



G5-SE Mocapsuit

Sports Edition

AiQ.  **Synertial**

G5-SE Mocapsuit *Sports Edition*

Especially designed for sports sciences

Robust tried and tested OS

Amazing low-energy almost invisible electronics

Accuracy through sensors, smart clothing and

SW tools for easy skeleton file creation

Machine wash with sensors, no dryers

Use Android for data collection

Use PC to cut the data into desired

sequences for export or analysis

Use PC to render sequences into

2D video for export and share online

SDK with sample code 



Ultimate Sports Analysis

sports capture data

Full Body Suit arms and legs 3 each, head, ribcage, pelvis, R&L clavicles, 17 in all

2nd Skin Cloth comfortable, crease-free, designed to leave on for hours

Tiny low-energy sensors, WiFi Bluetooth Hub, tiny batteries last 2+ hours

Android device to manage local data collection at 180 fps w/ PC download tools

PC SW tools to **crop & collate downloads** into smaller files for analysis or export

PC SW tools to **create or edit user skeleton map** for accurate data

PC SW tools to **Visualize Biomechanical Dynamics** for analysis

PC SW tools to **render customized 2D video Exports** from the 3D data


Change Avatars & motions at will for Export

HTC-Vive ready integrate Vive for no-drift sessions

Machine Wash with the sensors on 



Super flexible 2nd Skin

- Fully hand or machine wash leaving sensors on
- Super-stretchy material ideal for intensive exercise
- Up to 24 built-in fast-tracking sensors
- Size options for best fit
- Low profile / skin tight 



System specification:

Power

Power supply
Battery capacity:
System operation voltage
System power consumption
Operation time

External 3.3~5V
Based on customers' choice
3.3V
Total 24 sensor ~1.8W
2+hrs with factory battery

Data transmission

Bluetooth
Wi-Fi
Cable
Max Capture rate
SD Storage

5.0, up to 2Mbps (24 sensors, 60fps)
2.4G, 802.11 b/g/n, up to 65Mbps.
For onboard memory card PC download only
180 fps on memory card, 60fps for Wi-Fi/Bluetooth
2+ Days

Software

Android
PC Analysis
PC Media Export
PC Plugins
PC Export Formats

SynDash app
SynDash Graphs & Editor, AutoCal Skeleton
SynDash Video Export Suite
Unity, UE4, MoBu Plugins
BVH, FBX, CSV positionals

Fingers

Optional Pincer sensors for thumb/index/middle

Sizes

2nd Skin Stretch suit (pants, long-sleeves)
Semi Adjustable Stretch suit (2-piece)
Main Hub/BT Dimensions
Snap-on WiFi dongle Dimensions

XL, L, M, S, XS
L, M
Ø35mm x 8.7mm
Ø33mm x 11.3mm

Washing

Machine-wash approved, Hand wash for extended life

Certification

Bluetooth
Wi-Fi

CE, FCC
FCC, IC, TELEC, RED



Sensor specification:

Power & Range:

Supply voltage	3.3~5V
Current consumption	18mA, 2+ hrs with supplied batteries
Accelerometer range	+/- 8g
Gyroscope range	~2000 °/s

Number of sensors per suit:

Full Body/Palms only	15 + 2 sensors (G5-SE 17)
Full Body Suit with pincers	15 + 8 sensors (G5-SE 23)

Raw Data Rates:

Gyro rotation Vector	1000 times/sec
Rotation Vector	400 times/sec
Gravity00 times/sec	400 times/sec
Linear Acceleration	400 times/sec
Accelerometer	500 times/sec
Gyroscope	400 times/sec
Magnetometer	100 times/sec





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