



Play-Fi™ Wireless Module User Manual

DTS PN
L09-xxxx-xxxx

Product Name: Phorus Play-Fi Module
Model Name: CAPRICA2XL

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Revision 1

Document Change Summary				
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20170518	1	Cap 2XL with increased memory	MC	

Approved:



Matt Carroll

Vice President, Program Development, DTS

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1 Play-Fi Wireless Module

The second-generation Play-Fi Wireless Module, also known as Caprica2XL is a WiFi audio module designed for wireless, multi-room audio distribution. The module may be utilized in speakers, stand-alone receivers or incorporated into other products like AVRs.

2 Features

The Caprica2XL Play-Fi Wireless module is a programmable, high-performance, encapsulated design that enables manufacturers to wirelessly distribute audio to multiple devices. Sources can include Play-Fi Applications, Play-Fi Drivers, or other sources of a manufacturer's choice, such as Bluetooth, via a I2S input. The design supports a number of interfaces that enable easy integration of the module to traditional consumer electronic designs. Caprica2XL features include:

2.1 800MHz ARM-based Processor

Marvell PXA166 ARM v6/v7-compatible core:

2.2 wMMX2 DSP Support

2.3 802.11a/b/g/n 1x1 Wi-Fi with Dual Diversity Antenna Support

2.4 I2C control channel

2.5 I2S Data Input/Output

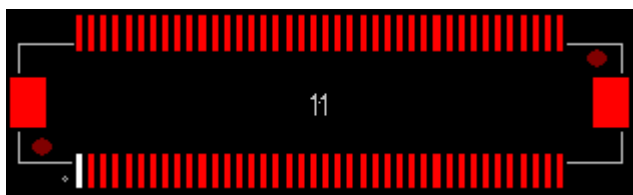
2.6 USB 2.0HS OTG

3 Caprica Module Electrical Interface Definition

3.1 Interface Connector Information, Mechanical

3.1.1 80-pin Board-to-Board Connector

The Caprica2XL utilizes a 0.5mm BTB SMT Female type, P/N: 88079-0800A1 (See 88079-0800A1_88079-xxxxAx-aces_rev-U.pdf) for Board to Board (BTB) connection.



4 Electrical Characteristics

This section describes the electrical characteristics of the module including power consumption and power sequencing.

4.1 Operating Voltages

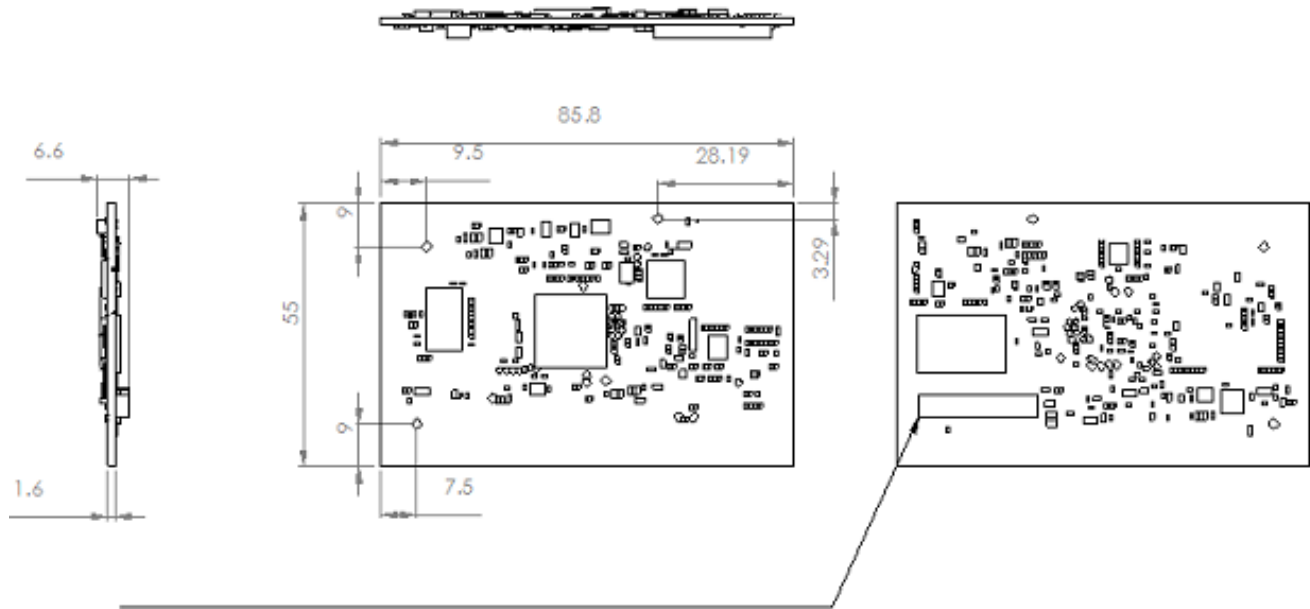
Symbol	Min	Typical	Max	Units
DC_5V (5V)	4.5	5.0	5.5	V
V1_1 (3.3V)	3.0	3.3	3.6	V
V2_2 (1.8V_DDR)	1.7	1.8	1.9	V
V5_2 (1.8V)	1.7	1.8	1.9	V
V3_3 (1.1V)	1.05	1.10	1.155	V

4.2 Power Consumption

Average Power	1.4w
Max Power	2 w

5 Mechanical Outline

All measurements in millimeters



80 Pin Connector

6 Configuration Details

There are three configurations of Flash + DDR3 on the module.

WINBOND Flash (2Gb) + Etron DDR3 (1Gb)
ESMT Flash (2Gb) + Etron DDR3 (1Gb)
TOSHIBA Flash (2Gb) + Etron DDR3 (1Gb)



FCC

1- Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

2- Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

3- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

4- RF exposure statements

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body or nearby persons.

IC

1- Canadian Compliance Statement

This device complies with Industry Canada license-exempt RSSs. Operation is subject to the following two conditions:

- 1) This device may not cause interference, and
- 2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- 1) l'appareil ne doit pas produire de brouillage;
- 2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

2- Caution:

1) The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
DFS (Dynamic Frequency Selection) products that operate in the bands 5250- 5350 MHz, 5470-5600MHz, and 5650-5725MHz.

Avertissement:

1) Le dispositif fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

Les produits utilisant la technique d'atténuation DFS (sélection dynamique des fréquences) sur les bandes 5250-5350 MHz, 5470-5600MHz et 5650-5725MHz.



3- Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

OEM Statement

Labelling Requirements for the Host device

The host device shall be properly labelled to identify the modules within the host device. The certification label of the module shall be clearly visible at all times when installed in the host device, otherwise the host device must be labelled to display the FCC ID and IC of the module, preceded by the words "Contains transmitter module", or the word "Contains", or similar wording expressing the same meaning, as follows:

Contains FCC ID: 2AAWQ-CAPRICA2XL

Contains IC: 11138A-CAPRICA2XL

Déclaration OEM

Exigences d'étiquetage pour le périphérique hôte

Le périphérique hôte doit être correctement étiqueté pour identifier les modules dans le périphérique hôte.

L'étiquette de certification du module doit être clairement visible en tout temps lorsqu'il est installé dans le périphérique hôte, sinon le périphérique hôte doit être étiqueté pour afficher l'ID FCC et l'IC du module précédé des mots "Contient le module émetteur" ou le Mot "Contient", ou un libellé similaire exprimant la même signification, comme suit:

Contient ID FCC: 2AAWQ-CAPRICA2XL

Contient IC: 11138A-CAPRICA2XL