

EXPLANATION OF SAR TEST CONDITION
(FCC ID: AMWUH302)
Model: DATA 2000

EXHIBIT FOR APPLICATION FOR TYPE ACCEPTANCE

The SAR test condition which Uniden DATA 2000 (CDPD Modem) was tested under would never exist even in the worst case operation. This is because the CDPD specification limits the maximum length of transmission to 64 blocks of data for one transmission burst. In between transmissions, A MES requires a lot of time for transmission preparation in forming the transmission data burst stream. In particular, each block of data are individually Reed Solomon (63,47) encoded before concatenated to form the burst data stream. It also requires to get transmission requests from the forward channel before the subsequent transmission can take place. In most cases, the minimum delay the baseband station will take before issuing a transmission request is about 30-block time.

Within the DATA 2000 software design, the optimization for the processor load sharing with the higher layer protocol and the physical layer preparation requires an idle time of at least 750 mSec. Thus in the case of one MES per base station where there is no power control situation, DATA 2000 will have a maximum capability of 50% transmission duty cycle.

However, this is also a scenario that will have almost zero probability of taking place. With the maximum block limit dynamically set by the base station and more than one MES in the network with power control in operation in accordance to the CDPD specifications, the effective duty cycle is commonly observed at less than 10% and power level at level 3-4.

The power control setting is controlled by the base station through the transmission of the Power Product value. Typical setting value is 32. It is to the base station's advantage to minimize the power product and therefore lower MES transmit power throughout the network.