Balai Besar Pengujian Perangkat Telekomunikasi dan Digital
Jalan Raya Tapos No. 46, Depok, Jawa Barat, Indonesia 16464
(+62 21) 77817999, (+62) 812-5000-0586
pelayanan.bbppt@komdigi.go.id
www.idth.id; www.komdigi.go.id

LEMBAR PENGESAHAN

LAPORAN HASIL UJI
Test Report

Nomor Aplikasi : UJI-0134-2026
Application Number

Nomor LHU : R-41/RF/0115/2026
Test Report Number

DATA APLIKASI *Applicant's Data*		
Aplikan *Applicant's*	:	FARRA EKATAMA SOLUSI
Alamat Aplikan *Address of Applicant's*	:	GEDUNG NUCIRA LANTAI 1 JOFTER-KH, JALAN M.T. HARYONO KAV. 27

DATA PERANGKAT *Test Item's Data*		
Nama Perangkat *Equipment name*	:	AquaLink NB-IoT
Merek/Tipe *Brand name/Type*	:	AQUALINK / AQ-01
Nomor Seri/IMEI *Serian Number/IMEI*	:	6508280015
Buatan *Made In*	:	China

Tanggal Terima/Bayar *Date of Paid*	:	10 Februari 2026	**Jenis Pengujian** *Type of Testing*	:	Uji Reguler
Tanggal Mulai Uji *Date of Test*	:	25 Februari 2026	**Lokasi Pengujian** *Location of Testing*	:	Tapos - Depok
Tanggal Selesai Uji *Date of End*	:	25 Februari 2026			

Ketentuan Umum *General Statement*	
A.	**Laporan pengujian ini hanya berlaku untuk barang uji sebagaimana di atas** This the report is only valid the test item which is stated on the data above
B.	**Persyaratan Teknis** *Technical Specification* KEPMEN KOMDIGI NOMOR : 569 Tahun 2025

Dokumen ini ditandatangani secara elektronik menggunakan Sertifikat Elektronik yang diterbitkan oleh Balai Besar Sertifikasi Elektronik (BSrE), Badan Siber dan Sandi Negara (BSSN)

Balai Besar Pengujian Perangkat Telekomunikasi dan Digital
Jalan Raya Tapos No. 46, Depok, Jawa Barat, Indonesia 16464
(+62 21) 77817999, (+62) 812-5000-0586
pelayanan.bbppt@komdigi.go.id
www.idth.id; www.komdigi.go.id

C.	**Fitur Pengujian** *Testing Feature* Subscriber Station NB-IoT 900 MHz (Band 8)

Kesimpulan *Conclusion*
BERDASARKAN PERSYARATAN TEKNIS PERANGKAT TERSEBUT DINYATAKAN *Base on technical specification the equipment is*
Sesuai (Comply)

Dalam upaya mencapai rencana pembangunan Zona Integritas (ZI) Wilayah Birokrasi Bersih dan Melayani (WBBM) serta mendukung penerapan ISO 37001 tentang Sistem Manajemen Anti Penyuapan, BP2 Komdigi berkomitmen untuk selalu profesional dan berintegritas dalam memberikan pelayanan yang berkualitas serta menolak segala bentuk penyuapan dan gratifikasi.

Depok, 03 Maret 2026
Disahkan Oleh
An. Kepala Balai Besar Pengujian Perangkat Telekomunikasi
Ketua Tim Kerja Laboratorium Pengujian Radio Frequency dan Kalibrasi

Karijadi

Dokumen ini ditandatangani secara elektronik menggunakan Sertifikat Elektronik yang diterbitkan oleh Balai Besar Sertifikasi Elektronik (BSrE), Badan Siber dan Sandi Negara (BSSN)

Balai Besar Pengujian Perangkat Telekomunikasi dan Digital
Direktorat Jenderal Infrastruktur Digital
Kementerian Komunikasi dan Digital

LAPORAN HASIL UJI
(LHU)
UJI-0134-2026

AquaLink NB-IoT
AQUALINK / AQ-01
6508280015
China

Tahun 2026

DAFTAR ISI

1.	Sampul LHU	i
2.	Daftar Isi	ii
3.	Hasil Pengujian	1
4.	Daftar Alat yang digunakan	3
5.	Ketidakpastian Pengukuran	4
6.	Gambar Barang Uji	5
7.	Data Pengujian	(terlampir)
8.	Lampiran Spesifikasi dan Deklarasi Teknis	(terlampir)

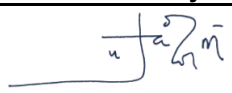
HASIL PENGUJIAN

Temperatur: 23.2 °C Kelembapan: 56.1 %

No *No*	Item Uji *Test Item*	Spesifikasi *Specification*	Toleransi Uji *Test Tolerance*	Hasil Uji *Measurement Result*	Ket *Remark*
	NB-IoT 900 MHz	Keputusan Menteri Komunikasi dan Informatika Nomor 569 Tahun 2025			
A	Frekuensi Kerja				
1	Band	Band 8			
	Uplink	880 - 915 MHz		880 - 915 MHz	
	Downlink	925 - 960 MHz		925 - 960 MHz	
2	Channeling				
	Uplink	21450 - 21799		21450 - 21799	
	Downlink	3450 - 3799		3450 - 3799	
B	Channel Bandwidth	200 kHz		200 kHz	
C	Persyaratan Pemancar				
1	Maximum Output Power				
	Class 3	21 - 25 dBm	± 0.7 dB	22.98 - 23.42 dBm	
2	Minimum Output Power	≤ -40 dBm	1 dB	-43.23 dBm	
3	Occupied Bandwidth	≤ 200 kHz		187.50 kHz	
4	SEM			Sesuai	

Δf_{OOB} (MHz)	1,4 MHz	3,0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	*Measurement bandwidth*
0 to 1	-8,5	-11,5	-13,5	-16,5	-18,5	-19,5	30 kHz
1 to 2,5	-8,5	-8,5	-8,5	-8,5	-8,5	-8,5	1 MHz
2,5 to 2,8	-23,5	-8,5	-8,5	-8,5	-8,5	-8,5	1 MHz
2,8 to 5		-8,5	-8,5	-8,5	-8,5	-8,5	1 MHz
5 to 6		-23,5	-11,5	-11,5	-11,5	-11,5	1 MHz
6 to 10			-23,5	-11,5	-11,5	-11,5	1 MHz
10 to 15				-23,5	-11,5	-11,5	1 MHz
15 to 20					-23,5	-11,5	1 MHz
20 to 25						-23,5	1 MHz

Catatan :

Penguji	Penguji
Fahmi Nurdin Handy Novian	Risang Galih Bhaktiaji
	

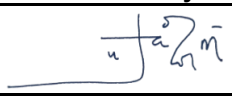
Penyelia Teknik Pengujian RF
Sari Sukmawati Gunardi


HASIL PENGUJIAN

Temperatur: 23.2 °C Kelembapan: 56.1 %

No *No*	Item Uji *Test Item*	Spesifikasi *Specification*	Toleransi Uji *Test Tolerance*	Hasil Uji *Measurement Result*	Ket *Remark*
5	ACLR				
	GSM ACLR	≥ 20 dB	0.8 dB	23.55 dB	
	UTRA ACLR	≥ 37 dB	0.8 dB	48.63 dB	
6	Transmitter Spurious Emission				
	30 MHz ≤ f < 1000 MHz	≤ -36 dBm		-50.90 dBm	
	1 GHz ≤ f < 12.75 GHz	≤ -30 dBm		-43.80 dBm	
D	Persyaratan Penerima				
7	Receiver Sensitivity	≥ 95 %		100.00 %	
8	Receiver Spurious Emission				
	30 MHz ≤ f < 1000 MHz	≤ -57 dBm		-76.3 dBm	
	1 GHz ≤ f < 12.75 GHz	≤ -47dBm		-68.6 dBm	

Catatan :

Penguji	Penguji
Fahmi Nurdin Handy Novian	Risang Galih Bhaktiaji
	

Penyelia Teknik Pengujian RF
Sari Sukmawati Gunardi


DAFTAR ALAT YANG DIGUNAKAN

No	Nama Alat	Merek/Tipe	No Serial	Tanggal Kalibrasi
1	Wideband Radio Communication Tester	Rohde & Schwarz / CMW500	1201.0002K50-172114-PM	22 Desember 2025
2	Wideband Radio Communication Tester	Rohde & Schwarz / CMW500	1201.0002K50-172115-fz	22 Desember 2025
3	Radio Communication Tester	Rohde & Schwarz / CMX500	1201.0002K70-102293-Zt	22 Desember 2025
4	Vector Signal Generator	Rohde & Schwarz / SMW200A	1412.0000K02-111787-Qy	22 Desember 2025
5	Signal & Spectrum Analyzer	Rohde & Schwarz / FSW50	1331.5003K50-101873-is	22 Desember 2025

KETIDAKPASTIAN PENGUKURAN

No	Parameter	Uncertainty Budget
1.	Maximum Output Power	± 1.5 dB
2.	Minimum Output Power	± 1.5 dB
3.	Frequency Error	± 0.13 MHz
4.	Occupied Bandwidth	± 0.13 MHz
5.	Adjacent Channel Leakage Ratio (ACLR)	± 1.5 dB
6.	Transmitter Spurious Emission	± 1.5 dB

Gambar Barang Uji



0134-26 NB IoT Band 8

TEST CASES	19
START	n/a
DURATION	n/a
END	n/a

PASS VERDICTS	19
FAIL VERDICTS	0
INCONCLUSIVE VERDICTS	0
OTHER VERDICTS	0

Aqualink / AQ-01

ROHDE&SCHWARZ

KOMDIGI
Kementerian Komunikasi dan Digital
Republik Indonesia

Test Case Reports

1 6.2.2F Maximum output power for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; Low | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-26T15:55:11.685 | DURATION PT2M42.7523S | OBSERVATION none

2 6.2.2F Maximum output power for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; Mid | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-26T16:10:03.2795 | DURATION PT54.1128S | OBSERVATION none

3 6.2.2F Maximum output power for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; High | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-27T09:05:00.5861 | DURATION PT2M35.9985S | OBSERVATION none

4 6.3.2F Minimum Output Power for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; Low | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-25T13:22:07.2383 | DURATION PT6M16.1333S | OBSERVATION none

5 6.3.2F Minimum Output Power for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; High | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-26T16:00:50.7964 | DURATION PT3M44.1481S | OBSERVATION none

6 6.6.1F Occupied bandwidth for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; Low | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-25T12:54:00.813 | DURATION PT28M6.0432S | OBSERVATION none

7 6.6.1F Occupied bandwidth for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; High | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-26T15:59:55.4526 | DURATION PT54.9709S | OBSERVATION none

8 6.6.2.1F Spectrum Emission Mask for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; Low | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-25T13:28:23.7465 | DURATION PT6M2.7461S | OBSERVATION none

9 6.6.2.1F Spectrum Emission Mask for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; Mid | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-27T10:45:48.4958 | DURATION PT1M50.8256S | OBSERVATION none

10 6.6.2.3F Adjacent Channel Leakage power Ratio for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; Low | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-25T13:34:26.8554 | DURATION PT5M34.8094S | OBSERVATION none

11 6.6.2.3F Adjacent Channel Leakage power Ratio for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; Mid | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-26T15:58:26.1179 | DURATION PT59.8393S | OBSERVATION none

12 6.6.2.3F Adjacent Channel Leakage power Ratio for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; High | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-26T16:04:35.2699 | DURATION PT3M6.0815S | OBSERVATION none

13 6.6.3F.1 Transmitter Spurious emissions for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; Mid | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-26T16:10:57.8429 | DURATION PT25M35.6996S | OBSERVATION none

14 6.6.3F.1 Transmitter Spurious emissions for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; High | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-27T09:07:37.0626 | DURATION PT24M23.2129S | OBSERVATION none

15 6.6.3F.1 Transmitter Spurious emissions for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; Low | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-27T09:43:12.909 | DURATION PT24M23.2807S | OBSERVATION none

16 7.3F.1 Reference sensitivity level without repetitions for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; Low | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-25T14:23:46.7129 | DURATION PT43.6818S | OBSERVATION none

17 7.3F.1 Reference sensitivity level without repetitions for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; High | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-26T16:07:41.7496 | DURATION PT37.7927S | OBSERVATION none

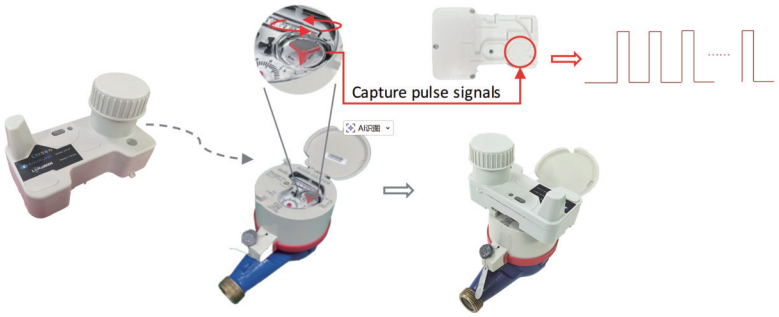
18 7.9F Spurious emissions for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; High | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-27T09:32:00.6405 | DURATION PT4M25.2858S | OBSERVATION none

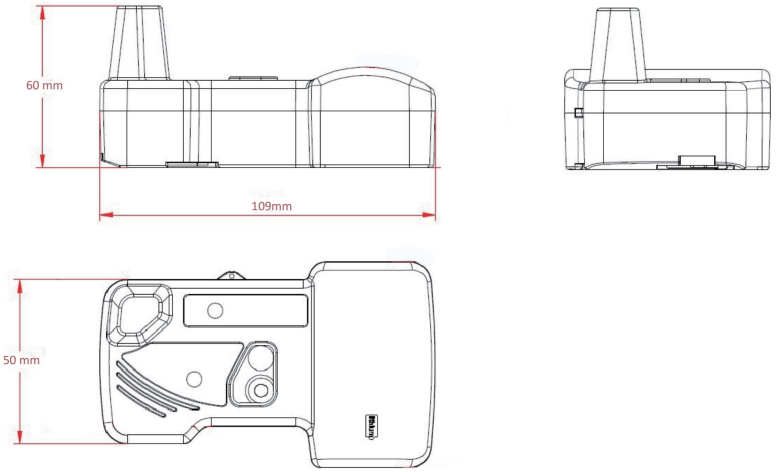
19 7.9F Spurious emissions for category NB1

Pass | LIMITATIONS FDD 8 ; NN ; Low | VERSIONS BASE-19.4 (19.4.1.60000)
START 2026-02-27T11:22:35.3479 | DURATION PT4M30.275S | OBSERVATION none

Work Process



Shape and Installation Dimension



Technical Data

Wireless Comm. Parameters	
Communication Mode	NB-IoT
Power Supply	3.6V/8500mAH
Standby Current	≤80 μA
Operating Current	67mA
TX Current	330mA@23dBm
Frequency Band	Band 8
TX Power	Up to 23dBm
RX Sensitivities	Down to -116dBm
Data Transmission Speed	DL: Max. 127 kbps / UL: Max. 158.5 kbps
Transmission Method	Point-to-Point network
Non-Magnetic Sampling Module	
Sensing Distance	7mm Diameter of steel plate 14mm, 3.6V working voltage
Supports Maximum	2.2 turns/second

DT19

1. Subscriber Station NB-IoT 900 MHz (Band 8)

---

1. Catu Daya Perangkat *

☐ AC 110 - 127 V / 50 Hz

☐ AC 220 - 240 V / 50 Hz

☐ AC 3-Phase 380 - 415 V / 50 Hz

☐ AC 110 - 127 V / 60 Hz

☐ AC 220 - 240 V / 60 Hz

☐ AC 3-Phase 380 - 415 V / 60 Hz

☐ DC Adaptor

☐ DC Rectifier

☐ PoE

☑ Baterai

☐ USB

---

2. Apa tipe konstruksi perangkat? *

☐ Berdiri sendiri (standalone)

☐ Tergabung (combined)

☐ Terpisah (plug-in)

☑ Modul

---

3. Fitur telekomunikasi (SS NB-IoT/LTE Cat-M) *

☐ 450 MHz (Band 31)

☐ 2300 MHz (Band 40)

☐ 2100 MHz (Band 1)

☐ 1800 MHz (Band 3)

☑ 900 MHz (Band 8)

☐ 850 MHz (Band 5)

☐ 700 MHz (Band 28)

☐ 2500 MHz (Band 41)

---

4. Integrasi dengan antena (Subscriber Cellular) *

☐ di luar/terpisah namun masih dalam satu paket

☐ di luar dan berdiri sendiri

☑ di dalam/tergabung

5. Jika antena di dalam atau masih dalam satu paket, berapa Gain antena-nya?

2 dBi

6. Fitur telekomunikasi yang TIDAK ingin diujikan (jika lebih dari satu fitur, maka tulis dengan pemisah berupa tanda titik koma [;])

7. Informasi lainnya yang ingin disampaikan

8. Informasi lainnya yang ingin disampaikan

9. Informasi lainnya yang ingin disampaikan