

# **RF EXPOSURE REPORT**

To:	NEW BRIGHT INDUSTRIAL CO., LTD.		To:	-
Attn:	Eric Kwok		Attn:	-
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Folder No.:	NBT	-17M	A258ETHS-B	
Factory name:				
Location:				
Product:	e M	14VR Iodel N	wifi camera o.: GF614C	
			Sample No:	HK170330/024
			Date of Receipt:	March 30, 2017
	<b>Q</b>		Test date:	April 26, 2017 to May 05, 2017
			Requirement:	FCC Part 2 (section 2.1091)
N.			Method:	KDB 447498 D01 IEEE C95.1
			FCC ID:	G6DGF614C
The results <b>g</b>	given in this report are related to the tes	ted sp	ecimen of the des	cribed electrical apparatus.
CONCLUSION:	The submitted sample was found to <u>CC</u>	MPLY	with requirement	of FCC Part 15 Subpart C.
	Authorized	Signat	ure:	
Vin				
Reviewed by: Kin	nko Wong	Approv	red by: Law Man kit	
Date: May 24, 2017 Date: May 24, 2017				

BUREAU VERITAS HONG KONG LIMITED – Kowloon Bay Office 1/F Pacific Trade Centre, 2 Kai Hing Road, Kowloon Bay, Kowloon,HONG KONG Tel: +852 2331 0888 Fax: +852 2331 0889 www.cps.bureauveritas.com

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# **Result Summary**

RF EXPOSURE EVALUATION				
Requirement: FCC Part 2 (Section 2.1091)				
Required Itom	Mathad	Result		
Required item	Method	Pass	Failed	
	KDB 447498 D01			
RF EXPOSURE EVALUATION	IEEE C95.1			

**Report Revision & Sample Re-submit History:** 



#### Location of the test laboratory

Radiated and Conducted emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.10 - 2013. An Open Area Test Site and Full Anechoic Chamber are set up for investigation and located at :

#### BUREAU VERITAS HONG KONG LIMITED, EMC CENTRE

No. 2106-2107, 21/F., Westin Centre, 26 Hung To Road, Kwun Tong, Kowloon, Hong Kong

#### List of measuring equipment

Radiated Emission						
EQUIPMENT	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DATE	CAL. DUE DATE	
EMI TEST RECEIVER	R&S	ESCI	100379	22-FEB-2017	21-FEB-2018	
SIGNAL ANALYZER 40GHZ	R&S	FSV 40	100977	16-AUG-2016	15-AUG-2017	
BILOG ANTENNA	SCHAFFNER	CBL6112D	25229	27-FEB-2016	26-FEB-2018	
OPEN AREA TEST SITE	BVCPS	N/A	N/A	18-JUN-2016	17-JUN-2017	
ANECHOIC CHAMBER	ALBATROSS	M-CDC	80374004499B	11-MAY-2016	10-MAY-2017	
<b>BICONICAL ANTENNA</b>	R&S	HK116	100179	14-APR-2016	13-APR-2018	
LOG-PERIODIC DIPOLE ARRAY ANTENNA	R&S	HL223	832369/001	07-APR-2016	06-APR-2018	
LOOP ANTENNA	ETS-LINDGREN	6502	00102266	06-NOV-2015	05-NOV-2017	
HORN ANTENNA (1-18GHZ)	SCHWARZBECK	BBHA9120D	9120D-692	05-NOV-2016	04-NOV-2018	
HORN ANTENNA (7.5 – 18GHZ)	SCHWARZBECK	HWRD 750	00015	17-JUN-2016	16-JUN-2018	
WIDEBAND HORN ANTENNA	STEATITE	QWH-SL-18-40- K-SG	12688	03-SEP-2015	02-SEP-2017	
COAXIAL CABLE	SUHNER	N/A	N/A	06-JAN-2017	05-JAN-2018	
COAXIAL CABLE	HUBER + SUHNER	RG214	N/A	04-OCT-2016	03-OCT-2017	

#### **Measurement Uncertainty**

MEASUREMENT	FREQUENCY	UNCERTAINTY
	9kHz to 30MHz	4.2dB
	30MHz to 200MHz	4.5dB
Radiated emissions	200MHZ to 1GHz	5.6dB
	1GHz to 18GHz	4.7dB
	18GHz to 40GHz	5.2dB
Maximum Peak Conducted Output Power	30MHz to 18GHz	2.0dB

#### **Remarks:-**

N/A : Not Applicable or Not Available The measurement instrumentation uncertainty would be taking into consideration on each of the test result

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# Equipment Under Test [EUT]

Description of Sample.	
Model Name:	614VR wifi camera
Model Number:	GF614C
Rating:	5Vd.c.

#### **Description of EUT Operation:**

The Equipment Under Test (EUT) is a NEW BRIGHT INDUSTRIAL CO., LTD of Digital Device. It is a transceiver which operating at 2417MHz.The EUT transmit while received the corresponding signal, Modulation by IC, and type is GFSK.

#### Antenna Requirement (Section 15.203)

The EUT is use of a permanently antenna. The antenna consists of 7cm long wire. It is soldered on the PCB. The antenna is not replaceable or user serviceable. The requirements of S15.203 are met. There are no deviations or exceptions to the specifications.

#### Photo of Antenna



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#### Limits for Maximum Permissible Exposure (MPE):

Frequency Range	Power Density	Average Time
[MHz]	[mW/cm <sup>2</sup> ]	[minutes]
300 – 1,500	F/1500	30
1,500 - 100,000	1.0	30

# Calculation Formula:

 $\begin{array}{l} \mathsf{P}_{\mathsf{d}} = (\mathsf{P}_{\mathsf{out}} \mathrel{x} \mathsf{G}) \mathrel{/} (4 \mathrel{x} \pi \mathrel{x} \mathsf{r}^2) \\ \mathsf{Where:} \\ \mathsf{P}_{\mathsf{d}} = \mathsf{power \ density \ in \ mW/cm^2} \\ \mathsf{P}_{\mathsf{out}} = \mathsf{output \ power \ to \ antenna \ in \ mW} \\ \mathsf{G} = \mathsf{gain \ of \ antenna \ in \ linear \ scale} \\ \pi = 3.1416 \\ \mathsf{r} = \mathsf{distance \ between \ observation \ point \ and \ center \ of \ the \ radiator \ in \ cm} \end{array}$ 

## Calculation Result of Maximum Conducted Power:

Frequency Band	Maximum Power	Antenna Gain	Distance	Power Density	Limit
(MHz)	(mW)	(dBi)	(cm)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )
2417	101.0	2	20	0.031749	1.0

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

#### \*\*\*\*\* End of Report \*\*\*\*\*