# Ampt Communication Unit

High-accuracy, synchronous data for enhanced O&M

The Ampt Communication Unit (CU) provides valuable system performance insight by collecting String View® data from Ampt String Optimizers via two-way wireless communication. String View data includes PV string current and voltage from each optimizer input, the optimizer's output current and power, as well as daily integrated energy. The Ampt CU passes records to your SCADA or data monitoring system to make the information available in the field, at your remote operations center, or through a third-party monitoring service.

- Remotely track string-level performance

- Quickly identify and locate system issues

- Greater predictability to lower risk

- Reduced O&M costs
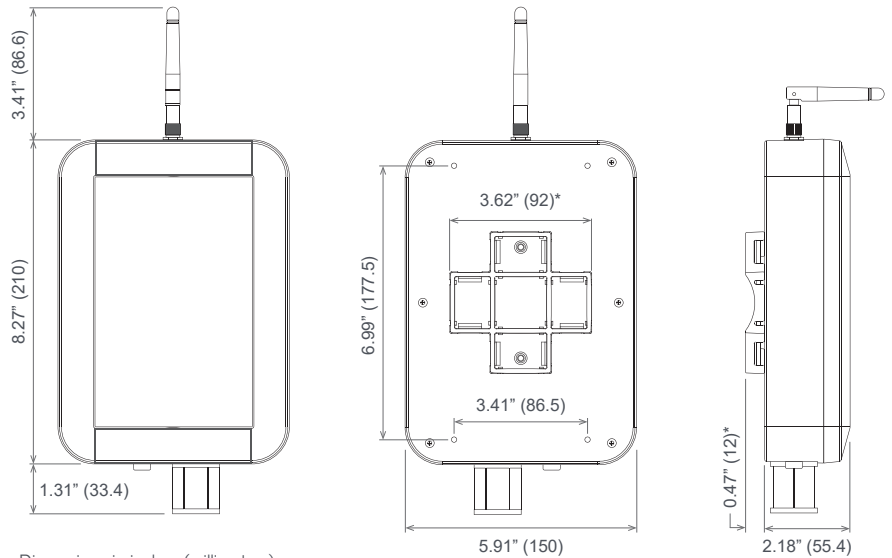
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Benefits

- Visibility – remotely track system output; identify and locate problems quickly

- Synchronicity – view point-in-time measurements aligned across all optimizers to correlate data with events

- Accuracy – measure output to +/- 0.25% accuracy

- Compatibility – link seamlessly via Modbus to 3rd party SCADA gateways

- Maximum output – avoid hidden losses from open disconnects/fuses, loose connections, soiling, vegetation management, degradation, tracker misalignment, and more.
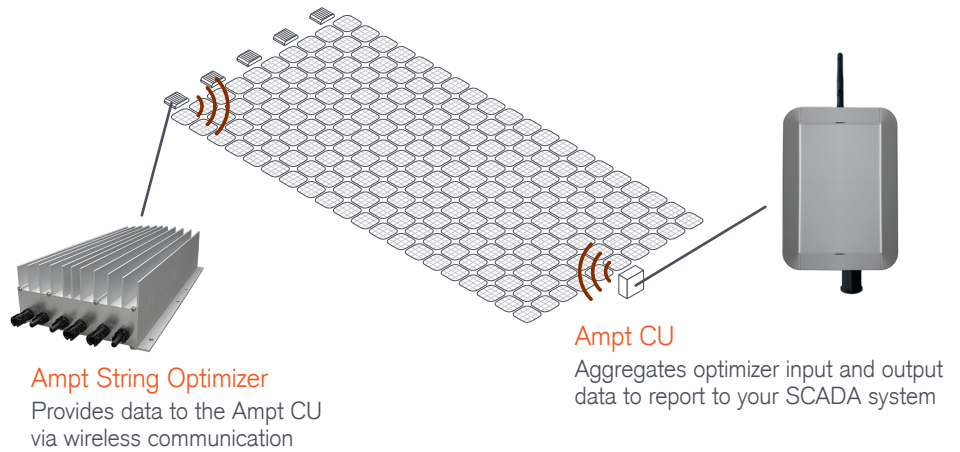
Features

- String View - string-level data from optimizer inputs and outputs

- Easy mapping – match data to both electrical and physical site layouts

- Modbus-ready – provides data in SunSpec format

- API – easy-to-process telemetry data in JSON format for custom integration and analysis

- Commissioning UI – provides data to quickly troubleshoot electrical connections in the PV field

Ampt String Optimizer
Provides data to the Ampt CU via wireless communication

Ampt CU
Aggregates optimizer input and output data to report to your SCADA system

Dimensions in inches (millimeters)
* Optional mounting bracket and stainless steel belt included

Data Communications	
Interface with Ampt optimizers	Two-way wireless
Number of Communication Units per MW	1 - 2
Interface with data monitoring system	Modbus TCP and HTTP JSON
Connection with data monitoring	Ethernet 10/100 Base T
Measurement accuracy	±0.25%
Data interval	1 minute
Local data storage	45 day rolling buffer
Electrical	
Power supply	Power over Ethernet (PoE), power consumption < 4 W
Power over Ethernet (PoE)	Class 0, 802.3af Modes A and B, 802.3at Type 1 (RJ-45 connector)
Nominal operating voltage at Ampt CU	48 V
Mechanical	
Weight	1.23 lbs. (556 g)
Dimensions (H x L x W)	12.99 in x 5.91 in x 2.18 in (330 mm x 150 mm x 55.4 mm)
Ingress protection	IP67
Ambient temperature operating range	-4 ℉ to +140 ℉ (-20 ℃ to +60 ℃)
General	
Compliance	FCC Part 15, class B; ETL to IEC/UL 62368; CSA C22.2 62368-1

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