KEMENTERIAN KOMUNIKASI DAN INFORMATIKA RI
DIREKTORAT JENDERAL SUMBER DAYA DAN PERANGKAT POS DAN INFORMATIKA
BALAI BESAR PENGUJIAN PERANGKAT TELEKOMUNIKASI
Indonesia Terkoneksi: Makin Digital, Makin Maju
Jl. Raya Tapos No. 46, Kec. Tapos, Depok 16457 T: (021) 77817997 -99 (hunting)
www.kominfo.go.id/sdppi.kominfo.go.id/bbppt.postel.go.id

LEMBAR PENGESAHAN
LAPORAN HASIL UJI
Test Report

No. Aplikasi : 0142-24
Application Number

Nomor LHU : R-45/0148/2024
Test Report Number

DATA APLIKASI
Applicant's Data

Aplikan *Applicant's*	:	FARRA EKATAMA SOLUSI
Alamat Aplikan *Address of Applicant's*	:	SATRIO TOWER, LANTAI 6, UNIT 1 JL. PROF. DR. SATRIO BLOK C4, JAKARTA SELATAN

DATA PERANGKAT
Test Item's Data

Nama Perangkat *Equipment*	:	4G Cellular Router
Merek/Tipe *Brand Name/ Type*	:	PUSR / USR-G806w
Nomor Seri/IMEI *Serial Number/ IMEI*	:	016013230711000003208
Buatan *Made In*	:	China

Tanggal Terima / Bayar *Date of Paid*	:	25 Maret 2024	**Jenis Pengujian** *Type of Testing*	:	UJI LABORATORIUM
Tanggal Mulai Uji *Date of Test*	:	26 Maret 2024	**Lokasi Pengujian** *Test Location*	:	Tapos - Depok
Tanggal Selesai Uji *Date of End*	:	26 Maret 2024			

Ketentuan Umum
General Statement

A. Laporan pengujian ini hanya berlaku untuk sampel uji sebagaimana diatas
This the report is only valid the test item which is stated on the data above

B. Persyaratan Teknis
Technical Specification

CISPR 32 Edition 2.0 2015-03,

Kesimpulan
Conclusion

BERDASARKAN PERSYARATAN TEKNIS PERANGKAT TERSEBUT DINYATAKAN
Base on technical specification the equipment is

Sesuai (Comply)

Depok, 26 Maret 2024

Disahkan Oleh
An. Kepala Balai Besar Pengujian Perangkat Telekomunikasi
Ketua Tim Kerja Laboratorium Pengujian Radio Frequency dan Kalibrasi

Dokumen ini ditandatangani secara elektronik oleh
KETUA TIM KERJA LABORATORIUM PENGUJIAN
RADIO FREQUENCY DAN KALIBRASI

KARIJADI

Balai Besar Pengujian Perangkat Telekomunikasi
Direktorat Jenderal Sumber Daya dan Perangkat Pos dan Informatika
Kementerian Komunikasi dan Informatika

LAPORAN HASIL UJI
(LHU)

(0142-24)

4G Cellular Router
PUSR / USR-G806w
01601323071100003208
China

Tahun 2024

DAFTAR ISI

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

HASIL PENGUJIAN

Temperature : 22.3 °C Kelembapan : 59.1%

No. ***No.***	**Item Uji** ***Test Item***	**Spesifikasi** ***Specification***	**Hasil Uji** ***Measurement Result***	**Ket** ***Remark***
1	Conducted Emission at the Mains Port	CISPR 32		
	• Class B limits dB(µV)			
	- Quasi Peak			
	Frequency 0.15 to 0.5 MHz	66 to 56 dB(µV)	Lihat Tabel	
	Frequency 0.5 to 5 MHz	56 dB(µV)	Lihat Tabel	
	Frequency 5 to 30 MHz	60 dB(µV)	Lihat Tabel	
	- Average			
	Frequency 0.15 to 0.5 MHz	56 to 46 dB(µV)	Lihat Tabel	
	Frequency 0.5 to 5 MHz	46 dB(µV)	Lihat Tabel	
	Frequency 0.5 to 30 MHz	50 dB(µV)	Lihat Tabel	
2	Conducted Emission at the Telecommunication Port	CISPR 32		
	• Class B limits dB(µV)			
	- Quasi Peak			
	Frequency 0.15 to 0.5 MHz	84 to 74 dB(µV)	Lihat Tabel	
	Frequency 0.5 to 30 MHz	74 dB(µV)	Lihat Tabel	
	- Average			
	Frequency 0.15 to 0.5 MHz	74 to 64 dB(µV)	Lihat Tabel	
	Frequency 0.5 to 30 MHz	64 dB(µV)	Lihat Tabel	
Catatan :				

Penguji
Adam Muhammad S M

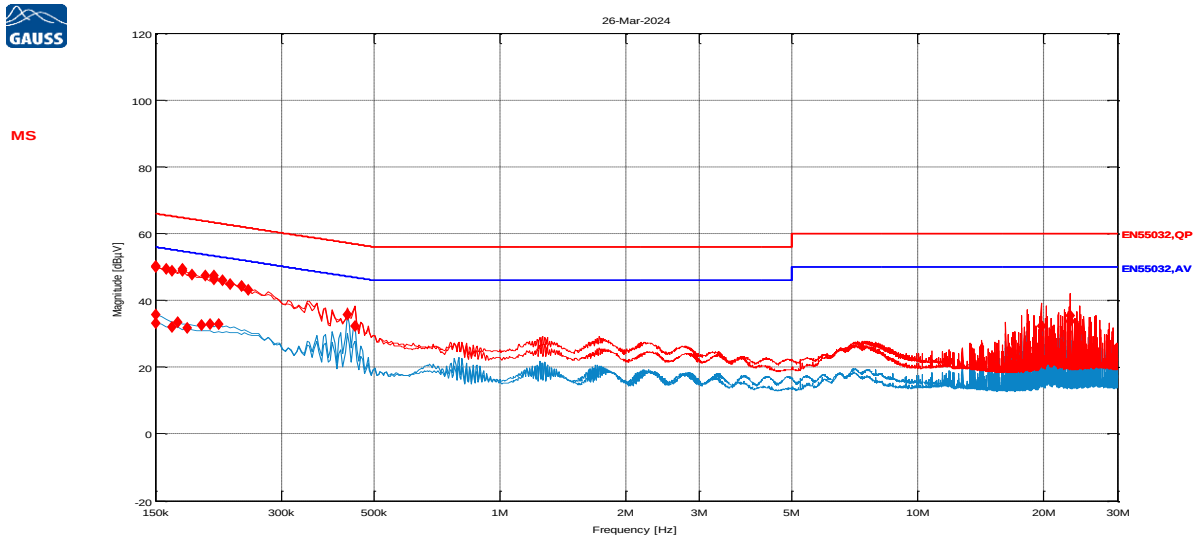

Penyelia Teknik Pengujian
Rofi Yuliansyah


DAFTAR ALAT YANG DIGUNAKAN

No	Nama Alat	Merek/Tipe	No Serial	Tanggal Kalibrasi
1.	EMI Receiver	Gauss Instruments / TDEMI 30 M	1707023	21 November 2023
2.	ISN	COM POWER / ISN T8	24010006	13 September 2023
3.	LISN	Schwarzbeck / NSLK 8127 RC	05034	28 Desember 2023
4.	Laptop	Dell LATITUDE 3450		

Data Pengujian

Tekanan Udara: 1005 mbar



Standar Uji:CISPR 32
Nama Perangkat/Merk/Tipe:4G Cellular Router / PUSR / USR-G806W
Nomor Seri/Buatan:01601323071100003208 / China
Nomor Permohonan:0142-24
Mode Operasi:Full Operasional

Traces:

Trace	Start	Step	Stop	IF Bandwidth	Detector	Dwell time	Attenuation	Transducer	LISN	Notes
Scan 1	150.0 kHz	5.0 kHz	30.0 MHz	9kHz	QP	1.0 s	10	TDF1, TDF2	NSLK8127-N	
Scan 2	150.0 kHz	5.0 kHz	30.0 MHz	9kHz	Average	100.0 ms	10	TDF1, TDF2	NSLK8127-N	
Scan 3	150.0 kHz	5.0 kHz	30.0 MHz	9kHz	QP	1.0 s	10	TDF1, TDF2	NSLK8127-L1	
Scan 4	150.0 kHz	5.0 kHz	30.0 MHz	9kHz	Average	100.0 ms	10	TDF1, TDF2	NSLK8127-L1	

Transducers:
TDF1: 10dB Attenuator N-N, 5Watts, 10Hz - 18GHz, Serial-No. 1749
TDF2: Cable DC - 6 GHz Serial No. 70184

Limit lines:
EN55032,QP: EN55032 Cond,Class B,QP, 150kHz-30MHz
EN55032,AV: EN55032 Cond,Class B,Average, 150kHz-30MHz

Scan1: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 1.0 s QP, Att 10dB, LISN-NSLK8127-N

Frequency	Mag [dBµV]	Limit [dBµV]	Diff [dB]	Ketidakpastian Pengukuran pada 95% (k = 2)
150 kHz	50.21	66.00	15.79	1.0
159.740448 kHz	49.53	65.48	15.95	1.0
174.045563 kHz	49.33	64.77	15.43	1.0
197.887421 kHz	47.32	63.70	16.38	1.0
207.424164 kHz	47.38	63.31	15.92	1.0
240.802765 kHz	44.42	62.07	17.65	1.0
250.339508 kHz	43.27	61.75	18.48	1.0

Scan2: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 100.0 ms Average, Att 10dB, LISN-NSLK8127-N

Frequency	Mag [dBµV]	Limit [dBµV]	Diff [dB]	Ketidakpastian Pengukuran pada 95% (k = 2)
150 kHz	35.63	56.00	20.37	1.0
169.277191 kHz	33.59	55.00	21.40	1.0
193.119049 kHz	32.61	53.90	21.29	1.0
202.655792 kHz	32.83	53.50	20.68	1.0
212.192535 kHz	33.02	53.12	20.10	1.0
19.7100639 MHz	32.42	50.00	17.58	1.0
23.1289864 MHz	35.42	50.00	14.58	1.0

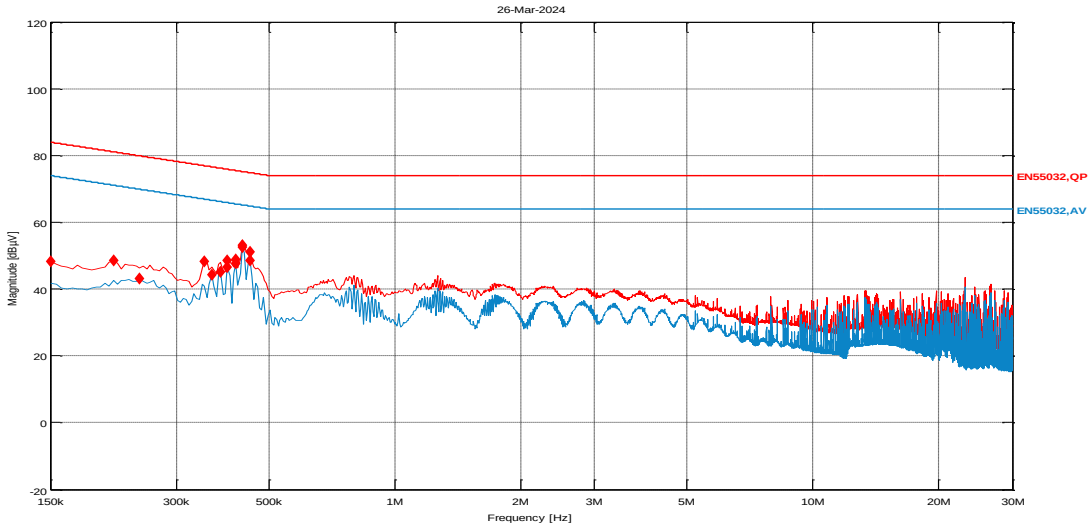
Scan3: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 1.0 s QP, Att 10dB, LISN-NSLK8127-L1

Frequency	Mag [dBµV]	Limit [dBµV]	Diff [dB]	Ketidakpastian Pengukuran pada 95% (k = 2)
150.203705 kHz	33.18	55.99	22.81	1.0
164.50882 kHz	32.14	55.23	23.10	1.0
178.813934 kHz	31.68	54.54	22.86	1.0
431.537628 kHz	35.65	47.22	11.57	1.0
450.611115 kHz	32.44	46.86	14.42	1.0
23.1289864 MHz	33.88	50.00	16.12	1.0
24.3496895 MHz	31.07	50.00	18.93	1.0

Scan4: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 100.0 ms Average, Att 10dB, LISN-NSLK8127-L1

Frequency	Mag [dBµV]	Limit [dBµV]	Diff [dB]	Ketidakpastian Pengukuran pada 95% (k = 2)
150 kHz	49.91	66.00	16.09	1.0
164.50882 kHz	48.74	65.23	16.49	1.0
174.045563 kHz	48.77	64.77	16.00	1.0
183.582306 kHz	47.67	64.32	16.66	1.0
207.424164 kHz	46.43	63.31	16.88	1.0
216.960907 kHz	46.11	62.93	16.83	1.0
226.49765 kHz	45.00	62.58	17.58	1.0

MS



Standar Uji:CISPR 32
Nama Perangkat/Merk/Tipe:4G Cellular Router / PUSR / USR-G806W
Nomor Seri/Buatan:01601323071100003208 / China
Nomor Permohonan:0142-24
Mode Operasi:Full Operasional

Traces:

Trace	Start	Step	Stop	IF Bandwidth	Detector	Dwell time	Attenuation	Transducer	LISN	Notes
Scan 1	150.0 kHz	5.0 kHz	30.0 MHz	9kHz	QP	1.0 s	10	TDF1, TDF2	None-	
Scan 2	150.0 kHz	5.0 kHz	30.0 MHz	9kHz	Average	100.0 ms	10	TDF1, TDF2	None-	

Transducers:
TDF1: 10dB Attenuator N-N, 5Watts, 10Hz - 18GHz, Serial-No. 1749
TDF2: Cable DC - 6 GHz Serial No. 70184

Limit lines:
EN55032,QP: EN55032 Cond,Asymmetric,Class B,QP, AAN, 150kHz-30MHz
EN55032,AV: EN55032 Cond,Asymmetric,Class B,Average, AAN,150kHz-30MHz

Scan1: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 100.0 ms Average, Att 10dB

Frequency	Mag [dBµV]	Limit [dBµV]	Diff [dB]	Ketidakpastian Pengukuran pada 95% (k = 2)
150 kHz	48.34	84.00	35.66	1.0
212.192535 kHz	48.51	81.12	32.61	1.0
350.475311 kHz	48.40	76.95	28.55	1.0
398.159027 kHz	48.69	75.89	27.20	1.0
417.232513 kHz	48.98	75.50	26.52	1.0
431.537628 kHz	53.20	75.22	22.02	1.0
450.611115 kHz	51.22	74.86	23.64	1.0

Scan2: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 1.0 s QP, Att 10dB

Frequency	Mag [dBµV]	Limit [dBµV]	Diff [dB]	Ketidakpastian Pengukuran pada 95% (k = 2)
245.571136 kHz	43.19	69.91	26.71	1.0
364.780426 kHz	44.37	66.62	22.25	1.0
383.853912 kHz	45.15	66.20	21.05	1.0
398.159027 kHz	46.52	65.89	19.37	1.0
417.232513 kHz	47.64	65.50	17.87	1.0
431.537628 kHz	52.58	65.22	12.64	1.0
450.611115 kHz	48.51	64.86	16.36	1.0

Gambar Sampel Benda Uji



















USR-G806w specification

Better Wi-Fi industrial router



Introduction

USR-G806w is the pro version of our all-time bestseller G806 that inherited its' best features, including industrial design, compact size, multiple connection interfaces. It delivers high performance for mission-critical cellular communication in rigorous environments.

Equipped with 4G LTE, Wi-Fi, and three Ethernet ports, this router offers unstoppable connection continuity with a backup through automatic WAN failover. The Wi-Fi is functional in: Access point, Station mode and repeater mode.

USR-G806w is an excellent fit in various IoT and M2M solutions that require easy setup, reliable network, and remote accessibility, such as service robot, inspection robot, unmanned vehicle networking, massage chair networking, AGV car and other industrial application scenarios.

Features

Stable And Reliable

- Industrial design Metal shell, IP30 protection.
- Wide operating temperature. Wide voltage input,reverse polarity protection.
- ESD,Surge,EFT protection.
- Embedded hardware watchdog, self-recovers from malfunctions, maintaining high device availability.

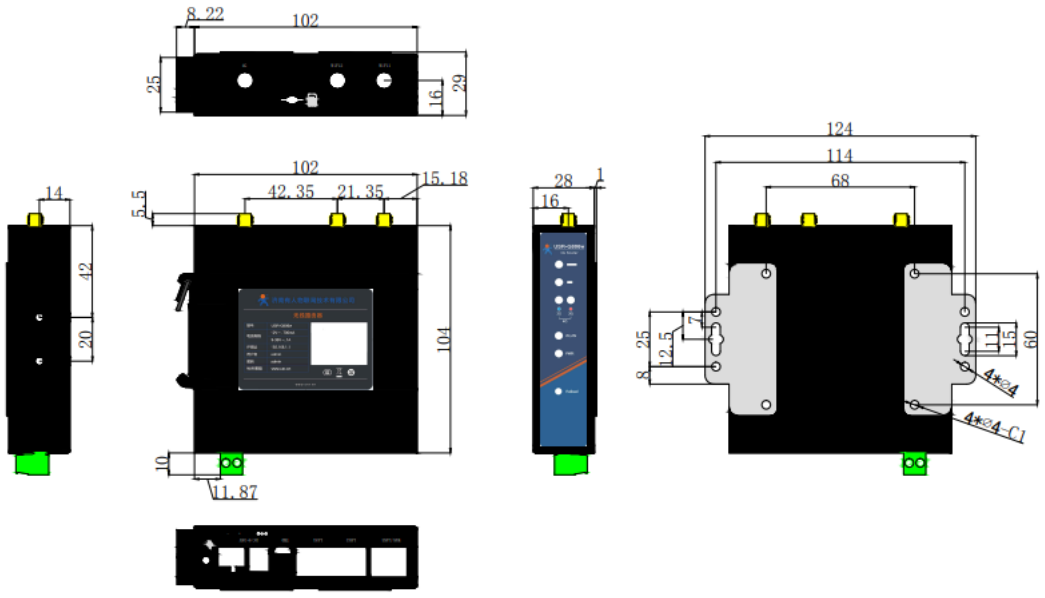
Uninterrupted network access

- Supports 2G/3G/4G network all over the world ,supports APN/VPDN sim card.
- Failover between 4G and WAN, ensures automatic switch to alternative backup connection,effectively ensuring uninterrupted data transmission.
- Link backup: mutual backup of wired, 4G cellular and WiFi networks
- Equipped with strong Wi-Fi capability,802.11 a/b/g/n,2.4G Wi-Fi,2*2 MIMO, up to 300Mbps,Support AP/STA/repeater mode
- VPN tunnel detection: maintains stable connection of the VPN tunnel, ensuring continuous transmission.
- Multi-layer link detection mechanism, automatic redial and recovery.

Rich functions

- Supports PUSR cloud platform to facilitate remote monitoring and central management of large-scale device networks.
- Supports remote monitoring, upgrade and parameter configuration, remote access to the built-in web pages.
- Wall-mounting and DIN-rail mounting options available,easy to install.
- Supports IPsec VPN, PPTP,L2TP, OPENVPN,GRE etc., ensuring secure data transmission.
- Supports firewall functions including NAT, access control, DDoS defense, IP-MAC binding, etc., protecting the network against external attacks.
- Supports APN automatic inspection ,mode switch ,SIM information display, supports private sim card.
- Supports DDNS,PPPOE,DHCP,Static IP.
- Allows multiple network management methods including SSH, WEB, TELNET and a network management platform.
- Supports firewall, NAT,DMZ,black and white list of access control
- Support SNMP,VLAN

Dimensions



- Unit: mm.
- Dimensions: 104*102*28.0mm(L*W*H).Power terminal, antenna connector are not included.
- Installation Method: 35mm DIN-rail mounting,Panel mounting.

G806 series ordering guide

USR-G806 ordering guide			
model	USR-G806-<M>	USR-G806w-<M>	USR-G806s-<M>
Region <M>	-43：China/India -G：Global -A:North America -E：EMEA/South Africa/Thailand -AU：Latin/Australia/New Zealand -EAU:Europe/Australia/New Zealand	-G: Global -43: China/India -E: EMEA/Thailand -AU：Latin/Australia/New Zealand	-43：China/India -EAU:EMEA/Thailand
Wi-Fi	AP	AP/STA/Repeater	AP
Ethernet port	1WAN/LAN+1LAN	1WAN/LAN+2LAN	1WAN/LAN+1LAN
Serial port	--	---	RS485
Dimensions（mm）	100.0*94.0*29.0	104.0*102.0.28.0	90.0*84.0*25.0

Specifications

USR-G806w hardware specification				
Cellular Interface	Frequency	-E	-AU	-G
		TDD-LTE:B38/40/41	TDD-LTE:B40	TDD-LTE:B34/38/39/40/41
		FDD-LTE：B1/3/7/8/20/28A	FDD-LTE:B1/2/3/5/7/8/28	FDD-LTE: B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28/66
		WCDMA：B1/8	WCDMA：B1/2/4/5/8	WCDMA：B1/2/4/5/6/8/19
		GSM/EDGE:B3/8	GSM/EDGE:B2/3/5/8	GSM/EDGE:B2/3/5/8
	Antenna	1 x SMA-K		
	SIM card	1 x (3 V & 1.8 V) Standard 4FF SIM		
Ethernet	WAN	1 x WAN port (can be configured to LAN) 10/100 Mbps, compliance with IEEE 802.3, supports auto MDI/MDIX,1.5KV network isolation transformer protection		
	LAN	1 x LAN port, 10/100 Mbps, compliance with IEEE 802.3, IEEE 802.3u standards, supports auto MDI/MDIX,1.5KV network isolation transformer protection		
Indicators	PWR	red,always on after powered on		
	WIFI	green,always solid on when WiFi is enabled and working properly		
	2/3/4G mode indicator	2G led is on after connected to 2G network		
		3G led is on after connected to 3G network		
		Both leds is on after connected to 4G network		
	SIG	Signal strength：2 LED is solid on,strongest signal		
Wi-Fi	Standards & Frequency	IEEE 802.11b/g/n， 2.4GHz， AP/STA/Repeater mode		
	Data speed	300Mbps		
	Antenna	2 x RP-SMA-K		
	MIMO	2×2		
	Transmission distance	500 meters by line of sight.Actual transmission distance depends on environment of the site.		
	WiFi users	Up to 20 simultaneous connections		
Power Supply	Adaptor	DC 12V/1A		
	Connector	DC Power Jack Barrel Type Female 5.5*2.1mm Round socket or 2 PIN industrial terminal block,reverse polarity protection		
	Input voltage	DC 9-36V		

	Power consumption	Average 260mA/12V
Physical Characteristics	Casing material	Metal shell,IP30
	Dimensions	104.0*102.0*28.0 (L*W*H, antenna pedestal, terminal block and DIN Rail are not included)
	Installation	Panel mounting, DIN-Rail mounting
	EMC	Static IEC61000-4-2, level 3
		Pulsed Electric Field IEC61000-4-4, level 3
		Surge IEC61000-4-5, level 3
	Operating temperature	-20℃~+70℃
	Storage temperature	-40℃ ~ +125℃（non-condensing）
	Operating humidity	5%~95%（non-condensing）
Others	Reload	Pinhole reset button
	TBD	Debug interface (TTL Level)
	Ground protection	Screw
	Approvals	CE, WPC, RCM， ROHS, WEEE
USR-G806w Software Specifications		
Network Connection	WAN protocol	PPP, PPPoE, DHCP client
	LAN protocol	ARP, DHCP server, NAT， VLAN
	4G network access	Auto APN/VPDN, private network
		Access authentication: CHAP/PAP
	WLAN security	Open system,WPA/WPA2 PSK
		TKIP/AES encryption
	IP routing	Static routing
	Network diagnosis	Ping,route trace,DNS
Device management	Configuration	Web
	Remote management	SSH, AT command,SNMP,SMS
	PUSR platform	Remote monitoring,remote upgrade,alarming,base station location,remote access to web pages of the router
Security	Failover backup	WiFi WAN, Mobile, Wired options, each of which can be used as an automatic Failover
	Firewall	DMZ, anti-DoS, Filtering (IP/Domain name/MAC address), Port Mapping, Access Control
	VPN	Supports PPTP, L2TP, GRE, IPSEC VPN (IKEv1), OPENVPN protocols
Service	DDNS	Remote access the device through domain name

	Alarm	Email,SMS
		NTP client
	Others	Timing task

Purchase and Support

■ For more information please visit our websites:

Official website:https://pusr.com

Official shop:https://shop.usriot.com

Technical support: http://h.usriot.com/

DEKLARASI TEKNIS ALAT/PERANGKAT TELEKOMUNIKASI

A. Informasi Pemohon

PLG ID : 10441

B. Informasi Perangkat

APL ID : 8857

1.	Catu Daya	□ Vac 220 V □ Vdc : …. V □ …..	☑ DC Adaptor □ PoE
2.	Konstruksi	☑ Berdiri Sendiri □ Tergabung	□ Terpisah □ Modul

C. Fitur Telekomunikasi yang diujikan

- **Seluler (subscriber)**

□ GSM/DCS			
1.	Frekuensi Kerja	□ 900 MHz	□ 1800 MHz
2.	Nominal Daya RF (konektor/rf test point)	□ 900 MHz Daya RF : ….. dBm ± ….. dB □ 1800 MHz Daya RF : ….. dBm ± ….. dB	
□ WCDMA/UMTS			
1.	Frekuensi Kerja	□ 900 MHz	□ 2100 MHz
2.	Nominal Daya RF (konektor/rf test point)	□ 900 MHz Daya RF : ….. dBm ± ….. dB □ 2100 MHz Daya RF : ….. dBm ± ….. dB	
☑ LTE			
1.	Frekuensi Kerja	□ 450 MHz □ 900 MHz □ 2100 MHz	□ 850 MHz □ 1800 MHz ☑ 2300 MHz
2.	Nominal Daya RF (konektor/rf test point)	□ 450 MHz Daya RF : ….. dBm ± ….. dB □ 850 MHz Daya RF : ….. dBm ± ….. dB □ 900 MHz Daya RF : ….. dBm ± ….. dB □ 1800 MHz Daya RF : ….. dBm ± ….. dB □ 2100 MHz Daya RF : ….. dBm ± ….. dB □ 2300 MHz Daya RF : ….. dBm ± ….. dB	
Antena		□ Diluar dan terpisah dalam satu paket Gain : ….. dB □ Diluar dan berdiri sendiri tidak dalam satu paket □ Didalam atau tergabung Gain : ….. dB	

D. Fitur Telekomunikasi yang tidak diujikan

- ☑ Fitur GSM/DCS
- ☑ Fitur WCDMA/UMTS
- ☑ Fitur Wifi

E. Informasi Lainnya

- Fitur telekomunikasi yang terdapat pada dokumen teknis yang dilampirkan dan tidak dinyatakan dalam deklarasi ini, artinya tidak digunakan dan sudah tidak ada dalam alat/perangkat.
- .....
- .....

Cap/Stempel Perusahaan