IPWireless™

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RFI Global Services Ltd
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RE: Application of Source Based Averaging to the RF Exposure Calculation.

To whom it may concern,

The IPWireless PCI Express Mini module is a time division duplex W-CDMA based wireless modem and the design/operation is based on the UMTS 3GPP TDD air interface requirements.

The air interface supports a radio frame length of 10ms, this radio frame is divided into 15 timeslots each of duration 666.67µS. As defined in the applicable 3GPP/ETSI documentation, of these 15 timeslots, timeslots 0-9 are assigned to the downlink (module receive) and timeslots 10-14 are assigned to the uplink (module transmit).

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
DL	DL	DL	DL	DL	DL	DL	DL	DL	DL	UL	UL	UL	UL	UL
BCH / FACH	FACH	DSCH	DSCH	DSCH	DSCH	DSCH	DSCH	DSCH	DSCH	RACH	USCH	USCH	USCH	USCH

Of the timeslots assigned to the uplink, timeslots 11-14 are used to transmit the subscriber's data and control signals to the base station. Timeslot 10 is reserved for the call setup procedure as a call can only be initiated by the subscriber. Timeslot 10 transmits the Random Access CHannel to the base station as part of the call setup procedure, once the call setup procedure has been completed, the RACH is no longer transmitted for remaining duration of the call and the PCI Express Mini module only transmits on the remaining timeslots 11-14.

Based on the inherent operation of the PCI Express Mini module, source based averaging has been applied to the MPE calculations with the unit transmitting on 5 out of 15 timeslots as this is normal operation of the unit when transmitting.

Yours sincerely

Peter Warburg

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