ALPS ELECTRIC CO., LTD.

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Declaration concerning Antenna Specification

It´s hereby declared that the product:
....UGPZ6..fulfills the requirement in FCC test relating to the antenna type.

The UGPZ6 confirms to FCC recommendation with external antenna type:
The four types of external antenna are used for alternatively.
The cable has the unique connector and mounted to the module.

The followings are specifications for each antenna.

1. 1/4 wave monopole antenna, type LDA31 is soldered on the PCB.
   Gain: +4dBi maximum with the cable having the length of 30mm or more.
   Frequency: 2402MHz –2480MHz
   The RF cable having unique connectors type U.FL manufactured by Hirose is connected between connector of the antenna and the antenna connector of the module.

2. Reversed „ F “ type antenna, type CAN4313359.
   Gain: +4dBi maximum with the cable having the length of 30mm or more.
   Frequency: 2402MHz –2480MHz
   There are two ways for connection between antenna and the module, optionaly.
   1) The end of RF cable is soldered to antenn directly and other end having unique connector, type U.FL manufactured by Hirose is connected to the antenna connector of the module. or
   2) The RF cable having unique connectors type U.FL manufactured by Hirose is connected between connector of the antenna and the antenna connector of the module.

3. Reversed „ F “ type antenna, type C680
   Gain: +4dBi maximum with the cable having the length of 30mm or more.
   Frequency: 2402MHz –2480MHz
   The end of RF cable is soldered to antenn directly and other end having unique connector, is connected to the antenna connector of the module.

4. 1/4 wave monopole antenna, type HFS05-SO02NN
   Gain: +1.5dBi maximum with the cable having the length of 30mm or more.
   Frequency: 2402MHz –2480MHz
   The end of RF cable is soldered to antenn directly and other end having unique connector, type U.FL manufactured by Hirose or alternative conector type MHF manufactured by I-PEX is connected to the antenna connector of the module.

Signature:

Name: Masaaki Ueki
Title: Compliance Team Leader
Company: Alps Electric Co., Ltd Communication Devices Division