

AZD-R1 Desktop UHF Reader

Quick Start Card-ACCUZ®Bridge Python SDK v0.3.1



Requirements

- Python 3.9+ (32-bit) -- UHFAPI.dll is 32-bit PE32
- Windows 10 / 11
- AZD-R1 reader connected via USB
- UHFAPI.dll + hidapi.dll in dlls/ directory (included)

1. Your First Scan

```
import asyncio
from accuz_rfid import create_reader

async def main():
    reader = create_reader(
        brand="AZD-R1", model="R1",
        connection={"type": "usb", "dll_dir": "./dlls"},
    )
    async with reader:
        tags = await reader.read_tags(timeout_ms=3000)
        for tag in tags:
            print(f"EPC={tag.epc} TID={tag.tid} RSSI={tag.rssi}")

asyncio.run(main())
```

2. Run Examples

python examples/basic_scan.py	# scan + print tags
python examples/continuous_inventory.py	# stream tags
python examples/device_status.py	# firmware, temp, power
python examples/read_write_memory.py	# write EPC / User bank

3. Reader Tool GUI

```
pip install PySide6
python accuz_reader_tool.py --mock      # demo mode
```

4. Key API Methods

Method	Description
reader.read_tags(timeout_ms=3000)	Scan tags, returns List[TagData]
reader.read_tags_continuous()	Stream tags (AsyncIterator)
reader.read_tid(epc)	Read TID bank for specific tag
reader.write_epc(old, new)	Rewrite tag EPC
reader.write_user_memory(epc, data)	Write User Memory bank
reader.set_power(dbm)	Set TX power (0-33 dBm)
reader.get_status()	Firmware, temp, power, capabilities
reader.set_buzzer(True/False)	Enable/disable buzzer
reader.locate_tag(epc)	Get RSSI for specific tag

5. TagData Fields

Field	Type	Example
epc	str	E280117000000200000000001
tid	Optional[str]	E2801160200050123456
rss	Optional[float]	-45.0 dBm
antenna_port	int	1
read_count	int	3
timestamp	datetime	UTC