power-on sequence for PWM and common ICs.</li><li>• Improved the gradual power-on functionality.</li><li>• Improved the 18bit display quality for active-low chips.</li><li>• Improved the redundant backup switching performance.</li><li>• Improved dual-card backup functionality and primary-backup switching performance.</li><li>• Improved the decoding timing for DP32020.</li></ul>

- Increased the maximum number of module flash to 64.
- Improved dead pixel removal with an added toggle feature, and enhanced display performance after power cycling.
- Improved 18bit+ display quality.
- Resolved flash operation issues caused by hardware interference.
- Improved certain display effects when working with COEX systems.

#### Bug Fixes

- Fixed display issues with IC under certain settings.
- Fixed black screen issues related to DDR.
- Fixed black screen problems in display control.
- Fixed display anomalies caused by spread spectrum functionality.