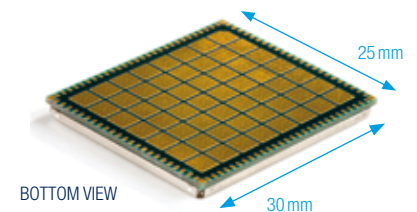
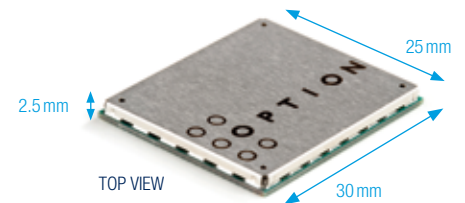


# GTM501

- World's Smallest HSPA module
- Easy to integrate WAN module
- High speed: up to 7.2 Mbps downlink and 5.76 Mbps uplink
- Most Advanced Receiver Technologies: Equalization and Rx Diversity
- Multimode HSUPA, HSDPA, UMTS, EDGE, GPRS and GSM
- Extended feature set: Voice
- Flexible driver design for easy software integration
- Wide range of certifications and infrastructure testing



## About GTM501

The GTM501 Embedded module is a radical evolution of Option modules especially developed for Ultra-Mobile PC and Mobile Internet Devices. Delivered in a LGA package, the GTM501 is the world smallest HSPA module.

The GTM501 Embedded module is offering HSUPA, HSDPA, UMTS, EDGE, GPRS and GSM connectivity technology resulting in downlink rates up to 7.2 Mbps and uplink rates up to 5.76 Mbps. The GTM501 includes 3GPP Type III Advanced Receiver Technology on three UMTS bands.

## Features

- Global connectivity with triple-band 3G and quad-band 2G implementation
- Multimode HSUPA/HSDPA/UMTS/EDGE/GPRS/GSM
- CS Voice support
- 3GPP Type III Advanced Receiver Technology allowing Receiver Diversity and Equalization on all 3G bands
- High-speed data with HSPA (HSDPA/HSUPA) and UMTS (up to 7.2 Mbps downlink and 5.76 Mbps uplink) and backward compatible with EDGE/GPRS/GSM data connectivity (up to 247 Kbps)
- Transparent hand-over between UMTS and GSM/EDGE networks
- Ultra-low power dissipation for embedding into devices
- Benefits from large Option experience in PC datacards and stand-alone modems/gateways
- Easy integration made possible thanks to:
  - Testing on infrastructures and networks worldwide
  - Flexible driver design
  - Future proofing through Flash Memory technology

# GTM501

## Specifications

- HSPA/HSDPA/UMTS
  - . 850/1900/2100 Mhz with Rx diversity on all bands
  - . Power Class 3 (+24 dBm)
  - . HSUPA mode: up to 5.76 Mbps: Category 6
  - . HSDPA mode: up to 7.2 Mbps: Category 8
  - . Simultaneous Equalization and Rx Diversity (Advanced Receiver Type III)
  - . UMTS: 384 Kbps operation in downlink, 384 Kbps in uplink
  - . Support UL and DL Compressed Modes
  - . Circuit-switched data: 64, 14.4 and 9.6 Kbps
- EDGE
  - . 850/900/1800/1900 Mhz
  - . GSM Power Class 4 (2W) for 850/900 bands
  - . GSM Power Class 1 (1W) for 1800/1900 bands
  - . EDGE class E2 (+27 dBm in 850/900 bands, +26 dBm in 1800/1900 bands)
  - . GPRS/EGPRS Multislot Class 12 (4 slots Rx, 4 slots Tx)
  - . GPRS/EDGE Class B Type 1 MT
  - . GPRS CS1-CS4; EDGE MCS1-MCS9
  - . Circuit-switched data: 14.4 and 9.6 Kbps

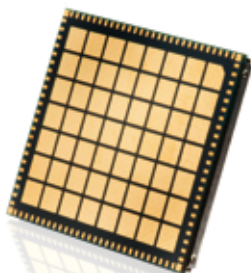
## Voice features

- Circuit-switched voice calls over GSM/WCDMA air interfaces, MO and MT
- Controlled through AT commands
- Bi-directional PCM interface for audio streams
- Voice codecs: GSM/WCDMA AMR, FR, EFR, HR
- Emergency call support
- CLI Service
- Phonebook
- SMS Management

TOP OF GTM501



BOTTOM OF GTM501



## Terminal Equipment Interfaces

- USB 2.0 signaling
- Analogue and digital PCM audio interface
- Drivers: Windows XP/Vista32 & 64, Mac OS X, Linux 2.6
- Block oriented data interface (resulting for Windows OS in a NDIS interface)
- AT interface with optional standard modem emulation
- Diagnostic interface, can be used with Option's Automatic-Test-System for Field Trials
- PCSC-interface allowing authentication with EAP-SIM, EAP-AKA and Conditional Access Schemes for Digital Broadcast
- Direct (U)SIM 1.8/3V
- 1 open collector LED output
- 2 Antenna connections: 1 main for 2G and 3G, 1 auxiliary for 3G Rx diversity
- Fully documented APIs

## Power Requirements

- VCC 3.6V +/- 0.3V - 3A

## Hardware specifications

- Dimensions: 25 x 30 x 2.5 mm (LGA package)
- Operating Temperature: -25°C to +60°C
- Extended Operating Temperature: -25°C to +75°C
- Storage Temperature: -40°C to +85°C
- Humidity: 5 to 95% non condensing

## Approvals & Certifications

- All applicable regulatory approvals, Operator and Infrastructure IOT
- Microsoft certified drivers
- Modular R&TTE (900/1800/2100) and FCC (850/1900)
- PTCRB (850/900)
- GCF (2100/1800/900)
- Japanese Certification (2100)
- RoHS Compliant



OPTION CONFIDENTIAL  
As part of their continual product improvement process, Option reserves the right to alter the specifications for the product detailed here.