



Antenna type	Supplier	Antenna part no.	Freq. (MHz)	Peak antenna gain (dBi)	Directional gain (dBi)
PCB	TAOGLAS	FXP522.A.07.A.001	2402~2480	3.78 (Port 1) 3.15 (Port 2)	6.79
			5150~5250	4.63 (Port 1) 4.61 (Port 2)	7.64
			5250~5350	4.63 (Port 1) 4.61 (Port 2)	7.64
			5470~5725	4.63 (Port 1) 4.61 (Port 2)	7.64
			5725~5850	4.63 (Port 1) 4.61 (Port 2)	7.64
Dipole	Linx	ANT-DB1-RAF-RPS	2402~2480	2.5	5.51
			5150~5250	4.6	7.61
			5250~5350	4.6	7.61
			5470~5725	4.6	7.61
			5725~5850	4.6	7.61
PCB	Ethertronic	1001932	2402~2480	2.5	5.51
			5150~5250	5	8.01
			5250~5350	5	8.01
			5470~5725	5	8.01
			5725~5850	5	8.01
PCB	TAOGLAS	FXP831.07.0100C	2402~2480	3	6.01
			5150~5250	5.5	8.51
			5250~5350	5.5	8.51
			5470~5725	5.5	8.51
			5725~5850	5.5	8.51

Note If using the RF module in a portable application (for example - if the module is used in a hand-held device and the antenna is less than 20 cm (8 in) from the human body when the device is in operation): The integrator is responsible for passing additional SAR (Specific Absorption Rate) testing based on FCC rules 2.1091 and FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields, OET Bulletin and Supplement C. The testing results will be submitted to the FCC for approval prior to selling the integrated unit. The required SAR testing measures emissions from the module and how they affect the person.

RF exposure



CAUTION! To satisfy FCC RF exposure requirements for mobile transmitting devices, a separation distance of 20 cm (8 in) or more should be maintained between the antenna of this device and persons during device operation. To ensure compliance, operations at closer than this distance are not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter. The preceding statement must be included as a CAUTION statement in OEM product manuals in order to alert users of FCC RF Exposure compliance.

Operating frequency

- 802.11 b/g/n: 2412-2462 MHz
- 802.11 a/n/ac : 5150-5250 MHz; 5250-5350 MHz; 5470-5725MHz; 5725-5850 MHz
- Bluetooth : 2402-2480 MHz

Europe

- 2.412 to 2.472 GHz; 13 channels
- 5.180 to 5.320 GHz; 8 channels
- 5.500 to 5.700 GHz, 8 channels (excludes 5.600 to 5.640 GHz)

CE mark

The ConnectCore 8X module is certified for use in several European countries. For information, visit www.digi.com/resources/certifications.

If the ConnectCore 8X module is incorporated into a product, the manufacturer must ensure compliance of the final product with articles 3.1a and 3.1b of the RE Directive (Radio Equipment Directive). A Declaration of Conformity must be issued for each of these standards and kept on file as described in the RE Directive (Radio Equipment Directive).

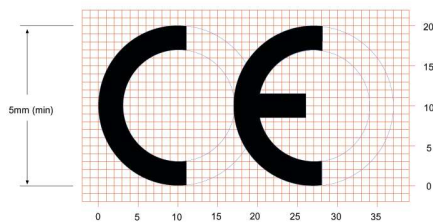
Furthermore, the manufacturer must maintain a copy of the ConnectCore 8X module user manual documentation and ensure the final product does not exceed the specified power ratings, antenna specifications, and/or installation requirements as specified in the user manual. If any of these specifications are exceeded in the final product, a submission must be made to a notified body for compliance testing to all required standards.

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

OEM labeling requirements

The **CE** marking must be affixed to a visible location on the OEM product.

CE labeling requirements



The CE mark shall consist of the initials **CE** taking the following form:

- If the CE marking is reduced or enlarged, the proportions given in the above graduated drawing must be respected.
- The CE marking must have a height of at least 5mm except where this is not possible on account of the nature of the apparatus.
- The CE marking must be affixed visibly, legibly, and indelibly.

Declarations of Conformity

Digi has issued Declarations of Conformity for the ConnectCore 8X system-on-module concerning emissions, EMC, and safety. For more information, see <http://www.digi.com/resources/certifications>.

Important note

Digi customers assume full responsibility for learning and meeting the required guidelines for each country in their distribution market. Refer to the radio regulatory agency in the desired countries of operation for more information.

Approved antennas

The same antennas have been approved for Europe as stated in the FCC table for use with the ConnectCore 8X module.

Country list

AT	BE	BG	CZ	DK
EE	FR	DE	IS	IE
IT	EL	ES	CY	LV
LI	LT	LU	HU	MT
NL	NO	PL	PT	RO
SI	SK	TR	FI	SE
CH	UK	HR		

Note This device is restricted to indoor use only when operating in the 5150-5350MHz frequency range within all member states.



Canada (IC)

IC: 12034A-CCIMX8

PMN: CC8X

HVIN: CC8X

Canadian Notice

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

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

Avis Canadien

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Labeling requirements

Labeling requirements for Industry Canada are similar to those of the FCC.

Required End Product Labeling

Any device incorporating this module must include an external, visible, permanent marking or label which states: "Contains IC :**12034A-CCIMX8**"

Obligation d'étiquetage du produit final:

Tout dispositif intégrant ce module doit comporter un externe, visible, marquage permanent ou une étiquette qui dit: "Contient IC :**12034A-CCIMX8**"

Transmitters with detachable antennas

This radio transmitter (IC: **12034A-CCIMX8**) has been approved by Industry Canada to operate with the antenna types listed in the table above 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.

Le présent émetteur radio (IC: **12034A-CCIMX8**) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types

d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the



equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

The ConnectCore 8X module is for professional (OEM) installation only.

Le module ConnectCore 8X doit impérativement être installé par un professionnel (OEM).

RF exposure



To satisfy Industry Canada RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.

Pour satisfaire aux exigences d'Industrie Canada concernant l'exposition RF, une distance égale ou supérieure à 20cm doit être respectée entre les antennes de ce produit et les personnes se trouvant à proximité.

The preceding statement must be included as a CAUTION statement in OEM product manuals in order to alert users of Industry Canada RF Exposure compliance.

Cette information doit être incluse dans le manuel du produit OEM afin d'alerter les utilisateurs sur la nécessité de respecter l'exposition RF d'Industrie Canada.

Approved antennas

The same antennas have been approved for Canada as stated in the FCC table for use with the ConnectCore 8X module.

Japan

電波法により5GHz帯は屋内使用に限ります。

This device has been granted a designation number by Ministry of Internal Affairs and Communications according to:

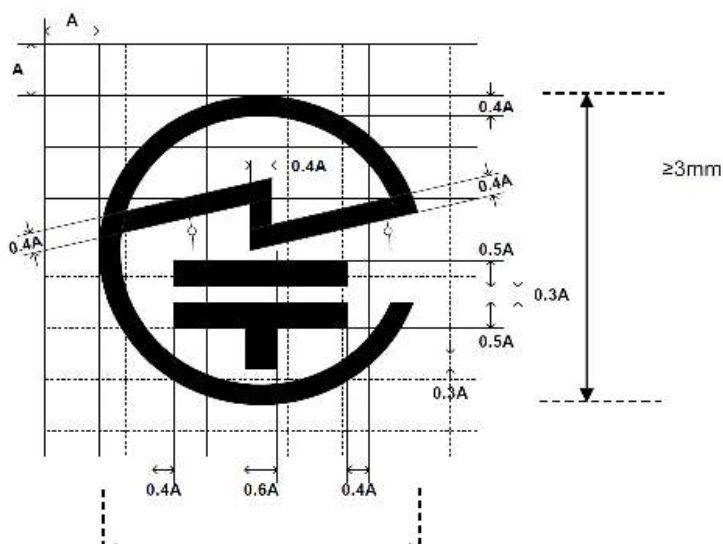
Ordinance concerning Technical Regulations Conformity Certification etc. of Specified Radio Equipment (特定無線設備の技術基準適合証明等に関する規則).

- Article 2, Paragraph 1, Item 19, 19-3, 19-3-2 Category: WW, XW, YW
- Model/Name of equipment: ConnectCore 8X
- Radio label marking:
 - R: 202-LSF056
 - T: D 17-0014 202

This device should not be modified (otherwise the granted designation number will be invalid).

- 2.412 to 2.472 GHz; 13 channels
- 5.180 to 5.320 GHz; 8 channels
- 5.500 to 5.700 GHz; 11 channels

Approval Label (MIC Marking)



Label text



Note Due to space constraints, the ConnectCore 8X module label doesn't support radio marking for Japan. If space allows, end product label should support radio marking for Japan. If not, radio marking shall be documented in the user manual.

Note The warning "Indoor only(5GHz)" must go on the end product – or E Label (Display).