



# PRODUCT SPECS - TR8540

## System Information

L x W x H:	4.0 x 5.0 x 1.6 in
Interface:	Serial-Host DSUB 9 conn.
Housing:	Seamless Aluminum Extrusion
TX Power:	Class 4 (2W @850/900 MHz) Class 1 (1W @1800/1900 MHz)
Frequency:	850/900/1800/1900

## GPRS Packet Data

Mode:	Class B, Multislot 10
Protocol:	GPRS Rel 97 & SMG 31
Coding Schemes:	CS1-CS4
Packet Channel:	PBCCH/PCCCH

## GSM Functionality

Voice:	AMR, FR, EFR, HR
CS Data:	Asynchronous, Transparent and Non- Transparent up to 9.6 KB
GSM SMS:	Text, UDP, MO/MT, CB

## GPS Functionality

Connector:	SMA Female
Antenna:	3.3V Active
GPS Protocols:	NMEA, TAIP, Binary
Buffered GPS Message Feature	

## Environment

Operating:	-30°C to +70°C
Storage:	-40°C to +85°C
Humidity:	Up to 95% non-condensing
Vibration:	In accordance with SAE J1211

## Certifications

FCC:	Part 15, 22 & 24
GCF:	Version 3.21.1
PTCRB:	Version 3.7.1

## Application Interface

Host Protocols:	PPP, AT, UDP, TCP/IP
Internal Protocols:	UDP (PAD)
API Control/Status:	AT or UDP(PAD), CMUX
Friend's IP Feature	
Auto-Registration software upon power-up	

## Over-The-Air Commands

I/O Control	Status Change Reports
GPS TX Interval	GPS Content
Binary Reporting	Event Reporting
Timed Reporting	Distance Reporting
Alarm Reporting	Geo-Fencing Over air configuration
Max Speed Exceeded	

## SIM Card/Interface I/O

SIM Access:	External
GSM Antenna:	TNC
LEDs:	3 Status Indicators 2 inputs
I/O Connector:	1 output  3 wire serial interface 12 pin power and Audio connector Ignition Sense (Keep alive feature)
Misc.	

## Power

DC Voltage:	9-30V DC power		
	at 12V	Avg	Peak (A)
			at
			dBm
BAND	Mode	(mA)	2.10 at
GSM 850	1TX/RX	230mA	32.5
GSM 900	1RX	105mA	
	Idle	<45mA	
			1.5
			at
GSM 1800	1TX/RX	175mA	29.0
GSM 1900	1RX	105mA	
	Idle	<45mA	

## Part Numbers

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The TR8540 is a GSM/GPRS and GPS mobile tracking platform that supports 3 dedicated I/O ports, a 3-wire serial interface and 9-30 Vdc input.

## QUICK OVERVIEW

Supports essential features:

- 850/900/1800/1900 frequency bands
- Voice
- SMS
- Circuit-switched data
- GPRS
- GPS
- 3 dedicated I/O
- 3 wire serial interface
- Power and audio through 12-pin WAGO connector

Embedded Comms & Scripting Manager™ snapshot:

- Quickly script M2M actions and responses
- Handle communications and IP management
- Automatically acquire IP addresses and keep them alive
- Trigger events at specific times via real-time clock with NITZ capabilities
- Configure network monitoring to assess device health on the network
- Track and reconfigure devices securely using AT commands via SMS and dynamic IP support

To accelerate integration and simplify deployment, the embedded Polarix communications & Scripting Manager lets you quickly script M2M actions and responses—without complex developer tools or programming languages. Through a wide range of built-in predefined events, you can customize the MT's capabilities to meet your specific application. The Comms & Scripting Manager also acts as a hub to facilitate communications, IP management and configuration.

GPS data is made available on-board the MT-GL for transmission to a centralized operations center or web page or to a localized computer or MDT.