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FCC Application Processing Branch

Re: FCC ID AXATR-420-A2

Applicant: Ericsson Inc

Correspondence Reference Number: 21815  
731 Confirmation Number: EA780492

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The following is in response to your inquiries:

- 1) For AMPS mode, three power levels are listed in the line items. It is unclear why there are three power levels. Please explain including an explanation of how they are selected. Are they switchable?

There are 3 power levels for the DM-15 module.

<u>Operating Mode</u>	<u>Max. Pwr</u>	<u>Duty Cycle</u>
Class IV operation (AMPS/DAMPS)	0.6W	100% AMPS, 33% DAMPS
Class II operation (AMPS/DAMPS)	2.0W	100% AMPS, 33% DAMPS
Class I operation (AMPS only)	3.0W	18%

The DM15 is capable of operating in either of the modes described above, and can "switch" between modes by reregistering with the cellular system (identifying its CLASS type and technology).

- 2) The User's Manual mentions a CDPD ensemble. However, there is no line item for CDPD (emissions designator FXW) nor is there any data to support CDPD. The only modulation schemes supported are TDMA and AMPS. Please explain.

The DM-15 Module does not support CDPD mode. Please refer to the User's Manual section 3.1.3 where it is stated "Current version of DM-15 does not have CDPD capability"

- 3) The RF Exposure exhibit (Section 1.2) Mentions that the Class 4 terminal (AMPS/DAMPS) has a variable duty cycle from low to high. Exactly what is the duty cycle for the different applications?

The CLASS 1 burst modem transceiver is designed to send a burst of data as a CLASS 1 AMPS cellular mobile, with 3 Watts of RF power at the antenna connector. Typical applications will trigger registrations of less than 120 ms in duration at most every 15 minutes. Once the DM15 determines that data is to be sent, the transceiver initiates a call and then transmits a 4.5-second data burst, which includes a training sequence and V.27 data. The entire transmitter burst duration varies depending on the cellular system network connection time. When the burst modem call is initiated, the DM15 transmits for 1.5 seconds and then powers down for 4 seconds, and then transmits for 1.5 seconds and then powers down for 4 seconds; this process continues until a tone is detected, up to a *maximum* of eight cycles of 1.5 seconds ON, 4 seconds OFF. The tone is normally detected between two to seven seconds (depending on the cellular system network connection time). Once the tone is detected, the 4.5 second data burst is sent, after which the burst transmitter is disabled by the software for 30 or 50 seconds in order to protect the hardware that has been designed to dissipate heat appropriately for this duty cycle. The disable

time is 30 seconds for a sequence of two or less 1.5-second bursts, and 50 seconds for three to eight 1.5-second bursts.

For the CLASS 1 burst modem, the extreme case scenario maximum transmission duration is 7.5 seconds over a 41.5-second period which yields the 18% duty cycle.

- 4) The conducted powers listed in the Test Report do not correspond to the line item power in the application. The Test Report 33.2 dBm (2.1 Watts) for TDMA. The application lists 0.4 watts for TDMA? Please explain.

We have added a column of low power TDMA and corrected the power applied for as follows:

FCC Rules Parts	Frequency Range	Output Power (W)	Freq. Tolerance	Emission Designator
22.901(d)	824-849 MHz	0.6, 2.1,	0.1	29K3DXW
22.901(d)	824-849 MHz	0.6, 2.0, 3.4	0.1	40K0F1D, 40K0F8W

- 5) Upload the maximum antenna gain and maximum ERP for all modes.

The manufacturer does not specify or sell any antenna with this device. The RF exposure exhibit includes a maximum antenna gain for compliance with the minimum separation distance. The User's Manual specifies the use of an antenna with maximum system gain of 1dBd (i.e., 2.5dBd antenna gain and 1.5dB cable Loss).

- 6) Show compliance with Part 22.921 provisions for 911 call processing for all AMPS modes.

This attestation was uploaded on 11/27/01 and is currently listed under the file name "compliance letter".

Thank you.