



TEST REPORT

Applicant: Confiabits S.R.L.
Address: 28 C/Genesis UV77 MZ36
Manufacturer: Confiabits S.R.L.
Address: 28 C/Genesis UV77 MZ36
EUT: Router
Trade Mark: Confiabits
Model Number: mt7981
Date of Receipt: Dec. 09, 2023
Test Date: Dec. 09, 2023 – Jan. 03, 2024
Date of Report: Jan. 03, 2024
Prepared By: Shenzhen DL Testing Technology Co., Ltd.
Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China
Applicable Standards: EN IEC 62311:2020,
EN 50665:2017
Test Result: Pass
Report Number: DL-20240102001-1E

Prepared (Engineer): Alisa Song

Reviewer (Supervisor): Jack Bu

Approved (Manager): Jade Yang



This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.



1. VERSION

Version No.	Date	Description
00	Jan. 03, 2024	Original

2. GENERAL INFORMATION

2.1 Description of Device (EUT)

EUT: Router

Trade Mark: Confiabits

Model Number: mt7981

Test Model: mt7981

Model Difference: N/A

Power Supply: DC 12V from adapter
MODEL: SA180-120150V

Adapter: INPUT: 100-240V~ 50/60Hz 0.6A
OUTPUT: 12.0V  1.5A 18.0W
802.11b/g/n20:2412~2472 MHz
802.11n40:2422~2462 MHz
802.11a/ac/ax/n(20):5180-5240MHz, 5250-5350, 5470-5725MHz
802.11ac/ax/n(40):5190-5230MHz, 5260-5320, 5500-5700MHz

Operation Frequency: 802.11ac/ax(80):5210MHz, 5290MHz, 5530MHz
802.11ac/ax(160):5250MHz
802.11a/n/ac(HT20):5745~5825MHz
802.11n/ac(HT40): 5755-5795MHz
802.11ac(HT80):5775MHz

Modulation Type: CCK/OFDM/DBPSK/DAPSK/OFDMA

Antenna Type: External Antenna

Antenna Gain: 5 dBi

Hardware Version: 1.0

Software Version: 1.0

Firmware: ---

Note1: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

Note2: The EUT's all information provided by client.



3 REQUIREMENT

3.1 GENERAL INFORMATION

EN 62311 Generic standard to demonstrate the compliance of electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (0 Hz–300 GHz) is to demonstrate the compliance of apparatus with the basic restrictions or reference levels on exposure of the general public related to electric, magnetic, electromagnetic fields as well as induced and contact current.

3.2 Limit

Reference levels for electric, magnetic and electromagnetic fields
(0 Hz to 300 GHz, unperturbed rms values)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (μT)	Equivalent plane wave power density S_{eq} (W/m^2)
0-1 Hz	—	$3,2 \times 10^4$	4×10^4	—
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	—
8-25 Hz	10 000	$4\,000/f$	$5\,000/f$	—
0,025-0,8 kHz	$250/f$	$4/f$	$5/f$	—
0,8-3 kHz	$250/f$	5	6,25	—
3-150 kHz	87	5	6,25	—
0,15-1 MHz	87	$0,73/f$	$0,92/f$	—
1-10 MHz	$87/f^{1/2}$	$0,73/f$	$0,92/f$	—
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375 f^{1/2}$	$0,0037 f^{1/2}$	$0,0046 f^{1/2}$	$f/200$
2-300 GHz	61	0,16	0,20	10

Notes:

1. f as indicated in the frequency range column.



3.3 Test Method

E (V/m) = (30*P*G)^{0.5}/d

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained.

3.4 Test Result

EMF Test Data						
Test Mode	Max Output Power (dBm)	Max Output Power (W)	Antenna Gain(dBi)	Electric Field (V/m)	Limit (V/m)	Result
WIFI 2.4G	15.63	0.03656	5.00	9.31	61.00	Pass
WIFI 5G	15.58	0.03614	5.00	9.26	61.00	Pass
WIFI 5.8G	13.94	0.02477	5.00	7.67	61.00	Pass

Note: The max output power(dBm) data is a reference RF report.

4 EUT PHOTOGRAPHS

Please see EMC test report(DL-20240102001-2E).

***** END OF REPORT *****