

## HOW & WHY to choose AiW-3648 for water treatment applications

### High Cost-effective's AiW-3648.

### What are its intrinsic factors?

#### Overview

When we focus on natural water resources, wastewater treatment, and municipal utility management applications, we should pay more attention to the natural environmental temperature adaptability of products, UV resistance, altitude and protection against pollution in the daily life environment.

#### ■ AiW-3648's Antenna Design

The AiW-3648 radar level gauge, it does not adopt the traditional lens antenna design ideas, nor does it have a complex sealing and assembly structure design, which these original designs are designed to overcome the extreme and demanding environments of industrial process applications (process temp. & pressure).

AiW-3648's antenna uses a slit-in-the-top mirror radiation technology, which obsoletes the traditional lens antenna design that is expensive in terms of cost and materials. The overall construction cost of the antenna is only 0.25USD.

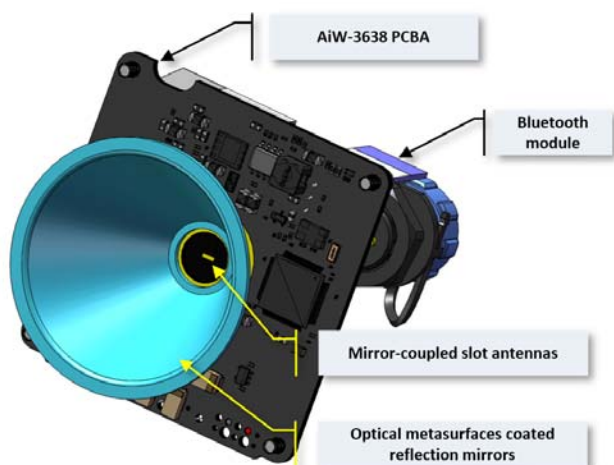
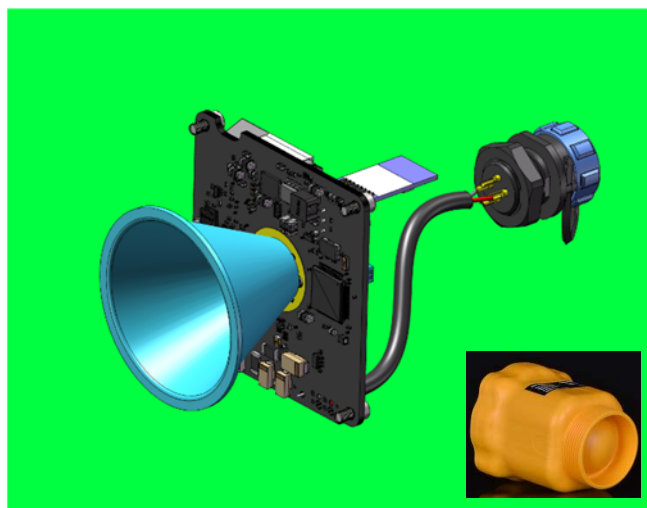
And It is also built inside the housing and does not need to be exposed (the housing material is PVDF, which has excellent UV and anti-aging properties).



#### ■ Electronic circuit integration

The electronic part of the AiW-3648 is designed with a highly integrated signal processing chip, which makes the hardware circuitry simple and reliable, while also greatly reducing the cost of the product.

With just one circuit board, it fulfills all the necessary functions and performance requirements: reverse polarity protection, surge protection, overvoltage protection, current limiting and lightning protection.



The performance of this antenna is sufficient for the measurement of liquid/solid levels in the range of 20M.

The Beam Angle is 7° and the Gain is 18dB.

#### ■ Summary of the effects of radar frequency

AiW-3648 Technical Datasheet:

NO.	SPECIFICATION	PROCESS SEGMENT
1	APPLICATIONS	Liquid / Solid (not recommended)
2	MEASURING PRINCIPLE	80 GHz, W-band, FMCW
3	ACCURACY	± 2mm or better
4	RANGE	Liquid: Up to 18m / Solids: Up to 8m
5	KEYBOARD + DISPLAY	NO
6	DEAD ZONE	< 60mm
7	BEAM ANGLE	< 6.5°
8	OUTPUT	2 Wire 4-20 mA / or 4 wire RS-485
9	PROCESS CONNECTION	G2" / NPT
10	PROCESS PRESSURE	-0.3 ~ 0.3 MPa
11	PROCESS TEMPERATURE	-40° to 80° C
12	POWER SUPPLY	12 to 30 VDC
13	BLUETOOTH 5.0 FEATURE	(RadarMobileManager) Required with Mobile App
14	IP RATING	IP 68

For more further discussions and exchanges are welcome.

anlysun@live.co.uk

<https://www.chinasimba.com/>