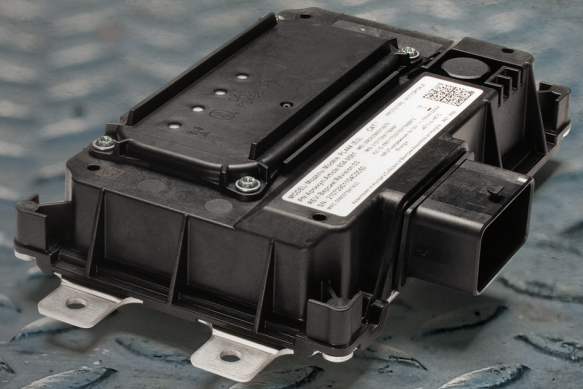




# CAT<sup>®</sup> PRODUCT LINK<sup>™</sup> TECHNOLOGY



## PRODUCT LINK<sup>™</sup>

### Cat<sup>®</sup> Product Link<sup>™</sup> PL444

The Cat<sup>®</sup> PL444 Radio allows you to collect and monitor the information to maximize the performance of your Cat and non-Cat assets, proactively identify issues that may affect your operations and allows you to quickly respond to any events that may occur. To transmit the data to Cat Equipment Management applications, the PL444 can be connected via the following methods:

- [+] 4G LTE Cellular
- [+] Bluetooth<sup>®</sup> Capability  
(Bluetooth functionality will not be expected until 2022 on the PL444.)

The PL444 is designed as a reliable, low-cost, engine agnostic telematics solution which is easy to install. The device comes pre-configured with a standard set of parameters including hours and location which report each day and enables immediate alerting of fault codes. Server side geofencing is also available so you can be confident your asset is in the right place. The PL444 will be used by multiple industries and functionality varies by industry.

### [ + ] DATA PRIVACY

Caterpillar's commitment to Data Privacy is reflected in the following statements. Visit [Cat.com](http://Cat.com) to view Caterpillar's "Data Principles" and "Data Governance" statements.

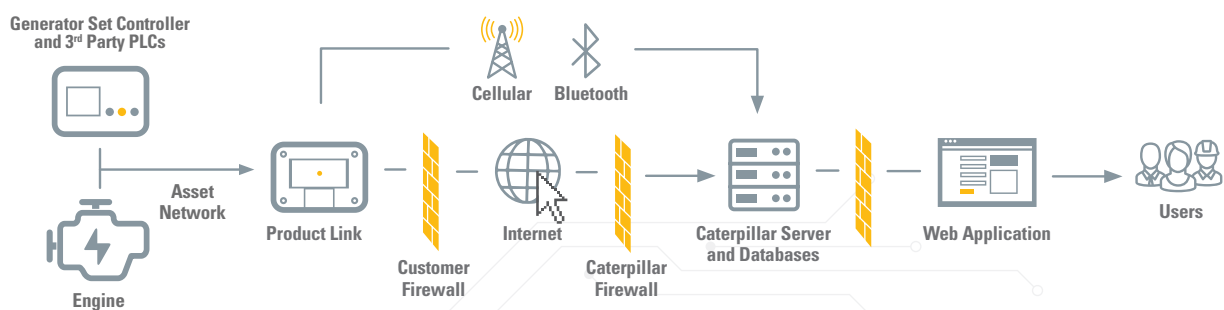
- [+] We are transparent about the collection and use of your data.
- [+] We protect your data.
- [+] We use your data to create value and improve products for our customers.

## HIGH-LEVEL SECURITY OVERVIEW

Product Link's end-to-end system is designed with multi-layer security controls and safeguards to protect against unauthorized access and disclosure. High-level security safeguards include, but are not limited to:

- [+] Cryptographically secured to protect against unauthorized Product Link device software changes
- [+] Encrypted and authenticated remote connection
- [+] Caterpillar IT infrastructure secured utilizing generally accepted information security principles and practices
- [+] Only outbound remote connection, initiated by the Product Link device, is allowed. Device does not participate in or respond to general Internet traffic
- [+] Secure Cat Equipment Management web application connection with user login authentication and role-based access controls

## END-TO-END ARCHITECTURE



## PL444 4G LTE RADIO TECHNICAL SPECIFICATIONS

### HOW IT WORKS

The PL444 integrates a positioning receiver with a 4G LTE cellular communication system that will fall back to 3G or 2G signal if necessary to establish a connection. The PL444 will transfer hours, location and other asset data to Caterpillar to be viewed and analyzed through Cat Equipment Management software.

### INPUT VOLTAGE

Voltage Range	[+]	9.0V to 32.0V DC
Protection	[+]	Reverse polarity

### CURRENT CONSUMPTION (TYPICAL)

Sleep Current	[+]	<3 mA
Idle Current (non-transmitting)	[+]	<300 mA
Peak Current	[+]	< 6A

### PHYSICAL SPECIFICATIONS

Enclosure Material	[+]	Plastic Cover (PBT+ASA GF30 FR) Aluminum Backplate (AlMg2.5 / H22; H23)
Dimensions (mm)	[+]	215.5 x 141.2 x 37.5
Weight	[+]	0.45 kg
Interface Connectors	[+]	48 pin Molex
LEDs	[+]	Orange (GNSS), Yellow (Cellular), Blue (Data link), White (Bluetooth)

### ENVIRONMENT

Operating Temperature	[+]	-40°C to +85°C
Storage Temperature	[+]	-40°C to +95°C
Ingress Protection	[+]	IP66/67 (MATING CONNECTOR MUST BE INSTALLED)
Humidity	[+]	SAE J1455
Vibration	[+]	9.8 Grms random (24-2000 Hz), up to 0.5 g <sup>2</sup> /Hz

### COMMUNICATIONS

Datalink	[+]	J1939/CAN
Datalink	[+]	Modbus (RS-485)
Wireless	[+]	4G LTE with 2G/3G fallback
Wireless	[+]	Bluetooth®/BLE 5.0

### INPUTS / OUTPUTS

Low Side Drivers (300 mA max)	[+]	2
Switch to Ground	[+]	1
Keyswitch	[+]	1

## LET'S DO THE WORK.™

PEHJ0812

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PL444-NOV21



**Note:** In the case of an extended outage, the capacity of the message queue can be exceeded and some data will be lost as older messages are overwritten.

### POSITIONING (GNSS)

Signal Tracking	[+]	GPS/Galileo/GLONASS/BeiDou
Accuracy	[+]	<6 m (95%)
Antenna	[+]	Internal

### BLUETOOTH LOW ENERGY

Version:	[+]	BLE 5.0
Band:	[+]	2.4 GHz (2.42-2.48 GHz)
Antenna:	[+]	Internal

### REGULATORY COMPLIANCE: PL444 (NA)

FCC, IC, UL/CSA 62368-1, RED, RoHS, WEEE, REACH

### REGULATORY COMPLIANCE: PL444 (EU)

RCM, EAC, EN 62368-1, CE RED, RoHS, WEEE, REACH

## CELLULAR COMMUNICATIONS

### CELLULAR COMMUNICATIONS PL444 (NA): 604-9580

4G LTE Cat 4	[+]	+ 2, 4, 5, 7, 12/17, 13
3G	[+]	+2, 4, 5
2G	[+]	+2, 5
Operating Temperature	[+]	-30°C to +70°C
Antenna	[+]	2x Internal (Primary + Diversity) to support 2x2 MIMO
SIM	[+]	eUICC chip

### CELLULAR COMMUNICATIONS PL444 (EU): 604-9581

4G LTE Cat 4	[+]	+ 1, 3, 7, 8, 20, 28A
3G	[+]	+1, 3, 8
2G	[+]	+3, 8
Operating Temperature	[+]	-30°C to +70°C
Antenna	[+]	2x Internal (Primary + Diversity) to support 2x2 MIMO
SIM	[+]	eUICC chip

