Annex: Product Specification of Equipment Under Test

Product Specification	
Brand Name	NOKIA
Model Name	TA-1032
GSM Operating Band(s)	GSM 850/1900 MHz
GPRS Multi-Slot Class	GPRS Class 12, EGPRS Class 12
WCDMA Operating Band(s)	FDD Band 2 / 5
WCDMA Release, Category	HSDPA Rel. 8, Cat. 24 / HSUPA Rel. 6, Cat. 6
LTE Operating Band(s)	FDD Band 5, Bandwidth: 1.4 M/3 M/5 M/10 M FDD Band 7, Bandwidth: 5 M/10 M/15 M/20 M TDD Band 38, Bandwidth: 5 M/10 M/15 M/20 M TDD Band 40, Bandwidth: 5 M/10 M/15 M/20 M
LTE Release, Category	Rel. 9, Cat. 3
Wi-Fi Specification	802.11b/g/n HT20 802.11a/n HT20/HT40
Bluetooth Version	Bluetooth BR/EDR/LE
NFC	Type A/B/F
Antenna Type / Gain	GSM850: IFA Antenna / -0.63 dBi GSM1900: IFA Antenna / 3.04 dBi WCDMA Band II: IFA Antenna / 3.04 dBi WCDMA Band V: IFA Antenna / -0.63 dBi LTE Band 5: IFA Antenna / -0.63 dBi LTE Band 7: IFA Antenna / 1.90 dBi LTE Band 38: IFA Antenna / 1.22 dBi LTE Band 40: IFA Antenna / 1.22 dBi WLAN 802.11b/g/n: Loop Antenna / 0.75 dBi WLAN 802.11a/n: 5180 MHz ~ 5240 MHz: Loop Antenna / -2.10 dBi 5260 MHz ~ 5320 MHz: Loop Antenna / -2.10 dBi 5500 MHz ~ 5700 MHz: Loop Antenna / -2.30 dBi 5745 MHz ~ 5825 MHz: Loop Antenna / -2.30 dBi Bluetooth: Loop Antenna / 0.75 dBi NFC: Loop Antenna GPS: Loop Antenna
Type of Modulation	GSM / GPRS: GMSK EGPRS: GMSK for MCS 0 ~ 4 & 8PSK for MCS5 ~9 WCDMA: QPSK (Uplink) HSDPA: 64QAM (Downlink) / HSUPA : QPSK (Uplink) LTE: QPSK / 16QAM Bluetooth: GFSK, π/4-DQPSK, 8-DPSK WLAN 802.11b: DSSS (DBPSK / DQPSK / CCK) WLAN 802.11a/g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) NFC: ASK GPS: BPSK

Transmitter Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band 2: 1852.4 MHz ~ 1907.6 MHz WCDMA Band 5: 826.4 MHz ~ 846.6 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 38 : 2572.5 MHz ~ 2617.5 MHz LTE Band 40 : 2302.5 MHz ~ 2397.5 MHz WLAN 802.11b/g/n: 2412 MHz ~ 2462 MHz WLAN 802.11a/n: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500 MHz ~ 5700 MHz; 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Receiver Frequency Range	GSM850: 869.2 MHz ~ 893.8 MHz GSM1900: 1930.2 MHz ~ 1989.8 MHz WCDMA Band 2: 1932.4 MHz ~ 1987.6 MHz WCDMA Band 5: 871.4 MHz ~ 891.6 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 7 : 2622.5 MHz ~ 2687.5 MHz LTE Band 38 : 2572.5 MHz ~ 2617.5 MHz LTE Band 40 : 2302.5 MHz ~ 2397.5 MHz WLAN 802.11b/g/n: 2412 MHz ~ 2462 MHz WLAN 802.11a/n: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500 MHz ~ 5700 MHz; 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz GPS: 1.57542 GHz

Note: The WLAN operation in 5600 MHz ~ 5650 MHz is notched.