ENFORA SA

GSM/GPRS/EDGE

QUAD-BAND INTEGRATED PLATFORMS

ADD PLUG-AND-GO WIRELESS TO REMOTE MONITORING & RURAL INTERNET APPLICATIONS

The Enfora SA family is a fully certified quad-band integrated platform that enables simple integration through a serial or USB connection. Available with GSM/GPRS and EDGE capabilities, the SA family also lets you address multiple markets and geographies with a single design. The included modem-management software supports Windows® XP, Professional 2000 and 98SE.

QUICK OVERVIEW

- Compact, economical standalone IP modem
- Full GSM/GPRS/EDGE voice and data features
- Simple serial or USB connectivity
- Auto-registration on start-up
- Modem-management software supports Windows® XP, Professional 2000 and 98SE
- Seamless extruded aluminum housing

Today, more and more companies are turning to Enfora for wireless M2M solutions. By relying on our technology and expertise, they have more time for their core business. When you want to quickly add wireless access to remote monitoring applications, Enfora is ready to help you **enable information anywhere.**

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Enable Information Anywhere

	SA-G QUAD-BAND	SA-GL QUAD-BAND	SA-EL QUAD-BAND
MODEL NUMBERS	**GSM1208**	**GSM1218**	**EDG1228**
CHARACTERISTICS			
Dimensions (L x W x H)	108.0 x 88.9 x 31.8 mm	63.5 x 63.5 x 23.9 mm	63.5 x 63.5 x 23.9 mm
Housing	Seamless aluminum extrusion	Seamless aluminum extrusion	Seamless aluminum extrusion
Antenna	SMA connector	SMA connector	SMA connector
Voice Jack	2.5 mm headset jack	2.5 mm headset jack	2.5 mm headset jack
RADIO PERFORMANCE			
Frequency (MHz)	850/900/1800/1900		
Sensitivity	–106 dB (typical)		
Transmit power	Class 4 (2W@850/900 MHz); Class 1 (1W@1800/1900 MHz)		
PACKET DATA			
Mode	Class B, Multislot 10		
Protocol	GPRS Release 97 & 99, SMG 31		
Coding schemes	CS1-CS4; MCS1-MCS9 with SA-EL		
Packet channel	PBCCH/PCCCH		
GSM FUNCTIONALITY			
Voice	FR, EFR, HR & AMR		
CS data	Asynchronous; Transparent and Non-Transparent up to 14.4 kB		
GSM SMS	Text, PDU, MO/MT, Cell Broadcast		
SOFTWARE			
Host protocols	AT commands, UDP/API	AT commands, UDP/API	AT commands
Internal protocols	PPP, UDP/API, UDP/PAD, CMUX, TCP/PAD, TCP/API	PPP, UDP/API, UDP/PAD, CMUX, TCP/PAD, TCP/API	PPP, CMUX (GSM 7.10)
API control/status	AT or UDP	AT or UDP	AT or CMUX
INTERFACES			
Physical interface		RS-232C	USB
Peripheral interface	8-pin I/O: 4 user-defined digital I/O; 2 A/D; 1 analog output; ground		8-pin I/O: 4 user-defined digital I/O; 2 A/D; 1 analog output; ground
SIM ACCESS	External –3 V with locking mechanism		
ENVIRONMENT			
Operating	–20ºC to 60ºC		
Storage	–40ºC to 85ºC		
Humidity	Up to 95% non-condensing		
POWER			
DC voltage	5-30 Vdc (two-pin Molex)	5-9 Vdc (two-pin Molex)	5 Vdc (powered by USB)
GSM operating power (typical)	SA-G @ 12 V	SA-GL @ 9 V	SA-EL @ 5 V
CERTIFICATIONS			
FCC	Parts 15, 22 & 24		Parts 15, 22 & 24
GCF	Version 3.21.1		Version 3.17
PTCRB	Version 3.7.1		Version 3.2.1
Industry Canada (CSA)	Yes		Yes
CE Mark	Yes		Yes
RoHS Compliant	Yes		Yes
PART NUMBERS	GSM1208	GSM1218	EDG1228

SA-G @ 12 V

Band	Mode	Avg (mA)	Peak (A@dBm)
GSM 850 & EGSM 900	1TX/1RX	150	0.82@32
	Idle	50	
	Sleep	20	
DCS 1800 & PCS 1900	1TX/1RX	112	0.58@30
	Idle	21	
	Sleep	20	

SA-GL @ 9 V

Band	Mode	Avg (mA)	Peak (A@dBm)
GSM 850	1TX/1RX	230	1.42@32
	Idle	50	
	Sleep	15	
EGSM 900	1TX/1RX	220	1.7@30
	Idle	44	
	Sleep	15	
DCS 1800	1TX/1RX	210	1.45@30
	Idle	40	
	Sleep	15	
PCS 1900	1TX/1RX	215	1.50@31
	Idle	40	
	Sleep	15	

SA-EL @ 5 V

Band	Mode	Avg (mA)	Peak (A@dBm)
GSM 850	1TX/1RX	340	0.85@32
	Idle	50	
	Sleep	20	
EGSM 900	1TX/1RX	340	0.86@33
	Idle	50	
	Sleep	20	
DCS 1800	1TX/1RX	300	0.72@30
	Idle	40	
	Sleep	20	
PCS 1900	1TX/1RX	320	0.75@30
	Idle	40	
	Sleep	20	

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