

# RAIN RFID R/W Solutions

PHYCHIPS is a fabless semiconductor company specializing in RFID technology.

We provide low-power semiconductor chips (SoCs), RFID modules, and antennas for RFID readers to major companies globally. Known for its core semiconductor source technology, PHYCHIPS focuses on cost-effective and high-performance solutions for IoT and near-field recognition applications.

## WINE

Powered by PHYCHIPS' advanced PR7 chip, the WINE series delivers high performance and cost efficiency with several types of module. From mobile to fixed readers, it is designed for seamless integration and global deployment with simple region settings. Build smarter, faster, and anywhere with the WINE series.



### WINE 7

- 30dBm / 40x36x7.2mm
- High-Performance (Fixed & Handheld readers)



### WINE 5

- 27dBm / 18x18x3mm
- Mid-range embedded applications (Wearable reader, etc.)



### WINE 3

- 20dBm / 18x18x3mm
- Proximity applications (Printer, Authentication, etc.)



## Gen2 PLUS

Gen2 Plus is a set of advanced functions and features built into PHYCHIPS' third-generation reader IC, extending beyond EPCglobal Gen2v2/v3 standards. It offers broad backward compatibility, flexible support for custom encryption and encoding, and strong performance with high sensitivity and fast multi-tag reading.

**01** High Flexibility & Compatibility (Gen2v3, Multi-Protocol)

**02** Easy-to-Use (Built-in Authentication, Sensor Functions)

**03** Good Reading Performance (Sensitivity, Speed)

**04** Cost-Effectiveness & Compact Size

## WINE Module Comparison

Model Name	WINE7	WINE5	WINE3
Overview	High Performance	Mid Power, Small Size	Low Power, Low Cost
Frequency Range	860MHz ~ 930MHz	860MHz ~ 930MHz	860MHz ~ 930MHz
Output Power(Max.)	30dBm	27dBm (24dBm for TELEC)	20dBm
Sensitivity(M4,250KHz)	-84dBm	-84dBm	-84dBm
Interface	USB, UART, SPI, I2C	USB, UART, SPI, I2C	UART, SPI
Antenna Port	1-Port	N/A (SMD)	N/A (SMD)
Antenna Connector	U.FL	SMD	SMD
Supply Voltage	5V	3.3V	3.3V
Power Consumption	1A@5V, 5W	0.6A@3.3V, 2W	0.3A@3.3V, 1W
DRM Filter	O	X	X
Leakage Cancellation	O	O	O
Size	40.0 × 36.0 × 7.2 mm <sup>3</sup>	18.0 × 18.0 × 3.0 mm <sup>3</sup>	18.0 × 18.0 × 3.0 mm <sup>3</sup>
Certification	FCC, CE, TELEC, KC	FCC, CE, TELEC, KC	FCC, CE, TELEC, KC

