RF Exposure Evaluation Report

Report No.:	JYTSZ-R12-2400006
Applicant:	Septier Communication Ltd.
Address of Applicant:	35 Efal st. Petah Tikwa, Israel

Equipment Under Test (EUT)

Product Name:	MIDI SYSTEM
Model No.:	MIDI SYSTEM REV1
Trade mark:	N/A
FCC ID:	2BDKO-SEPTIER
Applicable standards:	FCC CFR Title 47 Part 2 (§2.1091)
Date of sample receipt:	28 Dec., 2023
Date of Test:	29 Dec., 2023 to 24 Jan., 2024
Date of report issue:	04 Feb., 2024
Test Result:	PASS

Project by:	Project Engineer	***Date:***	*04 Feb., 2024*
Reviewed by:	Senior Engineer	***Date:***	*04 Feb., 2024*
Approved by:	Manager	***Date:***	*04 Feb., 2024*

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

1 Version

Version No.	Date	Description
00	*24 Jan., 2024*	*Original*
01	*31 Jan., 2024*	*Updated page 4 of the report*
02	*04 Feb., 2024*	*Updated page 4 of the report*

2 Contents

3 General Information

3.1 Client Information

Applicant:	Septier Communication Ltd.
Address:	35 Efal st. Petah Tikwa, Israel
Manufacturer/Factory:	Septier Communication Ltd.
Address:	35 Efal st. Petah Tikwa, Israel

3.2 General Description of E.U.T.

Product Name:	MIDI SYSTEM	
Model No.:	MIDI SYSTEM REV1	
Operation Frequency:	GSM850:	869.2 MHz-893.8 MHz
	PCS1900:	1930.2 MHz -1989.8 MHz
	WCDMA band II:	1932.4 MHz – 1987.6 MHz
	WCDMA band IV:	2112.4 MHz – 2132.6 MHz
	WCDMA band V:	871.4 MHz – 891.6 MHz
	LTE band 2:	1930 MHz - 1990 MHz
	LTE band 25:	1930 MHz - 1995 MHz
	LTE band 26:	859 MHz - 894 MHz
	LTE band 66:	2110 MHz - 2180 MHz
Modulation technology:	GSM:GMSK WCDMA:QPSK LTE QPSK,16QAM	
Antenna Type:	External Antenna	
Antenna gain:	GSM 850:	ANT1: 3.14 dBi (declare by Applicant)
		ANT2: 3.14 dBi (declare by Applicant)
	PCS 1900:	ANT1: 1.2 dBi (declare by Applicant)
		ANT2: 1.2 dBi (declare by Applicant)
	WCDMA B2:	ANT1: 1.2 dBi (declare by Applicant)
		ANT2: 1.2 dBi (declare by Applicant)
	WCDMA B4:	ANT1: 1.2 dBi (declare by Applicant)
		ANT2: 1.2 dBi (declare by Applicant)
	WCDMA B5:	ANT1: 3.14 dBi (declare by Applicant)
		ANT2: 3.14 dBi (declare by Applicant)
	LTE B2:	ANT1: 1.2 dBi (declare by Applicant)
		ANT2: 1.2 dBi (declare by Applicant)
	LTE B25:	ANT1: 1.2 dBi (declare by Applicant)
		ANT2: 1.2 dBi (declare by Applicant)
	LTE B26:	ANT1: 3.14 dBi (declare by Applicant)
		ANT2: 3.14 dBi (declare by Applicant)
	LTE B66:	ANT1: 1.2 dBi (declare by Applicant)
		ANT2: 1.2 dBi (declare by Applicant)
Test Sample Condition:	The test samples were provided in good working order with no visible defects.	

3.3 Operating Modes

Operating mode	Detail description
GSMmode	Keep the EUT in continuously transmitting in GSM 850 and PCS 1900 mode
WCDMAmode	Keep the EUT in continuously transmitting inWCDMA Band 2/4/5 mode
LTE mode	Keep the EUT in continuously transmitting in LTE Band 2/25/26/66 mode

3.4 Additions to, deviations, or exclusions from the method

No

3.5 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

- **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

3.6 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.
Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.
Tel: +86-755-23118282, Fax: +86-755-23116366
Email: info-JYTee@lets.com, Website: http://jyt.lets.com

4 Technical Requirements Specification

4.1 Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

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

4.2 Test Procedure

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna

4.3 Result

Frequency (MHz)	Maximum Output power (dBm)	Maximum Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Result (mW/cm^2)	Limits for General Population/ Uncontrolled Exposure (mW/cm^2)
GSM							
GSM850	20.38	109.144	3.14	2.06	20.00	0.045	0.55
PCS1900	20.89	122.744	1.2	1.32	20.00	0.032	1.0
WCDMA							
WCDMA Band II	21.33	135.831	1.2	1.32	20.00	0.036	1.0
WCDMA Band VI	21.61	144.877	1.2	1.32	20.00	0.038	1.0
WCDMA Band V	20.68	116.950	3.14	2.06	20.00	0.048	0.55
LTE							
LTE Band2	19.65	92.257	1.2	1.32	20.00	0.024	1.0
LTE Band25	19.79	95.280	1.2	1.32	20.00	0.025	1.0
LTE Band26(22H)	21.39	137.721	3.14	2.06	20.00	0.056	0.54
LTE Band26(90S)	21.58	143.880	3.14	2.06	20.00	0.059	0.54
LTE Band66	19.08	80.910	1.2	1.32	20.00	0.021	1.0

Note: Just the worst case mode was shown in report.

4.4 Conclusion

The device is exempt from the SAR test and satisfies RF exposure evaluation.

------End of report------