

47CFR §15.121 Compliance Statement

1 Coverage

This statement is valid for RHOTHETA receiver models designed in compliance with 47CFR Part 15 §15.121, applying the same technological means of compliance, independent of their use in systems to be certified for marketing in the United States of America.

Systems where these receivers are used:

- RT-400
- RT-500-M
- RT-600 A
- RT-600 L
- RT-600 Light
- RT-800
- RT-1000 A
- RT-1000 C
- RT-1000 Multichannel

2 Compliance Statement

The equipment under application herein incorporates a scanning receiver, so 47CFR §15.121 applies.

The equipment is incapable of operating (tuning) or being readily altered by the operator to operate within the frequency bands allocated to cellular radiotelephone service frequency bands (824 to 849 and 869 to 894 MHz).

The equipment is also incapable of converting digital cellular transmissions to analog voice audio.

Multi-stage frontend filters in SMD technology, including low-pass filters, high-pass filters and varactor-tuned band-pass filters under microcontroller control and with limited electrical tuning range cannot be altered to enable the receiver to scan the cellular radiotelephone service bands, especially not by means of clipping the leads of or installing diodes, resistors, jumpers or wires, or other simple component.

The local oscillator circuitry, including low-pass filters, is under microcontroller control and cannot be altered to enable the receiver to scan the cellular radiotelephone service bands, especially not by means of clipping the leads of or installing diodes, resistors, jumpers or wires, or other simple component.

Basic rejection of the cellular radiotelephone service bands by input filters is beyond the required measure of 38 dB (typical >80 dB for both filter stages). This is ensured by the physical design of filters.

No plug-in semiconductor chips can be replaced, since no such chips are used.

User input of receive frequencies in cellular radiotelephone service frequency bands is rejected by the firmware. No means are incorporated in the firmware to calculate internal receiver settings (filter, oscillator, etc.) for receiving frequencies in the cellular radiotelephone service frequency bands.

The microprocessor information is not accessible to the user. Without knowledge of processor information and circuitry, any attempt to modify the circuitry would render the equipment inoperable.

Measurements according to industrial standards for AM and FM voice communication equipment under application of the 12 dB SINAD criteria with standard modulation (30% AM, 1 kHz and 3 kHz FM deviation, 1 kHz tone) as well as additional signal strength indication based measurement show spurious response rejections above 100 dB within cellular radiotelephone service frequency bands.

In view of the above, the receiver complies with §15.121 of the Commission rules.

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