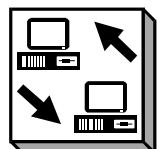
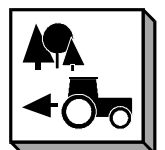
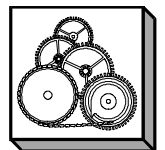
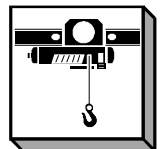
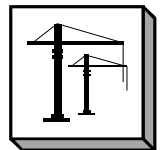
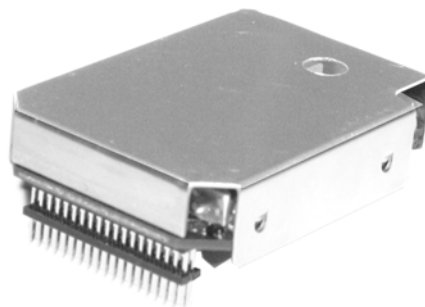


# **HBC – Transceiver Module**

## **TC 641 (FCC)**



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## Warnings

This device complies with part 15 of the FCC rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Caution:** Any changes or modifications by the user could void the user's authority to operate the equipment!

**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 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.

### **IMPORTANT NOTE:**

#### **FCC Radiation Exposure Statement**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.

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

## Technical Data

### Interface:

Type: SPI interface  
Required input voltage: 3 VPP  
Maximum data rate: 250 kBit/s  
Port impedance: 100 kOhm // 220 pF  
Antenna terminal impedance: 50 Ohm

### Common (RX+TX):

Frequency range:  
TC 64125 455,0 MHz – 465,0 MHz  
TC 64126 465,0 MHz – 470,0MHz  
Frequency accuracy: +/- 2,5 ppm  
Operating voltage: 3,3 ... 4,6 V  
Channel pattern: 12,5 kHz  
LF transmission bandwidth: 150 Hz ... 2,4 kHz  
Modulation type: F2D  
Operating temperature range: -30 ... +70 °C

### Transmitter:

Output power: +10 dBm  
Frequency deviation: +/- 2,5 kHz  
Current consumption (when transmitting): 100 mA  
Switch-over time (RX-TX): < 1 ms

### Receiver:

Sensitivity: -105 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: 65 mV RMS at +/-2,5 kHz deviation (internal test point only!)  
IP3: 0 dBm