



MPE TEST REPORT

No.I22Z60641-SEM02

For

Hytera Communications Corporation Limited

PoC mobile radio

Model Name: MNC360

With

Hardware Version: V1.0.01.000.01

Software Version: V1.0.06.000.01

FCC ID: YAMMNC360

Issued Date: 2022-05-09

Note:

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Test Laboratory:

CTTL, Telecommunication Technology Labs, CAICT

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I22Z60641-SEM02	Rev.0	1st edition	2022-05-09

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1. Test Laboratory

1.1. Testing Location

Company Name:	CTTL
Address:	No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191.

1.2. Testing Environment

Temperature:	Min. = 18°C, Max. = 25°C
Relative humidity:	Min. = 30%, Max. = 70%
Ground system resistance:	< 0.5 Ω
Ambient noise & Reflection:	< 0.012 W/kg

1.3. Project Data

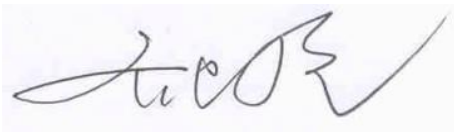
Project Leader:	Qi Dianyuan
Test Engineer:	Lin Xiaojun
Testing Start Date:	May 09, 2022
Testing End Date:	May 09, 2022

1.4. Signature



Lin Xiaojun

(Prepared this test report)



Qi Dianyuan

(Reviewed this test report)



Lu Bingsong

Deputy Director of the laboratory

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	Hytera Communications Corporation Limited
Address	Hytera Tower, Hi-Tech Industrial Park North, 9108# Beihuan Road, Nanshan District, Shenzhen, P.R.C., P 518057
City:	Shenzhen
Country:	China
Telephone:	+86 18925250460

2.2. Manufacturer Information

Company Name:	Hytera Communications Corporation Limited
Address:	Hytera Tower, Hi-Tech Industrial Park North, 9108# Beihuan Road, Nanshan District, Shenzhen, P.R.C., P 518057
City:	Shenzhen
Country:	China
Telephone:	+86 18925250460

3. Equipment under Test (EUT) and Ancillary Equipment (AE)

Description:	PoC mobile radio
Model name:	MNC360
Test device Production information:	Production unit
Frequency Bands:	GSM850/1900, WCDMA Band 2/4/5 LTE Band 2/4/5/7/12/13/17/26/41, Bluetooth, WLAN 2.4G
Tx Frequency:	824 – 849MHz (GSM850)
	1850 – 1910MHz (GSM1900)
	1850 – 1910MHz (WCDMA Band 2)
	1710 – 1755MHz (WCDMA Band 4)
	824 – 849MHz (WCDMA Band 5)
	1850 – 1910MHz (LTE Band 2)
	1710 – 1755MHz (LTE Band 4)
	824 – 849MHz (LTE Band 5)
	2500 – 2570MHz (LTE Band 7)
	699 – 716MHz (LTE Band 12)
	777 – 787MHz (LTE Band 13)
	704 – 716MHz (LTE Band 17)
	814 – 849MHz (LTE Band 26)
	2496 – 2690MHz (LTE Band 41)
	2402 – 2480MHz (Bluetooth)
	2412 – 2462MHz (WLAN 2.4G)

4. Test Methodology

FCC Part 2 (Section 2.1091 and 1.1310)

447498 D03 Supplement C Cross-Reference v01

IEEE C95.1-1992

5. General Description

5.1. Evaluation Distance

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.

5.2. Evaluation Method

Evaluation Method

$$P_d = (P_{out} * G) / (4 * \pi * R^2)$$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

Co-transmitting Evaluation Method

Conclusion:

$$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

6. Assessment Result

6.1. Reference Levels Limits

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density

6.2. Reference Levels Evaluation

Antenna band	Maximum gain (dBi)	Tune-up Power (dBm)
GSM850	2.50	25.99
GSM1900	4.00	24.74
WCDMA Band 2	4.00	25.00
WCDMA Band 4	4.00	25.00
WCDMA Band 5	2.50	25.00
LTE Band 2	4.00	25.00
LTE Band 4	4.00	25.00
LTE Band 5	2.50	25.00
LTE Band 7	4.00	25.00
LTE Band 12	2.50	25.00
LTE Band 13	2.50	25.00
LTE Band 17	2.50	25.00
LTE Band 26	2.50	25.00
LTE Band 41	4.00	25.00
Bluetooth	2.00	10.00
WLAN 2.4G	2.00	18.00

Power Density Calculations				
Evaluation Mode	Maximum E.I.R.P. (mW)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Conclusion
GSM850	28.49	0.141	0.55	Pass
GSM1900	28.74	0.149	1.00	Pass
WCDMA Band 2	29.00	0.158	1.00	Pass
WCDMA Band 4	29.00	0.158	1.00	Pass
WCDMA Band 5	27.50	0.112	0.55	Pass
LTE Band 2	29.00	0.158	1.00	Pass
LTE Band 4	29.00	0.158	1.00	Pass
LTE Band 5	27.50	0.112	0.55	Pass
LTE Band 7	29.00	0.158	1.00	Pass
LTE Band 12	27.50	0.112	0.47	Pass
LTE Band 13	27.50	0.112	0.52	Pass
LTE Band 17	27.50	0.112	0.47	Pass
LTE Band 26	27.50	0.112	0.54	Pass
LTE Band 41	29.00	0.158	1.00	Pass
Bluetooth	12.00	0.003	1.00	Pass
WLAN 2.4G	20.00	0.020	1.00	Pass

Co-transmitting Power Density Calculations			
Co-transmitting Mode	Co-transmitting Power density	Limit	Conclusion
GSM850 + Bluetooth	0.259	1	Pass
GSM1900 + Bluetooth	0.152	1	Pass
WCDMA Band 2 + Bluetooth	0.161	1	Pass
WCDMA Band 4 + Bluetooth	0.161	1	Pass
WCDMA Band 5 + Bluetooth	0.207	1	Pass
LTE Band 2 + Bluetooth	0.161	1	Pass
LTE Band 4 + Bluetooth	0.161	1	Pass
LTE Band 5 + Bluetooth	0.207	1	Pass
LTE Band 7 + Bluetooth	0.161	1	Pass
LTE Band 12 + Bluetooth	0.241	1	Pass
LTE Band 13 + Bluetooth	0.218	1	Pass
LTE Band 17 + Bluetooth	0.241	1	Pass
LTE Band 26 + Bluetooth	0.210	1	Pass
LTE Band 41 + Bluetooth	0.161	1	Pass
GSM850 + WLAN 2.4G	0.276	1	Pass
GSM1900+ WLAN 2.4G	0.169	1	Pass
WCDMA Band 2 + WLAN 2.4G	0.178	1	Pass
WCDMA Band 4 + WLAN 2.4G	0.178	1	Pass
WCDMA Band 5 + WLAN 2.4G	0.224	1	Pass
LTE Band 2 + WLAN 2.4G	0.178	1	Pass
LTE Band 4 + WLAN 2.4G	0.178	1	Pass
LTE Band 5 + WLAN 2.4G	0.224	1	Pass
LTE Band 7 + WLAN 2.4G	0.178	1	Pass
LTE Band 12 + WLAN 2.4G	0.258	1	Pass
LTE Band 13 + WLAN 2.4G	0.235	1	Pass
LTE Band 17 + WLAN 2.4G	0.258	1	Pass
LTE Band 26 + WLAN 2.4G	0.227	1	Pass
LTE Band 41 + WLAN 2.4G	0.178	1	Pass

Conclusion: According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

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