

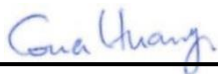
RF EXPOSURE EVALUATION REPORT

FCC ID : TV7EG25KN
Equipment : KNOT Embedded LTE4
Brand Name : MikroTik
Model Name : EG25-G&KNe
Marketing Name : KNOT Embedded LTE4
Applicant : Mikrotikls SIA
Unijas iela 2, Riga, LV-1039 LATVIA
Manufacturer : Mikrotikls SIA
Unijas iela 2, Riga, LV-1039 LATVIA
Standard : 47 CFR Part 2.1091

We, SPORTON INTERNATIONAL INC has been evaluated this product in accordance with 47 CFR Part2.1091 and it complies with applicable limit.

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 3786) and the FCC designation No. TW3786 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC evaluation.

The results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. Laboratory, the test report shall not be reproduced except in full



Approved by: Cona Huang / Deputy Manager



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History of this test report

Report No.	Version	Description	Issued Date
FA542203	Rev. 01	Initial issue of report	Jul. 11, 2025

**1. Description of Equipment Under Test (EUT)**

Product Feature & Specification	
EUT Type	KNOT Embedded LTE4
Brand Name	MikroTik
Model Name	EG25-G&KNe
Marketing Name	KNOT Embedded LTE4
FCC ID	TV7EG25KN
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz Bluetooth: 2400 MHz ~ 2483.5 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ (16QAM uplink) LTE: QPSK, 16QAM Bluetooth LE
HW Version	r2
SW Version	RouterOS v7

Reviewed by: Jason Wang**Report Producer: Daisy Peng**

**2. Maximum RF average output power among production units**

Band	Tune-up (dBm)
GSM850	25.81
GSM1900	22.81
WCDMA II	25
WCDMA IV	25
WCDMA V	25
LTE B2	25
LTE B4	25
LTE B5	25
LTE B7	25
LTE B12	25
LTE B13	25
LTE B25	25
LTE B26	25
LTE B38	25
LTE B41	25
BLE	2

3. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna



4. Radio Frequency Radiation Exposure Evaluation

4.1. Standalone Power Density Calculation

Band	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Maximum PG (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)	Power Density / Limit
GSM 850 (1 Tx slot)	2.00	25.81	27.8	76.03	0.015	0.549	0.028
GSM 1900 (1 Tx slot)	5.00	22.81	27.8	76.03	0.015	1.000	0.015
WCDMA Band 2	5.00	25.00	30.0	1000.00	0.199	1.000	0.199
WCDMA Band 4	4.50	25.00	29.5	891.25	0.177	1.000	0.177
WCDMA Band 5	2.00	25.00	27.0	501.19	0.100	0.536	0.186
LTE Band 2	5.00	25.00	30.0	1000.00	0.199	1.000	0.199
LTE Band 4	4.50	25.00	29.5	891.25	0.177	1.000	0.177
LTE Band 5	2.00	25.00	27.0	501.19	0.100	0.549	0.182
LTE Band 7	3.50	25.00	28.5	707.95	0.141	1.000	0.141
LTE Band 12	0.00	25.00	25.0	316.23	0.063	0.466	0.135
LTE Band 13	1.50	25.00	26.5	446.68	0.089	0.518	0.172
LTE Band 25	5.00	25.00	30.0	1000.00	0.199	1.000	0.199
LTE Band 26	2.00	25.00	27.0	501.19	0.100	0.543	0.184
LTE Band 38	3.50	25.00	28.5	707.95	0.141	1.000	0.141
LTE Band 41	3.50	25.00	28.5	707.95	0.141	1.000	0.141
Bluetooth	4.70	2.00	6.7	4.68	0.001	1.000	0.001

4.2. Collocated Power Density Calculation

WWAN Power Density / Limit	Bluetooth Power Density / Limit	Σ (Power Density / Limit) of WWAN+Bluetooth
0.199	0.001	0.2

Note:

- Σ (Power Density / Limit): This is a summation of [(power density for each transmitter/antenna included in the simultaneous transmission)/ (corresponding MPE limit)], for WWAN + Bluetooth.
- Considering the WWAN module collocation with the Bluetooth transmitter of the EIRP performance listed in the table above, the aggregated (power density /limit) is smaller than 1, and MPE of 2 collocated transmitters is compliant

Conclusion:

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