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11th July 2003

fao: Stan Lyles

Correspondence Ref. No. 25417; 731 Confirmation No. EA879991

Dear Sir,

Before answering the matter raised, I wish to draw your attention to the fact that the frequency-hopping technology used in this product, is based upon the RTX MARS system, which has already been vetted and approved by the FCC in it's own right and in previous submissions from several different manufacturers, including Kirk. The most recent related to Kirk equipments, is the series of certifications granted in 2002, for their PXARFP4-2G4, PXAWRFP4-2G4 and PXAPP4-2G4 equipments. The currently submitted equipment, is designed to operate in conjunction with the latter two of these items.

In response to your specific query, I offer the following explanation.

The frequency hop-set intelligence, is not co-ordinated by the multiple transmitters eg the portable equipments (PP) on the system. Each sequence is determined by and under the control of, each cell base station (RFP) and the central control system. The base station will use the same set of hopping frequencies, but each FP-PP communication link will be set-up to use each frequency at a different point in time, as a sequence off-set is applied to each bearer time slot individually (as shown in slots 2 & 4).

The frequencies shown in the table are being transmitted in the time slots, as the transmitter and receiver is sequenced through different frequency hopping frames (N, N+1 etc.). In this way, each carrier is being shared on a timed "burst" basis between all the users synchronised to that base station, but not in a sequential "musical chair" fashion, as each time slot has a different off-set which shifts the sequence start-point used in each slot within the hopping frame. In this way, frequencies re-occur at different points in time for each user.

Where a base station senses an on-channel carrier which does not carry system data (from an external system source), but is part of it's hopping sequence, this carrier frequency is excluded from the sequence utilised, until such time as the interference ceases. Additionally, where system bearer quality is judged to be poor due to interference, or other reasons, eg fading, then a carrier will also be excluded.

I hope that these responses answer your concerns. If you need any further information, please contact me.

Yours sincerely,

B.R.Merchant,
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