RADIO TEST REPORT
FCC ID: RW3RFS4

Product :	Broncolor RFS 3
Trade Mark :	broncolor
Model Name :	RFS 3C
Family Model :	RFS 3N,RFS 3S, RFS 3F, RFS 3L
Report No. :	S25031304908001

Prepared for

Bron Elektronik AG

Hagmattstr. 7, Allschwil 1,4123 Switzerland

Prepared by

Shenzhen NTEK Testing Technology Co., Ltd.

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TEST RESULT CERTIFICATION

Applicant's name ..... :	Bron Elektronik AG
Address..... :	Hagmattstr. 7, Allschwil 1,4123 Switzerland
Manufacturer's Name ..... :	Bron Elektronik AG
Address..... :	Hagmattstr. 7, Allschwil 1,4123 Switzerland
Factory's name	GODOX Photo Equipment Co.,Ltd
Address..... :	4th Floor of Building 1, 1st to 4 th Floor of Building 2, 4th Floor of Building 3,1st to 4th Floor of Building 4, Yaochuan Industrial Zone, Tangwei Community, Fuhai Street, Bao'an District, Shenzhen 518103, China
Product description	
Product name.....:	Broncolor RFS 3
Model and/or type reference :	RFS 3C
Family Model.....:	RFS 3N, RFS 3S, RFS 3F, RFS 3L
Rating(s) ..... :	DC 3.7V from Battery
Standards ..... :	FCC Part15.249
Test procedure	ANSI C63.10-2020+Cor 1-2023

This device described above has been tested by NTEK, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Sample Number.....:	S250313049009
Date of Test.....:	
Date (s) of performance of tests.....:	Mar. 13. 2025 ~ July. 10. 2025
Date of Issue.....:	July. 10. 2025
Test Result.....:	**Pass**

Prepared By :	Joe Yan	(Project Engineer)
Reviewed By :	Aaron Cheng	(Supervisor)
Approved By :	Alex Li	(Manager)

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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15, Subpart C (15.249)			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	Pass	
15.203	Antenna Requirement	Pass	
15.249 15.209	Radiated Spurious Emission	Pass	
15.249(2)	Frequency Tolerance	N/A	
15.249(a)	Fundamental Measurement	Pass	
15.205	Band Edge Emission	Pass	
15.249	Occupied Bandwidth	Pass	

1.1 TEST FACILITY

Shenzhen NTEK Testing Technology Co., Ltd
Add. : No. 24 Xinfa East Road, Xiangshan Community, Xinqiao Street, Baoan District, Shenzhen, Guangdong, People's Republic of China
FCC FRN Registration No.:463705; IC Registration No.:9270A-1
CNAS Registration No.:L5516

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y ± U**，where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**，providing a level of confidence of approximately **95** %。

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Broncolor RFS 3
Trade Mark	broncolor
Model Name	RFS 3C
Family Model	RFS 3N, RFS 3S, RFS 3F, RFS 3L
Model Difference	All models have the same circuit, structure and material, except for the different positions of the hot boot tentacles at the bottom.
Product Description	The EUT is a Broncolor RFS 3 Operation Frequency: 2403-2481MHz Modulation Type: MSK Antenna Designation: Ceramic Antenna Antenna Gain(Peak) 5.46dBi Based on the application, features, or specification exhibited in User's Manual. More details of EUT technical specification, please refer to the User's Manual.
Channel List	Please refer to the Note 2.
Rating	DC 5V⎓2A from Type-C port or DC 3.7V from battery
Battery	DC 3.7V 850mAh 3.145Wh
Hardware version:	20240728C01
Firmware version:	N/A
Software version:	V1.0

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.

Channel	Frequency(MHz)	Channel	Frequency(MHz)	Channel	Frequency(MHz)
1	**2403**	34	2463	67	2429
2	2419	35	2479	68	2445
3	2435	36	2417	69	2461
4	2451	37	2433	70	2477
5	2467	38	2449	71	2415
6	2405	39	2465	72	2431
7	2421	**40**	**2481**	73	2447
8	2437	**41**	**2403**	74	2463
9	2453	42	2419	75	2479
10	2469	43	2435	76	2417
11	2407	44	2451	77	2433
12	2423	45	2467	78	2449
13	2439	46	2405	79	2465
14	2455	47	2421	**80**	**2481**
15	2471	48	2437	**81**	**2403**
16	2409	49	2453	82	2419
17	2425	50	2469	83	2435
18	**2441**	51	2407	84	2451
19	2457	52	2423	85	2467
20	2473	53	2439	86	2405
21	2411	54	2455	87	2421
22	2427	55	2471	88	2437
23	2443	56	2409	89	2453
24	2459	57	2425	90	2469
25	2475	**58**	**2441**	91	2407
26	2413	59	2457	92	2423
27	2429	60	2473	**93**	**2439**
28	2445	61	2411	94	2455
29	2461	62	2427	**95**	**2471**
30	2477	63	2443	96	2409
31	2415	64	2459	97	2425
32	2431	65	2475	98	2441
33	2447	66	2413	99	2457

Note: 1. This product supports frequencies of 2403-2481MHz, divided into three segments: channels 1-40, channels 41-80, and channels 81-99. The channel allocation of this product is manually selected for better anti-interference performance when multiple machines are used together. The difference is that the code is different

2. Tested 9 channels, including channel 1, channel 18, channel 40, channel 41, channel 58, channel 80, channel 81, channel 93, and channel 95

3.

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	N/A	Ceramic Antenna	N/A	5.46	Antenna

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	TX 2403MHz(CH1)
Mode 2	TX 2441MHz (CH18)
Mode 3	TX 2481MHz(CH40)
Mode 4	TX 2403MHz(CH41)
Mode 5	TX 2441MHz (CH58)
Mode 6	TX 2481MHz(CH80)
Mode 7	TX 2403MHz(CH81)
Mode 8	TX 2439MHz (CH93)
Mode 9	TX 2471MHz(CH95)
Mode 10	charge

For Radiated Spurious Emission	
Pretest Mode	Description
Mode 1	TX 2403MHz(CH1)
Mode 2	TX 2441MHz (CH18)
Mode 3	TX 2481MHz(CH40)
Mode 4	TX 2403MHz(CH41)
Mode 5	TX 2441MHz (CH58)
Mode 6	TX 2481MHz(CH80)
Mode 7	TX 2403MHz(CH81)
Mode 8	TX 2439MHz (CH93)
Mode 9	TX 2471MHz(CH95)

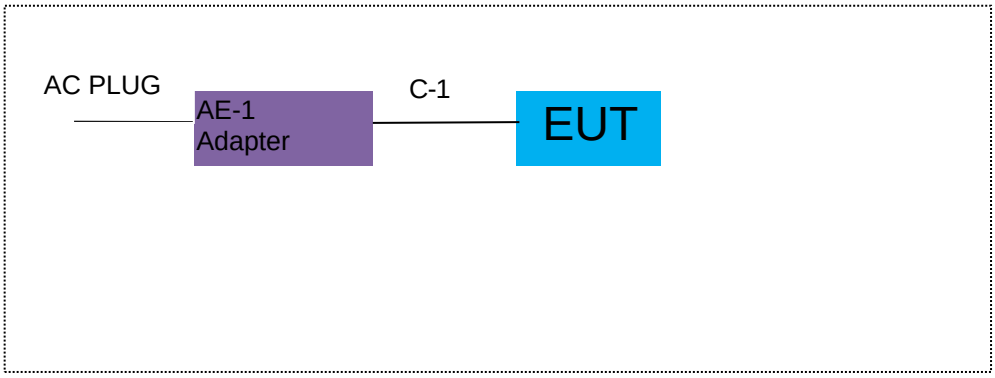
For Conducted Emission	
Final Test Mode	Description
Mode 1	TX 2403MHz(CH1)
Mode 2	TX 2441MHz (CH18)
Mode 3	TX 2481MHz(CH40)
Mode 4	TX 2403MHz(CH41)
Mode 5	TX 2441MHz (CH58)
Mode 6	TX 2481MHz(CH80)
Mode 7	TX 2403MHz(CH81)
Mode 8	TX 2439MHz (CH93)
Mode 9	TX 2471MHz(CH95)
Mode 10	charge

Note:

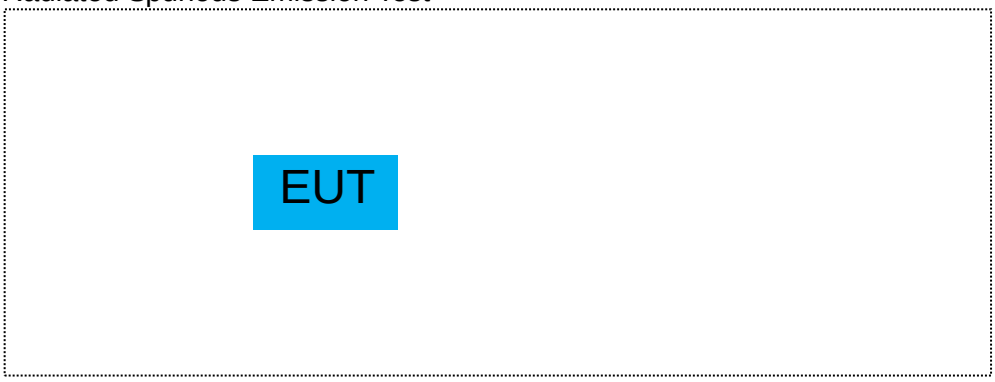
(1) The measurements are performed at the highest, middle, lowest available channels.

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Conducted Emission Mode



Radiated Spurious Emission Test



2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
EUT	Broncolor RFS 3	broncolor	RFS 3C	N/A	N/A
AE-1	Adapter	ktec	KSA29B0500200D5	N/A	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length	Note
C-1	Type -C Cable	NO	NO	1.0m	

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in『Length』column.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4440A	MY41000130	2025.04.24	2026.04.23	1 year
2	Spectrum Analyzer	Agilent	N9020A	MY49100060	2025.04.17	2026.04.16	1 year
3	Spectrum Analyzer	R&S	FSV40	101417	2025.04.17	2026.04.16	1 year
4	Test Receiver	R&S	ESPI7	101318	2025.04.17	2026.04.16	1 year
5	Bilog Antenna	TESEQ	CBL6111D	31216	2025.04.17	2026.04.16	1 year
6	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2024.04.26	2027.04.25	3 year
7	Horn Antenna	SCHWARZBECK	BBHA 9120 D	2816	2024.05.12	2027.05.11	3 year
8	Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	803	2024.05.12	2027.05.11	3 year
9	Amplifier	EMC	EMC051835 SE	980246	2025.04.17	2026.04.16	1 year
10	Active Loop Antenna	SCHWARZBECK	FMZB 1519 B	055	2024.05.17	2027.05.16	3 year
11	Power Meter	DARE	RPR3006W	15I00041SNO84	2025.04.17	2026.04.16	1 year
12	Test Cable (9KHz-30MHz)	N/A	R-01	N/A	2023.05.06	2026.05.05	3 year
13	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2023.05.06	2026.05.05	3 year
14	High Test Cable(1G-40GHz)	N/A	R-03	N/A	2023.05.06	2026.05.05	3 year
15	Filter	TRILTHIC	2400MHz	29	2024.04.26	2027.04.25	3 year
16	temporary antenna connector (Note)	NTS	R001	N/A	N/A	N/A	N/A

Note:
We will use the temporary antenna connector (soldered on the PCB board) When conducted test
And this temporary antenna connector is listed within the instrument list

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2025.04.14	2026.04.16	1 year
2	LISN	R&S	ENV216	101313	2025.04.16	2026.04.15	1 year
3	LISN	SCHWARZBECK	NNLK 8129	8129245	2025.04.16	2026.04.15	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2024.04.26	2027.04.25	3 year
5	Test Cable (9KHz-30MHz)	N/A	C01	N/A	2023.05.06	2026.05.05	3 year
6	Test Cable (9KHz-30MHz)	N/A	C02	N/A	2023.05.06	2026.05.05	3 year
7	Test Cable (9KHz-30MHz)	N/A	C03	N/A	2023.05.06	2026.05.05	3 year

Note: Each piece of equipment is scheduled for calibration once a year except the Test Cable which is scheduled for calibration every 3 years.

Measurement Software

Item	Manufacturer	Software Name	Software Version	Description
1	MWRFtest	MTS 8310 2.4GHz/5GHz	2.0	RF Conducted Test
2	Farad	EZ-EMC_RE	AIT-03A	RadiatedTest
3	raditeq	RadiMation	2023.1.3	RadiatedTest
4	Farad	EZ-EMC_CE	AIT-03A	AC Conducted Test

3. ANTENNA REQUIREMENT

3.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

3.2 EUT ANTENNA

The EUT antenna is permanent attached Ceramic antenna(Gain:5.46 dBi). It comply with the standard requirement.

3.3 CONDUCTED EMISSION MEASUREMENT

3.3.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

Frequency(MHz)	Conducted Emission Limit	
	Quasi-peak	Average
0.15-0.5	66-56*	56-46*
0.5-5.0	56	46
5.0-30.0	60	50

Note: 1. *Decreases with the logarithm of the frequency
2. The lower limit shall apply at the transition frequencies
3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.3.2 TEST PROCEDURE

a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.
Margin=Measure-ment-Limits, Measure-ment=Reading level+Correct Factor

3.3.3 DEVIATION FROM TEST STANDARD

No deviation