


## COVER LETTER

### TAGSYS S.A. – Hot Spot Radio Module

FCC ID: QHKRTLHSCORE

June 5, 2019

This report concerns: File : <b>Class II Change</b> SubPart: SubPart 15C Equipment type : <b>Hot Spot Radio Module</b>	
Request issue of grant: <input checked="" type="checkbox"/> Immediately upon completion of review <input type="checkbox"/> Defer grant per 47 CFR 0.457(d)(1)(ii) until ____ date _____. Company Name agrees to notify the Commission by ____ date ____ of the intended date of announcement of the product so that the grant can be issued on that date.	
Confidentiality of grant: <input type="checkbox"/> Applicant requests the existence of this grant to be kept confidential until ____ date _____. The announcement of this product before this date via freedom of information would be detrimental to Company Name, and therefore must be considered a business secret. Public announcement of this product will not be made prior to this date. (Max. 60 days after grant issued).	
Limits used: <i>(check one)</i> CISPR 22: <input type="checkbox"/> Part15: <input checked="" type="checkbox"/>	
Measurement procedure used is ANSI C63.4-2014 / C63.10-2013 unless another is specified. Other test procedure: _____	
Application for verification Prepared by:  <b>Anthony MERLIN</b> <b>LCIE Sud-Est</b> ZI Centr'Alp – 170, rue de Chatagnon 38430 MOIRANS - France Ph. : 33 4 76 07 36 36 Fax : 33 4 76 55 90 88 E-mail : <a href="mailto:anthony.merlin@lcie.fr">anthony.merlin@lcie.fr</a>  FRN : 0005-0971-18 Signature :	Applicant for this device  <b>Franck D'ANNUNZIO</b> <b>TAGSYS S.A.</b> 286 avenue du pastre 13400 - AUBAGNE - FRANCE Ph. : +33 442188918 Fax : +33 442188901 e-mail: <a href="mailto:franck.dannunzio@tagsysrfid.com">franck.dannunzio@tagsysrfid.com</a>  FRN : 0007342991 Signature : 

*\*Not to be filed with Equipment Authorization Branch of FCC unless requested*

Report format prepared by the Information Technology Industry Council (ITI) ESC-5 and reviewed by FCC staff in 1994

#### **JUSTIFICATION:**

The original system design of the Hot Spot radio module in 2015 was intended for an integration in high ceiling with height around 4 meters where a single omnidirectional, low-gain, emission antenna was appropriate. Since then, the integration has evolved towards a placement in smaller and crowded rooms like back stores, necessitating a higher directivity thus a higher gain, to reduce in door interferences and multipath fading.

Therefore, 8 linear printed board patches of 6dBi gain were fitted as integral antennas as shown in the User's manual see below.

Antenna Type: Linear patch

Polarization: Can be selected either Vertical or Horizontal

Antenna Gain: 6dBiL

Frequency: 2450MHz

Impedance: 50 Ohms

These integral antennas are co-located with the following radio modules integral antennas:

- BLE MODULE FCC ID QOQBLE112
- R420 RFID Reader TWYIPLREV
- HSPN Radio Module QHKRTILHSCORE
- XBEE Radio Module OUR-XBEE

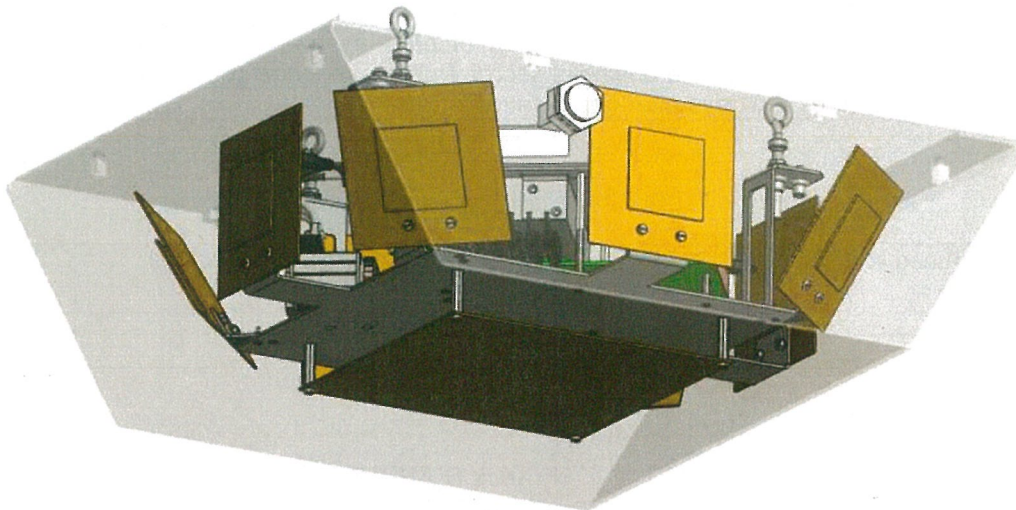


Figure 3: HS Reader V2 Bottom view showing the main integral antennas: One 2.45GHz centred on each side and one in each corner sides and the quad PIFA 900MHz receiving antenna at the bottom of the casing



The Hot Spot Reader 2.45GHz transmit antennas are supplied already fixed into the hot spot casing. Do not connect any other antenna but the one supplied and fitted by CXIGNITED!