



LCIE SUD EST
Laboratoire de Moirans
Z.I. Centr'Alp
170, Rue de Chatagnon
38430 MOIRANS - FRANCE

GENERAL INFORMATION

FCCID: 2AAESPULSE2018

1.1. Product description

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PULSE for the first time !

Fr Démarrer avec Pulse

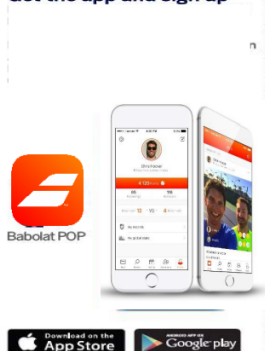
What's included ?



Micro-USB cable



Get the app and sign up



Before playing, you must associate your device with your account, otherwise you won't be able to get your data

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PULSE for the first time !

Fr Démarrer avec Pulse

1- Connect and charge the device



If you don't have a Babolat account

2- Enter your informations

3- Do you have a Babolat Device? Answer YES

If you have already a Babolat account

2- In your profile, go in setting and click on « my connected device »

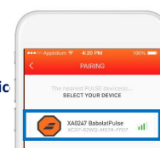
3- Add a connected device

4- Select Babolat Pulse

5- Follow bluetooth indications and select your device

6- If necessary, update it

7- Fix your device on handle (page4) or stringbed (page5)



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PULSE with Compatible Babolat Rackets
Pulse avec les raquettes Babolat compatibles

If you have a **Pulse Compatible Babolat racket**, you can insert directly in the handles

1- Take off the black plug by pressing on black clips as illustrated
Fr Enlever le bouchon noir en appuyant sur les clips noirs comme indiqué



2- Insert Pulse plug in the buttcap as illustrated
Fr Insérer le Pulse dans le manche de la raquette comme indiqué

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PULSE compatible with all rackets on the market
Pulse compatible avec toutes les raquettes de tennis

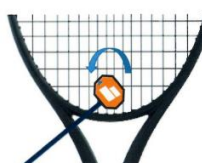
We can use Pulse with any Babolat rackets and also any other racket



1- Insert Pulse between strings as illustrated
Fr Insérer le Pulse entre les cordes comme illustré



2- Turn Pulse in the sense indicated
Fr Tourner le Pulse dans le sens indiqué



3- Ready to play
Fr Prêt pour démarrer





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Status light

Understanding Babolat Pulse's Status Lights

Mode/State	Action	Light status
OFF	Default mode	No light
Standby	The device detects a racket's motion and waiting a action	Light flashes slowly and fixes for 3 sec
Run Mode	Automatically start at the first shot	Light flahes slowly every 2 sec
Return to Standby	The device return to standby automatically if no motion is detected for 5 min	Light flashes slowly and fixes for 3 sec
Return to Off	After standby, the device switches off automocally if no motion is detected for 2 min	No light
Firmware upgrade	Displayed when plug upgrading	Light flashes very rapidly every 0,3 second, during 2 seconds
Alert	Action	Light status
Low battery	Displayed automocally when racket has 5% battery life remaining	After a motion detection, light flashes 2 times rapidly for 10 sec
Charging	Plug into charger and connect to power source	Light flashes slowly every 3 sec
Charging complete	Charge to completion	Light is fixed
Memory full	Displayed automocally when racket memory is full at 95% (synchronization is needed)	To be defined

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PULSE experience

Fr Expérience Pulse

FEED - A news feed about your friends and favorite pro players

EXPLORE - All the information you need

COMMUNITY - How you are doing compared to your friends and the community

PROFILE - A summary of all your tennis stats



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Specifications

SENSORS

Capteur | Sensor | Sensor | Sensoren | センサー | 센서 | 传感器

6 axes sensor
3D accelerometer
3D High-speed Gyroscope

Length 28mm
Width 25mm
Height 18mm
Weight Less than 0,28oz/8 grams

MEMORY

Mémoire | Memoria | Speicher | 메모리 | 内存

Up to 250 hours of play

BATTERY

Batterie | Batería | Batteria | Akku | バッテリー | 배터리 | 電池

Built-in rechargeable
Lithium Ion Battery

2-3 hours full charge cycle
Lasts up to 8 hours

CONNECTIVITY

Connectivité | Conectividad | Connettività | Anbindung | 接続 | 연결 | 连接性

Bluetooth Smart 4.0 (BLE)
Micro USB Cable

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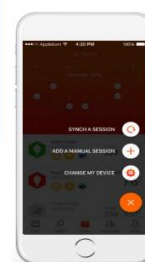
ACTIVITY - Access your matches, trainings or open sessions

Fr Démarrer avec Pulse

Find your tennis sessions easily
FR Repérez facilement vos sessions de tennis

Start Live mode
Fr Démarrer le mode live

Sync a session
Fr Synchroniser une session





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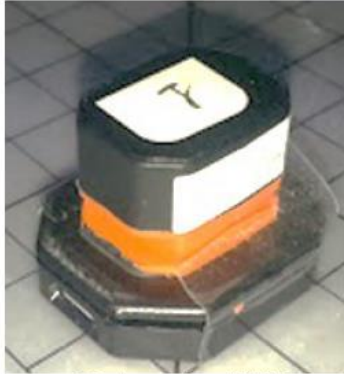
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1.2. Tested System Details

Equipment under test (EUT):

BABOLAT Pulse

**Serial Number: 00000003
00000000**



Photography of EUT

Power supply :

Type	Reference	Sn	Rating
AC/DC adapter (USB)	ETA-U90EWE	RT1D918R	100-240 =>5.3V (2A)

Inputs/outputs - Cable:

Access	Type	Length used (m)	Declared <3m	Shielded	Under test	Comments
Access 1	USB port (Charge only)	0.5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Only in charging mode

Auxiliary equipment used during test:

Type	Reference	Sn	Comments
Laptop	LENOVO L450	/	/



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Equipment information:

Bluetooth LE Type:	<input checked="" type="checkbox"/> BLE	<input type="checkbox"/> v4.0	<input checked="" type="checkbox"/> v4.1	<input type="checkbox"/> v4.2
Frequency band:	[2400 – 2483.5] MHz			
Spectrum Modulation:	<input checked="" type="checkbox"/> DSSS (Tested like it)			
Number of Channel:	40			
Spacing channel:	2MHz			
Channel bandwidth:	1MHz			
Antenna Type:	<input checked="" type="checkbox"/> Integral	<input type="checkbox"/> External	<input type="checkbox"/> Dedicated	
Antenna connector:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Temporary for test	
Transmit chains:	1			
	Single antenna			
	Gain: 2.5dBi			
Beam forming gain:	No			
Receiver chains:	1			
Type of equipment:	<input checked="" type="checkbox"/> Stand-alone	<input type="checkbox"/> Plug-in	<input type="checkbox"/> Combined	
Ad-Hoc mode:	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No	
Adaptivity mode:	<input type="checkbox"/> Yes (Load Based)	<input type="checkbox"/> Off mode	<input checked="" type="checkbox"/> No	
	Clear Channel Assessment Time:			-
Duty cycle:	<input checked="" type="checkbox"/> Continuous duty	<input type="checkbox"/> Intermittent duty	<input type="checkbox"/> 100% duty	
Equipment type:	<input checked="" type="checkbox"/> Production model		<input type="checkbox"/> Pre-production model	
Operating temperature range:	Tmin:	<input type="checkbox"/> -20°C	<input type="checkbox"/> 0°C	<input checked="" type="checkbox"/> -10°C
	Tnom:	20°C		
	Tmax:	<input type="checkbox"/> 35°C	<input type="checkbox"/> 55°C	<input checked="" type="checkbox"/> 55°C
Type of power source:	<input type="checkbox"/> AC power supply	<input type="checkbox"/> DC power supply	<input checked="" type="checkbox"/> Battery	
Operating voltage range:	Vnom:	<input type="checkbox"/> 230V/50Hz	<input checked="" type="checkbox"/> 4Vdc	
Geo-location capability:	<input type="checkbox"/> Yes (The geographical location determined by the equipment is not accessible to the end user as defined in section 4.3.2.12.2 of ETSI EN 300 328 V2.1.1 standard)		<input checked="" type="checkbox"/> No	

CHANNEL PLAN			
Channel	Frequency (MHz)	Channel	Frequency (MHz)
Cmin: 0	2402	20	2442
1	2404	21	2444
2	2406	22	2446
3	2408	23	2448
4	2410	24	2450
5	2412	25	2452
6	2414	26	2454
7	2416	27	2456
8	2418	28	2458
9	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
Cmid:19	2440	Cmax: 39	2480

DATA RATE		
Data Rate (Mbps)	Modulation Type	Worst Case Modulation
1	GFSK	<input checked="" type="checkbox"/>



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1.3. Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4 or ANSI C63.10, FCC Part 15 Subpart C.

Radiated testing was performed at an antenna to EUT distance of 10 meters. During testing, all equipment's and cables were moved relative to each other in order to identify the worst case set-up.

1.4. Test facility

Tests have been performed from **August 22, 2017 to September 8, 2017**.

This test facility has been fully described in a report and accepted by FCC as compliant with the radiated and AC line conducted test site criteria in ANSI C63.4 and ANSI C63.10 (registration number 94821).

This test facility has also been accredited by COFRAC (French accreditation authority for European Union test lab accreditation organization) according to NF EN ISO/IEC 17025, accreditation number 1-1633 as compliant with test site criteria and competence in 47 CFR Part 15/ANSI C63.4 and EN55022/CISPR22 norms for 89/336/EEC European EMC Directive application. All pertinent data for this test facility remains unchanged.