



Customer Driven

Nemko Canada Inc
303 River Road
Ottawa, Ontario, Canada
K1V 1H2

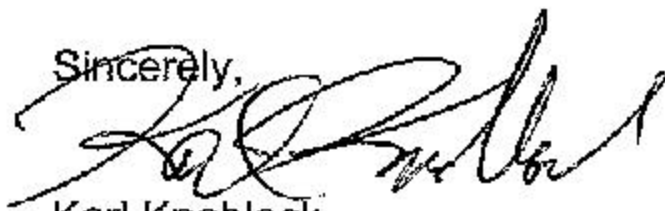
Attn: Director of Certification

IC: 1860A-COM2G4
FCC ID: BYMCOM2G4

Dear Sir,

The RF Module model COM2G4 is presented here for Limited Modular Approval. Testing was originally done in stand-alone format as the Communicator 6000 FCC ID: BYMCOM6000BP. At that time the use for the Communicator 6000 was for belt pack transceiver. The non-radio circuitry and packaging were omitted from the Communicator 6000 resulting in the COM2G4 module design. It was installed in its first product for use, the Wireless Speaker model WS200. The present testing in the WS200 product form, excepting stand alone testing, meets the RF requirements of FCC 15.247 and IC RSS-210 as verified by the Nemko test report. It is not the intent of HM Electronics to certify the WS200. The intent of this certification submittal is to qualify the COM2G4 as a module that can be used in products like the WS200 without creating a new test fixture to exercise the module. A letter requesting Modular Approval is included in the certification submittal exhibits. HM Electronics will have complete control of the installation of the module exclusively in its own products and has no intent to sell the module itself.

Sincerely,

Sincerely,

Karl Knoblock
Electrical Engineering Manager
HM Electronics Inc.

1. The modular transmitter must have its own RF shielding. This is intended to ensure that the module does not have to rely upon the shielding provided by the device into which it is installed in order for all modular transmitter emissions to comply with Part 15 limits. It is also intended to prevent coupling between the RF circuitry of the module and any wires or circuits in the device into which the module is installed. Such coupling may result in non-compliant operation.

HME Response: *The assembly COM6000 includes its own RF shielding. Please see photographs.*

2. The modular transmitter must have buffered modulation/data inputs (if such inputs are provided) to ensure that the module will comply with Part 15 requirements under conditions of excessive data rates or over-modulation.

HME Response: *The module is a digital audio transmitter under microprocessor control. There is no possibility for the user to provide any inputs to create over-modulation or excessive data rates.*

3. The modular transmitter must have its own power supply regulation. This is intended to ensure that the module will comply with Part 15 requirements regardless of the design of the power supplying circuitry in the device into which the module is installed.

HME Response: *This assembly includes an LDO which powers all parts of this assembly.*

4. The modular transmitter must comply with the antenna requirements of Section 15.203 and 15.204(c). The antenna must either be permanently attached or employ a “unique” antenna coupler (at all connections between the module and the antenna, including the cable). Any antenna used with the module must be approved with the module, either at the time of initial authorization or through a Class II permissive change. The “professional installation” provision of Section 15.203 may not be applied to modules.

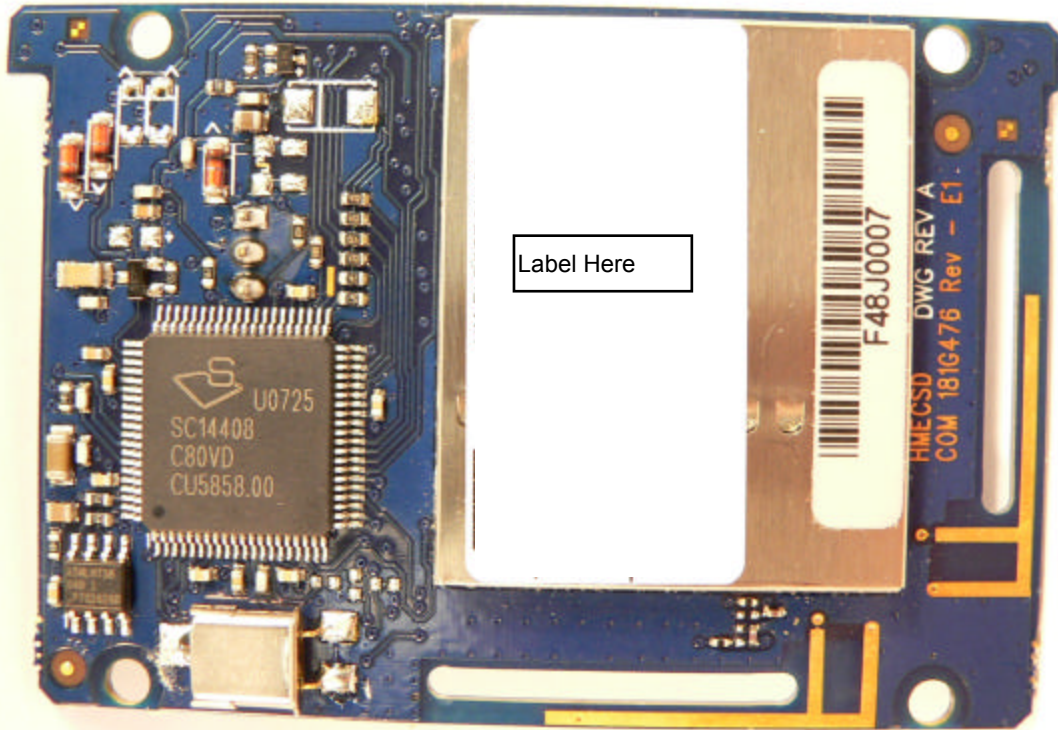
HME Response: *This module uses a printed circuit antennas which are permanently attached.*

5. The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing. This is intended to demonstrate that the module is capable of complying with Part 15 emission limits regardless of the device into which it is eventually installed. Unless the transmitter module will be battery powered, it must comply with the AC line conducted requirements found in Section 15.207. AC or DC power lines and data input/output lines connected to the module must not contain ferrites, unless they will be marketed with the module (see Section 15.27(a)). The length of these lines shall be length typical of actual use or, if that length is unknown, at least 10 centimeters to insure that there is no coupling between the case of the module and supporting equipment. Any accessories, peripherals, or support equipment connected to the module during testing shall be unmodified or commercially available (see Section 15.31(i)).

HME Response: *The unit was tested by Electronic Technology Systems Dr.GenZ GMBH (Berlin, Germany) in stand-alone form. Power was supplied through a battery. Nemko verified this test report with testing of the COM2G4 contained within the product WS200.*

6. The modular transmitter must be labeled with its own FCC ID number, and, if the FCC ID is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: “Contains Transmitter Module FCC ID: XYZMODEL1” or “Contains FCC ID: XYZMODEL1.” Any similar wording that expresses the same meaning may be used. The Grantee may either provide such a label, an example of which must be included in the application for equipment authorization, or, must provide adequate instructions along with the module which explain this requirement. In the latter case, a copy of these instructions must be included in the application for equipment authorization.

HME Response: *Please see attached photographs.*




Label Here

F48J0007

HMECSD DWG REV A
COM 181G476 Rev - E1

U0725
SC14408
C80VD
CU5858.00

HME HM ELECTRONICS, INC. Communication Systems Division San Diego, CA, USA		
G28246-1Z1	Rev A	WS200
CONTAINS	FCC ID: BYMCOM2G4	
	I.C.: 1860A-COM2G4	
		RoHS
		372045A

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING 2 CONDITIONS: (1) THAT THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

371646 REV A



Typical label location.

7. The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements. A copy of these instructions must be included in the application for equipment authorization. For example, there are very strict operational and timing requirements that must be met before a transmitter is authorized for operation under Section 15.231. For instance, data transmission is prohibited, except for operation under Section 15.231(e), in which case there are separate field strength level and timing requirements. Compliance with these requirements must be assured.

HME Response: *There will be no installation of this module by outside personnel. This module will be used on HME products only.*

8. The modular transmitter must comply with any applicable RF exposure requirements. For example, FCC Rules in Sections 2.1091, 2.1093 and specific Sections of Part 15, including 15.319(i), 15.407(f), 15.253(f) and 15.255(g), require that Unlicensed PCS, UNII and millimeter wave devices perform routine environmental evaluation for RF Exposure to demonstrate compliance. In addition, spread spectrum transmitters operating under Section 15.247 are required to address RF Exposure compliance in accordance with Section 15.247(b)(4). Modular transmitters approved under other Sections of Part 15, when necessary, may also need to address certain RF Exposure concerns, typically by providing specific installation and operating instructions for users, installers and other interested parties to ensure compliance.

HME Response: *For exposure compliance, please see MPE prediction exhibit. Installation manual assures antenna to be 20 or more cm away from users or passersby*