



Fig 5.17: Comparison of technical specifications of black boxes and smartphones

	Calamp LMU-300	Mobile Devices C4 Max	Samsung Galaxy S4	Samsung Galaxy S6 edge	iPhone 5	iPhone 6
Positioning technologies	A-GPS (+ EGNOS assistance system)	SiRF Atlas A-GPS (+ EGNOS assistance system)	GPS, A-GPS, Glonass, WiFi and Cell-ID	GPS, A-GPS, Glonass, WiFi and Cell-ID	A-GPS, GLONASS, WiFi and Cell-ID (+ EGNOS and WAAS assistance systems)	A-GPS, GLONASS, WiFi, Cell-ID, EGNOS and WAAS assistance systems
Positioning accuracy	< 2.5m (-162 dBm)	< 2.5m (-162 dBm)	<2m	<2m	<2m	<2m
Accelerometer	3 axis	3 axis $\pm 2g$, $\pm 4g$, $\pm 8g$	3 axis with $\pm 2g$, $\pm 4g$, $\pm 8g$, $\pm 16g$ scale	3 axis with $\pm 2g$, $\pm 4g$, $\pm 8g$, $\pm 16g$ scale	3 axis with $\pm 2g/\pm 4g/\pm 8g$ scale	3 axis with $\pm 2g$, $\pm 4g$, $\pm 8g$, $\pm 16g$ scale
Gyroscope	No	3-axis	3-axis MEMS gyroscope	3-axis	3-axis	3-axis
Digital compass	No	No	Yes	Yes	Yes	Yes
Ambient light sensor	No	No	Yes	Yes	Yes	Yes
Microphone	No	No	Yes	Yes	Yes	Yes
Processor	n.a.	ARM11 500 Mhz	1.7GHz Dual-core ARM Cortex-A15	2.1GHz, 1.5GHz; Octa-Core	1.3 GHz Dual-core ARM Cortex-A15 1 GHz	1.4 GHz Apple A8 chip, 64-bit
Memory	Typically 128-256 MB flash memory	256 MB flash memory (ext. to 4 GB)	2GB RAM, 16 GB SSD	32 GB RAM, 128 GB micro SD	1G500 MB RAM, 16 GB - 64 GB SSD	1024 MB LPDDR3 RAM, 16 – 128 GB NAND
Data transmission	GPRS	GPRS or 3G	GPRS, 3G HSPA, LTE	GPRS, 4G, HSDPA, HSUPA, LTE Cat-6, WiFi	GPRS, 3G HSPA, LTE, WiFi	GPRS, 4G, HSDPA, HSPA+, LTE, WiFi