

# Digital Signage Player

## (Fanless, Atom Z530P, CF, LINUX, DVI-D)

### DS-210D-DC5351-M01

## Product Guide

### CONTEC CO.,LTD.

At first, read “Safety Precautions” and make proper use of this product.

#### Product Configuration List

Name	DS-210D-DC5351-M01*1
	Pcs.
The main body *2	1
The attachment fittings	2
VESA fitting bracket	2
CF card removal prevention fitting	1
USB removal prevention fitting	1
USB removal prevention clamp.	2
Washer assembled screw (M3 x 6, black)	5
Washer assembled and cross recessed hexagonal bolt (M4 x 10, black)	4
Cable clamp	2
AC adaptor	1
AC cable *3	1
DVI to HDMI adaptor	1
Product guide (this sheet)	1
License sheet	1
Support form	1

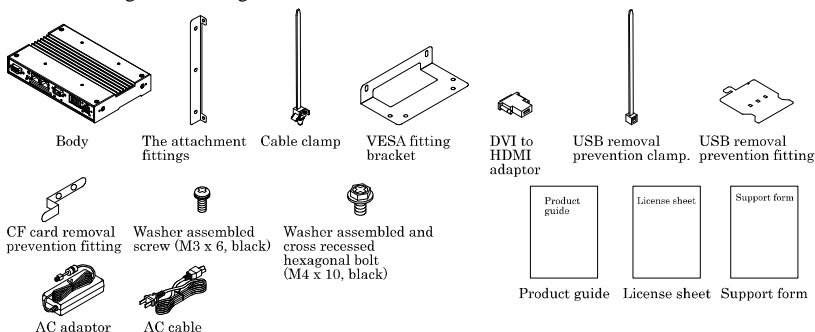
\*1 User's manual for software is available from following website.

<https://www.miraclelinux.com/jip/product-service/digital-signage/documents>

\*2 The hardware specifications are the same as the hardware specifications in “BX-210D-DC5311” except for the following section “The difference from BX-210D-DC5311”. For reference, download the user's manual of “BX-210D-DC5311” from the CONTEC homepage.

\*3 Do not use this AC power cable with any devices except for an attached AC adaptor.

#### Product Configuration Image



\* See the Product Configuration List to check if all the components are included for the specified number of units.

# About the Product

This product is a small and resource-saving digital signage player supporting full-HD.

It combines sufficient performance and low power consumption in a space-saving design that can be installed in spaces only 50-mm thick with roughly the same size as a paperback book.

This product is based on the knowledge fully stored in industrial PC development and has highly reliable design.

This product uses Intel<sup>®</sup> ATOM™ Processor Z530 which has a special function to help the play of movies.

## Features

- Supports playing movies.

Intel<sup>®</sup> ATOM™ Processor Z530 has a special function to help the play of movies. Its DVI-D interface supports full-HD movies. HDMI output is also available using attached DVI to HDMI adaptor \*1.

\*1 Signal is DVI-D native. HDMI native functions (such as audio output and HDCP) are not supported.

- Supports the effective management of contents.

EMPopMaker makes it possible to store and arrange various movies and show them easily.

- Reduces running cost and promotes energy efficiency.

It adopts the low-power platform with Intel<sup>®</sup> Atom™ Processor and US15WP chipset that uses less power while ensuring sufficient performance.

- Compact device design. Ultra-small PC is roughly the same size as a paperback book.

It is a small [178 (W) x 115 (D) x 29 (H)] and light [800 g] model and can be installed almost anywhere, including in spaces only 50-mm thick with roughly the same size as a paperback book. It promotes downsizing of your equipment, and fits any area with optimum aesthetic appeal.

- Slitless/fanless design that reduces maintenance work.

This product's spindleless design eliminates the heat dissipating slit and CPU fan and adopts a CF card for the storage. There is no need to worry about the intrusion of dust or foreign objects, and the use of parts that degrade over time is minimized to facilitate maintenance.

- Two CF card slots are supported.

It has two CF card slots (one built into main unit), providing the ability to separate data from the operating system, as well as the convenience of being able to use one slot for system startup and the other for movie data.

- Prevention tools and fixing clamps are provided to avoid trouble caused by disconnected cable.

This product is virtually trouble-free, being equipped with a USB removal prevention fitting and cable clamp for connectors with no locking mechanism, such as USB cable, and with hardware to properly mount and prevent the CF card from falling out.



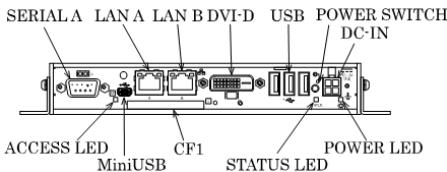
# Before Using the Product for the First Time

Follow the steps below to set up this product. For details, refer to the BX-210D-DC5311 user's manual on the CONTEC web site.

- STEP1**      Connect cables.  
Connect the cable to the necessary external devices, such as a USB keyboard, a USB mouse and a display.
- STEP2**      Turn on the power.  
Follow these steps in order to power on. If you find any abnormality after turning on the power, turn it off and check to see if the setup has been performed properly.
- Make sure that the AC power cable is not plugged into a wall outlet.
  - Connect the AC power cable to the connector of AC adaptor.
  - Connect the DC cable of AC adaptor to the DC power supply connector of DS-210D.
  - Plug the AC power cable into a wall outlet.
- \* This product has no power switch. When turning off, unplug the AC power cable from the wall outlet.
- STEP3**      Digital Signage Player wakes up.  
Embedded MIRACLE wakes up.

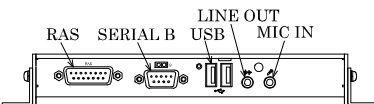
## Component Name

### Front View



- \* Embedded MIRACLE never supports LAN-A. Use LAN-B in order to set up the network connection.
- \* Embedded MIRACLE never supports SERIAL-A and MiniUSB.

### Rear View



- \* Embedded MIRACLE never supports SERIAL-B and RAS.

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## How to use DS210 with Embedded MIRACLE

In order to know how to use Embedded MIRACLE, user's manual which describes settings and other method to use and user's manual for EMPopMaker are available from following website as PDF file.

URL <https://www.miraclelinux.com/jp/product-service/digital-signage/documents>

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### CAUTION

- The guarantee of "Embedded MIRACLE" depends on an attached license sheet. If you use this product, you should be regarded as receiving all items listed on this license sheet.
  - "Embedded MIRACLE" may be updated without any notice. If your Embedded MIRACLE is elder version, the special support for Embedded MIRACLE shown below enables you to update it.
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## EmPopMaker

"EmPopMaker" provided by MIRACLE LINUX CORPORATION is very useful software to arrange movies contents easily, free of charge, but limited to users who bought DS210. The software and user's manual of "EmPopMaker" are available from the following CONTEC web site.

URL <http://www.contec.co.jp/mvs>

User name contec

Password miracle

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### CAUTION

- "EMPopMaker" may be updated without any notice. If your EMPopMaker is elder version, the special support for Embedded MIRACLE shown below enables you to update it.
  - "EMPopMaker" is provided by MIRACLE LINUX CORPORATION, not by CONTEC Co., Ltd. CONTEC Co., Ltd. disclaims any and all liability for any damages arising from the use of this software.
  - Software license agreement with MIRACLE LINUX CORPORATION should be read and accepted before using this software.
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## The Special Support for Embedded MIRACLE

MIRACLE LINUX CORPORATION provides the special support for Embedded MIRACLE after receiving the attached support. This support provides the notice and the right of update for following products and various technical supports.

Target product

- Embedded MIRACLE - EMPopMaker

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### CAUTION




- This is not a free service.
  - This support is provided by MIRACLE LINUX CORPORATION, not by CONTEC Co., Ltd. CONTEC Co., Ltd. disclaims any and all liability for any damages arising from the use of this support service.
  - Service contract provisions provided by MIRACLE LINUX CORPORATION should be read and accepted in order to receive this support.
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# Safety Precautions

Users of this product should understand the following definitions and precautions in order to use the product safely.

## Safety Information

This document provides safety information using the following symbols to help prevent accidents resulting in injury and/or death and the destruction of equipment and resources. Users should understand the meanings of these labels to operate the equipment safely.


 <b>DANGER</b>	DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
 <b>WARNING</b>	WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 <b>CAUTION</b>	CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or in property damage.

## Disclaimer

- CONTEC disclaims any and all liability for any damages arising from fire, earthquake, other acts of God, intentional acts or negligent or inappropriate use of Contec products.
- CONTEC disclaims any and all liability for consequential, special, or other indirect damages including but not limited to the loss of profits, the suspension or interruption of any business, and/or the loss of any data caused by the use of Contec products.
- CONTEC disclaims any and all liability for any damages arising from the combination or other errors caused by the use of Contec products with other devices.

## Caution on the DS-210D Series

### Handling Precautions

-  **WARNING**
- Do not use where combustible or corrosive gases are present. This may cause explosion, fire, electrical shock or equipment failure.

- In case of abnormal operation (smoke, unusual odor or sound), immediately turn the power switch off, unplug the power supply from the socket, and inform your CONTEC representative. Using equipment in this condition may cause fire or electrical shock.
- To avoid danger of electrical shock or burns, never remove the screws or covers except from specified locations.
- Do not touch the power switch or plug with anything that is wet. This presents danger of electrical shock.
- Avoid installation in unstable areas, or incomplete installation. This can lead to damage from falling equipment.
- Always use this equipment at the designated voltage. Use with power supplies outside the designated voltage may cause fire or electrical shock.
- Users should not attempt to disassemble or modify this equipment, or to replace components. The manufacturer may not be able to provide service for equipment that has been modified by the user. If worn out or broken components must be replaced, notify your CONTEC representative.
- Do not attempt to replace the battery as inappropriate battery replacement poses a risk of explosion.
- For battery replacement, contact your retailer as it must be performed as a process of repair.
- When disposing of a used battery, follow the disposal procedures stipulated under the relevant laws and/or municipal ordinances. For details on removing battery, refer to the section below entitled "Battery"..
- Always check that the power supply is turned off before connecting or disconnecting power cables.
- This product is not intended for use in aerospace, space, nuclear power, medical equipment, or other applications that require a very high level of reliability. Do not use the product in such applications.
- If using this product in applications where safety is critical such as in railways, automotive, or disaster prevention or security systems, please contact your retailer.

**CAUTION**

- Do not use or store this product in a location exposed to high or low temperature that exceeds range of specification or that is susceptible to rapid temperature changes.  
Example:
  - Exposure to direct sun
  - In the vicinity of a heat source
- Do not use this product in extremely humid or dusty locations. It is extremely dangerous to use this product when it is in contact with water or any other fluid or conductive dust. If this product must be used in a dusty environment, install it on a dust-proof control panel, for example.
- Avoid using or storing this product in locations subject to shock or vibration that exceeds range of specification.
- Do not use this product in the vicinity of devices that generate strong magnetic force or noise. Such products will cause this product to malfunction.
- Do not use or store this product in the presence of chemicals.
- To clean this product, wipe it gently with a soft cloth dampened with either water or mild detergent. Do not use chemicals or a volatile solvent, such as benzene or thinner, to prevent peeling or discoloration of the paint.
- This product's case may become hot. To avoid being burned, do not touch the case while this product is in operation or immediately after turning off the power. Avoid installation in a location where people may come into contact with the case.
- CONTEC does not provide any guarantee for the integrity of data on CF.
- Always remove the power cable from the power outlet before changing hardware configurations such as the connection of connectors, and/or the setting of jumpers and switches.
- To prevent corruption of files, always shutdown the OS before turning off this product.
- CONTEC reserves the right to refuse to service a product modified by the user.
- In the event of failure or abnormality (unusual smells or excessive heat generation), unplug the power cord immediately and contact your retailer.
- To connect with peripherals, use a grounded, shielded cable.
- The CF card connector doesn't support a hot plug. The CF card cannot be removed or inserted if the power supply is ON or the product may malfunction or fail.
- When you turned the power switch off, wait for another 5 or more seconds before turning it on.
- This product screen may not display unless the power to the display is turned on before turning on the DS-210D.

In some USB devices, current flows backward to the DS-210D through the connection cable when turning on the DS-210D. If you connect to those devices, the DS-210D may not start if the 5V power is not turned off. In such cases, connect it again after having detached the USB device and turned the power on.

(When you use the USB device as the boot one, connect it before detecting the device.)

When transporting this equipment, be careful to protect it against direct vibration and physical shock.

Component Life:

- (1) Battery ---The internal calendar clock and CMOS RAM are backed by a Lithium primary battery.  
The backup time at a temperature of 25°C with the power disconnected is 10 years or more.
- (2) CF ---The OS-installed model uses a CF card in the OS storage area.  
The predicted life is approximately 9.44 years assuming that a 1GB file would be updated 1 time per 1 day. MTBF is 1,000,000 hours.
- (3) AC adaptor ---An AC adaptor is attached. The predicted life is 5 years (=8h x 300d x 5y) operating at 25°C. MTBF is 60,000 hours at 25°C.

\* Replacement of expendables or consumable items is handled as a repair (there will be a charge).

\* Estimates of component life are not guaranteed but are for reference only.

## Differences from BX-210D-DC5311 product

The hardware of this product is the same as CONTEC's BX-210D-DC5311 product. Refer to BX-210D-DC5311 user's manual on the CONTEC web site in order to check specifications in detail. However, CF functions of this product are different from those of BX-210D-DC5311 and this product newly contains an AC adaptor. For CF and AC adaptor specifications of the DS-210D-DC5351-M01, refer to following descriptions.

### AC Adaptor

For detailed specifications, refer to a user's manual of CONTEC's ACAP19-01. This document is available from our website.

### CF

4GB CF is installed. The predicted life is estimated as follows:

(The predicted life) =  $2.36 \times \text{CF capacity (GB)} / \text{Updated capacity per one day (GB)}$

Example 1: Update 1GB file 1 time per 1 day  
 $2.36 \times 4 / 1 = 9.44$  years

Example2: Update 1GB file 2 times per 1 day  
 $2.36 \times 4 / 2 = 4.72$  years

Example3: Update 500MB file 1 time per 2 days  
 $2.36 \times 4 / 0.25 = 37.76$  years



#### CAUTION

- Estimates of predicted life are not guaranteed but are for reference only.

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# Battery

## Battery Specification

This product uses the following battery.

- Type : Lithium primary battery
- Model : BR-1/2AA
- Maker : Panasonic
- Nominal voltage : 3V
- Nominal capacity : 1000mAh
- Lithium content : 1g or less

## Removing the battery

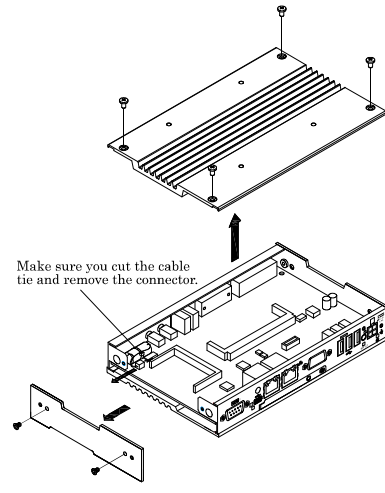
Remove the battery according to the following figure.

## Disposing the battery

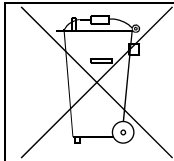
Dispose the removed battery properly in accordance with local requirements.

## Removing the battery

Remove the battery according to the following figure.



## Handling and storing the battery in E U signatory countries



Note: This symbol mark is for EU countries only.

This symbol mark is according to the directive 2006/66/EC Article 20 Information for end-users and Annex II.

This symbol means that batteries and accumulators, at their end-of-life, should be disposed of separately from your household waste.

If a chemical symbol is printed beneath the symbol shown above, this chemical symbol means that the battery or accumulator contains a heavy metal at a certain concentration.

This will be indicated as follows: Hg: mercury (0.0005%), Cd: cadmium (0.002%), Pb: lead (0.004%)

These ingredients may cause serious hazards for humans and the global environment. Please refer to the user's manual for the annulment of detaching a detailed battery specification and the battery and the batteries.

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**CONTEC CO.,LTD.**

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