

CM-Z200 FCC Type Acceptance Document

I. Confidentiality Request

Sony PMCA requests confidentiality of the following items:

Block Diagram
Schematics
Active Parts List
Antenna Specifications

2. Antenna Specifications

(See Attached Antenna Spec)

3. Technical Overview (2.983)

CM-Z200 is a dual-mode portable cellular phone which supports both analog Advanced Mobile Phone System (AMPS) FM mode and digital Code Division Multiple Access (CDMA) mode. The cellular phone is designed to meet the requirements of OST Bulletin 53, TIA/EIA IS-95-A Mobile Station-Base Station Compatibility Standard for Dual-Mode Wideband Spread Spectrum Cellular System, TIA/EIA IS-98-A Recommended Minimum Performance Standards for Dual-Mode Wideband Spread Spectrum Cellular Mobile Stations.

The cellular phone operates under Cellular Radiotelephone Service specified in FCC CFR 47, Part 22.

Transmitter Frequency Range:	824 – 849 MHz
Receiver Frequency Range:	869 – 894 MHz
Maximum Transmitter Output Power:	600 mW (FM mode) 500 mW (CDMA mode)
Battery Voltage:	7.2 V

The input audio signal is sampled and processed digitally for necessary filtering, amplitude limiting, and compression and expansion. The device fully supports the AMPS and CDMA standards. All necessary signaling tones are digitally generated.

The transmit power level is constantly monitored by a detector circuit and a microprocessor. A method of look-up table, frequency offset correction table, and temperature compensation is used to tightly control the transmit power levels. All spurious and harmonic signals from the transmitter and receiver circuits are suppressed by filters and mechanical shields, and the device fully complies with the standards.

14. Description of Suppression Circuits

Spurious and harmonic suppression is obtained by design through a proper use of filters and shielding materials. Factory assembly instructions, board level and unit level factory testing, and quality acceptance procedures ensure that such compliance is maintained for all manufactured units.

In CDMA operation, its chiprate for PN sequence is 1.228 Mcps (per IS-95 standard), and its 3dB bandwidth is approximately 1.25 MHz. Channel spacing for CDMA channels is therefore normally set at 1.25 MHz. The baseband design is in compliance with the filtering requirements described in IS-95 for I and Q transmitter signals (within 1.5 dB ripple up to 590 kHz, and more than 40 dB suppression above 740 kHz). These I and Q baseband signals are combined at 90 degree phase to form the transmitter output signal.