



## **Gobi3000 Device Specification**

Getac Technology Corporation

5F., Building A, No. 209, Sec.1, Nangang Rd.,  
Nangang Dist., Taipei City 11568, Taiwan, R.O.C.

- Overview

## The Internet\*, wherever you are.™

Anytime-anywhere Internet access is the key to increasing productivity in today's truly mobile workforce. Gobi is the embedded module technology from Qualcomm that delivers fast and secure connectivity wherever business takes you. With Gobi technology, if you can use your mobile phone, you can use the Internet. It's mobile Internet. It's that simple.

## One Device. Multiple Carriers

Today, organizations must select the 3G technology network their systems will access before they install devices with built-in mobile Internet. Gobi technology makes it possible to procure and support ONE wireless device that works on multiple wireless networks. With Gobi technology, you have the flexibility to deploy a single device for all regions. This single Gobi SKU reduces support and qualification costs since there is no longer a need to manage geo-specific configuration. Which network do you need to access? EV-DO? HSPA? Answer: Both.

## Connection without Hassle

With devices featuring multi-mode Gobi technology, you can take advantage of the high-speed data access services offered by leading 3G network carriers around the world. Because Gobi technology is built in, there is no longer the need to procure and support several carrier specific devices. Transparent global connectivity eases deployment flexibility while reducing support and asset management costs.

## Global Connectivity

Gobi supports major RF bands around the world and GPS— all with one chipset.

RADIO	SUPPORT
EV-DO/EV-DO Rev. A 800MHz*	✓
EV-DO/EV-DO Rev. A 1900 MHz*	✓
HSDPA/HSUPA 800MHz*	✓
HSDPA/HSUPA 850MHz*	✓
HSDPA/HSUPA 900MHz*	✓
HSDPA/HSUPA 1900MHz*	✓
HSDPA/HSUPA 2100MHz*	✓
GSM/GPRS/EDGE 850MHz	✓
GSM/GPRS/EDGE 900MHz	✓
GSM/GPRS/EDGE 1800MHz	✓
GSM/GPRS/EDGE 1900MHz	✓
Standalone GPS, AGPS, gpsOneXTRA™	✓

- Technical Specifications

### Technology/Bands

- HSPA/UMTS – 800/850/900/1900/2100 MHz
- Quad-band EDGE/GPRS/GSM – 850/900/1800/1900 MHz
- Dual-band EV-DO/CDMA – 800/1900 MHz
- Prepared for UMTS - AWS and EV-DO/CDMA – 2100 MHz

### Advanced RF Technologies

- Receive Diversity on all HSPA/UMTS/EV-DO/CDMA bands
- Receive equalization
- Standalone GPS and gpsOneXTRA™

### Data Speeds

- HSDPA/HSUPA DL/UL – 14.4 Mbps/5.76 Mbps
- WCDMA DL/UL – 384 kbps/384 kbps
- GSM DL/UL – 14.4 kbps/14.4 kbps
- GPRS DL/UL – 85.6 kbps/42.8 kbps
- EDGE DL/UL – 236.8 kbps/118.4 kbps
- EV-DO FL/RL – 3.1 Mbps/1.8 Mbps
- CDMA 1xRTT FL/RL – 153 kbps/153 kbps

### Power Class

- HSPA/WCDMA 800/850/900/1900/2100 Mhz – Power Class 3
- GSM/GPRS 850/900 Mhz – Power Class 4
- GSM/GPRS 1800/1900 Mhz – Power Class 1
- EDGE 850/900/1800/1900 Mhz –

Power Class E2

### Dimensions and Weight

- PCI Express Mini Card Form Factor – Version 1.2 Type F1 (Full Sized) Mini Card
- Dimensions: 51 mm x 30 mm x 5 mm
- Weight: 9 g

### Interfaces

- USB 2.0 High Speed
- 52-pin edge connector
- LED current sink
- Primary and diversity antenna, U.FL coax
- UICC compliant to GSM TS11.11, GSM 11.12 and ISO/IEC 7816-3 standards

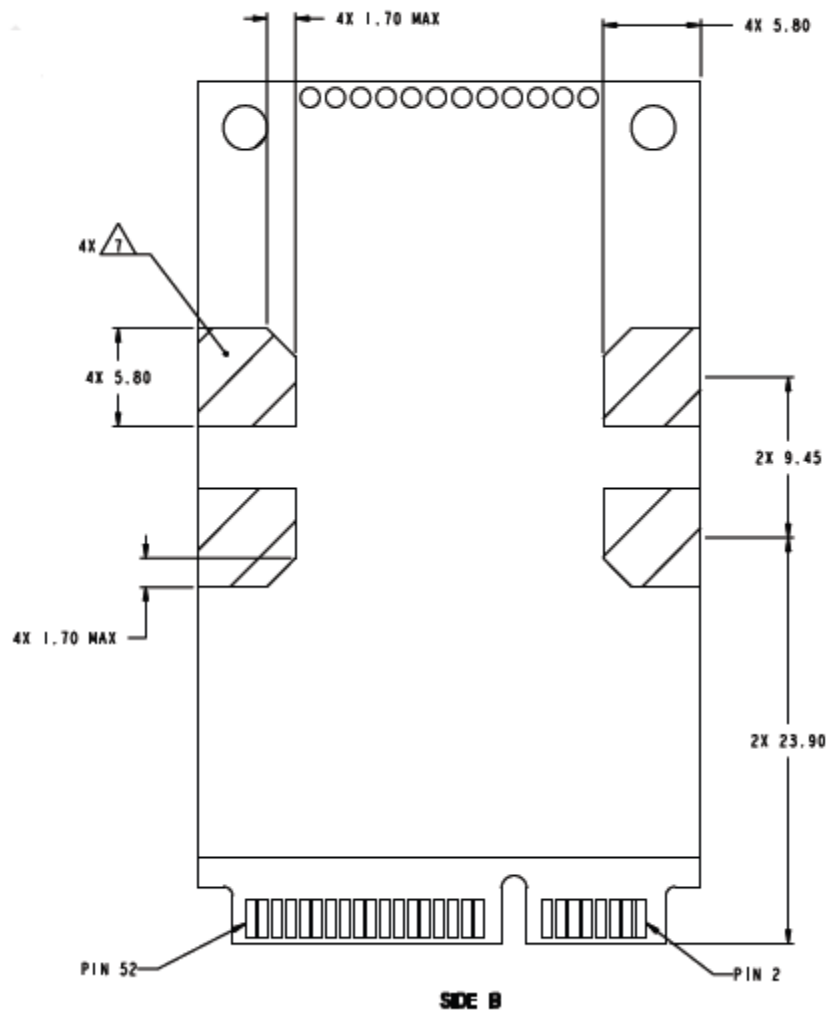
### Module Firmware Images

- CDMA2000 EV-DO binary firmware images
- HSPA/UMTS/GSM/GPRS/EDGE binary firmware images
- Digitally signed image authenticated at boot

### APIs and SDKs

- Sample connection manager
- Qualcomm downloader (QDLService) binary application
- CM-API binary library
- AT command interface
- Network driver support
- Documentation

- Gobi3000 Mechanical Drawing



## ● Electrical Specifications

### 1 Absolute maximum ratings

The absolute maximum ratings in Table 3-1 are the values beyond which device damage may occur or device reliability may degrade. Functional operation and specification compliance after exposure to any of these conditions is not guaranteed or implied

Symbol	Parameter	Min	Max	Unit
TS	TS Storage temperature	-40	85	°C
+3.3_Vaux	DC power supply voltage	-0.5	4	V
VESD_HBM	Electrostatic discharge voltage rating (human-body model)	250 <sup>1</sup>		V
VESD_CDM	Electrostatic discharge voltage rating (charge-device model)	1000 <sup>2</sup>		V
RH_NonOp	Nonoperating humidity (-40°C to +85°C, noncondensing)	5	95	%

### 2 Recommended operating conditions

Gobi3000 complies with the device certification tests listed in Section 1.5, which exercise the module over the conditions listed in Table 3-2. Typical performance is not guaranteed.

Specific limits are addressed in the sections below.

**Table 3-2 Recommended operating conditions**

Symbol	Parameter	Min	Typical	Max	Unit
T <sub>A</sub>	Ambient air temperature <sup>1</sup>	-30	+25	+70	°C
+3.3_Vaux	+3.3 V DC power supply voltages	3.0	3.3	3.6	V
V <sub>PP-RMS</sub>	Power supply voltage noise (60 Hz to 2 MHz)	–	–	20	mV
RH_Op	Operating humidity range (-30°C to +70°C, noncondensing)	10	–	90	%

1. Measured after the operating Gobi3000 module has achieved thermal equilibrium in the test environment.

## Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

### **Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

**This device is intended only for OEM integrators under the following conditions:**

- 1) The antenna must be installed such that 20 cm is maintained between the antenna and users, and
- 2) The transmitter module may not be co-located with any other transmitter or antenna.
- 3) For portable usage condition, this module has been SAR evaluated in Getac tablet model: E110 host with compliance result and can be used with this specific host as described in the certification filing. Other host or platform needs separate approval.

As long as 3 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed

**IMPORTANT NOTE:** In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

**End Product Labeling**

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: “Contains FCC ID: QYLG0BI3K”. The grantee's FCC ID can be used only when all FCC compliance requirements are met.

**Manual Information To the End User**

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user’s manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.