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# IO Series

## Comparative Features Matrix

The following matrix summarizes the key differences and similarities of FreeWave® IO radios. Refer to corresponding data sheets for detailed specifications.

	FGRIO-S		FGR2-IOS	
		Modbus		Modbus
<b>Key Differences:</b>				
FreeWave® Platform	FGR		FGR2	
Range (LOS)	2 miles		60 miles	
Output Power	0.1 W		1 W	
Enclosure Option	Not available		yes	
Operating Voltage	6-20		6-30	
System Gain	130 dB		140 dB	
Receiver Sensitivity @ 10 <sup>-6</sup> BER	-98 dBm		-108 dBm	
Receiver Sensitivity @ 10 <sup>-4</sup> BER	-100 dBm		-110 dBm	
Power Conservation	Not available		Not available	yes
Linked Idle Current 12 V	7 mA	13 mA	14 mA	4 mA (LP=4)
AI	4	4	4	4
AO	0	0	0	2
DI	4	6	4	6
DO	2	2	2	2

### Similarities:

Sensor Power Control	yes	yes
Temp Spec	-40° C to +75° C	-40° C to +75° C
UL	yes	yes
Compatible w/FGR	yes	yes
Data Encryption	no	128 AES
1 week autonomy with FreeWave Solar Kit	yes	yes