



Addendum to:

CX Series Datasheet for CX870-3D

Datasheet Addendum



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1 Introduction

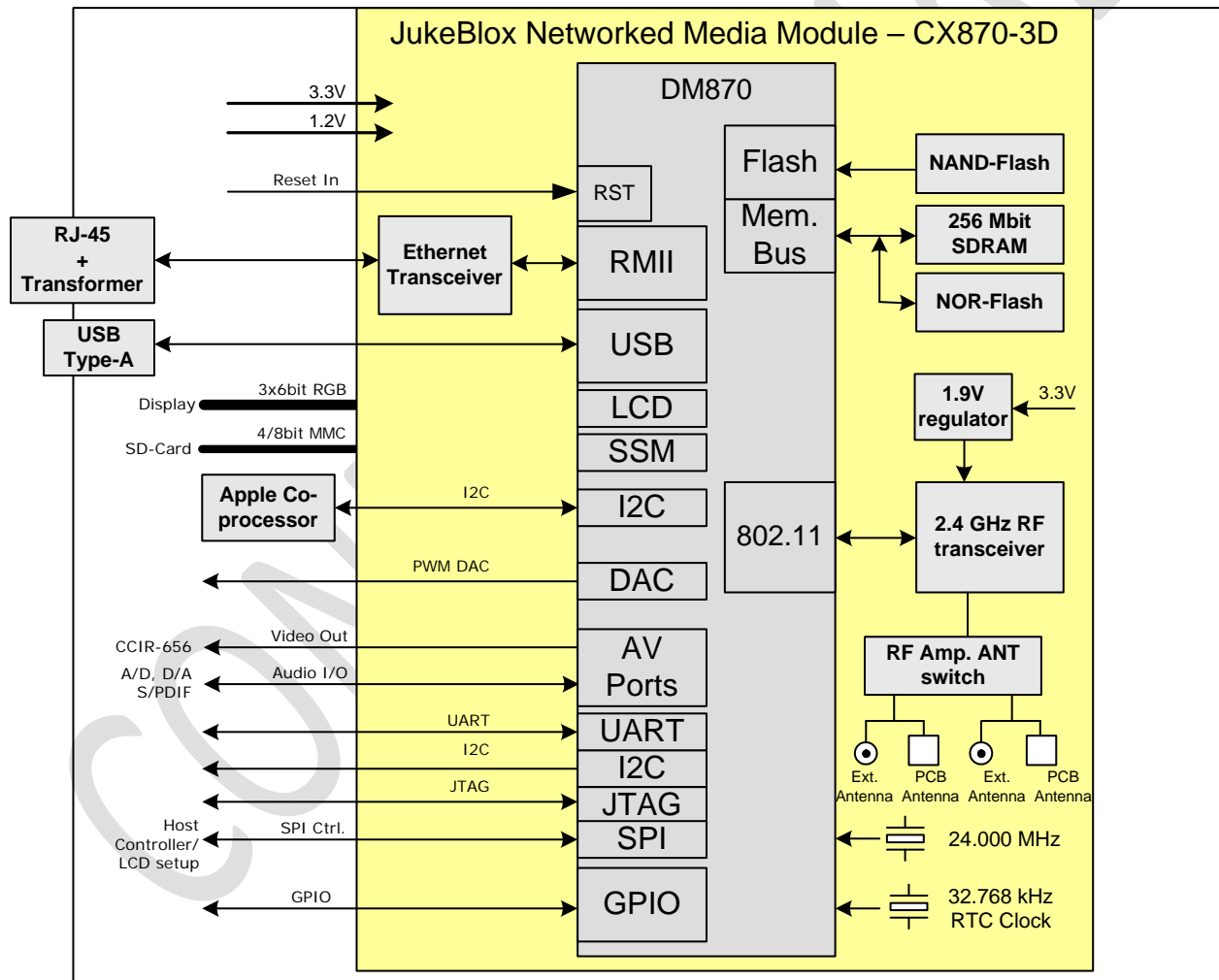
This addendum describes the CX870-3D module.

This module has:

- 1.9V power supply included in the module
- two external antenna connectors with only one connected.

All other specifications are as detailed in the SMSC CX Series Datasheet.

2 Block Diagram



3 Ordering Guide

Part Number	SMSC IC's	WiFi (on-module PCB diversity)	Ext. Diversity Antennas (UFL Conn.)	Ethernet	USB Host	Low density 64-pin Conn.	Media 120-pin Conn.	LCD Conn.	32MByte SDRAM	16MByte SDRAM	1Gbit NAND FLASH	8MByte NOR FLASH	Top Module Shield
CX870-3D	DM870+T6201		(X)*	X	X		X			X	X		X
CX870-3DS	% DM870+T6201		(X)*	X	X		X			X	X		X

Note: the part number “CX870-3D” does not use the new numbering scheme indicating the number of external antenna sockets installed and connected.

* Has two UFL connectors; only CON2 is connected internally. Use CON2 for external antenna connection.

% The CX870-3DS is the same as CX870-3D, except that the RF shield is soldered in place.

4 Electrical Specifications

Parameter	State	Model	Voltage	Symbol	min.	typ.	max.	Units
Power Supply Input Voltage				VIN	3.0 1.08	3.3 1.2	3.6 1.32	V V
Current Consumption	Reset State	CX870 int 1.9V	3.3V	PIN3.3	-	230	300	mW
			1.2V	PIN1.2	-	45	60	mW
	WLAN Operating		3.3V	PIN3.3	-	1750	2275	mW
			1.2V	PIN1.2	-	600	800	mW

5 Power Supply Sequencing and Reset Timing

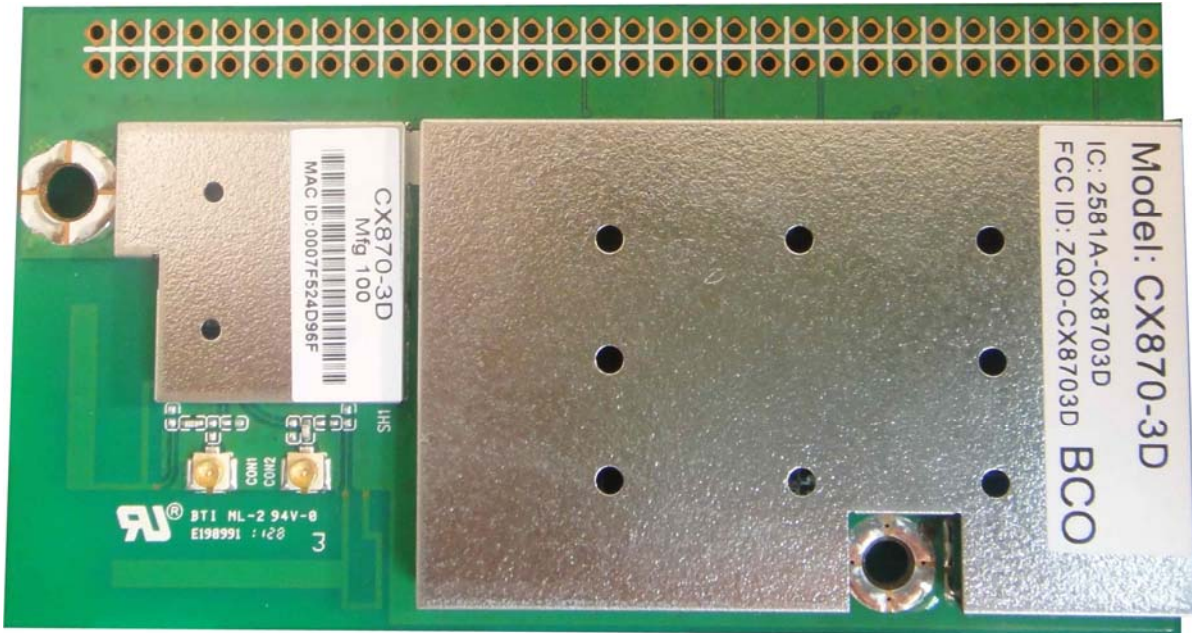
The following paragraph in the CX series datasheet in Section 9.1 does **NOT** apply:

About 1.9V, the arrival of 1.9V supply should lag behind the arrival of the 3.3V. The delay between the 1.9V and the 3.3V is not critical. Typical delay is approximately 10ms, for example using 10kohm resistor and 0.1uF capacitor on the enable pin of a 1.9V dc-to-dc converter.

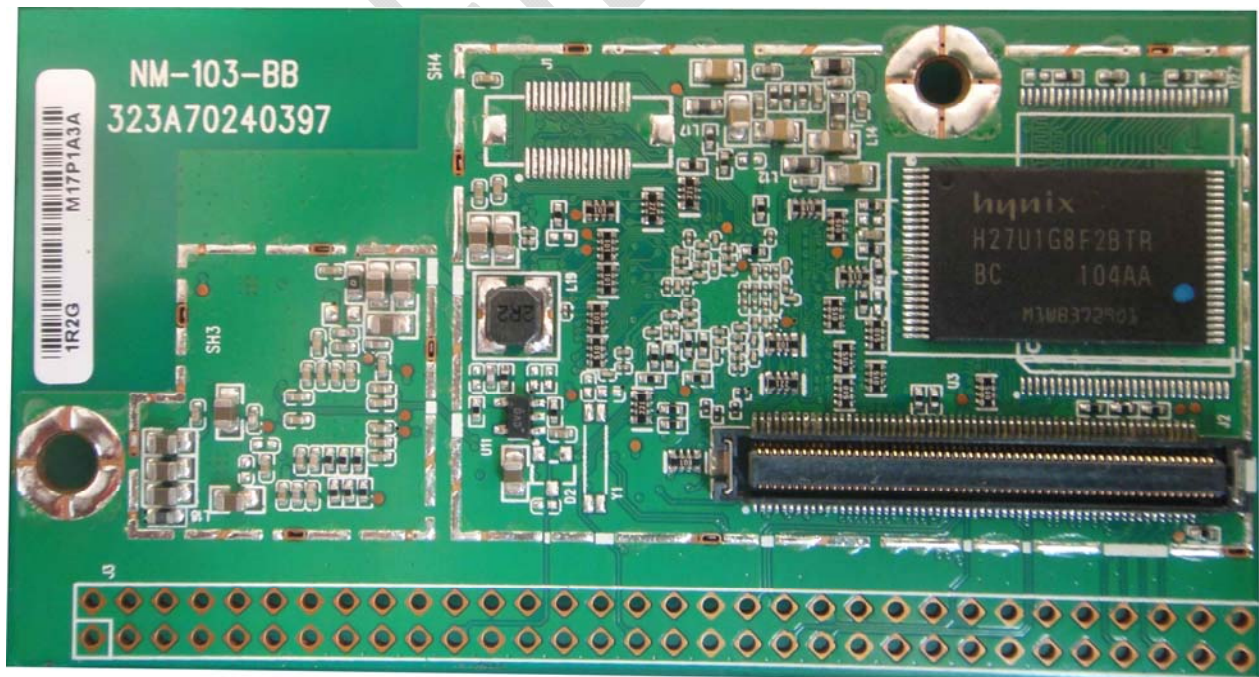
This is because the 1.9V supply is included in the module.

6 Board Pictures

6.1 Top View of CX870-3D



6.2 Bottom View of CX870-3D



Class B:

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

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.

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

Labeling requirements

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.

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

End Product Labeling

This transmitter module is authorized only for use in device where the antenna may be installed such that 20cm may be maintained between the antenna and users.

The final end product must be labeled in a visible area with the following: "Contains FCC ID: ZQO-CX8703D" and "Contains IC: 2581A-CX8703D "

Information for the OEMs and Integrators

The following statement must be included with all versions of this document supplied to an OEM or integrator, but should not be distributed to the end user.

- 1) This device is intended for OEM integrators only.
- 2) Please see the full Grant of Equipment document for other restrictions.

Modular with multiple Antennas

This radio transmitter FCCID: ZQO-CX8703D has been approved by FCC to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Antenna List

No	Manufacturer	Part No.	Antenna Type	Peak Gain
1	Tyco Electronics	2174241-2	Inverted-F	2.67 dBi for 2.4 GHz

Note: The antenna connector is I-pex type.

Canada, Industry Canada (IC) Notices

This Class B digital apparatus complies with Canadian ICES-003 and RSS-210. 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.

Radio Frequency (RF) Exposure Information

The radiated output power of the Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

This device has also been evaluated and shown compliant with the IC RF Exposure limits under mobile exposure conditions. (antennas are greater than 20cm from a person's body).

Canada, avis d'Industry Canada (IC)

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003 et RSS-210.

Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

Informations concernant l'exposition aux fréquences radio (RF)

La puissance de sortie émise par l'appareil de sans fil est inférieure à la limite d'exposition aux fréquences radio d'Industry Canada (IC). Utilisez l'appareil de sans fil de façon à minimiser les contacts humains lors du fonctionnement normal.

Ce périphérique a également été évalué et démontré conforme aux limites d'exposition aux RF d'IC dans des conditions d'exposition à des appareils mobiles (les antennes se situent à moins de 20 cm du corps d'une personne).

This radio transmitter IC: 2581A-CX8703D has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

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