

4G LTE Gateway ETS-16x8 Data Sheet



1.1 Overview

4G LTE VoIP gateway ETS16x8 is newly designed IP to 4G LTE gateway supporting maximum 16 ports 128 SIMs of 4G Volte Voice interface, it can effectively realize the smooth transition between PLMN(4G) and VoIP network. Compact cost effective design and system architecture of 4G LTE Gateway ETS-16x8 provides customer satisfaction in high quality , performance and system reliance.

Mostly important, 4G LTE Gateway ETS16x8 features with new functions such as multi-SIM rotation, Human behavior, BTS rotation, proxy server encryption for anti IP block, ETS bandwidth optimization (SBO), Auto IMEI change and generation, auto activation SIM card etc.

This product uses the state-of-art technology voice compression and Smart QoS of ETS to maintain the maximum voice quality under fast internet line and slow internet line as well, thus It is an ideal gateway for heavy duty VoIP call termination (VoIP to 4G Volte) and Origination (4G Volte to VoIP), it is fully compatible with leading soft switch and SIP server.

1.2 Main features

Support 4G 16 ports, up to 8 concurrent calls (1 Port 8 SIM card ,total 128 SIM card)

Module: SIMCOM A7670C

Support 4G Band

FDD LTE: B1/B3/B5/B8

TDD LTE: B34/B38/B39/B40/B41

Support multi-sim card rotation to avoid sim block

Support Human behavior function

Support SBO (Switch Bandwidth Optimization)

Support BTS rotation and lock

Support encryption for VOS for anti-block of IP port

Support SMS Sending / batch SMS Sending / receiving

Support USSD balance inquiry

Auto activation SIM card and recharge

Support IMEI change , auto IMEI change and generation

Automatically lock/open SIM card/ port according to its balance or alarm

Support Codec: G.711a/u law, G.723.1, G726,G.729AB

Support bandwidth optimization (optional)

Sys log output by USB interface for tracking records

User friendly web management interface

HTTP Web support for configuration and upgrade

SIM swapping

HTTP Web support ASR, ACD, PDD, SIM balance enquiry

Convert the number as preset rules /Number translation

Call routing / digit map

CDR management

IVR customized

BCCH management

SIM card rotation conditions:

- 1) According to accumulated call duration check (talk time)
- 2) According to accumulated idle &talking check(use time)
- 3) According to accumulated calls check (call counter)
- 4) According to consecutive call failure check(call failure)
- 5) According to consecutive low-duration calls check (Low duration)

Human behavior conditions:

- 1) According to accumulated call duration check (talk time)
- 2) According to accumulated idle &talking check(use time)
- 3) According to accumulated calls check (call counter)

1.3 Specifications

Interfaces

- Mobile Ports: 16 ports 4G LTE channels
- Two(2) 10/100Mbps Ethernet Interface (2xRJ45)
- USB: 1 port

Voice Processing

- Voice Codec: G.711a/u law, G.723.1, G726,G.729AB
- QoS: Diff Serve, T oS, VAD, PLC, CNG

Call Features

- Calling Type: Terminate/Originate calls
- IVR Voice Prompt: Two stage dialing, Customized IVR
- Call handling: One stage dialing, Configurable dial plan, digit map
- DTMF: RFC2833, SIP

Mobile Features

- General Feature: SMS, USSD, IMEI/PIN modify, Call minutes restriction, Carrier select, BCCH, Reversal Polarity Network
- Network Mode: NAT router or switch mode
- Network Protocols: IP,TCP, UDP,TFTP, FTP, RTP, RTCP, ARP, RARP,ICMP Ping, NTP, SNTP, HTTP, DNS, PPPoE, DHCP
- NAT traversal: Static NAT, STUN

Protocol

- Protocol: SIP V2.0 RFC3261
- SIP Characteristics: By port/device registration, Two183 mode

Configuration Management

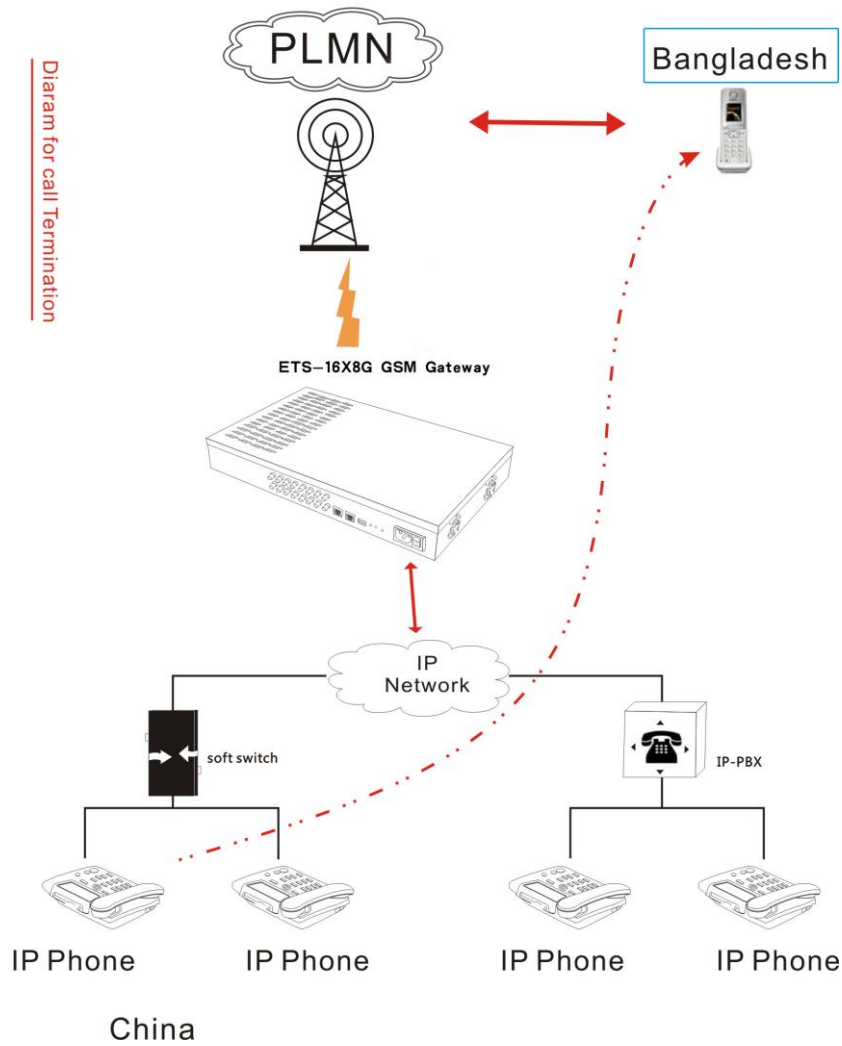
- Management: TFTP, HTTP, Sys log, CDR
- Web GUI: Configuration, firmware upgrade, call status, CDR ,Configuration backup/restore

Hardware Specifications

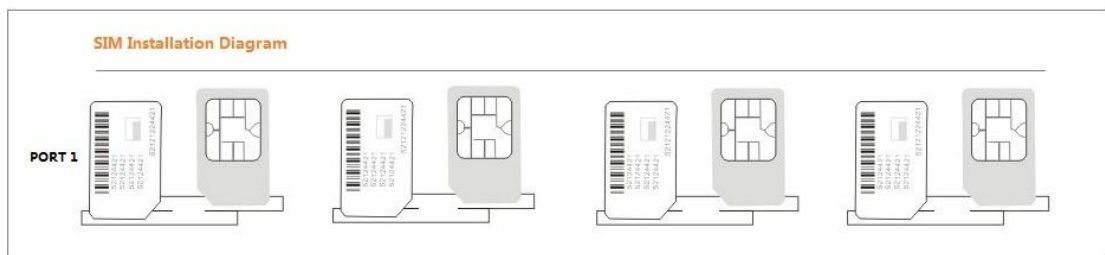
- Power Supply:AC100~240V 50/60HZ DC12V/5A
- Temperature: 0~40 °C (Operation) , -20~80 °C (storage)
- Humidity: 5%~90% RH,
- Power Consumption: 35W
- Product Appearance: Rack mountable 1u chassis
- Product Dimensions: 44(W) x 28(D) x 6.8(H) cm
- Product Net weight: 6 kg
- Carton box Dimensions: 52(W) x 38(D) x 20(H) mm
- Gross weight: 7 kg

1.4 Application

International VoIP call termination



1.5 SIM Card Installation Diagram



1.6 Call traffic examples

ETS Administration Interface												
Port Information												
Port	Enable	Slot	HB mode	Balance(min)	Call Number	Signal	ASR	ACD	PDD	Status	Talk Time	Codec
1	on	6	client	106:52	---	T _{out}	41.7%	7:13	6	Idle	--	--
2	on	2	client	78:45	+8801862987702	T _{out}	41.8%	5:35	8	Talking	0:25	G711_A
3	on	1	client	17:17	+8801813010041	T _{out}	43.6%	7:34	6	Talking	0:10	G711_A
4	on	5	client	32:32	01718269393	T _{out}	40.6%	7:18	6	Talking	5:24	G729
5	on	1	client	57:18	01771297863	T _{out}	46.6%	7:41	7	Talking	9:19	G729
6	on	1	client	88:54	01961932164	T _{out}	44.7%	9:19	7	Talking	9:43	G729
7	on	8	client	87:15	01815370561	T _{out}	36.9%	6:45	6	Talking	5:01	G729
8	on	4	client	98:27	---	T _{out}	40.9%	7:22	7	Idle	--	--
9	on	2	client	85:12	01756470114	T _{out}	41.8%	5:59	7	Talking	14:36	G729
10	on	2	client	59:24	01835550850	T _{out}	34.6%	6:45	6	Talking	8:16	G729
11	on	1	client	89:06	01777107582	T _{out}	31.8%	5:40	22	Talking	10:43	G729
12	on	1	client	111:00	---	T _{out}	36.9%	5:45	7	Unregister	--	--
13	on	4	client	79:32	01786095382	T _{out}	41.0%	5:36	8	Talking	4:32	G729
14	on	5	client	69:14	01858817563	T _{out}	44.2%	6:14	6	Talking	9:35	G729
15	on	4	server	424:36	+8801838454883	T _{out}	69.2%	2:18	6	Talking	0:11	G711_A
16	on	3	server	442:19	+8801838959984	T _{out}	72.1%	0:53	6	Talking	0:25	G711_A

ETS Administration Interface												
Port Information												
Port	Enable	Slot	HB mode	Balance(min)	Call Number	Signal	ASR	ACD	PDD	Status	Talk Time	Codec
1	on	5	client	49:55	01764216138	T _{out}	42.6%	7:17	7	Talking	1:48	G729
2	on	2	client	78:45	---	T _{out}	41.8%	5:35	8	Idle	--	--
3	on	1	client	27:51	01821488244	T _{out}	43.2%	7:31	6	Talking	7:13	G729
4	on	5	client	32:32	01718269393	T _{out}	40.6%	7:18	6	Talking	1:03	G729
5	on	1	client	57:18	01771297863	T _{out}	46.6%	7:41	7	Talking	4:57	G729
6	on	1	client	88:54	01961932164	T _{out}	44.7%	9:19	7	Talking	5:21	G729
7	on	8	client	87:15	01815370561	T _{out}	36.9%	6:45	6	Talking	0:40	G729
8	on	3	client	93:09	01687217803	T _{out}	40.4%	6:31	7	Talking	47:10	G729
9	on	2	client	85:12	01756470114	T _{out}	41.8%	5:59	7	Talking	10:14	G729
10	on	2	client	59:24	01835550850	T _{out}	34.6%	6:45	6	Talking	3:55	G729
11	on	1	client	89:06	01777107582	T _{out}	31.8%	5:40	22	Talking	6:22	G729
12	on	8	client	84:48	+8801813010041	T _{out}	37.5%	5:51	7	Talking	0:39	G711_A
13	on	4	client	79:32	01786095382	T _{out}	41.0%	5:36	8	Talking	0:11	G729
14	on	5	client	69:14	01858817563	T _{out}	44.2%	6:14	6	Talking	5:14	G729
15	on	4	server	425:34	+8801852382219	T _{out}	68.8%	2:19	6	Talking	0:38	G729
16	on	3	server	442:19	---	T _{out}	72.1%	0:53	6	Idle	--	--

1.7 ETS Administration Interface Diagram

ETS Administration Interface																	
Port Information																	
Port-[Slot]	Balance	Sim Card								Operator	Call Number	Signal	PDD	Status	Talk Time	ASR	ACD
		1	2	3	4	5	6	7	8								
1-[1]	--	●	○	○	○	○	○	○	○	46002	---	T _{out}	0	Idle	--	100%	0:33
2-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
3-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
4-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
5-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
6-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
7-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
8-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
9-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
10-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
11-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
12-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
13-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
14-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
15-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	
16-[1]	0.00	●	○	○	○	○	○	○	○	---	T _{out}	0	Unregister	--	0%	0:00	

