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)
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LEMBAR PENGESAHAN
LAPORAN HASIL UJI
Test Report

No. Aplikasi : 0112-24
Application Number

Nomor LHU : R-45/0120/2024
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 Industrial Cellular Router
Merek/Tipe *Brand Name/ Type*	:	PUSR / USR-G806s
Nomor Seri/IMEI *Serial Number/ IMEI*	:	869816055258387
Buatan *Made In*	:	China

Tanggal Terima / Bayar *Date of Paid*	:	13 Maret 2024	**Jenis Pengujian** *Type of Testing*	:	UJI LABORATORIUM
Tanggal Mulai Uji *Date of Test*	:	18 Maret 2024	**Lokasi Pengujian** *Test Location*	:	Tapos - Depok
Tanggal Selesai Uji *Date of End*	:	18 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, 18 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)
(0112-24)

4G Industrial Cellular Router
PUSR / USR-G806s
869816055258387
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 : 22.1 °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
Dwi Permana Putra

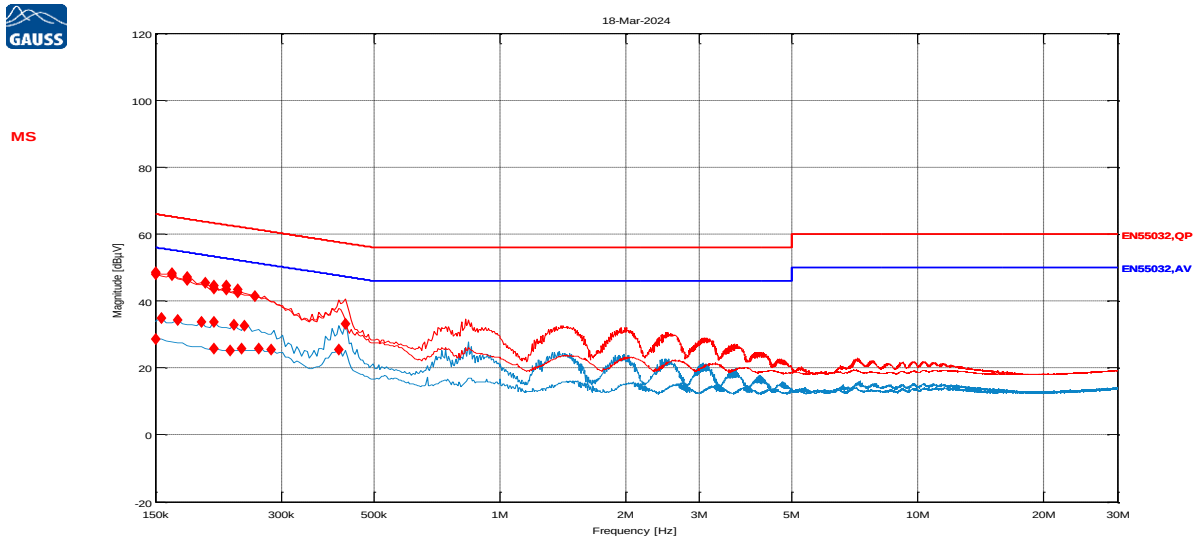

Penyelia Teknik Pengujian
Rofi Yuliansyah


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 Industrial Cellular Router/PUSR/USR-G806s
Nomor Seri/Buatan:869816055258387 / China
Nomor Permohonan:0112-24
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	48.61	66.00	17.39	1.0
164.50882 kHz	48.33	65.23	16.90	1.0
178.813934 kHz	47.13	64.54	17.41	1.0
197.887421 kHz	45.40	63.70	18.30	1.0
207.424164 kHz	44.58	63.31	18.73	1.0
221.729279 kHz	44.49	62.75	18.26	1.0
236.034393 kHz	43.55	62.23	18.69	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)
154.972076 kHz	35.00	55.73	20.73	1.0
169.277191 kHz	34.46	55.00	20.54	1.0
193.119049 kHz	33.88	53.90	20.02	1.0
207.424164 kHz	33.70	53.31	19.60	1.0
231.266022 kHz	32.79	52.40	19.62	1.0
245.571136 kHz	32.71	51.91	19.20	1.0
426.769257 kHz	33.14	47.32	14.18	1.0

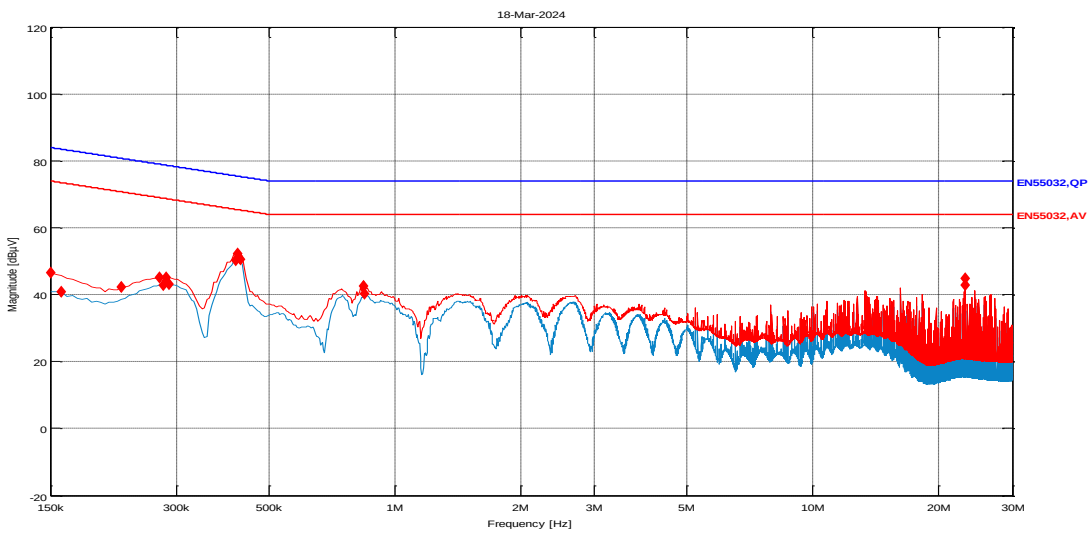
Scan3: 150.0 kHz, 5.0 kHz, 30.0 MHz; IF:9kHz, 1.0 s QP, Att 10dB, LISN-NSLK8127-L1

Frequency	Mag [dBµV]	Limit [dBµV]	Diff [dB]	Ketidakpastian Pengukuran pada 95% (k = 2)
150 kHz	47.97	66.00	18.03	1.0
164.50882 kHz	47.62	65.23	17.61	1.0
178.813934 kHz	46.23	64.54	18.31	1.0
207.424164 kHz	43.82	63.31	19.49	1.0
221.729279 kHz	43.56	62.75	19.19	1.0
236.034393 kHz	42.69	62.23	19.54	1.0
259.876251 kHz	41.55	61.44	19.88	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)
150.203705 kHz	28.65	55.99	27.34	1.0
207.424164 kHz	25.72	53.31	27.58	1.0
226.49765 kHz	25.31	52.58	27.27	1.0
240.802765 kHz	25.88	52.07	26.19	1.0
264.644623 kHz	25.71	51.28	25.57	1.0
283.718109 kHz	25.37	50.71	25.33	1.0
412.464142 kHz	25.37	47.60	22.23	1.0

MS



Standar Uji:CISPR 32
Nama Perangkat/Merk/Tipe:Indoor Wireless Access point / EnGenius / EWS356-FIT
Nomor Seri/Buatan:2321X2511J8Q / Taiwan
Nomor Permohonan:0112-24
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)
159.740448 kHz	40.95	73.48	32.53	1.0
278.949738 kHz	42.99	68.85	25.86	1.0
288.486481 kHz	43.10	68.57	25.47	1.0
417.232513 kHz	50.30	65.50	15.21	1.0
426.769257 kHz	50.57	65.32	14.75	1.0
846.385956 kHz	40.26	64.00	23.74	1.0
23.1289864 MHz	42.75	64.00	21.25	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)
150 kHz	46.46	84.00	37.54	1.0
221.729279 kHz	42.42	80.75	38.34	1.0
274.181366 kHz	45.03	78.99	33.96	1.0
283.718109 kHz	45.12	78.71	33.58	1.0
422.000885 kHz	52.35	75.41	23.06	1.0
841.617584 kHz	42.52	74.00	31.48	1.0
23.1289864 MHz	44.91	74.00	29.09	1.0

Gambar Sampel Benda Uji











USR IOT

Communication Expert
of Industrial IOT

USR-G806s Specification

4G industrial LTE VPN router



Product Description

The USR-G806s is an IoT cellular router that integrates 4G LTE, Wi-Fi, and VPN technologies to provide an easy, reliable, secure Internet connectivity and high-speed data access for equipment networking. With technologies such as 4G wireless wide area network ,Dual Ethernet ports (LAN + WAN),Wi-Fi wireless local area network it provides uninterrupted multiple network access capabilities.

The G806s is a sister product of the G806 series offering a choice of (3-wire) RS485/232. This means that RS485/232 devices,such as electricity meters, programmable logic controllers including Modbus RTU equipment can connect to the internet directly through the router. The product adopts high-performance CPU, working frequency up to 580MHz, based on a variety of hardware interfaces and powerful software functions, users can quickly build their own application network.

The G806s occupies a very small footprint and supports industrial protocols and accessories to ease integration which is suitable for large-scale distributed industrial applications, such as smart express cabinets, charging piles, CCTV, ATM machines, ticket machines, traffic management,vending machines, medical device networking, tower monitoring,lifts monitoring, digital signage, electricity, water conservancy, environmental protection, etc.

Product Features

Stable And Reliable

- Metal shell, IP30 protection.Ethernet ports support 1.5KV isolation transformer 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.

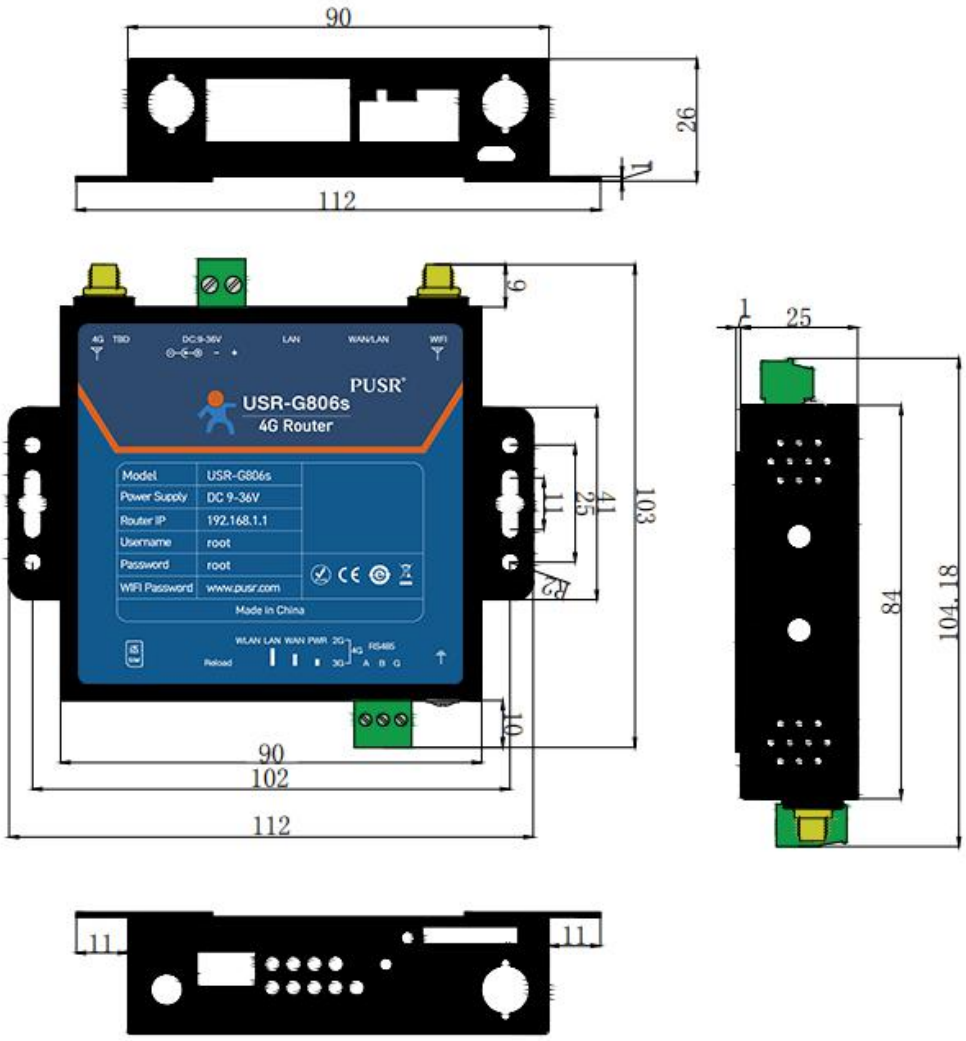
Uninterrupted network access

- 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.
- 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.
- Supports email alarm,SMS alarm,abnormal alarm push in time.
- Dual Ethernet ports, WAN/LAN.
- Multiple VPN protocols.
- 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 WLAN,scaling more devices access.
- 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.
- Provides wireless data communications between field serial devices and the central control system.
- Supports user-defined register & heartbeat packets, transparent TCP/UDP protocol, multi-center.

Dimensions



USR-G806s Dimensions

- Unit: mm.
- Installation Method: 35mm DIN-rail mounting,Panel mounting
- Dimensions: 112 * 84.0* 25.0mm(L*W*H).Power terminal,serial terminal, antenna connector are not included.

Specifications

Hardware Specifications		
Cellular Interface	Antenna	1 x SMA-K Note: North America models: 2 x SMA 4G antenna connectors.
	SIM card	1 x (3 V & 1.8 V) Standard 2FF SIM, drawer-type sim card slots
Ethernet	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	
	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	LED	PWR: always on after powered on WLAN: always solid on when WiFi is enabled and working properly WAN: solid when cable is connected, blinking when data is transmitting and receiving LAN： solid when cable is connected, blinking when data is transmitting and receiving 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 Signal strength：4 solid bars,strongest signal
WiFi Interface	Standards & Frequency	IEEE 802.11b/g/n,2.4GHz, AP mode
	Data speed	IEEE 802.11b/g,maximum 54Mbps.IEEE 802.11n,maximum 150Mbps
	Antenna	1 x SMA-K
	Transmission distance	80 meters by line of sight.Actual transmission distance depends on environment of the site.
Power Supply	Adaptor	DC 12V/1A
	Connector	DC Power Jack Barrel Type Female 5.5*2.1mm Round socket or 2 PIN 5.08mm industrial terminal block,reverse polarity protection
	Input voltage	DC 9~36V
	Working power	Average 270mA/12V
Serial Interface	RS485/RS232(alternative)	3 PIN 3.81mm industrial terminal block. Note:RS485 default,RS232 please contact sales.
	Baud rate(bps)	1200,2400,4800,9600,19200,38400,57600,115200,230400
	Data bits	8
	Stop bits	1,2
	Parity	NONE,ODD,EVEN
Physical Characteristics	Housing	Metal shell,IP30
	Dimensions	112.0*84.0*25.0 mm(L*W*H）
	Installation method	Panel mounting, DIN-Rail mounting
	EMC	Static IEC61000-4-2, level 2 Pulsed Electric Field IEC61000-4-4, level 2 Surge IEC61000-4-5, level 2

	Operating temperature	-20℃～+70℃
	Storage temperature	-40℃～+125℃
	Operating humidity	5%～95%RH（non-condensing）
Others	Reload	Pinhole reset button
	TBD	Debug interface (TTL Level)
	Embedded Watchdog	Device runs self-detection, auto recovers from malfunctions
Certificate	CE,CCC	

Software Specifications		
Network Connection	WAN protocol	PPP, PPPoE, DHCP client
	LAN protocol	ARP, DHCP server, NAT
	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
Serial modem	Work mode	NET,HTTPD
	Sockets	4 sockets,4 centers ,TCPS(SOCKA)/TCPC/UDPS/UDPC
	Modbus RTU toTCP	Support
Device management	Configuration	Web
	Remote management	Telnet, SSH, AT command,SNMP
	PUSR platform	Remote monitoring,remote upgrade,alarming,base station location,remote access to web pages of the router
Security	Failover backup	Failover between 4G and WAN, ensures automatic switch to alternative backup connection
	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
	Others	NTP client Timing task

Ordering guide

USR-G806s Ordering Guide		
Model	**USR-G806s-EAU**	
Region	EMEA&Australia & Latin America & New Zealand	
Frequency	TDD-LTE	B38/B40/B41
	FDD-LTE	B1/B3/B5/B7/B8/B20/B28
	WCDMA	B1/B5/B8
	GSM/GPRS/EDGE	850/900/1800MHz
Model	**USR-G806s**	
Region	Part of APAC，please confirm the frequencies	
Frequency	TDD-LTE	B38/39/40/41
	FDD-LTE	B1/B3/B5/B8
	WCDMA	B1/B8
	TD-SCDMA	B34/B39
	EVDO/CDMA1X	CDMA1X/ 1xEV-DO rel.0/ 1xEV-DO rev. A：800 MHz
	GSM/CPRS/EDGE	900/1800MHz

Purchase & 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 Alat/Perangkat**

APL ID : 8797

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

C. **Fitur Telekomunikasi yang terdapat pada Alat/Perangkat**

☑ Fitur LTE 2300 MHz
☐ Fitur .....
☐ Fitur .....

D. **Syarat Alat/Perangkat yang diujikan**

- **Umum**

☑ Alat/perangkat yang diujikan adalah alat/perangkat yang merupakan produk akhir
☑ Alat/perangkat yang diujikan tidak pernah mengalami modifikasi sebelumnya (hardware dan software)
☐ Menyertakan alat/perangkat lainnya yang tergabung dalam satu sistem dengan alat/perangkat yang diujikan sehingga dapat bekerja (khusus yang konstruksinya terpisah)

- **Catu Daya**

☐ Vac	:	Tegangan maksimum 250 Vac, Arus maksimum 16 A, 1 fasa
☐ Vdc	:	Tegangan maksimum 400 Vdc, Arus maksimum 16 A (menyertakan power supply sendiri untuk tegangan > 24 Vdc)
☑ DC Adaptor	:	Merupakan bagian dari perangkat dan merupakan produk OEM
☐ PoE	:	Menyertakan adaptor yang merupakan produk OEM

E. **Informasi Lainnya**

- Hanya mengujikan Band Frequency 40 atau LTE (2300MHz)
- .....
- .....

Cap/Stempel Perusahaan

PT. Farra Ekatama Solusi