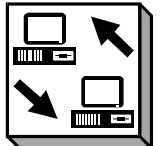
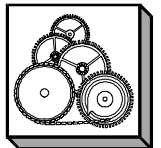
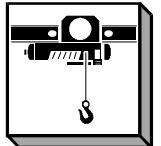
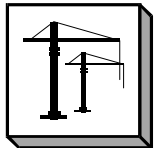
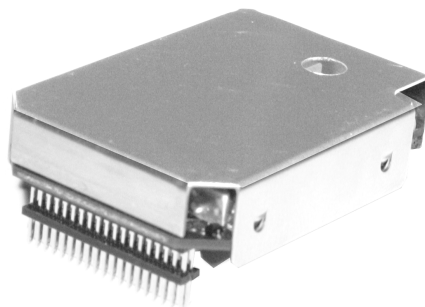


# **HBC – Transceiver Module**

## **TC 693**



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## Warnings

# FCC

### Part 15.21 Statement

**NOTICE:**

*Changes or modifications made to this equipment not expressly approved by (manufacturer name) may void the FCC authorization to operate this equipment.*

### Part 15.105 Statement

**NOTE:** *This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:*

- *Reorient or relocate the receiving antenna.*
- *Increase the separation between the equipment and receiver.*
- *Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.*
- *Consult the dealer or an experienced radio/TV technician for help.*

# IC

## RSS-GEN – User Manual Statements (English/French)

### Licence exempt

*This device complies with Part 15 of the FCC Rules and Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:*

- (1) this device may not cause interference, and*
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.*

*Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :*

- (1) l'appareil ne doit pas produire de brouillage, et*
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

## Installation

The module is installed by plugging it into the suitable interface (38 pins) on the receiver or transmitter board. An additional screw, which must be added, holds the module in his interface.

## Technical Data

### Common data (RX+TX):

Frequency range: 902.000 ... 917.975 MHz  
Operating voltage: + 3.3 ... 4.6 V  
Channel pattern: 25 kHz  
LF transmission bandwidth: 150 Hz .... 4.8 kHz  
Modulation type: F2D  
Operating temperature range: -30 ... +70 °C

### Transmitter:

Maximum field strength: 50 mV/m @ 3 m  
Frequency deviation: +/- 5 kHz  
Current consumption when transmitting: 100 mA  
Switch-over time (RX-TX): < 1 ms

### Receiver:

Sensitivity: -108 dBm (20dB S/N)  
First IF: 45 MHz  
Second IF: 455 kHz  
Current consumption when receiving: 70 mA  
Switch-over time (TX-RX): < 1 ms  
LF output voltage: 120 mV RMS at +/-5 kHz deviation (internal test point only!)  
IP3: 0 dBm