

ADGT GSM/3G/NB-IoT

ADM Modem Series

ADM112, ADM114, ADM216
ADM226, ADM236

Industrial Smart Modem Series for M2M Applications



Industrial cellular smart modem series for remote data transmission and M2M networking applications. Available in 2G/GPRS, 3G, NB-IoT models. Come with most popular serial RS-232 and/or RS-485 ports, dual SIM card slots and a USB interface for easy modem configuring.

PRODUCT OVERVIEW

In order to ensure wireless communication with remote serial devices over a cellular network we develop the series of smart modems with a vast range of capabilities to solve tasks of industrial automation, M2M, IoT connectivity.

ADM modems provide fast and reliable transparent data transfer via 2G, 3G or NB-IoT channel using the TCP/IP protocol.

Modems are equipped with 2 SIM card slots for a channel redundancy in case one operator's network fails and also support backup connection via CSD.

KEY FEATURES

Due to the built-in microcontroller, ADM modems provide extensive configuration and management capabilities:

- TCP Client/TCP Server modes
- Simultaneous connection to 5 servers in Client mode. Simultaneous connection of up to 5 PCs in Server mode
- Connection on schedule and on request to optimize the cost of communication services
- Checking network connectivity using PING/TCP requests
- Local and remote configuring and firmware update using convenient configuration tool. More than 200 configuration parameters. Remote configuration via TCP, CSD or SMS
- ADC input to ensure remote facilities monitoring
- Time synchronization using the NTP servers.

Ordering Information:

ADM114-CG

Optional:

- C - Built-in PSU (*pre-order*)
- G - RS-485 galvanic isolation

Serial Ports:

- 2 - RS-232
- 4 - RS-485
- 6 - RS-232 + RS-485

Connection Type:

- 1 - GPRS
- 2 - NB-IoT
- 3 - UMTS (3G)

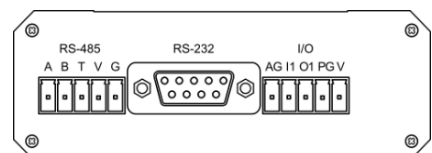
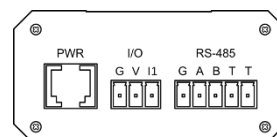
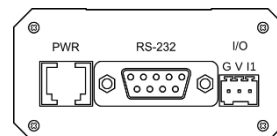
Enclosure Type:

- 1 - small aluminum case (IP30)
- 2 - wide aluminum case (IP30)

Application Areas:

- Smart grids and smart metering (heat, electricity, water, gas). AMR/AMI
- Transportation and security, alarm and alert systems
- Power and energy industry

Serial Ports:



SPECIFICATIONS

	ADM112	ADM114	ADM216	ADM226 (pre-order)	ADM236
NETWORK PARAMETERS					
Standard	GSM/GPRS			NB-IoT	3G
Frequency Range	850/900/1800/1900			LTE B1/B3/ B5/B8/B20/B28	UMTS 900/2100 GSM 850/900/ 1800/1900
Rate (DL/UL)	85,6 kbps/42,8 kbps			125 kbps/ 150 kbps	7,2 Mbps/ 5,76 Mbps
CSD rate	up to 9,6 kbps				
MICROCONTROLLER					
CPU	ARM® Cortex-M3, 32bit				
Frequency	36 MHz				
POWER					
Source	DC 7 ~ 30 V				
Current	100 mA (12V)				
Power Connectors	1 x 6P6C 1 x 2-pin terminal block (when the modem is powered via the 6P6C connector, the input can work as a 7-30V output to external devices)				
SERIAL					
Interface	1 x RS-232 9-pin (D-Sub)	1 x RS-485 2-pin (A+, B-)	1 x RS-232, 1 x RS-485 9-pin (D-Sub), 2-pin (A+, B-)		
RS-485 termination resistor	–	120 Ohm, connected			
Baud Rate	600 bps ~ 115200 bps				
Data Bit	7, 8				
Check Bit	None, Even, Odd				
Stop Bit	0,5; 1; 1,5; 2				
Flow Control	RTS/CTS (RS-232 only)				
Receive Buffer	1024 byte				
INTERFACES					
Input	1 x ADC type input (I1). Input Voltage: 0 ~5 V				
Output	–	open collector digital output, 12 V power output, 7.5 V power output			
USB2.0	1 x USB mini B				
SIM	2 x mini-SIM slot				
Antenna connector	1 x SMA(f)				
ADDITIONAL OPTIONS (see “Ordering Information”, page 1)					
RS-485 Protection (G)	galvanic isolation, 2500V rms for 1 min. per UL 1577				
Built-in Power Supply Unit (C)	Input voltage: AC 100 ~ 240 V, max. current – 20 mA, 2-pin terminal block connector				
MECHANICAL & ENVIRONMENTAL					
Dimensions (L x W x H)	76 x 65 x 35 mm		97 x 82 x 36 mm		
Weight	135 gr		195 gr		
Enclosure	Aluminum Alloy (IP30)				
Mounting	DIN rail, wall, table rubber feet				
Operating temperature	-40...+70° C				
Warranty	2 years				

