

# B.E.A. K-Band Transceiver 21.0193 (BEA-T1B)

## User Guide

### History :

Date		Author	Version
2011/12/06	First release	JPL	1.00
2012/01/19	Instructions for OEM integrator	JPL	1.01
2012/03/09	Additional instructions for OEM integrator	JPL	1.02

FCC ID : G9B-210193  
IC ID : 4680A-210193

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## 1. Functional description of BEA-T1B Transceiver.

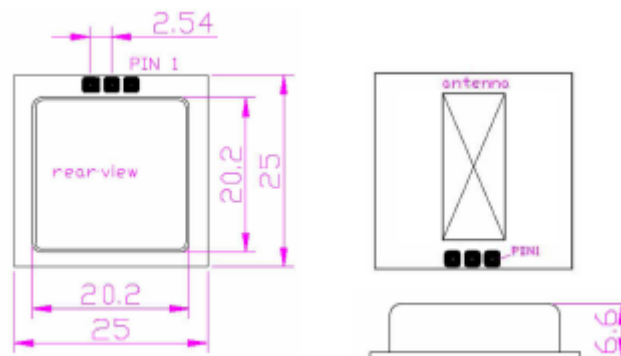
The DRO module P/N, 21.0193 consists of a 24.150GHz Microwave Transceiver and is used in Doppler movement detectors.

## 2. Electrical specifications.

<b>Output frequency :</b>	24.125 GHz $\pm$ 50 MHz
<b>Output power :</b>	< 20 dBm
<b>Type of modulation :</b>	Continuous wave
<b>ASK modulation :</b>	none
<b>Operating voltage</b>	5 V dc $\pm$ 5%
<b>Operating current</b>	<35mA typ.
<b>Frequency Drift vs Temperature Change :</b>	< 1 MHz / °C
<b>Operating temperature range :</b>	-30 °C to +70 °C

## 3. Pin arrangement. (Single row pin header)

Pin	I/O	Description
1	Supply voltage	Vcc
2	Output signal	IF
3	Ground	GND



## 4. Regulatory Compliance

- *This device has been tested and approved to be compliant with Part 15 of the FCC Rules and with RSS-210 of Industry Canada.*

*Operation is subject to the following conditions:*

- (1) This device may not cause harmful interferences, and*
- (2) This device must accept any interference received, including interference that may cause undesired operation.*

### 4.1 FCC & IC Instructions

- *Changes or modifications made to the equipment not expressly approved by BEA Inc. may void the FCC authorization to operate this equipment.*
- *The use of the BEA-T1B transceiver is authorized into mobile or fixed devices taking into account the conditions listed below :*
  - (1) OEM Integrator may be sure that the end user manual may not contain any information about the way to install or remove the module from the final product.*
  - (2) The following information is required to be incorporated in the user manual of the final system:*
    - This device has been tested and approved to comply with Part 15B unintentional radiator requirements*
    - The antenna of the module may not be removed, replaced nor modified. The antenna must not be co-located or operating in conjunction with any other antenna or transmitter. No additional antenna must be used.*
    - This device may not cause harmful interferences, and this device must accept any interference received, including interference that may cause undesired operation.*
  - (3) The module must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the product.*
  - (4) Power supply of the module must be conform to the electrical specifications as described in § 2 of the current user manual.*
  - (5) The antenna of the module may not be removed, replaced nor modified. The antenna must not be co-located or operating in conjunction with any other antenna or transmitter. No additional antenna must be used.*
  - (6) OEM integrator is responsible for ensuring that after the module is installed and operational into the host, it continues to be compliant with the Part 15B unintentional radiator requirements.*
  - (7) A label with the words 'Contains FCC ID:G9B-210193' and 'Contains IC:4680A-210193' shall be applied and visible from the outside of the end product.*