

07/13/01

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Subject: A Brief Summary of the differences in Telario System

To: Joe Jackson

What the Product currently is:

The Telario system is a TDMA wireless link that operates in the unlicensed portion of the PCS band (1920.05 to 1929.95 MHz). The complete system accommodates the following three types of devices:

Fixed: (TS3000) **ABZ99FT7012**

Mobile: (TC3000) **ABZ99FT7010**

Mobile: (TR3000) **ABZ99FT7011**

All of these devices have passed certification and verification under the FCC rules for the unlicensed PCS band. The TS3000 is manufactured with a pair of spatially diverse internal antennas. In addition a manual switch may be configured to switch the antennas from internal to external. External antennas are connected via a pair of TNC connectors. In normal usage the TS3000 can be located in an area that provides coverage throughout the desired coverage area. The exceptions are:

1. The TS3000 housing is inappropriate for mounting at the desired location, due to cosmetic issues or physical obstructions. To resolve this one could connect an External Antenna. (i.e. HAG9014 remote antenna)
2. The desired coverage area is obstructed by dense objects, that cause shadow areas with little or no coverage. This requires multiple antennas interconnect with low-loss coax and driven from the TS3000 with appropriate power splitter/combiners. In effect the coverage is shaped with multiple antennas and the obstacles are penetrated with coax. The antenna gain is used to offset any losses associated with the splitters and the coax. These splitters/combiners and antenna are passive devices.

What the Product will become:

The active antenna is an alternate configuration of above passive device that adds a bi-directional amplifier to the remote antenna. This amplifier has automatic power control to ensure that the antenna radiated power does not exceed the original TS3000 radiated power. To minimize the cost of the low-loss coax the splitter/combiner also

contains multiplexing and control signals to control the remote antenna transmit/receive switches and the diversity switches.