

Labkit Technical Specifications

PC	
Dimensions H × W × D / weight	430 mm × 200 mm × 377 mm / 6.8 kg
CPU	Intel Core i9-12900K (3.2 GHz / 5.2 GHz)
RAM	32 GB
Storage	SSD 500 GB
Network connectivity	1 x 2.5 GbE, 2 x SFP+ 10 Gb, Wifi 6
USB	2 x USB 2.0 ports (Type-A), 1 x USB 3.2 Gen 2 port (Type-A), 1 x USB 3.2 Gen 2x2 (Type-C), 2 x USB 3.2 Gen 1 (Type-A)
Power supply voltage input	100 - 240V AC
Operating system	Linux Ubuntu 20.04 LTS with 5.4.0-126-lowlatency kernel

Software Defined Radio	
Dimensions H × W × D / weight	15 mm x 97 mm x 155 mm / 350 g
Frequency bands	70 MHz to 6.0 GHz, FDD and TDD
Bandwidth	Up to 56 MHz in 1x1 SISO, Up to 30.72 MHz 2x2 MIMO
Max transmitted power	10 dBm (10 mW)

Core Network software	4G	5G
3GPP LTE release	Release 15	Release 16
Modules	HSS, MME, S/P-GW	SMF, AUSF, UDM, AMF, UPF
Container orchestration	Docker-compose	Docker-compose

Radio Access Network software	4G	5G
3GPP release	Release 15	Release 16
Frequency bands	All FDD & TDD bands under 6 GHz	All FR1 (< 6 GHz) FDD & TDD bands
Bandwidth	5, 10, and 20 MHz	up to 40 MHz*
Transmission Modes	SISO 1x1 and MIMO 2x2 (Downlink only)	SISO 1x1 and MIMO 2x2 (Downlink only)
Modulation schemes	Up to 64QAM in DL and 16QAM in UL	Up to 64QAM in DL and 16QAM in UL
Subcarrier spacing	15 kHz	30 kHz
LTE-M	1.4 MHz narrow band, CE (Coverage Extension) mode A, Half Duplex / Full Duplex	

Accessories	
Antennas	2 x omnidirectional antennas : 617-960 MHz, 2496-2690 MHz, 3300-5000 MHz
Cables	1 x localised power cable, 1 x USB 3.0 cable
SIM card	1 x Test Sim Card
Smartphone	5G Smartphone, actual model delivered subject to availability

* up to 100 MHz with optional O-RU (Q1 2023)