

John Deere Connectivity Family

Modular Telematics Gateway



JOHN DEERE

Summary

The Modular Telematics Gateway integrates Global Navigation Satellite Systems (GNSS), mobile connectivity and onboard machine communications via CAN, Ethernet, and RS-232. It's ideally suited for advanced telematics applications such as machine health monitoring, advanced logistics, and remote diagnostics.

Why R-Modem vs. M-Modem? The difference is the number of CAN channels, ethernet and mounting locations, and internal vs. external antenna.

Features of the product family*

- Capable of being configured by mobile app
- Onboard diagnostics and over-the-air programmable
- Optional satellite module available
- WiFi meshing: Track your fleet. Capture data on multiple machines and send back to user's mobile device.



Operational	M-Modem	R-Modem
System Voltage	12V/24V (9V-32)	12V/24V (9V-32)
Machine Interface Connector	CMC 48-Way	CMC 48-Way
Current Consumption		
Average current	Typical 150mA at 14V; Max 350mA	Typical 150mA at 14V; Max 350mA
Max peak	1.260A	1.260A
Suspend/Off	250mW; 500µA	250mW; 500µA
Fuse Rating	10A	10A
Processing and Memory		
Microprocessor	i.MX8DXL	i.MX8DXL
RAM	1GB/DRAM	1GB/DRAM
Flash	32GB/eMMC	32GB/eMMC
Vehicle Communication		
CAN	2 Channels ISO11783/J1939 CAN FD capability	3 Channels ISO11783/J1939 CAN FD capability
RS-232	2	2
Ethernet	100BASE-T1	10/100BASE-Tx
USB	N/A	N/A
Wireless Interfaces		
Cellular	LTE CAT4 with/2/3G fallback, internal antenna	LTE CAT4 with/2/3G fallback, external antenna
GNSS	Yes	Yes
Wi-Fi	2.4 GHz	2.4 GHz
Bluetooth	V4.2	V4.2
Environmental		
Operating Temp	-40°C to 75°C	-40°C to 75°C
Storage Temp	-40°C to 85°C	-40°C to 85°C
Mechanical		
Sealing	IP69	IP67
Dimensions	145 x 145 x 44	241 x 160 x 43
Regulatory		
	FCC (tested to Part 15b), PTCRB, AT&T certification, CE, E mark Extensive list of additional country approvals	FCC (tested to Part 15b), PTCRB, AT&T certification, CE, E mark Extensive list of additional country approvals

*Please note these features may require end-application development by OEM.