

SPECIFICATION
TECHNICAL DESCRIPTION, ASRA2501-HHU
(FCC ID:NAHAS2501)

SYSTEM DESCRIPTION

The ASRA2501 board is used in the Remote end of a car starter system and operates at 433.920MHz. (OOK)
2- 2025, 3V battery powers the board.

CIRCUIT DESCRIPTION

The Q4 and SAW Resonator work as an oscillator, which is OOK modulated. The output of Q5 (isolation buffer) is matched to 50 ohms by C7, L1, C8, C10, R8, and feeds the helical antenna.

TX Data is forwarded from U1 Micro PIN 5 to the oscillator.

DC Power Control

Any switch activation will turn on Q1, a PNP transistor switch. This in turn will activate the Micro (U1) and oscillator.

Voltage clamp circuit (Q3, D1) drops the battery voltage so that the voltage supplied to the micro section will not be higher than 4.0V.

LED

LED represent the following:

TX transmission, Blue LED

LED is ON when the micro logic output is HIGH.

AM104-HHU SPECIFICATION

TRANSMIT		
Transmitter Nominal Frequency	433.920 MHz	✓
Fre Tol. @ 25°C	+/- 75KHz	✓
Radiated Output @ 5.5V	11,000uV/M @ 3 M max.	✓
Transmitter Har. Spurious Output	1,100uV/M @ 3M max.	✓
Data Rate Transmit		
Preamble		500usX6
Data start bit		1000us
DATA short bit		500us
DATA long bit		1000us
Tx Modulator Input	0 to +3.7 volts Square Wave	✓
Input voltage	+6.4V max, 4.0V min.	
Current Consumption (during TX)	3.0mA avg. max @ 5.5V	
Frequency tolerance	±100KHz Max Over Temp.	
Temperature range	-10°C to +60°C	-25°C to +60°C
Humidity	100% condensing. @ 0°C	