

***Subject: FCC/IC Certification of RADWIN 2000 3GHz BAND, RADWIN 1000 3GHz BAND and RADWIN 3000 3GHz BAND***

October 18, 2010

To whom it may concern,

RADWIN Ltd wishes to market the RADWIN 2000 3GHz BAND, RADWIN 1000 3GHz BAND and RADWIN 3000 3GHz BAND radio devices, complying with FCC 47CFR, Part 90 at 3.650 - 3.700 GHz regulation.

RADWIN 2000 3GHz BAND and RADWIN 1000 3GHz BAND are point-to-point radio links, consisting of two radio units, one at each end of the link, enabling wireless connectivity for either urban or rural deployments, supporting both access and backhaul applications, providing Ethernet and TDM data interfaces.

RADWIN 3000 3GHz BAND is a point to multi-point system consisting one base station and several client units (CPEs), enabling wireless connectivity for either urban or rural deployments, supporting both access and backhaul applications, providing Ethernet and TDM data interfaces.

RADWIN Ltd wishes to conform to FCC DA 07-4605 (November 14, 2007) FCC-certified equipment requirements:

"Restricted contention protocols can prevent interference only with other devices incorporating the same or similar protocols. Equipment using a restricted protocol can operate only on the lower 25 megahertz (3650-3675 MHz)"

The RADWIN 2000 3GHz BAND, RADWIN 1000 3GHz BAND and RADWIN 3000 3GHz BAND radio links are based on RADWIN TDD air protocol that meets the FCC definition of a "restricted" contention based protocol allowing co-channel operation minimizing mutual interferences, by incorporating the following mechanisms:

1. In-site and inter-site synchronization mechanism that synchronizes the transmission signal of several links avoiding mutual interferences between transmitted and received signals.  
RADWIN air interface synchronization mechanism used with a planning of the co-located links enable operation in a co-channel of more than one link preventing service interference.  
In-site synchronization mechanism is based on a RADWIN propriety protocol, when the inter-site synchronization mechanism integrates a GPS unit with RADWIN propriety air interface protocol
2. Automatic Channel Selection (ACS) mechanism that senses the interference level at the operating channel (co-channel interference).

The ACS mechanism automatically switches to other channel in case of reaching a system threshold of interference level that impacts significantly the service provided by RADWIN radio links.

Supporting frequency step of 1 MHz, the RADWIN ACS mechanism enables maximum spectrum efficiency and installation flexibility.

3. Support of various different RFD ("Radio Frame Duration") schemes that can be used to create a TDD offset in the transmission signal avoiding considerable high periods of interferences and minimizing its mutual-interference in a co-channel operation.
  
4. The method to permit occupancy to other RADWIN systems consists of:
  - a. Reduce transmit time allowing other system to transmit
  - b. Listen to the noise level of the other transmitting system in order to switch to other channel
  - c. Allow TDD synchronization to reduce mutual interferences between the transmitting RADWIN systems
  
5. The action taken if two or more transmitters simultaneously access the same channel by the master and the client devices is as following:
  - a. The case of TDD synchronization interference of other, near located unit, is avoided since the units are synchronized in transmit and receive TDD paths.
  - b. The system changes the modulation automatically based on the interference level to enable a better performance in case of mutual interferences
  
6. The opportunities for other similar systems to operate are provided by:
  - a. RADWIN selects the less interfered channel, by measuring the noise floor attribute, thus avoiding interference with other systems
  - b. TDD synchronization allows working in co-channel scenario without mutual-interferences

With the deployment of the above mechanisms RADWIN radio links enable a reasonable opportunity to operate in a co-channel under restricted mode.

Best regards,  
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