WHEN SMALL SIZE & LOW POWER MATTER

(Actual size)

ENABLER® III

GSM/GPRS/EDGE QUAD-BAND OEM MODULE

The Enabler III is a certified quad-band OEM module family that packs complete GSM/GPRS/EDGE functionality into a compact footprint. The embedded software environment enables development of essential capabilities—mobile connectivity, device intelligence and location aware—by utilizing the built-in program rules engine, network router and control and automation capabilities. With power consumption of <2.5mA the Enabler III significantly enhances longer battery life.

To accelerate deployment, use Enfora's Services Gateway to quickly build links from your asset-tracking devices to your existing enterprise applications and services. The Services Gateway provides a complete view of your devices, enabling proactive asset management. It also supports popular enterprise software such as MS SQL Server, MySQL and Oracle.

Key Features

- Utilizes leading-edge GSM/GPRS/EDGE silicon solutions from Texas Instruments
- BGA and multi pin connector forms
- Supports essential features
  - Voice
  - SMS
  - Circuit-switched data
  - Packet Data Class 10
  - TCP/IP software stack
  - UDP (PAD)
  - Utilize Enfora's Services Gateway to quickly link to existing applications & services

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	ENABLER IIIG DUAL-BAND	ENABLER IIIG QUAD-BAND	ENABLER IIIG-BGA QUAD-BAND
MODEL NUMBER	**GSM0306**	**GSM0308**	**GSM0408**
CHARACTERISTICS			
Dimensions	28 x 27 x 2.5 mm	28 x 27 x 2.5 mm	28 x 24 x 3.0* mm **Nominal Thickness (Includes BGA Ball) Before Reflow*
Weight	<3.6 g	<4.2 g w/ SIM carrier /<3.6 g w/o SIM carrier	< 3.6 g
RF connector	Board-to-board compressor	MCD coaxial or board-to-board compressor	
Main Connector	Molex 0.4 mm Slim Stack (1.5 mm matting height)	Molex 0.4 mm Slim Stack (1.5 mm mating height)	167 Pin BGA (includes RF)
RADIO PERFORMANCE			
Frequency (MHz)	900/1800	850/900/1800/1900	
Sensitivity	–106 dBm (typical)	–106 dBm (typical)	
Transmit power	Class 4 (2W@850/900 MHz) Class 1 (1W@1800/1900 MHz)	Class 4 (2W@850/900 MHz) Class 1 (1W@1800/1900 MHz)	
GPRS PACKET DATA			
Mode	Class B, Multislot 10		
Protocol	GSM/GPRS Rel 97, AMR Rel 99		
Coding schemes	CS1-CS4		
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		
SIM ACCESS			
Remote SIM	1.8/3V SIM		1.8/3V SIM
Optional integrated SIM carrier	Yes		No
INTERFACE			
Host protocols	AT commands, UDP API, CMUX, PPP		AT commands, UDP API, CMUX, PPP
Internal protocols	PPP, UDP API, TCP API, UDP and TCP (PAD)		PPP, UDP API, TCP API, UDP and TCP (PAD)
API control/status	AT commands, UDP API, TCP API, AT commands over SMS		AT commands, UDP API, TCP API, AT commands over SMS
Physical interface	UART, USB		UART, USB
Peripheral interface	8 programmable I/O (expandable to 20), 1 analog input, 3 audio (1 digital audio)		UP to 20 programmable I/O (includes keypad), 3 analog input, 4 audio (2 digital audio) plus speaker, 2 LCD, camera, battery charger
ENVIRONMENT			
Operating	–30°C to 85°C		
Compliant	–20°C to 60°C		
Storage	–40°C to 85°C		
Humidity	Up to 95% non-condensing		
POWER			
DC voltage	3.3 to 4.5 V		
GSM operating power (typical)	See table below		
CERTIFICATIONS			
FCC	N/A	Parts 15, 22 & 24	
GCF	Version 3.27.0	Version 3.27.0	
PTCRB	N/A	Version 3.12.0	
CE Mark	Yes	Yes	
Industry Canada	N/A	Yes	
RoHS Compliant	Yes	Yes	
PART NUMBERS			
Without SIM carrier	GSM0306-10 (B2B RF) GSM0306-70 (Micro coaxial)	GSM0308-10 (B2B RF) GSM0308-70 (Micro coaxial)	GSM0408-40
With SIM carrier	GSM0306-11 (B2B RF) GSM0306-71 (Micro coaxial)	GSM0308-11 (B2B RF) GSM0308-71 (Micro coaxial)	

Band	Mode	Avg (mA)	Peak A
GSM 850/900	1TX/1RX	250	1.6
GSM1800/1900	1TX/1RX	215	1.3
	Idle	<2.5 DRX 5	
	Sleep	600 µA	

	ENABLER IIIE QUAD-BAND	ENABLER IIIE-BGA QUAD-BAND
MODEL NUMBER	**EDG0308**	**EDG0408**
CHARACTERISTICS		
Dimensions	34 x 28 x 2.5 mm	33 x 28 x 3.3* mm *Nominal Thickness (Includes BGA Ball) Before Reflow*
Weight	< 5.6 g w/ SIM carrier/ < 4.7g w/o SIM carrier	< 5.8 g
RF connector	Board-to-board compressor or MCD coaxial	
Main Connector	Molex 0.4 mm Slim Stack (1.5 mm matting height)	223 pin BGA (includes RF)
RADIO PERFORMANCE		
Frequency (MHz)	850/900/1800/1900	
Sensitivity	–106 dBm (typical)	
Transmit power	Class 4 (2W@850/900 MHz) Class 1 (1W@1800/1900 MHz)	
GPRS PACKET DATA		
Mode	Class B, Multislot 10	
Protocol	GSM/GPRS/EDGE/AMR Rel 99	
Coding schemes	CS1-CS4, MCS1-MCS9	
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	
SIM ACCESS		
Remote SIM	1.8/3V SIM	1.8/3V SIM
Optional integrated SIM carrier	Yes	No
INTERFACE		
Host protocols	AT commands, CMUX, PPP	
Internal protocols	PPP	
API control/status	AT commands	
Physical interface	Serial 16550, USB 2.0	
Peripheral interface	8 programmable I/O, 1 analog inputs 3 audio (1 digital audio)	
ENVIRONMENT		
Operating	–30°C to 85°C	
Compliant	–20°C to 60°C	
Storage	–40°C to 85°C	
Humidity	Up to 95% non-condensing	
POWER		
DC voltage	3.3 to 4.5 V	
GSM operating power (typical)	See table below	
CERTIFICATIONS		
FCC	Parts 15, 22 & 24	Parts 15, 22 & 24
GCF	Version 3.27.0	Version 3.27.0
PTCRB	Version 3.12.0	Version 3.12.0
CE Mark	Yes	Yes
Industry Canada	Yes	Yes
RoHS Compliant	Yes	Yes
PART NUMBERS		
Without SIM carrier	EDG0308-10 (B2B RF) EDG0308-70 (Micro coaxial)	EDG0408-40
With SIM carrier	EDG0308-11 (B2B RF) EDG0308-71 (Micro coaxial)	

Band	Mode	Avg (mA)	Peak A
GSM 850/900	1TX/1RX	250	1.6
GSM 1800/1900	1TX/1RX	215	1.3
	Idle	<2.5 DRX 5	
	Sleep	600 µA	

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