# GSGL-0003 [Ultra-Small, Ultra-Low Power GNSS SiP Module]

# Fully Integrated GNSS SiP Solution for Wearable & Portable Devices

Goermicro GSGL-0003 module is based on System in Package (SiP) technology which consists of a SONY CXD5609AGF, LNA, SAW Filter, FLASH, TCXO and some other passive components. All these components are integrated in a tiny package via 47-pins **5.3 x 4.9 x 0.94mm<sup>3</sup>** LGA with sputter technology to achieve EMI shielding, 30% size reduction on Axis XY compare to the normal PCB design.



### **Features**

- A multi-GNSS receiver for GPS, GIONASS, SBAS, QZSS, BeiDou and Galileo
- RF Front-Ends, 26MHz TCXO Integrated
- Pakage Size: 5.3 x 4.9 x 0.94mm<sup>3</sup>
- Flash: 8Mbit
- Supply Voltage Range : 1.71V ~ 1.89V
- Operating Temp. Range : -30~ +85°C

#### GNSS MODULE CXD5609AGE LNA SAW RE Blod Digita Digital Block<CPU RF Front En GNSS Engine Digital Block < Always-on Sensor Contr Unit ICC IF TCXO 26MHz PLL OS R TC Co PM LDO1 LDO2 шоо FLASH 8Mb Backup RAM Main RAM

Wearables

Drones

Toys

# **Applications**

- Smart phones
- Tablets
- Mobile accessories

## Descriptions

Item	Value	Unit	Remark
Current Consumption			
Acquisition	14	mA	
Tracking	7	mA	
Idle	1.8	mA	
Position Accuracy			1
2DRMS	1.0	m	R&S- SMBV100B 8KHz~6GHZ
CN0 @-130dBm	42	dBHz	
Sensitivity			@Temp. 25°C, Shielding
Cold Acquisition	-148	dBm	Room
Tracking	-162	dBm	
Re-Acquisition	-157	dBm	
Time-To-First-Fix (TTFF)@-130dBm			
Cold Start	<30	S	
Hot Start	<2	S	

