

0101 Open Protocol  
0101

SiRF Powered

2 3G(UMTS)&GSM

3D Motion Sensor

48 Channel GPS Receiver

On-Board Dual SIM

Nano Power Battery

Ultra Compact

Vista 3G16 allows you to comply with all expectations concerning functionality and reliability required by security and logistics applications nowadays. Its small dimensions and low power consumption level, along with powerful hardware, enable you to take advantage of the following characteristics:

**Intended to be Connected:**

The Vista 3G16 has 5 serial ports, a CAN port, and an I2C port; giving it the capability of a powerful computer providing vast integration possibilities with car and truck computers; connecting temperature measurement modules, i-Button module, GARMIN display and cameras.

**Unification of Powers:**

48 channel SiRF IV, Dual-mode & Multi - band for 3G(UTMS)&GSM Module, CPU ARM Cortex™ - M4 - 32bits; the combination of these powerful components gives the Vista 3G16 a unique position in the marketplace.

**Flexibility:**

The Vista 3G16 has a powerful programming language that allows you to perform mathematical and logical operations, even complex logical operations.

LOG MEMORY for 100,000 reports, microSD slot of up to 8GB that allows you to save 5 years of second-to-second information.



INSPIRE TECH  
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3G Model!



Same Advanced Functionality!  
Increased Robustness!

REAL-TIME GPS TRACKING  
FLEET MANAGEMENT

VISTA  
3G16

CONTROL ▶ SOLUTION ▶ SECURITY ▶ RELIABILITY

*Distinctive Characteristics:*

- |                              |   |                                    |
|------------------------------|---|------------------------------------|
| 1 Integrated Intelligence    | 6 Messages Control                          | 10 Digital Inputs and Outputs      |
| 2 Robustness and Reliability | 7 Voice Calls                               | 11 Analog Inputs                   |
| 3 Connectivity               | 8 Access Code                               | 12 3-Axis Motion Sensor            |
| 4 Communications Control     | 9 Authenticity of Reports and Messages Sent | 13 Storage Capacity                |
| 5 Management and Logistics   |   | 14 BCM (Battery Charge Management) |

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# Vista 3G16 Technical Specifications

Power Supply	8 to 38 V DC
Internal Backup Battery	Internal model Lithium-Ion Battery
Power Supply Protections	Up to +100 VCC in continuous form Up to -400 VCC in continuous form Battery temperature protection
Consumption	65mA in active mode (12V DC) < 0.25 mA in total sleeping (Kernel Enabled) mode
BCM (Battery Charge Management)	Yes (configurable)
Operating Temperature Range	-20°C to + 60°C
Humidity	95% at 60°C
Case	ABS
Dimensions	80 mm x 72 mm x 28 mm
Weight	190 grams
GPS Module	Sirf Star IV 48 channels 163dBm of sensibility Less than 35 second cold start (average) Position Accuracy: 10 meters Speed Accuracy: 0.01 m/s Time Accuracy: <500ns synchronized with the time of the GPS
GPS Antenna	Active 27 dB (5 mts. of cable)
Cellular Module	Data Support: GSM, GPRS (UDP) Cellular/PCS: FCC-Parts 22, 24; PTCRB @3G(UMTS) 850/1900MHz @GSM 850/900/1800/1900MHz
GSM Antenna	Miniature QBAND (Ultra-thin option, self-adhesive, 2.5 mts. of cable)
Dual SIM	Yes - selectable by means of internal command
MicroSD	Compatible with SDHC memory (Secure Digital High Capacity)
Status Indicators	3 (power supply, GPS and GSM / GPRS)
Serial Ports	5 (TTL) 3 Full Duplex (1200 to 115200 bps) 2 Only RX Configurable (1200 to 9600 bps) Compatible with USB adapter
I2C Port	Connectivity with up to 4 different devices simultaneously Detection of connection and disconnection of the detected devices
CAN Port	1 (Multi-Protocol and BAUD configurable up to 1 MBaud)
Digital Inputs	8 6 - protected up to 100 VCC 2 - configurable TTL
Analog Inputs	2 (0-40 VCC) (protected up to 100 VCC)
Inputs for RPM Measurement	1 (protected up to 100 VCC)

Outputs	4 OC NPN (400 mA Max.)(non-volatile state)
3-Axis Motion Sensor	1 (sensibility adjustable)
Connectivity with Video Cameras	Up to 2 cameras simultaneously
Configurable Events	196
User-Configurable Reports	16
Peripheral Output Supply	Output voltage = 3V3 Maximum charge current = 300 mA Overcharge protection Overheating protection Non-volatile activation status
User-Configurable Binary Reports	8 (up to 64 BYTE = 512 BIT)
User-Configurable Triggers/Comparators	100
Analog Windows	8
Abrupt Braking Triggers	4
Change of Course Triggers	8
Time and / or Distance Triggers	32
Time Control (date/time) Triggers	8
Speed Limit Triggers	8
RPM Limit Triggers	2
Incoming Call Detection (Caller ID) Triggers	8
Time Counters (seconds)	32
16 Bits General Use Counters	100 (0 to 65535) (84 non-volatile)
High-Range General Use Counters	100 (0 to 999999999) (84 non-volatile)
Pulse Counters	4 (0 to 4294967295.999) (non-volatile, with 1/1000 resolution and configurable adjusting factor)
General-Purpose Status Flags	100 (84 non-volatile)
System Status Flags	More than 137
Geographical Reference Points (WayPoints)	100
Geographical Zones	32 (up to 32 point resolution per zone)
GSM Band Country Code Triggers (MCC)	8
Odometers	4- A AND B 2 total (resolution in meters) 2 partial (resolution in meters)
Filters to Capture CAN Packets	50
Filters to Capture CAN J1939 Packets	50
Integration with Maps on the WEB	Google map and Yahoo map
Dynamic Variables Assignment	Configuration of multiple assigned variables to different device parameters in the same command

Integration with GARMIN	Control of data packets for GARMIN fleet-management through FM command
General Use Records for Calculations	100 (84 non-volatile) Configurable Printout Format Supported Mathematical Operations : = : Assign Value + : Addition - : Subtraction * : Multiplication / : Division % : Module A: Logic Operation AND O: Logic Operation OR X: Logic Operation XOR Q: Square Root ^ : Power
Incoming Data Processing	20 totally configurable triggers Binary texts or data incoming from any data port can be processed Ex: Serial Ports (TR0, TR1, TR2, TR3 or TR4) I2C port / GPS listener port / GSM modem listener
GeoGrids (Geographic Grids)	Can load up to two 4GB maps
Encrypted Report	PX Report with encryption key of up to 32 characters
Access Protection	Up to 8 character password
GPRS Connection Capability	2 configurable IP destinations
SMS Connection Capability	2 configurable destinations
Accelerometer	Configurable Sensibility (2G, 4G, and 8G) Configuration and correction of position and orientation Offset self-adjust Analysis speed: 50 times per second Sampling period: 20 milliseconds Storage of the last 100 status reports, one every 1/10 of a second, equivalent to 10 secs running with peak maximum, minimum, and medium values. 12 configurable levels: 4 for X axis, 4 for Y axis, 4 for Z axis 26 related triggers Connection/disconnection detection
Driver/ User Management	Information about: - Date and time of session - Session duration - Idle engine timer - Running time - Distance travelled (resolution in meters) - Three general-purpose timers - Change in status - Possibility to load a list of up to 64 enabled codes

Configuration and Command Protocol	GAP (G ASCII Protocol)
Protection of Data Sent via GPRS	Evolutionary digital encryption (64 bit) encrypted with 64 bit KEY (independent for IP0 and IP1)
DNS Name Resolution	Yes
"Jamming Detection" Reports	Yes
GSM Cells Status Reports	Yes
Number of Simultaneous GPRS Connections	5
Storage Capacity	LOG destination = 100,000 reports Automatic download in TR0, TR1, IP0, IP1 SDM destination = up to 134217700 reports Automatic download in TR0, TR4, TR1, IP0 or IP1 SDI destination = up to 524100 images IPO destination = 250 reports IP1 destination = 40 reports SM0 destination = 20 reports SM1 destination = 20 reports Memory of the last 320 sec. running Buffer of 8 incoming text messages Buffer of 8 outgoing text messages
Compatibility for Sending Commands and Messages via Satellite Modem	SkyWave (Inmarsat) ORBCOMM
Firmware Update	Through serial port GPRS via OTA (over the air) (redundant verification system)
Access to SIM Card Data	Yes
Processor	ARM Cortex™-M4 - 32 bit
Compatibility with:	TraxCAM video camera Temperature measurement module iButton module CAN receiver / processor module 3-axis accelerometer module ORBCOMM DIGI-M10 satellite modem GARMIN fleet-management interface

