

# OMRON®

OMRON ELECTRONICS, INC.  
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January 25, 1999

FCC Equipment Approval Services  
Attn. Mr. Richard Fabina  
P.O. Box 358315  
Pittsburgh, PA  
15251-5315

P.O. 99AC001

Subject: Class 2 Permissive Change Request; Additional types for our FCC approved V600 series RFID controller: V600-H11-5 and V600-H51-1.

Dear Mr. Fabina,

Please consider this letter as your authorization to open a FCC project for the purpose of investigating 2 additions to our V600 series RFID controller. We have made our application electronically through the FCC web site. We have uploaded supporting documents, including the FCC form 159 and 731, through the FCC web site.

Both models noted in the subject will be certified as "A Class II permissive change" per FCC part 2.1043. The circuit diagrams of both models are the same as the circuit diagram of Omron type V600-H07 that was previously certified by the FCC under FCC ID no. E4E6CYSIDV6000190. The radiated emission field strengths of both models (V600-H11-5 and V600-H51-1) are greater than the strength of the V600-H07, however the field strengths are less than the FCC radiated emission limits. Please refer to the attached documents for details.

In addition, we have sent a check in the amount of \$45 to cover the applicable application fees associated with a Class 2 permissive change request.

The following attachments:

- A. Document for FCC Part 15 Subpart C
- B. Information of modification
- C. Schematic drawing 1240433-0
- D. Schematic drawing 1240434-9
- E. Block Diagram of RWH
- F. V600 Inductive ID System
- G. Emission Test Report no. 18K0050-02-2
- H. Emission Test Report no. 18K0050-02-1

have been provided and marked for your ease of reference. If you have any comment, questions or require additional information during the lifetime of this project, please feel free to contact me at anytime. I can easily be reached at:

ph: 847-843-7852, x329  
fax: 847-839-2329  
e-mail: gil\_guajardo@omron.com

Sincerely,

Gilbert R. Guajardo  
Senior Standards Engineer  
Product Development Center  
Safety Standards Group

cc: H. Tomioka, OC-QE  
H. Suzuki, AY-SSG  
M. Hirakawa, OC-SSG

Data Package

1. Information of modification  
Comparison with the initial certification equipment, Omron ID model V600-H07.
2. Data Sheet
  1. Model V600-H11-5
  2. Model V600-H51-1

Shin Mibu  
Product Engineering Section  
Ayabe Factory  
Omron Corporation

*Information of modification*

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1. Description for circuit of V600-H11-5 and V600-H51-1

The modified models have longer distance transmission capability.

1. The transmitter coil inductance and capacitors of the oscillation circuit are changed to adjust the transmission frequency 530kHz.
2. The transmitter current is increased in comparison with that of the initial certification equipment V600-H07.
3. A FET, which control the oscillation for the purpose of making the signal of pulse modulation to be transmitted, is changed to hold the permissive electrical power.
4. Differentiating circuit which shorten the oscillation pulse width is also added to hold the permissive electrical power, too.

Please refer to the attached circuit diagram (page 3 and 4 of 6) and block diagram (page 5 and 6 of 6).

2. Test result of radiated emission field

ex.

model	frequency (MHz)	reading data at D=5m (dB $\mu$ V/m)	reading data at D=3m (dB $\mu$ V/m) *Note1	result (dB $\mu$ V/m) *Note1	limit (dB $\mu$ V/m) *Note1
V600-H11-5	1.0596	57.1	68.1	14.2 (D=30m)	27.1 (D=30m)
V600-H51-1	1.0585	53.3	64.3	60.2 (D=3m)	67.1 (D=3m)
V600-H07	1.0694	39.8	-	-	-

Note1: Please refer to the attached data for the details.

The result is calculated by adding the Antenna Factor, Cable Factor, and Antenna Pad, and subtracting the Amplifier Gain from the measurement reading.