

Prüfbericht-Nr.: <i>Test report No.:</i>	50049979 004	Auftrags-Nr.: <i>Order No.:</i>	164063836	Seite 1 von 3 <i>Page 1 of 3</i>
Kunden-Referenz-Nr.: <i>Client reference No.:</i>	N/A	Auftragsdatum: <i>Order date.:</i>	17.05.2016	
Auftraggeber: <i>Client:</i>	Binatone Electronics International Ltd. Floor 23A, 9 Des Voeux Road West, Sheung Wan, Hong Kong			
Prüfgegenstand: <i>Test item:</i>	Wi-Fi Baby Monitor System			
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	BabyNursery7 PU (motorola)			
Auftrags-Inhalt: <i>Order content:</i>	FCC and IC approval			
Prüfgrundlage: <i>Test specification:</i>	CFR47 FCC Part 2: Section 2.1091 CFR47 FCC Part 1: Section 1.1310 FCC KDB Publication 447498 v06 FCC KDB Publication 865664 D02 v01r02 RSS-102 Issue 5 March 2015			
Wareneingangsdatum: <i>Date of receipt:</i>	24.05.2016	Please refer to photo documents		
Prüfmuster-Nr.: <i>Test sample No.:</i>	1601078			
Prüfzeitraum: <i>Testing period:</i>	12.06.2016 - 30.06.2016			
Ort der Prüfung: <i>Place of testing:</i>	Accurate Technology Co., Ltd.			
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.			
Prüfergebnis*: <i>Test result*:</i>	Pass			
geprüft von / tested by:		kontrolliert von / reviewed by:		
 03.08.2016 Ryan Yang / Senior Project Engineer		 05.08.2016 Owen Tian / Technical Certifier		
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>
Sonstiges / Other:				
Only evaluate the RF Exposure in this test report. FCC ID: VLJ-BN7PU IC: 4522A-BN7PU HVIN: BabyNursery7 PU				
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged:</i>		
Legend:	1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n) 1 = very good P(ass) = passed a.m. test specifications(s)	2 = gut 2 = good	3 = befriedigend F(ail) = entspricht nicht o.g. Prüfgrundlage(n) 3 = satisfactory F(ail) = failed a.m. test specifications(s)	4 = ausreichend N/A = nicht anwendbar 4 = sufficient N/A = not applicable
				5 = mangelhaft N/T = nicht getestet 5 = poor N/T = not tested
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>				

1 Safety Human Exposure

1.1 Radio Frequency Exposure Compliance

1.1.1 Electromagnetic Fields

RESULT:**Pass**

Test Specification

Test standard

: CFR47 FCC Part 2: Section 2.1091
CFR47 FCC Part 1: Section 1.1310
FCC KDB Publication 447498 v06
FCC KDB Publication 865664 D02 v01r02
OET Bulletin 65 (Edition 97-01)
RSS-102 Issue 5 March 2015

➤ FCC requirements

FCC requirement: Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 20cm normally can be maintained between the user and the device.

MPE Calculation Method according to OET Bulletin 65Power Density: $S_{(mW/cm^2)} = PG/4\pi R^2$ or $EIRP/4\pi R^2$

Where:

S = power density (mW/cm²)

P = power input to the antenna (mW)

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

R = distance to the center of radiation of the antenna (cm)

The nominal conducted output power specified:

2.4GHz wireless: 19.00 dBm (Tolerance: ± 2 dB)

802.11b/g/n(HT20): 18.00 dBm (Tolerance: ± 2 dB)

From the peak RF output power, the minimum mobile separation distance, d=20 cm, as well as the antenna gain (Max. 0.0 dBi for 2.4GHz wireless and 0.0 dBi 802.11b/g/n(HT20)), the RF power density can be calculated as below:

For 2.4GHz wireless: $S_{(mW/cm^2)} = PG/4\pi R^2 = 0.025$ mW/cm²For 802.11b/g/n(HT20): $S_{(mW/cm^2)} = PG/4\pi R^2 = 0.020$ mW/cm²

Limits for Maximum Permissible Exposure (MPE) according to FCC Part 1.1310:1.0 mW/cm²

For Simultaneous transmitting of 2.4GHz wireless and 802.11b/g/n(HT20):

According to 865664D02 2.2 d) 1):

The sum of the ratios of the spatially averaged results to the applicable frequency dependent MPE limits =
 $0.025/1 + 0.020/1 = 0.045 < 1$

➤ **IC requirements:** The EUT shall comply with the requirement of RSS-102 section 2.5.2.

Exemption from Routine Evaluation Limits – RF Exposure Evaluation

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz;

- RF exposure evaluation exempted power for 2.4GHz wireless: 2.676 W
- RF exposure evaluation exempted power for 802.11b/g/n(HT20): 2.684 W

The nominal conducted output power specified:2.4GHz wireless: 19.00 dBm (Tolerance: ± 2 dB)802.11b/g/n(HT20): 18.00 dBm (Tolerance: ± 2 dB)

Antenna Gain: 0.0 dBi for 2.4GHz wireless

Antenna Gain: 0.0 dBi for 802.11b/g/n(HT20)

The Max. e.i.r.p. for 2.4GHz wireless: 21.00 dBm = 0.126 W

The Max. e.i.r.p. for 802.11b/g/n(HT20): 20.00 dBm = 0.100 W

Both e.i.r.p. for the 2.4GHz wireless and 802.11b/g/n(HT20) are less than the RF exposure evaluation exempted power. So RF exposure evaluation is not required.

“RF Radiation Exposure Statement Caution: This Transmitter must be installed to provide a separation distance of at least 20 cm from all persons.”