

Zonar SEJ-V4B2 Telematics Device GSM Antenna Information

This document provides antenna compliance information for the Zonar SEJ-V4B2 telematics device.

- 1) **In compliance with FCC requirements of paragraph 15.203 of the FCC rules;**
the GSM antenna component is surface mount dielectric antenna component that is permanently mounded/soldered to the printed circuit board. There is no provision made for alternate antennas nor connectivity for any additional/external antenna.
- 2) **This device uses a surface mount dielectric type antenna as the primary/main antenna, and a custom designed PCB trace antenna as the MIMO/Diversity antenna.**

MAIN ANTENNA

- a. The antenna manufacturer is: Quectel
- b. Manufacturer part number is: YC0002AA
- c. Antenna frequency range is: 698-960MHz/1710-2690MHz
- d. Specific RF parameters are as such:

Electrical			
Frequency (MHz)	698-960	1710 - 2170	2170 - 2960
Peak Gain (dBi)	-0.21	3.11	3.54
VSWR max	5.69	4.22	3.31
Average Efficiency (%)	46	54.6	68.2
Polarization	Linear		
Impedance	50Ω		
Maximum Input Power	5W		

MIMO/DIVERSITY ANTENNA

This is a custom PCB trace antenna that is 'built in' to the host circuit board. This is not a separate component, it cannot be removed or modified, it is a part of the actual PCB fabrication process.

- The antenna manufacturer is: Zonar/Taoglas (design by Taoglas, implementation and integration into host PCB by Zonar)
- Manufacturer part number is: V4 Cellular Trace Antenna
- Antenna frequency range is: 700 – 2700 MHz
- Specific RF parameters are as such (double click to open in excel):

2665	2670	2675	2680	2685	2690	2695	2700
0	0	0	0	0	0	0	0
-5.7459	-5.7049	-5.8623	-5.7571	-5.798	-5.8315	-5.9158	-5.9193
-0.1127	0.0058	-0.3728	-0.1589	-0.3743	-0.3211	-0.471	-0.5131
5.6332	5.7107	5.4894	5.5982	5.4237	5.5104	5.4449	5.4062
-5.7459	-5.7049	-5.8623	-5.7571	-5.798	-5.8315	-5.9158	-5.9193
26.6326	26.8853	25.9282	26.5636	26.315	26.1128	25.6105	25.59
-0.1127	0.0058	-0.3728	-0.1589	-0.3743	-0.3211	-0.471	-0.5131
-7.4426	-7.3975	-7.5847	-7.4688	-7.5072	-7.5286	-7.6086	-7.6149
-9.1497	-9.0981	-9.3114	-9.1915	-9.235	-9.2504	-9.3366	-9.3426
-10.4124	-10.3564	-10.5785	-10.4566	-10.5056	-10.5167	-10.6067	-10.614