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AdvanceMobile™ AT3500A Specifications

Input / Output Specifications

- Inputs Voltage 10.5Vdc to 32Vdc
- Ignition detection:
- Ignition “ON “2.5Vdc to 32Vdc
- Ignition “OFF” 0V to 2.5V or Open
- Outputs Entertainment Mute
- Open Drain
- Continuous current capacity: 50Ma.

Audio Specifications

- RJ45 Supports, Palm MIC Part # AT 8410A and Hand Set Part # AT 7107A
- 2.5mm Stereo audio jack.
- Speaker impedance: 4 ohms 10W.
- Microphone: Eco Canceling Noise Canceling

Communication Specifications

- Full duplex communication.
- Automatic start up.
- Antenna Impedance: 50 Ohms.
- SIM Card: 3 Volts.
- SIM Card PIN: Programmed by user one time, automatically introduced
- Onward. PIN saved on Non-Volatile memory.

Receiver Specifications

- Frequency Range 851min 870 MHz max in the 800MHz band
- Frequency Range 935 min 941 MHz max in the 900MHz band
- Channel Spacing 25 N/A KHz
- Sensitivity (10% BER) -111 dBm max

- Strong Signal BER 0.01 % max RF level = -80 dBm
- Overload Immunity 10 % max On channel = -20 dBm
- Intermodulation Immunity -45 dBm min Far-out interferers
- (On channel = -108 dBm)
- Adjacent Channel Immunity -51 dBm min
- Spurious Response Immunity -51dBm min
- Stability, unlocked 5 ppm max
- Stability, locked 1.9 ppm max
- Spurious Emissions Per FCC requirements (3m)
- • Conducted -57 dBm
- • Radiated 500 uV/m
- Transient Response 0.01 % max BER during RX-TX-RX
- Frequency Acquisition 0.01 % max ±2200 Hz RF input
- Blocking Immunity 10 % max

Transmitter Specifications

- Frequency Range min 806 max 825 MHz 800MHz band
- Frequency Range min 896 max 902 MHz 900MHz band
- Channel Spacing 25 KHz
- Power 0.44W min 0.7 W max Pulse average power; basic
- Terminal class
- TX BER 0.07 % max
- ACCPR @ 25 kHz 60 dB min
- Frequency Stability 5 ppm max Unlocked to base
- Spurious Emissions -13 dBm max Per FCC and ITU-R requirements

iDEN /GPS Specifications

GPS module

- • Sensitivity: -152 dBm Tracking, -142 dBm Acquisition.
- • Protocol: TAIP(ASCII).
- • Frequency: L1 type (1575.42 MHz). C/A code.
- • Channels: 12 channel simultaneous operation.
- • Update rate: 1Hz.

• Accuracy:

- Horizontal: <3 meters (50%), <8 meters (90%)
- Altitude: <10 meters (50%), <16 meters (90%)
- Velocity: 0.06 m/sec.
- PPS: +/-50 nanoseconds.

• Acquisition:

- Reacquisition: 2 sec.
- Hot Start: 9 sec.
- Warm Start: 35 sec.
- Cold Start (TTFF): 39 sec. Out of the box: 41 sec.

*GPS antenna connector

- SMA (Sub Miniature A) connector with a male center contact. (Use this connector for the GPS Antenna provided with the unit.
- • 50 ohms impedance.

GPS Antenna spec

Patch

- Center Frequency 1575.42±1.023 MHz (when covered with a radome and measured by LNA ground plane)
- Bandwidth (10dB return loss) 10 MHz min
- Gain at Zenith 1 dB type
- Gain at 10^{o} elevation - 5 dBic type
- Polarization R.H.C.P
- Axial Ratio 5.0 dB type

Filter / LNA

- Center Frequency 1575.42 ±1.023 MHz
- Gain 30~37dB (ps:3v / 32dB)
- Noise Figure 1.4 dB type (ps: 3v / 1.35dB)
- Filer Out band attenuation:
- Dielectric filter
- 7dB min fo±20MHz
- 20dB min fo±50MHz
- 30dB min fo±100MHz
- （fo=1575.42MHz）
- Output V.S.W.R 2.0 max
- Voltage DC = 2.5~5.5V
- Current DC = 8~23mA (ps: 3v / 10mA)

***iDEN antenna connector**

- Mini USB connector with a female center contact. (Use this connector for the iden Antenna provided with the unit)
- • 50 ohms impedance.

 # Environmental Specifications

- Operational Temperature -20 to +60 °C
- Storage Temperature -40 to +85 °C
- Shock MIL-STD-810E METHOD 516.4Proc. I, 18 shocks 40 G half-sine 6 - 9 msec18
- Shocks 2500g's, 0.00075-second pulse
- Vibration 2X-EIA (not tested electrically during vibration) Sine 20 – 2000 Hz, 4G Peak;
- 1 hr per axis - 3 axis (x, y, z) Random 20 – 2000 Hz, 6G RMS; 1 hr per axis - 3 axis (x, y, z)