

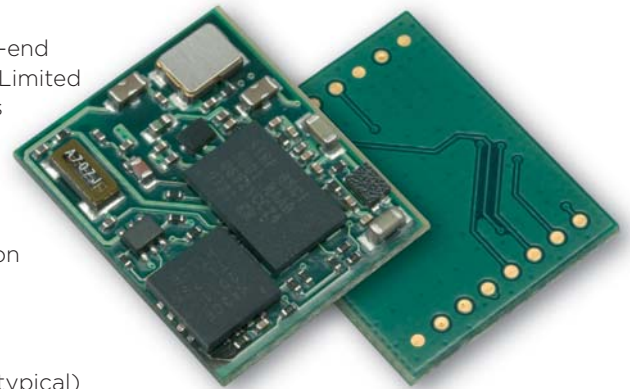
## Get your Position!

# A1082-A – The cost effective way to implement GPS into your application

Because size matters!

Miniaturized footprint and minimal power consumption along with high-end performance characterize Tyco Electronics' new GPS module A1082-A. Limited space is a typical constraint of handheld devices. The A1082-A provides NMEA compliant PVT (Position, Velocity and Time) information by requiring only 11 x 15 mm real estate. Fastest start-up behavior and various power save modes, managed by hardware and software, will extend the lifetime of battery powered devices.

A1082-A – one of Tyco Electronics' solutions for easy and fast integration of GPS based functionality into your designated application.



- Highly sensitive ■ -157 dBm tracking
- Fastest TTFF (Time To First Fix) ■ < 37 s under cold start condition (typical)
- Ultra small footprint ■ 14 x 11.4 mm
- A-GPS support ■ For fastest start up behavior
- Ultra-low power consumption ■ 65 mW average tracking current
- Various power save modes

### Performance

<b>Channels</b>	12 parallel tracking
<b>Correlators</b>	20,000 plus
<b>Frequency</b>	L1 - 1,575 MHz
<b>Sensitivity</b>	
Tracking	-157 dBm
Acquisition (cold start)	-142 dBm
<b>Position accuracy (horizontal)</b>	< 2.5 m CEP autonomous
<b>Time to first fix</b>	
Hot start <sup>1)</sup>	< 1 s
Warm start <sup>2)</sup>	< 35 s
Cold <sup>3)</sup>	< 37 s

### Environment

<b>Temperature</b>	
Operating	-30°C to +85°C
Storage	-40°C to +85°C
<b>Humidity</b>	Non-condensing

1) The receiver has estimates of time/date/position and valid almanac and ephemeris data.

2) The receiver has estimates of time/date/position and almanac.

3) The receiver has no estimate of time/date/position, and no recent almanac.

### Mechanicals

<b>Dimensions</b>	13.97 mm x 11.43 mm x 2.4 mm 0.55" x 0.45" x 0.095"
<b>Weight</b>	1 g, < 0.05 oz

### Power

<b>Input voltage</b>	1.75 to 1.85 VDC
<b>Current draw</b>	
Tracking	35 mA (typical)
(trickle mode)	
Standby	7 µA (typical)

### Communications

<b>Standard GPS software</b>	
NMEA message switchable	GGA, GSA, GSV, VTG, RMC, GLL
Baudrate (in baud)	4,800 (default) to 34,400
<b>Serial ports</b>	1.8 V CMOS compatible
Tx0	NMEA output
Rx0	NMEA input

# Positioning Receiver Portfolio

With the mission to support our customers to implement GPS functionality into their systems, Tyco Electronics is offering a large product portfolio to cover almost all integration possibilities in an easy way. A dedicated R&D team located in Ottobrunn, Germany develops sensitive positioning solutions based on state of the art technologies.

All GPS products are manufactured in our ISO9001 and TS16949 certified factory inside the EU. Beyond that our modules follow RoHS standard and are 100% electrically and functionally tested prior packaging. This way we constantly guarantee high quality products.

Products shown in actual size



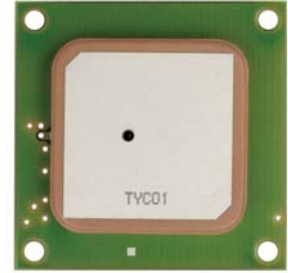
A1029-C



A1080-A/B



A1082-A



A1035-D

	1 PPS	Antenna active	Antenna passive	Antenna status detection	Assisted GPS	Connection plug-in	Connection solderable	Dead reckoning	Differential GPS RTCM input	Flash, programmable	GPIO	GPS/UTC raw data	I2C interface	Memory free flash (byte)	Memory free SRAM (byte)	Power Management Mode	Processor: available power	ROM	SBAS support	Size (mm)	SPI interface	UART NMEA	UTM projection
A1029-C	●	●	●	●	●		●	●	●	●	●	●	●	80k/16k		3 MIPS		●	28 x 22 x 3.2	●	●	●	
A1029-D	●	●	●	●	●		●	●	●	●	●	●	●	80k/16k		3 MIPS		●	46 x 33 x 4.5	●	●	●	
A1080-A/B	●	●					●			●								●	19 x 16 x 2.4		●		
A1082-A	●	●			●		●											●	15 x 11 x 2.4		●		
A1035-D	●	●				●												●	35.6 x 35.6 x 8		●		

● Standard firmware: revision 1xx     
 ● Standard firmware: revision 2xx     
 ● With custom firmware support

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