

# **your Position!**

## A1035 Smart

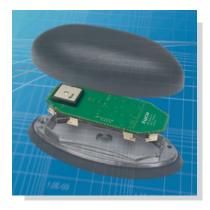
# **GPS** Antenna Modules

The A1035 antenna module family is based on Tyco's GPS receiver A1029-A incorporating STMicroelectronics' STA2051 base-band chip and SiGe's SE4100L downconverter. The family comprises three modules for different kind of applications: Automotive, Bluetooth and Consumer. All modules offer an antenna for optimum signal reception and performance. The A1035-A takes advantage of the integral CAN controller within the STA2051. A CAN transceiver and an RS232 interface allow the transmission of position, velocity and time information over long distance in a cost-effective way. In combination with a wide voltage input range this module is ideally suited for automotive applications. The Bluetooth version A1035-B is optimized for use in navigation applications. With the Bluetooth stack running in the STA2051 and the integration of the STLC2500 Bluetooth RF frontend module this combination provides the most integrated solution transmitting the PVT information via SPP protocol stack. Finally the consumer version A1035-C is addressing telematics applications where a board-to-board or cable connection to a smart antenna module is required. Information can be exchanged via UART or SPI on CMOS TTL level.

- Samples and off-the-shelf smart antenna solutions
- Optimized designs for different applications (OEM versions)
- Cost-efficient, fast and easy system integration
- Best performance due to perfect trimming
- Ultra-low power consumption
- SBAS (WAAS/EGNOS/MSAS) support

#### Performance

12 parallel tracking
L1 - 1575 MHz
3 m CEP, SA off
< 1 m CEP
1 s
< 3 s
< 32 s
< 60 s (Std.), < 45 s (TCXO)
varying



Example only, A 1035-A module comes without housing

#### Environment

Temperature	
Operating	-40°C to +85°C
Storage	-40°C to +85°C
Humidity	non-condensing

1) Assumes a benign multipath environment and differential corrections once per second.

The receiver's calibrated clock is not stopped, thus it knows precise time (to the µs level).
 The receiver has estimates of time/date/position and valid almanac and ephemeris data.

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

5) The receiver has no estimate of time/date/position, and no recent almanac.6) Receiver is powered-off, clock stops. Start-up time depends on time to power on and power-on location.

### A1035-A

### A1035-C

Power       7 V to 30 V       Power       3.3 V ± 5%         Connector       9 pin cable connector with Power/GND, CANbus and RS232       Power       9 pin board-to-board or cable connector with Power/GND, UART and SPI on CMOS TTL         Protocols       Proprietary or custom specific on CANbus (PVT), NMEA (GGA, GSA, GSV, RMC, VTG) on RS232       Protocols       Proprietary or custom specific on SPI (PVT), NMEA (GGA, GSA, GSV, RMC, VTG)         A1035-B       Products	
Weight       24 g, 1.2 oz (appr.)       Weight       11 g, 0.5 oz (appr.)         Power       7 V to 30 V       Power       3.3 V ± 5%         Connector       9 pin cable connector with Power/GND, CANbus and RS232       Power       9 pin board-to-board or cable connector with Power/GND, UART and SPI on CMOS TTL         Protocols       Proprietary or custom specific on CANbus (PVT), NMEA (GGA, GSA, GSV, RMC, VTG) on RS232       Protocols       Proprietary or custom specific on SPI (PVT), NMEA (GGA, GSA, GSV, RMC, VTG)         A1035-B       Products       Products         Dimensions       60 mm x 36 mm x 11 mm       A1035-A       GPS antenna module for automotive	
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Power/GND, CANbus and RS232       connector with Power/GND, UART and SPI on CMOS TTL         Protocols       Proprietary or custom specific on CANbus (PVT), NMEA (GGA, GSA, GSV, RMC, VTG) on RS232       Protocols       Proprietary or custom specific on SPI (PVT), NMEA (GGA, GSA, GSV, RMC, VTG)         A1035-B       Products       Products         Dimensions       60 mm x 36 mm x 11 mm       A1035-A       GPS antenna module for automotive	:
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CANbus (PVT), NMEA (GGA, GSA, GSA, GSV, RMC, VTG) on RS232       Protocols       Proprietary or custom specific on SPI (PVT), NMEA (GGA, GSA, GSV, RMC, VTG)         A1035-B       Products         Dimensions       60 mm x 36 mm x 11 mm         A1035-A       GPS antenna module for automotive	-
GSV, RMC, VTG) on RS232       on SPI (PVT), NMEA (GGA, GSA, GSV, RMC, VTG)         A1035-B       Products         Dimensions       60 mm x 36 mm x 11 mm       A1035-A       GPS antenna module for automotive	
A1035-B GSV, RMC, VTG)  A1035-B 60 mm x 36 mm x 11 mm A1035-A GPS antenna module for automotive	4
A1035-B     Products       Dimensions     60 mm x 36 mm x 11 mm     A1035-A     GPS antenna module for automotive	
Dimensions         60 mm x 36 mm x 11 mm         A1035-A         GPS antenna module for automotive	0
2.36" x 1.42" x 0.43" applications (12V PWR, CANbus)	č
Weight 13 g, 0.6 oz (appr.) <b>DK1035-A</b> Demo kit for above with CD, cable set	-
Power         5 V regulated         A1035-B         GPS antenna module with Bluetooth	4
Connector         2 solder pads         interface (5V PWR)	4
Protocols SPP 1.1 with NMEA (GGA, GSA, DK1035-B Demo kit for above with CD	40
GSV, RMC, VTG) A1035-C GPS antenna module (CMOS TTL PWR)	
<b>DK1035-C</b> Demo kit for above with CD, cable set	1
A1035-A Connector PSU LNA GPS receiver	
Bluetooth antenna Bluetooth antenna BT-RF STLC2500 PSU LNA GPS receiver	)
RangeStar GPS antenna/ceramic patch antenna	
RangeStar GPS antenna/ceramic patch antenna A1035-C Connector GPS receiver LNA	
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A1035-C Connector GPS receiver LNA The information provided herein is believed to be re- lable at press time. Tyco Electronics, Power Systems sizumes no responsibility for inaccuracies or onis- tions. Tyco Electronics, Power Systems assumes no esponsibility for the use of this information, and all users time information shall be entirely at the users own size. Prices and specifications are subject to change vithout notice. Tyco Electronics, Power Systems foes not authorize or warrant any of its products for	
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