

gPIMS[®] FCU

TECHNICAL SPECIFICATION

The gPIMS[®] Field Control Unit (FCU) collects data from permanently installed gPIMS[®] Sensors, enabling automated large-area and small-area monitoring. It operates independently of a Wavemaker[®] instrument and can be retrofitted to most existing models of gPIMS[®] sensors.

Variant	FCU - USB	FCU - 4G
Application Areas		
Designed for	Manual Data Retrieval	Autonomous Data Upload
Physical Characteristics		
Dimensions W x D x H ⁽¹⁾	19 x 21 x 50 cm [7.25 x 8 x 19.5 inches]	
External surface	316 Stainless Steel	
Weight ⁽²⁾	11.3 kg [25 lbs]	
Mounting ⁽³⁾	Various options available	
Power Supply Ratings		
Battery type (Removable)	Nominal 12V, 7.2 Ah Lead Crystal Battery (Rechargeable)	
Typical battery life ⁽⁴⁾	500 Collections	250 Collections
External power supply ⁽⁵⁾	19-24 VDC (20W minimum) to recharge battery in situ	
Solar panel charging ⁽⁶⁾	Compatible with GUL supplied 5W or 10W Panel	
Output (to sensor)		
Number of channels	16	
Output voltage (nominal)	± 5V (w.r.t. GND)	
Output parameters [IS equivalent (w.r.t GND)]	Analog: U _o = 8.3V, I _o = 503mA, P _o = 1.044W, C _o = 71.35μF, L _o = 0.56mH Digital: U _o = 5.46V, I _o = 143.4 mA, P _o =1.96W, C _o = 987.42μF, L _o = 6.9mH	
Frequency Range	10-650 kHz	
Sensor compatibility	GUL gPIMS® Sensors - 3" to 72" (DN 80 to 1800)	
Communication Interfaces		
Cellular Modem (LTE/UMTS/GSM) ⁽⁷⁾	-	Quectel EG21-G (FCC ID: XMR201906EG21G)
Internal data storage	8 GB (Archives last 2000 data collections)	
Removable data storage ⁽⁸⁾	USB 'stick'	
Configuration interface	Wi-Fi	Wi-Fi or Cloud



- ⁽¹⁾ Dimensions exclude the antenna, but include the removable standard mounting frame.
⁽²⁾ Weight includes removable standard pole mounting frame.
⁽³⁾ Normally supplied with a mounting bracket for vertical poles of 1" to 3" in diameter.
⁽⁴⁾ The exact number of collections will depend on the selected collection configuration and the strength of the 4G signal at the installed location.
⁽⁵⁾ The battery should be charged in a non-hazardous area. A depleted battery can be changed for a fully charged one by opening the front panel.
⁽⁶⁾ Use of a solar panel extends the effective battery life to up to 10 years
⁽⁷⁾ The 4G units are normally supplied with an active SIM Card that works in most countries.
⁽⁸⁾ Any capacity USB storage device can be used, but they must be formatted with a FAT32 file system, which is the industry 'default' for drives between 2 GB and 32 GB.



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Wavemaker House
Brentford TW8 8HQ
United Kingdom



sales@guided-ultrasonics.com



guided-ultrasonics



www.guided-ultrasonics.com