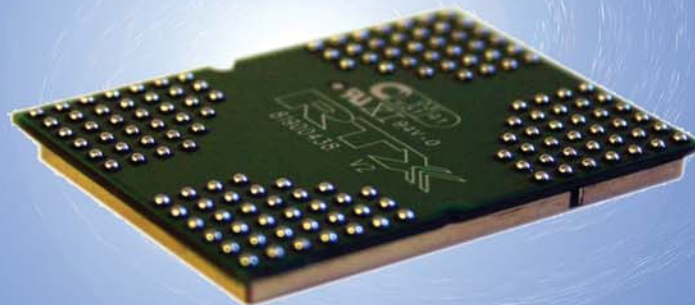


GSM/GPRS Dual-Band Cellular Engine RTX5002



GSM/GPRS Dual-Band Cellular Engine

The RTX5002 GSM/GPRS dual-band cellular engine is a cost-efficient answer to your needs for embedded high-speed data vehicles. The applications are many, here are just a few:

- Telemetry
- Telematics
- Telecom equipment and modems
- Industrial applications
- Security systems
- Service and maintenance
- Point-of-sale equipment
- Vehicle fleet management
- etc.

Easy-to-use

Whatever the application, with measurements of only 42.0 x 32.0 x 3.7 mm, the RTX5002 module is easily integrated into even the smallest of devices.

The RTX5002 comes as standard with full type approval in line with the relevant standards such as R&TTE and GCF.

Reliable

With a view to ensuring utmost reliability from the RTX5002 cellular engine, RTX Telecom decided to base its design upon well-proven and mature, yet cutting-edge, chip-set technology and protocol stack from Texas Instruments.

RTX Telecom can help you in more ways

RTX Telecom is a development house and our core expertise focuses on development services. With our vast experience in numerous wireless technologies, and the convergence of the same, RTX Telecom can dramatically speed up your project and ensure that tight schedules as regards Time-to-Market, Time-to Volume and Time-to-Quality are met. RTX Telecom would be delighted to take on the challenge of taking care of the entire supply chain, right from designing your product through to start of production. We are here to serve you and encourage you to come forward with your ideas and wishes for future cooperation.



Technical Specifications

General features	
Dual band EGSM 900/DCS 1800	
Compliant to ETSI GSM phase 2/2+	
Output power	
- EGSM 900 Class 4 (2W)	
- DCS 1800 Class 1 (1W)	
GPRS class 10	
Coding scheme CS1 to CS4	
MS class B and C	
Dimensions: 32.0 * 42.0 * 3.7 mm (Height including BGA ball size before mounting)	
Weight: 8 g	
Supply range:	
- Nominal 3.6V DC	
- Minimum 3.3 V DC	
- Maximum 5.0 V DC	
Current consumption	
- Stand by	100µA
- Idle	4mA
- Call EGSM900 PCL5	260mA
- Call DCS1800 PCL0	200mA
- GPRS 900 PCL5	450mA
- GPRS 1800 PCL0	350mA
Ambient operating temperatures: -20°C to +55°C	
Control by AT-command (ETSI 7.07 and 7.05)	
TCP/IP interface via AT-commands	
Module features	
SIM Toolkit	
Phonebook	
Real-time clock	
Net services (Registration info, operator selection)	
Data/Fax	
SMS (Text and PDU/Point-to-point (MT/MO) /Cell broad cast)	
Audio	
Telephony	
Emergency call	
Full rate, Enhanced Full rate & Half Rate (FR/ EFR/HR)	
Echo cancellation	
Noise reduction	
DTMF (Fixed tone length)	

GSM Data/Fax
CSD up to 14.4 kbps asynchronous. Transparent and non-transparent
V110, maximum 14.4 kbps
Fax Group 3, class 2
GSM Supplementary Services
Call forwarding
Call barring
Multiparty
Closed user group
Call waiting and call hold
Advice of charge (AoC)
Calling line identity
USSD
Subsidy protection: Network personalization to GSM 02.22 standard
Interfaces
Antenna interface
- Murata Coaxial GSC type RF connector
- RF pads supporting board-to-board contact
144-pin BGA package type includes
- Power supply
- SIM 1.8/3V
- Keyboard 5*5 matrix
- GPIO
- 2 A/D Converter inputs
- D/A converter output
- 4 wire RS 232 serial link
- SPI interface to LCD and/or melody generator
- Parallel interface to colour LCD and/or melody generator
- Analog audio
- Digital audio
- Triple audio interface for handset, auxiliary and headset
- Buzzer
- Vibrator
- Battery charging. Supports both Li-Ion and Ni-Mh
- IrDA
SIM tool kit
- SIM Application Toolkit (Release 98 compliant)
Additional features
- Code upgrade of terminal equipment (e.g. firmware update of application processor)