

# 法規と規格/Regulations and Standards

以下の海外法規、規格に対応しています。  
The Products conform to the following regulations and standards.

## 1. UL 認証/UL Certification

UL(Underwriters Laboratories Inc.)の認証を受けています。  
The V680-HAM42-DRT has been certified by UL.

下記の(1)または(2)の回路に接続してご使用ください。

- (1)制限電圧電流回路 (UL508で認定されたもの)  
次の条件を満足する絶縁トランスの2次側巻線を電源とする回路
- 最大電圧(無負荷時):30Vrms(42.4Vピーク)以下

- および
- 最大電流:①8A以下(短絡時を含む)または②下表の定格を持つ回路保護器(ヒューズ等)で制限されている場合

無負荷電圧(Vピーク)	最大電流定格(A)
0~20	5.0
20を超え30まで	100
	ピーク電圧値

- (2)UL1310に従うクラス2電源ユニットまたはUL1585に従うクラス2トランスを電源とする最大電圧30Vrms(42.4Vピーク)以下の回路(クラス2回路)

Connect to either circuit type (1) or (2) listed below.

- (1) Limited Voltage/Current Circuit (Approved under UL 508)

A circuit that uses the secondary windings of an isolation transformer as its power supply and fulfills the following conditions:

- Maximum voltage (with no load): 30 Vrms (42.4 V peak)

and

- Maximum current: (a) 8 A (including short-circuits) or (b) Current limited by a circuit protection device (e.g., fuse) with the ratings listed in the following table.

No-load voltage (V peak)	Maximum current rating (A)
0 to 20	5.0
Over 20 to 30	100
	Peak voltage

- (2) A class 2 circuit with a maximum voltage of 30 Vrms (42.4 V peak) that uses a class 2 power supply conforming to UL 1310 or a class 2 transformer conforming to UL 1585 as its power source.

## 2. 米国/The United States

FCC Part 15 Subpart C

FCC ID	IDスレーブ/ID Slave	アンテナ/Antenna
E4E6CYSIDV6800108	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS61 V680-HS63 V680-HS65

### FCC NOTICE

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

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

### FCC WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Do not remove the ferrite core (TDK Type ZCAT1730-0730A/V680-HS52/-HS63/-HS65,TDK Type ZCAT1325-0530A/V680-HS51/-HS61) installed on the cables to suppress RF interference.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines as this equipment has very low levels of RF energy.

### CAUTION:

This device must be professionally installed.

## 3. 欧州/Europe

規格/Standards	IDスレーブ/ID Slave	アンテナ/Antenna
RE(無線機器)指令 Radio Equipment Directive 2014/53/EU *無線規格(Radio): EN 300 330 *EMC規格: EN 301 489-1 *安全規格(Safety): EN 61010-1 *人体防護規格: EN 50364 (Human exposure)	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65

## 4. 日本/Japan

高周波利用設備 誘導式読み書き通信設備標準規格 ARIB STD-T82

Equipment using high frequencies: Inductive Reading/Writing Communications Equipment Standard: ARIB STD-T82

指定番号/Assigned number	IDスレーブ/ID Slave	アンテナ/Antenna
第EC-08004号	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS61 V680-HS63 V680-HS65



## 5. カナダ/Canada

ISED ID	IDスレーブ/ID Slave	アンテナ/Antenna
850J-V6800108	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS61 V680-HS63 V680-HS65

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS5(s). Operation is subject to the following two conditions:

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

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 :

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

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the ISED radio frequency (RF) Exposure rules as this equipment has very low levels of RF energy.

Cet équipement est conforme aux limites d' exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles d' exposition aux fréquences radioélectriques (RF) CNR-102 de l' ISDE puisque cet appareil a une niveau tres bas d' energie RF.

### CAUTION:

This device must be professionally installed.  
Cet appareil doit être installé par un professionnel.

## 6. 中国/China

規則/Regulation	IDスレーブ/ID Slave	アンテナ/Antenna
中华人民共和国 工业和信息化部公告 2019年 第52号	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65

(一) 本产品符合“微功率短距离无线电发射设备目录和技术要求”如下条款:

- 具体条款: 通用微功率设备 C类设备
- 使用频率: 13553-13567kHz
  - 10米处磁场强度: 不大于42dB  $\mu$ A/m (准峰值检波)
  - 频率容限:  $100 \times 10^{-6}$
  - 特殊频带辐射发射: 对于13553-13567kHz 频段设备、频段两端偏移140kHz 频率范围的10 米处磁场强度不大于9dB  $\mu$ A/m (准峰值检波)
- 使用场景: 通用  
采用的天线类型: V680-HS51, V680-HS52, V680-HS63, V680-HS65  
控制、调整及开关等使用方法: 不适用
- 不得擅自改变使用场景或使用条件、扩大发射频率范围、加大发射功率 (包括额外加装射频功率放大器), 不得擅自更改发射天线;
  - 不得对其他合法的无线电台 (站) 产生有害干扰, 也不得提出免受有害干扰保护;
  - 应当承受辐射射频能量的工业、科学及医疗 (ISM) 应用设备的干扰或其他合法的无线电台 (站) 干扰;
  - 如对其他合法的无线电台 (站) 产生有害干扰时, 应立即停止使用, 并采取消除干扰后方可继续使用;
  - 在航空器内和依据法律法规、国家有关规定、标准划定的射电天文台、气象雷达站、卫星地球站 (含测控、测距、接收、导航站) 等军民用无线电台 (站)、机场等的电磁环境保护区域内使用微功率设备, 应当遵守电磁环境保护及相关行业主管部门的规定;
  - 禁止在以机场跑道中心点为圆心、半径5000米的区域内使用各类模型遥控器;
  - 微功率设备使用时温度的环境条件:  $-10 \sim +55^{\circ}\text{C}$   
电压的环境条件: 直流20.4~26.4V

## 7. 韓国/Republic of Korea

認証番号/Certification number	IDスレーブ/ID Slave	アンテナ/Antenna
OMR-V680-HAM42-DRT	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65

## 8. 台湾/Taiwan

認証番号/Certification number	IDスレーブ/ID Slave	アンテナ/Antenna
CCA808LP3760T2	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65

取得審験證明之低功率射頻器材 非經核准、公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。  
低功率射頻器材之使用不得影響飛航安全及干擾合法通信。經發現有干擾現象時應立即停用,並改善至無干擾時方得繼續使用。  
前述合法通信,指依電信管理法規定作業之無線電通信。  
低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

## 9. シンガポール/Singapore

登録番号/Registration number	IDスレーブ/ID Slave	アンテナ/Antenna
N0841-08	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65

Complies with  
IMDA Standards  
DB102044

## 10. メキシコ/Mexico

認証番号/Certification number	IDスレーブ/ID Slave	アンテナ/Antenna
RCPOMV608-0339	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65

La operación de este equipo está sujeta a las siguientes dos condiciones:

- es posible que este equipo o dispositivo no cause interferencia perjudicial y
- este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

## 11. フィリピン/Philippines

認証番号/Certification number	IDスレーブ/ID Slave	アンテナ/Antenna
ESD-0903984C	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65

## 12. インドネシア/Indonesia

認証番号/Certification number	IDスレーブ/ID Slave	アンテナ/Antenna
73801/SDPPI/2021 PLG. ID 5564	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65

## 13. ブラジル/Brazil

認証番号/Certification number	IDスレーブ/ID Slave	アンテナ/Antenna
1991-12-4358	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65



Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.

## 14. インド/India

認証番号/Certification number	IDスレーブ/ID Slave	アンテナ/Antenna
2179/2012/WRLO	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65

## 15. タイ/Thai land

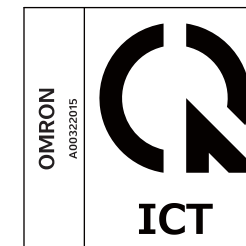
登録番号/Registration number	IDスレーブ/ID Slave	アンテナ/Antenna
พ. 0643	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65

## 16. オーストラリア・ニュージーランド /Australia and New Zealand

IDスレーブ/ID Slave	アンテナ/Antenna
V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65

## 17. ベトナム/Vietnam

管理番号/Control number	IDスレーブ/ID Slave	アンテナ/Antenna
A00322015	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65



## 18. 南アフリカ/South Africa

認証番号/Certification number	IDスレーブ/ID Slave	アンテナ/Antenna
TA-2022/0086	V680-HAM42-DRT	V680-HS51 V680-HS52 V680-HS63 V680-HS65