



RF Exposure Evaluation

FCC ID: 2BE9R-FILAPULSE

1. Client Information

Applicant	:	Shenzhen Kushang Industry Technology Co.,Ltd
Address	:	410 Huafeng International Electronic Innovation Park, Yintian, Xixiang, Bao'an District, Shenzhen, China
Manufacturer	:	Shenzhen Kushang Industry Technology Co.,Ltd
Address	:	410 Huafeng International Electronic Innovation Park, Yintian, Xixiang, Bao'an District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Smart watch	
Model(s) No.	:	FILA Pulse, FILA TalkFit, FILA Apex, FILA Vibe, FILA Stride, FILA Aura, FILA Quest K10	
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is appearance color.	
Product Description	:	Operation Frequency:	Bluetooth 5.2: 2402MHz~2480MHz
	:	Number of Channel:	79 channels for Bluetooth(BR+EDR) 40 channels for Bluetooth LE
	:	Antenna Gain:	0dBi Wire Antenna
	:	Modulation Type: Bluetooth(BR+EDR)	GFSK, Pi/4-DQPSK, 8-DPSK
	:	Modulation Type: Bluetooth LE	GFSK
Power Supply	:	USB Input: DC 5V/0.1A DC 3.7V 205mAh 0.758Wh Rechargeable Li-ion battery	
Software Version	:	V1.0	
Hardware Version	:	V1.0	

Remark: The antenna gain provided by the applicant, the adapter and verified for the RF conduction test and adapter provided by TOBY test lab.

Note: More test information about the EUT please refer the RF Test Report.

SAR Test Exclusion Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

(1) Clause 4.3: General SAR test reduction and exclusion guidance

Sub clause 4.31: Standalone SAR test exclusion considerations

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance ≤ 5 mm are determined by:

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f(\text{GHz})}]}{\leq 3.0 \text{ for 1-g SAR}}$$

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f(\text{GHz})}]}{\leq 7.5.0 \text{ for 10-g SAR}}$$



2. Calculation:

Test separation: 5mm						
Bluetooth Mode (GFSK)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	1.972	1±1	2	1.585	0.491	3.0
2.441	1.795	1±1	2	1.585	0.495	3.0
2.480	1.398	1±1	2	1.585	0.499	3.0
Bluetooth Mode (Pi/4-DQPSK)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	2.216	2±1	3	1.995	0.618	3.0
2.441	2.092	2±1	3	1.995	0.623	3.0
2.480	1.637	1±1	2	1.585	0.499	3.0
Bluetooth Mode (8-DPSK)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	2.757	2±1	3	1.995	0.618	3.0
2.441	2.650	2±1	3	1.995	0.623	3.0
2.480	2.167	2±1	3	1.995	0.628	3.0

Test separation: 5mm						
Bluetooth LE Mode (1M)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	1.892	1±1	2	1.585	0.491	3.0
2.440	1.215	1±1	2	1.585	0.495	3.0
2.480	0.813	0±1	1	1.259	0.397	3.0
Bluetooth LE Mode (2M)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	1.910	1±1	2	1.585	0.491	3.0
2.440	1.657	1±1	2	1.585	0.495	3.0
2.480	1.153	1±1	2	1.585	0.499	3.0

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

-----END OF THE REPORT-----

