

Product Number: **ZD 4G(CSL)W-L190**

Antenna Data Sheet

CUSTOMER: **Shenzhen Zhongxin Shidai Technology Co.,Ltd.**

CUSTOMER P/N: **ZD-368**

OUR MODEL NO: **ZD 4G(CSL)W-L190**

SPECIFICATIONS: **4G black ultrasonic antenna 1.13 Black Cable
190MM with terminal**

Date: **2024-11-29**

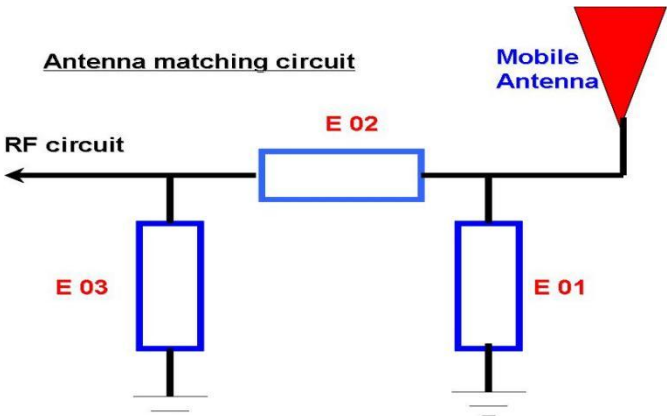
Manufacturer: **Shenzhen Zhuda communication Electronics Co., LTD**

Address: **Room 716, Chuangke Building, 72-6 Huanguan South Road,
Xintian Community, Guanhu Street,
Longhua District, Shenzhen**

1. Technical Specification

A. Electrical Characteristics	
Working Frequency Range	700~2700MHz
S.W.R.	700~2700MHz:<3.0
Antenna Gain(avg.)	700~2700MHz: 2dBi±0.5dBi
Impedance	50ohm
B. Material	
brass	
C. Environmental	
Operation Temperature	-45℃~+85℃
Storage Temperature	-45℃~+85℃

2. Matching Circuits



Element	Value	Vender
E1(0402)	OPEN	/

E2(0402)	SHORT	50 Ω
E3(0402)	OPEN	/

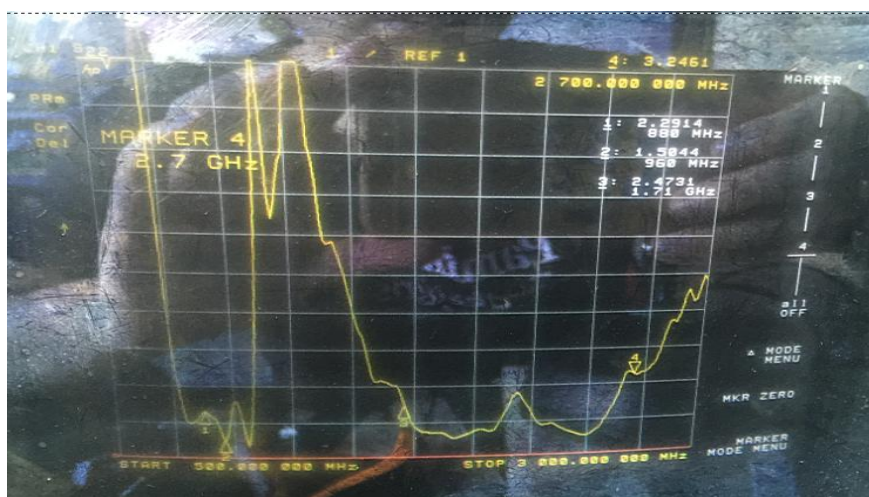
3. Curing antenna S11 Testing Result.

The S11 parameter was performed using a Agilent 8753D Network Analyzer and BEST'S test fixture that was using customer-providing device.

VSWR (Voltage standing wave ratio)

The Voltage Standing Wave Ratio (VSWR) is an indication of how good the impedance match is. VSWR is often abbreviated as SWR. If the transmission line and the antenna are not matched, the antenna will not accept all the power from the transmission line. The part it does not accept is reflected back and forth between the transmitter and the antenna. This sets up a fixed wave pattern along the line which we can measure and which is called the voltage standing wave ration(VSWR).The VSWR (ratio of maximum voltage to the minimum voltage along the line)expresses the degree of match between the transmission line and the antenna. When the VSWR is 1 to 1(1:1) the match is perfect and all the energy is transferred to the antenna prior to be radiated. When the VSWR is 1.5:1, 96% of the power reaches the antenna. By definition VSWR can never be less than 1.VSWR and reflected power are different ways of measuring and expressing the same thing. A high VSWR is indication that the signal is reflected prior to being radiated by the antenna.

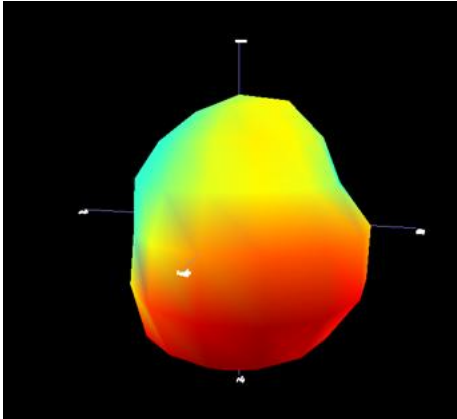
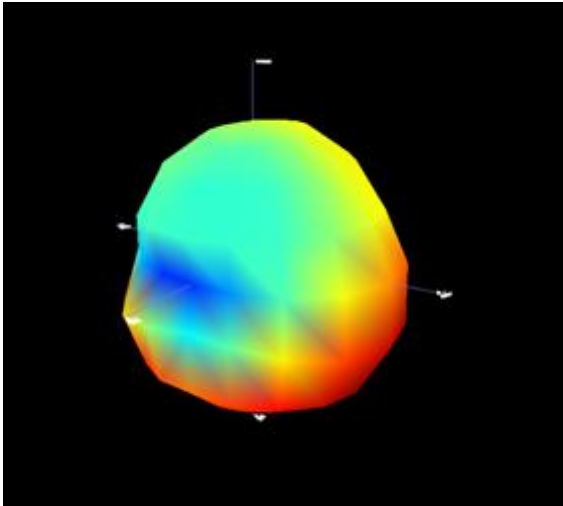
VSWR

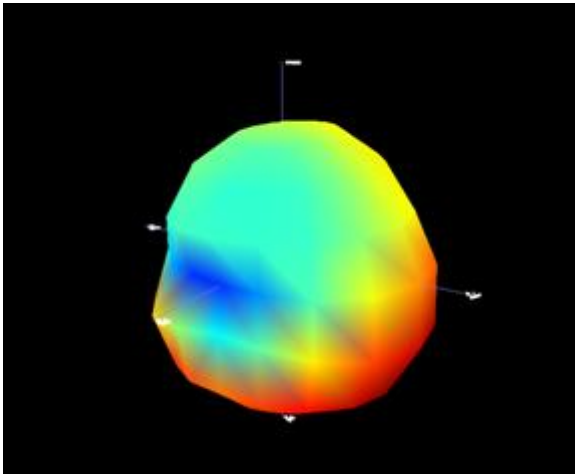


Marker	800MHz	2000MHz	2600MHz
--------	--------	---------	---------

S.W.R	<3.0
-------	------

4.Test Report 3D

Frequency: 800MHZ Gain: -3.68dBi

Frequency: 2100MHZ Gain: 2.88dbi

Frequency: 2700MHZ Gain: 1.12dbi



5.Test Data

Passive Test For LTE-4G												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
800	17.93	-7.46	-3.68	-5.83	10.286	7.645	-3.68	-13.39	3.79	0	35.68	35.7
900	40.87	-3.89	1.31	-0.84	23.162	17.704	1.31	-14.29	5.2	0	35.72	36.26
1000	49.89	-3.02	1.69	-0.46	24.366	25.524	1.69	-19.57	4.71	30	38.53	38.61
1100	39.1	-4.08	0.03	-2.12	21.674	17.421	0.03	-13.34	4.11	30	37.88	37.96
1200	20.81	-6.82	-2.43	-4.58	8.676	12.132	-2.43	-16.82	4.39	0	39.1	39.51
1300	52.5	-2.8	1.67	-0.48	24.286	28.218	1.67	-15.12	4.47	30	39.9	40.3
1400	71.63	-1.45	3.93	1.78	30.765	40.864	3.93	-13.76	5.38	30	39.75	39.81
1500	61.67	-2.1	2.97	0.82	26.759	34.912	2.97	-9.75	5.07	0	40.28	40.21
1600	52.08	-2.83	2.71	0.56	20.941	31.14	2.71	-10.77	5.54	0	40.54	40.42
1700	62.71	-2.03	4.18	2.03	21.577	41.133	4.18	-11.35	6.2	0	41.77	41.62
1800	58.28	-2.34	3.35	1.2	23.299	34.986	3.35	-16.56	5.7	0	41.9	41.51
1900	48.43	-3.15	1.83	-0.32	18.973	29.452	1.83	-15.49	4.98	30	41.85	41.49
2000	52	-2.84	1.46	-0.69	21.312	30.691	1.46	-16.35	4.3	0	42.87	42.53
2100	62.75	-2.02	2.88	0.73	26.277	36.474	2.88	-17.38	4.91	0	43.54	43.33
2200	69.33	-1.59	3.39	1.24	26.209	43.117	3.39	-12.38	4.98	0	44.29	43.99
2300	52.9	-2.77	2.53	0.38	20.255	32.647	2.53	-20.52	5.3	0	44.36	43.97
2400	41.03	-3.87	2.22	0.07	15.525	25.5	2.22	-26.82	6.09	0	45.51	45.06
2500	36.91	-4.33	0.91	-1.24	16.402	20.507	0.91	-17.81	5.23	150	45.93	45.51
2600	33.91	-4.7	-0.33	-2.48	16.825	17.083	-0.33	-18.12	4.37	90	45.41	44.84
2700	48.21	-3.17	1.12	-1.03	23.983	24.225	1.12	-14.99	4.29	60	46.35	45.7

6.Product appearance drawing

Product Number: **ZD 4G(CSL)W-L190**

