

DP20 Waterproof DTU



Product Brief

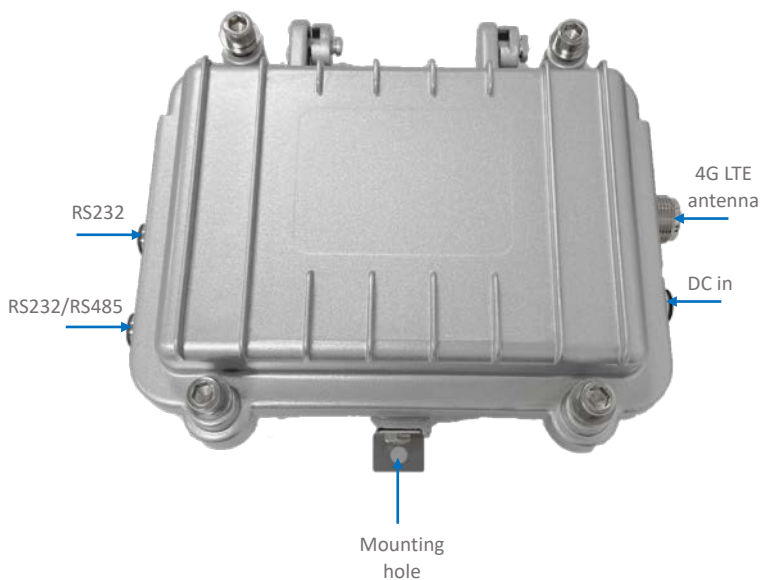
Vantron DP20 is a waterproof data transmission unit (DTU) specifically engineered for outdoor data transmission applications. It excels in demanding environments, making it an ideal choice for industries that require reliable data communication.

Equipped with an RS232/RS485 serial communication port, DP20 facilitates seamless data transmission from various field devices, including actuators, sensors, and programmable logic controllers (PLCs). It supports low-rate carrier networks (CAT M), enabling efficient network connectivity and data upload at low cost. Additionally, DP20 accommodates with network protocols including Modbus and MQTT to ensure robust and flexible data transfer capabilities.

The compact design of DP20 significantly simplifies installation and maintenance for users. It operates within a wide input voltage range and industrial-grade extended temperature range of -40°C to $+75^{\circ}\text{C}$, ensuring reliable performance in extreme conditions.

Vantron DP20 is particularly well-suited for applications such as power distribution, intelligent meters, and environmental monitoring, providing a cost-effective IoT solution that meets the rigorous demands of these industries.

Exterior and Features



DP20



Serial port for PHY layer data transfer



Ultra-low power consumption



High reliability



Longer lifecycle



Efficient fanless heat dissipation



Wide input voltage & temperature range



Vanity free, easy to deploy

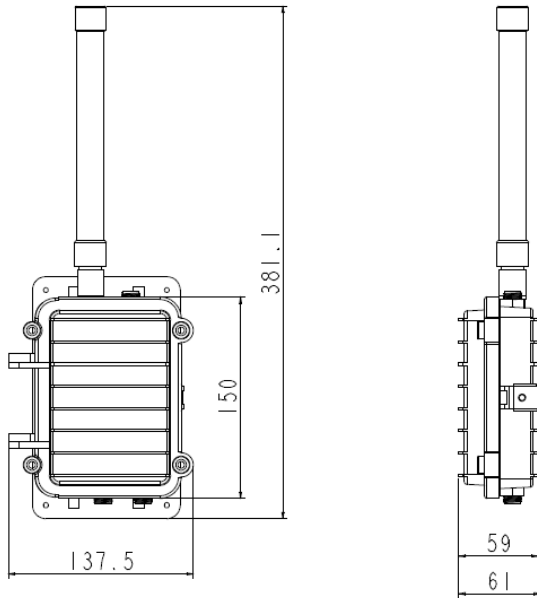


IP66 rated

DP20 Rugged Industrial DTU Datasheet

DP20			
Cellular Communication	4G LTE	CAT M, Global	
		Frequency band	LTE-FDD: B1/2/3/4/5/8/12/13/18/19/20/25/26/27/ B28/ 66/ 85
		Data transmission	UL: 1119 Kbps; DL: 588 Kbps
	SIM slot	1 x Built-in SIM slot	
	Antenna	1 x 4G LTE antenna connector, N-type	
I/Os	Serial port	1 x RS232/RS485 for data communication, M12 (Baud rate: 2400~115200, default parameters: 115200, 8N1)	
		1 x RS232 for device configuration, M12 (Parameters: 115200, 8N1)	
System Control	Built-in LED indicator (invisible from outside)	1 x 4G connectivity indicator	
		1 x Serial port status indicator	
		1 x Power indicator	
	1 x Error indicator		
Button	1 x Built-in restore button (factory reset upon a press of 5 seconds)		
Mechanical	Dimensions	150mm x 137.5mm x 59mm (Device only)	
		381.1mm x 137.5mm x 61mm (With mounting kit and antenna)	
	Installation	Pole mounting, Wall mounting	
	IP rating	IP66	
	Weight	582g (device only)	700g (with antenna and cable tubing)
	MTBF	> 100,000H	
Power	Input	5V~36V	1 x DC in (M12)
	Consumption	Idle current: 40mA @12V DC	
Operating current: 100mA @12V DC (Max.)			
Software	Configuration tool	VT Dtool	
	Communication protocol	Southbound: Modbus	Northbound: MQTT
Environmental Condition	Temperature	Operating: -40°C ~ +75°C	Storage: -40°C ~ +85°C
	Humidity	Operating: RH 5%-95% (Non-condensing)	
	EMC level	EMC Level 3	
	Certification	FCC, ISED, CE	

Product Outlines



Ordering Information

Ordering No.	4G LTE	Description	Installation
DP20-G	CAT M	RS232/RS485 for data, RS232 for configuration, Modbus, MQTT, IP66	Pole mounting, Wall mounting

Packing list				
DP20 Waterproof DTU	1	M12 cable tubing for data transmission	1	
12V 1A DC power adapter & power cord	1 kit	4G LTE antenna	1	
M12 cable tubing for power	1	Mounting plate (with M3 screws)	1	
M12 cable tubing for debugging	1	Mounting strap	1	

Since its establishment in 2002 by two Silicon Valley entrepreneurs, Vantron Technology has been at the forefront of the connected IoT devices and IoT platform solutions. Today, Vantron boasts a global customer base that includes several Fortune 500 companies. Its product lines cover edge intelligent hardware, IoT communication devices, industrial displays and BlueSphere cloud device management platform.

Vantron offers IoT communication devices that enable multi-protocol connections for industrial equipment and local data processing through edge computing. With abundant wired and wireless connectivity options, remote operations and maintenance have become easier than ever. Such devices can be deployed across different sectors such as smart retail, medical and warehousing. Moreover, Vantron's IoT solutions are designed to facilitate enterprises' digital transformation, streamline operations, enhance productivity, etc.