GENERAL INFORMATION

FCC Reference Pursuant

1. Production Plans — 2.983 (c)
   Quantity production is planned.

2. Application References — 2.1061
   Reference is made to the following Motorola "Application Reference"
   A. Paging and Portable Products and their application
   B. Portable Products Transmitter Modulation Methods
   C. Boynton Beach Antenna Range

3. Data Submittal Procedure
   Data is supplied in accordance with Part 2, Sub-part J of the Commissions rules.

4. Similar, currently Type Accepted Transmitter, FCC ID: E969681

DESCRIPTION

1. Transmitter Technical Characteristics--Pursuant 2.983 (d)

A. RF Power Out	400	mW EIRP
B. Frequency Range		
Receiver	929-932 & 935-941	MHz
Transmitter	896-902	MHz
C. Frequency Stability	1	PPM
D. Emissions	10KOFID	
E. Spurious Emissions	-43	dbc
F. DC Voltage and Current into	3.0	Volts
the final RF power amplifier	850	mA
stage/stages		

Note: Following is necessary bandwidth calculation.
Personal Messaging Unit Specifications:
Deviation= +or -2.4 Khz maximum
Note: Max modulating freq.=4800 (symbols)/2 (symbols per cycle)
Max modulating frequency=2400 hertz

Bn = Necessary bandwidth
M = Max modulation frequency (hertz)
D = Peak frequency deviation

Bn = 2M + 2D
= 2(2.4Khz) + 2(2.4Khz)
= 9.6 Khz

2. Transmitter Application-This transmitter use is for the transmission of data only at 800, 1600, 6400 and 9600 bits per second to provide four level FSK modulation.

A. Power Supplies

Boomerang is powered by a 1.5 V AA battery. The transmitter is powered by a 3 volt Lithium battery internal to the unit. The receiver is supplied by a 2.8 volt regulator, 3 volt regulator and a 1 volt regulator. The controller is supplied by a 3 volt regulator.

DESCRIPTION (cont)

B. Antenna Available

1. Transmit
   A single loop antenna is used for the transmitter . The loop antenna is housed inside the personal messaging unit and is internally connected and not user accessible.

2. Receiver
   The loop antenna is also used for receive and is internal to the personal messaging unit.

C. Squelch Types (not applicable)

D. Microphone (not applicable)

E. Maximum Transmit Channel Capability
   The personal messaging unit is synthesized and software controlled to transmit on frequencies from 901-902 Mhz.

F. Housing
   The transmitter is housed in the housing shown in the accompanying photos.

G. Other Options (not applicable)