AB82 Product Specification

Version 1.0

Operation Theory

A RFID Active Tag is equipped with built-in battery as its power source. It can continuously operating for more than 2 years. By design, it will wake up and transmit its ID code 3 times every second. Since the duration of the transmitted pulse is very short, the power consumption is extremely low. When a reader receives the transmitted signal from RFID active tag, Reader will decode and upload the data to Host PC for system application usage.

General Features :

Items	Description
Read Rate	Advance Anti-collision to improve Tag IDs reception. Read Rate can achieve up to 100 tags/second
Read Speed	The read speed can tolerate up to 200km/hour.
Security	All data transmission are with encryption
Technology	Use advance 0.18um fabrication process
Directivity	Omni-direction with dipole antenna

Electrical Specifications :

Items	Description
Standby Current	< 3uA
Operation Current	< 15mA
Battery Life time	➢ 2 years
Wake Up Frequency	3 times / second

Radio Frequency Specifications :

Items	Description
Modulation	GFSK
Transmit rate	1024 Kbit/s (bi-direction)
Carrier Frequency	2.45GHz
Output Power	<= 0 dBm
Range	< 80 metre
BER	10^{-9}

Physical specifications:

Items	Description
Chassis Material	High Temp ABS
Tag Accessibility	Read Only
Dimension	83 mm * 52 mm * 4.8 mm
Weight	25g
Color	White (default)
Protection	NA
Installation	Hanging or Sticking on surface

Operation Conditions

Items	Description
Operating Temperature	-20 ~ +60 degree Celsius
Operating Humidity	< 85%
Storage Temperature	-40 ~ + 80 degree Celsius
Vibration	10 ~ 2000 Hz , 15g 3 axles
Drop Test	Free falling, 1000mm Concrete , 2 times per faces
EMI	10V/m 0.1 ~1000MHz, AM modulation

End of Document